AD-A278 859

NPS-ME-94-002

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DTIC
ELECTE
MAY 04 1994
S G D

DATA REDUCTION, ANALYSIS AND RESULTS OF LACV-30-07 AIR CUSHION VEHICLE TESTS, FORT STORY, VA August-September 1993

by

Prof. Young S. Shin, Principal Investigator
LT Eric Hoy, USN

Department of Mechanical Engineering

February 1994

Approved for public release; distribution is unlimited

DTIC QUALITY INSPECTED 1

Prepared for:

Naval Surface Warfare Center
Carderock Division - Annapolis Detachment
D 20084-5000

94-13273
94 5 03 002

Naval Postgraduate School
Monterey, California 93943

Real Admiral T. A. Mercer
Superintendent

H. Shull
Provost

This report was prepared in conjunction with research conducted for and funded by the Carderock Division, Naval Surface Warfare Center, Annapolis Detachment, Annapolis.

This report was prepared by:

Young S. Shin
Professor of Mechanical Engineering

Eric Hoy, LT USN

Reviewed by:

Matthew D. Kelleher
Chairman
Dept. of Mechanical Engineering

Released by:

Paul J. Marto
Dean of Research

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquaters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project(0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY(Leave Blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	15 February 1994	

4. TITLE AND SUBTITLE

Data Reduction, Analysis and Results of LACV-30-07 Air Cushion Vehicle Tests, Fort Story, VA August-September 1993

5. FUNDING NUMBERS

N00167-94-WR-4023

6. AUTHOR(S)

Young S. Shin and Eric Hoy

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

NPS-ME-94-002

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Carderock Division, Naval Surface Warfare Center
Annapolis Detachment, Annapolis, MD 20084-5000

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

The views expressed are those of the authors and do not reflect the official policy or position of DOD or US Government.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release:
Distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The LACV-30-07 Air Cushion Vehicle was instrumented and tested at Fort Story, VA during the months of August~September 1993 by Ed. Thomas, NSWC-Cardrock Division, Annapolis Detachment, Annapolis, MD. The tests include 27 cuts with vehicle speed ranging from 0 to 42 knots and approximate wave height of 0 to 2.5 feet. Two triaxial accelerometers, and a pitch and roll transducer were installed to measure (i) axial, transverse and vertical accelerations and (ii) pitch and roll (in degree) of the vehicle. The test results clearly show that the vibration g-amplitude is extremely low (fraction of 1-g level) for air cushion vehicle and air cushion vehicle itself is acting as a super-damper to reduce the wave-induced vibration response amplitude. The vibration amplitude in terms of g-level may not be the controlling factor, but the combined vehicle dominant frequencies, vibration g-level, and duration may be the definite factors that the superconductor magnet must persist.

14. SUBJECT TERMS

Air Cushion Vehicle, Vibration Criteria, Wave Height, Vibration g-level Pitch and Roll

15. NUMBER OF PAGES

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	SAR

TABLE OF CONTENTS

	Page
ABSTRACT	1
DESCRIPTION OF TEST DATA ACQUISITION	1
TEST DATA REDUCTION SCHEME	2
TEST DATA ANALYSIS AND RESULTS	7
Time Domain Analysis	
Frequency Domain analysis	
MILITARY STANDARD (MIL-STD-167-1)	20
CONCLUSION AND RECOMMENDATION	22
REFERENCES	24

APPENDICES

A. TEST SETUP ON LACV-30-07 AIR CUSHION VEHICLE

B. BROADBAND TEST DATA FOR STARBOARD AND PORTSIDE TRANSDUCERS

C. SELECTED NARROWBAND TEST DAT FOR STARBOARD AND PORTSIDE TRANSDUCERS

D. PITCH AND ROLL TEST DATA

Accesion For

NTIS CRA&I
DTIC TAB
Unannounced
Justification

By
Distribution/

Availability Codes

Dist	Avail and/or Special
A-1	

DATA REDUCTION, ANALYSIS AND RESULTS OF LACV-30-07 AIR CUSHION VEHICLE TESTS
Fort Story, VA, August~September 1993

by

Young S. Shin, Professor
Eric Hoy, LT USN
Department of Mechanical Engineering
Naval Postgraduate School
Monterey, California 93943

ABSTRACT

The LACV-30-07 Air Cushion Vehicle was instrumented and tested at Fort Story, VA during the months of August~September 1993 by Ed. Thomas, NSWC-Cardrock Division, Annapolis Detachment, Annapolis, MD. The tests include 27 cuts with vehicle speed ranging from 0 to 42 knots and approximate wave height of 0 to 2.5 feet. Two triaxial accelerometers, and a pitch and roll transducer were installed to measure (i) axial, transverse and vertical accelerations and (ii) pitch and roll (in degree) of the vehicle. The test results clearly show that the vibration g-amplitude is extremely low (fraction of 1-g level) for air cushion vehicle and air cushion vehicle itself is acting as a super-damper to reduce the wave-induced vibration response amplitude. The vibration amplitude in terms of g-level may not be the controlling factor, but the combined vehicle dominant frequencies, vibration g-level, and duration may be the definite factors that the superconductor magnet must persist.

DESCRIPTION OF TEST DATA ACQUISITION

The test setup on LACV-30-07 Air Cushion Vehicle was described in detail by Ed. Thomas in Ref.[1]. LACV-30-07 vehicle configuration and two triaxial transducer locations are shown in Figure 1. Ref. [1] is attached in Appendix A. The starboard and portside accelerometers were mounted on hull joiner seams. No additional mass equivalent to superconductor magnet was installed. In addition to accelerometers, a pitch and roll transducer was

mounted in the cabin. All eight signals were fed into an eight channel SONY digital audio tape (DAT) recorder. Twenty-seven test cases were obtained with craft speed ranging from 0 to 42 knots and approximate wave height of 0 to 2.5 feet. The details of 27 test cases are shown in Table 1 where test case is denoted as cut number. Each test case includes eight channels of outputs: stardboard vertical(1), axial(2), transverse(3); portside vertical(4), axial(5), transverse(6); pitch(7) and roll(8).

The test data reduction and analysis scheme is shown in Figure 2. The SONY tape recorder played back test DAT tape and the analog signals were fed into 486 PC-based data acquisition software, EASYEST-LX developed by Keithley Asyst. It was used as a data acquisition system. This PC-based data acquisition system allowed us to digitize the analog signals, convert the units from voltage to acceleration(g's) and stored the digitized test data into the hard disk of 486 PC. Finally, MATLAB software was used to retrieve these test data sequences and perform data processing. MATLAB is a very powerful software tool for signal processing.

TEST DATA REDUCTION SCHEME

Two sets of data reduction and analyses were performed, acceleration in g's for channel 1 through 6, and pitch and roll in degrees for channels 7 and 8. For acceleration measurement, the broadband (0 ~ 1000 Hz) and narrowband(0~50 Hz) data analyses were performed. The broadband data analysis captures the dominant resonant g-amplitudes in frequency domain inherent to craft itself and its machineries. The resonant peaks for pitch and roll of craft motion occur in the frequency range of 0 ~ 5 Hz. The narrowband data analysis was used to look into the details of effects of pitch and roll to vibration g-amplitudes. Channel 7 and 8 test data analysis for pitch and roll (0~15 Hz) was also performed. The broadband data for all 27 test cases were documented in Appendix B and the selected narrowband data in Appendix C. The pitch and roll data for all 27 test cases were documented in Appendix D.

Broadband Data Analysis (Channel 1 through 6):

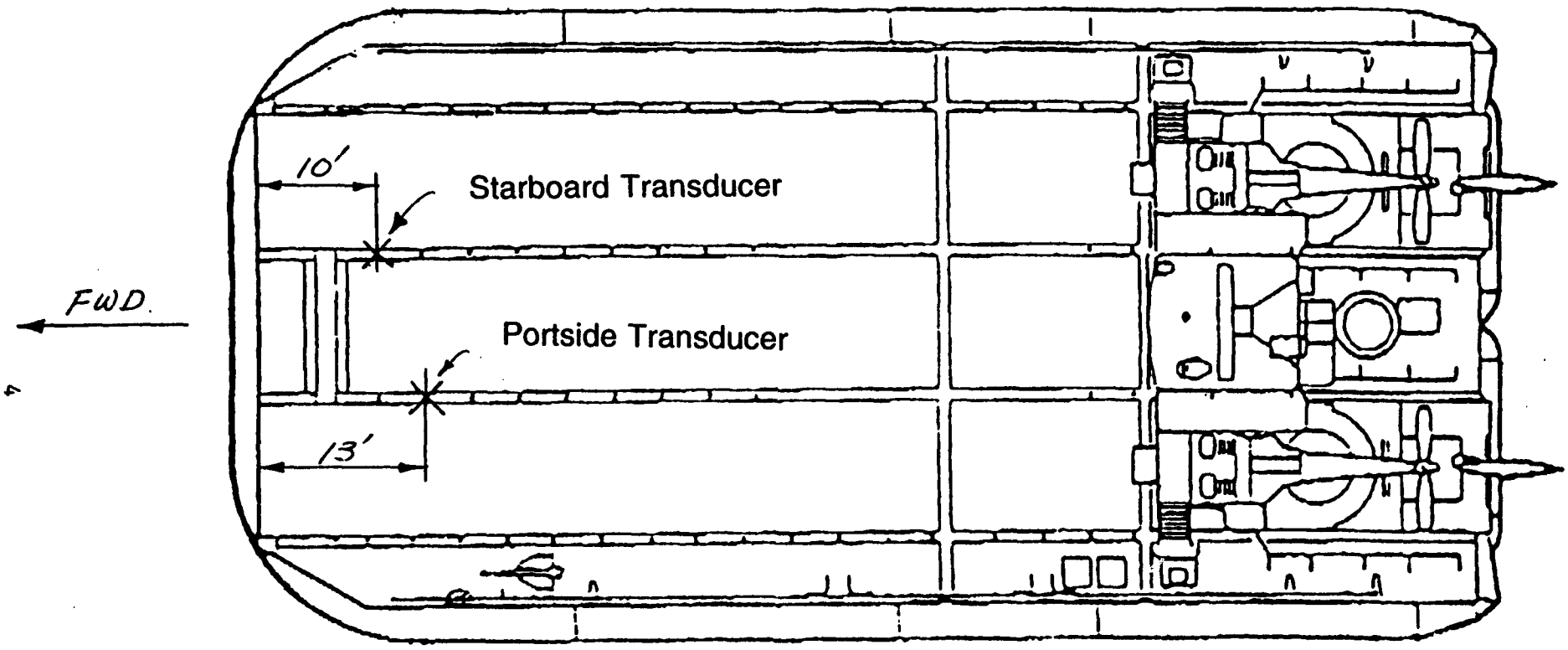
- Sampling Frequency (f_s) = 2,000 Hz
- Maximum Cutoff Frequency ($f_{max} = f_s/2$) = 1,000 Hz
- Total Number of Sampling Data Points (N) = 1.024×10^5
- Time Step Resolution ($\Delta t = 1/f_s$) = 0.0005 sec.
- Total Time Span Used ($T = N \times \Delta t$) = 51.2 sec.
- Reference 0 GdB (g_{ref}) = 10^{-6} g
- Frequency Domain FFT analysis:
  - Size of Blocks (n) = 4,096 points /block
  - Number of Blocks (M) = 25 blocks

Narrowband Data Analysis (Channel 1 through 6):

- Sampling Frequency (f_s) = 100 Hz
- Maximum Cutoff Frequency ($f_{max} = f_s/2$) = 50 Hz
- Total Number of Sampling Data Points (N) = 8,192
- Time Step Resolution ($\Delta t = 1/f_s$) = 0.01 sec.
- Total Time Span Used ($T = N \times \Delta t$) = 81.92 sec.
- Frequency Domain FFT analysis:
  - Size of Blocks (n) = 4,096 points /block
  - Number of Blocks (M) = 2 blocks

Pitch and Roll Data Analysis (Channels 7 and 8):

- Sampling Frequency (f_s) = 100 Hz
- Maximum Cutoff Frequency ($f_{max} = f_s/2$) = 50 Hz
- Total Number of Sampling Data Points (N) = 8,192
- Time Step Resolution ($\Delta t = 1/f_s$) = 0.01 sec.
- Total Time Span Used ($T = N \times \Delta t$) = 81.92 sec.
- Frequency Domain FFT analysis:
  - Size of Blocks (n) = 4,096 points /block
  - Number of Blocks (M) = 2 blocks



	Length(ft)	Width(ft)
LACV-30	74.92	35.93
Cargo Deck	49.85	31.28

Figure 1. LACV-30 Air Cushion Vehicle and Transducer Locations

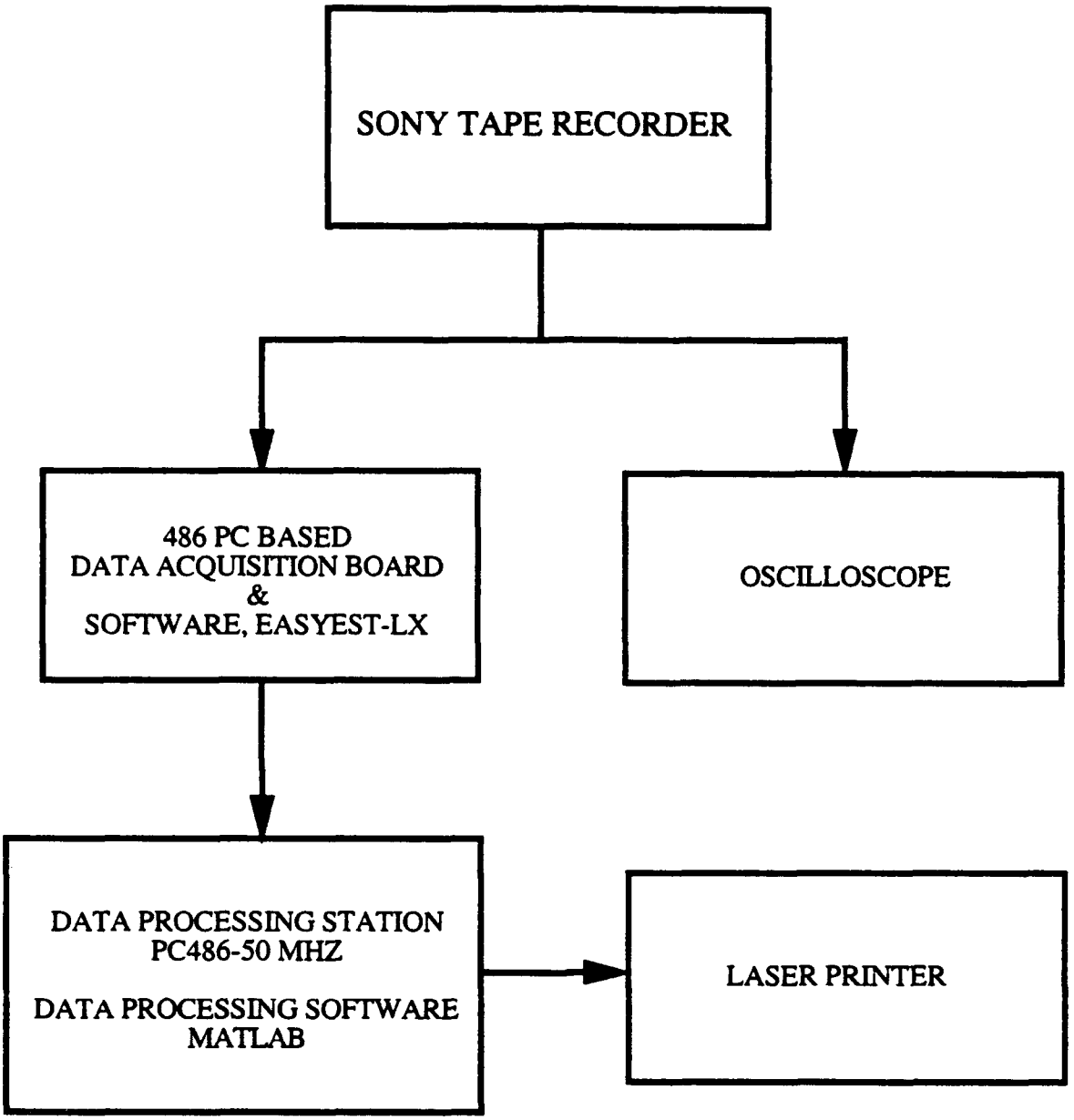


Figure 2. Data Acquisition, Reduction and Processing Scheme

DATA FOR ACV 30-07 ACCELERATION EVALUATION

CUT#	TAPE TIME	SPEED KNOTS	WAVE HEIGHT FEET
1	12:57	22.5	1.5
2	13:02	19	1.5
3	13:46	32	1.5
4	13:52	42	0
6	07:01	36	0
7	07:12	25	0
8	07:20	35	0
9	08:28	0	0
10	08:31	36	0
11	08:43	6.2	0
12	08:50	15	0
13	09:03	0	on land
14	09:15	0	on land
15	09:32	30.8	1
16	09:36	27	2
17	09:54	35	2
18	10:07	18	2.5
19	10:14	8	2.5
20	10:25	16	2.5
21	10:28	25	2.5
22	10:33	10	2.5
23	10:38	36	2.5
24	10:52	22	2.5
25	10:57	25	2.5
26	11:20	30	2.5
27	11:27	31	2.5

Channel 1--Stbd Vertical
Channel 2--Stbd Axial
Channel 3--Stbd Transverse
Channel 4--Port Vertical
Channel 5--Port Axial
Channel 6--Port Transverse

For the above: 1 volt(rms)=1 g(rms)

Channel 7--Pitch
Channel 8--Roll

For the above: 1 volt=5 degrees of vessel rotation

Table 1. Description of Each Test Case

TEST DATA ANALYSIS AND RESULTS

All 27 test cases are tabulated in histogram as shown in Figure 3 in terms of craft speed and wave height. The test case 5 data was bad and not analyzed. Both time and frequency domain analyses were performed:

Time Domain Analysis

For each measurement (i.e., starboard vertical acceleration, etc.), digitized time domain data was obtained and included in Appendices B through D. It was used to determine the peak vibration response. The peak accelerations in vertical, axial and transverse directions at both starboard and portside were quantified and tabulated. Figure 4 shows the peak starboard acceleration in all three directions. The maximum accelerations in vertical, axial and transverse directions are 0.60g (test case 2), 0.27g (test case 13), and 0.30g (test case 15). Figure 5 shows the peak portside acceleration in all three directions. The maximum accelerations in vertical, axial and transverse directions are 0.35g (test case 2), 0.39g (test cases 16 & 21), and 0.30g (test case 13). Figure 6 shows the peak pitch and roll in degree for all 27 cases. The maximum pitch is 5.0 degrees (test case 1) and roll is 2.2 degrees (test case 1). Figure 7 tabulated vertical accelerations in histogram. and it shows that starboard vertical acceleration is generally higher than that of portside. Figure 8 tabulated axial accelerations in histogram. and it shows that portside axial acceleration is generally higher than that of portside. Figure 9 tabulated transverse accelerations in histogram. and it shows that starboard vertical acceleration in generally higher than that of portside. We do not observe any definite correlation of the measured quantities to craft speed and wave height.

As observed the measured accelerations, the maximum peak acceleration magnitude is the fraction of 1-g which implies that air cushion vehicle itself is acting well as a super-damper to reduce the wave-induced vibration response amplitude. For pitch and roll, except test case 1, the average value is less than 2 degrees.

Frequency Domain Analysis

Each measurement (i.e., starboard vertical acceleration, etc.), Fast Fourier Transform(FFT) was computed and displayed in Appendices B through D.

As observed in the Appendix B, broadband vibration-g FFT data, there are dominant peaks at approximately 90 Hz and its harmonics which may be the craft and its machinery toner frequency and its harmonic. It also displays good size peaks at approximately 60 Hz and its harmonics which may be inherent to the craft and its machinery characteristics. One of the FFT was depicted from Appendix B and shown in Figure 10. In addition to 60 Hz and 90 Hz components, there is also a dominant peak at near zero frequency which is effected by pitch and roll of the craft. The dominant frequencies of pitch and roll were in the range of 0~5 Hz (Appendix D).

To look into the details of pitch and roll, FFT was computed in lower frequency range and displayed in Appendix D. Sample pitch and roll FFTs were depicted from Appendix D and shown in Figures 11 and 12. The dominant frequency of pitch is about 1 Hz and for roll it is even lower than 1 Hz.

As mentioned above, the broadband FFT analysis results (Appendix B) showed that there is a dominant peak at near zero frequency. The narrowband analysis was performed to look into the effect of pitch and roll. One of the FFT was depicted from Appendix C and shown in Figure 13. There is a dominant peak at about 1 Hz which is also pitch frequency. Based on the observation of Appendix C: Narrowband Data, roll and pitch of the craft affect the vibration-g responses at both starboard and portside.

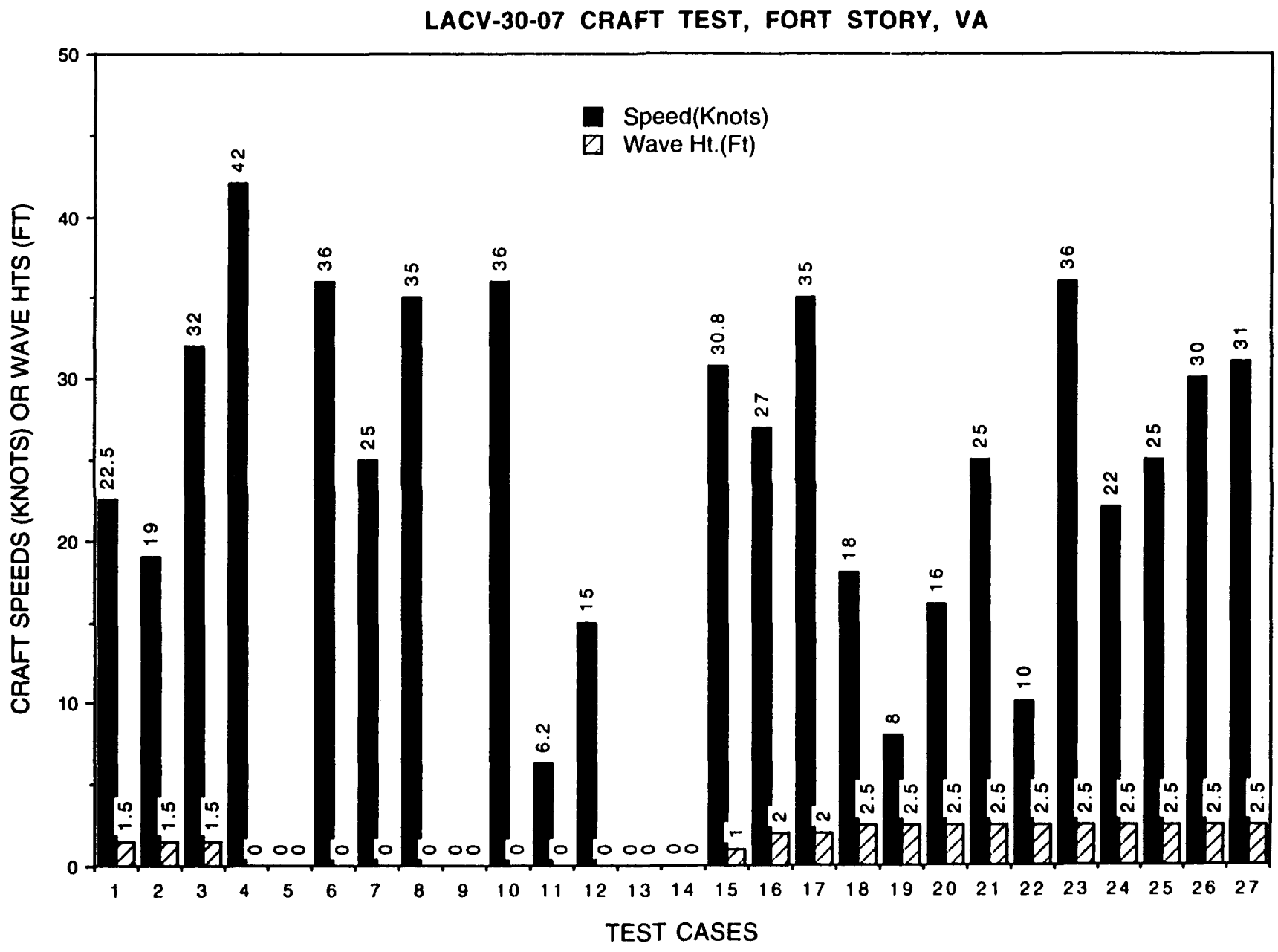


Figure 3. Craft Speeds and Wave Heights for All Test Cases

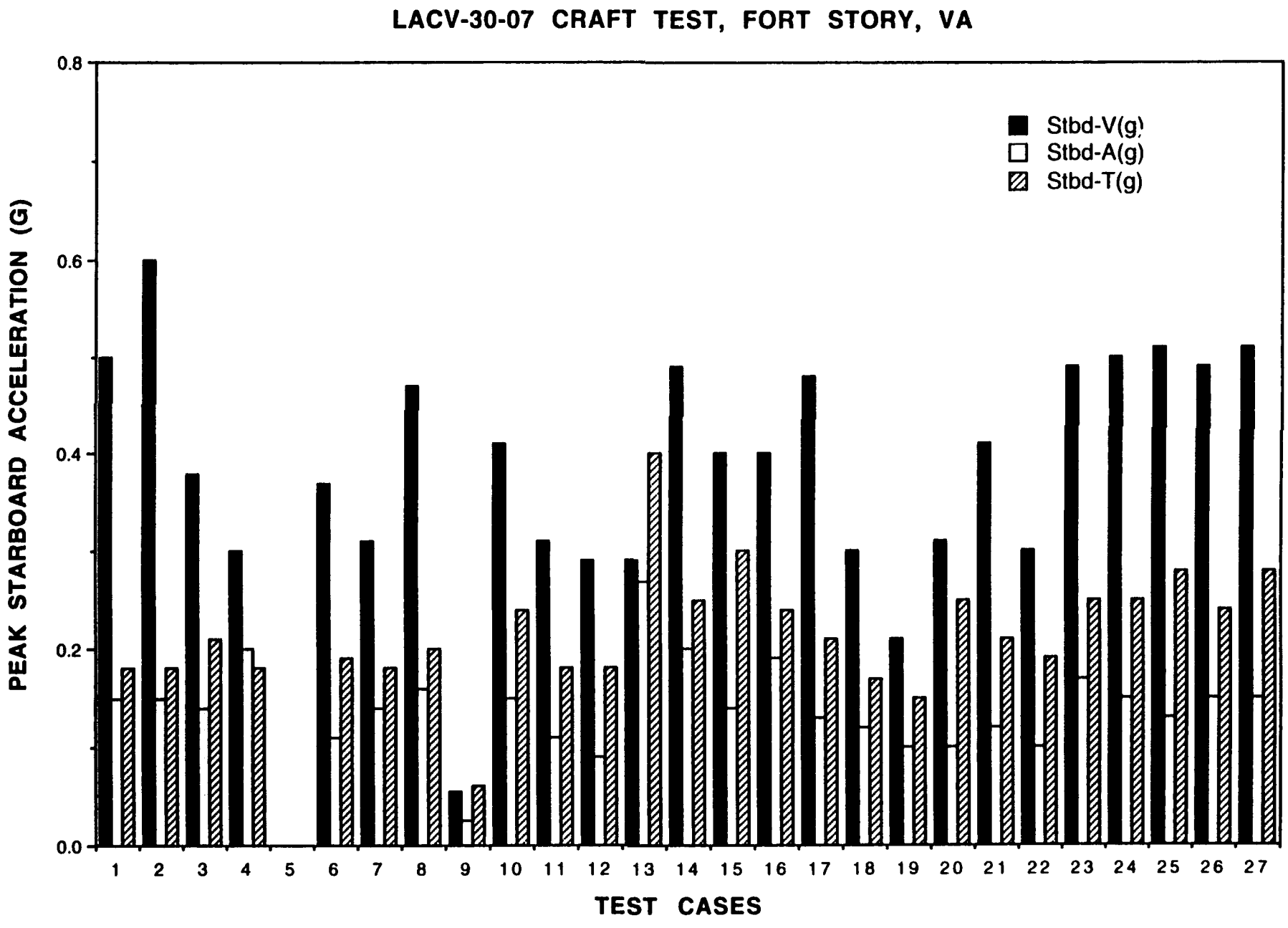


Figure 4. Peak Starboard Acceleration (g's) in Vertical, Axial and Transverse Directions for All Test Cases

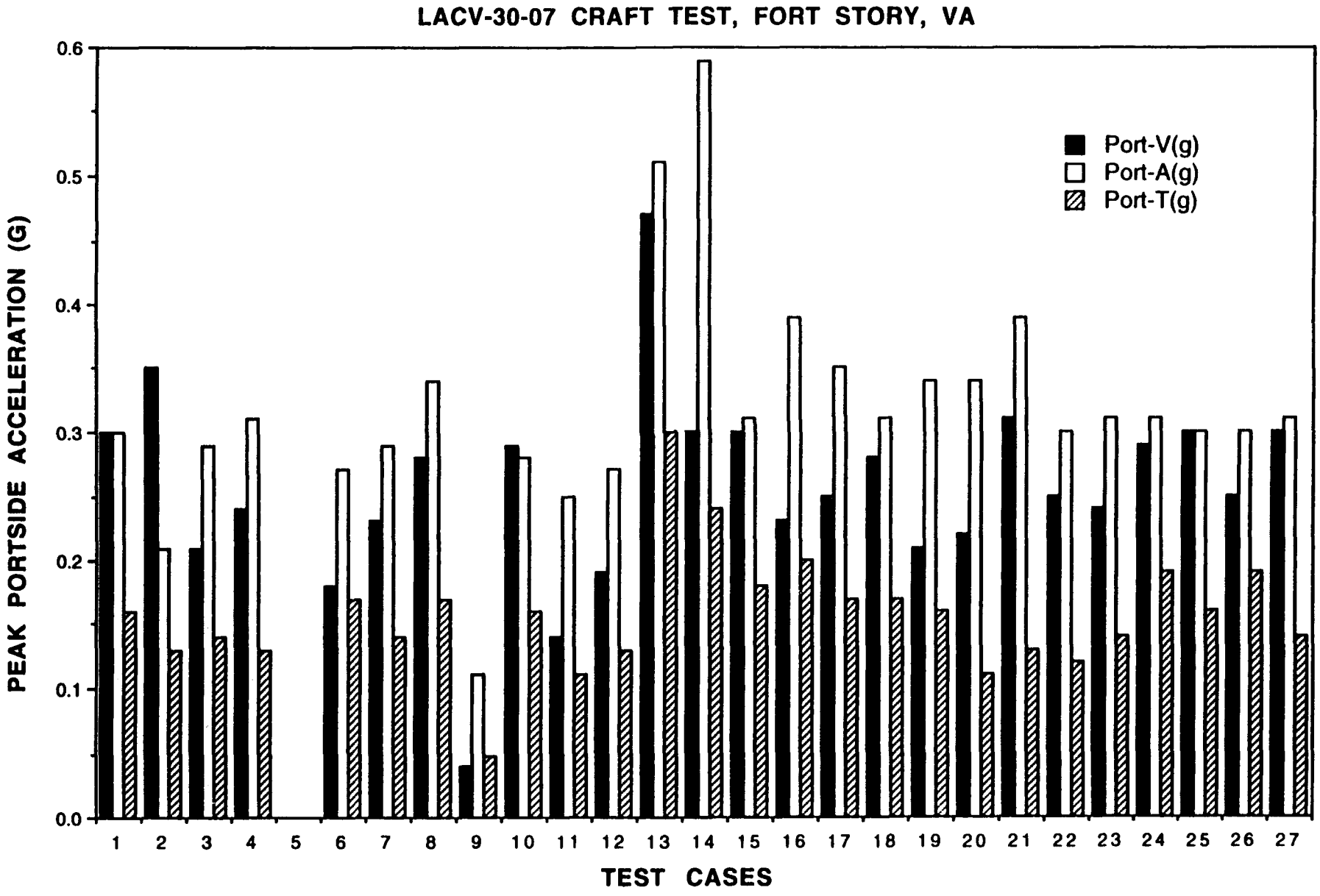


Figure 5. Peak Portside Acceleration (g's) in Vertical, Axial and Transverse Directions for All Test Cases

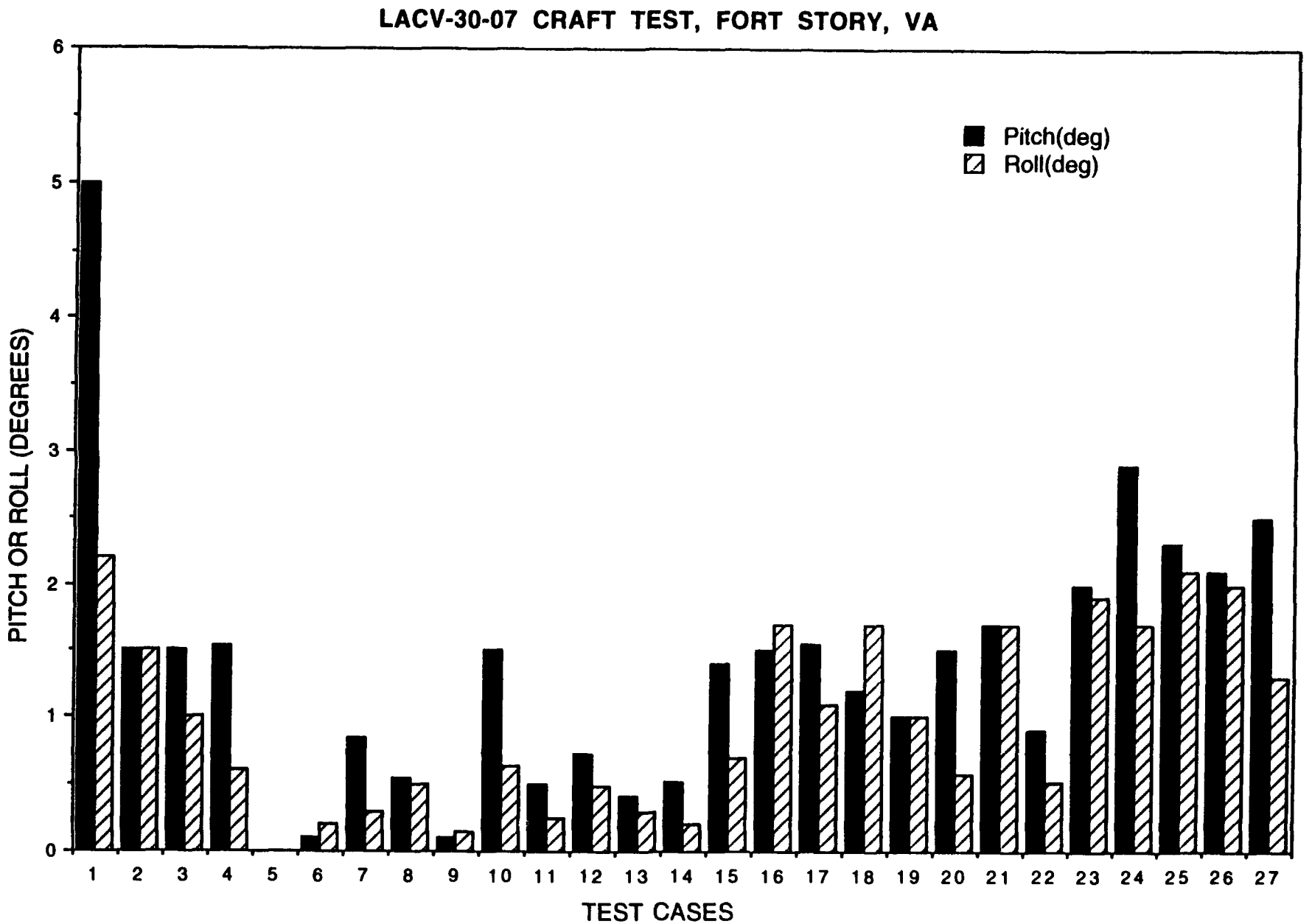


Figure 6. Peak Pitch and Roll (Deg.) for All Test Cases

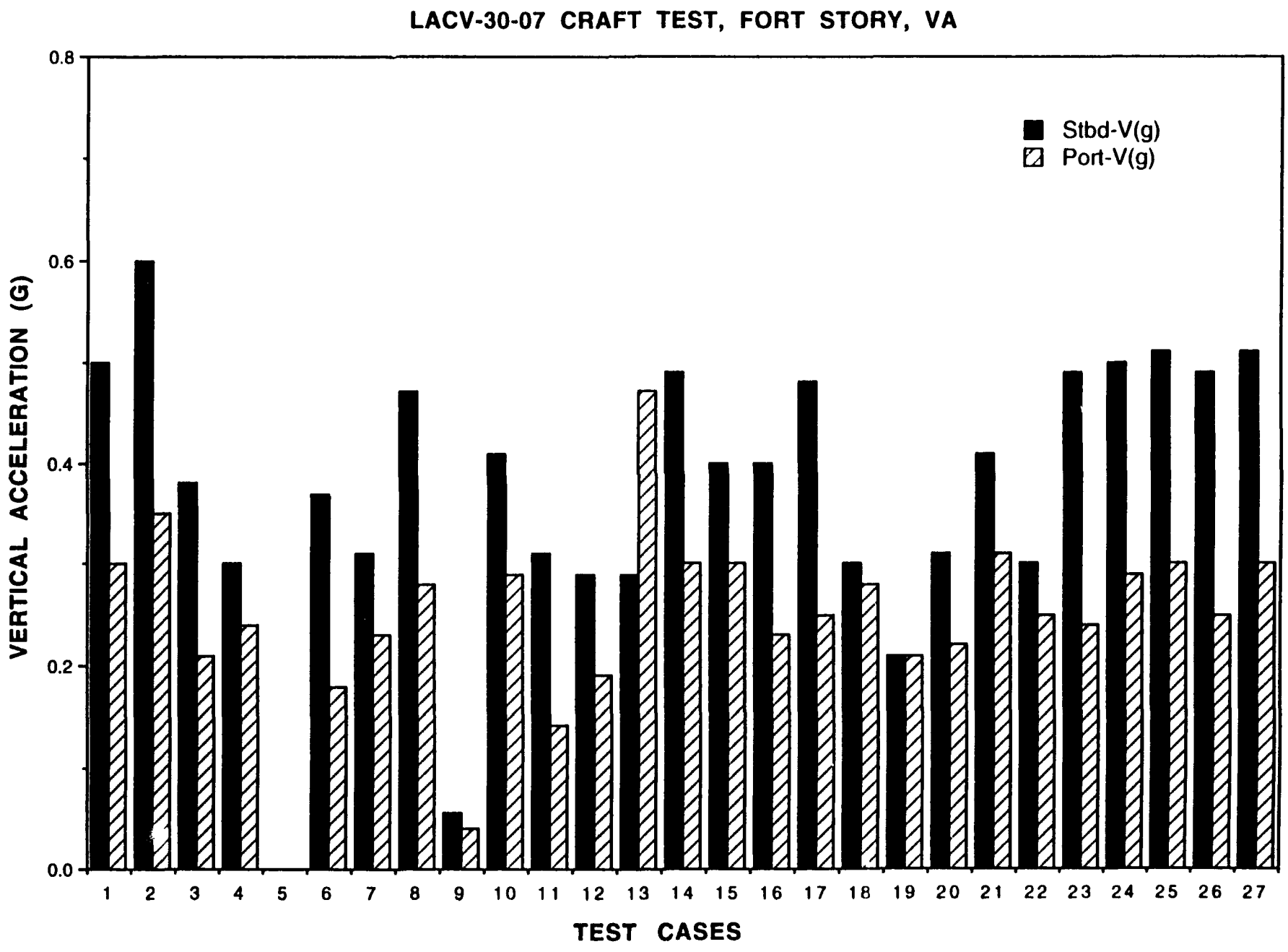


Figure 7. Peak Vertical Acceleration at Starboard and Portside in All Test Cases

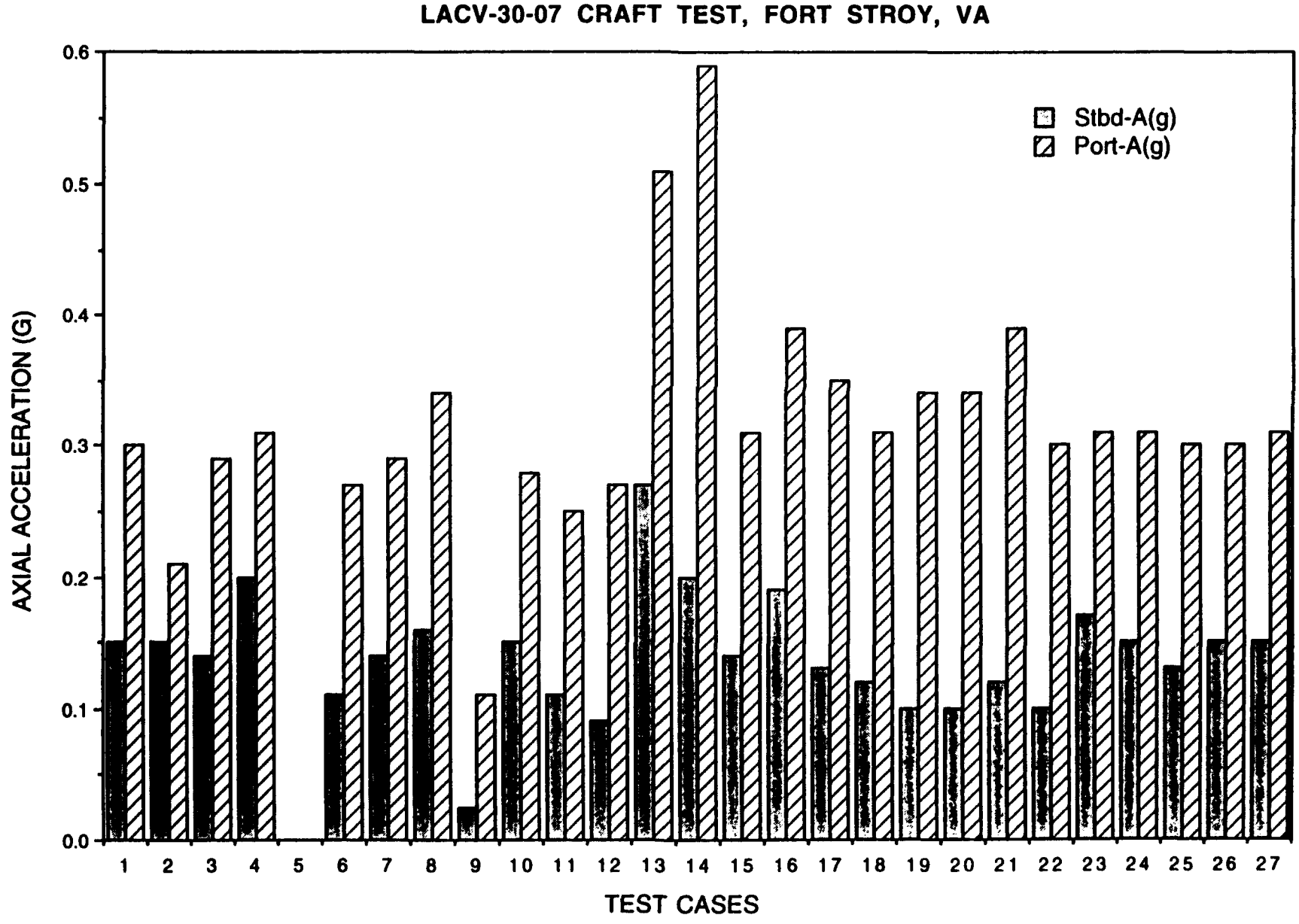


Figure 8. Peak Axial Acceleration at Starboard and Portside in All Test Cases

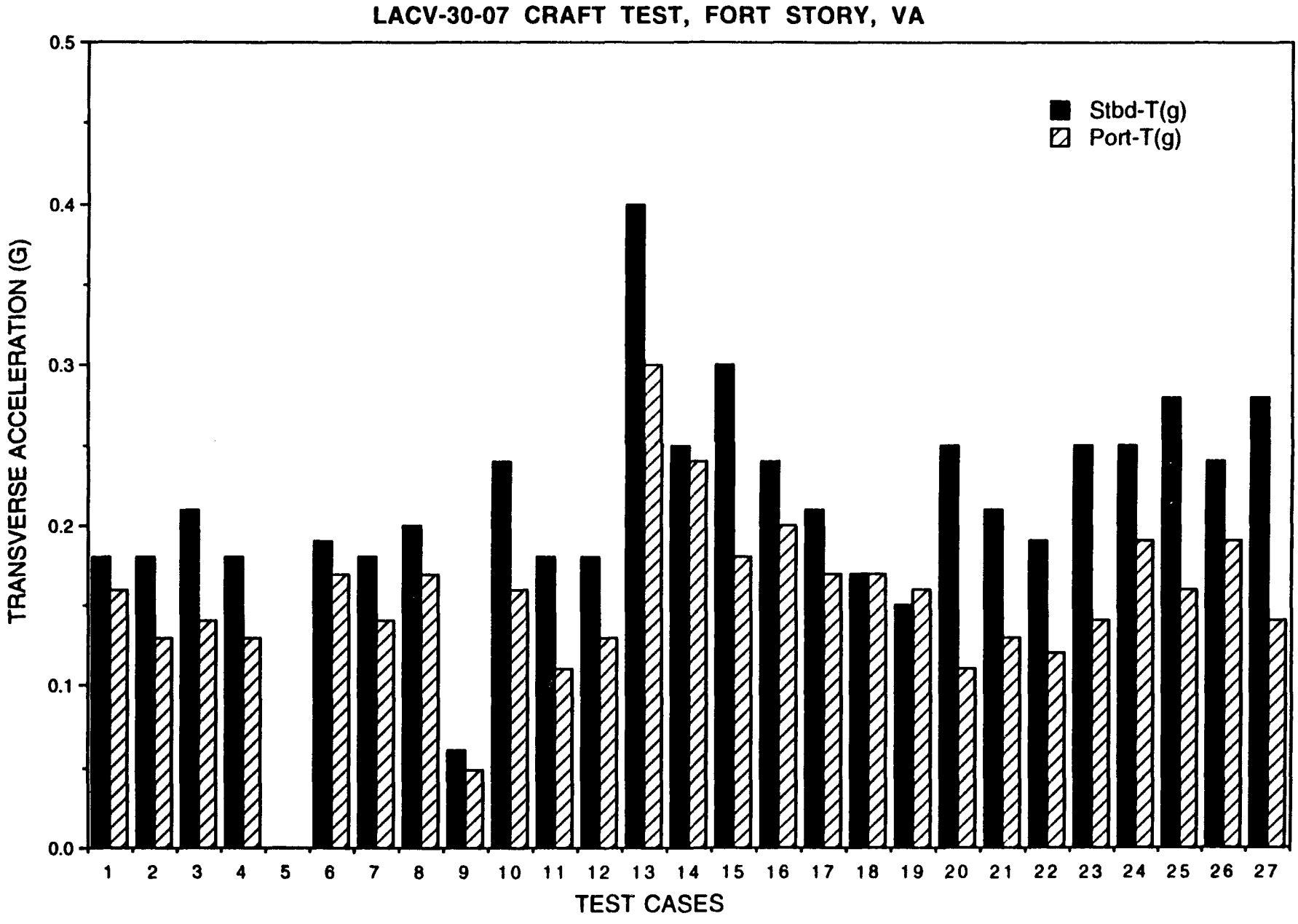


Figure 9. Peak Transverse Acceleration at Starboard and Portside in All Test Cases

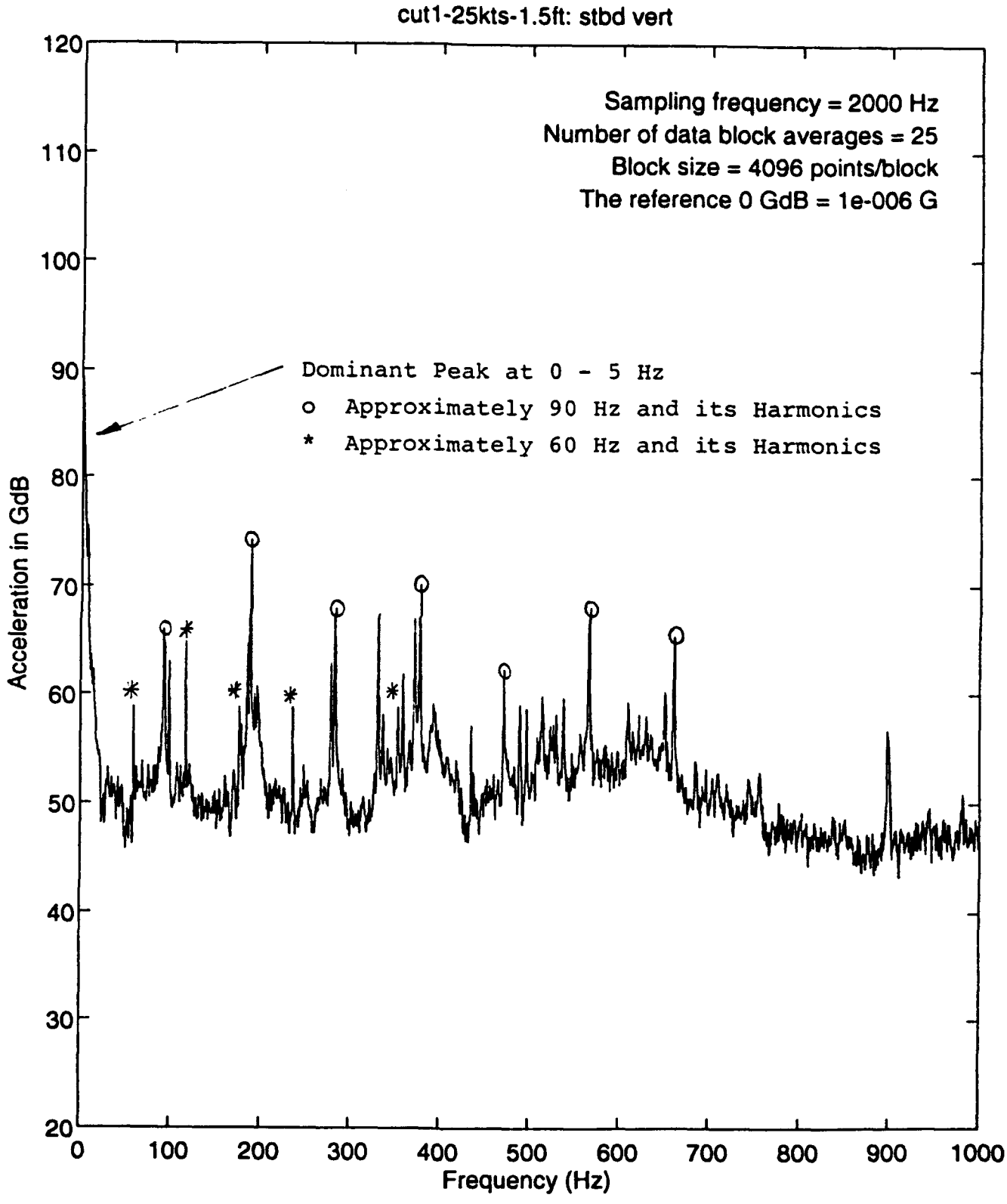


Figure 10. Broadband Sample Acceleration Data

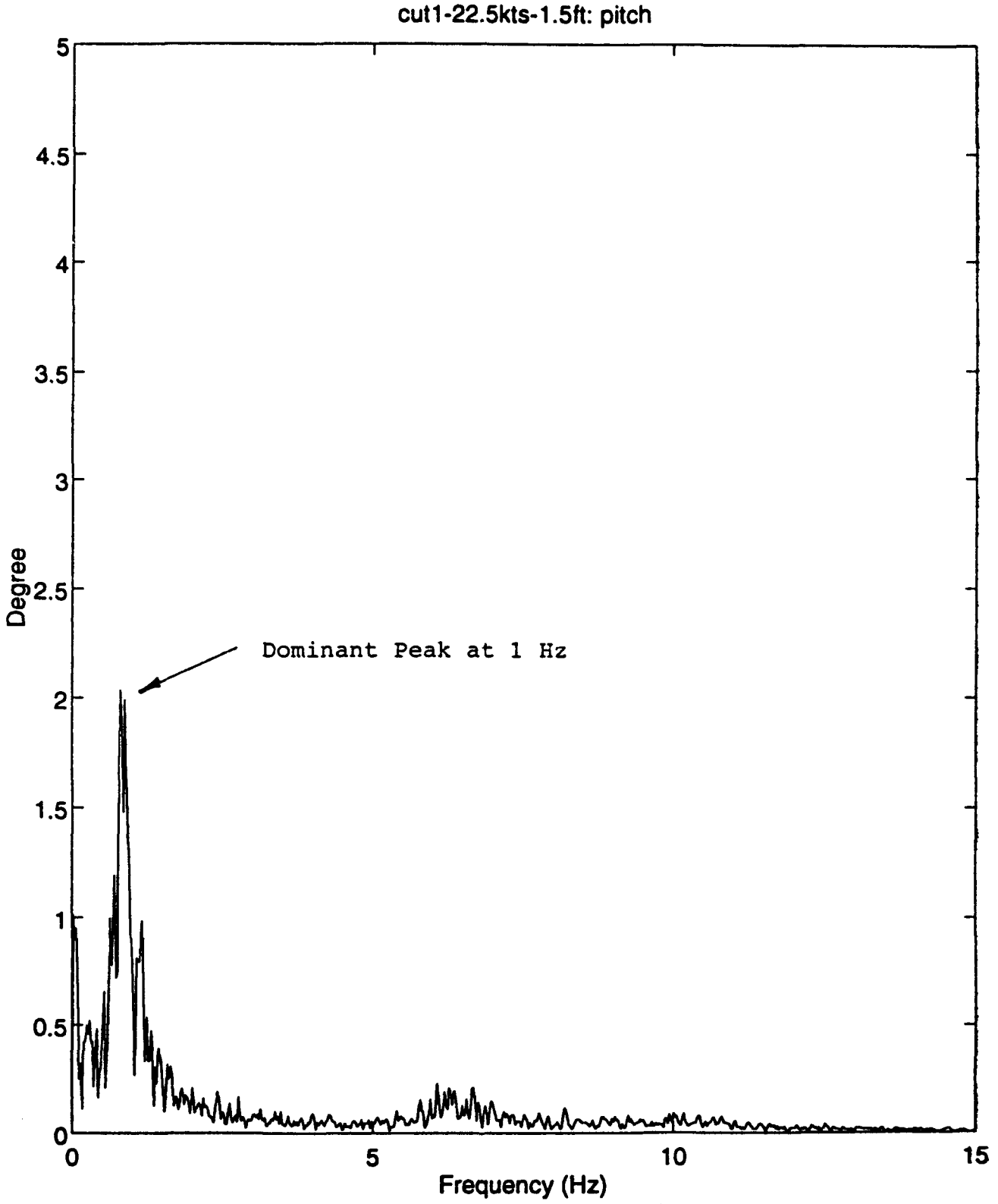


Figure 11. Sample Data for Pitch (FFT)

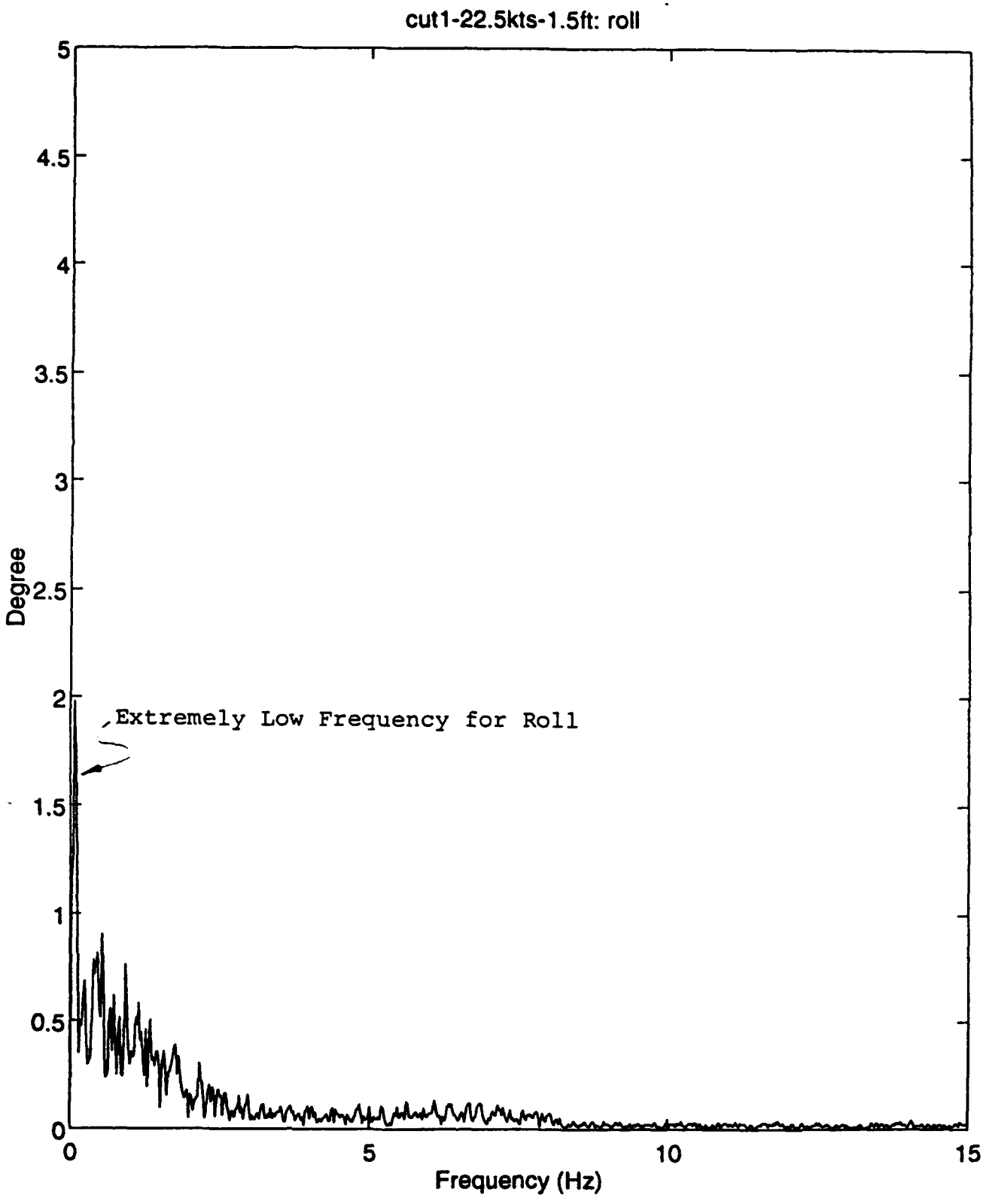


Figure 12. Sample Data for Roll (FFT)

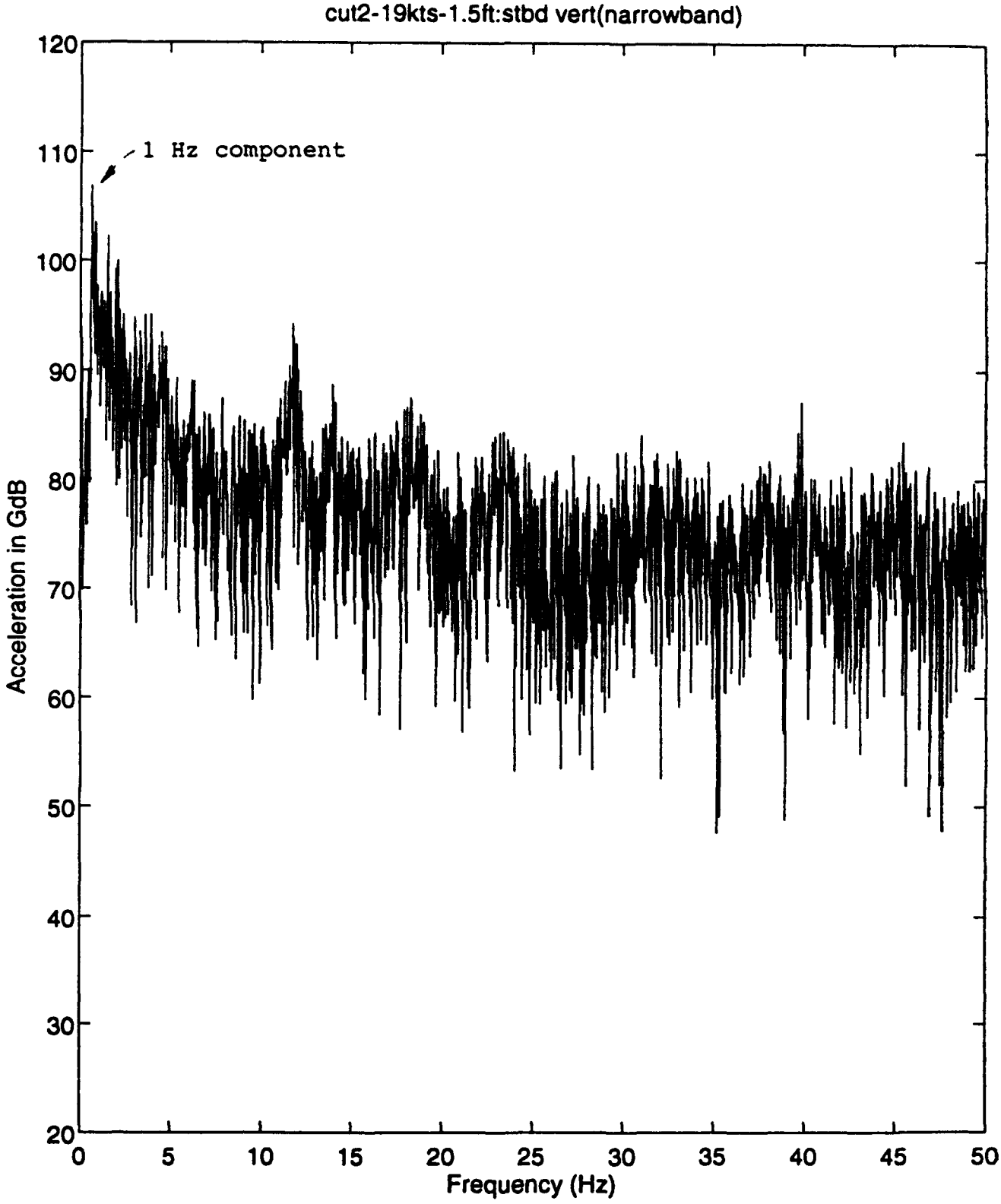


Figure 13. Narrowband Sample FFT Data

MILITARY STANDARD [MIL-STD-167-1 (SHIPS)] MECHANICAL VIBRATIONS OF SHIPBOARD EQUIPMENT

This standard [Ref. 2] covers the requirements of Naval shipboard equipment including machinery as regards externally imposed vibrations. The standard covers Type I (Environmental vibration) and Type II (Internally excited vibration). For superconductor magnet, it belongs to Type I classification. Type I applies to all equipment intended for shipboard use or which must be capable of withstanding the environmental vibration conditions which may be encountered aboard naval ships (Section 1.3).

The standard requires to perform the variable frequency test ranging from 4 Hz to 50 Hz with frequency interval of 1 Hz with the vibration stroke amplitude shown in the table 2 below. At each frequency interval, vibration shall be maintained for 5 minutes (Section 5.1). The tests are to be performed one direction at the time (vertical, fore and apt, and athwartship).

Frequency Range (Hz)	Table Amplitude (inch)	Range of g-Level
04 - 15	0.030 +/- 0.006	0.06 ~ 0.8
16 - 25	0.020 +/- 0.004	0.60 ~ 1.3
26 - 33	0.010 +/- 0.002	0.80 ~ 1.25
34 - 40	0.005 +/- 0.001	0.73 ~ 0.90
41 - 50	0.003 +/- 0.000	0.60 ~ 0.83

Table 2. Type I Vibration Test Criterion

There is also provision for exception to make the vibration test more inclusive. Type I environmental vibration limits figure (taken from standard) is shown in Figure 14.

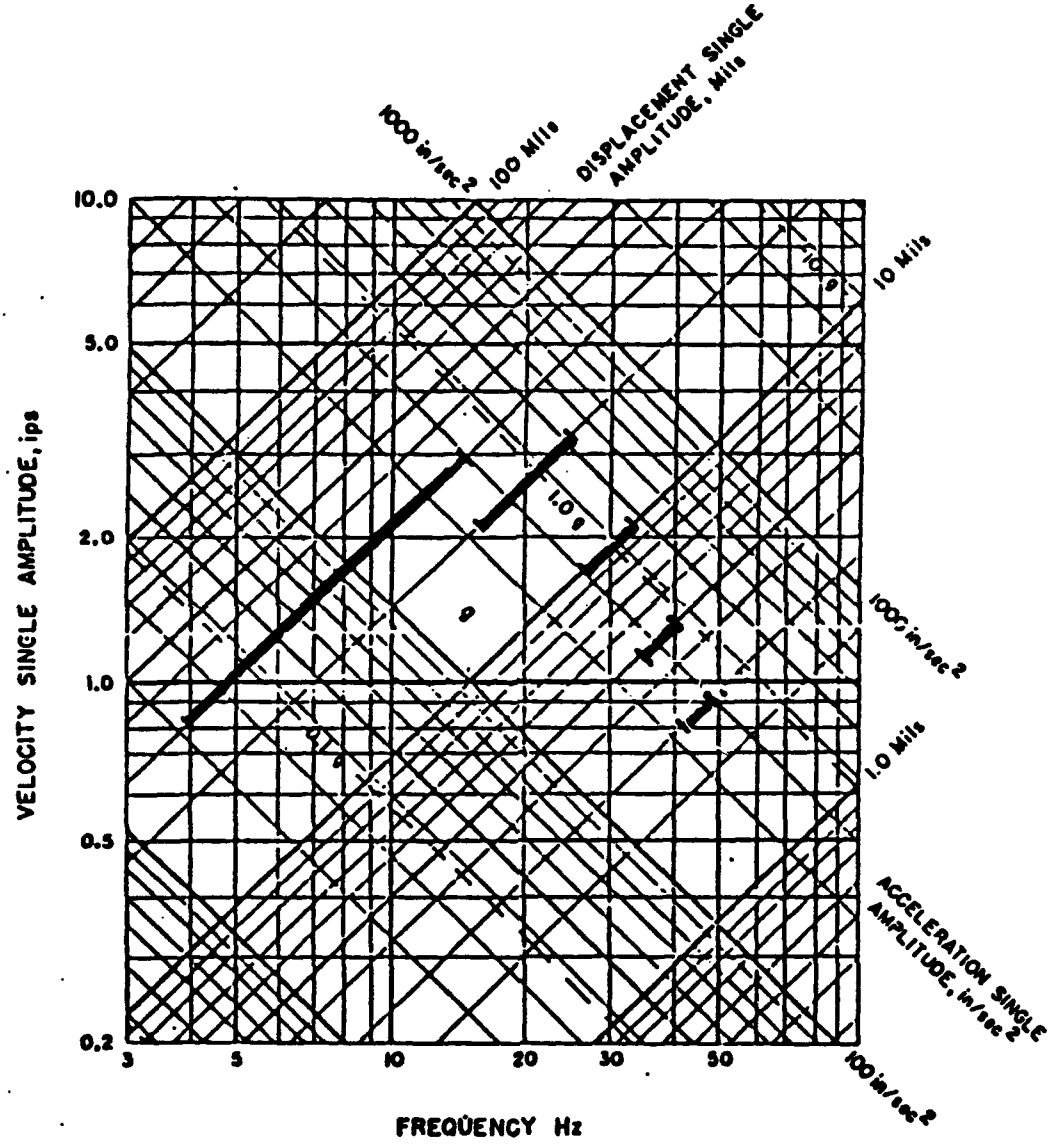


Figure 14. Type I Environmental Vibration Limits (MIL-STD-167-1)

CONCLUSIONS AND RECOMMENDATION

The LACV-30-07 Air Cushion Vehicle Test provided the valuable vibration data even if the craft is not mass loaded which is equivalent to the mass of the superconductor magnet. The reduced test data showed that the peak vibration amplitude is in the order of fraction of 1-g level. The dominant frequencies include (i) 0 ~ 5 Hz for pitch and roll, and (2) strong 90 Hz and its harmonics, and weak 60 Hz and its harmonics which are inherent to the craft and its machinery. For various craft types, the various discrete frequency components would appear. The vibration amplitude in terms of g-level may not be the only controlling factor, but the combined vehicle dominant frequencies, vibration g-level, and duration may be the definite factors that the superconductor magnet must persist.

Projecting the LACV-30-07 test results into the MIL-STD-167-1, the following recommendations are made.

(1) The 0 to 4 Hz frequency range is to be included in vibration design criteria to take into account of pitch and roll of craft. In the upper frequency range, 60 Hz to 100 Hz frequency range is to be included in vibration design criterion to take into account of mostly craft machinery vibrations. The proposed vibration design criteria must be upperbound given in MIL-STD-167-1. The proposed vibration design criteria is shown in Figure 15. For the frequency range of 0~3 Hz, a constant vibration stroke length (displacement) of 40 mils is recommended.

(2) The recommended duration of vibration for each frequency range is shown below.

(i)	0 ~ 3 Hz:	5 minutes every 0.5 Hz interval
(ii)	4 ~ 50 Hz:	5 minutes every 1.0 Hz interval
(iii)	51 ~ 100 Hz:	3 minutes every 2.0 Hz interval

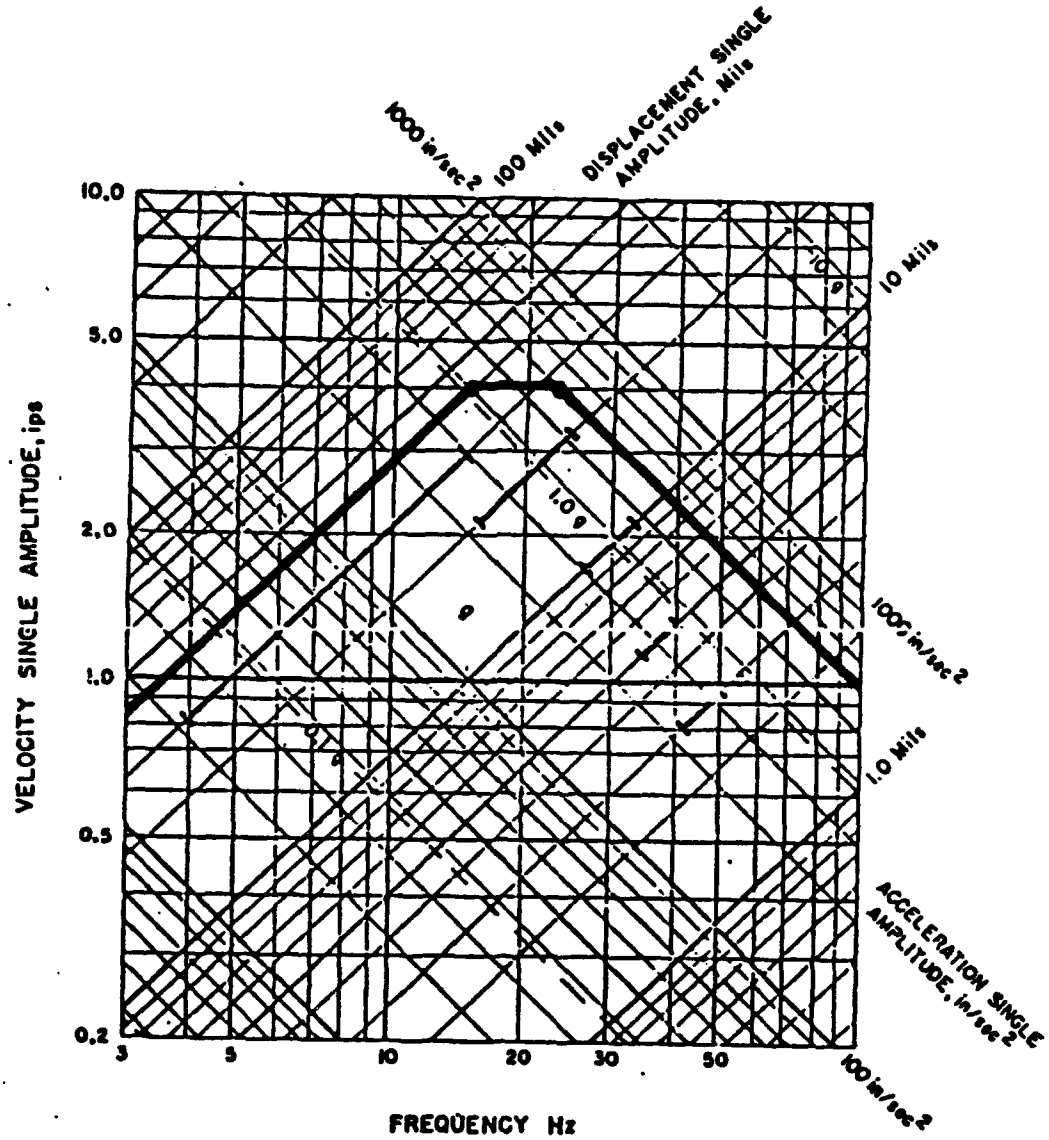


Figure 15. Proposed Vibration Design Criteria for Superconductor Magnet

(3) The direction of vibration excitation given to the superconductor magnet must be vertical, fore and aft, and athwartship, one direction at the time. The input motion must be applied to the support points of superconductor magnet.

The above recommendation is preliminary in nature but somewhat comfortable and conservative. The deformations and stresses induced by the above vibration design criteria are important. But also the vibration-induced quenching criteria must be developed using mainly experimental approach.

REFERENCE

1. Ed. Thomas, "Report Input - Test Setup on LACV-30-07 Fort Story, VA, August~September 1993", October 1993.

2. MIL-STD-167-1 (SHIPS), "Mechanical Vibrations of Shipboard Equipment", 1 May 1974.

APPENDIX A

Test Setup on LACV-30-07 Air Cushion Vehicle

Fort Story, VA

August - September 1993

Report Input by Ed Thomas

Test Setup on LACV-30-07 Fort Story, VA August-September 1993.

The LACV-30-07 craft was instrumented at Fort Story, VA by Code 812 and a Corporal from the maintenance group. Two triaxial blocks were installed carrying three ground isolated accelerometers in vertical, axial, and transverse directions. The starboard triaxial block was mounted about ten feet aft of the bow of the craft above the center - starboard hull joiner seam. The port triaxial block was mounted about thirteen feet aft of the bow above the center - port hull joiner seam. These locations were picked as typical of foundation mounting points for an ALISS superconducting minesweeping magnet. The cabling to these accelerometers was waterproofed with silicone caulk coated with a triple wrap of electrical tape. The cabling was taken aft to the cabin of the vessel. The accelerometers used were internally amplified, low noise, 100 millivolt/g units. These units were powered and amplified to a final sensitivity of 1 volt/g. The signals were fed to an eight channel digital audio tape (DAT) recorder in the cabin. A pitch and roll transducer with a sensitivity of ten degrees/volt was oriented and mounted in the cabin above the radio and DAT recorder. Pitch and roll signals were recorded as the final two signals of the DAT recorder. A global positioning system (GPS) antenna was mounted on the port rail outside the cabin to allow satellite reception and yield true heading and speed of the vessel during testing. The vessel instrumentation had no speed readout.

The GPS system readout was placed in the cabin and energized by the vessels battery. The original plan for the testing of the vibration base of the LACV-30-07 evaluations were to take data cuts at 5 knot increments from hover to maximum speed in calm water and in as rough water as weather and craft limits allow (about Sea State 3). The speed of the LACV-30 craft are very difficult to control in precise increments due to the very low drag when the vehicle is on cushion. We tried hard to obtain data about 15 knots, but could not maintain this speed for two minutes recording time. Fifteen knots is believed to be the in the middle of the "hump" range of these vehicles. Rough water testing (2.5 foot waves) was carried out heading into the sea as much as possible.

Analysis of Data Collected Toward ALISS Component Durability Specification

The data collected was analyzed with Fast Fourier Transform (FFT) analyzer using 800 line analysis from 0 - 1 kiloHertz with 200 data averages. All accelerometer data was analyzed in this manner. The output of the analyzer was reduced to hard copy and disk storage. The typical rough water data collected had a low frequency hump due to wave action on the cushion and eventually the vessel from the cushion. Machinery noise tonals and their harmonics were of nearly similar level to the wave induced vibration in the vertical direction. The acceleration spectrum levels reduced from the tape recorded data were combined by power summation techniques to a single acceleration spectrum level (Am).

In order to increase readability and accuracy of the wave action acceleration of the vessel, a series of 0 - 50 Hz analyses were conducted on the data along with pitch and roll transducer data. This analysis was carried out by the same FFT system using 400 line analysis with 100 averages. A similar power summing procedure as described above was carried out with the low frequency spectra to a single acceleration spectrum (Aw).

Specification Development

It is desired to generate a component design specification spectra for ALISS component development contractors that is conservative, but not too conservative. The purpose of this spectra is to provide a pass - fail shaker input spectra to insure deployed operation of research - early development magnetic minesweeping components. The LACV-30 measurements were lower than expected for a proposed ALISS operational vehicle, such as a helicopter or LCAC. The specification should entail vessel operation in Sea State 3 and operation with some degree of vibration increase due to machinery degradation.

The peak values of the two power summed spectra were combined by the equation As ~ 20 x log(4 x Aw + 2 x Am) as an ALISS component survivability specification for early responding contractors to test prototype units to for durability. This specification will probably be modified by the output of the data analysis presently underway at the Naval Postgraduate School.

APPENDIX B

BROADBAND TEST DATA

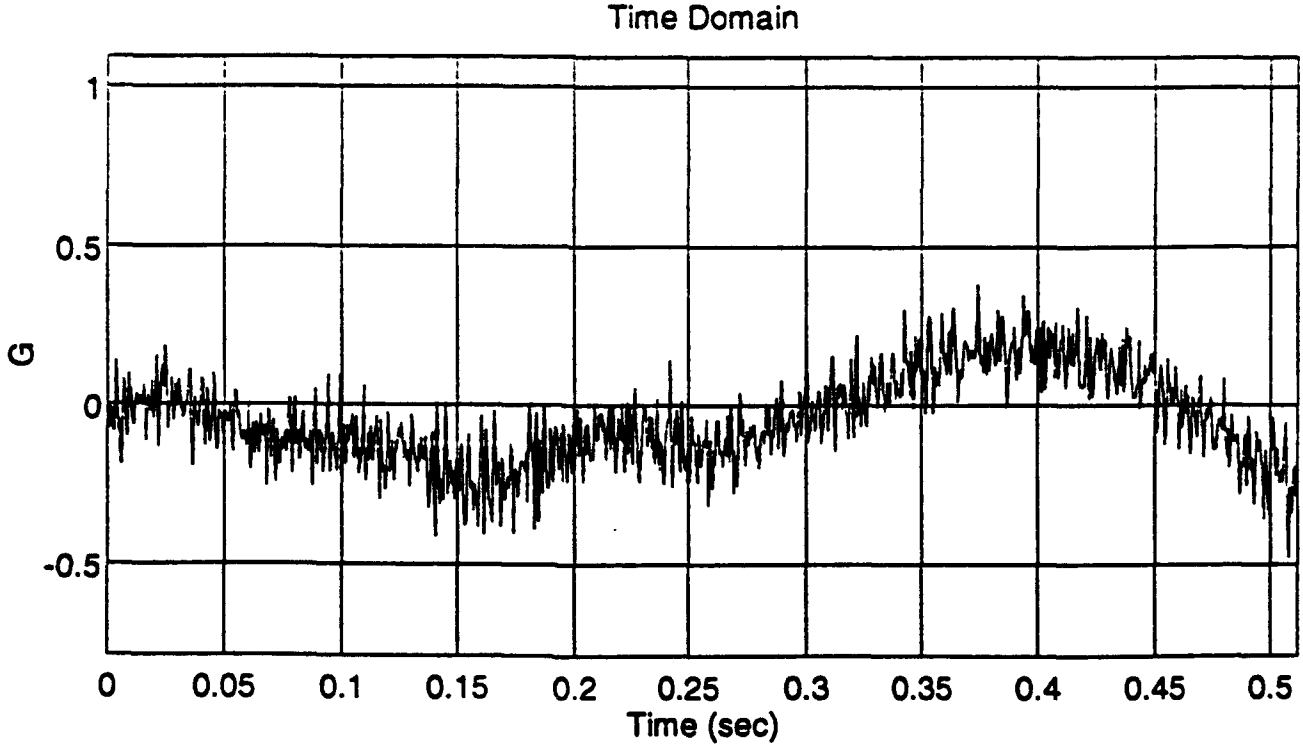
FOR STARBOARD AND PORTSIDE TRIAXIAL TRANSDUCERS

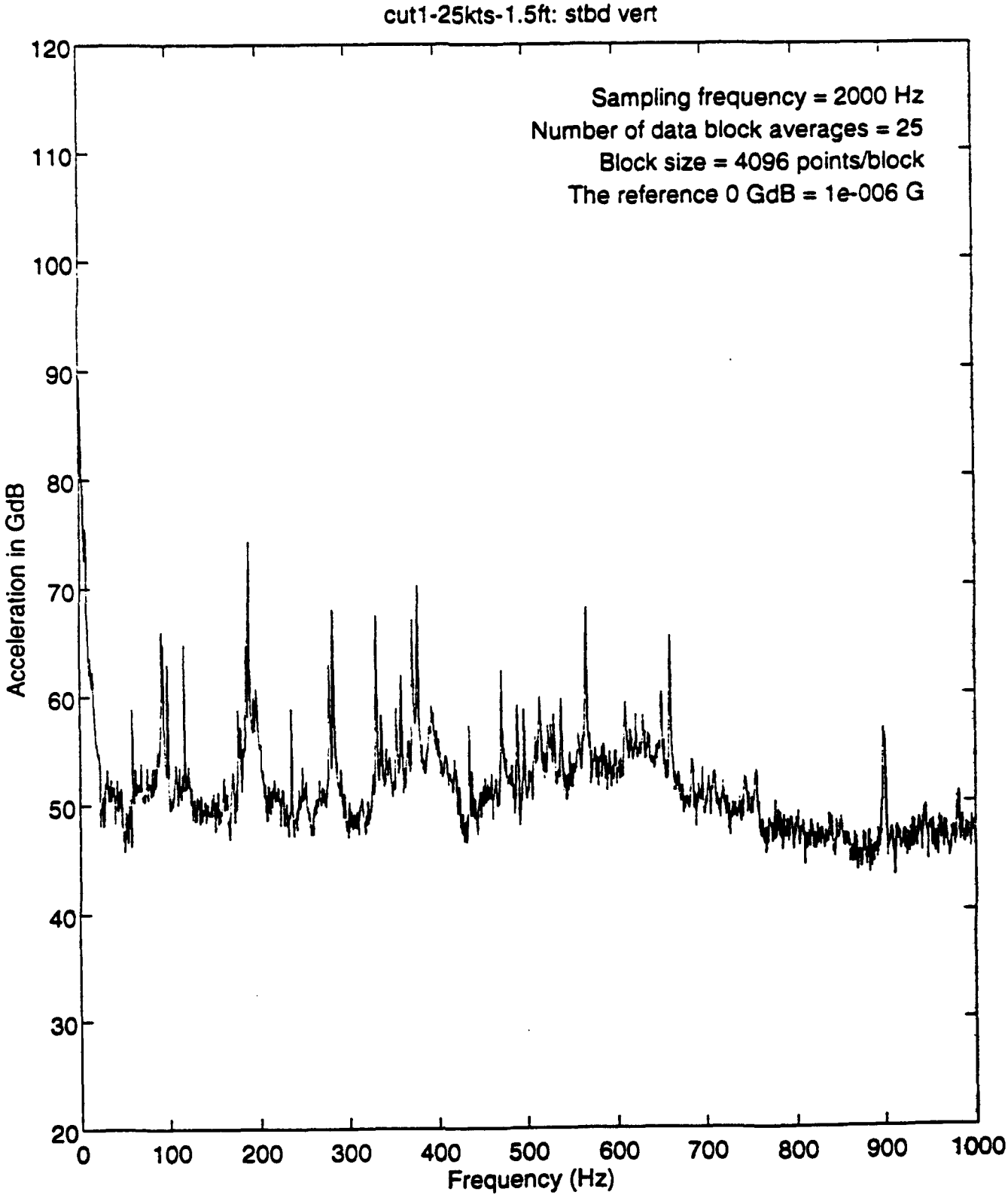
cut1-25kts-1.5ft: stbd vert

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005637 G
Standard deviation = 0.1914 G
The plot shows 1024 data points




cut1-25kts-1.5ft: stbd vert
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut1-25kts-1.5ft: stbd axial

Data sampling frequency = 2000 Hz

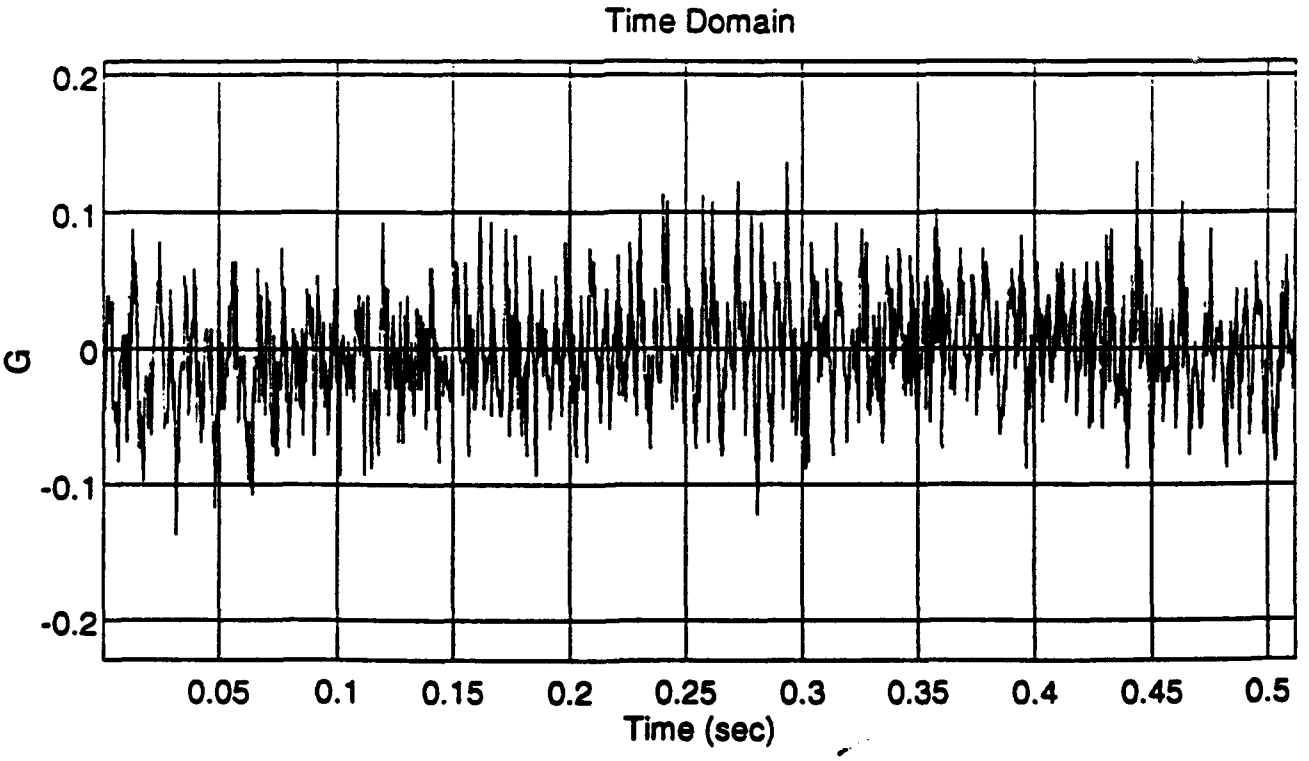
Total number of sampling data points = 1.024e+005

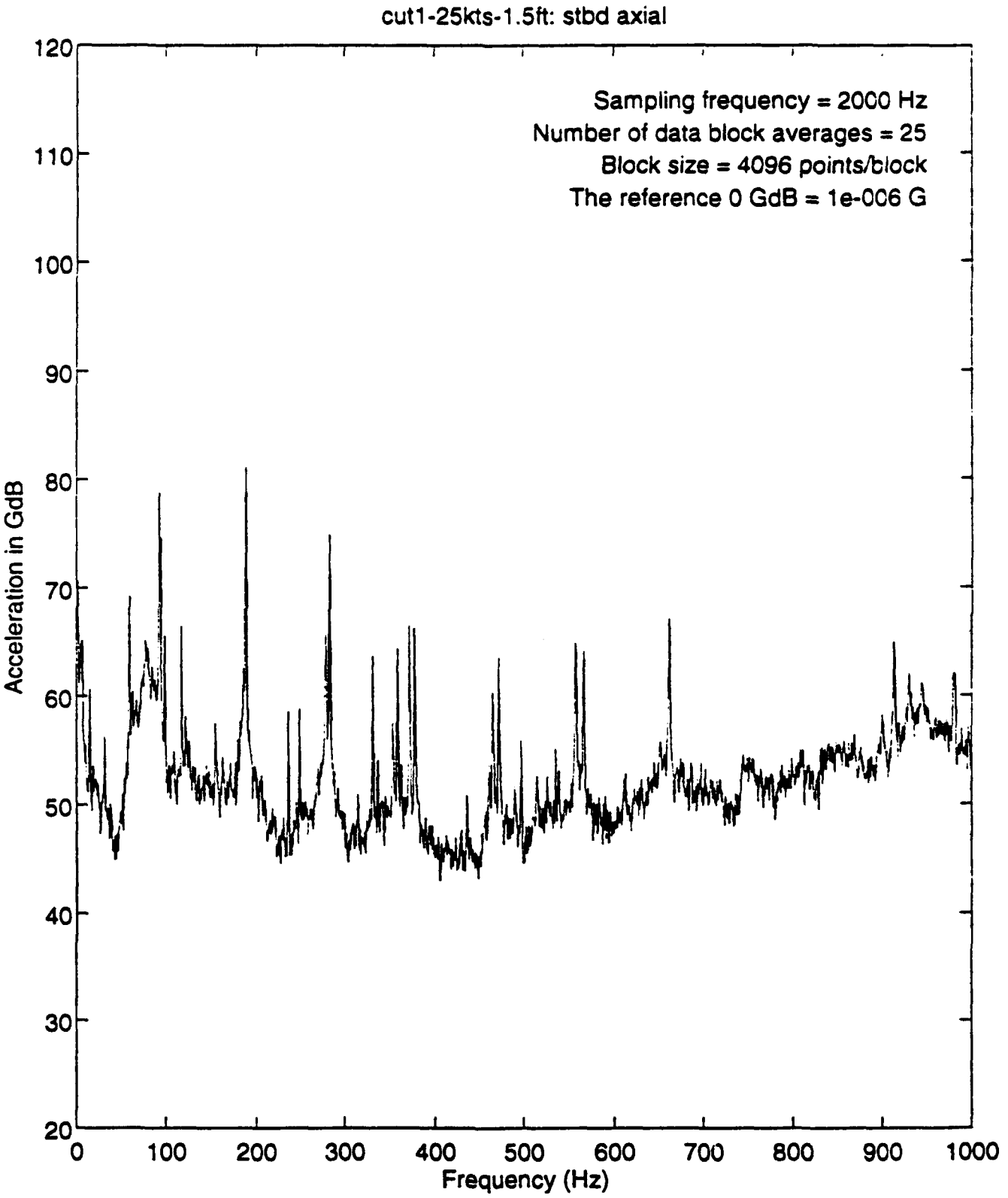
* The time domain

Mean value = -0.002213 G

Standard deviation = 0.04581 G

The plot shows 1024 data points



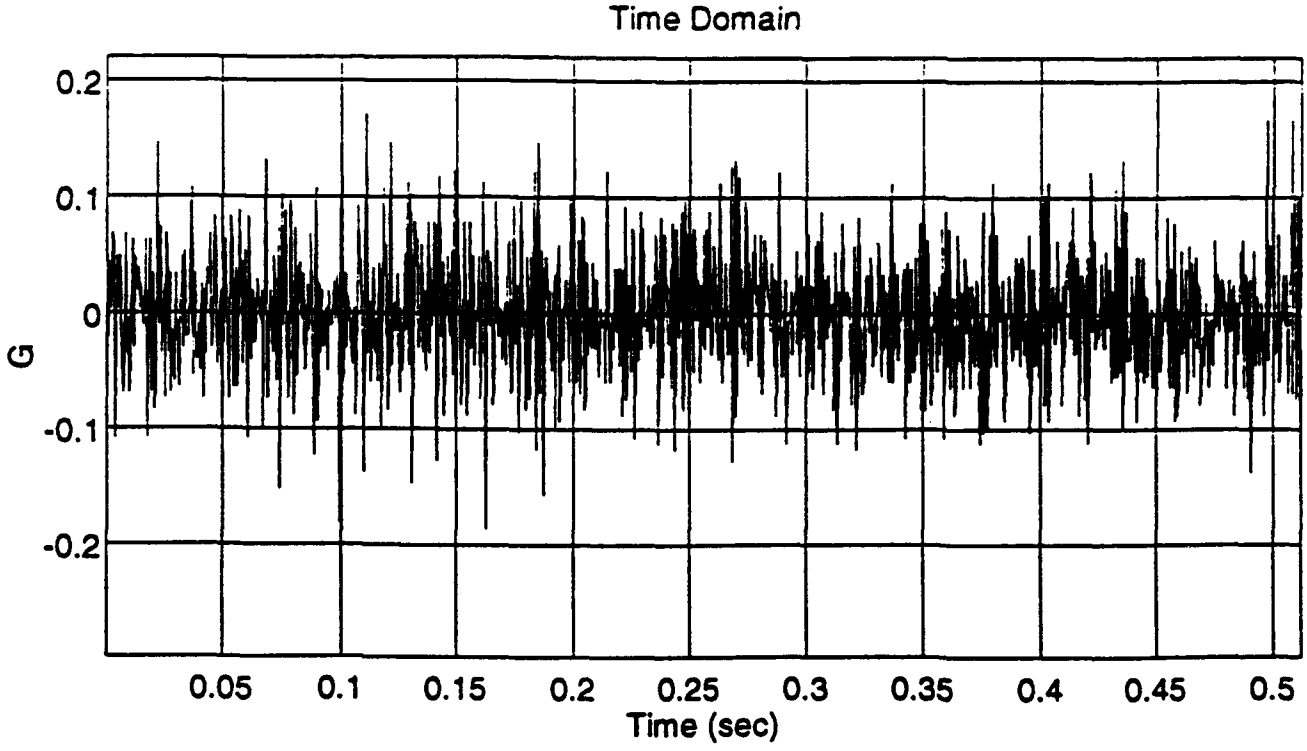

cut1-25kts-1.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

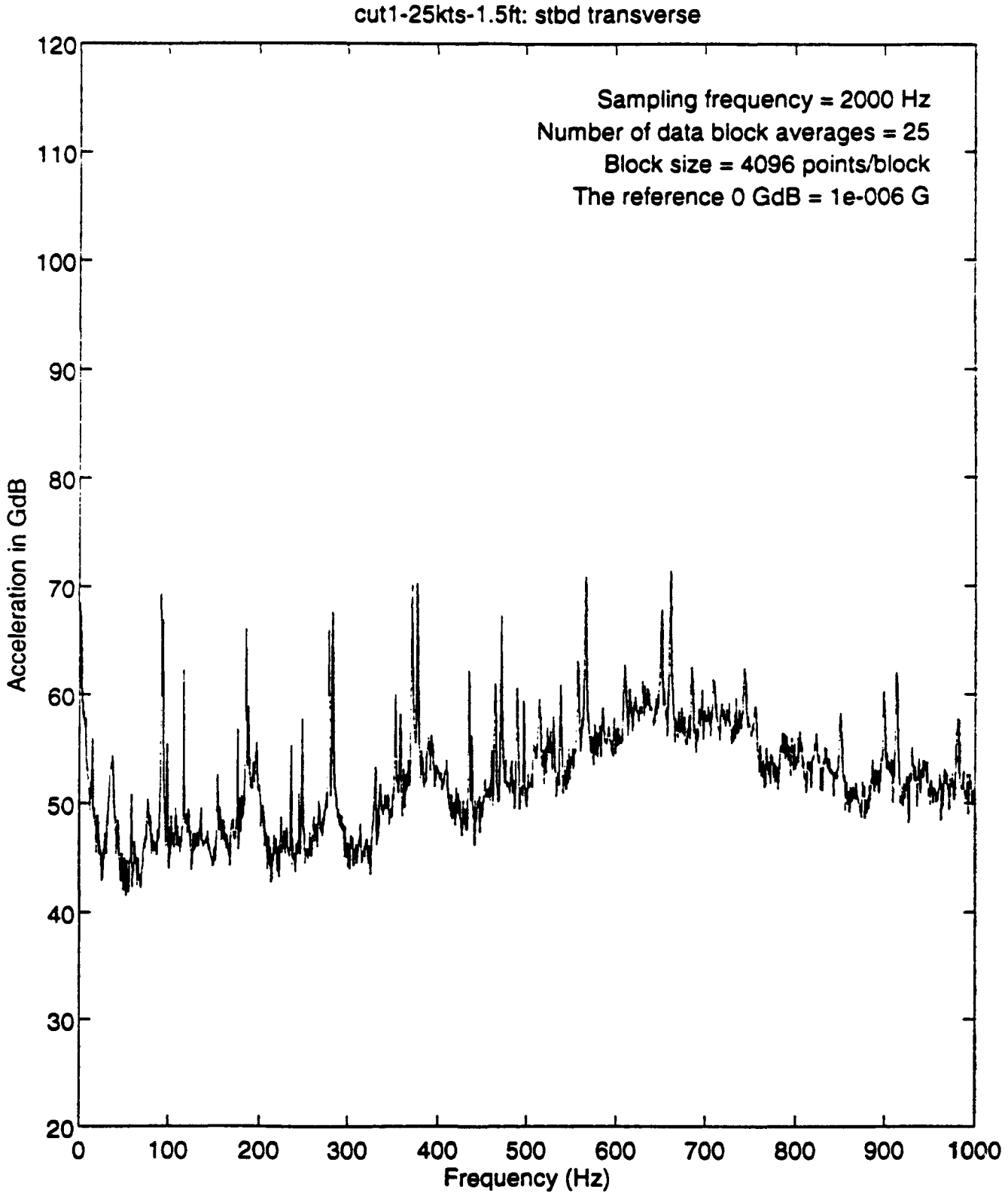
cut1-25kts-1.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003151 G
Standard deviation = 0.05582 G
The plot shows 1024 data points



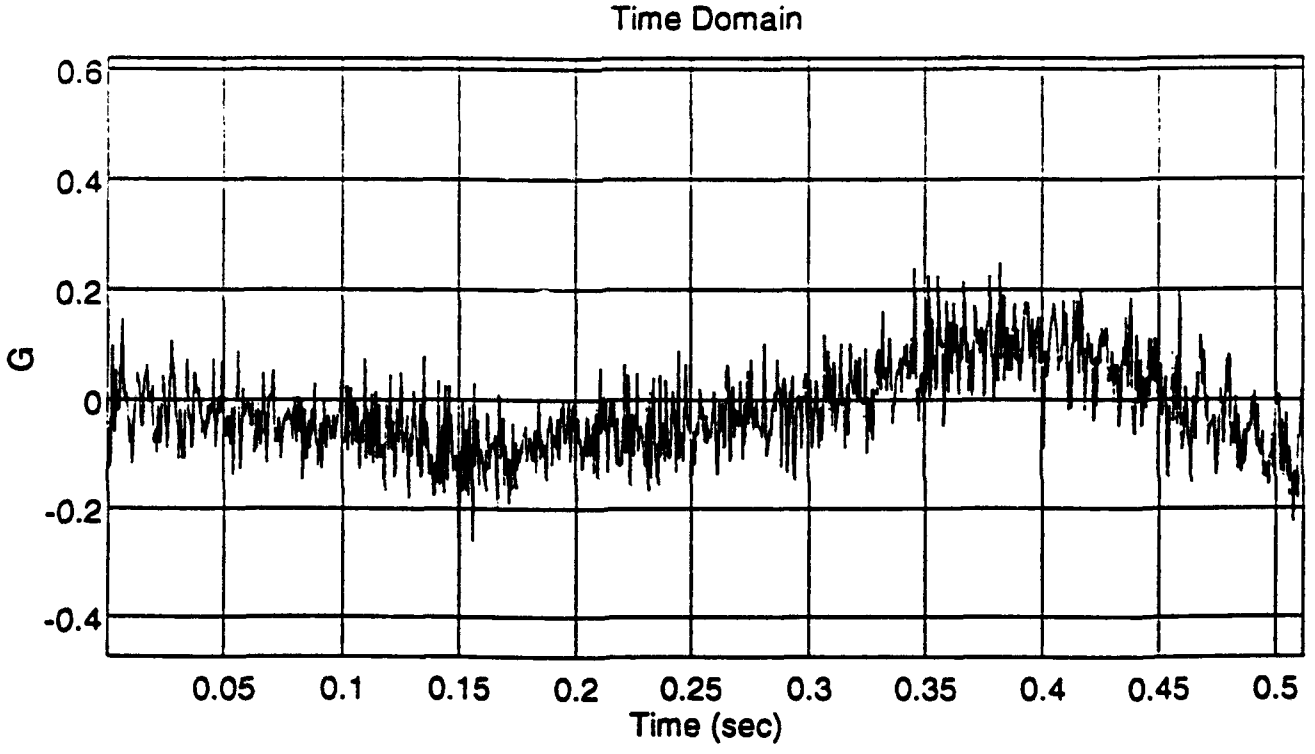

cut1-25kts-1.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

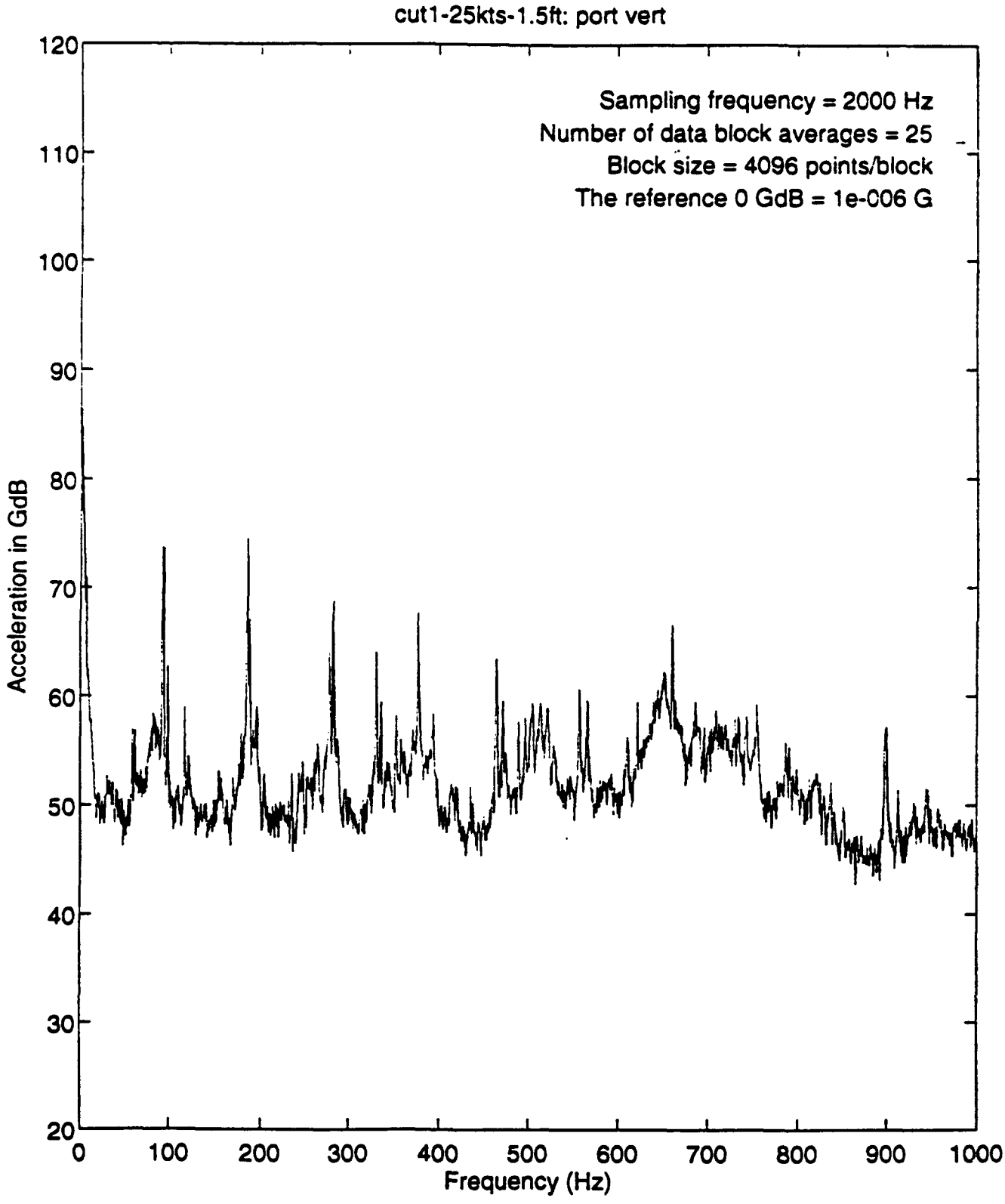
cut1-25kts-1.5ft: port vert

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002249 G
Standard deviation = 0.1032 G
The plot shows 1024 data points



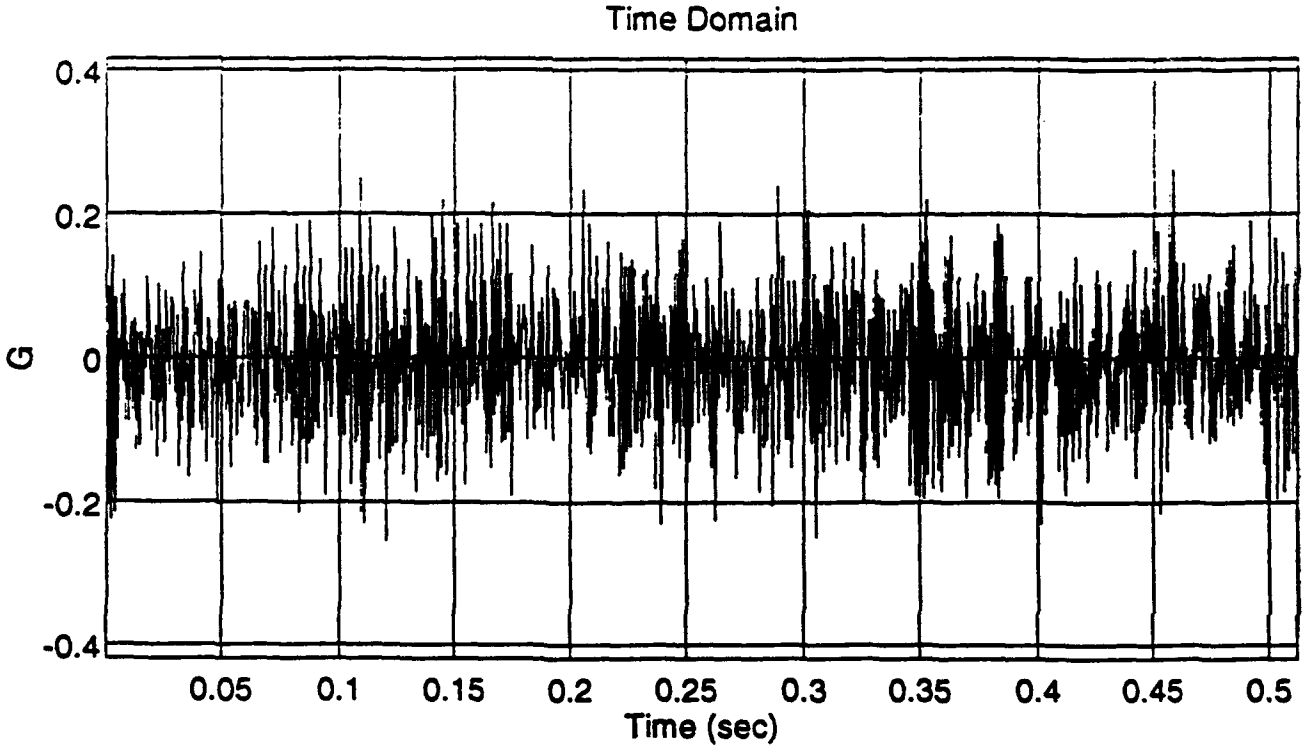

cut1-25kts-1.5ft: port vert
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

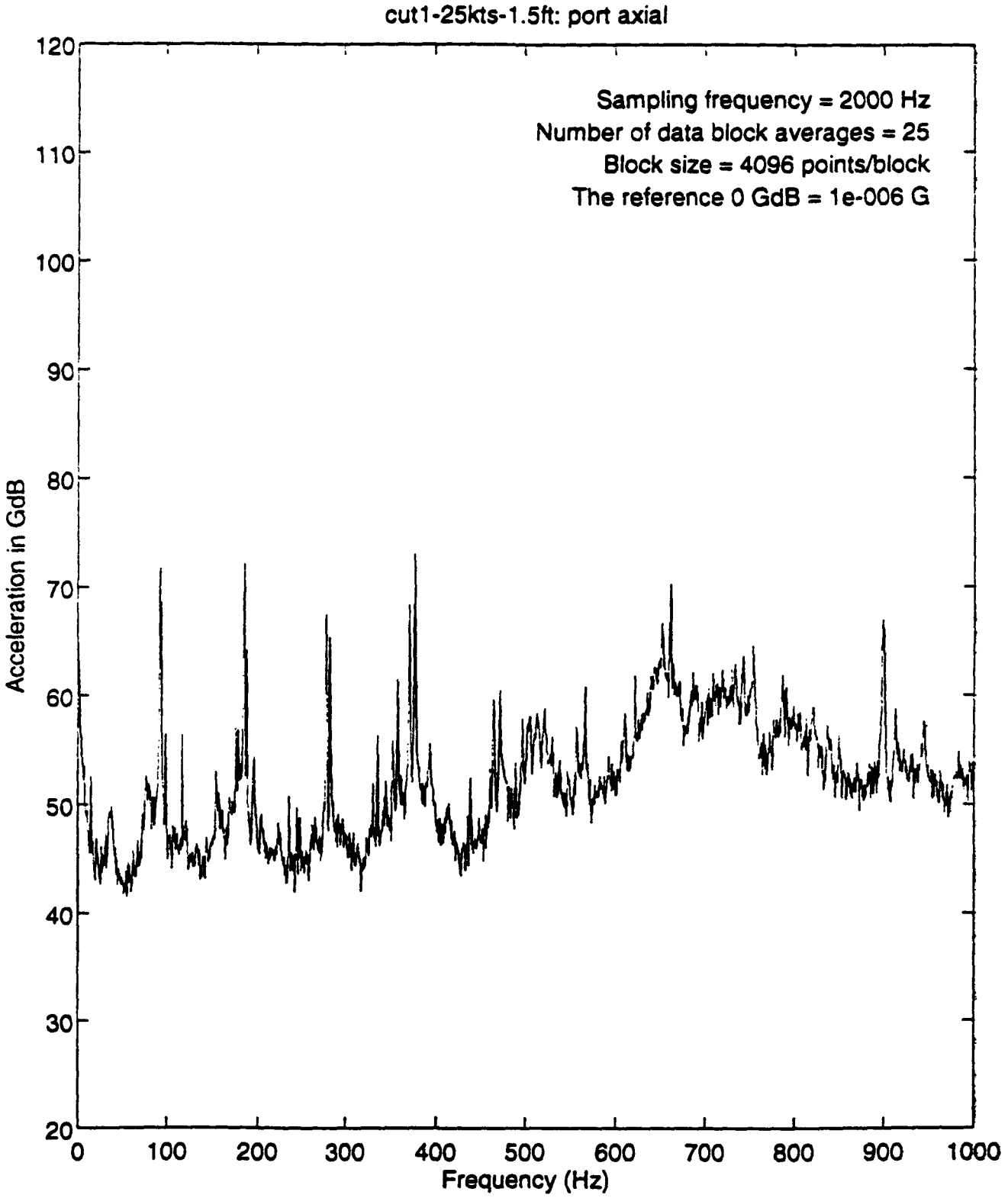
cut1-25kts-1.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003437 G
Standard deviation = 0.08655 G
The plot shows 1024 data points



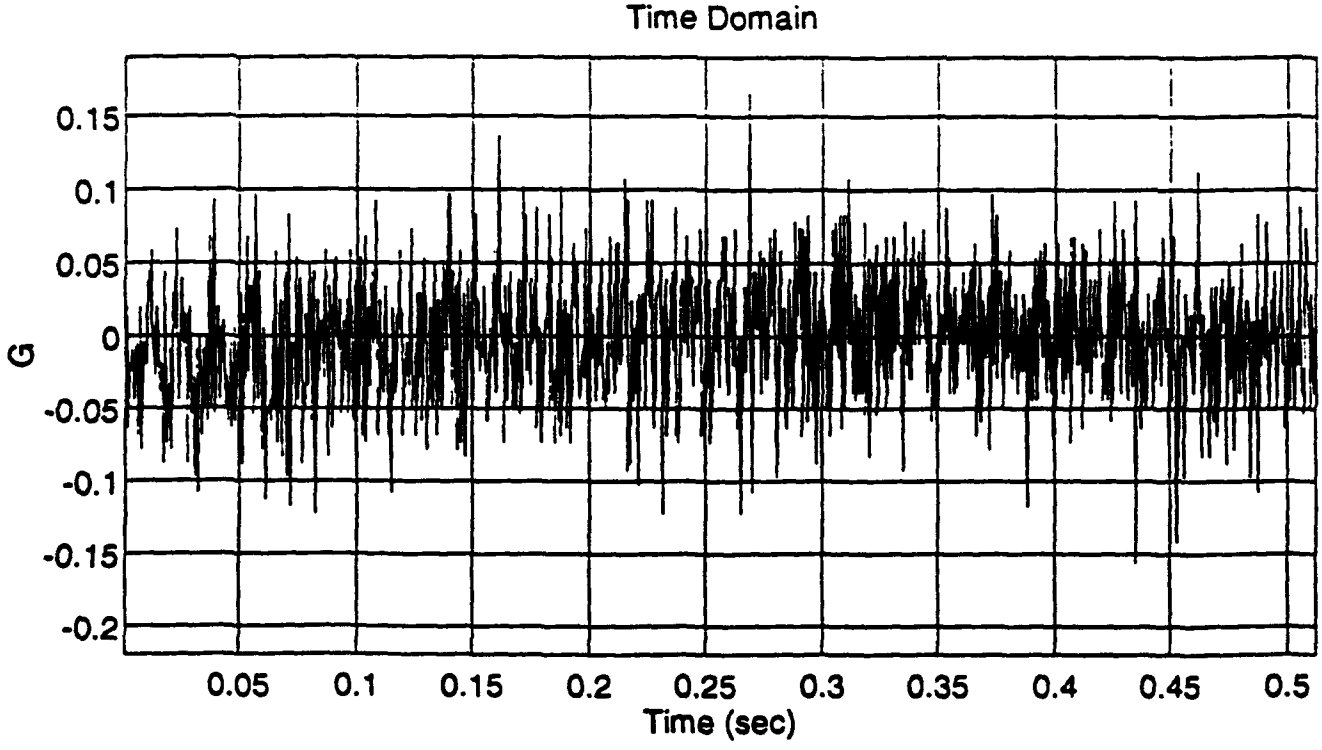

cut1-25kts-1.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

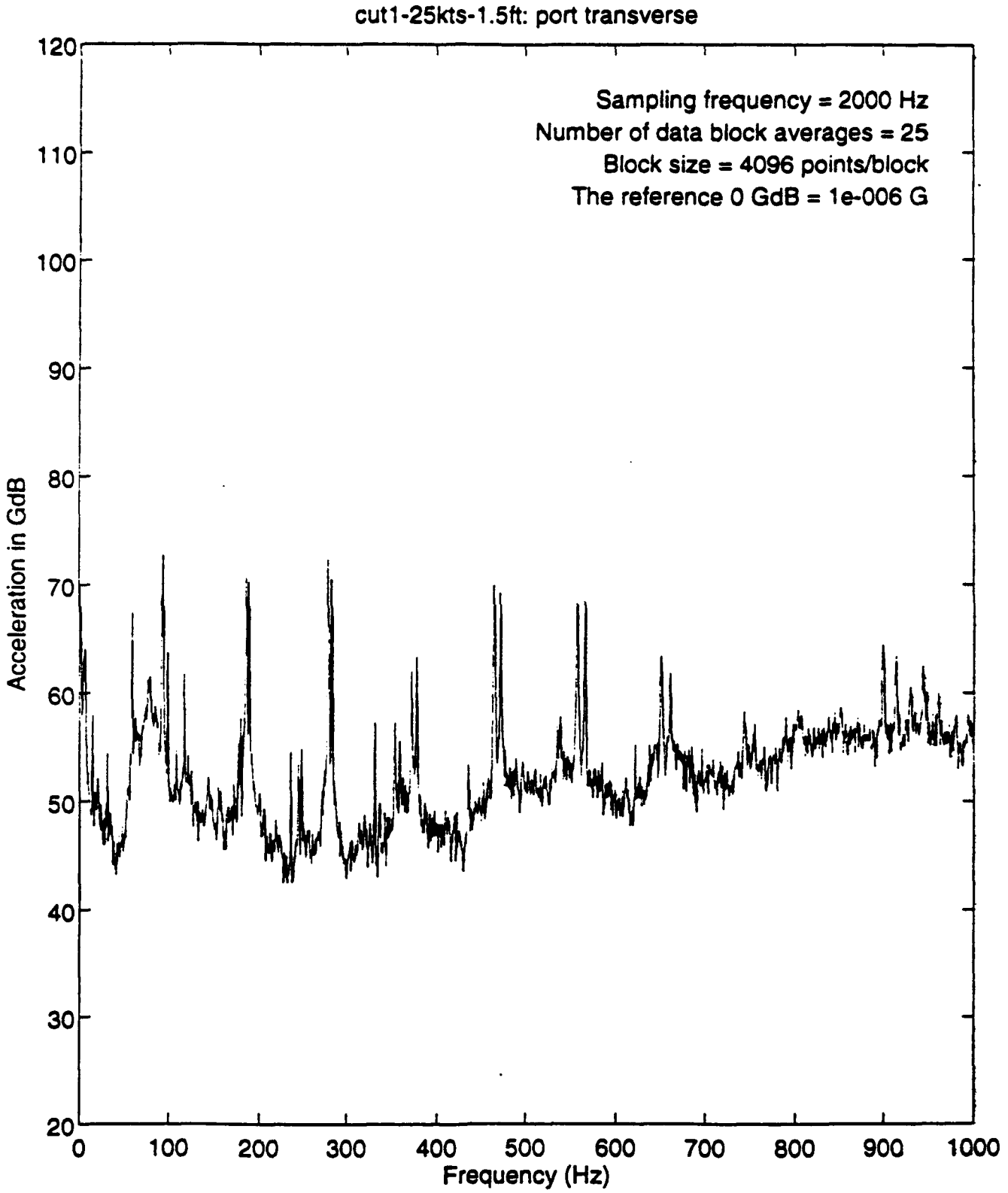
cut1-25kts-1.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.00467 G
Standard deviation = 0.04559 G
The plot shows 1024 data points




cut1-25kts-1.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: stbd vert

Data sampling frequency = 2000 Hz

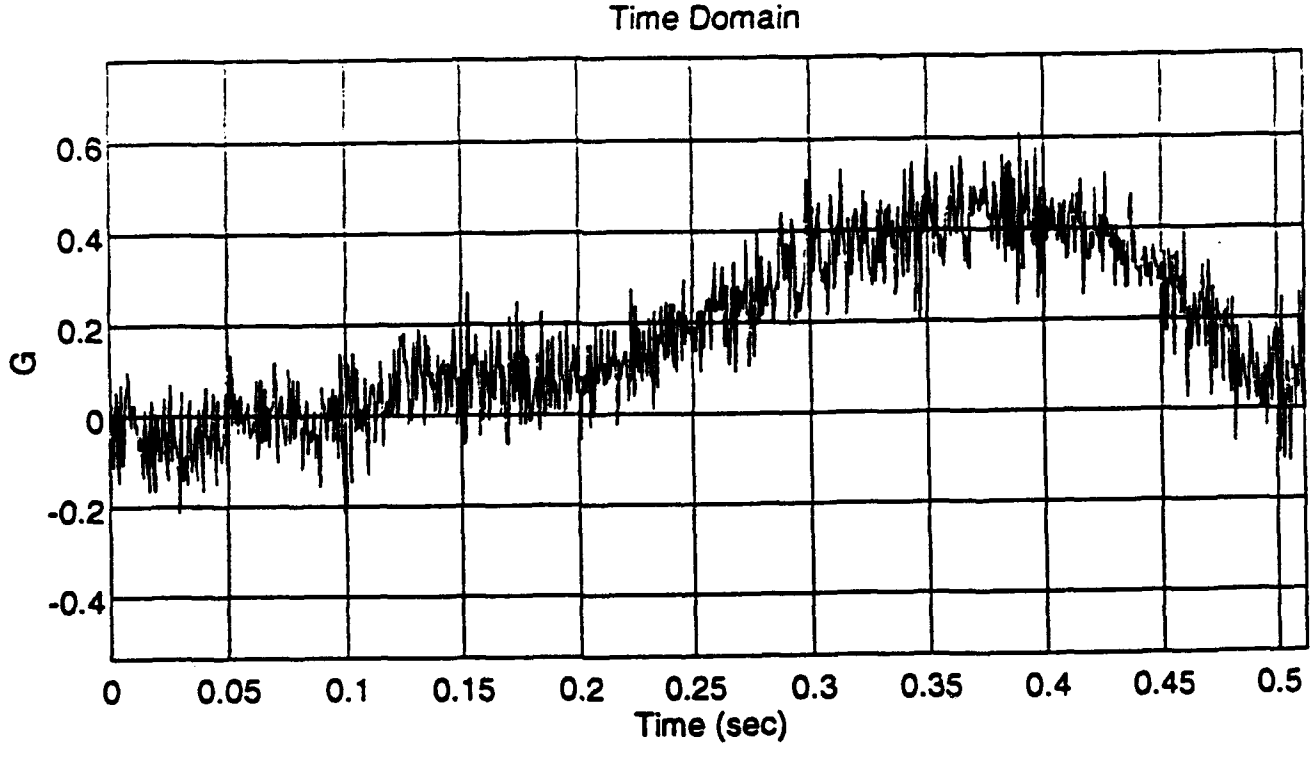
Total number of sampling data points = 1.024e+005

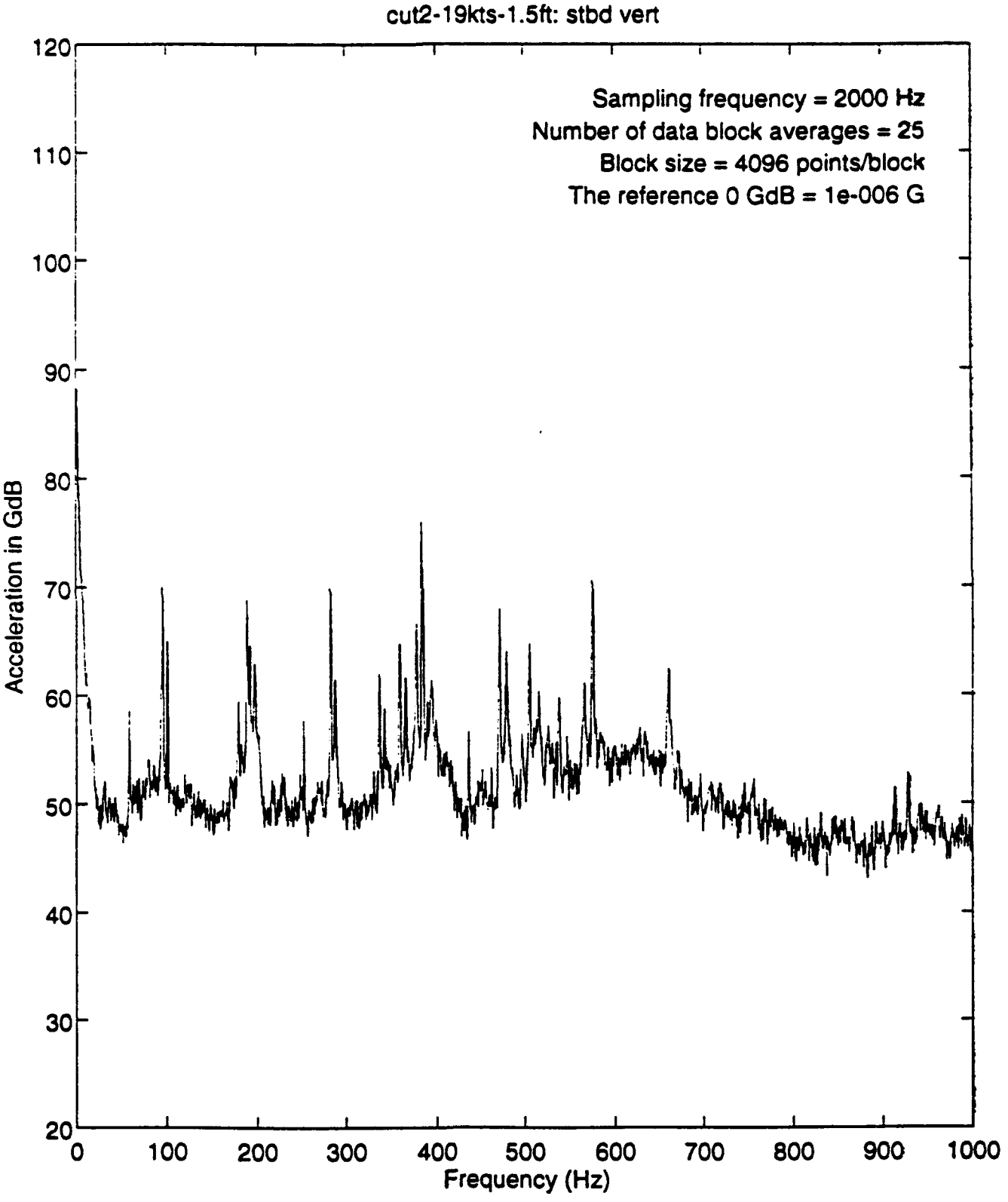
* The time domain

Mean value = 0.0007665 G

Standard deviation = 0.1567 G

The plot shows 1024 data points




cut2-19kts-1.5ft: stbd vert
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: stbd axial

Data sampling frequency = 2000 Hz

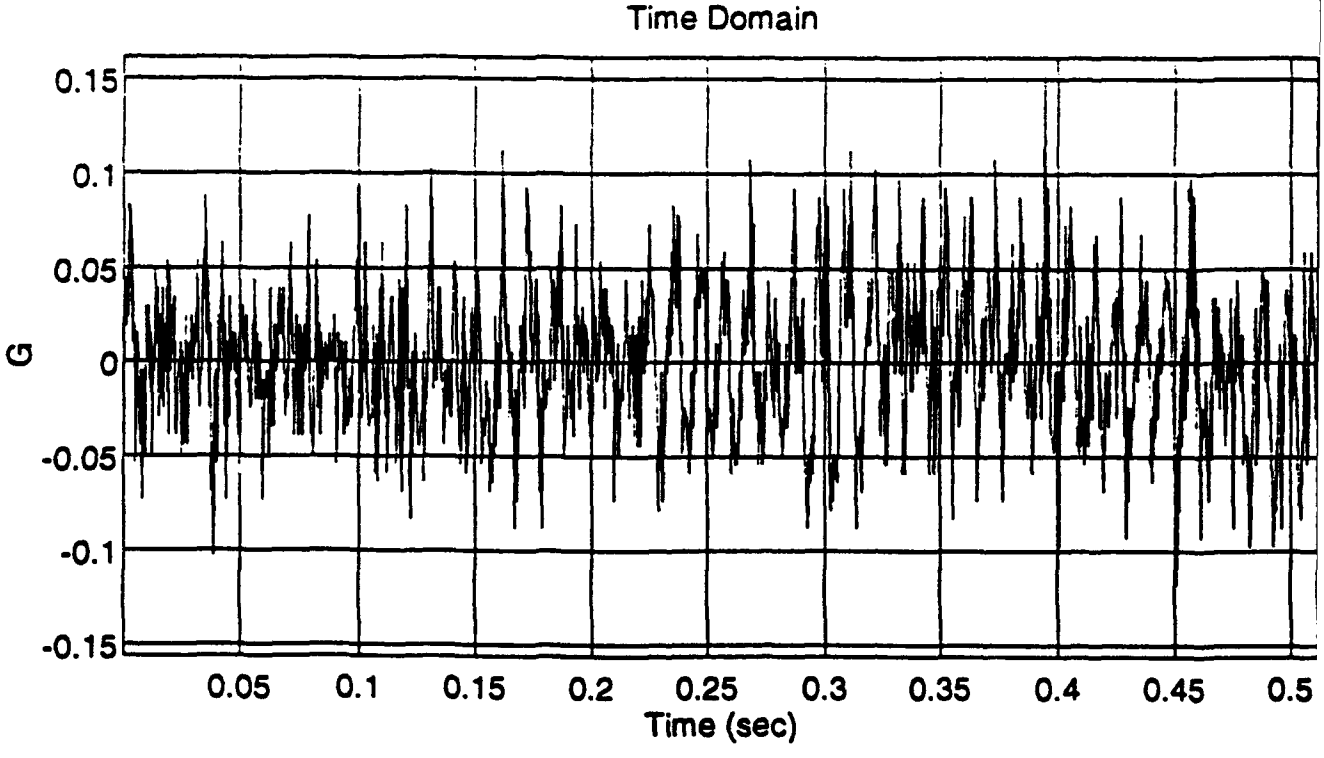
Total number of sampling data points = 1.024e+005

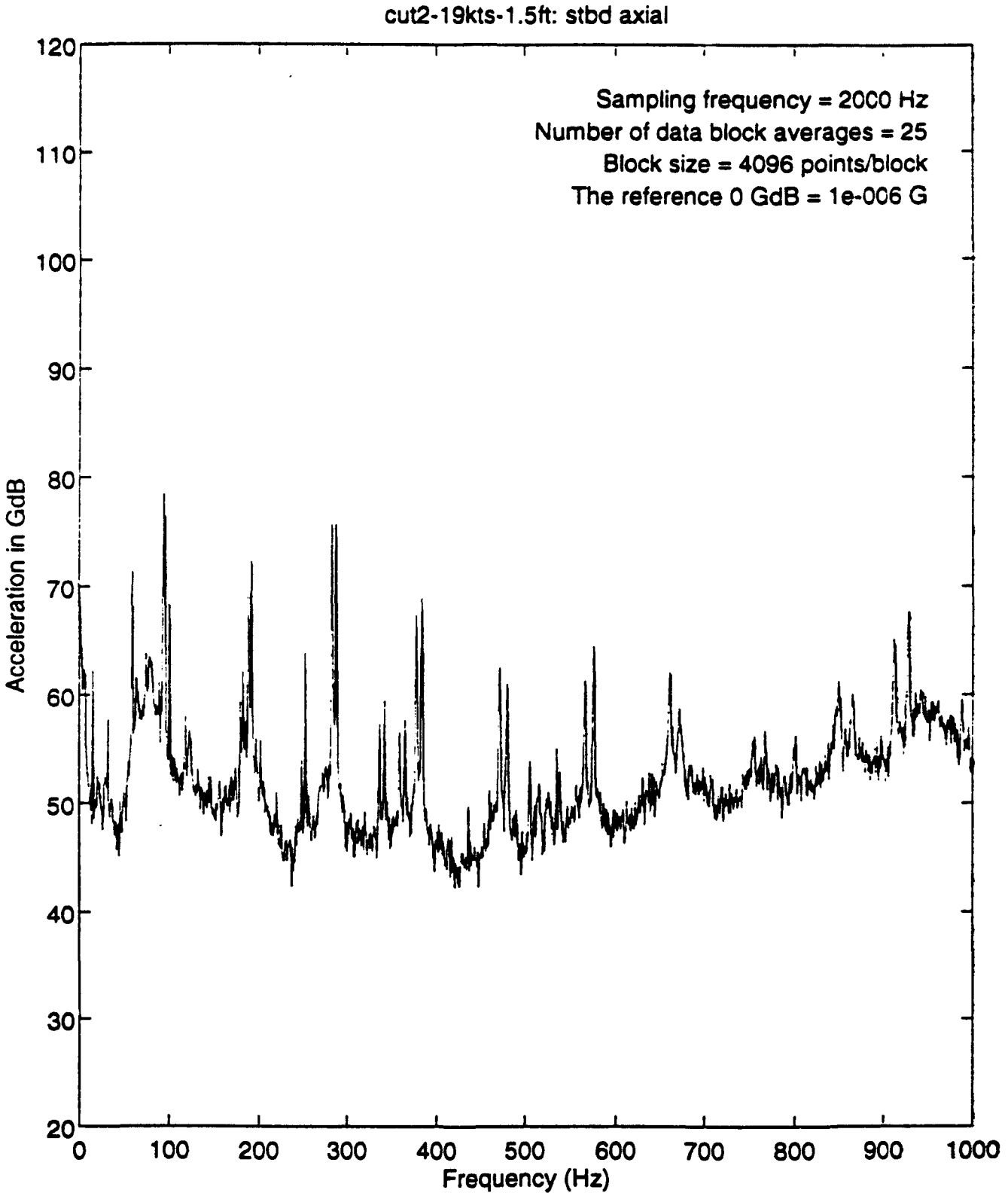
* The time domain

Mean value = -0.003627 G

Standard deviation = 0.03808 G

The plot shows 1024 data points




cut2-19kts-1.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: stbd transverse

Data sampling frequency = 2000 Hz

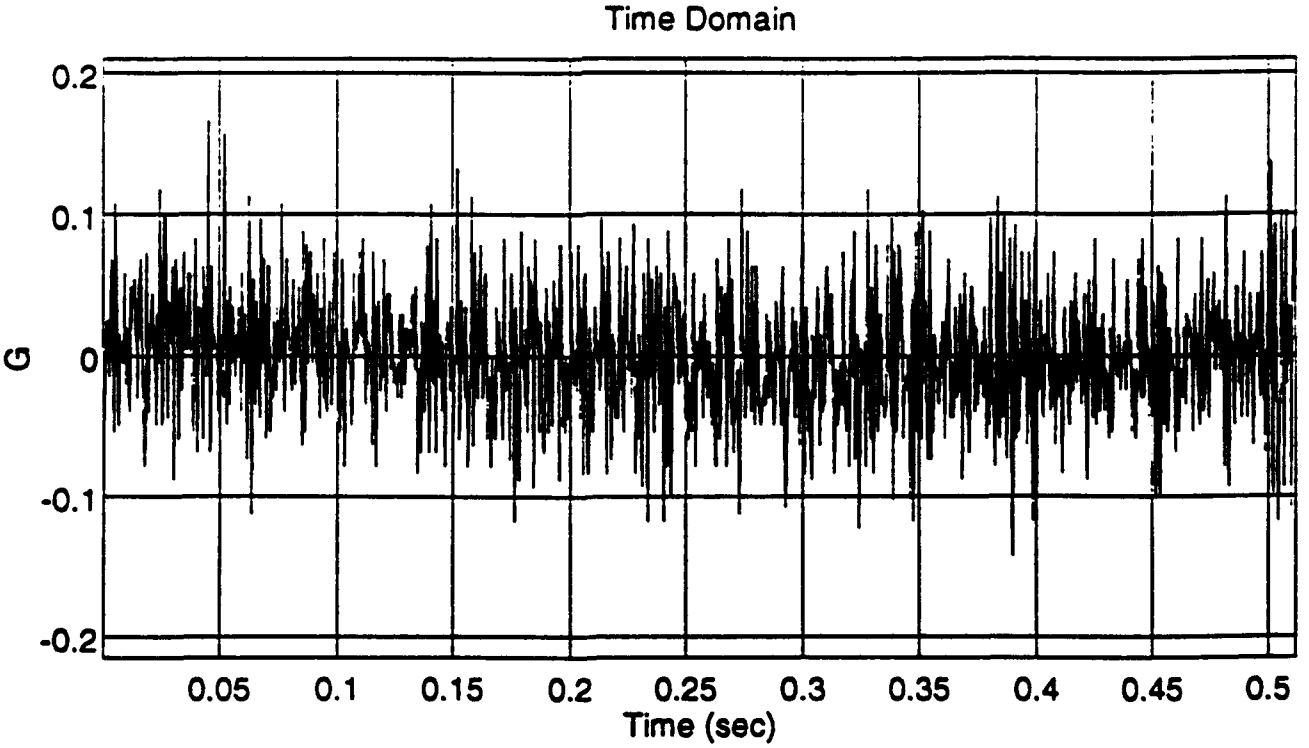
Total number of sampling data points = 1.024e+005

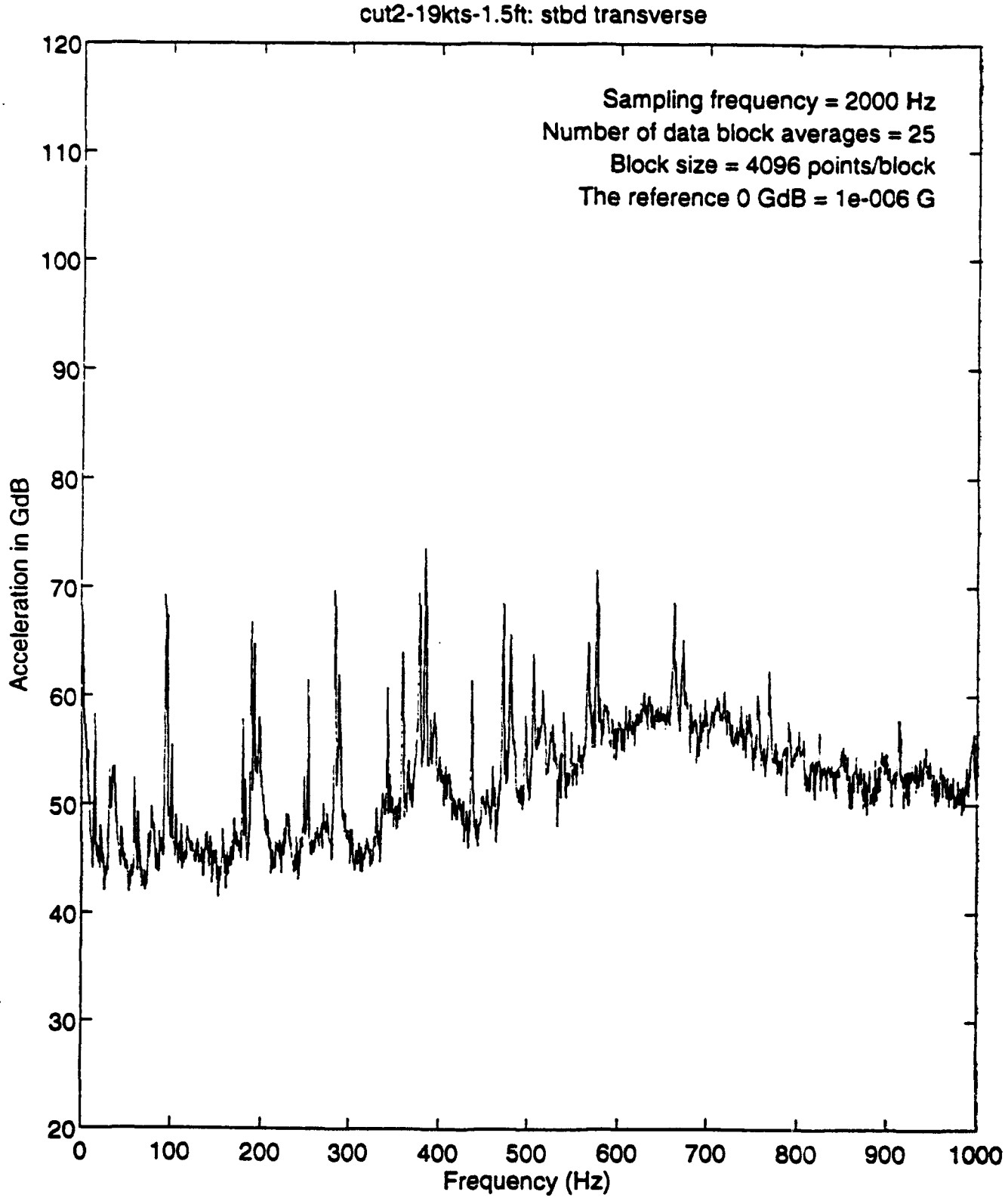
* The time domain

Mean value = -0.00188 G

Standard deviation = 0.04881 G

The plot shows 1024 data points




cut2-19kts-1.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: port vertical

Data sampling frequency = 2000 Hz

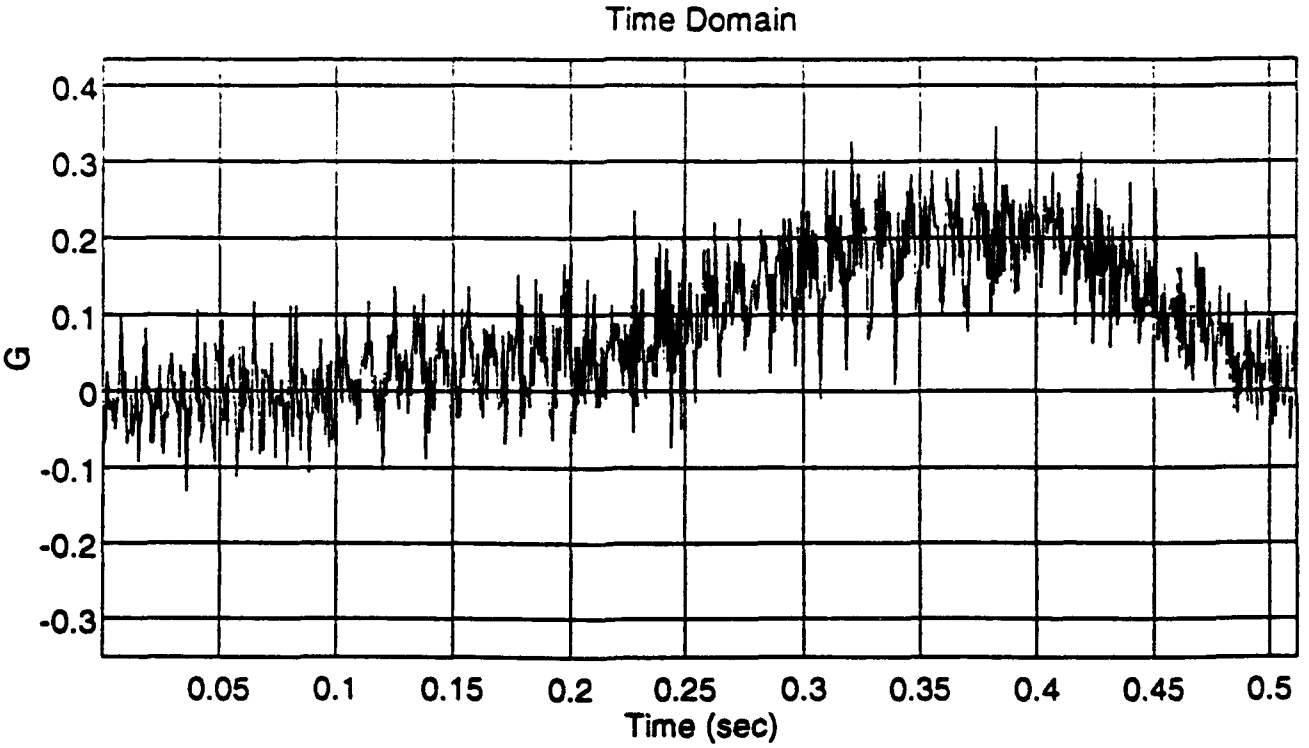
Total number of sampling data points = 1.024e+005

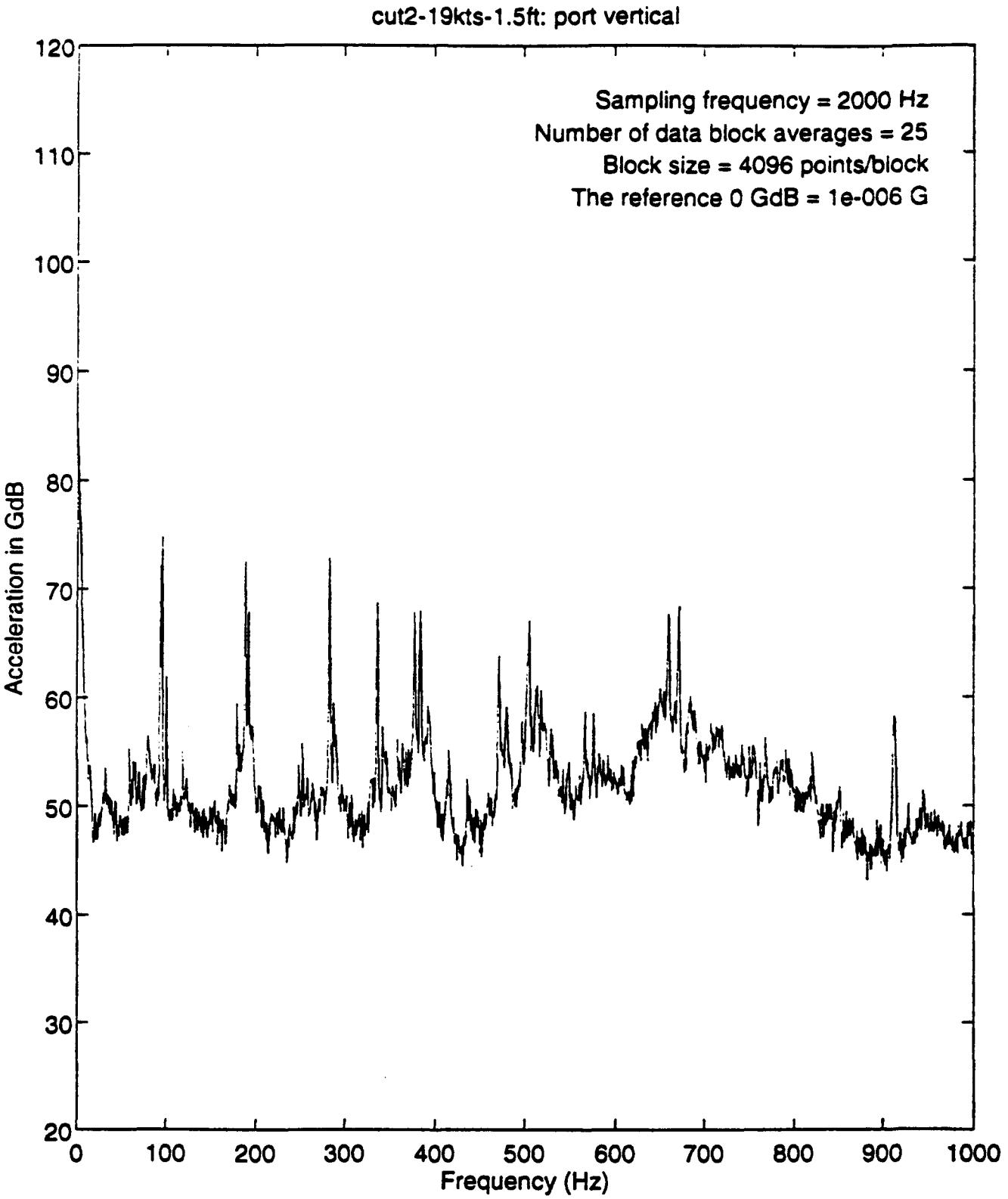
* The time domain

Mean value = -0.0009212 G

Standard deviation = 0.08587 G

The plot shows 1024 data points




cut2-19kts-1.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: port axial

Data sampling frequency = 2000 Hz

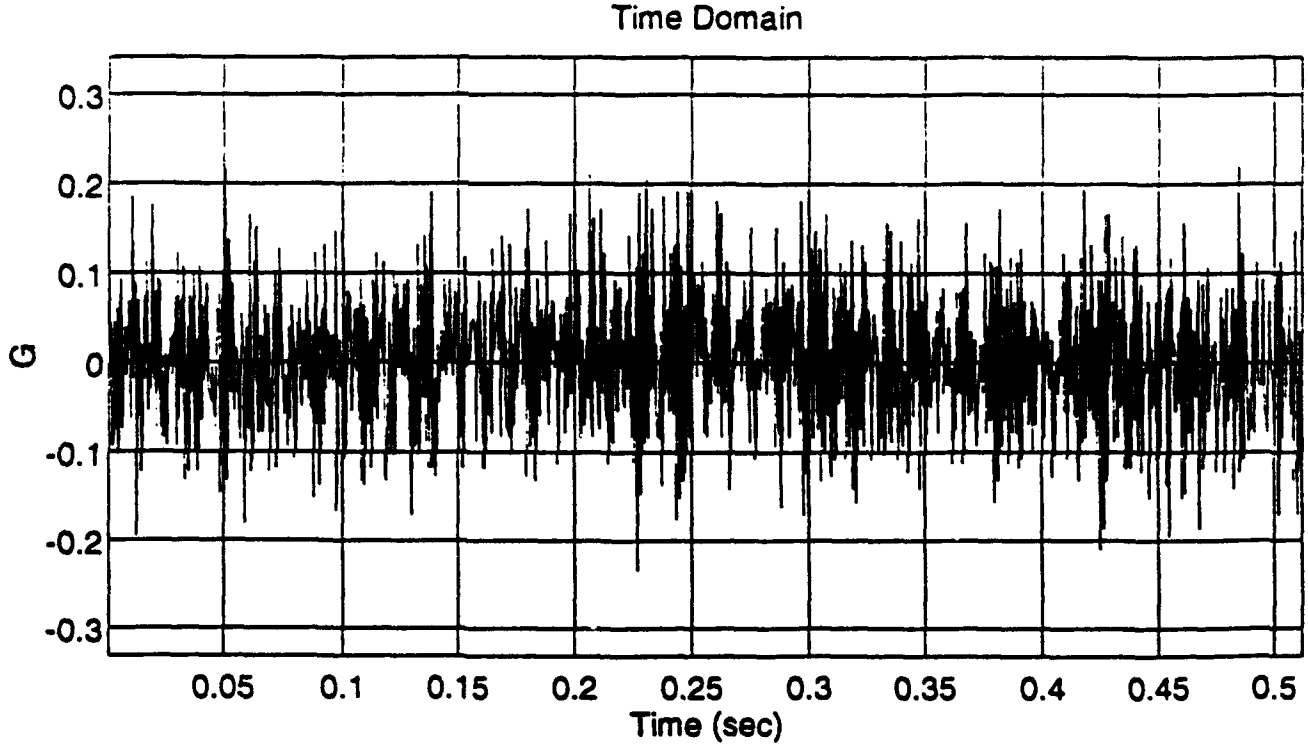
Total number of sampling data points = 1.024e+005

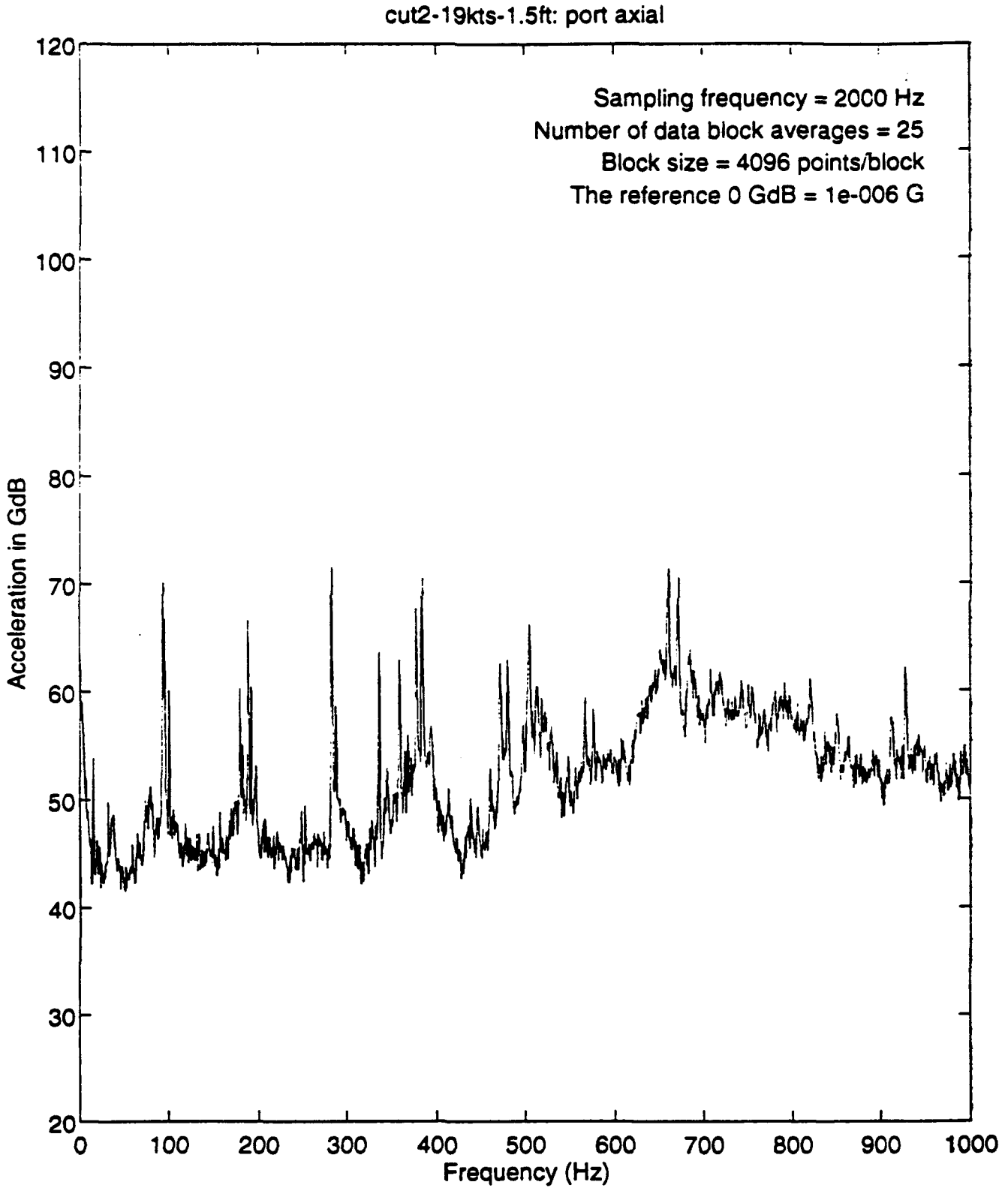
* The time domain

Mean value = -0.002842 G

Standard deviation = 0.07925 G

The plot shows 1024 data points




cut2-19kts-1.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut2-19kts-1.5ft: port transverse

Data sampling frequency = 2000 Hz

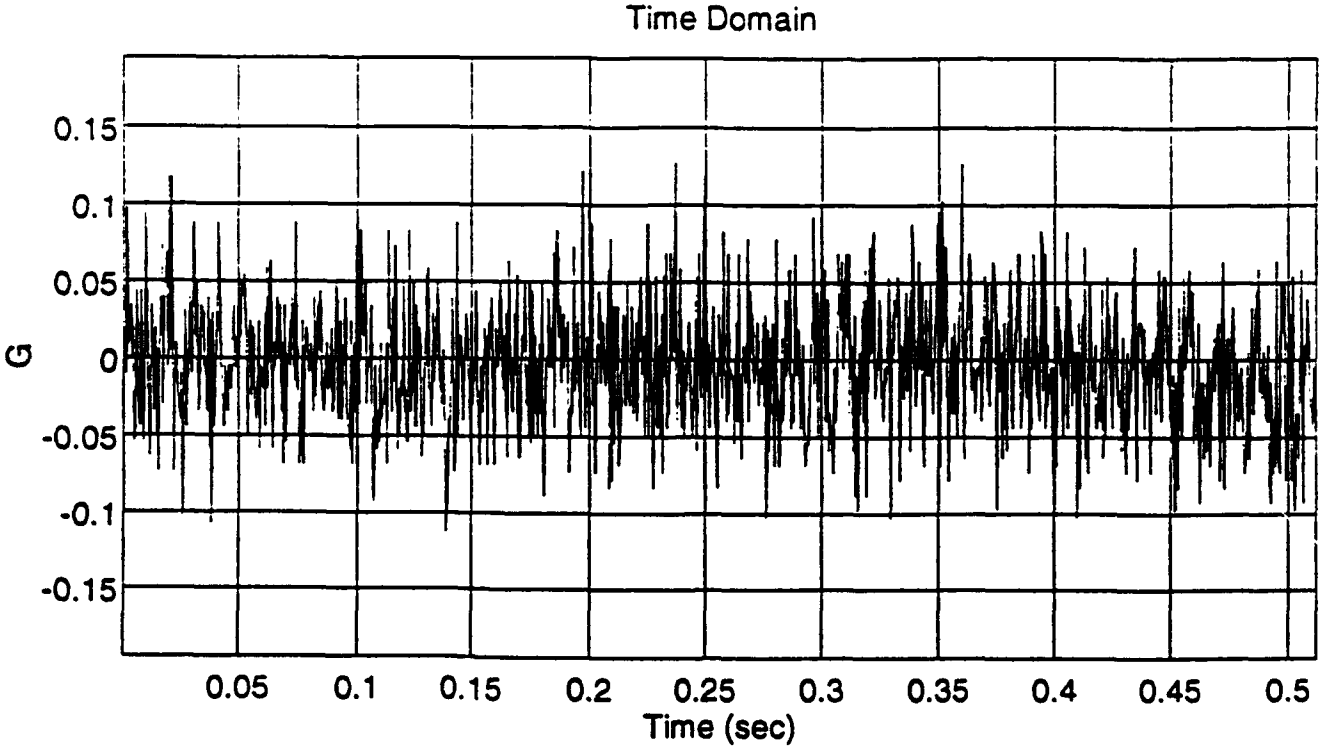
Total number of sampling data points = 1.024e+005

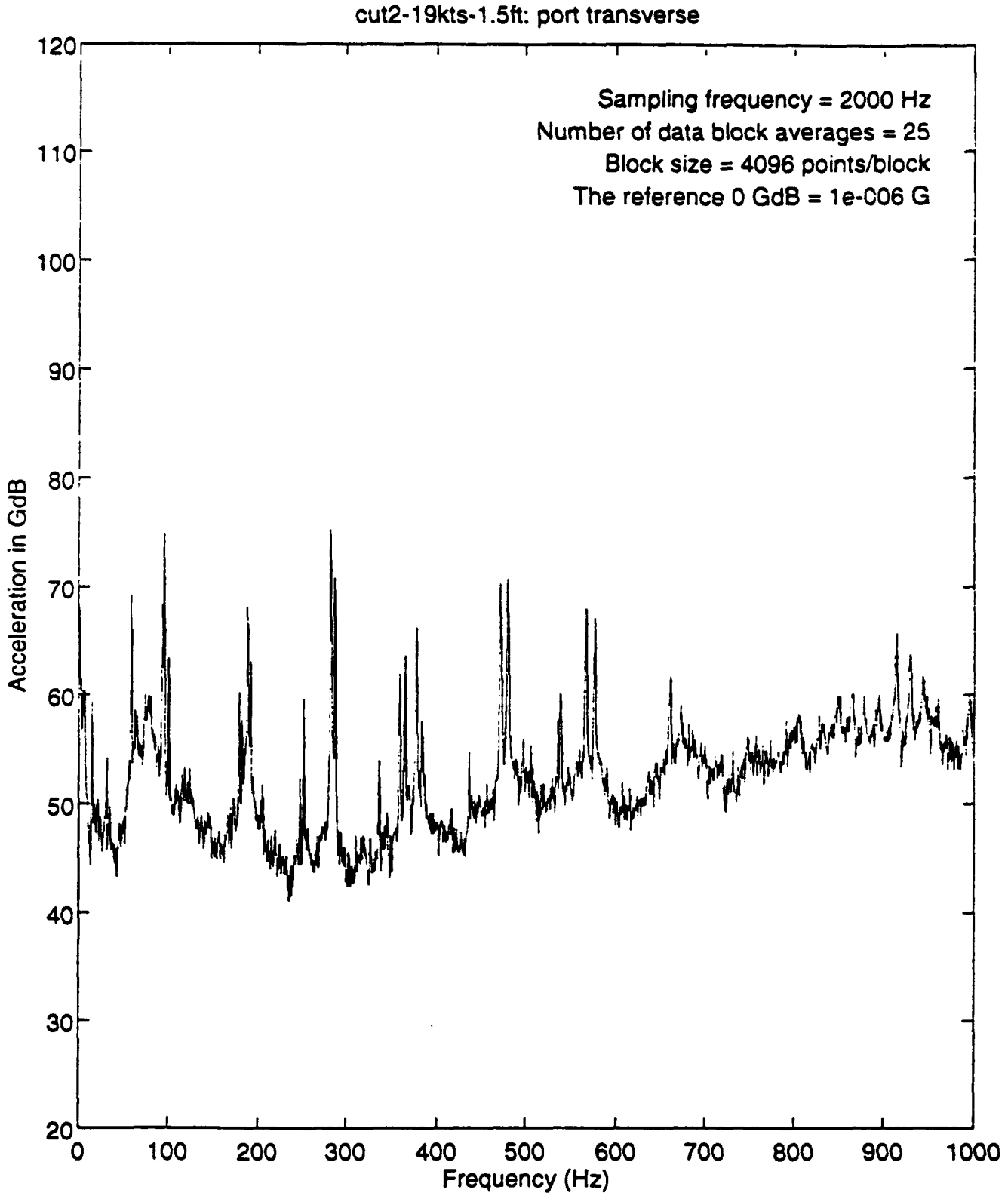
* The time domain

Mean value = -0.00358 G

Standard deviation = 0.04249 G

The plot shows 1024 data points




cut2-19kts-1.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut3-32kts-1.5ft: stbd vertical

Data sampling frequency = 2000 Hz

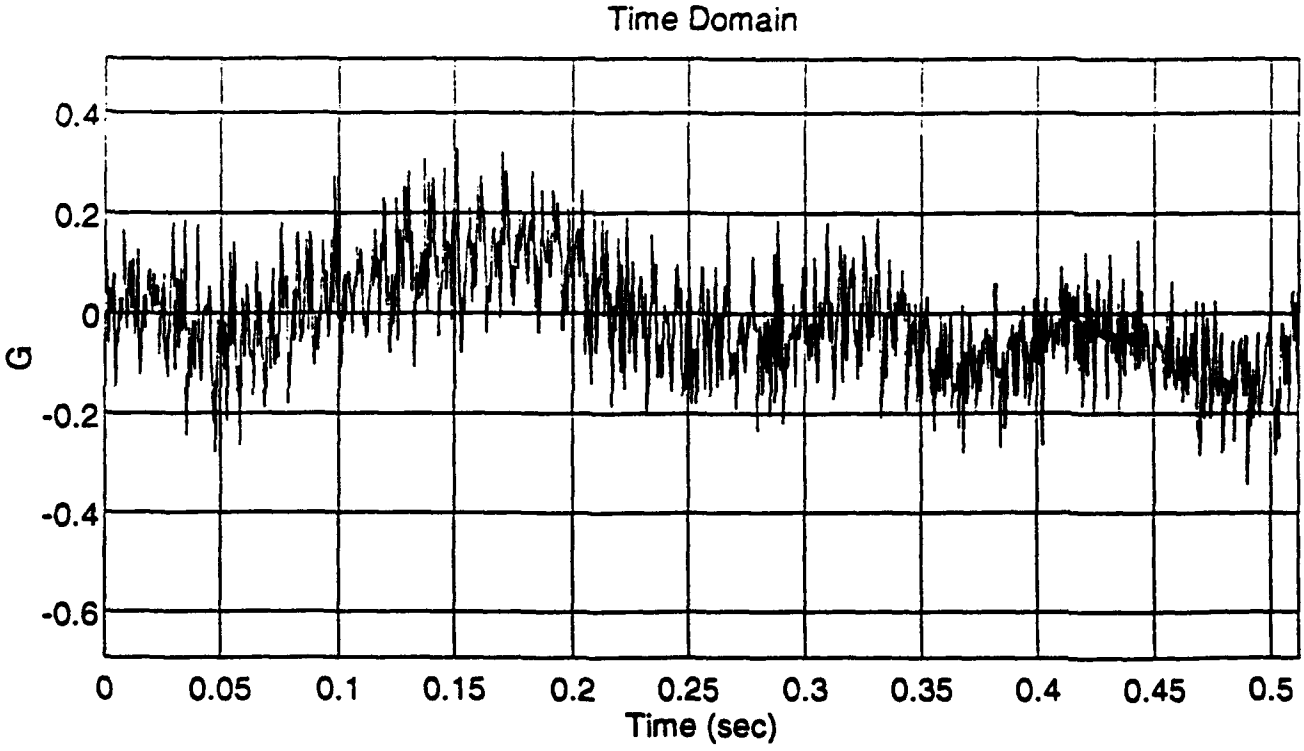
Total number of sampling data points = 1.024e+005

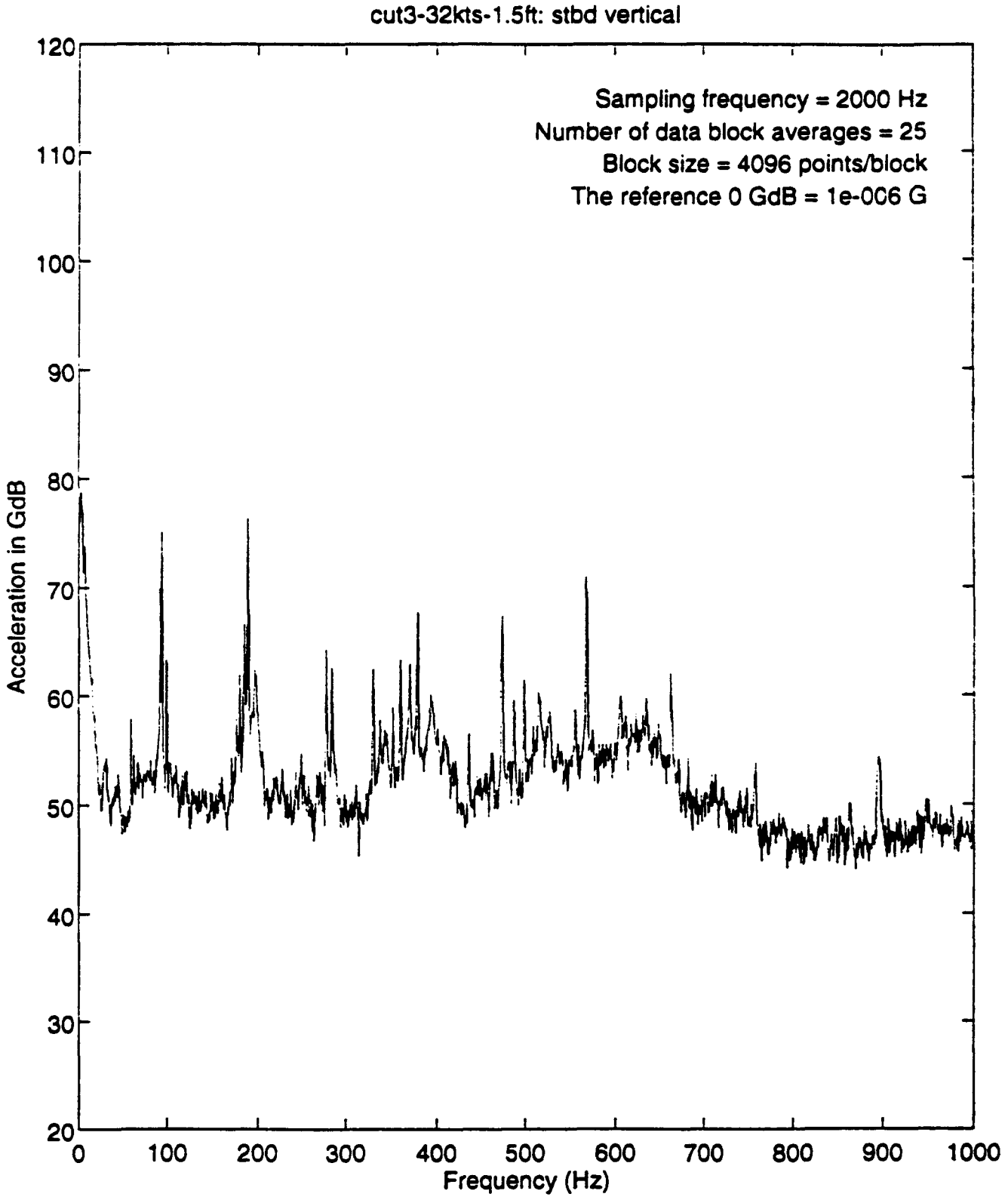
* The time domain

Mean value = -0.01474 G

Standard deviation = 0.1137 G

The plot shows 1024 data points




cut3-32kts-1.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut3-32kts-1.5ft: stbd axial

Data sampling frequency = 2000 Hz

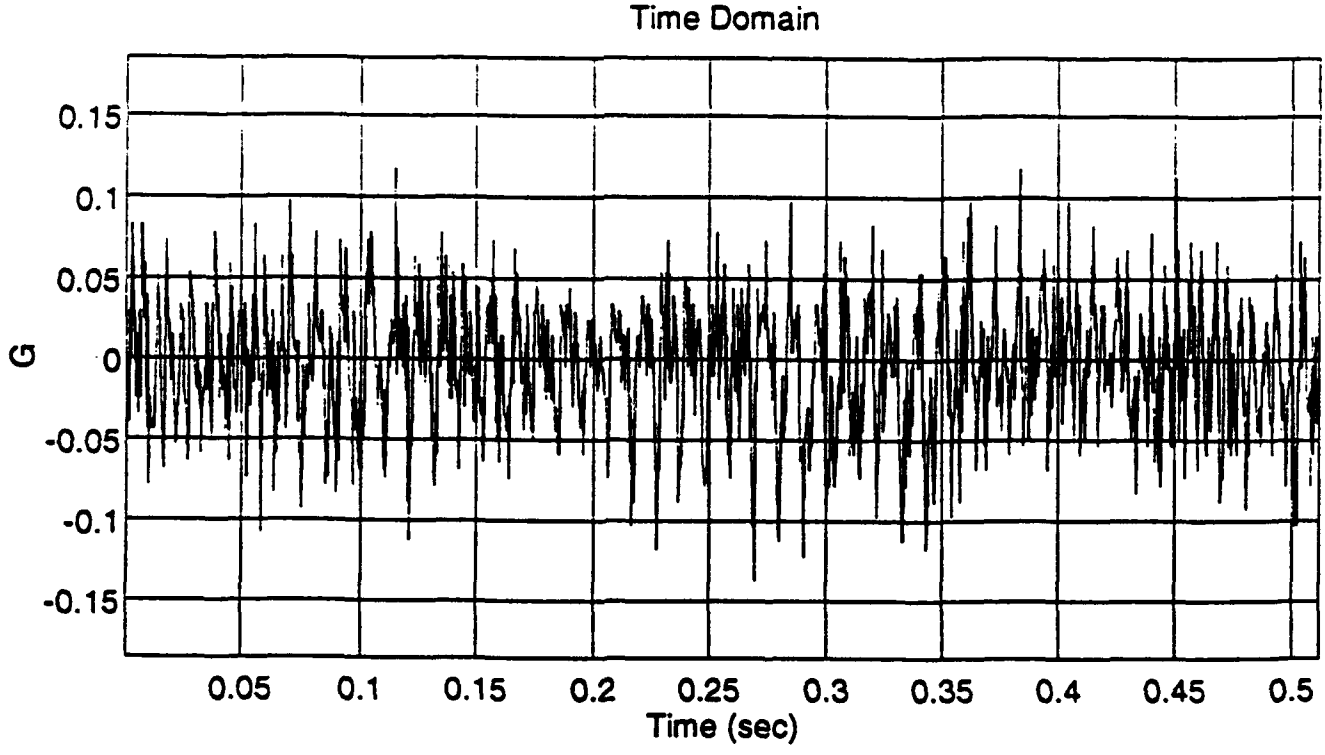
Total number of sampling data points = 1.024e+005

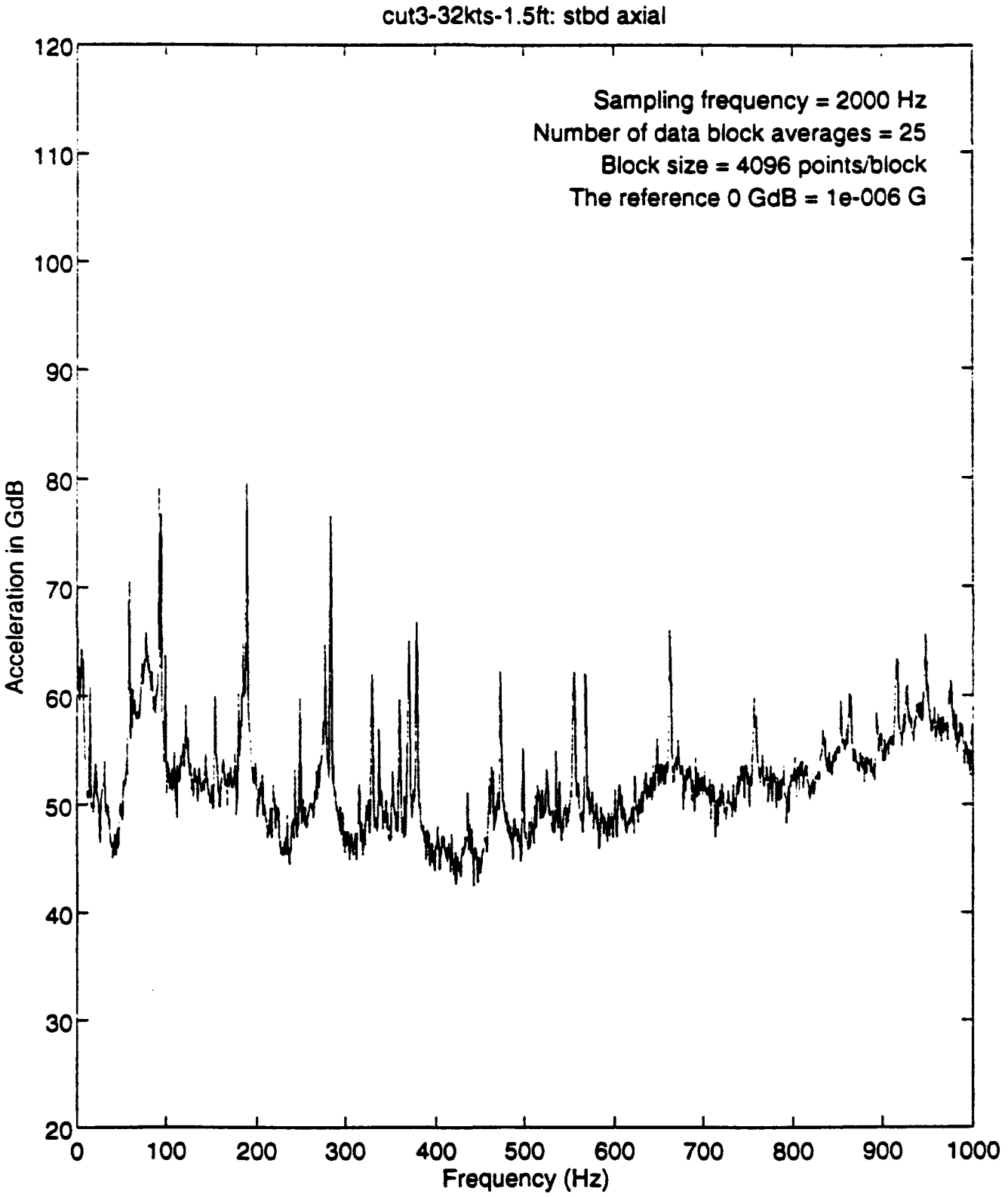
* The time domain

Mean value = -0.006655 G

Standard deviation = 0.04294 G

The plot shows 1024 data points




cut3-32kts-1.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut3-32kts-1.5ft: stbd transverse

Data sampling frequency = 2000 Hz

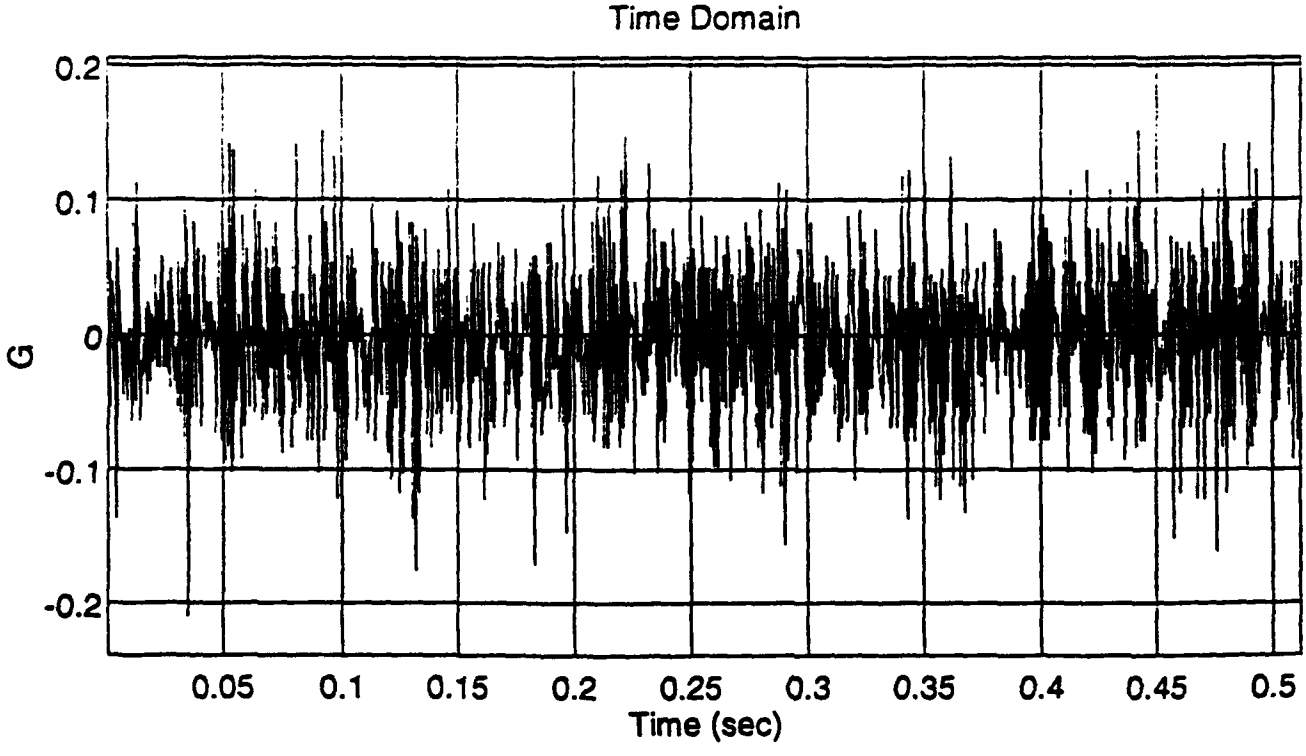
Total number of sampling data points = 1.024e+005

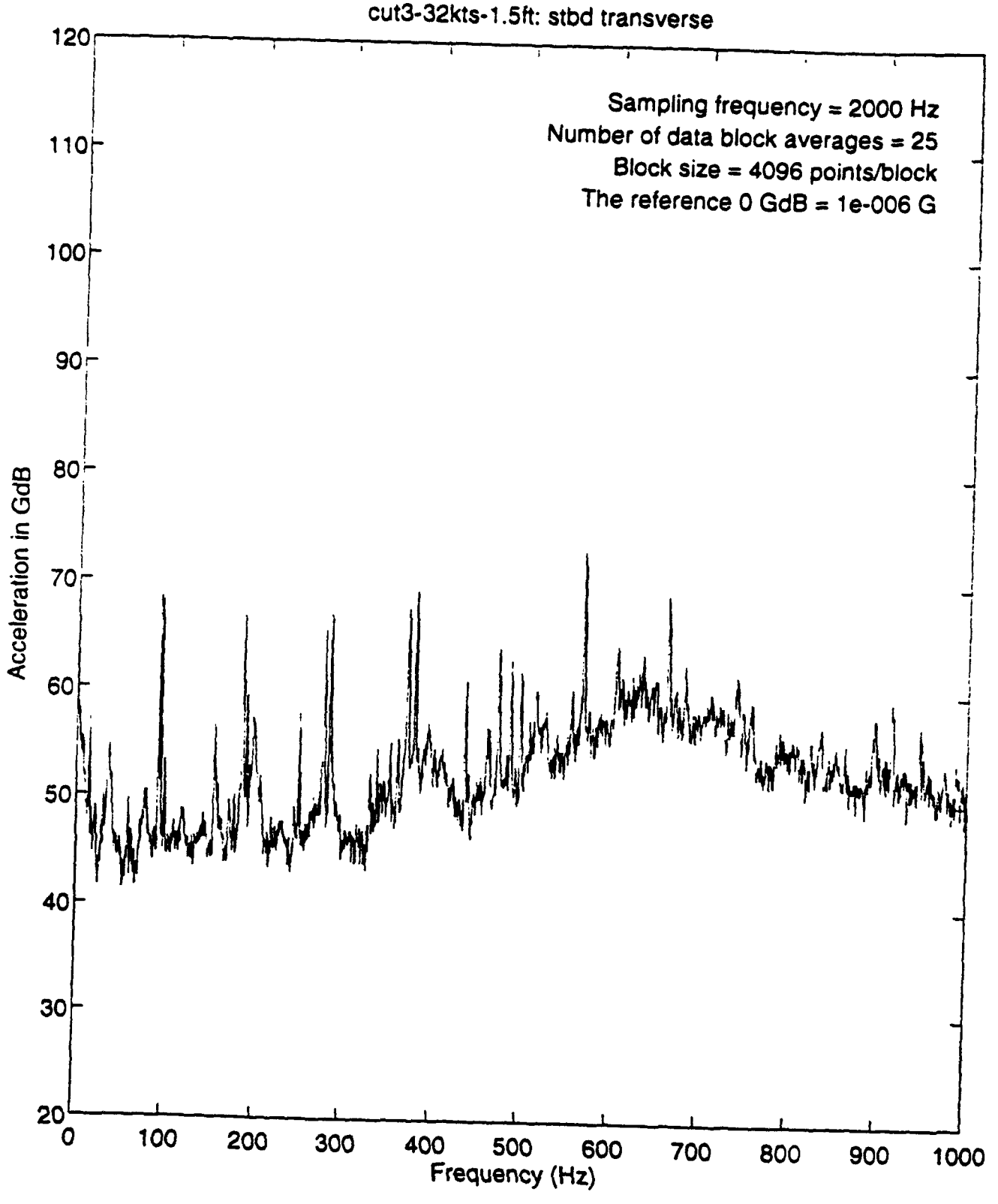
* The time domain

Mean value = -0.005751 G

Standard deviation = 0.05294 G

The plot shows 1024 data points



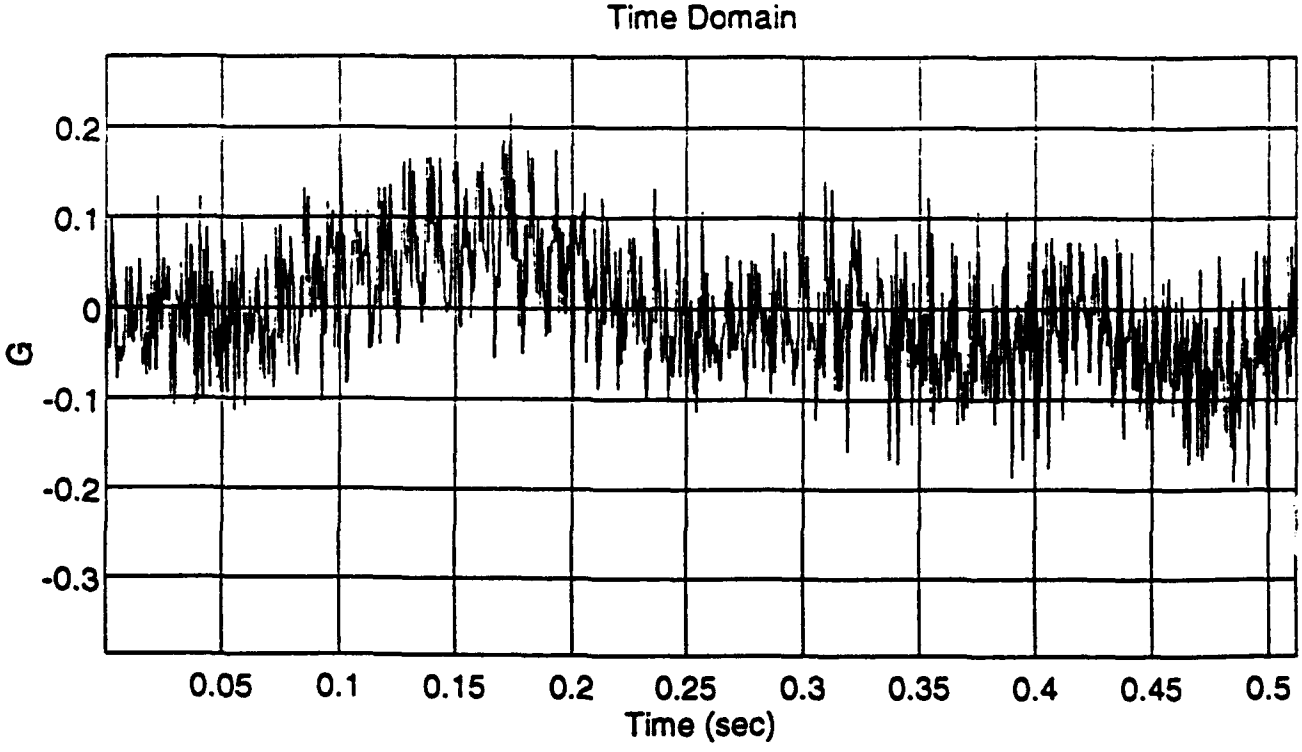

cut3-32kts-1.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

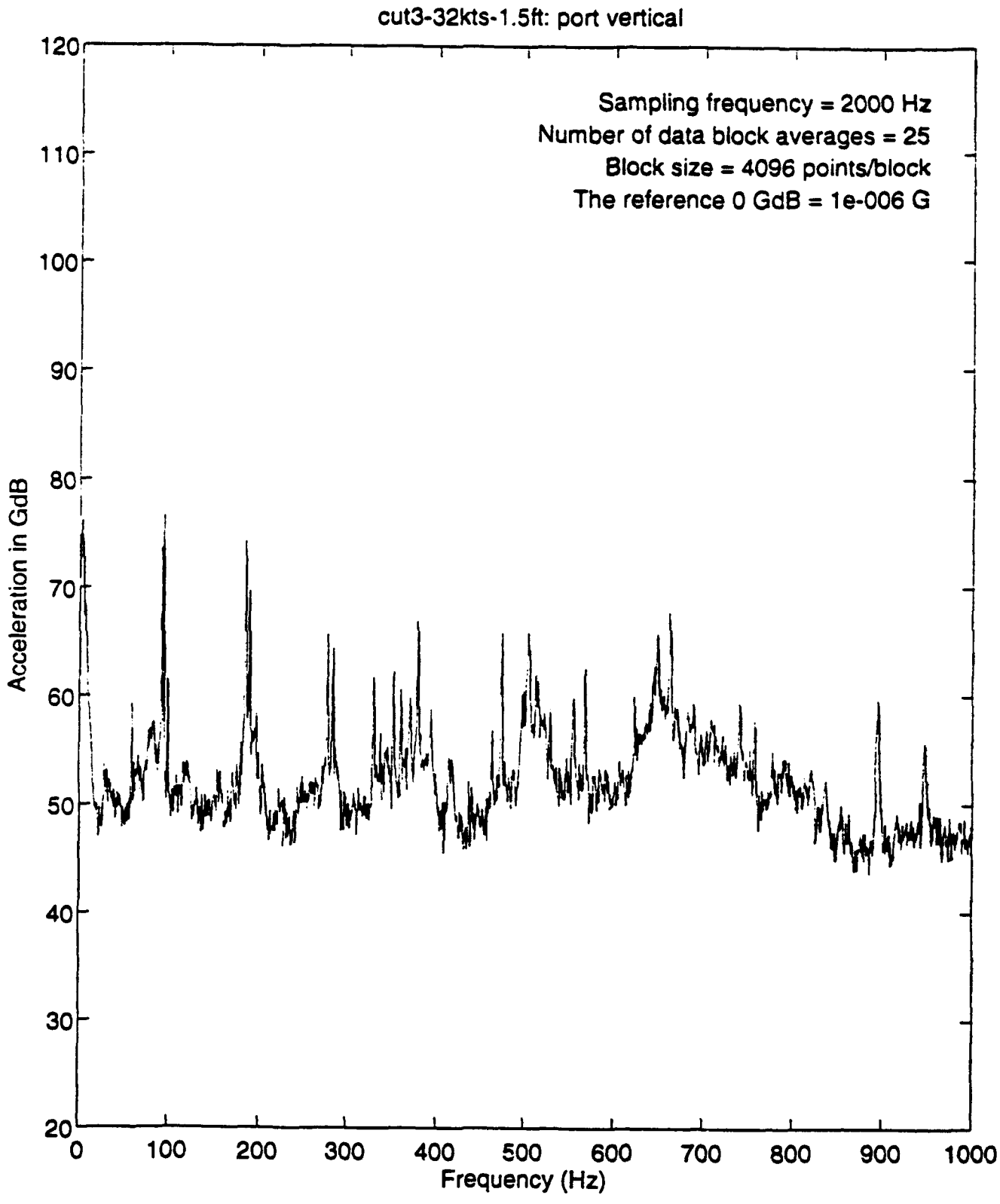
cut3-32kts-1.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.008313 G
Standard deviation = 0.07156 G
The plot shows 1024 data points




cut3-32kts-1.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut3-32kts-1.5ft: port axial

Data sampling frequency = 2000 Hz

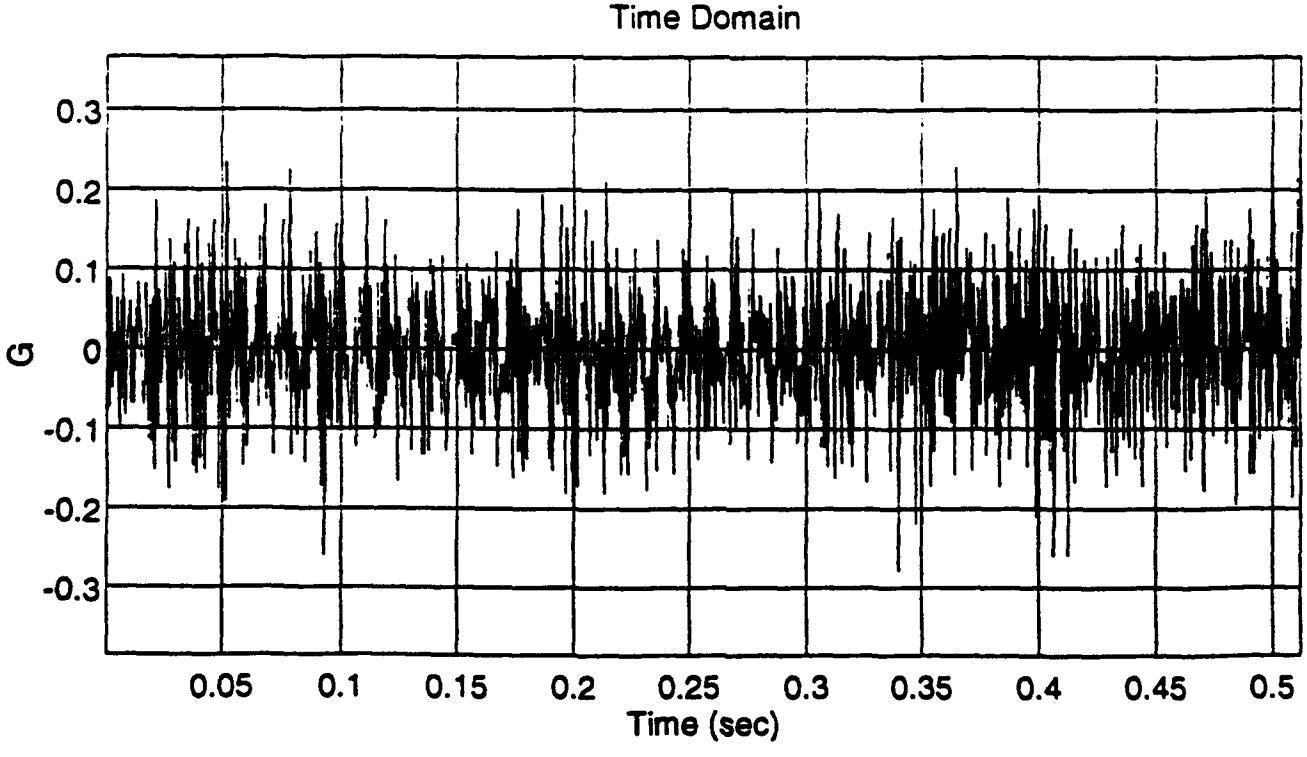
Total number of sampling data points = 1.024e+005

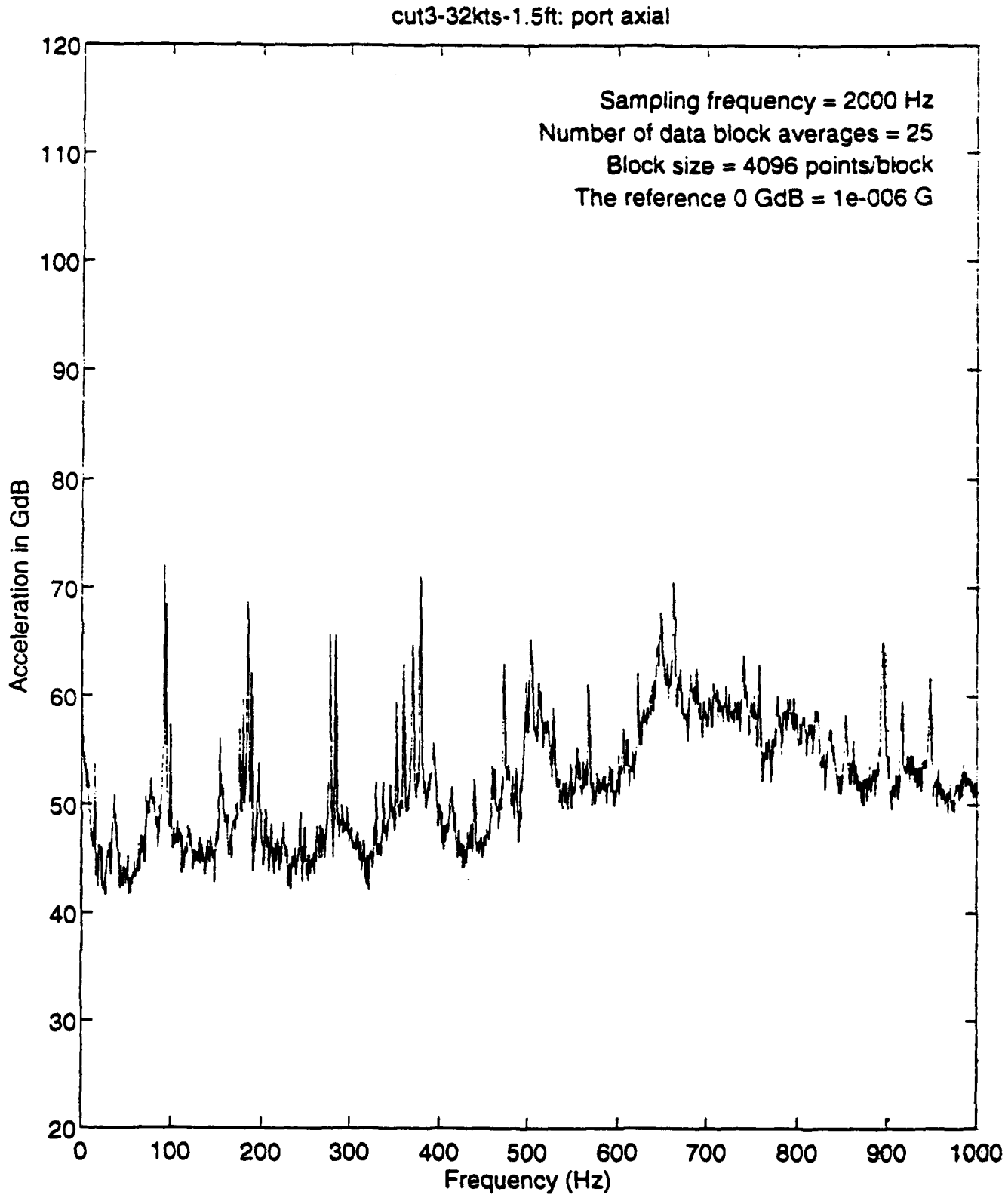
* The time domain

Mean value = -0.008567 G

Standard deviation = 0.08785 G

The plot shows 1024 data points



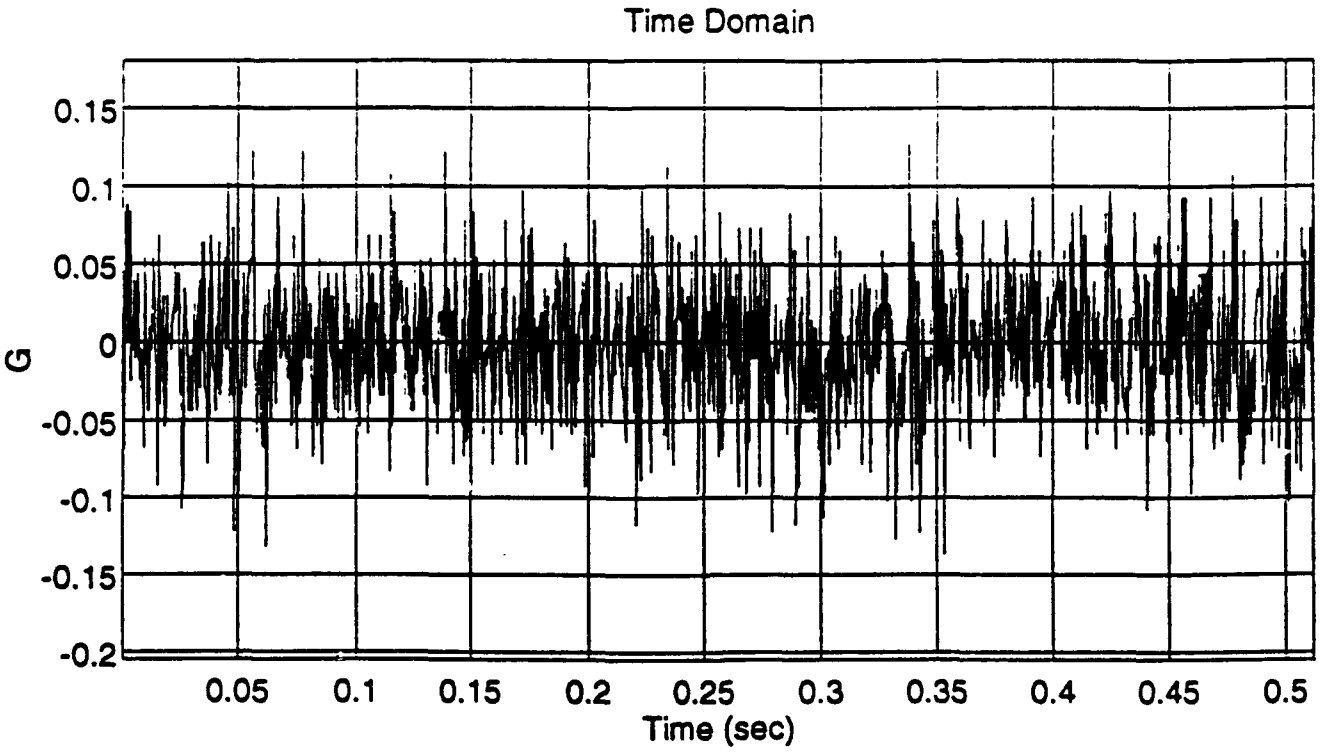

cut3-32kts-1.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

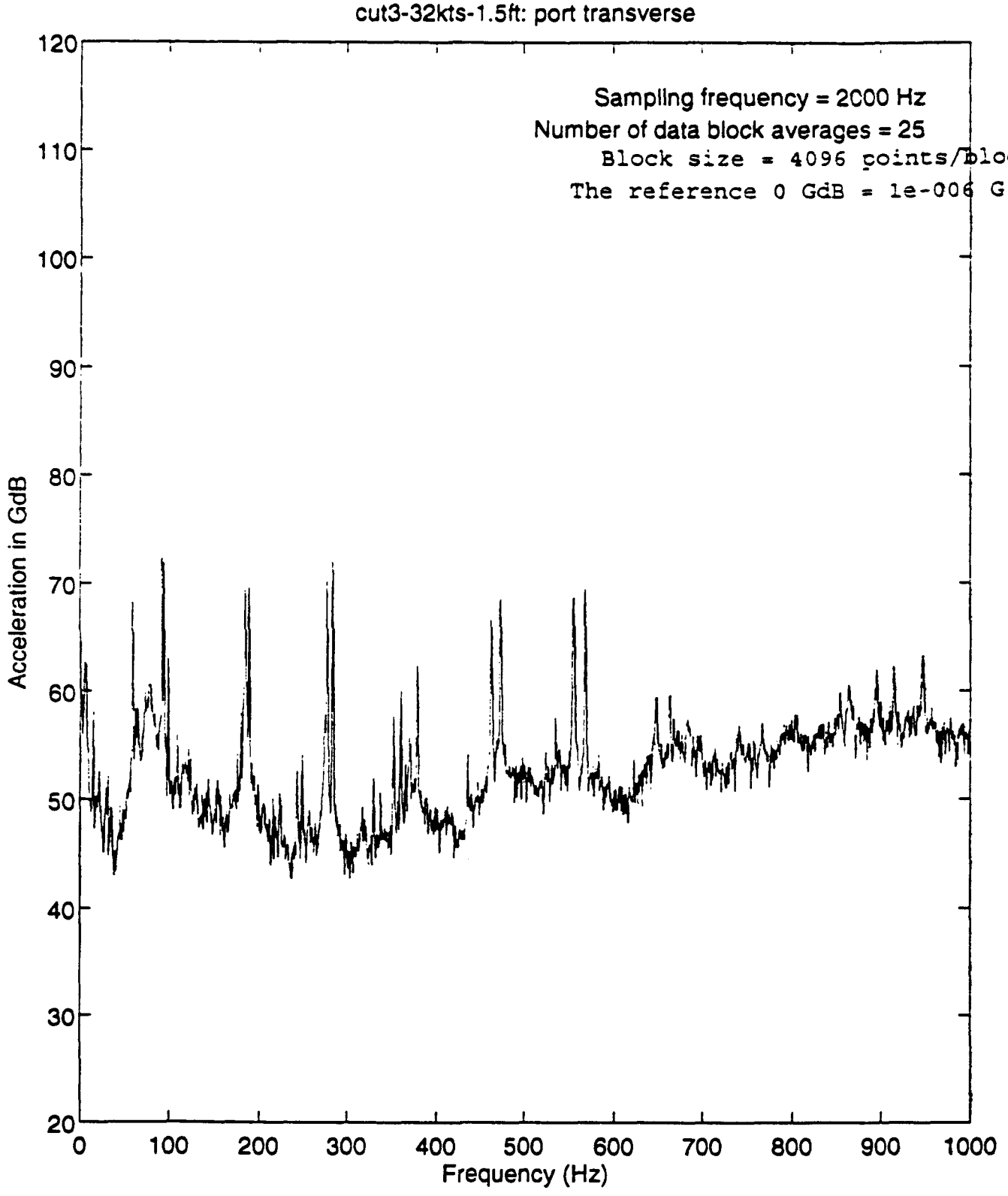
cut3-32kts-1.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003843 G
Standard deviation = 0.04345 G
The plot shows 1024 data points




cut3-32kts-1.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut4-42kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz

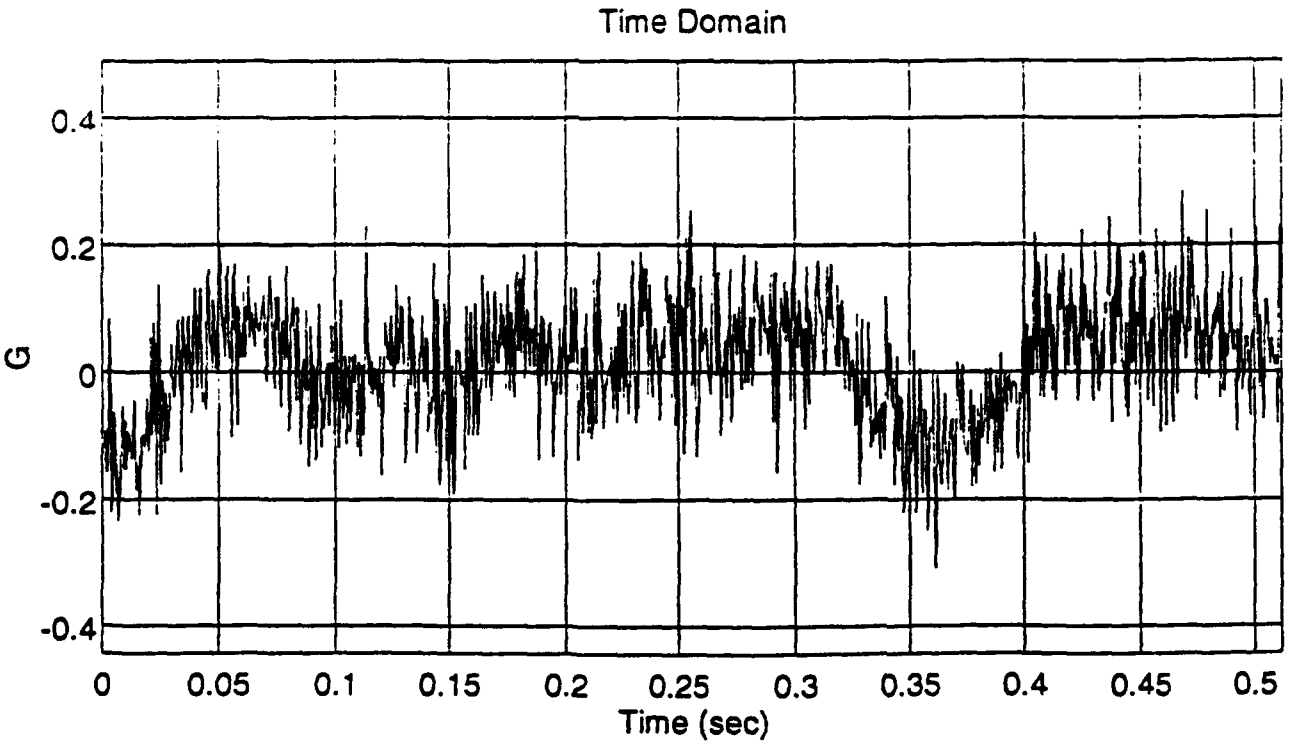
Total number of sampling data points = 1.024e+005

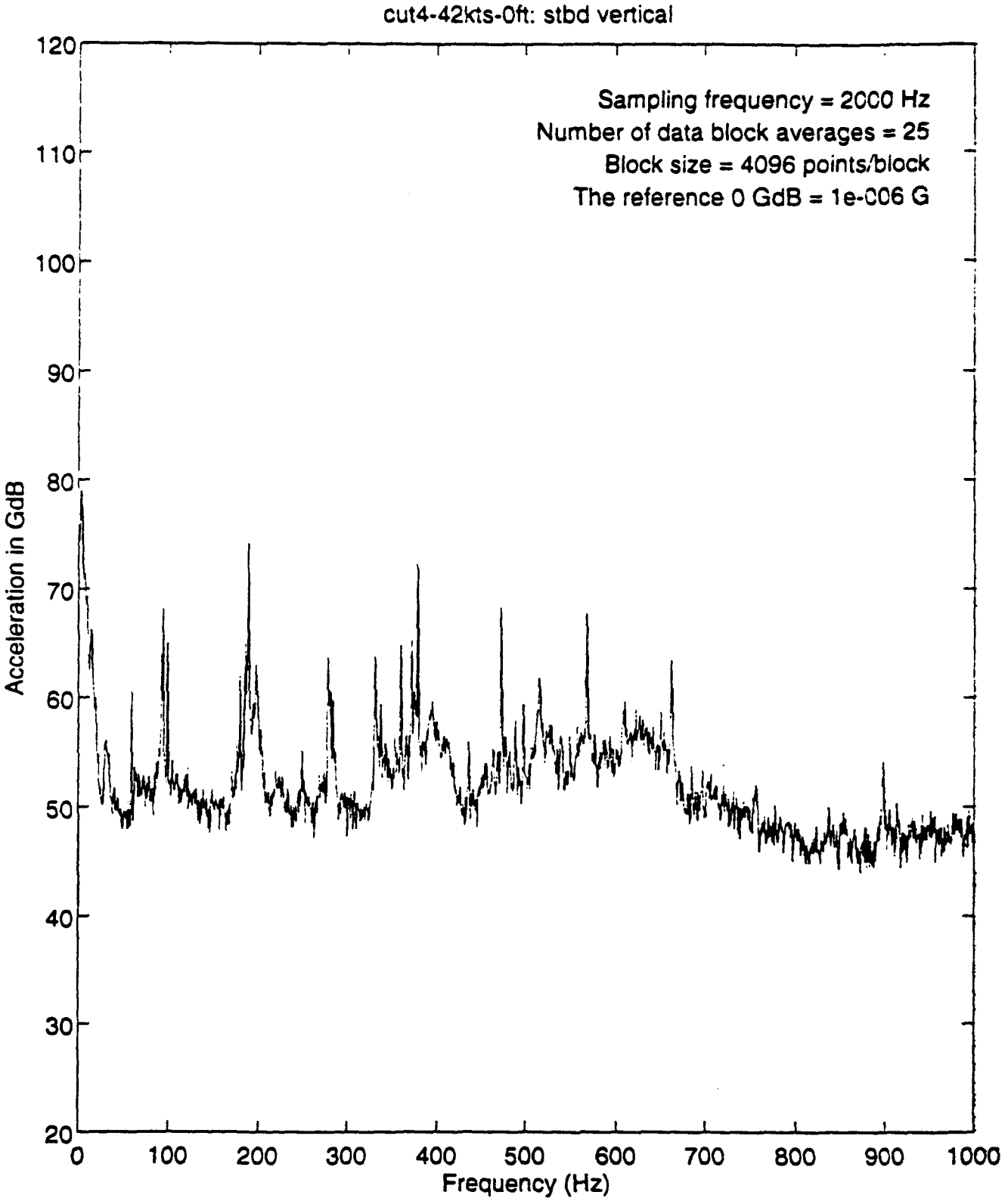
* The time domain

Mean value = 0.005961 G

Standard deviation = 0.1105 G

The plot shows 1024 data points




cut4-42kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut4-42kts-0ft: stbd axial

Data sampling frequency = 2000 Hz

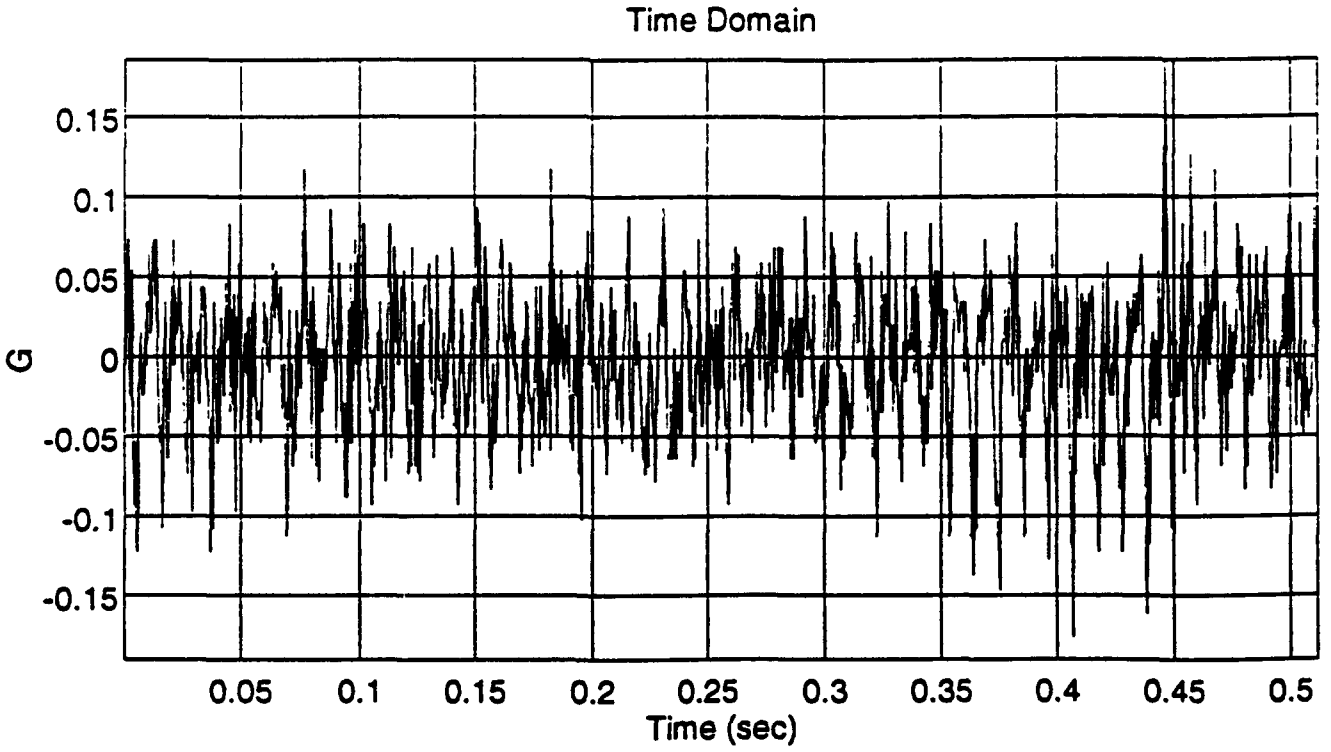
Total number of sampling data points = 1.024e+005

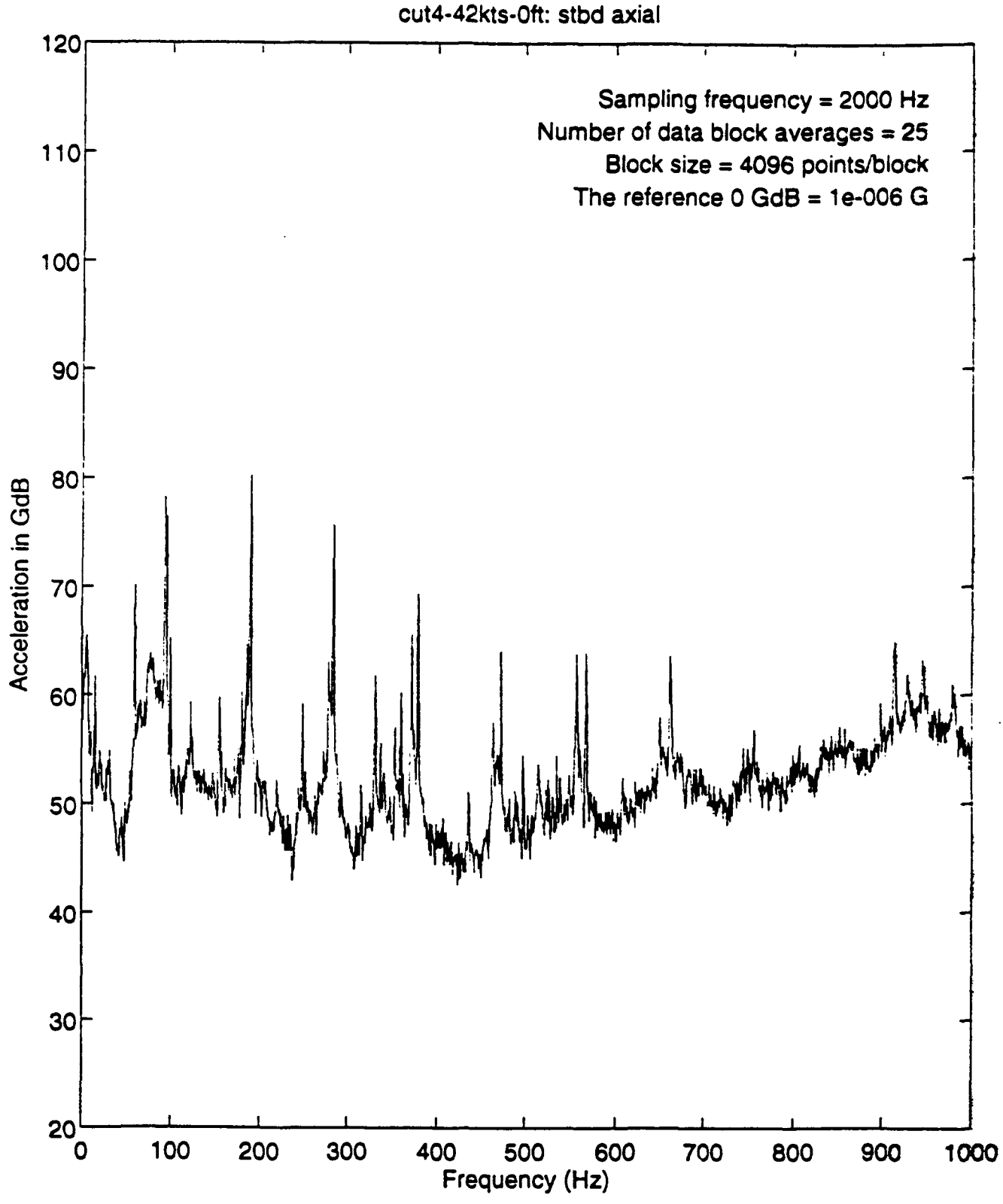
* The time domain

Mean value = -0.003196 G

Standard deviation = 0.04388 G

The plot shows 1024 data points




cut4-42kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut4-42kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz

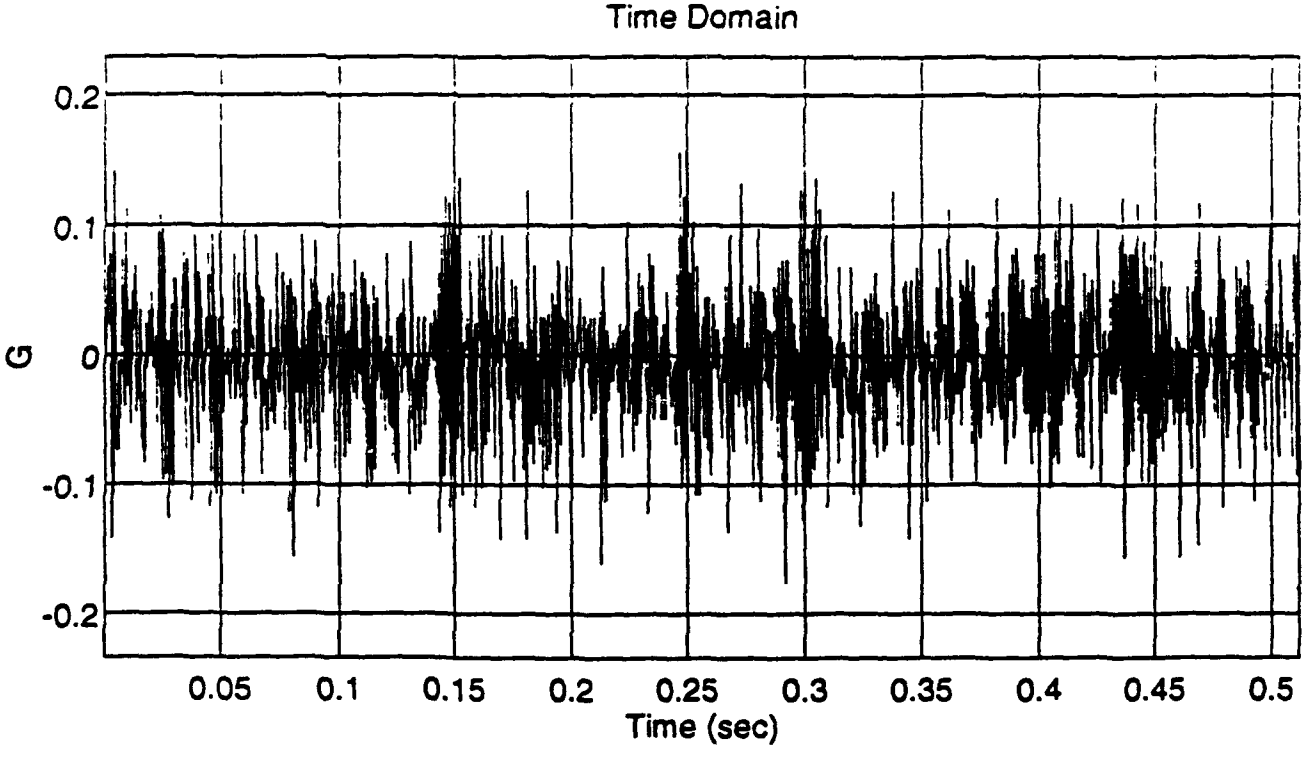
Total number of sampling data points = 1.024e+005

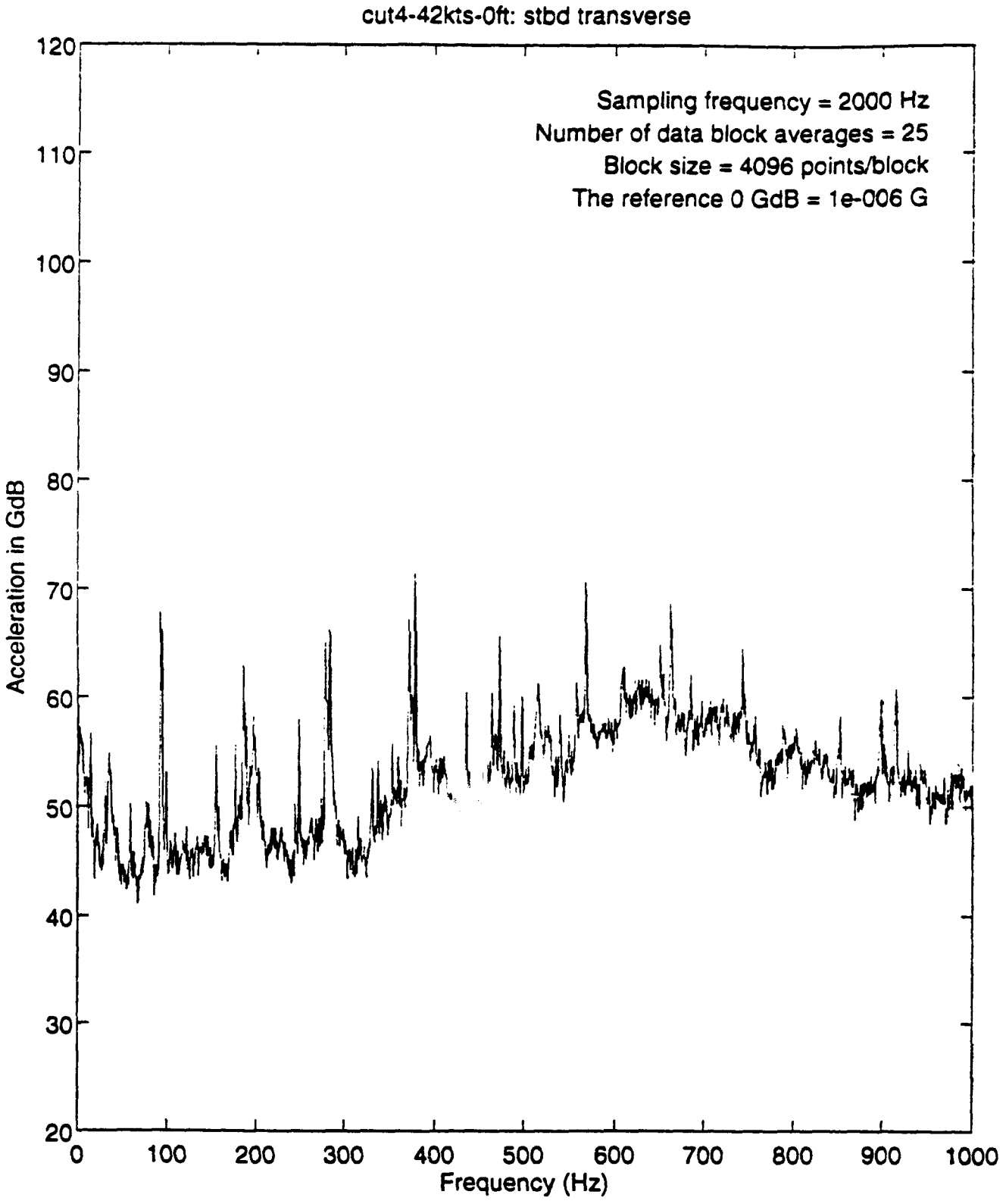
* The time domain

Mean value = -0.003802 G

Standard deviation = 0.05432 G

The plot shows 1024 data points



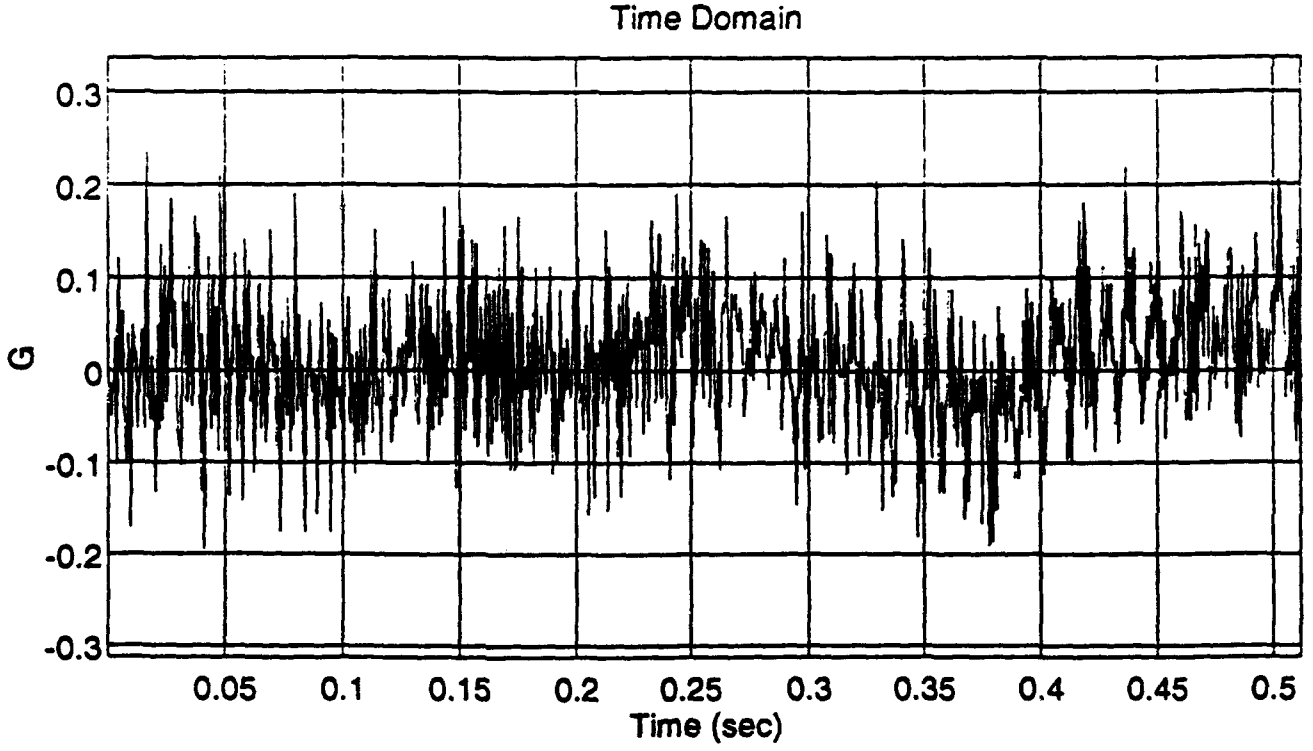

cut4-42kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

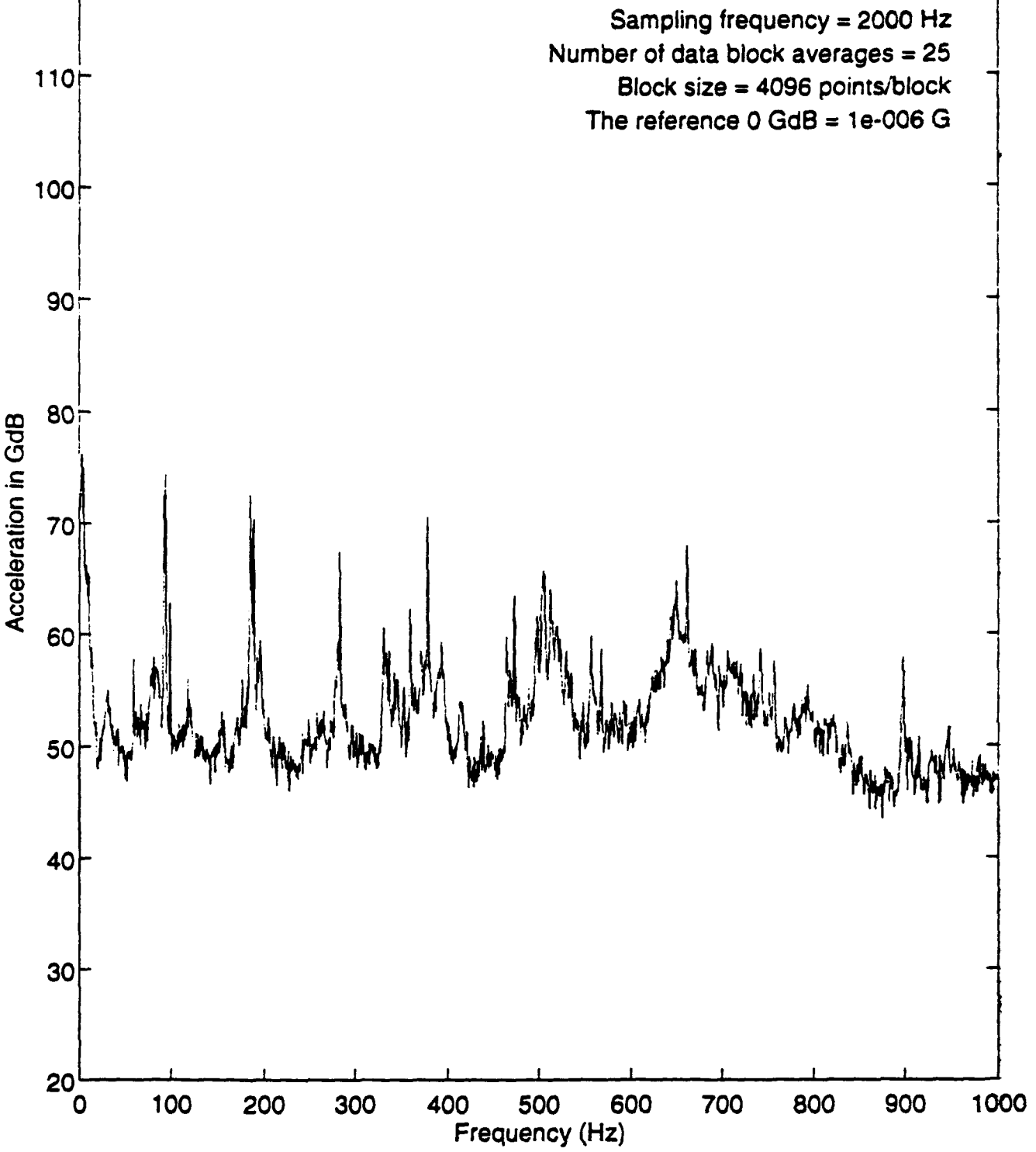
cut4-42kts-0ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.003514 G
Standard deviation = 0.0712 G
The plot shows 1024 data points



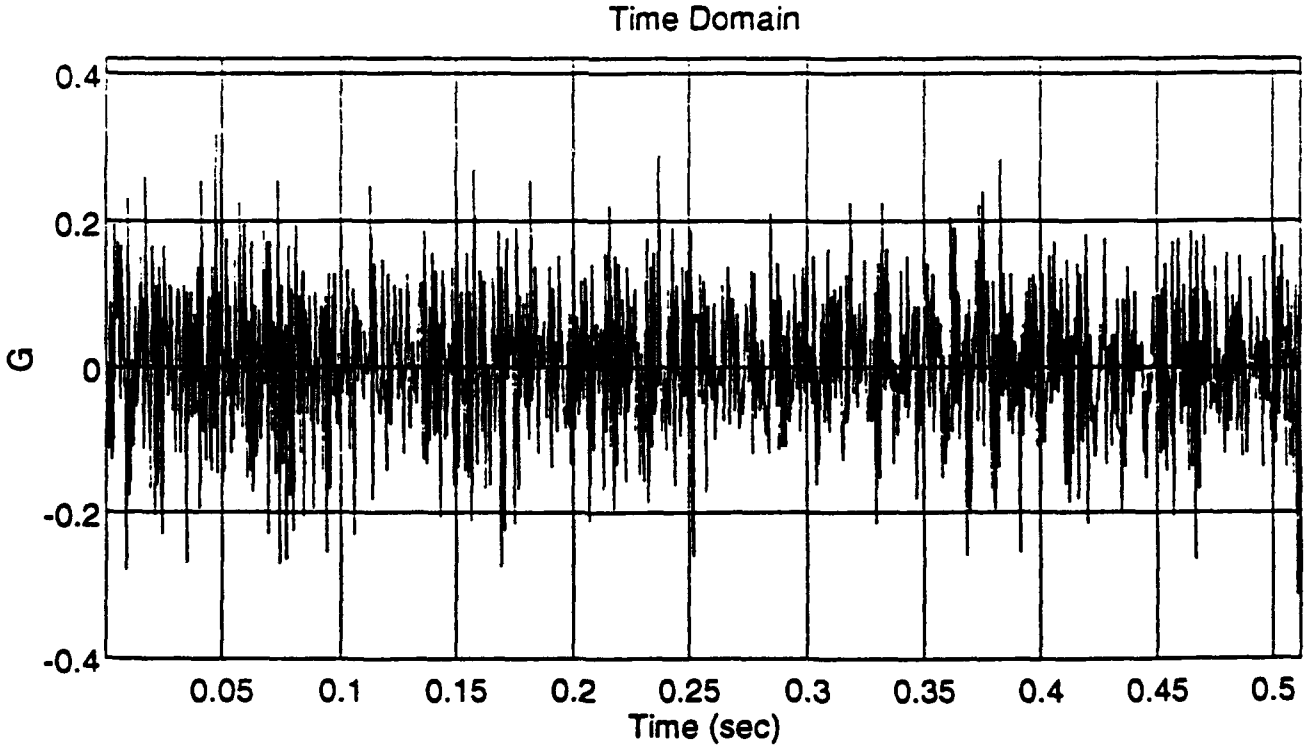

cut4-42kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

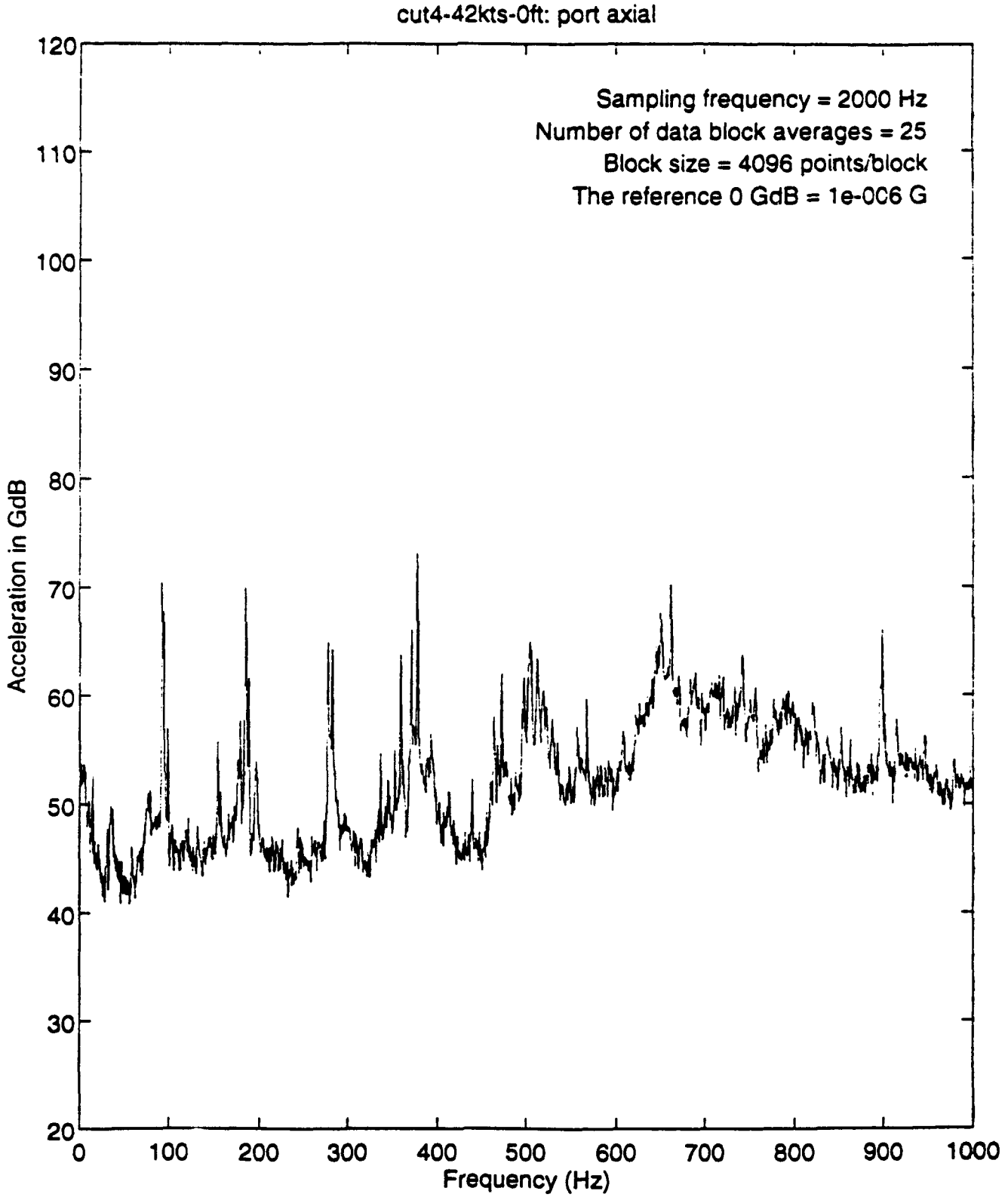
cut4-42kts-0ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.001524 G
Standard deviation = 0.09251 G
The plot shows 1024 data points



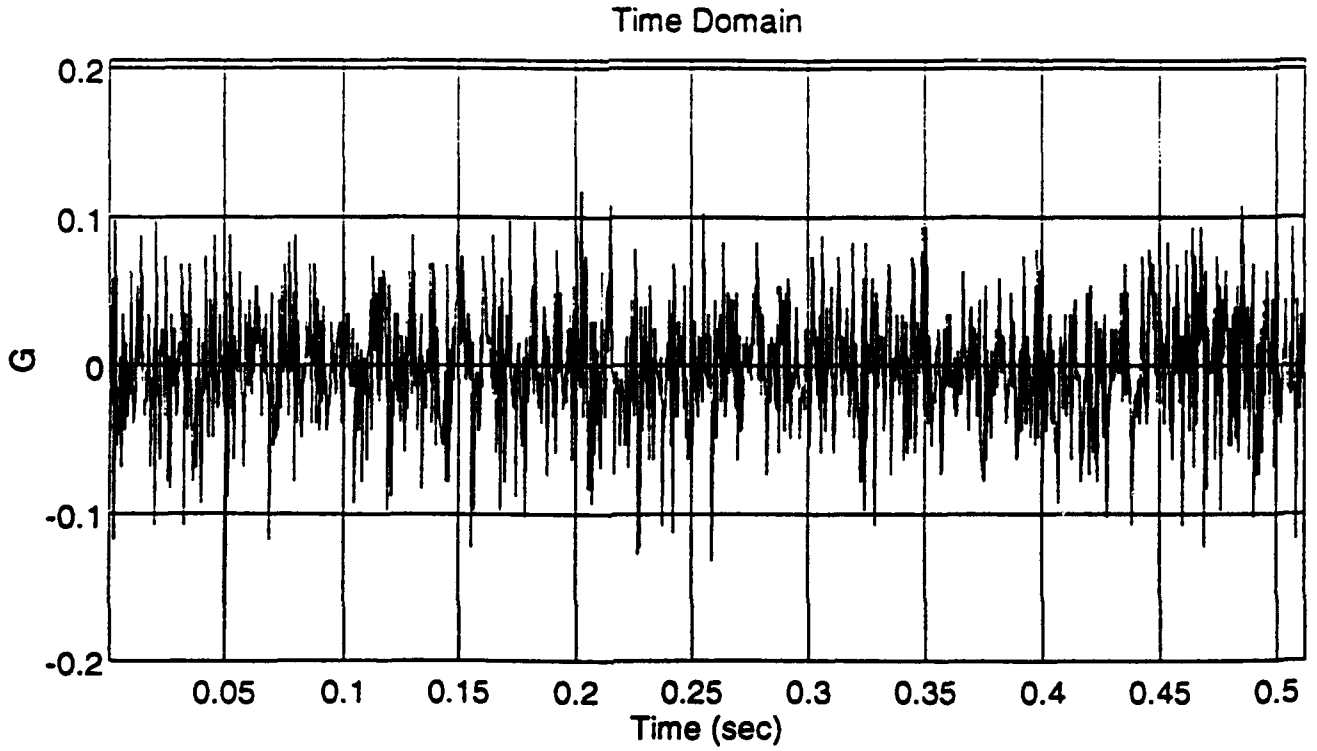

cut4-42kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

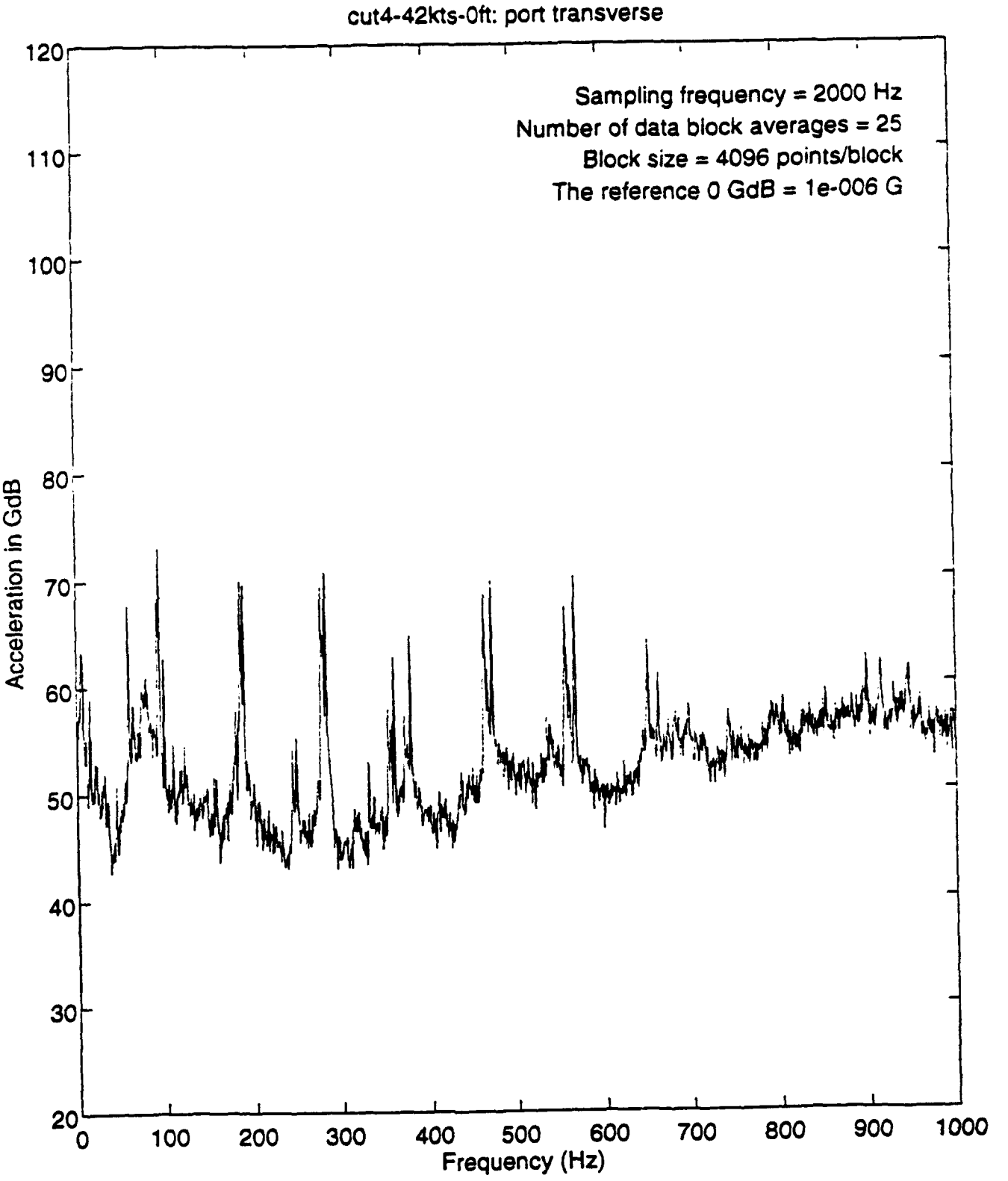
cut4-42kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001482 G
Standard deviation = 0.04555 G
The plot shows 1024 data points




cut4-42kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut6-36kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz

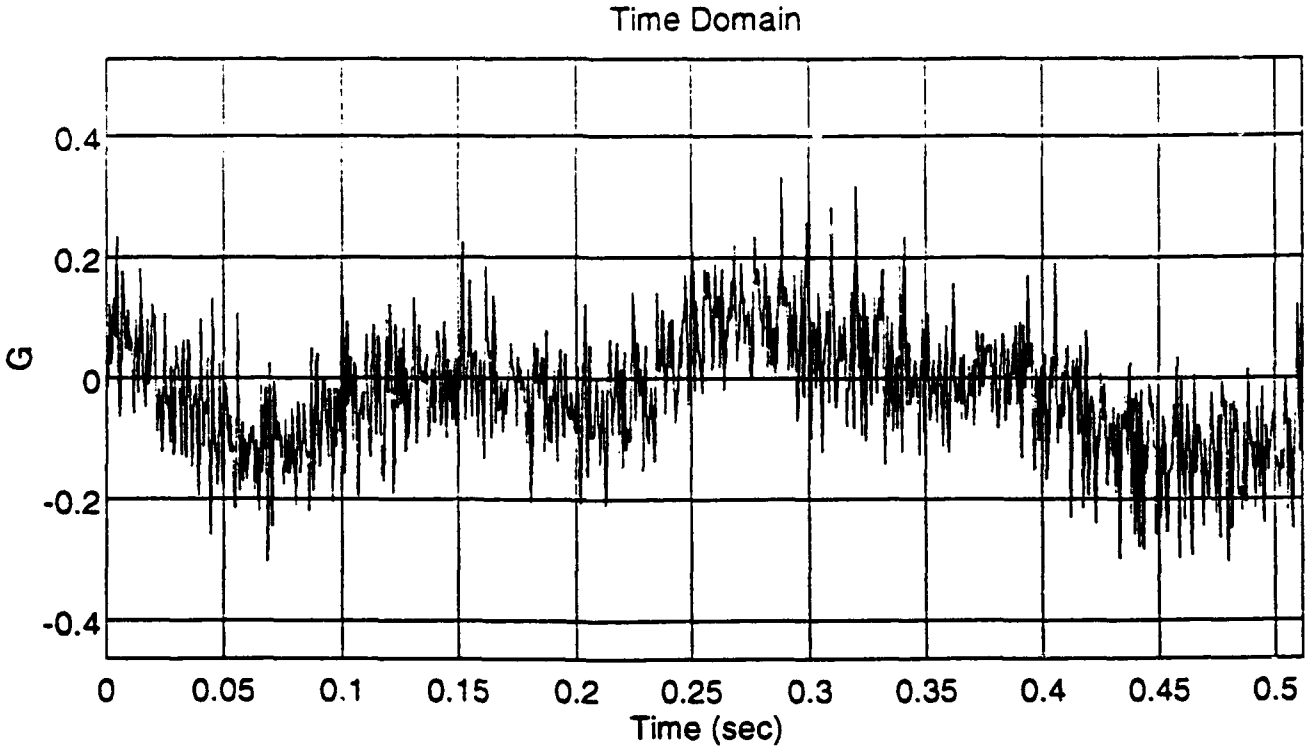
Total number of sampling data points = 1.024e+005

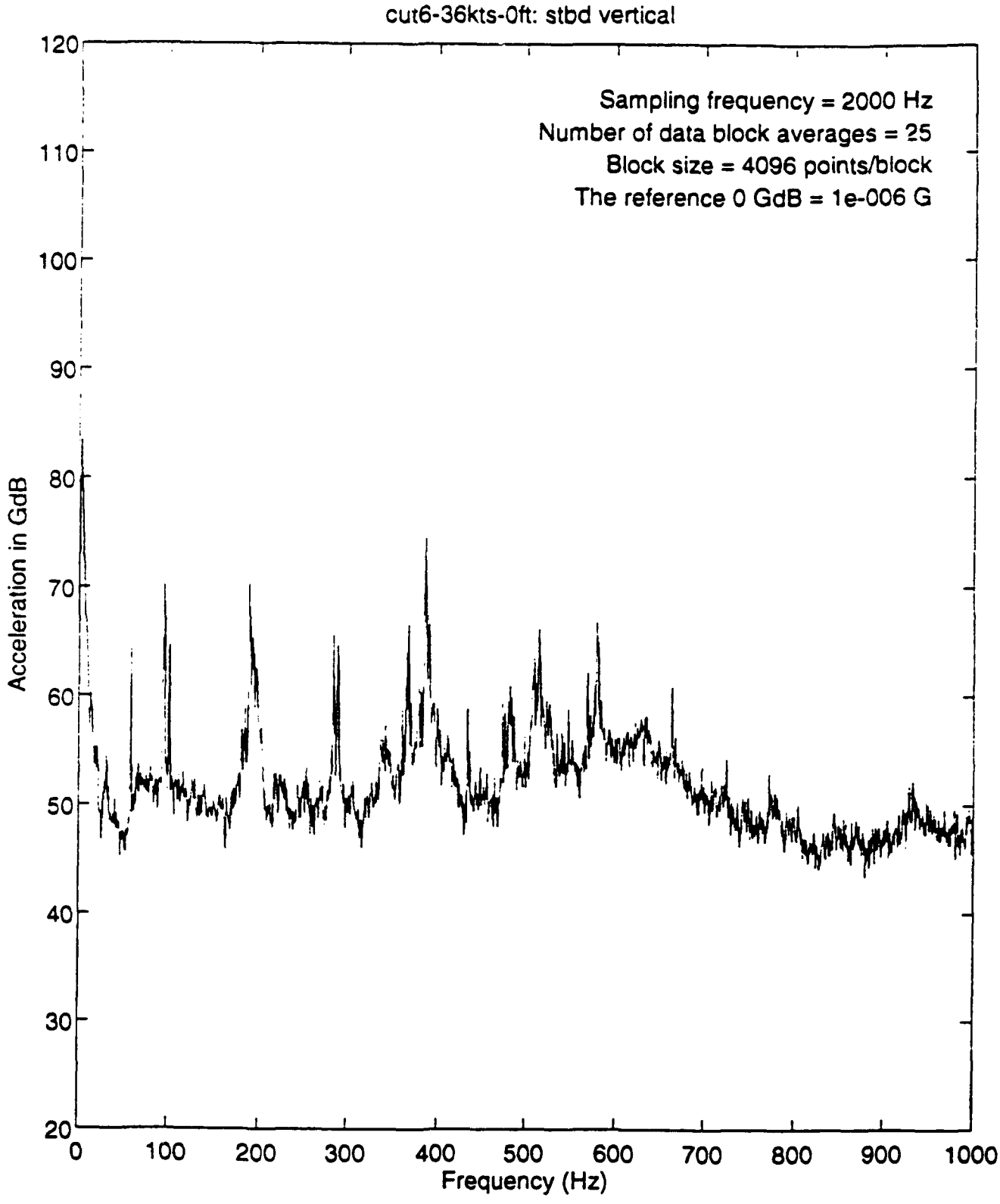
* The time domain

Mean value = -0.003913 G

Standard deviation = 0.1098 G

The plot shows 1024 data points



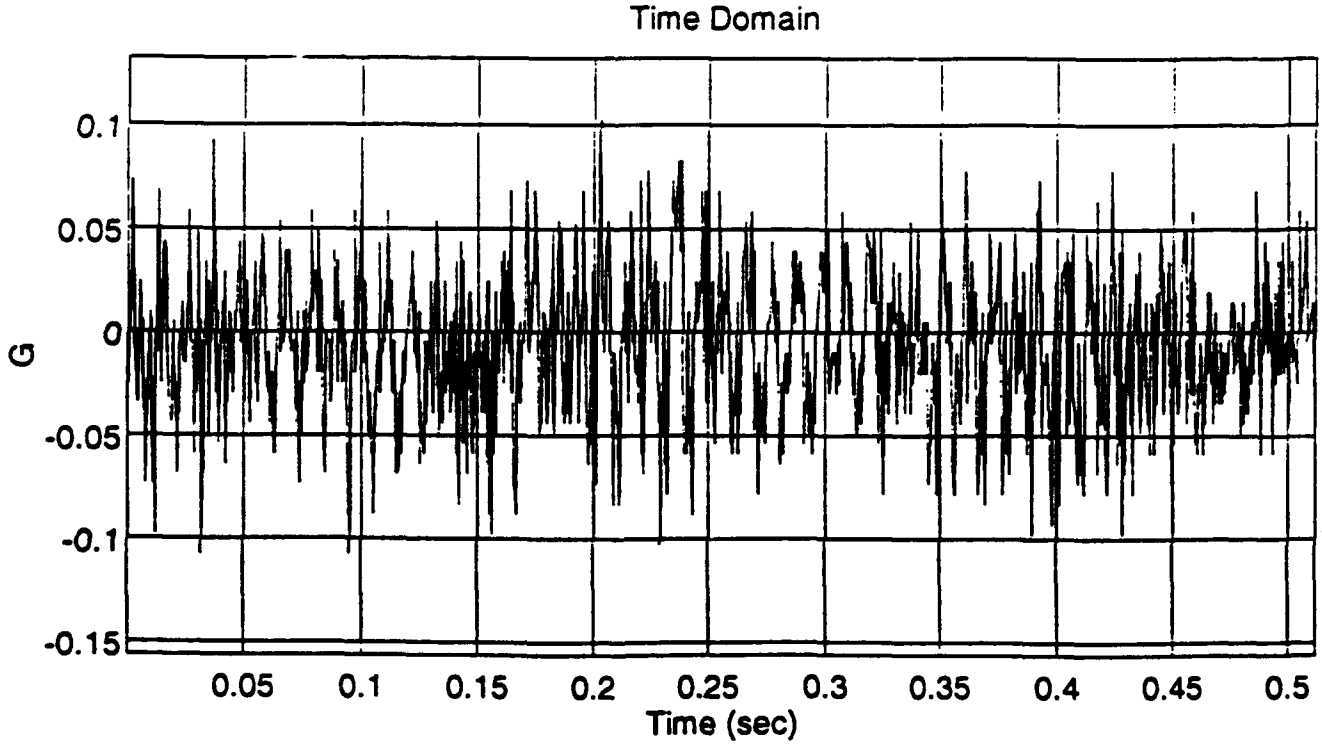

cut6-36kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

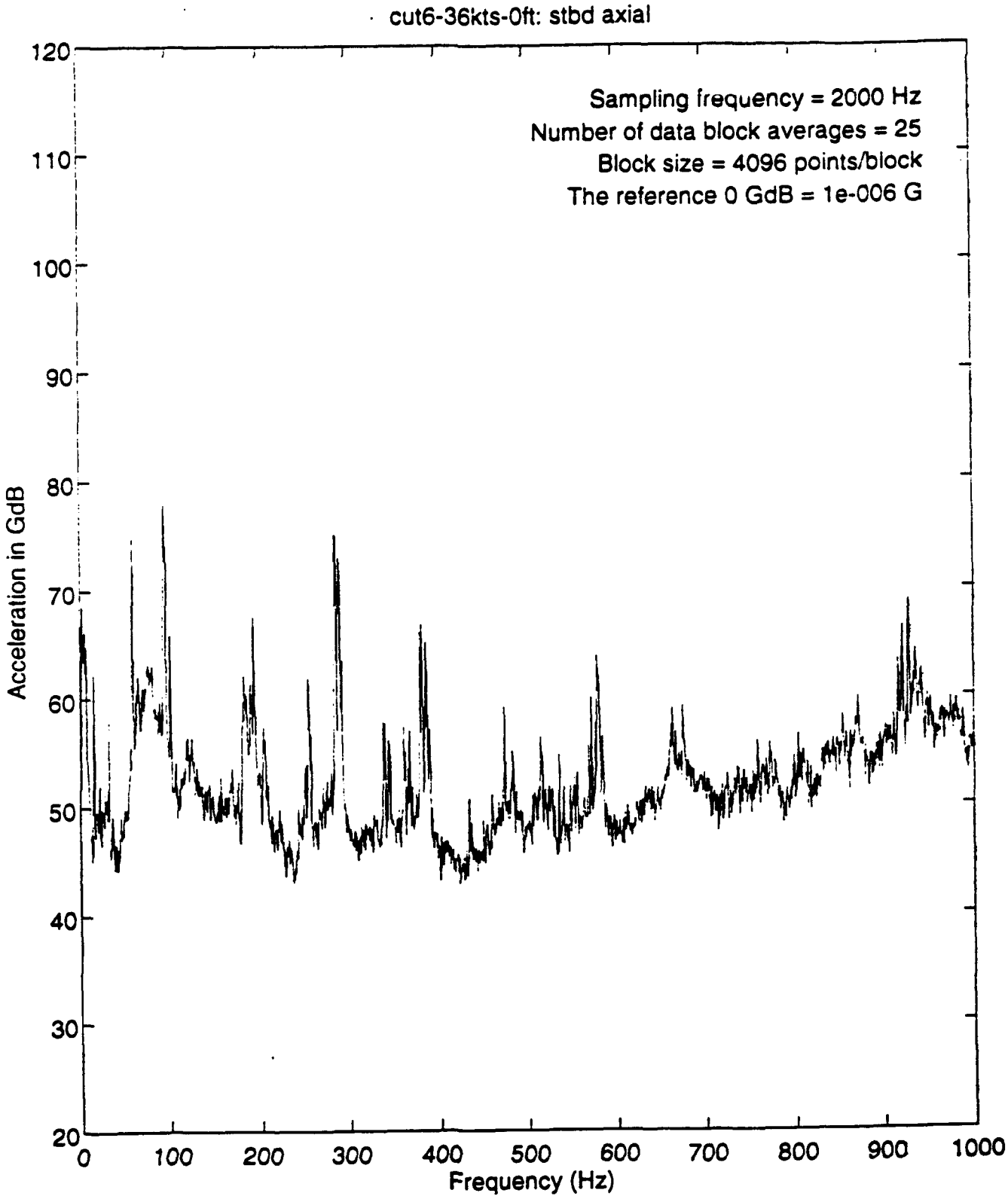
cut6-36kts-0ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003436 G
Standard deviation = 0.03529 G
The plot shows 1024 data points



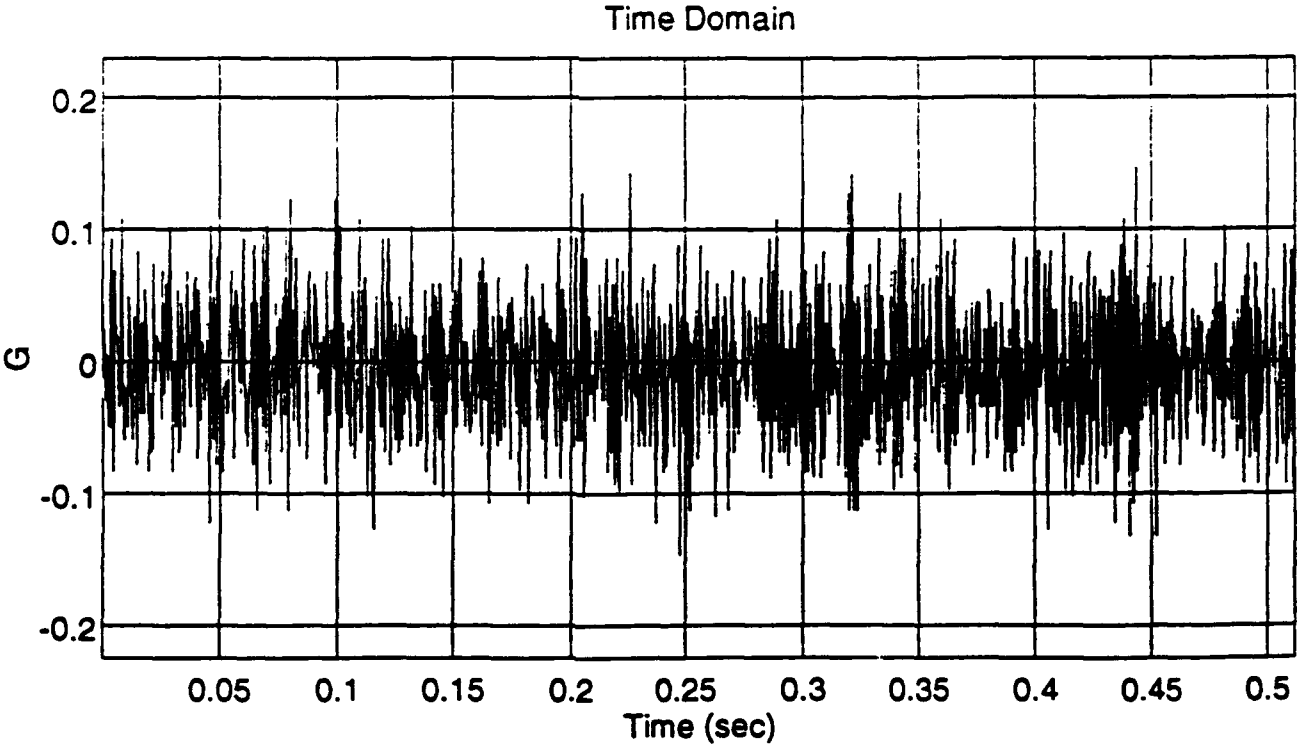

cut6-36kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

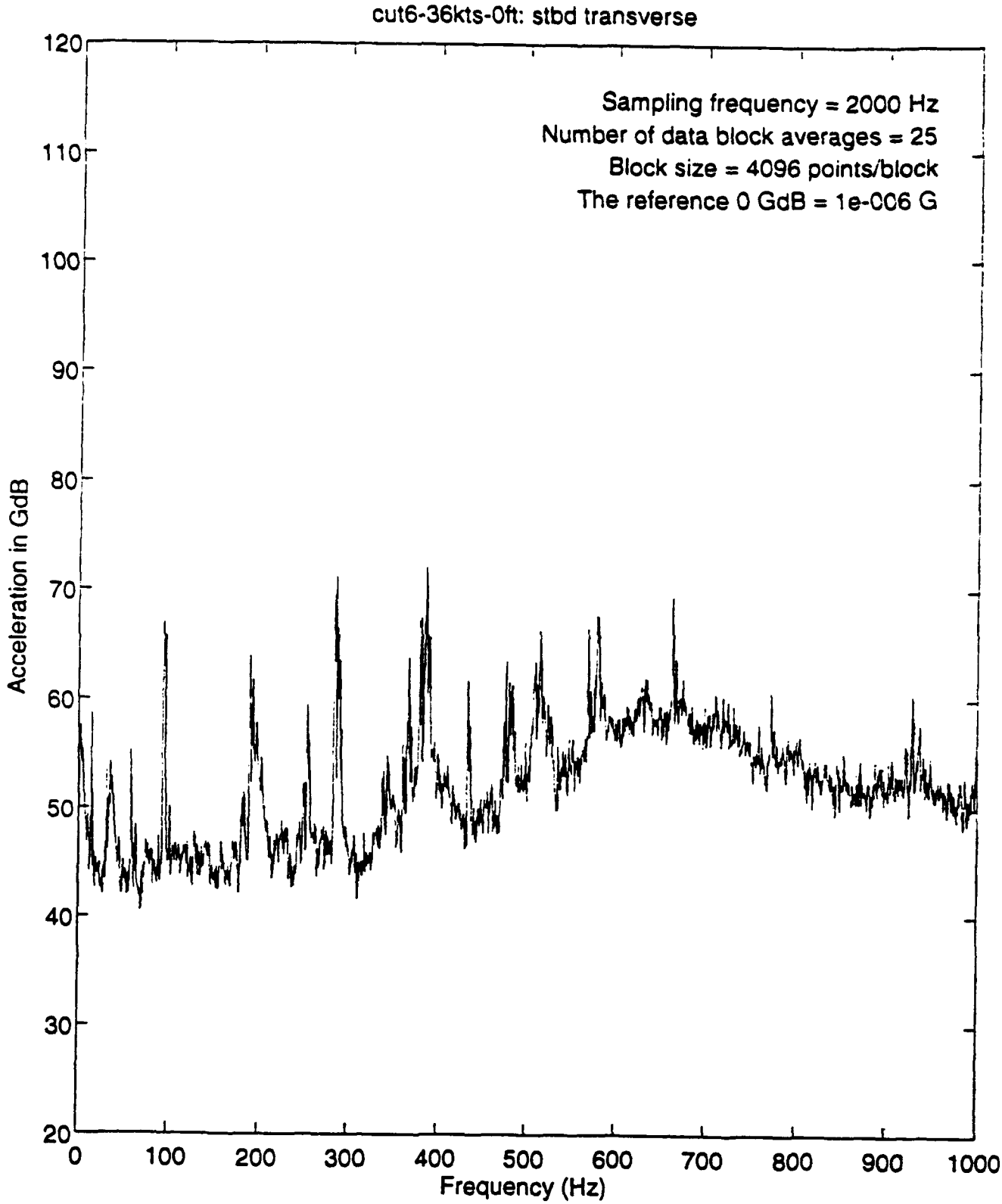
cut6-36kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004032 G
Standard deviation = 0.04704 G
The plot shows 1024 data points




cut6-36kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut6-36kts-0ft: port vertical

Data sampling frequency = 2000 Hz

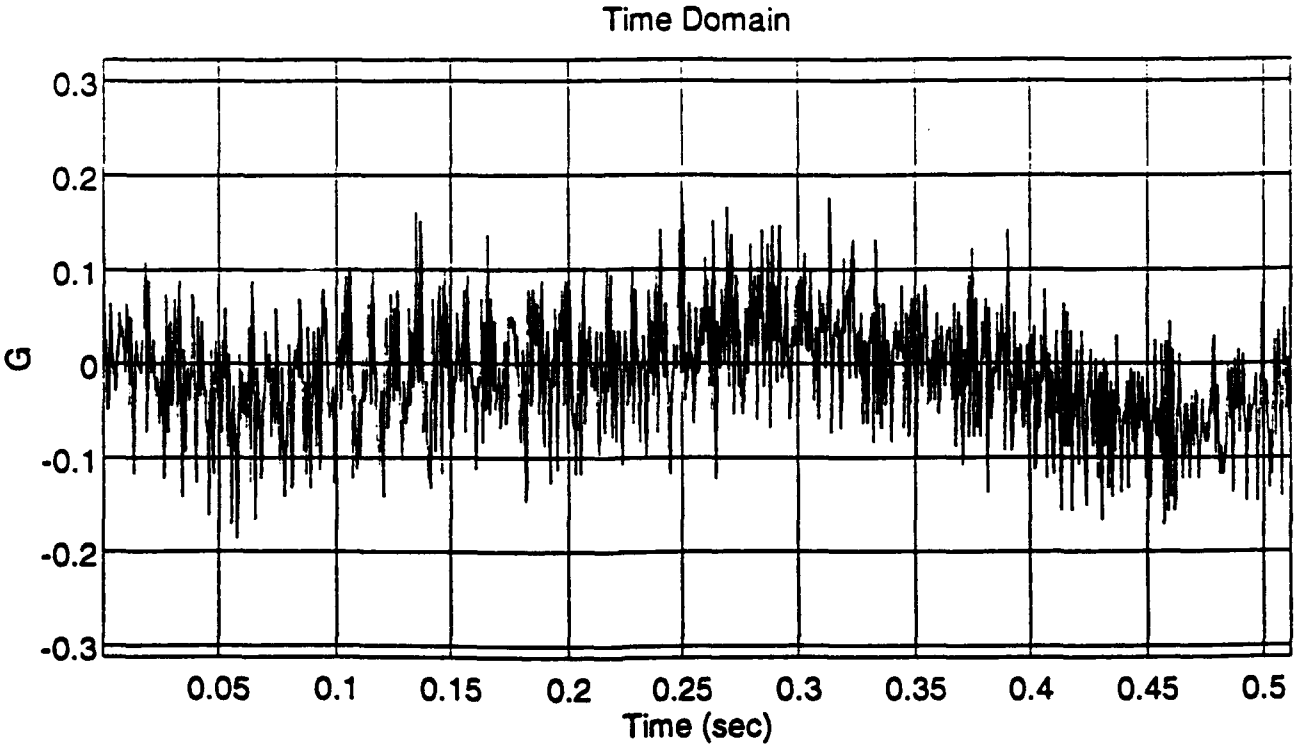
Total number of sampling data points = 1.024e+005

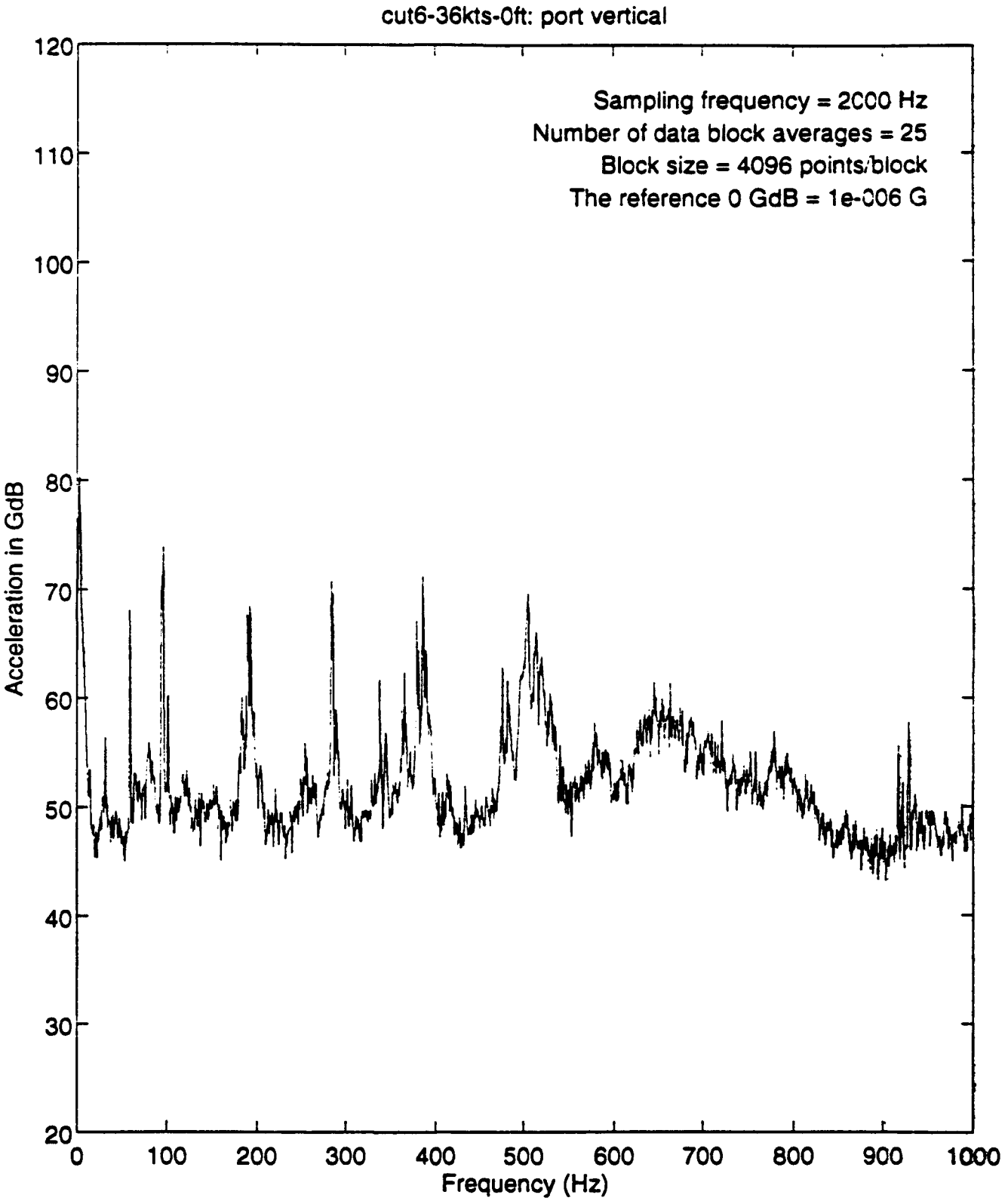
* The time domain

Mean value = -0.003014 G

Standard deviation = 0.06849 G

The plot shows 1024 data points




cut6-36kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut6-36kts-0ft: port axial

Data sampling frequency = 2000 Hz

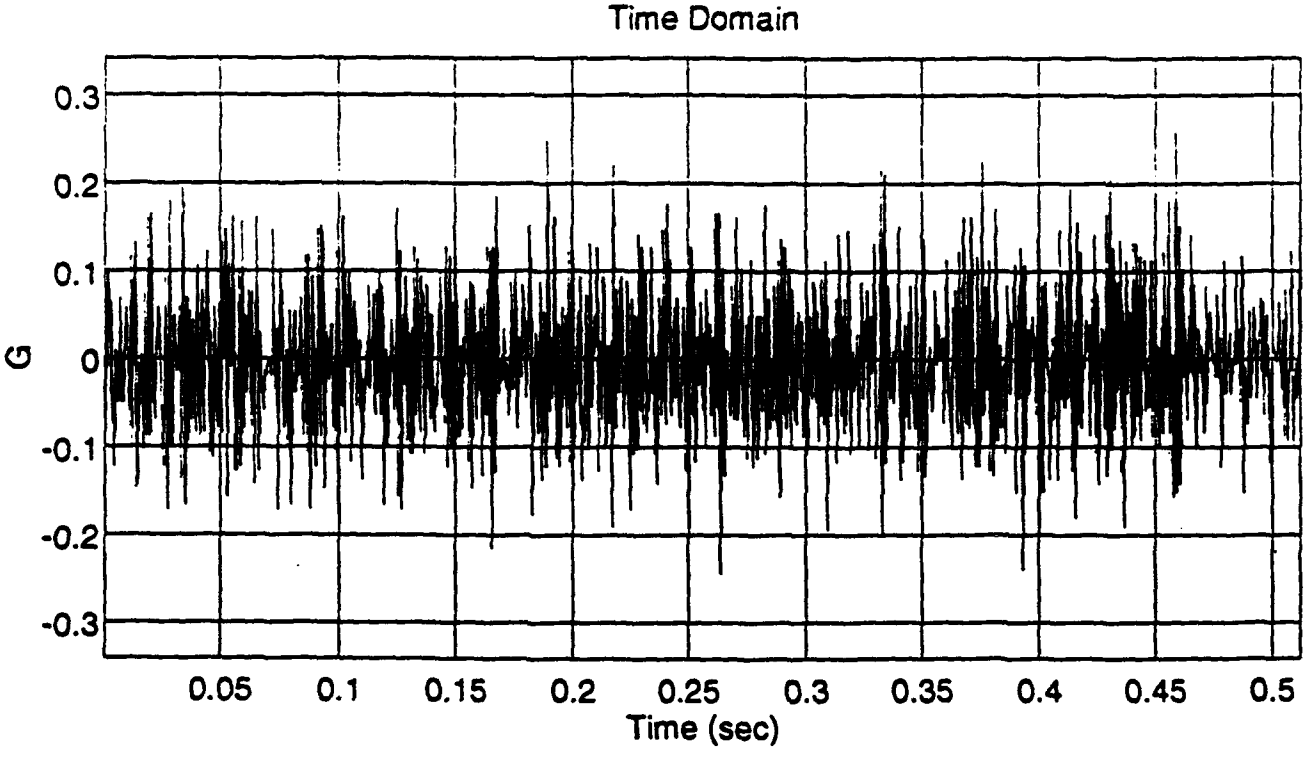
Total number of sampling data points = 1.024e+005

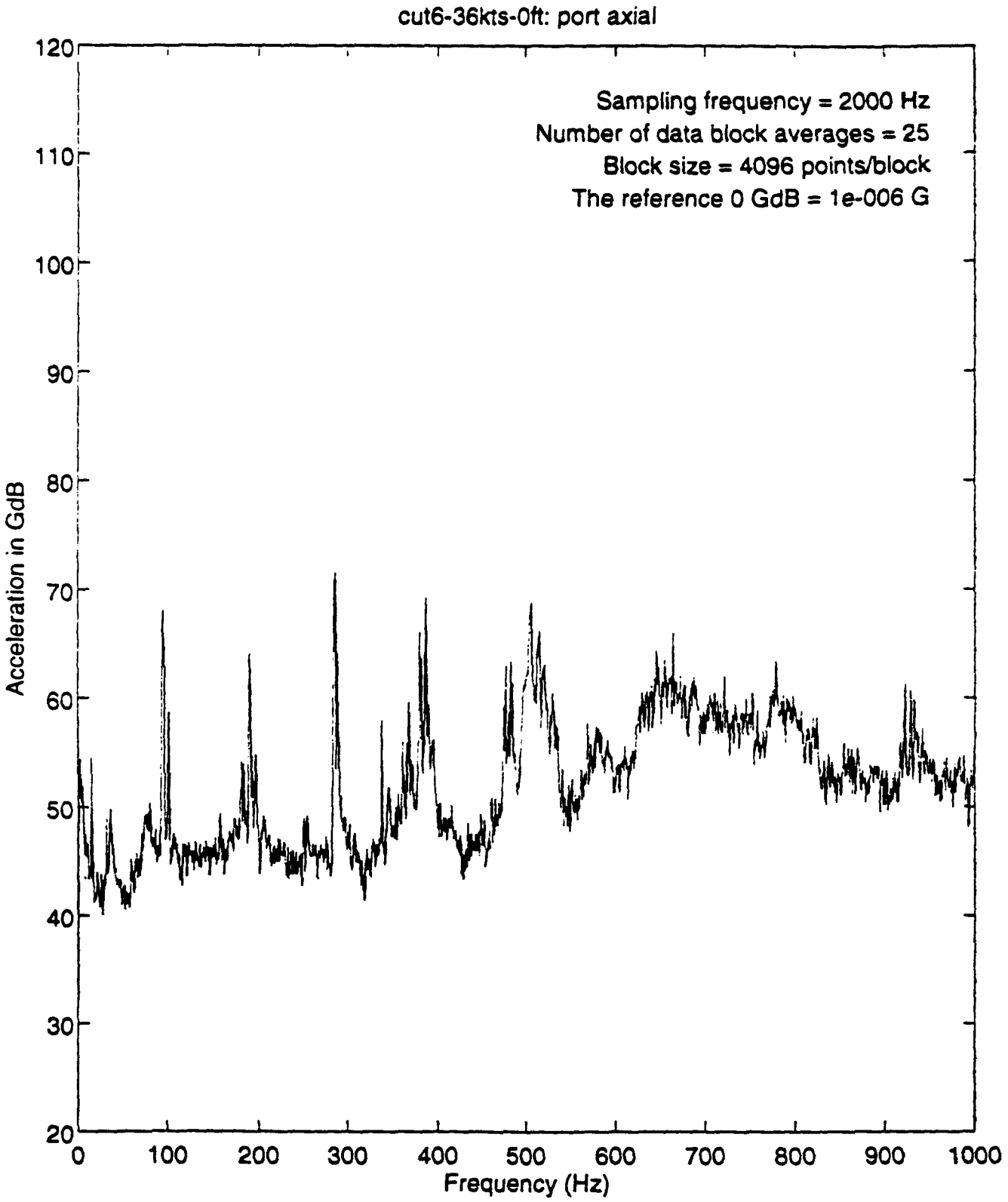
* The time domain

Mean value = -0.002169 G

Standard deviation = 0.07616 G

The plot shows 1024 data points



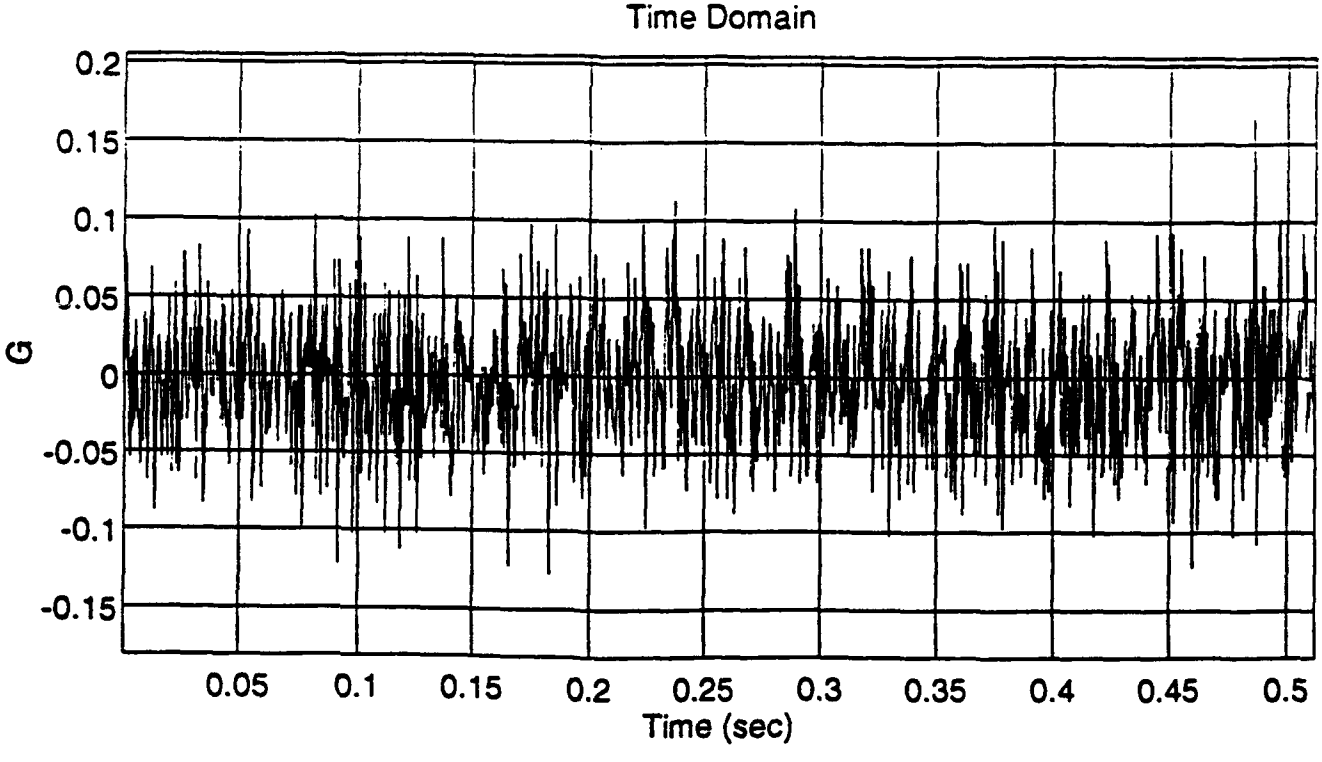

cut6-36kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

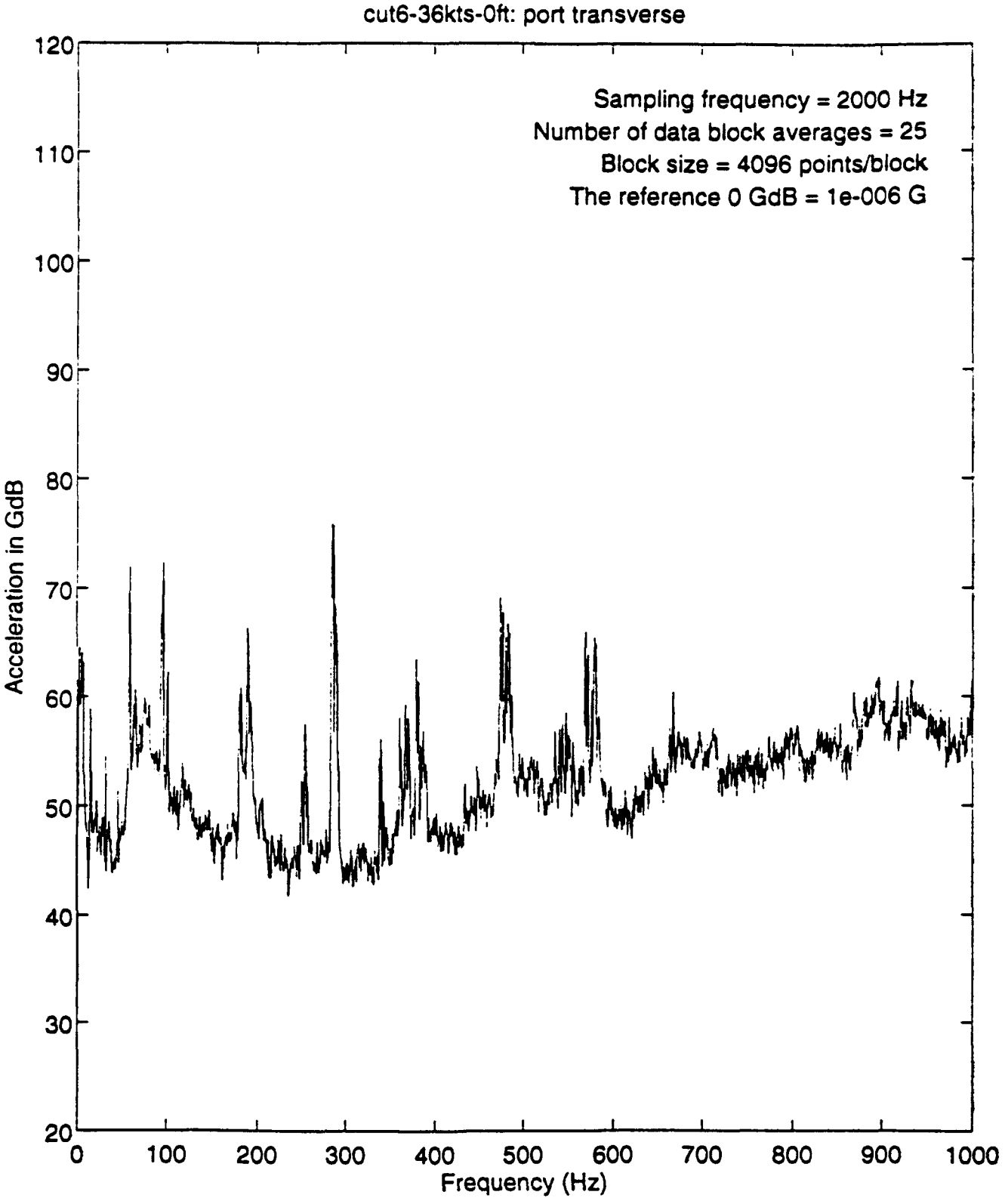
cut6-36kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002153 G
Standard deviation = 0.04091 G
The plot shows 1024 data points



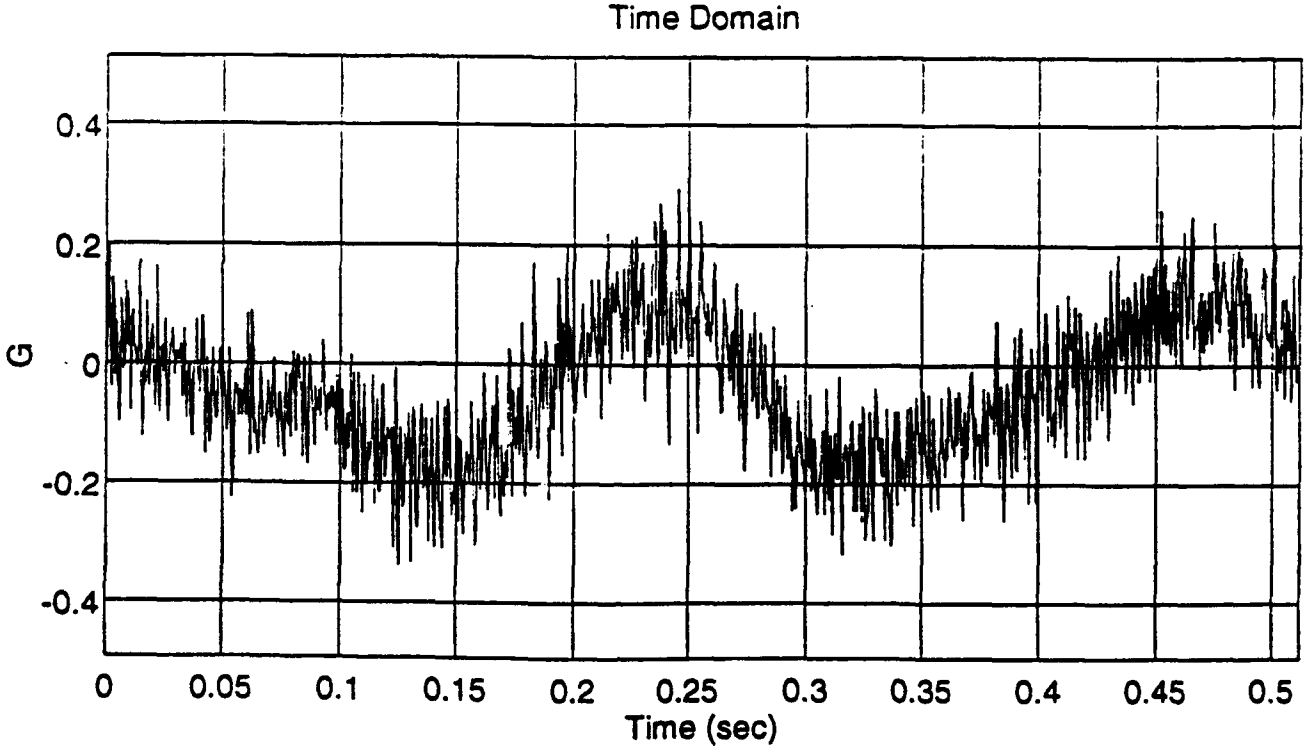

cut6-36kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

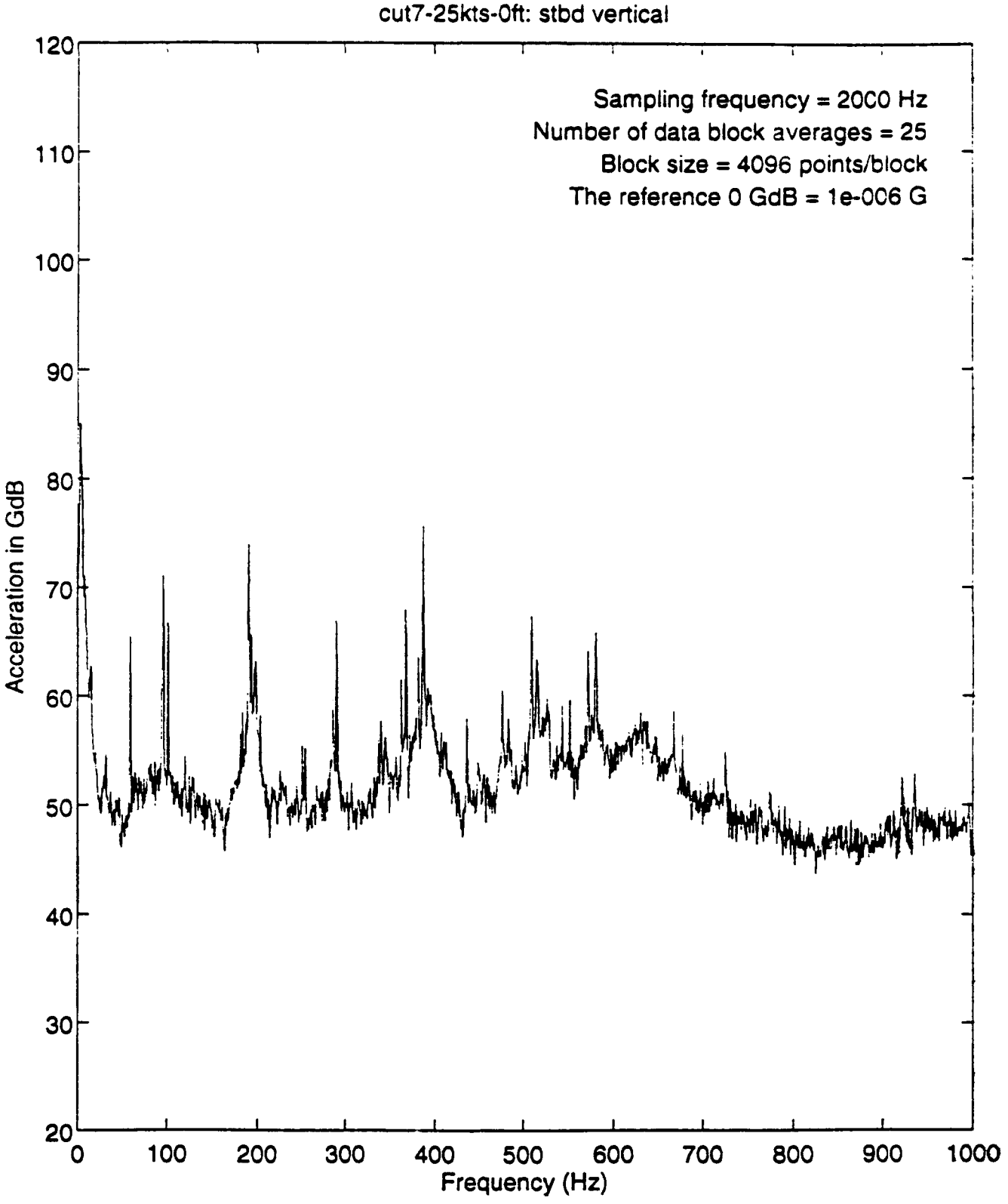
cut7-25kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.01362 G
Standard deviation = 0.1235 G
The plot shows 1024 data points




cut7-25kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut7-25kts-0ft: stbd axial

Data sampling frequency = 2000 Hz

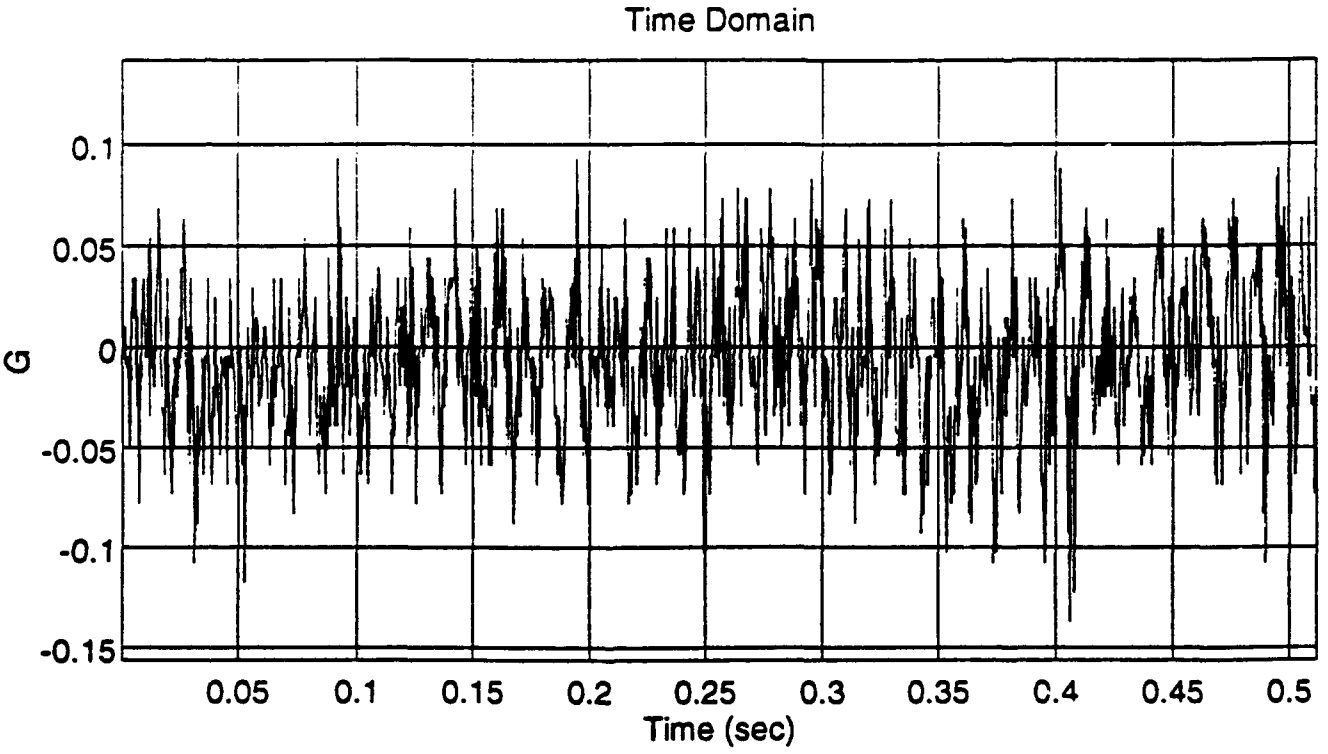
Total number of sampling data points = 1.024e+005

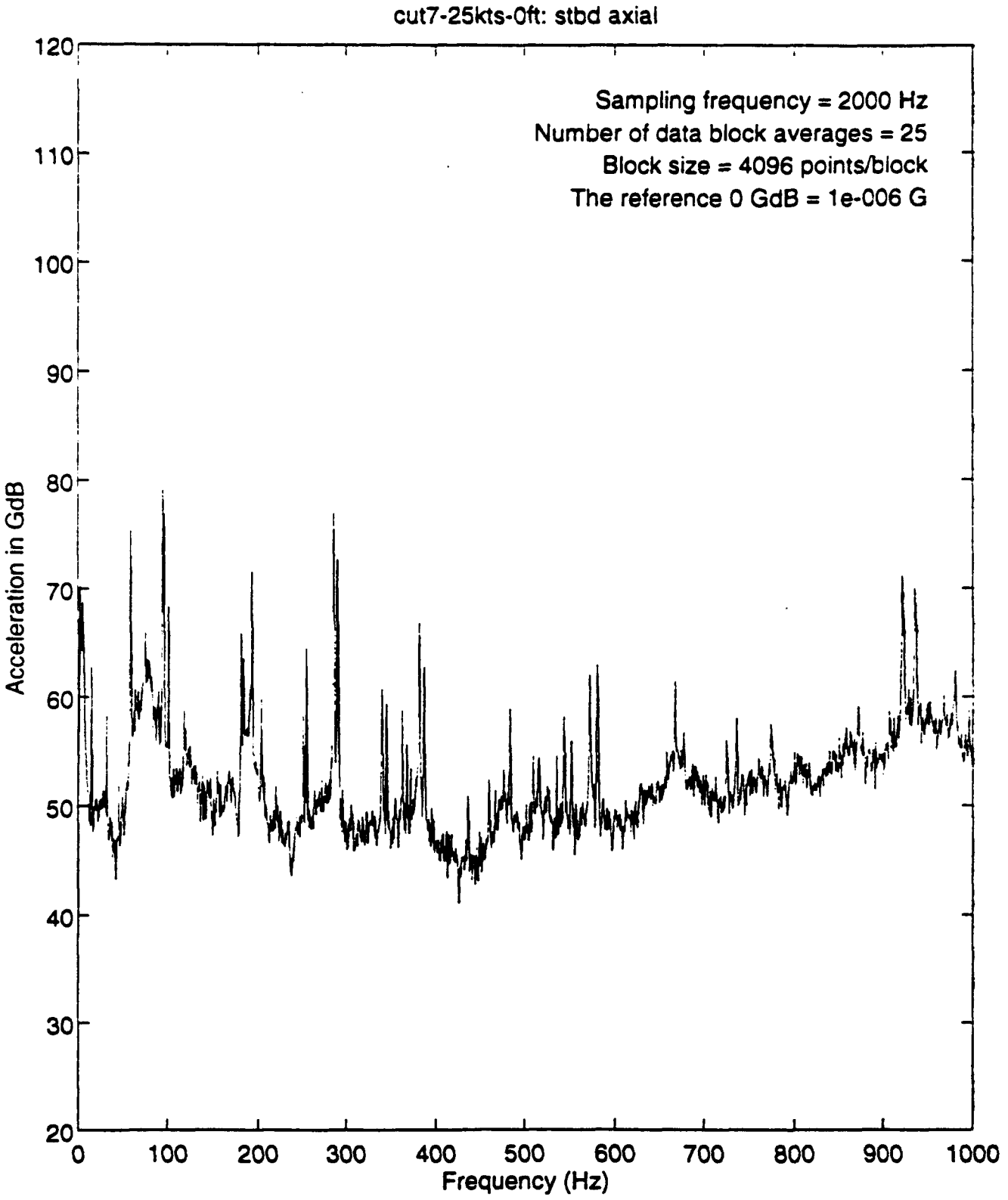
* The time domain

Mean value = -0.005764 G

Standard deviation = 0.0357 G

The plot shows 1024 data points




cut7-25kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut7-25kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz

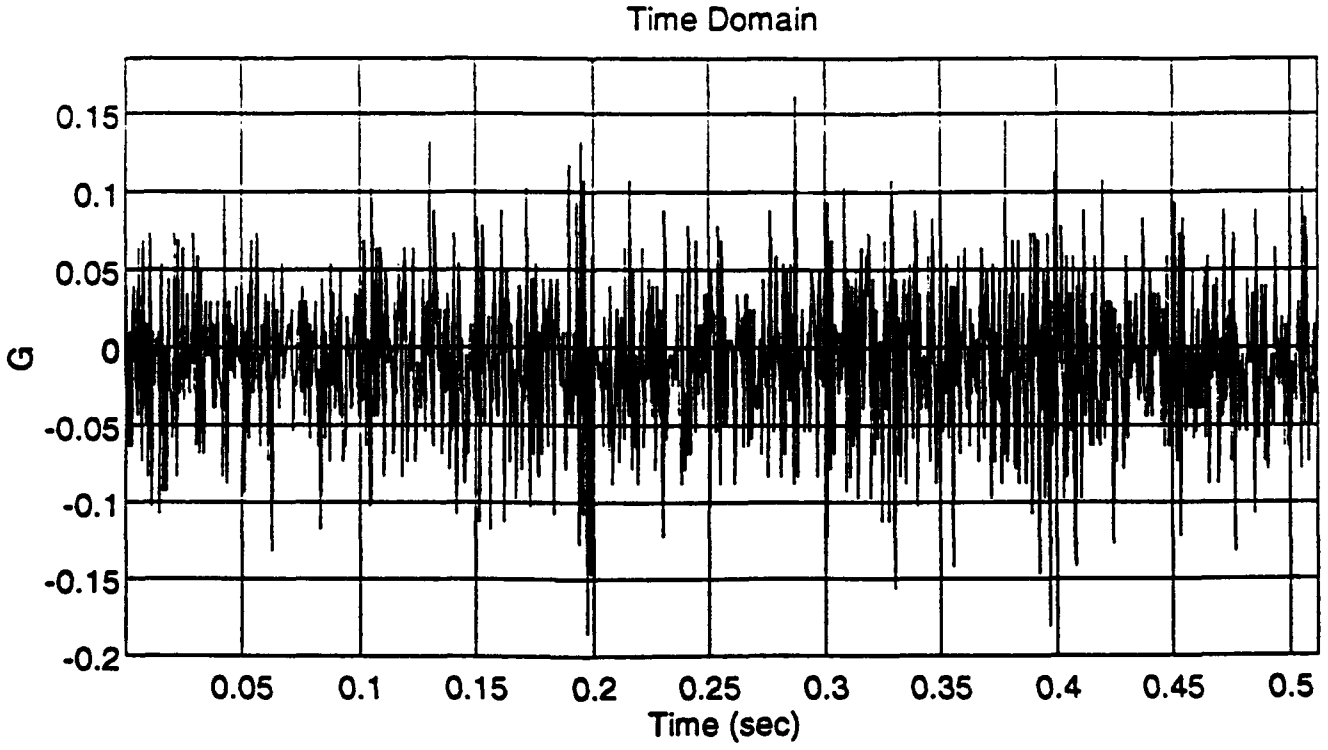
Total number of sampling data points = 1.024e+005

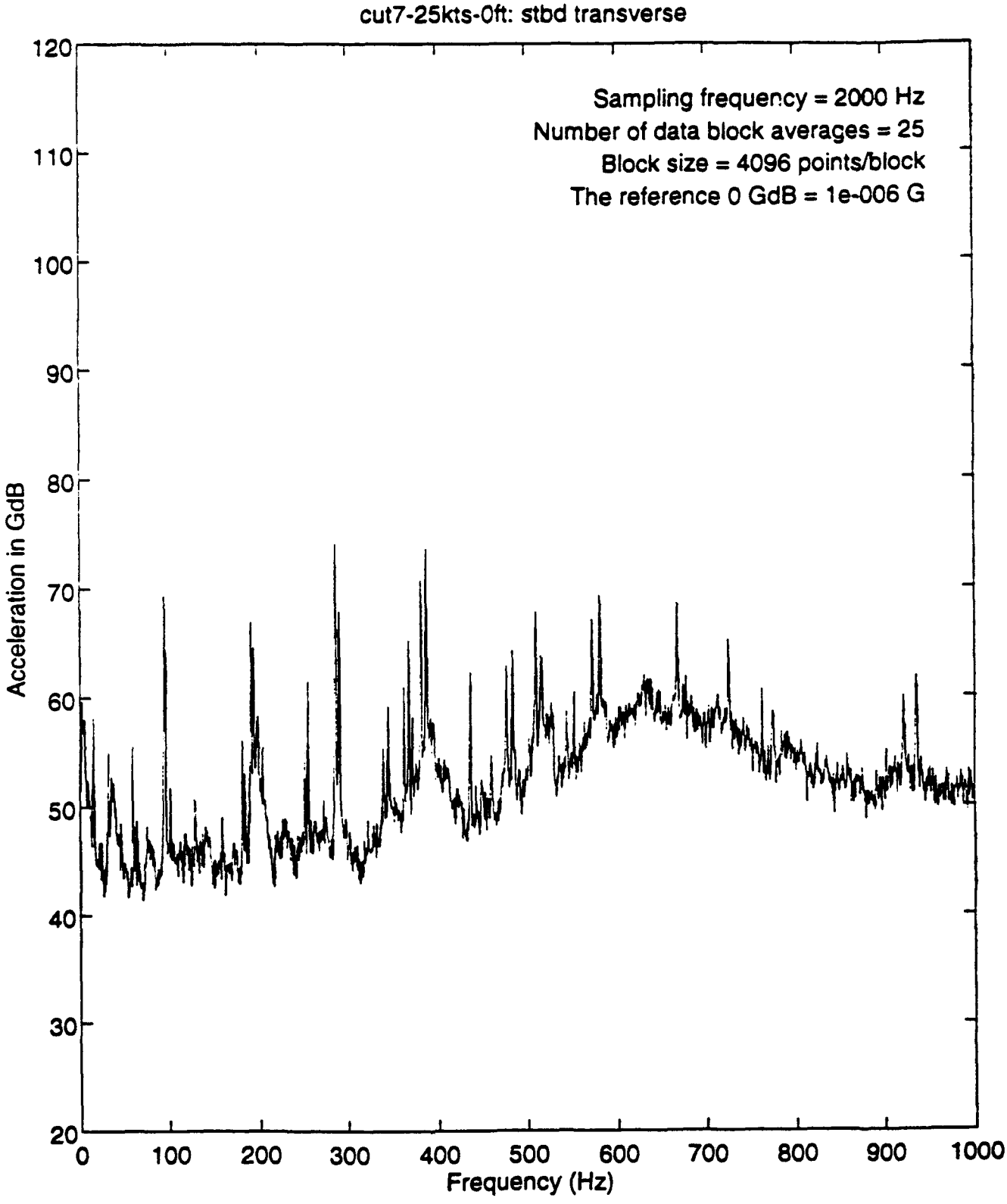
* The time domain

Mean value = -0.006373 G

Standard deviation = 0.04685 G

The plot shows 1024 data points



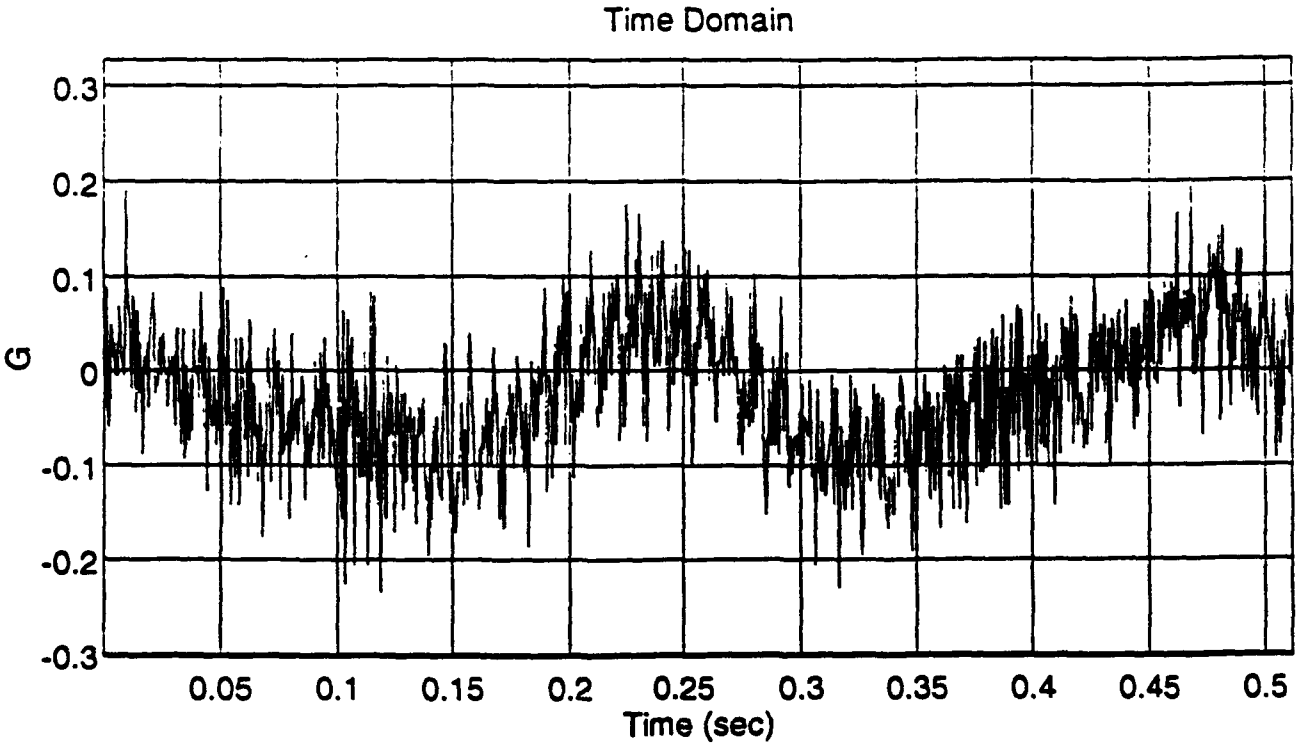

cut7-25kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

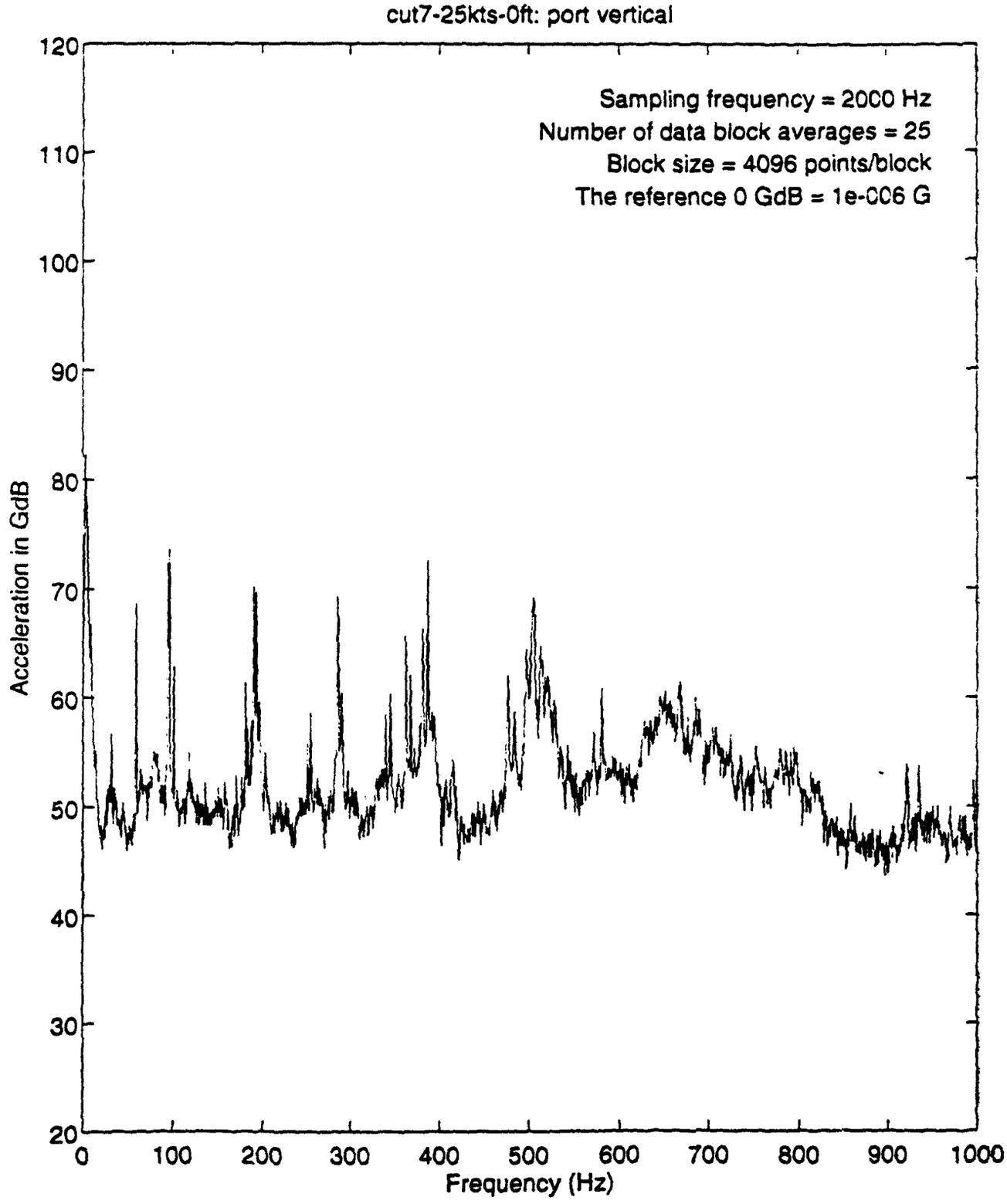
cut7-25kts-0ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.007335 G
Standard deviation = 0.07302 G
The plot shows 1024 data points



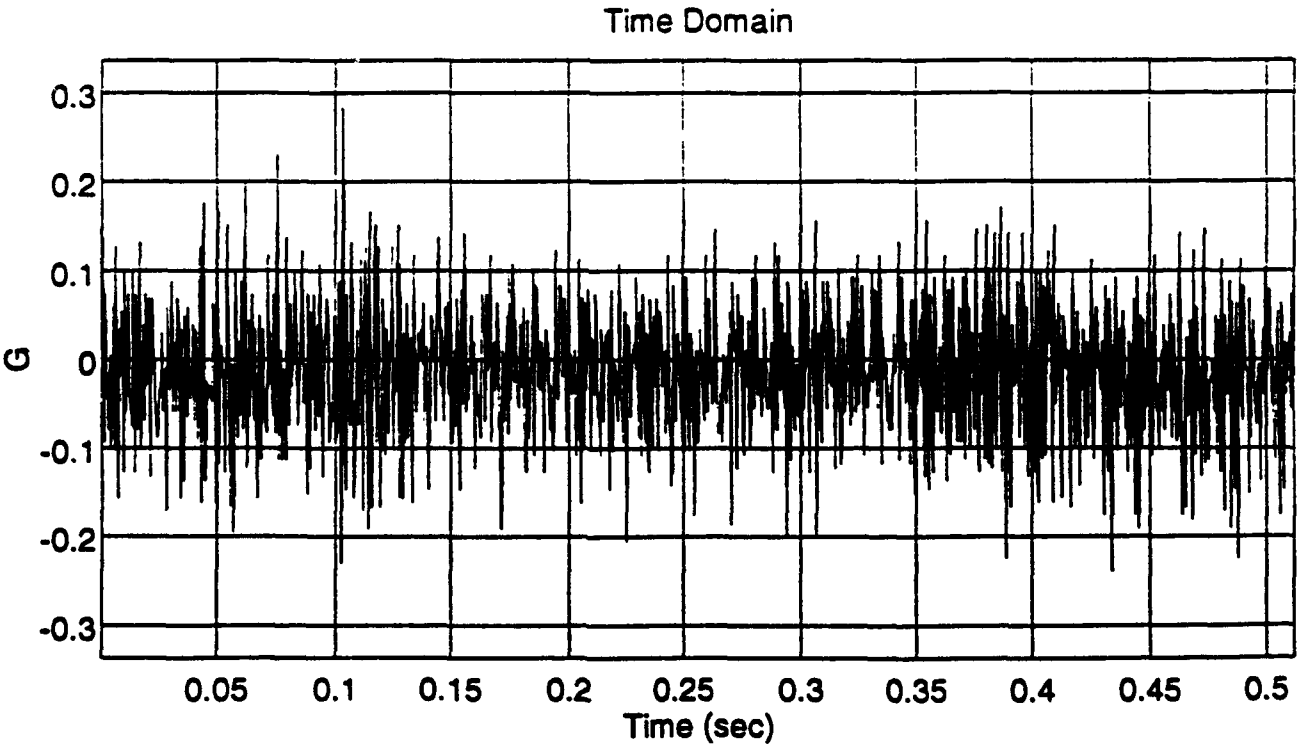

cut7-25kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

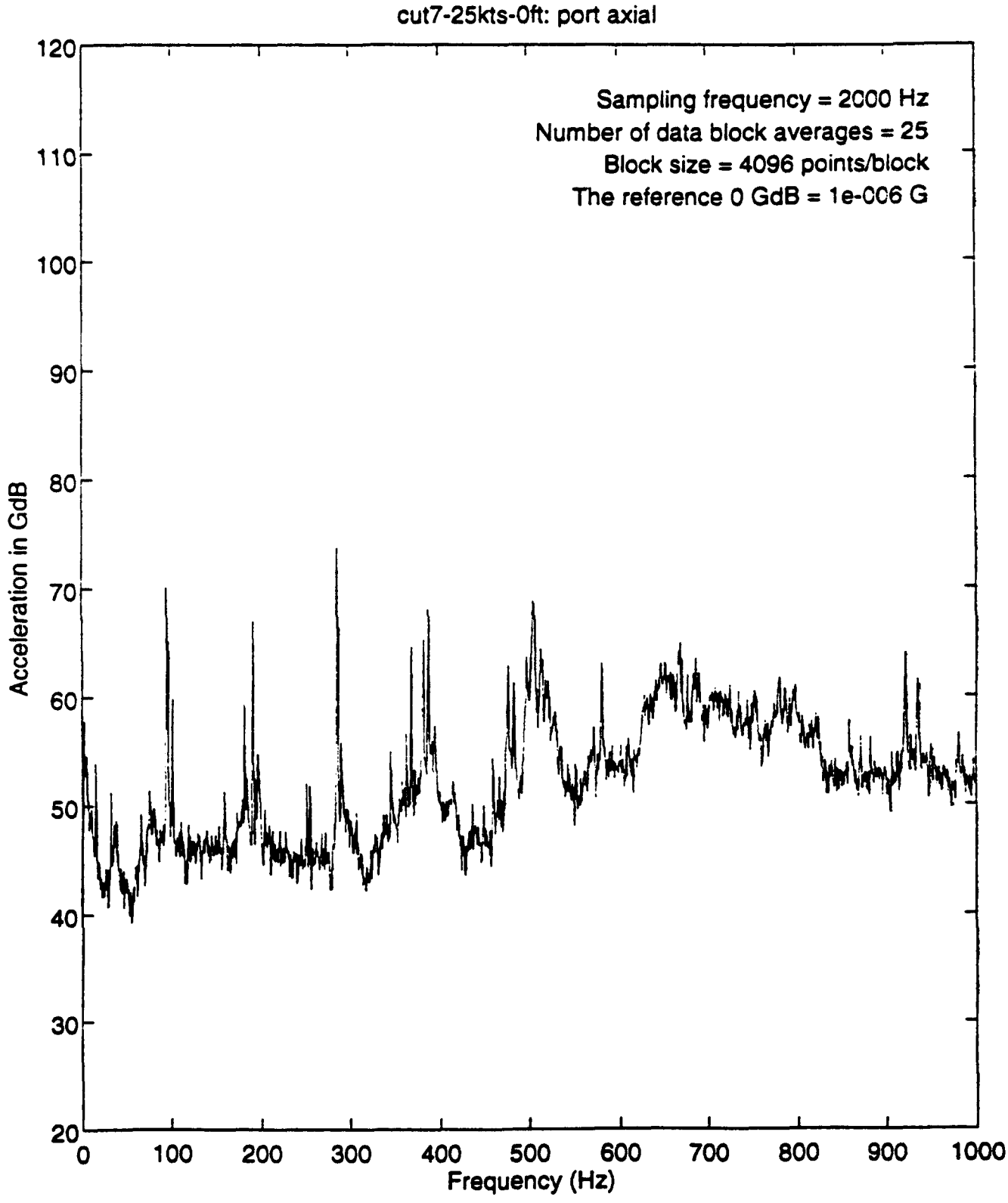
cut7-25kts-0ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005625 G
Standard deviation = 0.07448 G
The plot shows 1024 data points



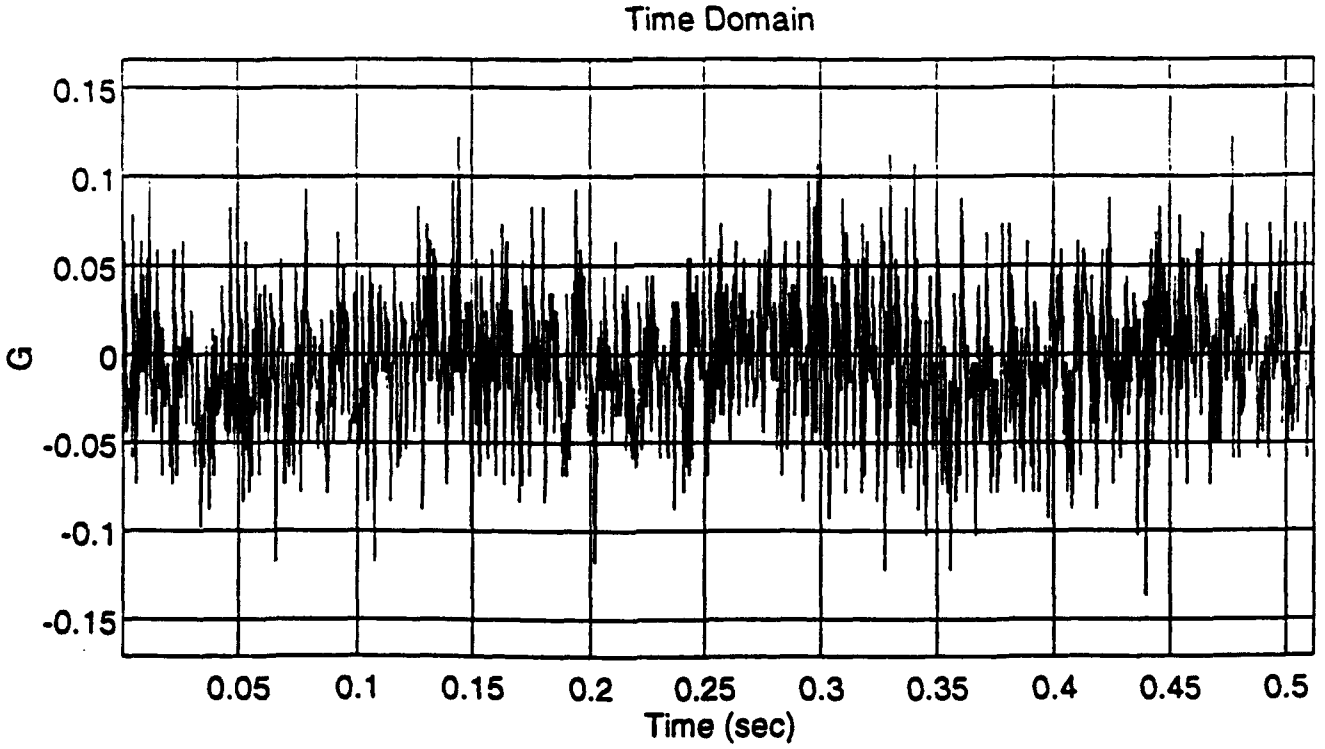

cut7-25kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

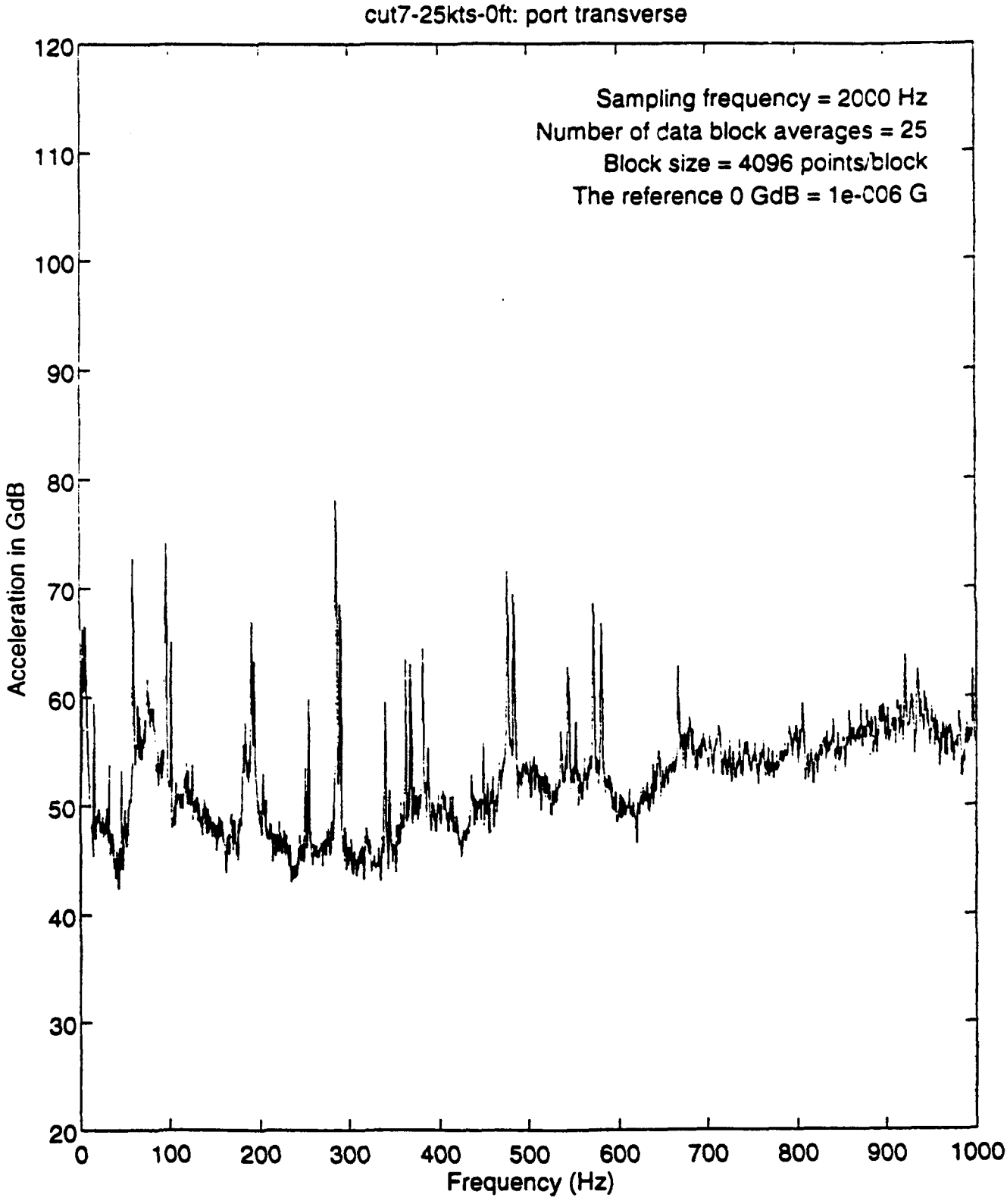
cut7-25kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004059 G
Standard deviation = 0.04028 G
The plot shows 1024 data points



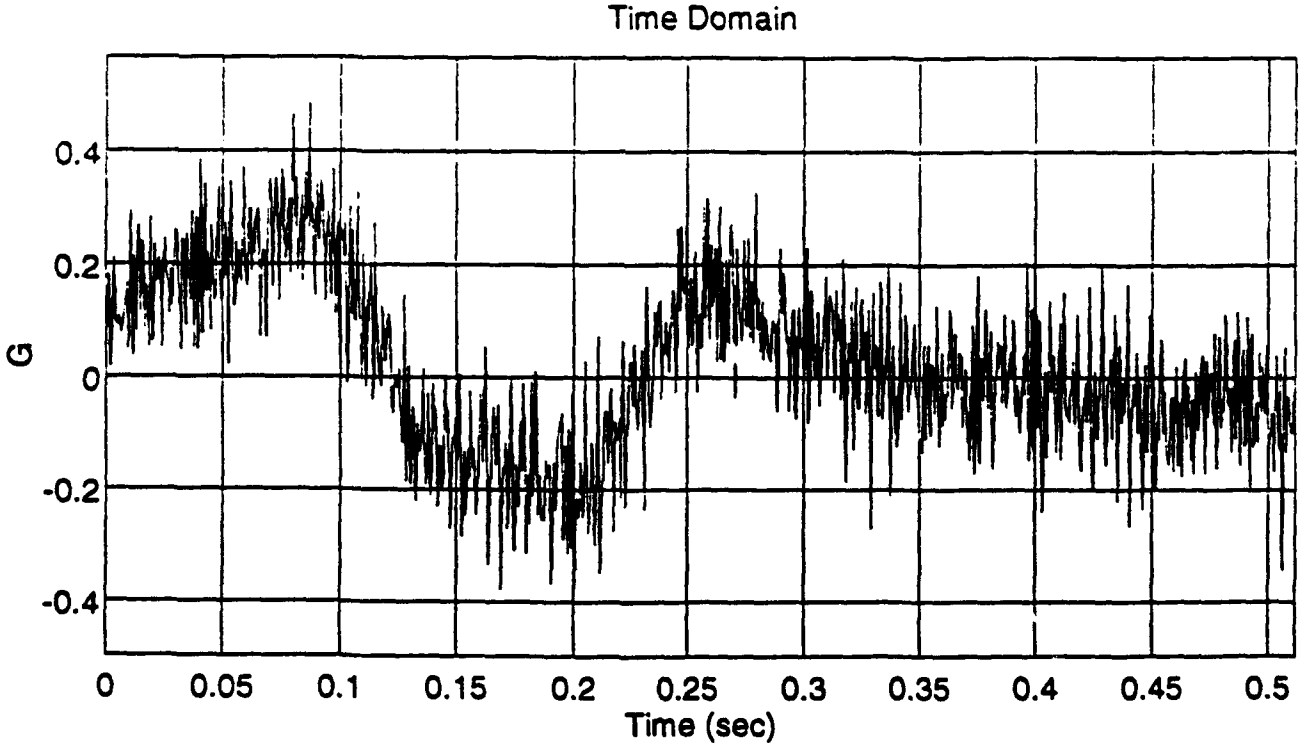

cut7-25kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

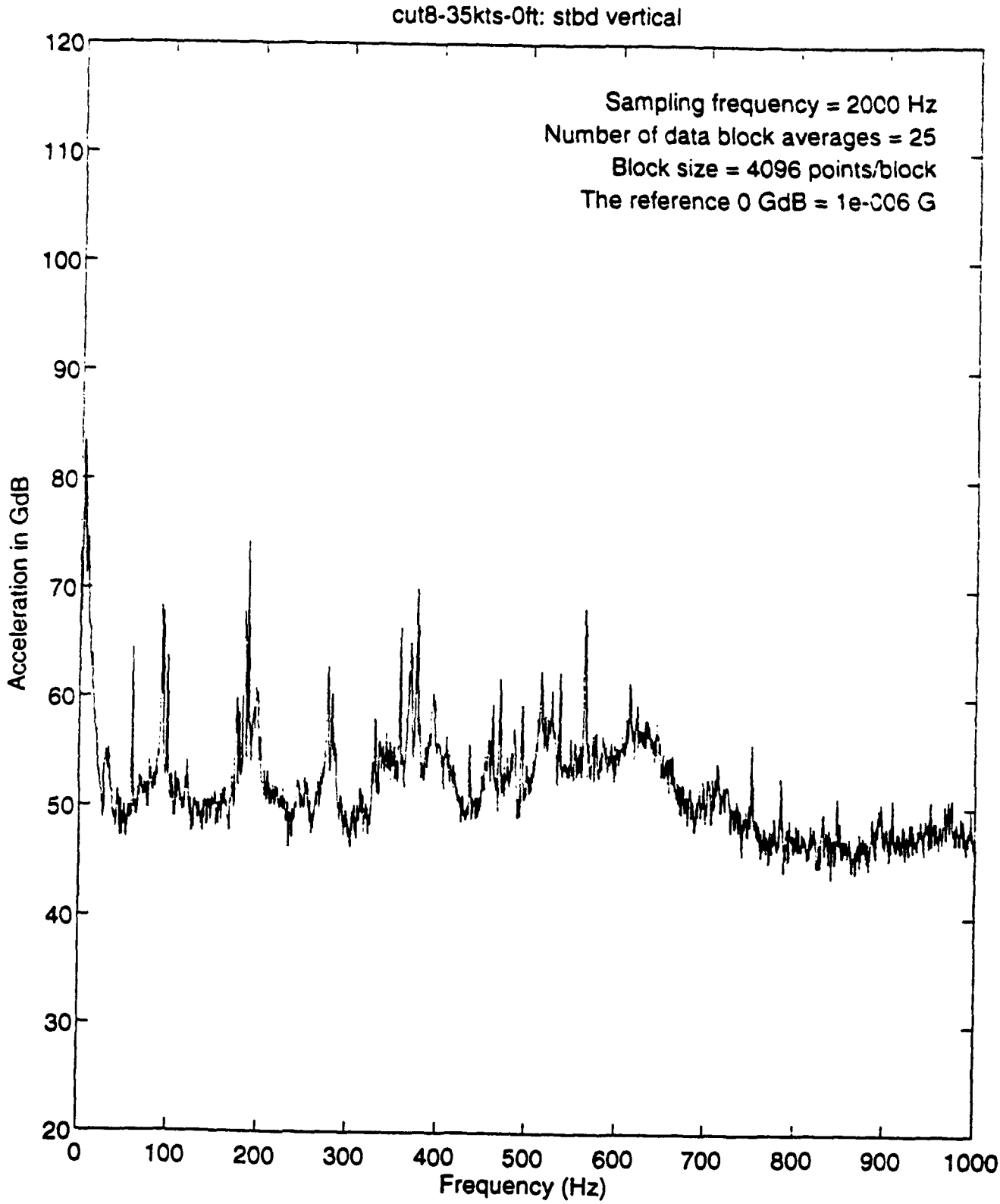
cut8-35kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.009605 G
Standard deviation = 0.1327 G
The plot shows 1024 data points




cut8-35kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut8-35kts-0ft: stbd axial

Data sampling frequency = 2000 Hz

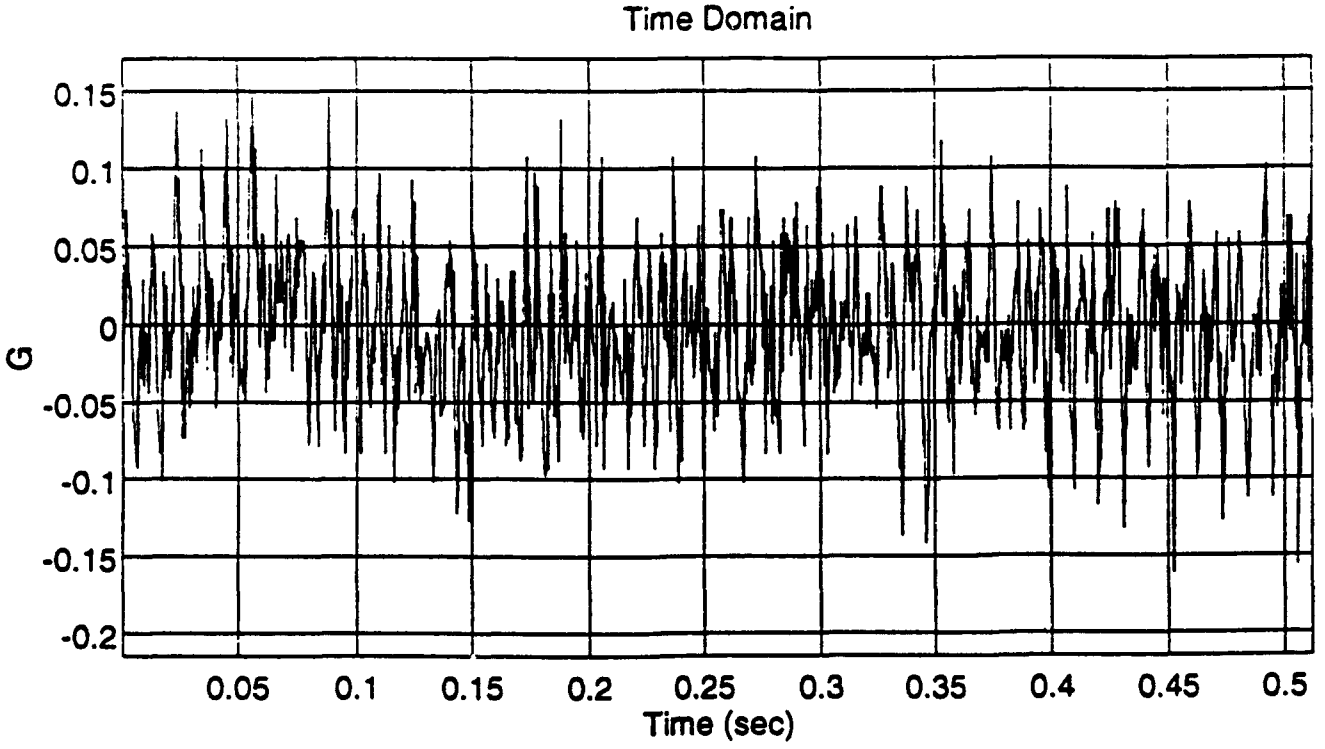
Total number of sampling data points = 1.024e+005

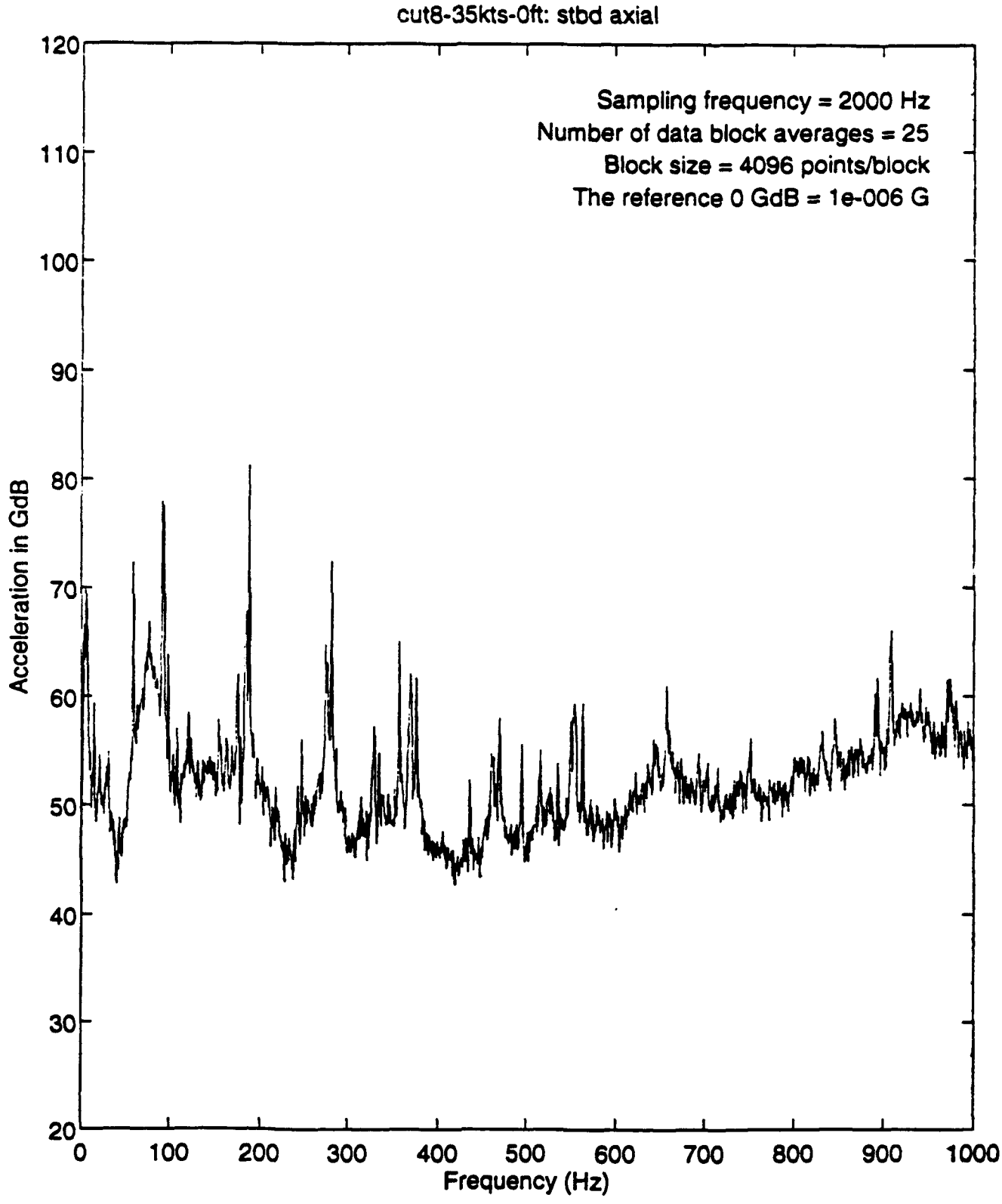
* The time domain

Mean value = -0.003532 G

Standard deviation = 0.04705 G

The plot shows 1024 data points




cut8-35kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut8-35kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz

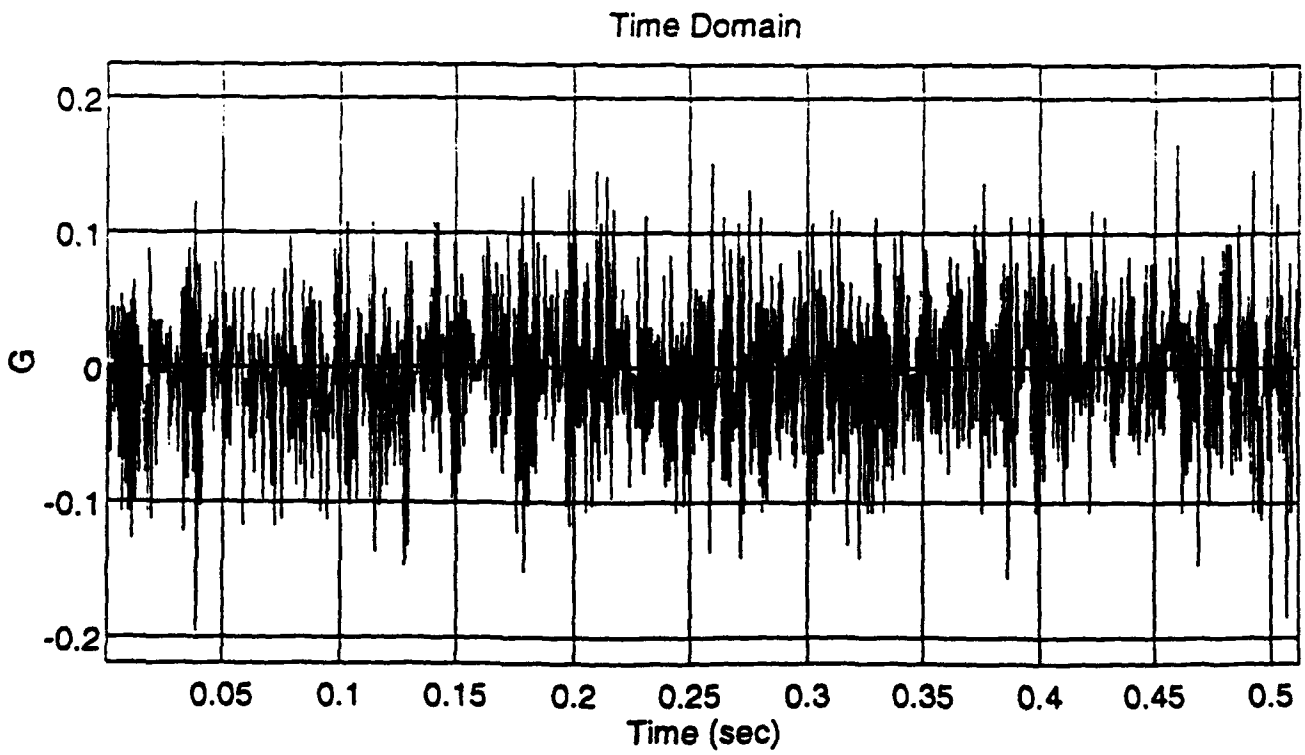
Total number of sampling data points = 1.024e+005

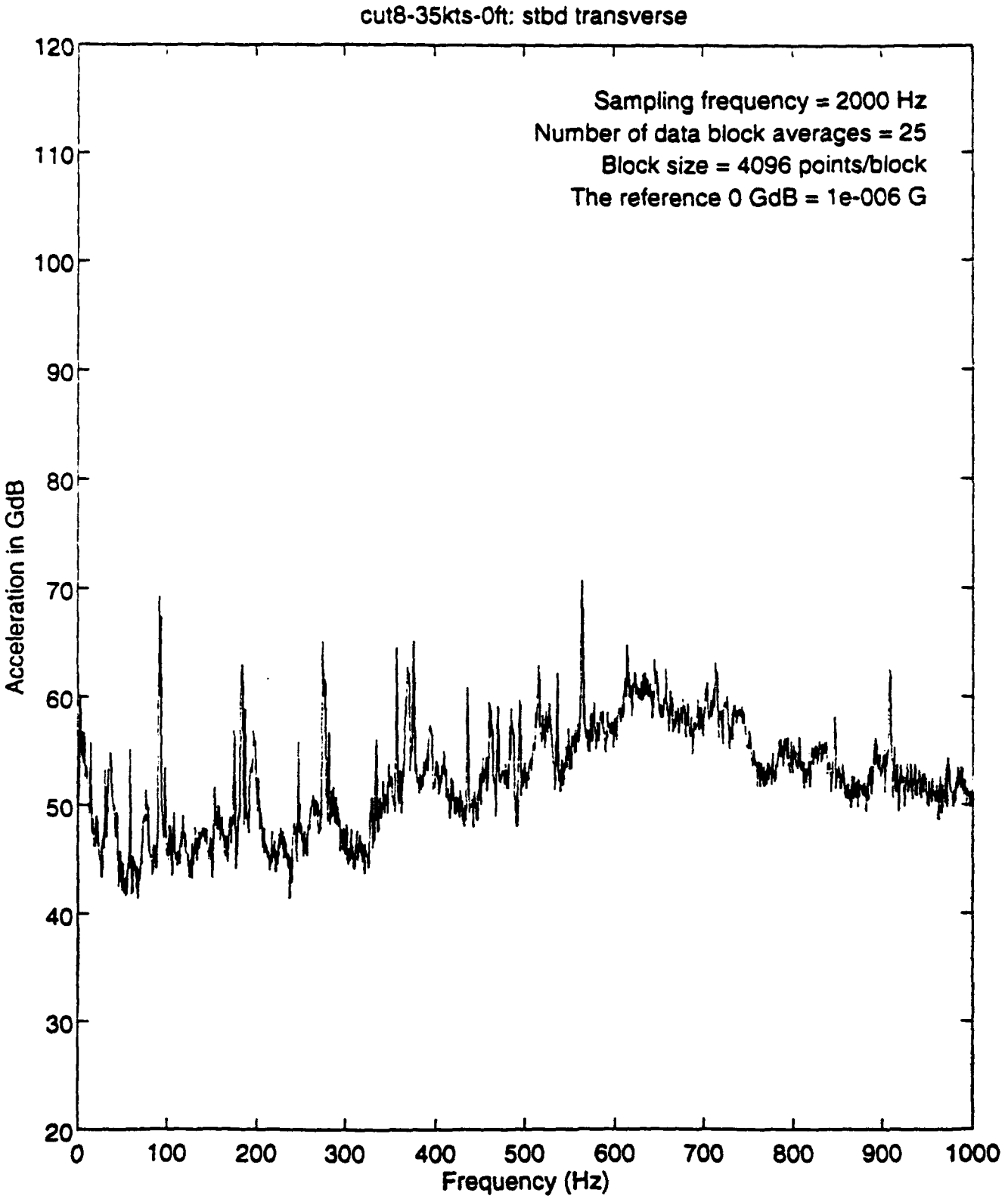
* The time domain

Mean value = -0.002441 G

Standard deviation = 0.05189 G

The plot shows 1024 data points



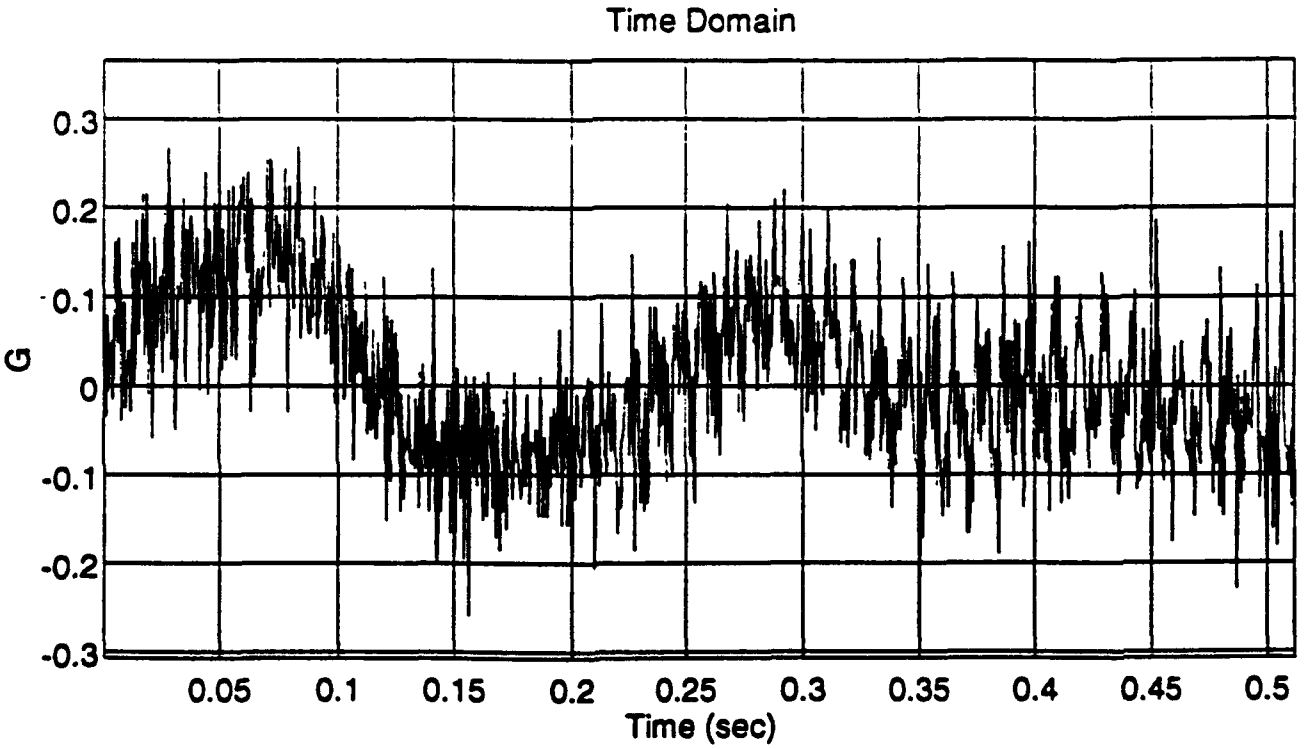

cut8-35kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

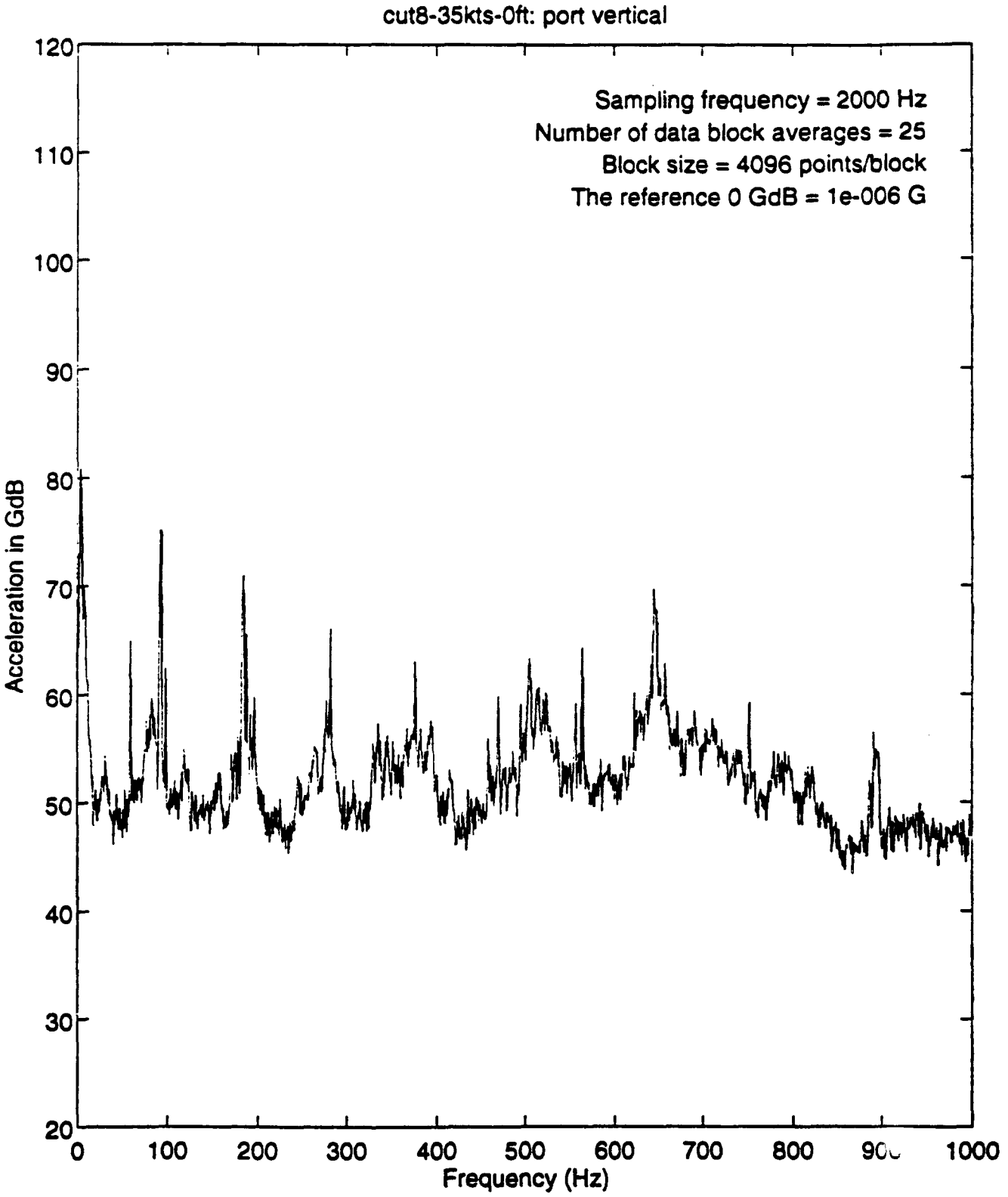
cut8-35kts-0ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.001443 G
Standard deviation = 0.0805 G
The plot shows 1024 data points



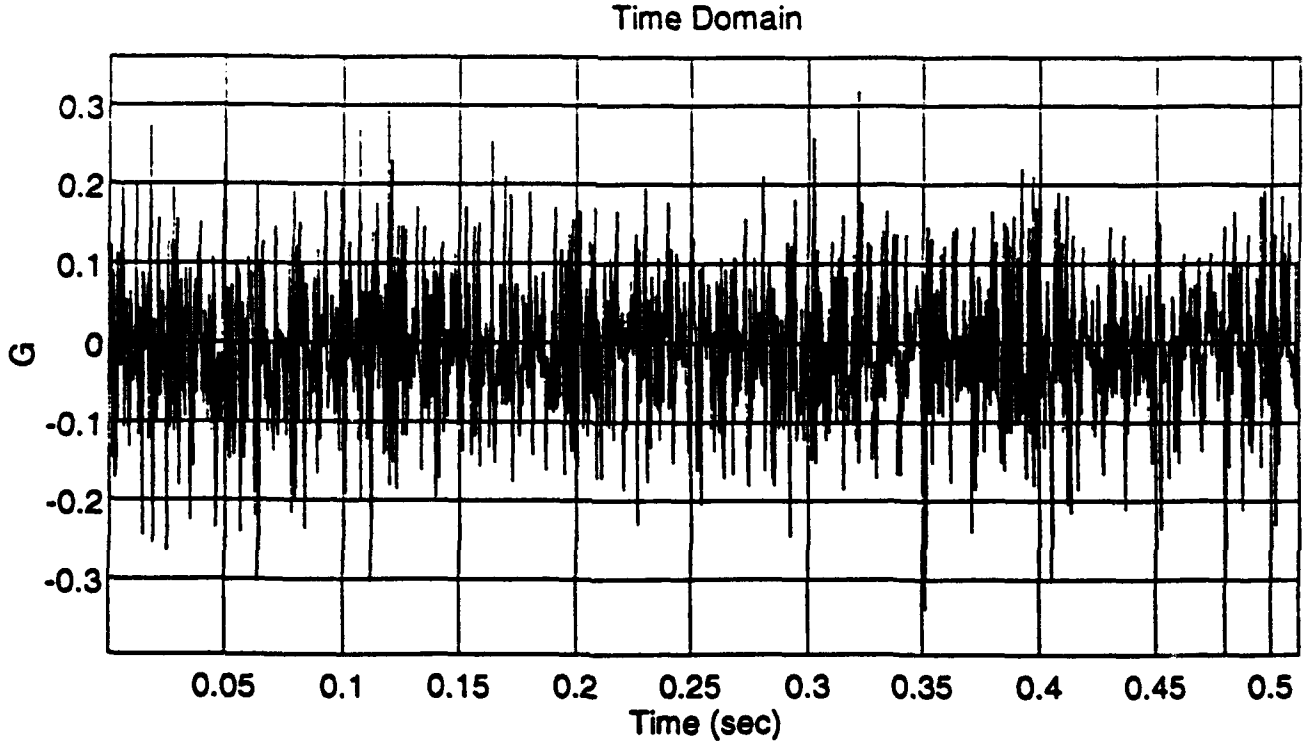

cut8-35kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

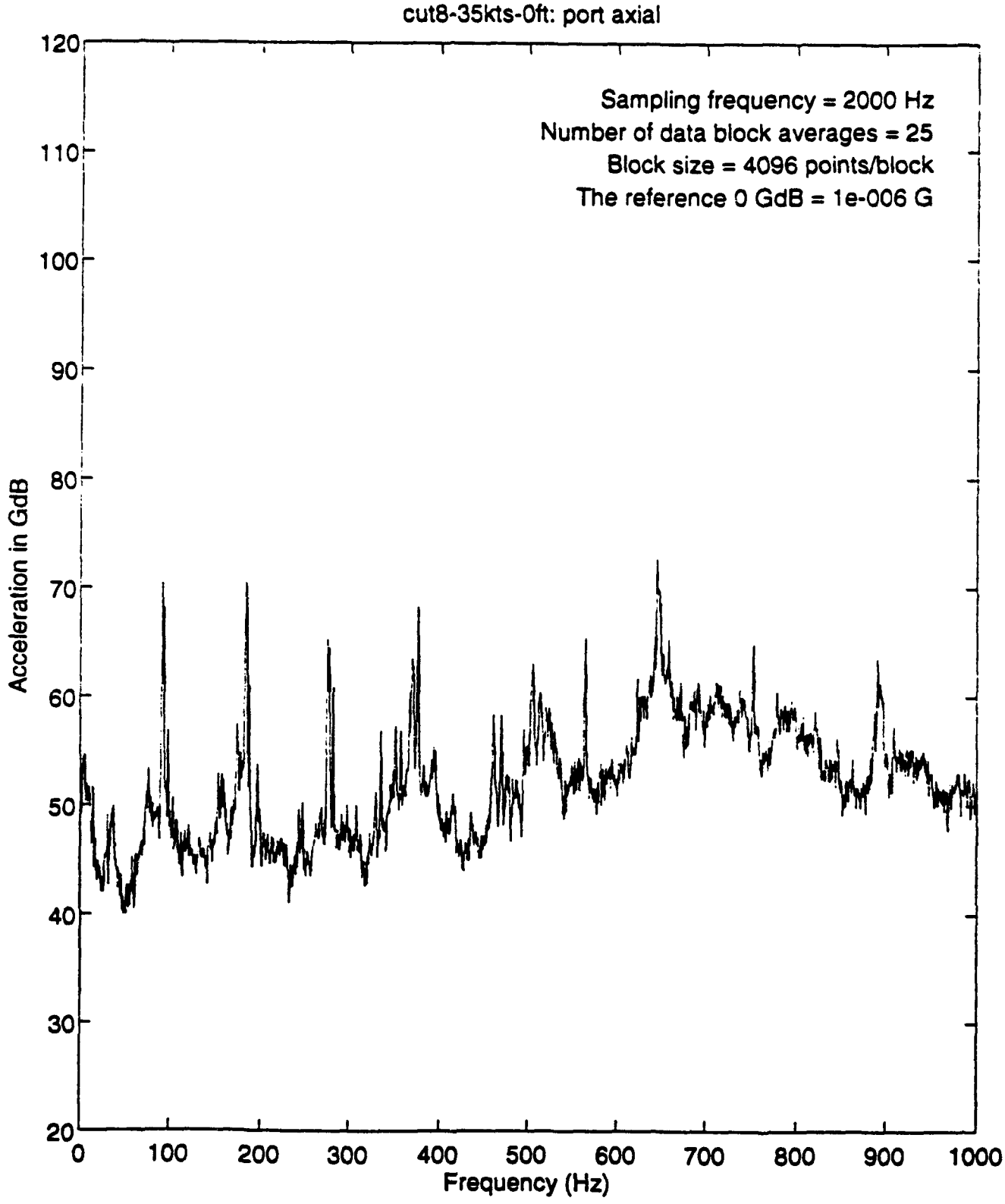
cut8-35kts-0ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004101 G
Standard deviation = 0.09179 G
The plot shows 1024 data points



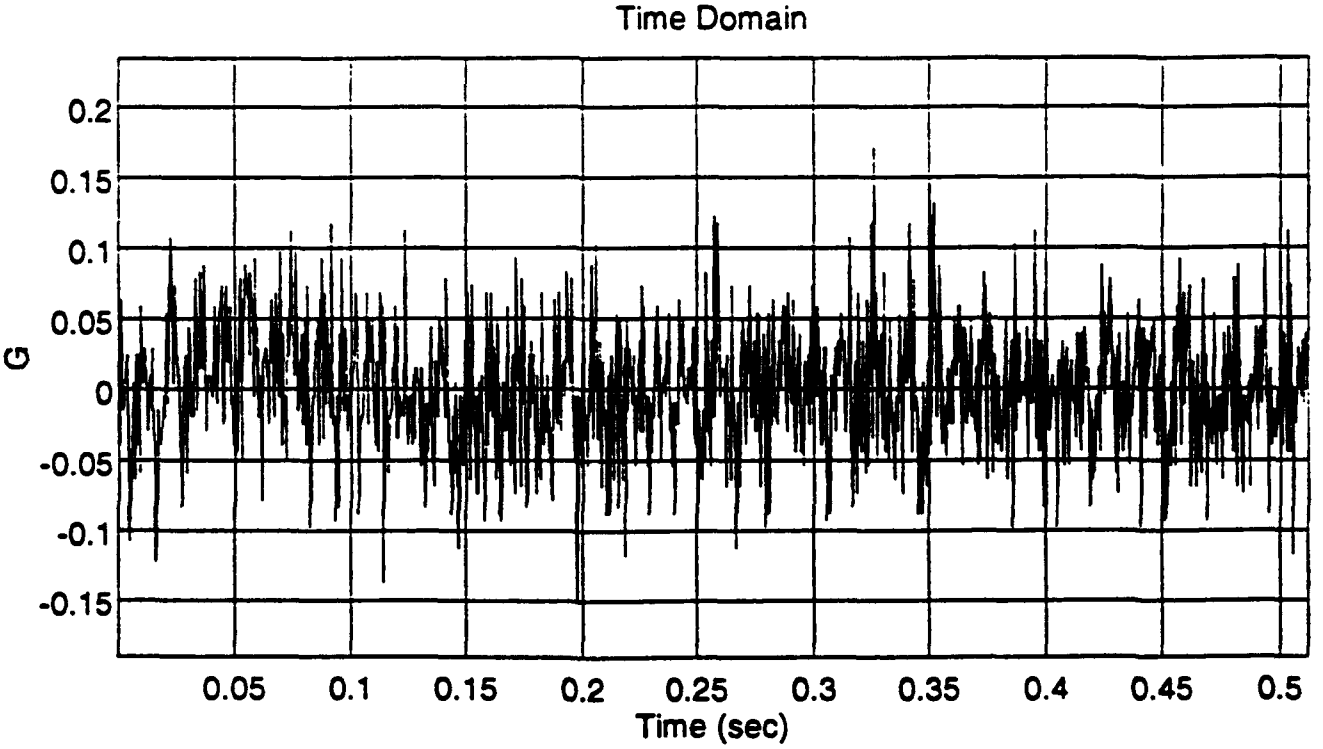

cut8-35kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

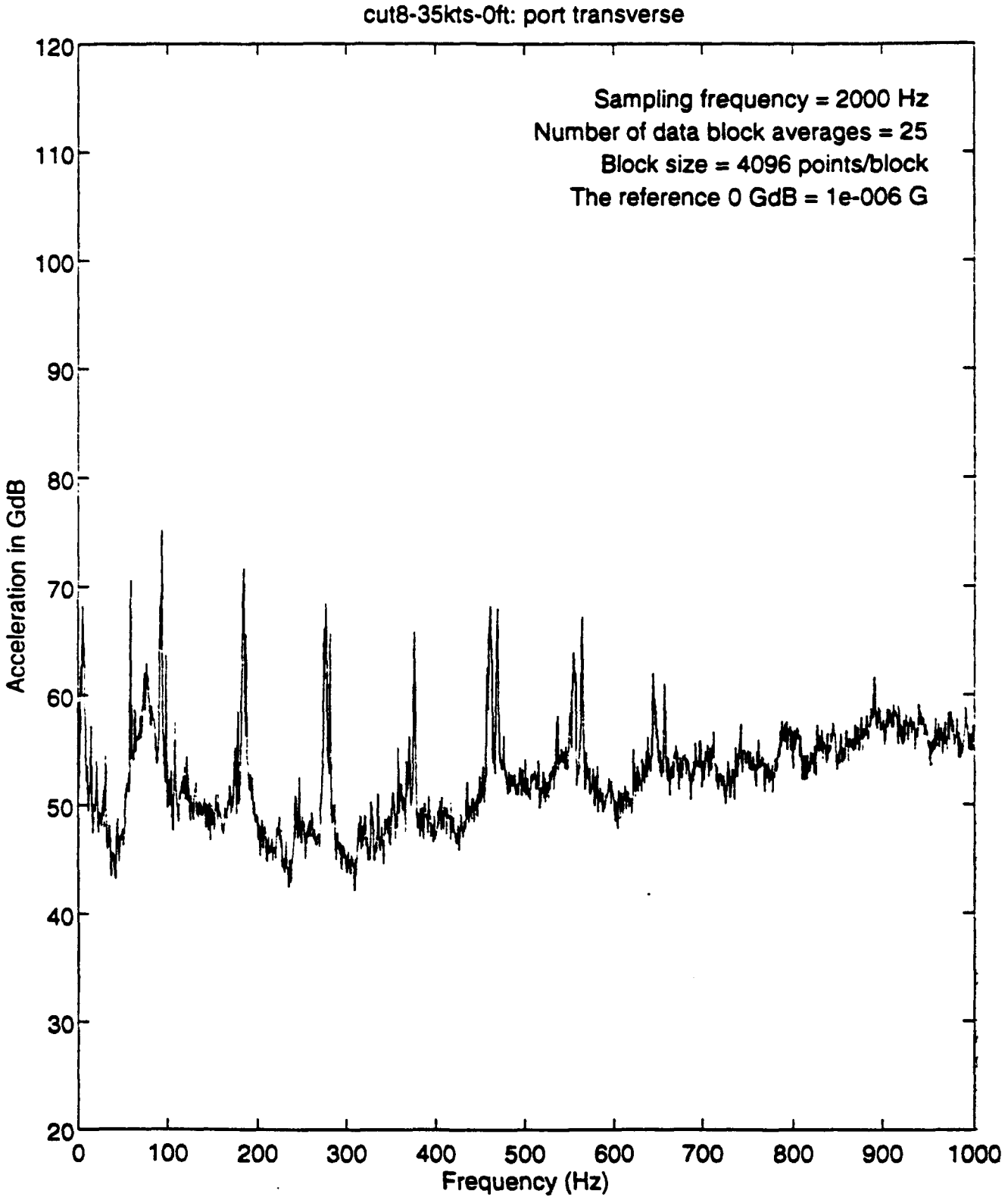
cut8-35kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001882 G
Standard deviation = 0.04526 G
The plot shows 1024 data points



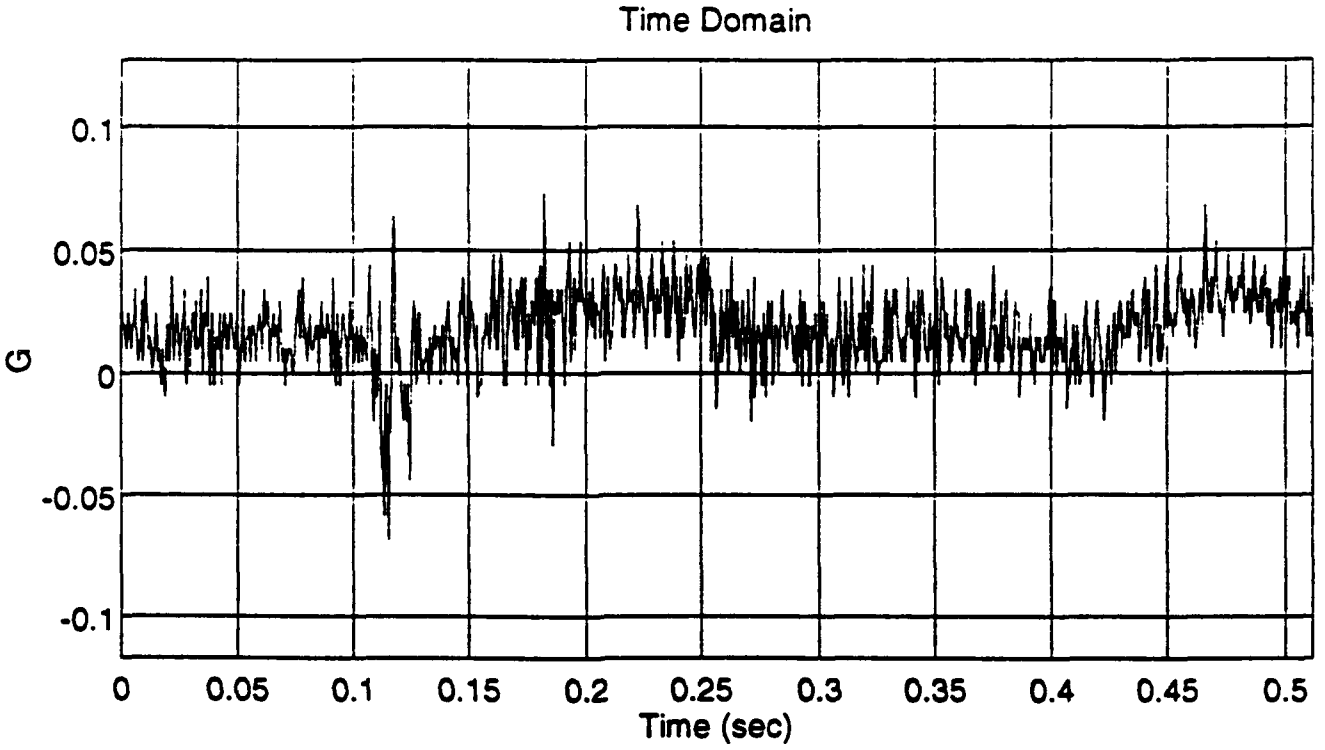

cut8-35kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

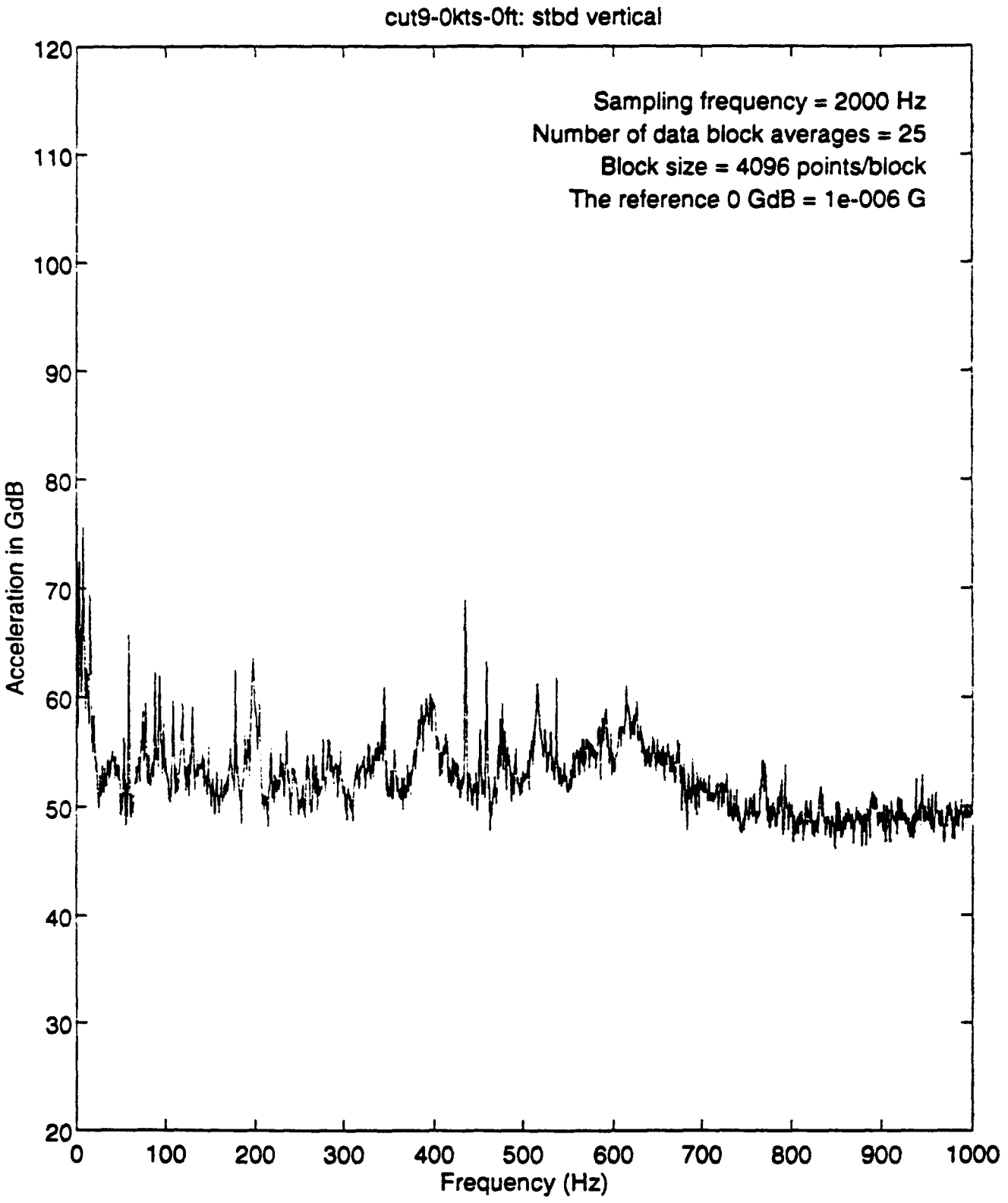
cut9-0kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.01364 G
Standard deviation = 0.03499 G
The plot shows 1024 data points



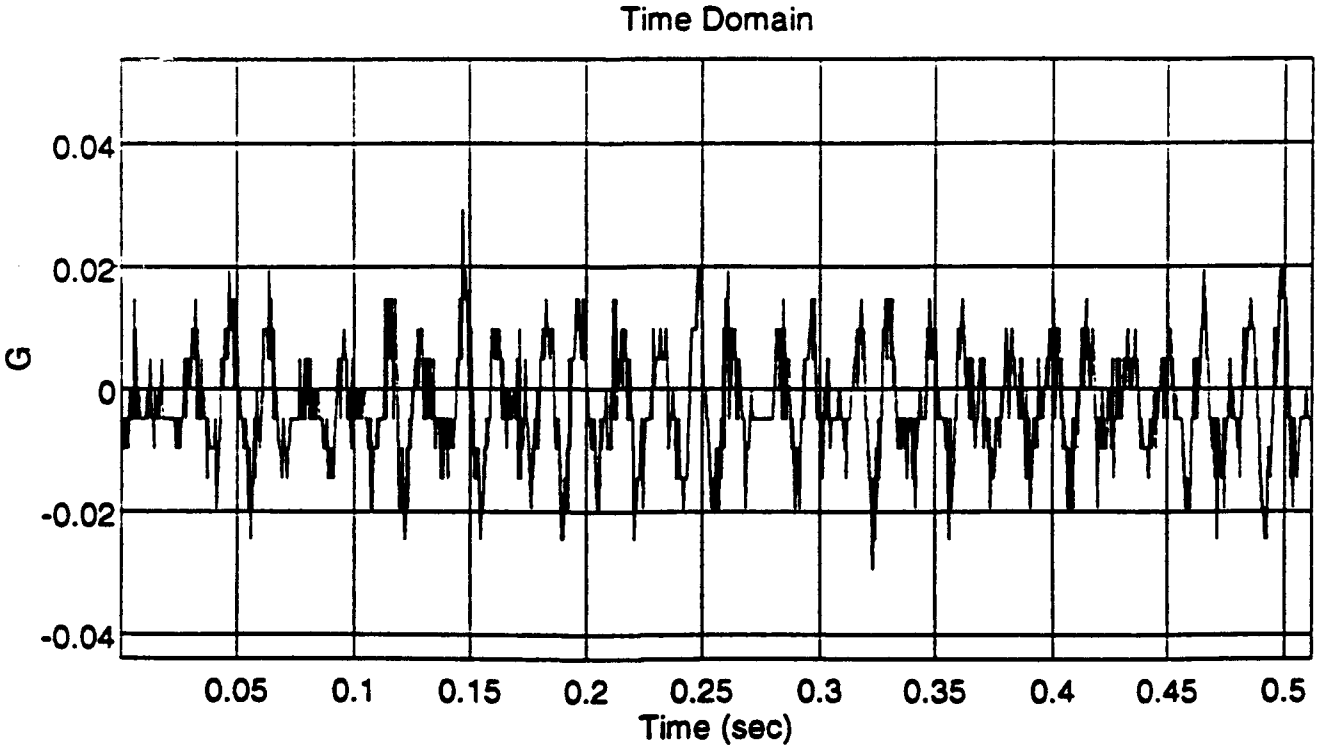

cut9-0kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

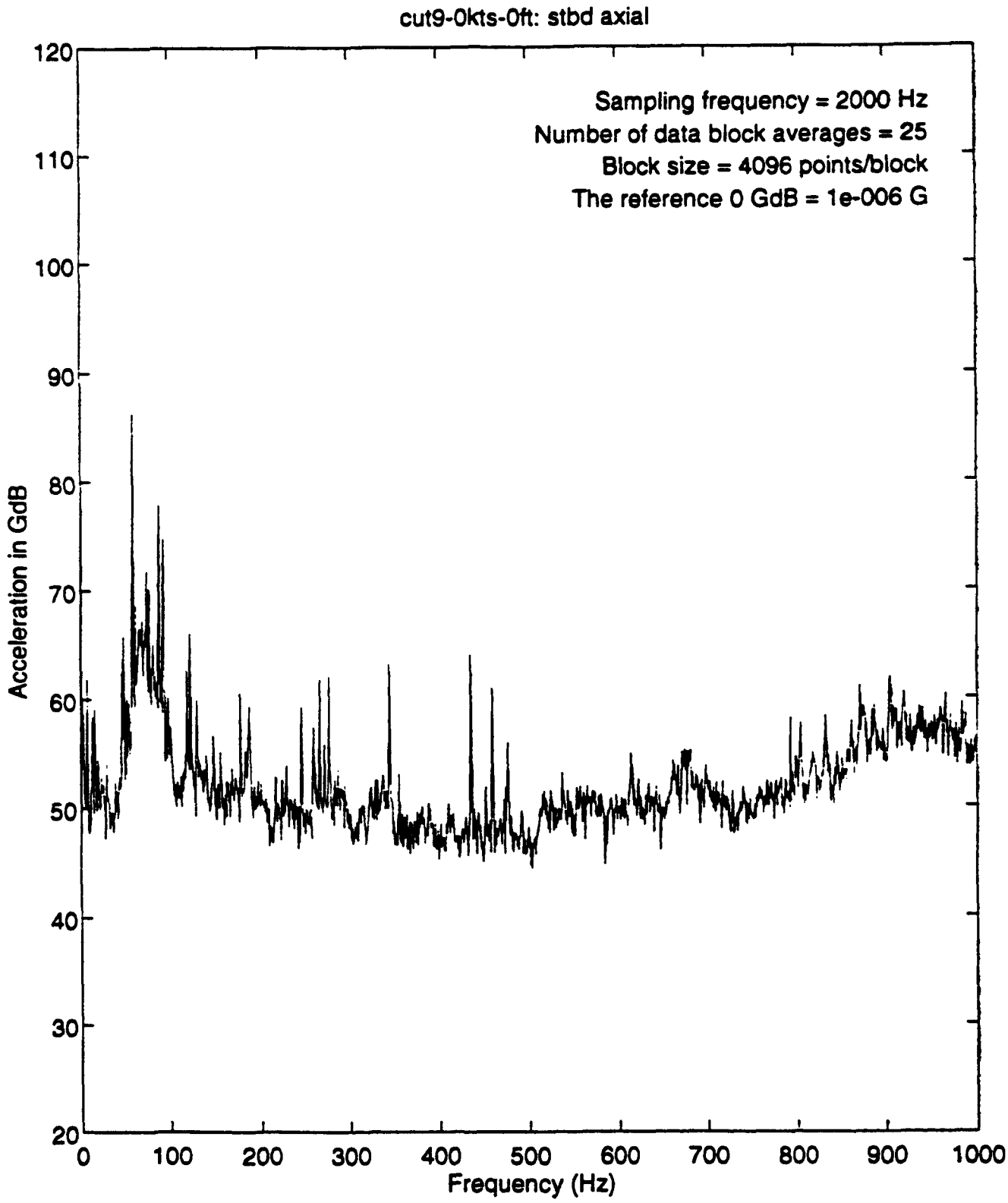
cut9-0kts-0ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.00667 G
Standard deviation = 0.01369 G
The plot shows 1024 data points



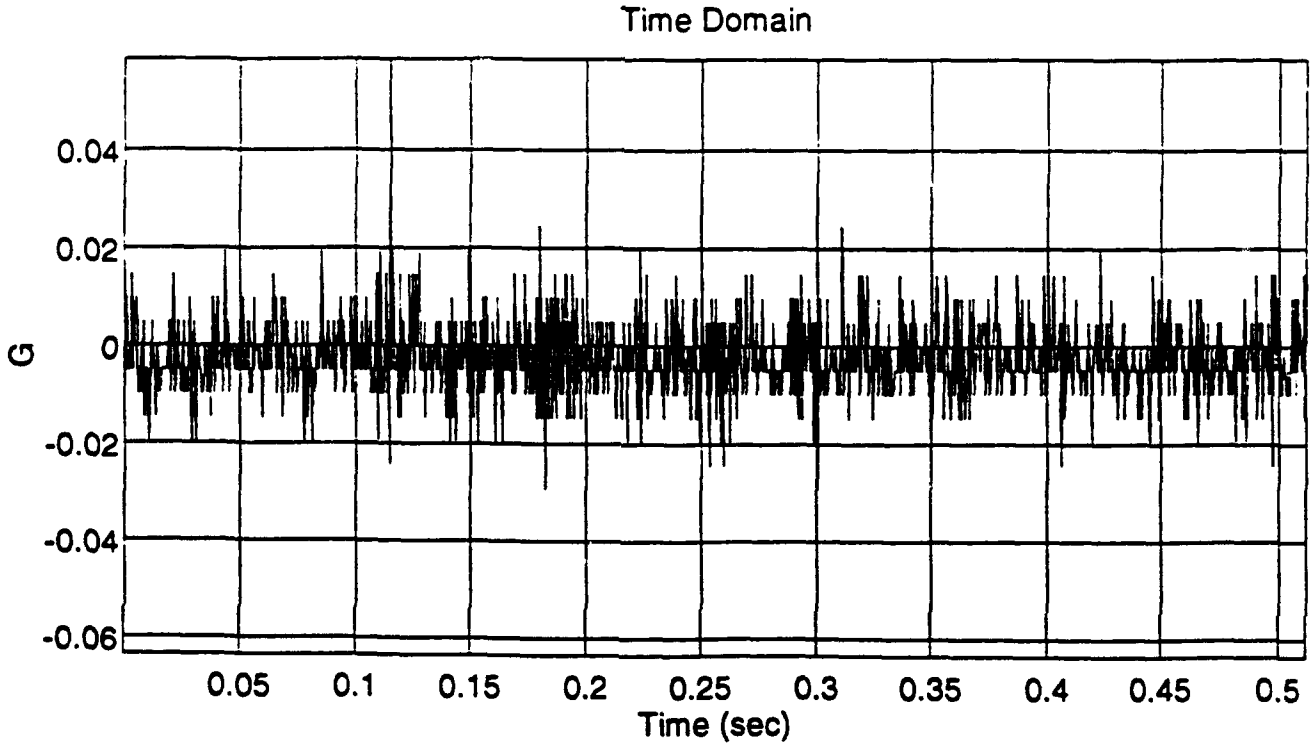

cut9-0kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

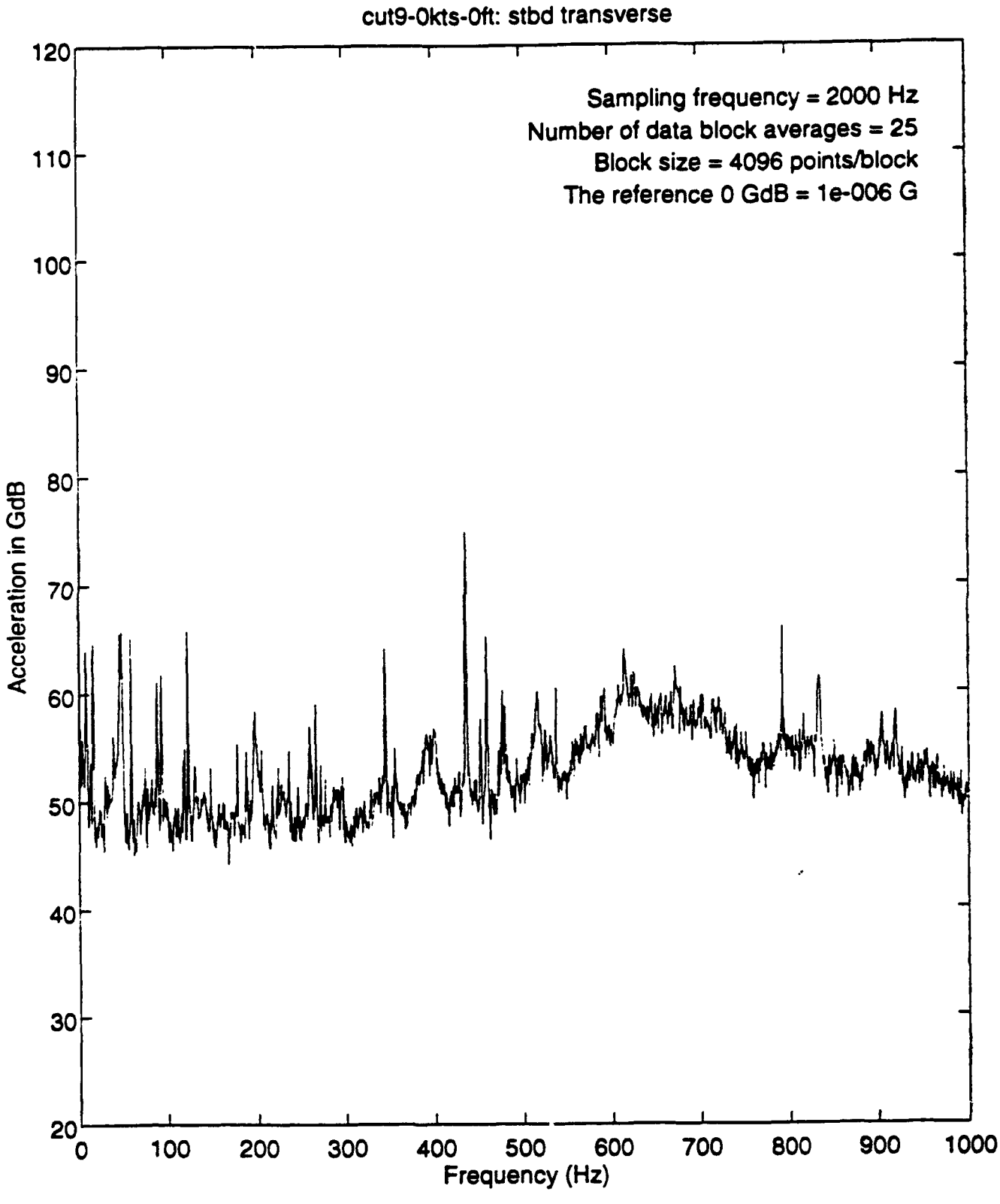
cut9-0kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.006449 G
Standard deviation = 0.01397 G
The plot shows 1024 data points



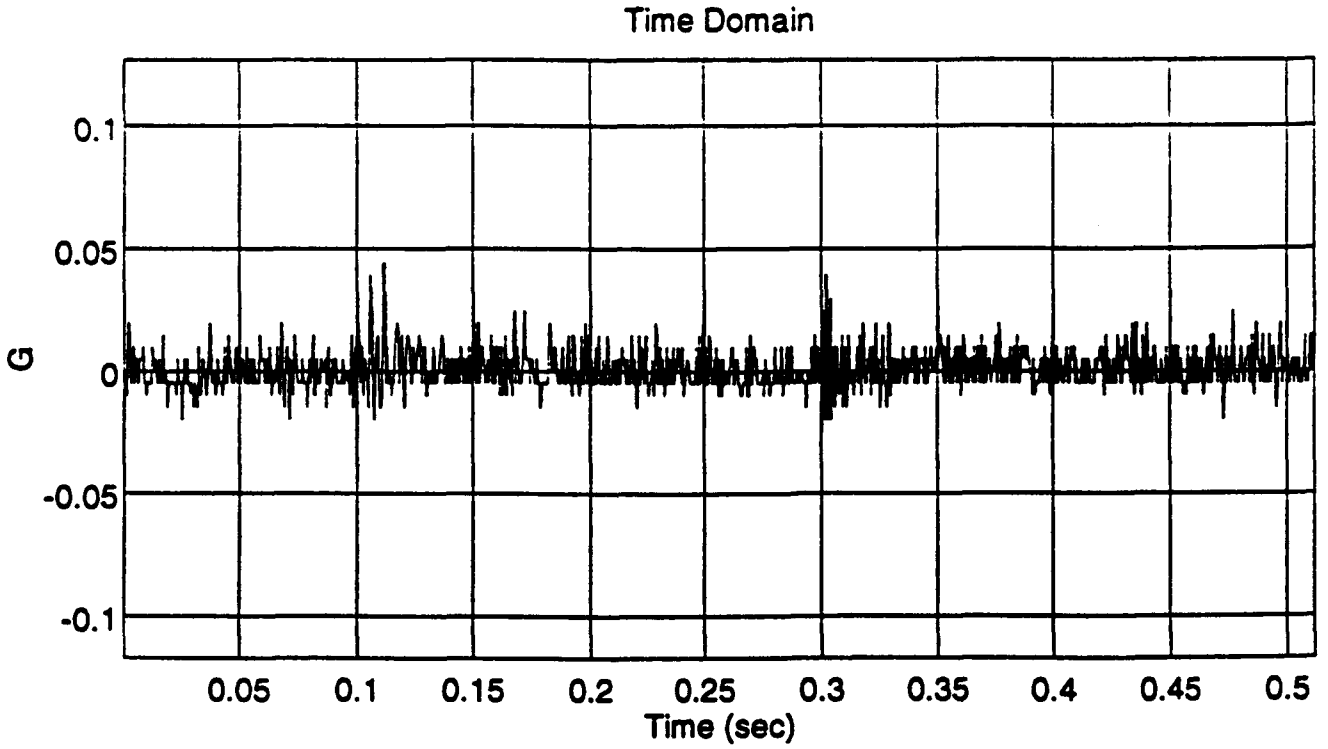

cut9-0kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

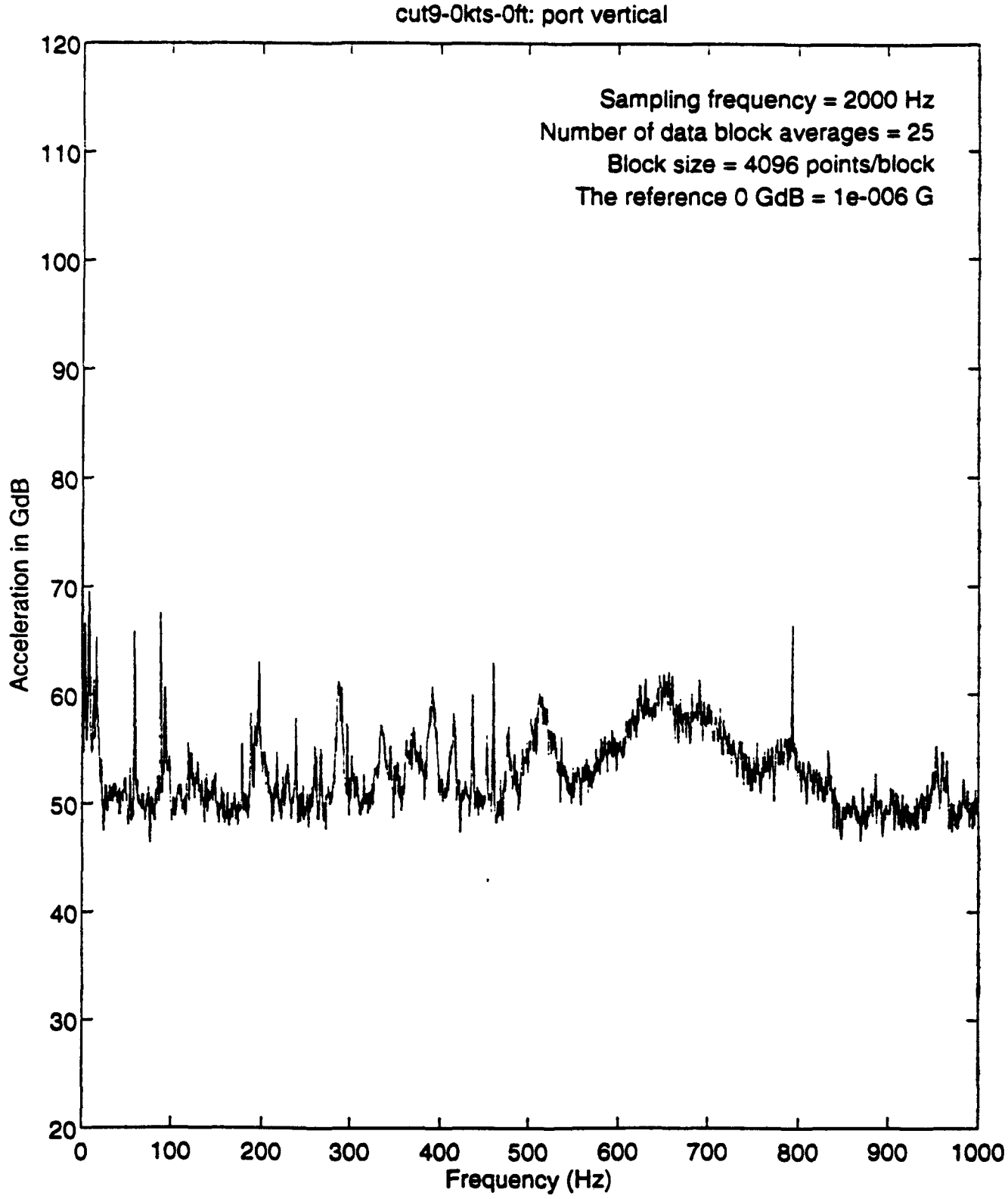
cut9-0kts-0ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.005235 G
Standard deviation = 0.01778 G
The plot shows 1024 data points



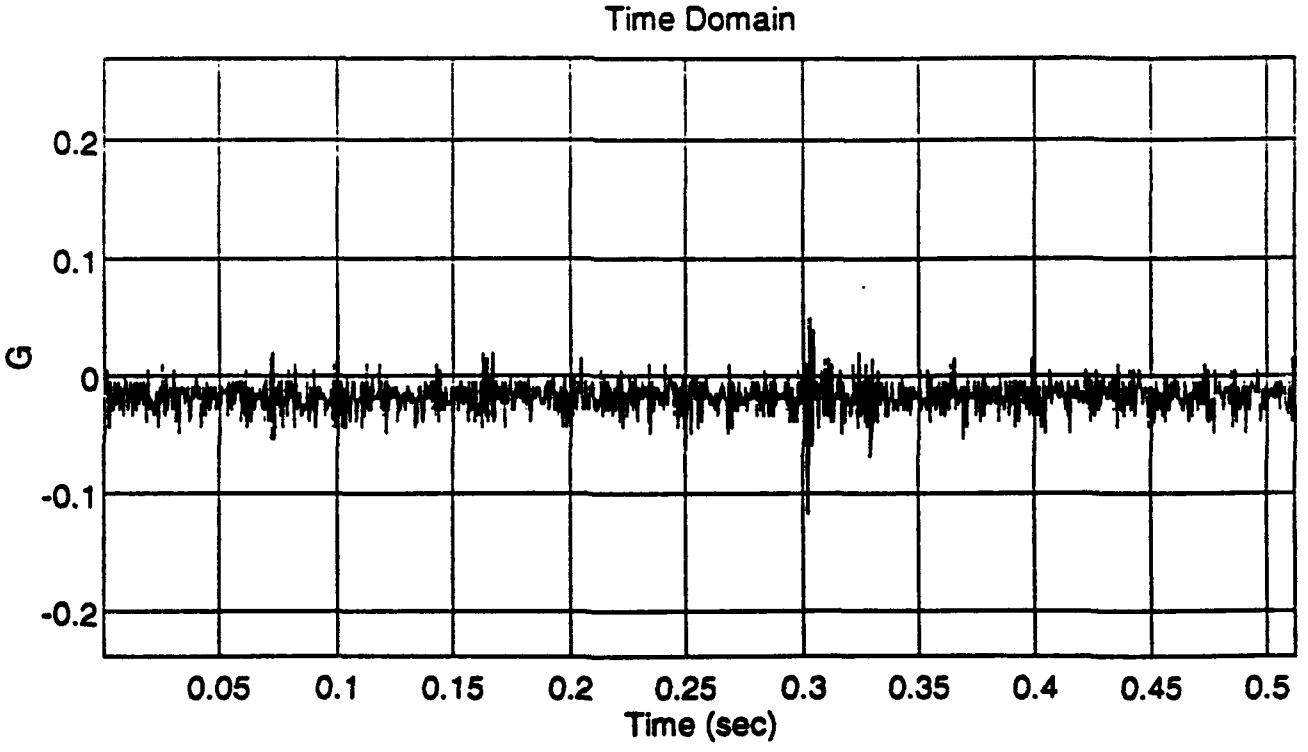

cut9-0kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

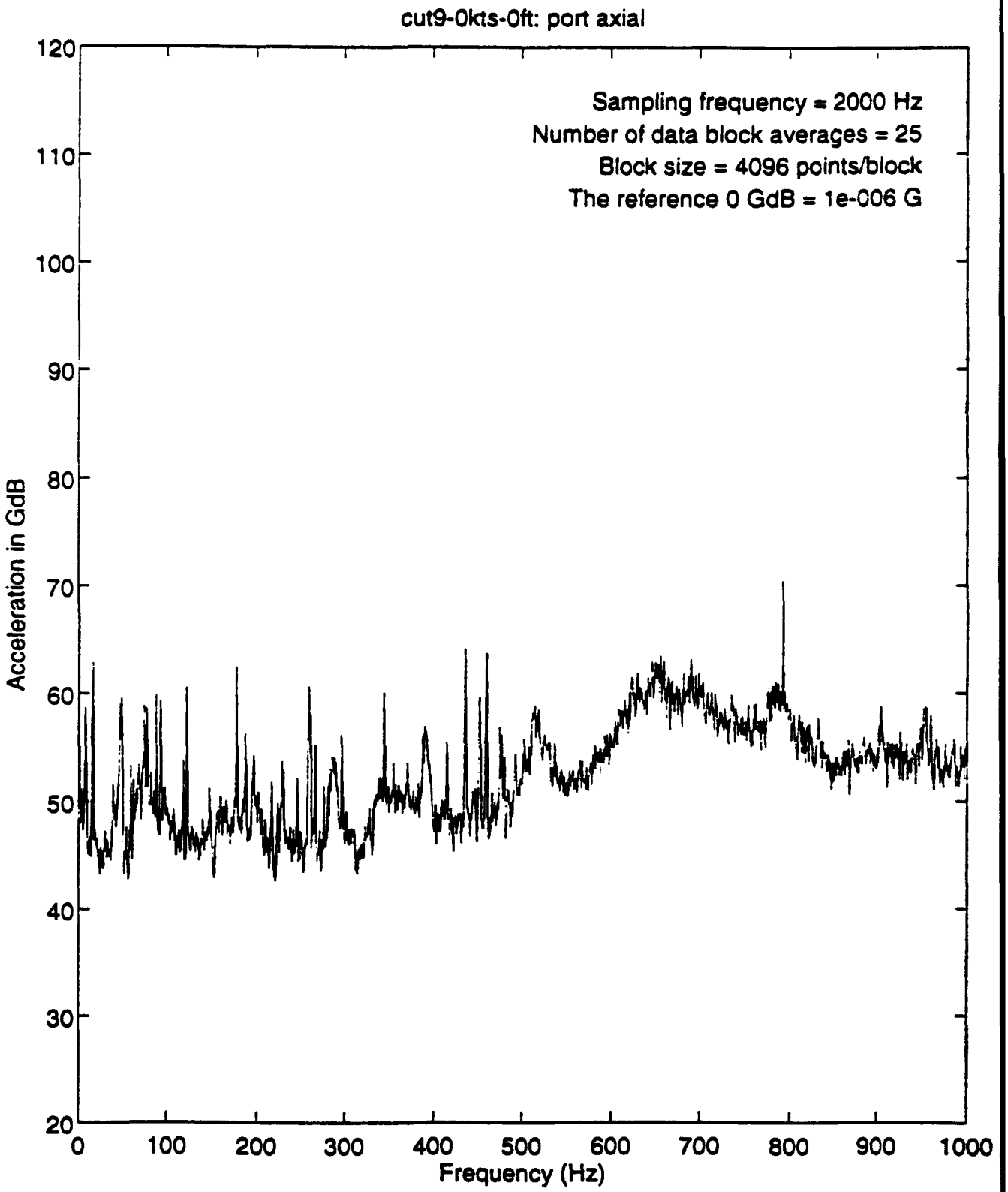
cut9-0kts-0ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005631 G
Standard deviation = 0.01426 G
The plot shows 1024 data points



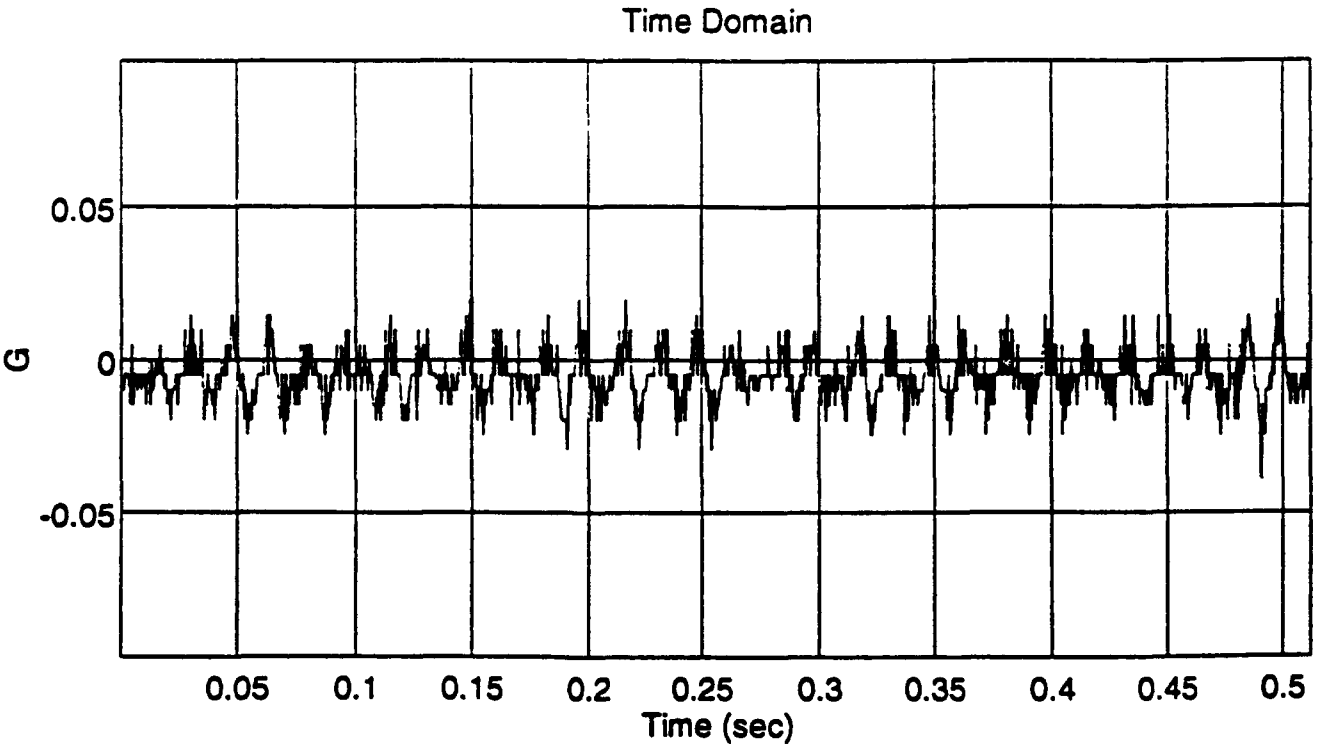

cut9-0kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

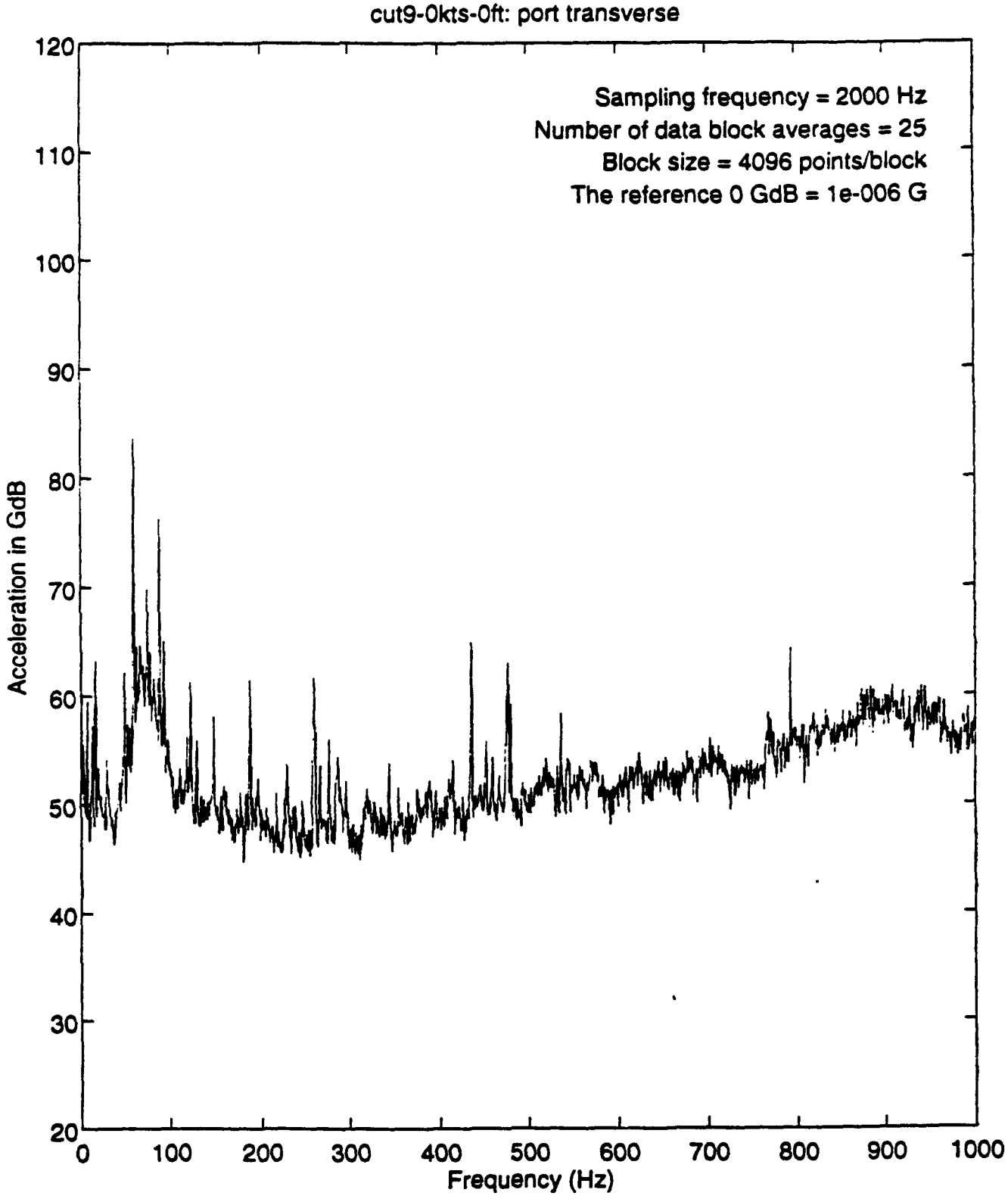
cut9-0kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.0006278 G
Standard deviation = 0.009576 G
The plot shows 1024 data points



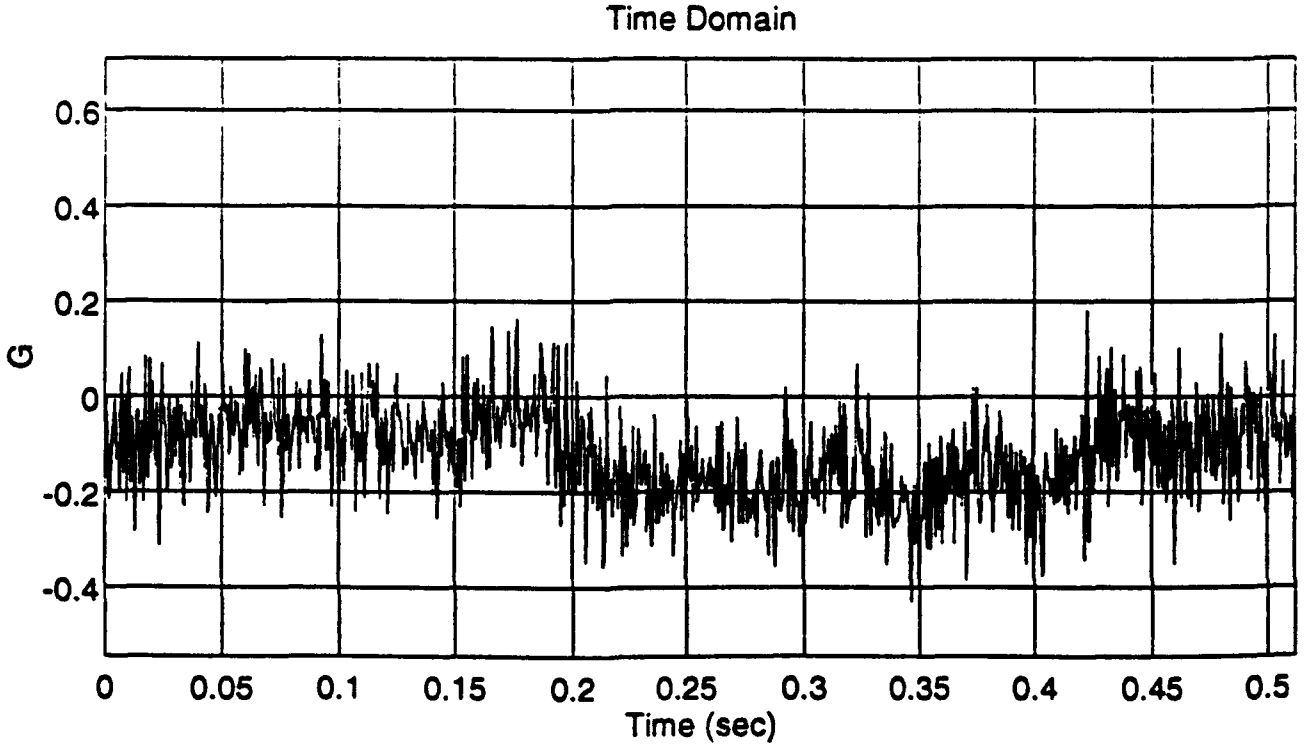

cut9-0kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

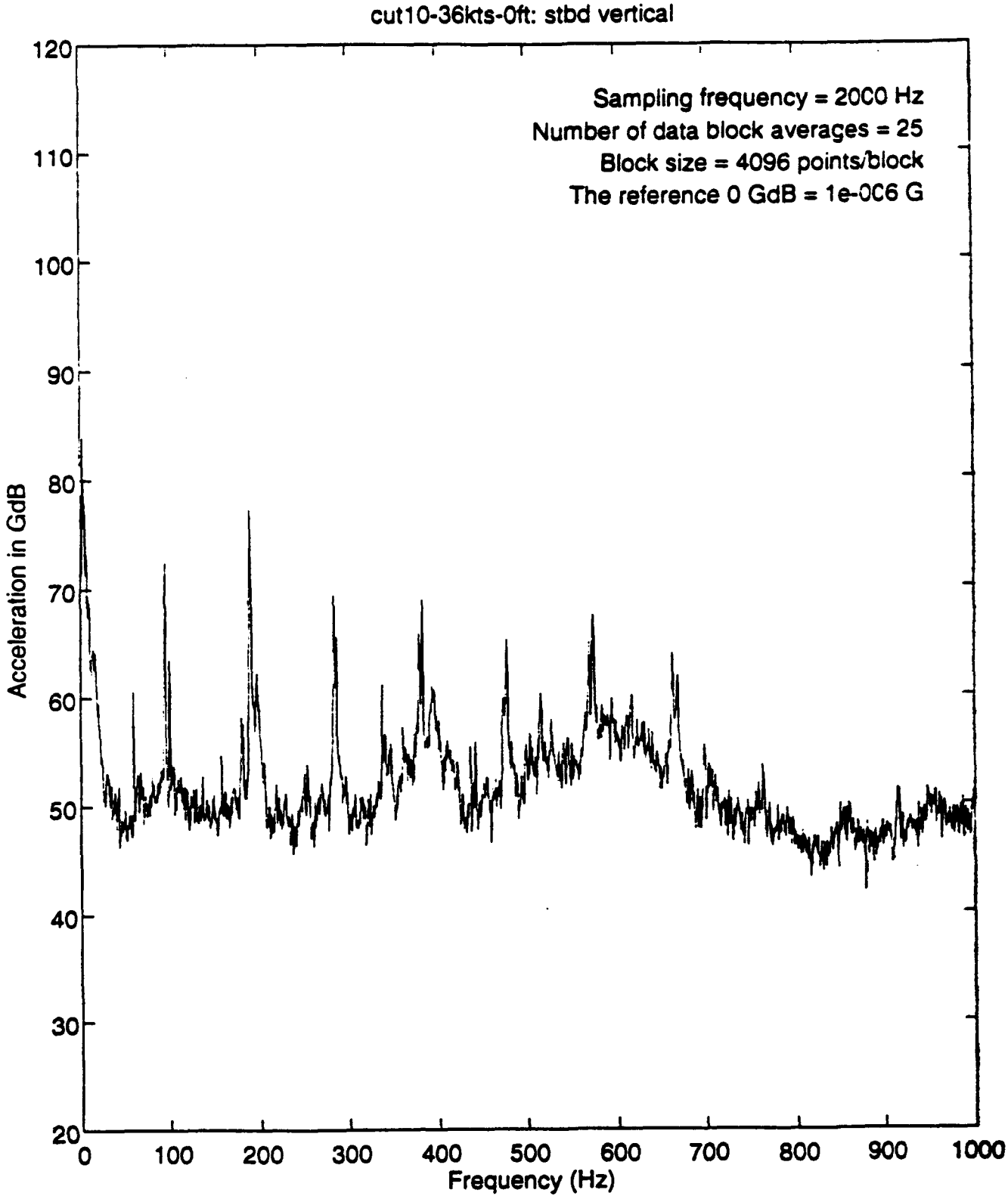
cut10-36kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004197 G
Standard deviation = 0.1458 G
The plot shows 1024 data points



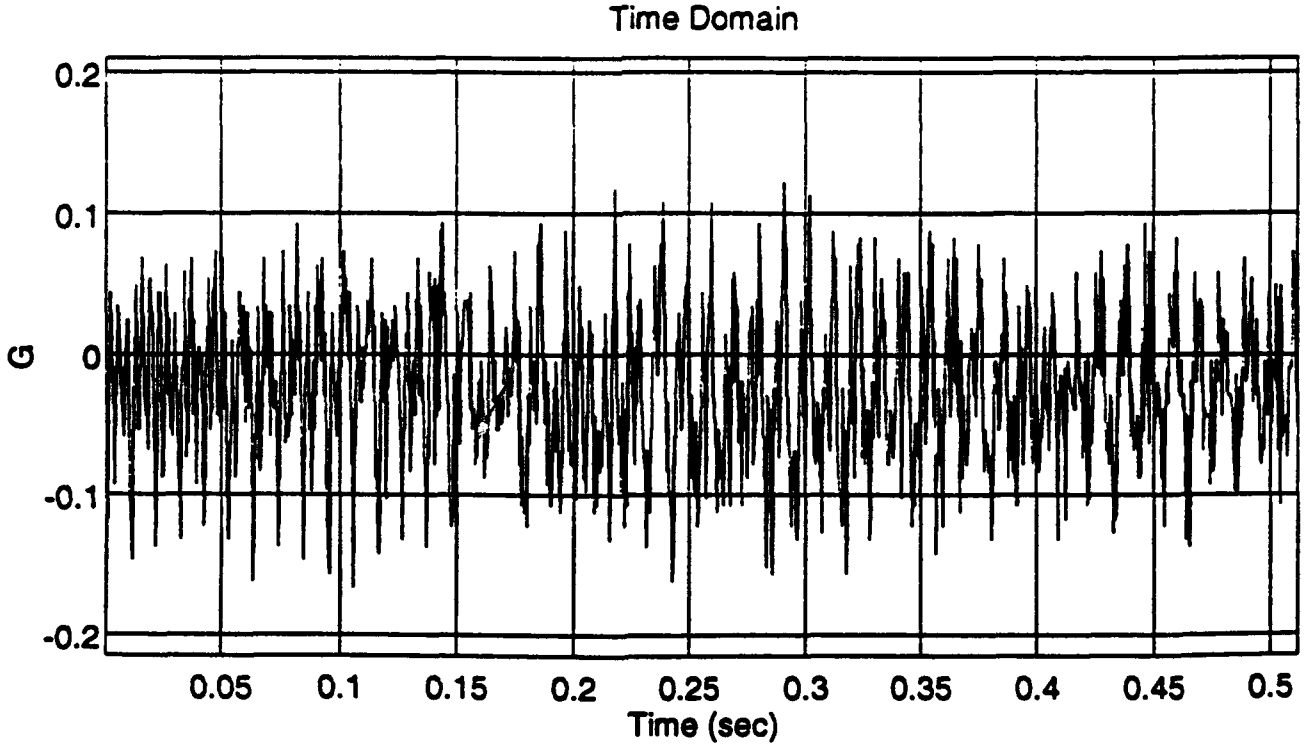

cut10-36kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

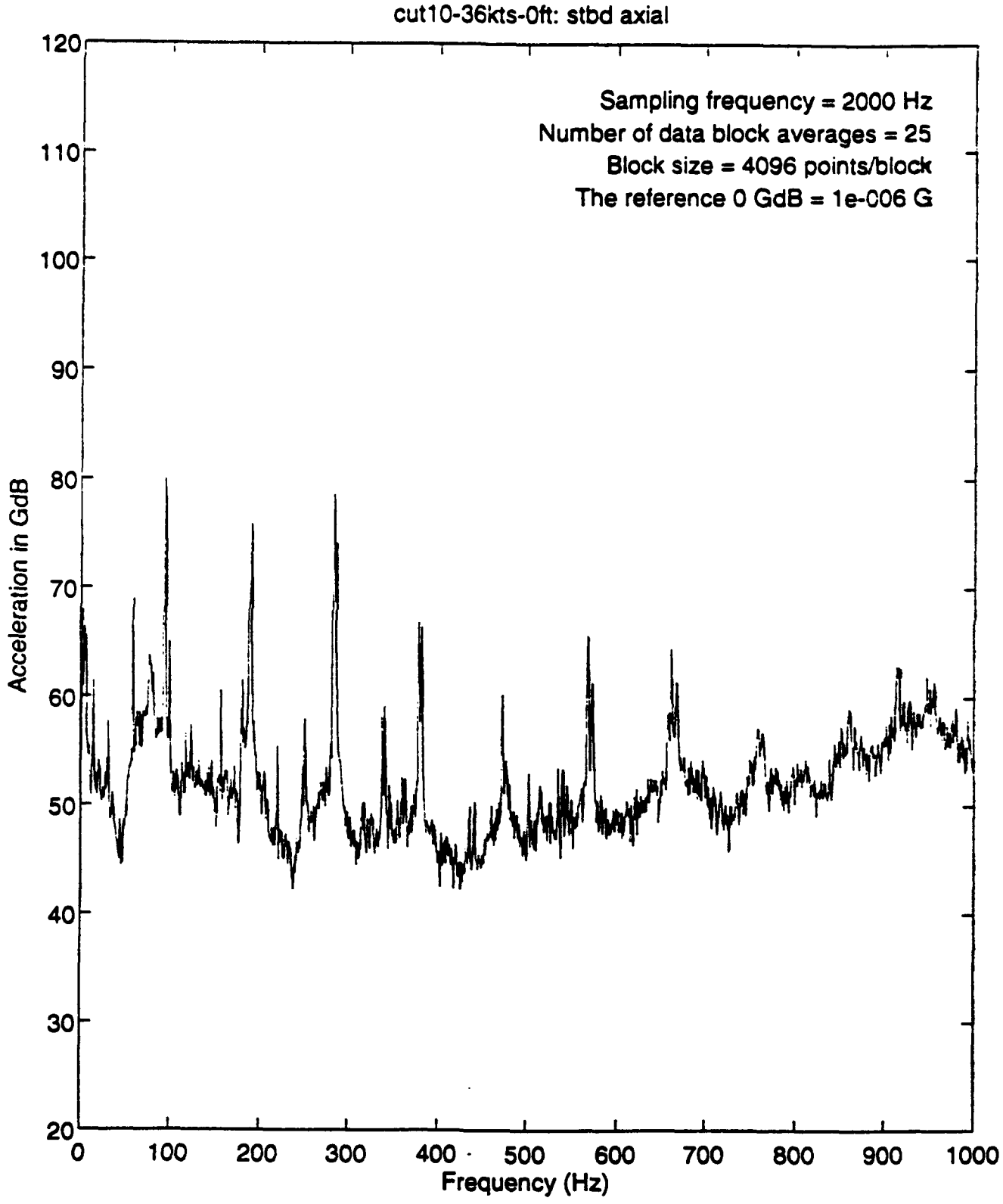
cut10-36kts-0ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005945 G
Standard deviation = 0.05191 G
The plot shows 1024 data points



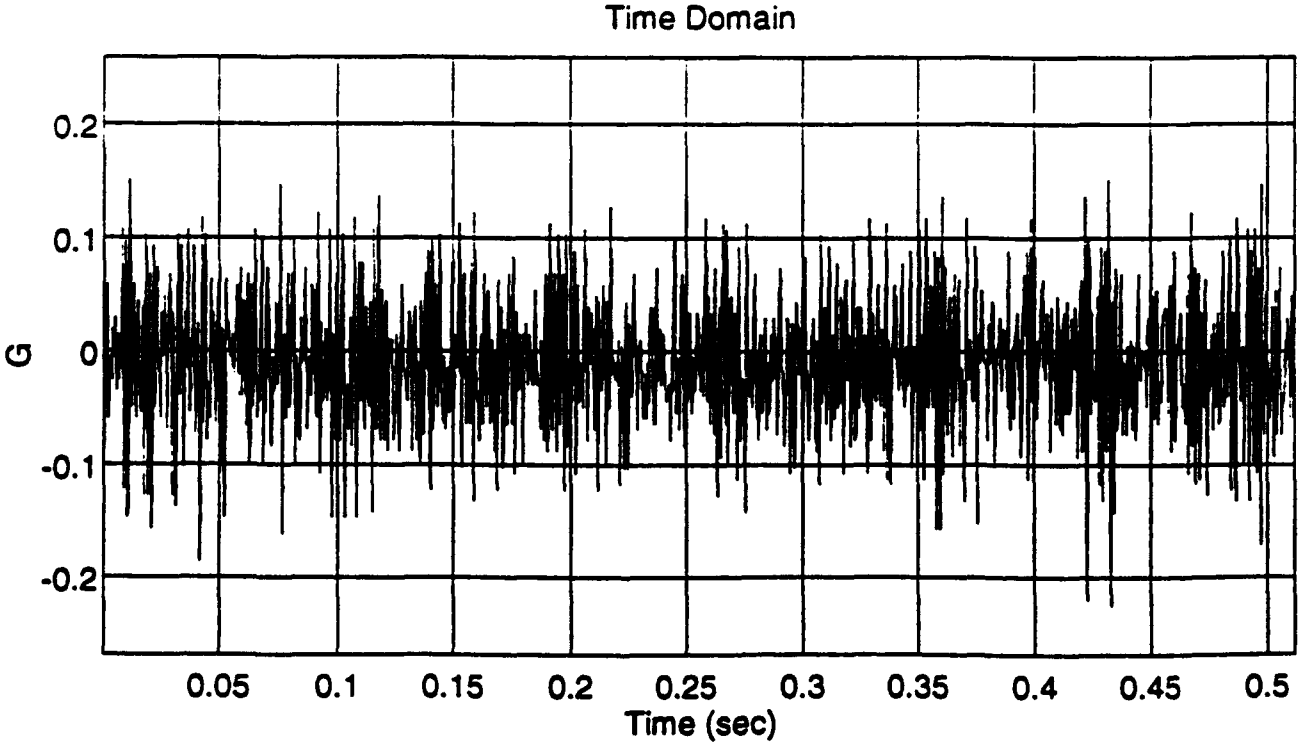

cut10-36kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

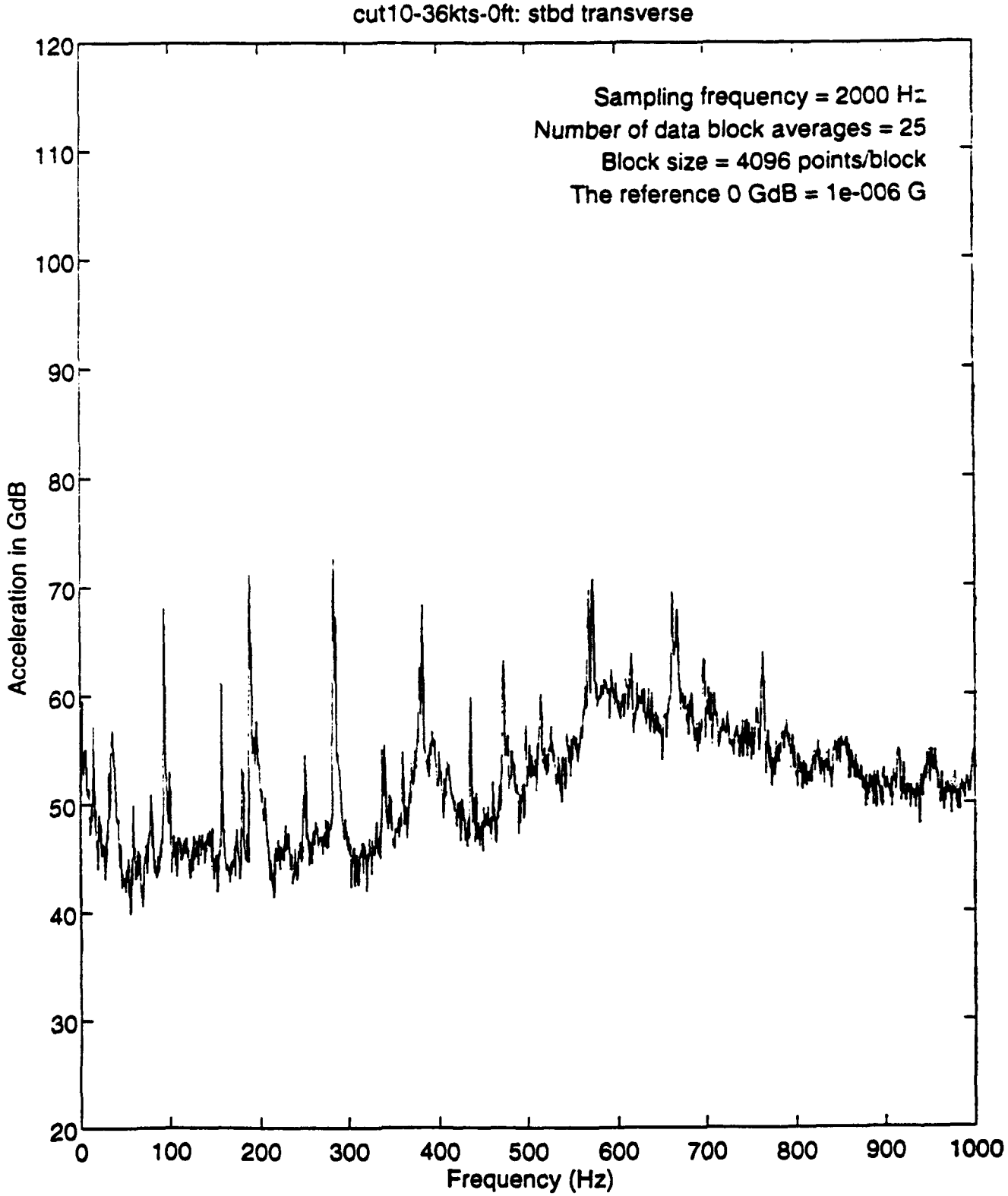
cut10-36kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.006841 G
Standard deviation = 0.06371 G
The plot shows 1024 data points




cut10-36kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut10-36kts-0ft: port vertical

Data sampling frequency = 2000 Hz

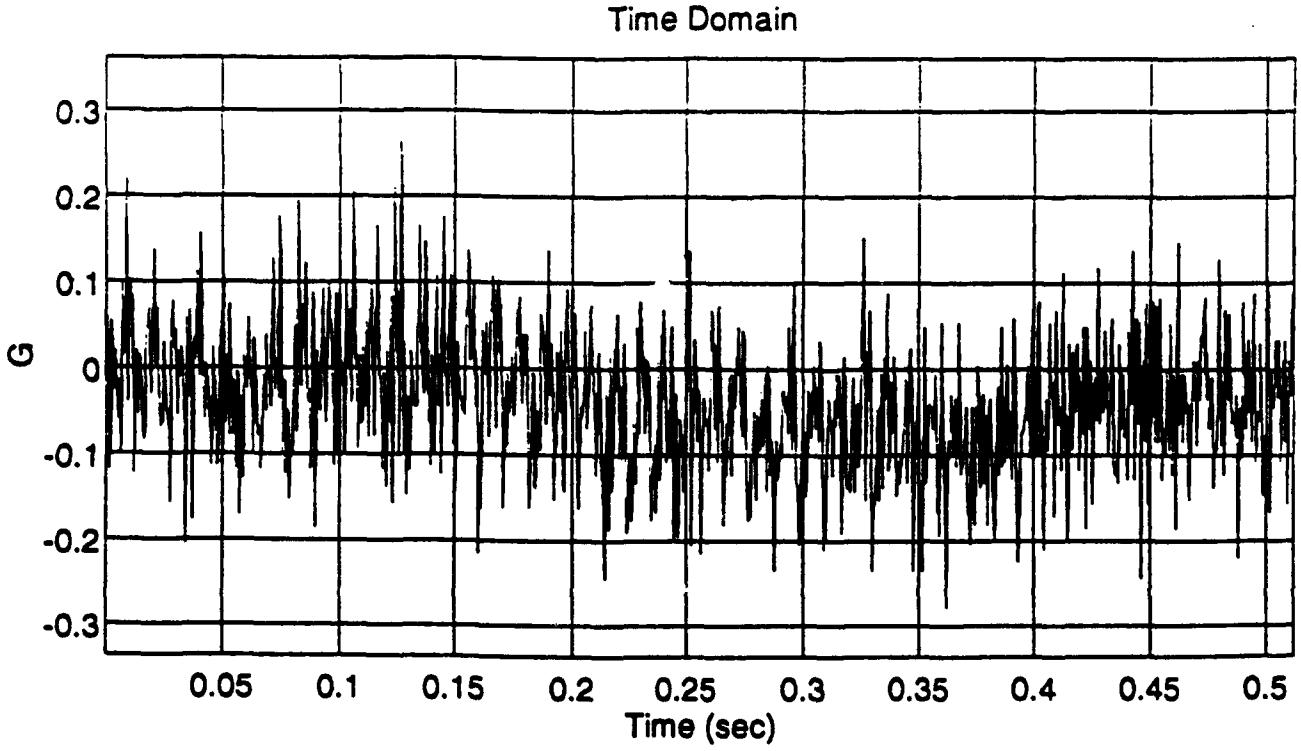
Total number of sampling data points = 1.024e+005

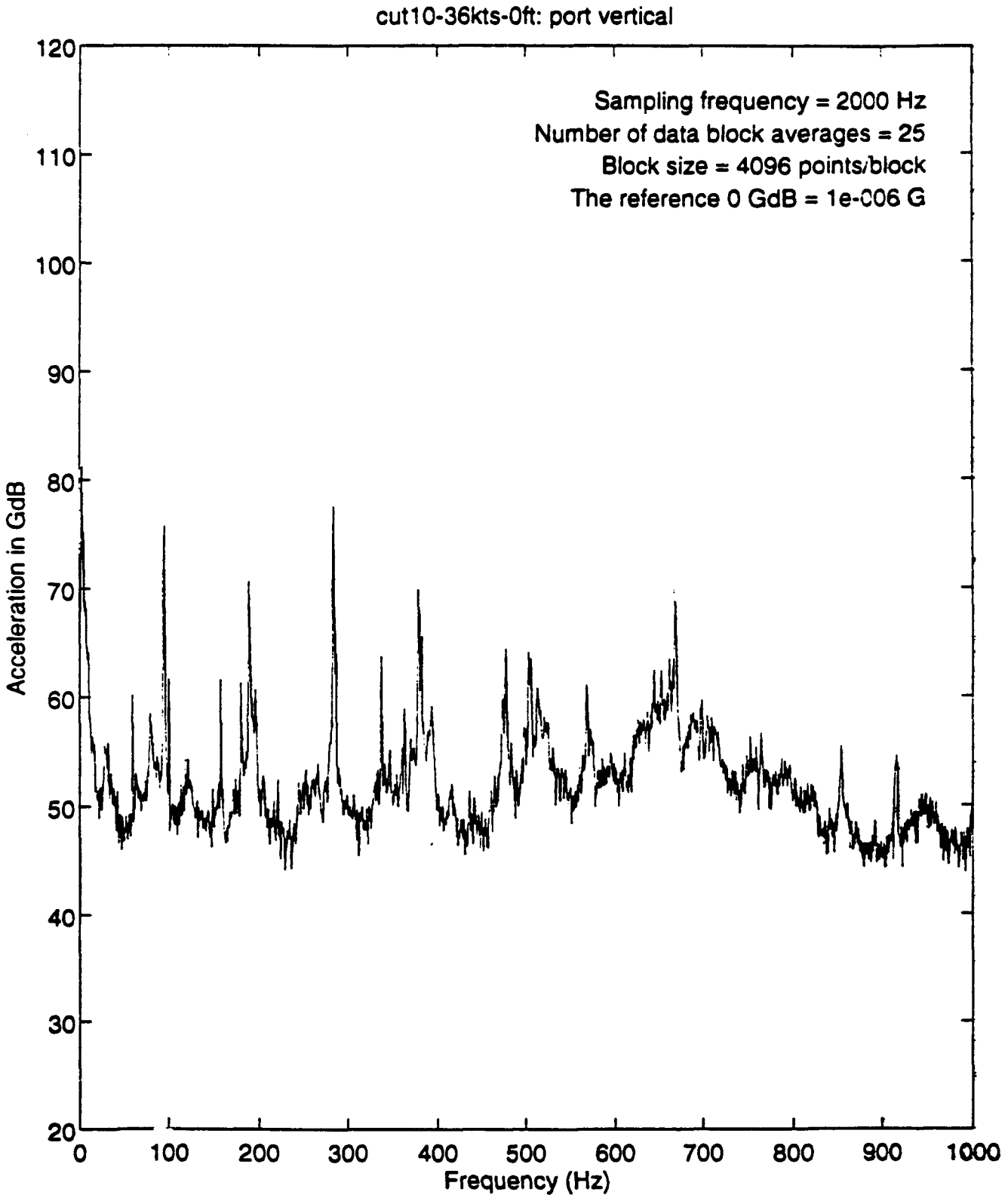
* The time domain

Mean value = -0.004521 G

Standard deviation = 0.08574 G

The plot shows 1024 data points




cut10-36kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut10-36kts-0ft: port axial

Data sampling frequency = 2000 Hz

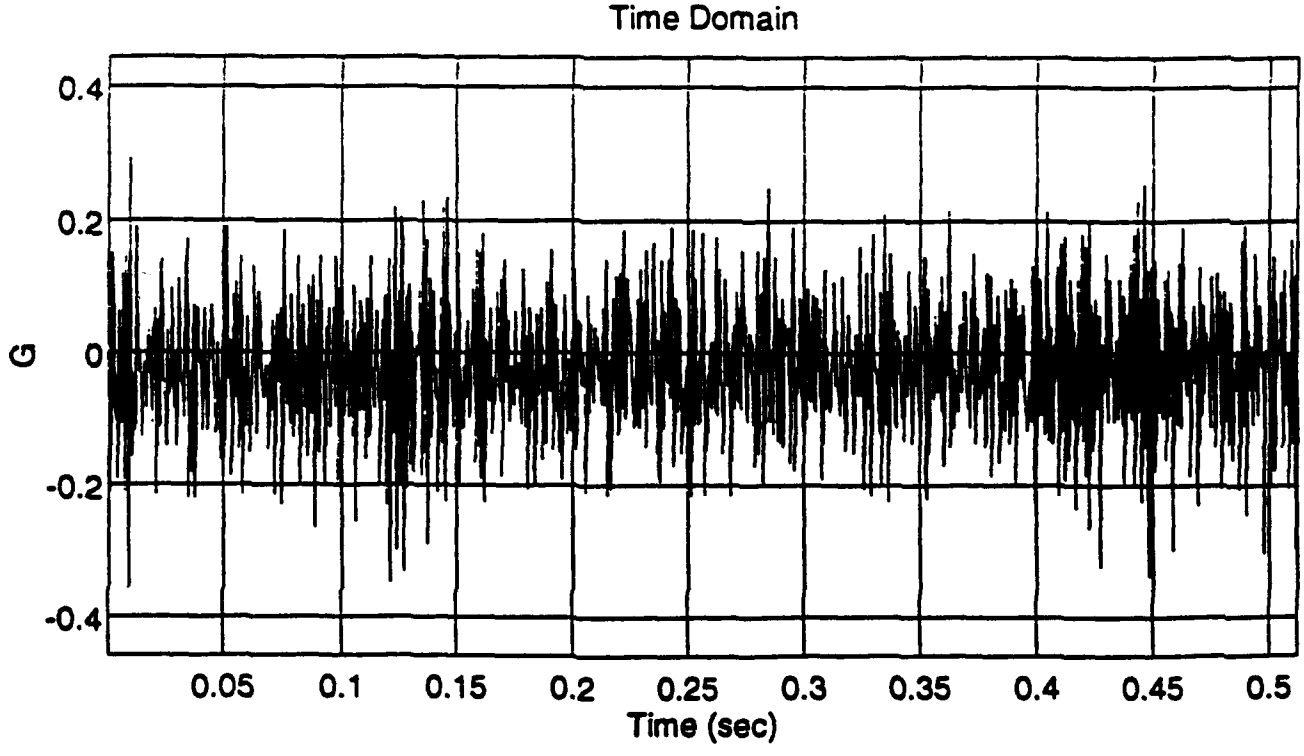
Total number of sampling data points = 1.024e+005

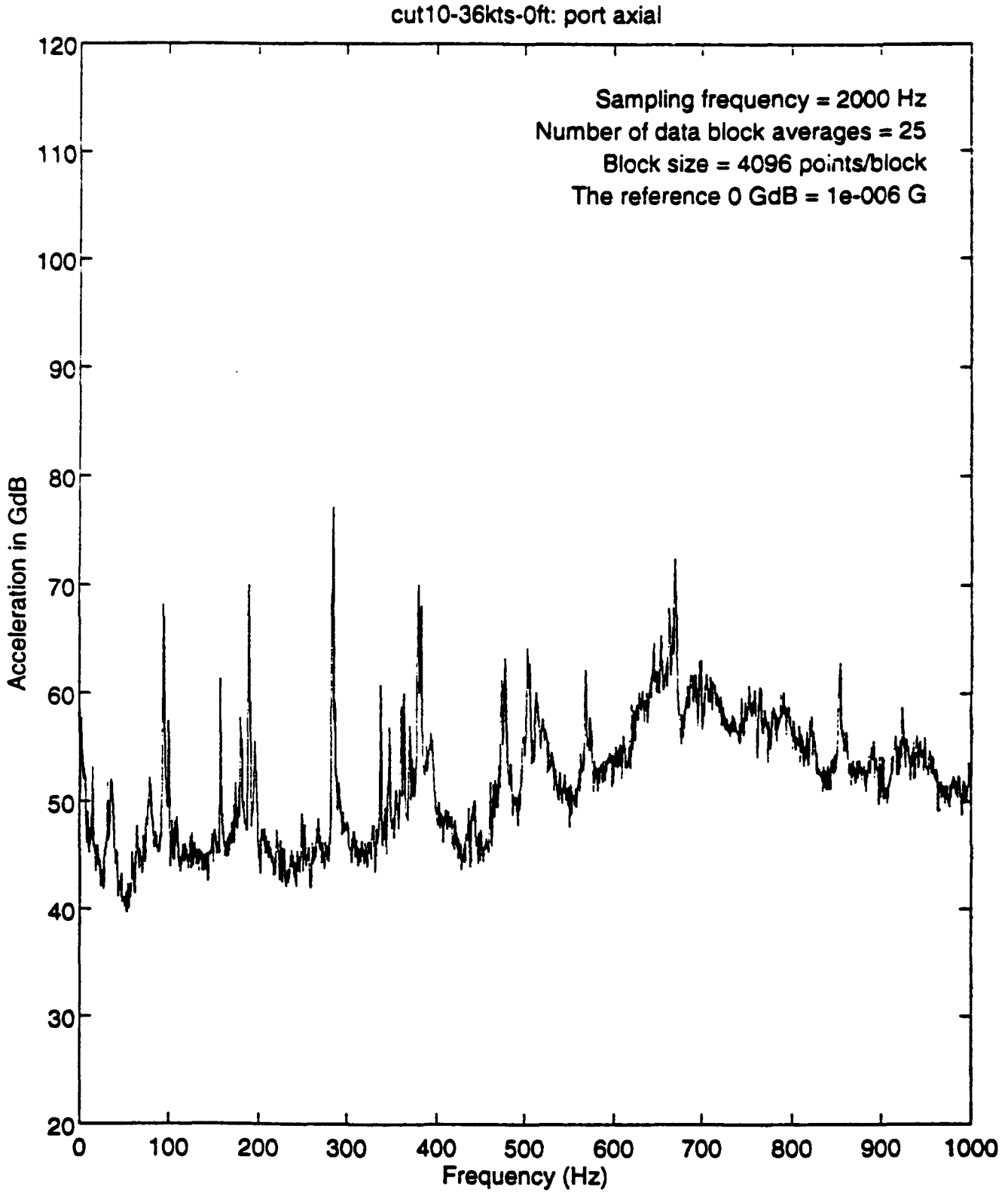
* The time domain

Mean value = -0.01038 G

Standard deviation = 0.1022 G

The plot shows 1024 data points



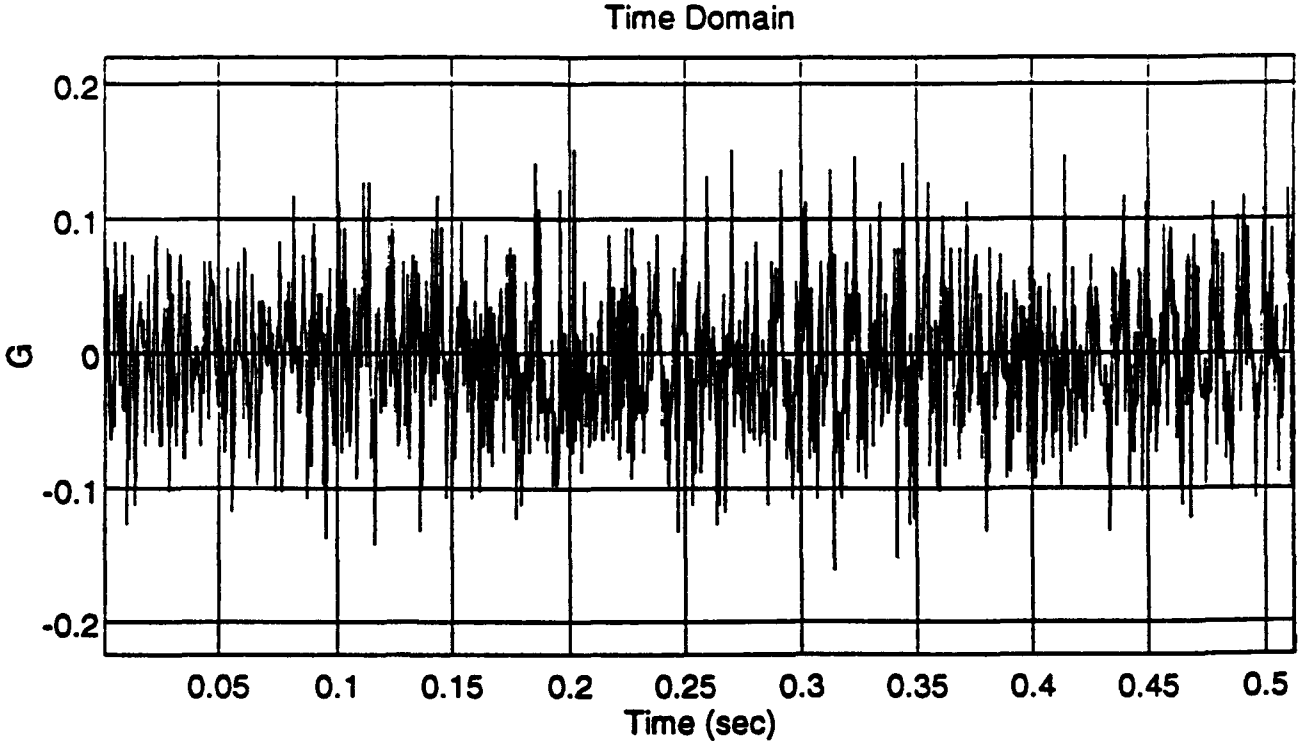

cut10-36kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

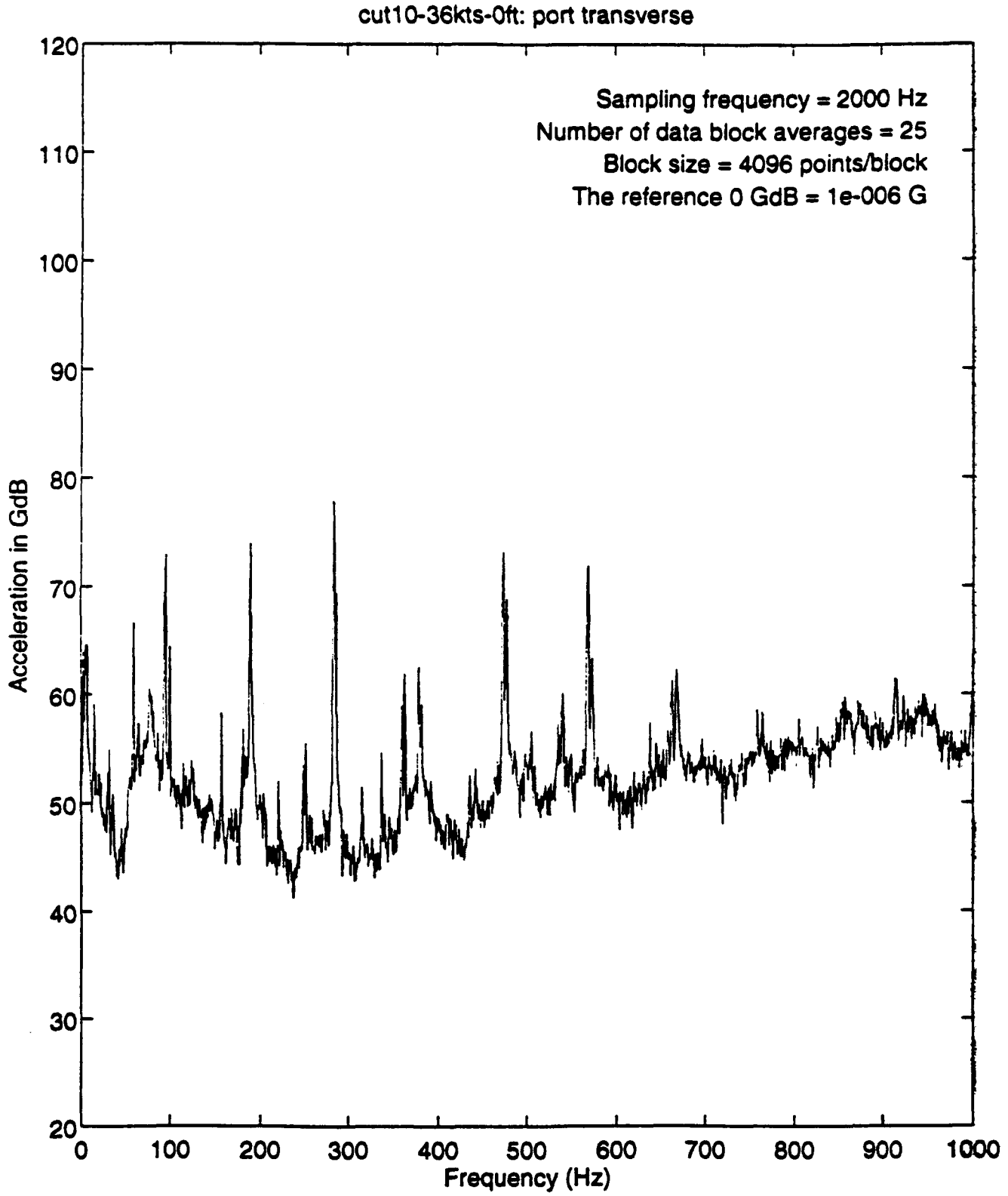
cut10-36kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004115 G
Standard deviation = 0.0535 G
The plot shows 1024 data points



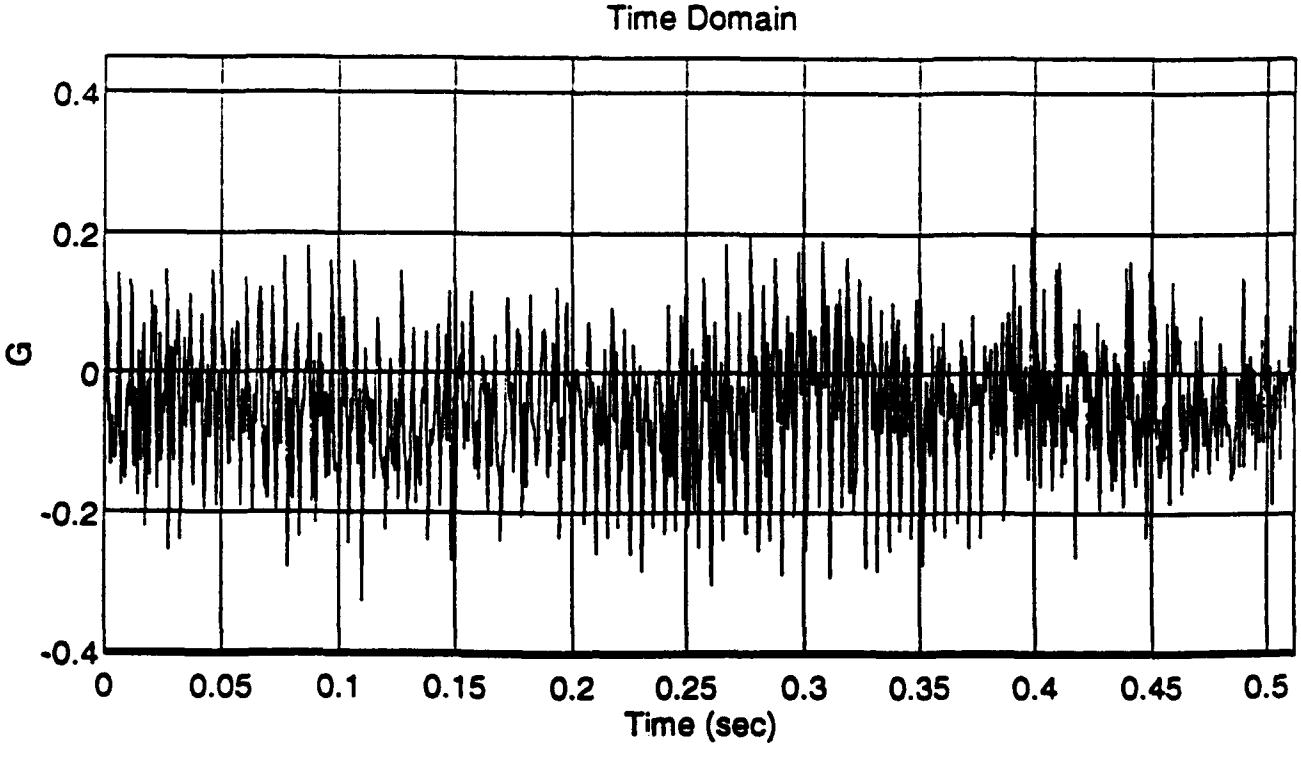

cut10-36kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

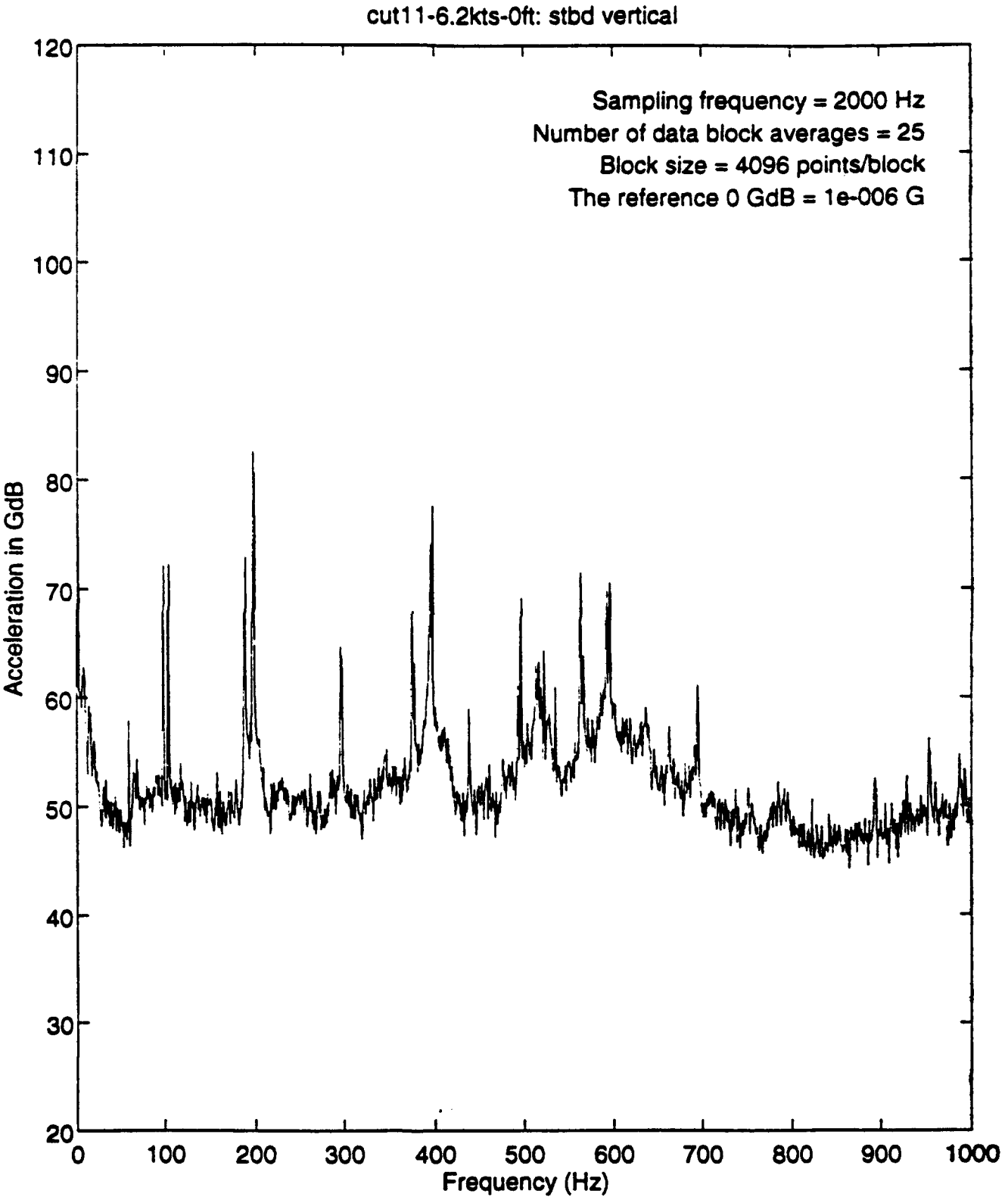
cut11-6.2kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.01076 G
Standard deviation = 0.1022 G
The plot shows 1024 data points




cut11-6.2kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut11-6.2kts-0ft: stbd axial

Data sampling frequency = 2000 Hz

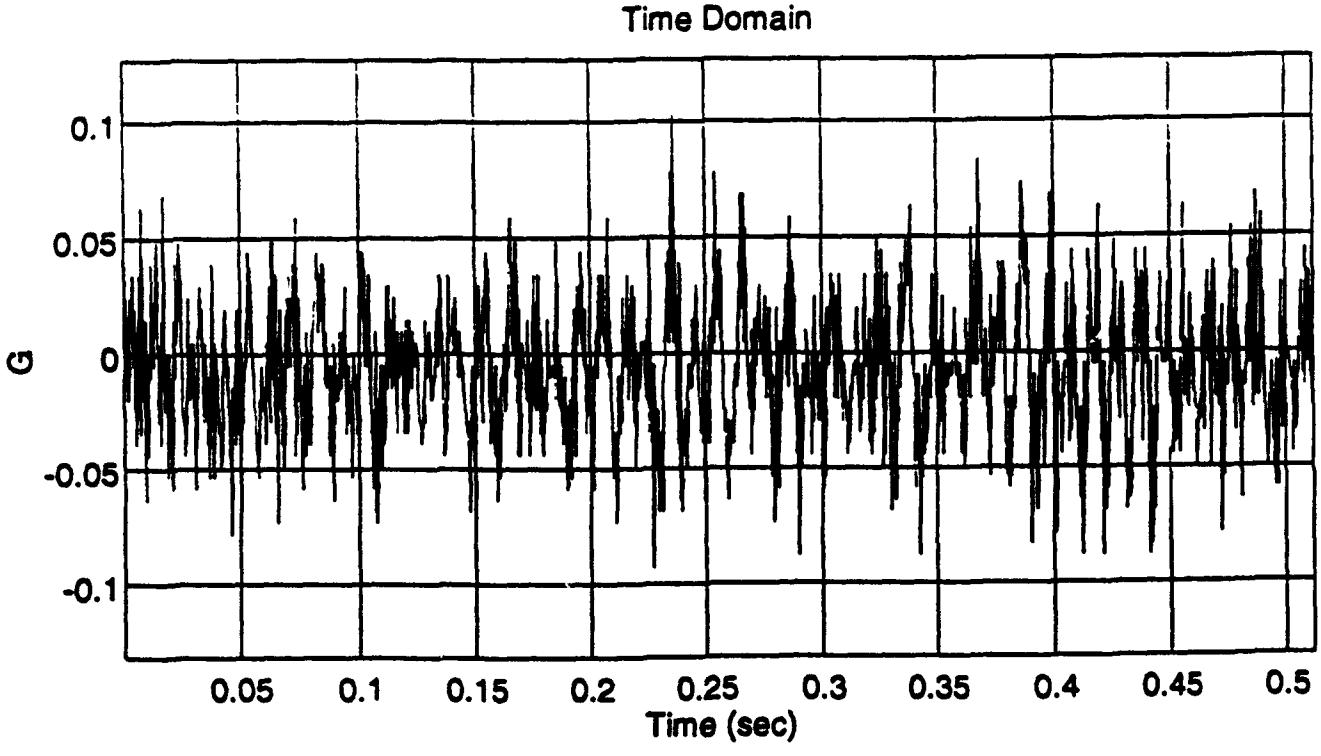
Total number of sampling data points = 1.024e+005

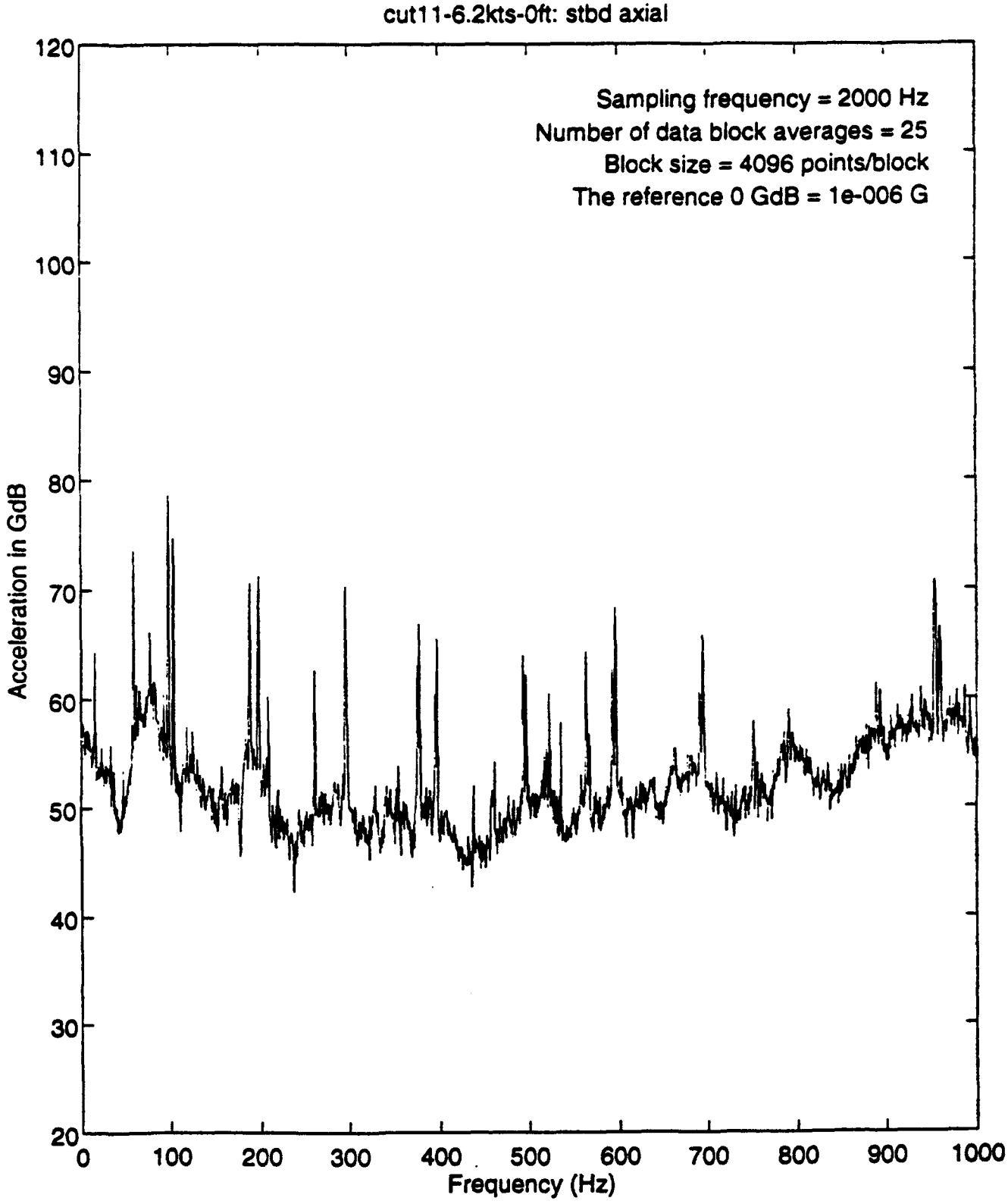
* The time domain

Mean value = -0.004406 G

Standard deviation = 0.02935 G

The plot shows 1024 data points



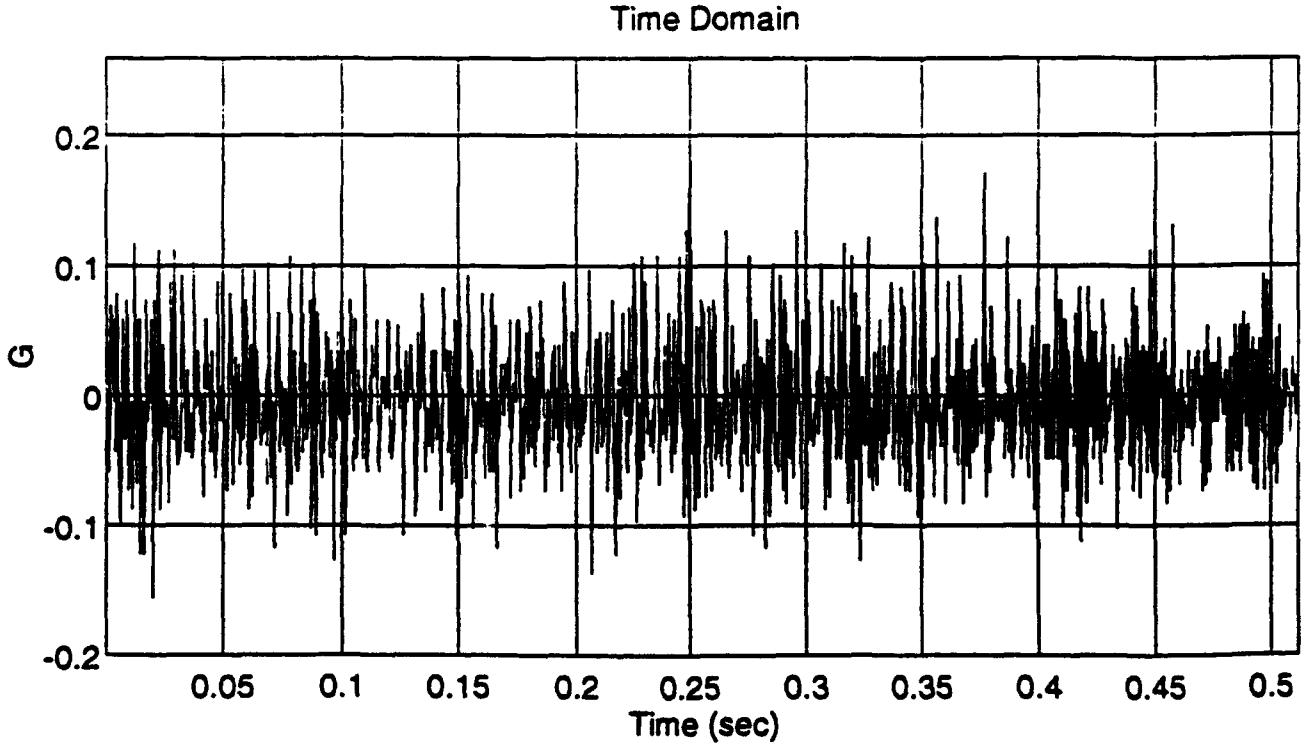

cut11-6.2kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

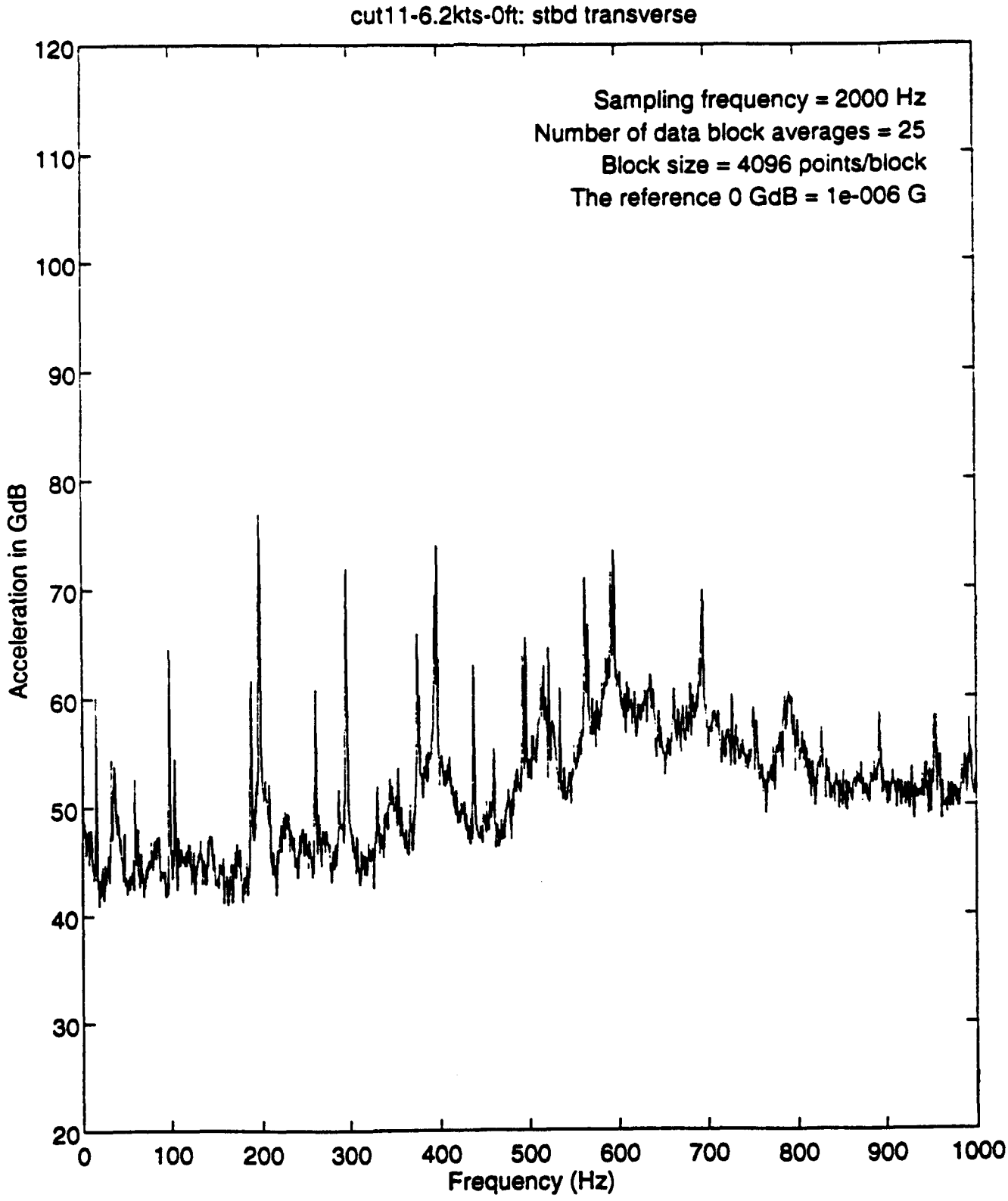
cut11-6.2kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003997 G
Standard deviation = 0.053 G
The plot shows 1024 data points



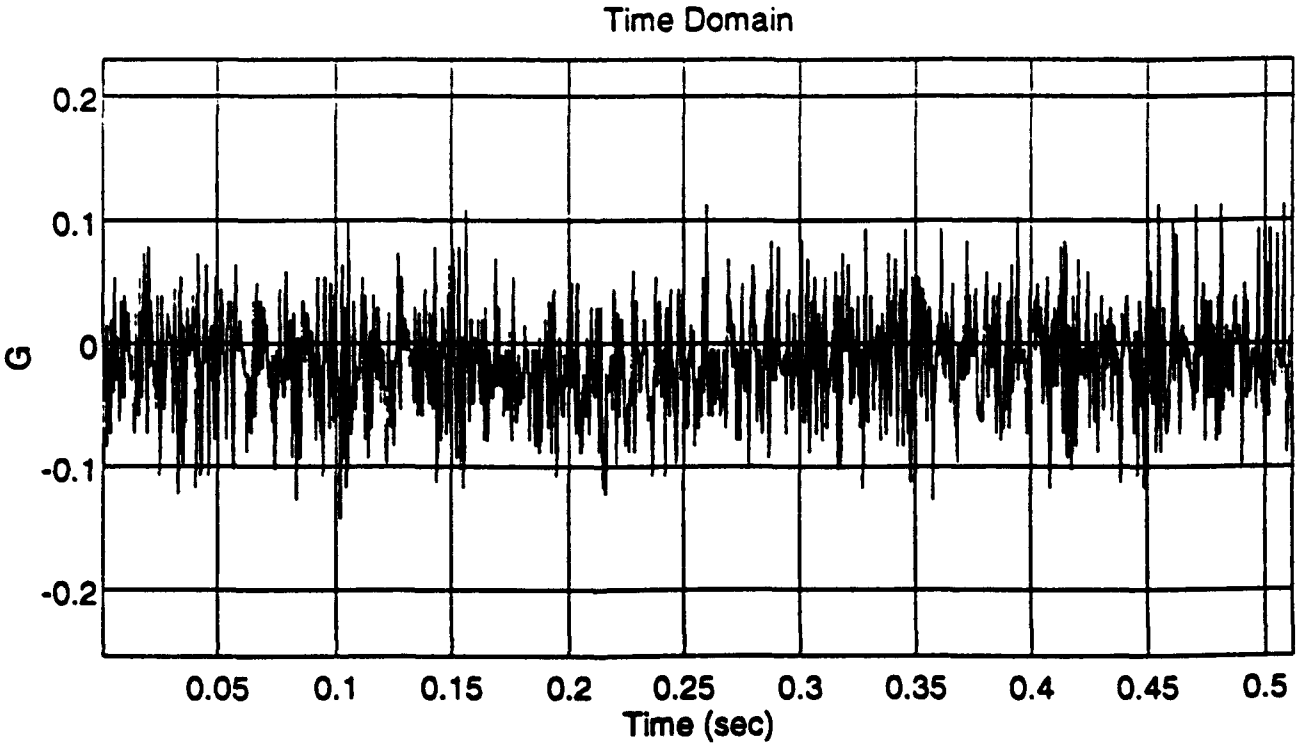

cut11-6.2kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

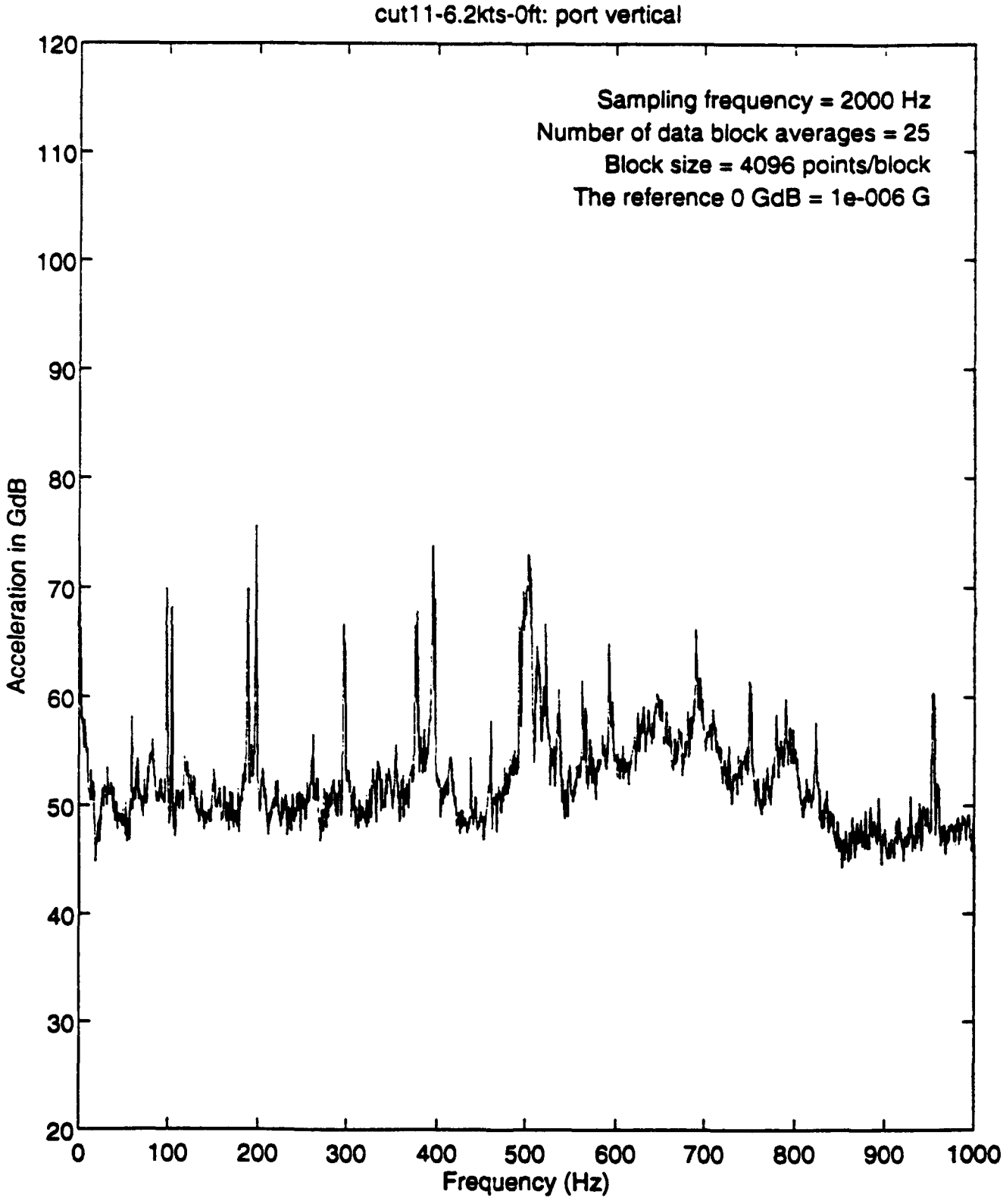
cut11-6.2kts-0ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.007631 G
Standard deviation = 0.05474 G
The plot shows 1024 data points



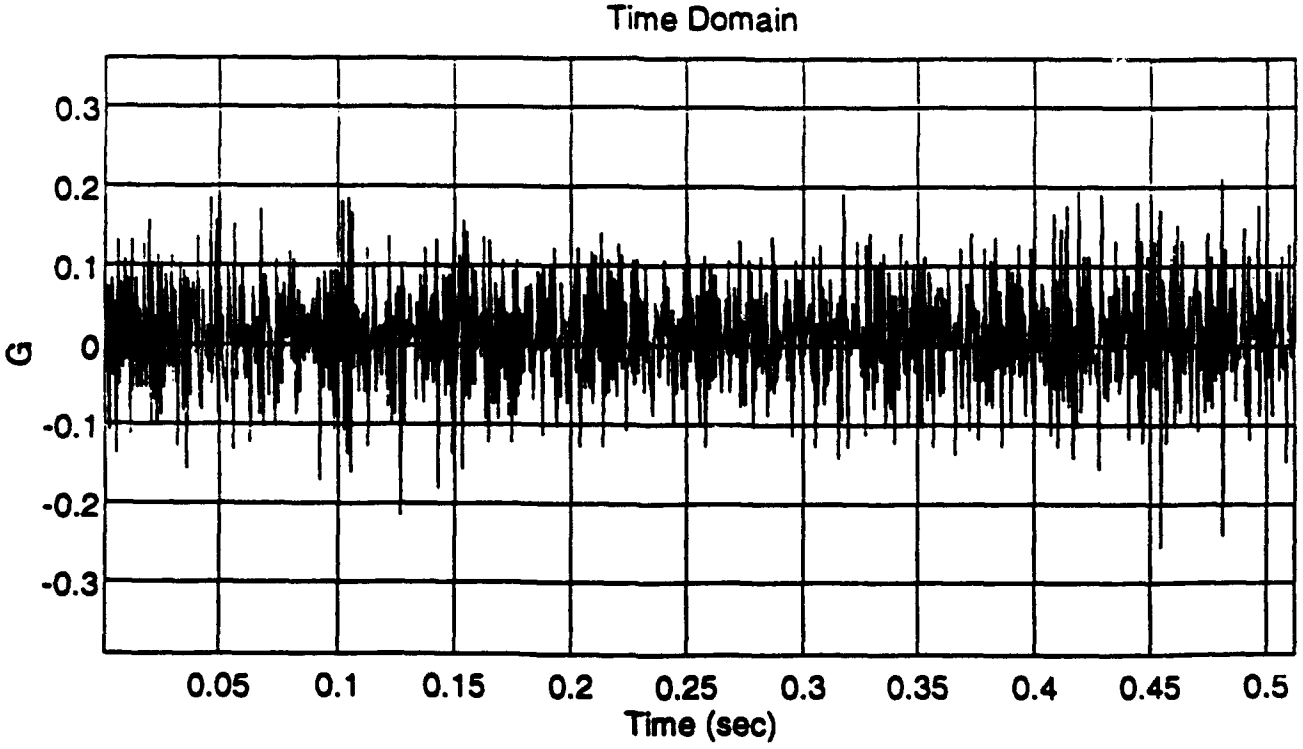

cut11-6.2kts-0ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

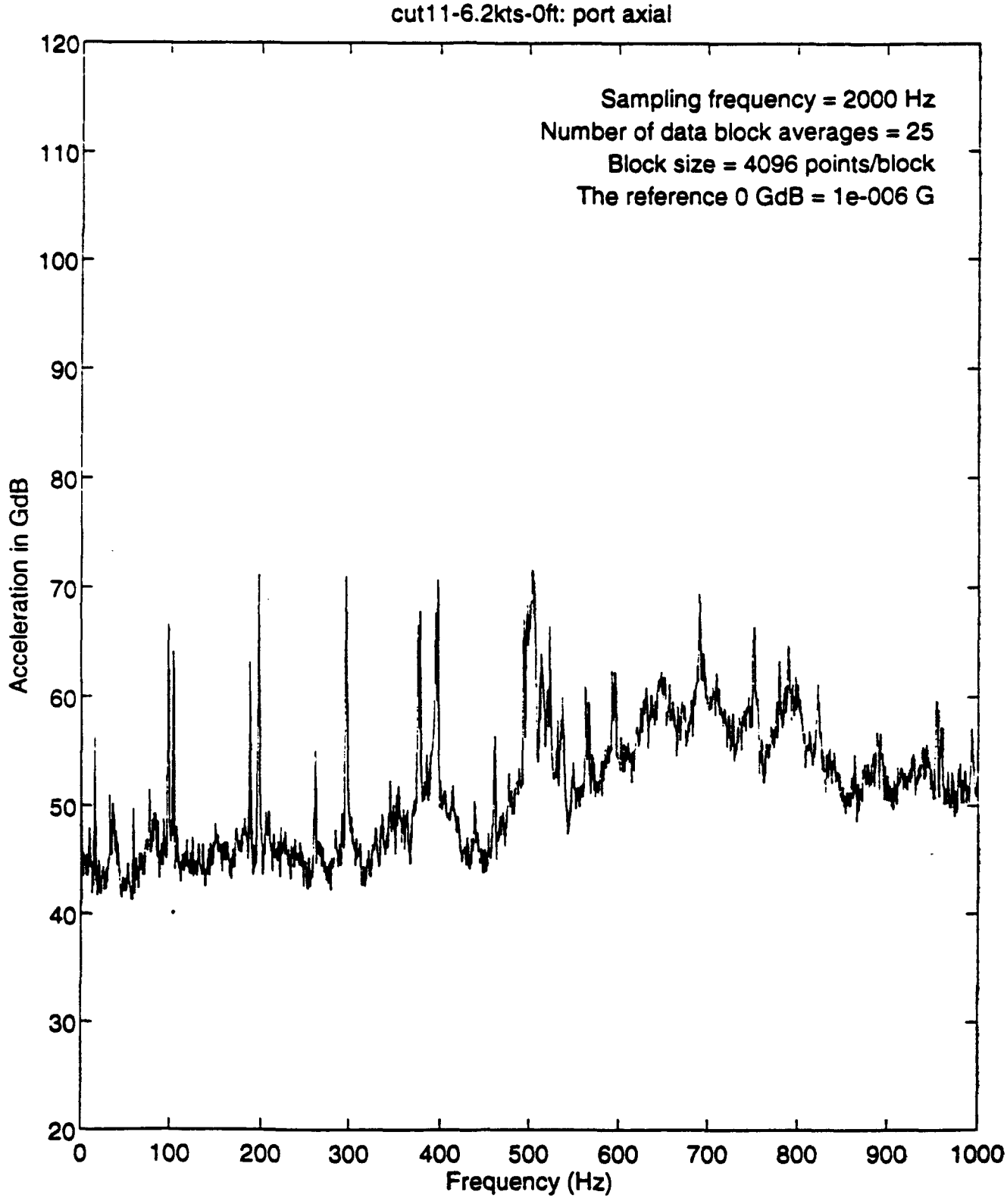
cut11-6.2kts-0ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.009207 G
Standard deviation = 0.08172 G
The plot shows 1024 data points



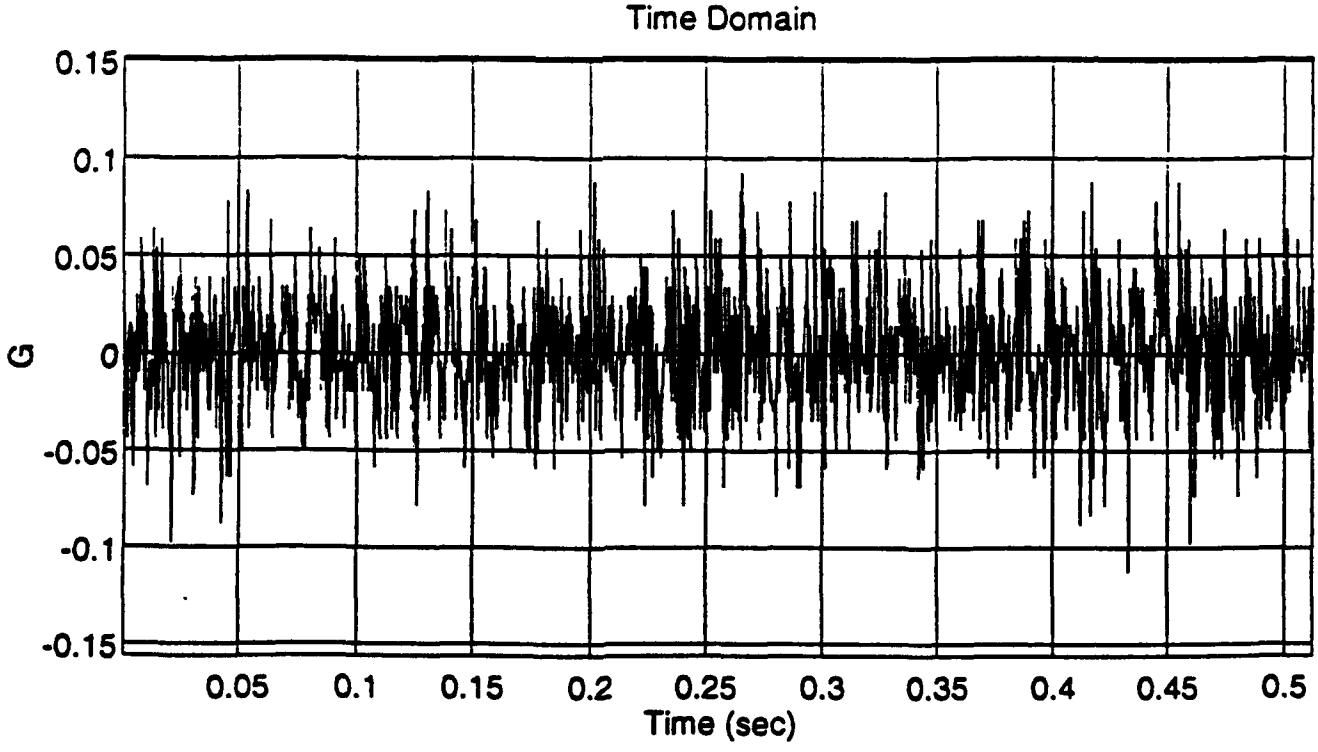

cut11-6.2kts-0ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

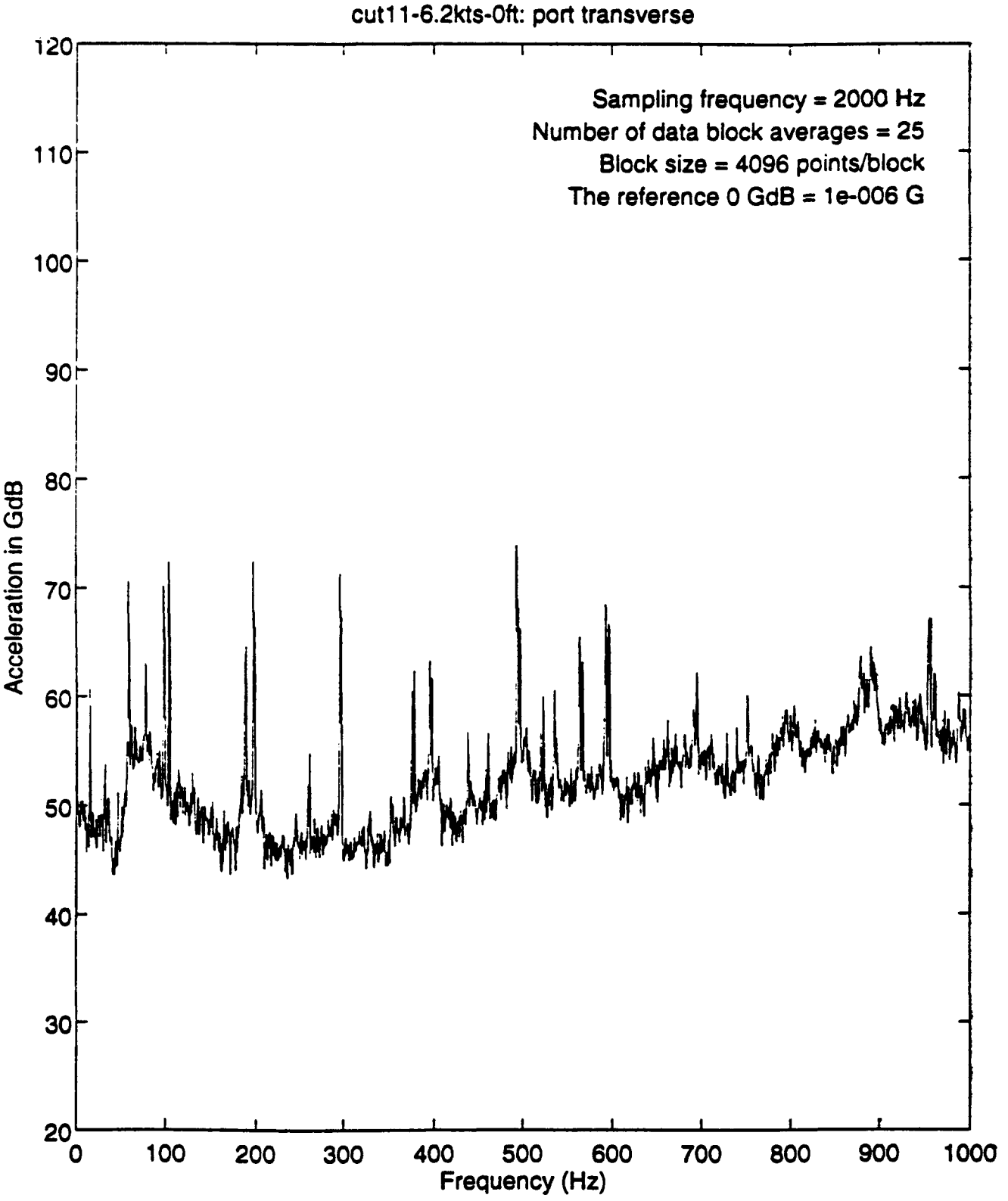
cut11-6.2kts-0ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002013 G
Standard deviation = 0.03597 G
The plot shows 1024 data points



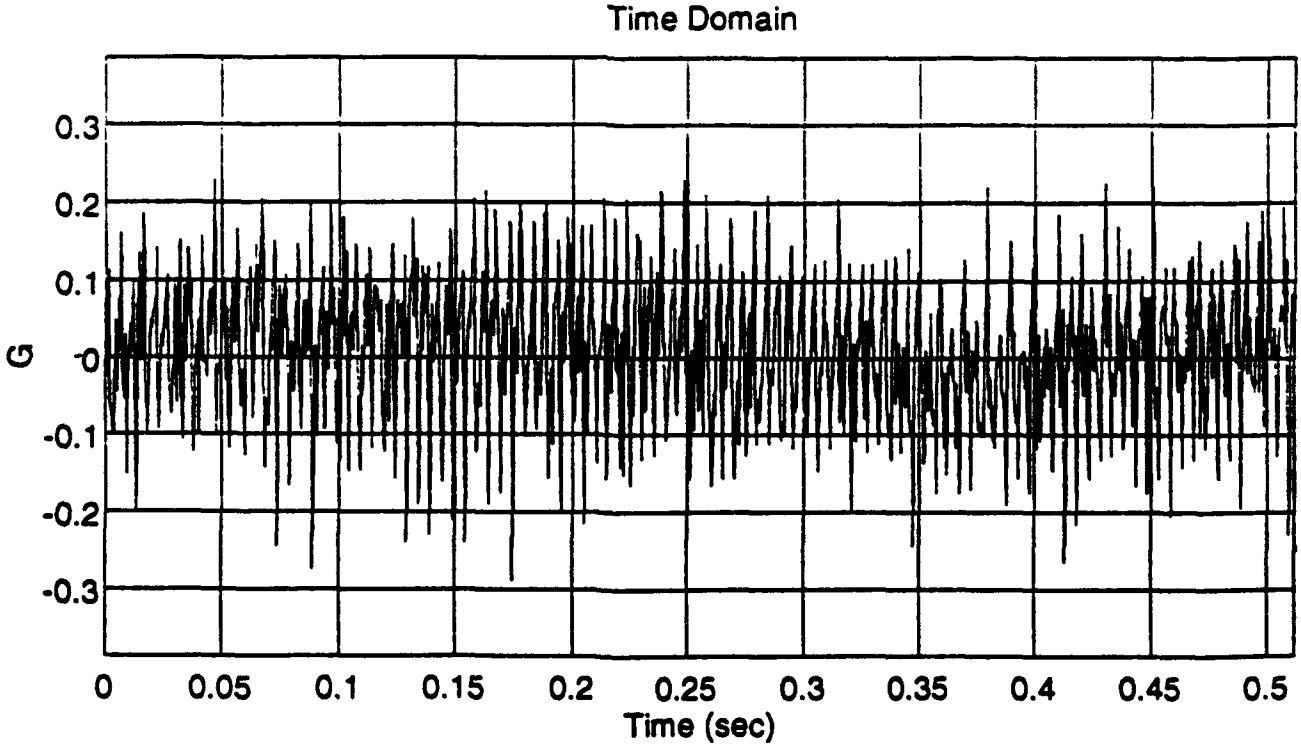

cut11-6.2kts-0ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

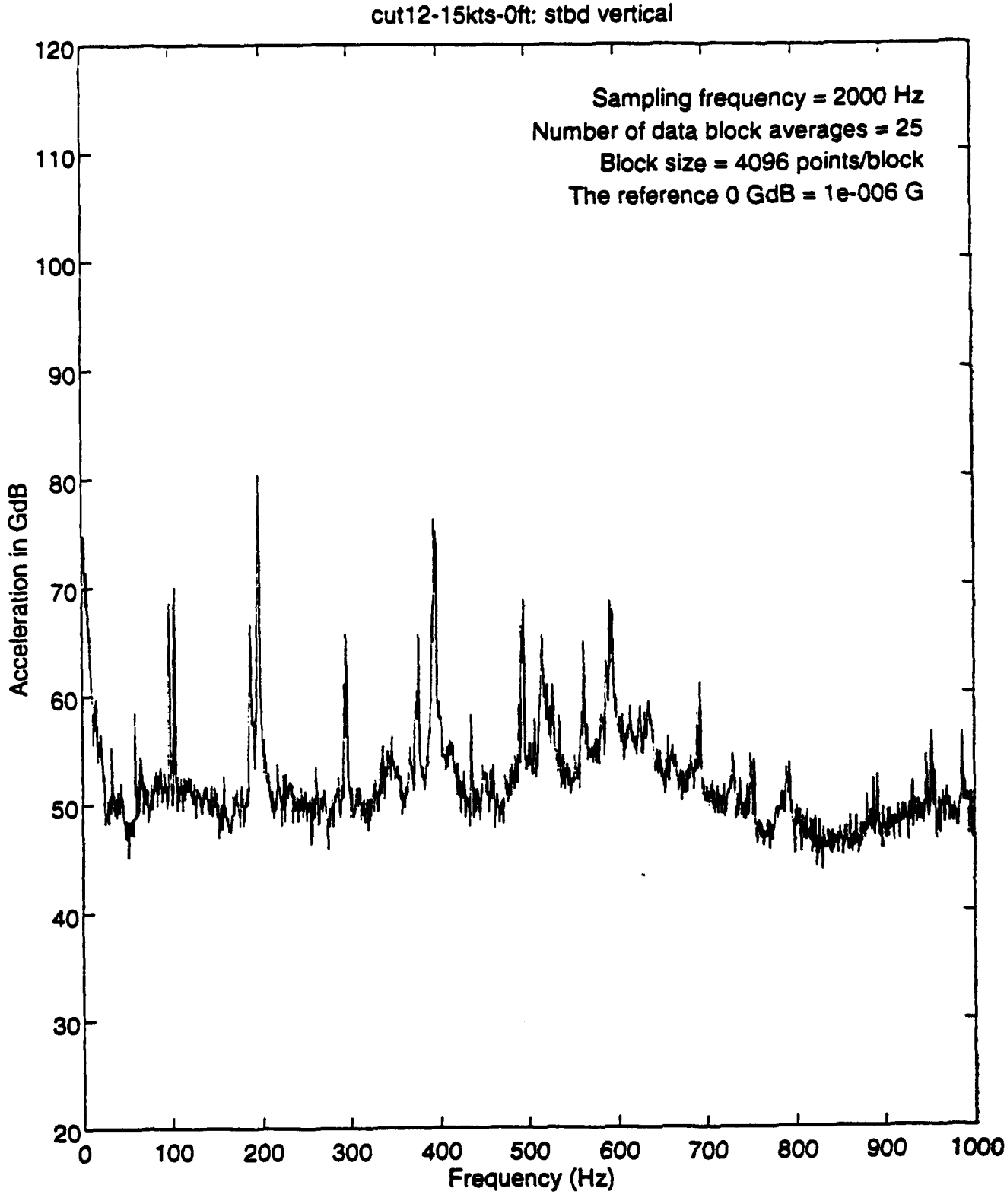
cut12-15kts-0ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.003885 G
Standard deviation = 0.09368 G
The plot shows 1024 data points



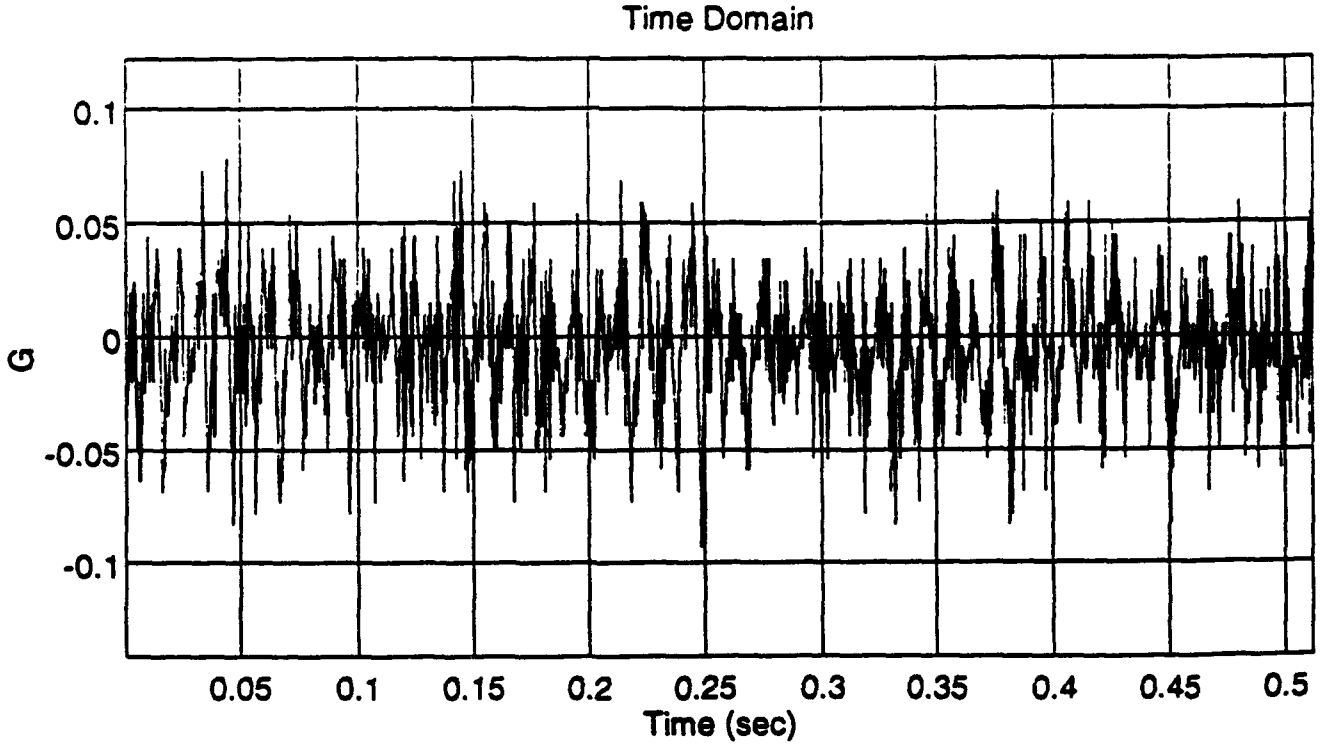

cut12-15kts-0ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

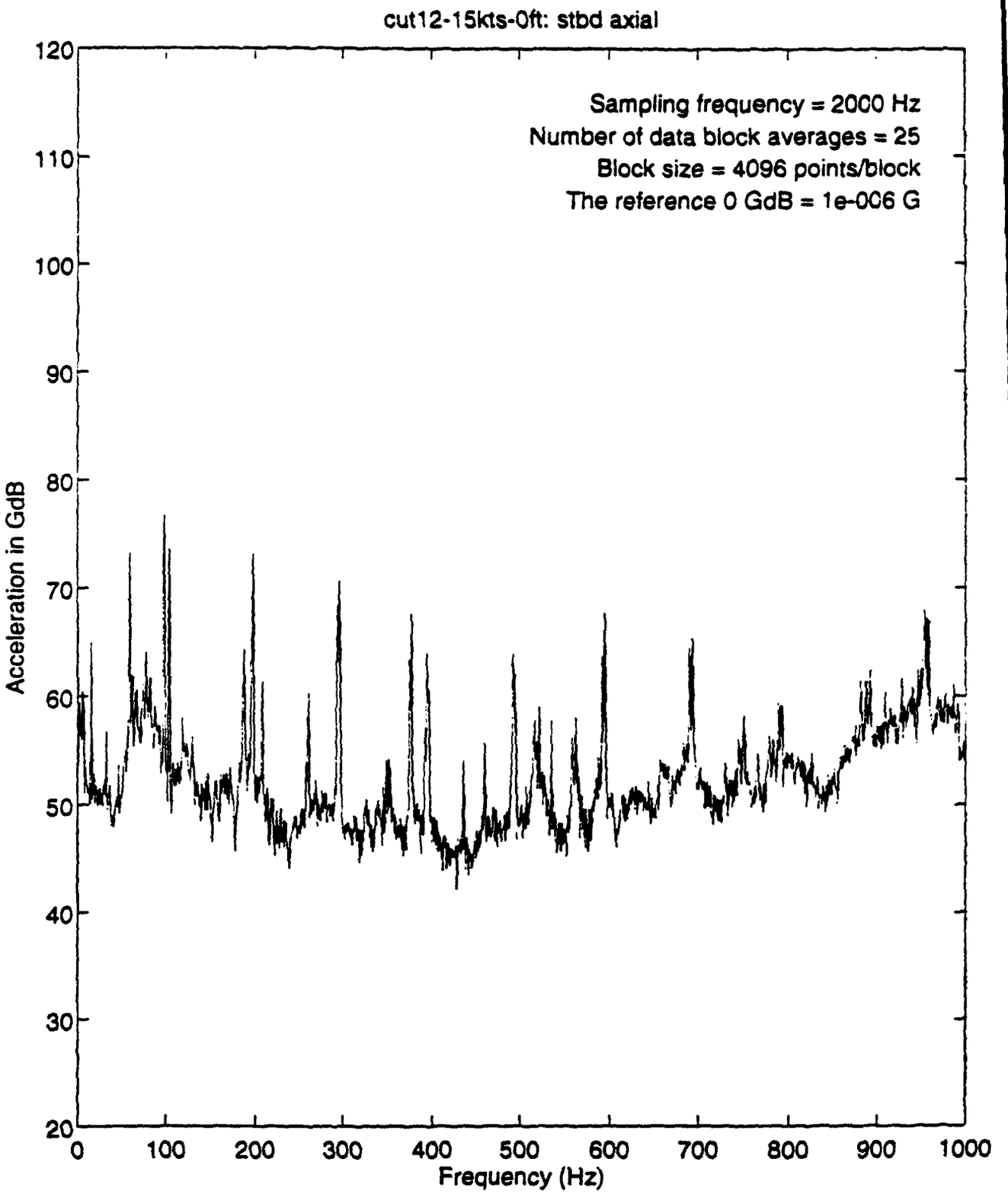
cut12-15kts-0ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002857 G
Standard deviation = 0.0293 G
The plot shows 1024 data points



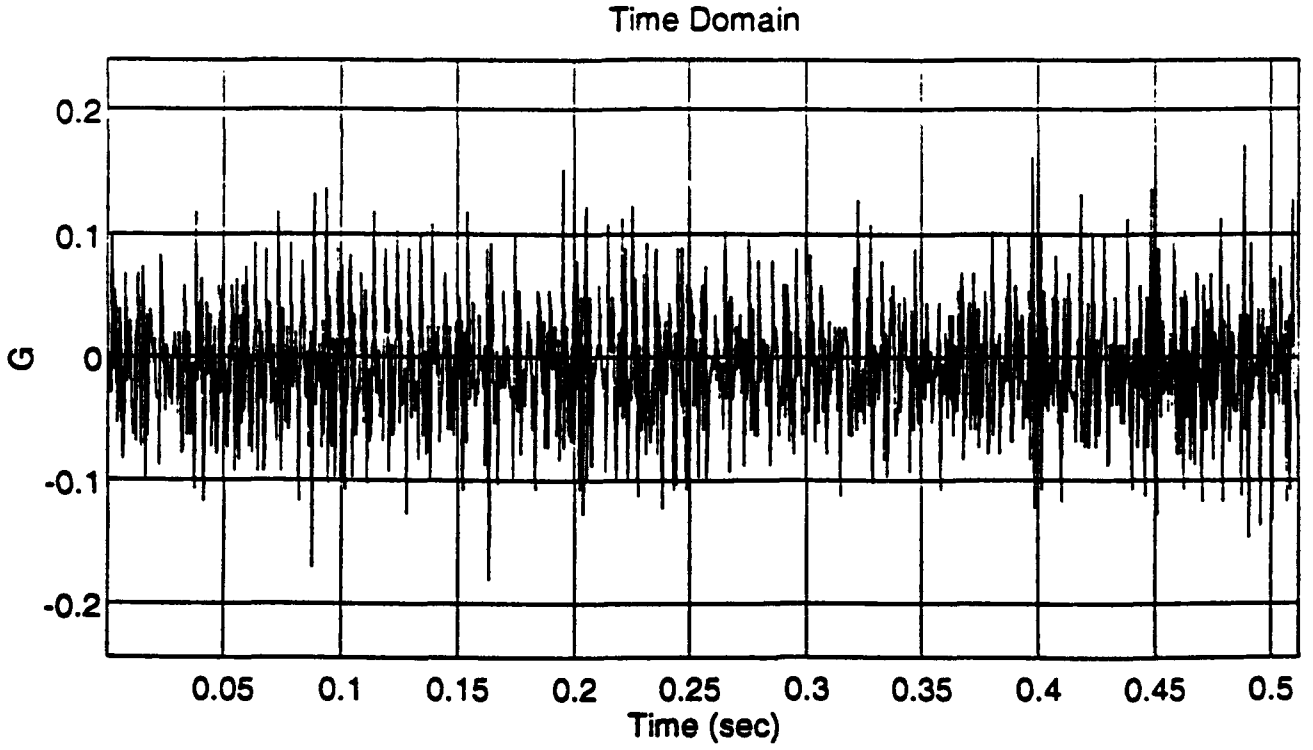

cut12-15kts-0ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

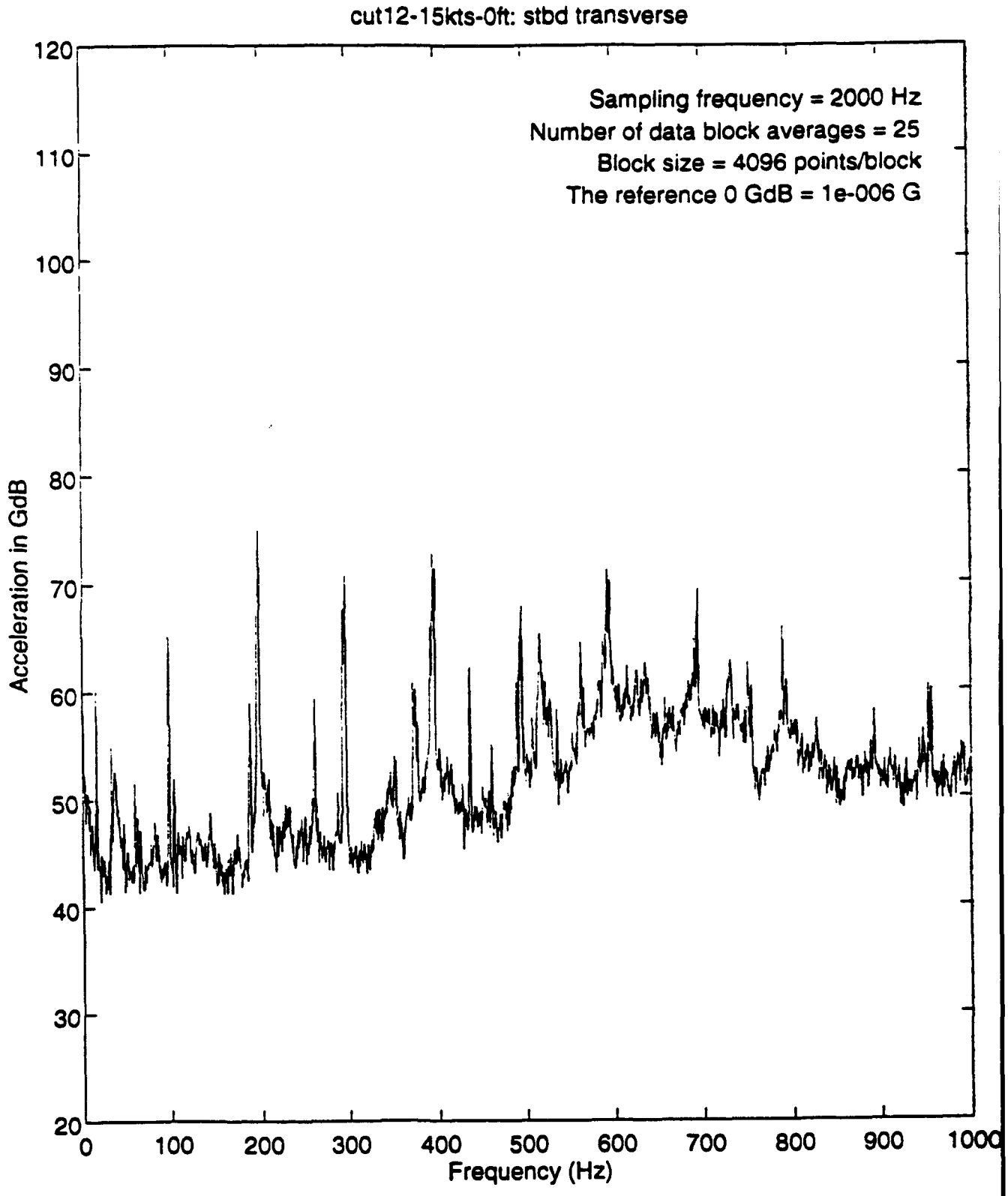
cut12-15kts-0ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004502 G
Standard deviation = 0.0502 G
The plot shows 1024 data points



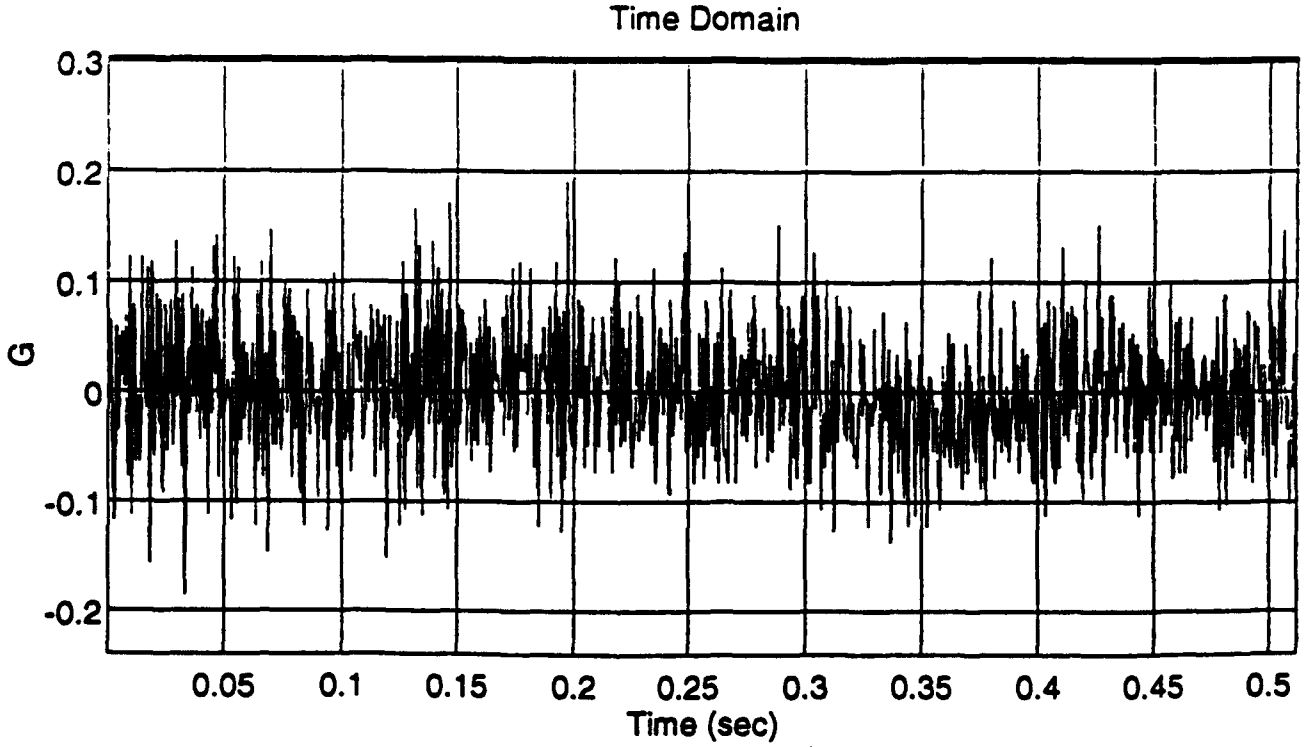

cut12-15kts-0ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

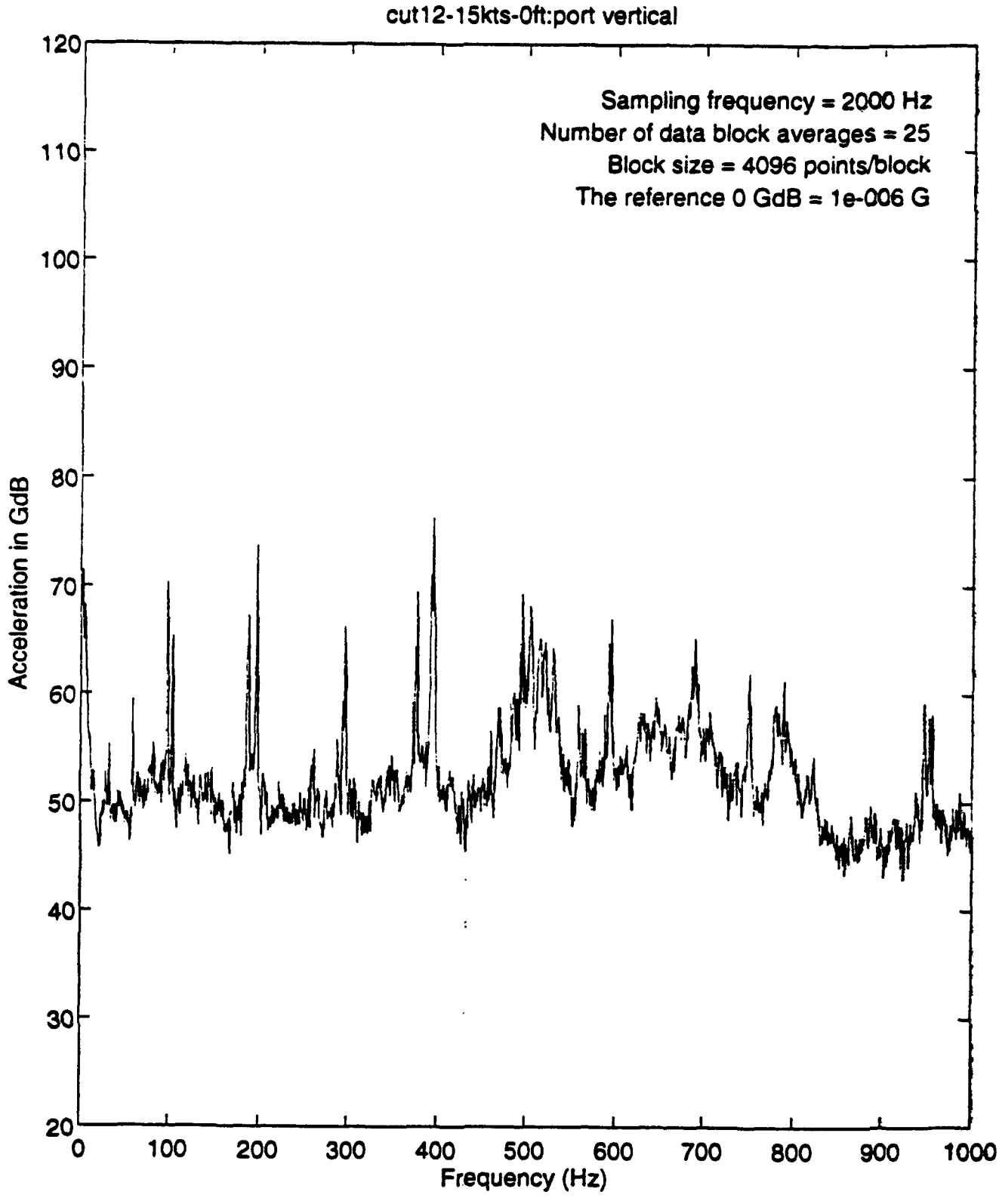
cut12-15kts-0ft:port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001611 G
Standard deviation = 0.05888 G
The plot shows 1024 data points



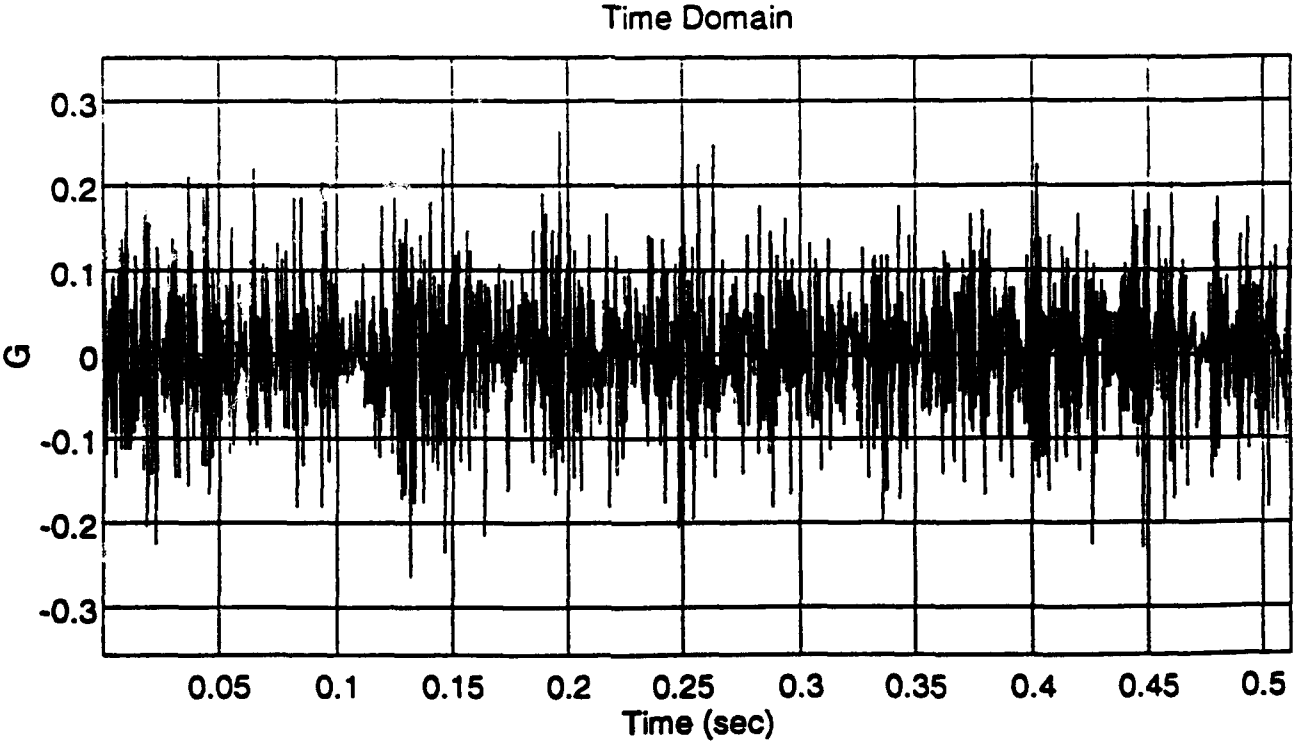

cut12-15kts-0ft:port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

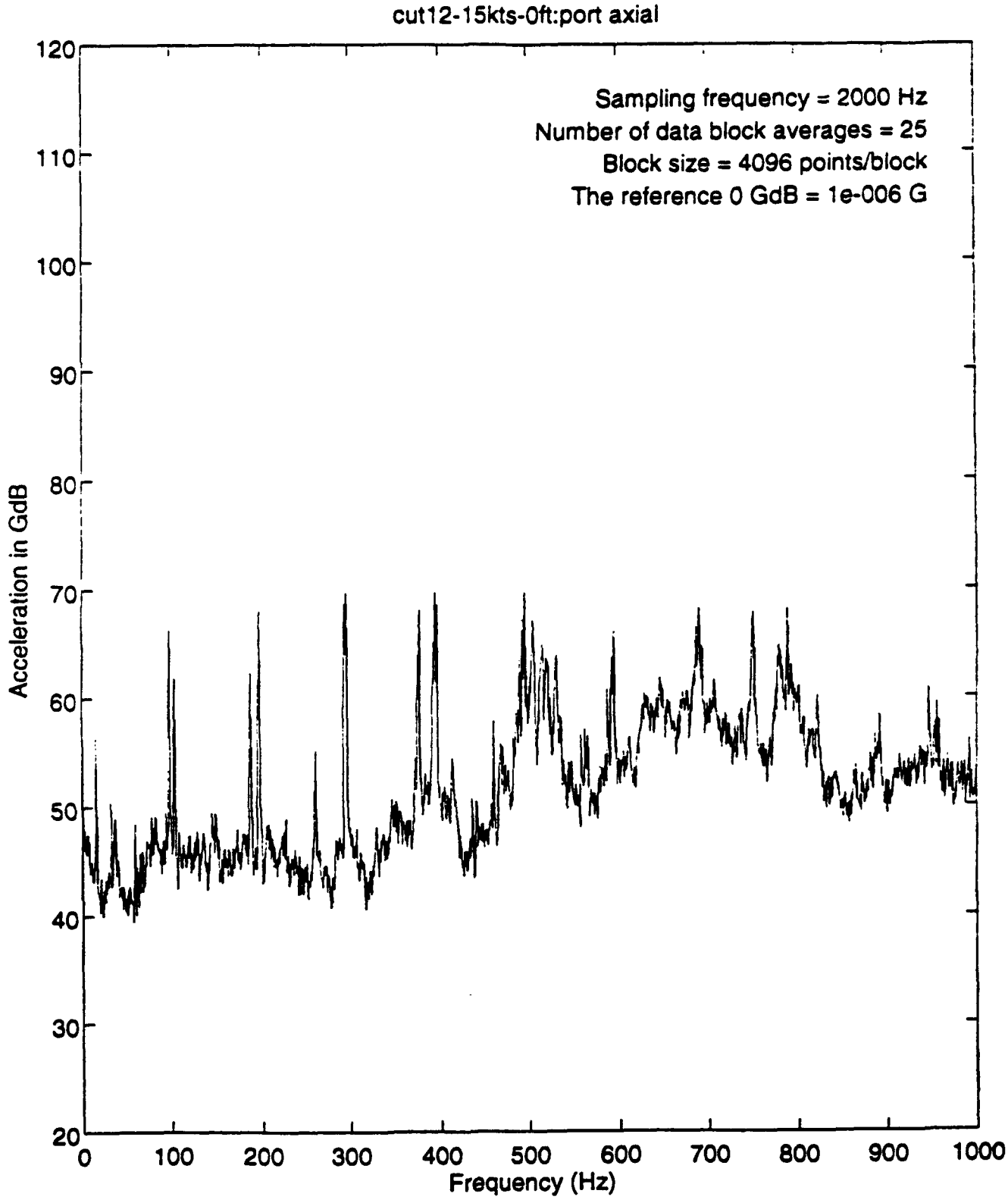
cut12-15kts-0ft:port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.00365 G
Standard deviation = 0.08218 G
The plot shows 1024 data points




cut12-15kts-0ft:port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut12-15kts-0ft:pcrt transverse

Data sampling frequency = 2000 Hz

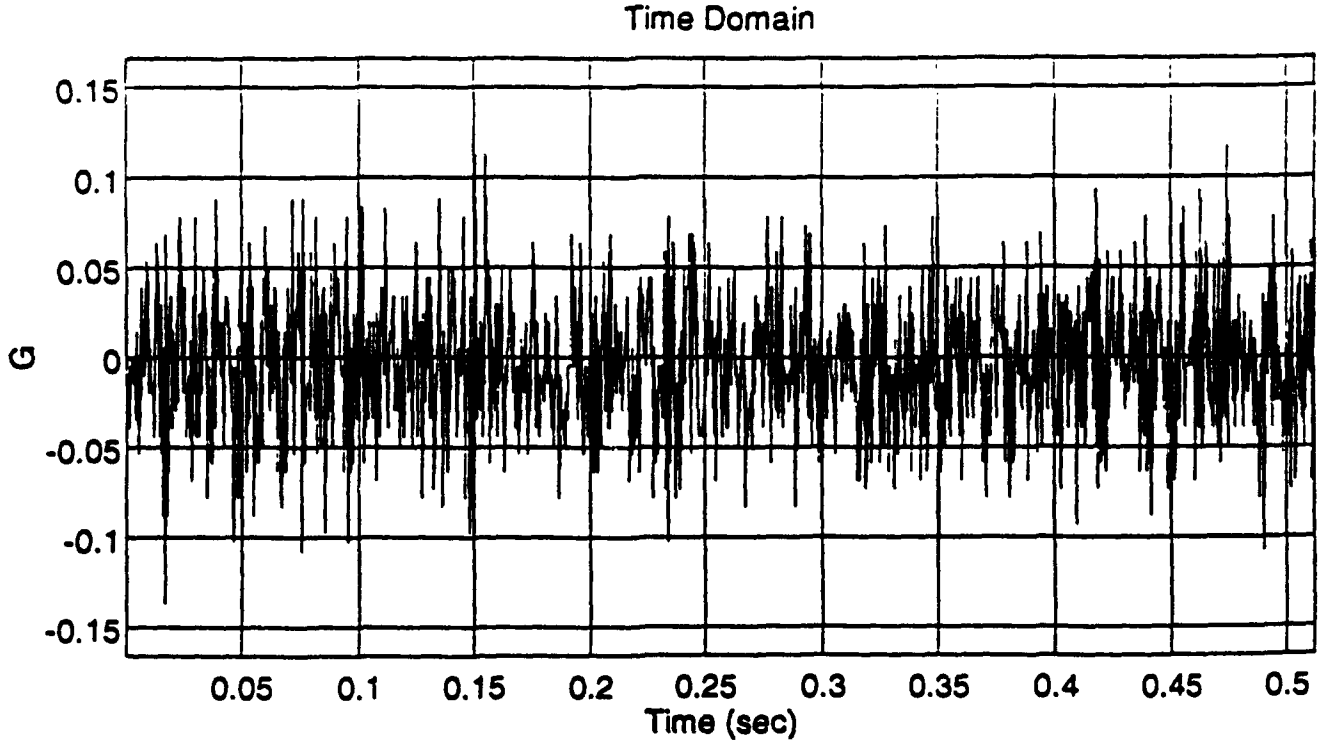
Total number of sampling data points = 1.024e+005

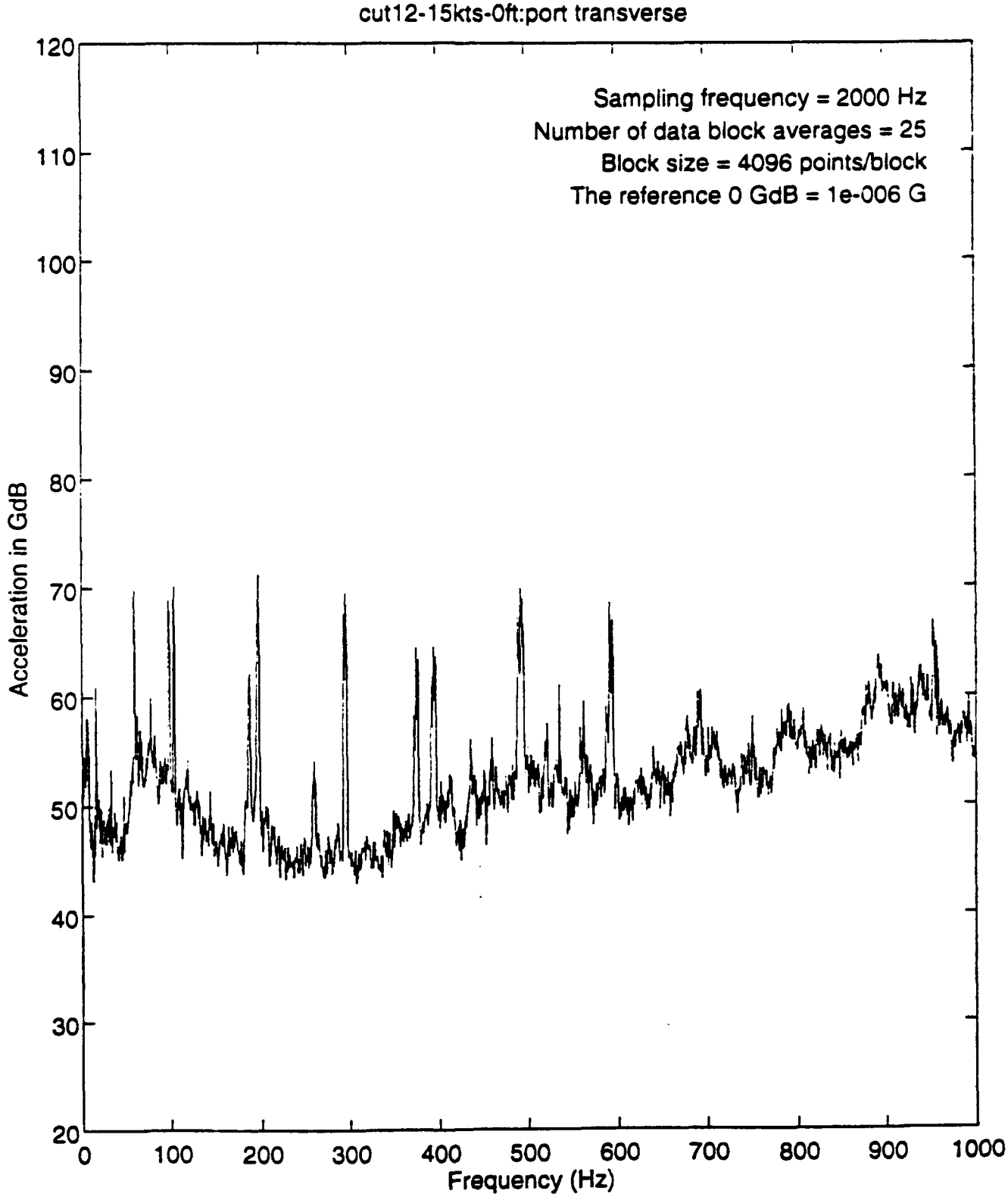
* The time domain

Mean value = -0.002002 G

Standard deviation = 0.03743 G

The plot shows 1024 data points



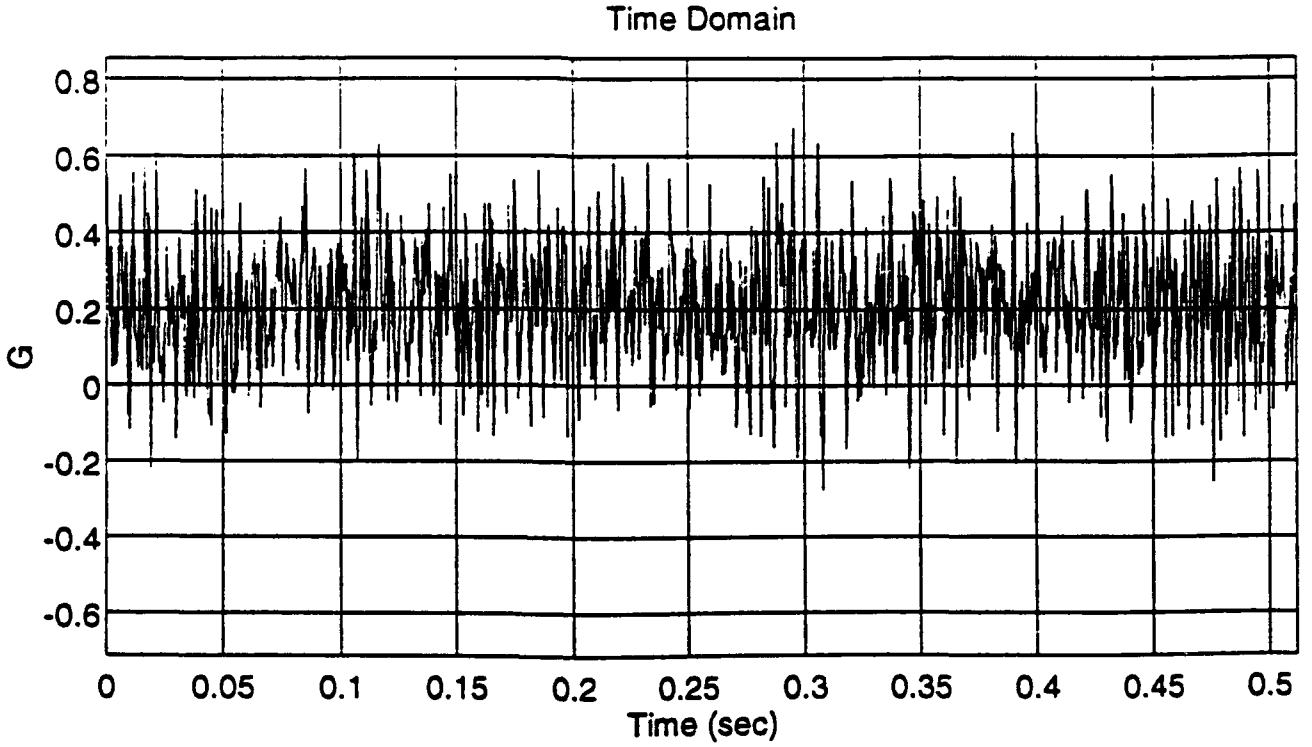

cut12-15kts-0ft:port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

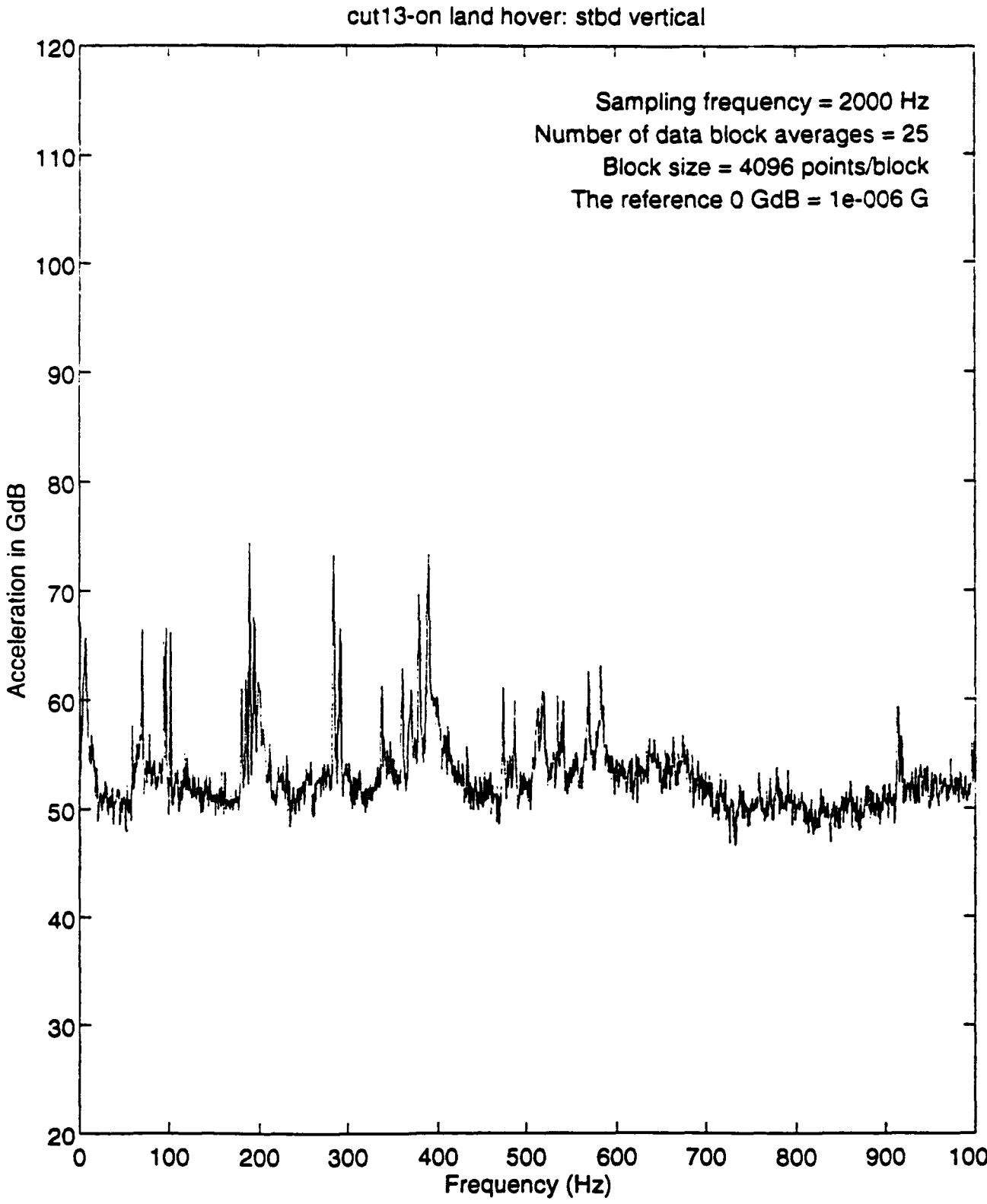
cut13-on land hover: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.05456 G
Standard deviation = 0.1765 G
The plot shows 1024 data points



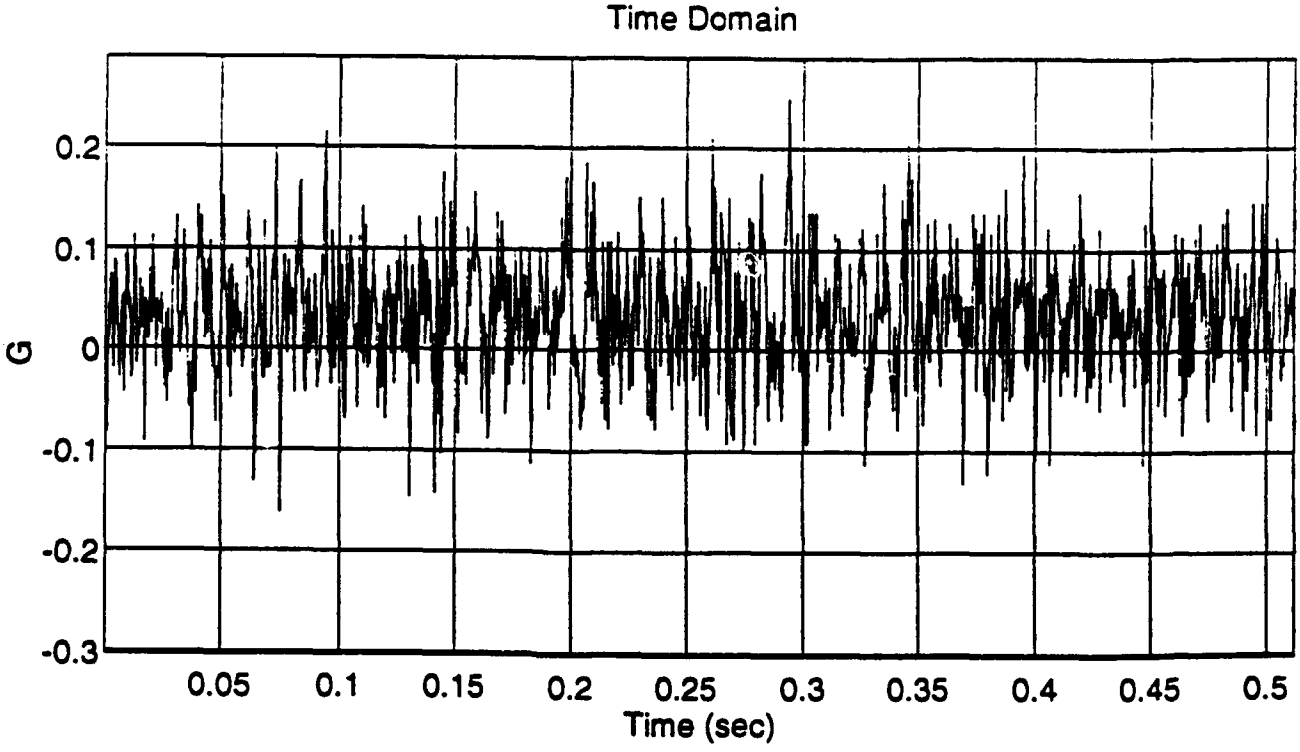

cut13-on land hover: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

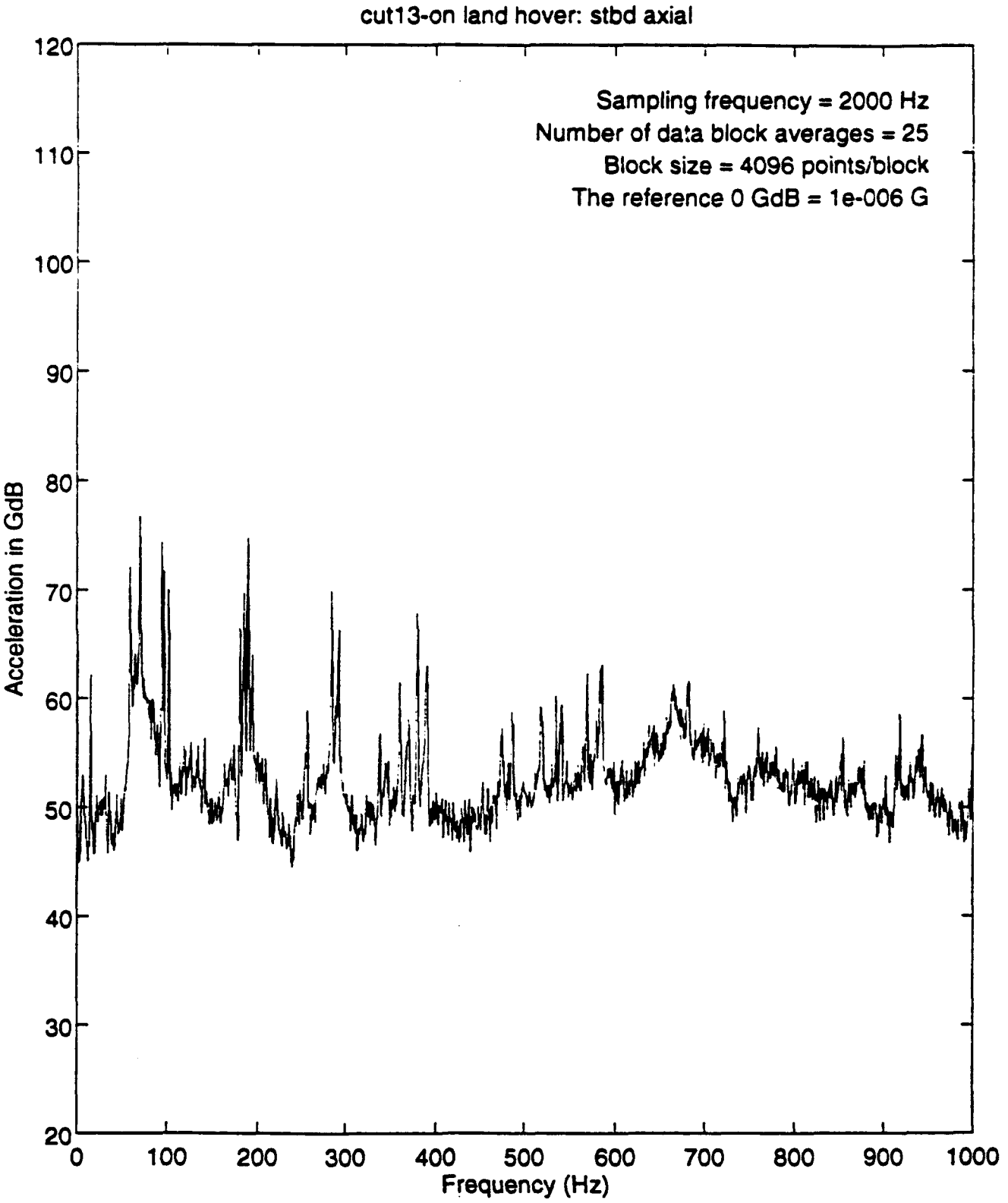
cut13-on land hover: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.009881 G
Standard deviation = 0.07022 G
The plot shows 1024 data points



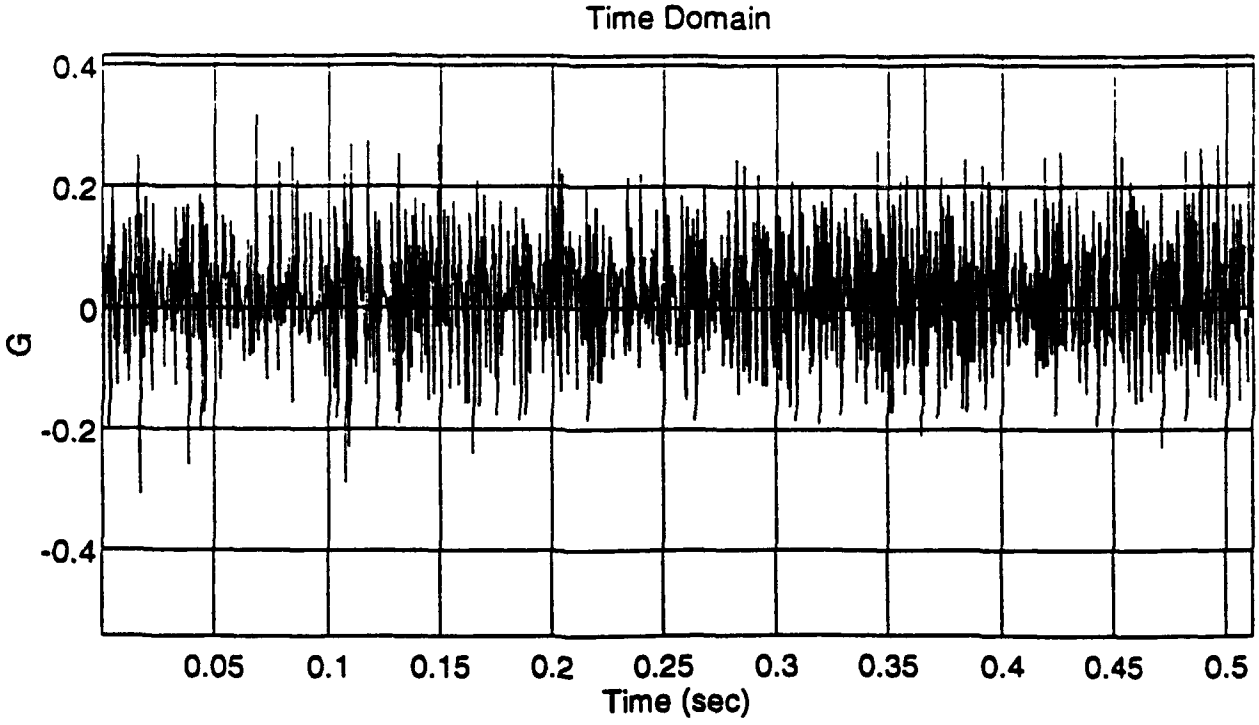

cut13-on land hover: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

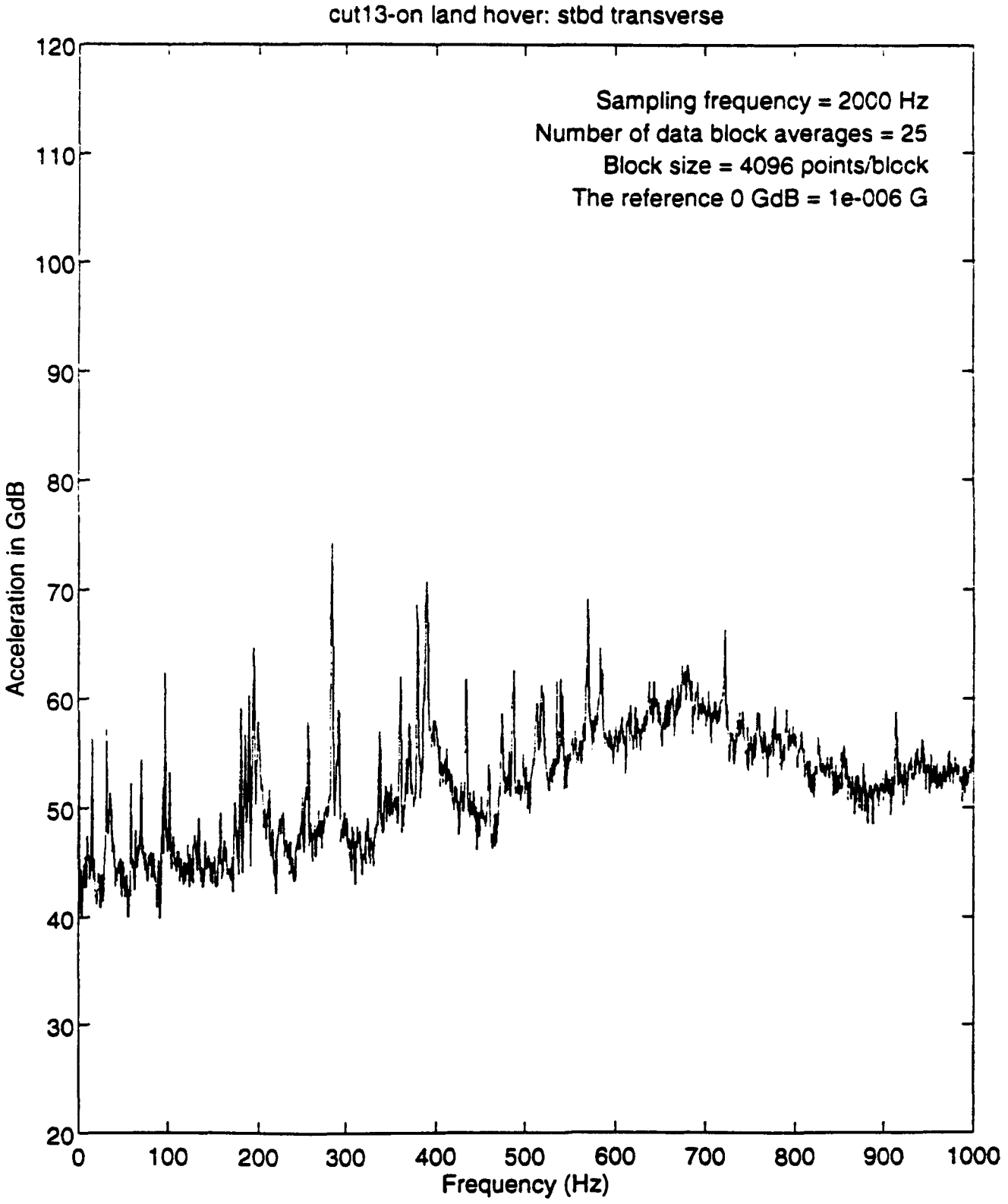
cut13-on land hover: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.009395 G
Standard deviation = 0.09401 G
The plot shows 1024 data points



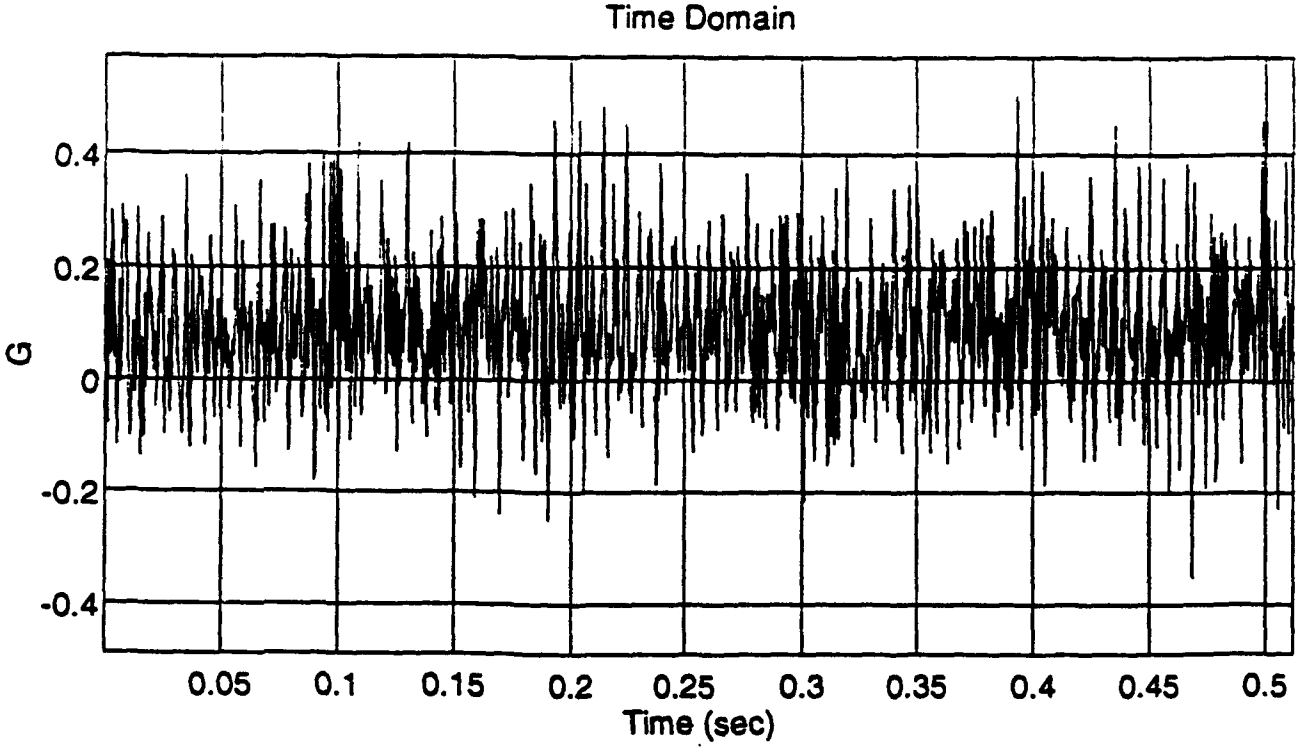

cut13-on land hover: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

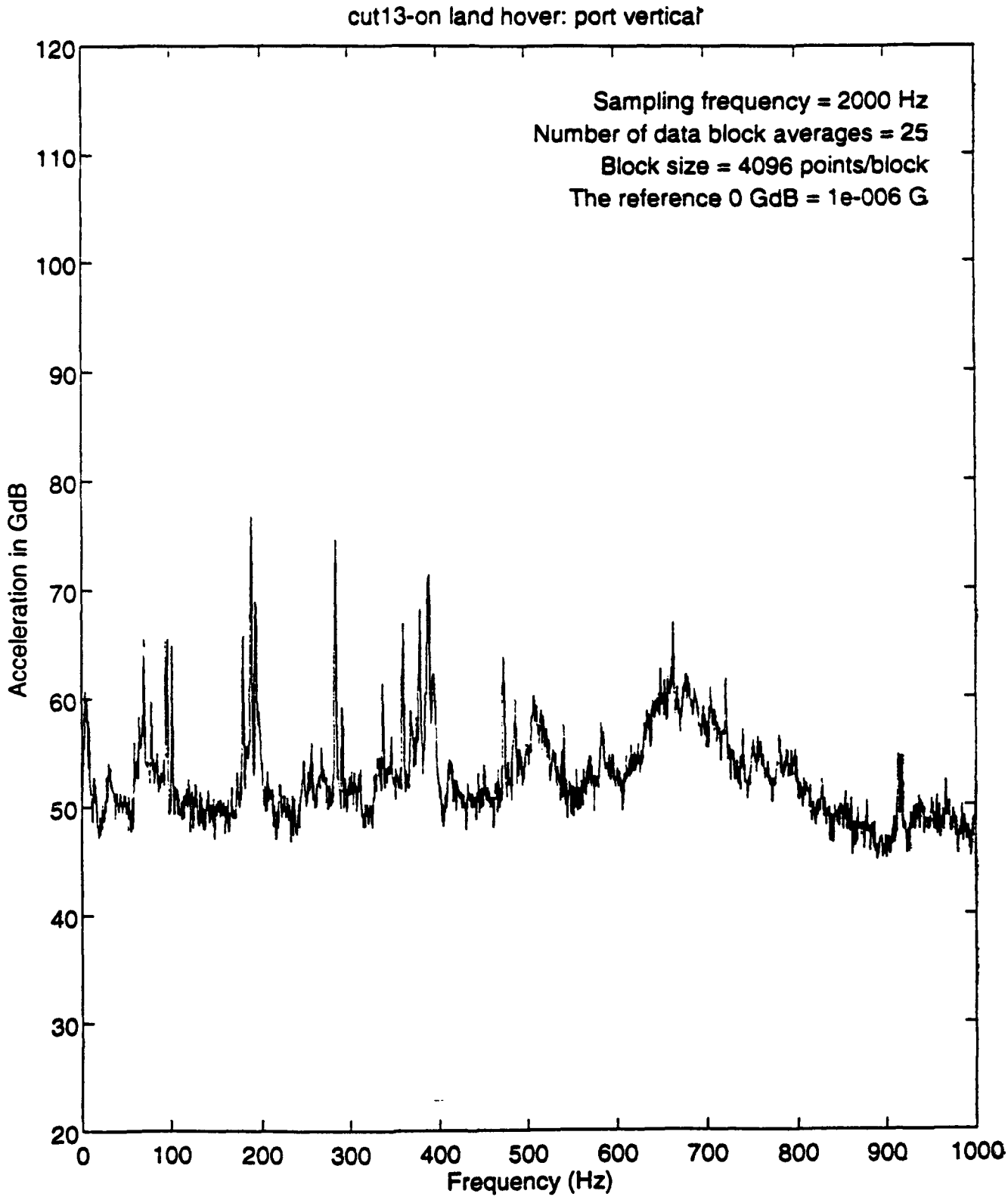
cut13-on land hover: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.02228 G
Standard deviation = 0.1129 G
The plot shows 1024 data points



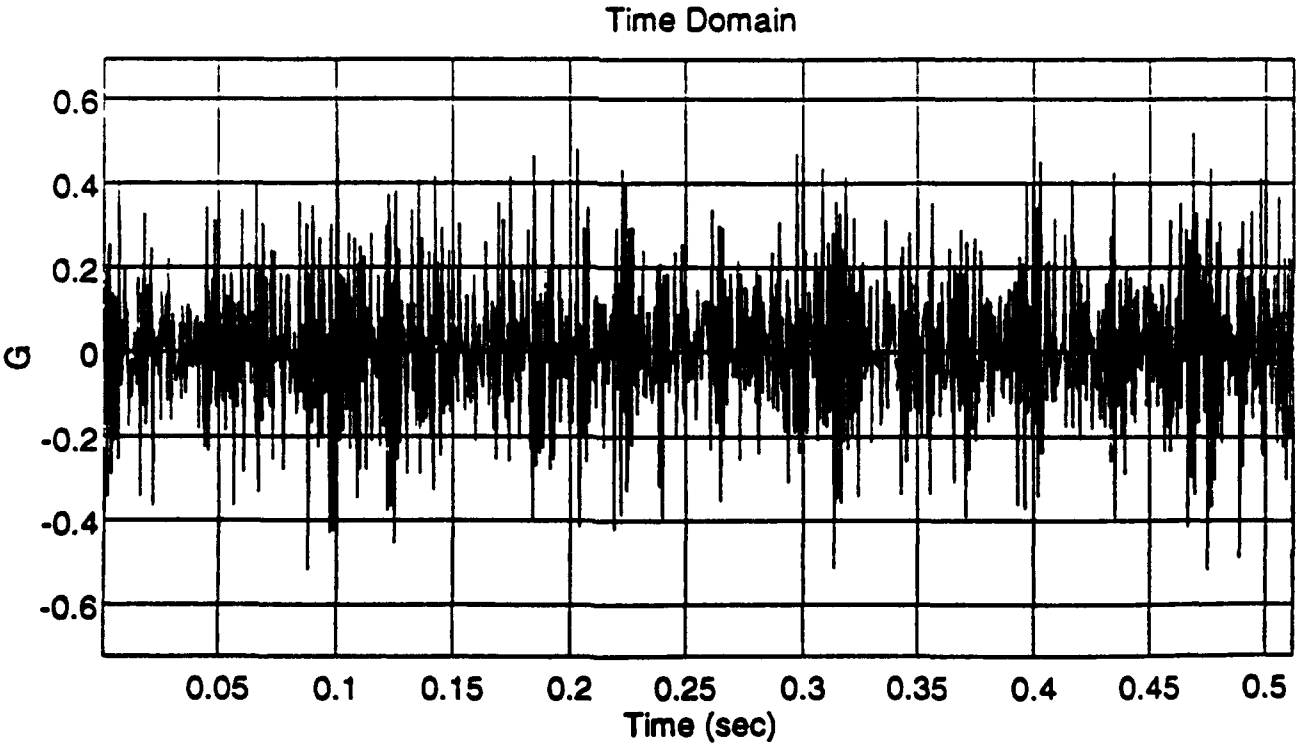

cut13-on land hover: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

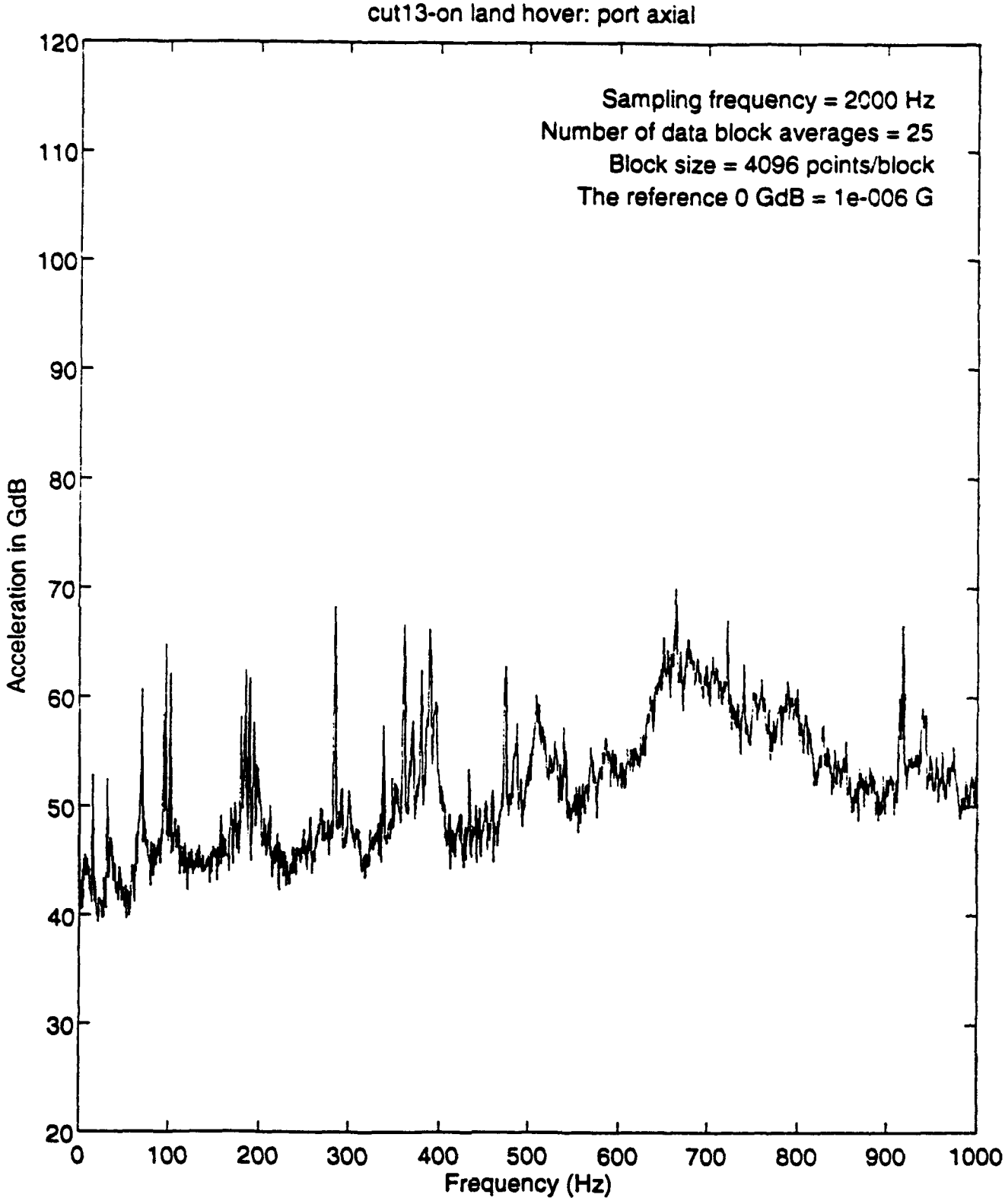
cut13-on land hover: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004777 G
Standard deviation = 0.1544 G
The plot shows 1024 data points



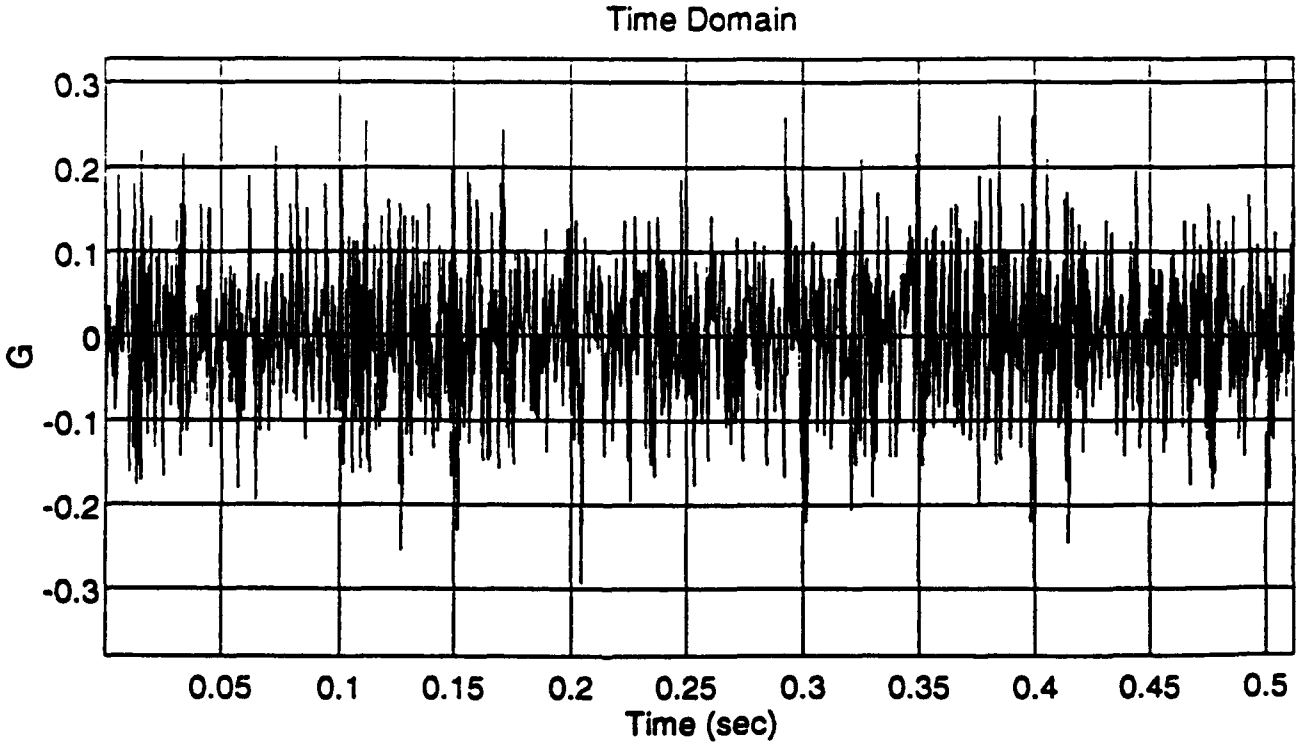

cut13-on land hover: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

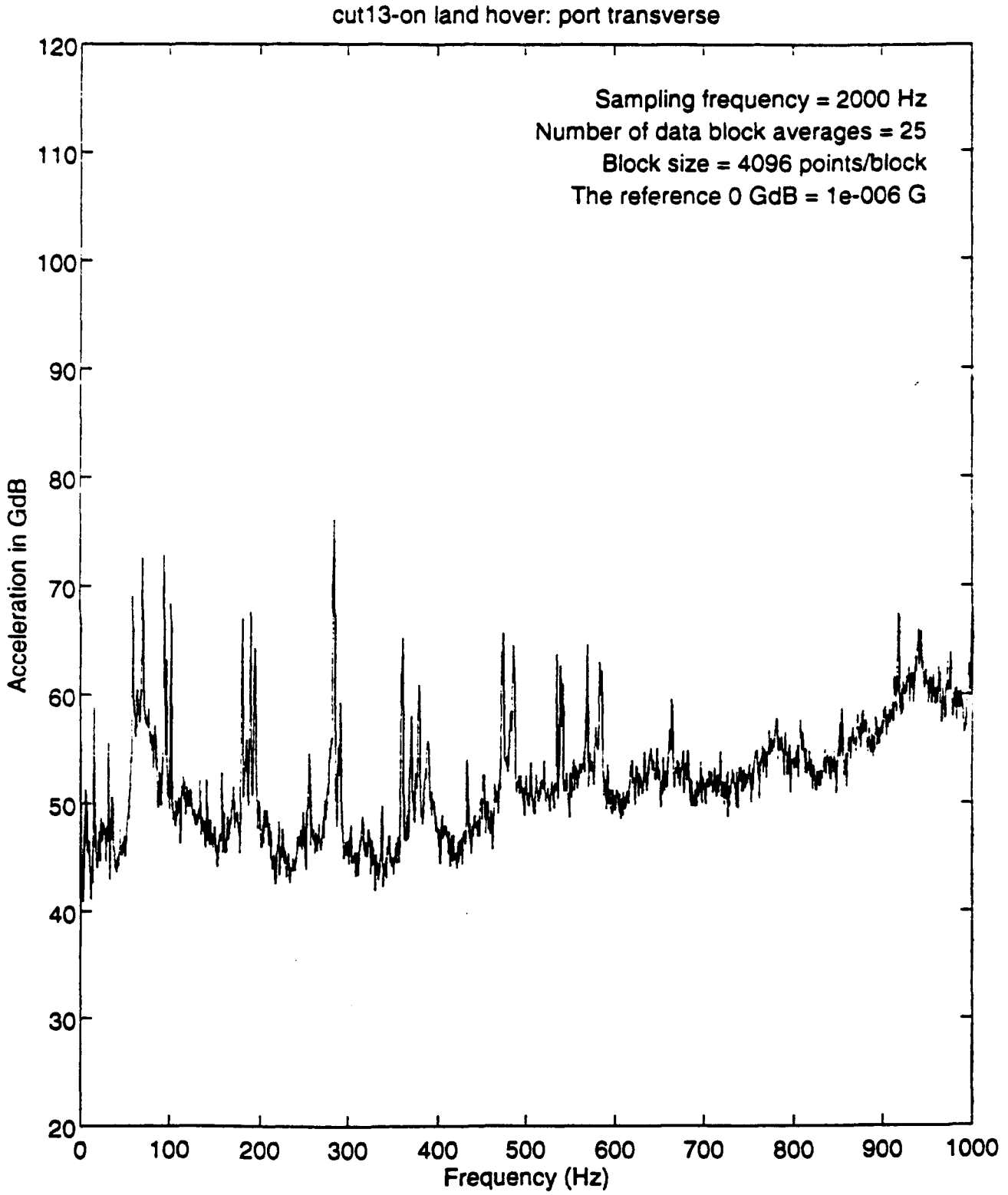
cut13-on land hover: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0009341 G
Standard deviation = 0.07733 G
The plot shows 1024 data points



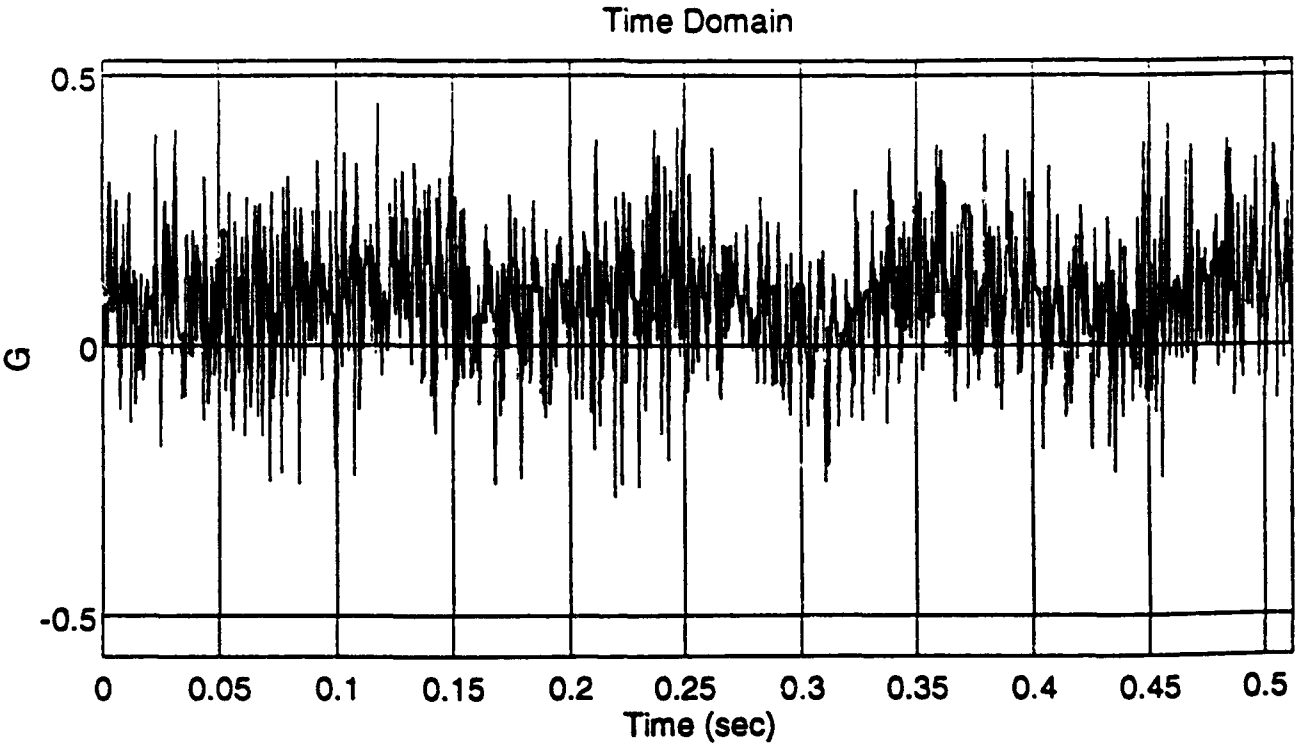

cut13-on land hover: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

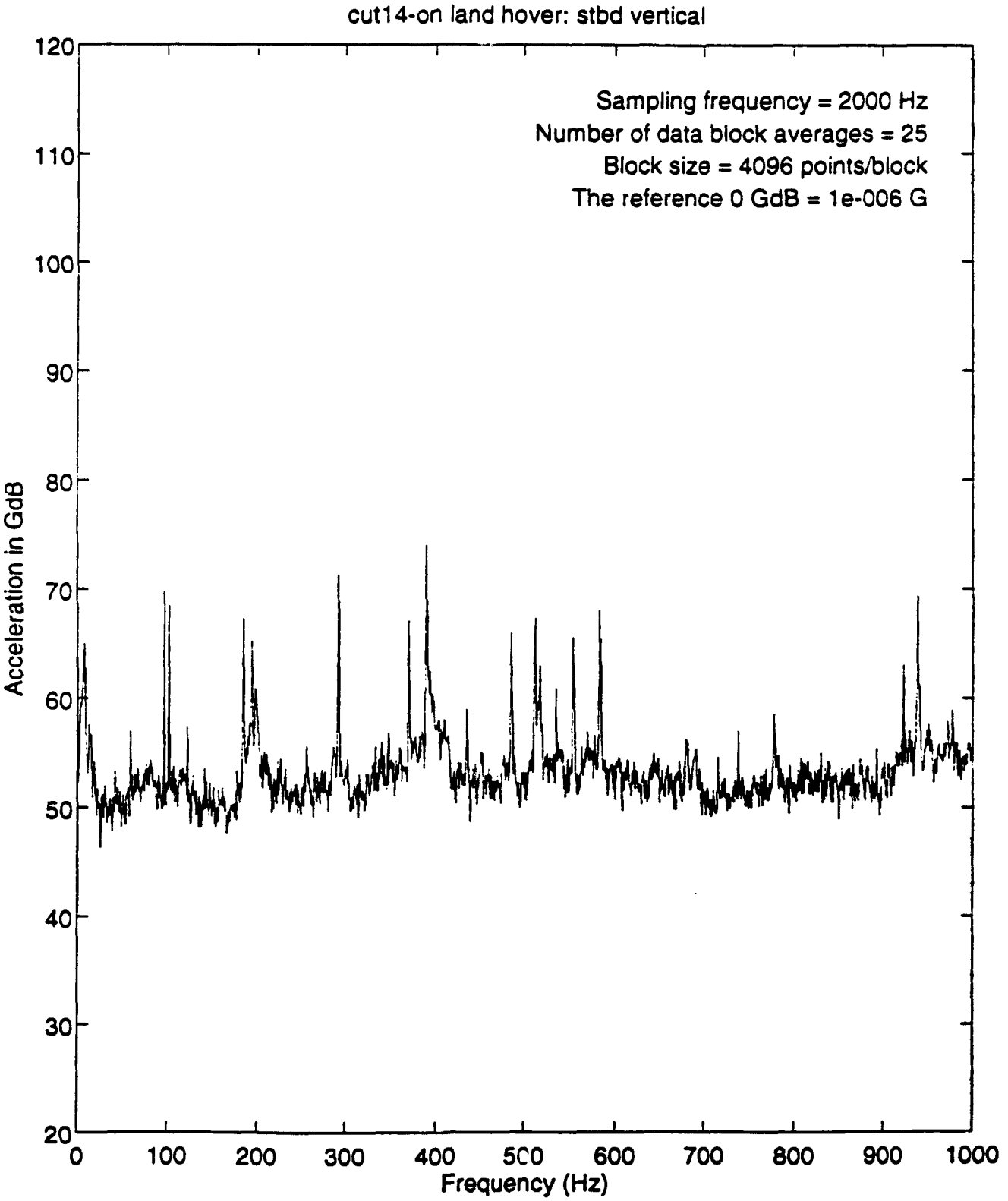
cut14-on land hover: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.01895 G
Standard deviation = 0.1304 G
The plot shows 1024 data points



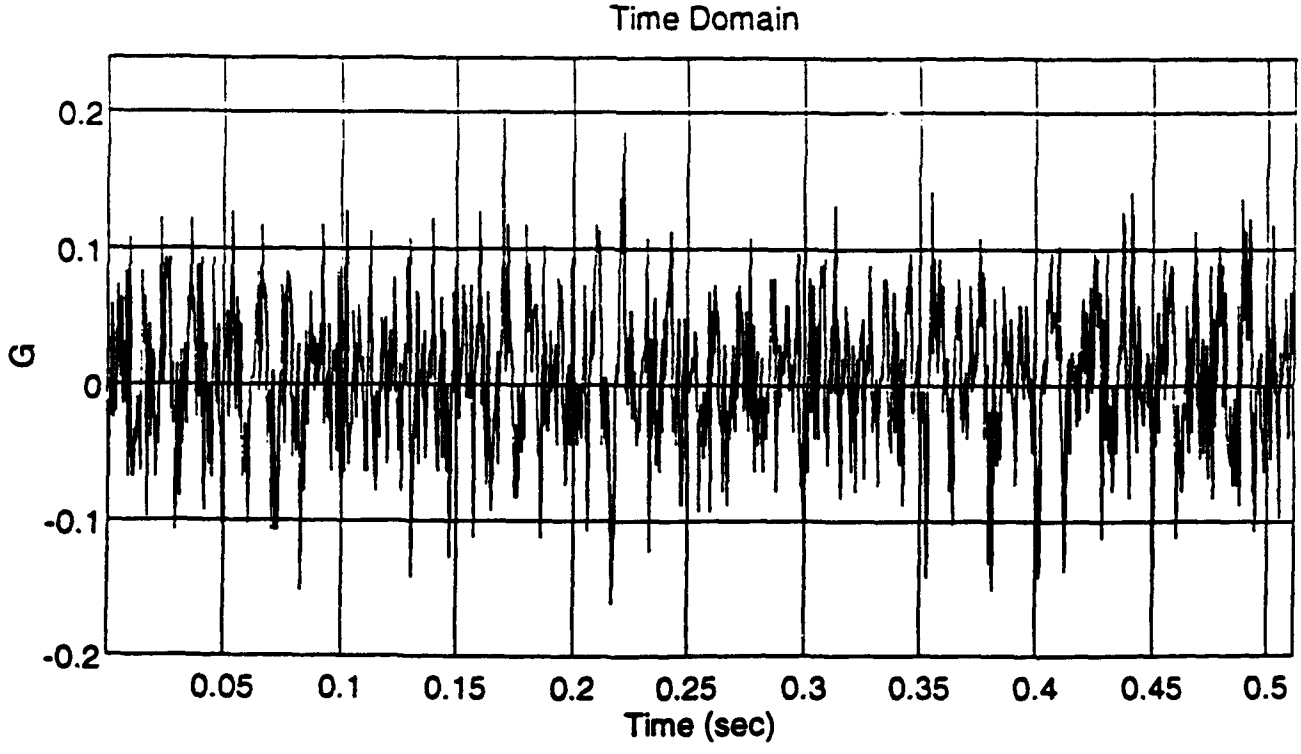

cut14-on land hover: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

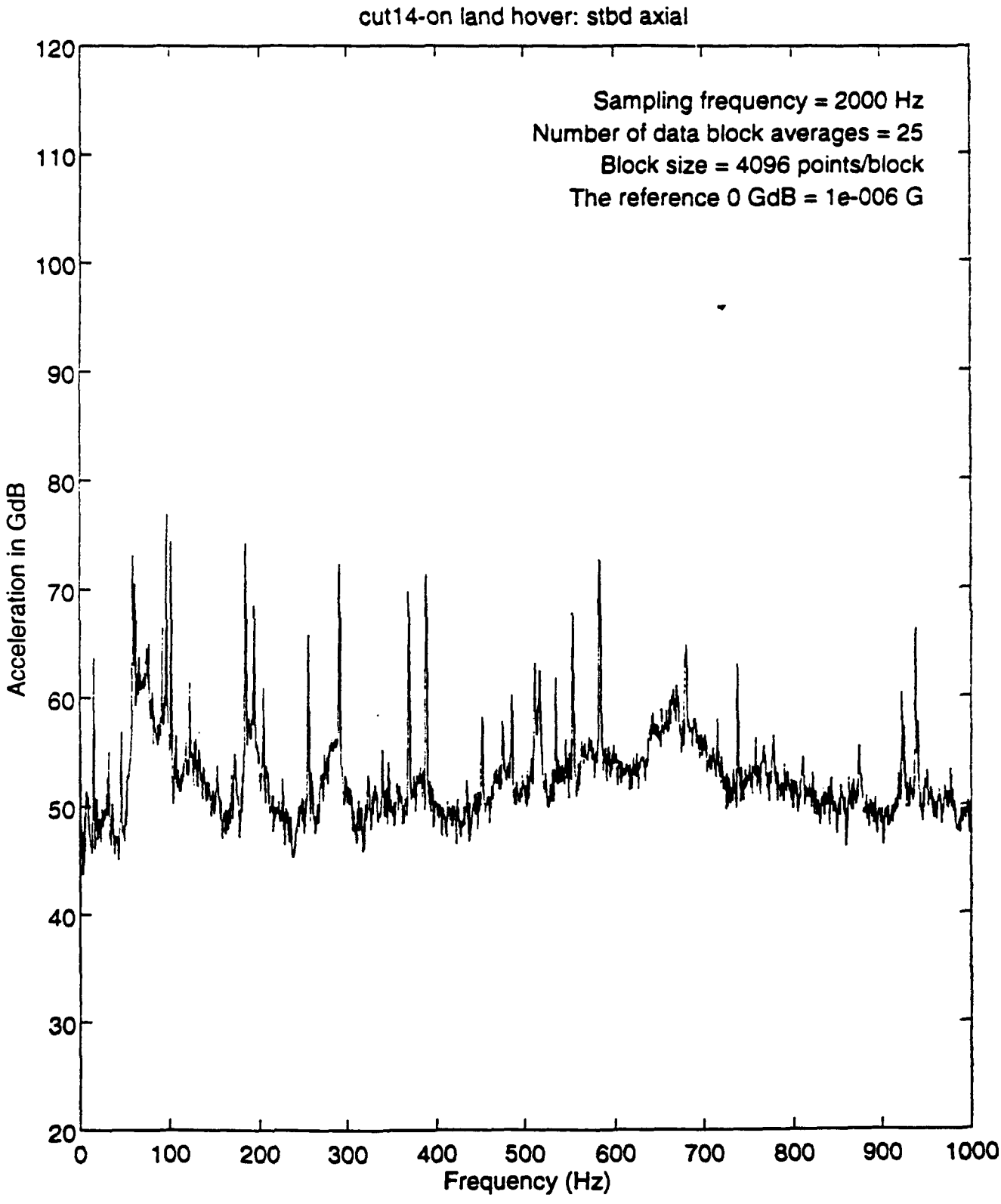
cut14-on land hover: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.002877 G
Standard deviation = 0.05181 G
The plot shows 1024 data points



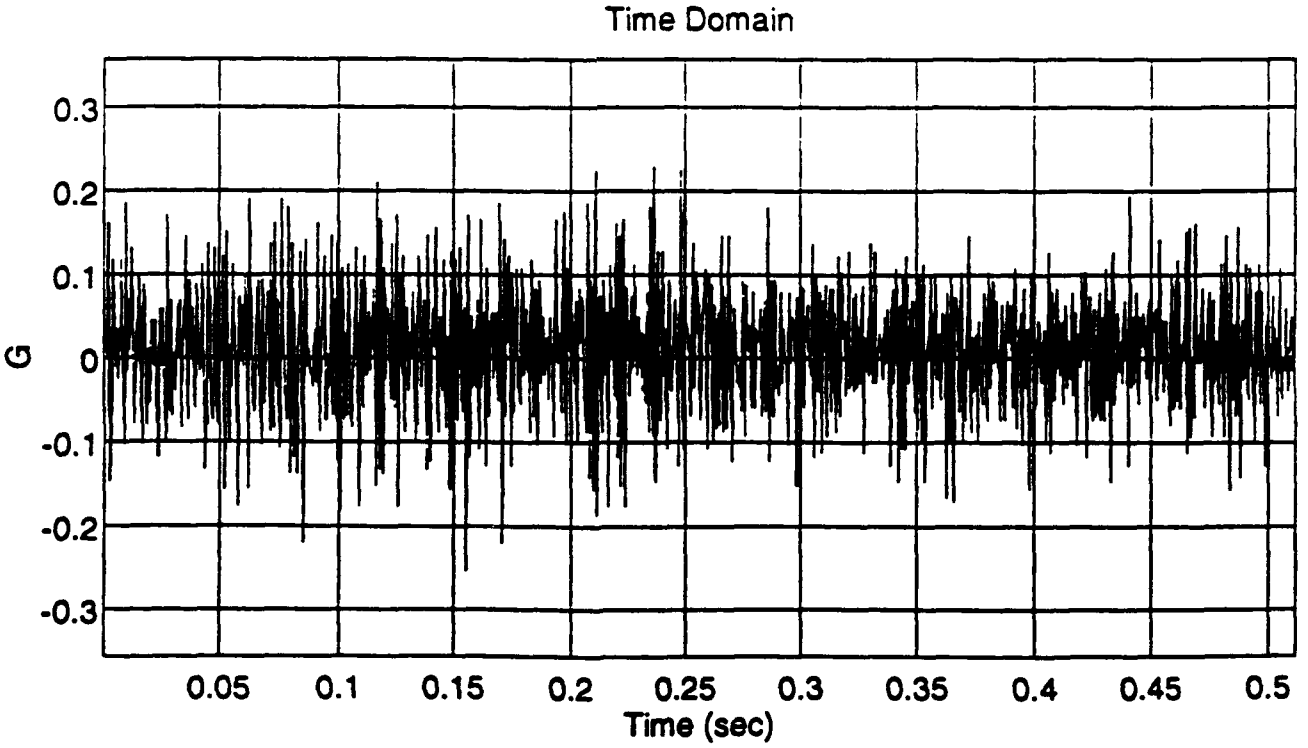

cut14-on land hover: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

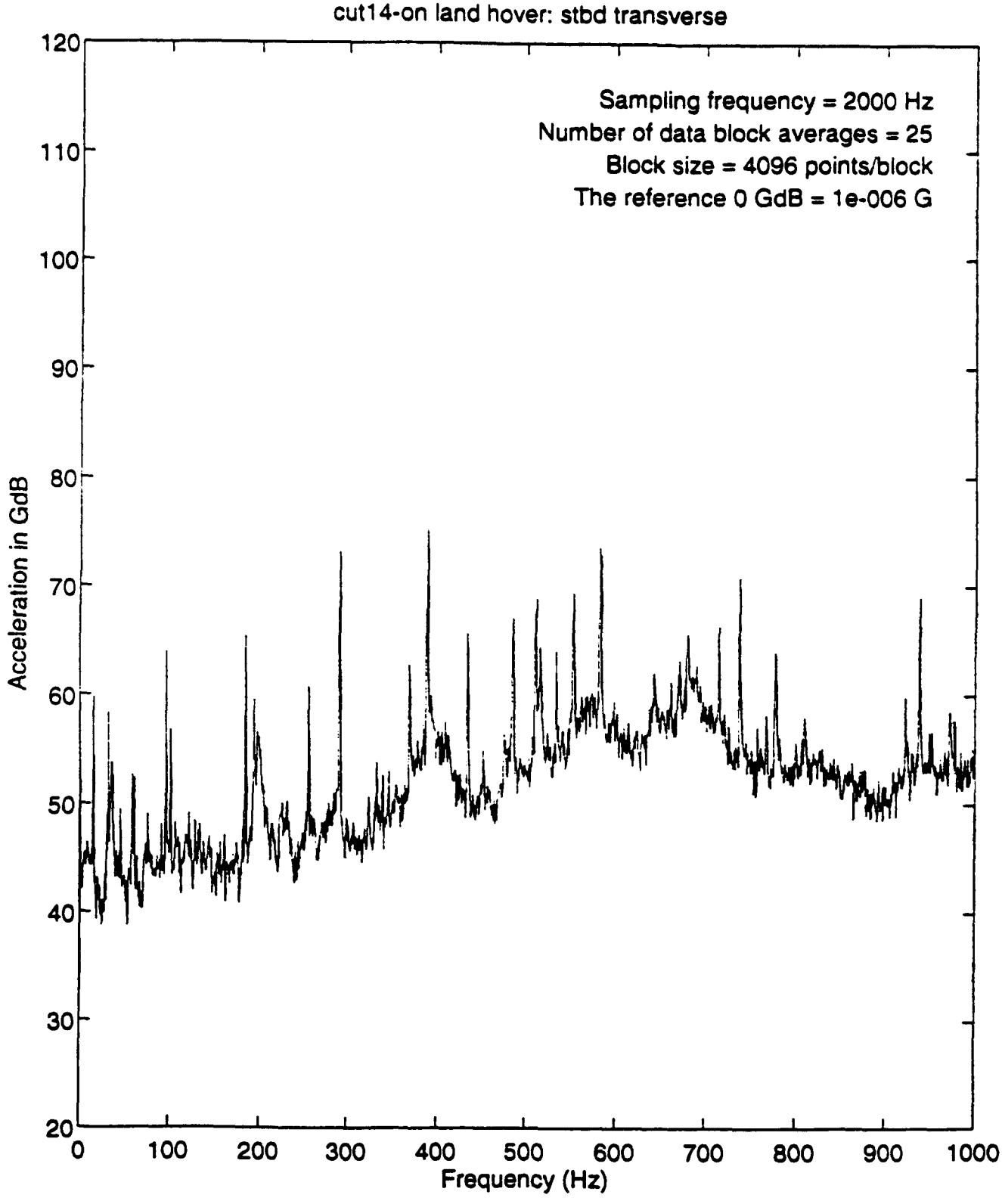
cut14-on land hover: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0002529 G
Standard deviation = 0.0808 G
The plot shows 1024 data points



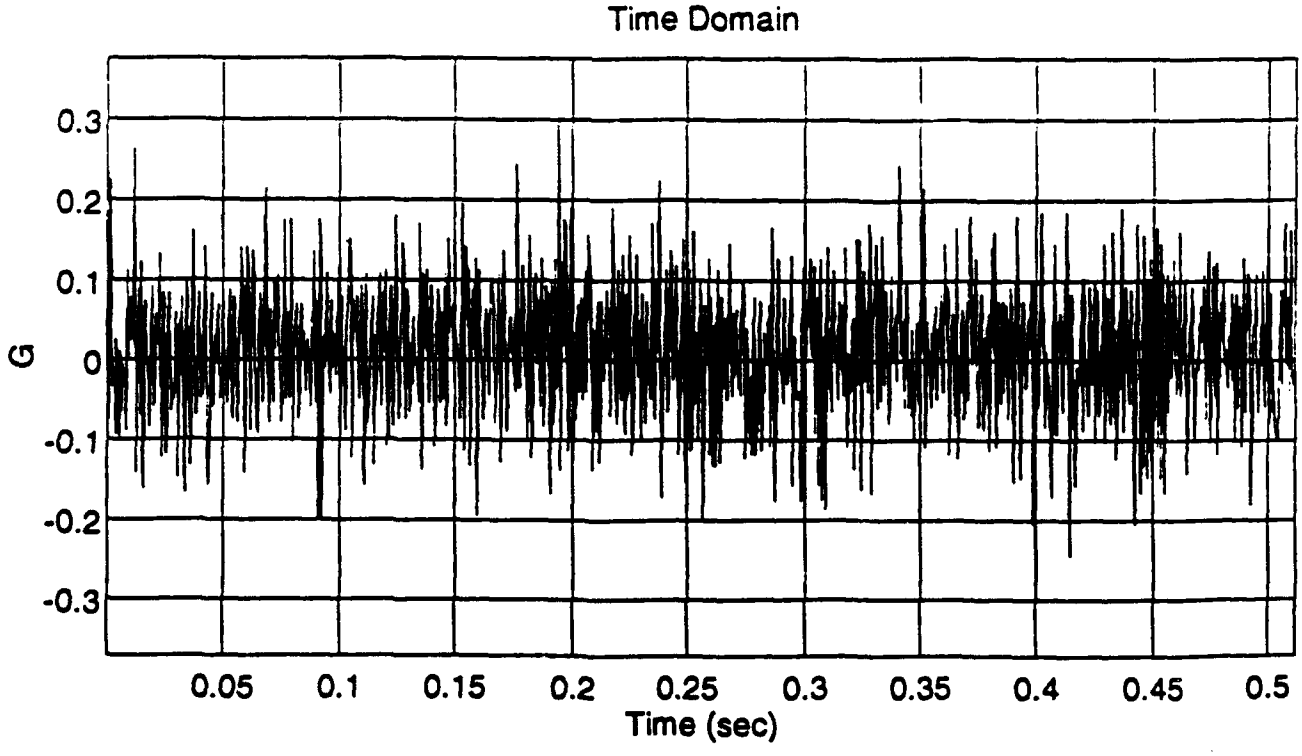

cut14-on land hover: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

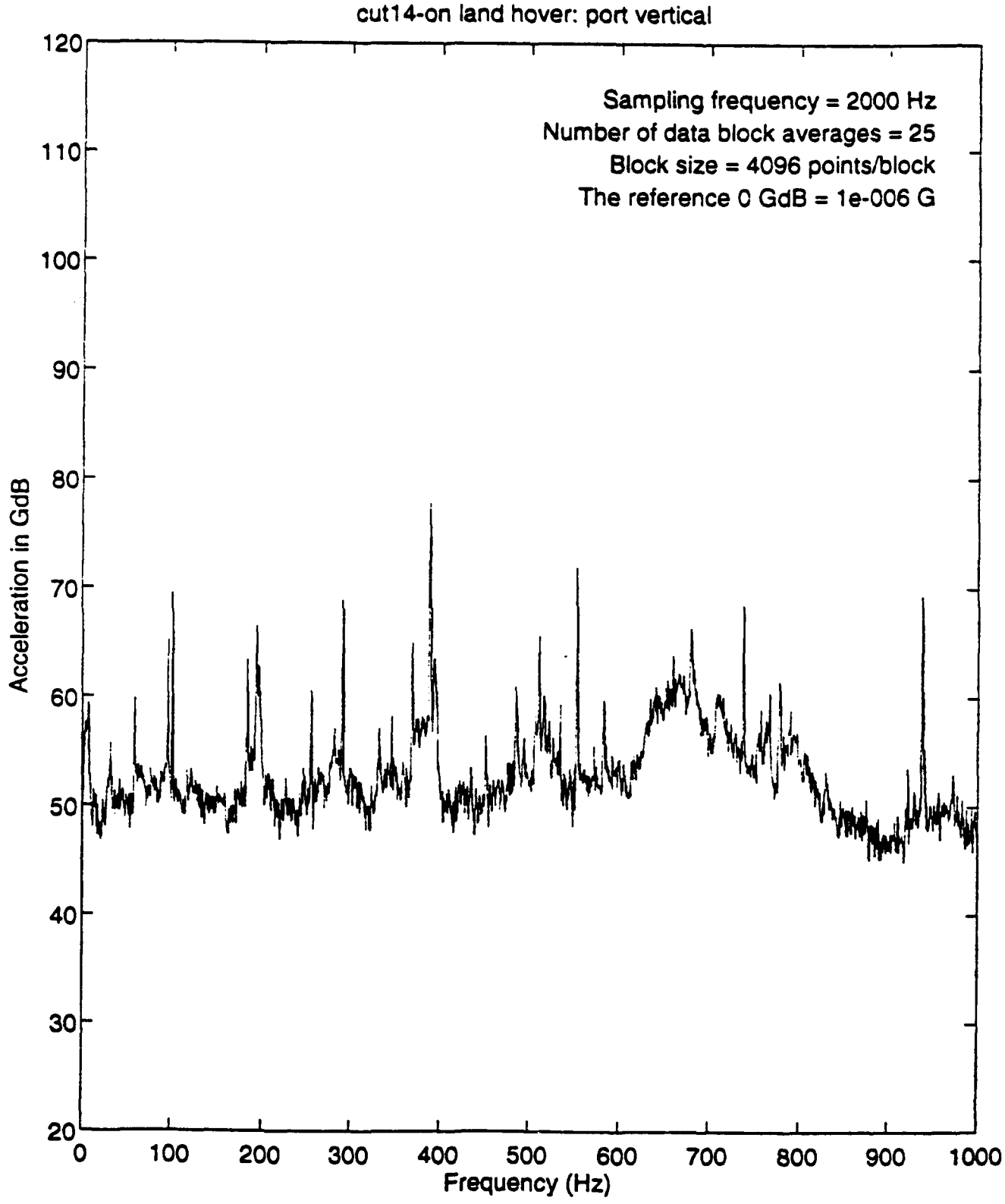
cut14-on land hover: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.007709 G
Standard deviation = 0.0884 G
The plot shows 1024 data points



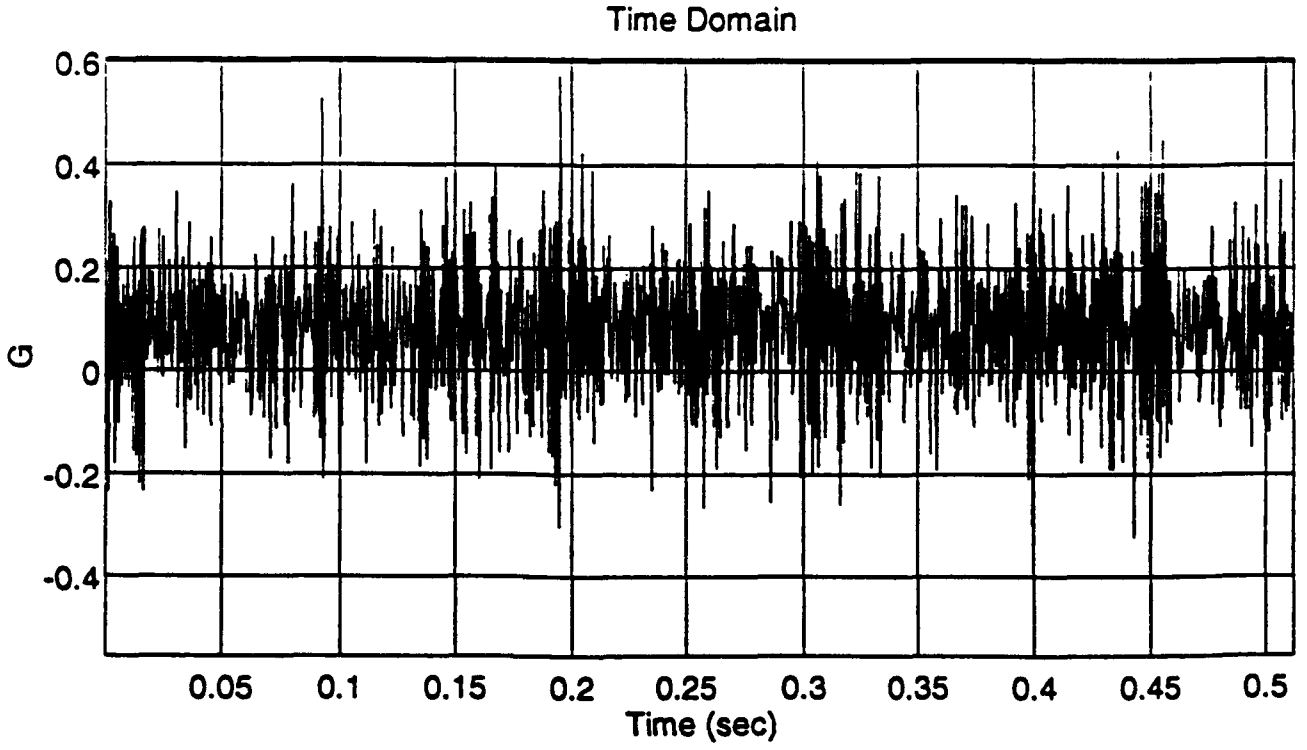

cut14-on land hover: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

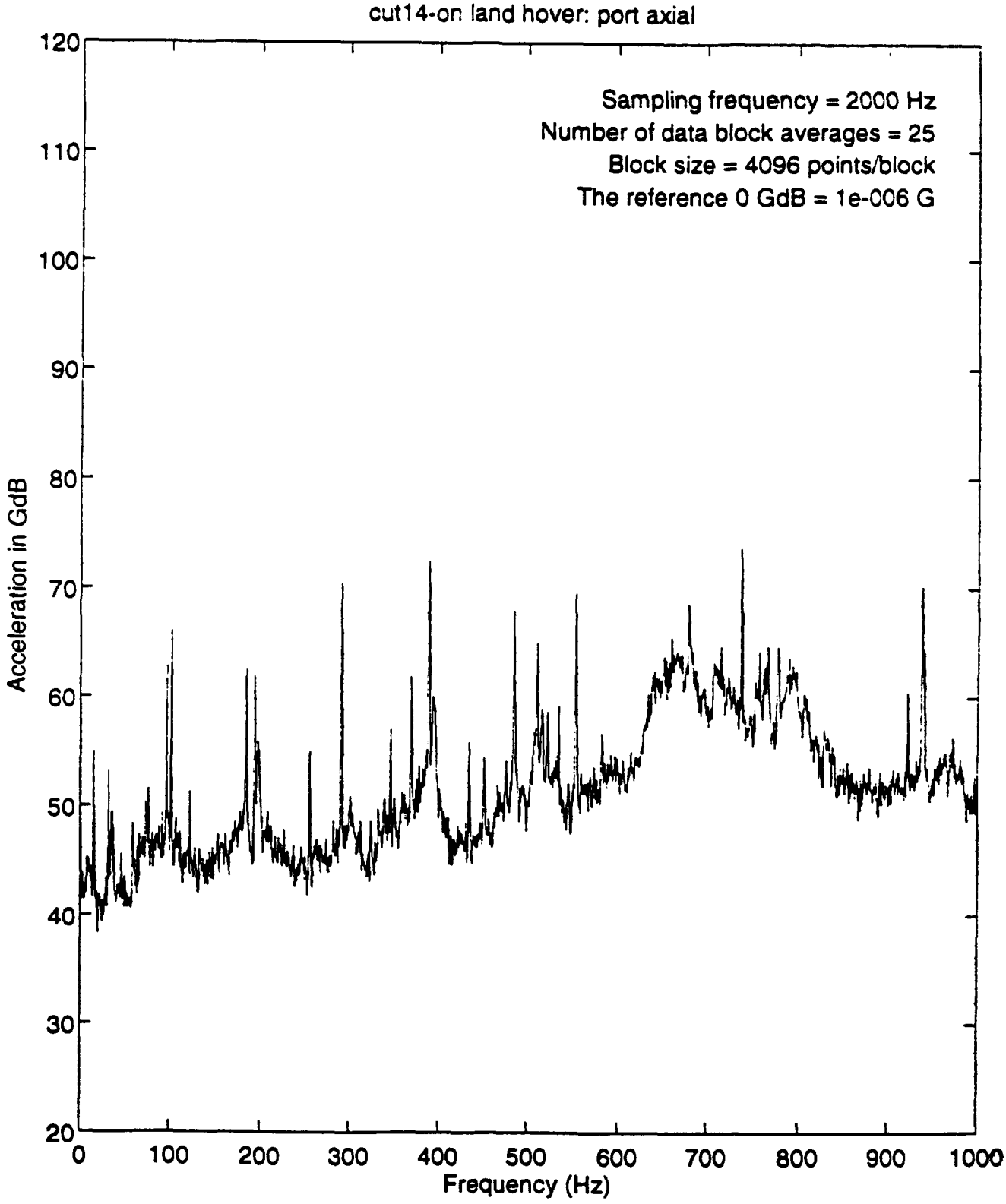
cut14-on land hover: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.01427 G
Standard deviation = 0.1427 G
The plot shows 1024 data points



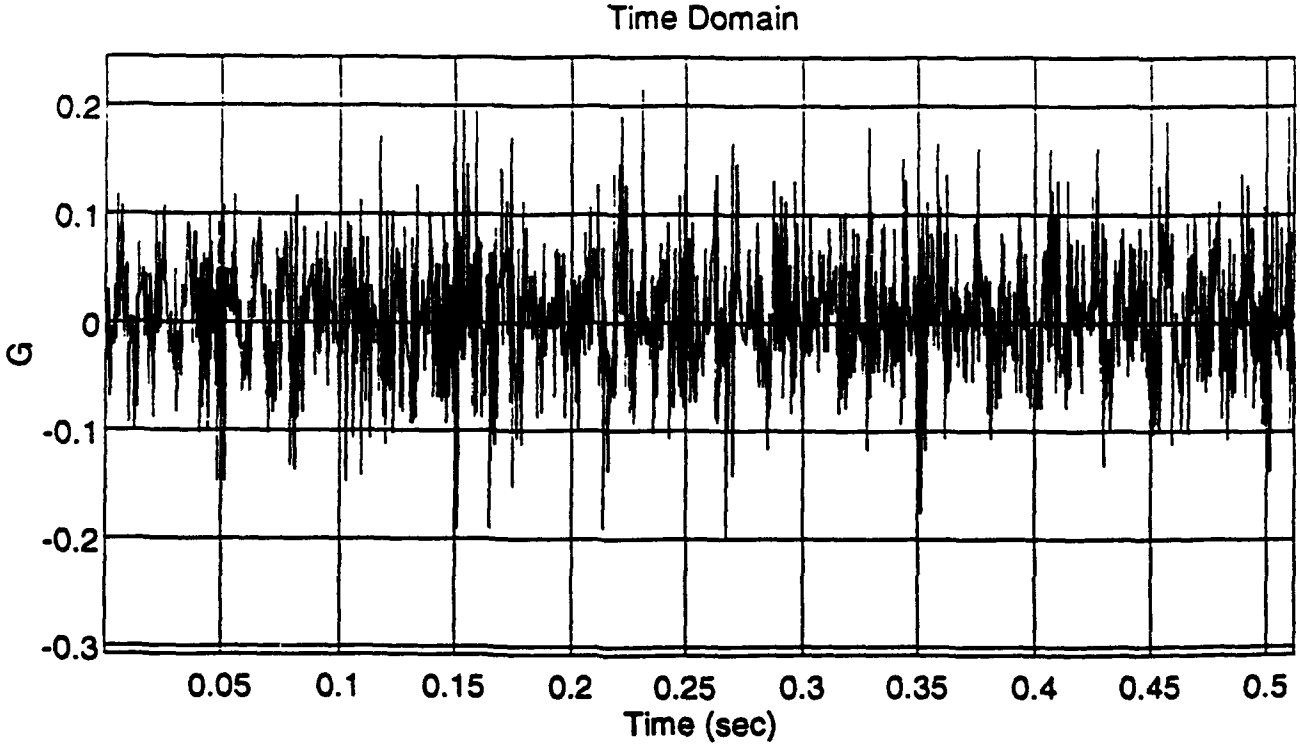

cut14-on land hover: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

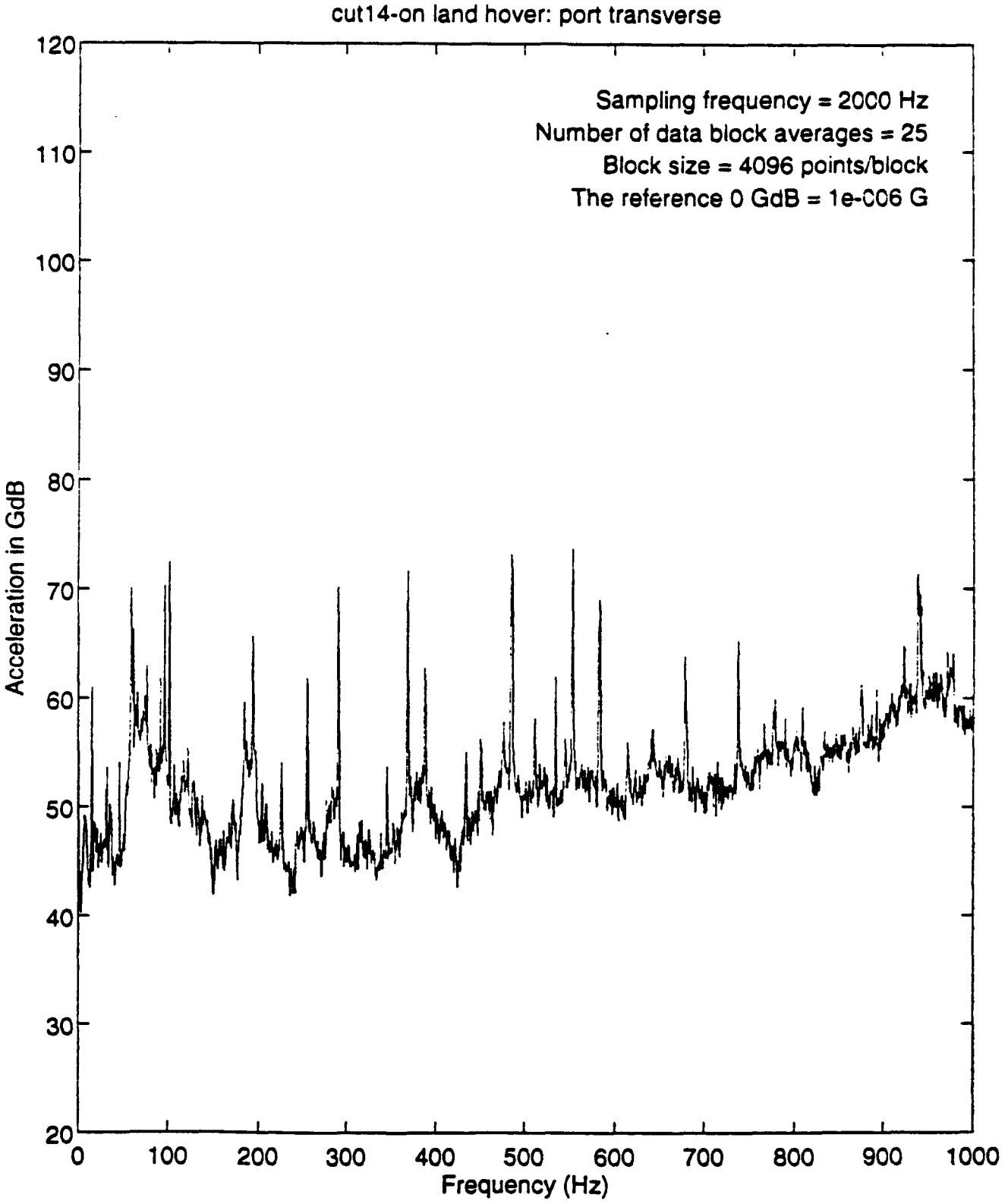
cut14-on land hover: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.007547 G
Standard deviation = 0.06265 G
The plot shows 1024 data points



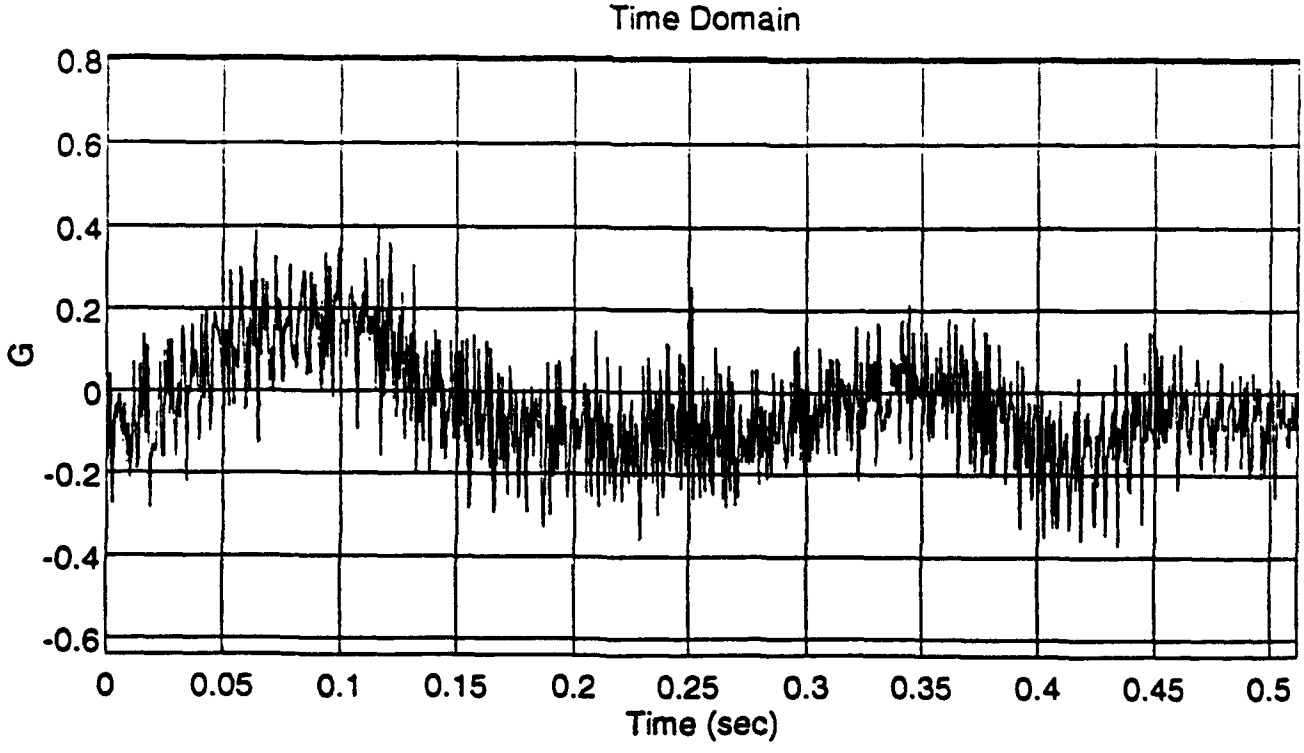

cut14-on land hover: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

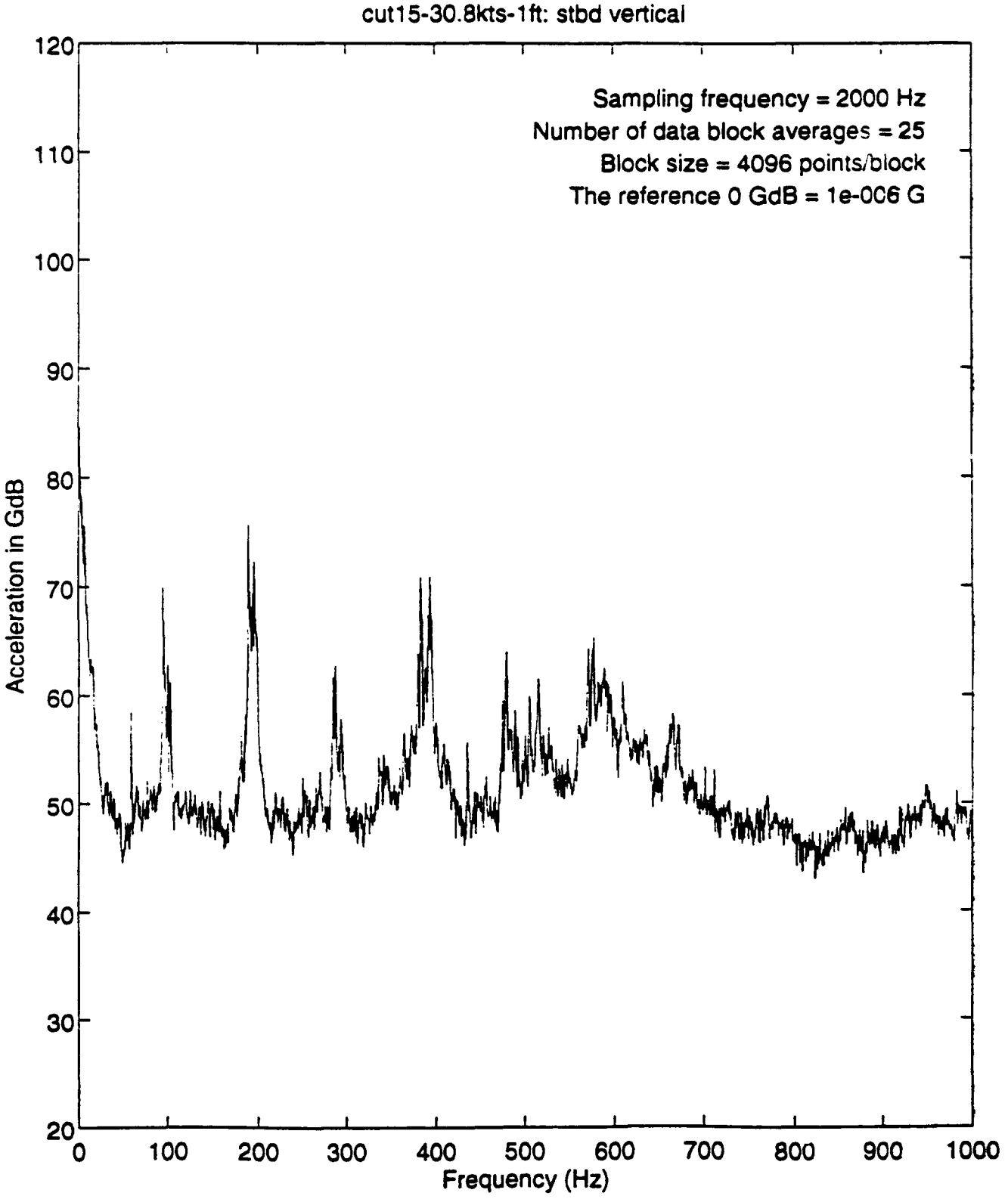
cut15-30.8kts-1ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.008574 G
Standard deviation = 0.1622 G
The plot shows 1024 data points




cut15-30.8kts-1ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut15-30.8kts-1ft: stbd axial

Data sampling frequency = 2000 Hz

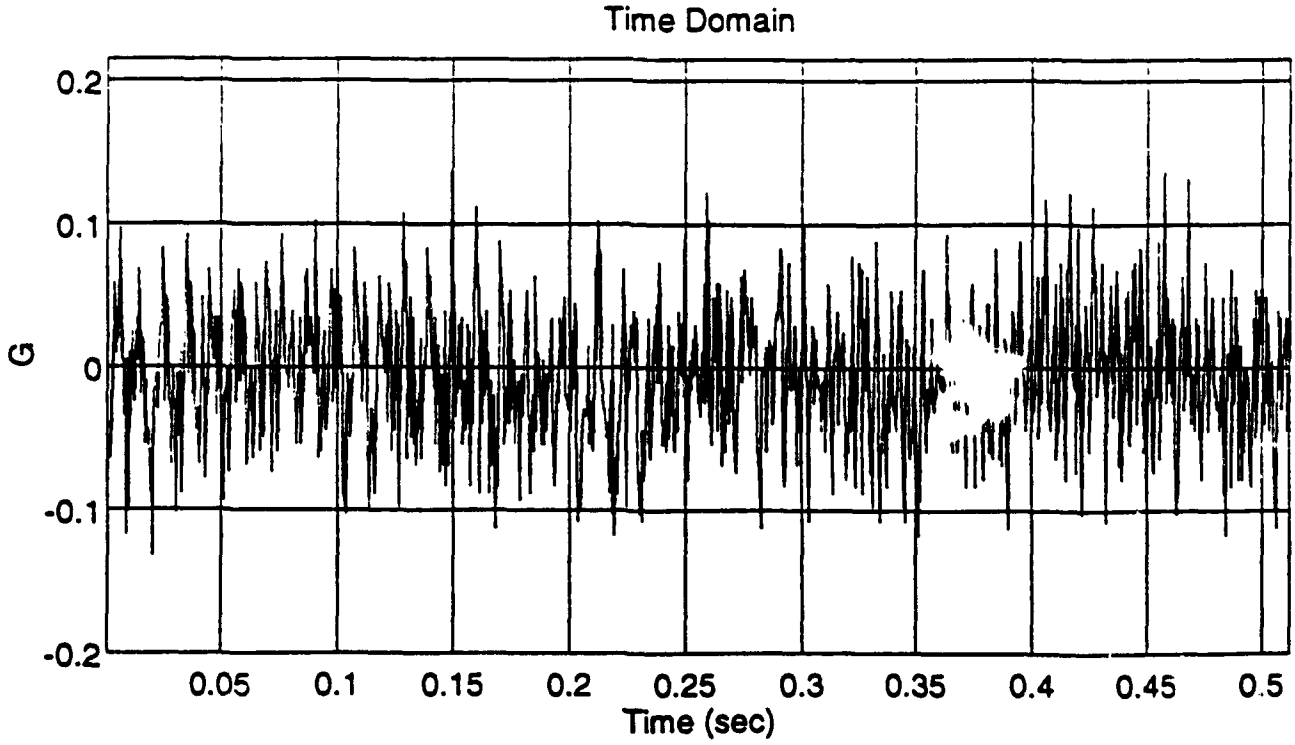
Total number of sampling data points = 1.024e+005

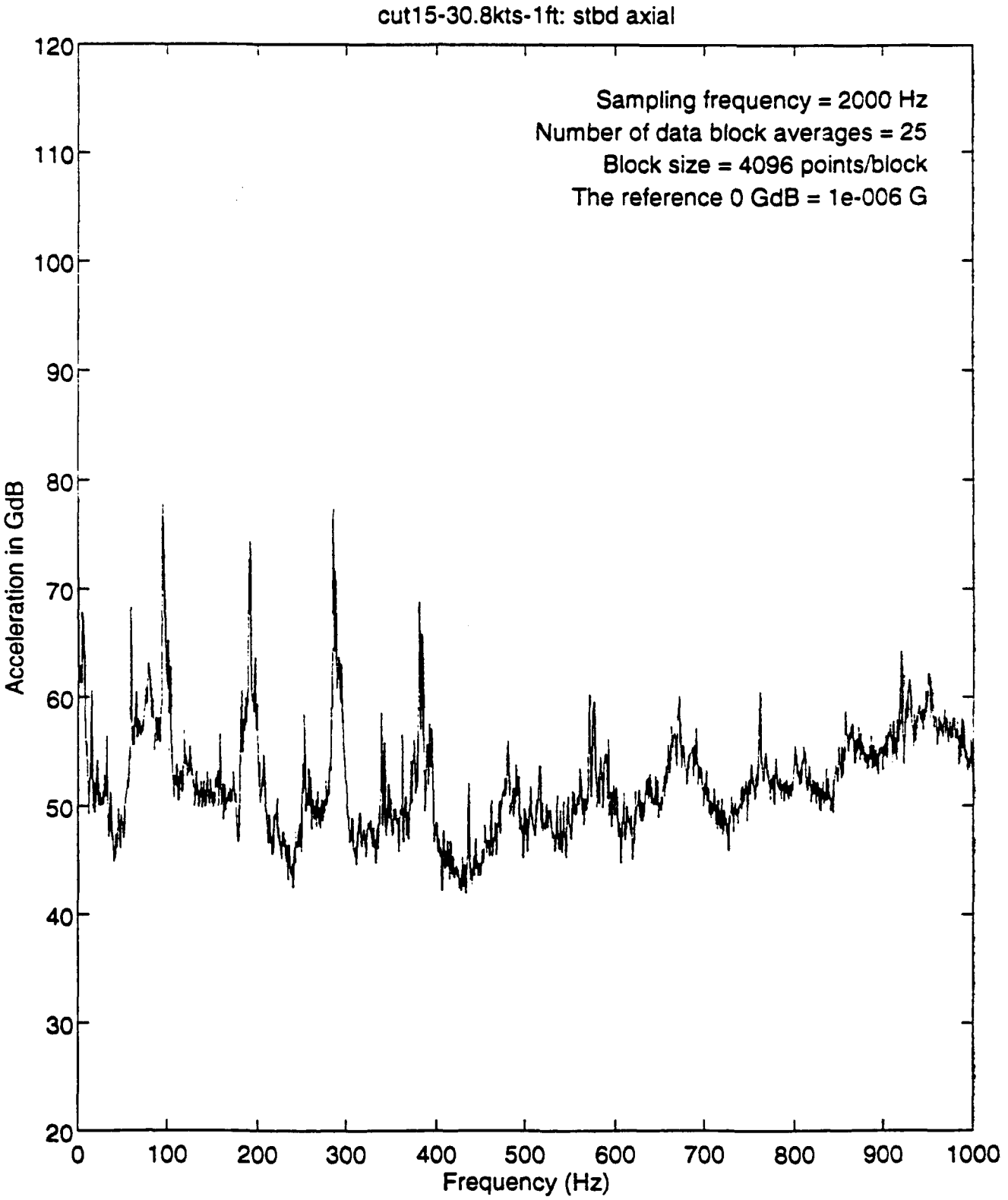
* The time domain

Mean value = -0.006409 G

Standard deviation = 0.04744 G

The plot shows 1024 data points




cut15-30.8kts-1ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut15-30.8kts-1ft: stbd transverse

Data sampling frequency = 2000 Hz

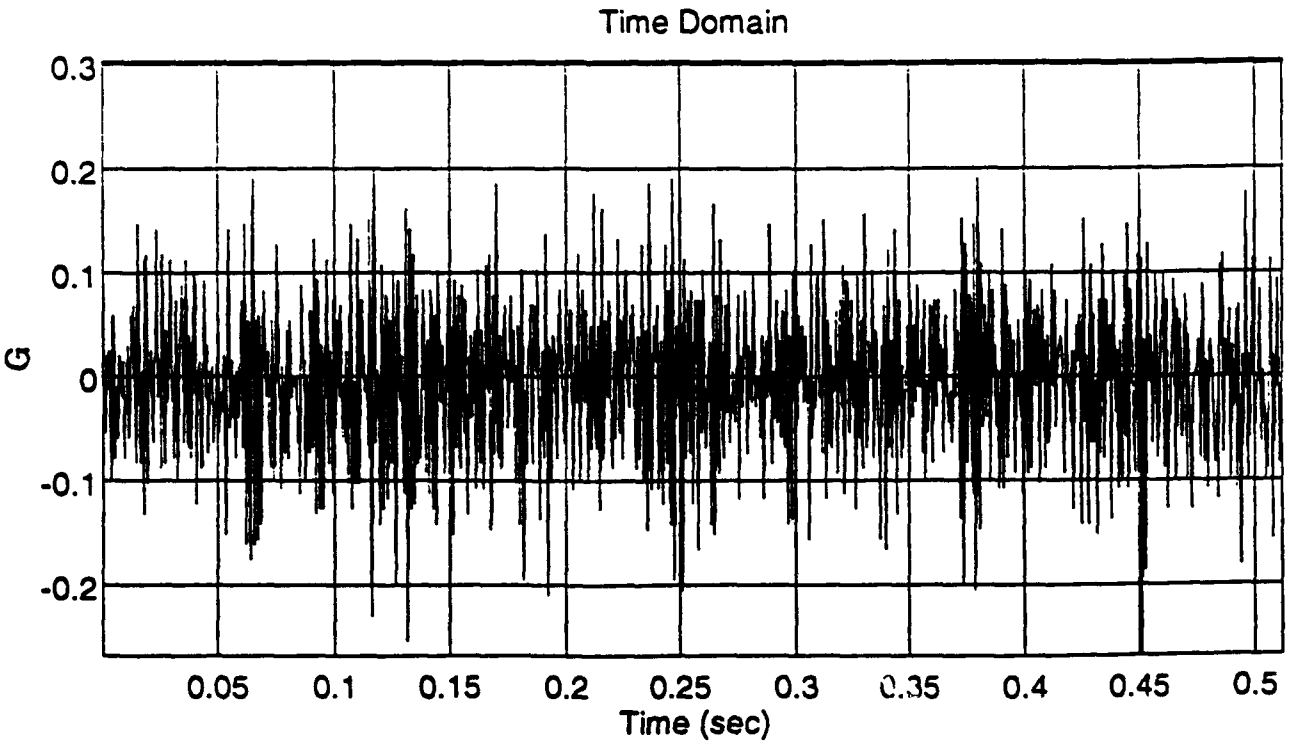
Total number of sampling data points = 1.024e+005

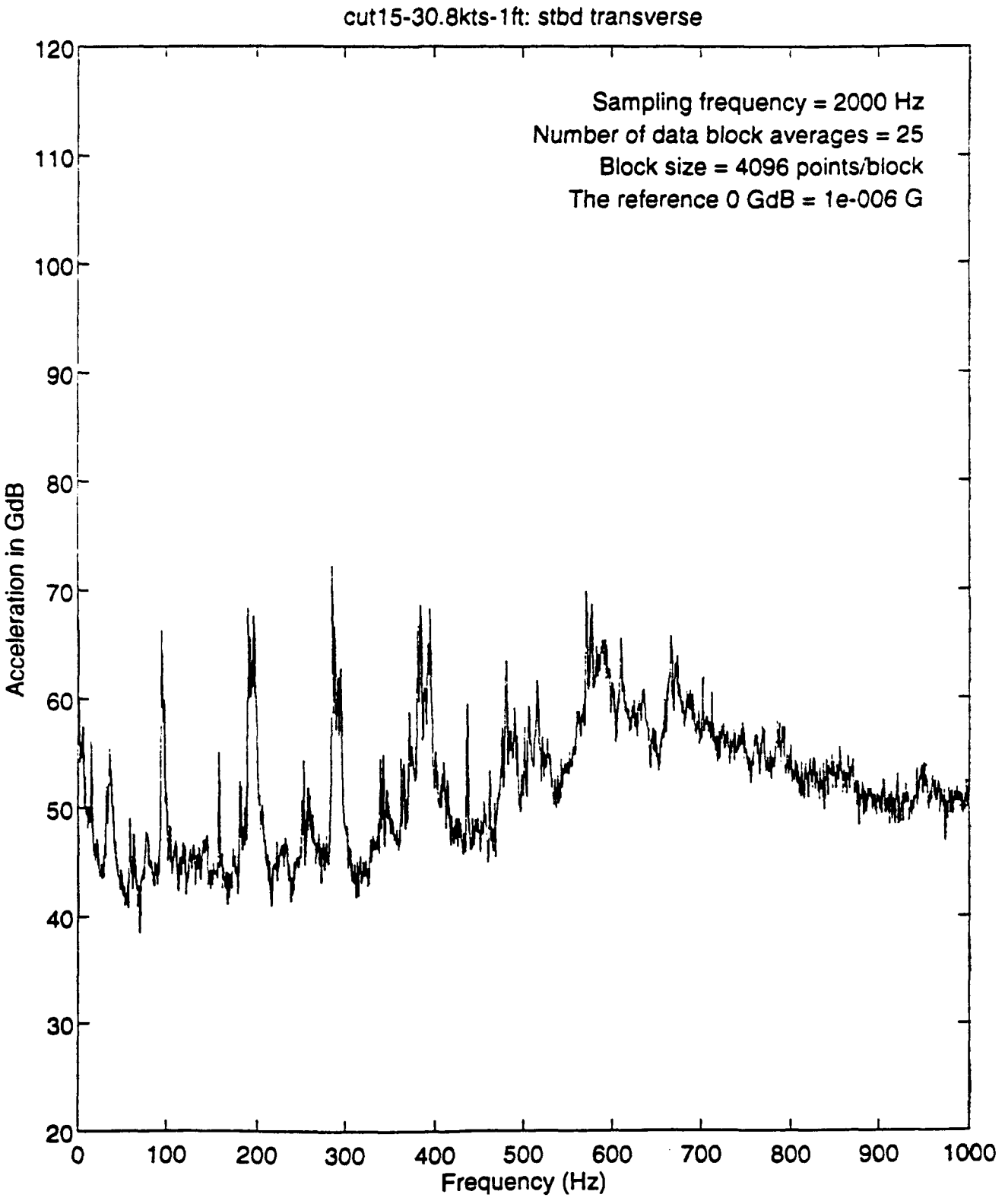
* The time domain

Mean value = -0.006388 G

Standard deviation = 0.06553 G

The plot shows 1024 data points



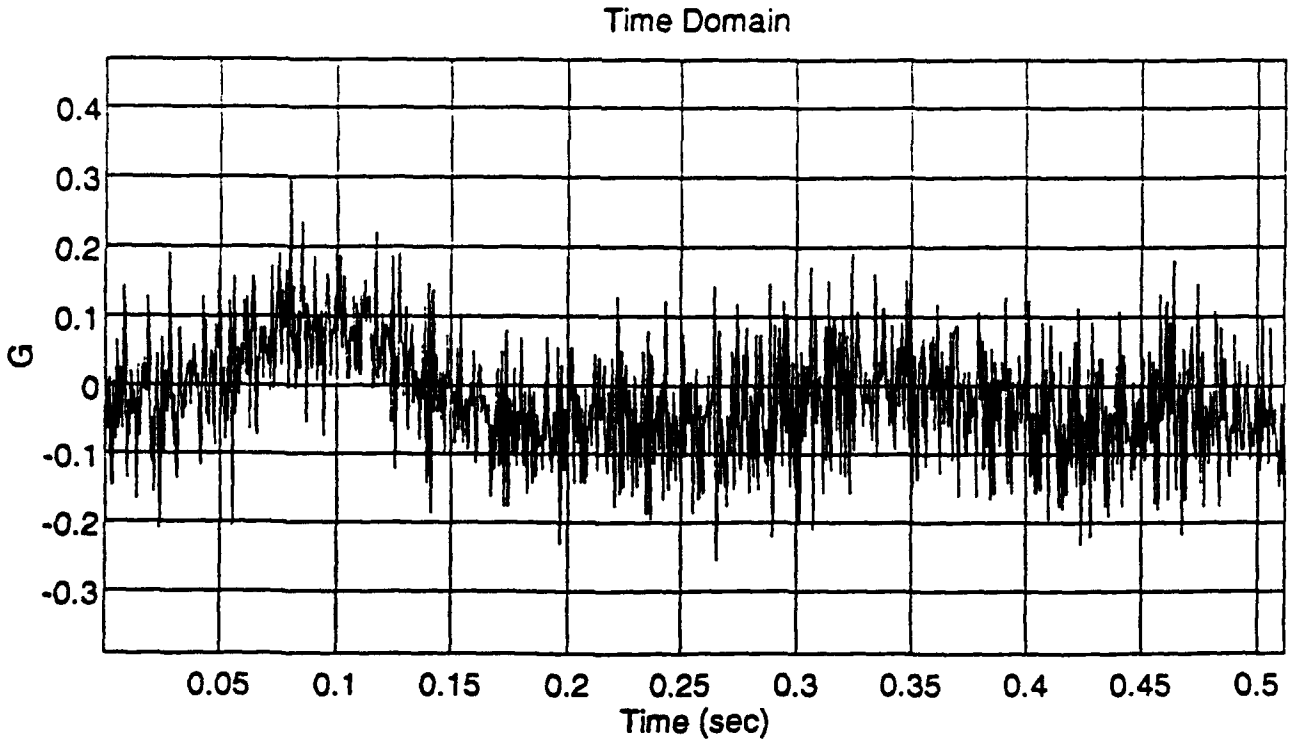

cut15-30.8kts-1ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

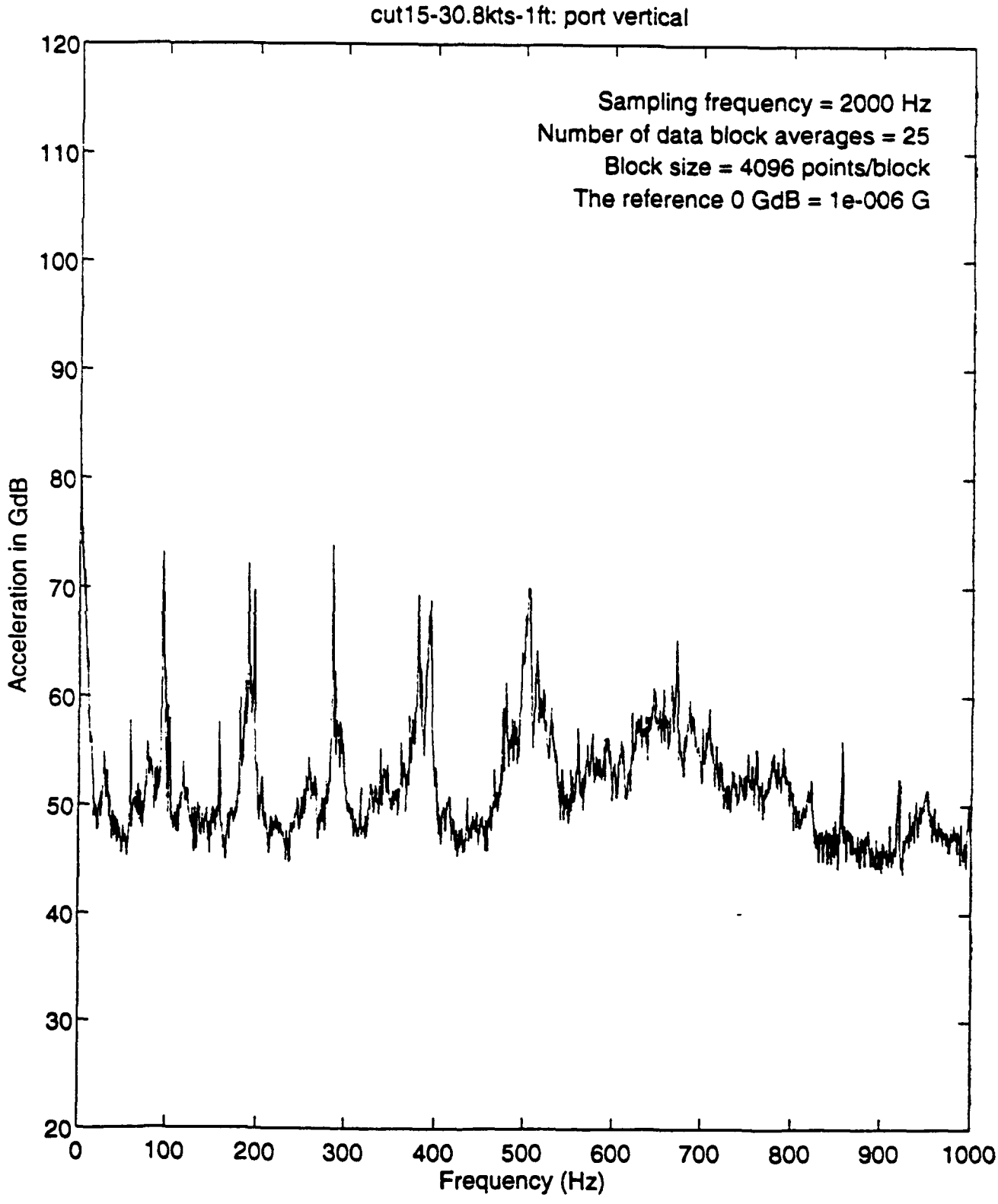
cut15-30.8kts-1ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.007183 G
Standard deviation = 0.09177 G
The plot shows 1024 data points



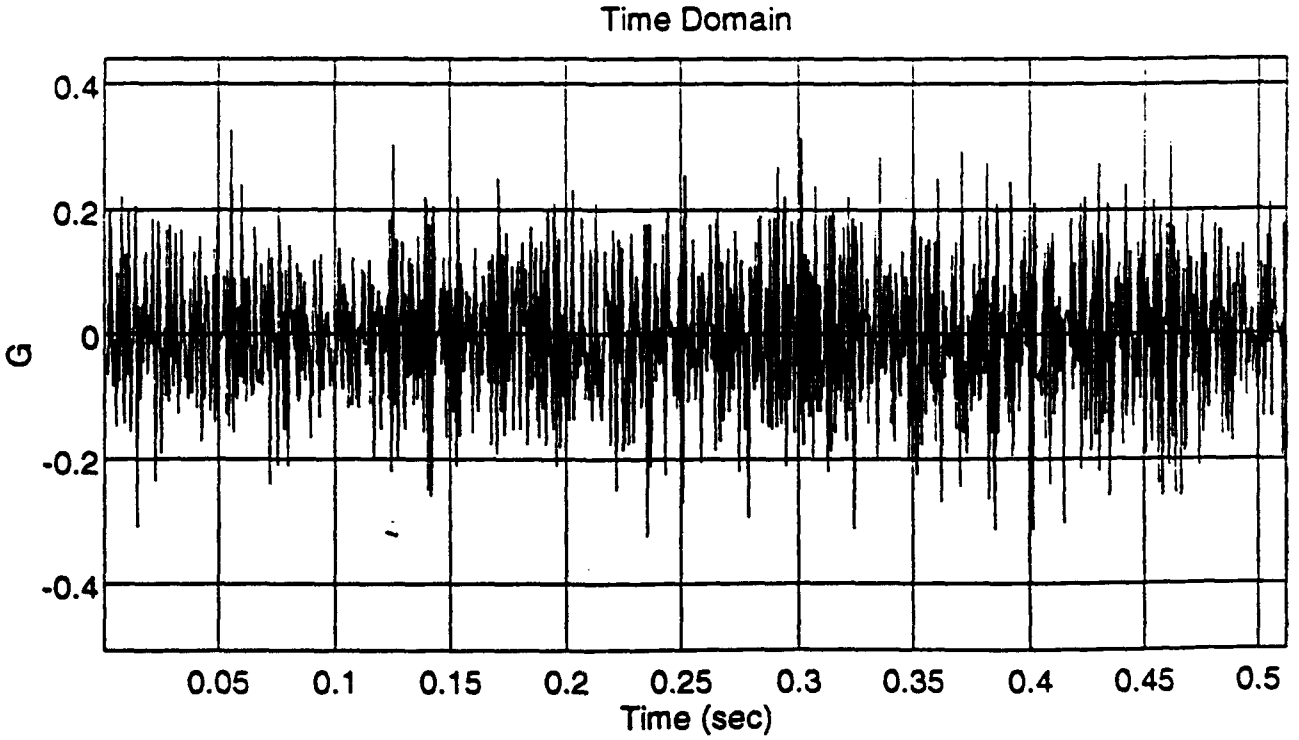

cut15-30.8kts-1ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

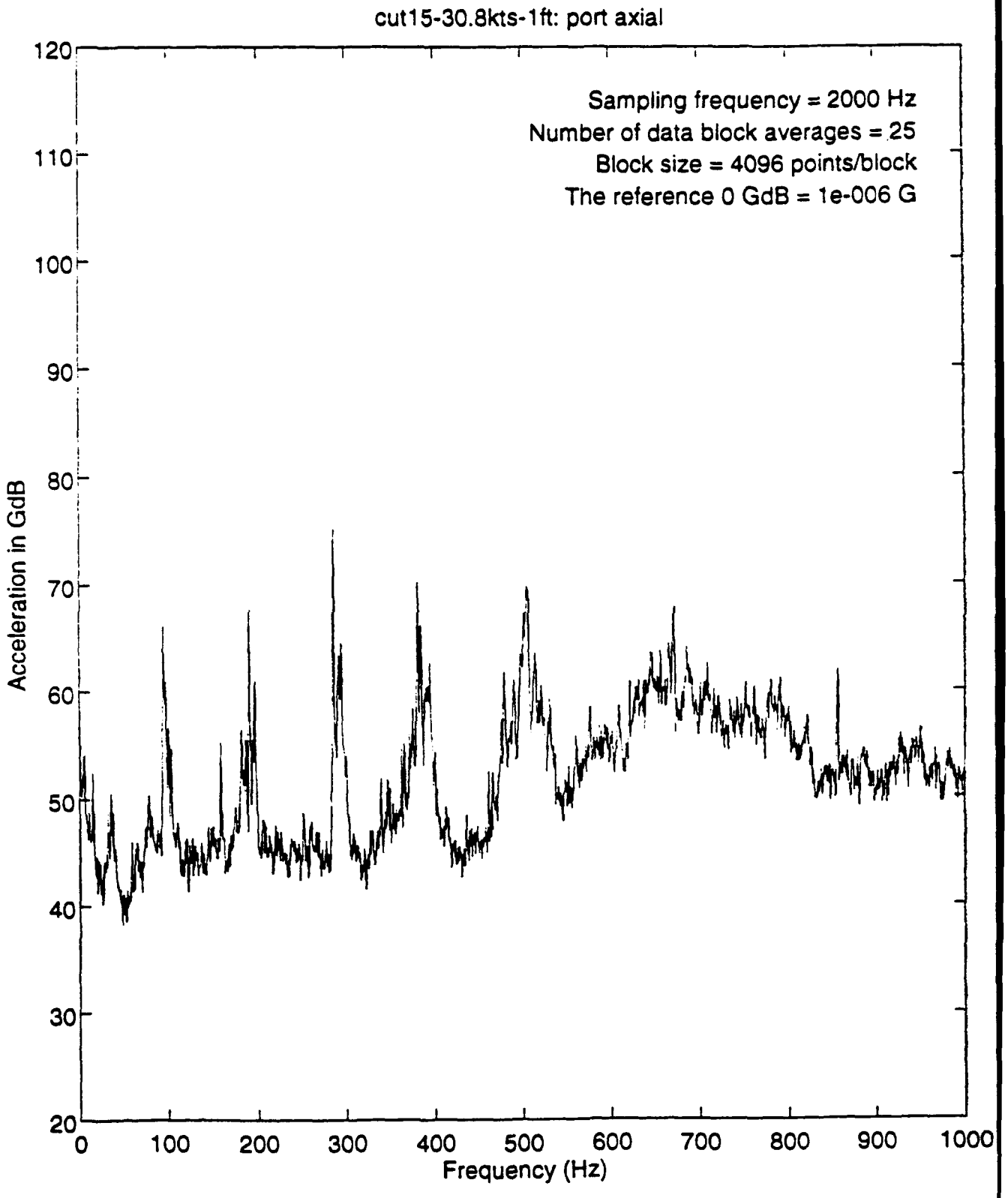
cut15-30.8kts-1ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004441 G
Standard deviation = 0.101 G
The plot shows 1024 data points




cut15-30.8kts-1ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut15-30.8kts-1ft: port transverse

Data sampling frequency = 2000 Hz

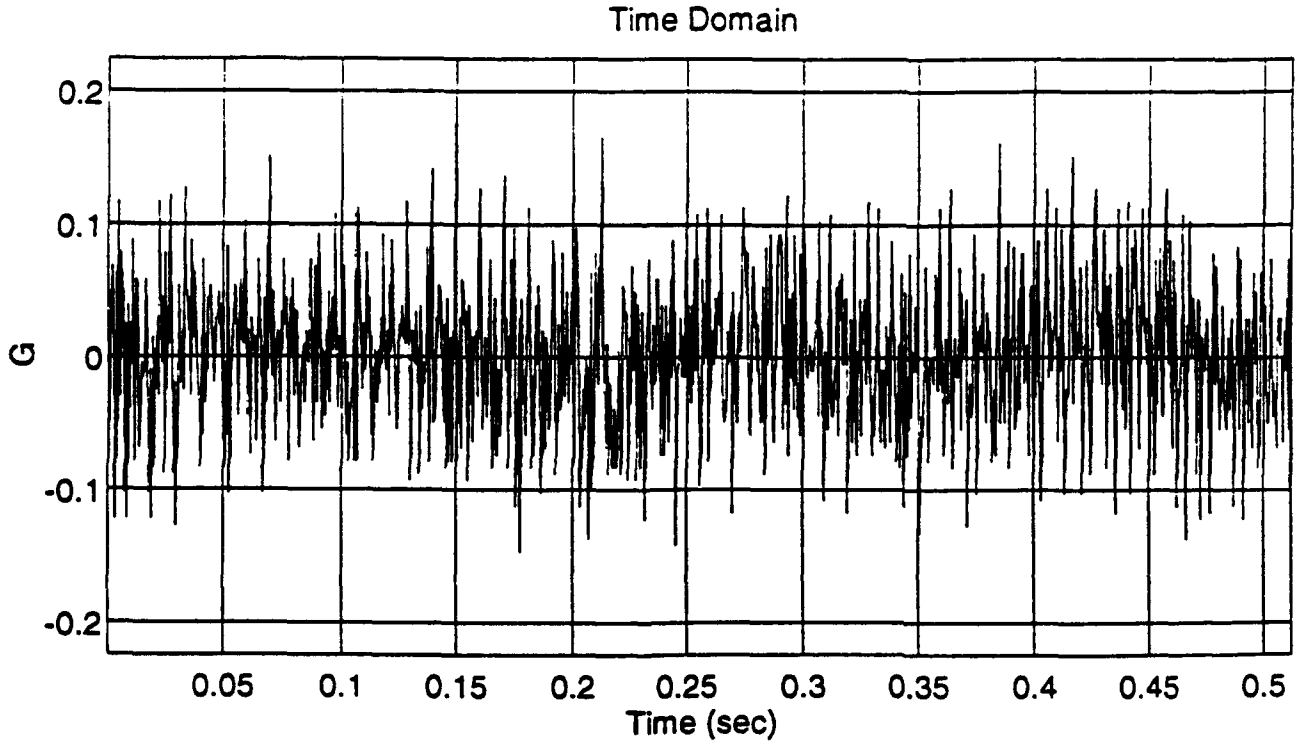
Total number of sampling data points = 1.024e+005

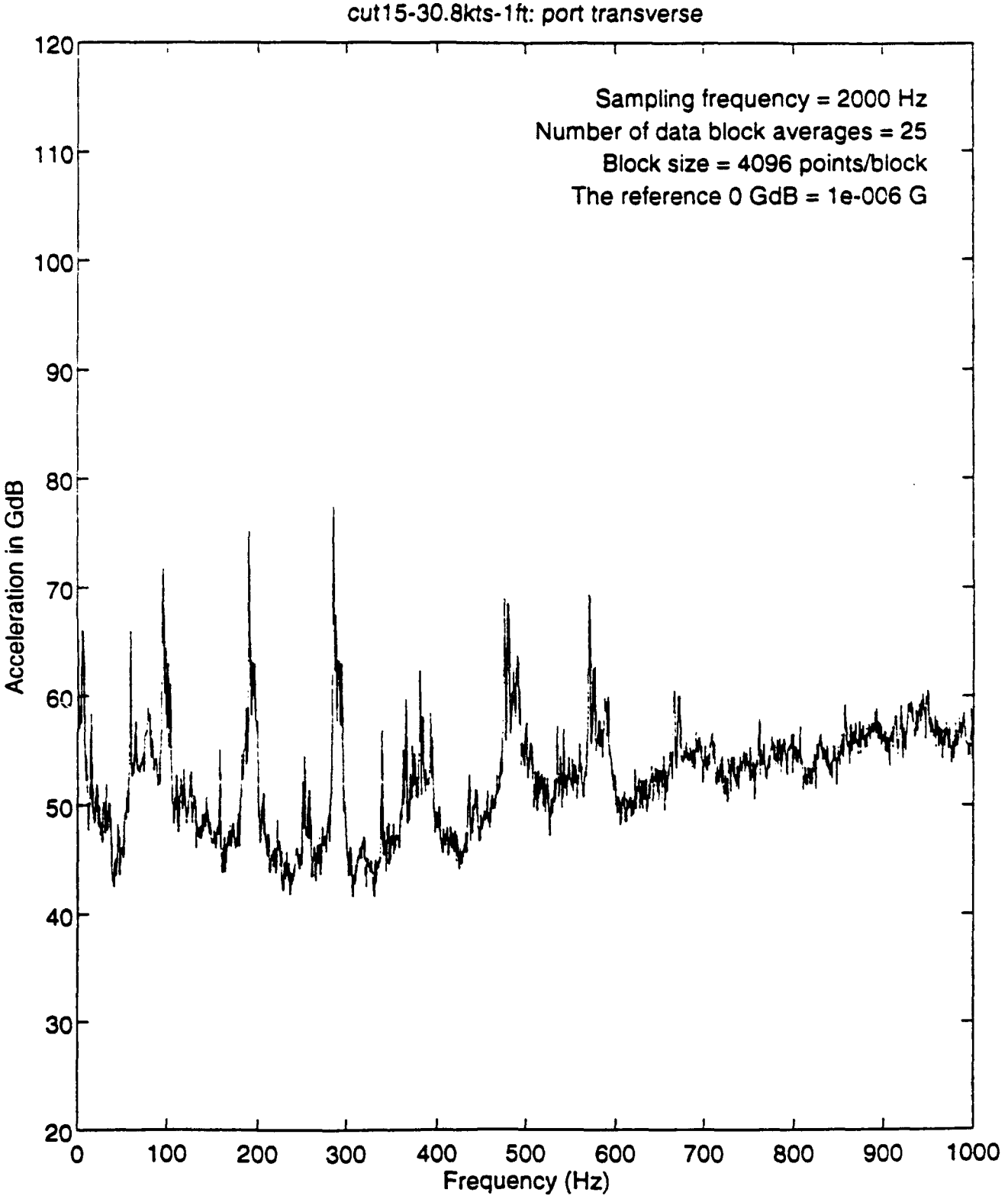
* The time domain

Mean value = -0.0009481 G

Standard deviation = 0.05086 G

The plot shows 1024 data points



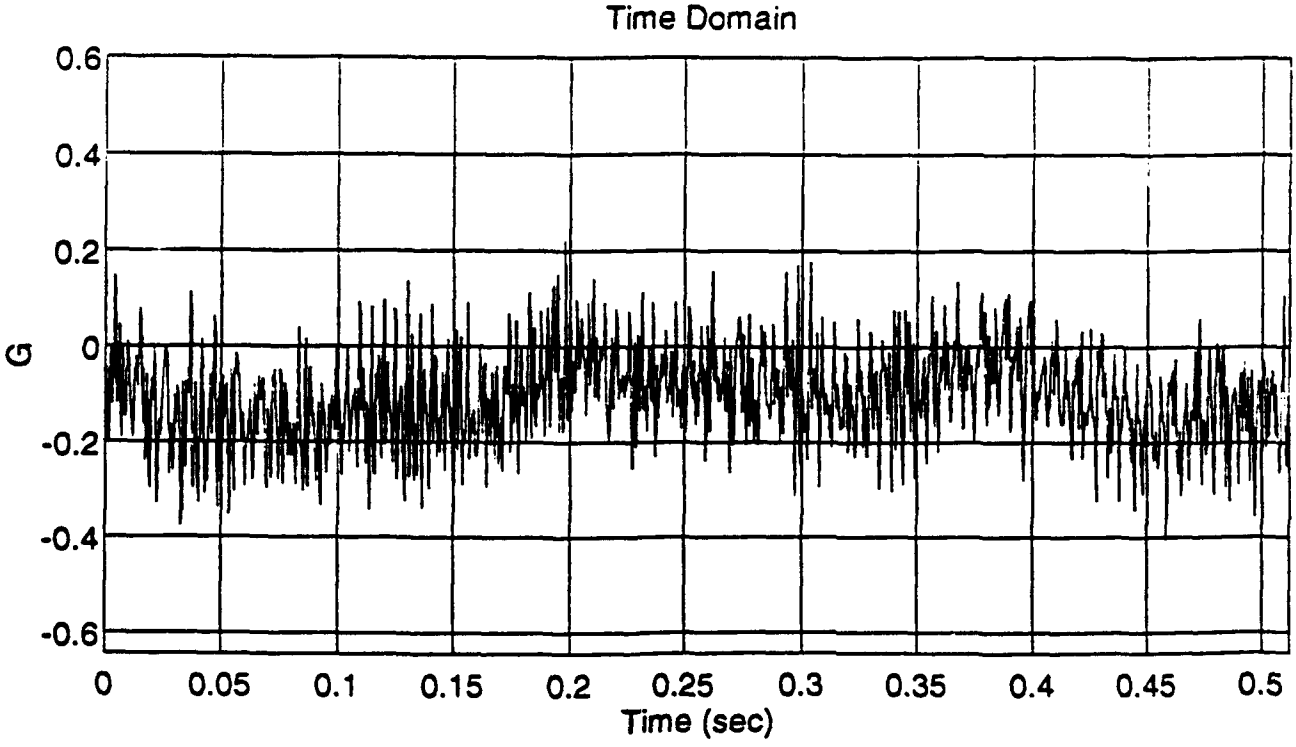

cut15-30.8kts-1ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

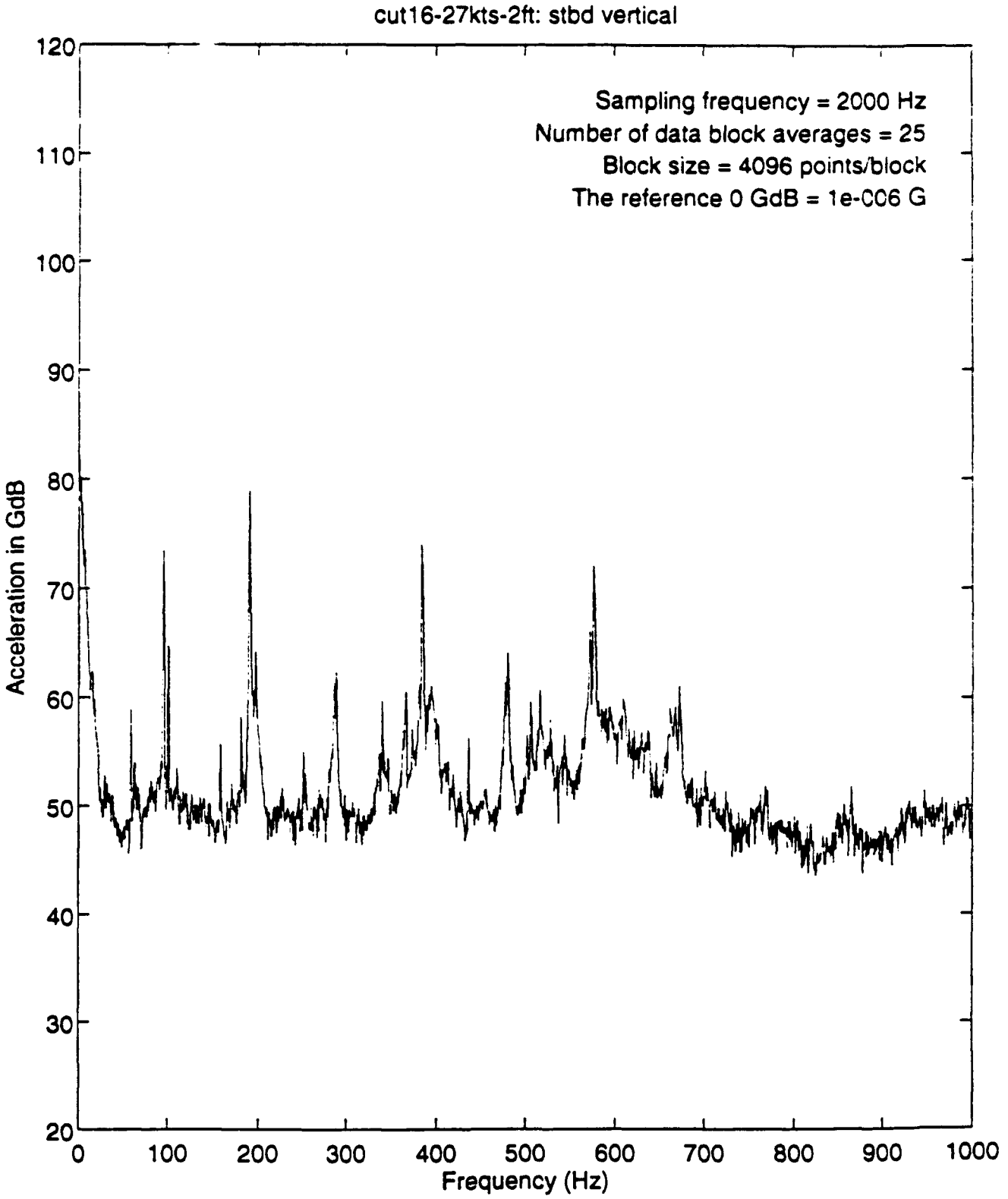
cut16-27kts-2ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.007548 G
Standard deviation = 0.148 G
The plot shows 1024 data points



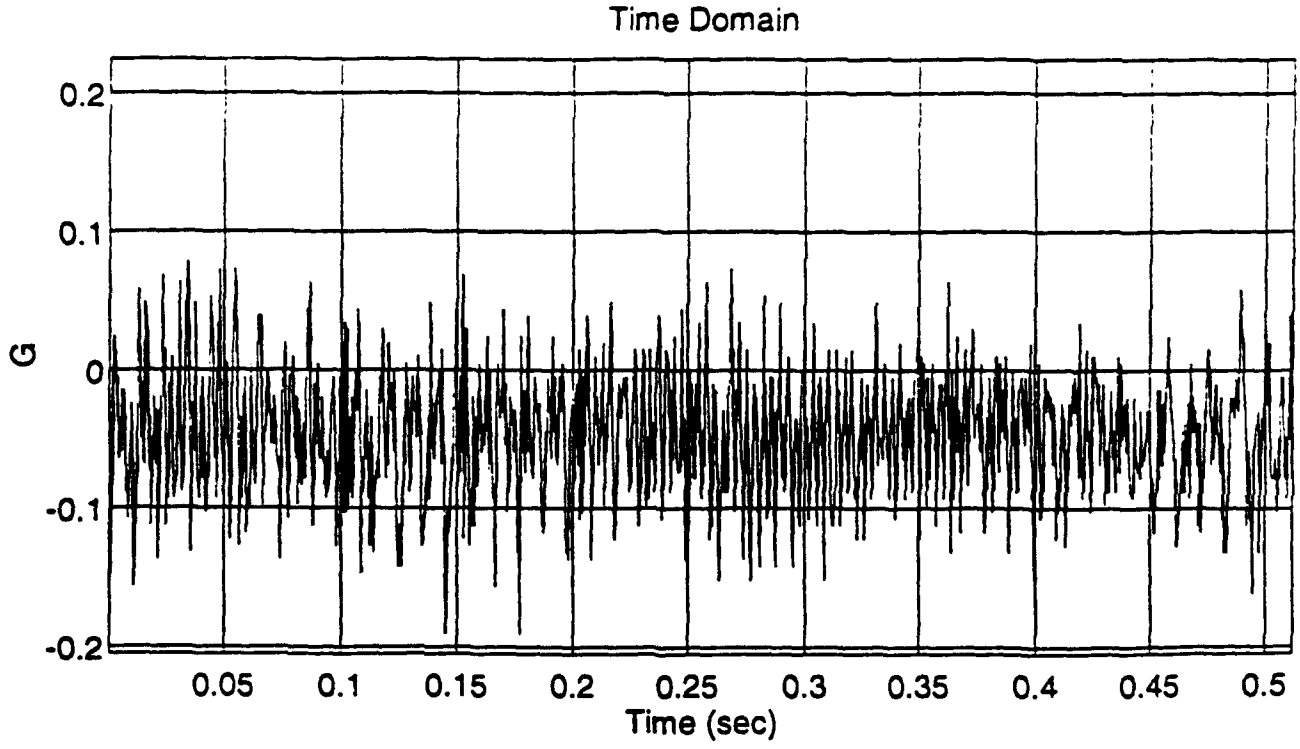

cut16-27kts-2ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

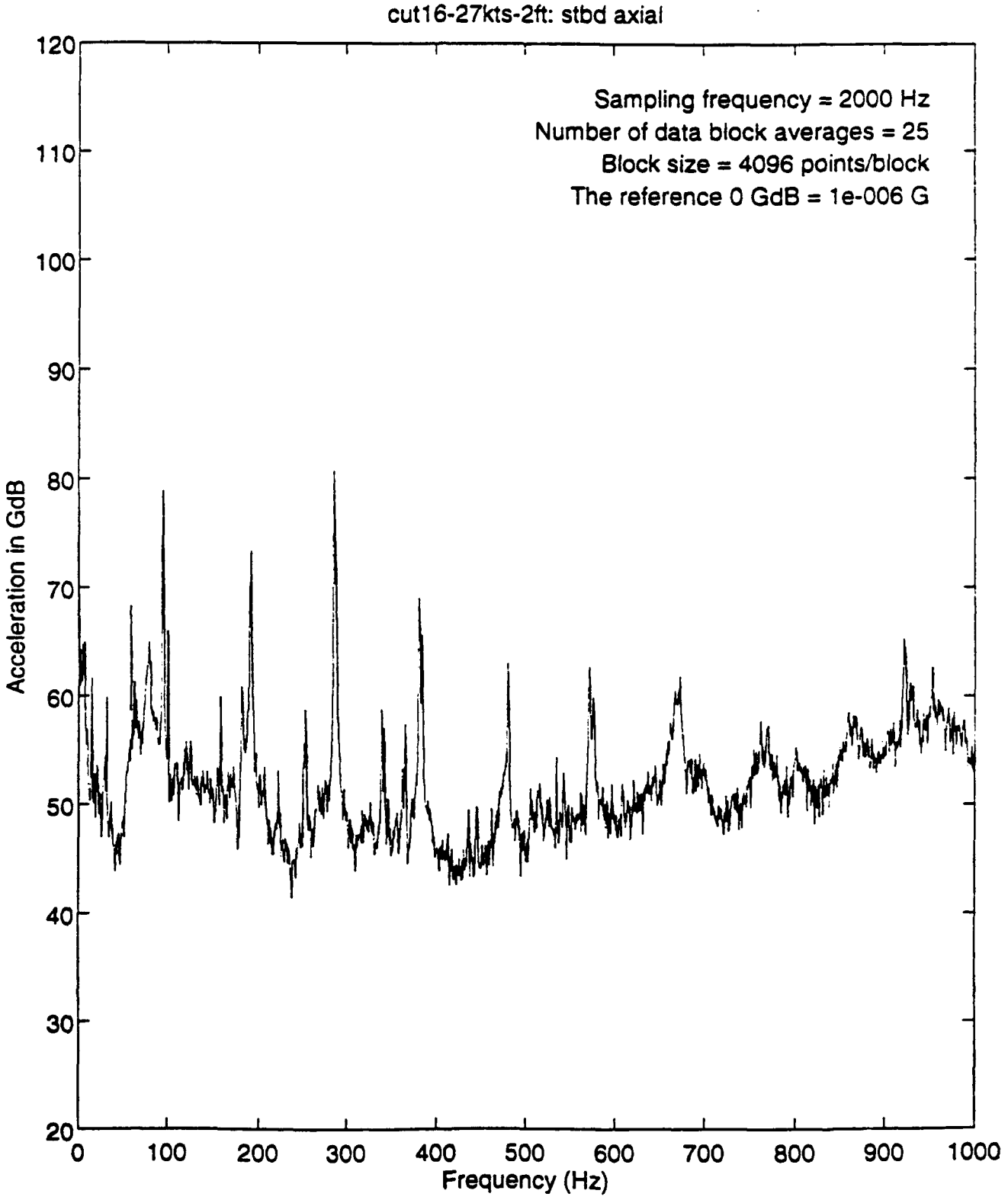
cut16-27kts-2ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005931 G
Standard deviation = 0.05278 G
The plot shows 1024 data points



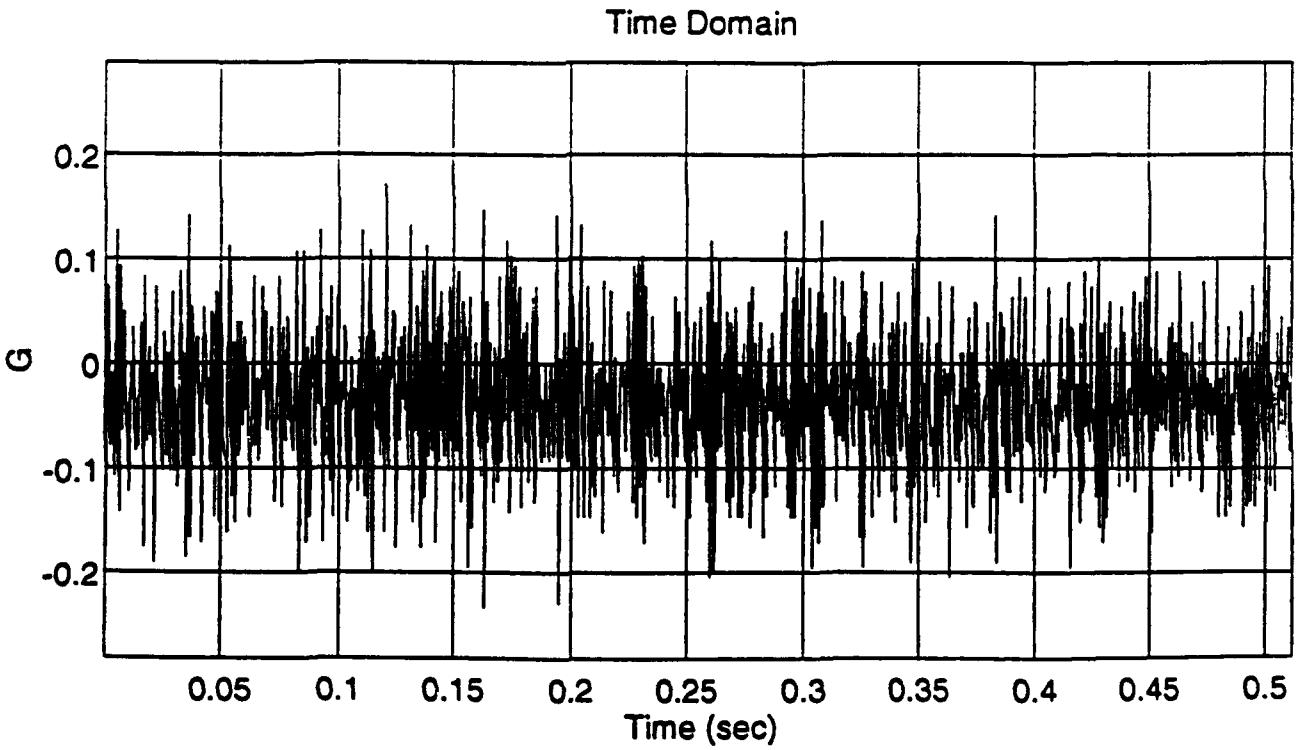

cut16-27kts-2ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

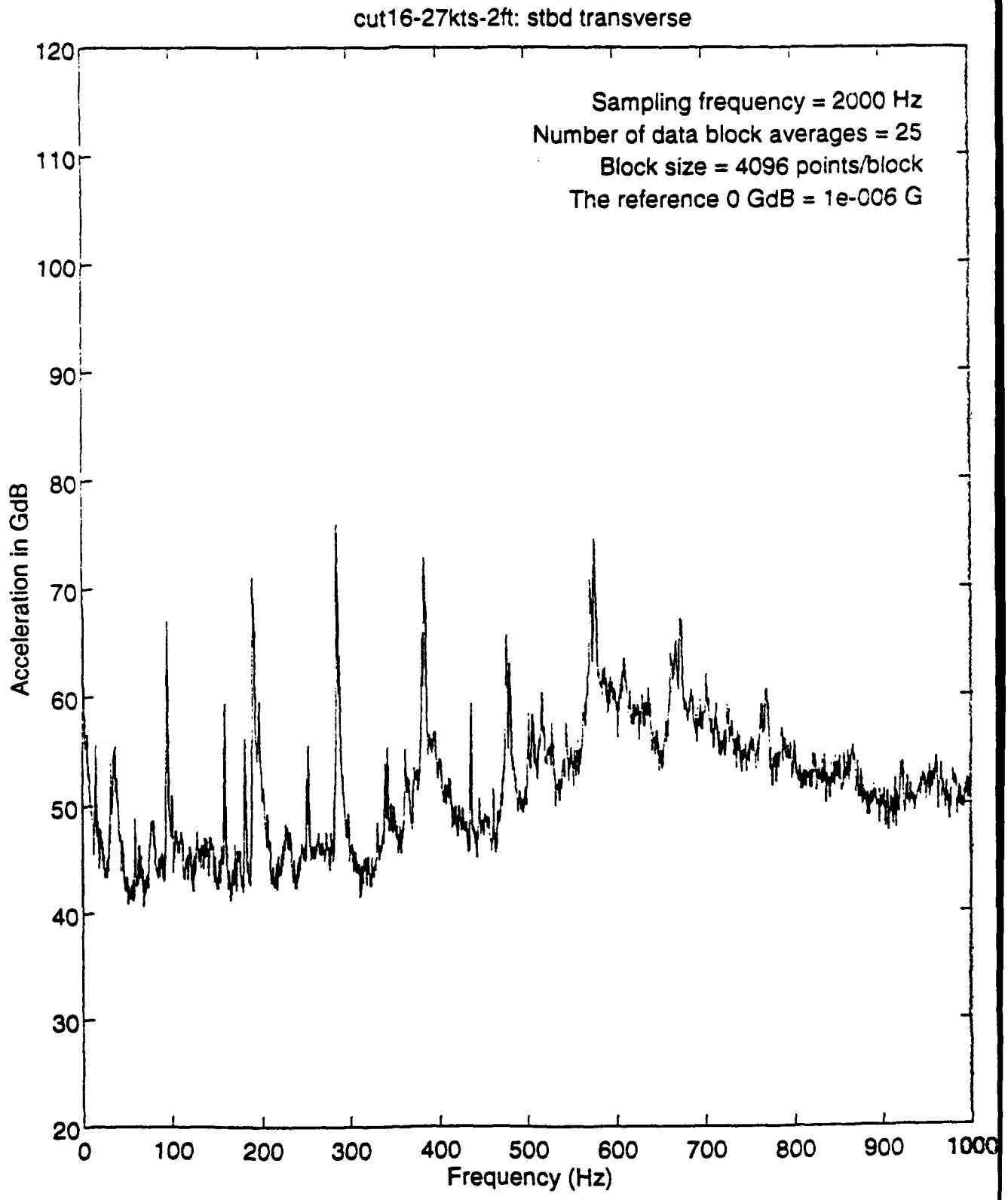
cut16-27kts-2ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.006509 G
Standard deviation = 0.07155 G
The plot shows 1024 data points




cut16-27kts-2ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut16-27kts-2ft: port vertical

Data sampling frequency = 2000 Hz

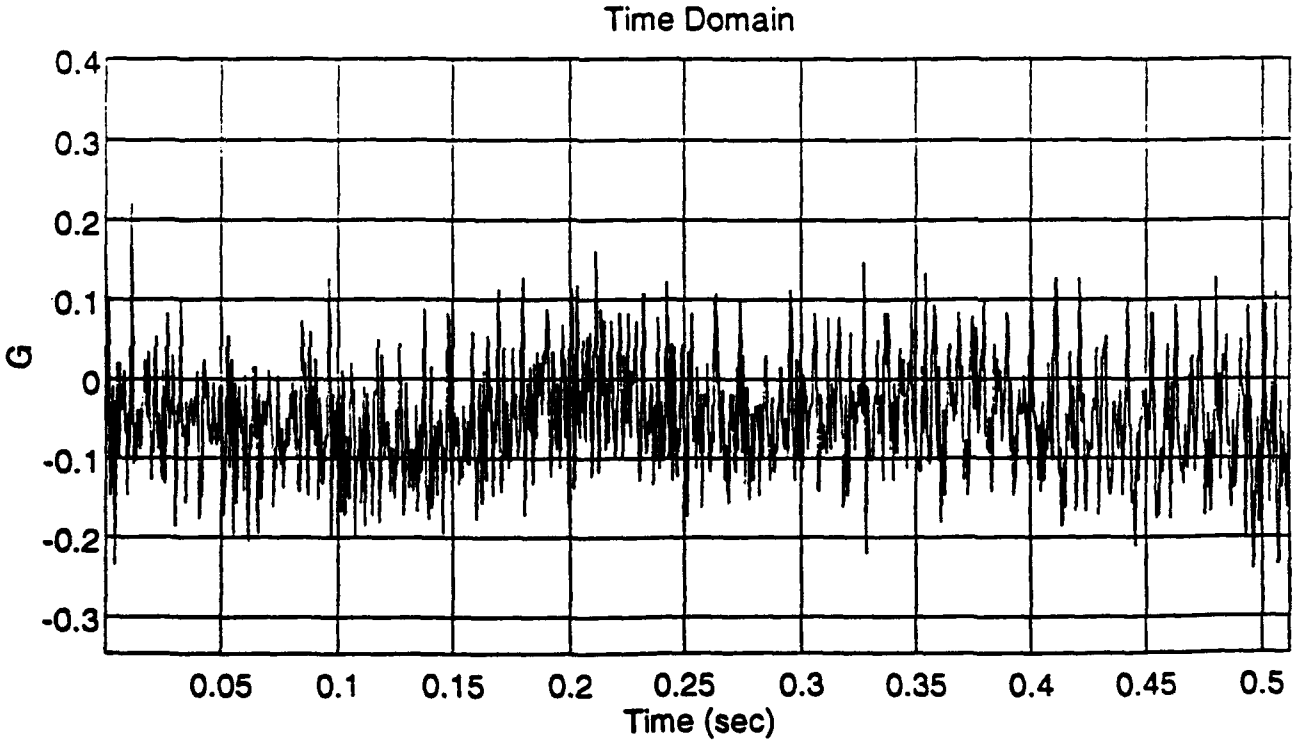
Total number of sampling data points = 1.024e+005

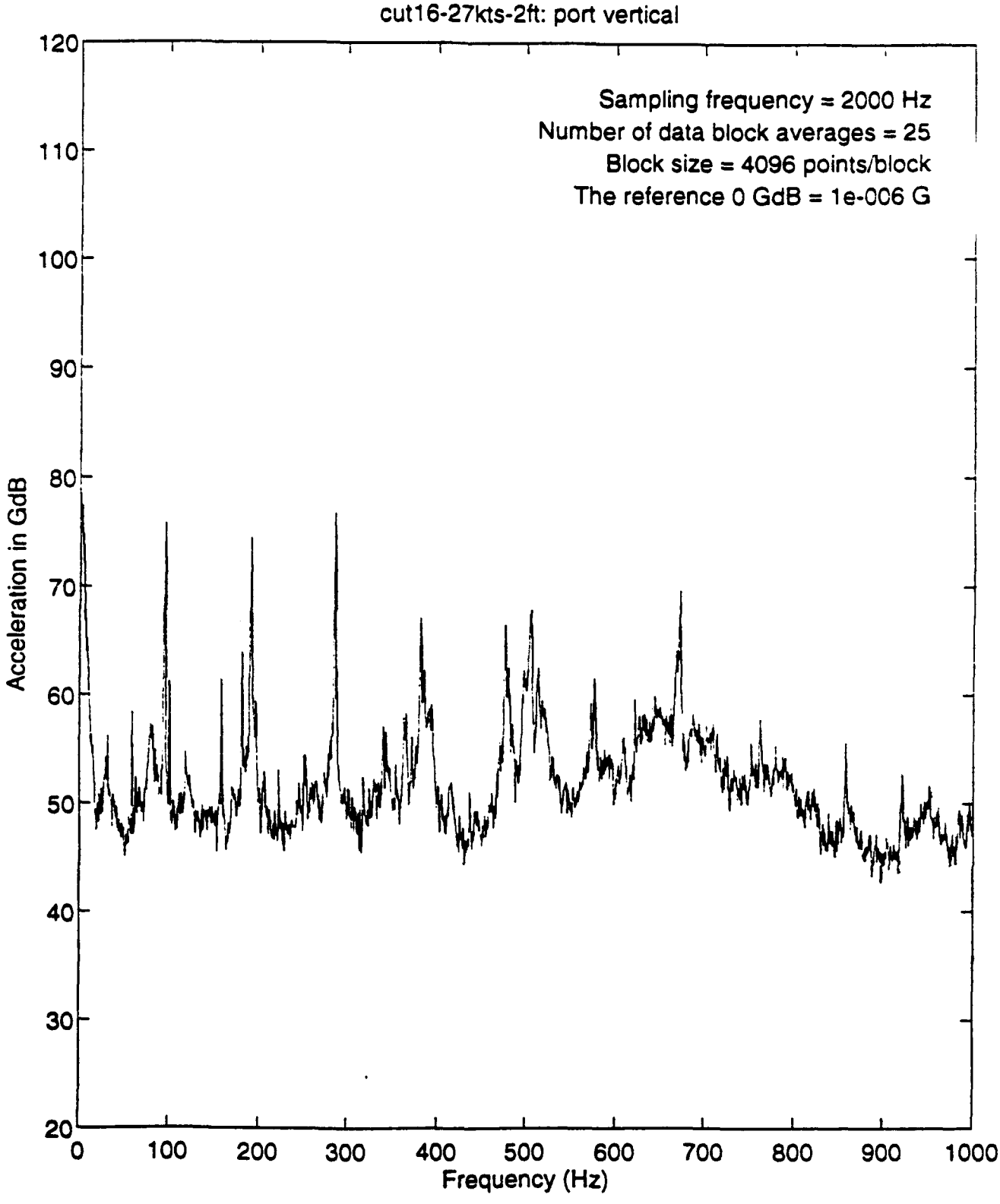
* The time domain

Mean value = -0.004309 G

Standard deviation = 0.08824 G

The plot shows 1024 data points



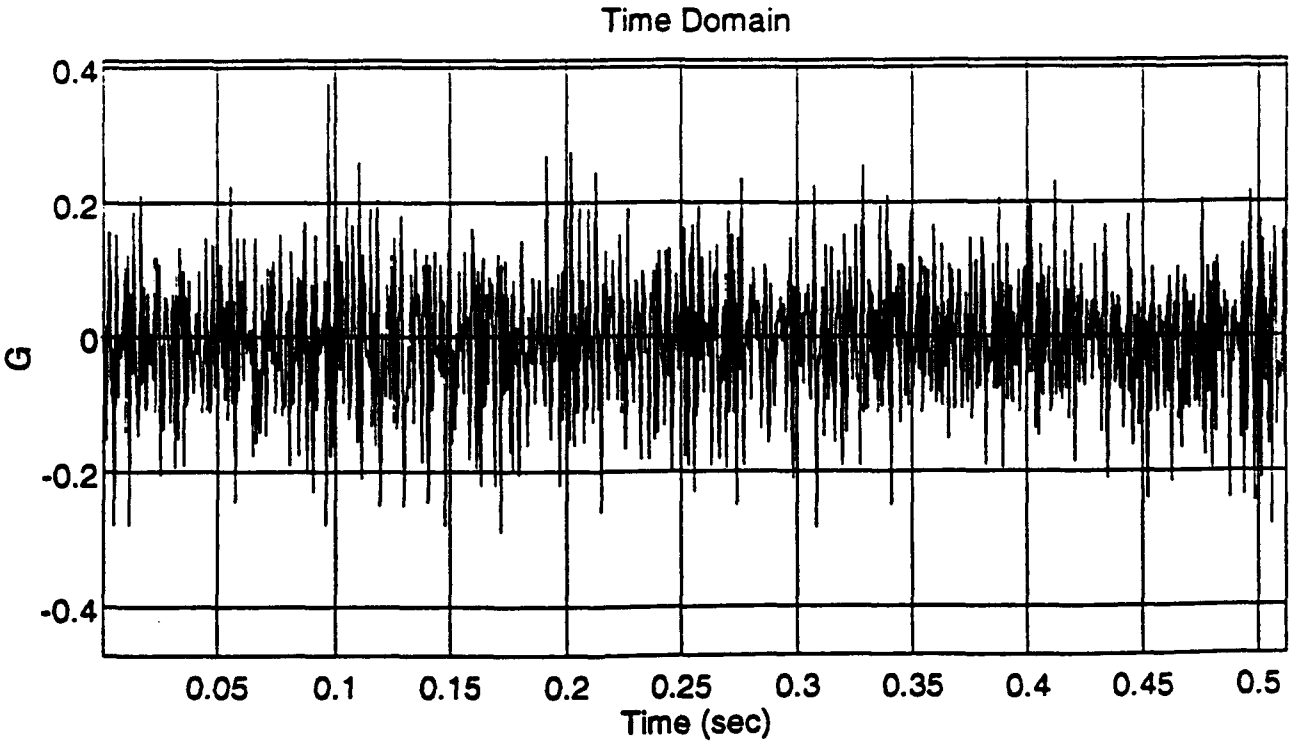

cut16-27kts-2ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

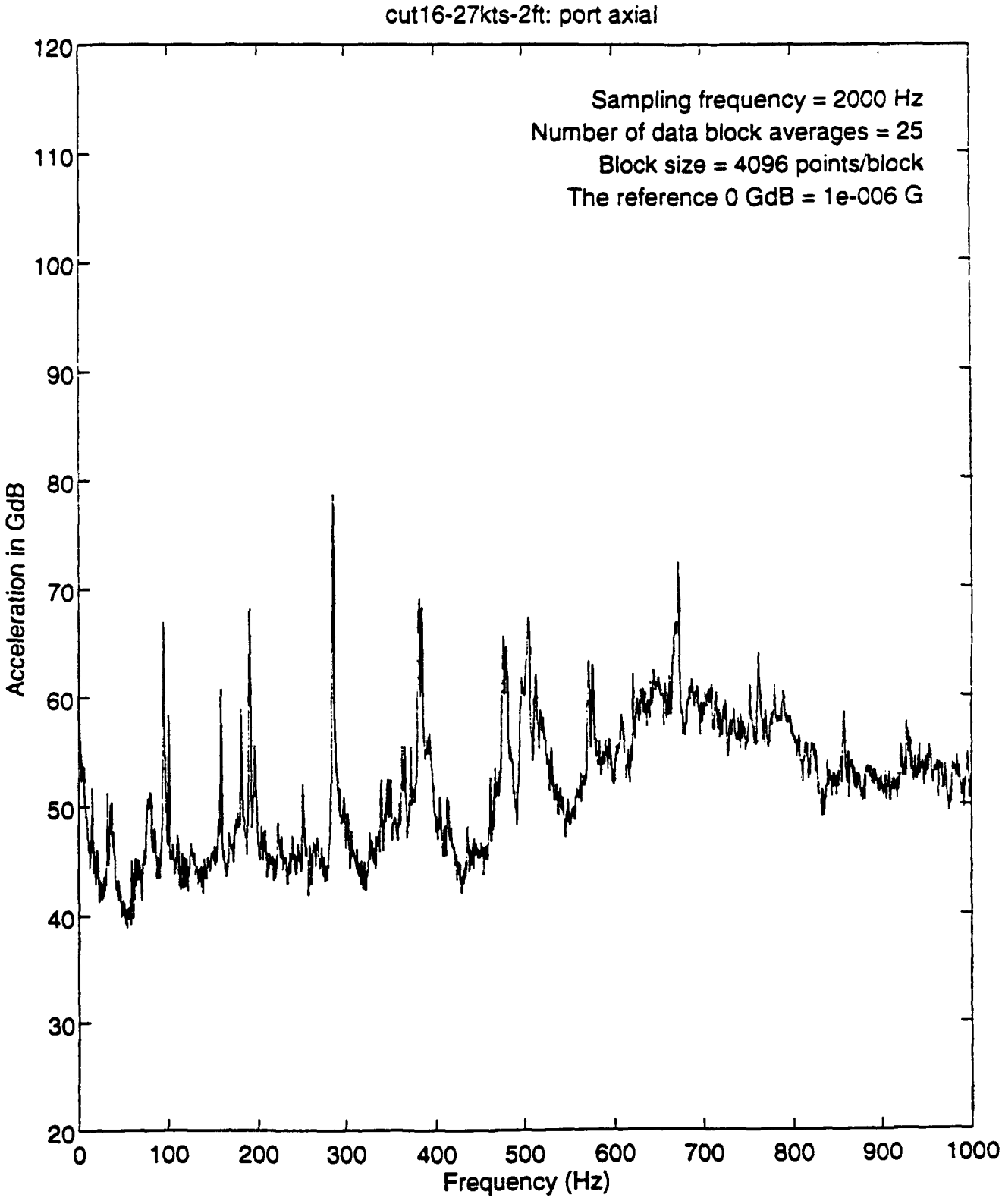
cut16-27kts-2ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.006124 G
Standard deviation = 0.1067 G
The plot shows 1024 data points



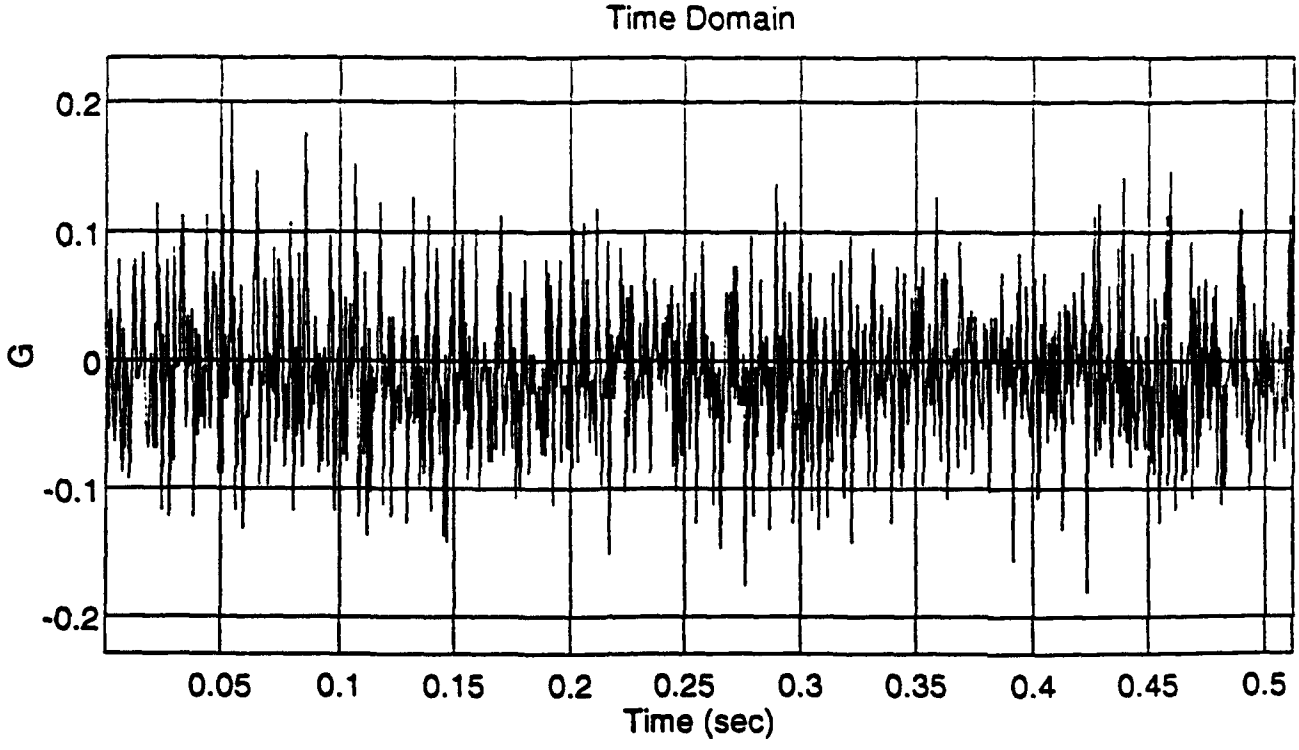

cut16-27kts-2ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

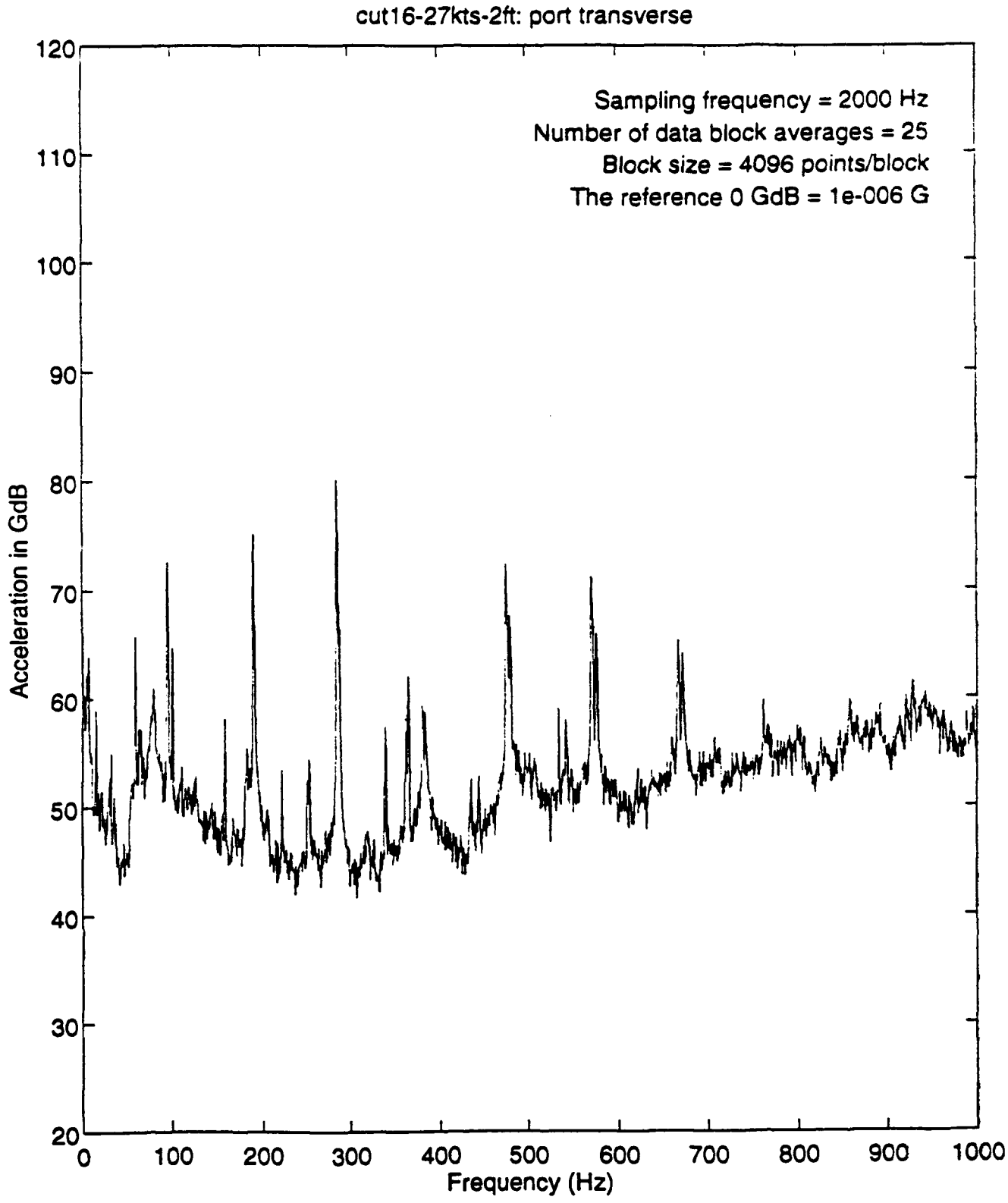
cut16-27kts-2ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002992 G
Standard deviation = 0.05687 G
The plot shows 1024 data points




cut16-27kts-2ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut17-35kts-2ft: stbd vertical

Data sampling frequency = 2000 Hz

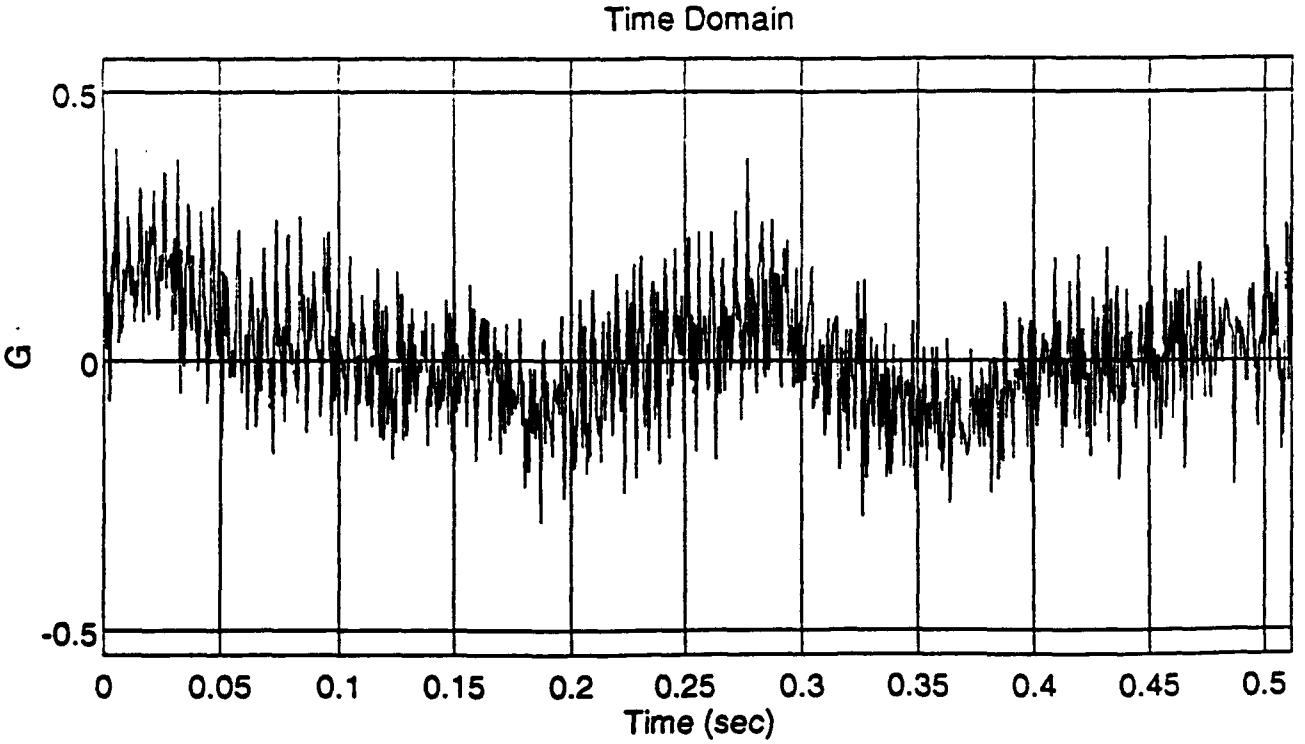
Total number of sampling data points = 1.024e+005

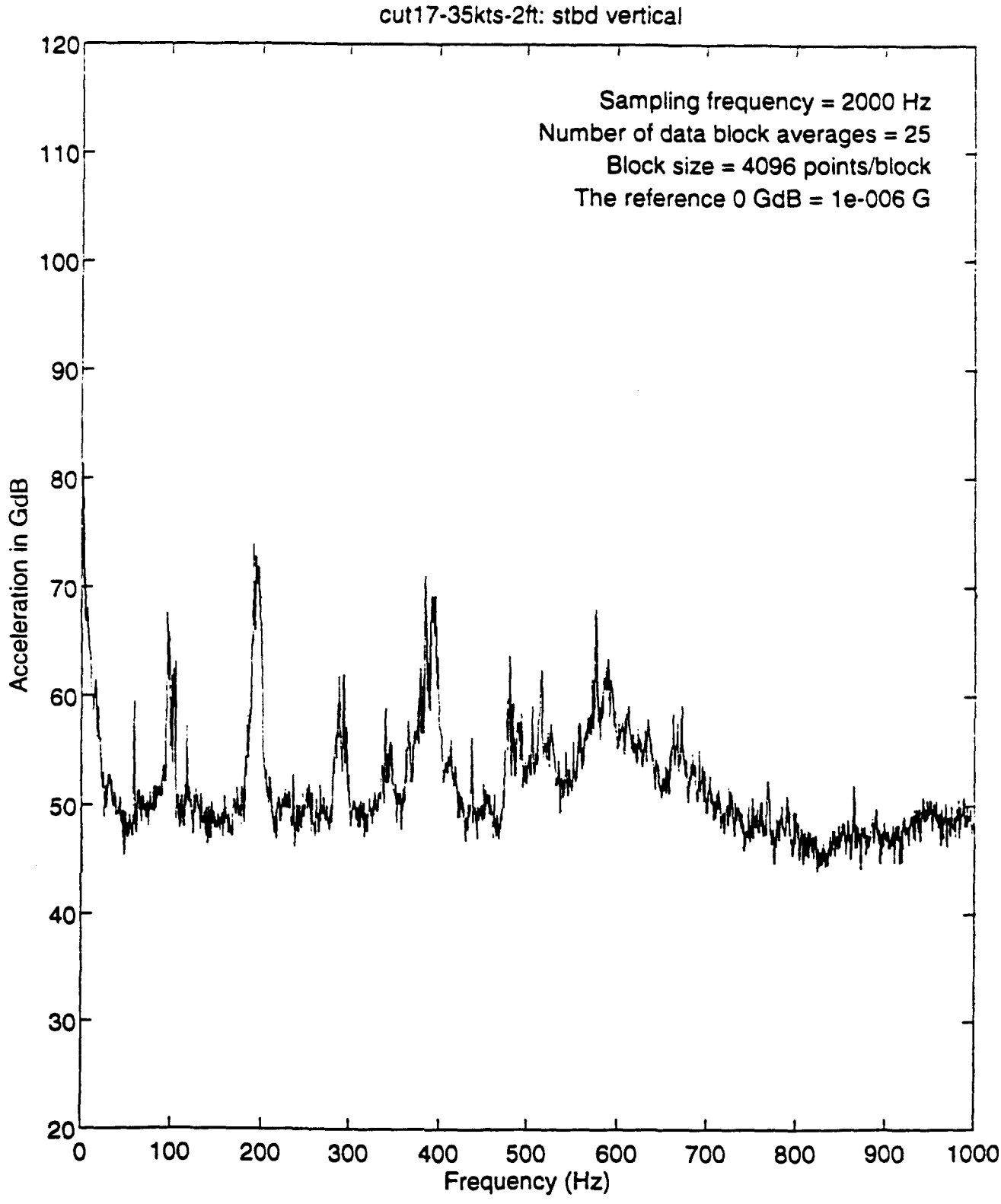
* The time domain

Mean value = -0.00349 G

Standard deviation = 0.1209 G

The plot shows 1024 data points



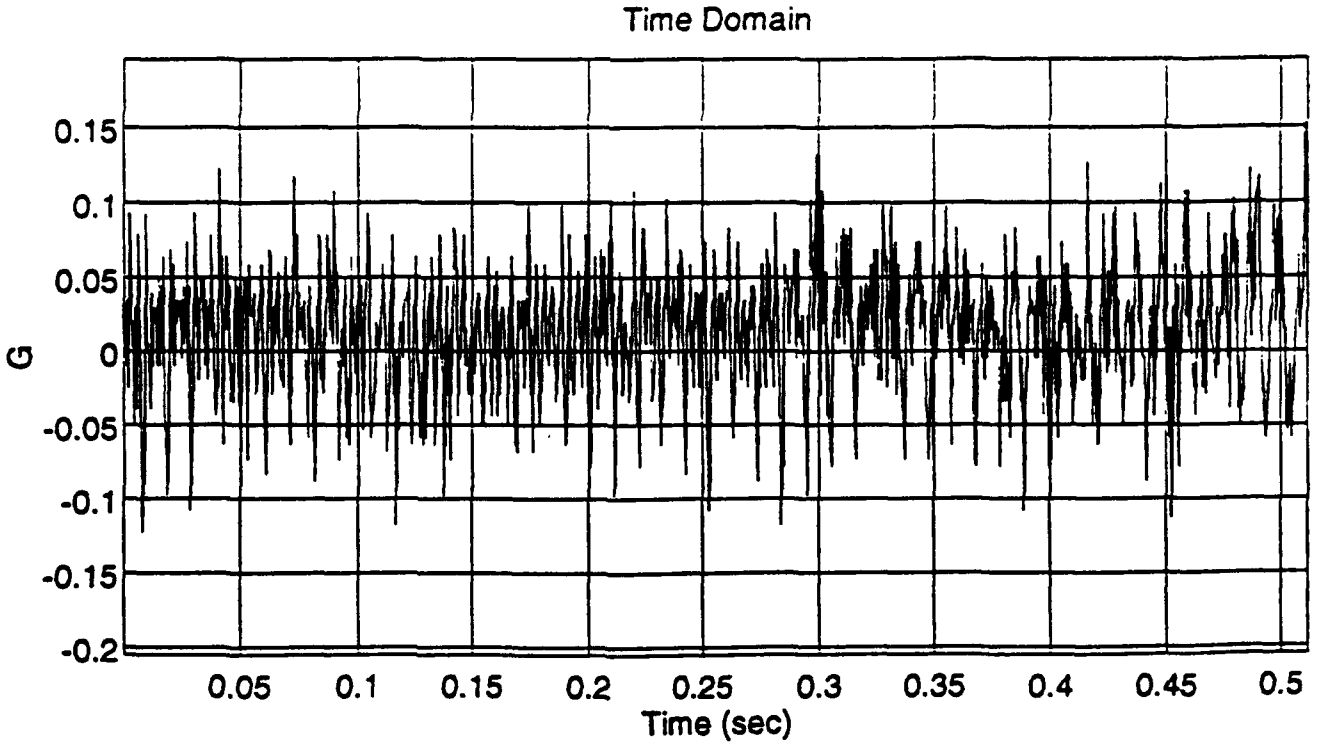

cut17-35kts-2ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

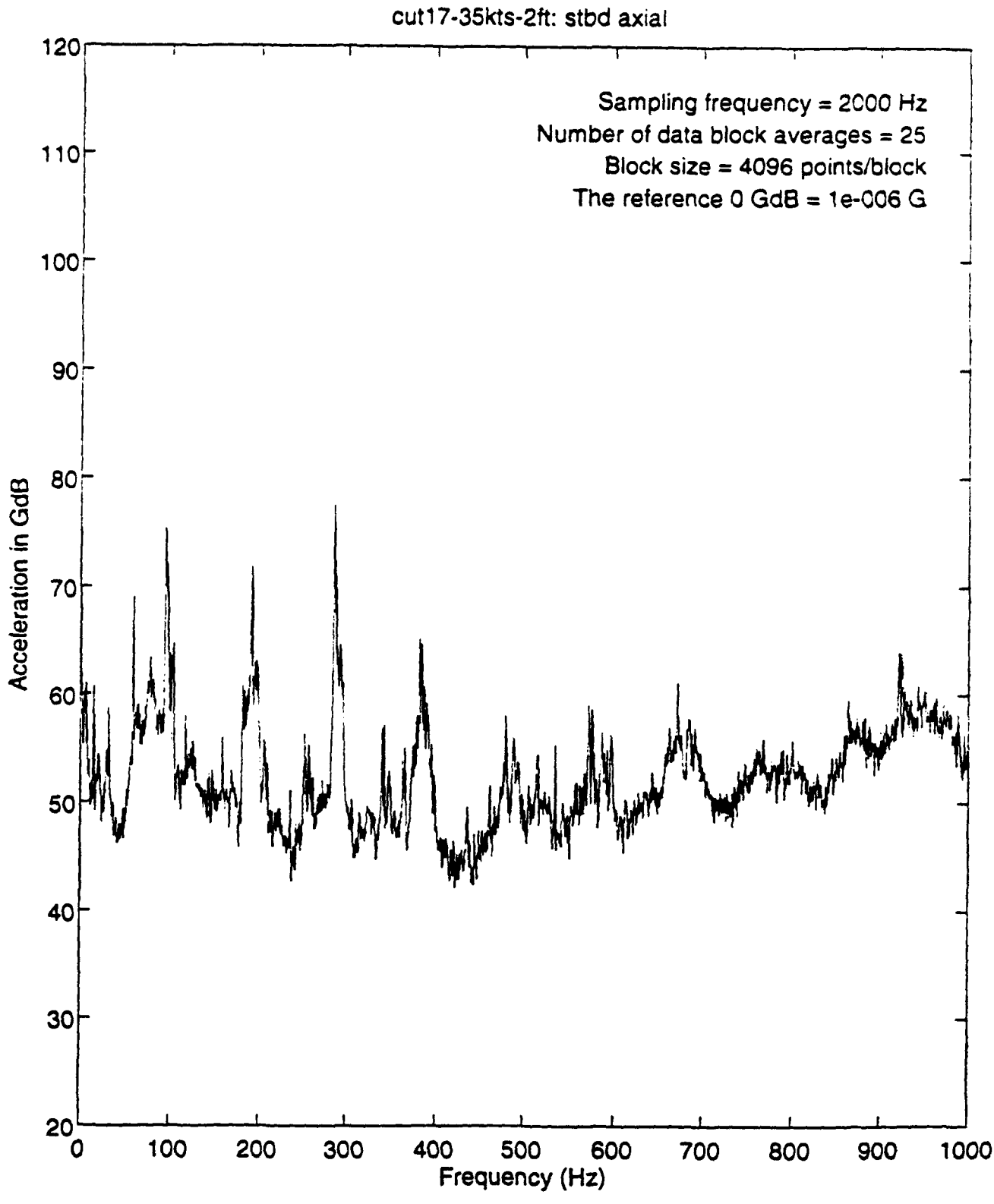
cut17-35kts-2ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005779 G
Standard deviation = 0.0407 G
The plot shows 1024 data points




cut17-35kts-2ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut17-35kts-2ft: stbd transverse

Data sampling frequency = 2000 Hz

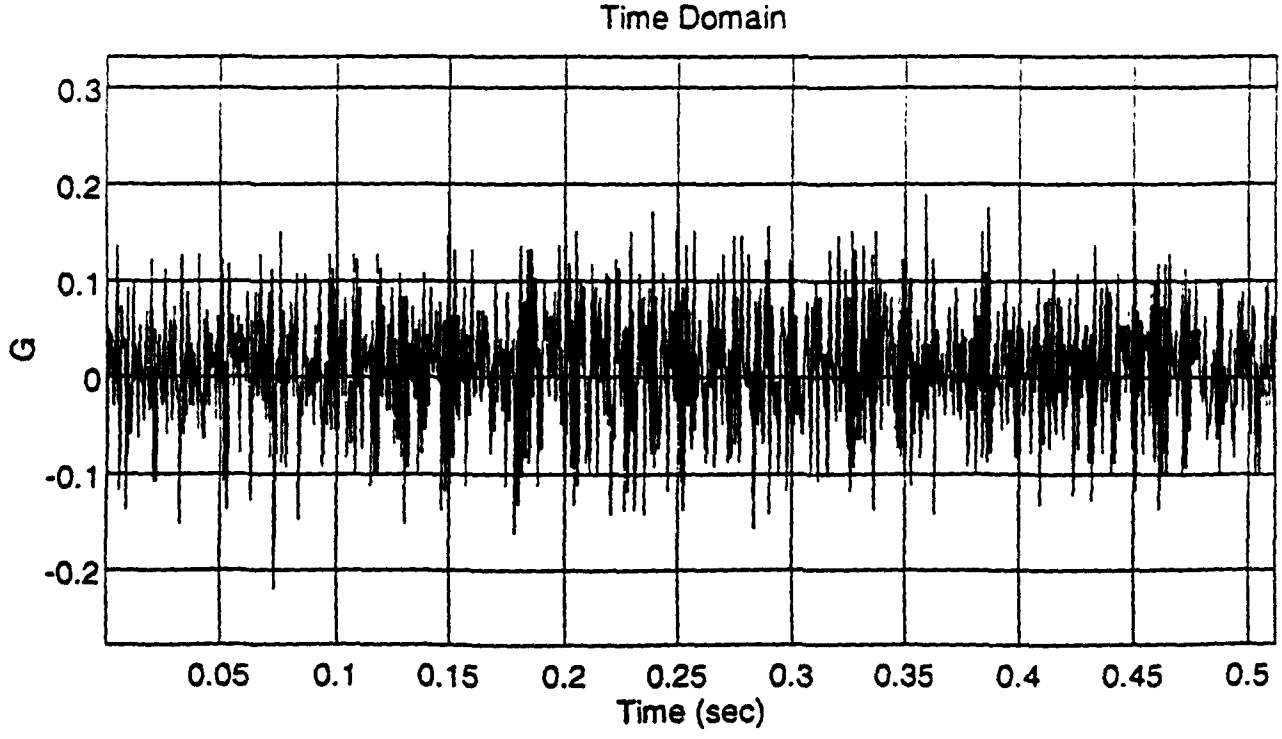
Total number of sampling data points = 1.024e+005

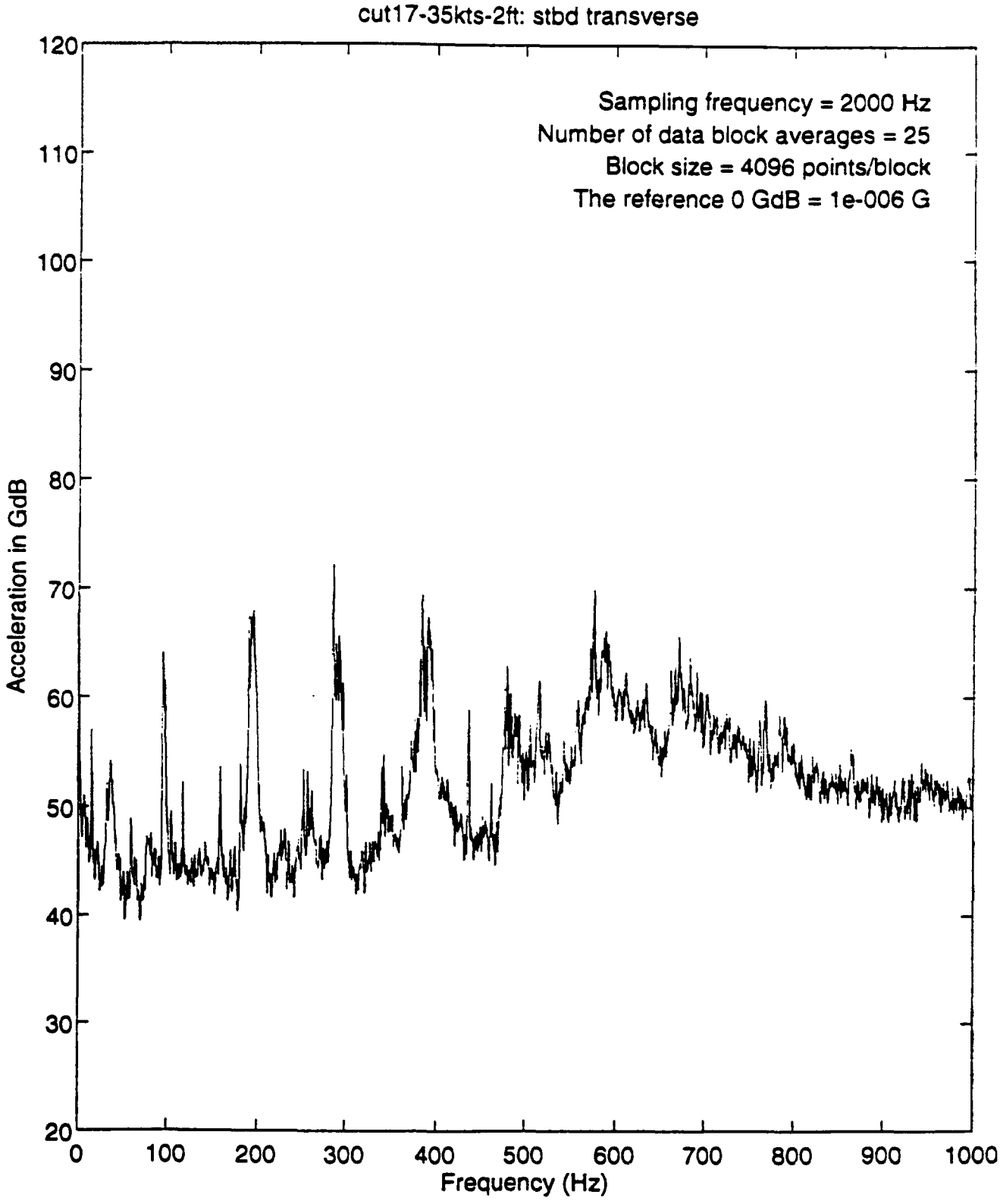
* The time domain

Mean value = -0.007786 G

Standard deviation = 0.06173 G

The plot shows 1024 data points



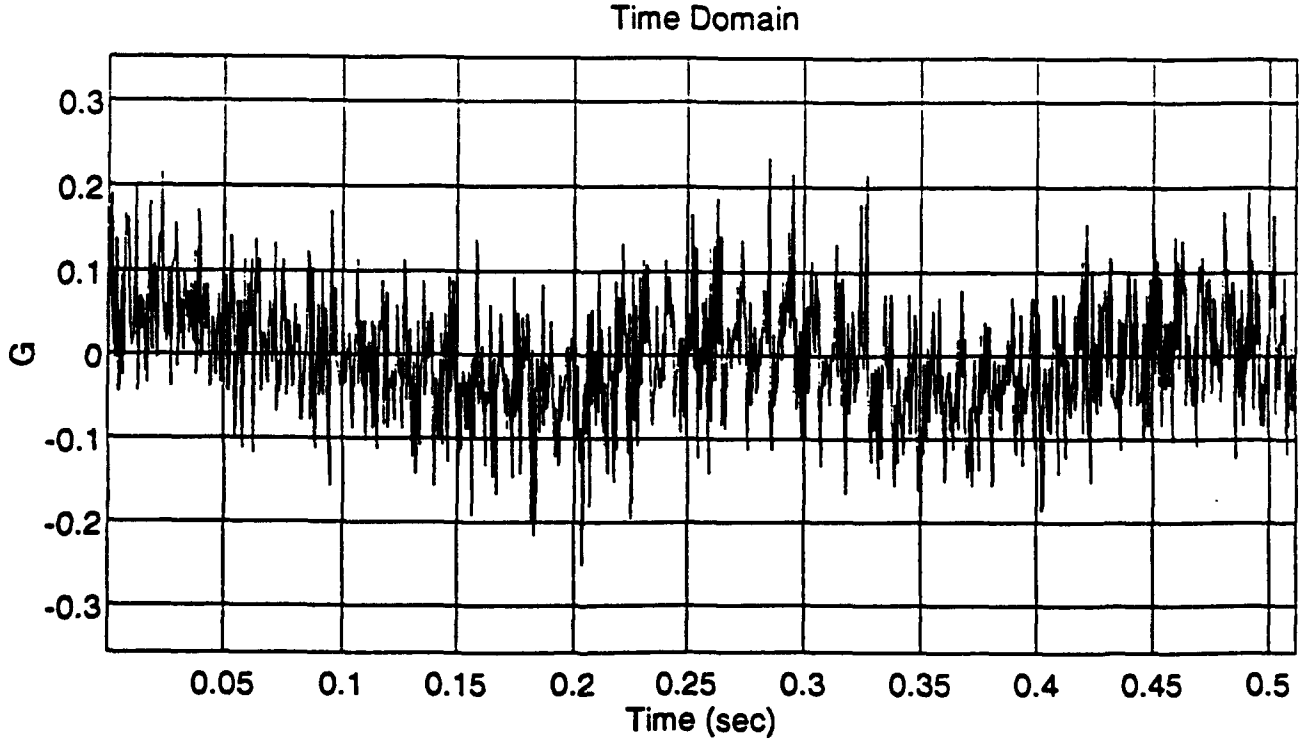

cut17-35kts-2ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

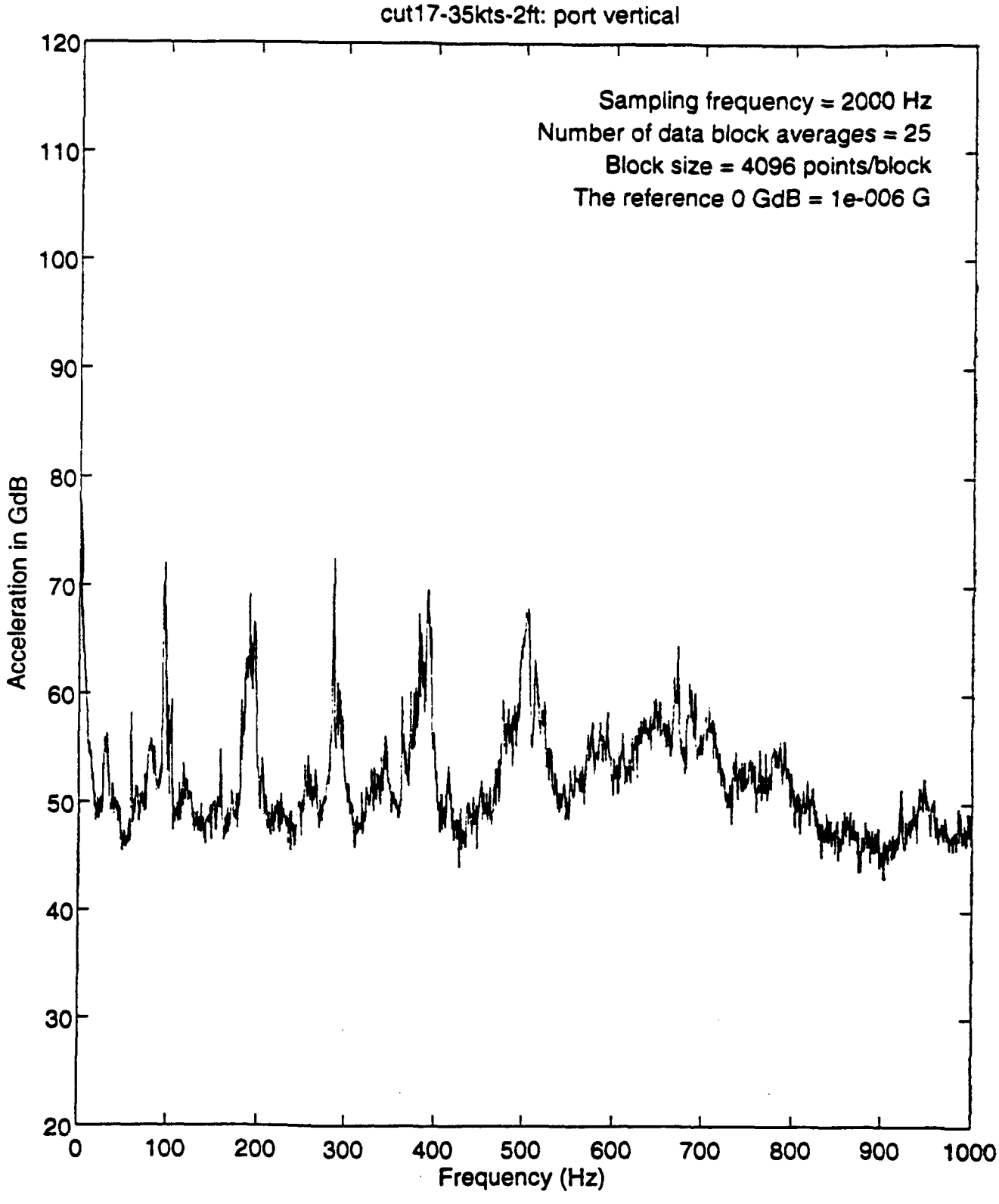
cut17-35kts-2ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004295 G
Standard deviation = 0.07304 G
The plot shows 1024 data points



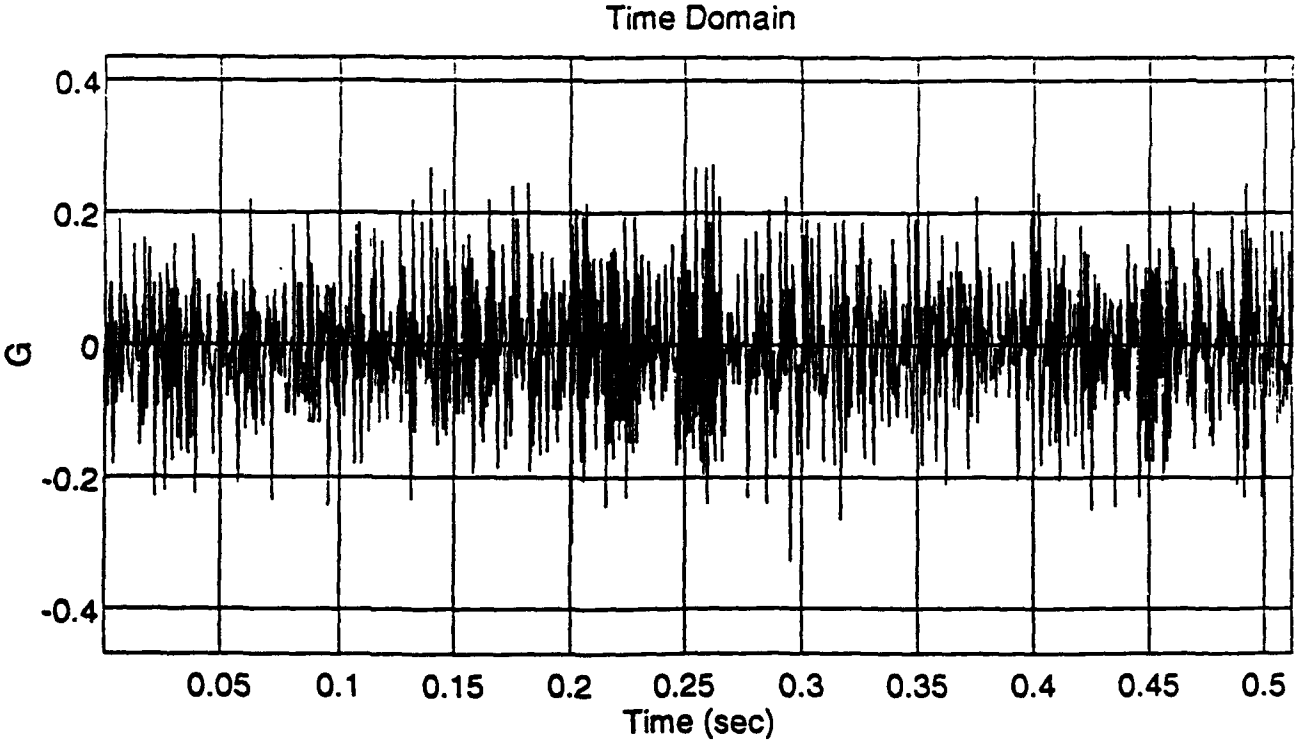

cut17-35kts-2ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

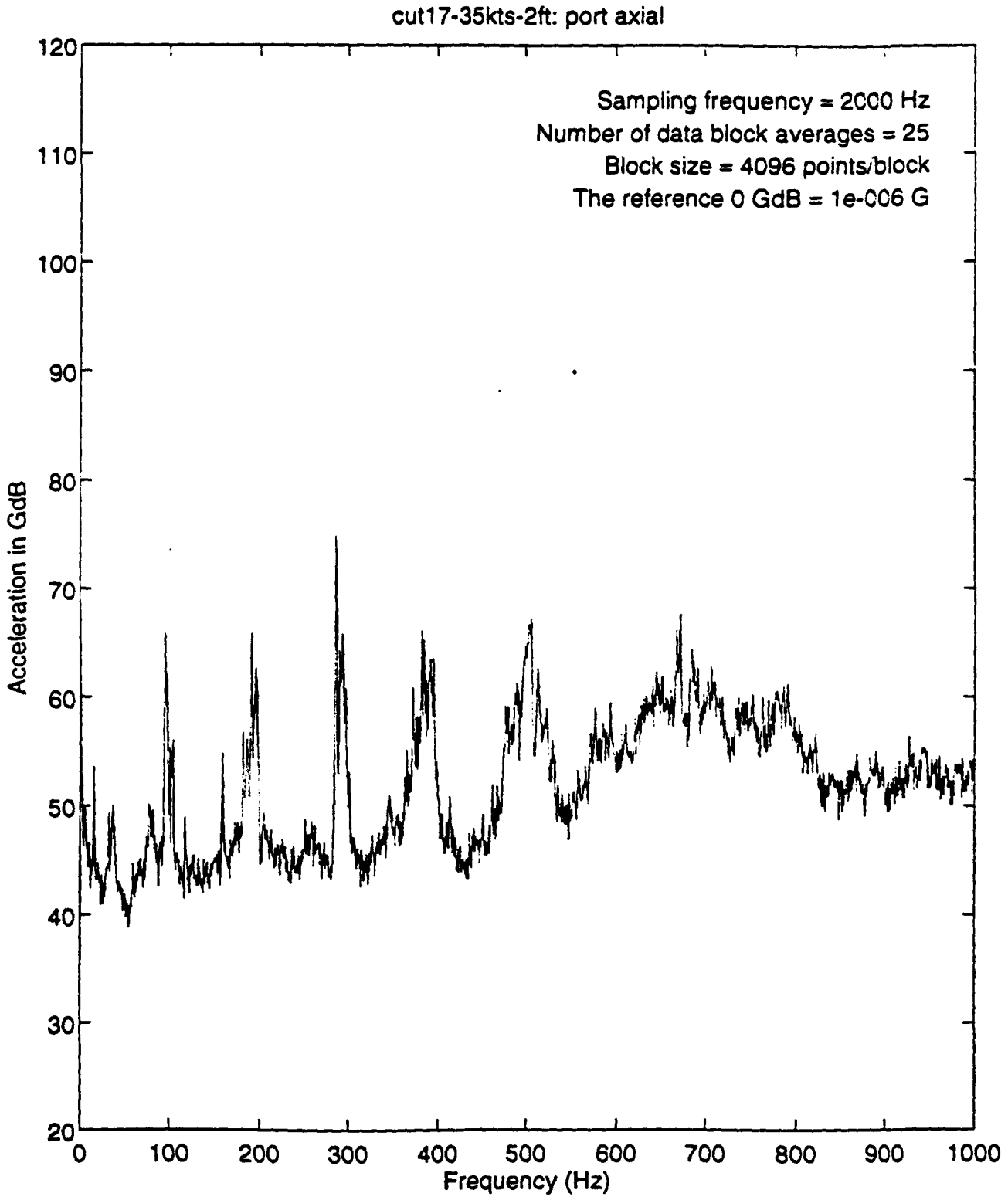
cut17-35kts-2ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.008993 G
Standard deviation = 0.0943 G
The plot shows 1024 data points



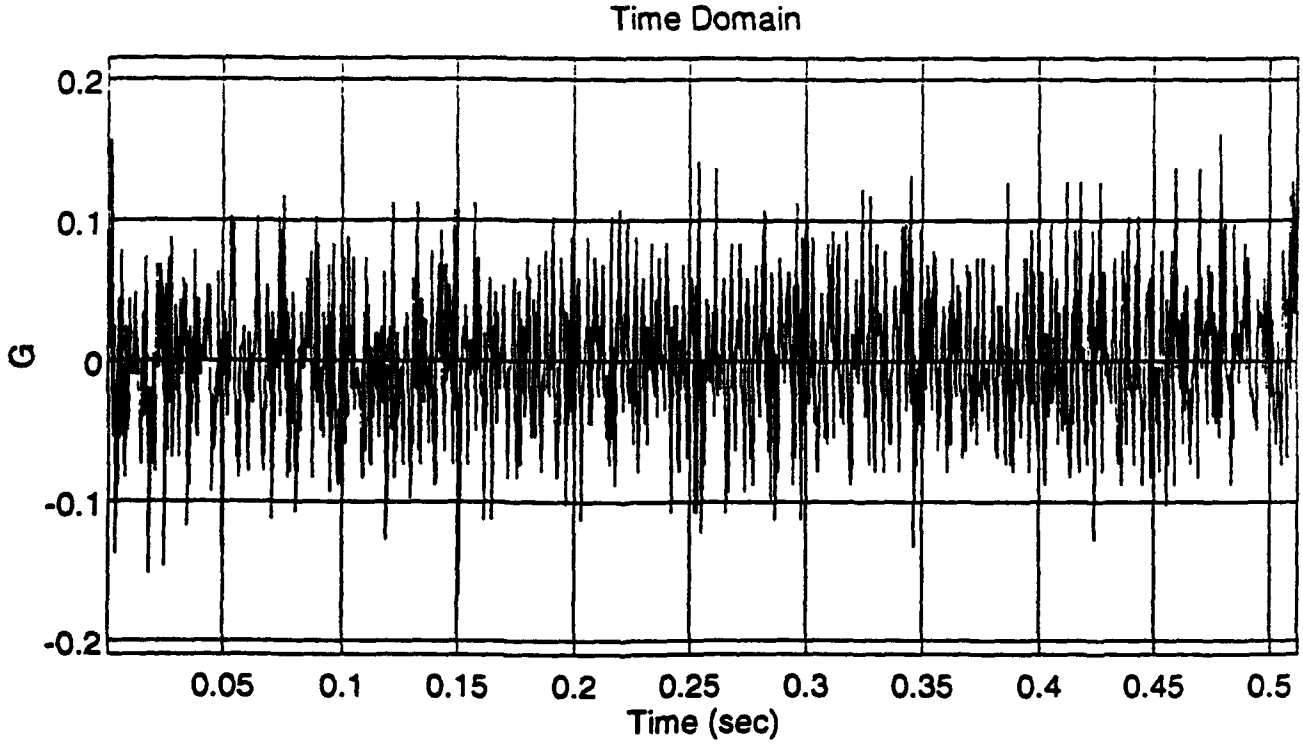

cut17-35kts-2ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

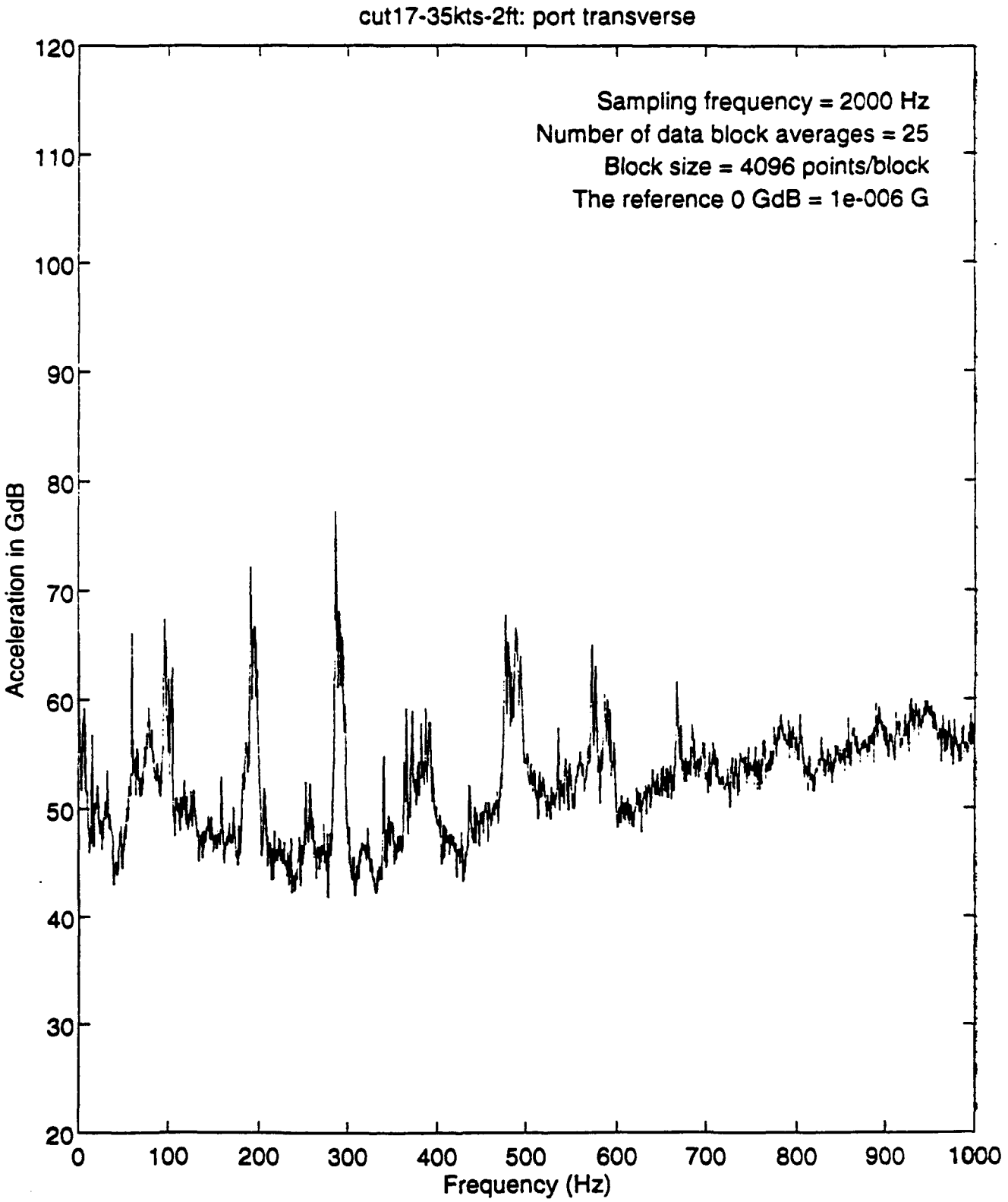
cut17-35kts-2ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004266 G
Standard deviation = 0.04773 G
The plot shows 1024 data points



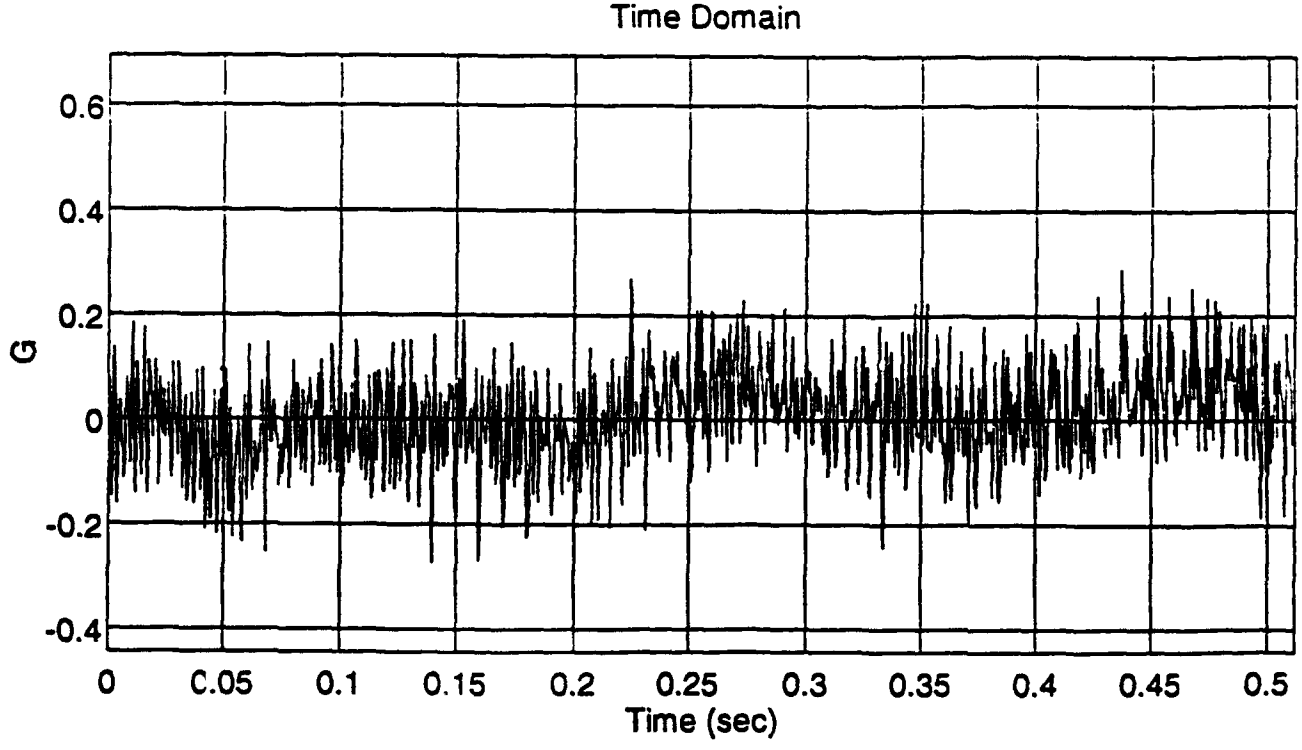

cut17-35kts-2ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

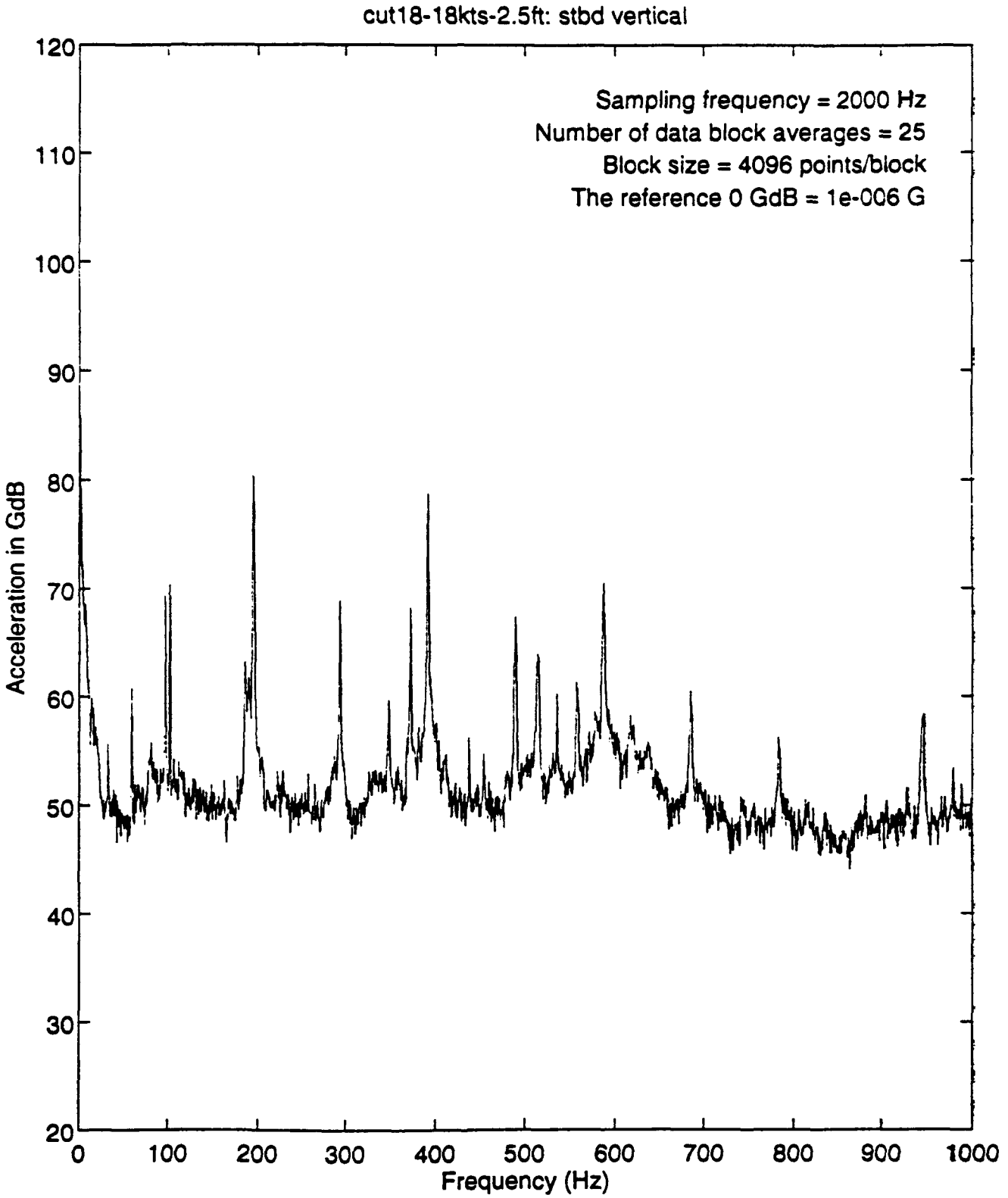
cut18-18kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001693 G
Standard deviation = 0.1271 G
The plot shows 1024 data points



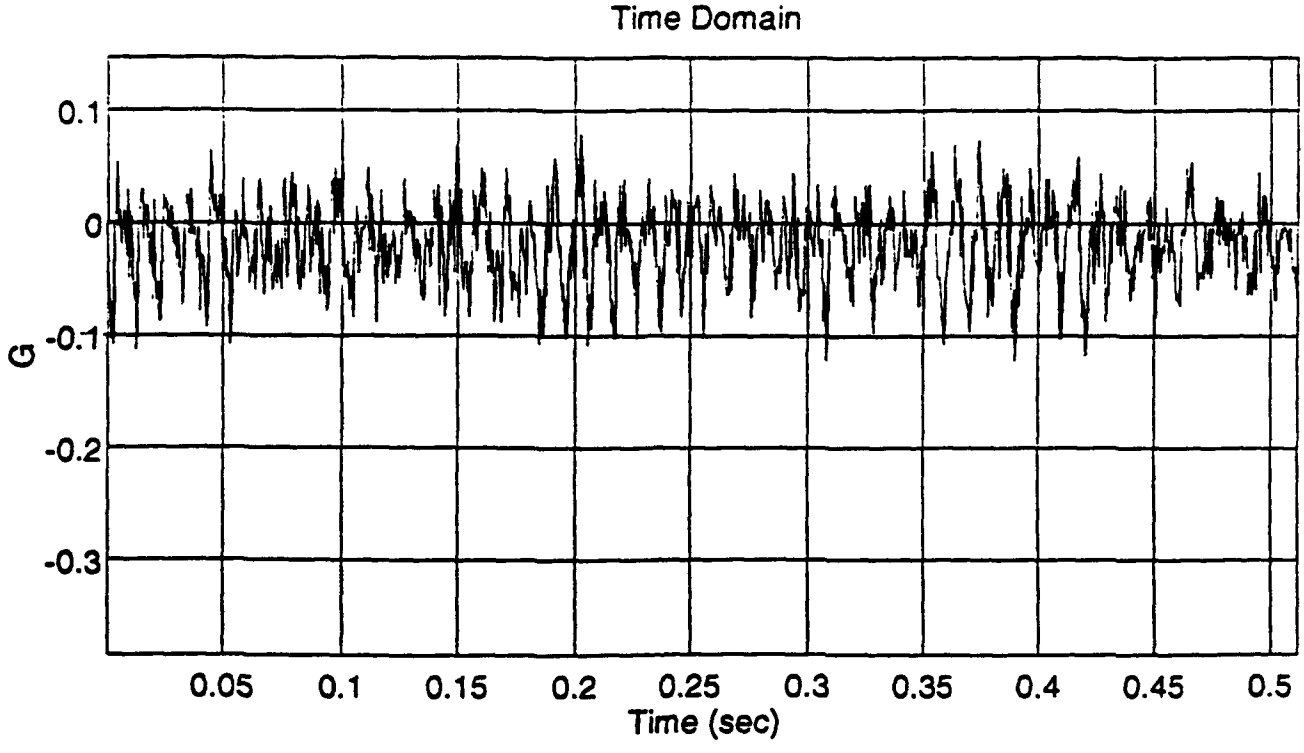

cut18-18kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

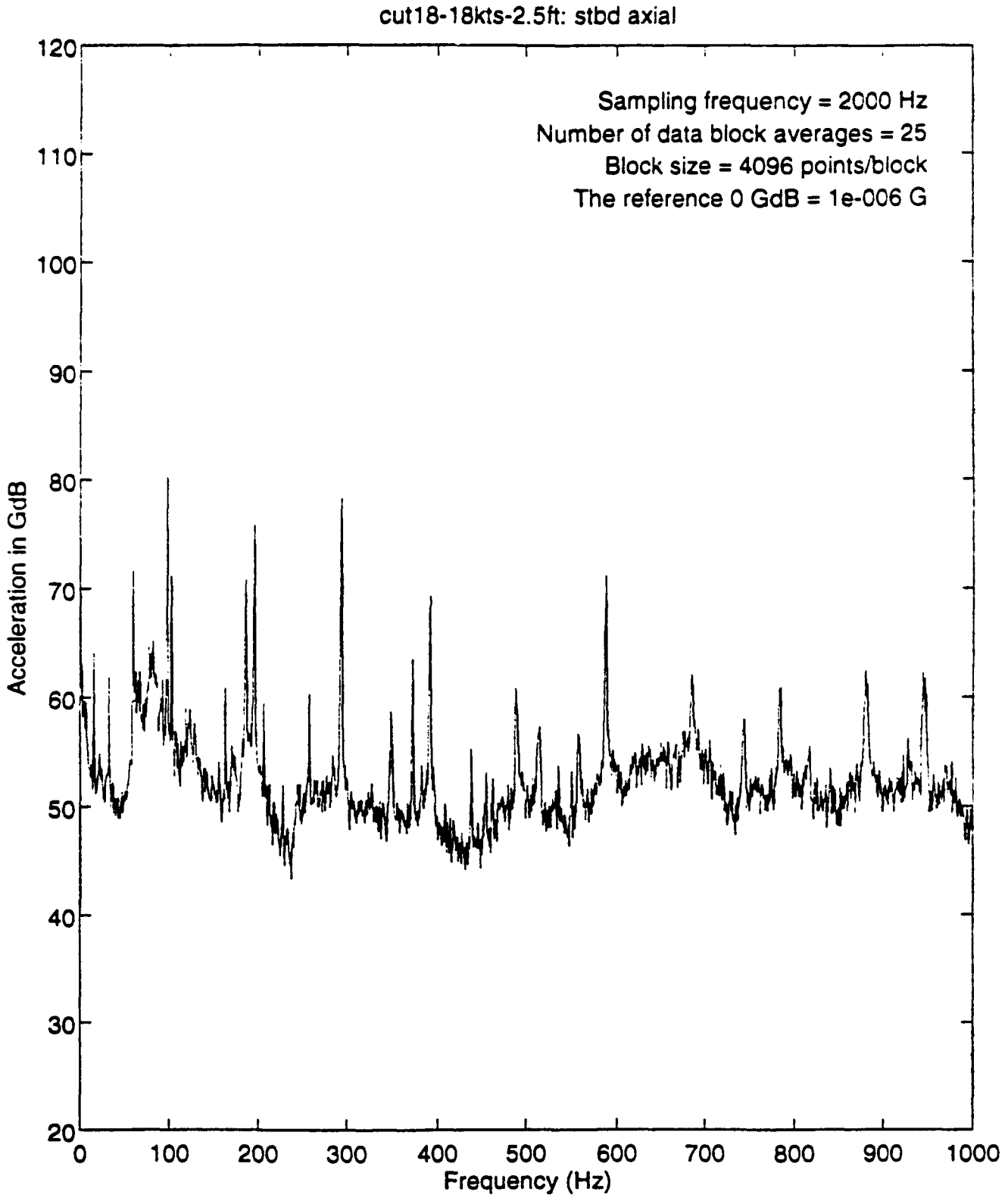
cut18-18kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005407 G
Standard deviation = 0.03587 G
The plot shows 1024 data points



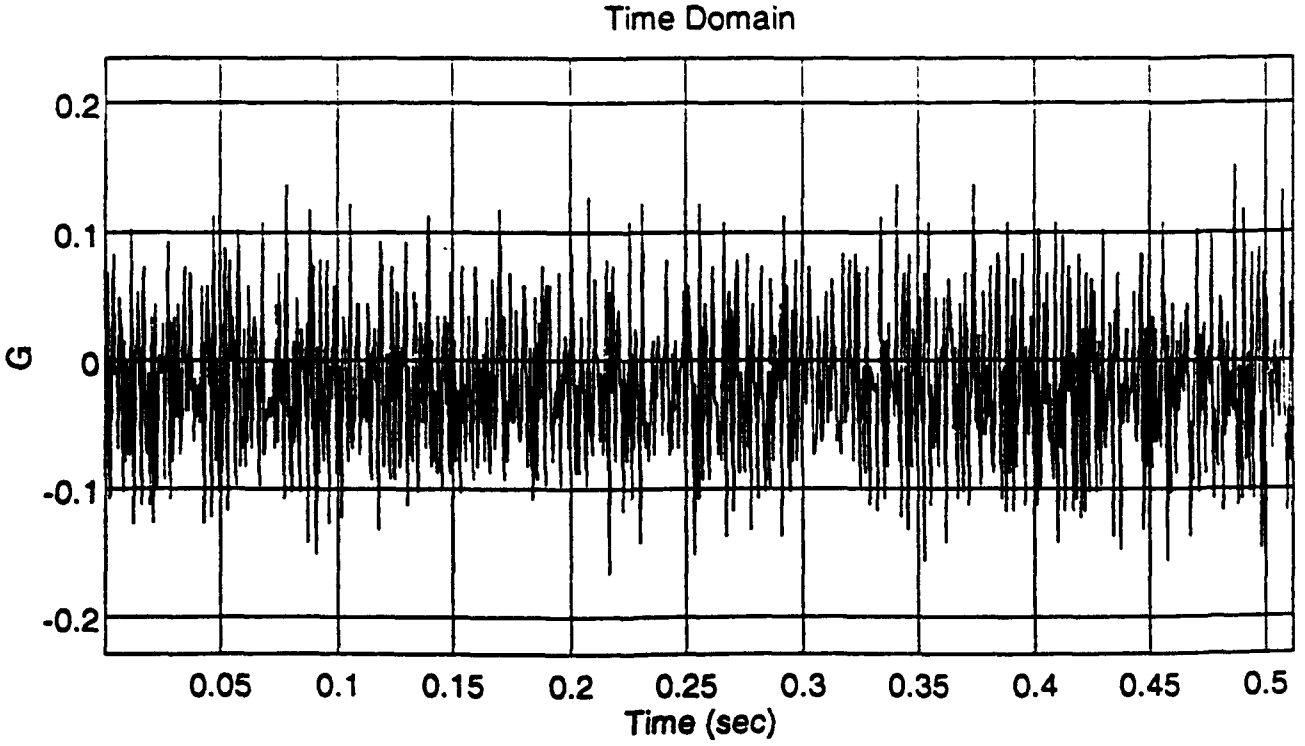

cut18-18kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

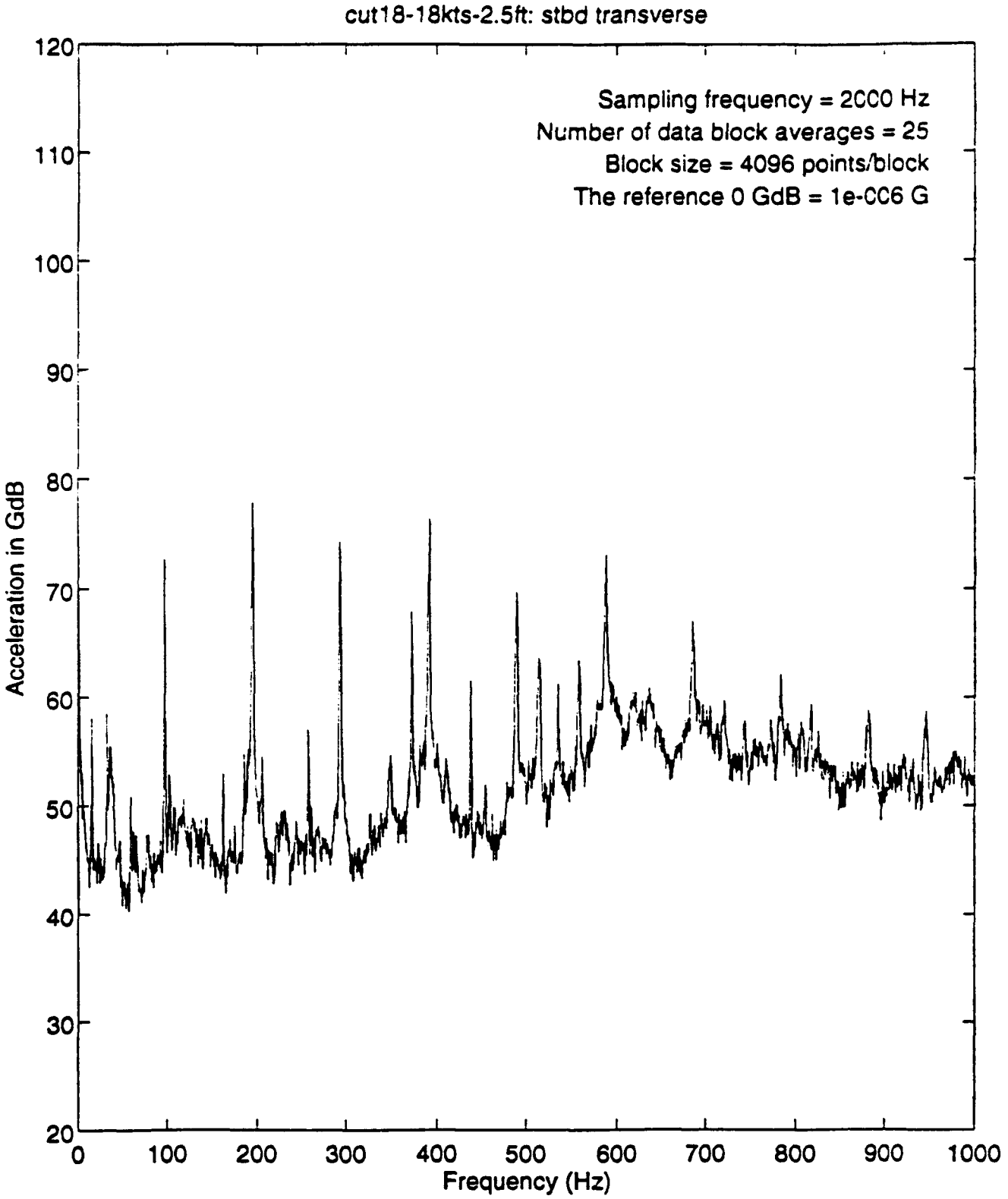
cut18-18kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0065 G
Standard deviation = 0.05731 G
The plot shows 1024 data points




cut18-18kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut18-18kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz

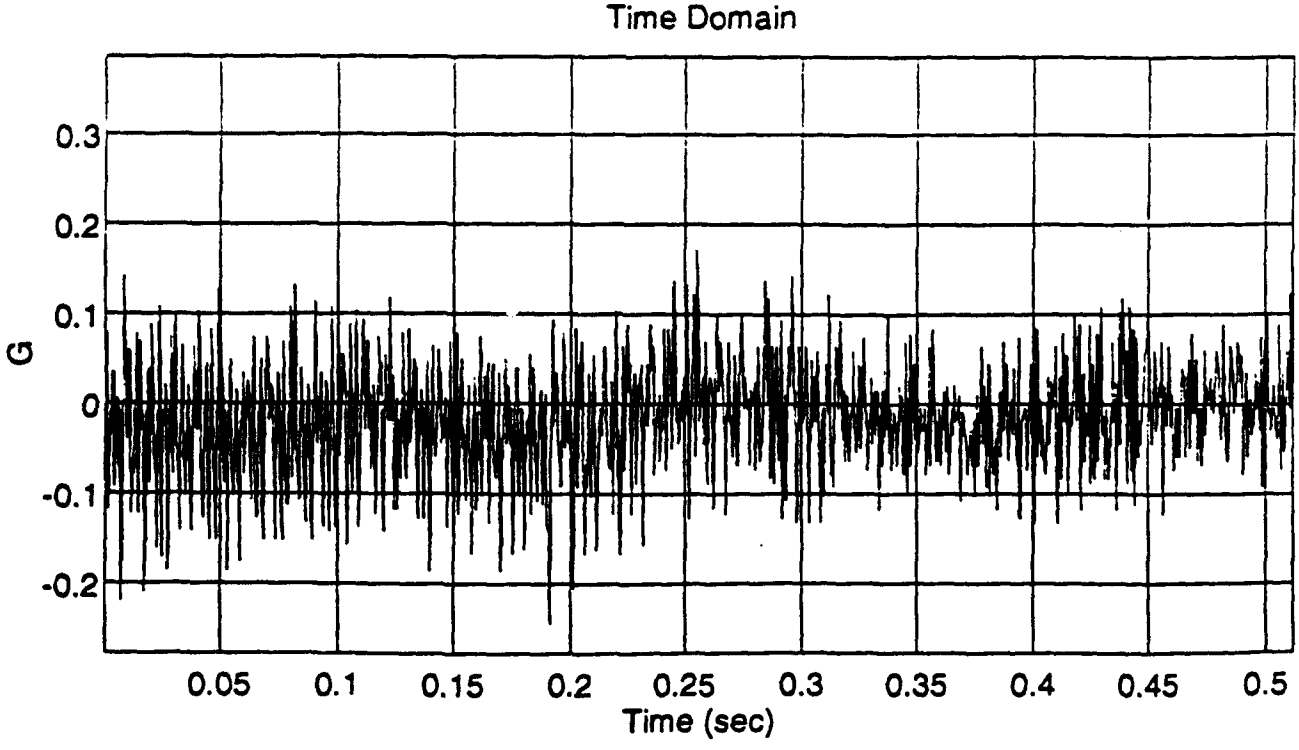
Total number of sampling data points = 1.024e+005

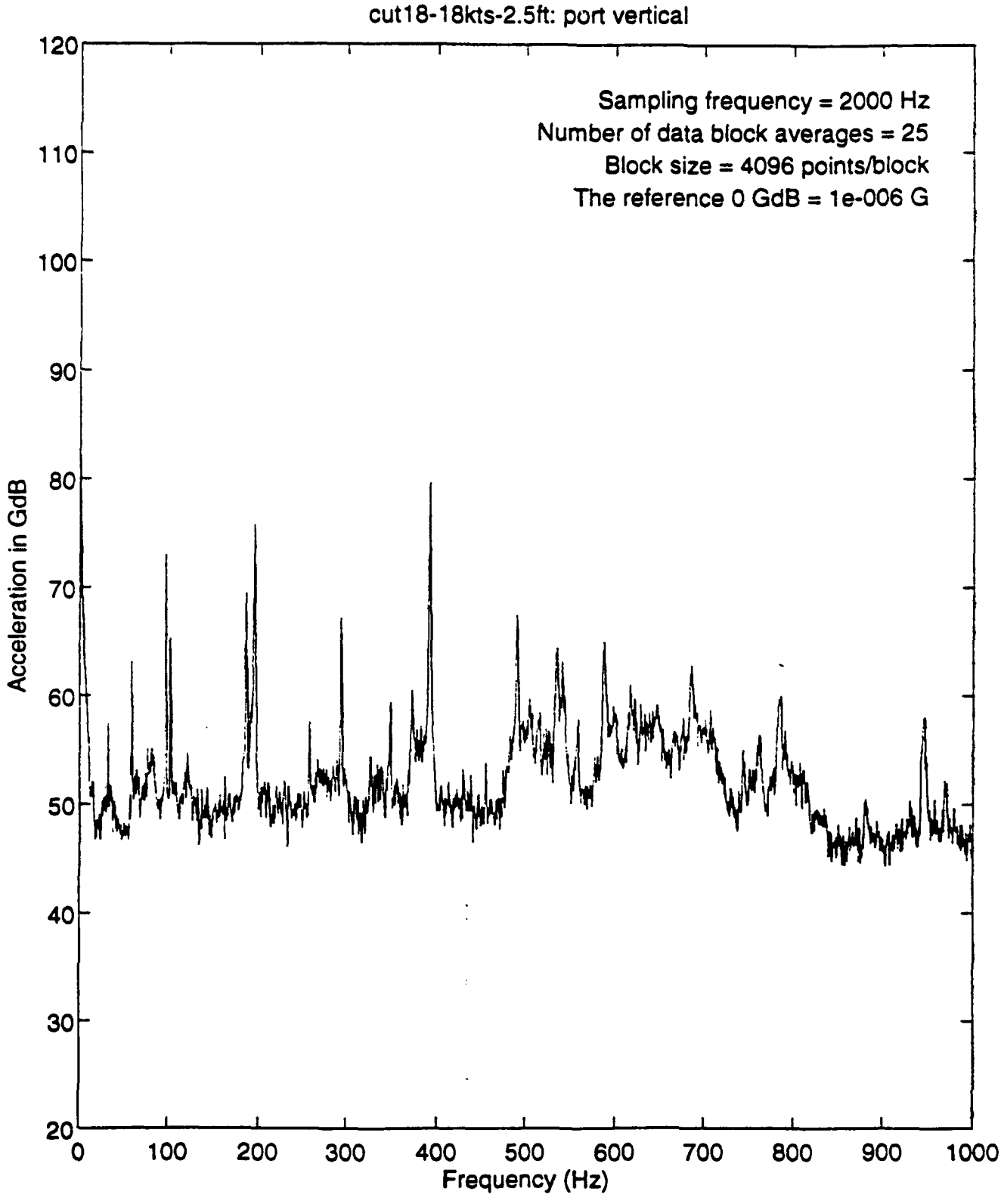
* The time domain

Mean value = -0.002557 G

Standard deviation = 0.07528 G

The plot shows 1024 data points



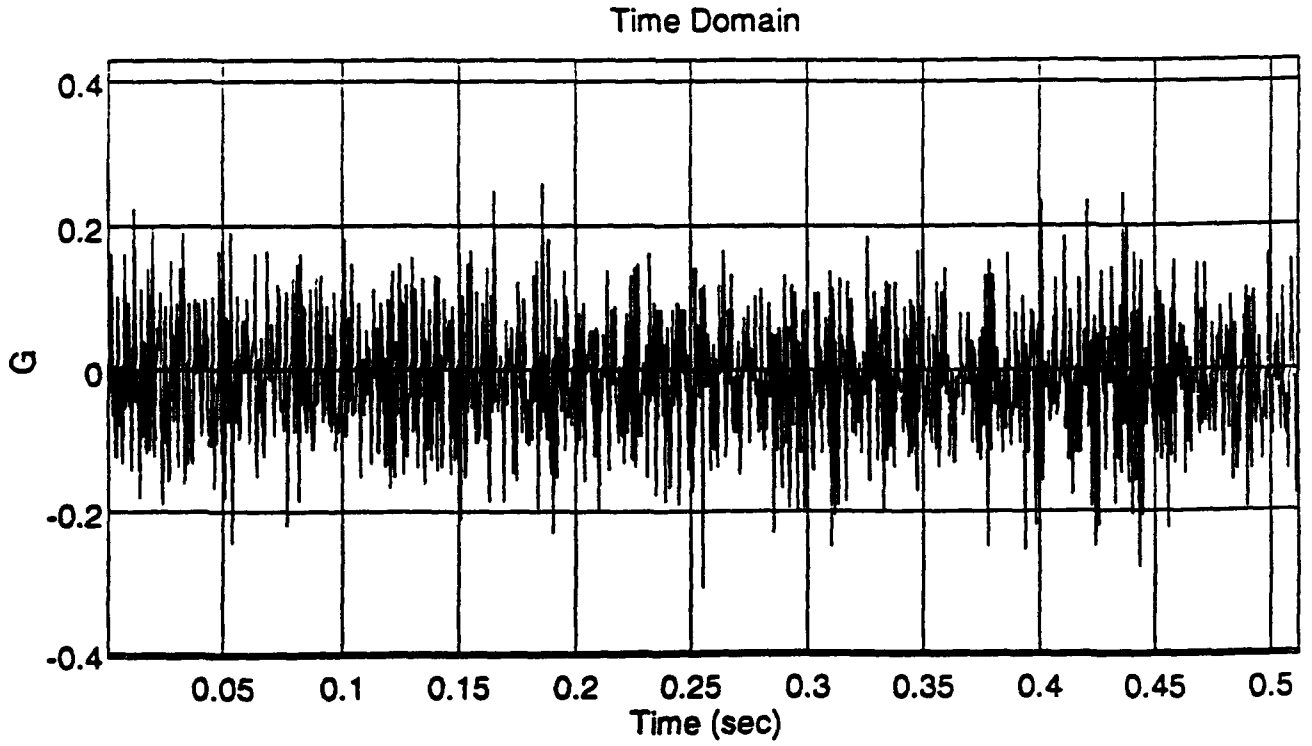

cut18-18kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

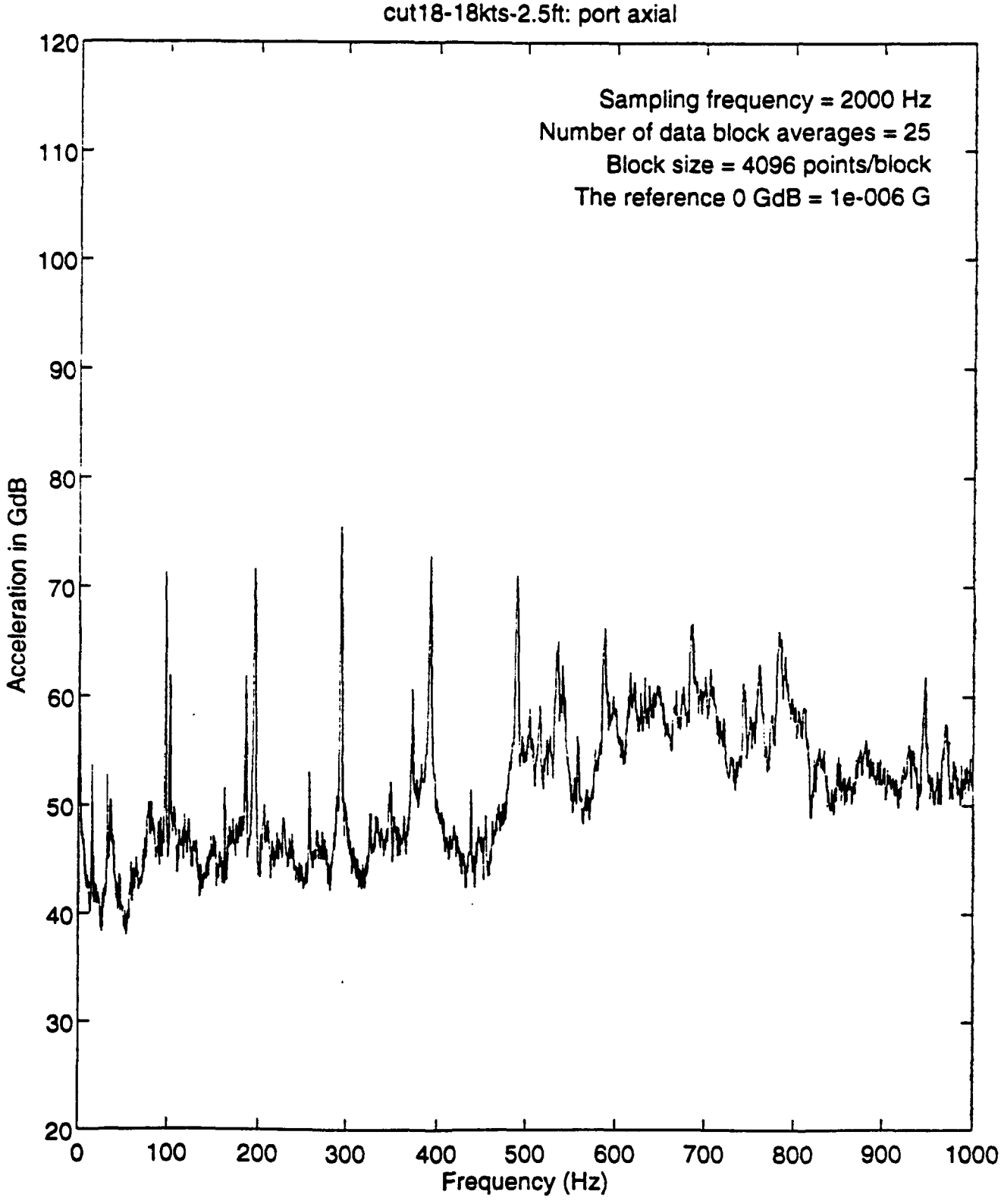
cut18-18kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0008875 G
Standard deviation = 0.09207 G
The plot shows 1024 data points



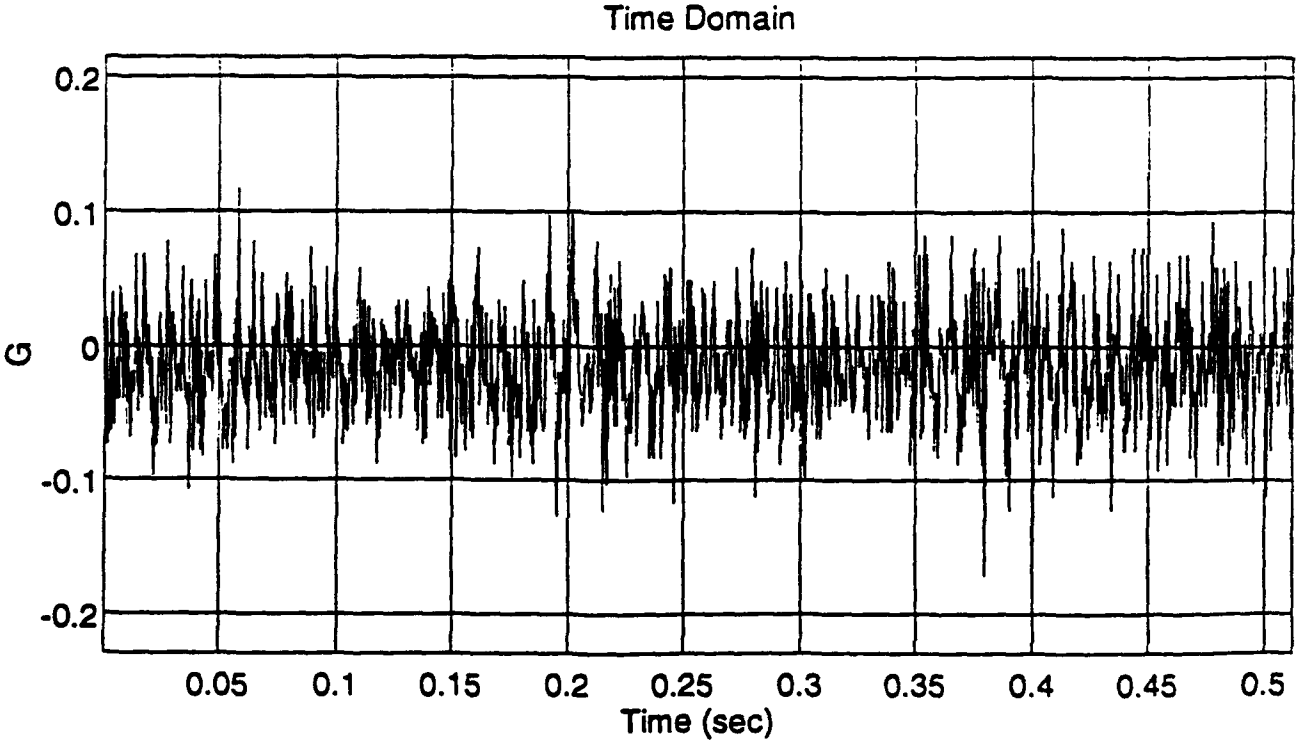

cut18-18kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

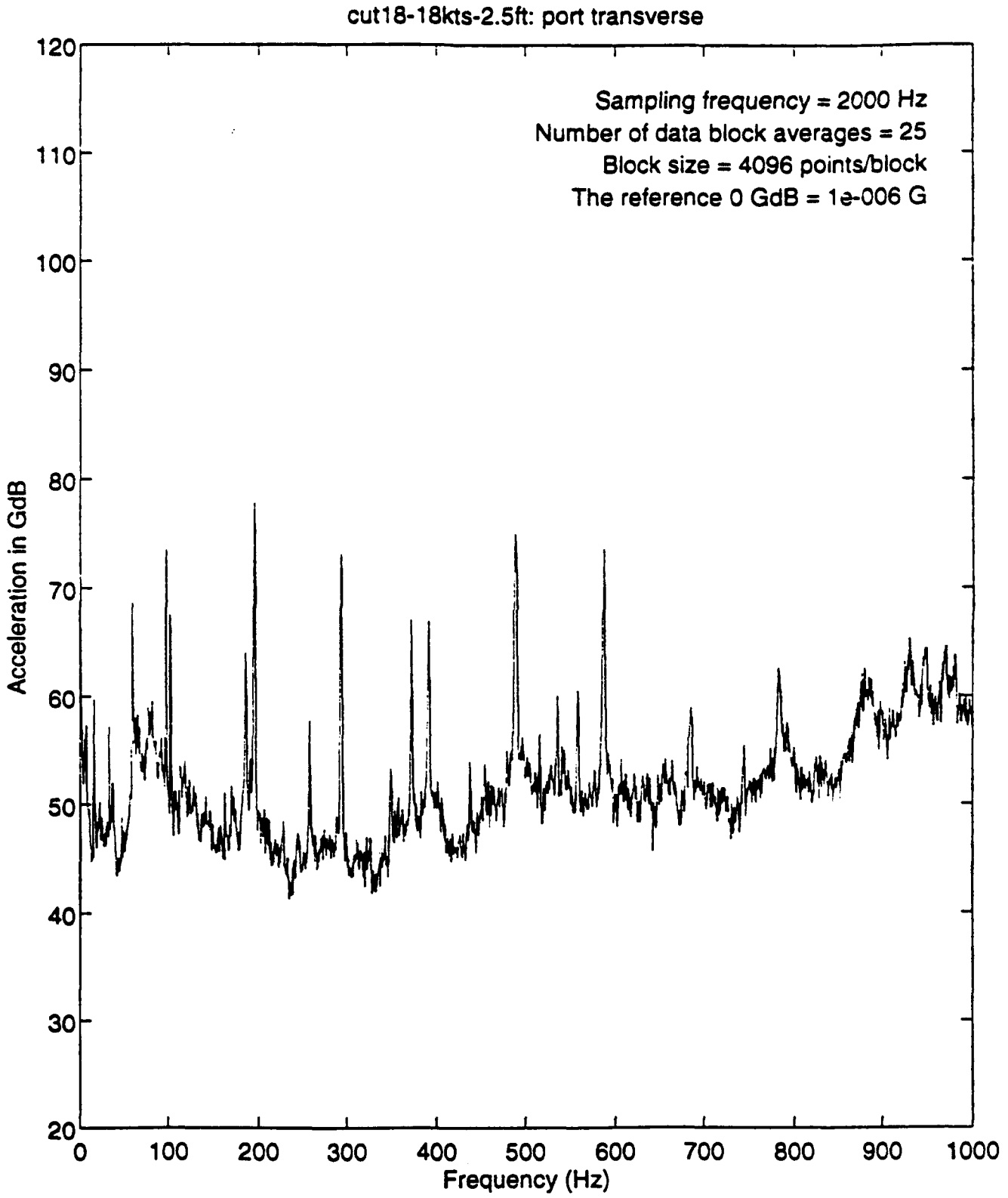
cut18-18kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002346 G
Standard deviation = 0.04684 G
The plot shows 1024 data points



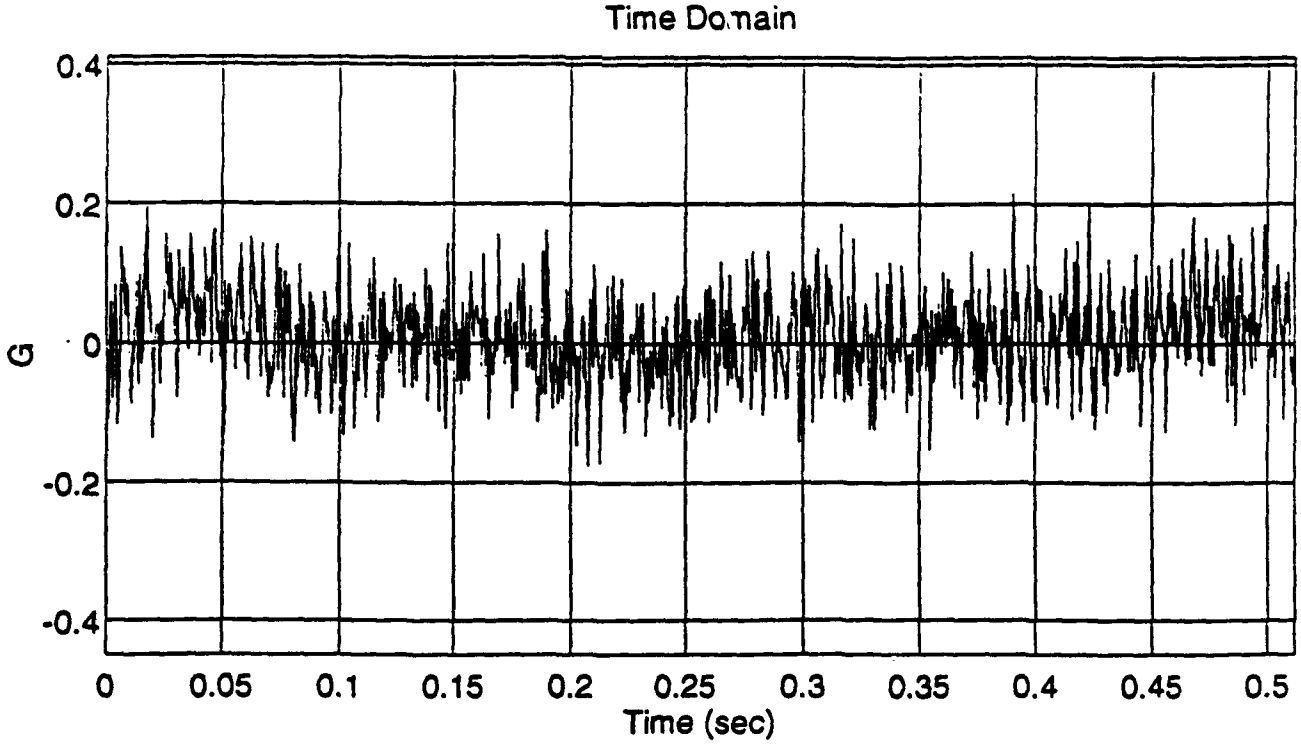

cut18-18kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

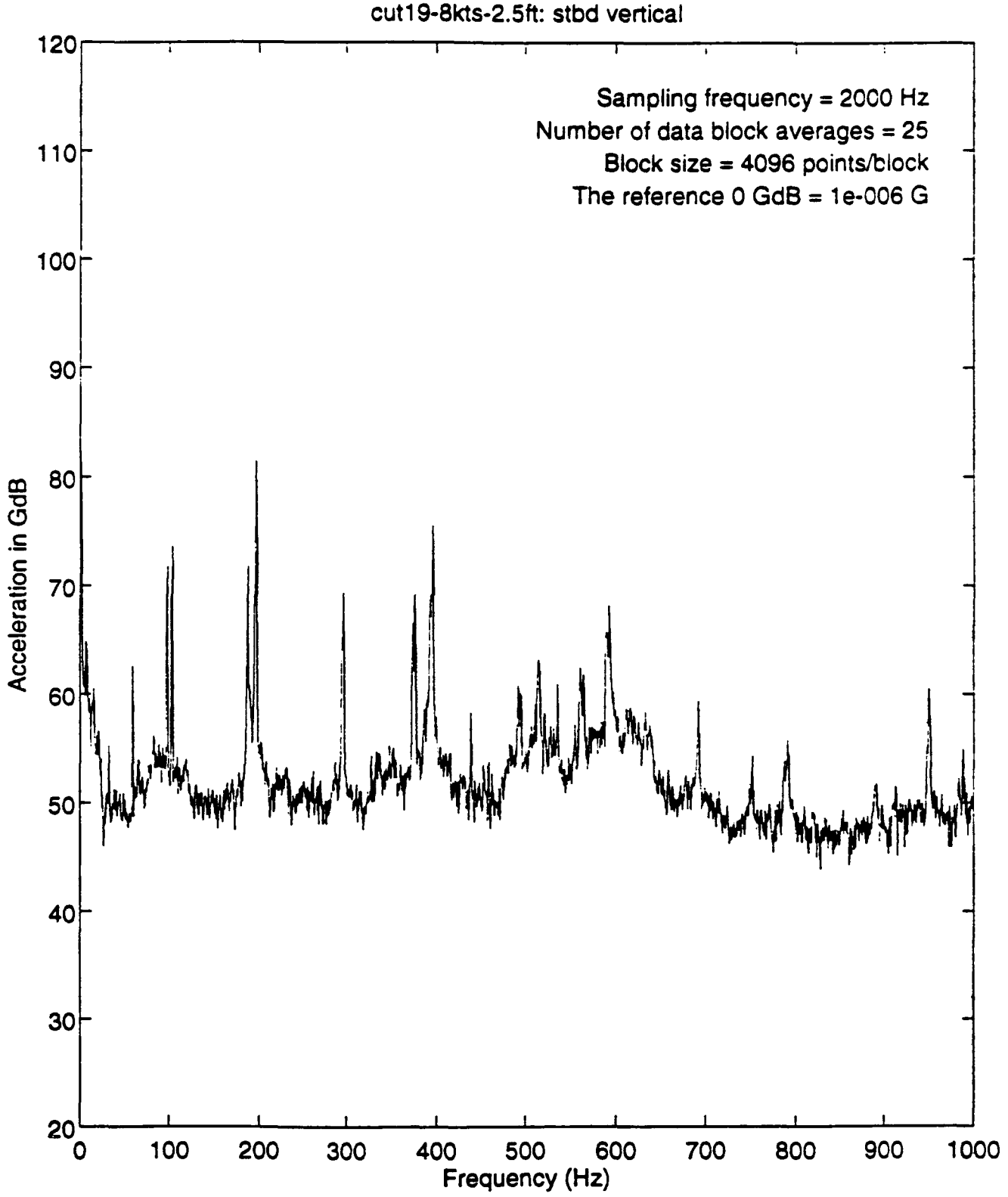
cut19-8kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002368 G
Standard deviation = 0.09414 G
The plot shows 1024 data points



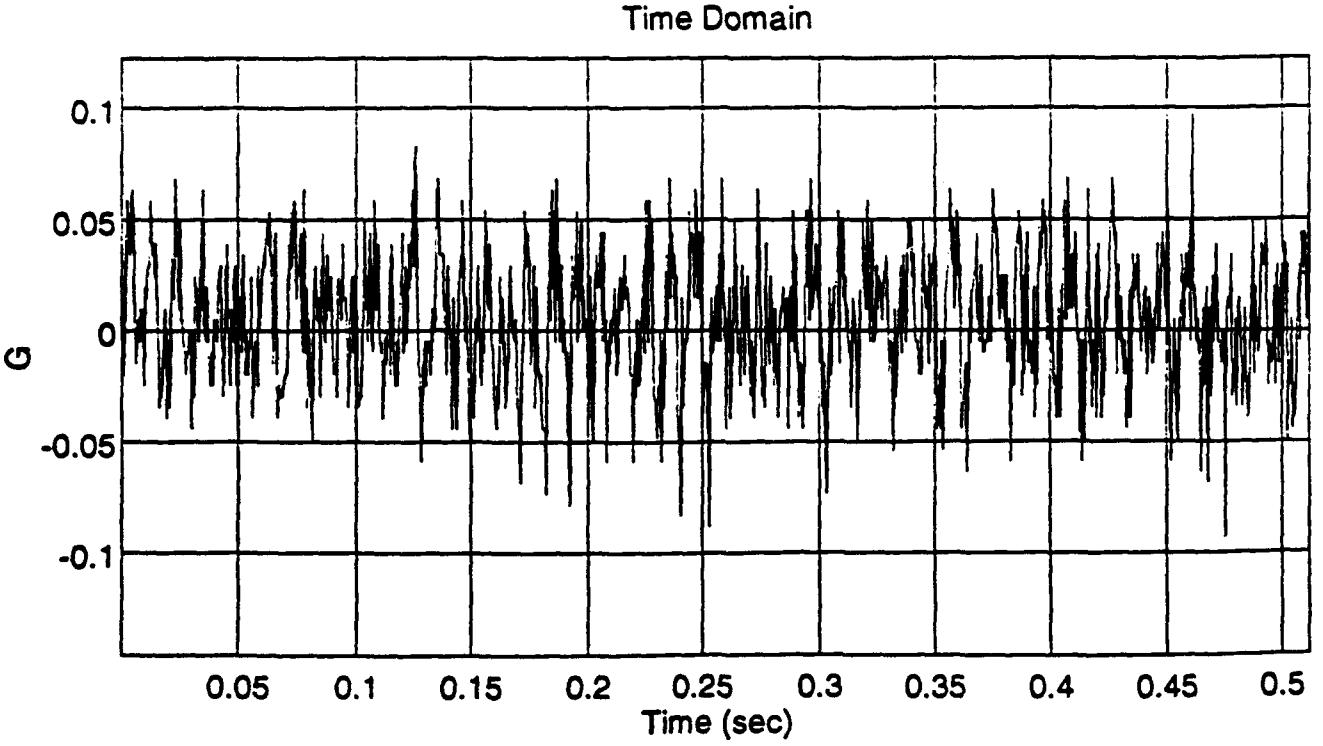

cut19-8kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

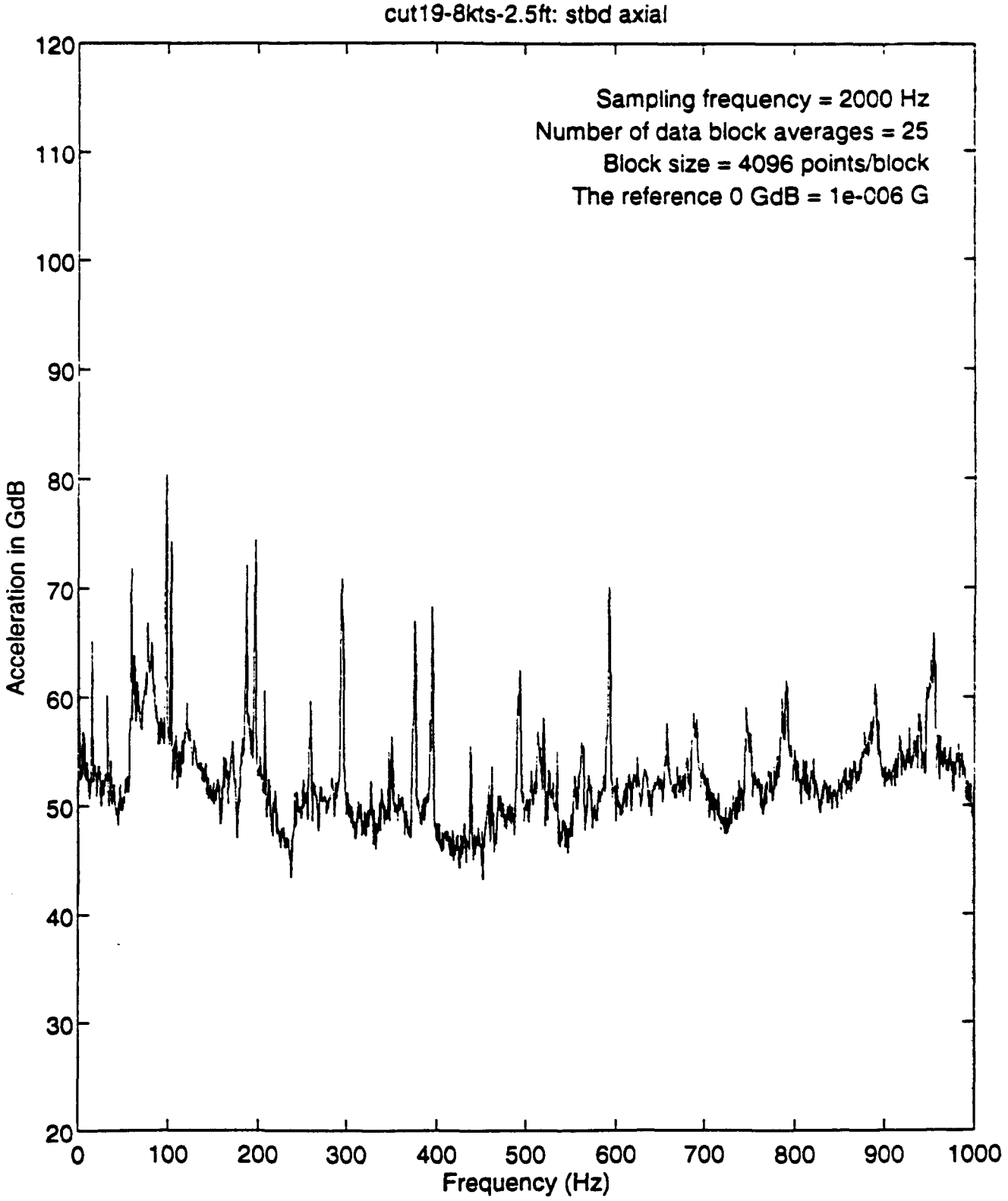
cut19-8kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.002 G
Standard deviation = 0.03176 G
The plot shows 1024 data points



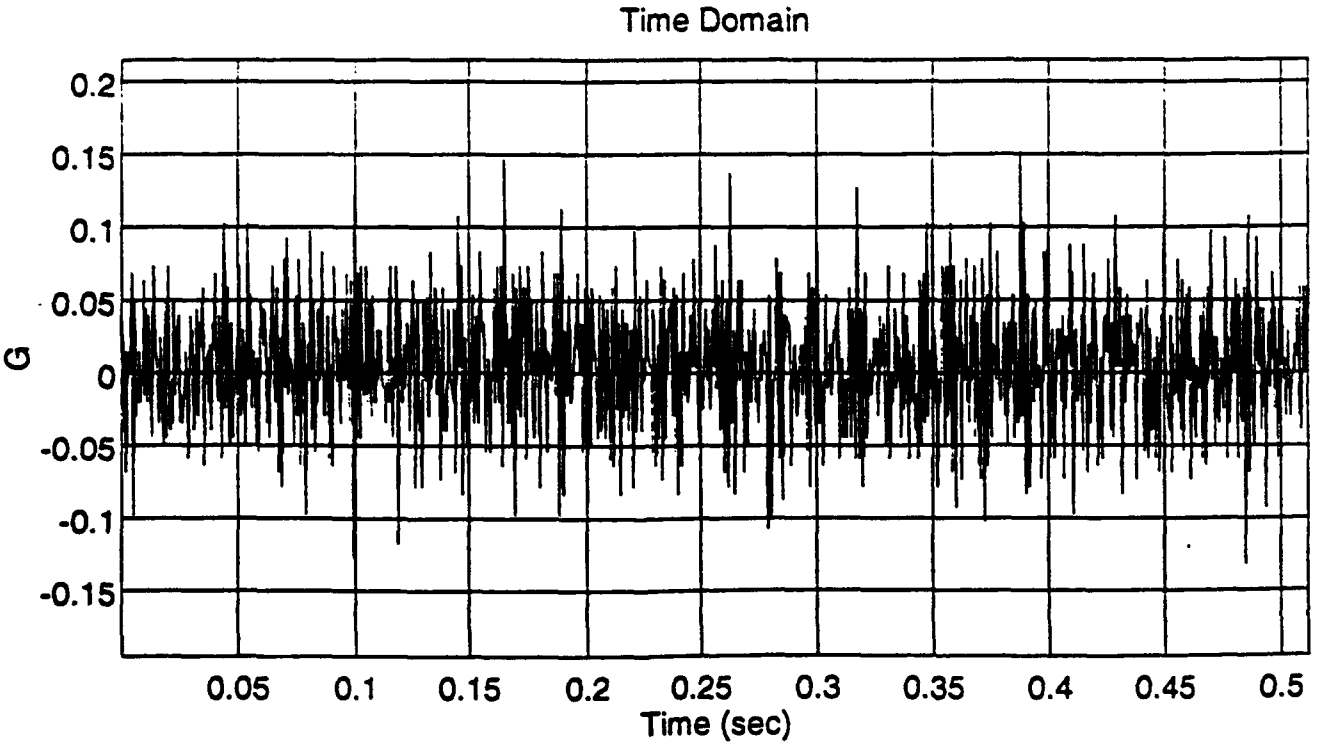

cut19-8kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

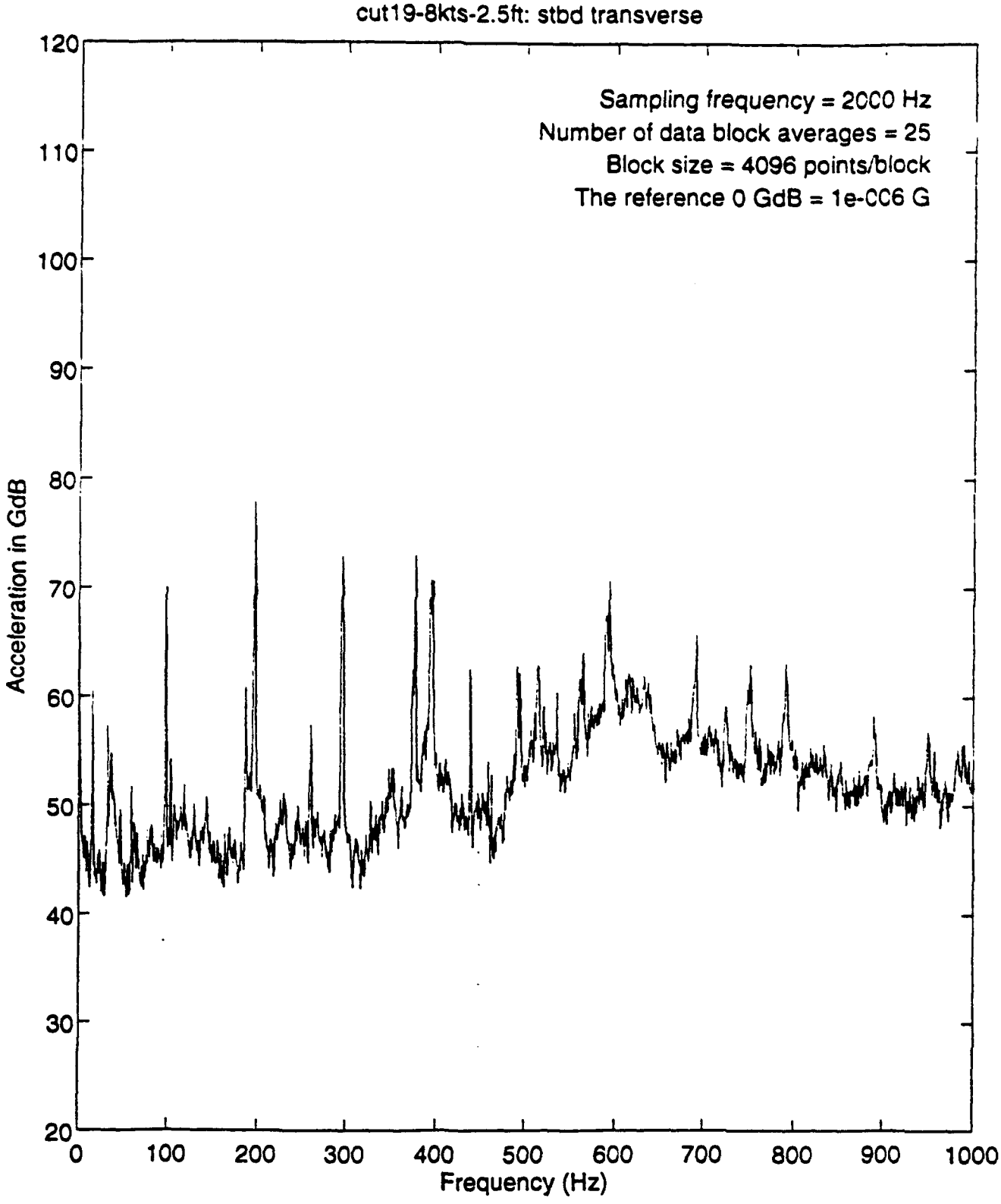
cut19-8kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.004747 G
Standard deviation = 0.04767 G
The plot shows 1024 data points



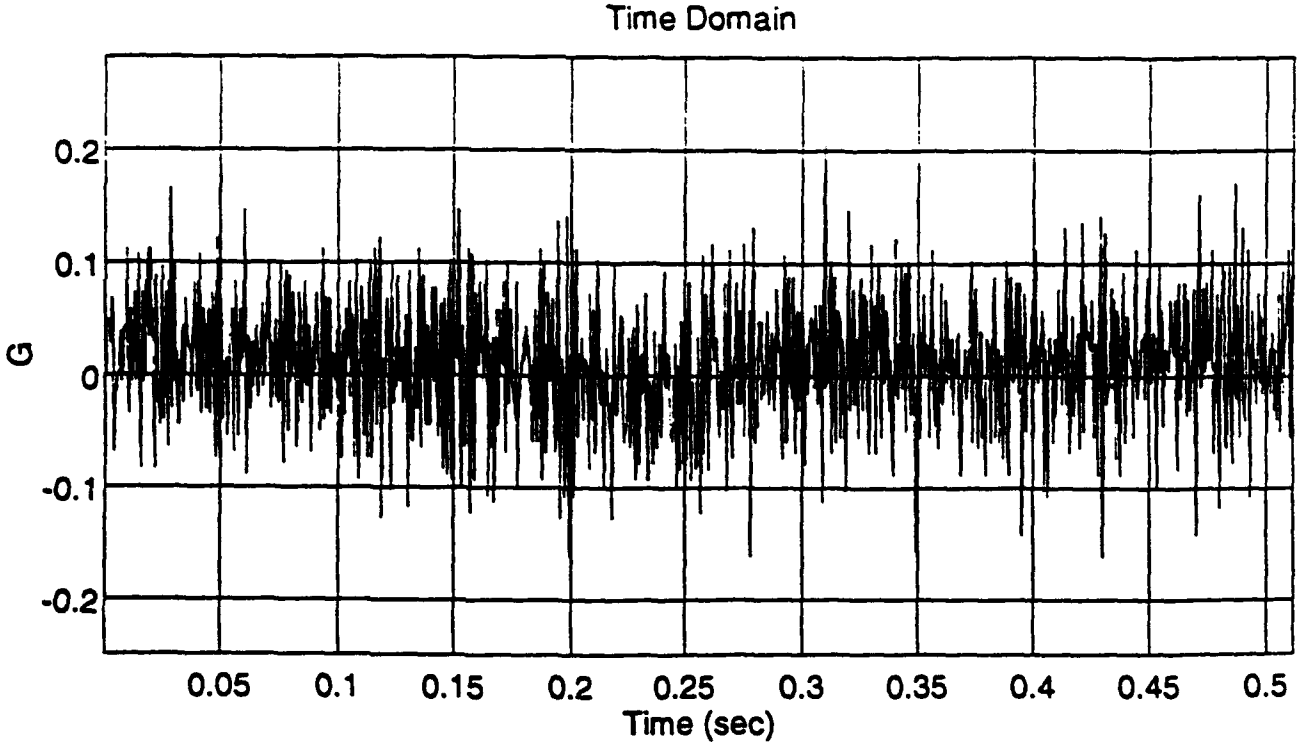

cut19-8kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

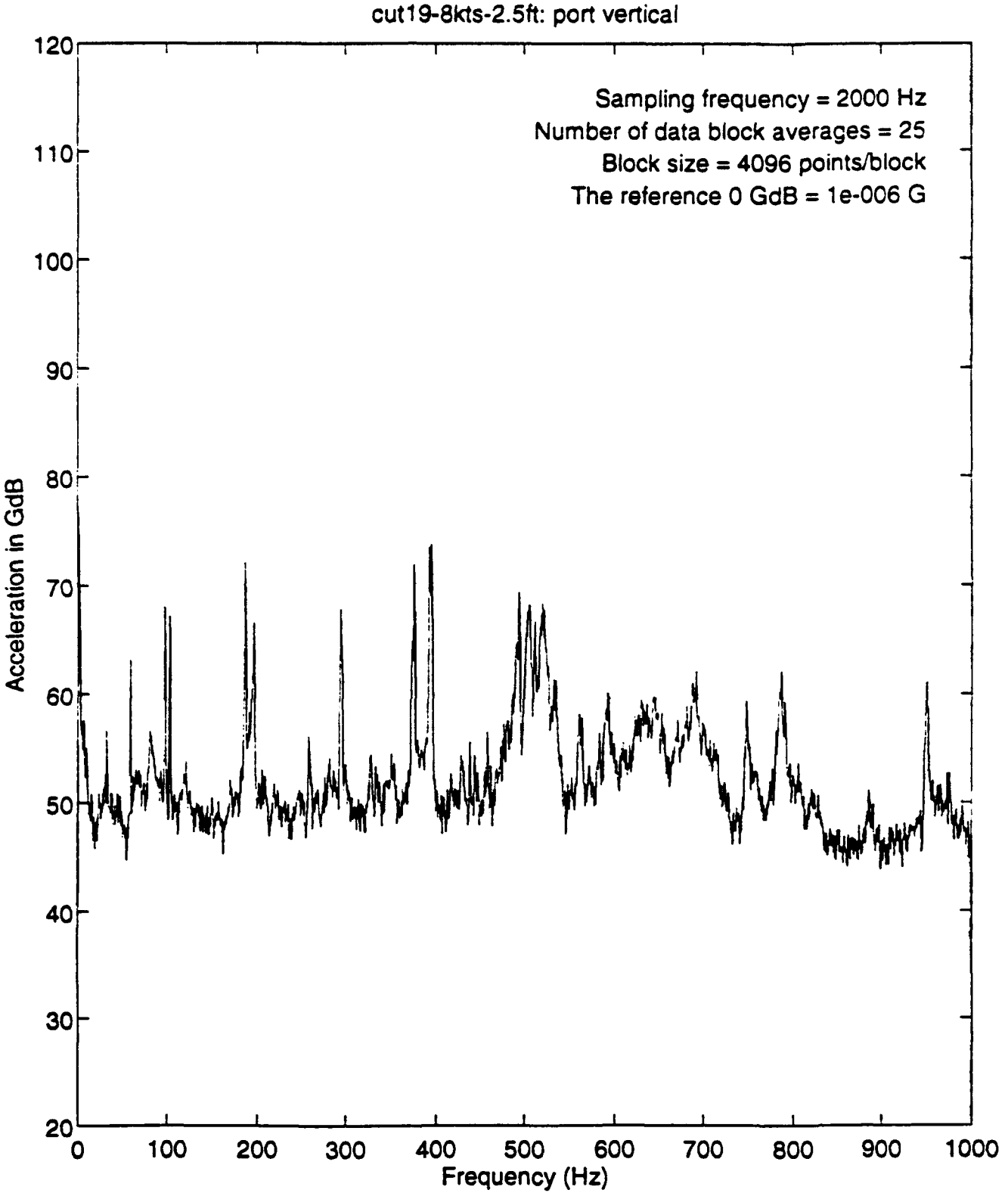
cut19-8kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.002627 G
Standard deviation = 0.06034 G
The plot shows 1024 data points




cut19-8kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut19-8kts-2.5ft: port axial

Data sampling frequency = 2000 Hz

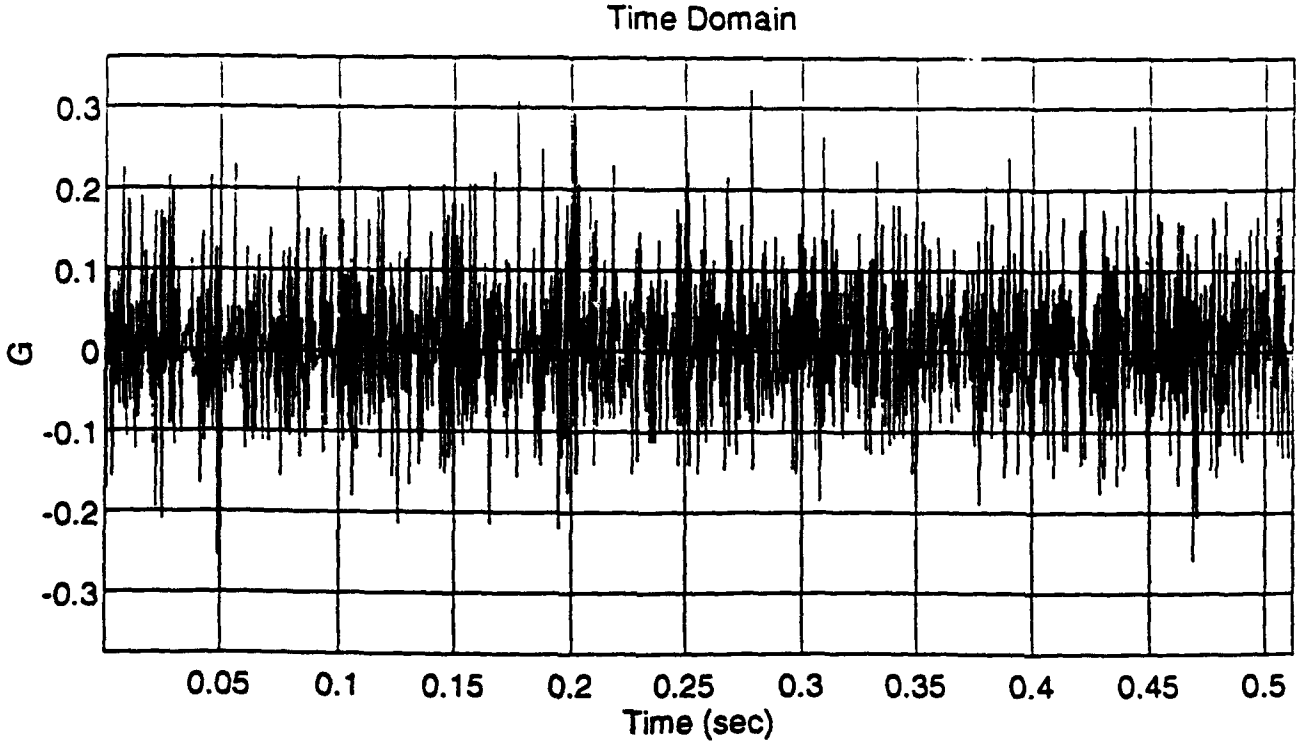
Total number of sampling data points = 1.024e+005

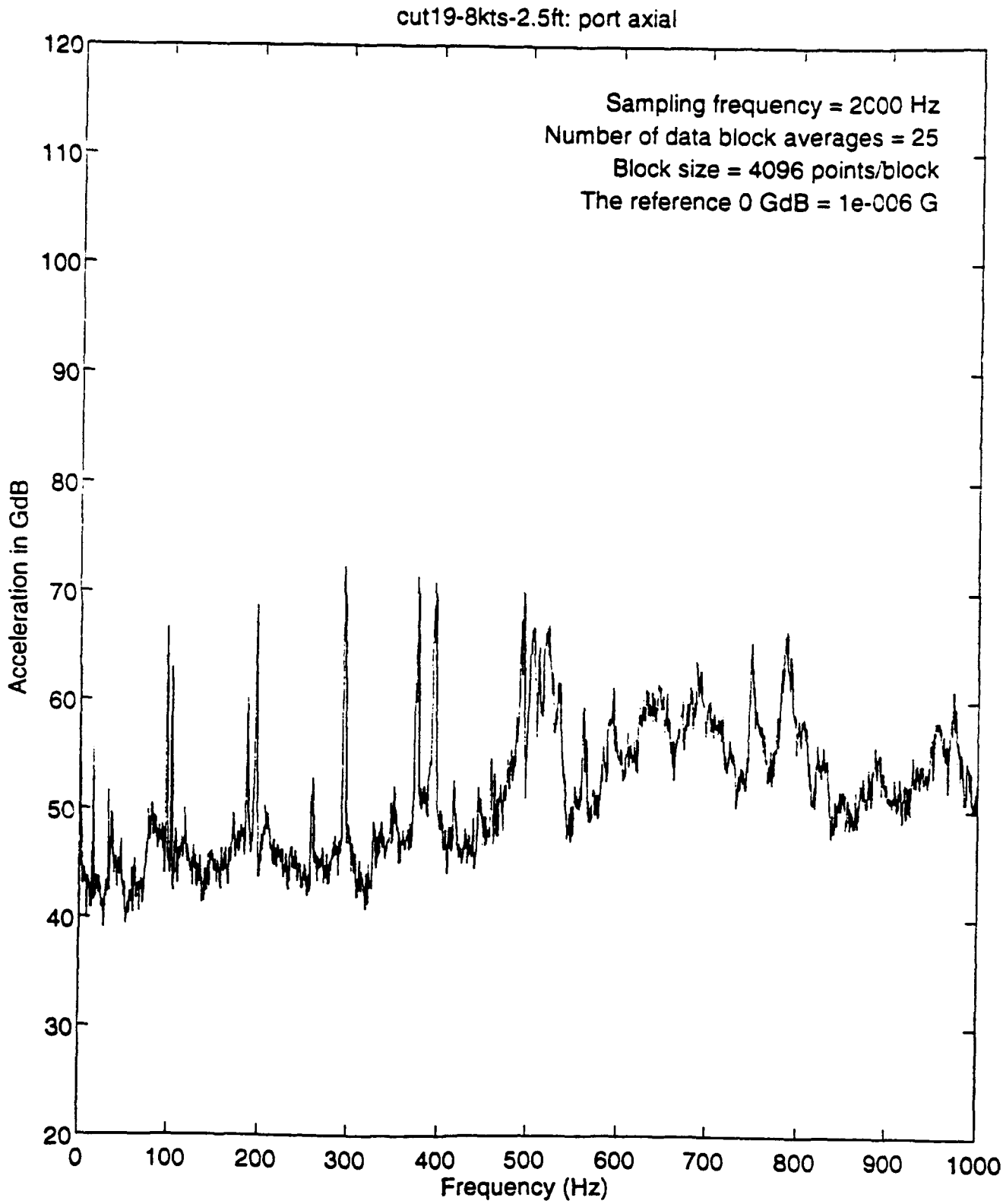
* The time domain

Mean value = 0.00387 G

Standard deviation = 0.08631 G

The plot shows 1024 data points



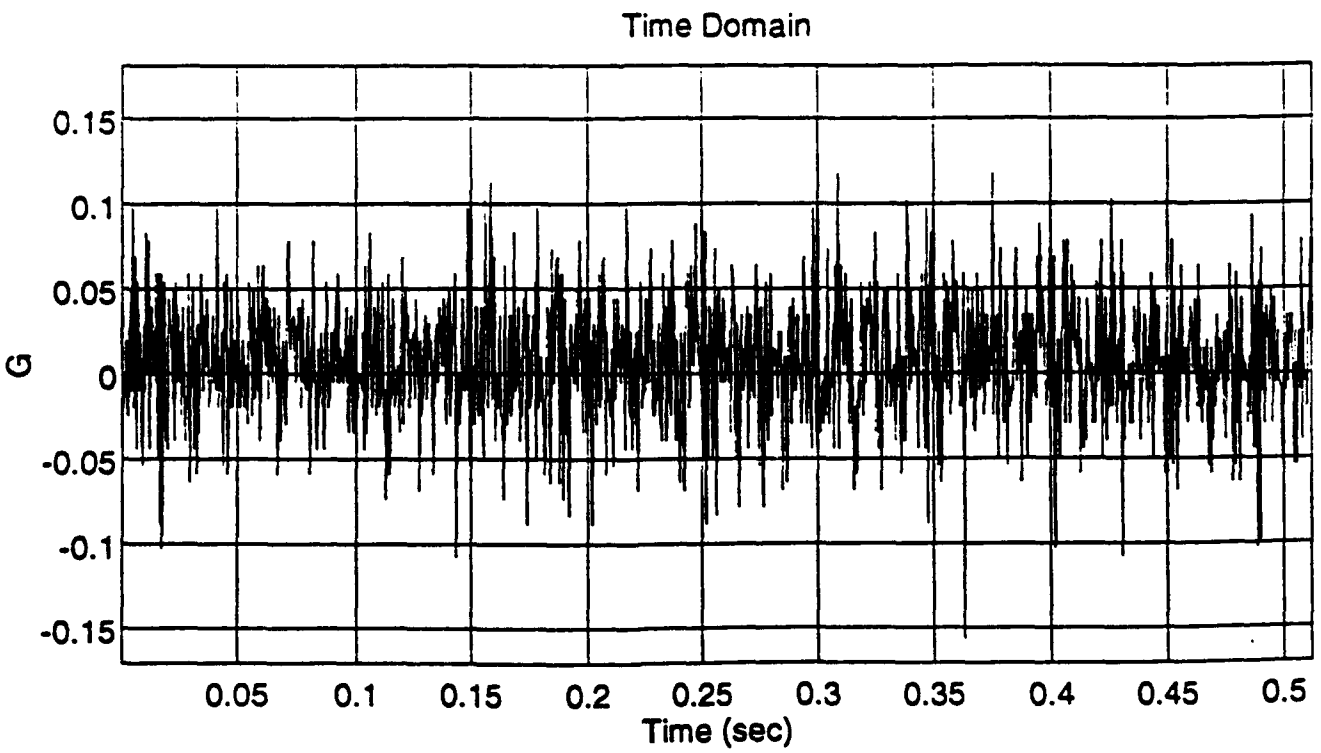

cut19-8kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

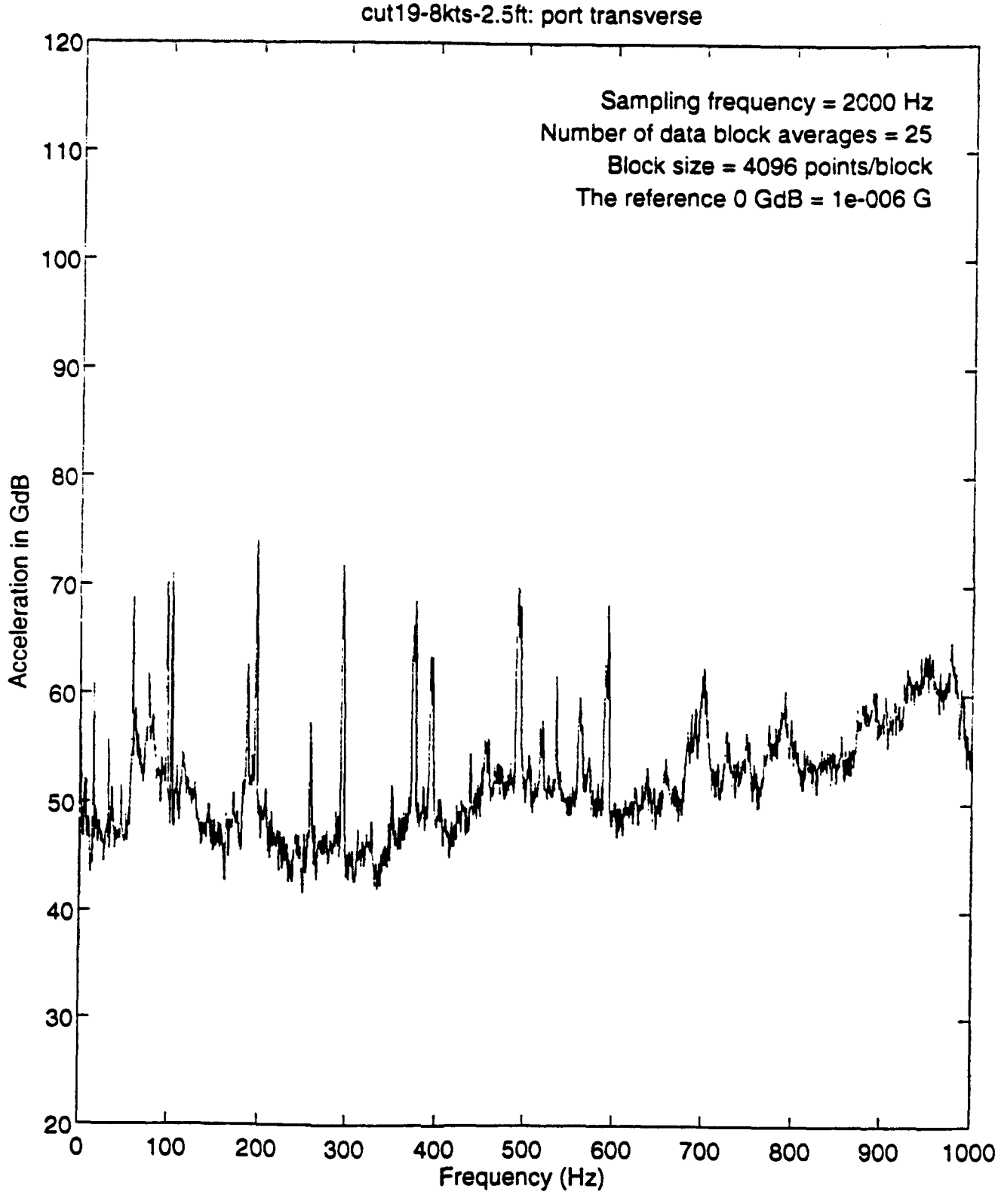
cut19-8kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.004134 G
Standard deviation = 0.03828 G
The plot shows 1024 data points




cut19-8kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut20-16kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

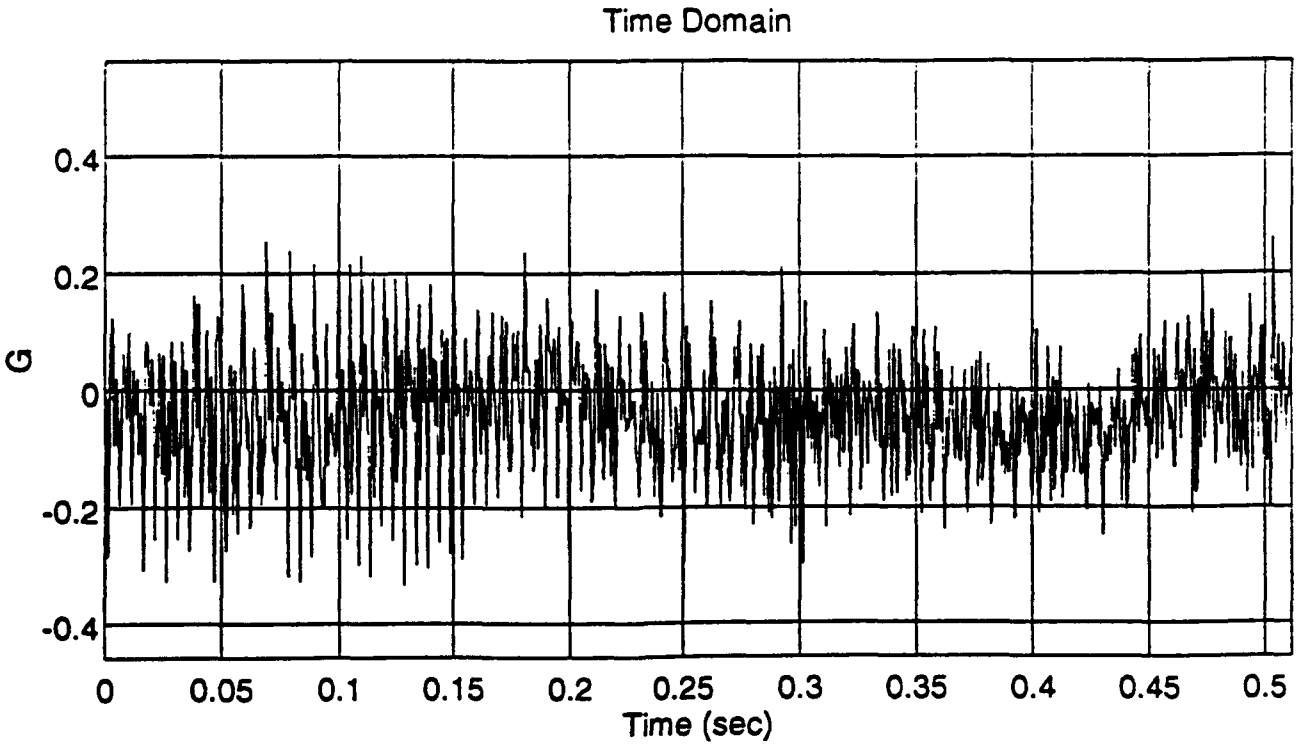
Total number of sampling data points = 1.024e+005

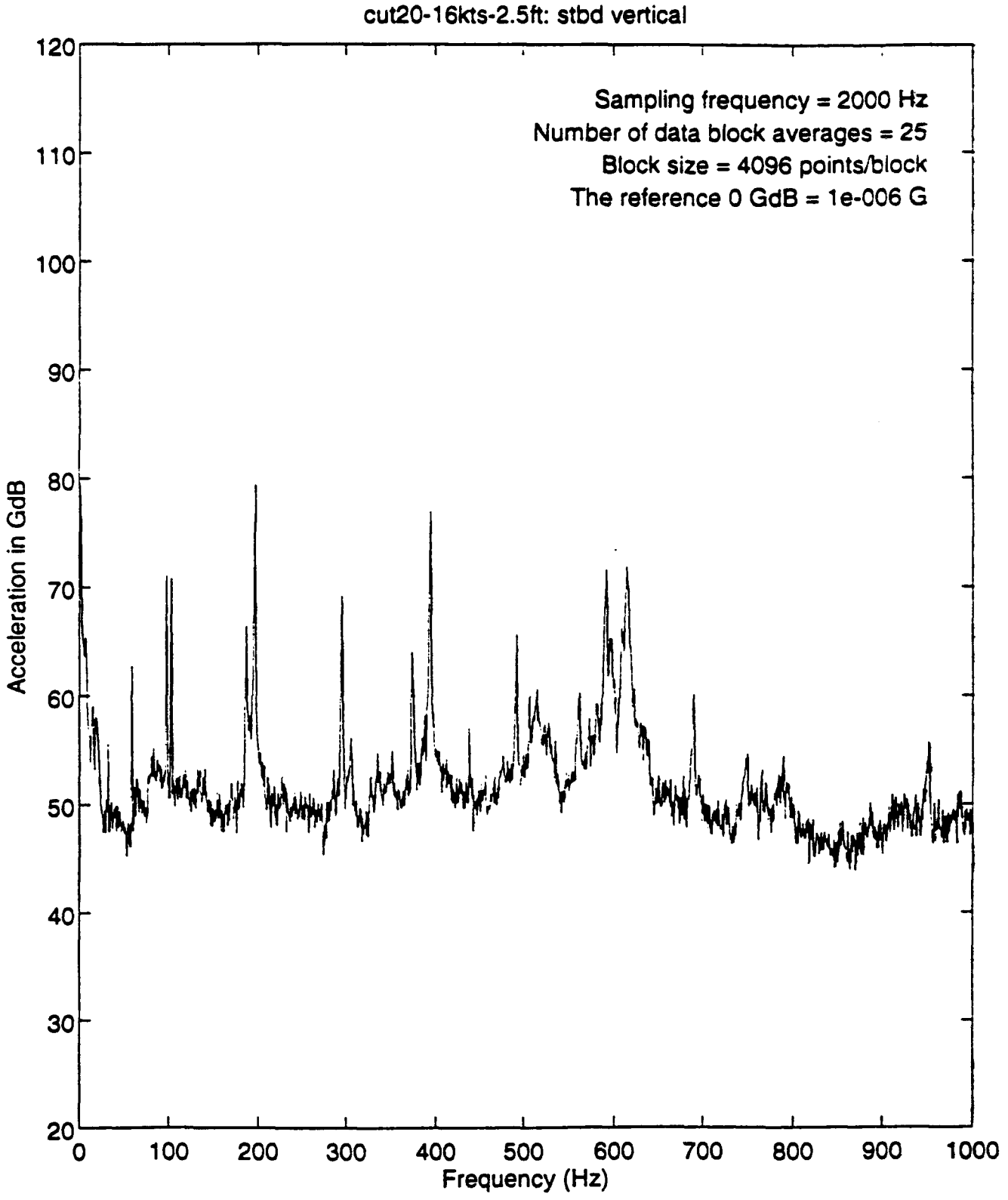
* The time domain

Mean value = 0.0004143 G

Standard deviation = 0.106 G

The plot shows 1024 data points




cut20-16kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut20-16kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz

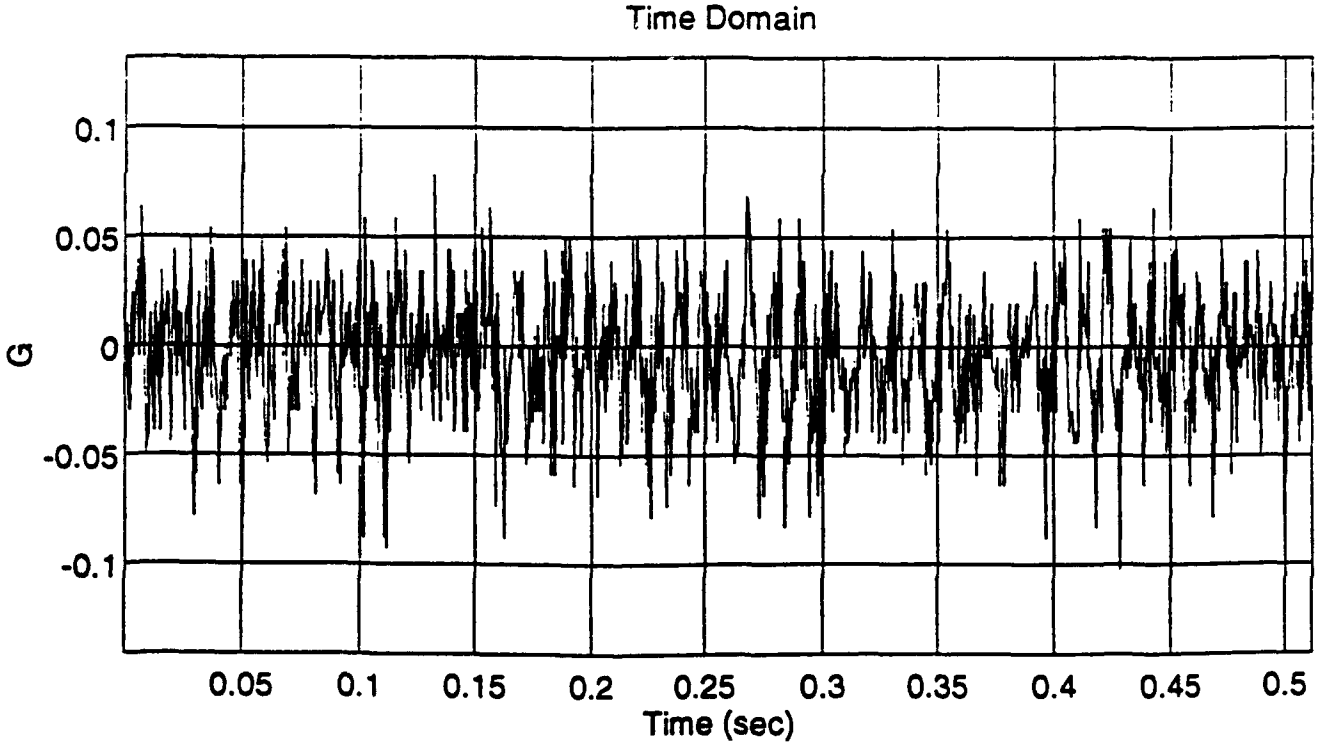
Total number of sampling data points = 1.024e+005

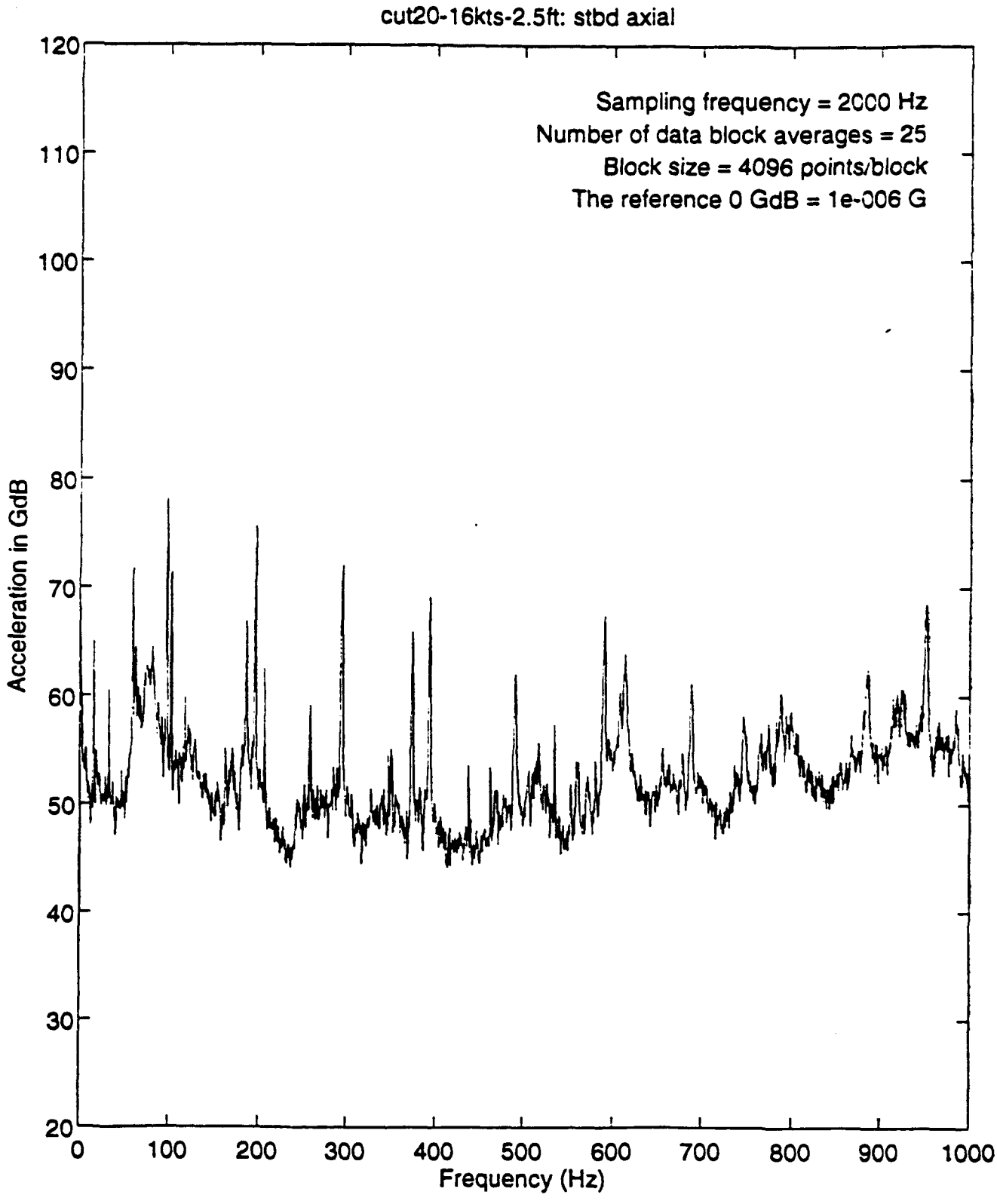
* The time domain

Mean value = -0.002002 G

Standard deviation = 0.03096 G

The plot shows 1024 data points




cut20-16kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut20-16kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz

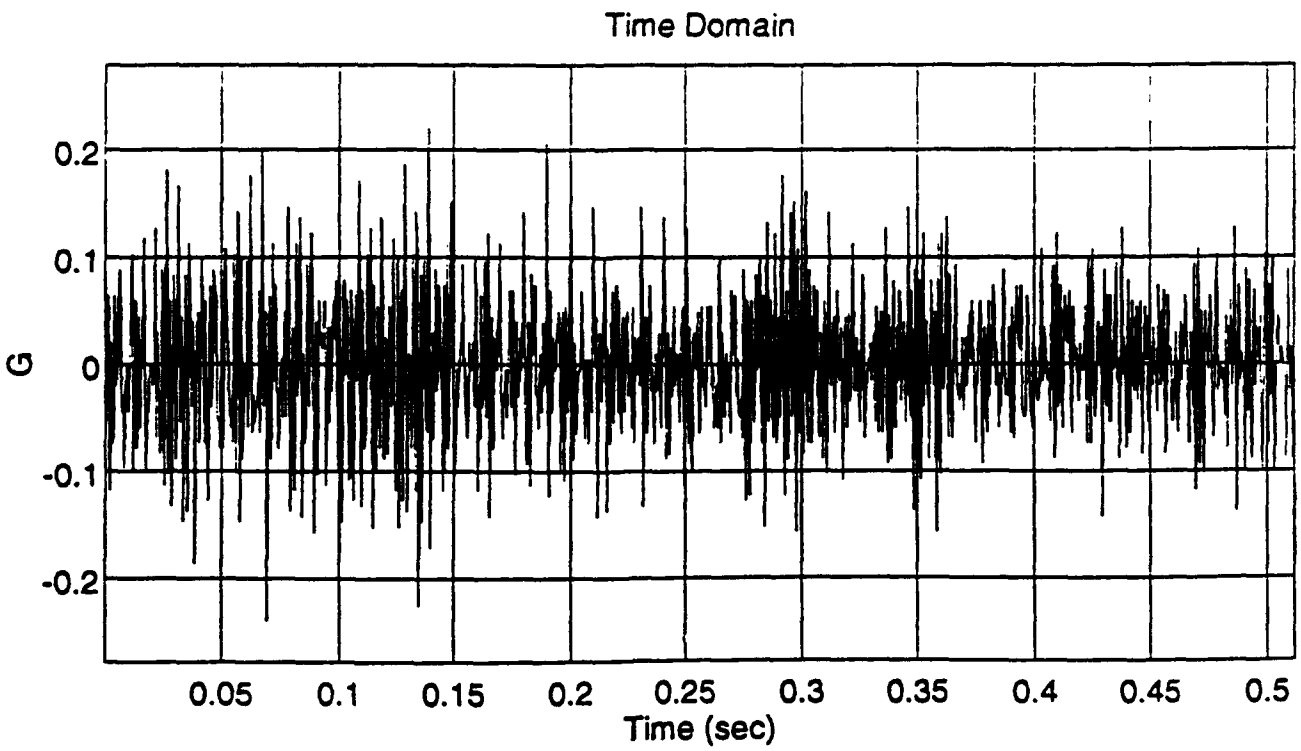
Total number of sampling data points = 1.024e+005

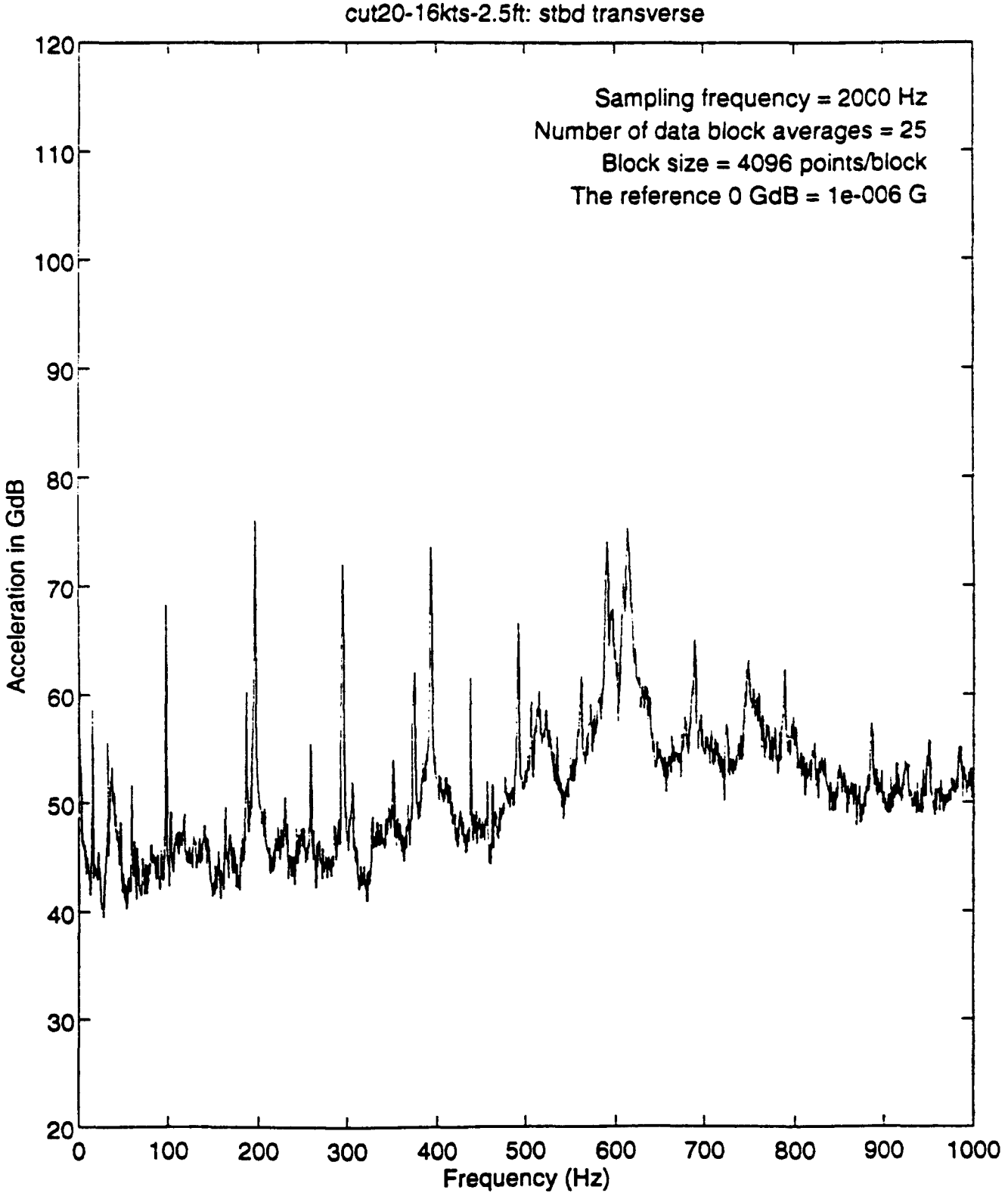
* The time domain

Mean value = -0.002442 G

Standard deviation = 0.06437 G

The plot shows 1024 data points



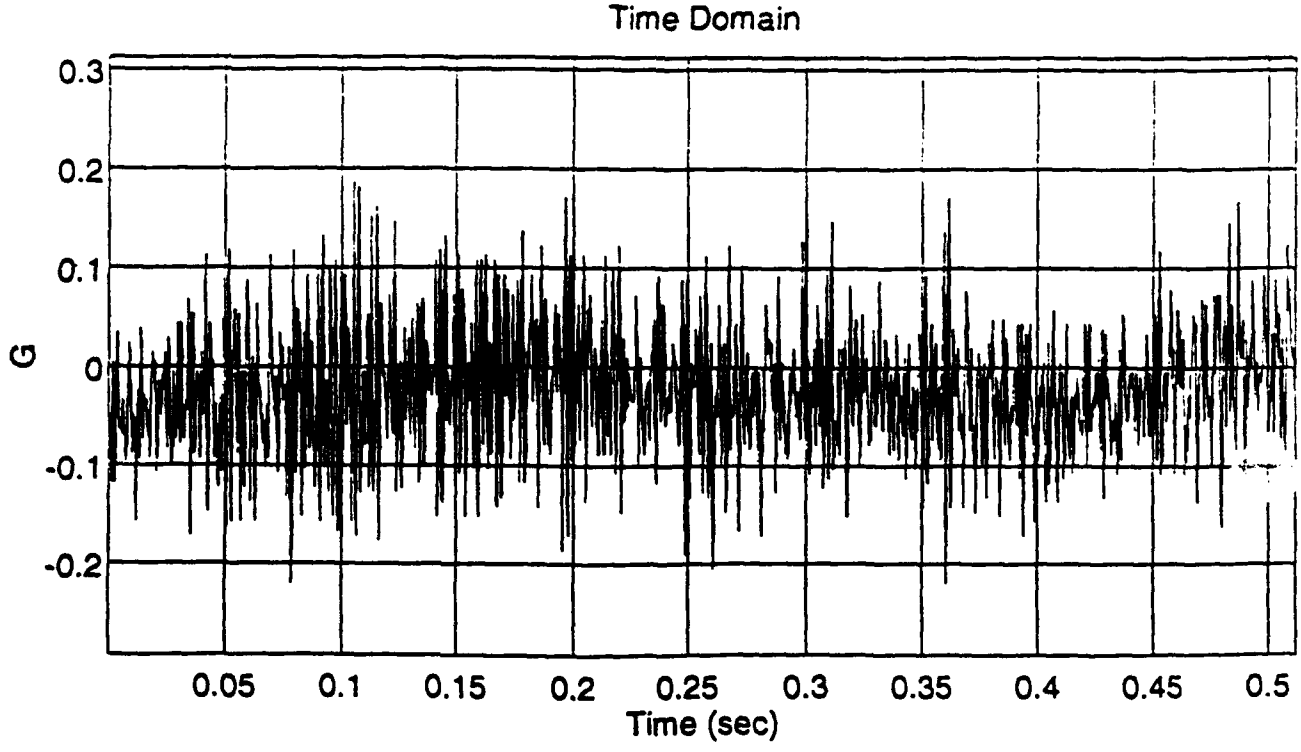

cut20-16kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

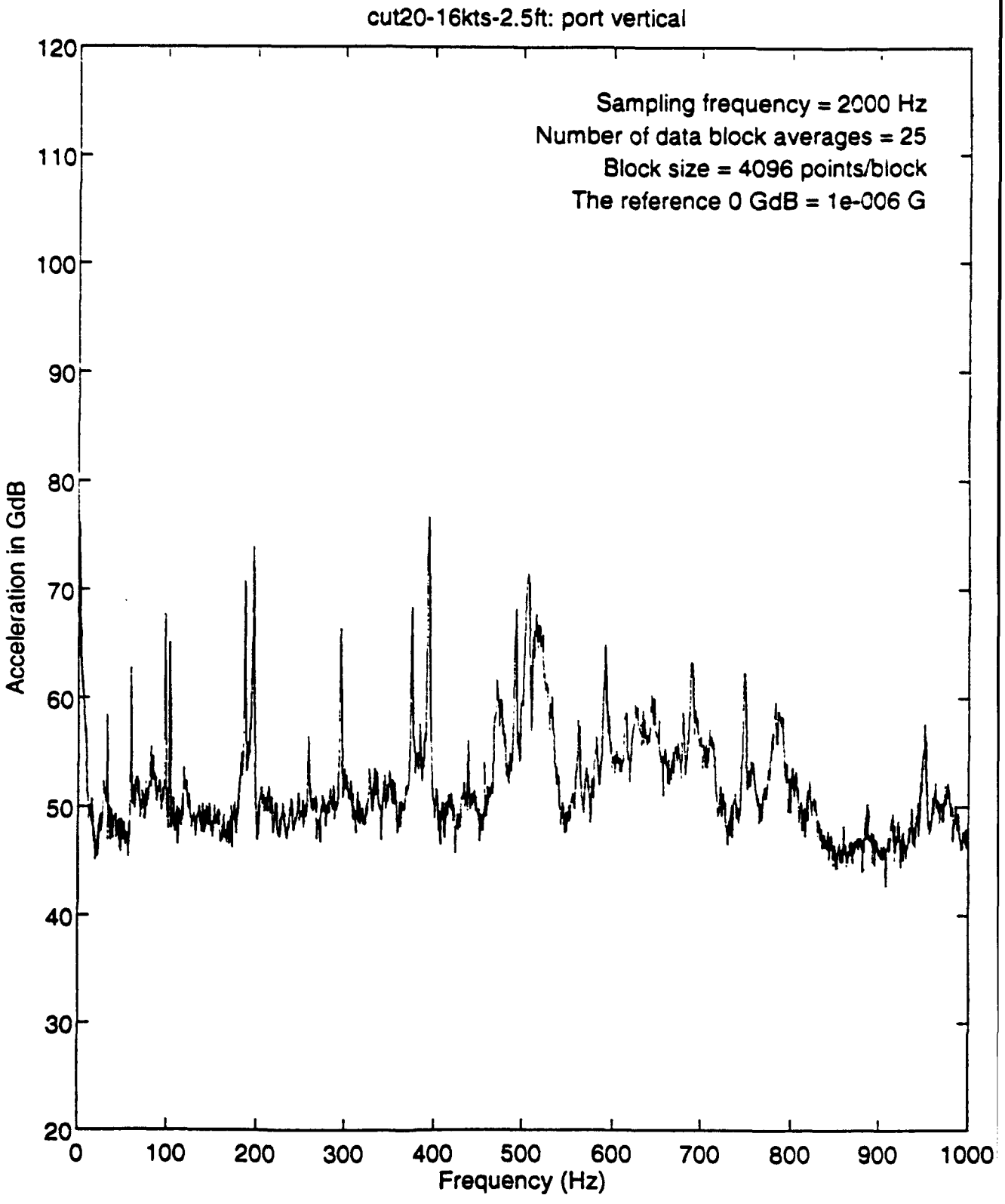
cut20-16kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002996 G
Standard deviation = 0.06604 G
The plot shows 1024 data points



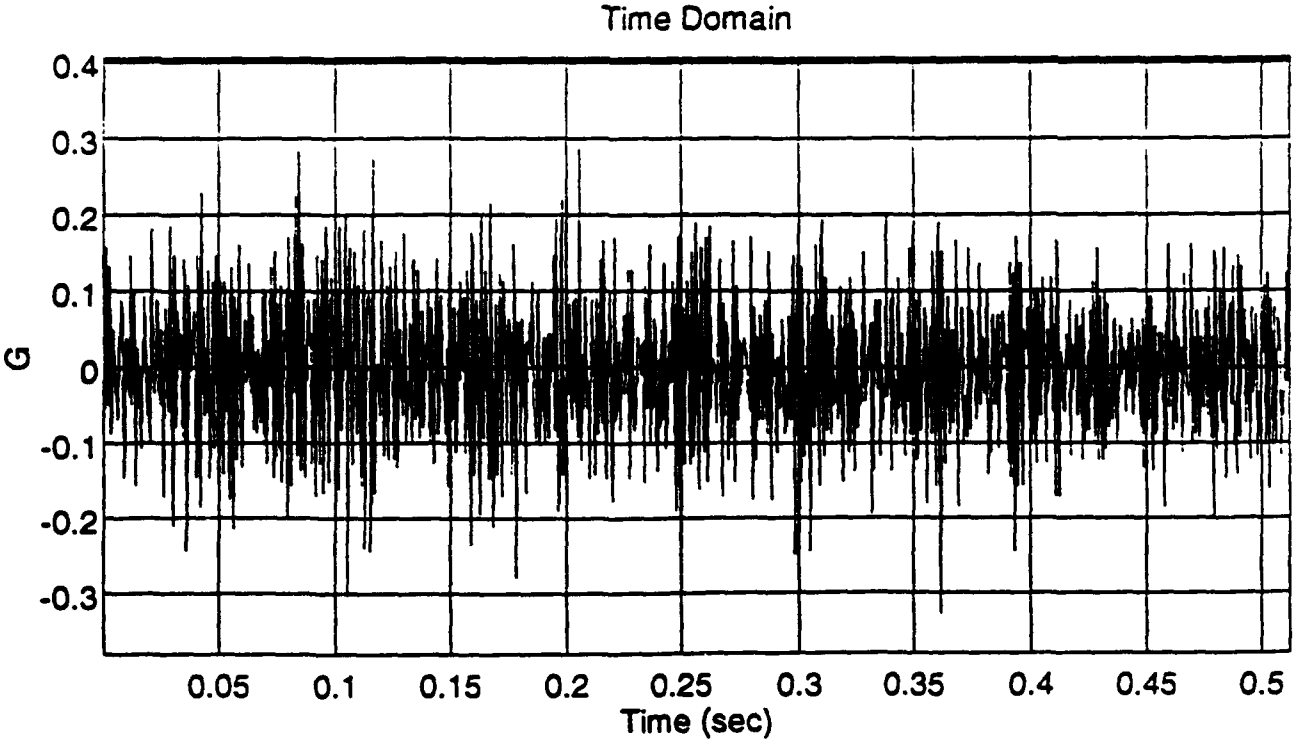

cut20-16kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

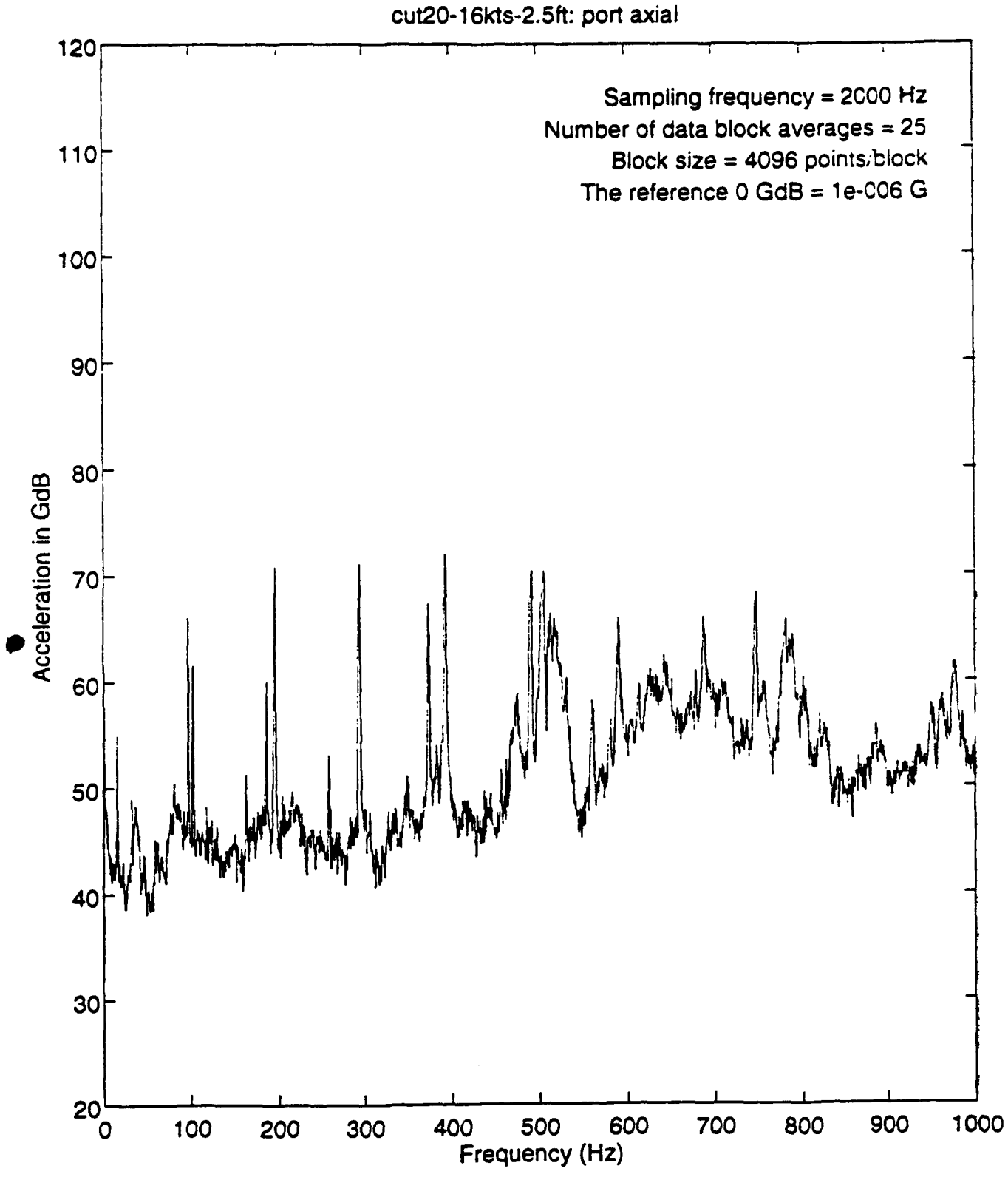
cut20-16kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0001399 G
Standard deviation = 0.09214 G
The plot shows 1024 data points




cut20-16kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut20-16kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz

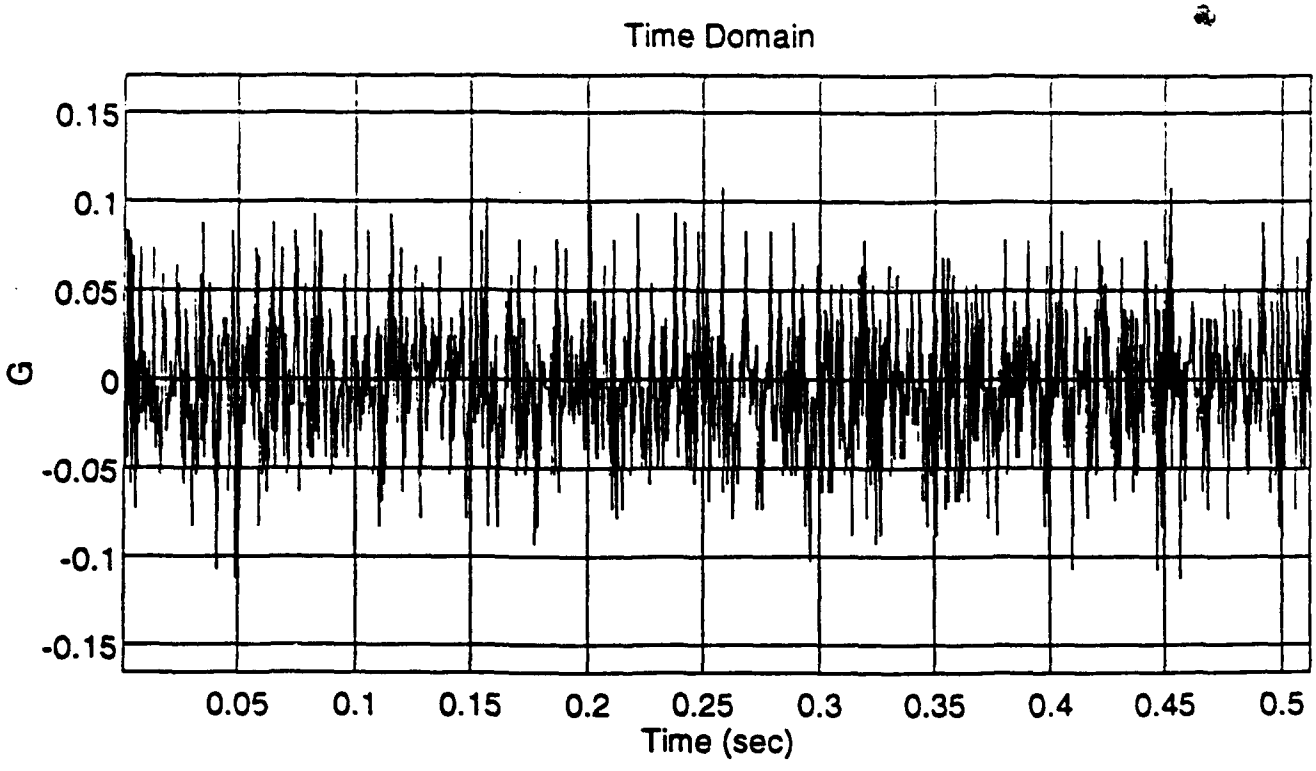
Total number of sampling data points = 1.024e+005

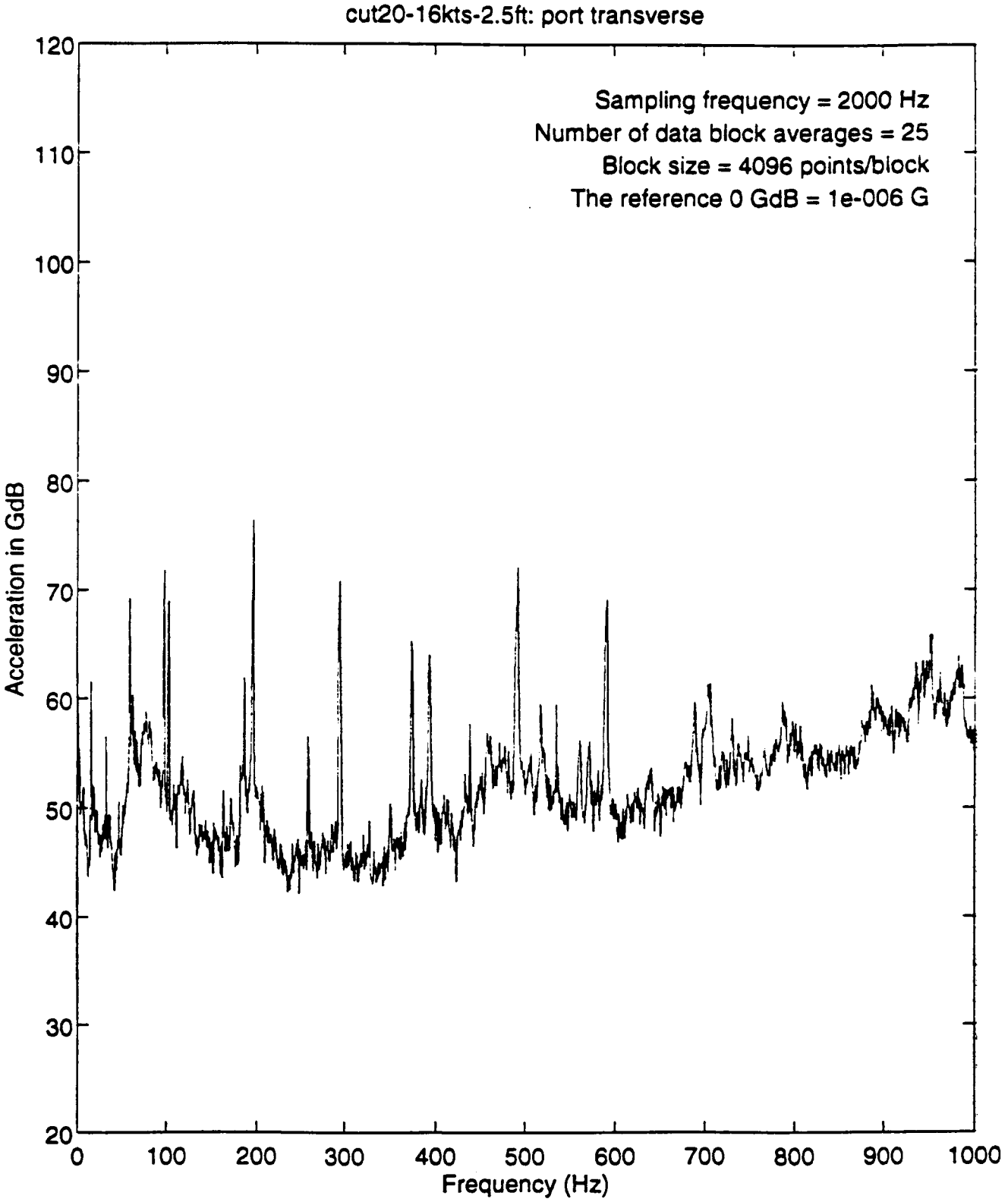
* The time domain

Mean value = -0.001848 G

Standard deviation = 0.03979 G

The plot shows 1024 data points




cut20-16kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut21-25kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

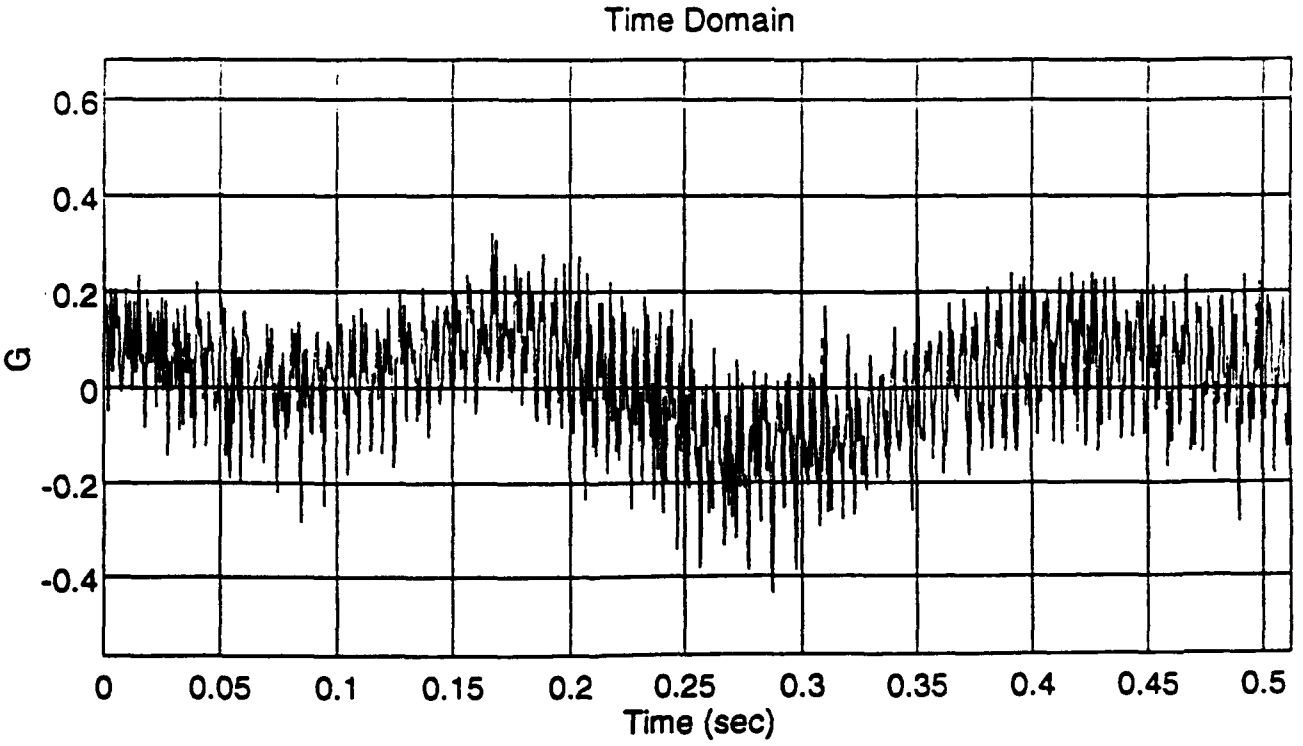
Total number of sampling data points = 1.024e+005

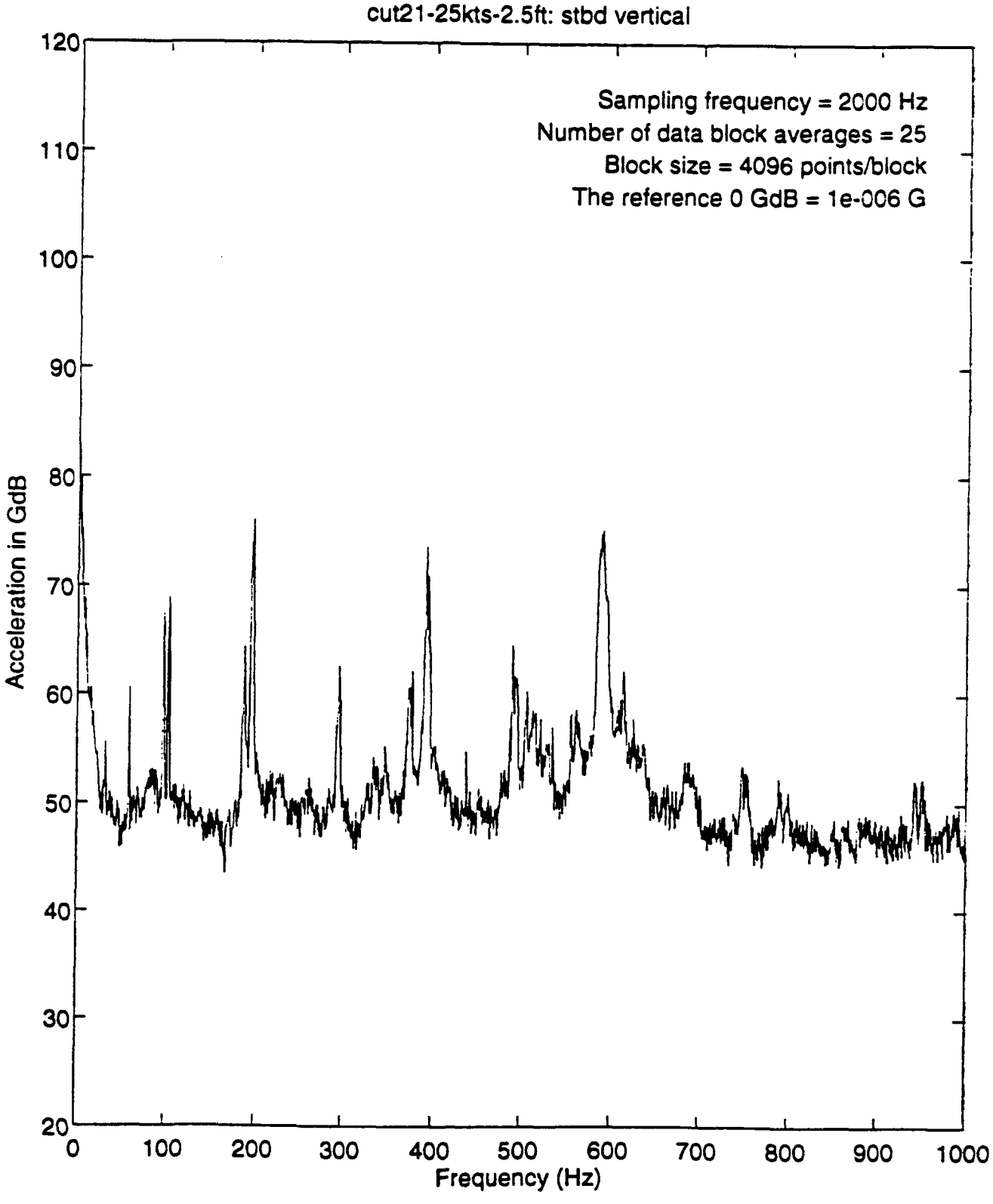
* The time domain

Mean value = -0.001856 G

Standard deviation = 0.143 G

The plot shows 1024 data points



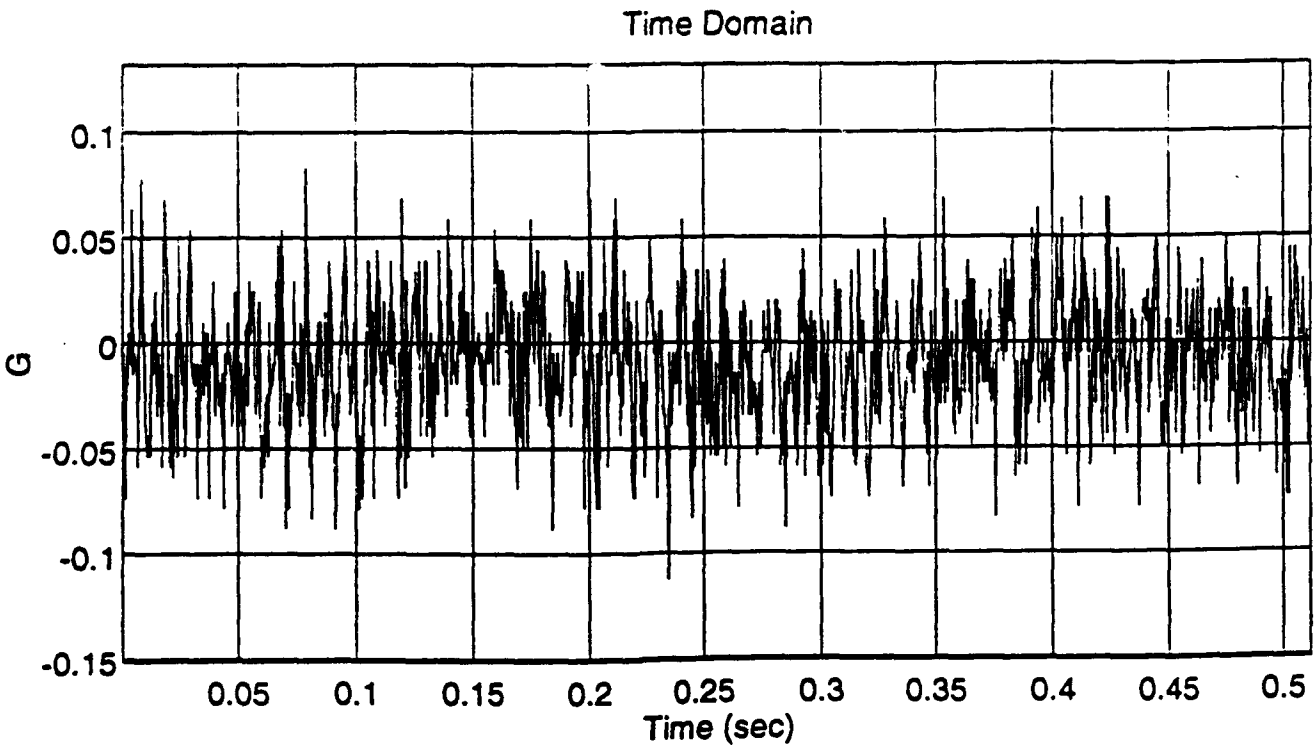

cut21-25kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

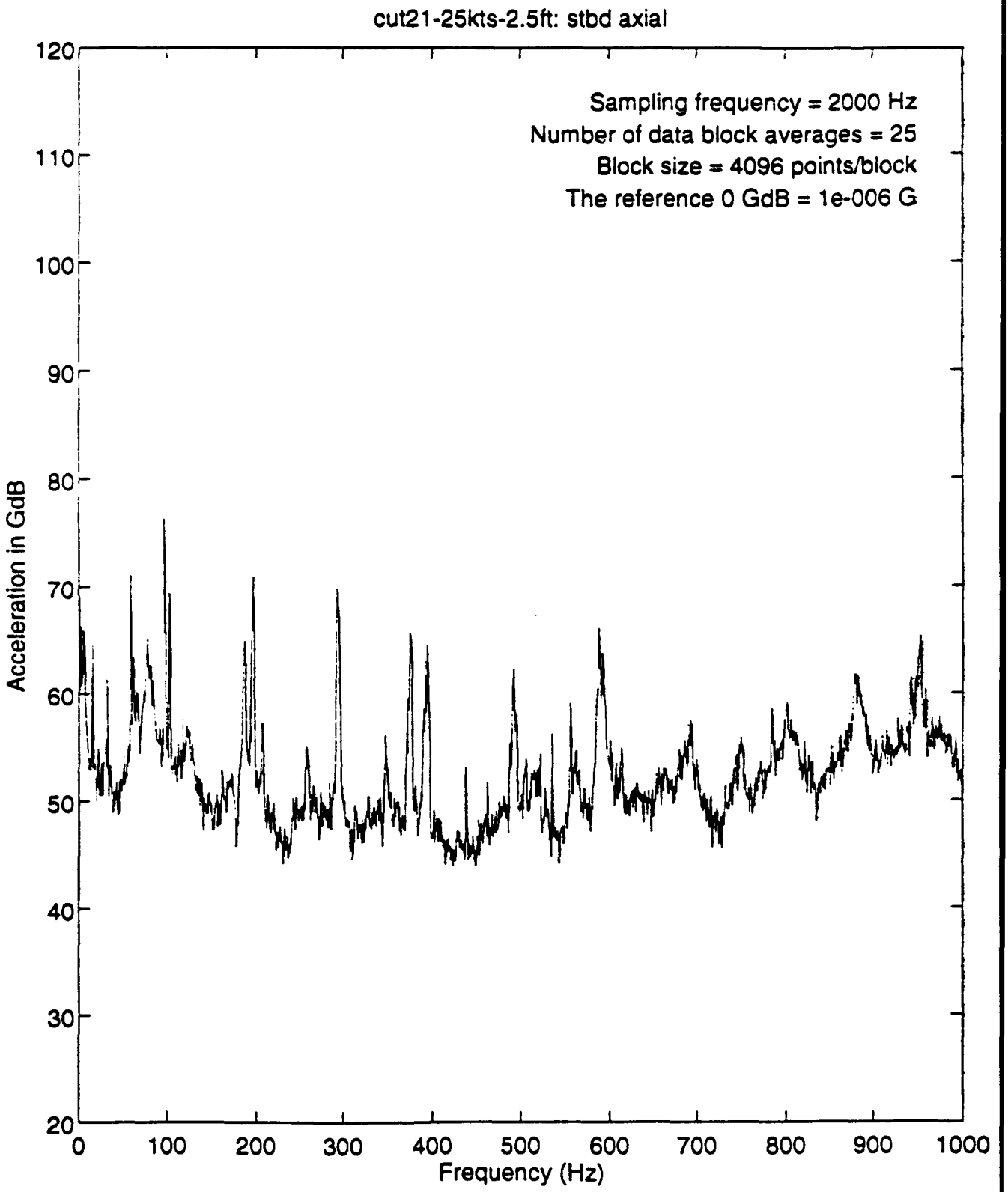
cut21-25kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.008223 G
Standard deviation = 0.03278 G
The plot shows 1024 data points



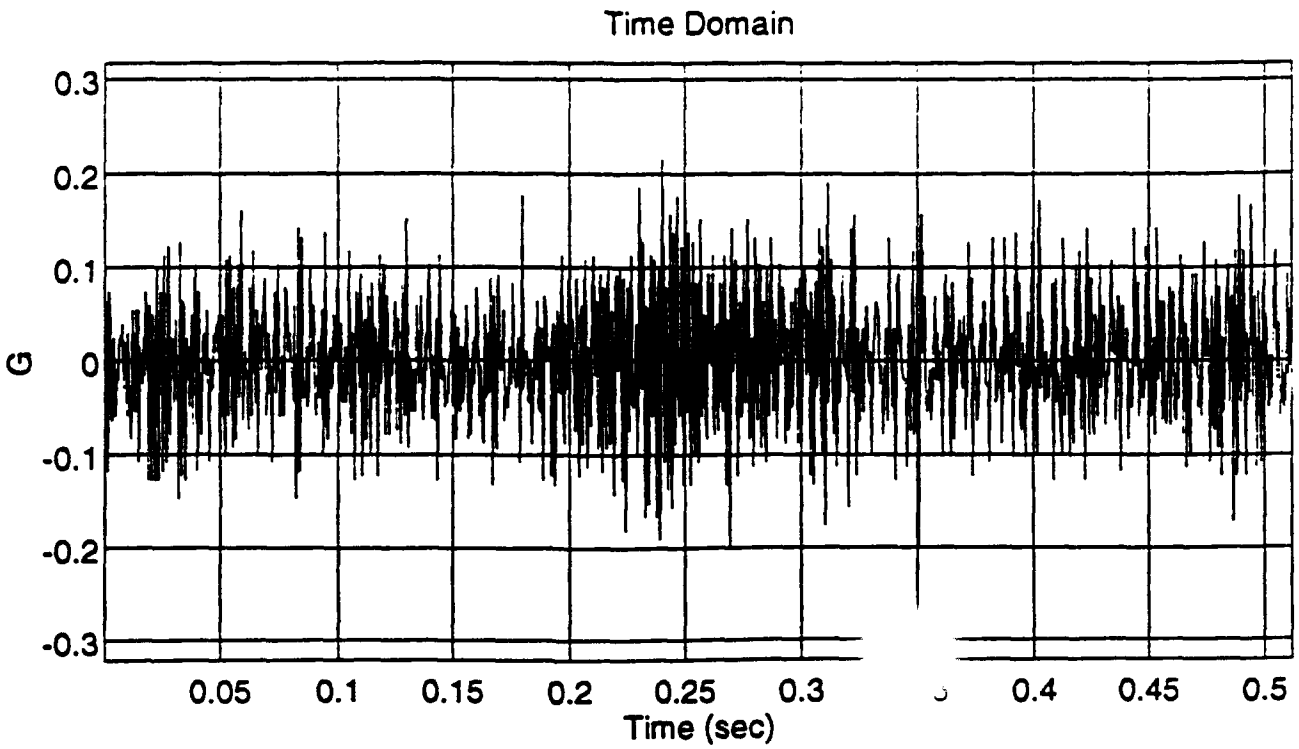

cut21-25kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

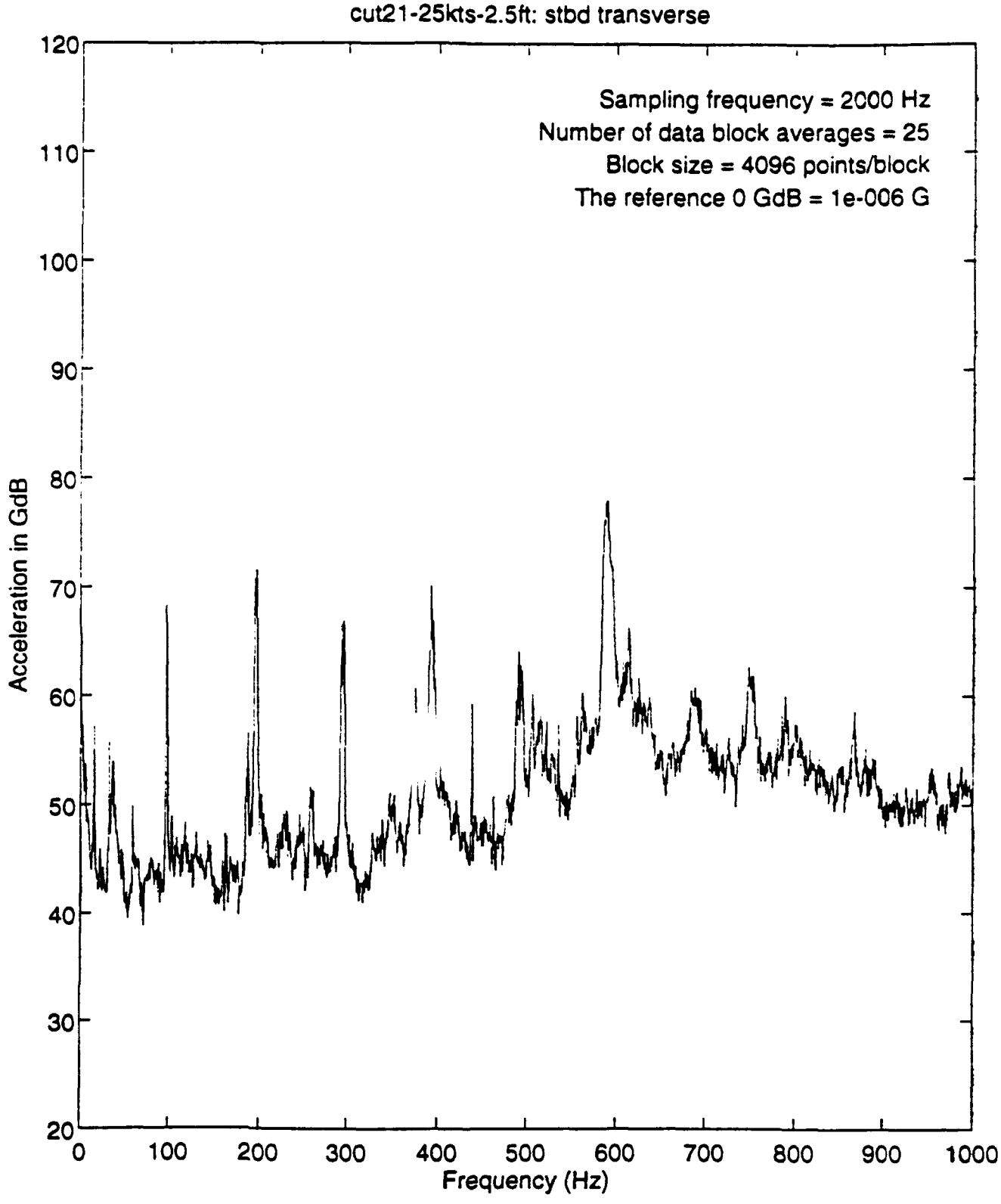
cut21-25kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004448 G
Standard deviation = 0.07815 G
The plot shows 1024 data points



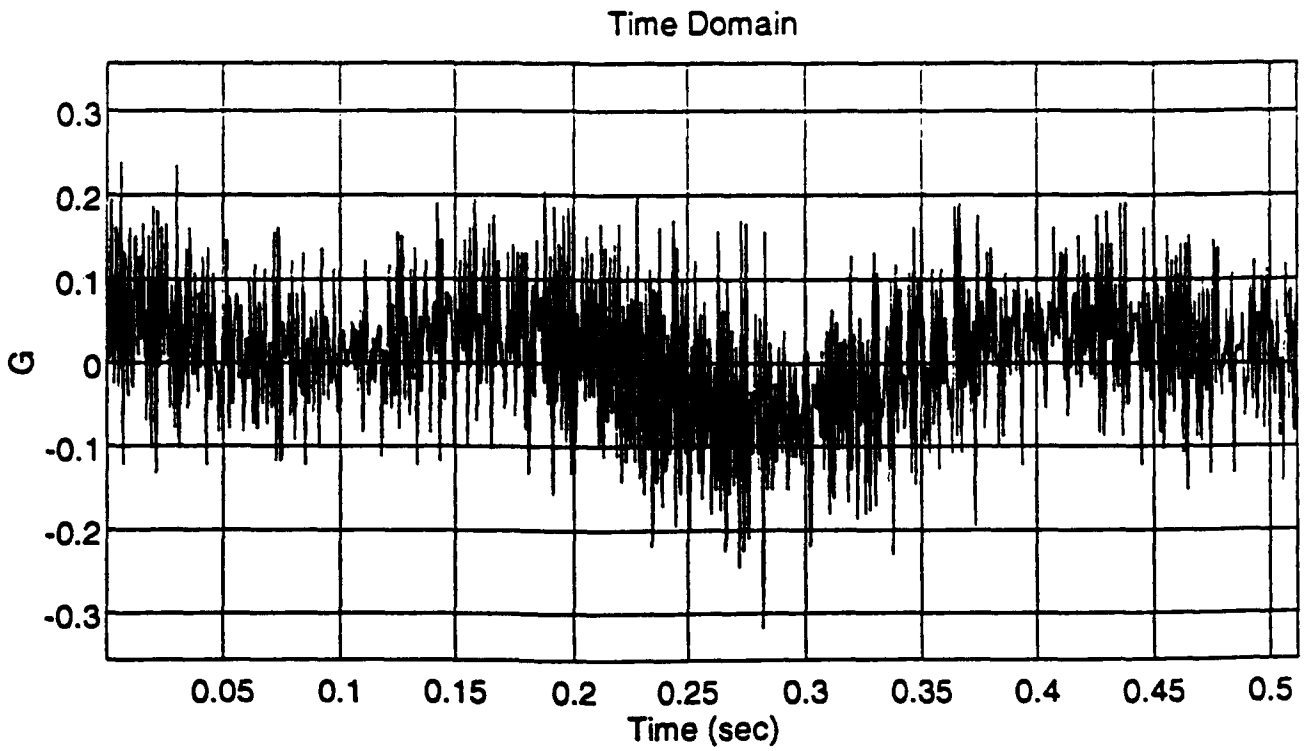

cut21-25kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

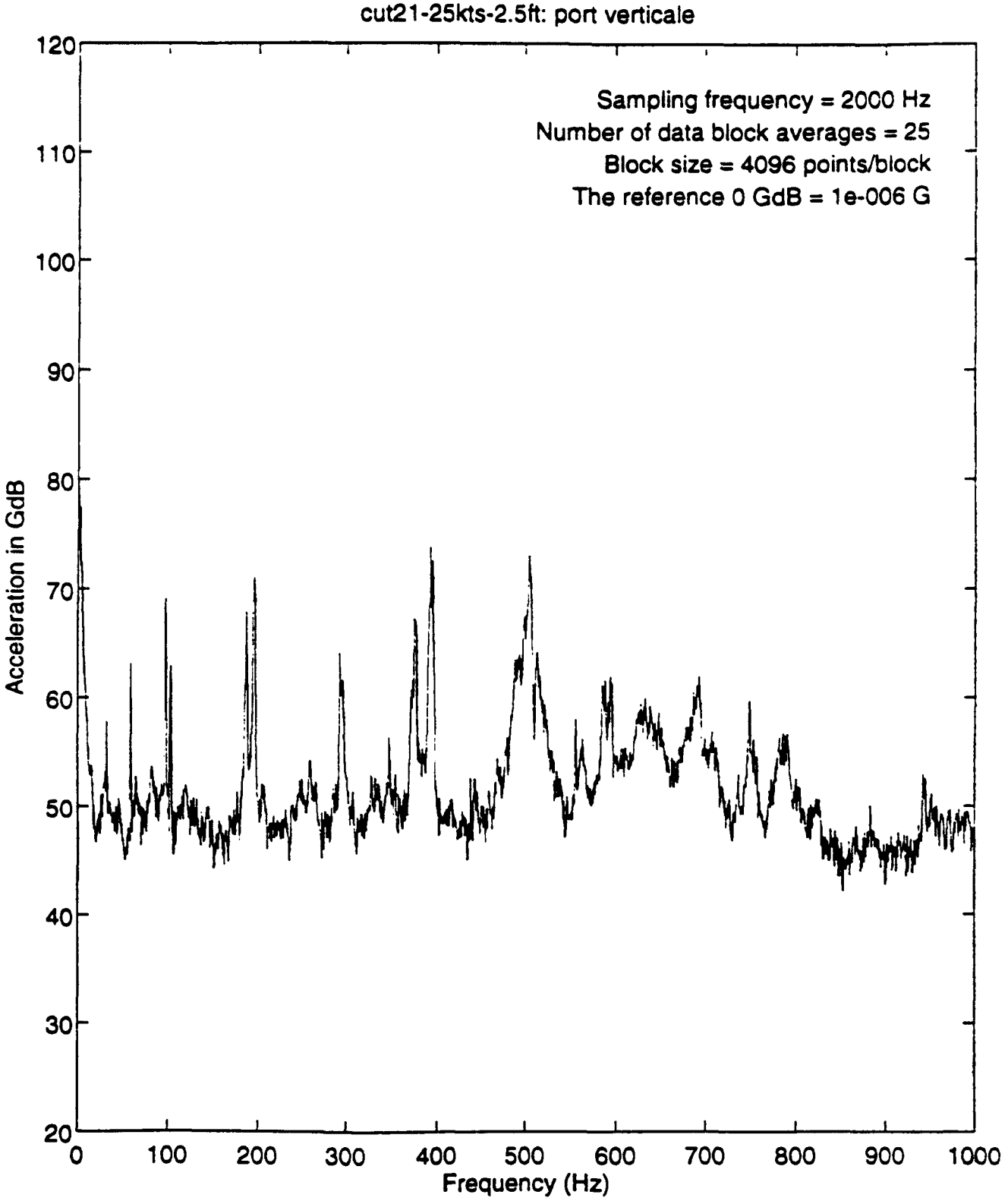
cut21-25kts-2.5ft: port verticale

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001224 G
Standard deviation = 0.07974 G
The plot shows 1024 data points




cut21-25kts-2.5ft: port verticale
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut21-25kts-2.5ft: port axial

Data sampling frequency = 2000 Hz

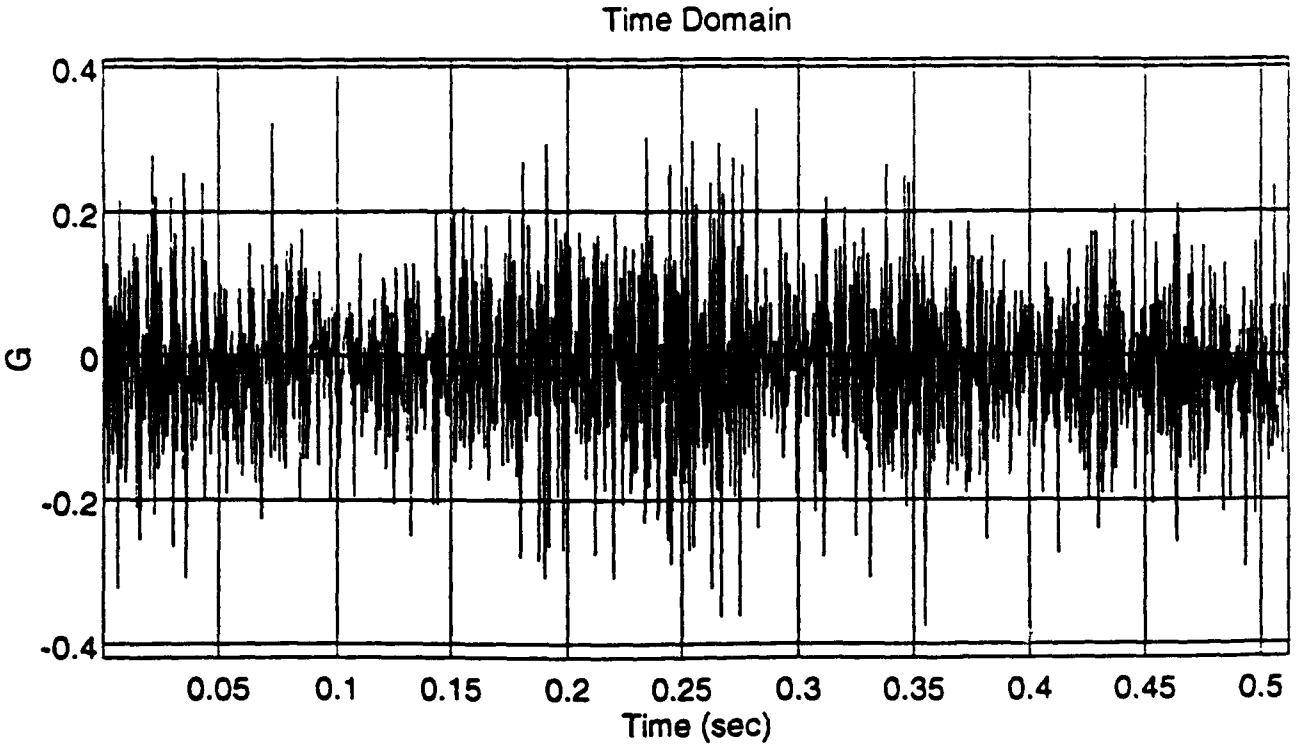
Total number of sampling data points = 1.024e+005

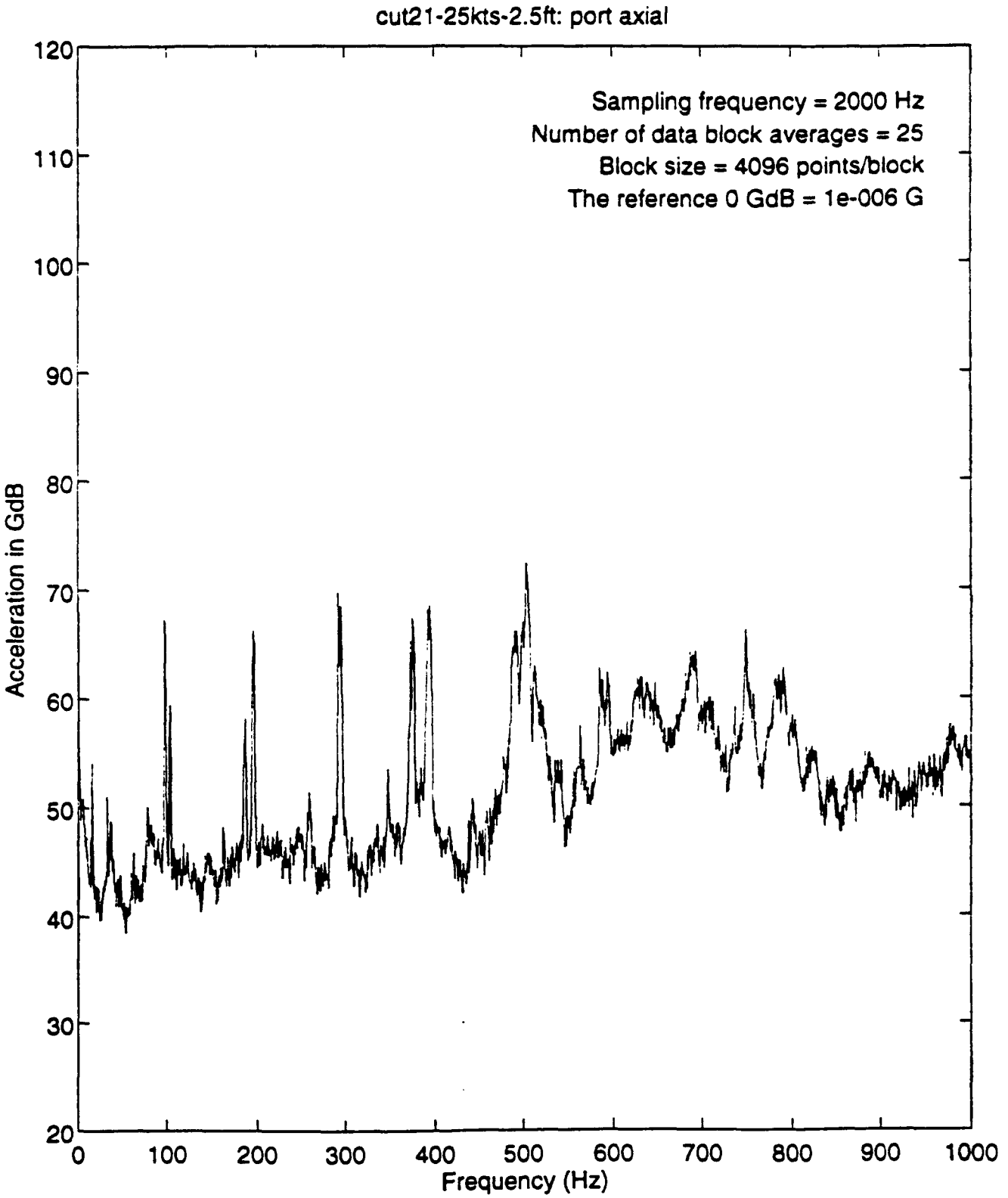
* The time domain

Mean value = -0.00978 G

Standard deviation = 0.0946 G

The plot shows 1024 data points



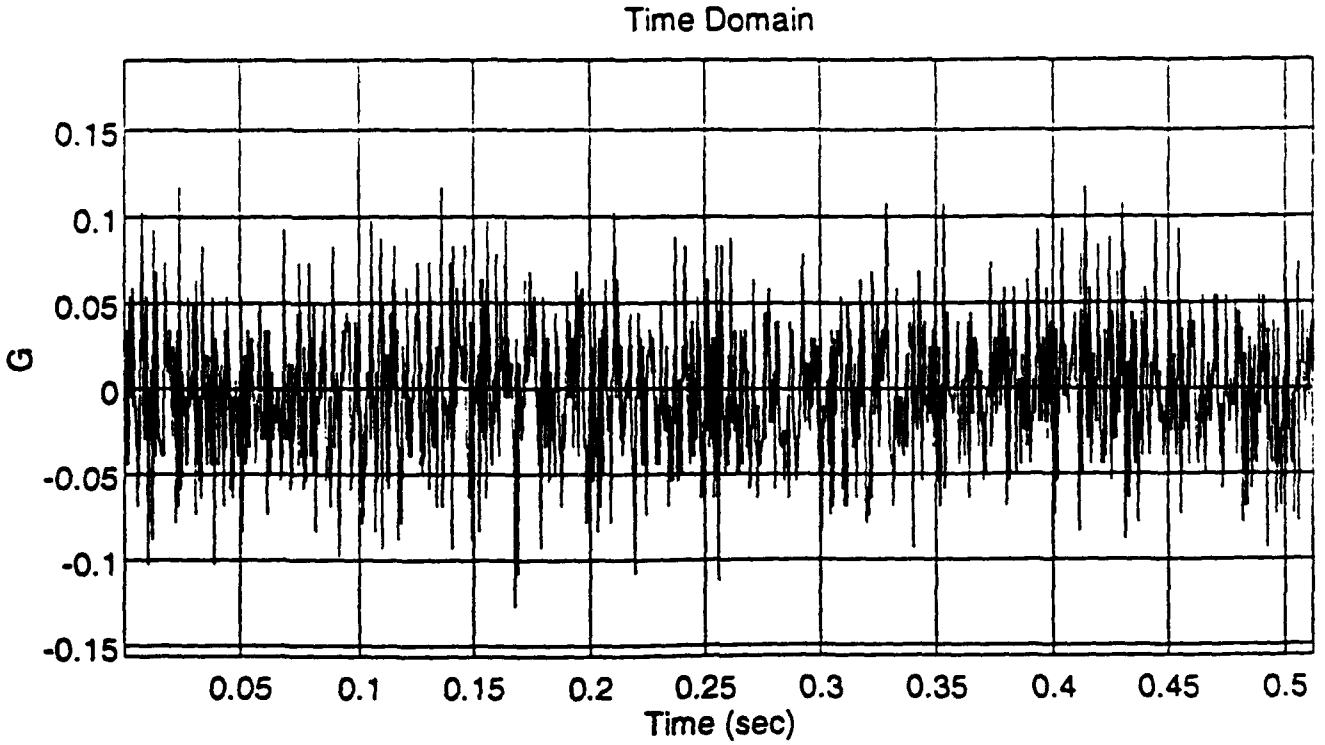

cut21-25kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

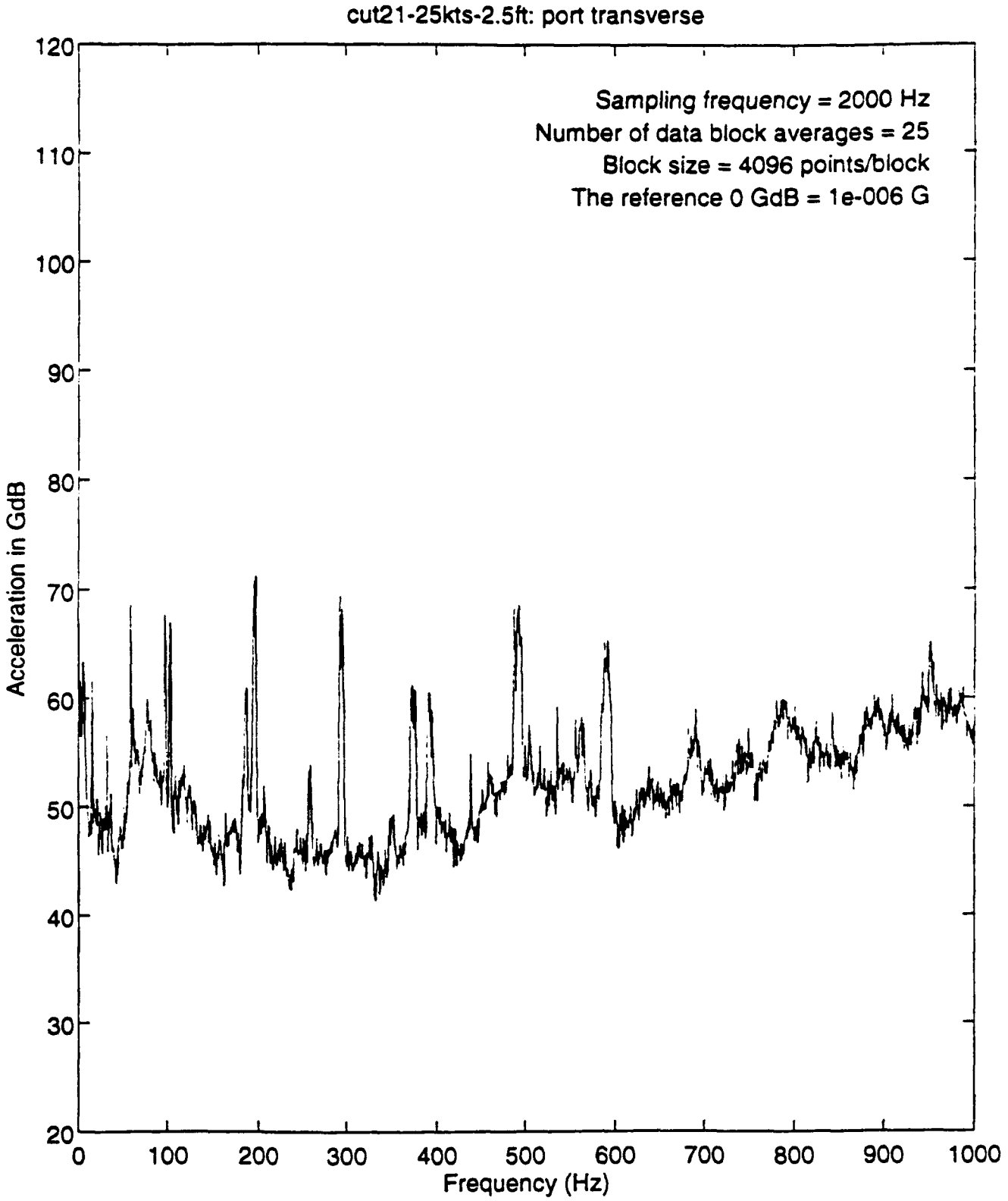
cut21-25kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003377 G
Standard deviation = 0.04006 G
The plot shows 1024 data points



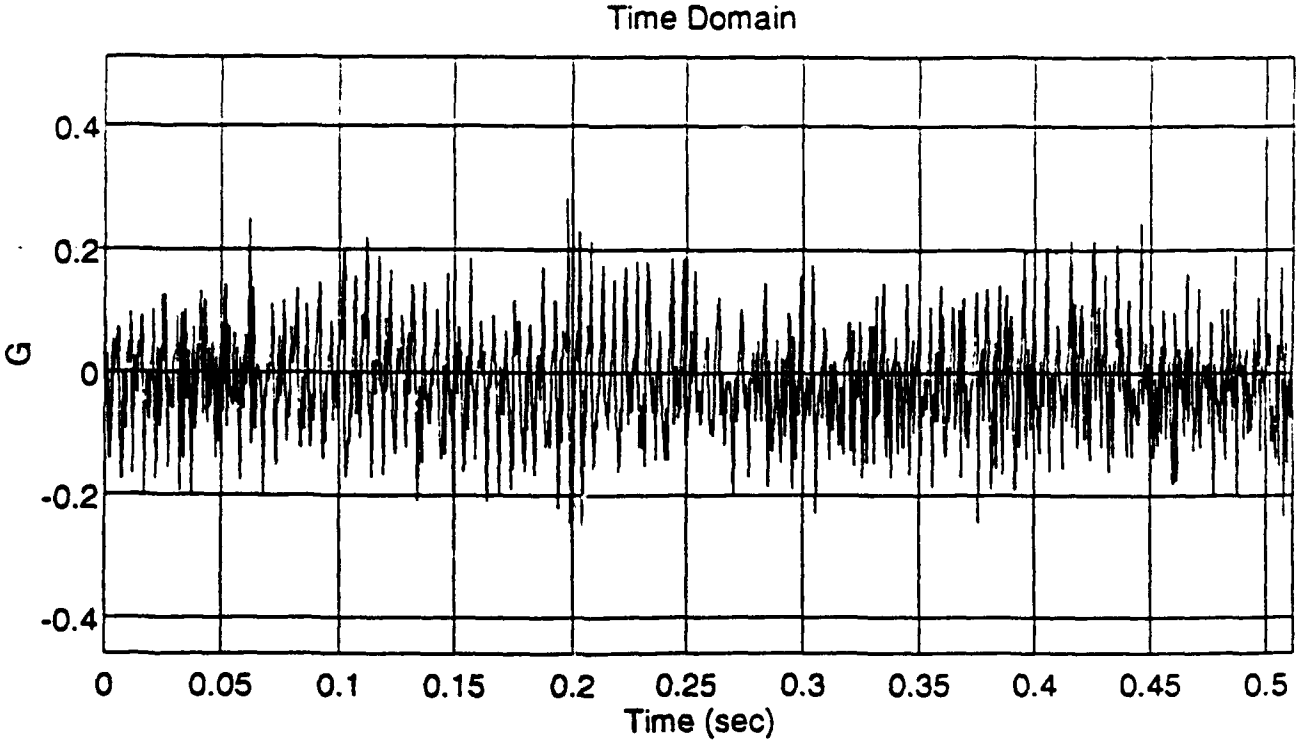

cut21-25kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

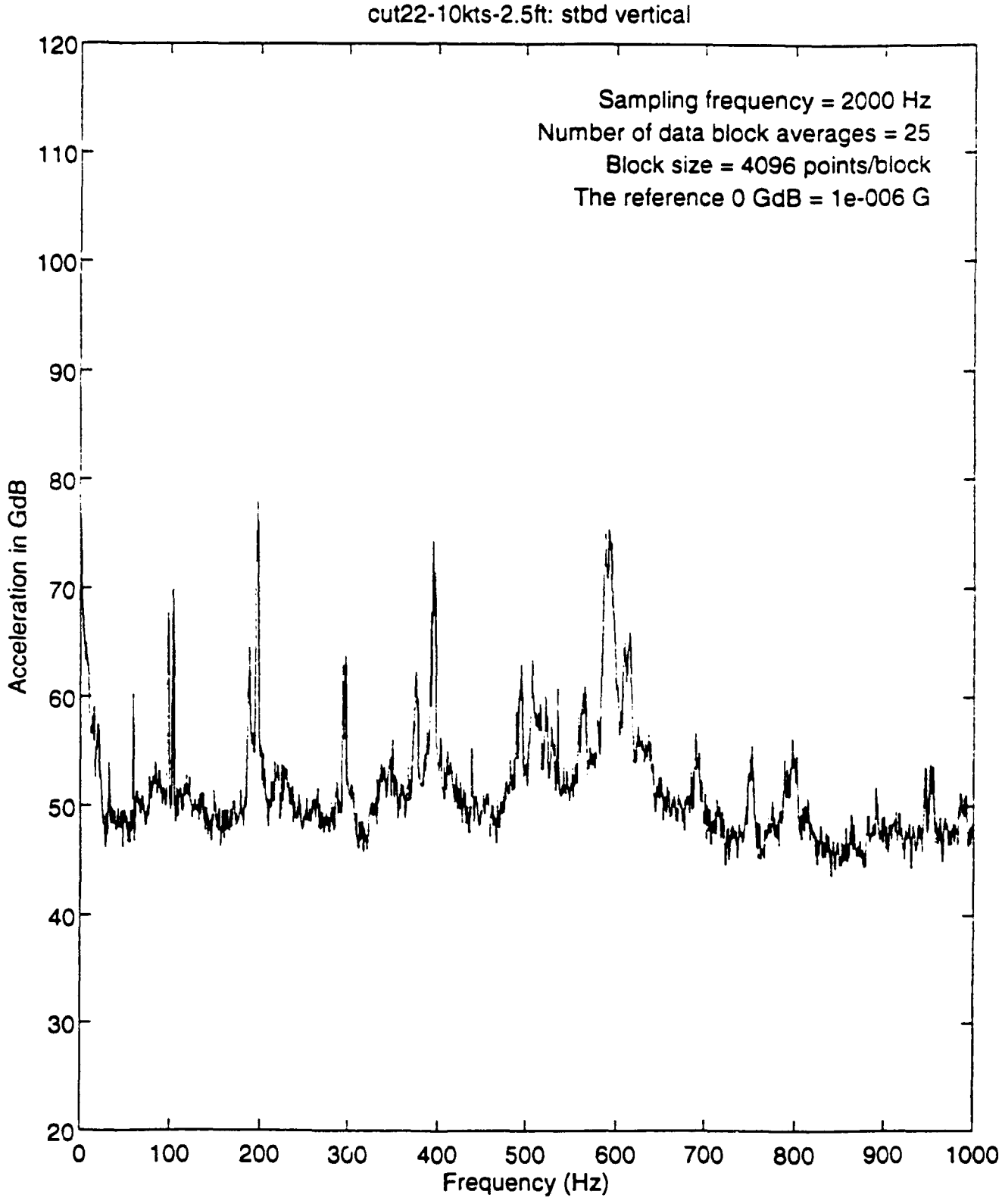
cut22-10kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004114 G
Standard deviation = 0.1105 G
The plot shows 1024 data points



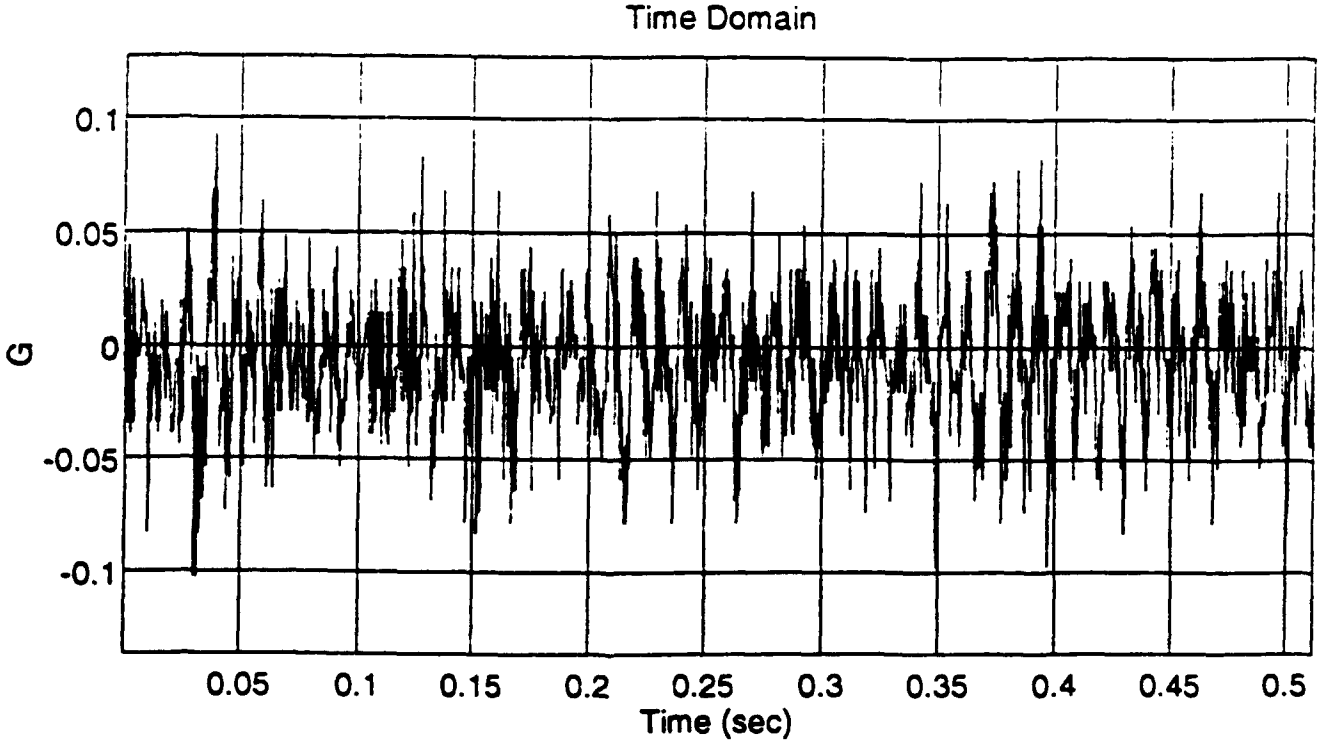

cut22-10kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

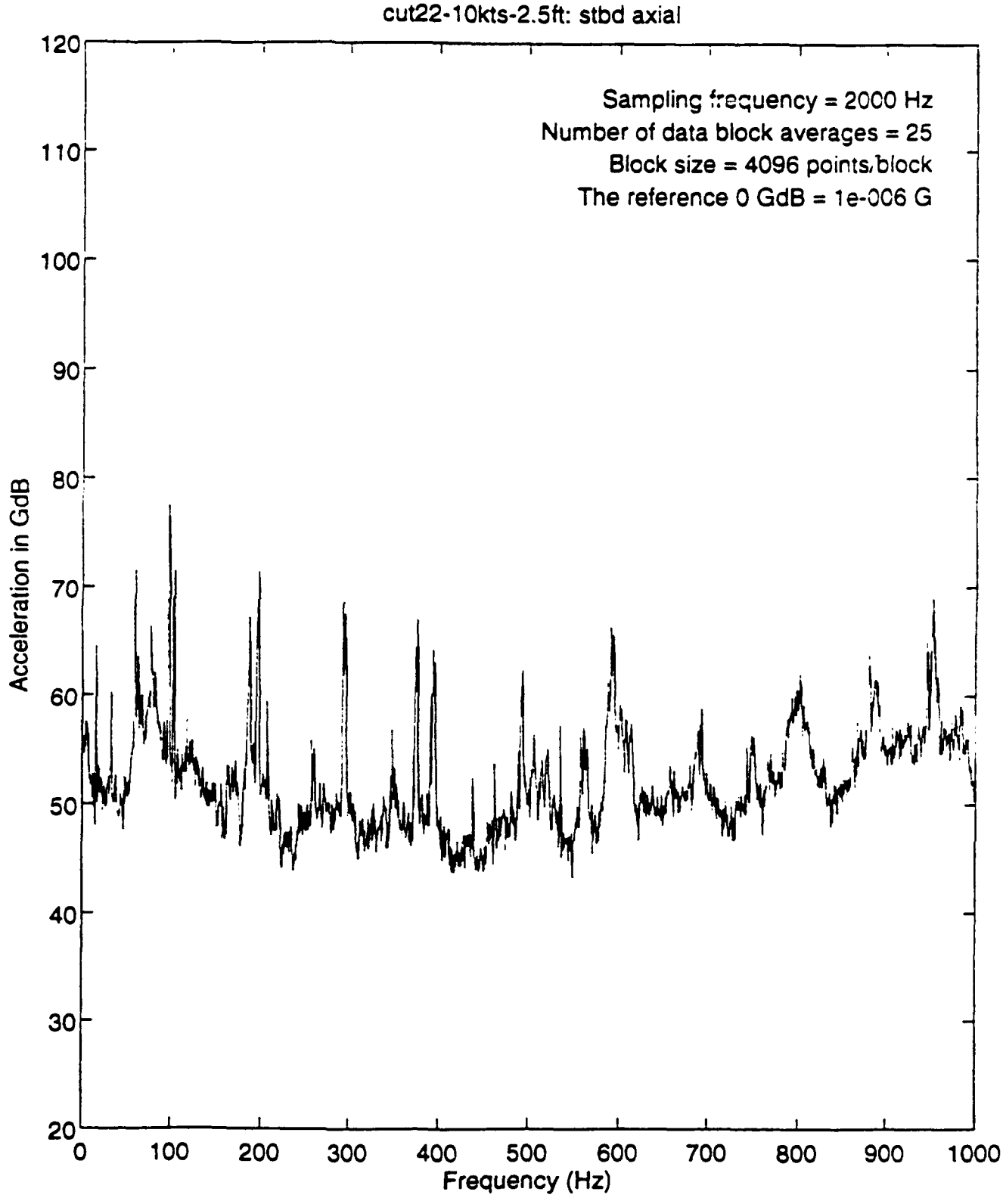
cut22-10kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.001426 G
Standard deviation = 0.032 G
The plot shows 1024 data points



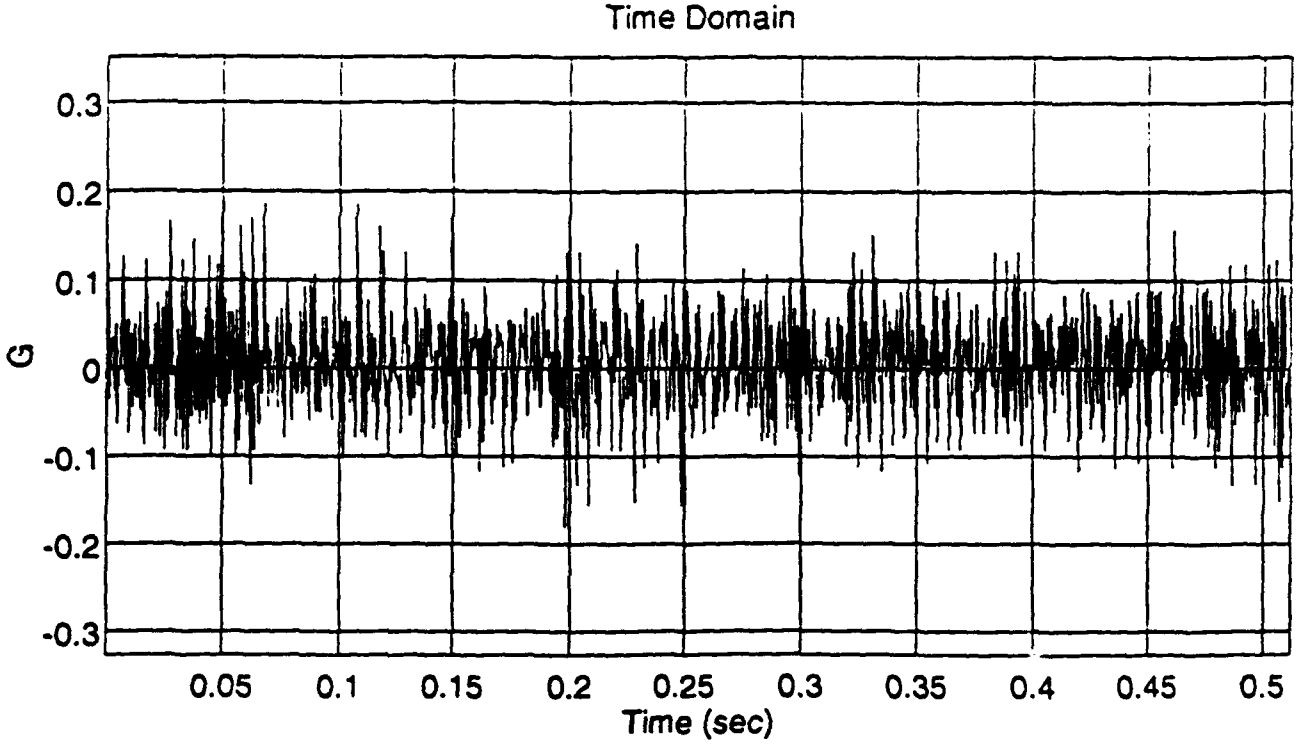

cut22-10kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

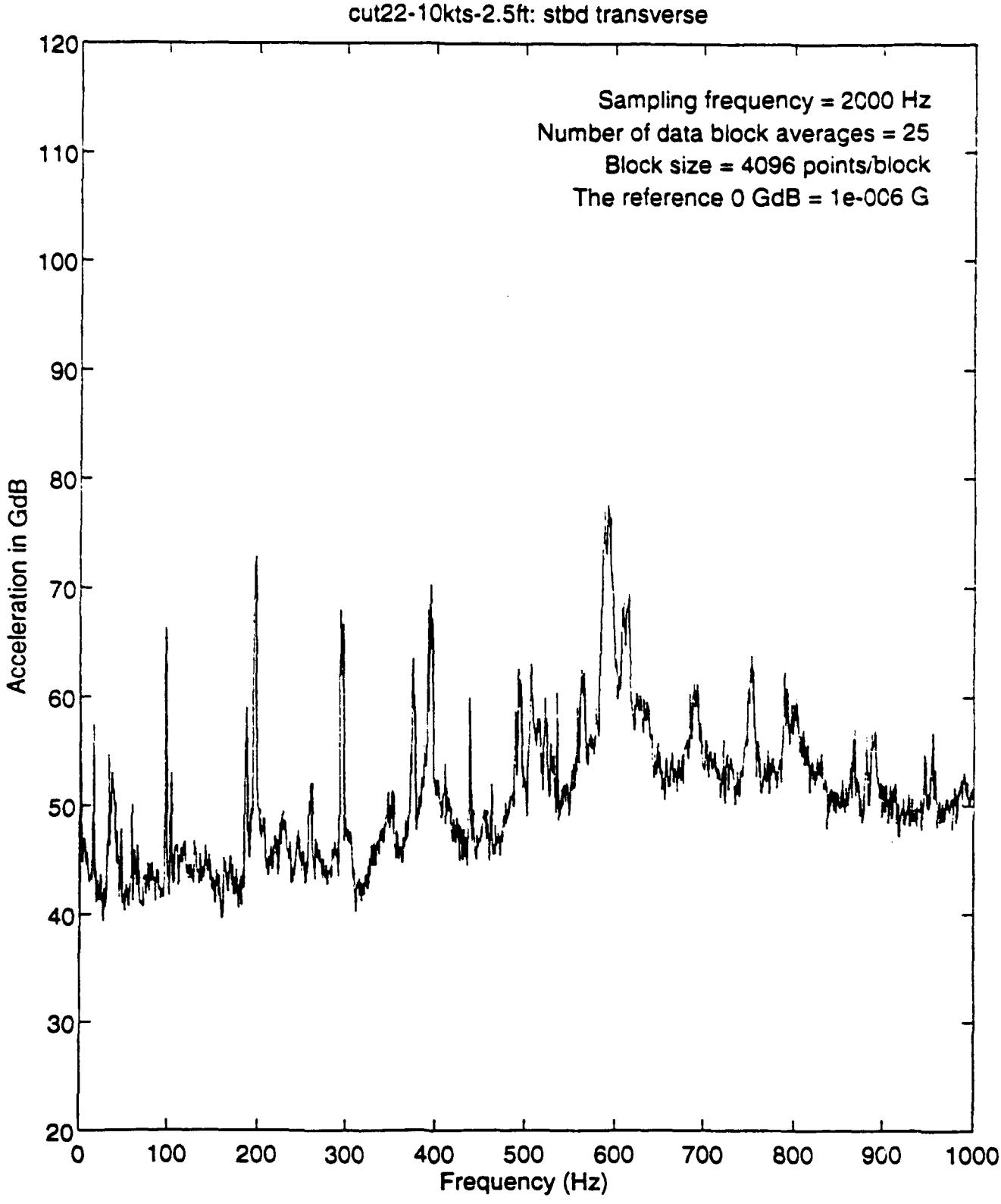
cut22-10kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002691 G
Standard deviation = 0.07573 G
The plot shows 1024 data points



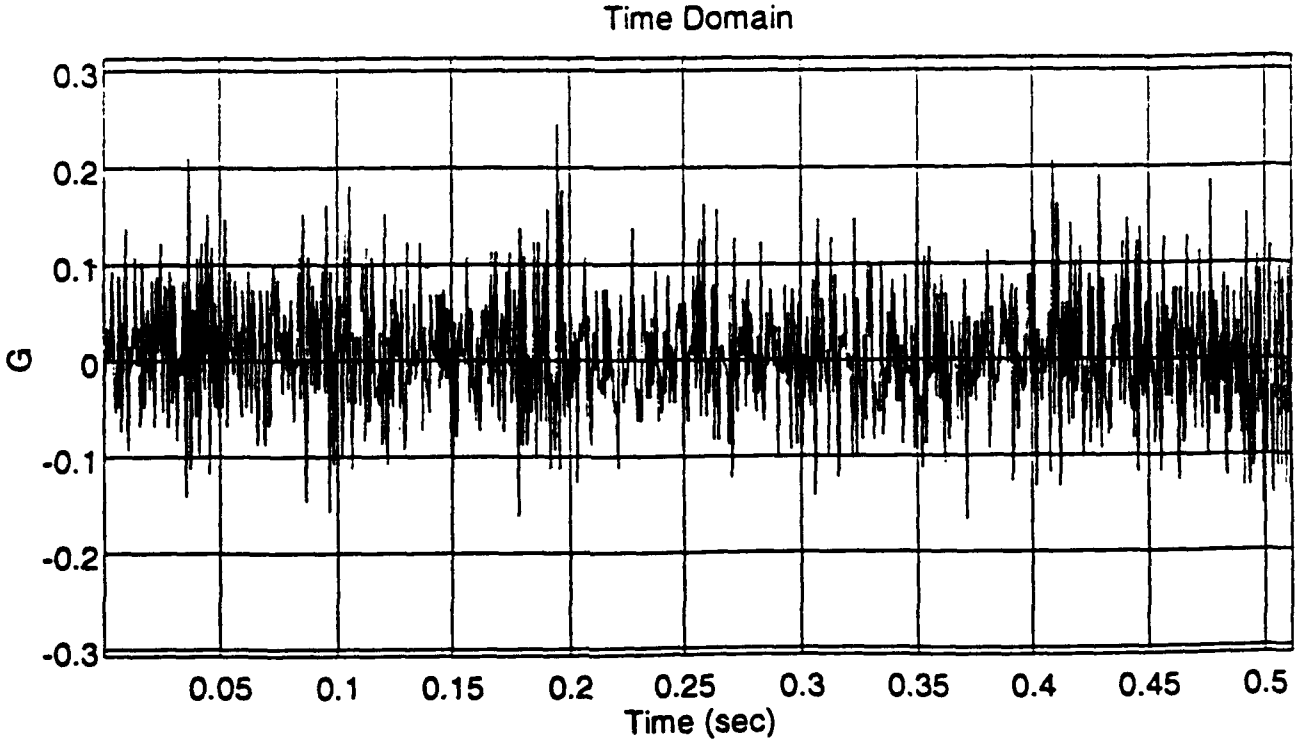

cut22-10kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

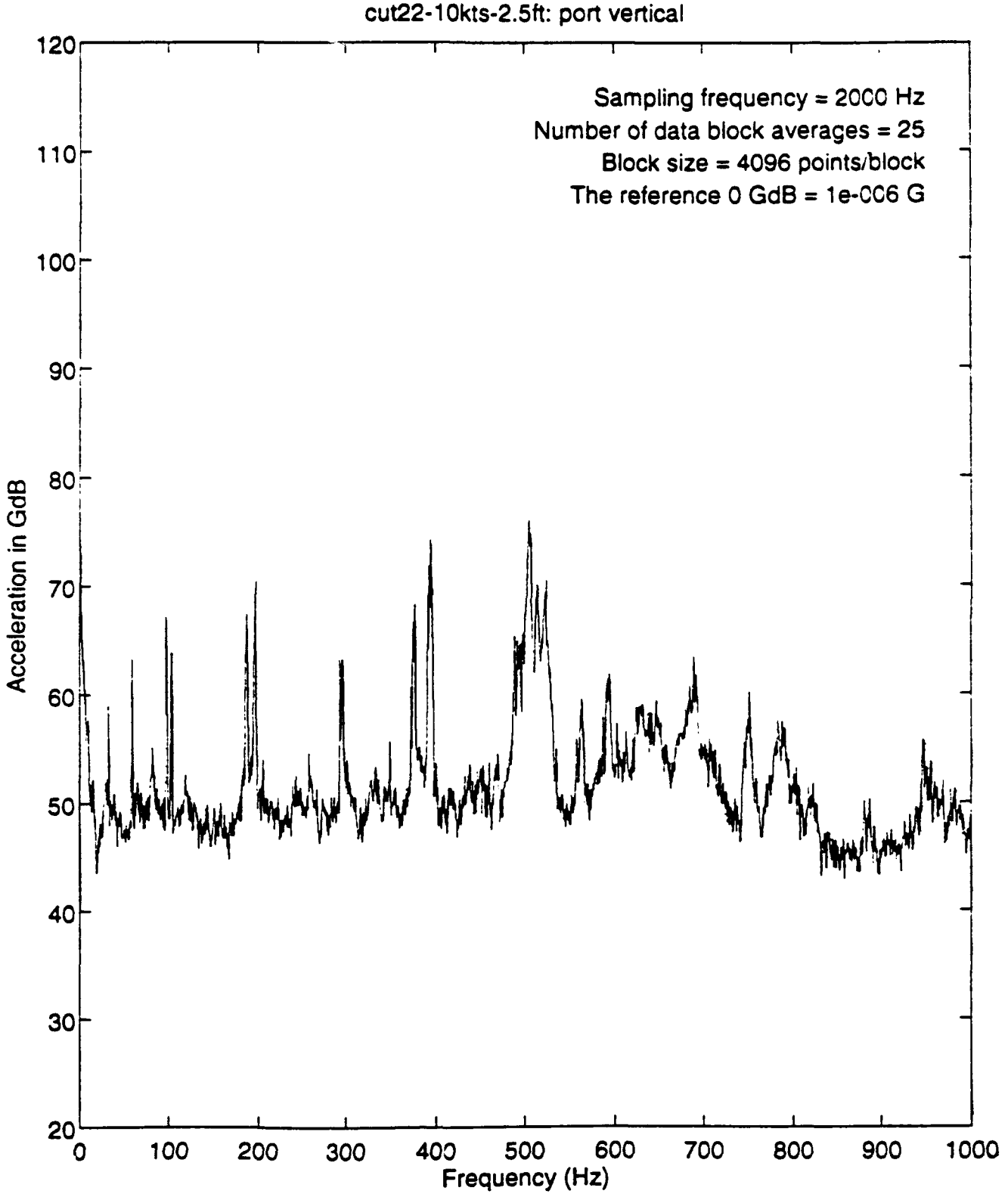
cut22-10kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004157 G
Standard deviation = 0.07039 G
The plot shows 1024 data points




cut22-10kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut22-10kts-2.5ft: port axial

Data sampling frequency = 2000 Hz

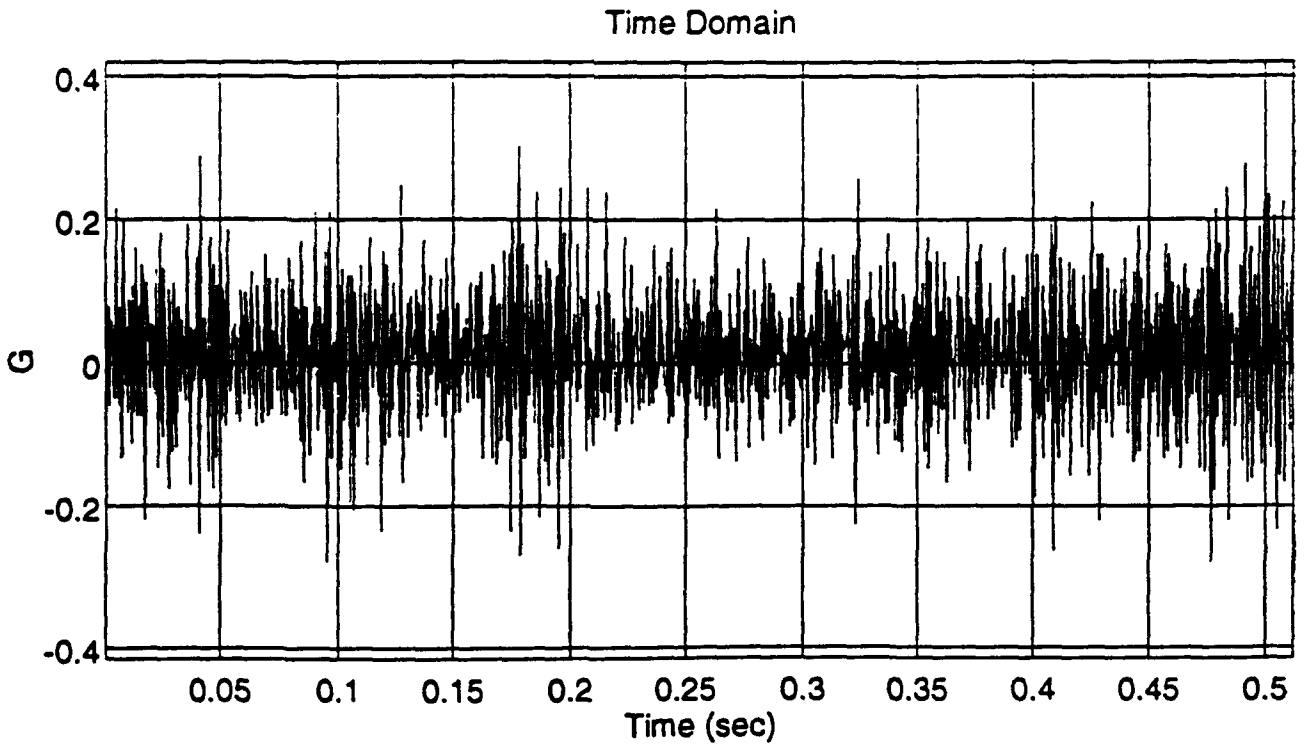
Total number of sampling data points = 1.024e+005

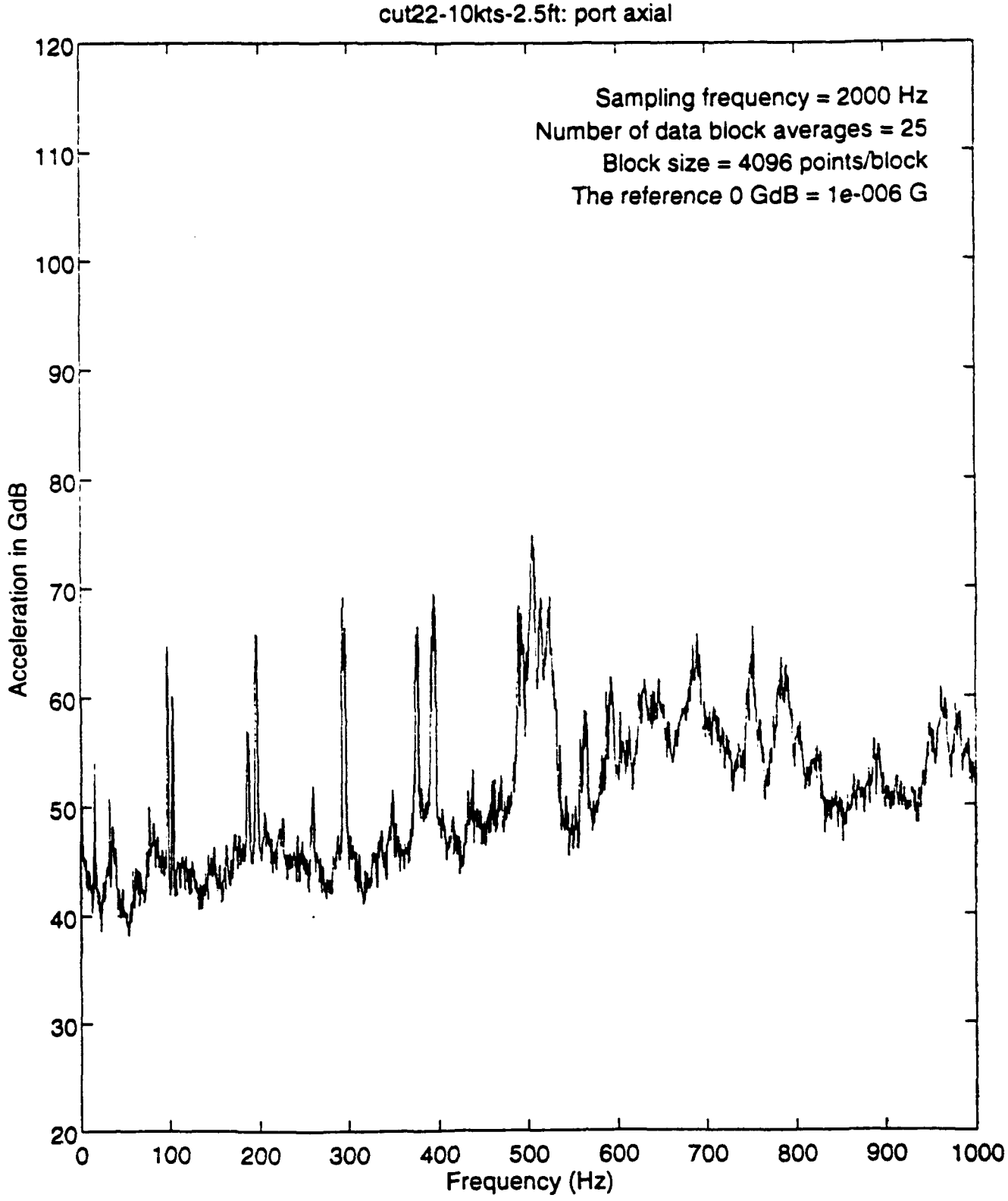
* The time domain

Mean value = -0.003256 G

Standard deviation = 0.1004 G

The plot shows 1024 data points



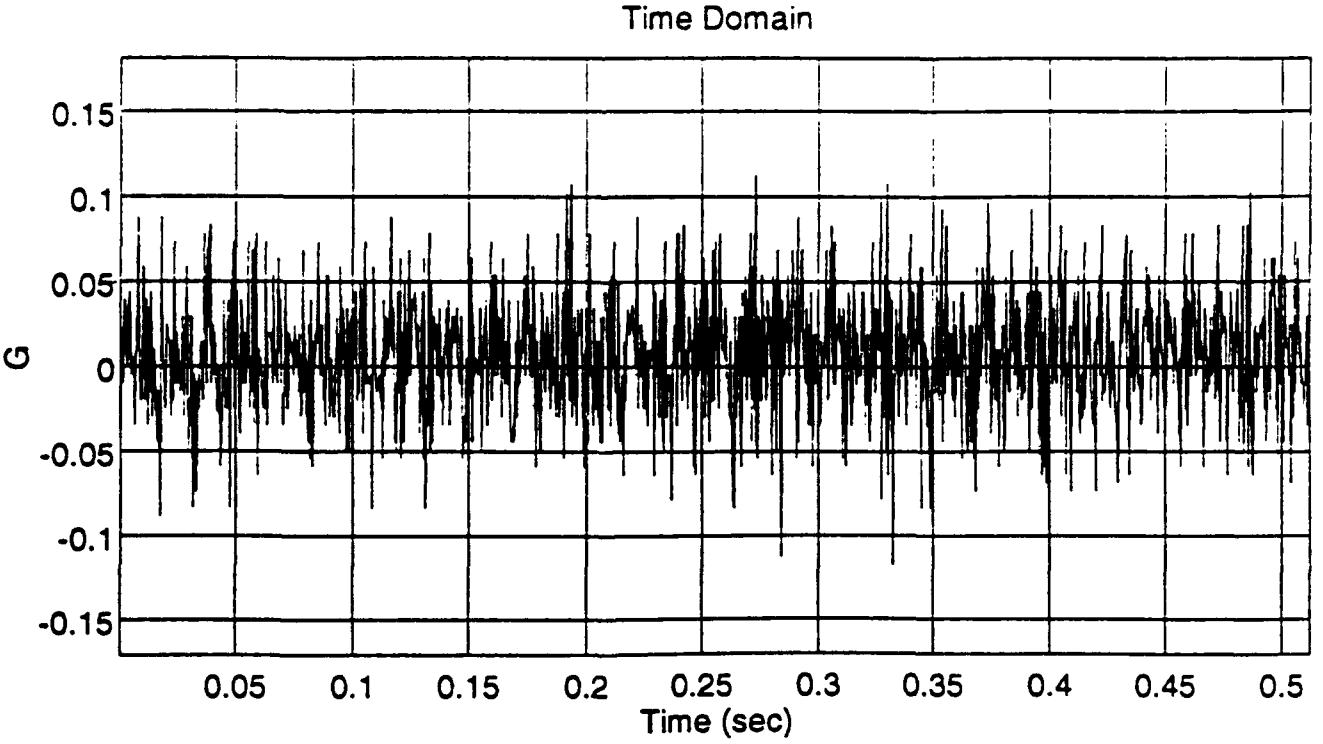

cut22-10kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

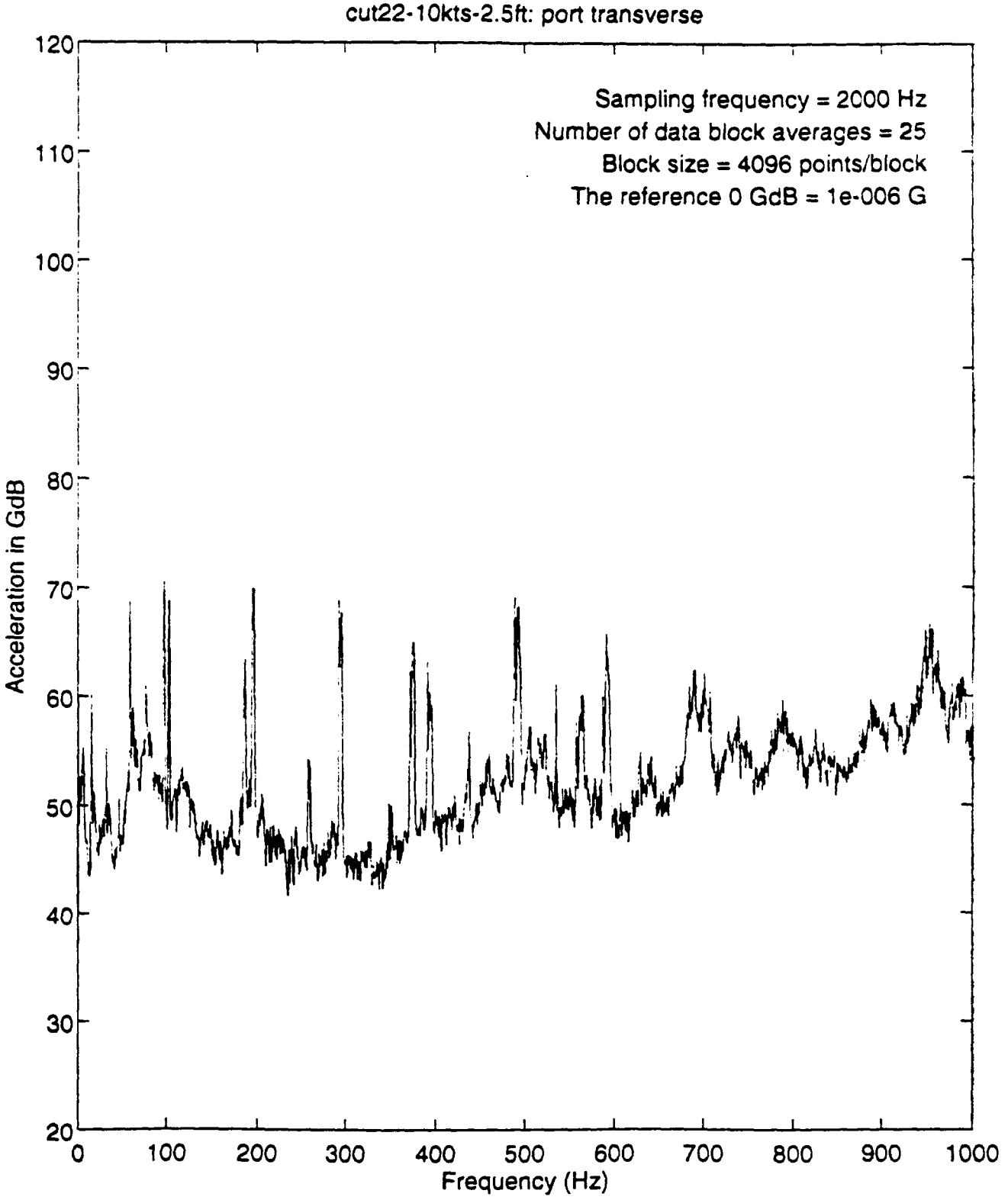
cut22-10kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.0009181 G
Standard deviation = 0.03994 G
The plot shows 1024 data points




cut22-10kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut23-36kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

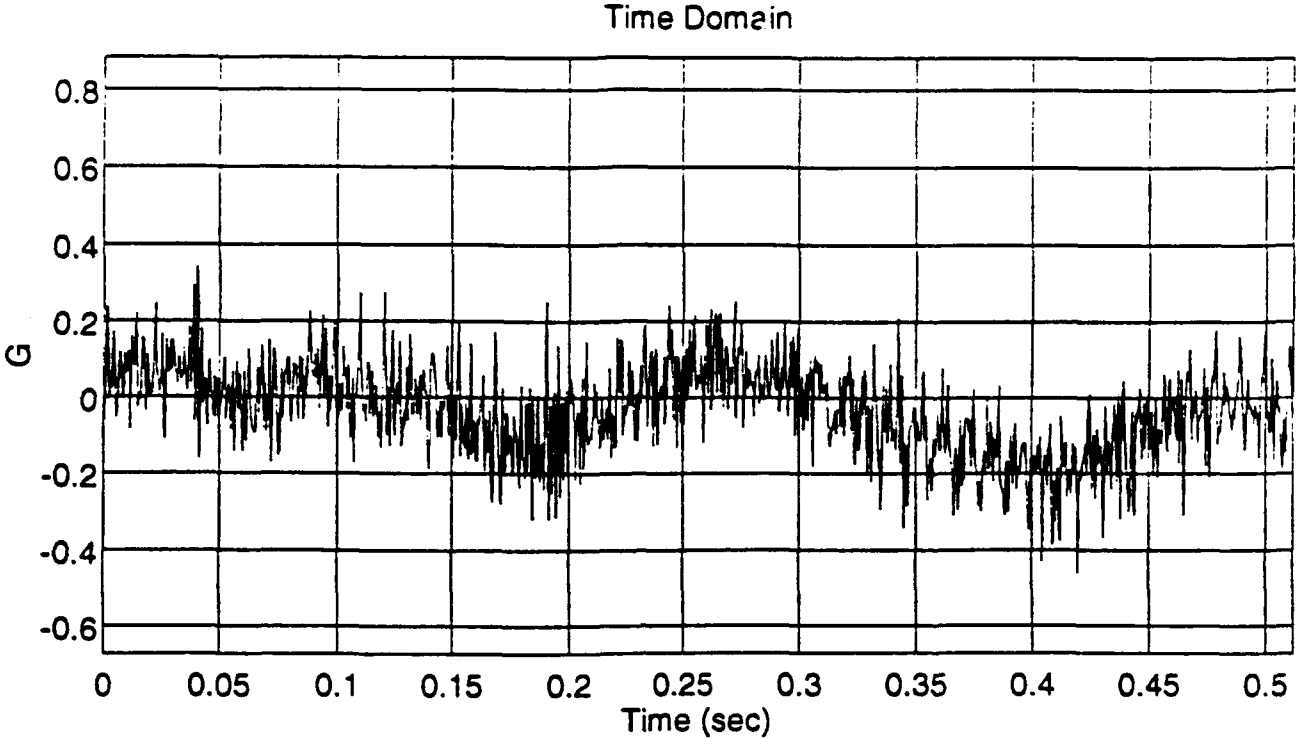
Total number of sampling data points = 1.024e+005

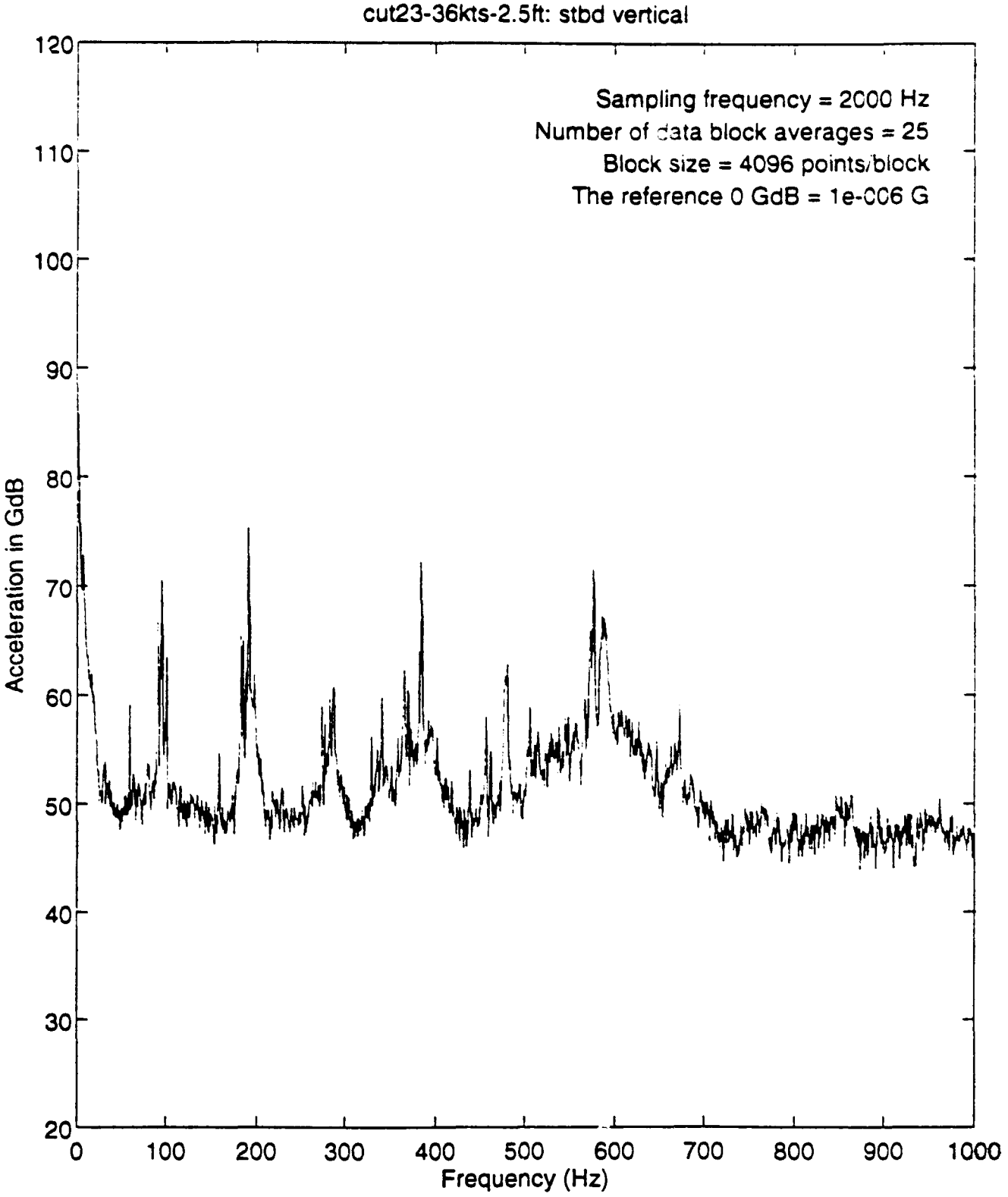
* The time domain

Mean value = -0.006317 G

Standard deviation = 0.1707 G

The plot shows 1024 data points



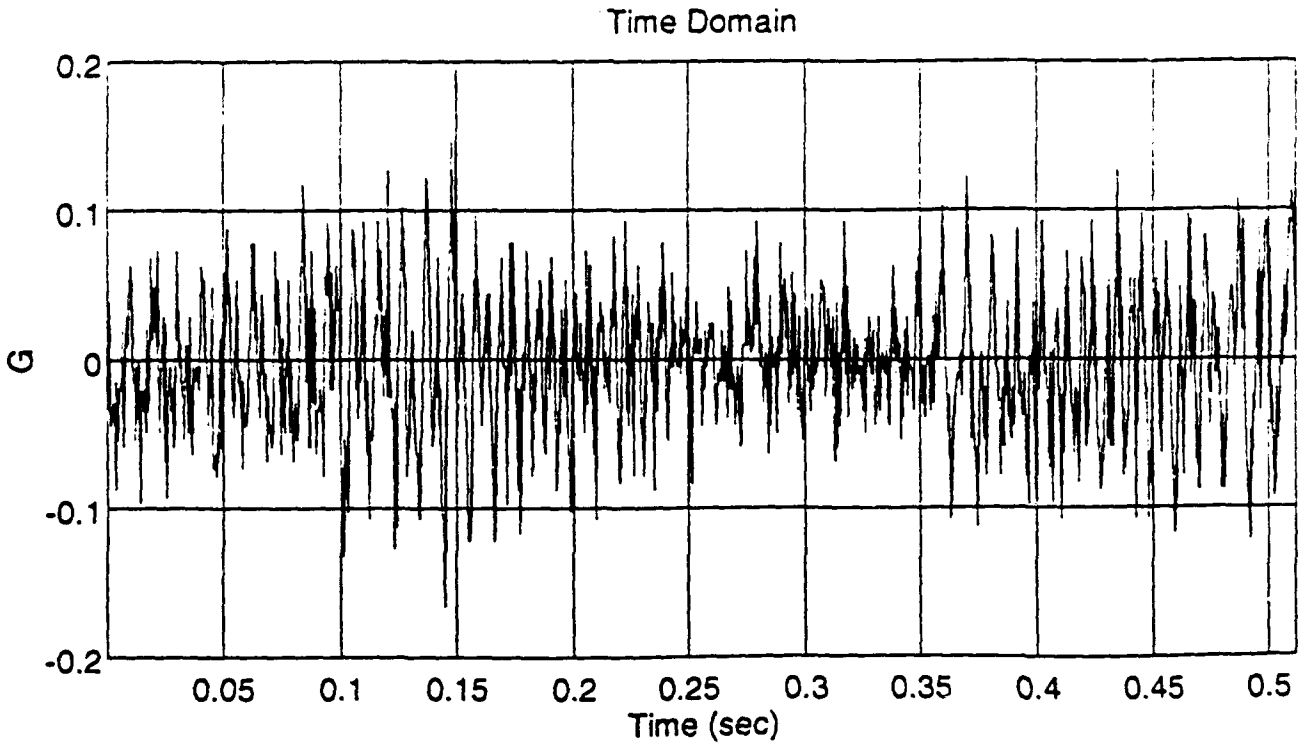

cut23-36kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

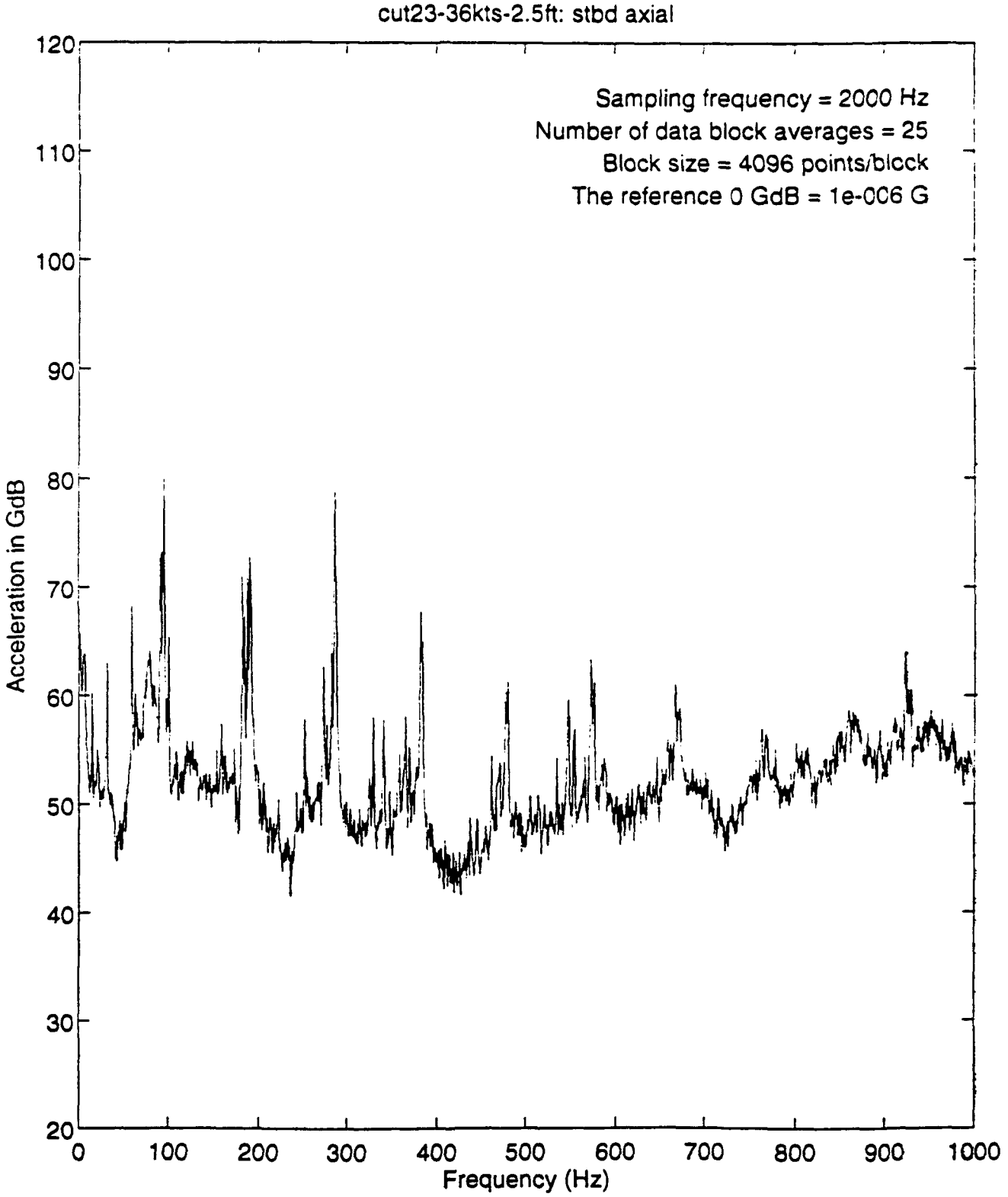
cut23-36kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+C05

* The time domain

Mean value = -0.00339 G
Standard deviation = 0.04875 G
The plot shows 1024 data points




cut23-36kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut23-36kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz

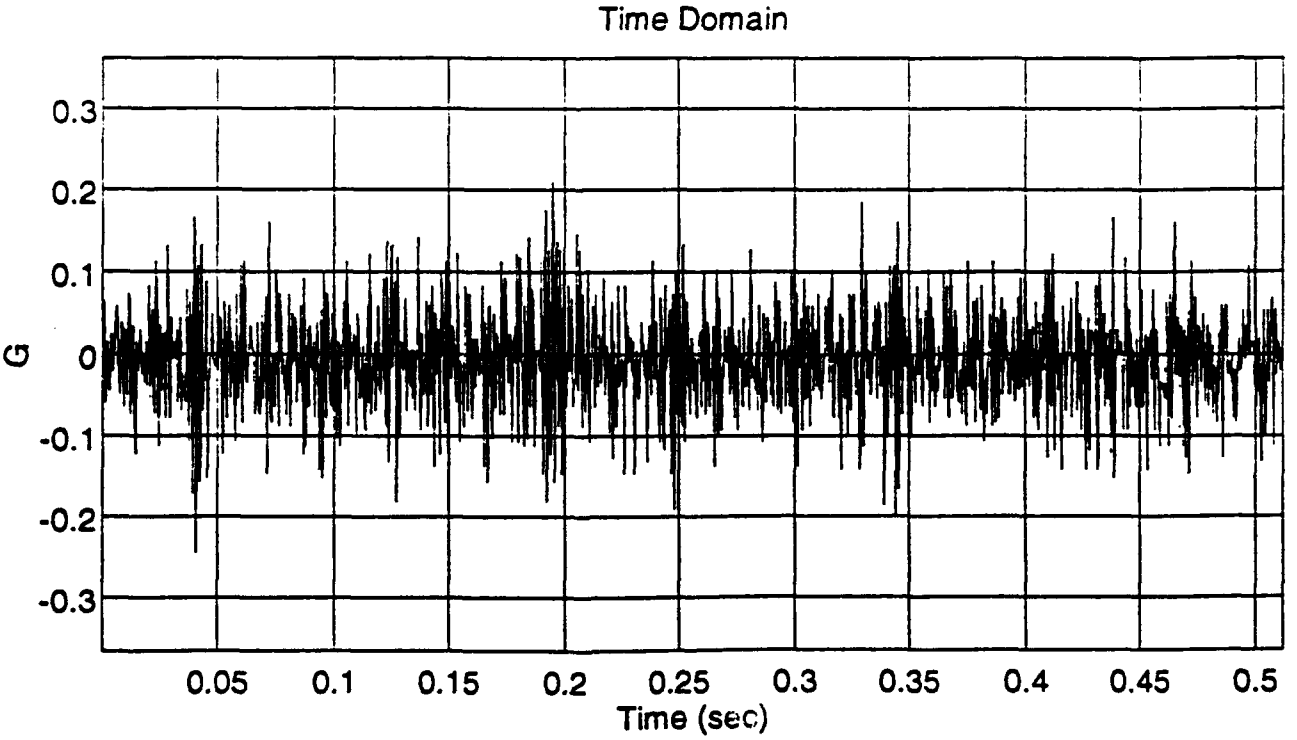
Total number of sampling data points = 1.024e+005

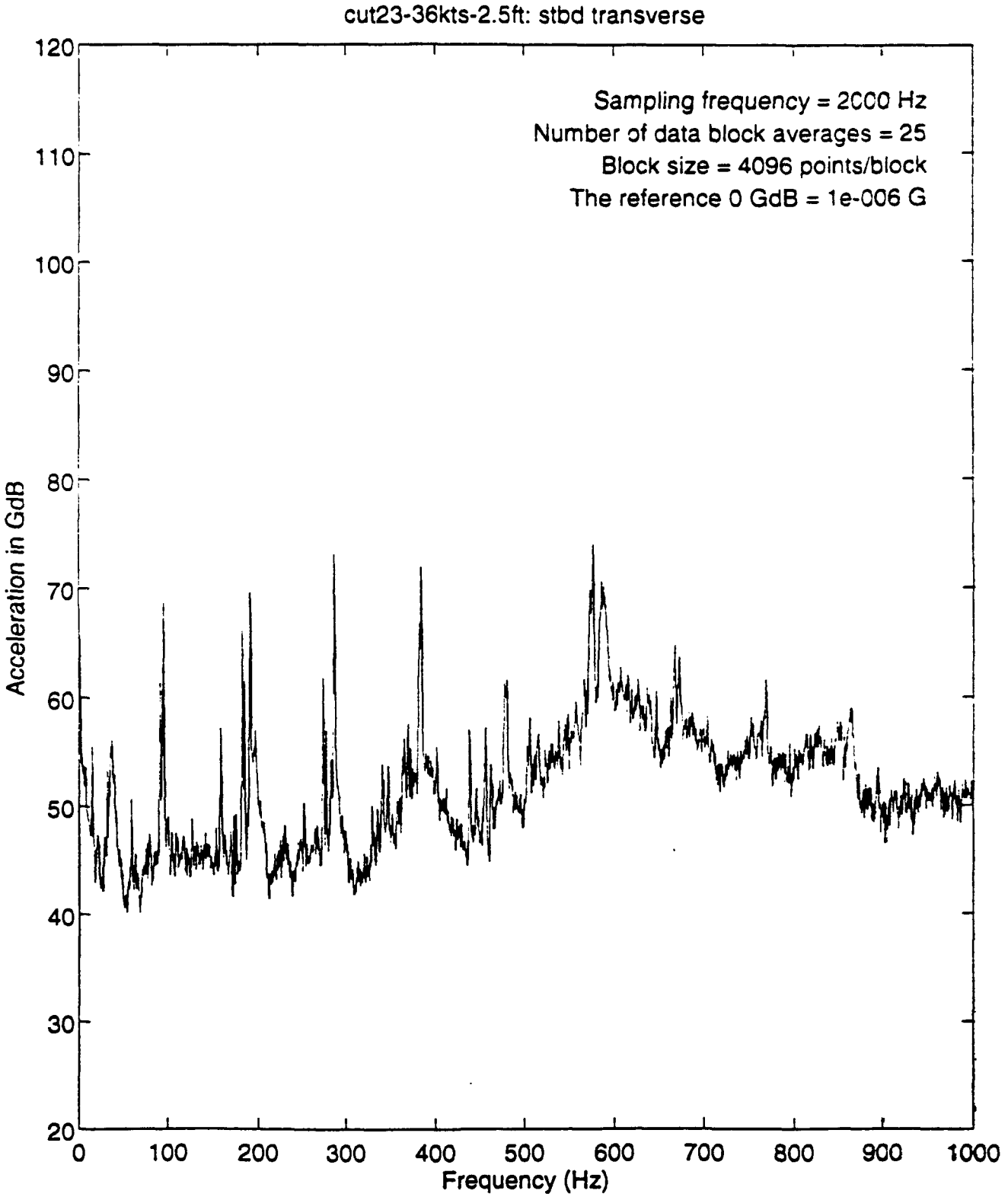
* The time domain

Mean value = -0.004388 G

Standard deviation = 0.07592 G

The plot shows 1024 data points



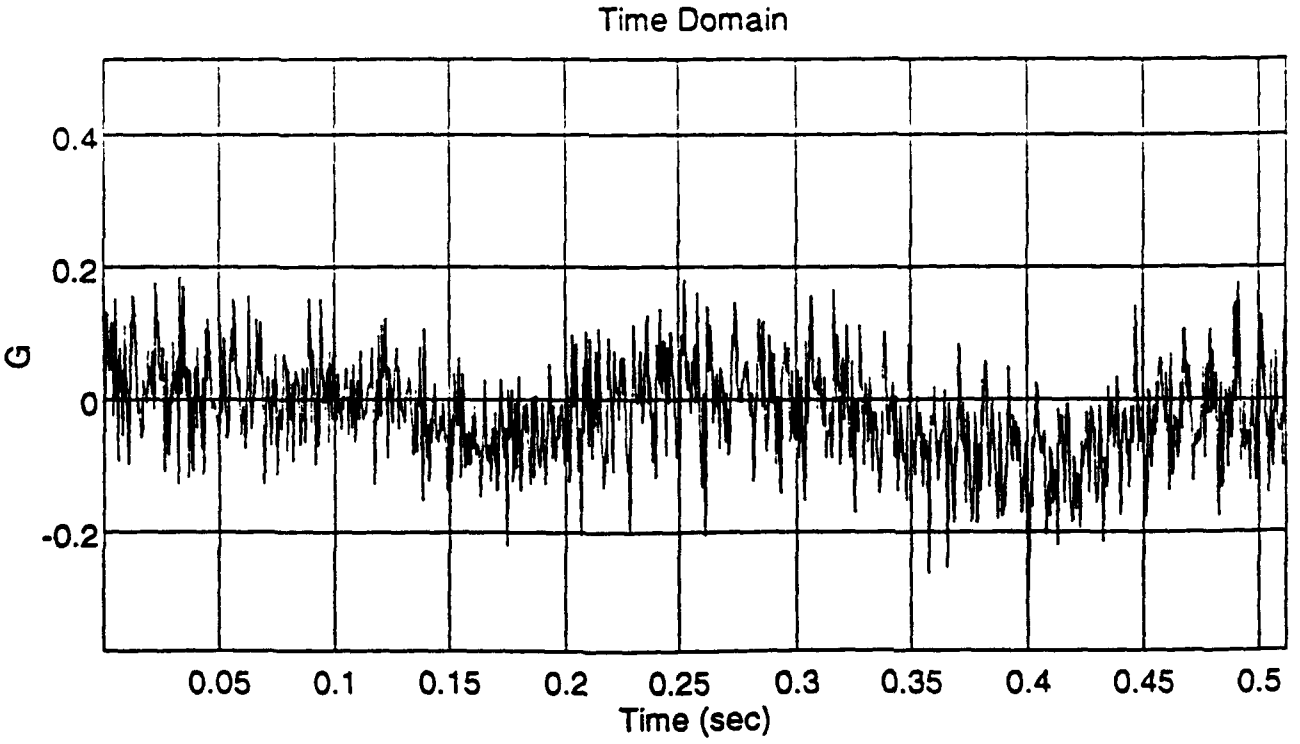

cut23-36kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

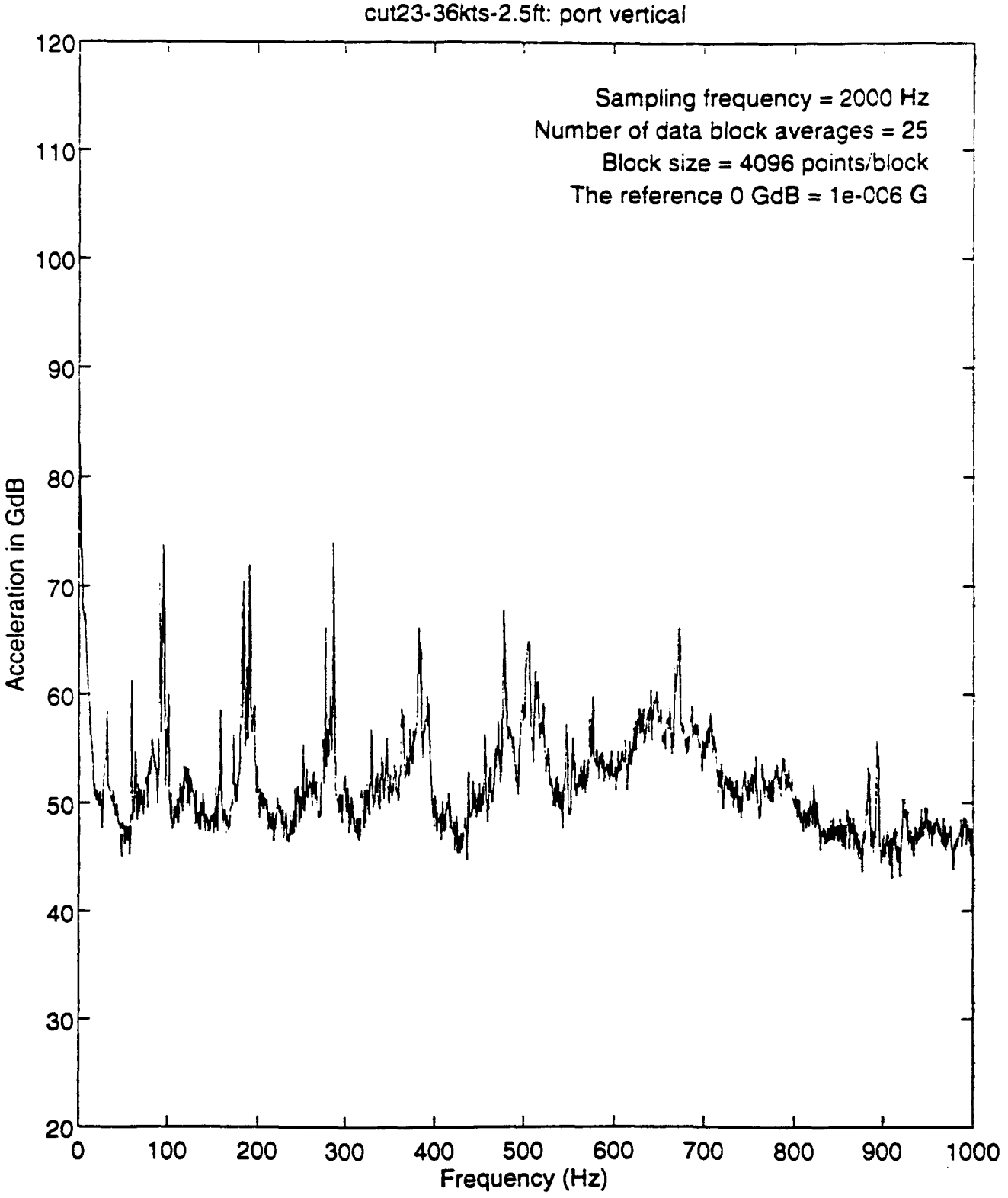
cut23-36kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005653 G
Standard deviation = 0.09345 G
The plot shows 1024 data points



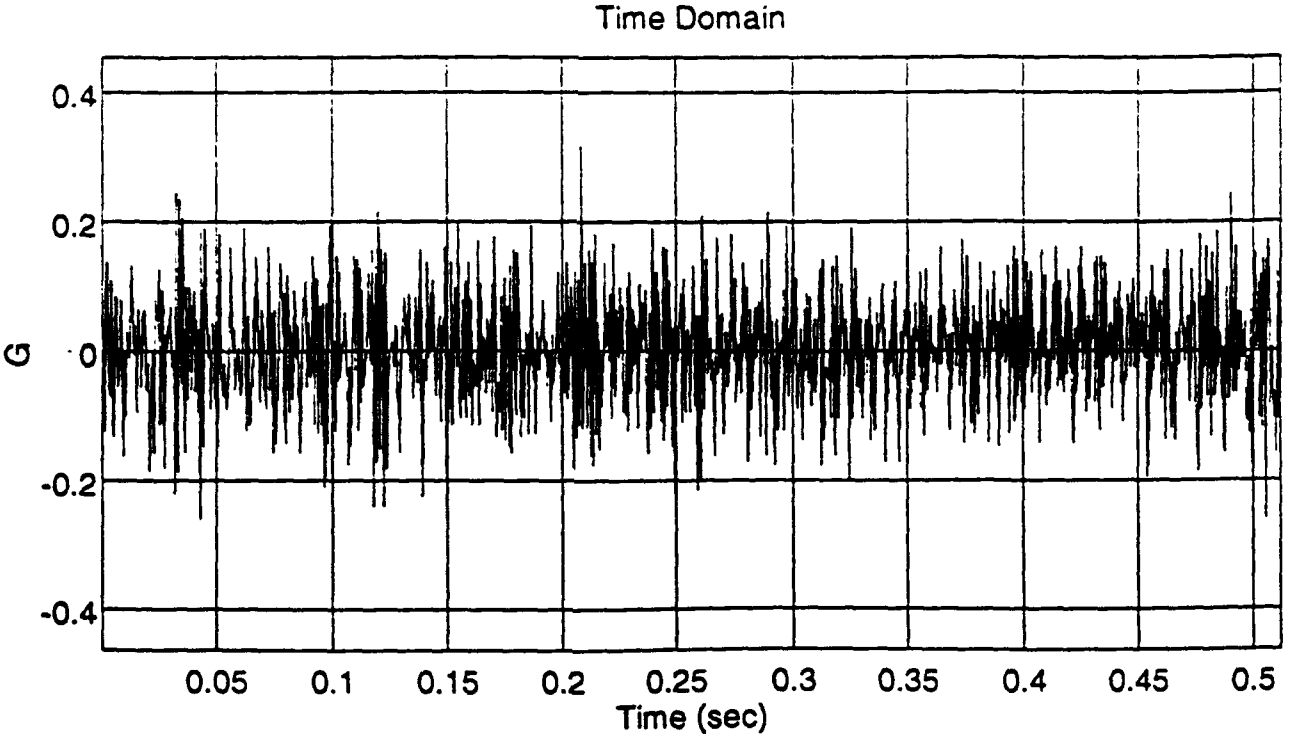

cut23-36kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

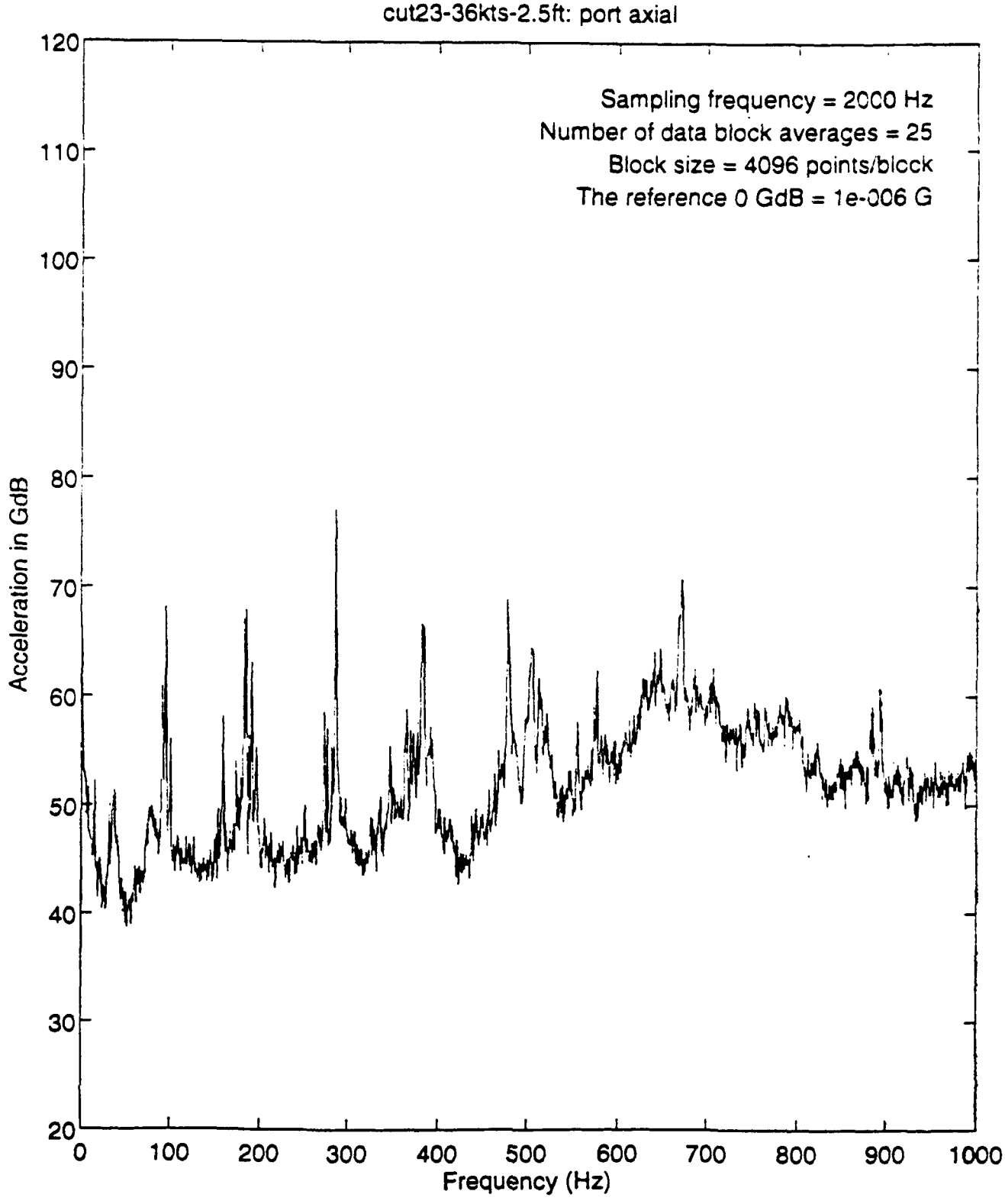
cut23-36kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.004554 G
Standard deviation = 0.1053 G
The plot shows 1024 data points




cut23-36kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut23-36kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz

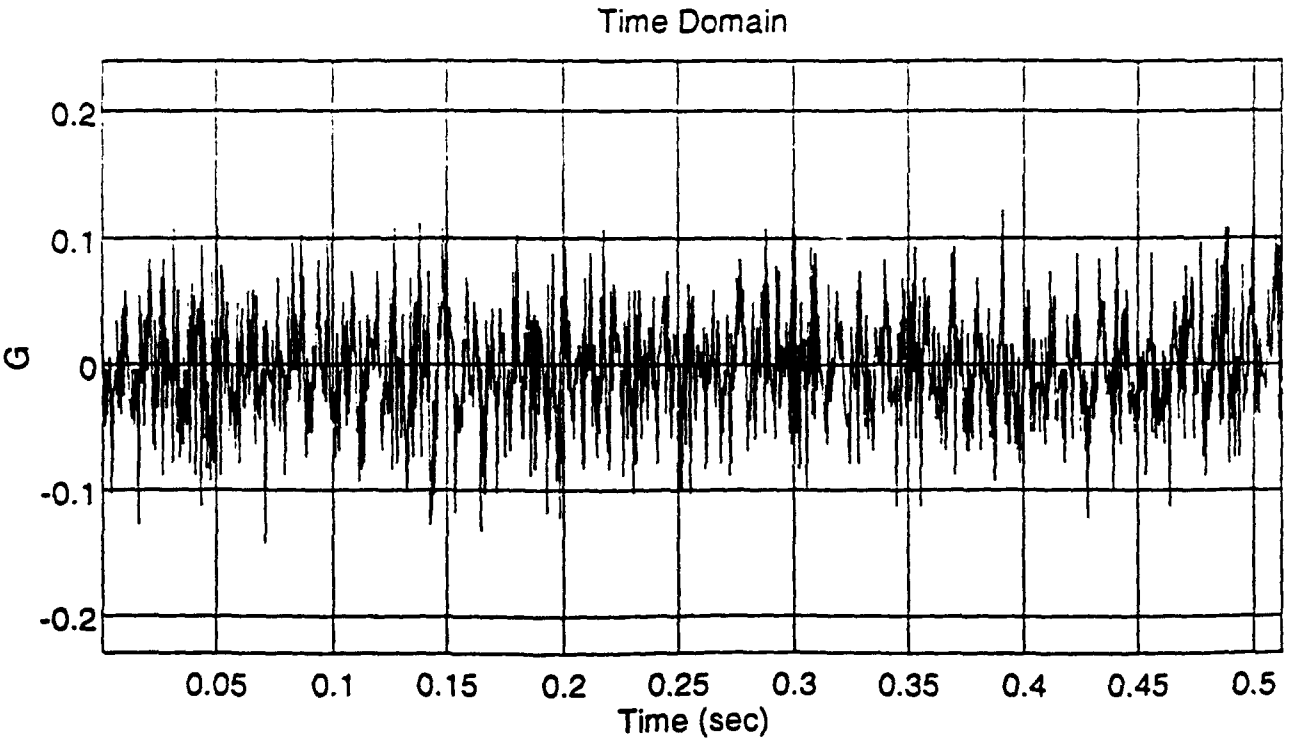
Total number of sampling data points = 1.024e+005

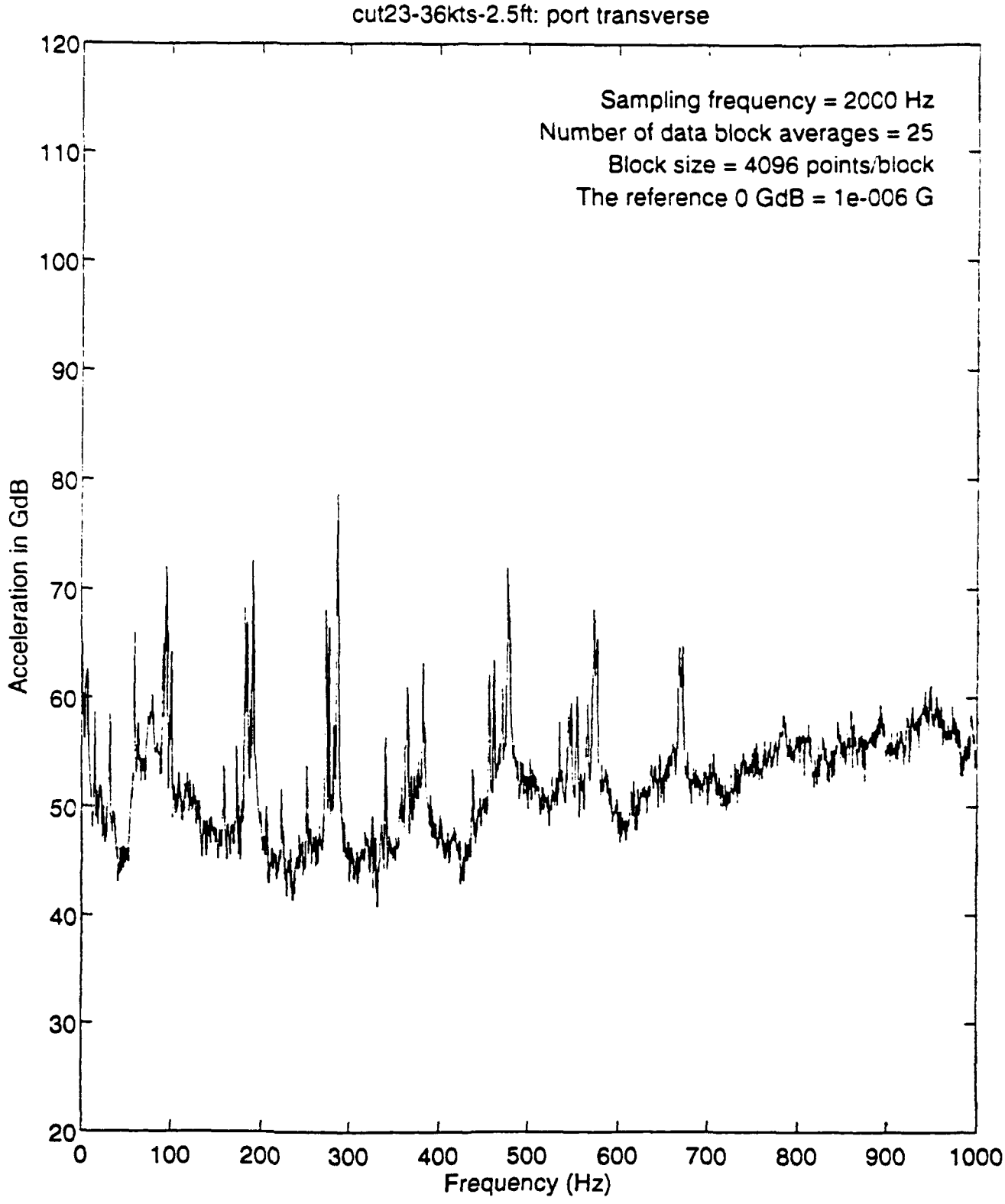
* The time domain

Mean value = -0.003551 G

Standard deviation = 0.05403 G

The plot shows 1024 data points




cut23-36kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut24-22kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

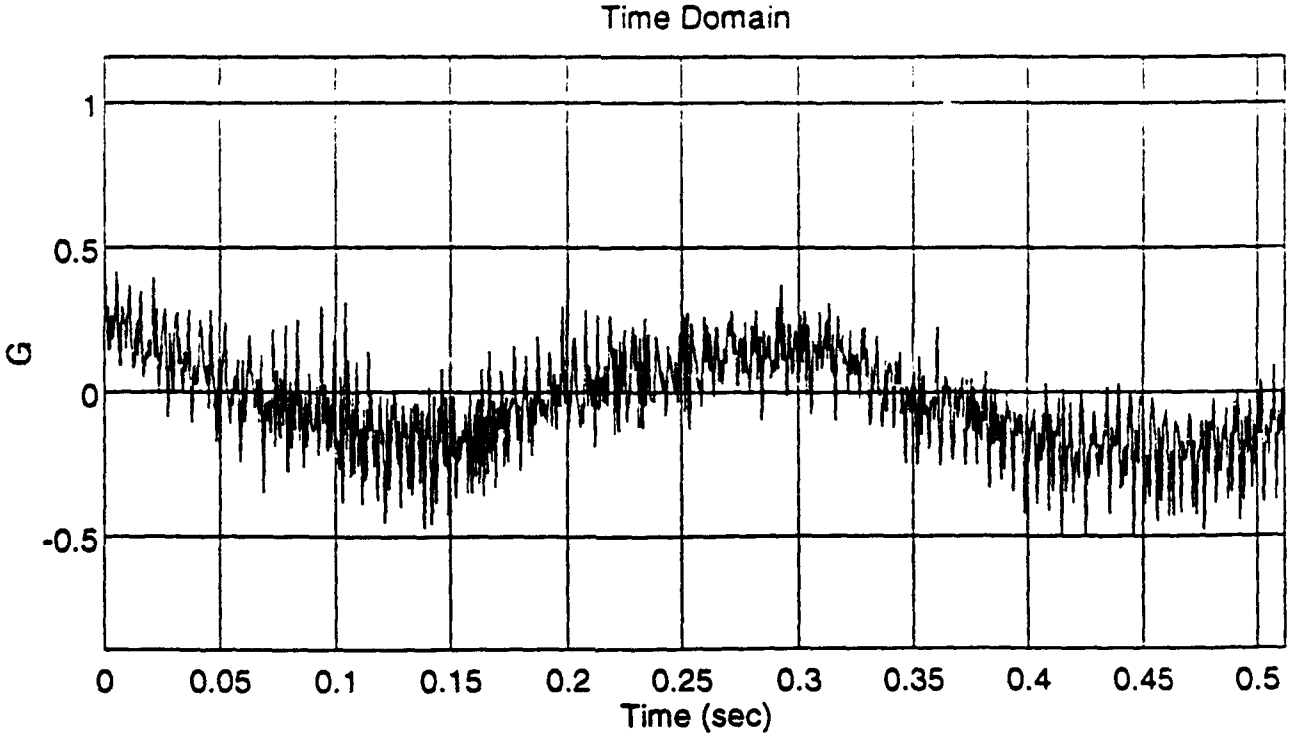
Total number of sampling data points = 1.024e+005

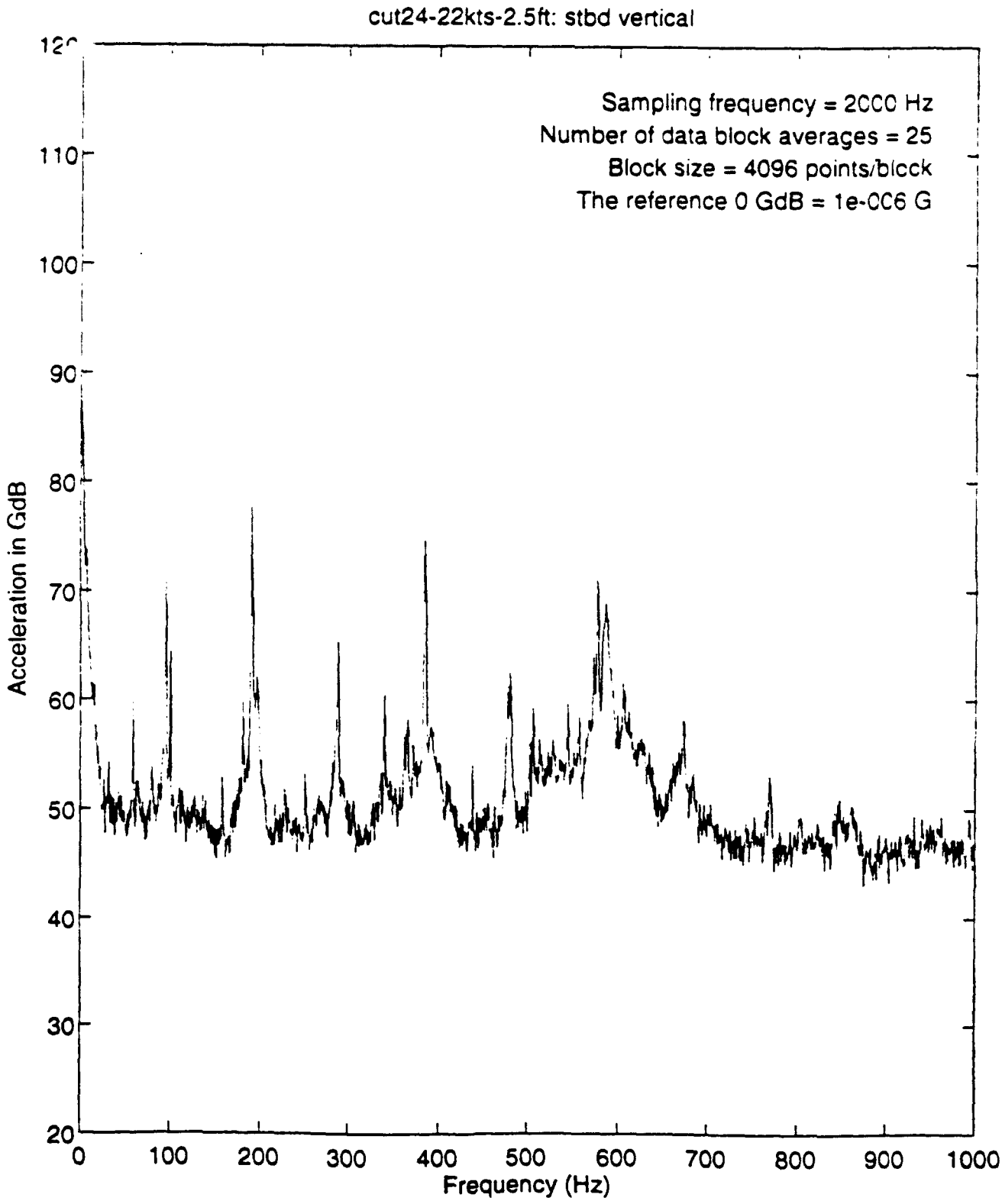
* The time domain

Mean value = -0.005581 G

Standard deviation = 0.2144 G

The plot shows 1024 data points




cut24-22kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut24-22kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz

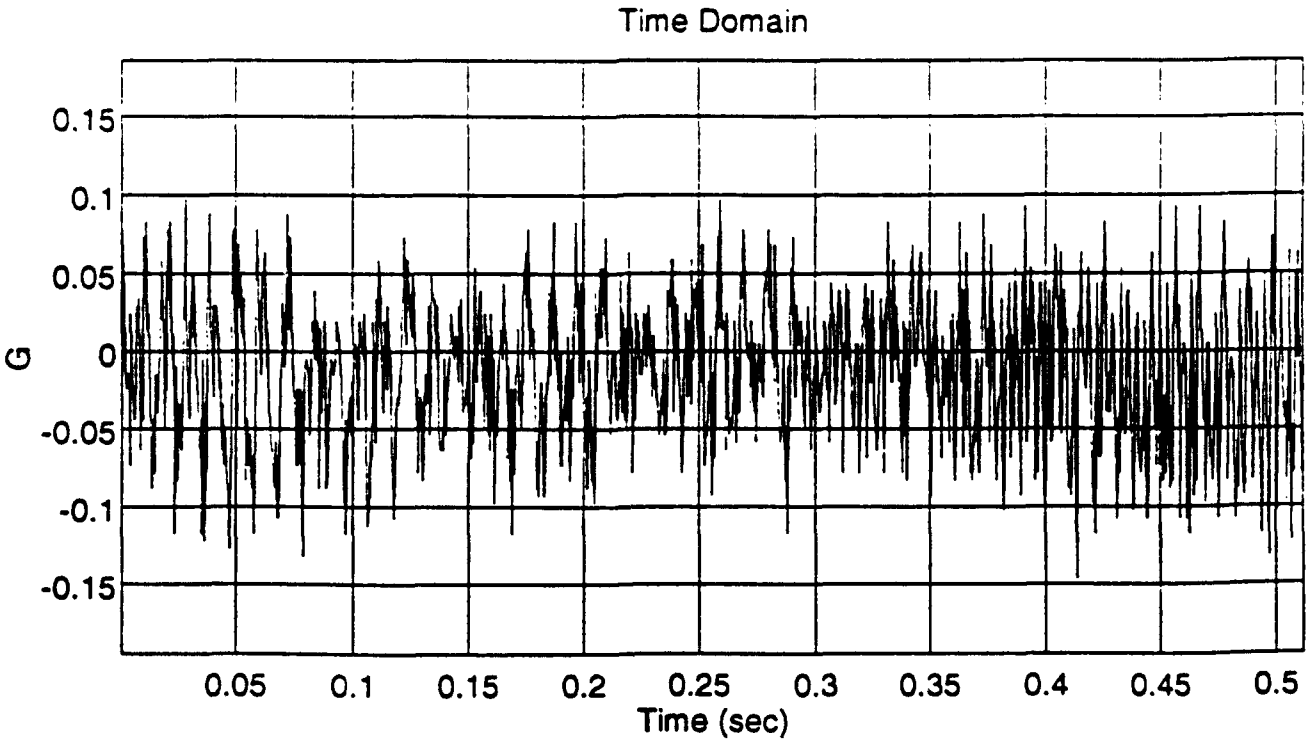
Total number of sampling data points = 1.024e+005

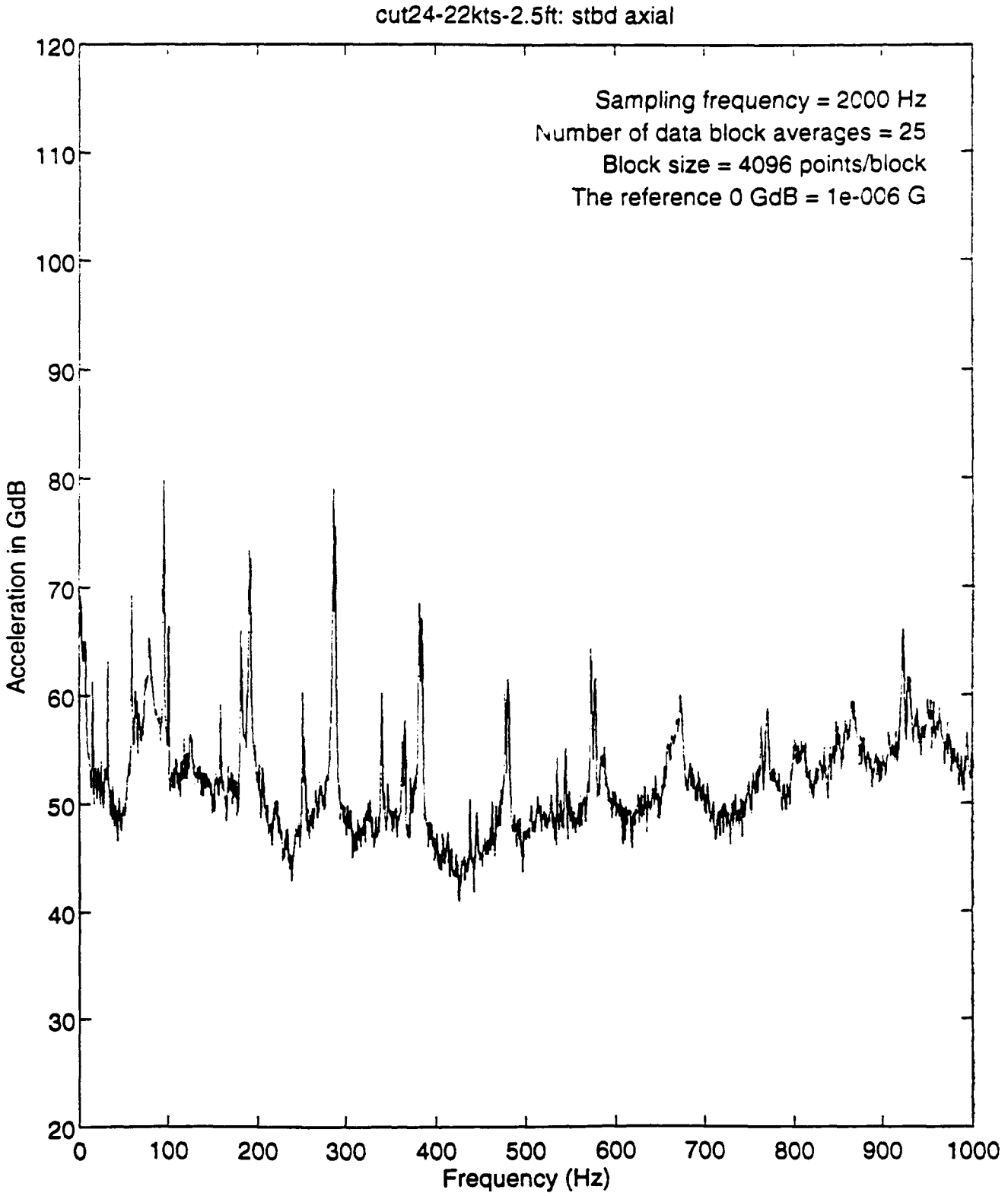
* The time domain

Mean value = -0.006091 G

Standard deviation = 0.04788 G

The plot shows 1024 data points




cut24-22kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut24-22kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz

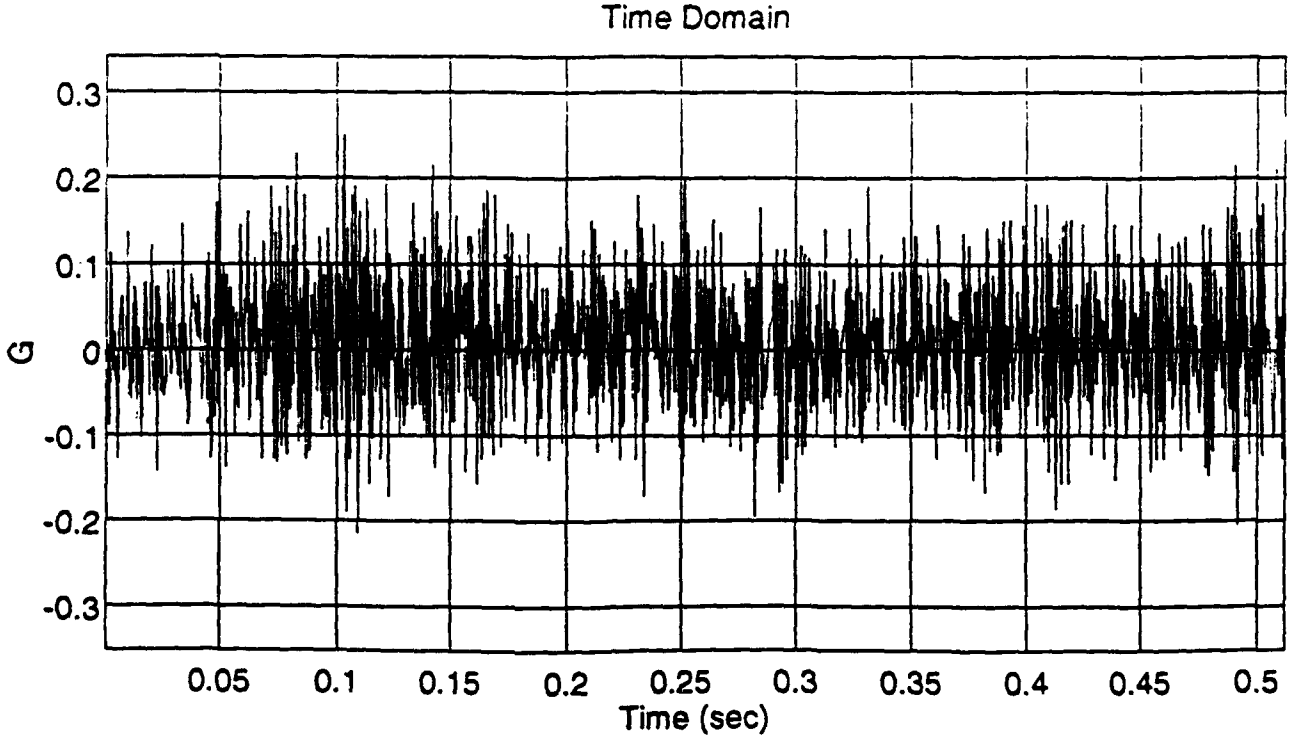
Total number of sampling data points = 1.024e+005

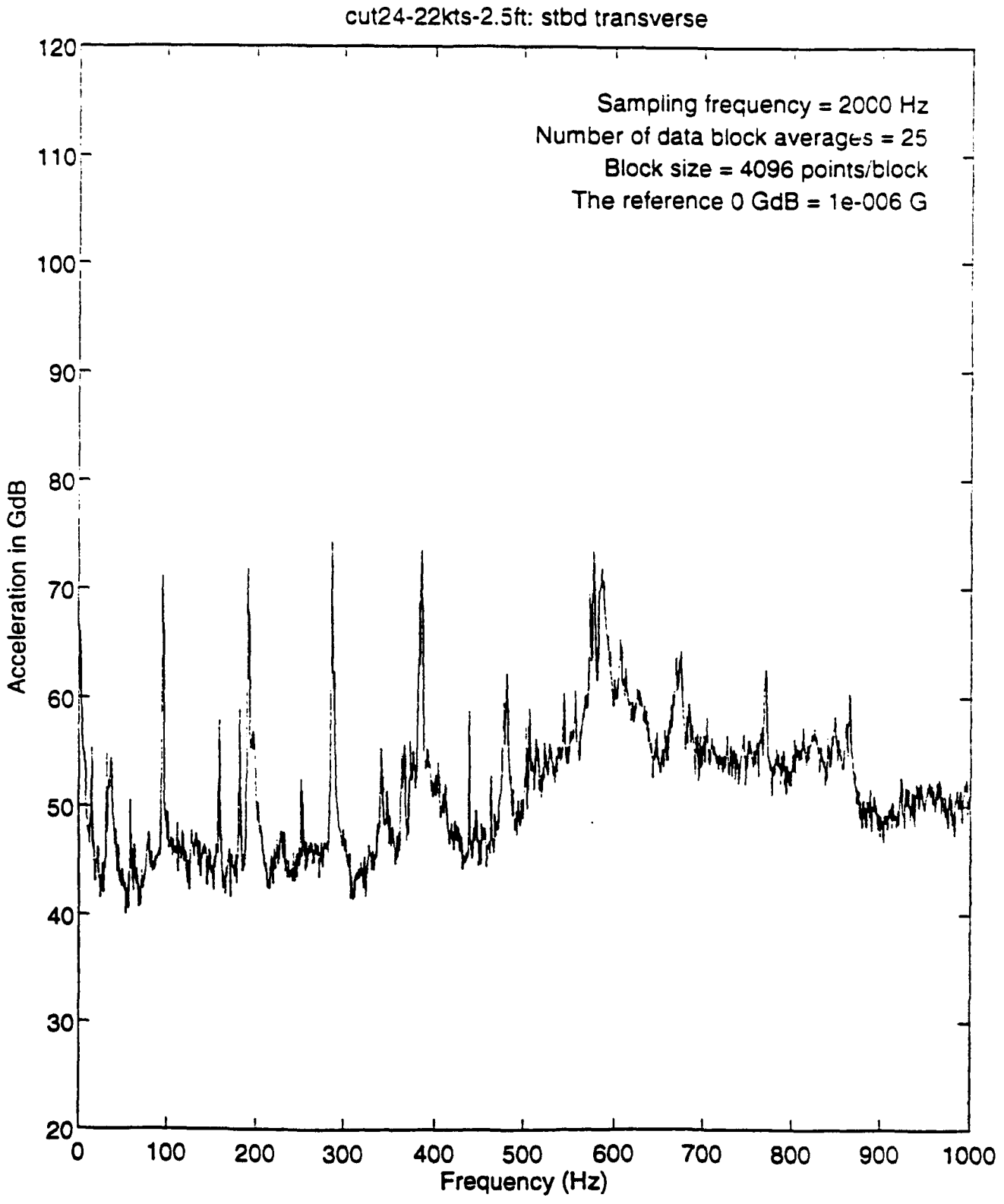
* The time domain

Mean value = -0.0004403 G

Standard deviation = 0.07778 G

The plot shows 1024 data points



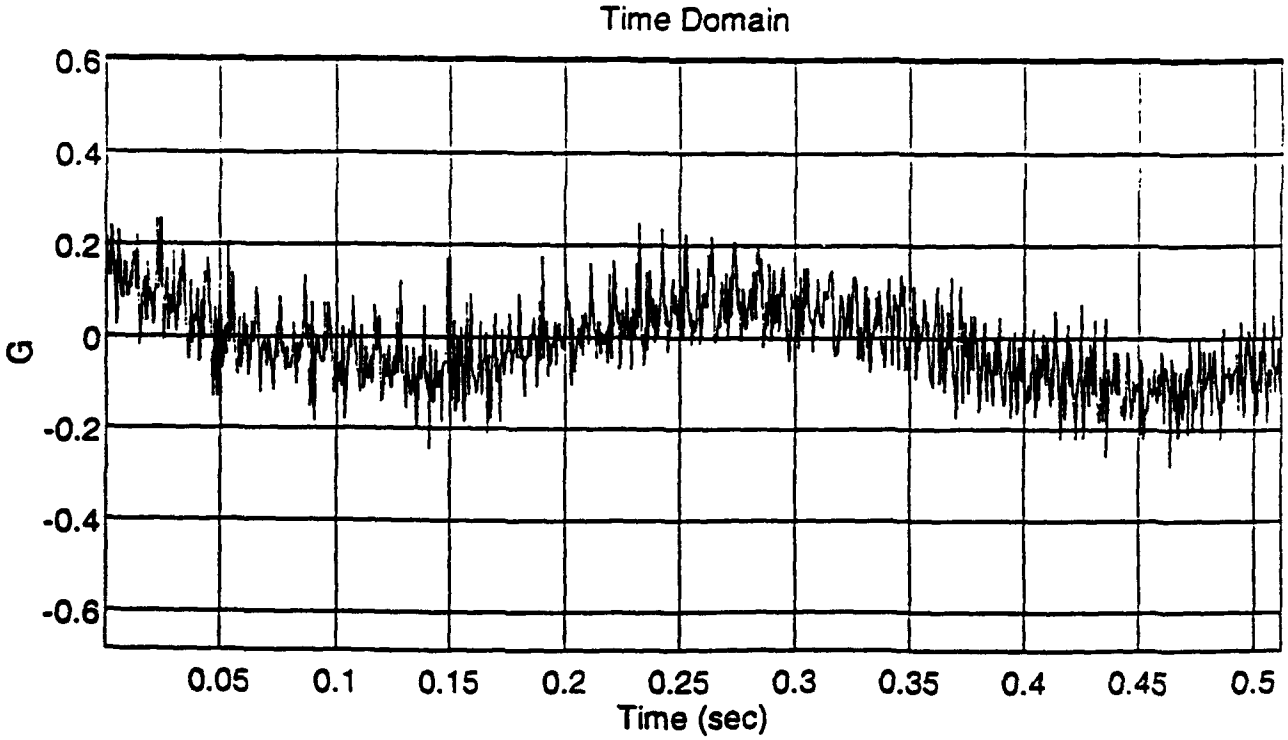

cut24-22kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

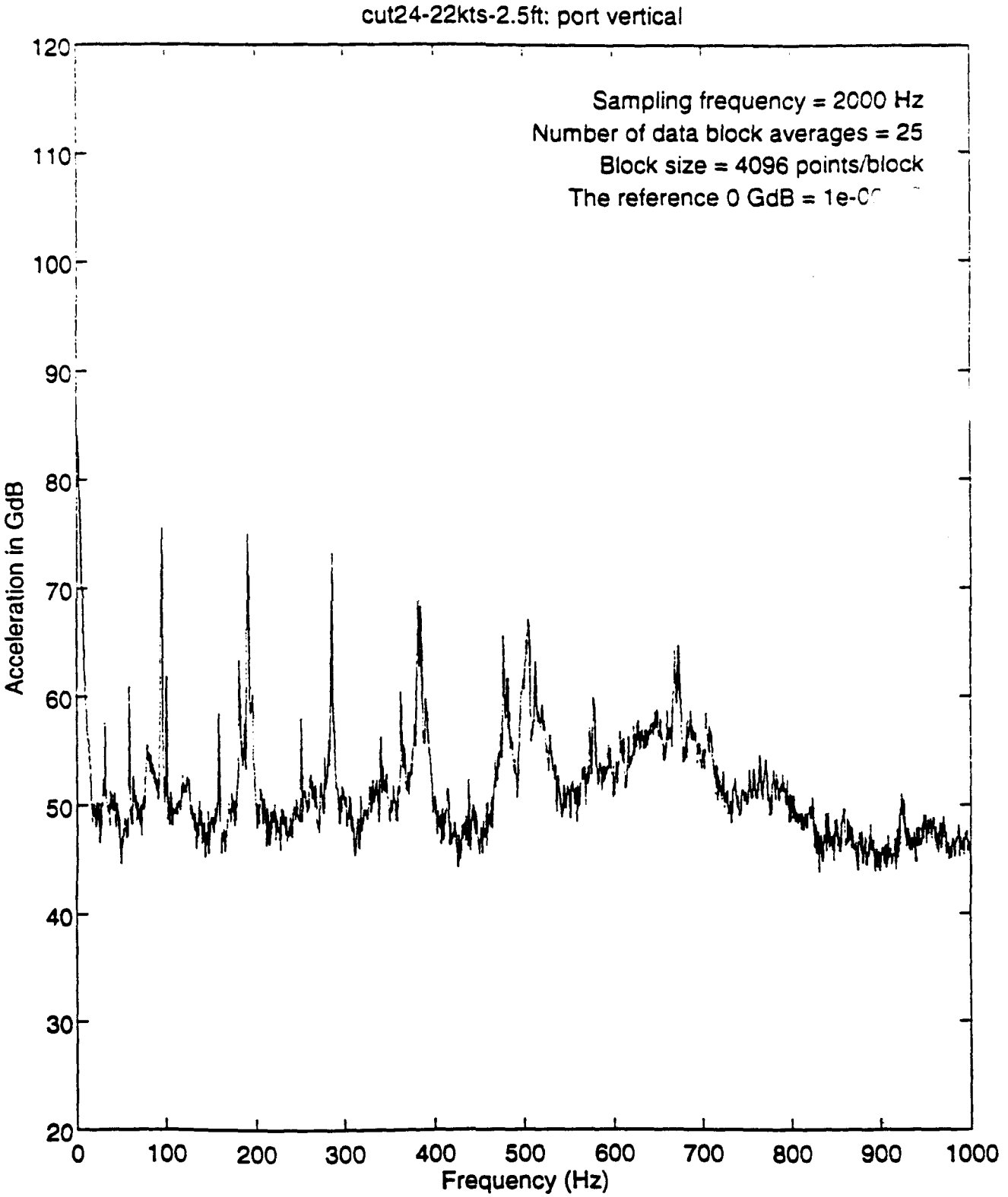
cut24-22kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002214 G
Standard deviation = 0.1115 G
The plot shows 1024 data points



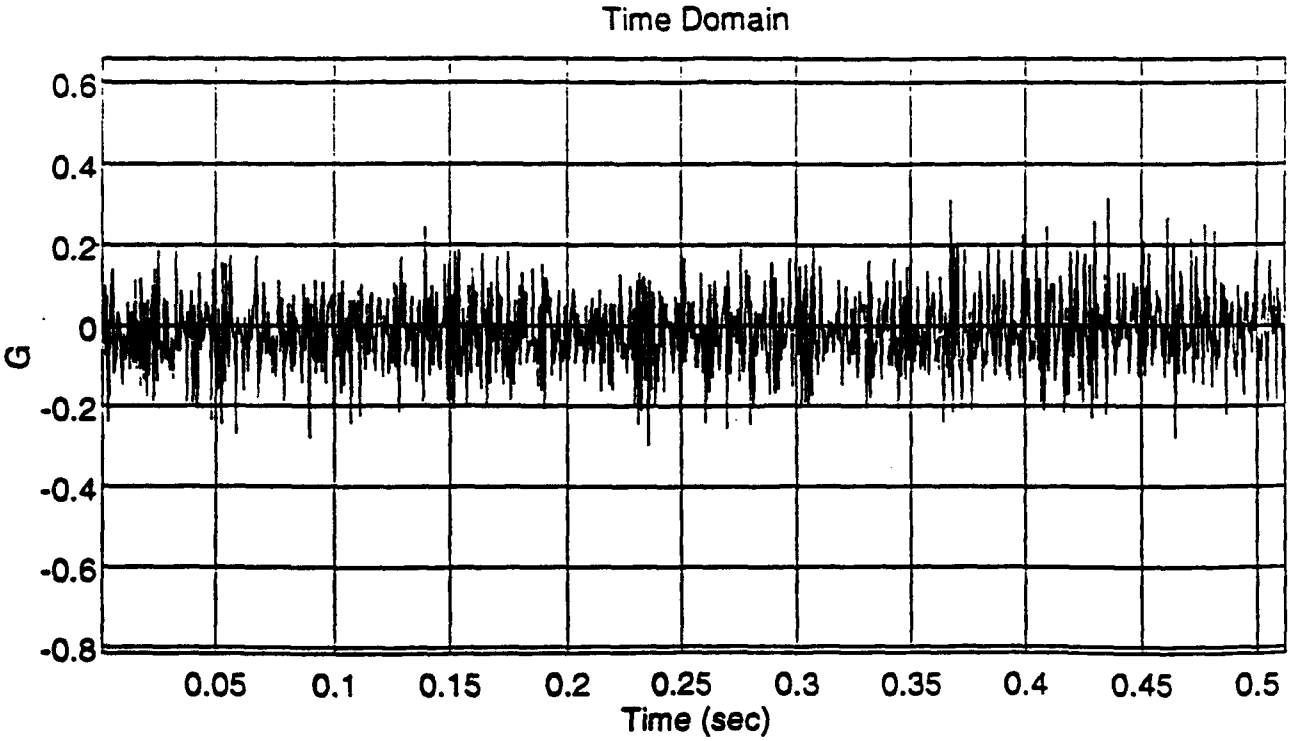

cut24-22kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-0
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

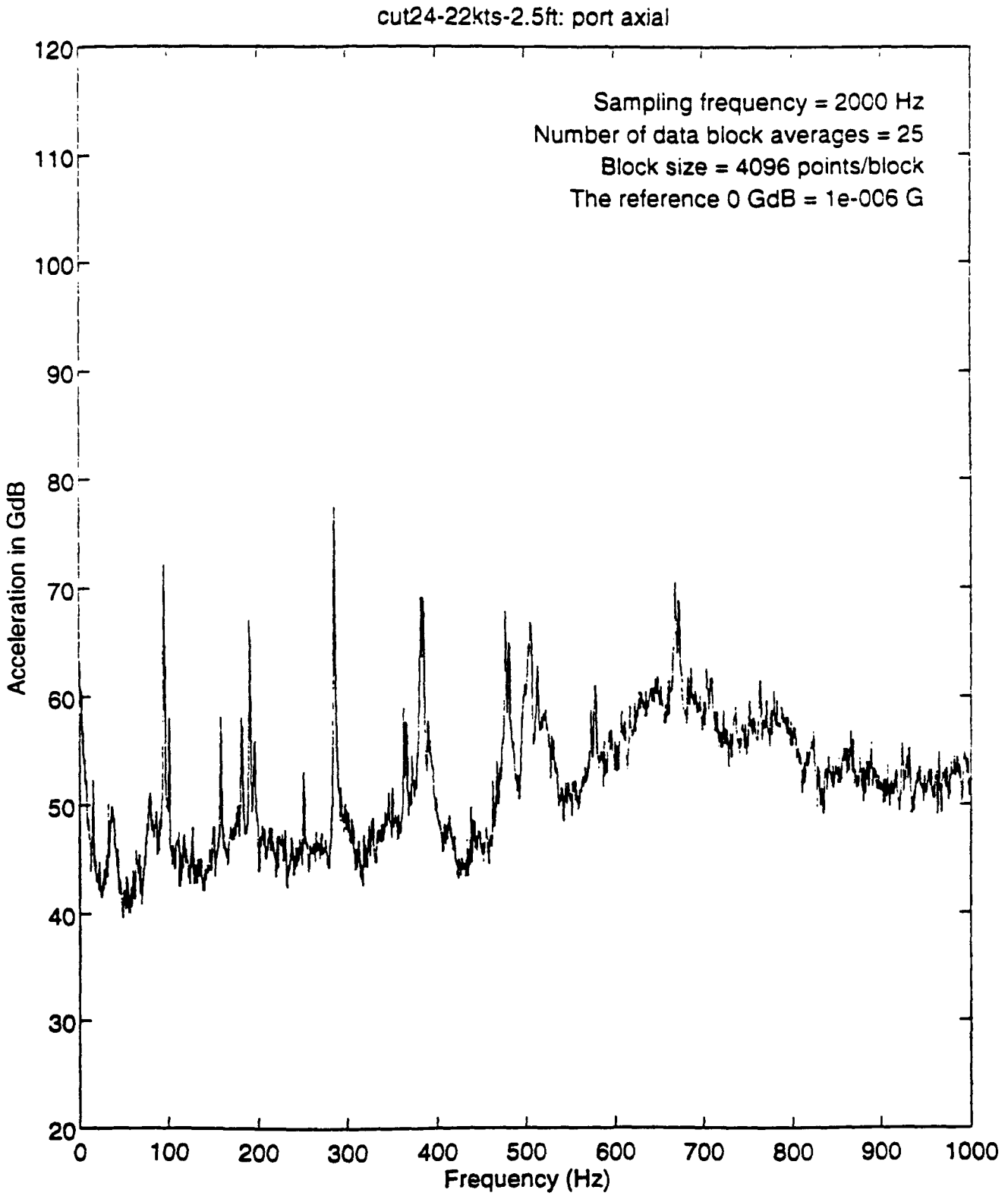
cut24-22kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002827 G
Standard deviation = 0.103 G
The plot shows 1024 data points




cut24-22kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut24-22kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz

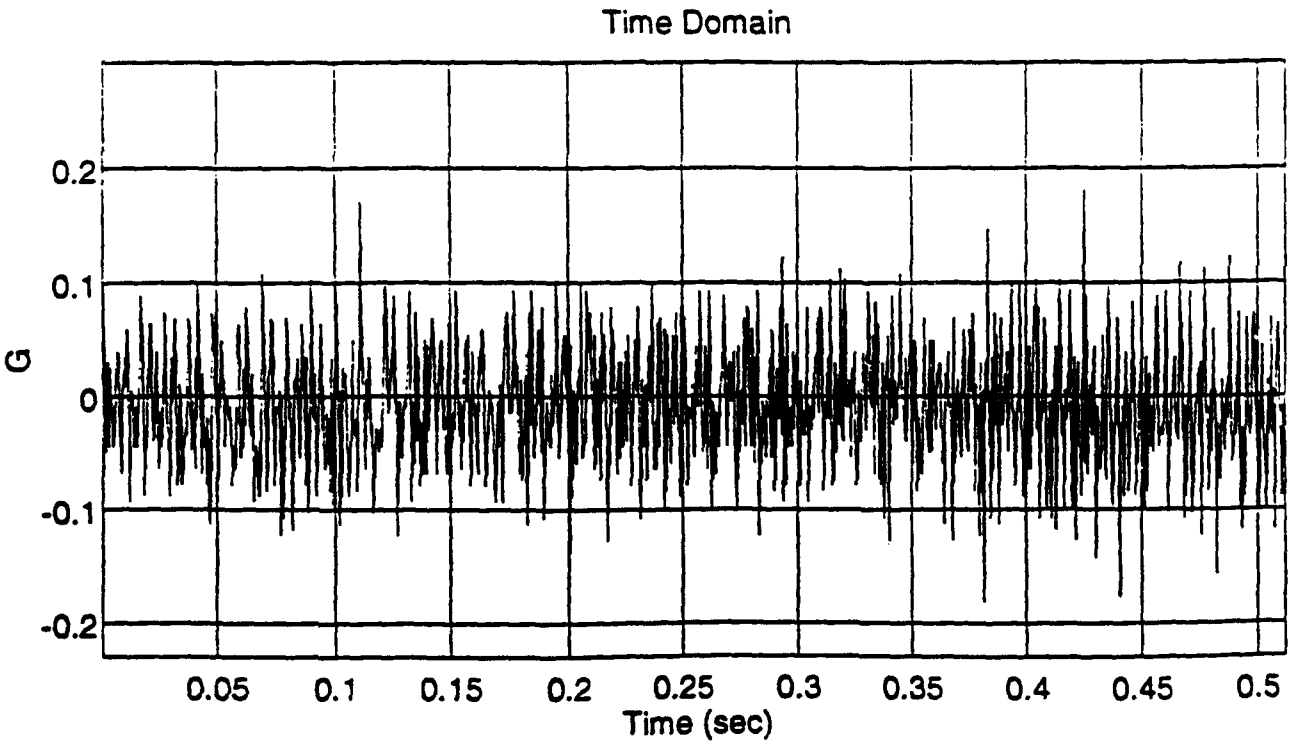
Total number of sampling data points = 1.024e+005

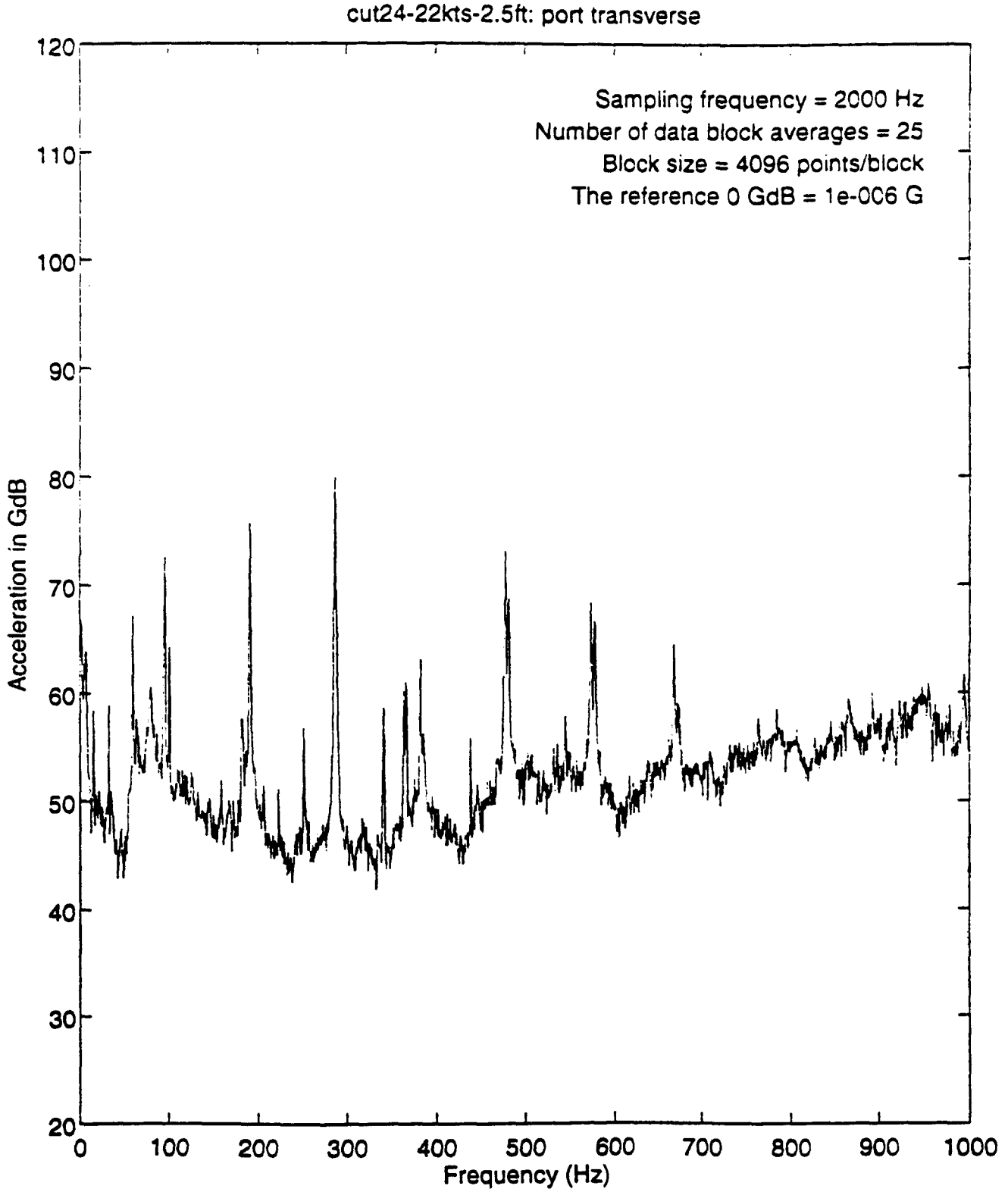
* The time domain

Mean value = -0.002009 G

Standard deviation = 0.05394 G

The plot shows 1024 data points




cut24-22kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut25-25kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

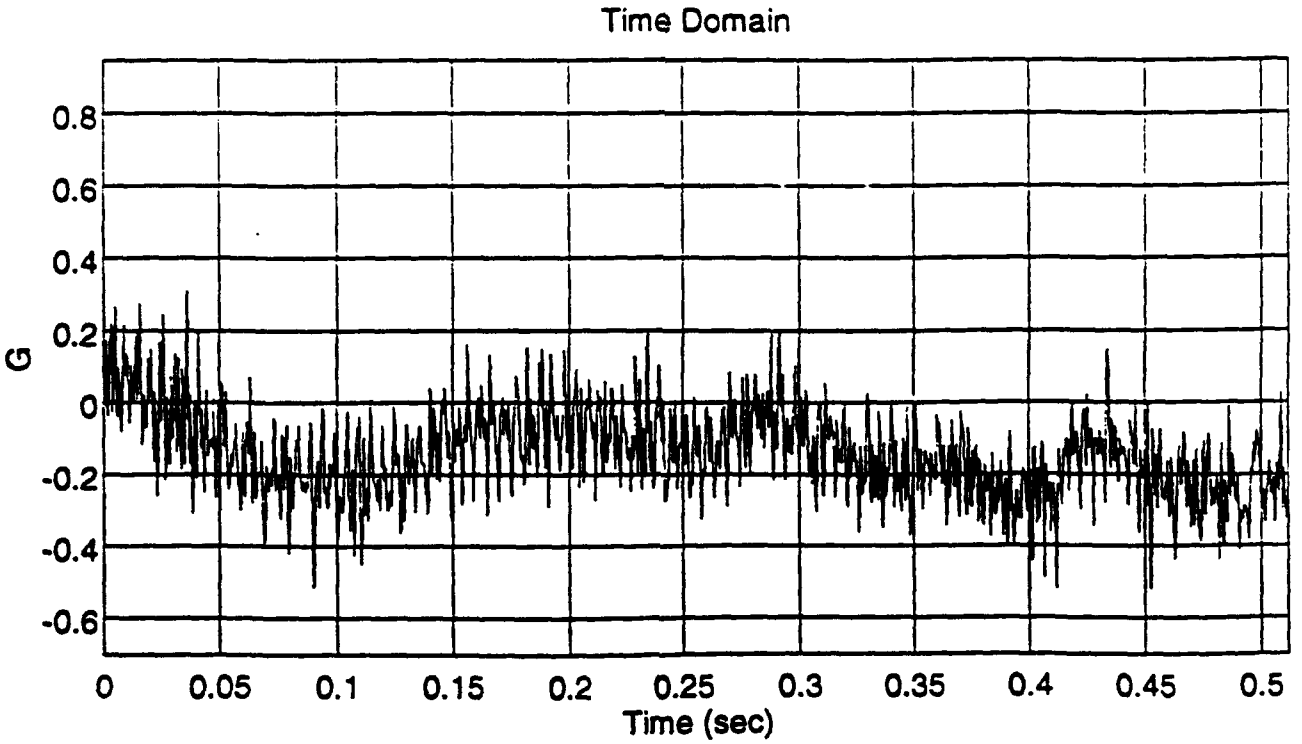
Total number of sampling data points = 1.024e+005

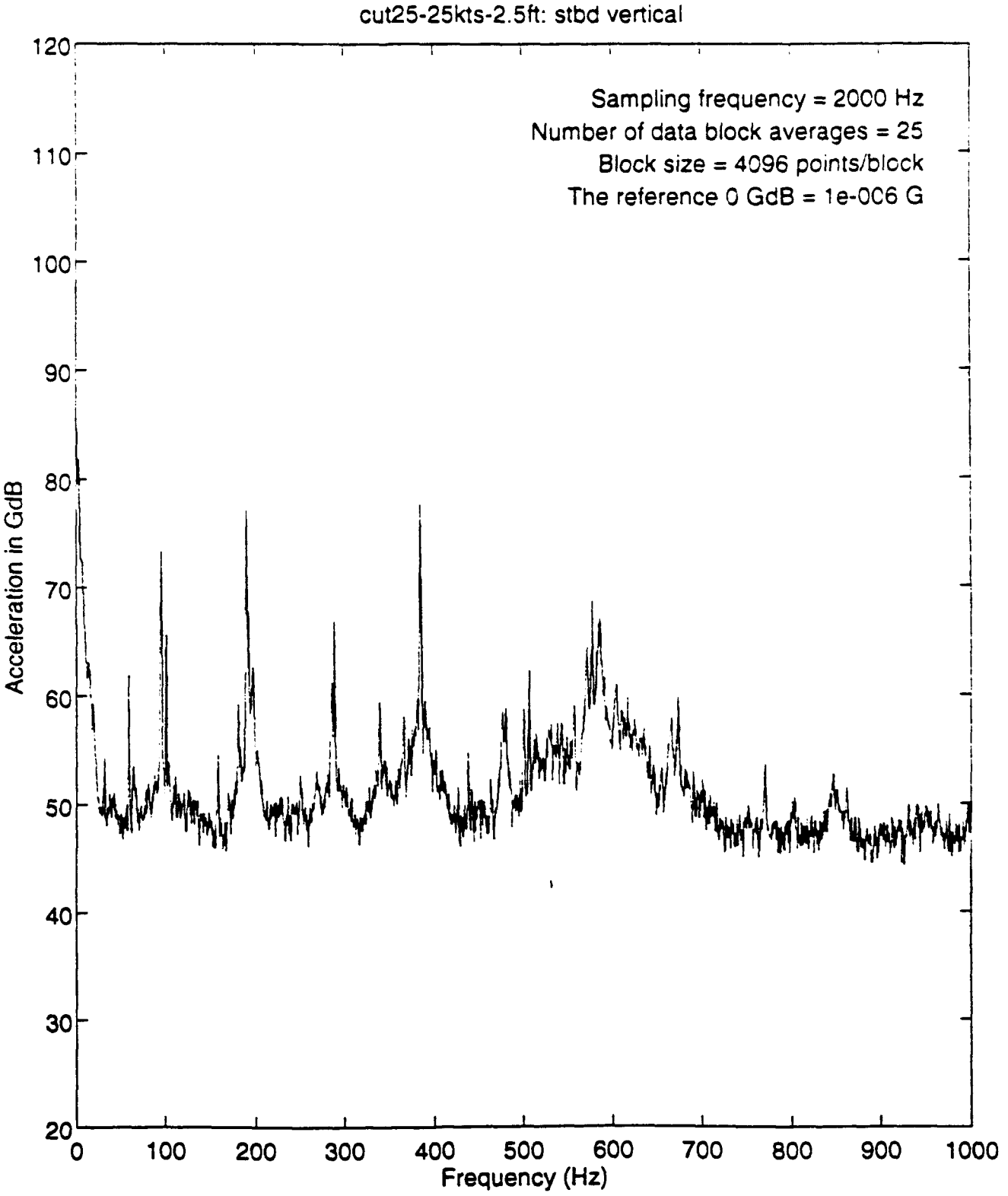
* The time domain

Mean value = -0.00707 G

Standard deviation = 0.1757 G

The plot shows 1024 data points




cut25-25kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut25-25kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz

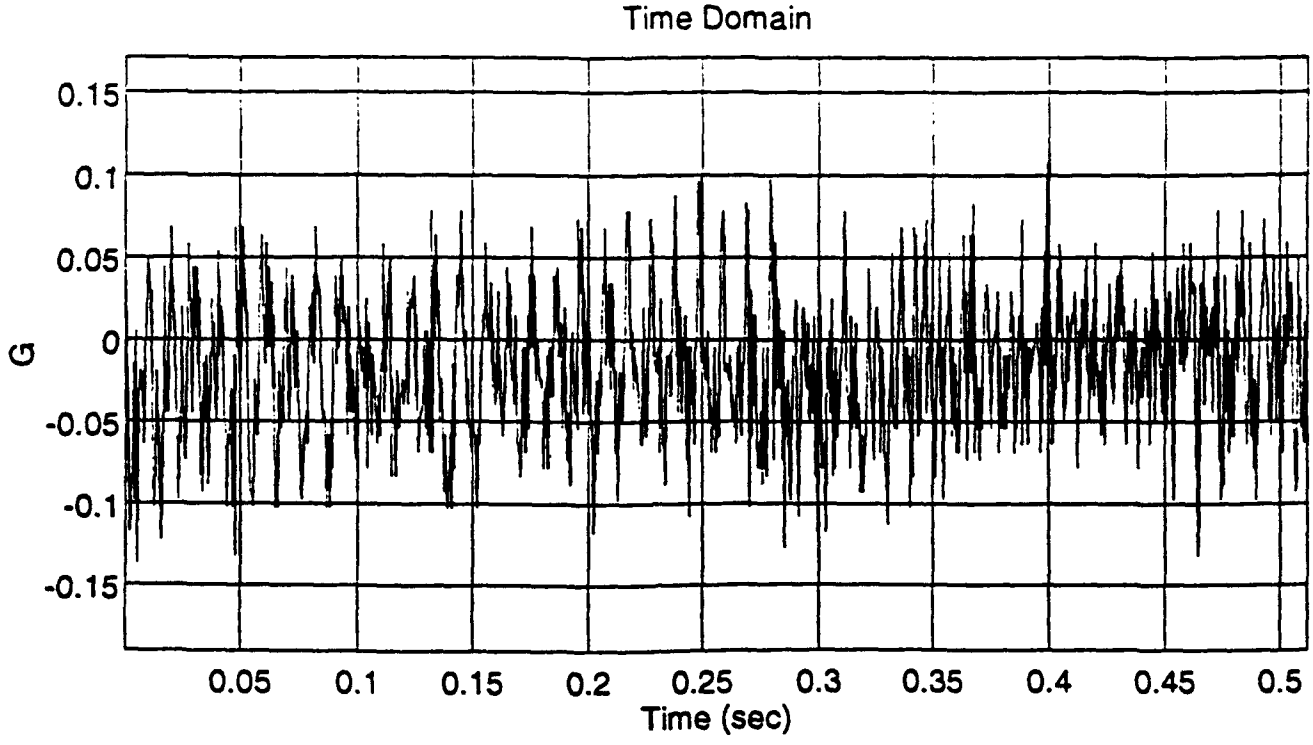
Total number of sampling data points = 1.024e+005

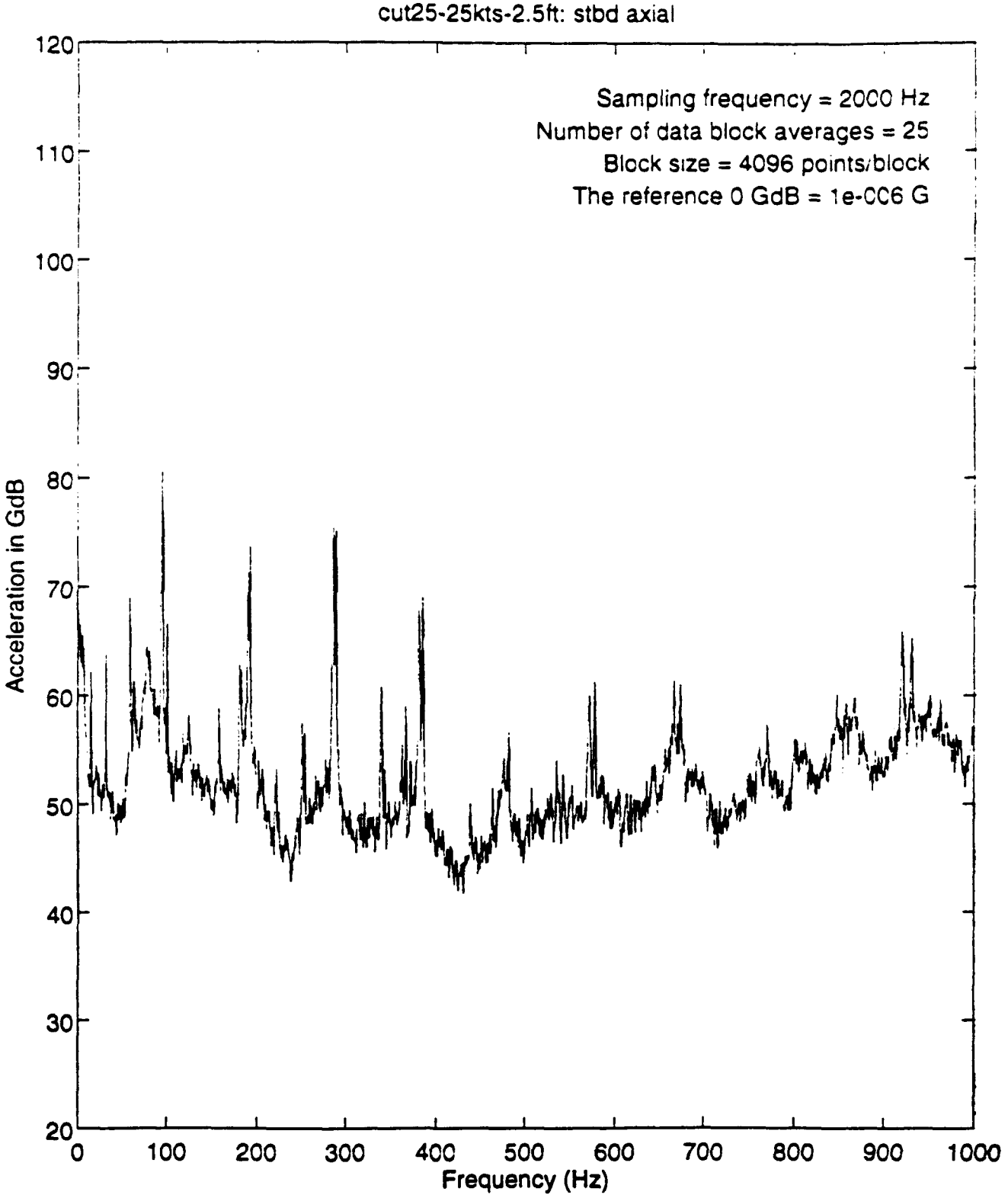
* The time domain

Mean value = -0.006864 G

Standard deviation = 0.04503 G

The plot shows 1024 data points



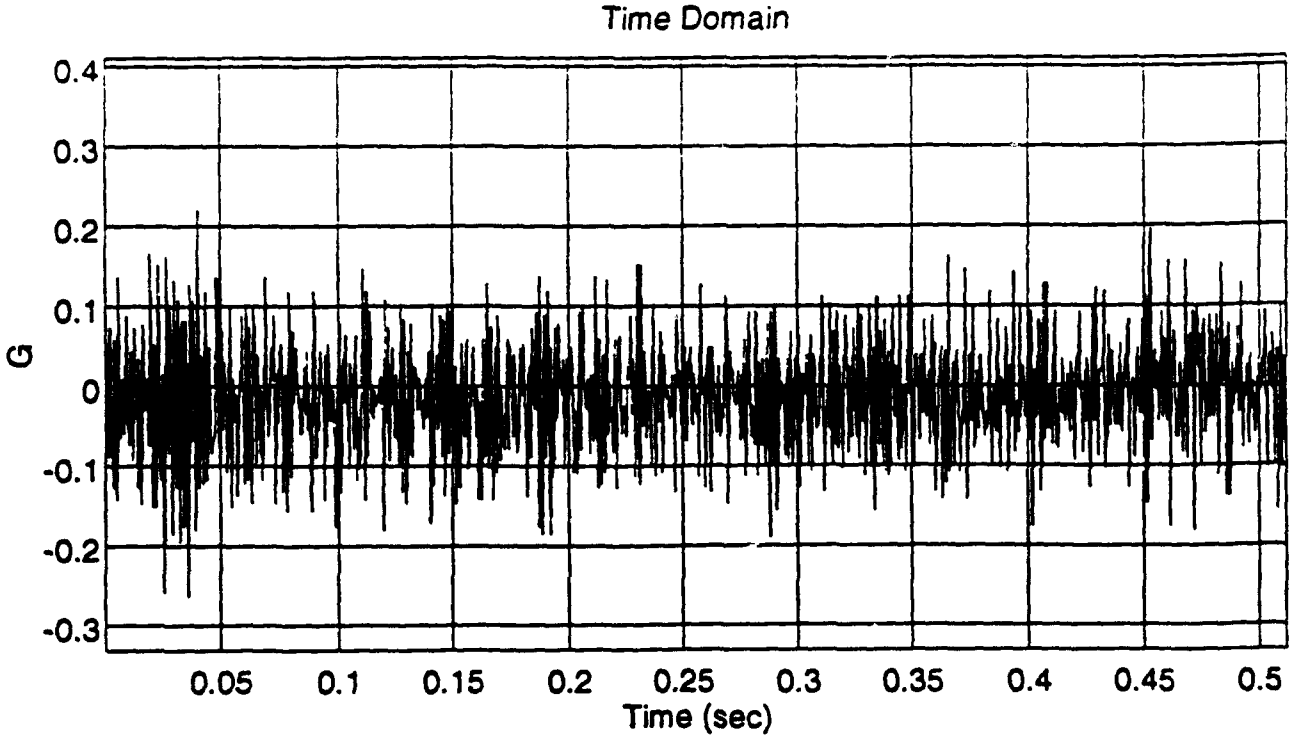

cut25-25kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

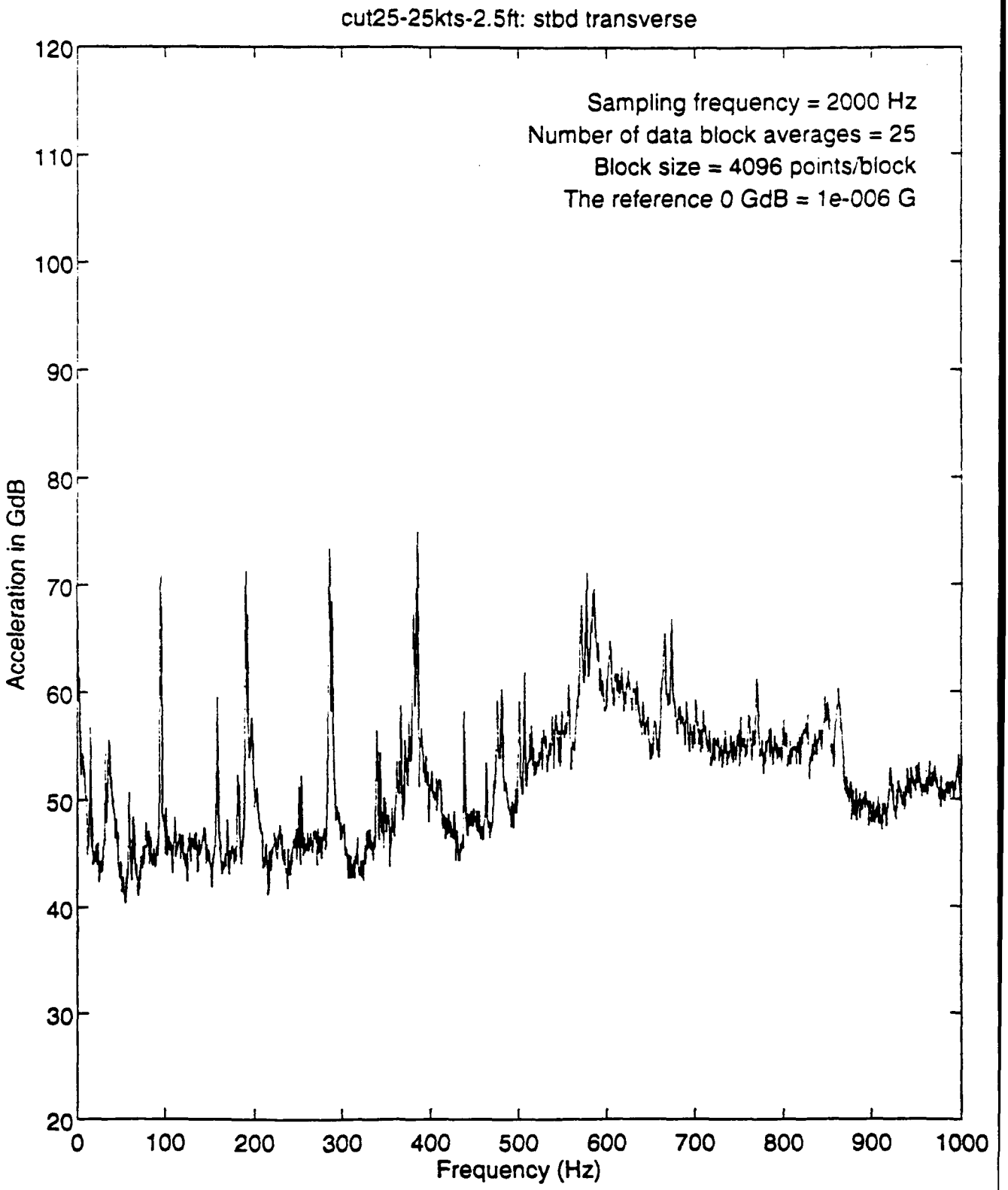
cut25-25kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005649 G
Standard deviation = 0.07015 G
The plot shows 1024 data points




cut25-25kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut25-25kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz

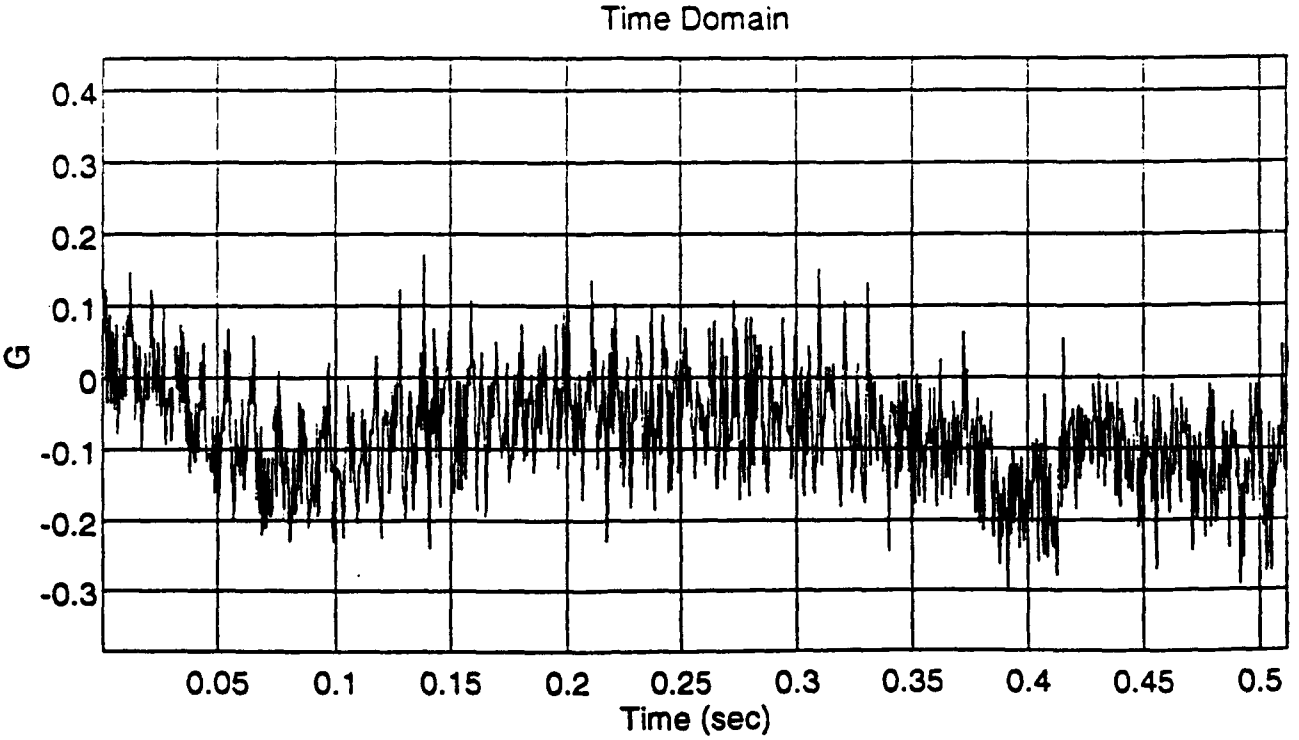
Total number of sampling data points = 1.024e+005

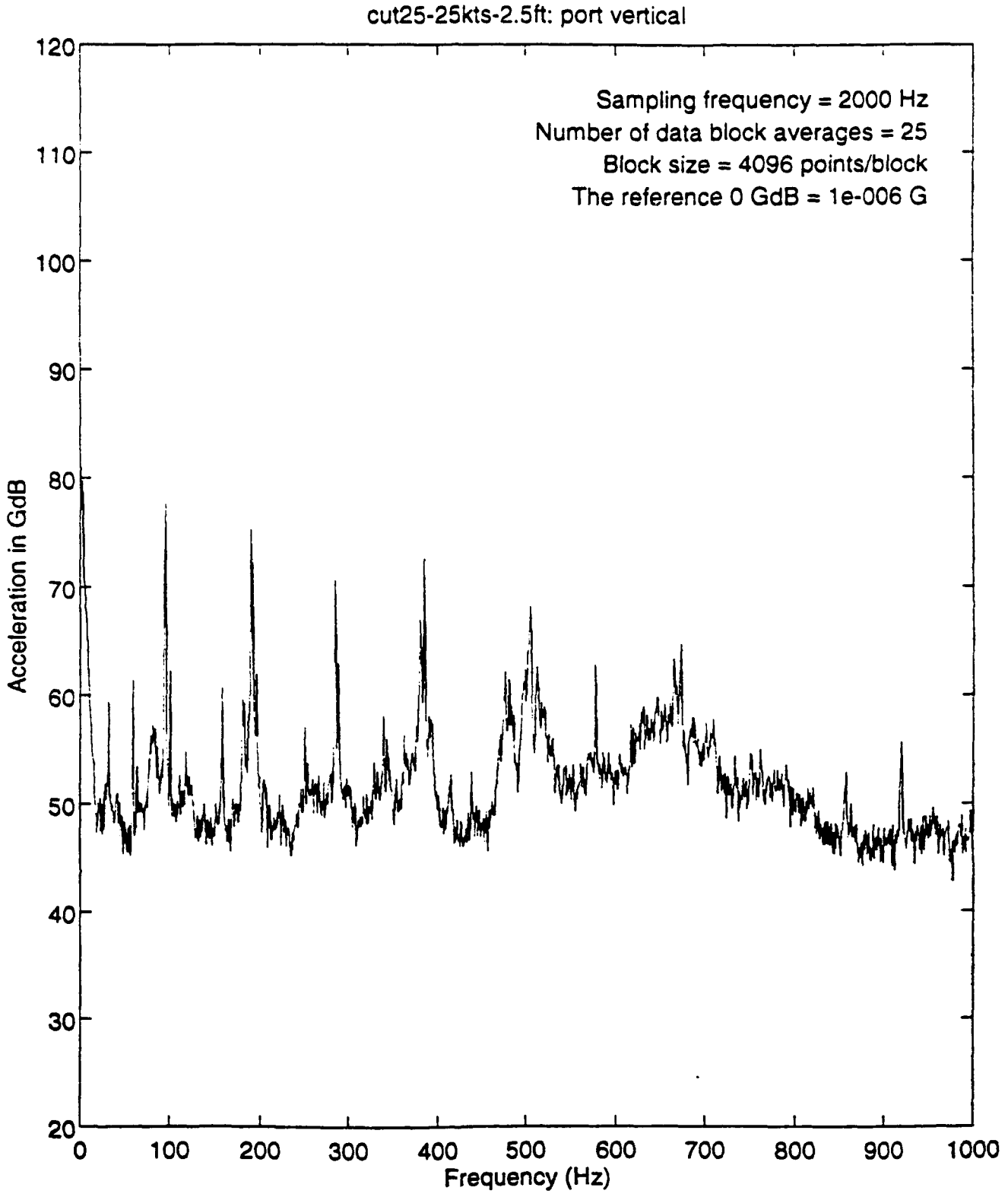
* The time domain

Mean value = -0.005041 G

Standard deviation = 0.09403 G

The plot shows 1024 data points



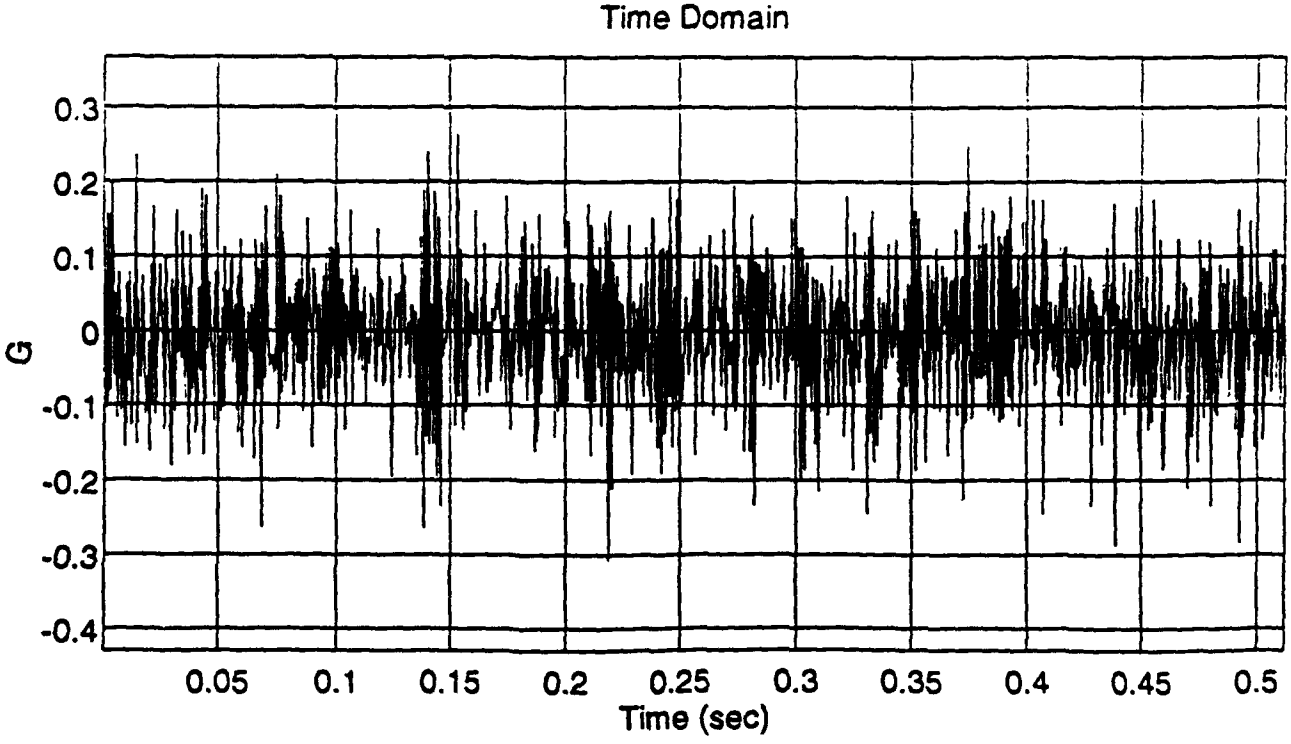

cut25-25kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

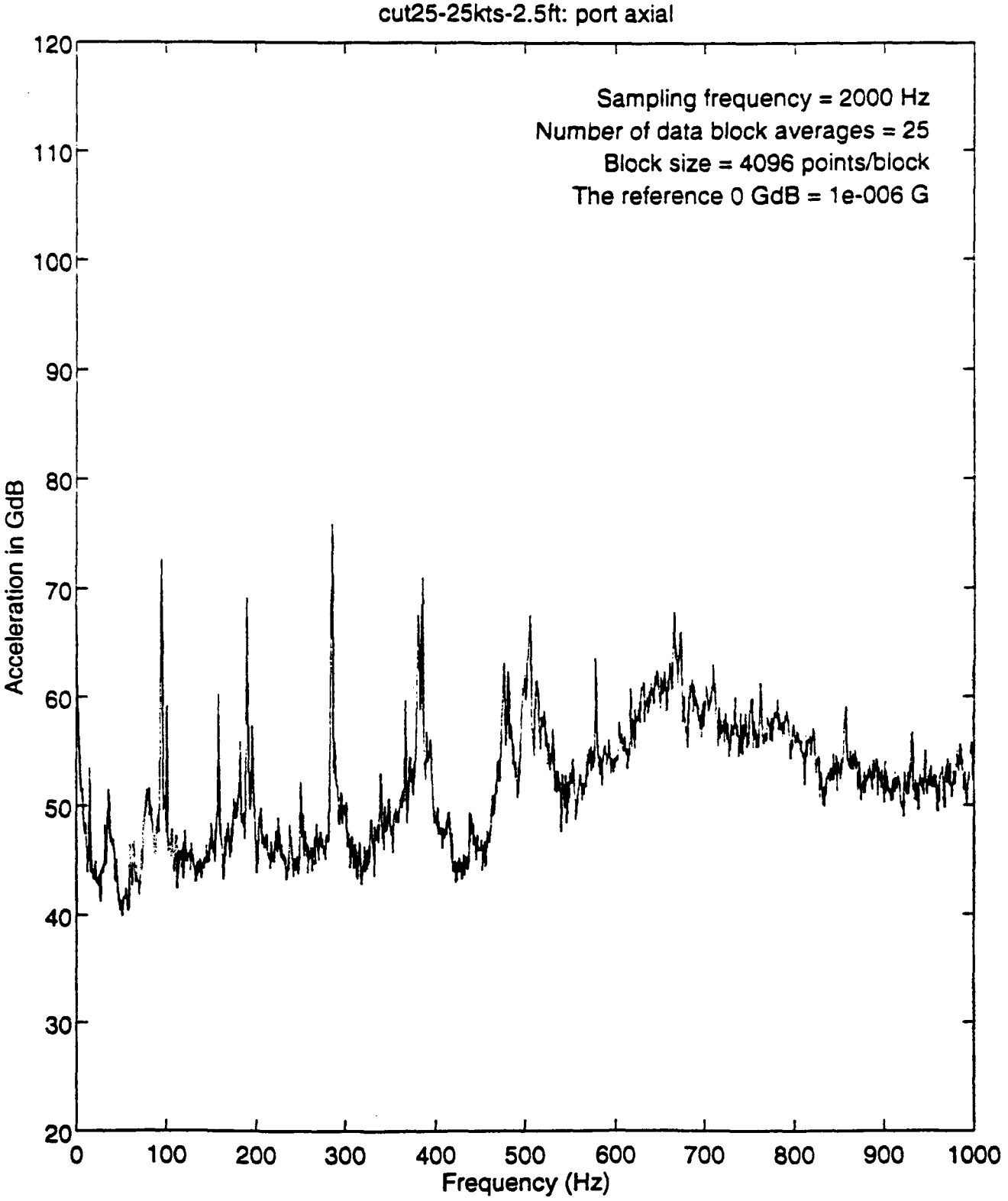
cut25-25kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.008277 G
Standard deviation = 0.09461 G
The plot shows 1024 data points




cut25-25kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut25-25kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz

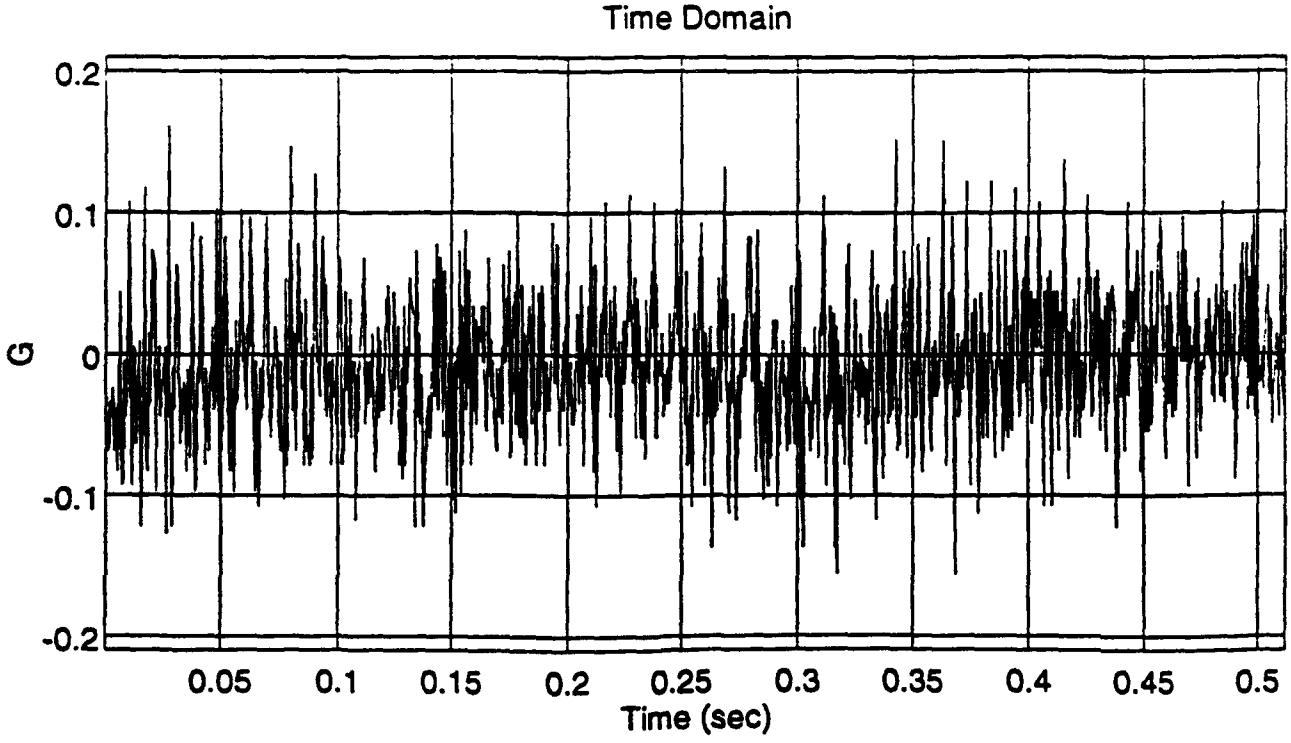
Total number of sampling data points = 1.024e+005

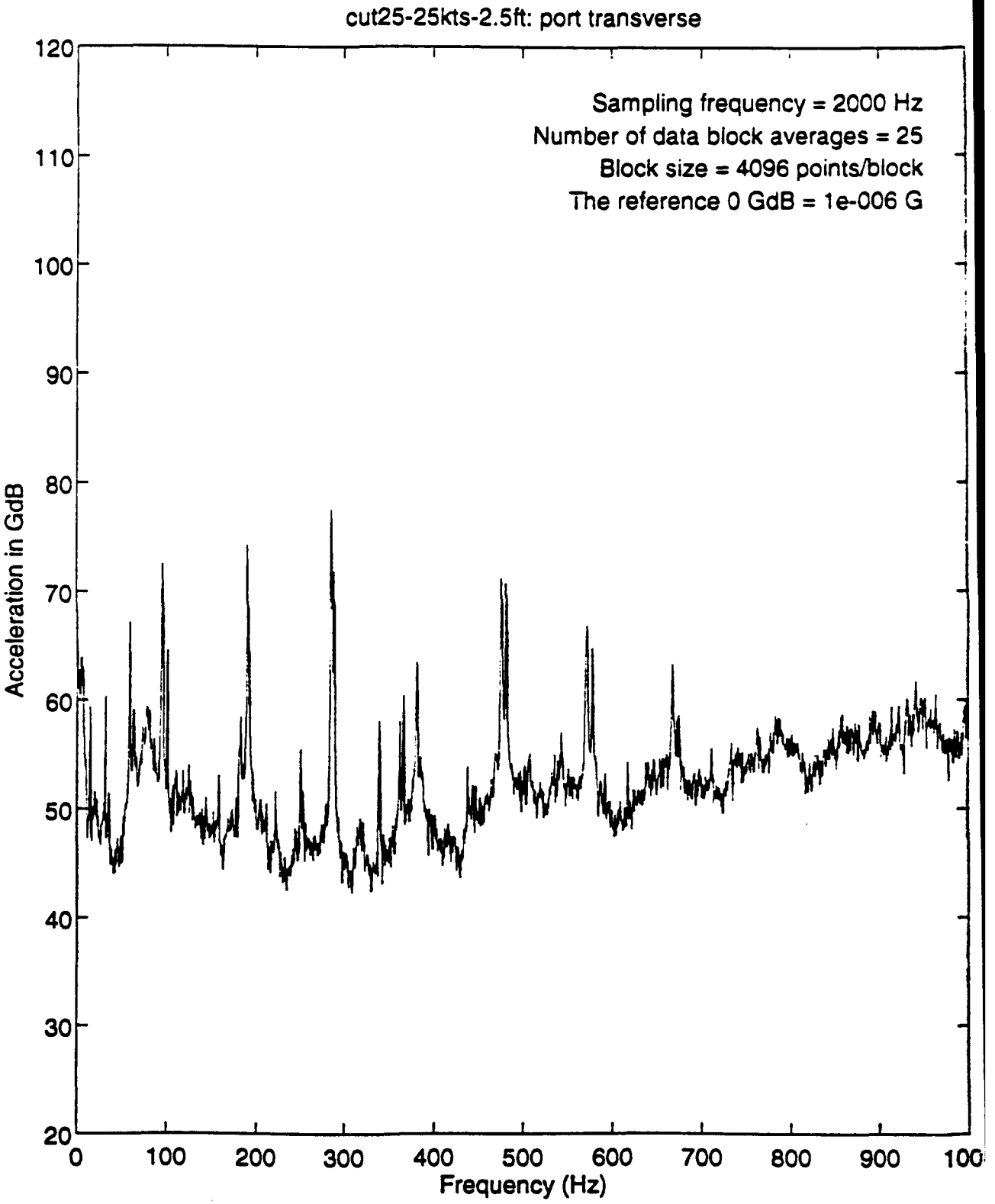
* The time domain

Mean value = -0.00372 G

Standard deviation = 0.04955 G

The plot shows 1024 data points




cut25-25kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
100

cut26-30kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

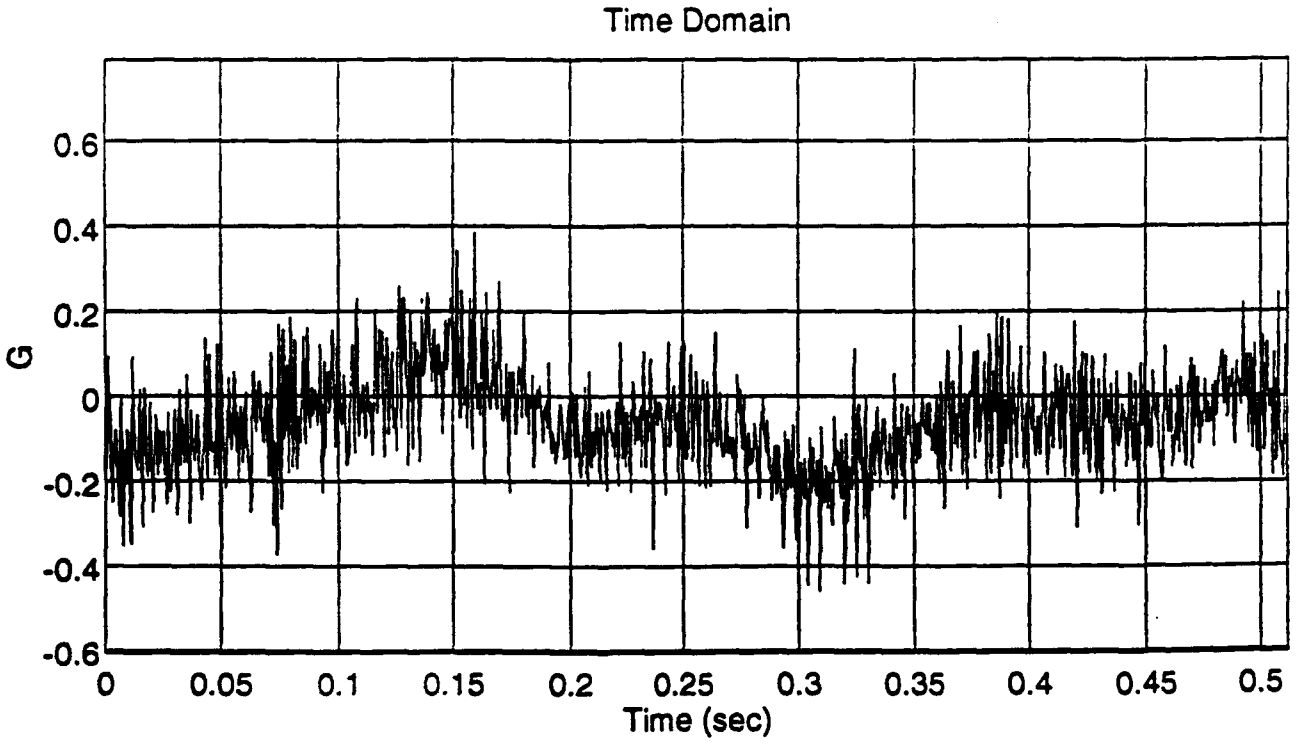
Total number of sampling data points = 1.024e+005

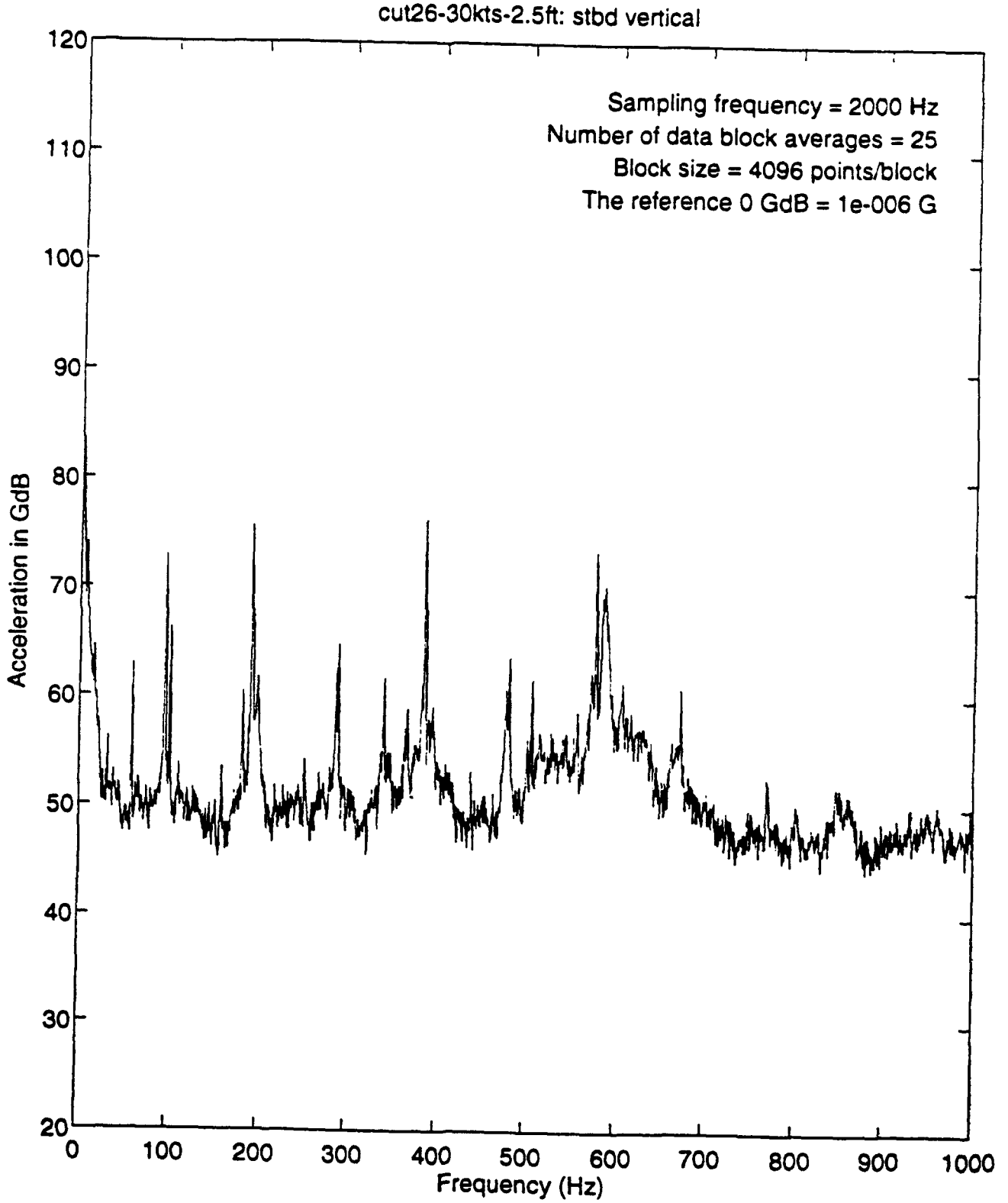
* The time domain

Mean value = -0.009343 G

Standard deviation = 0.154 G

The plot shows 1024 data points



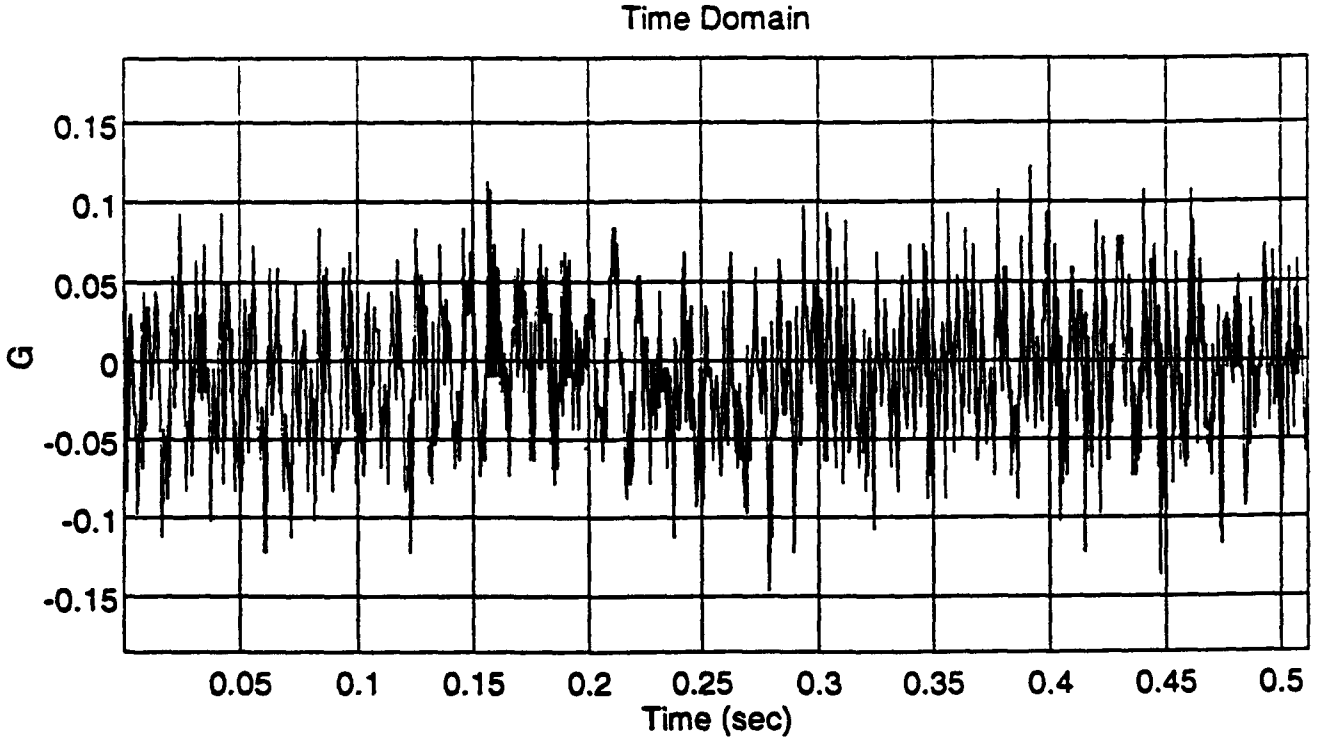

cut26-30kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

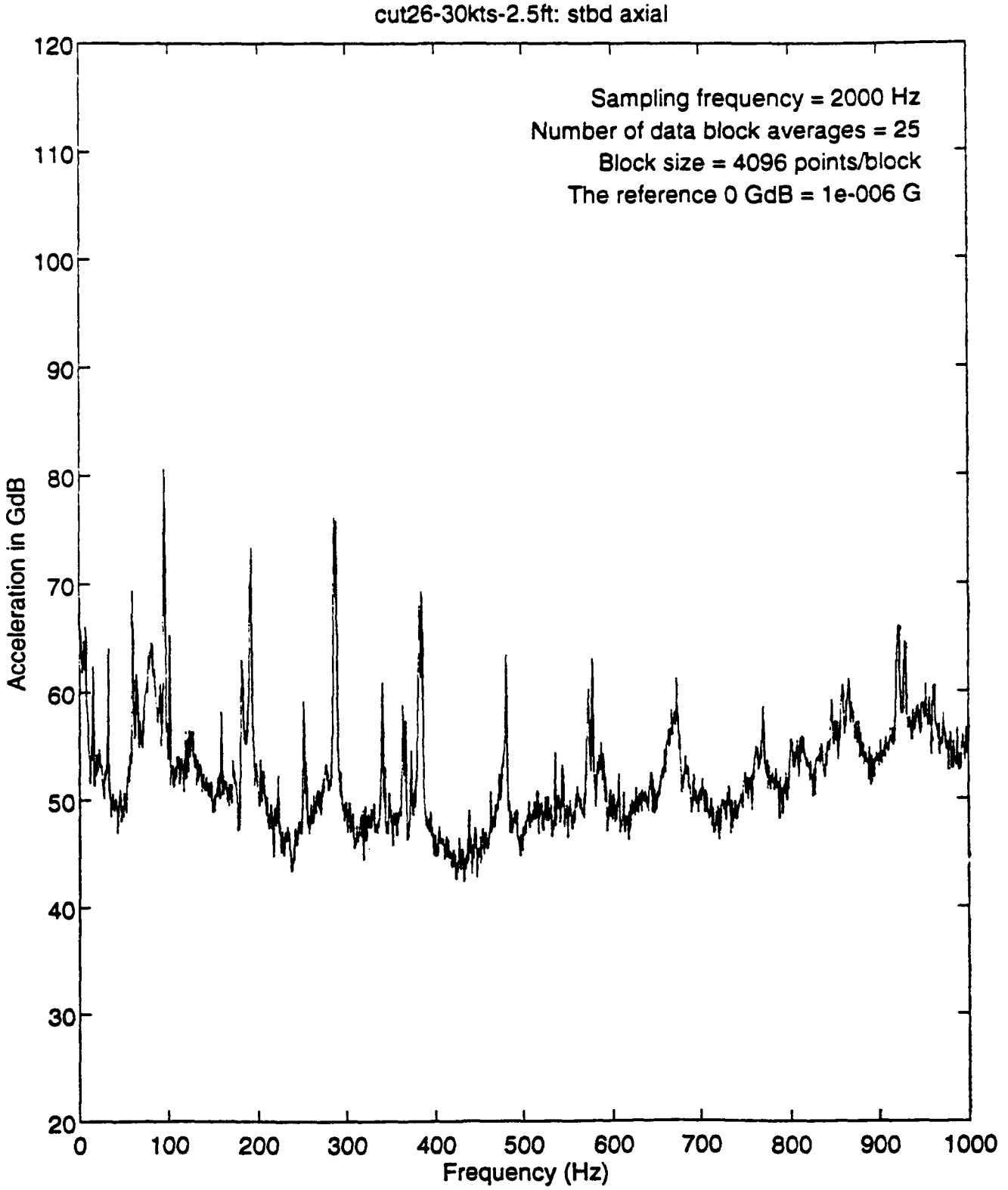
cut26-30kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005024 G
Standard deviation = 0.04573 G
The plot shows 1024 data points




cut26-30kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut26-30kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz

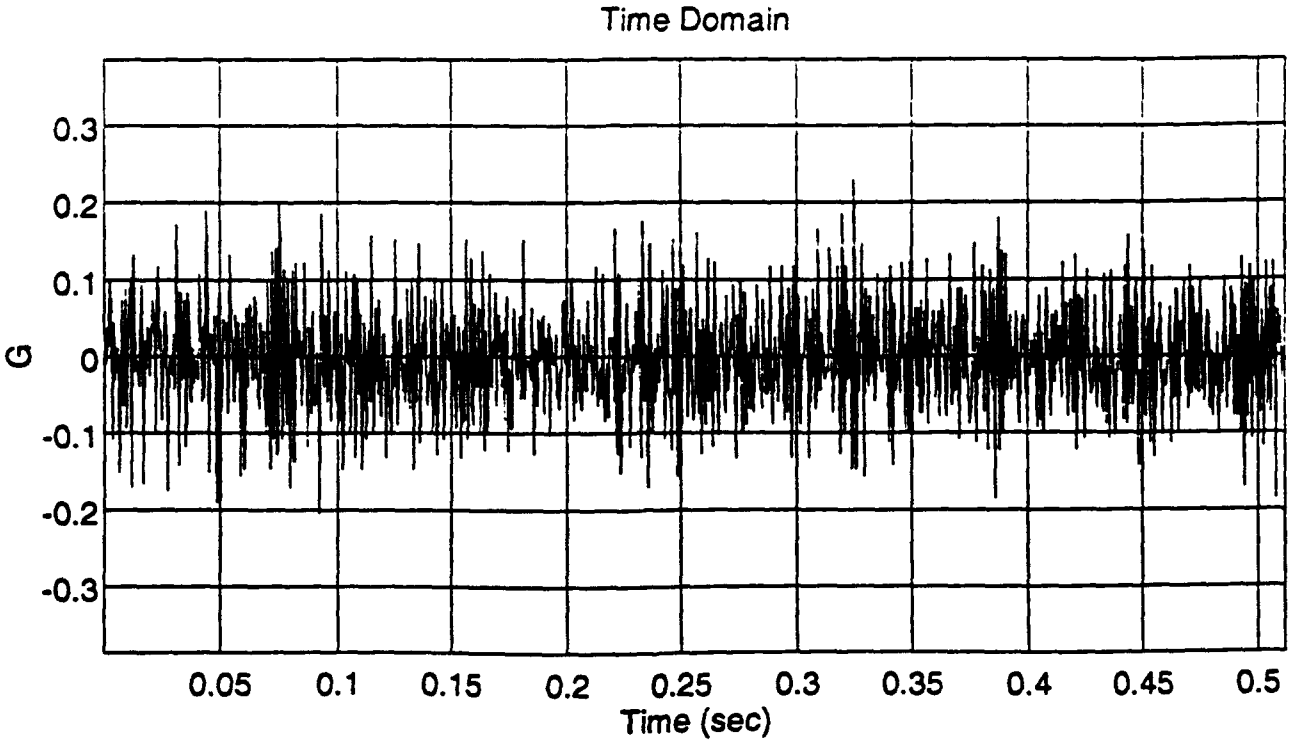
Total number of sampling data points = 1.024e+005

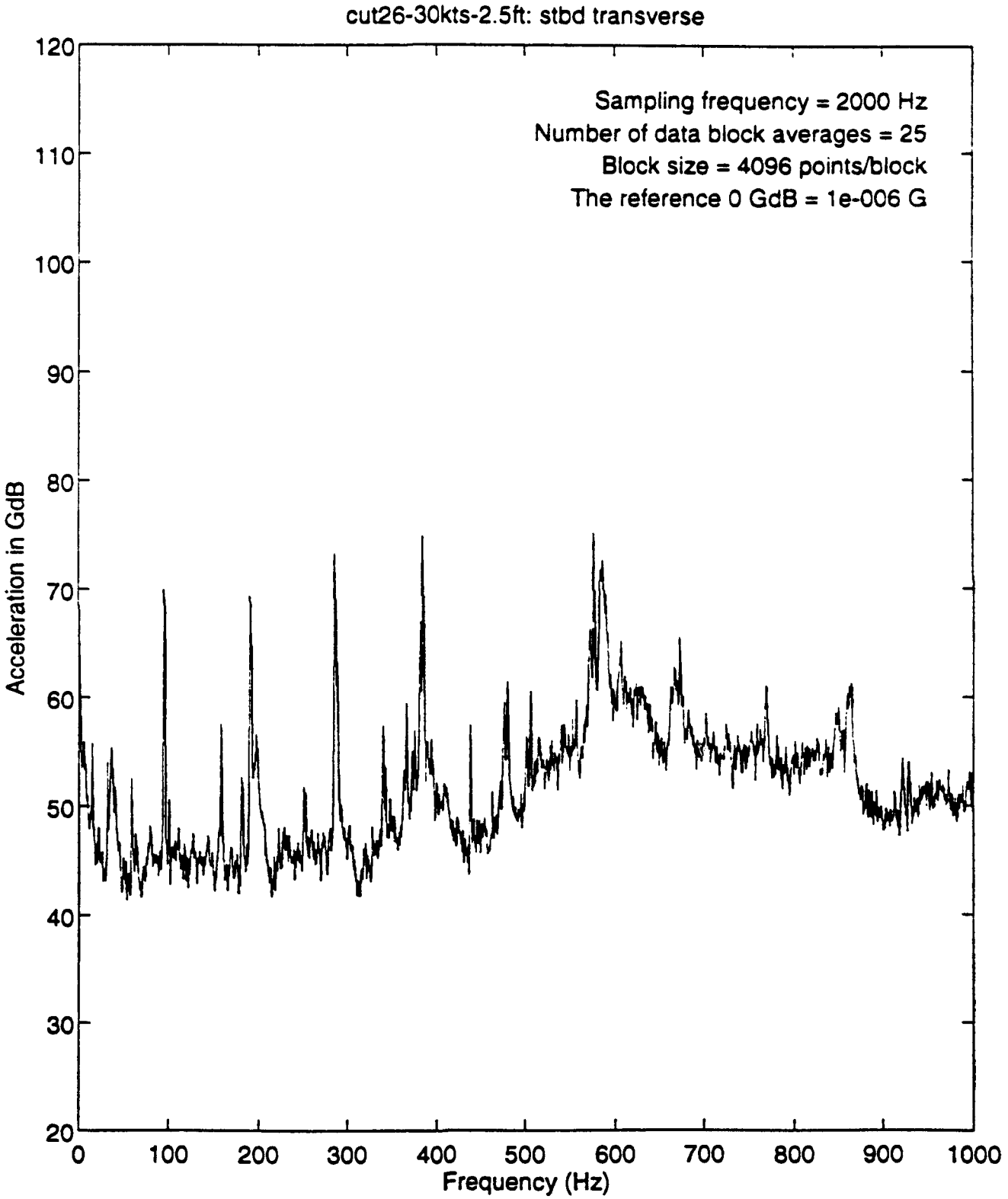
* The time domain

Mean value = -0.004794 G

Standard deviation = 0.07615 G

The plot shows 1024 data points




cut26-30kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut26-30kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz

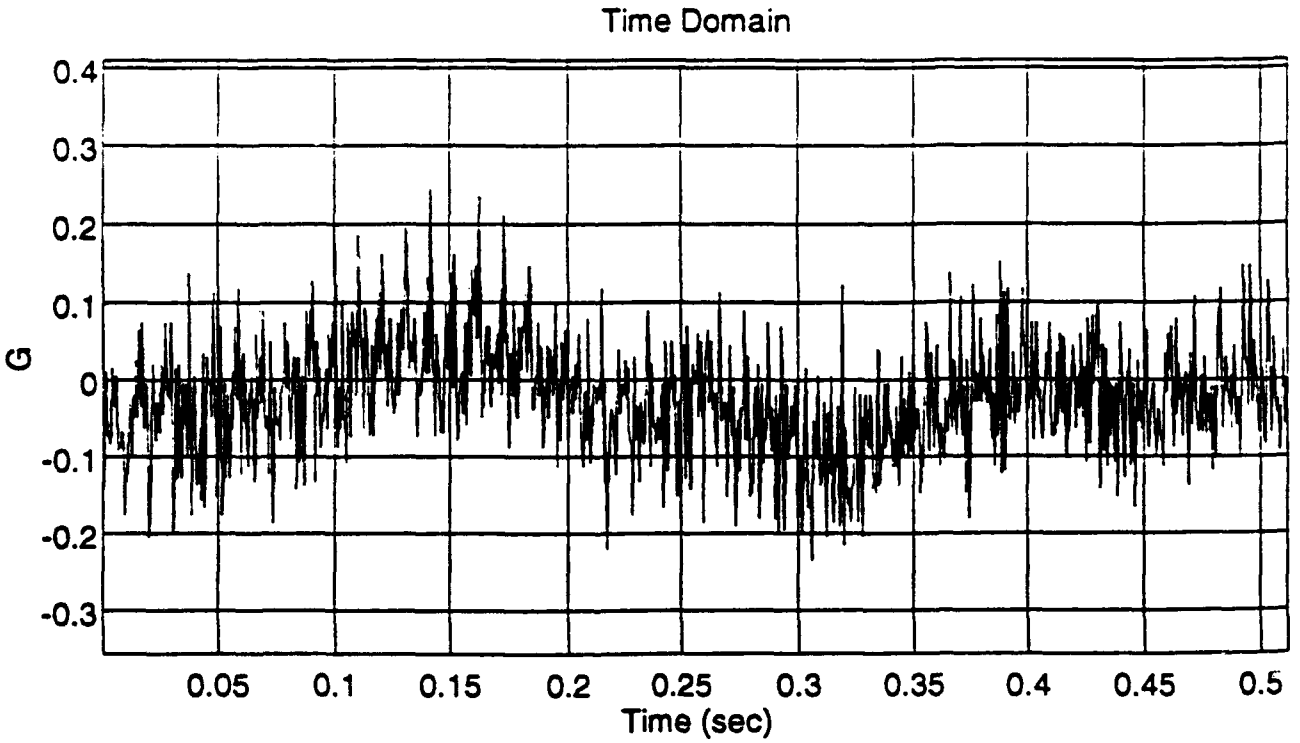
Total number of sampling data points = 1.024e+005

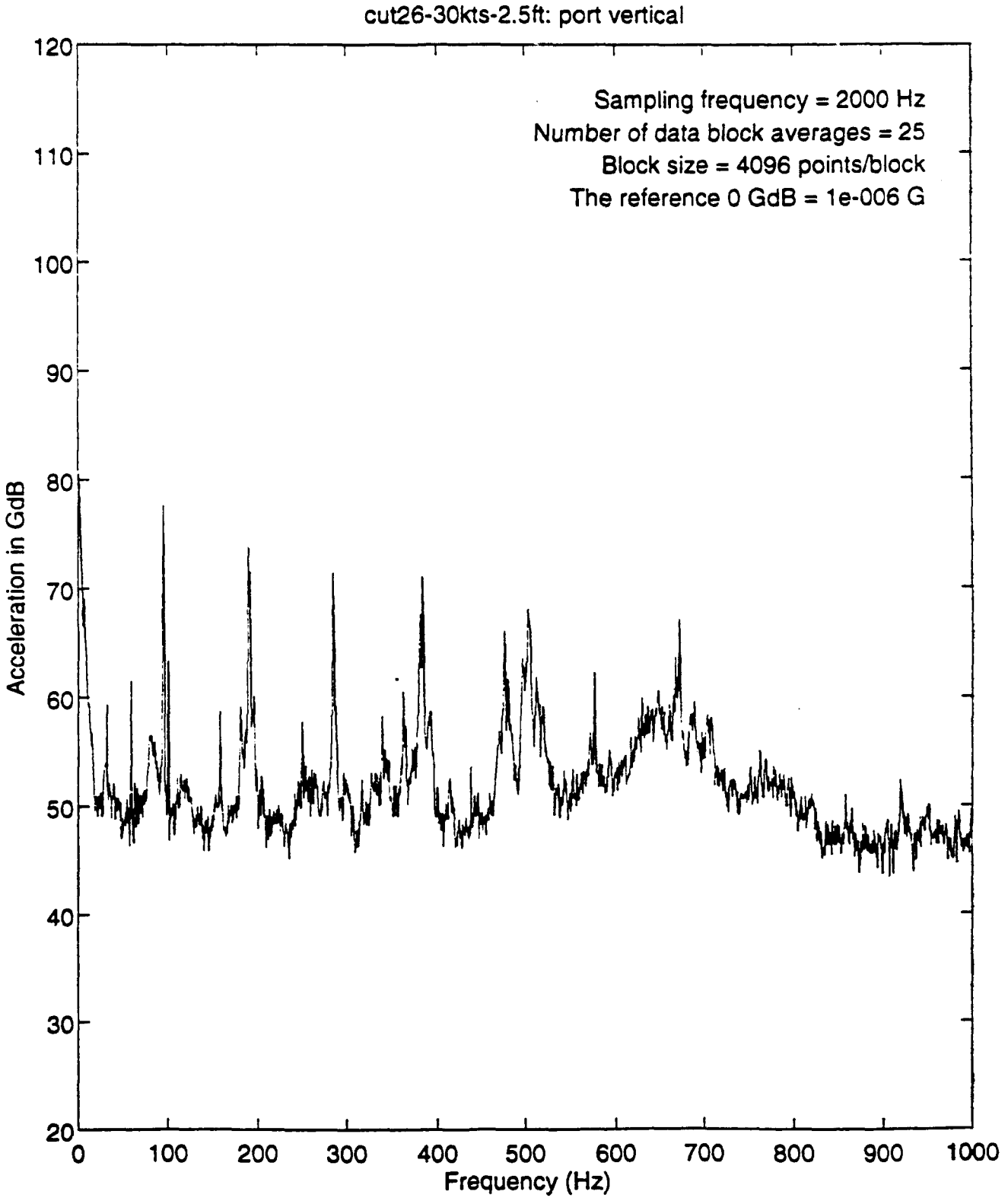
* The time domain

Mean value = -0.004664 G

Standard deviation = 0.08642 G

The plot shows 1024 data points



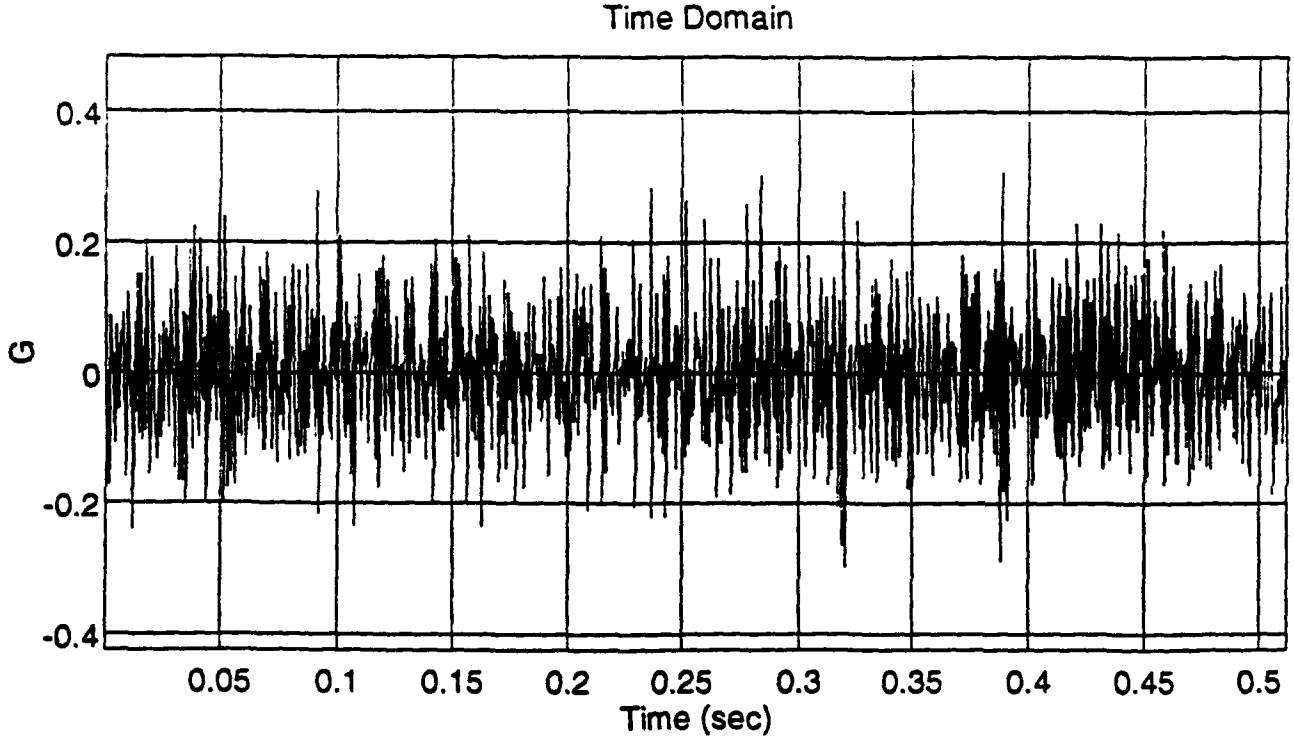

cut26-30kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

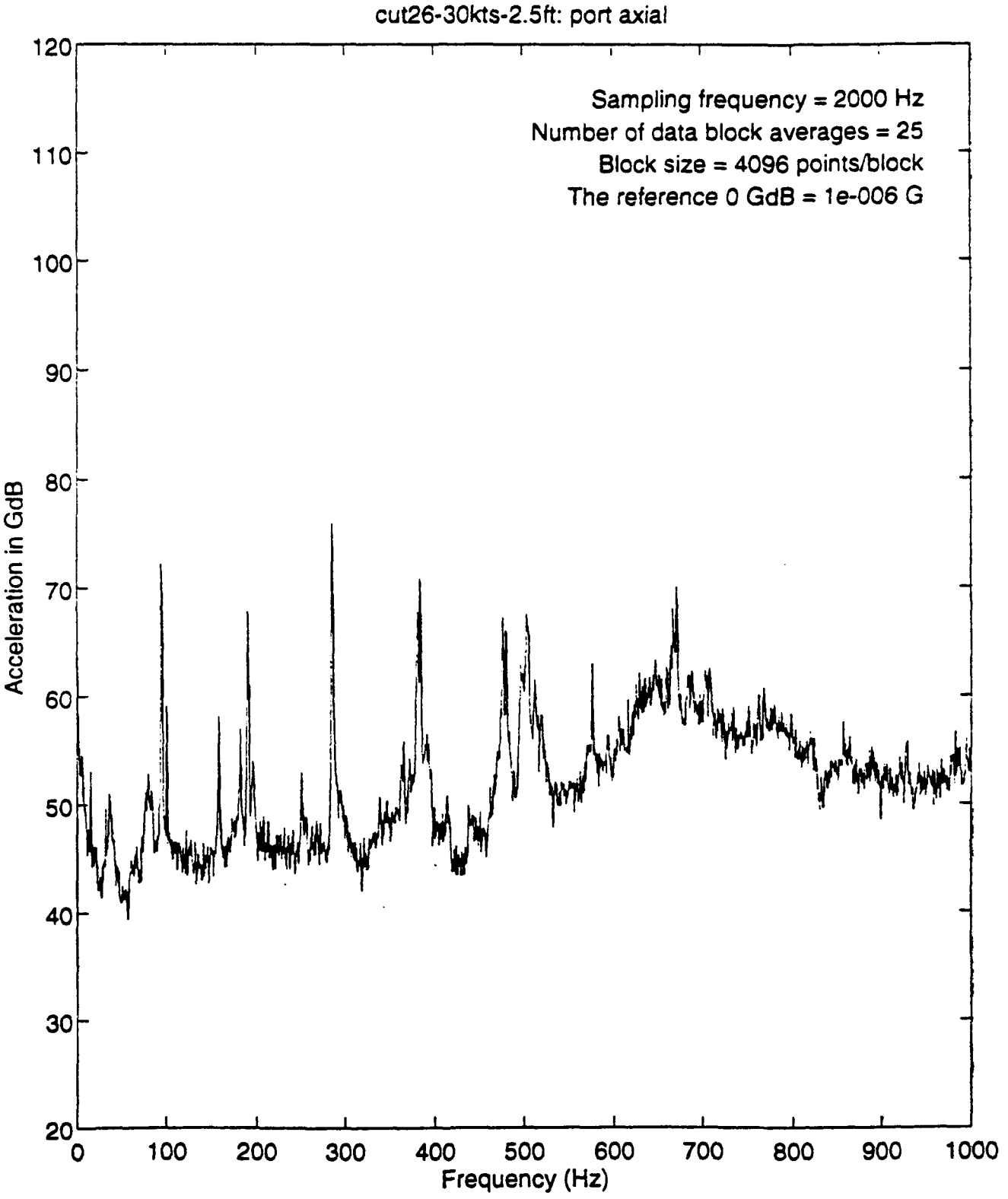
cut26-30kts-2.5ft: port axial

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.005193 G
Standard deviation = 0.09918 G
The plot shows 1024 data points



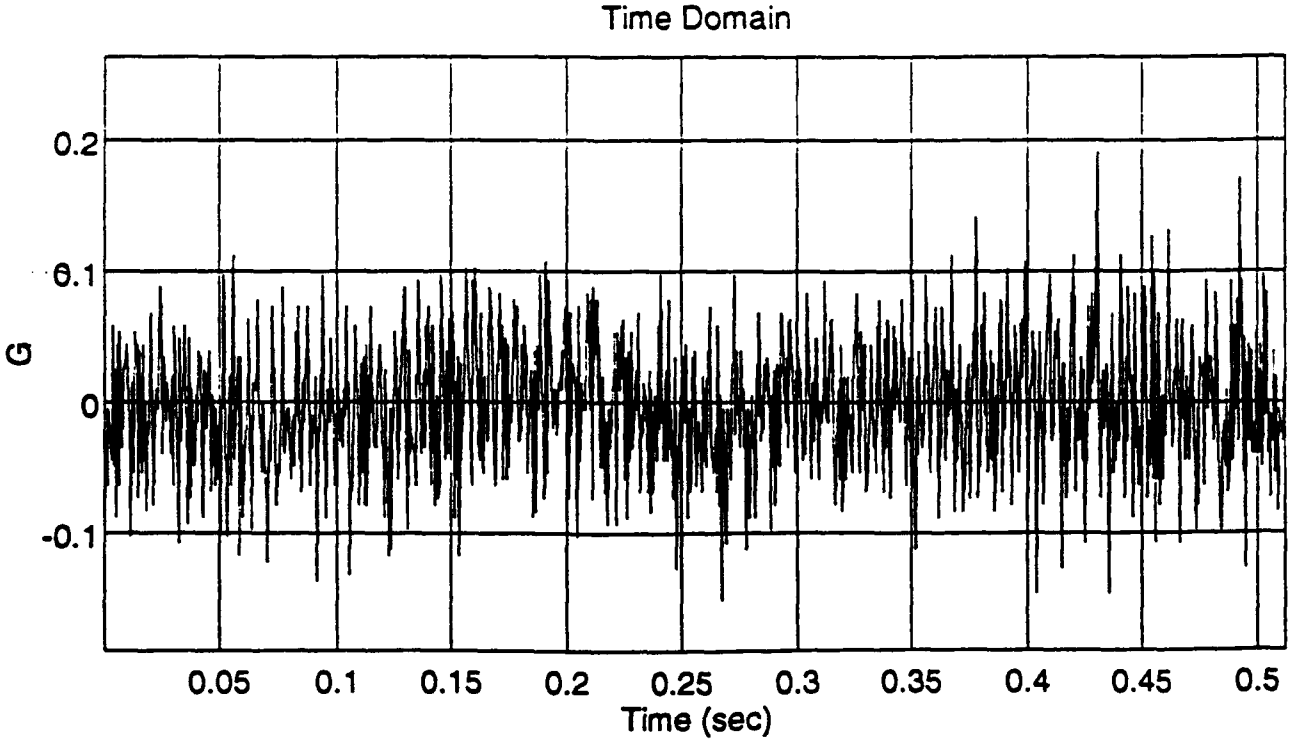

cut26-30kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

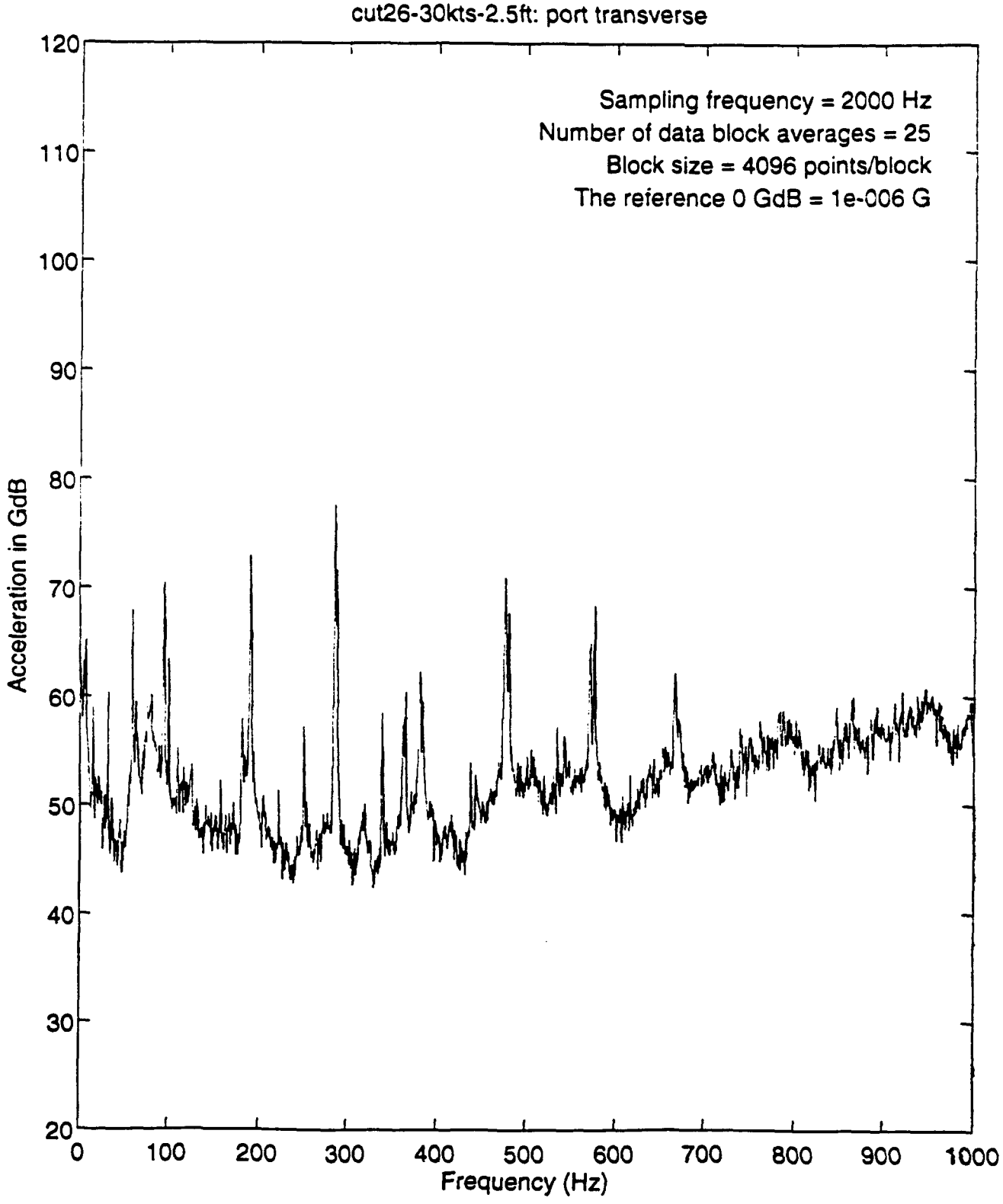
cut26-30kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003122 G
Standard deviation = 0.04943 G
The plot shows 1024 data points




cut26-30kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut27-31kts-2.5ft: stbd vertical

Data sampling frequency = 2000 Hz

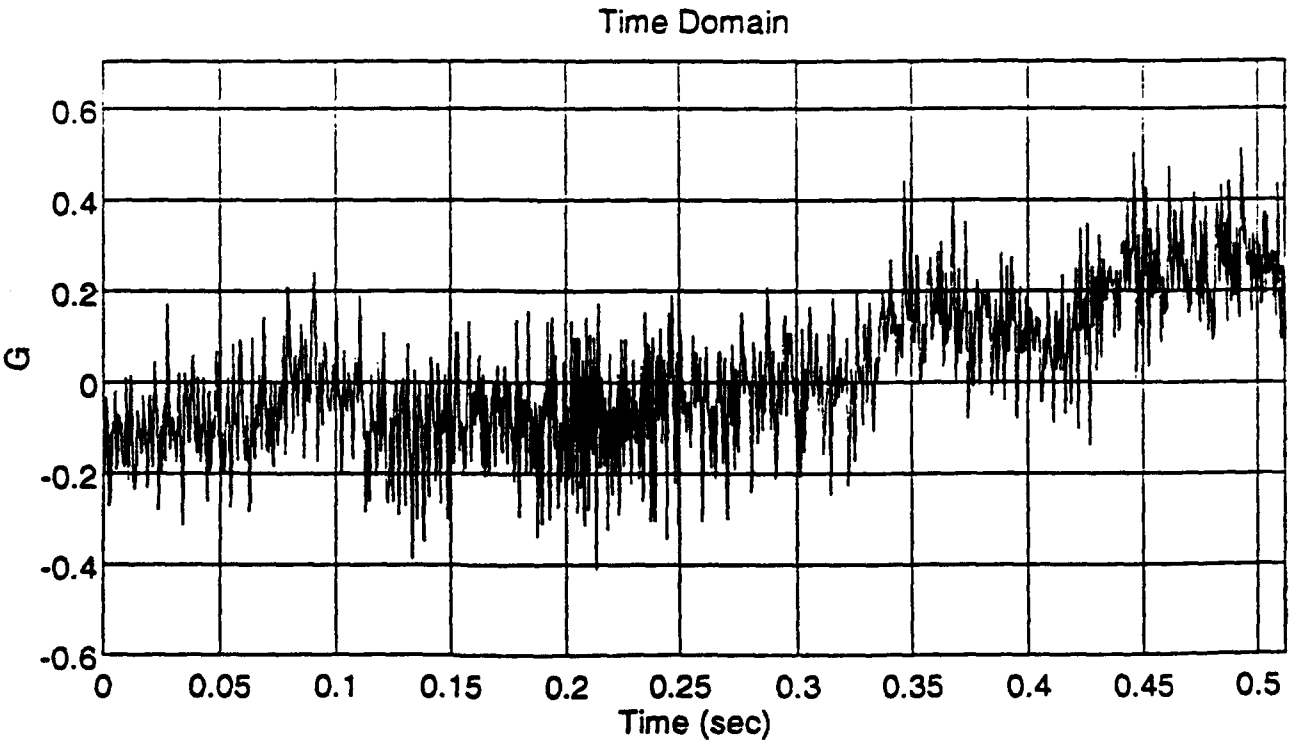
Total number of sampling data points = 1.024e+005

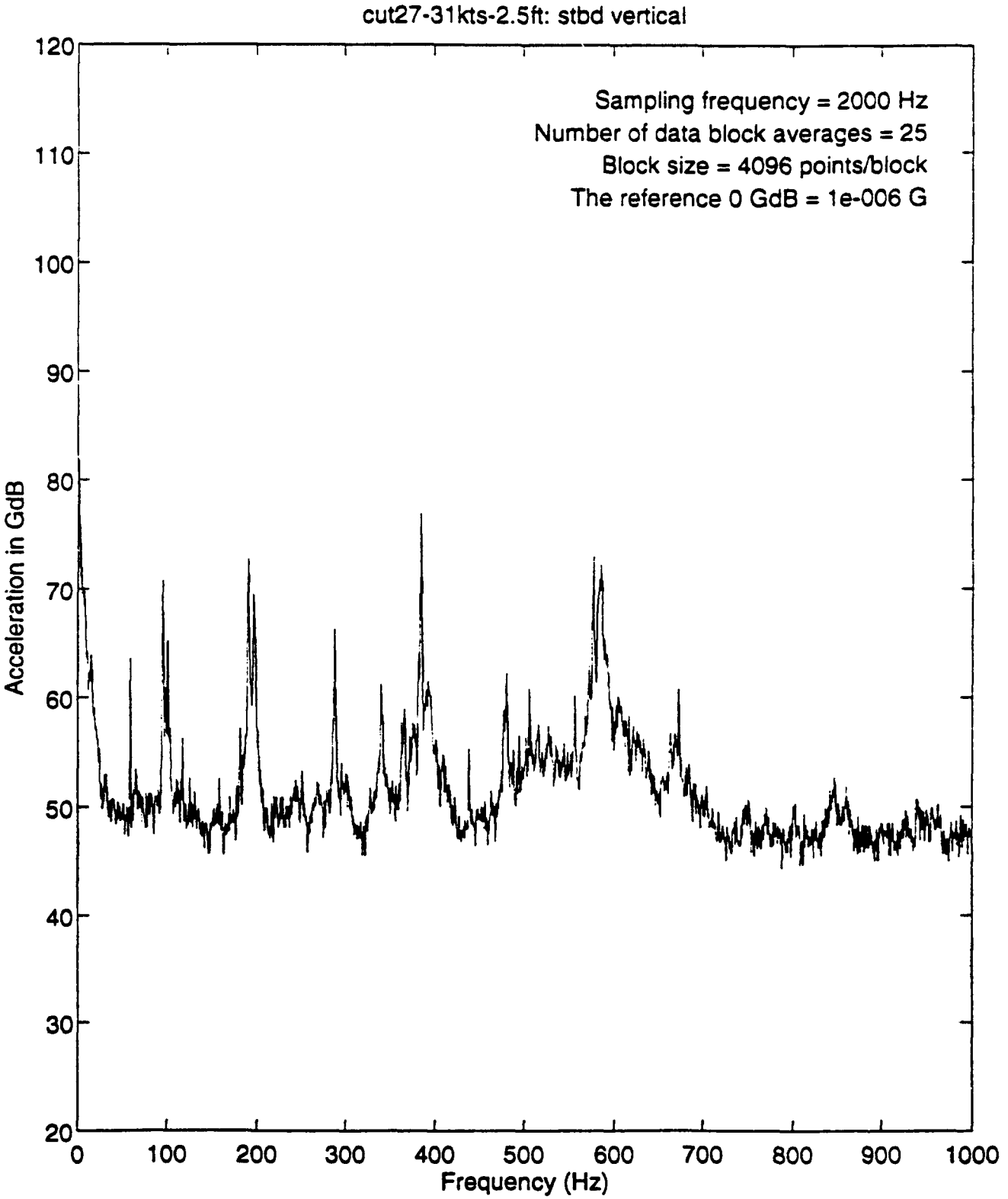
* The time domain

Mean value = -0.01193 G

Standard deviation = 0.1322 G

The plot shows 1024 data points




cut27-31kts-2.5ft: stbd vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut27-31kts-2.5ft: stbd axial

Data sampling frequency = 2000 Hz

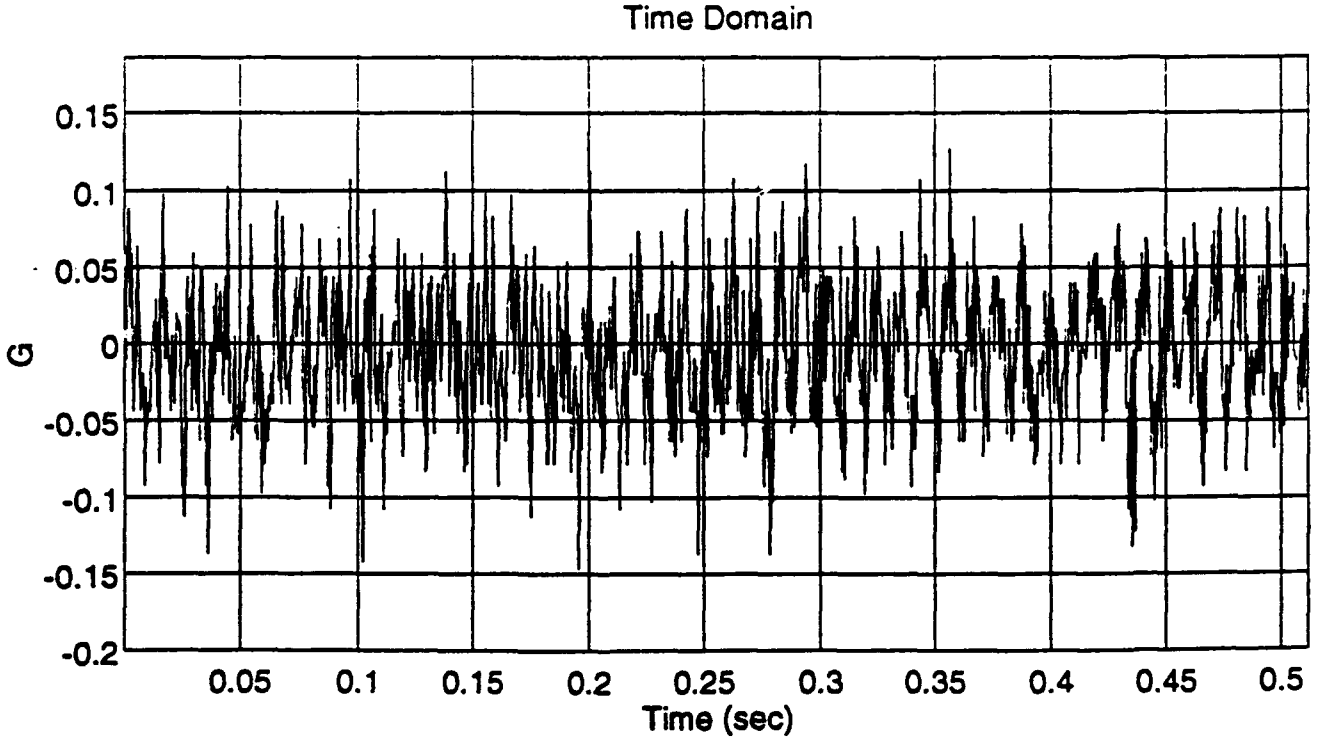
Total number of sampling data points = 1.024e+005

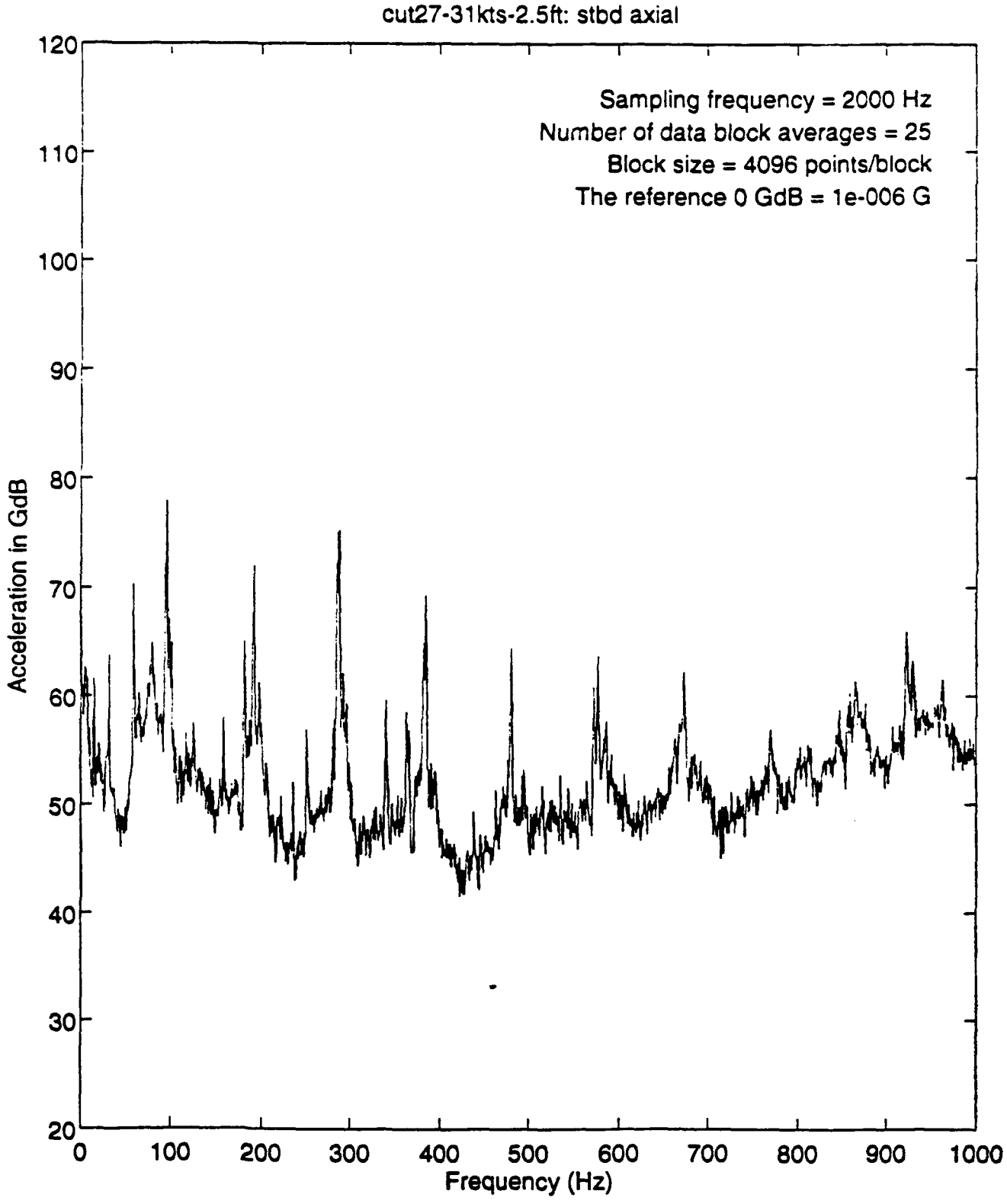
* The time domain

Mean value = -0.008239 G

Standard deviation = 0.0426 G

The plot shows 1024 data points



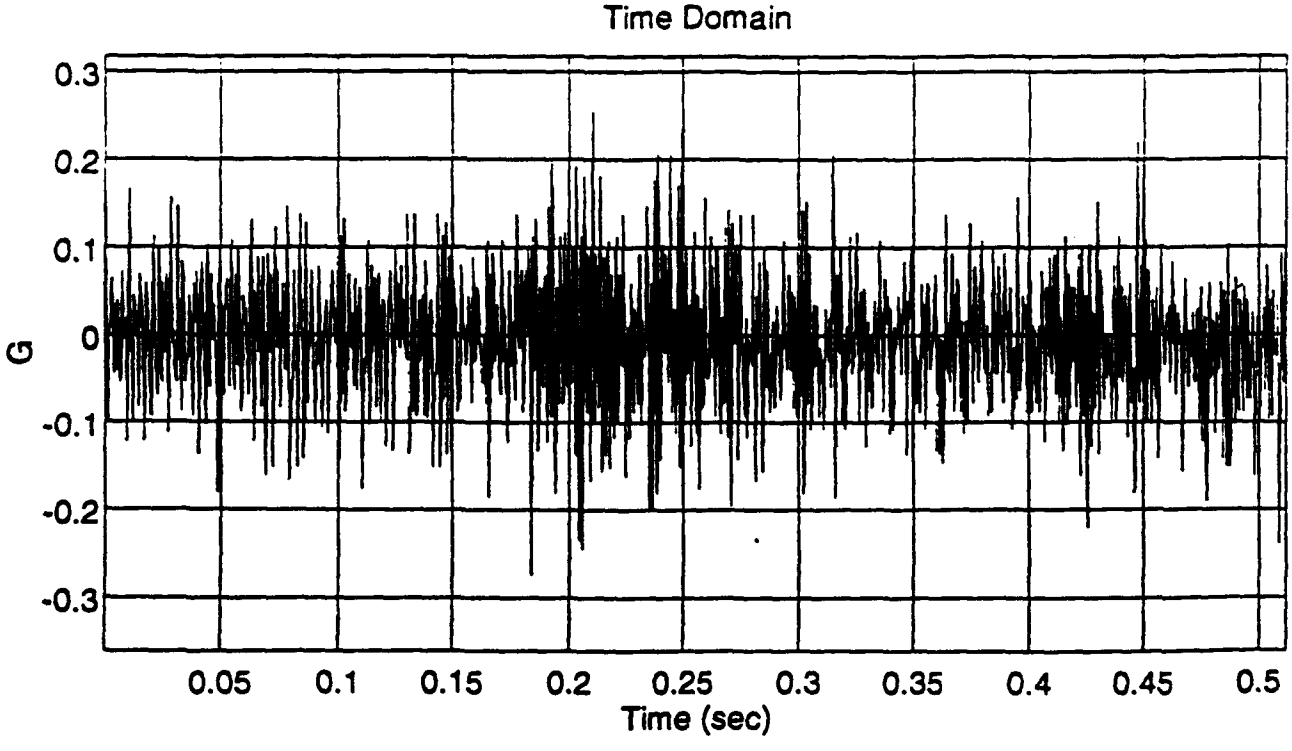

cut27-31kts-2.5ft: stbd axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

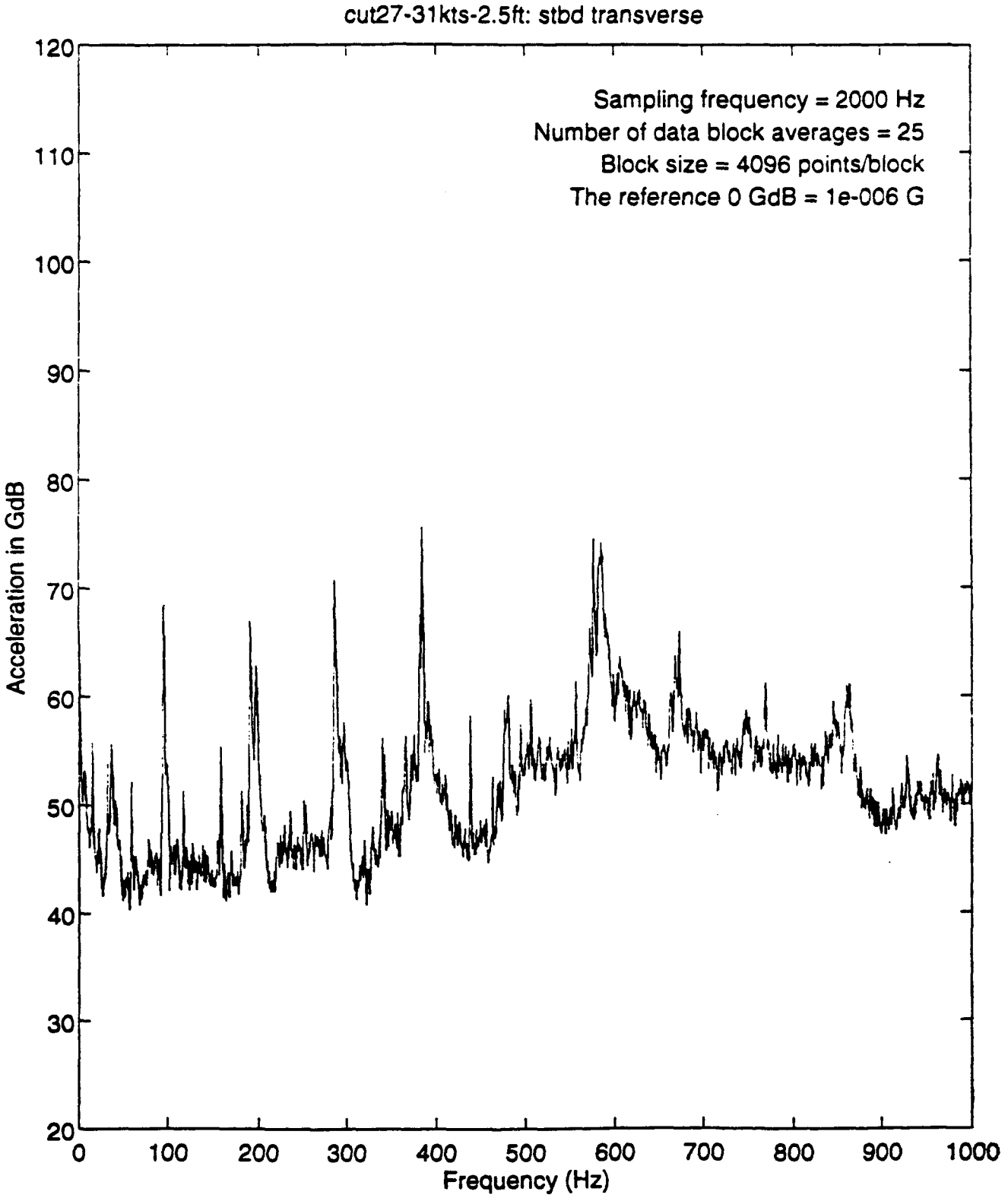
cut27-31kts-2.5ft: stbd transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.003232 G
Standard deviation = 0.07568 G
The plot shows 1024 data points



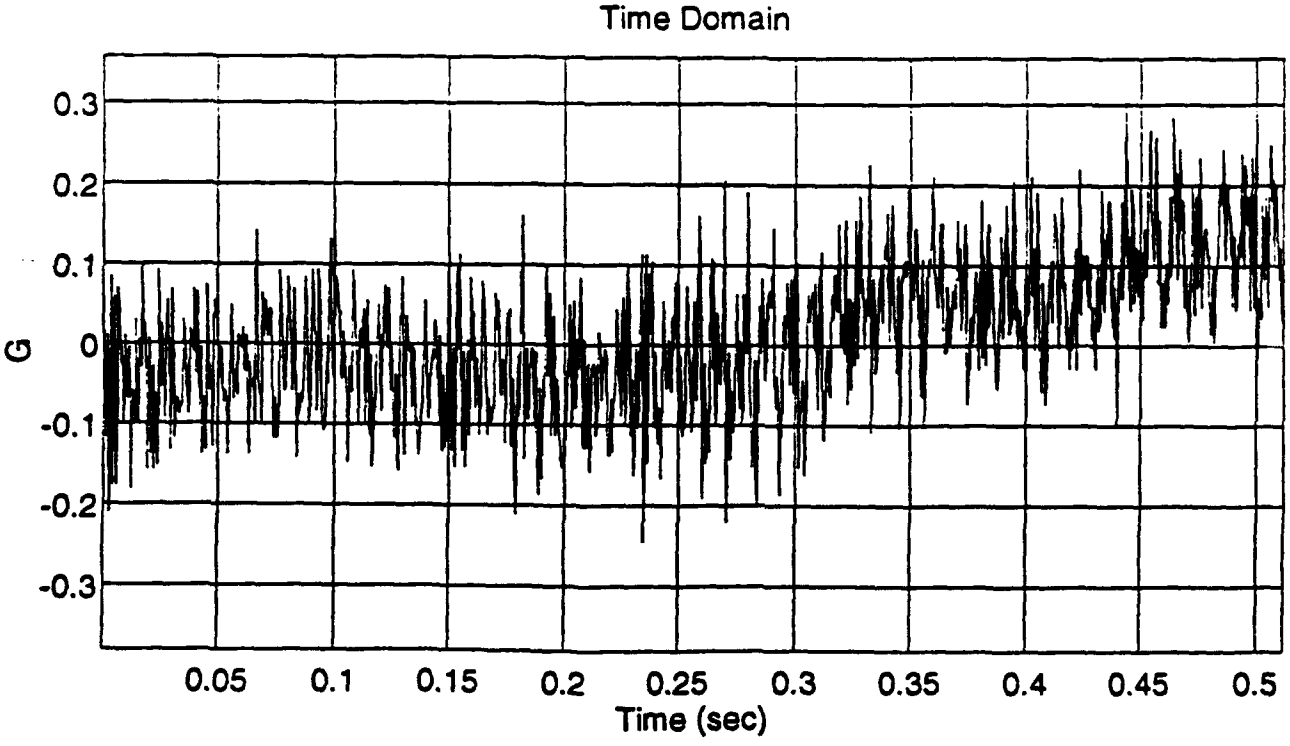

cut27-31kts-2.5ft: stbd transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

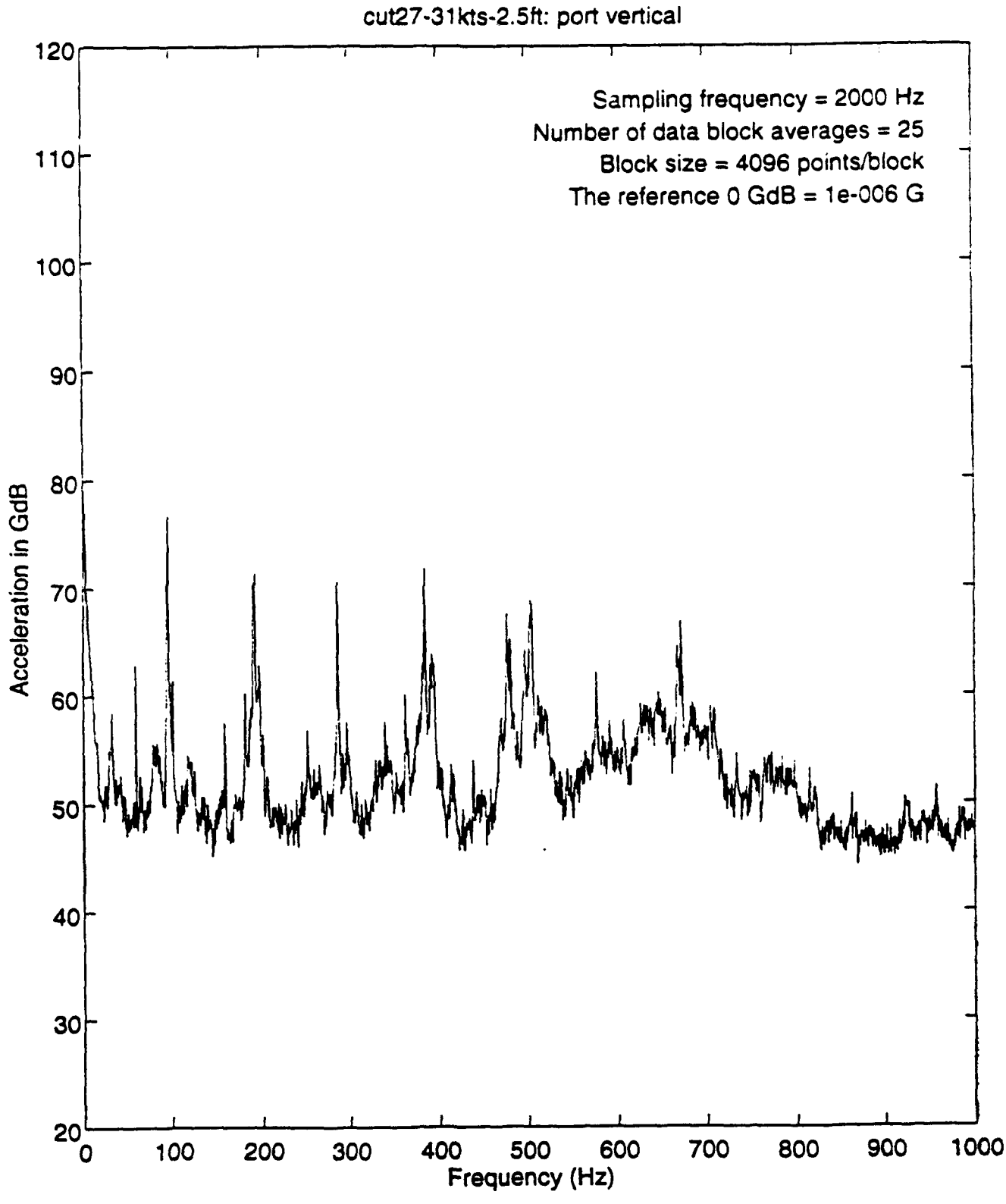
cut27-31kts-2.5ft: port vertical

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = 0.0001124 G
Standard deviation = 0.07538 G
The plot shows 1024 data points




cut27-31kts-2.5ft: port vertical
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

cut27-31kts-2.5ft: port axial

Data sampling frequency = 2000 Hz

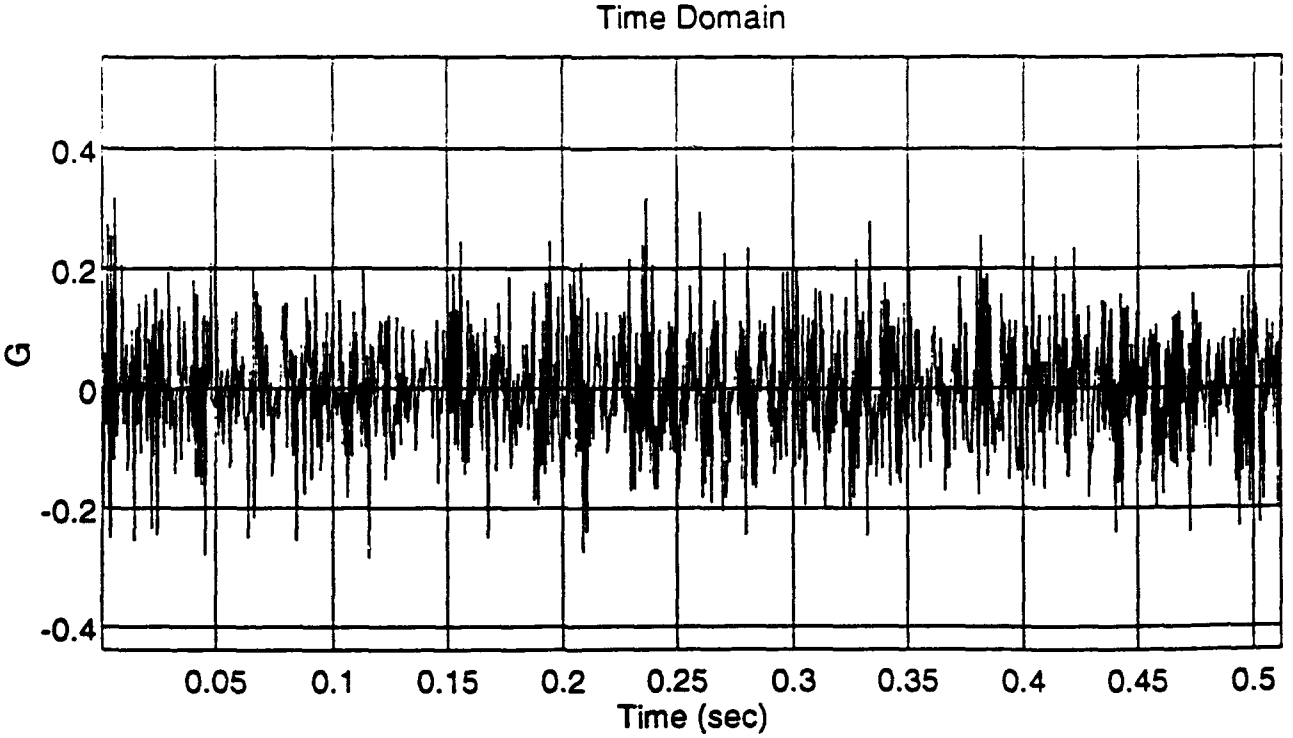
Total number of sampling data points = 1.024e+005

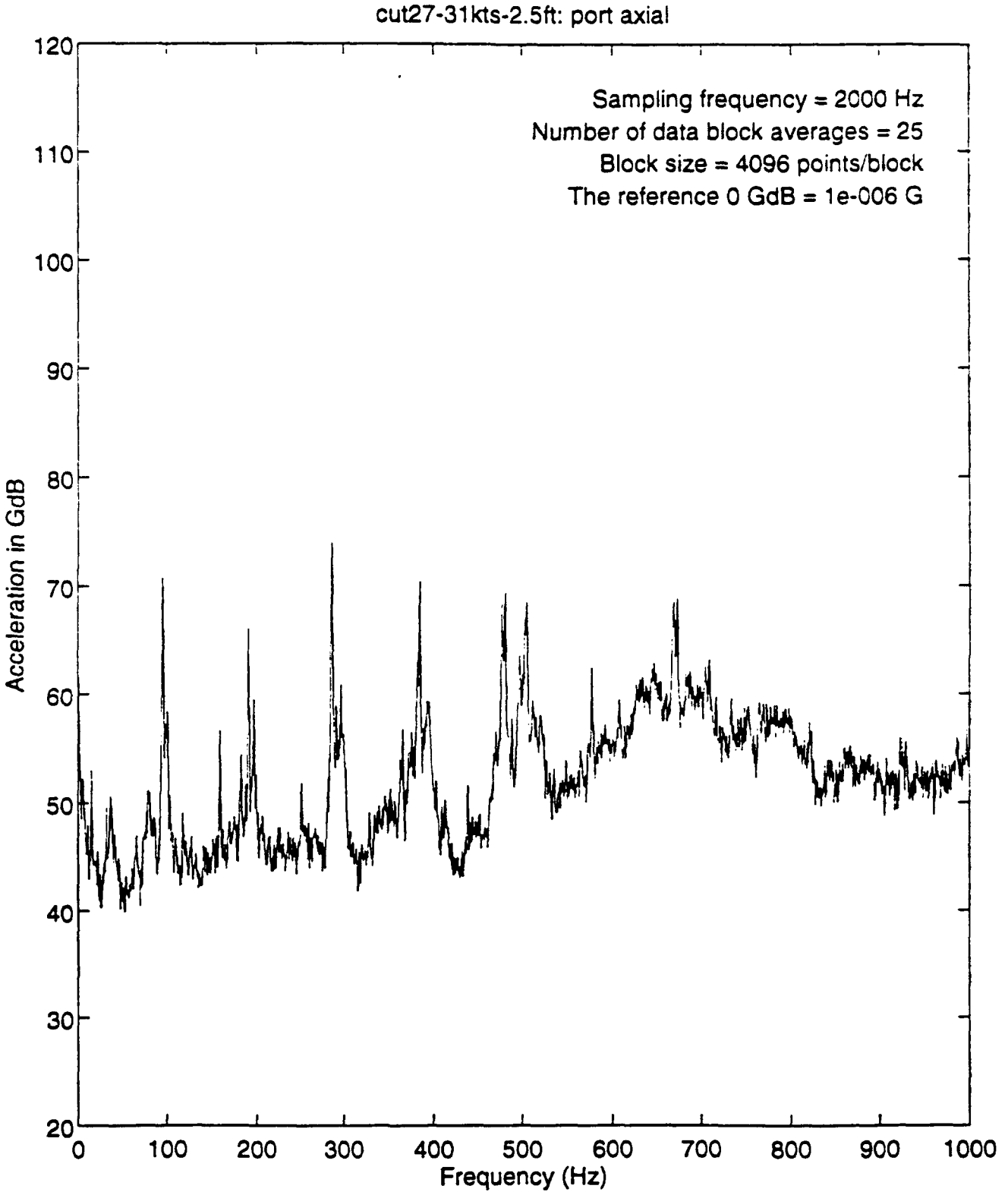
* The time domain

Mean value = -0.003423 G

Standard deviation = 0.0953 G

The plot shows 1024 data points



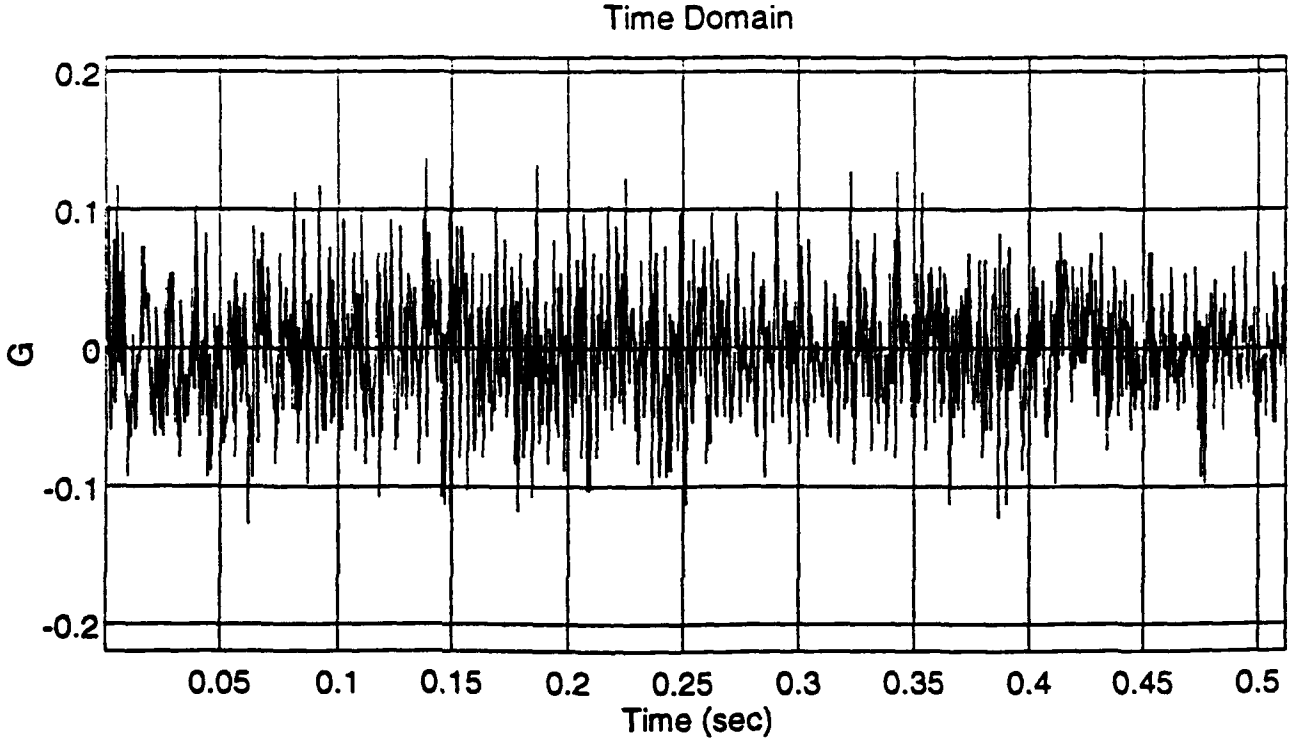

cut27-31kts-2.5ft: port axial
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

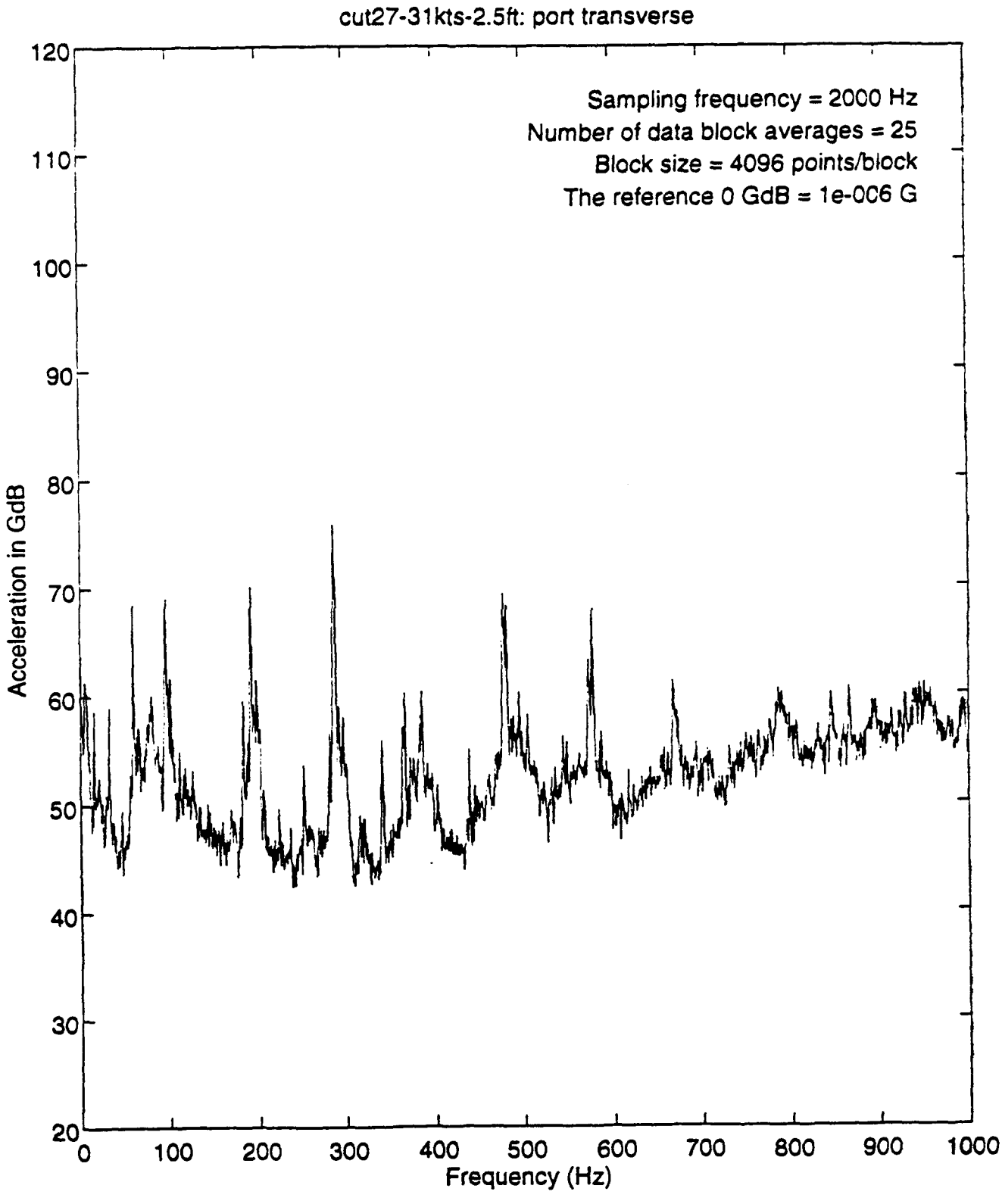
cut27-31kts-2.5ft: port transverse

Data sampling frequency = 2000 Hz
Total number of sampling data points = 1.024e+005

* The time domain

Mean value = -0.002723 G
Standard deviation = 0.04734 G
The plot shows 1024 data points




cut27-31kts-2.5ft: port transverse
Sampling frequency = 2000 Hz
Number of data block averages = 25
Block size = 4096 points/block
The reference 0 GdB = 1e-006 G
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
100
200
300
400
500
600
700
800
900
1000

APPENDIX C

SELECTED NARROWBAND TEST DATA

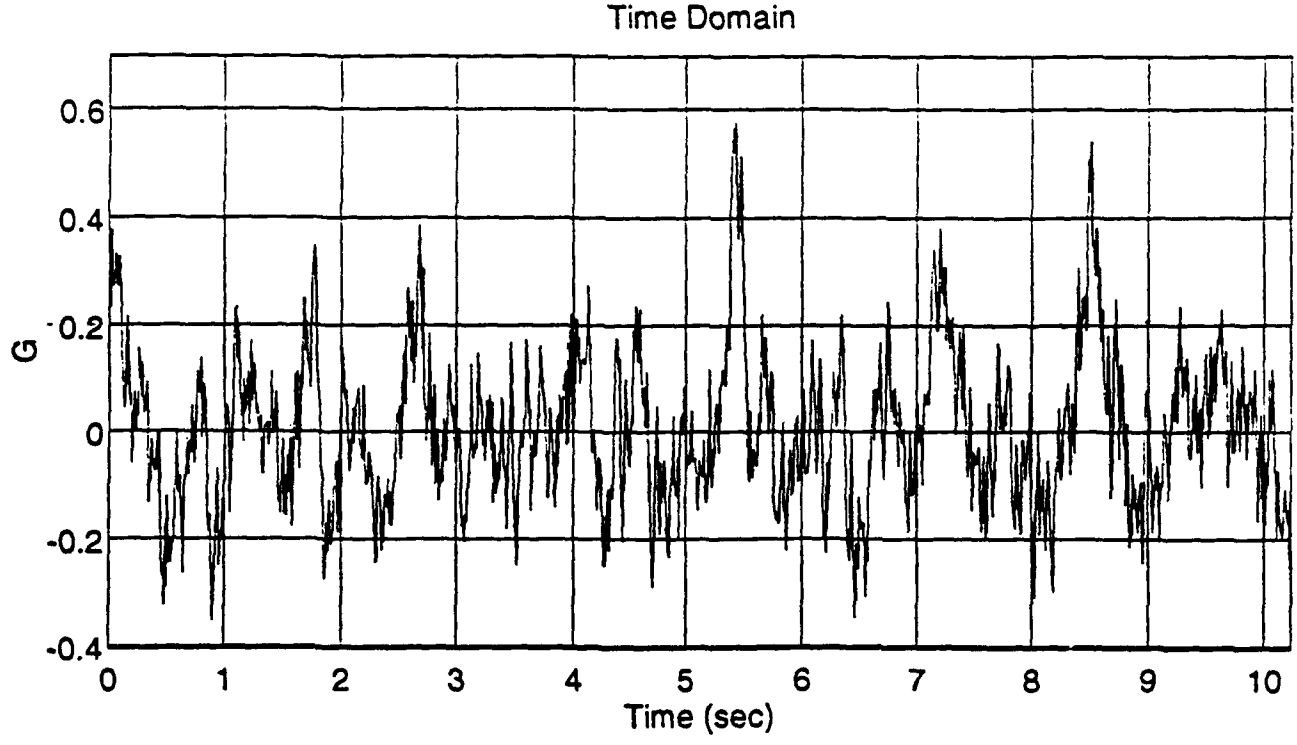
FOR STARBOARD AND PORTSIDE TRIAXIAL TRANSDUCERS

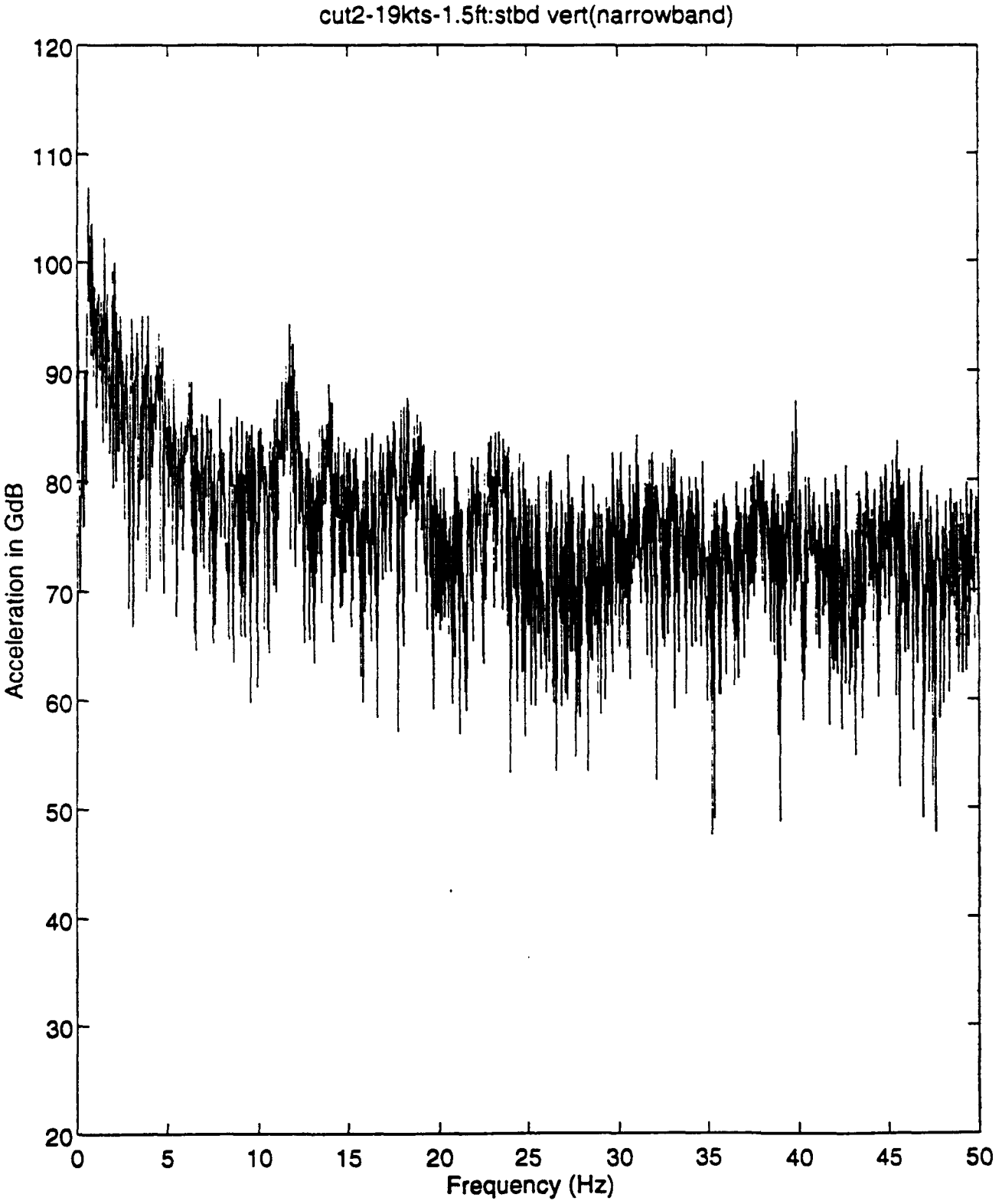
cut2-19kts-1.5ft:stbd vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.01201 G
Standard deviation = 0.152 G
The plot shows 1024 data points



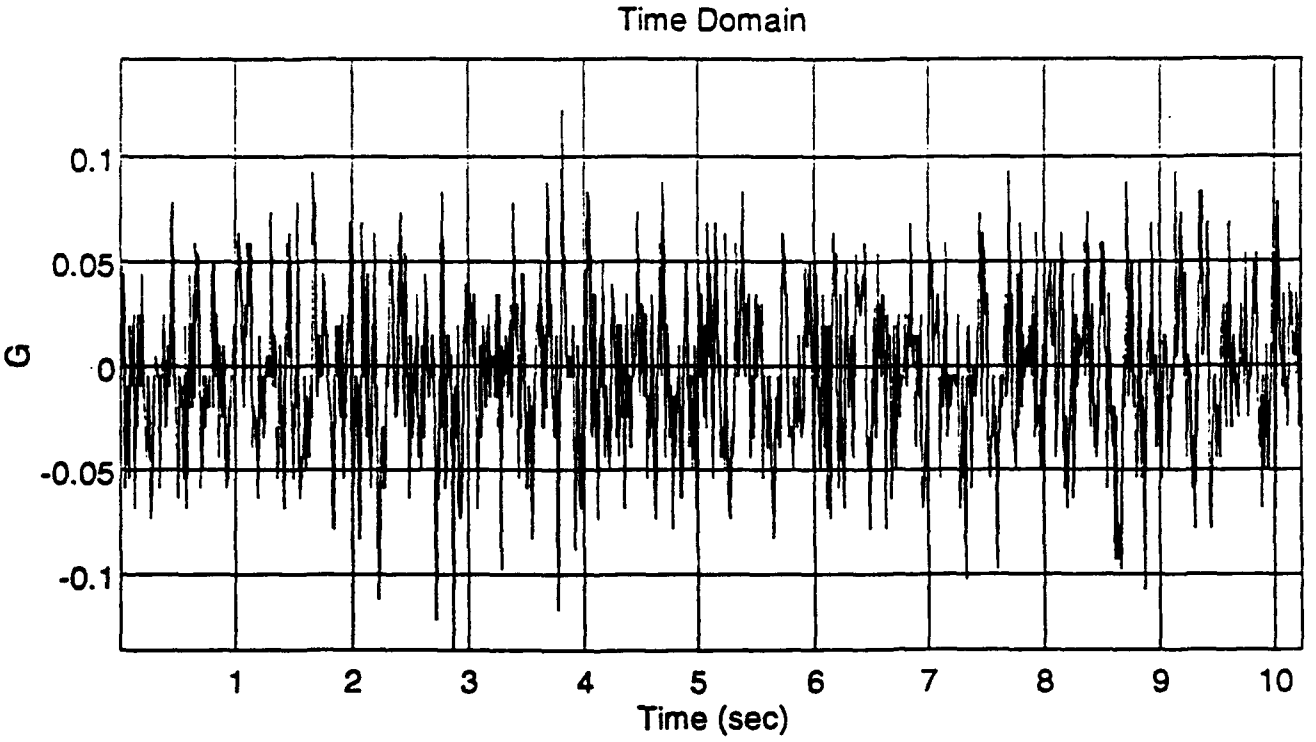

cut2-19kts-1.5ft:stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

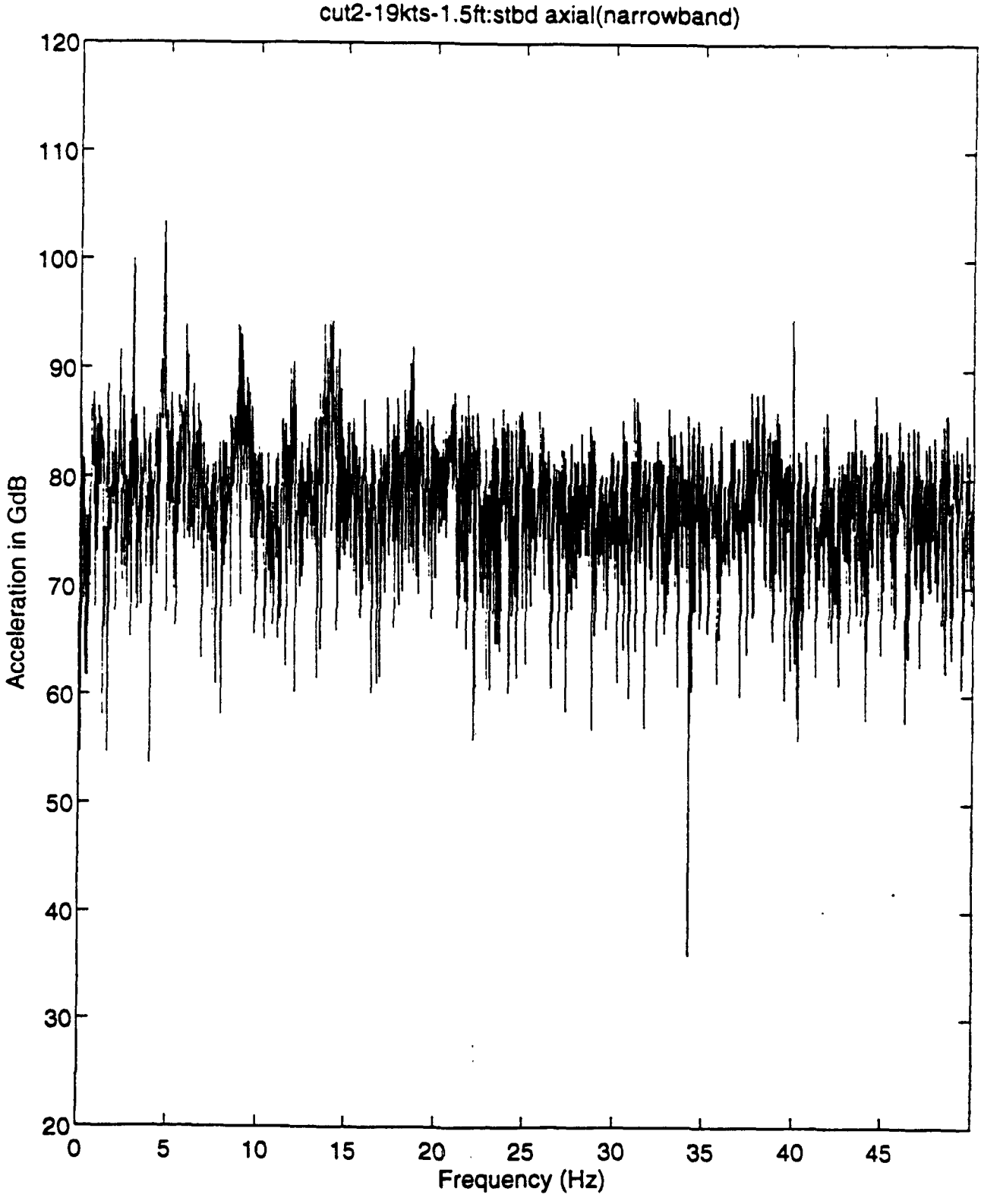
cut2-19kts-1.5ft:stbd axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.003854 G
Standard deviation = 0.0374 G
The plot shows 1024 data points



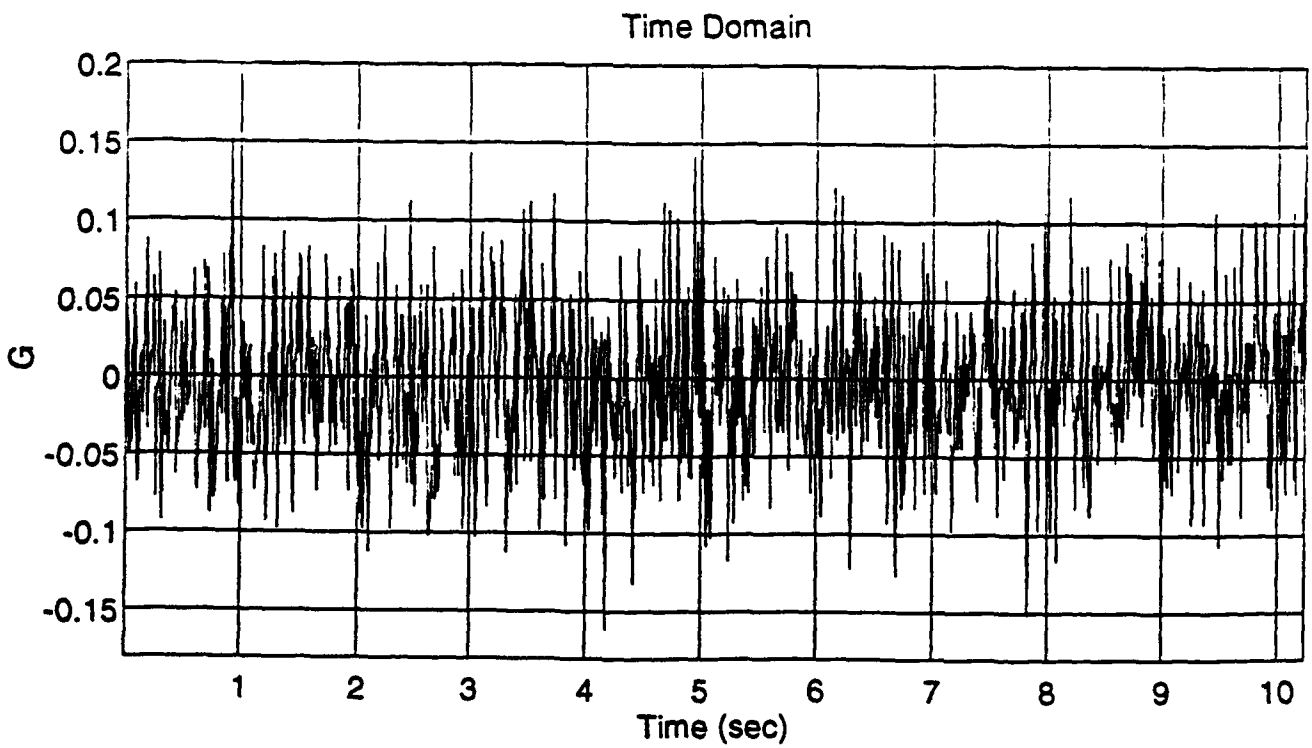

cut2-19kts-1.5ft:stbd axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

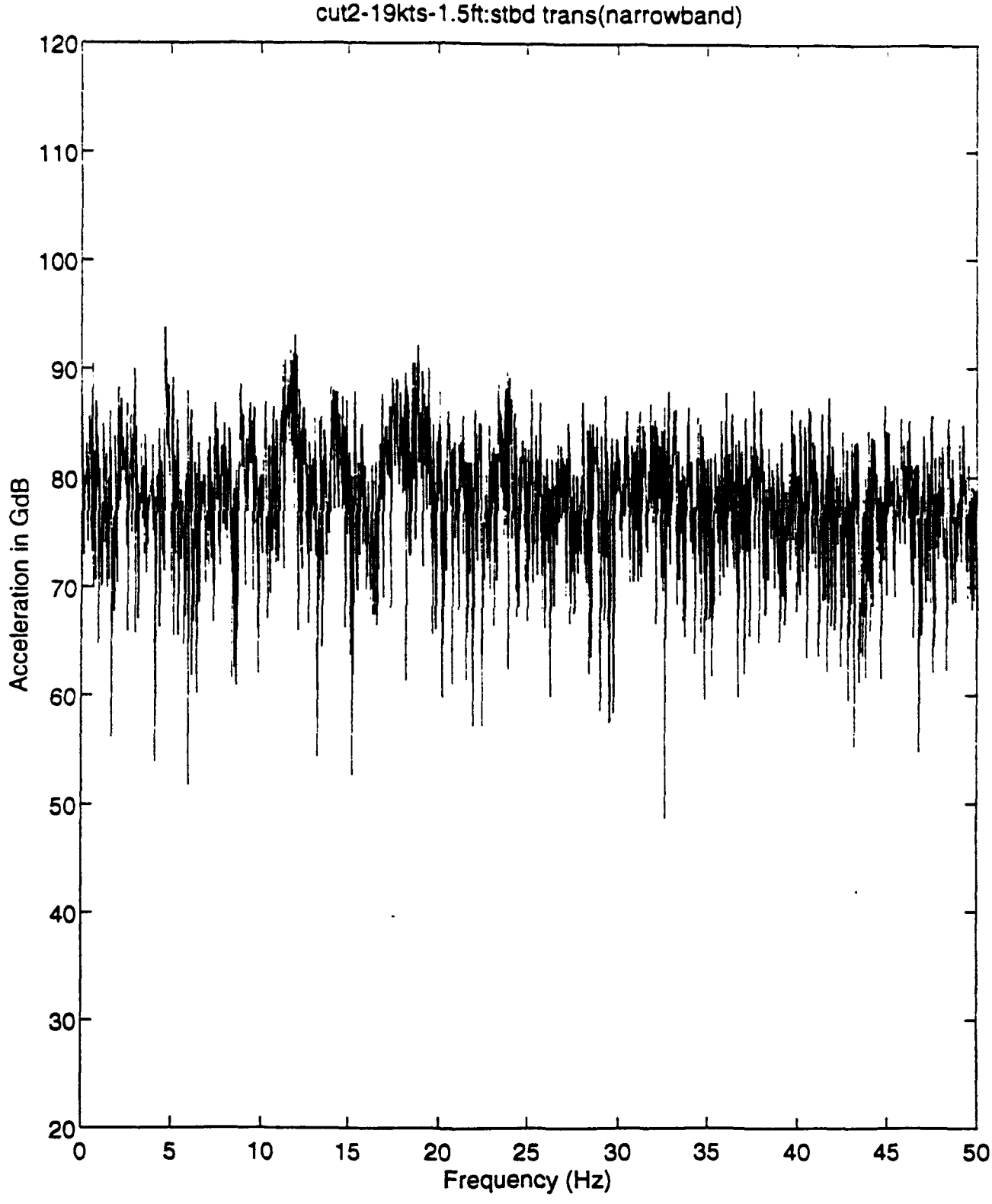
cut2-19kts-1.5ft:stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.001539 G
Standard deviation = 0.04871 G
The plot shows 1024 data points



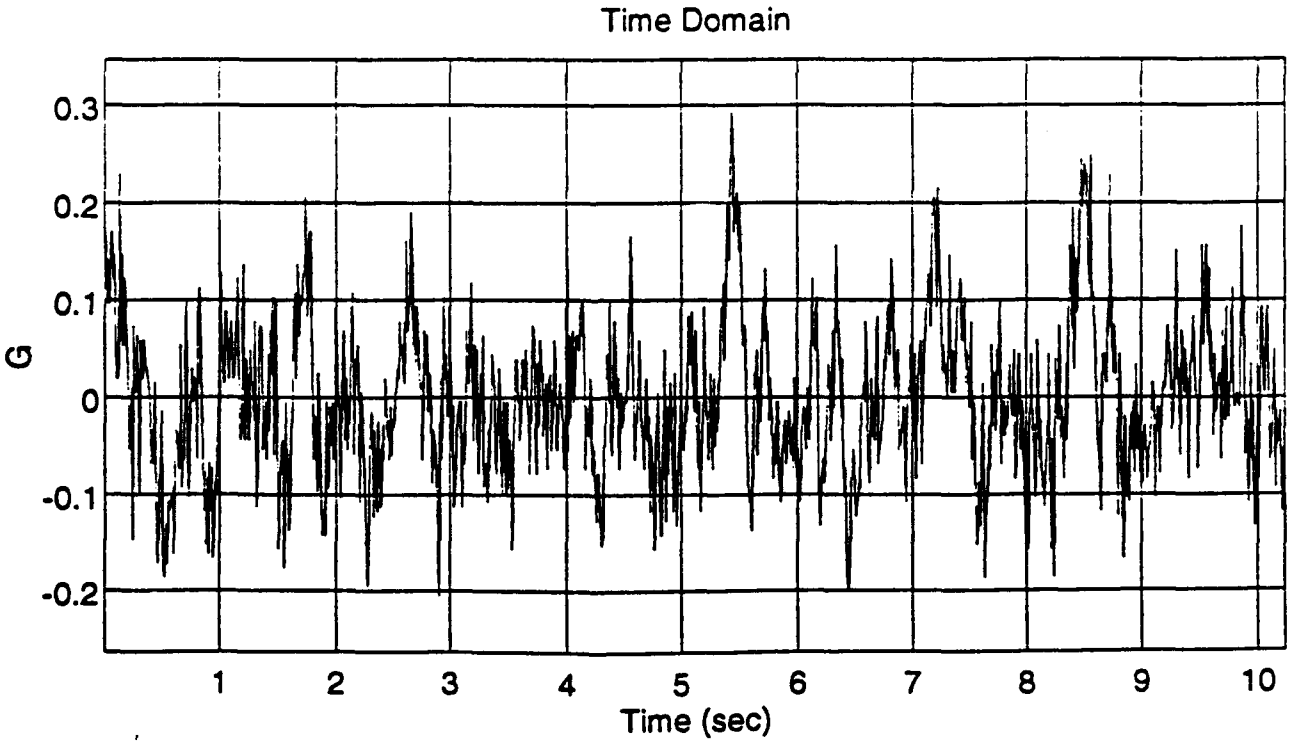

cut2-19kts-1.5ft:stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

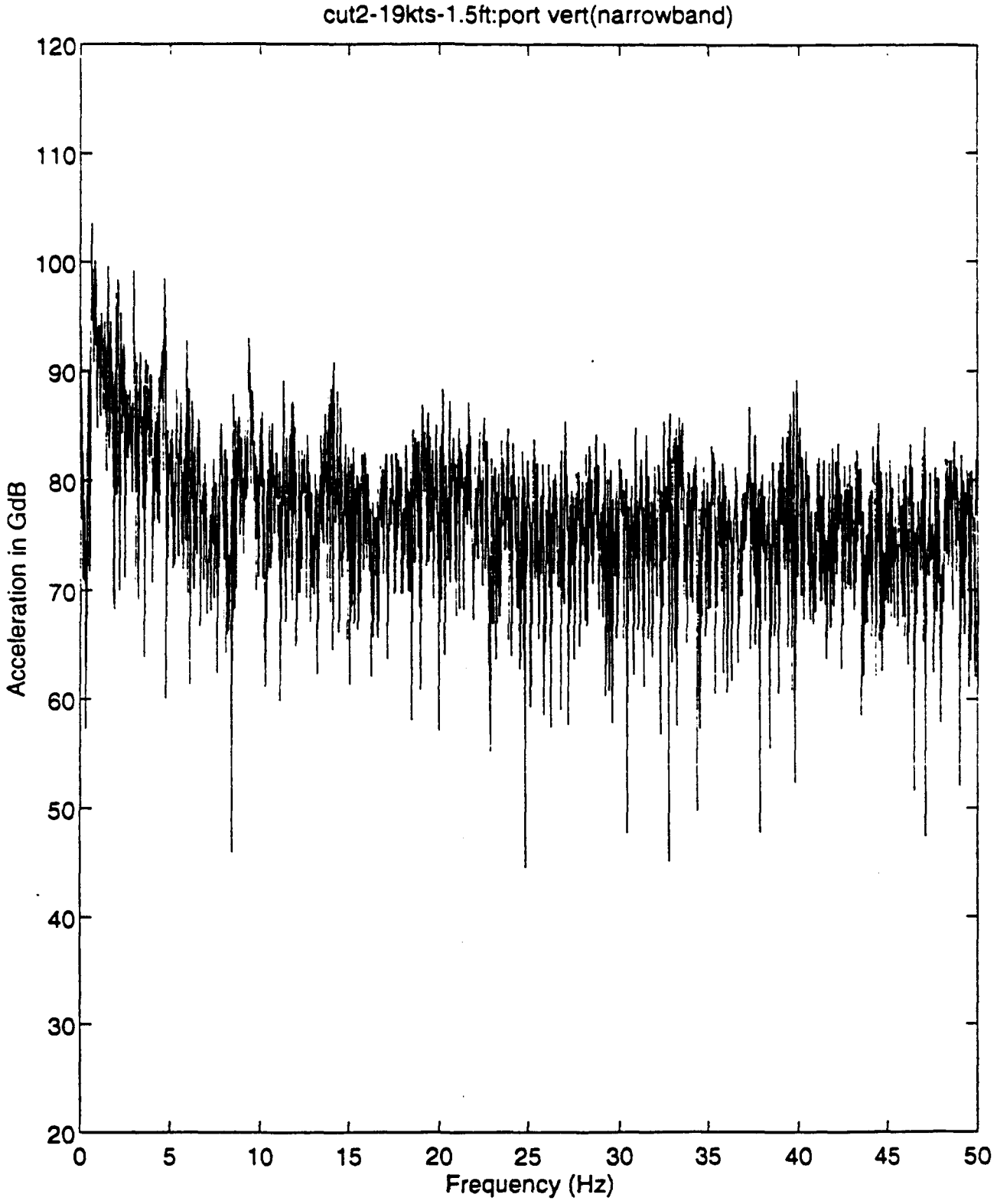
cut2-19kts-1.5ft:port vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.005402 G
Standard deviation = 0.08268 G
The plot shows 1024 data points



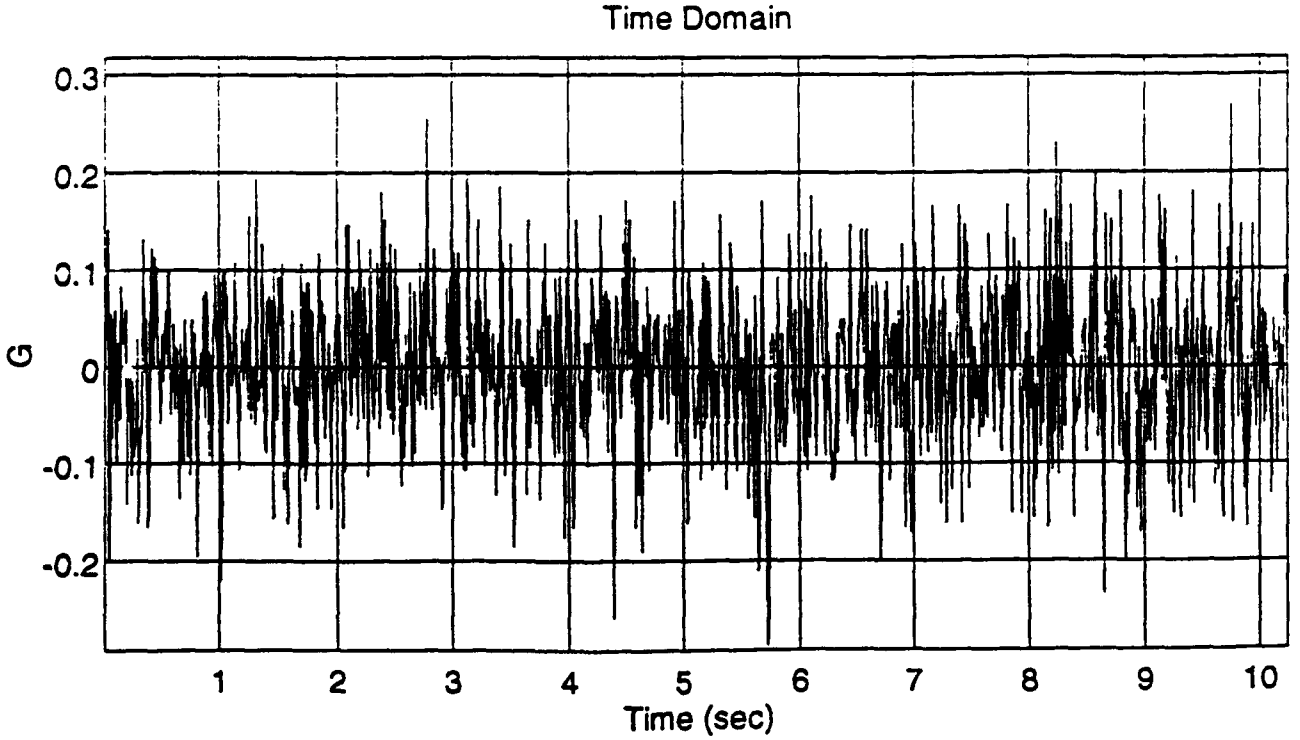

cut2-19kts-1.5ft:port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

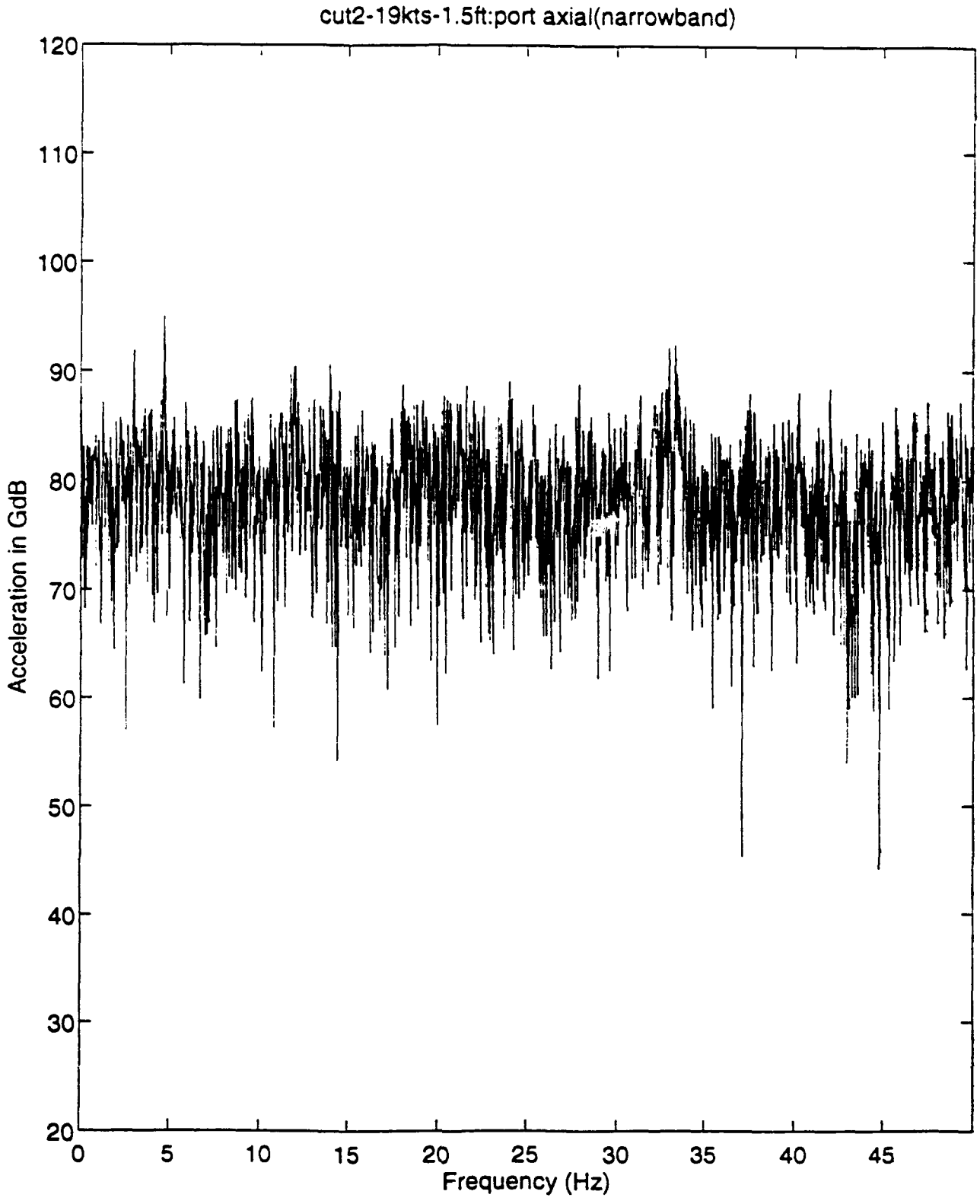
cut2-19kts-1.5ft:port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.003198 G
Standard deviation = 0.07836 G
The plot shows 1024 data points



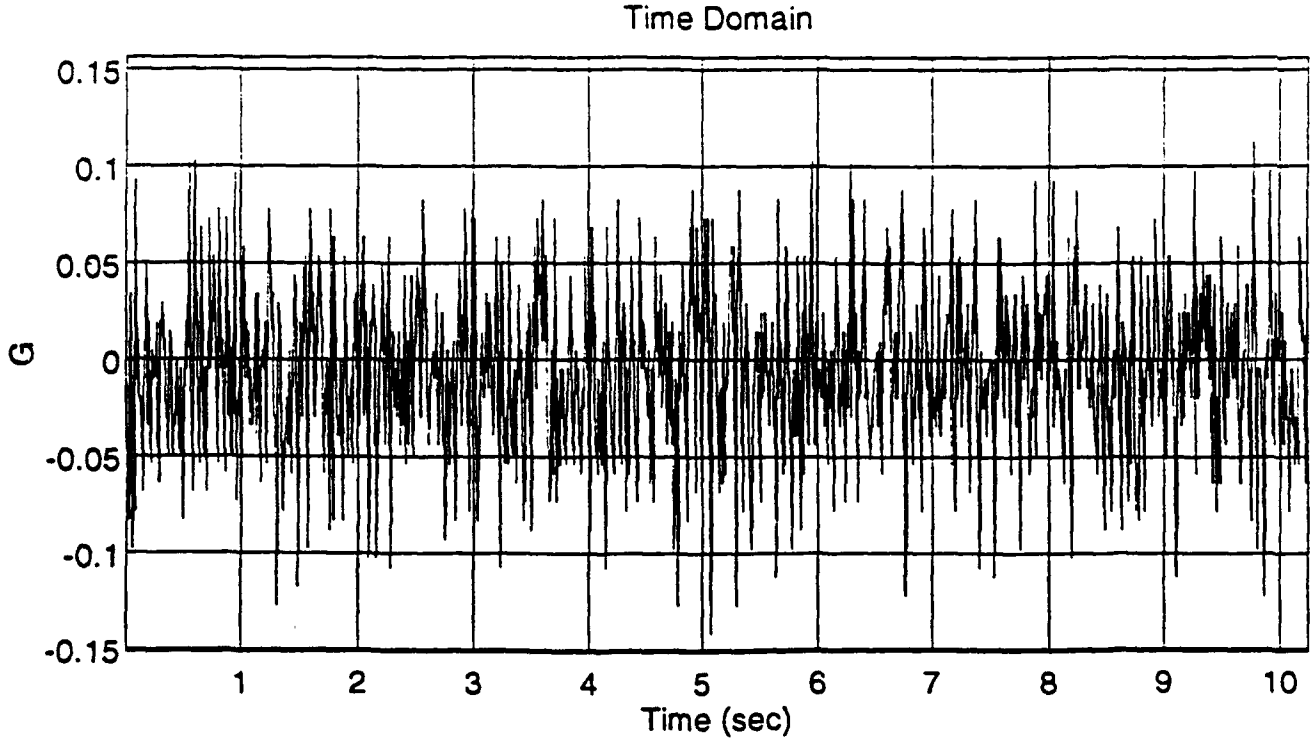

cut2-19kts-1.5ft:port axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

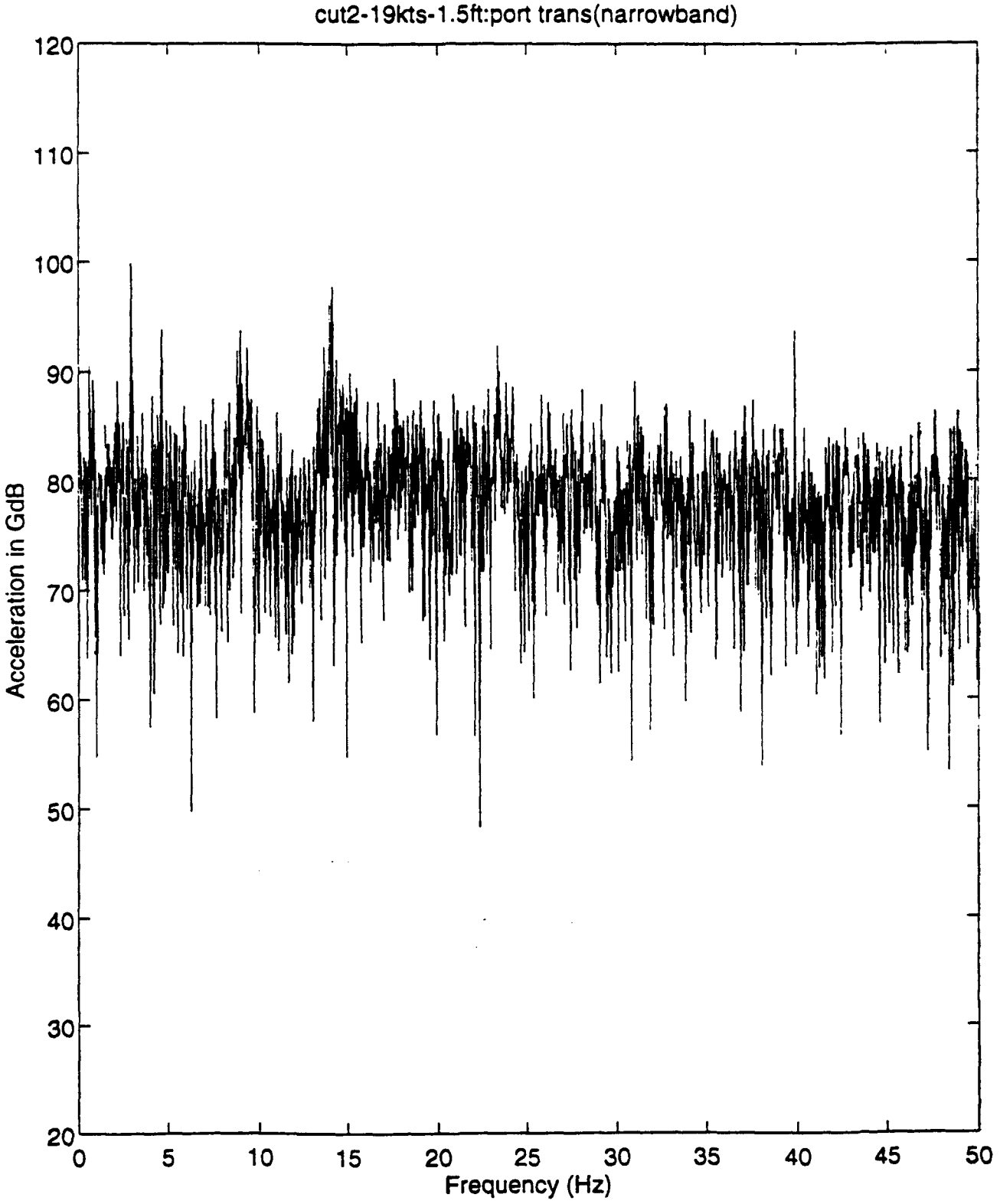
cut2-19kts-1.5ft:port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.003592 G
Standard deviation = 0.04204 G
The plot shows 1024 data points



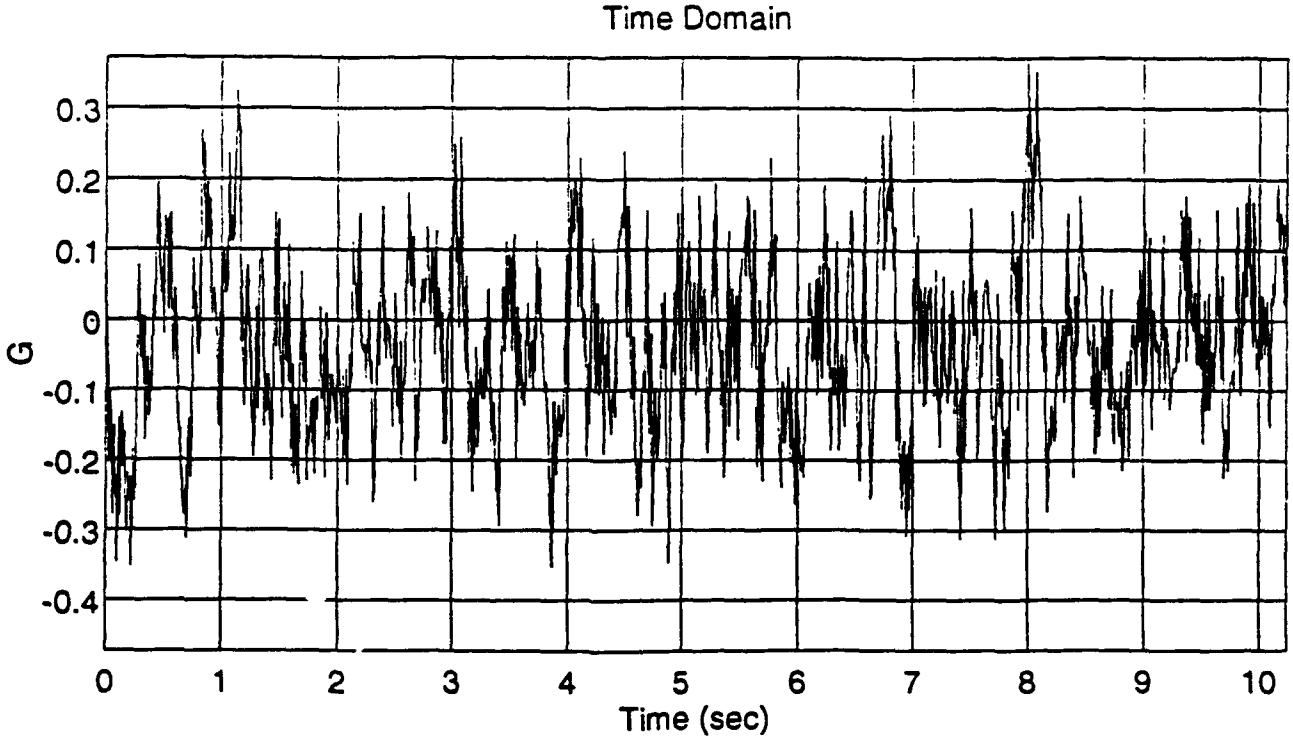

cut2-19kts-1.5ft:port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

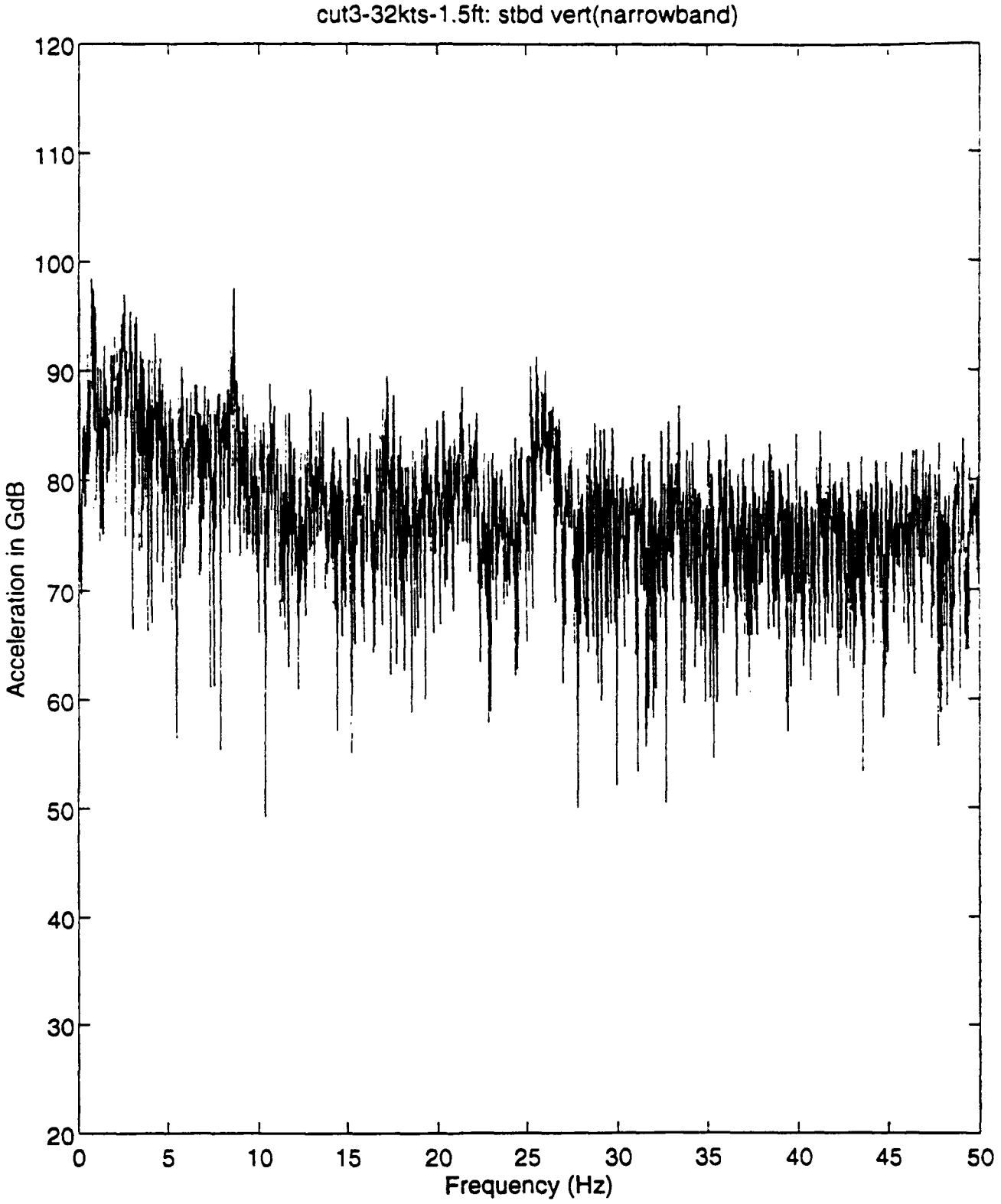
cut3-32kts-1.5ft: stbd vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.02035 G
Standard deviation = 0.116 G
The plot shows 1024 data points



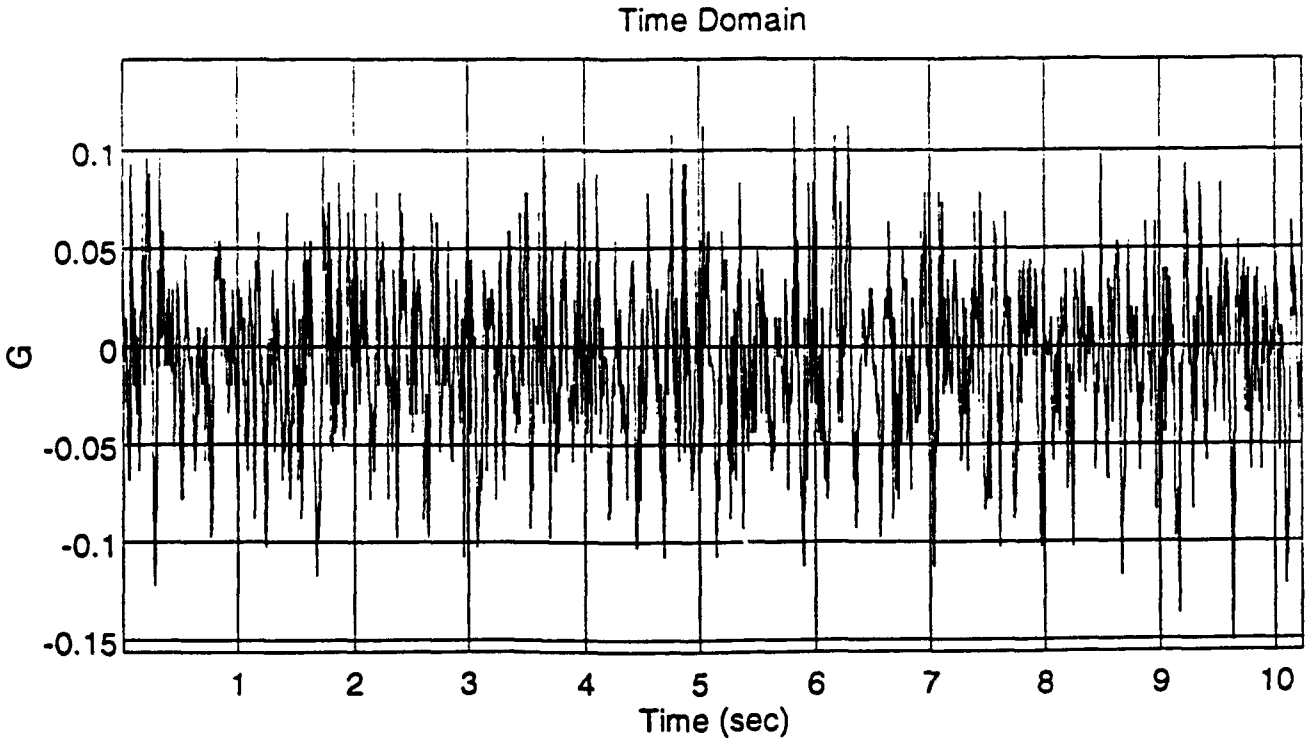

cut3-32kts-1.5ft: stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

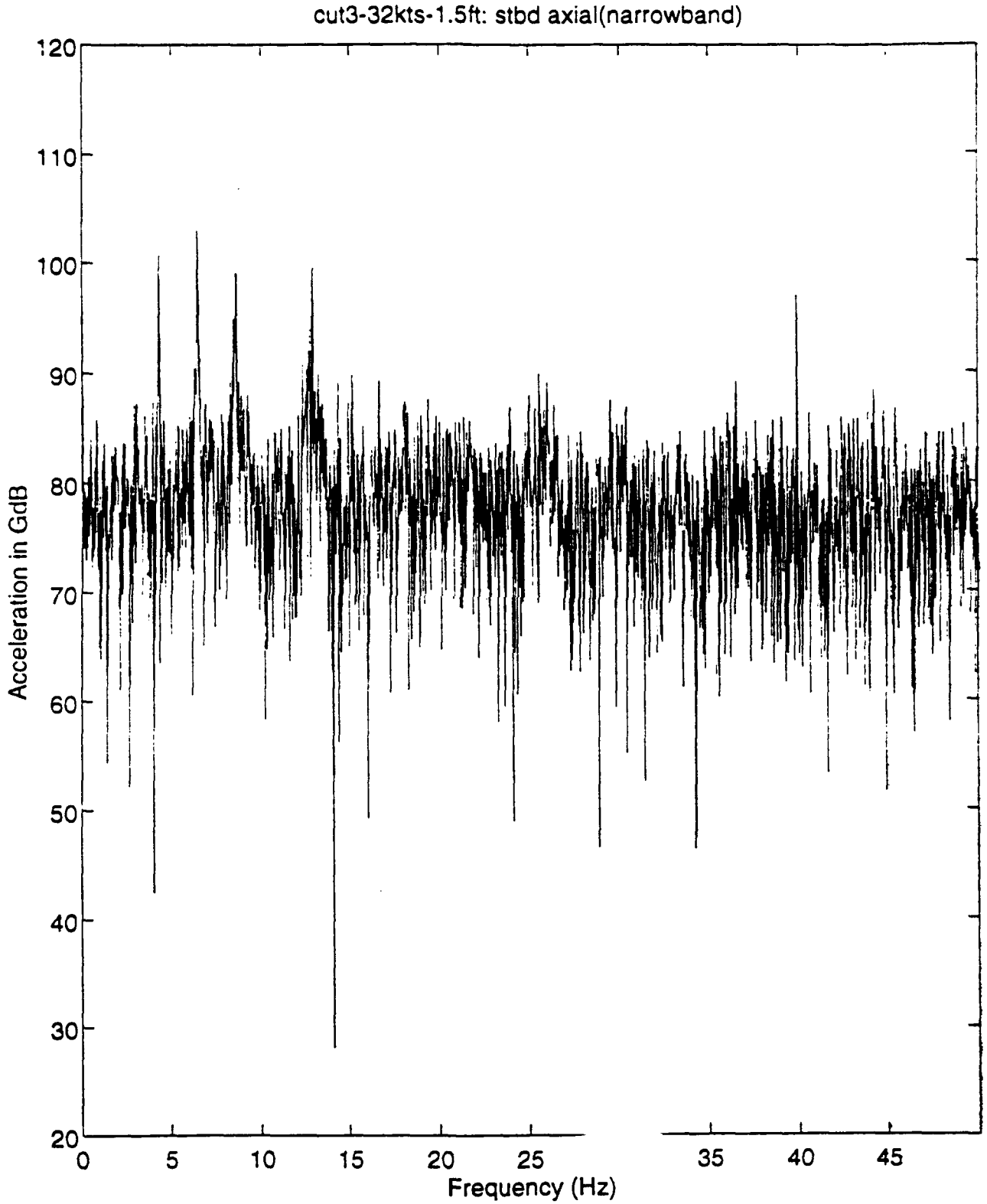
cut3-32kts-1.5ft: stbd axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.006557 G
Standard deviation = 0.04308 G
The plot shows 1024 data points



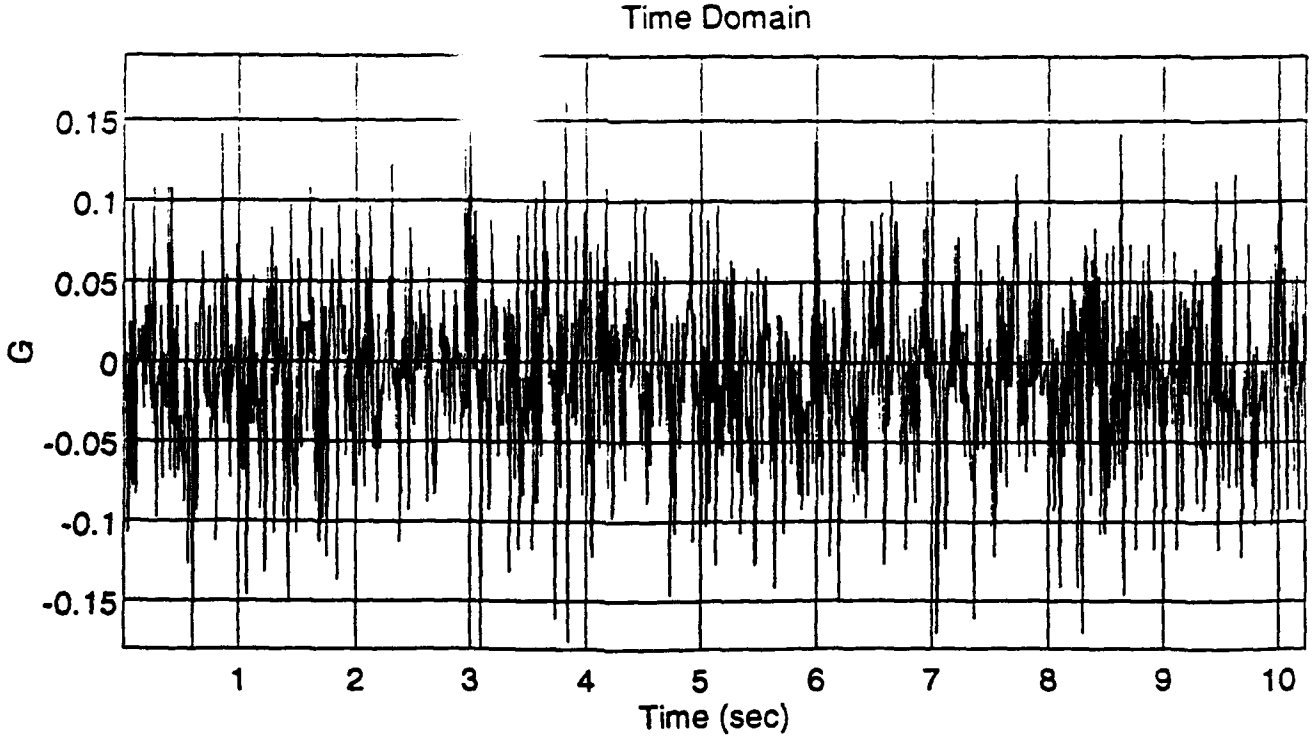

cut3-32kts-1.5ft: stbd axial(narrowband)
120
110
100
90
80
70
60
50
40
30
20
Acceleration in GdB
0
5
10
15
20
25
35
40
45
Frequency (Hz)

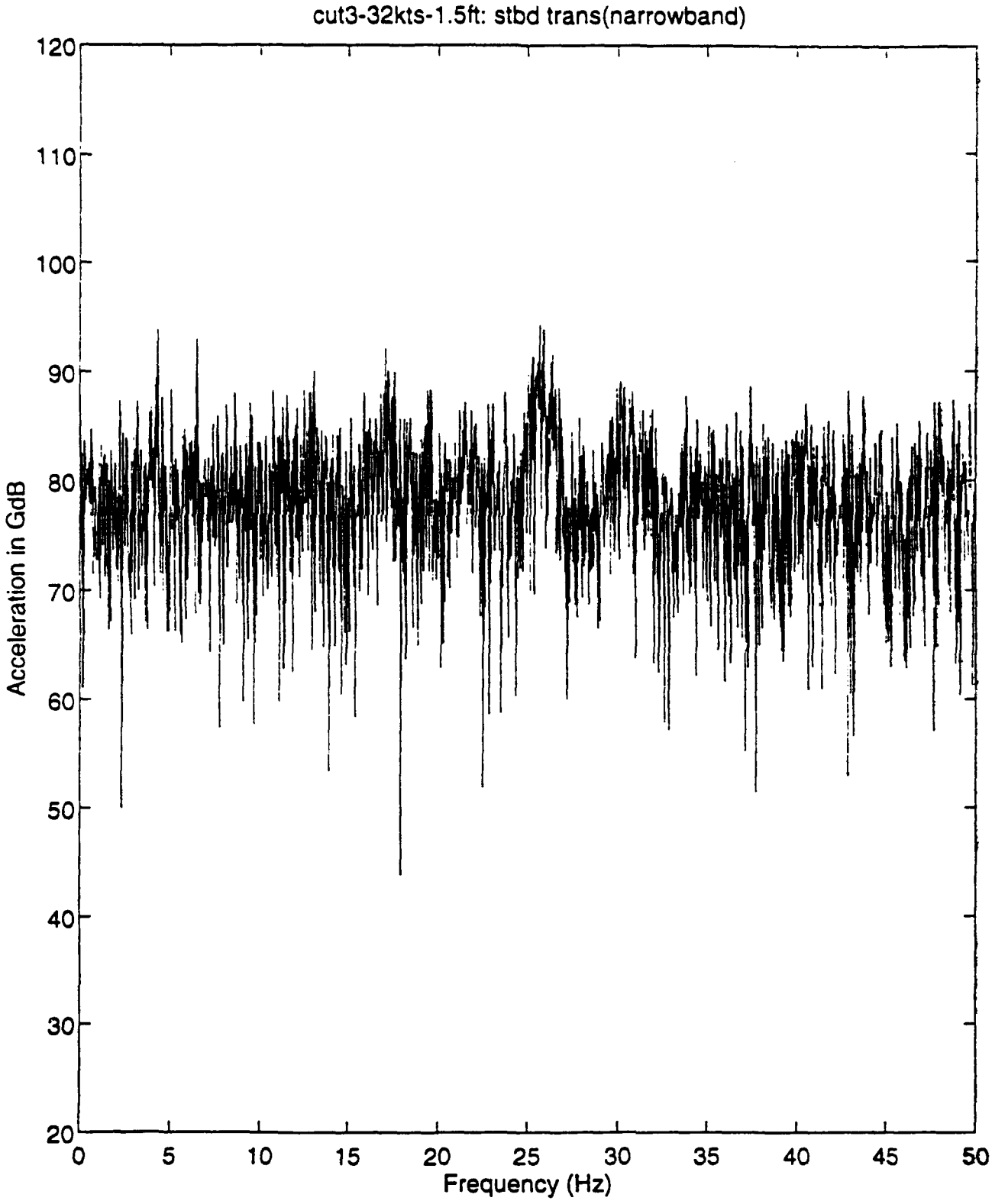
cut3-32kts-1.5ft: stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.006972 G
Standard deviation = 0.05341 G
The plot shows 1024 data points




cut3-32kts-1.5ft: stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

cut3-32kts-1.5ft: port vert(narrowband)

Data sampling frequency = 100 Hz

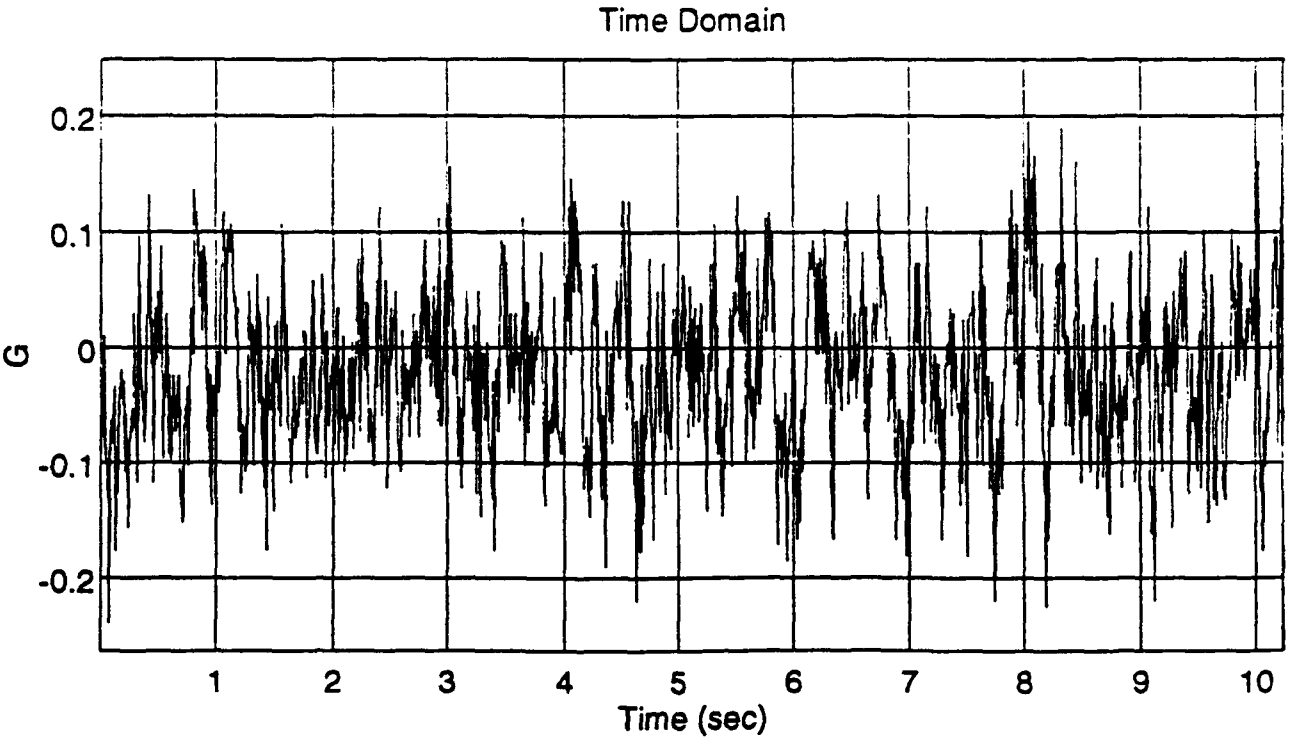
Total number of sampling data points = 4096

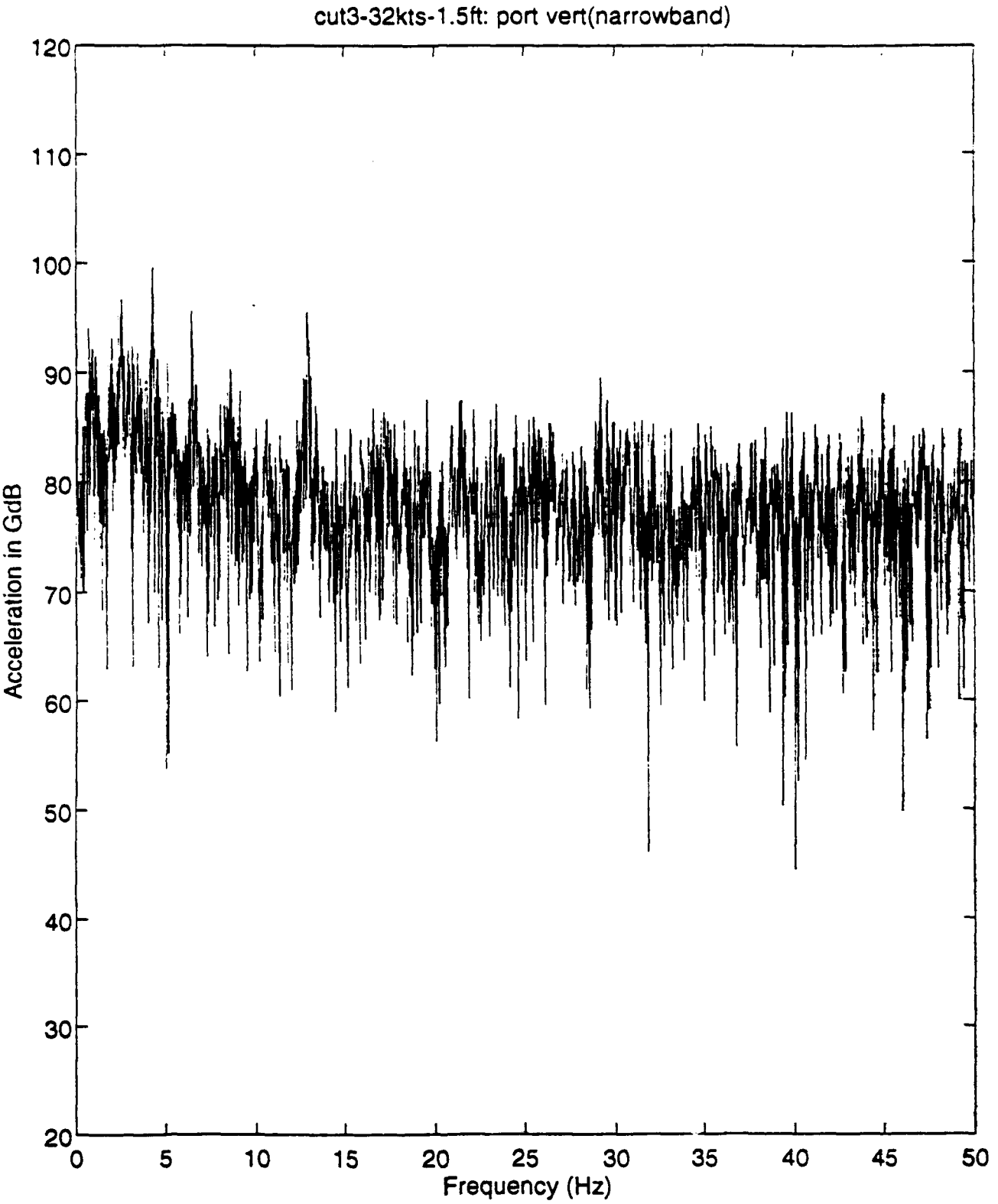
* The time domain

Mean value = -0.0121 G

Standard deviation = 0.06898 G

The plot shows 1024 data points



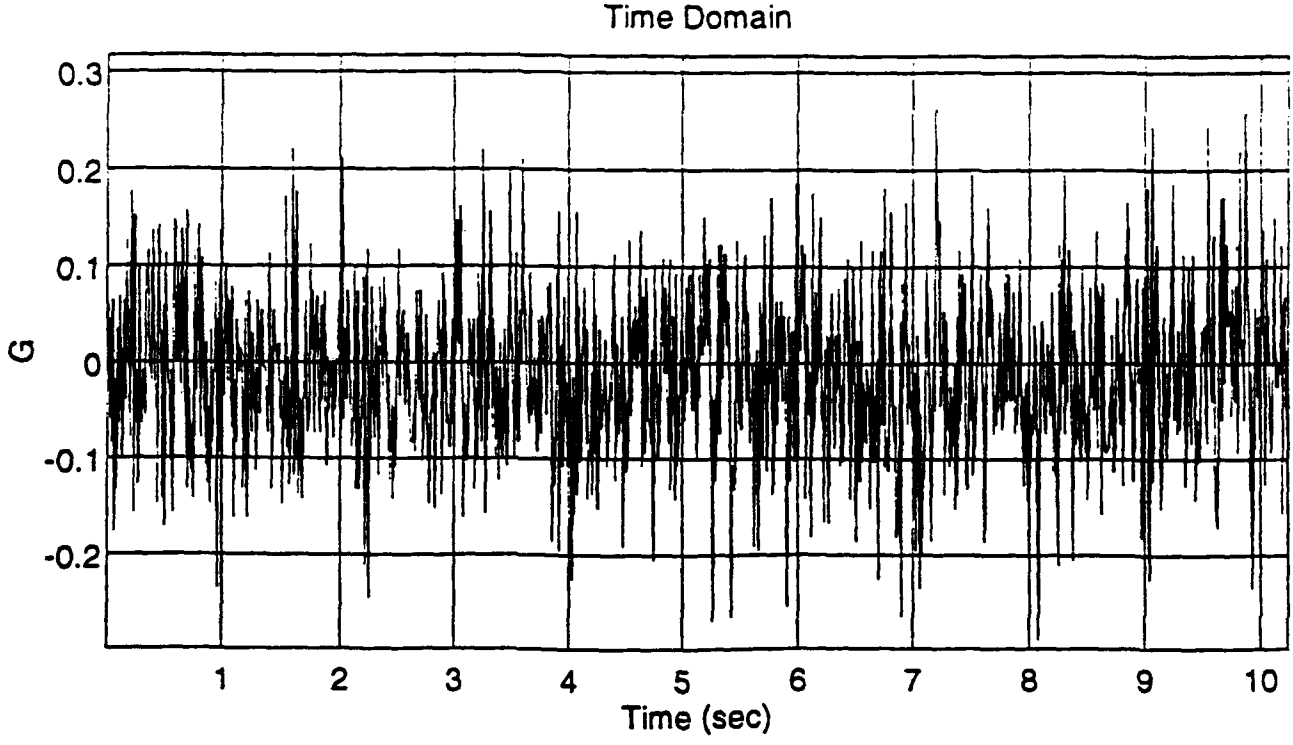

cut3-32kts-1.5ft: port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

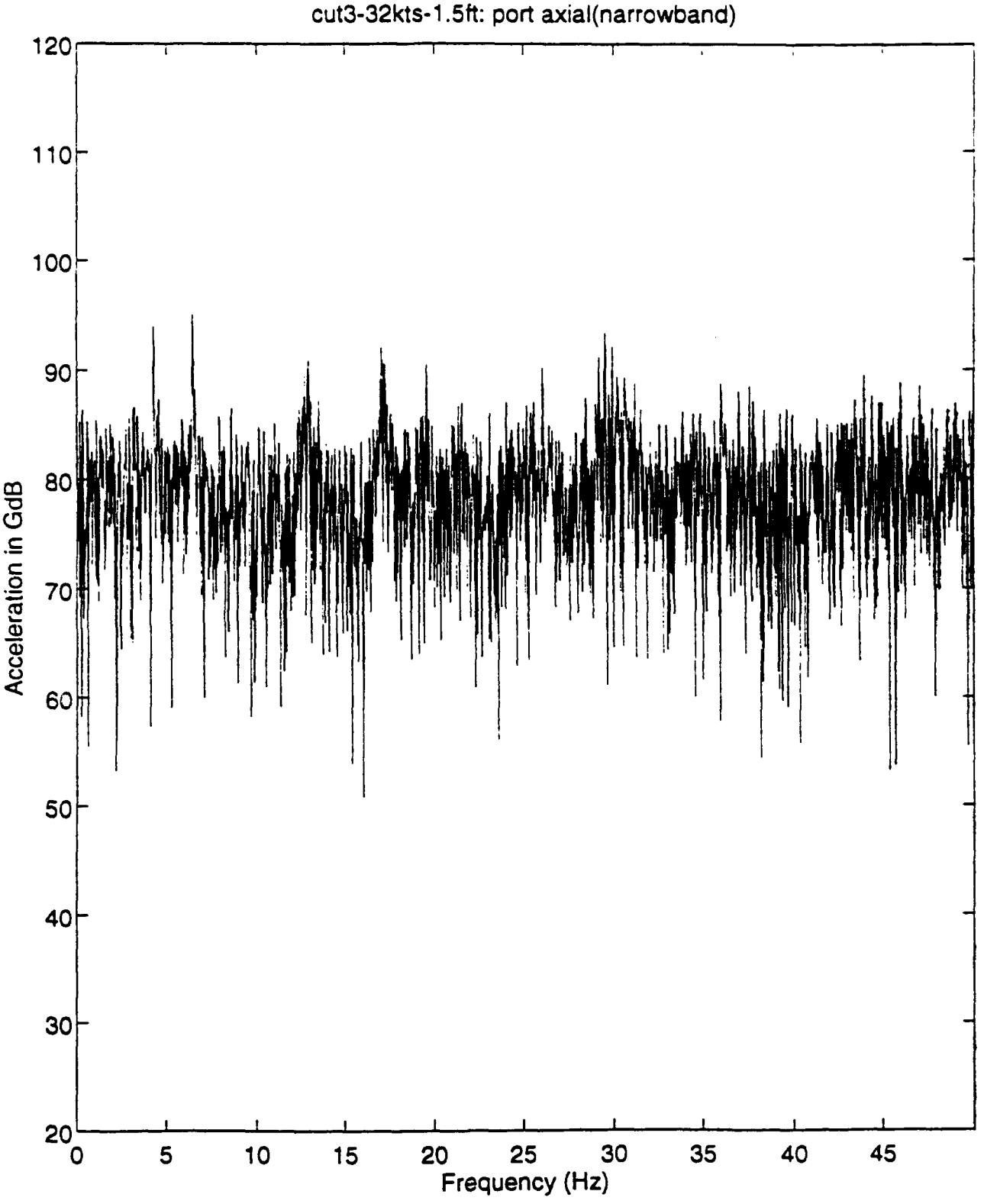
cut3-32kts-1.5ft: port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01155 G
Standard deviation = 0.08646 G
The plot shows 1024 data points



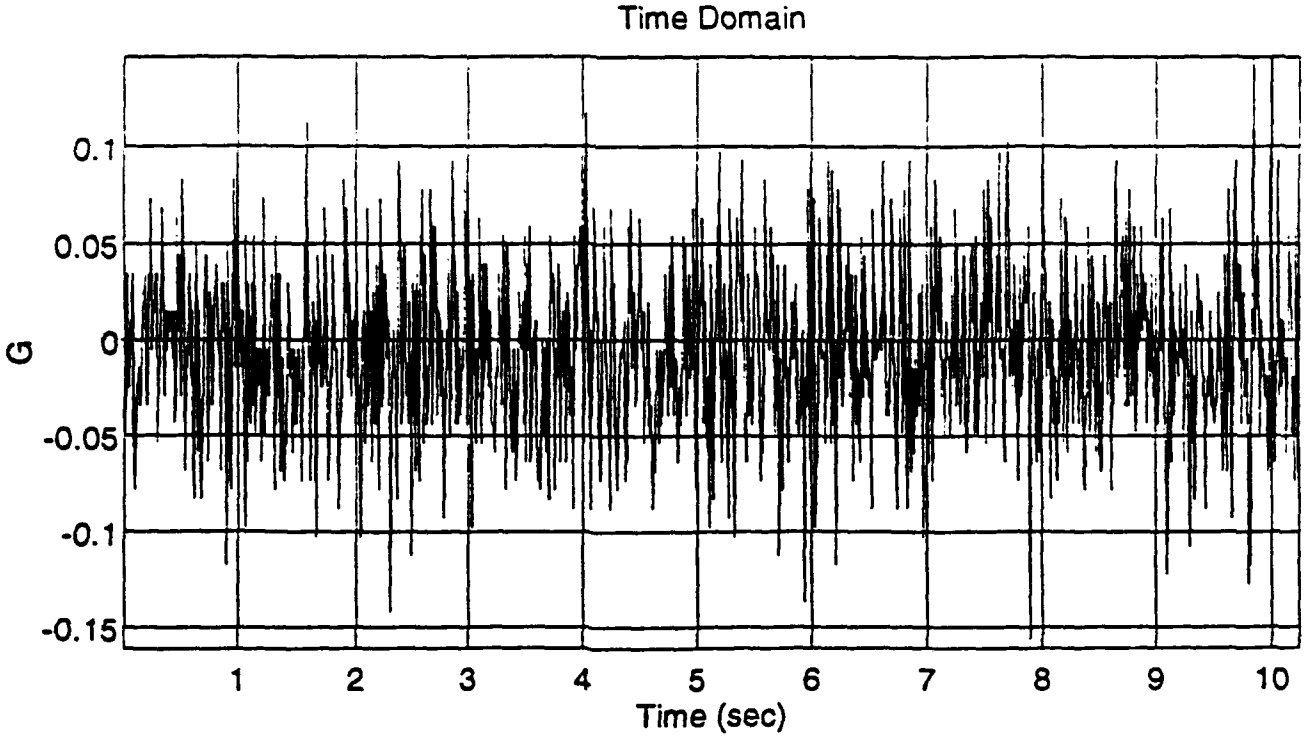

cut3-32kts-1.5ft: port axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

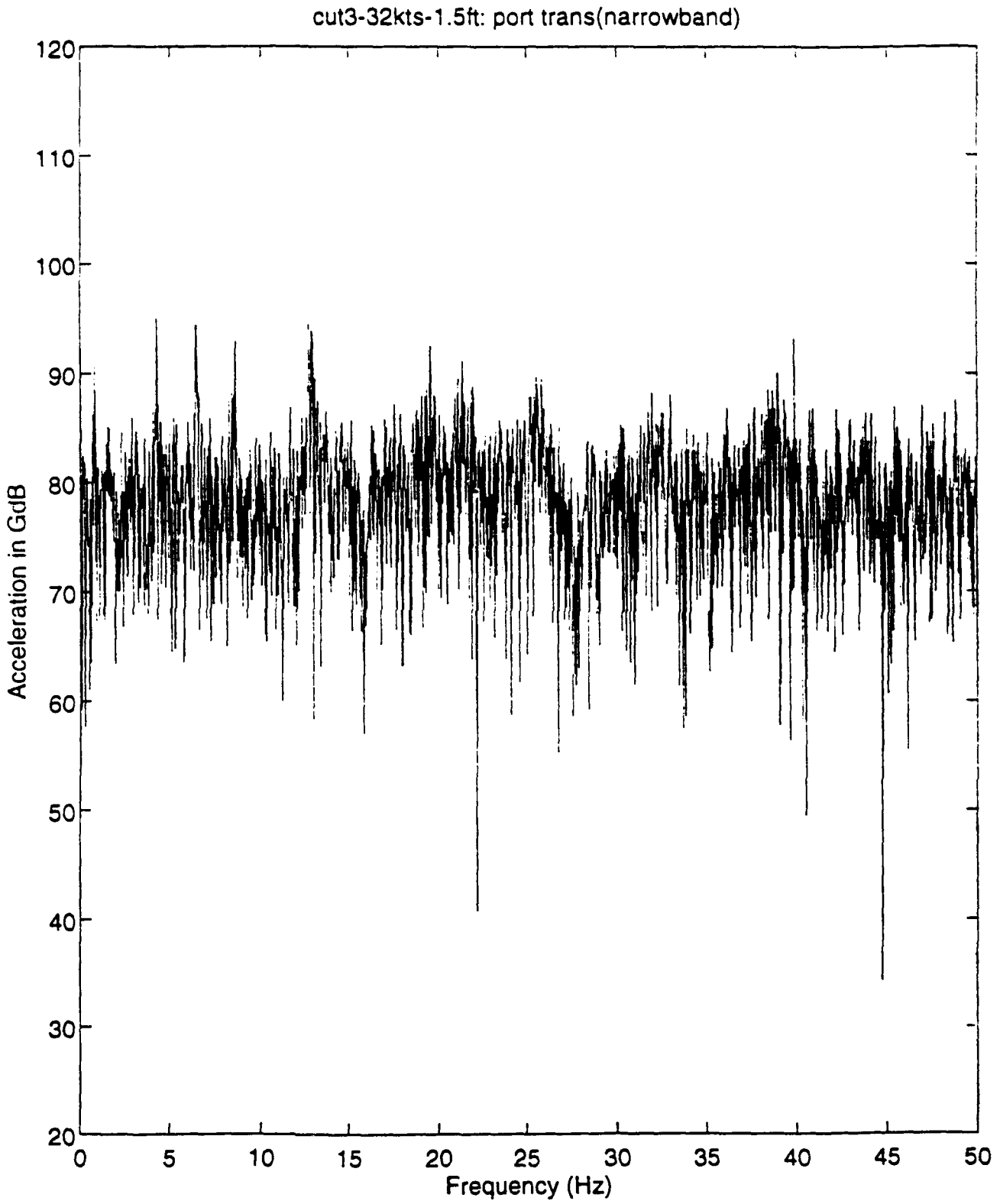
cut3-32kts-1.5ft: port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.005363 G
Standard deviation = 0.0427 G
The plot shows 1024 data points



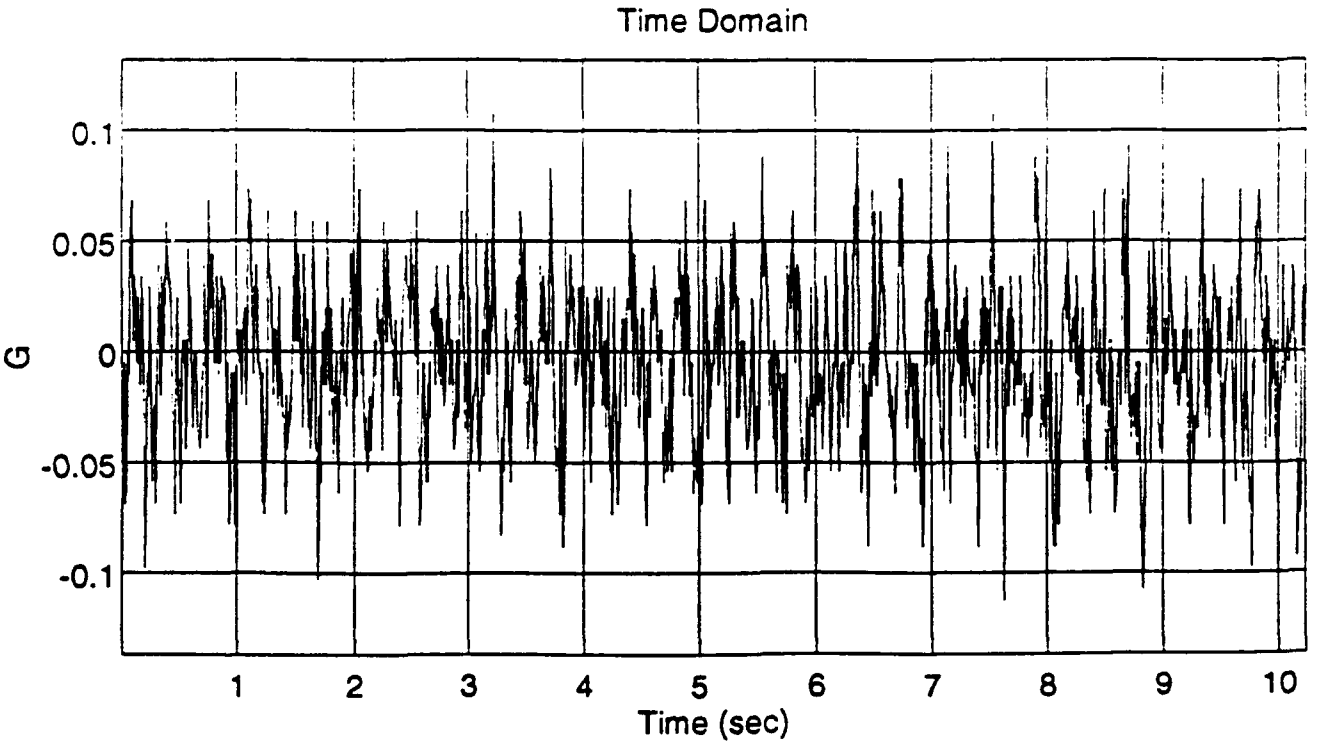

cut3-32kts-1.5ft: port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

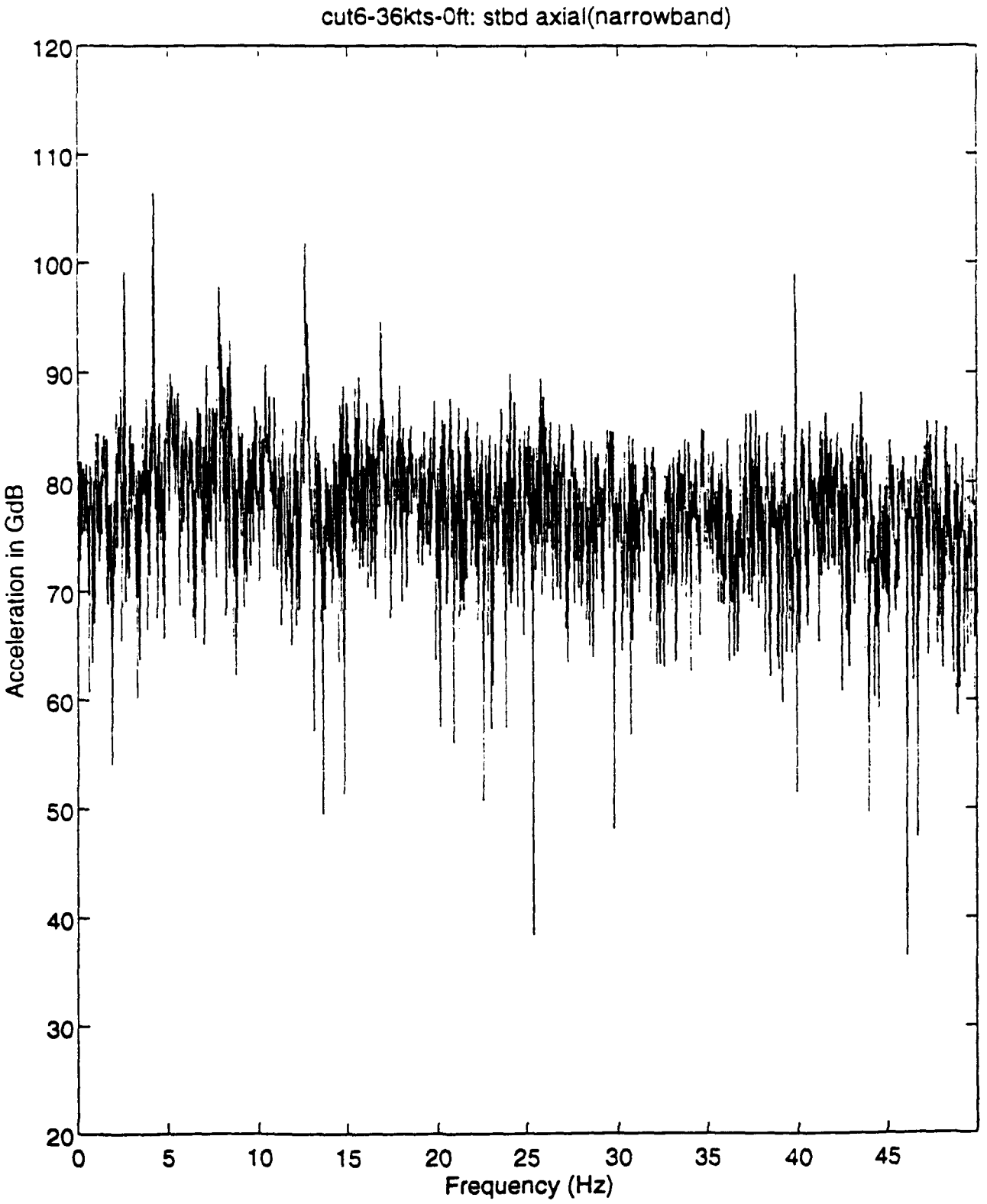
cut6-36kts-0ft: stbd axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.002894 G
Standard deviation = 0.03688 G
The plot shows 1024 data points




cut6-36kts-0ft: stbd axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

cut6-36kts-0ft: stbd vert(narrowband)

Data sampling frequency = 100 Hz

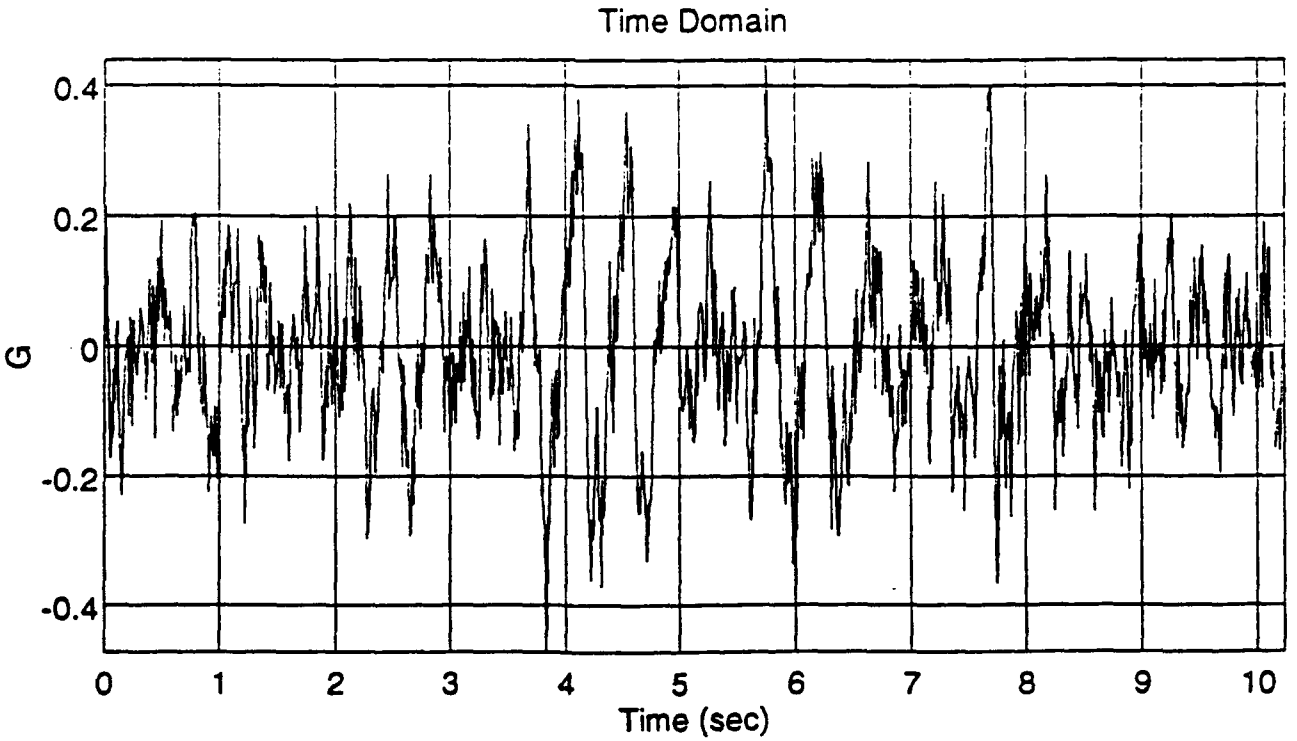
Total number of sampling data points = 4096

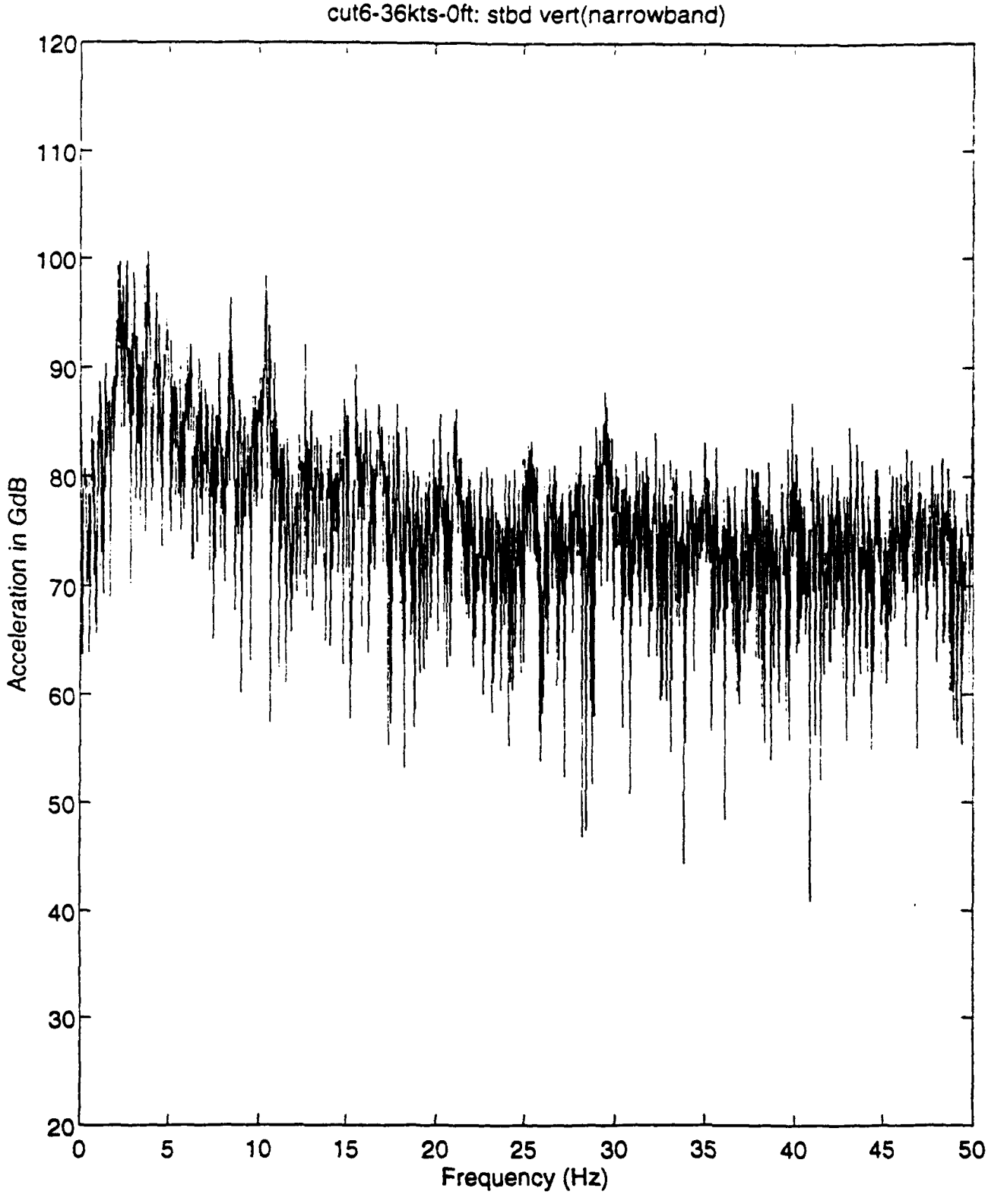
* The time domain

Mean value = -0.003286 G

Standard deviation = 0.1222 G

The plot shows 1024 data points



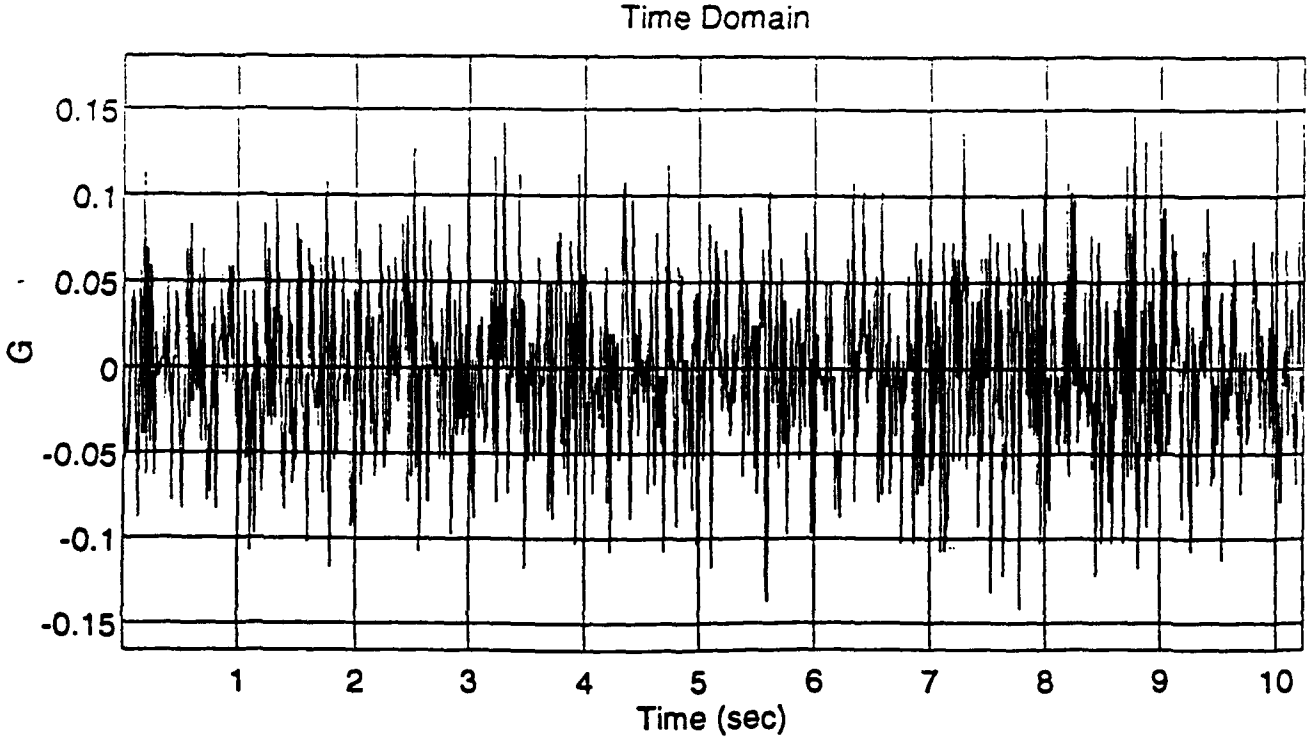

cut6-36kts-0ft: stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

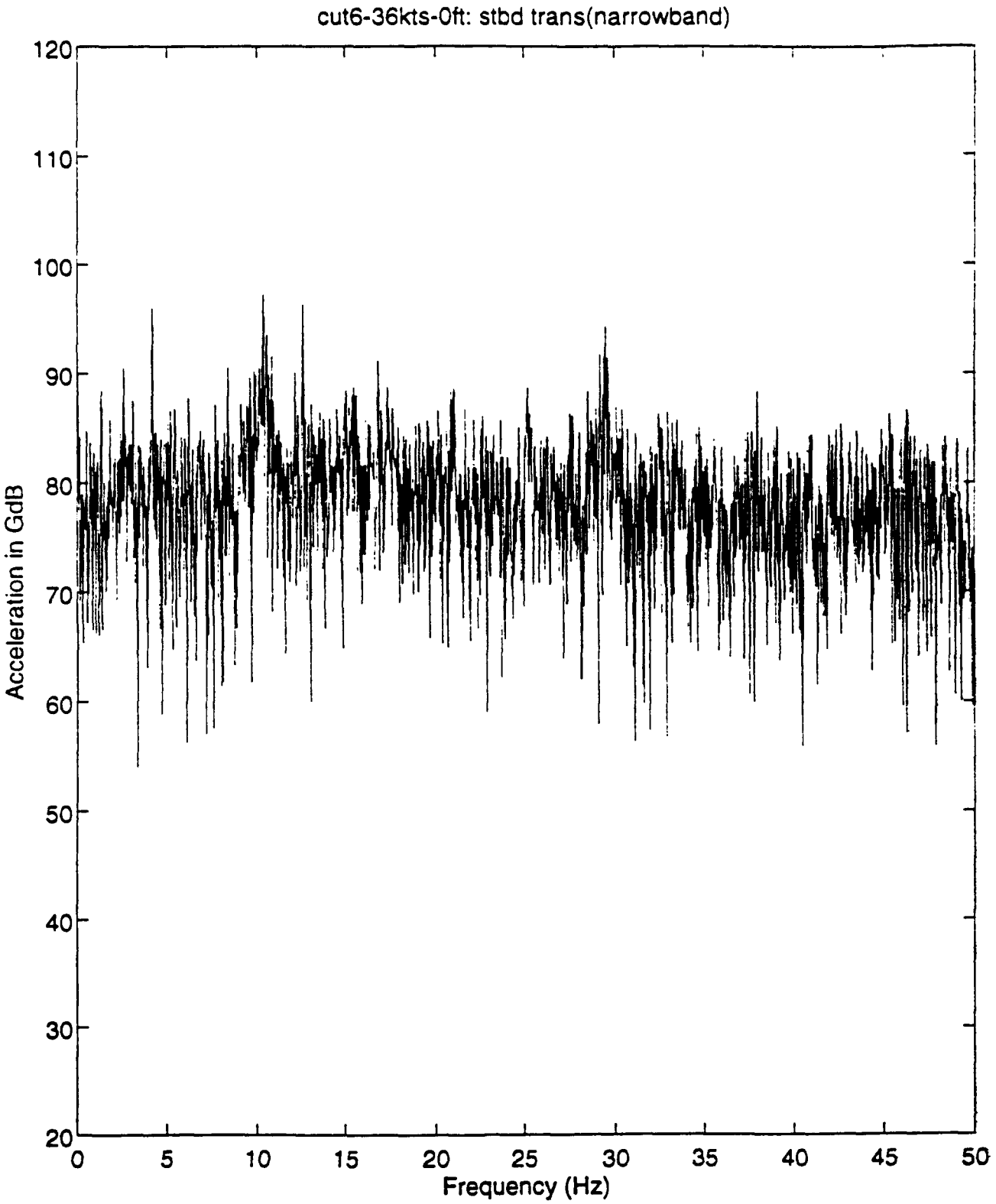
cut6-36kts-0ft: stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.003504 G
Standard deviation = 0.04904 G
The plot shows 1024 data points



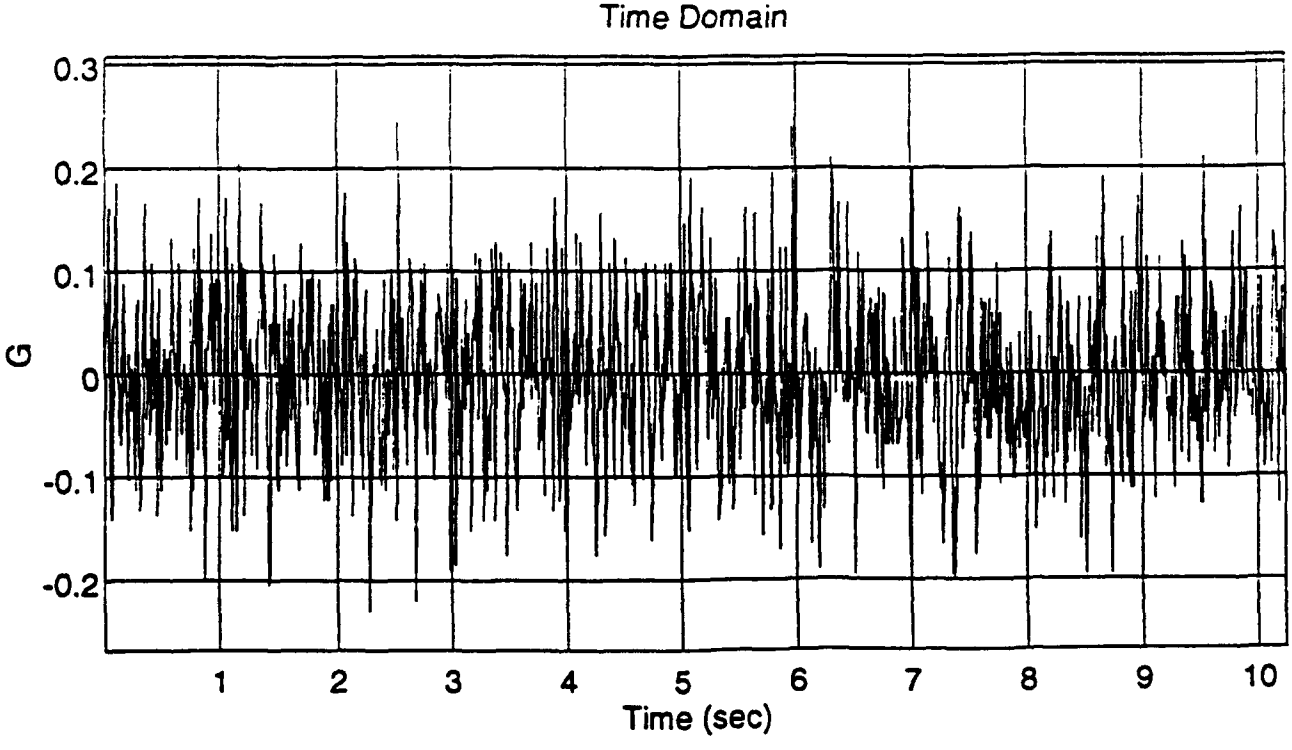

cut6-36kts-0ft: stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

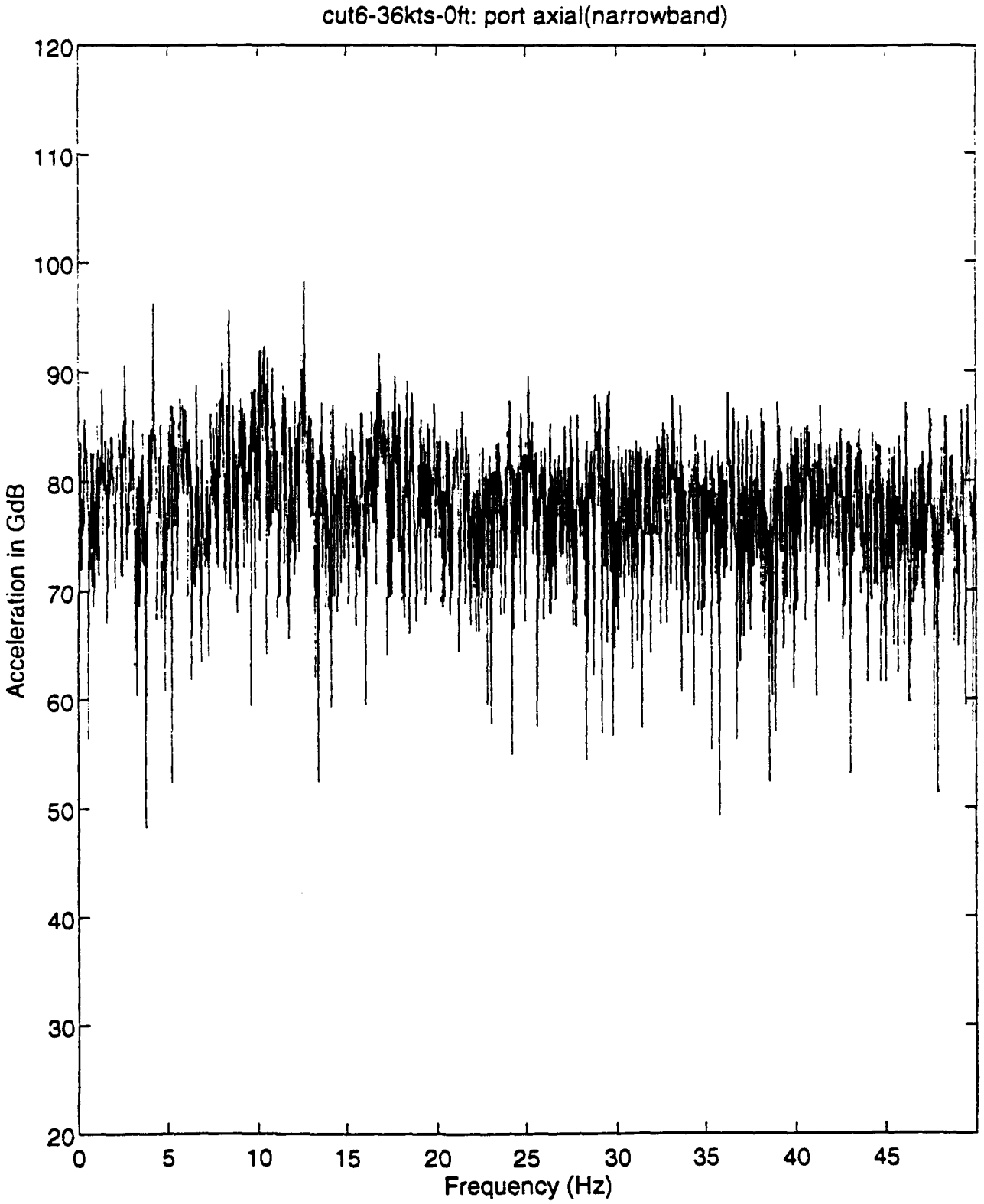
cut6-36kts-0ft: port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.0002968 G
Standard deviation = 0.07794 G
The plot shows 1024 data points



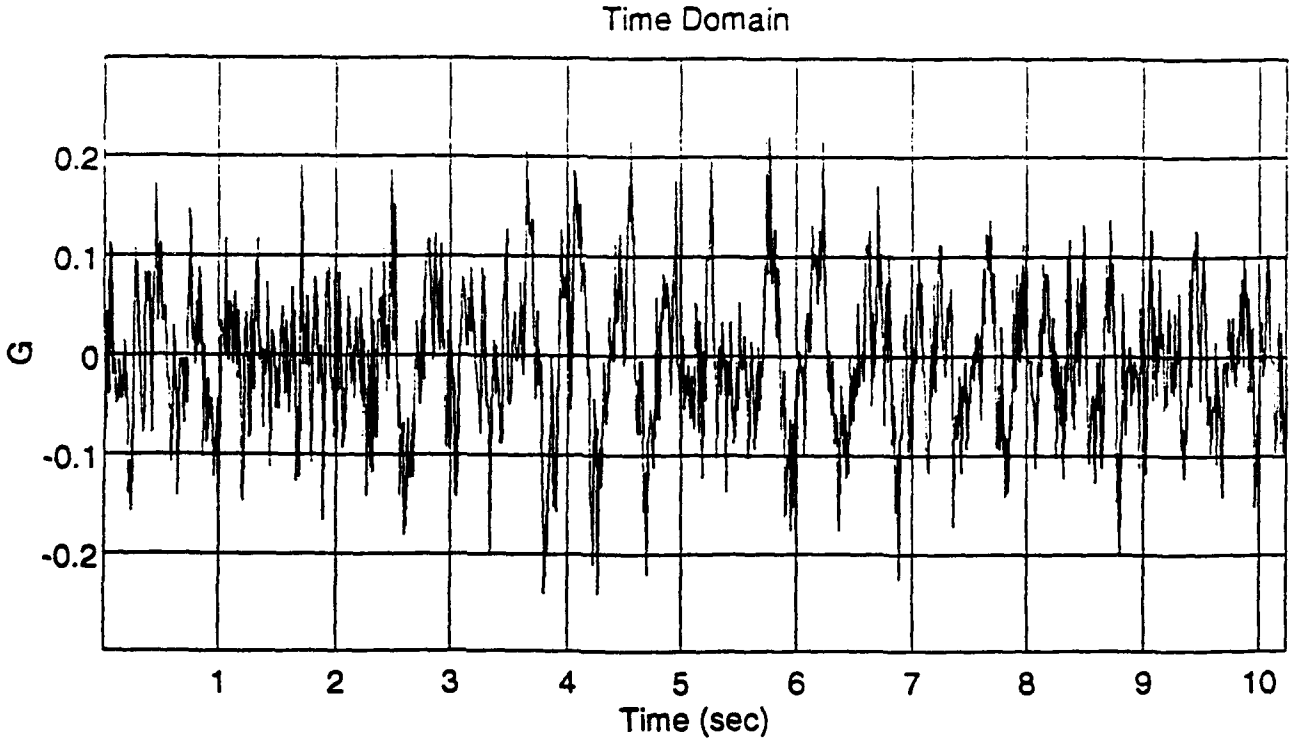

cut6-36kts-0ft: port axial(narrowband)
120
110
100
90
80
70
60
50
40
30
20
Acceleration in GdB
0
5
10
15
20
25
30
35
40
45
Frequency (Hz)

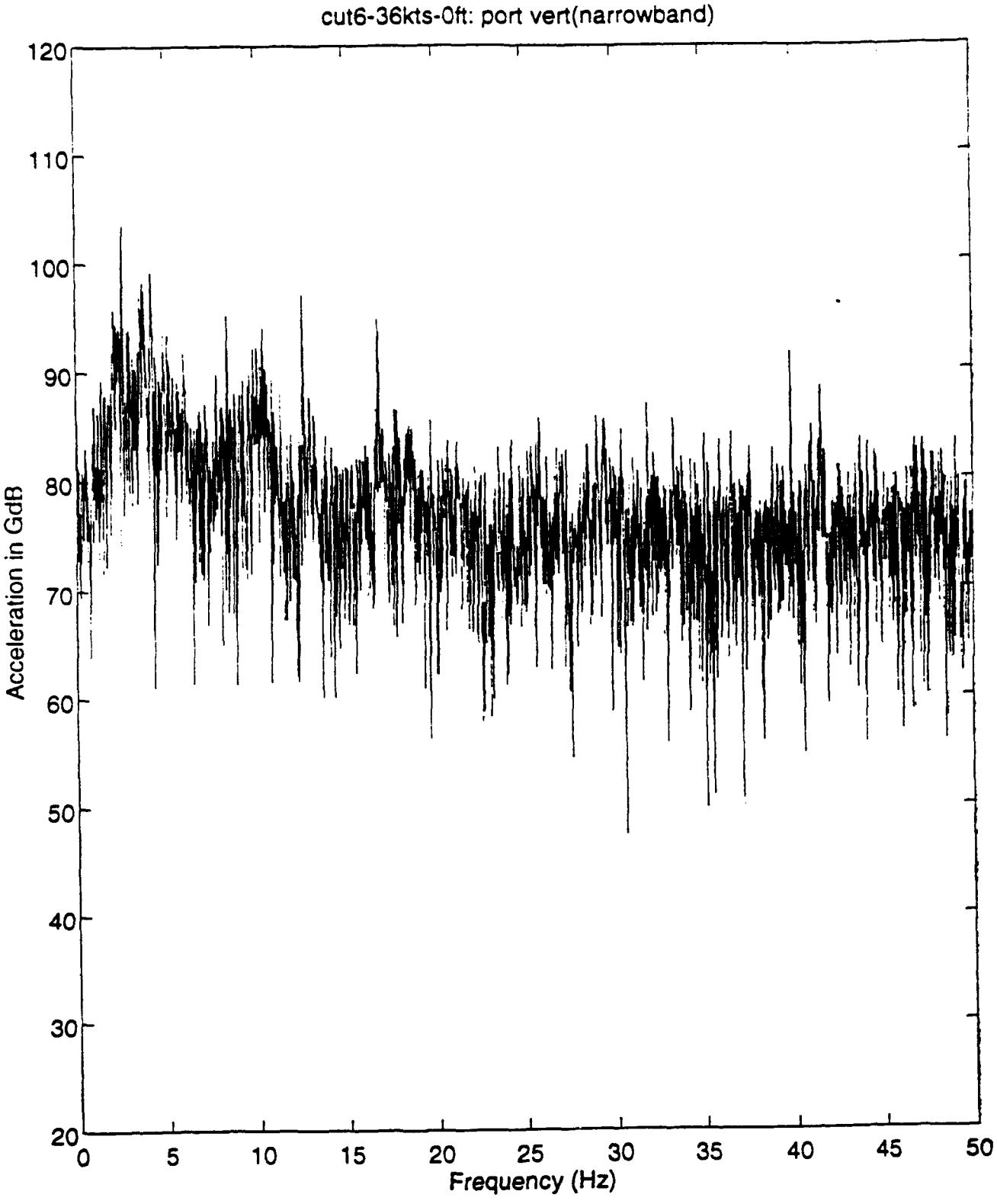
cut6-36kts-0ft: port vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.001617 G
Standard deviation = 0.07307 G
The plot shows 1024 data points



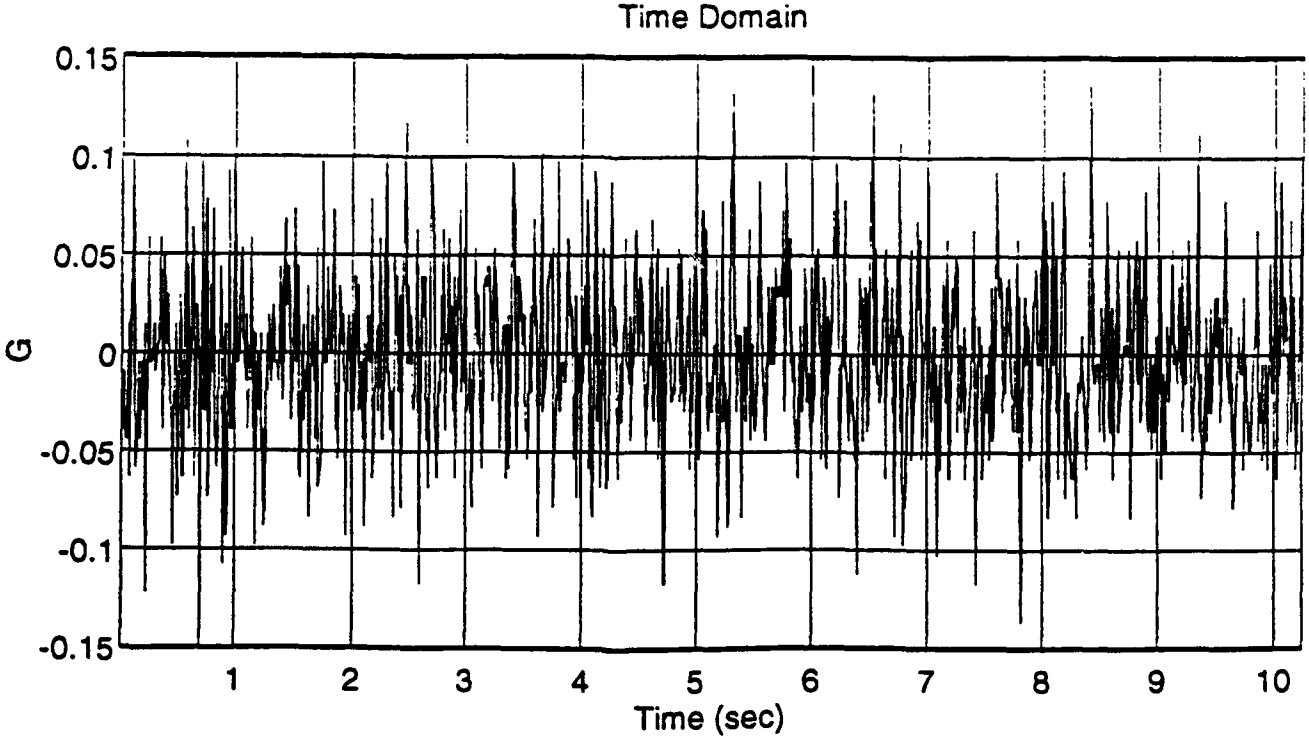

cut6-36kts-0ft: port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

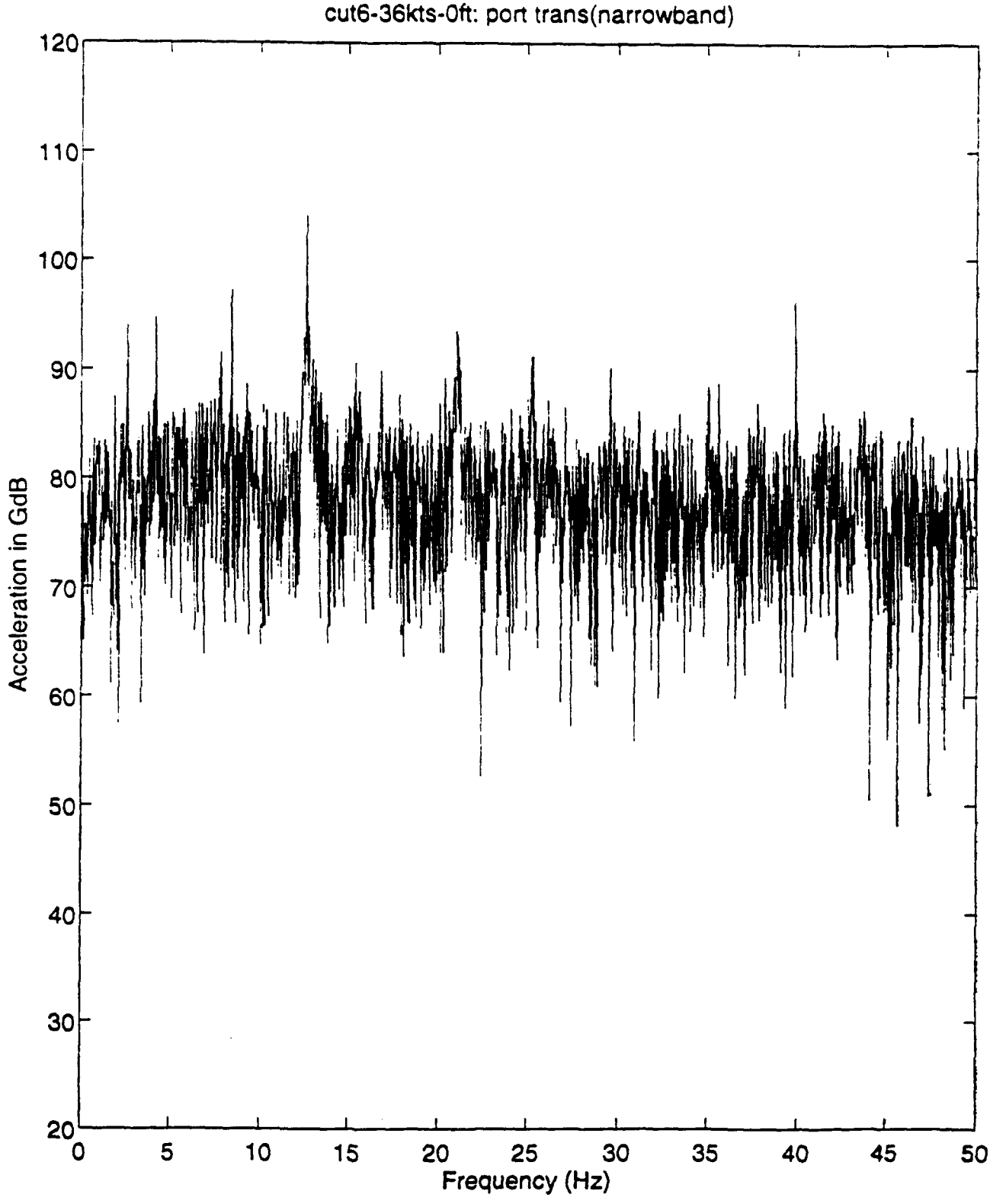
cut6-36kts-0ft: port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.0009952 G
Standard deviation = 0.04174 G
The plot shows 1024 data points



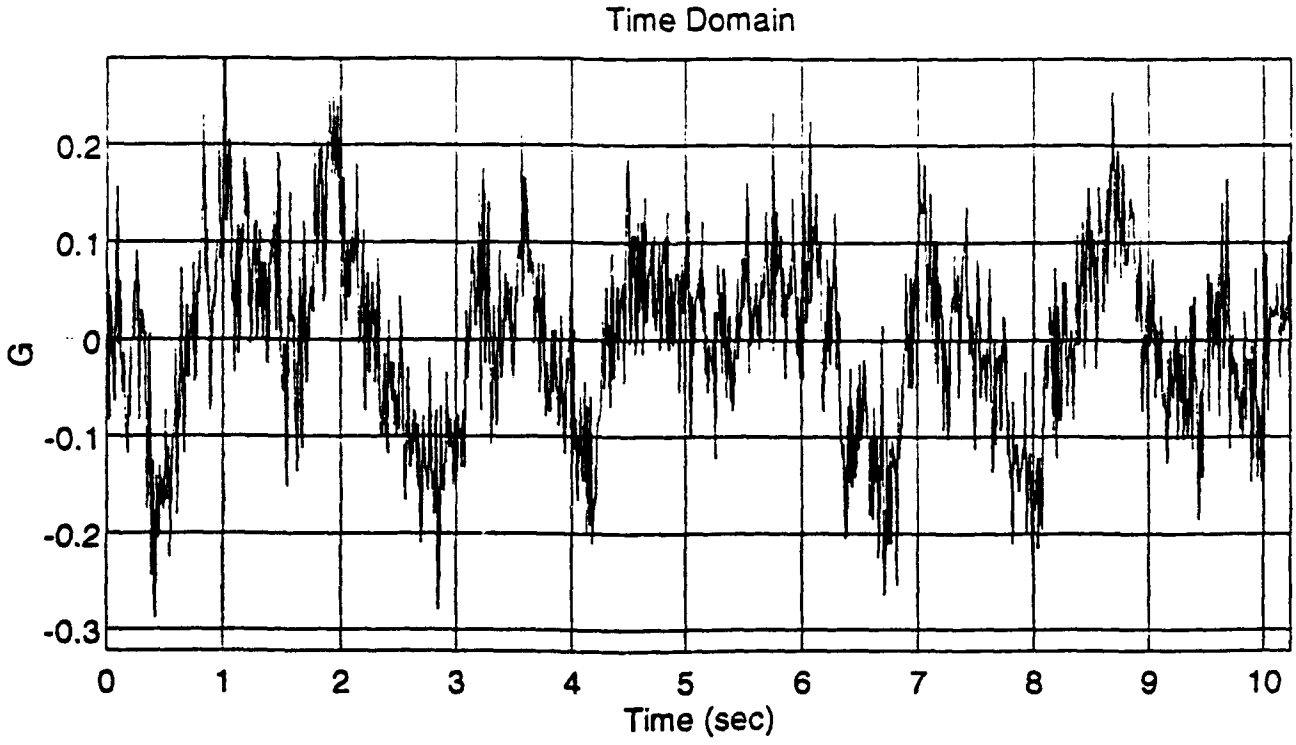

cut6-36kts-0ft: port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

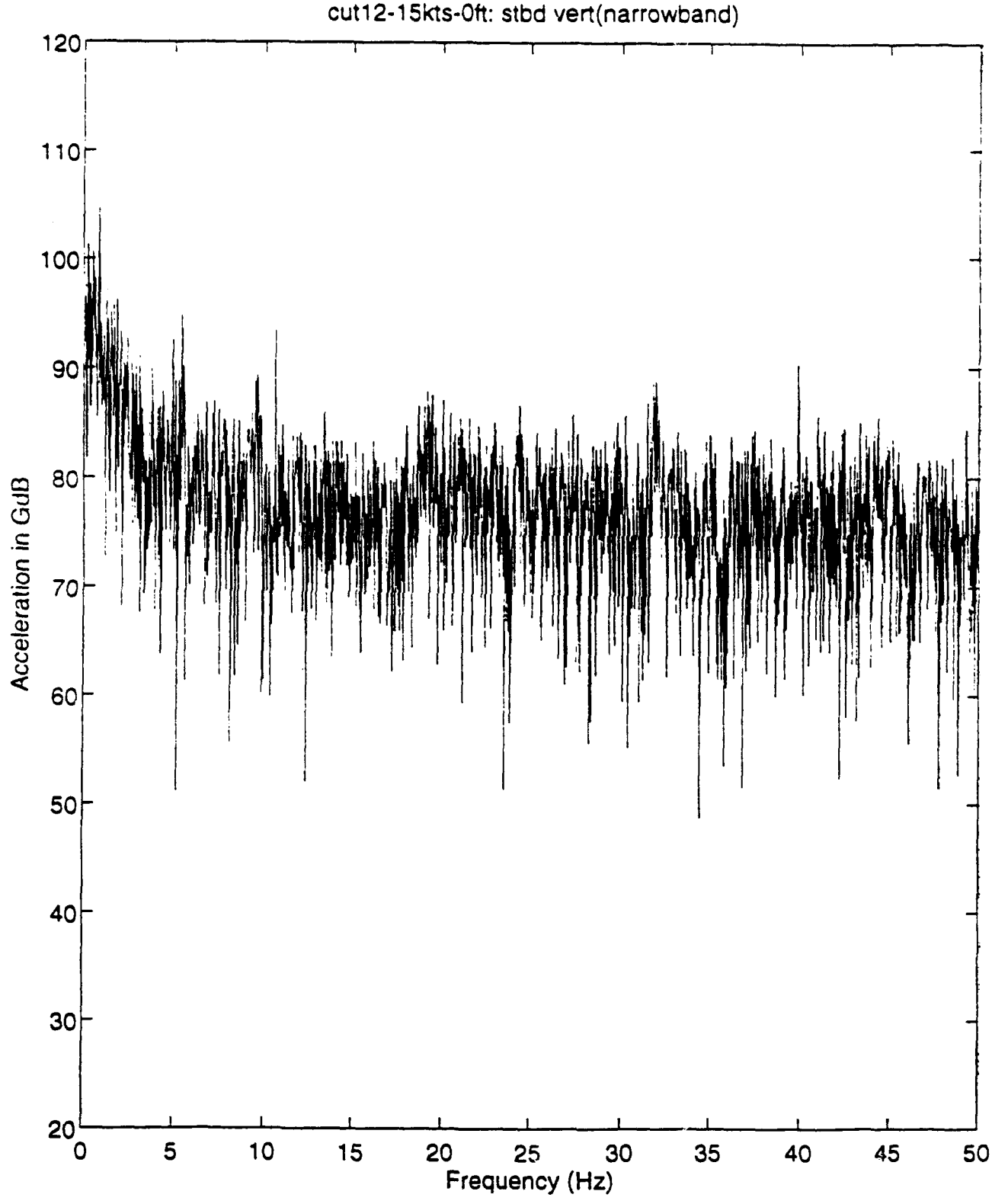
cut12-15kts-0ft: stbd vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.000354 G
Standard deviation = 0.08984 G
The plot shows 1024 data points



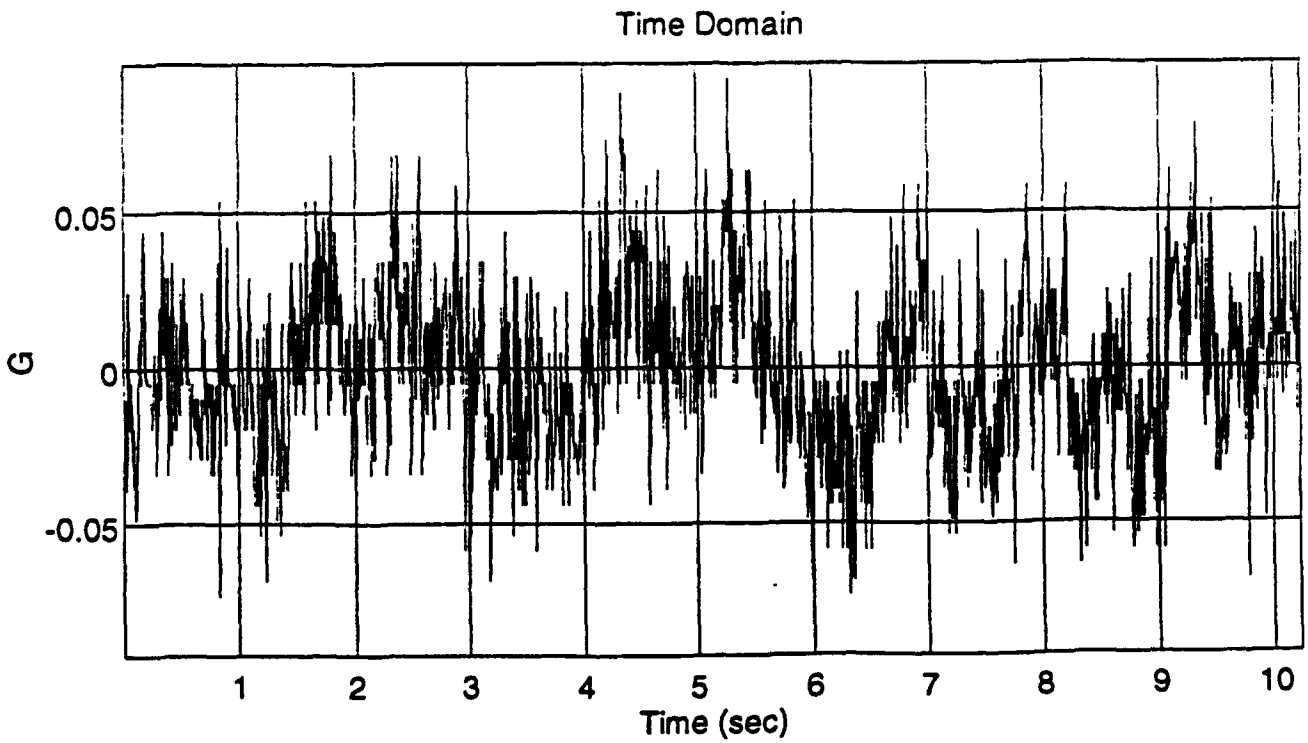

cut12-15kts-0ft: stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

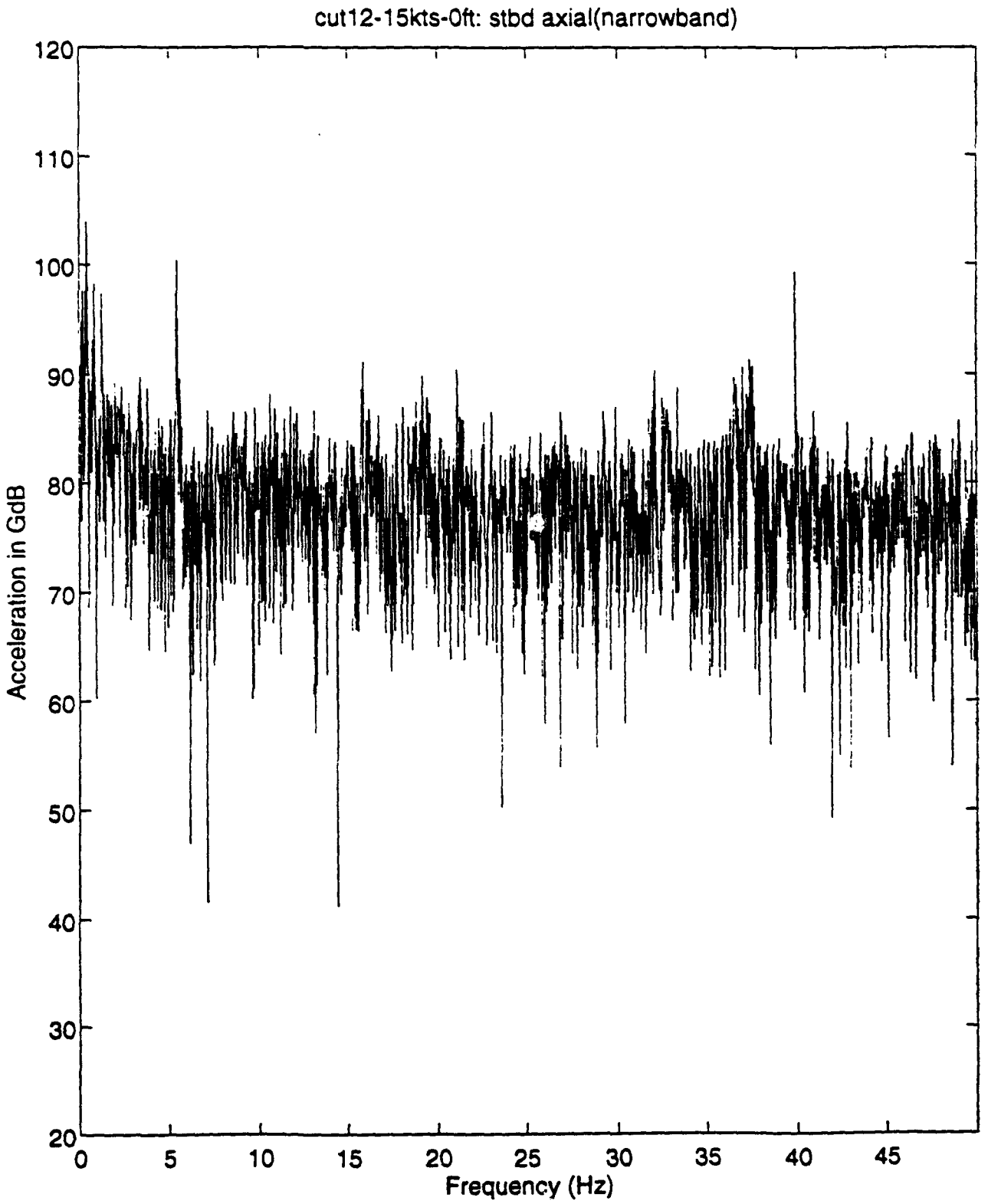
cut12-15kts-0ft: stbd axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.0007067 G
Standard deviation = 0.0281 G
The plot shows 1024 data points



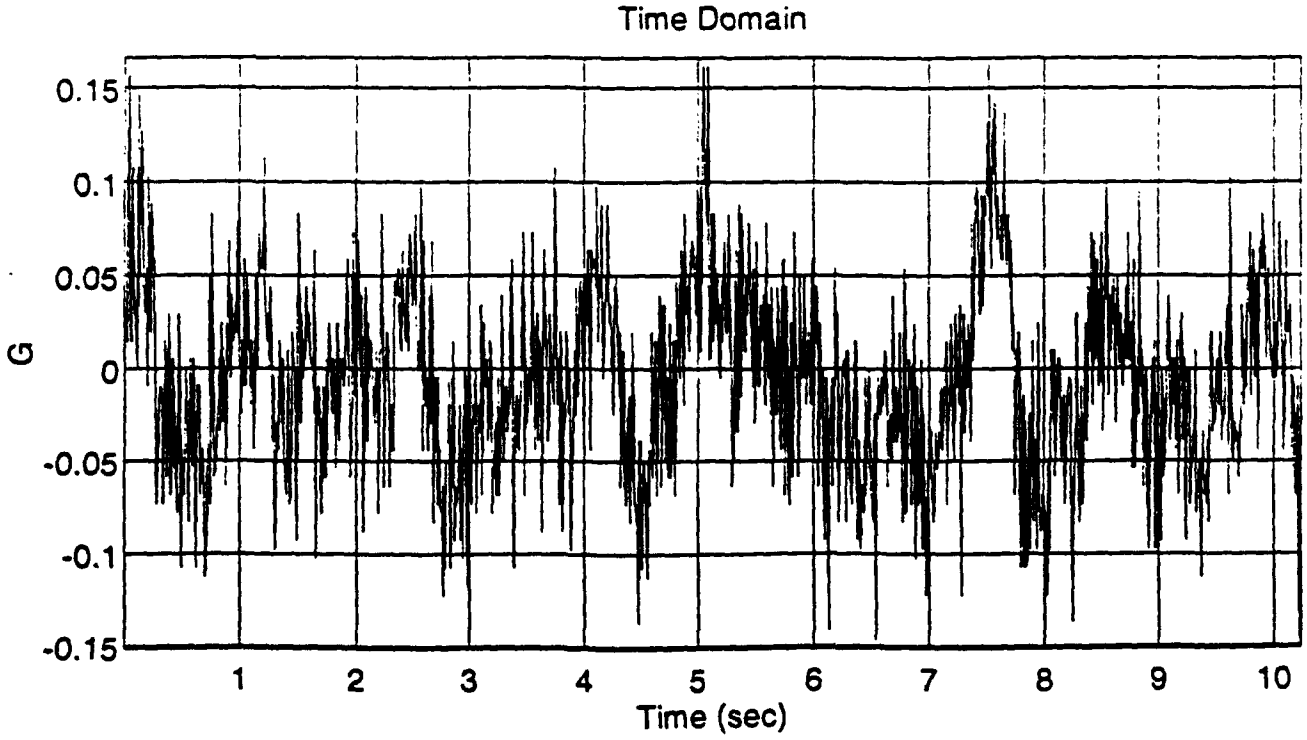

cut12-15kts-0ft: stbd axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

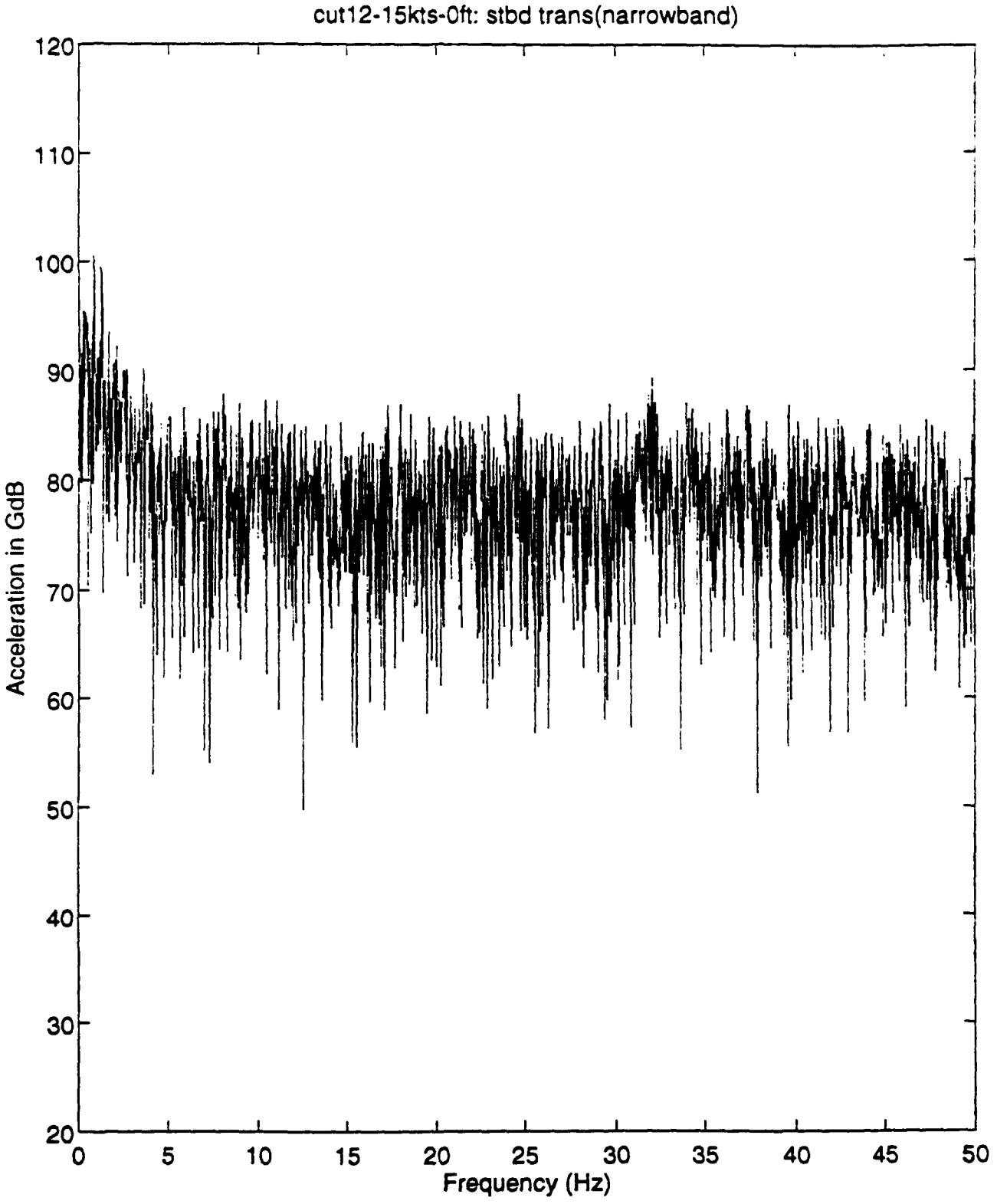
cut12-15kts-0ft: stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.006011 G
Standard deviation = 0.0503 G
The plot shows 1024 data points



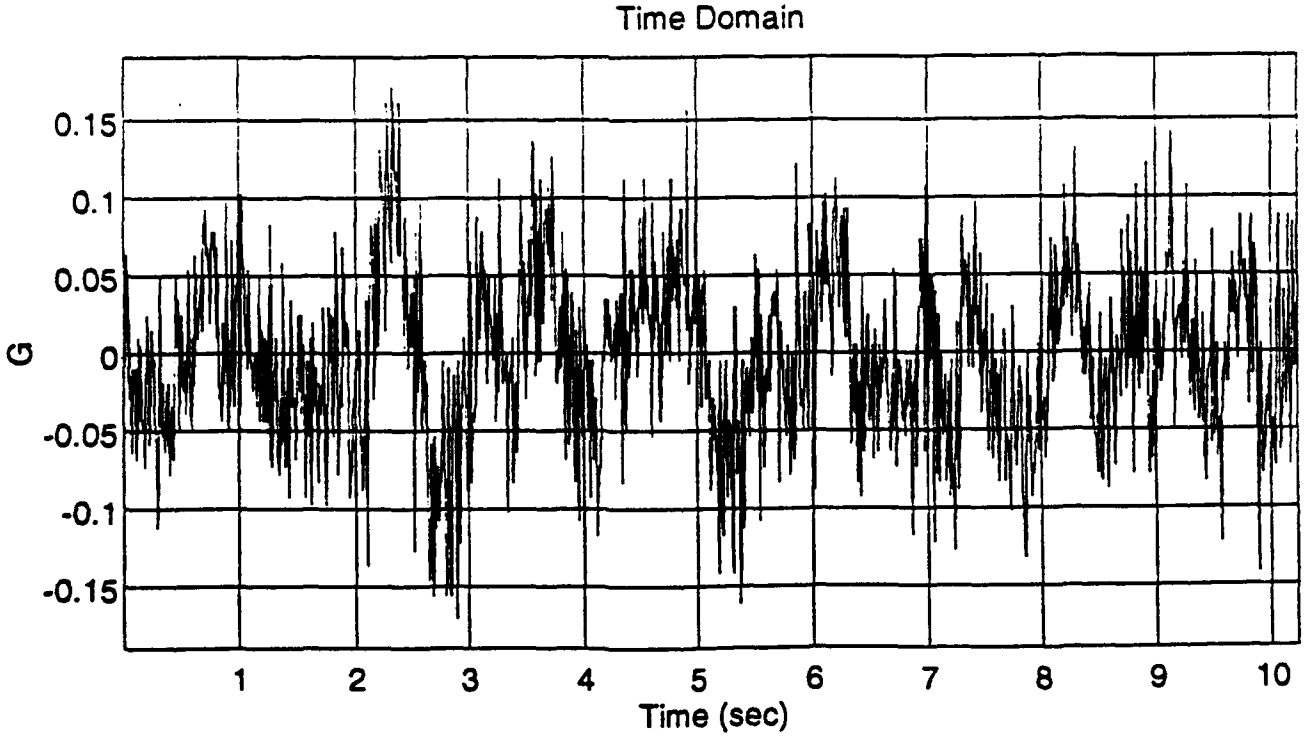

cut12-15kts-0ft: stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

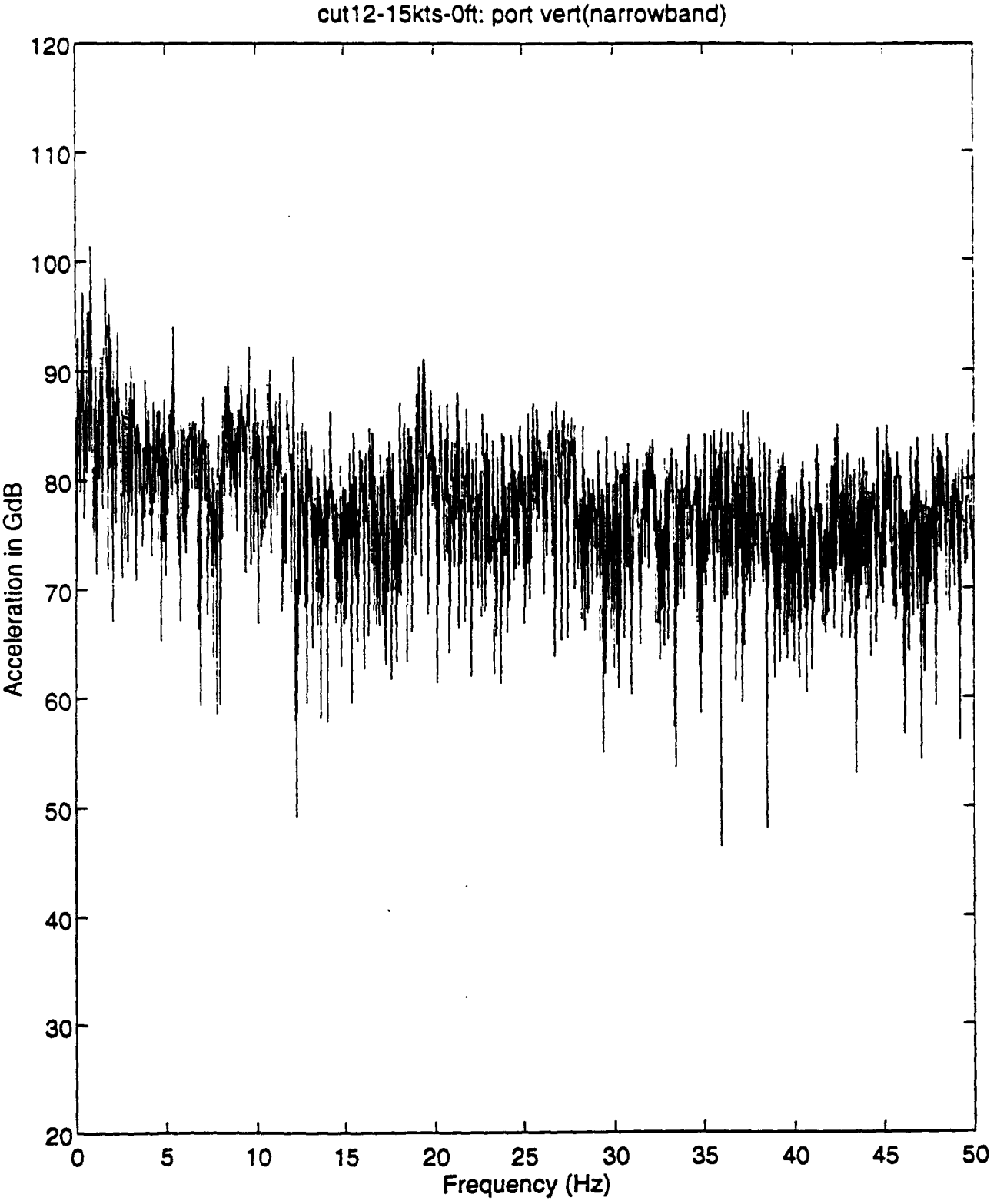
cut12-15kts-0ft: port vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.0007937 G
Standard deviation = 0.05616 G
The plot shows 1024 data points



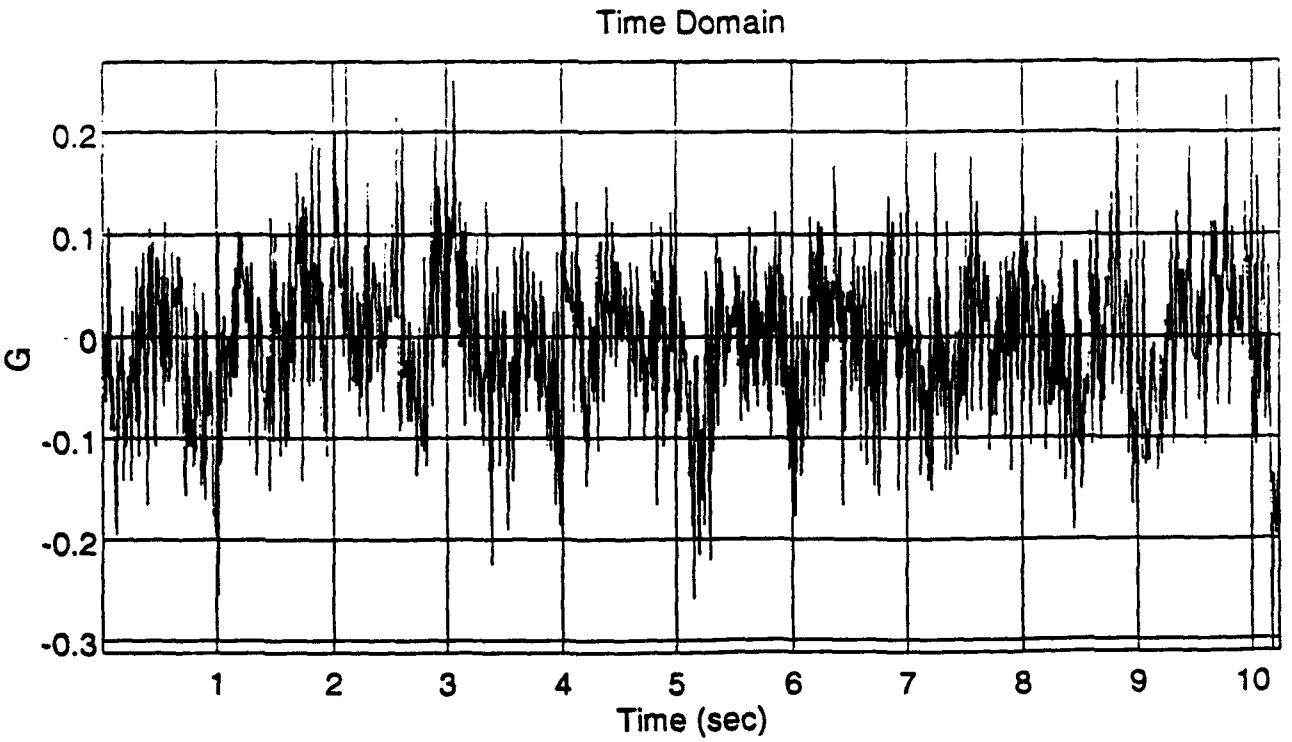

cut12-15kts-0ft: port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

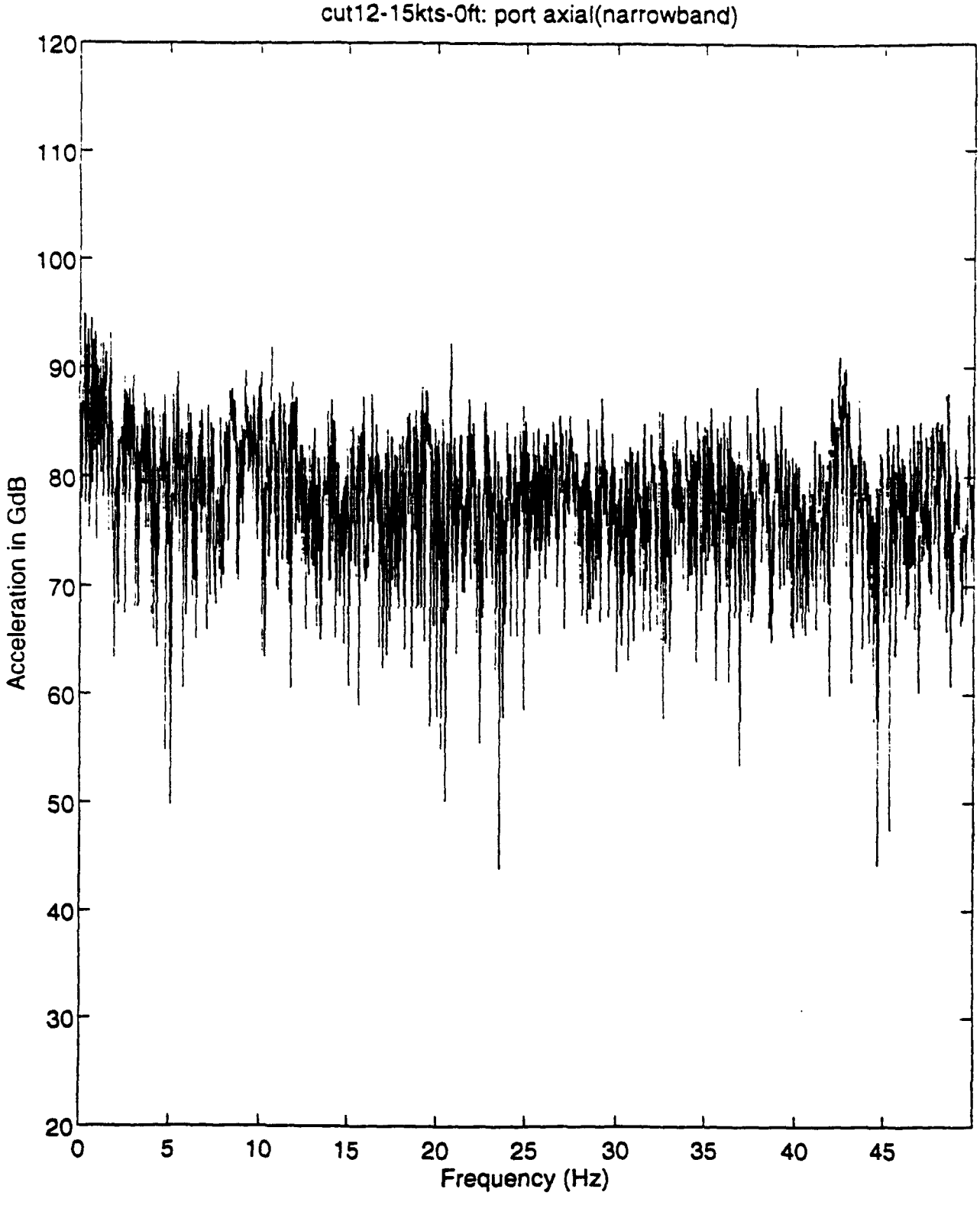
cut12-15kts-0ft: port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.004243 G
Standard deviation = 0.07873 G
The plot shows 1024 data points



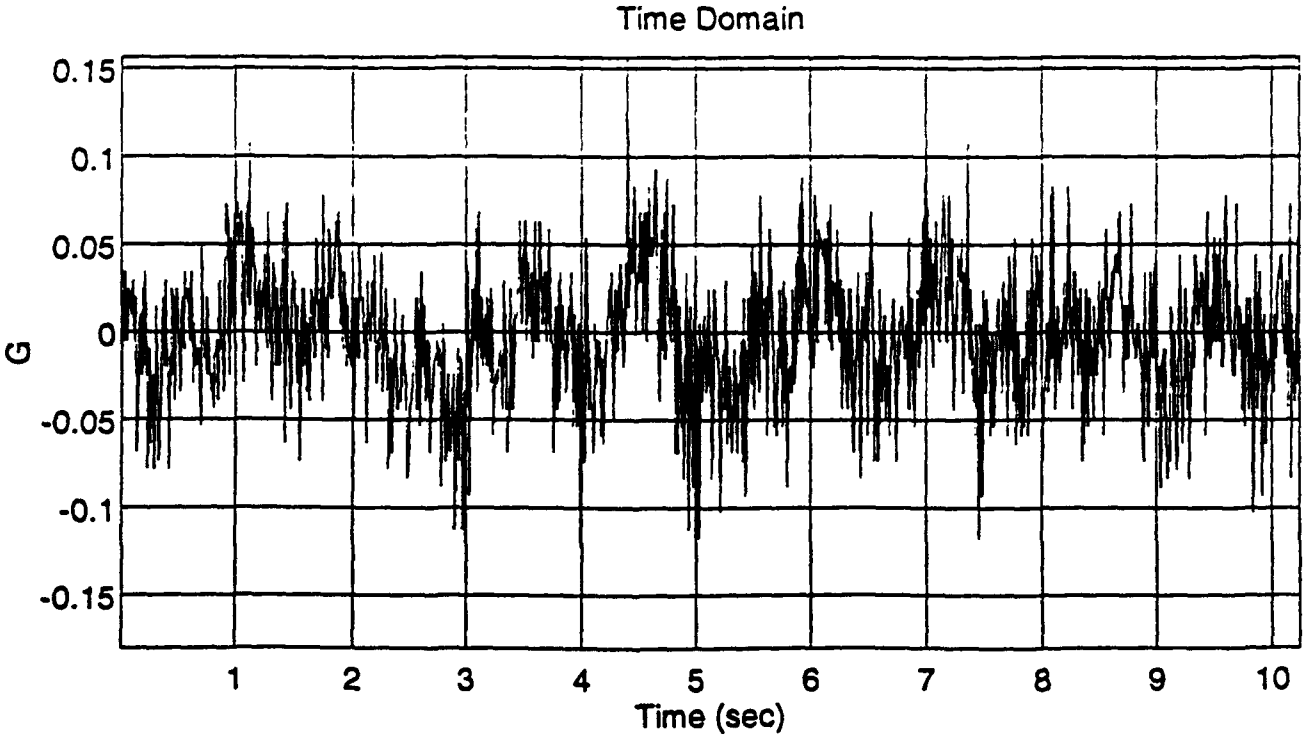

cut12-15kts-0ft: port axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

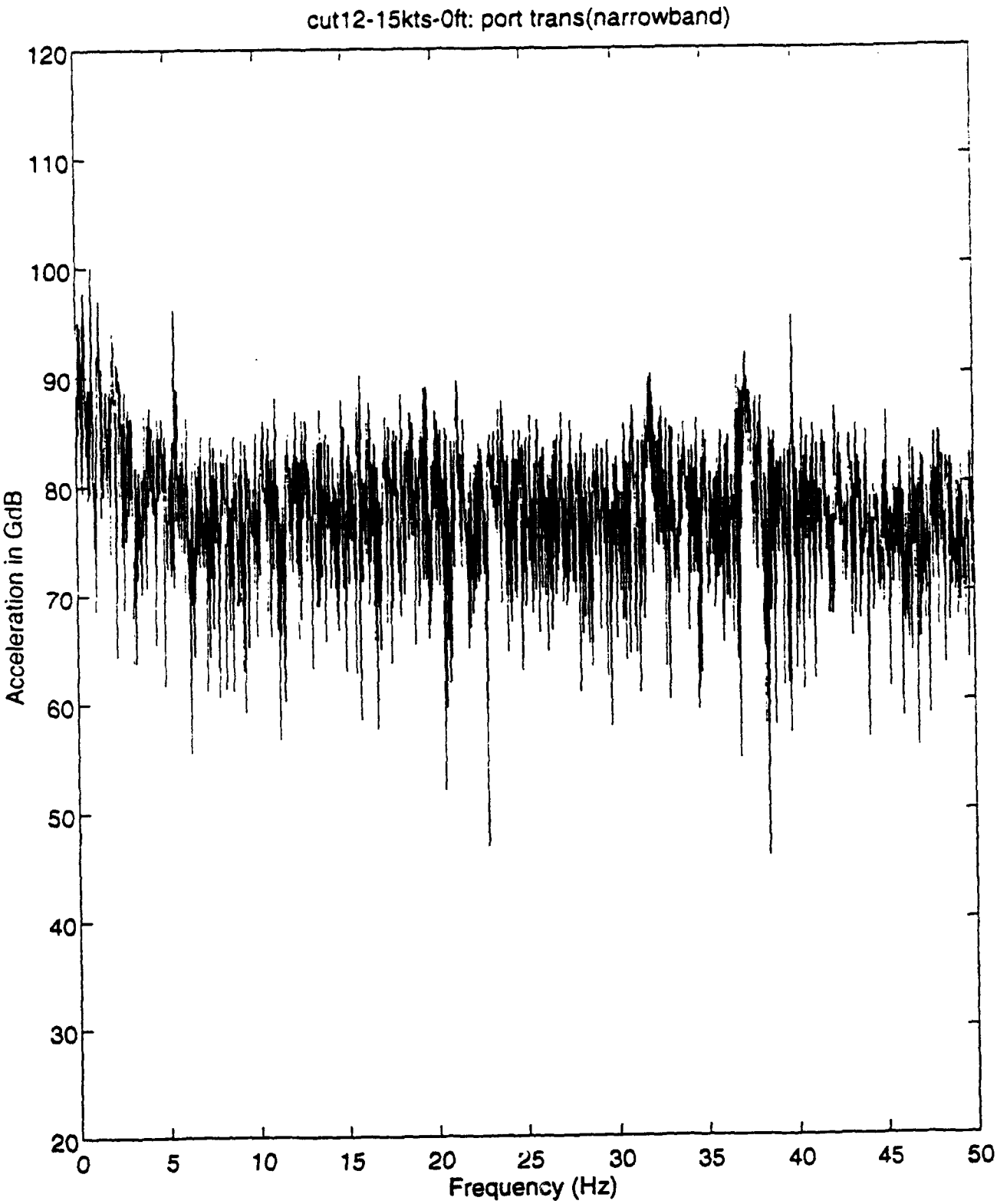
cut12-15kts-0ft: port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.001229 G
Standard deviation = 0.03755 G
The plot shows 1024 data points



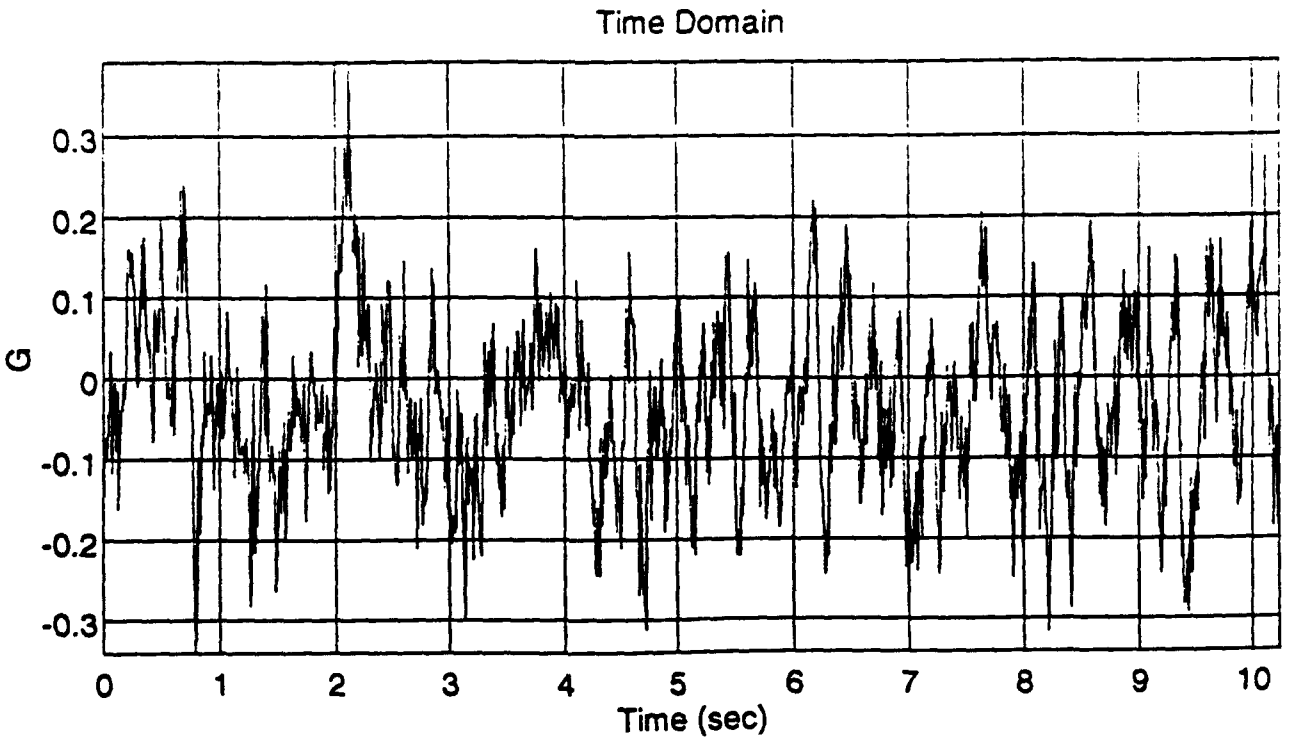

cut12-15kts-0ft: port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

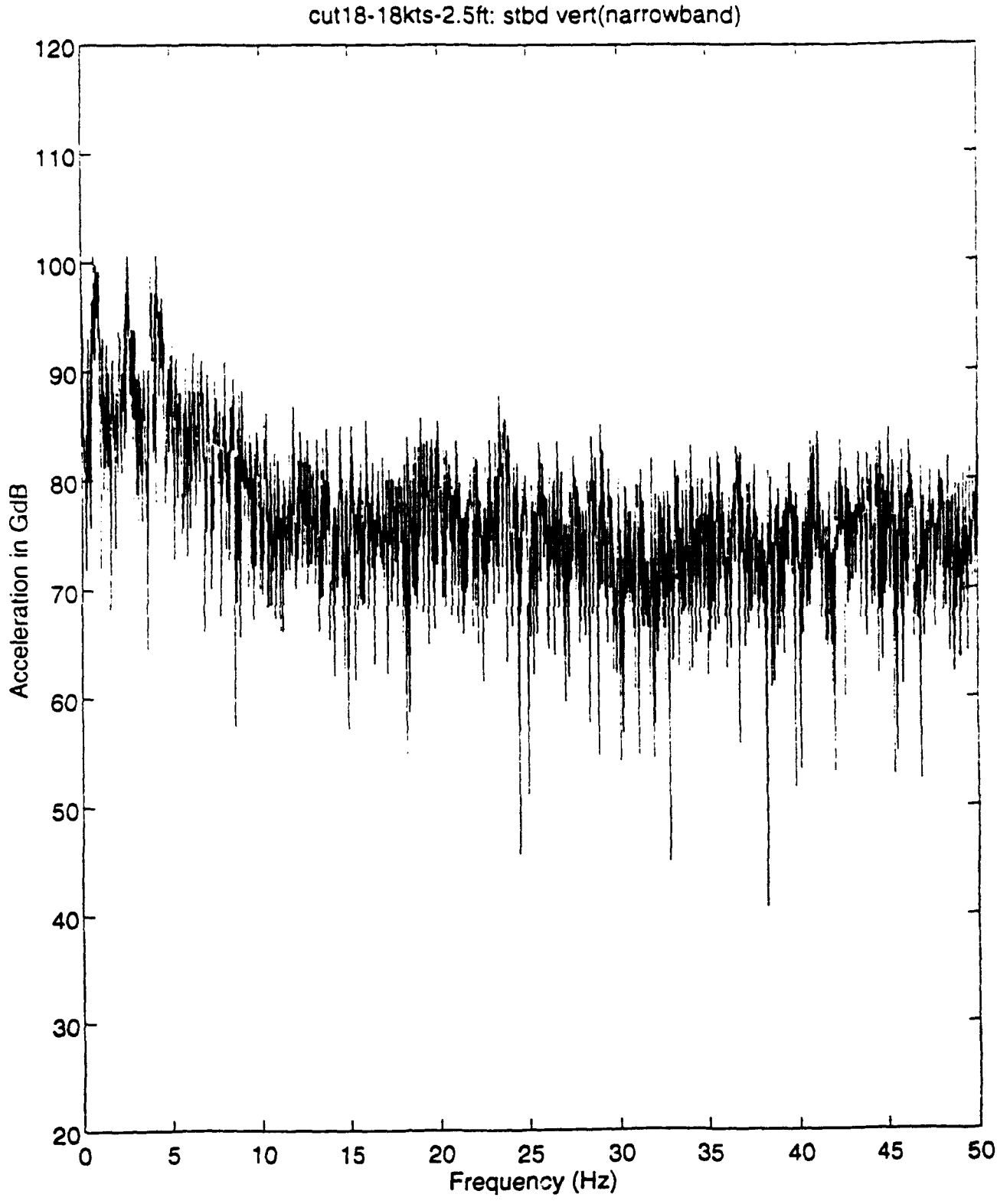
cut18-18kts-2.5ft: stbd vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01738 G
Standard deviation = 0.1067 G
The plot shows 1024 data points



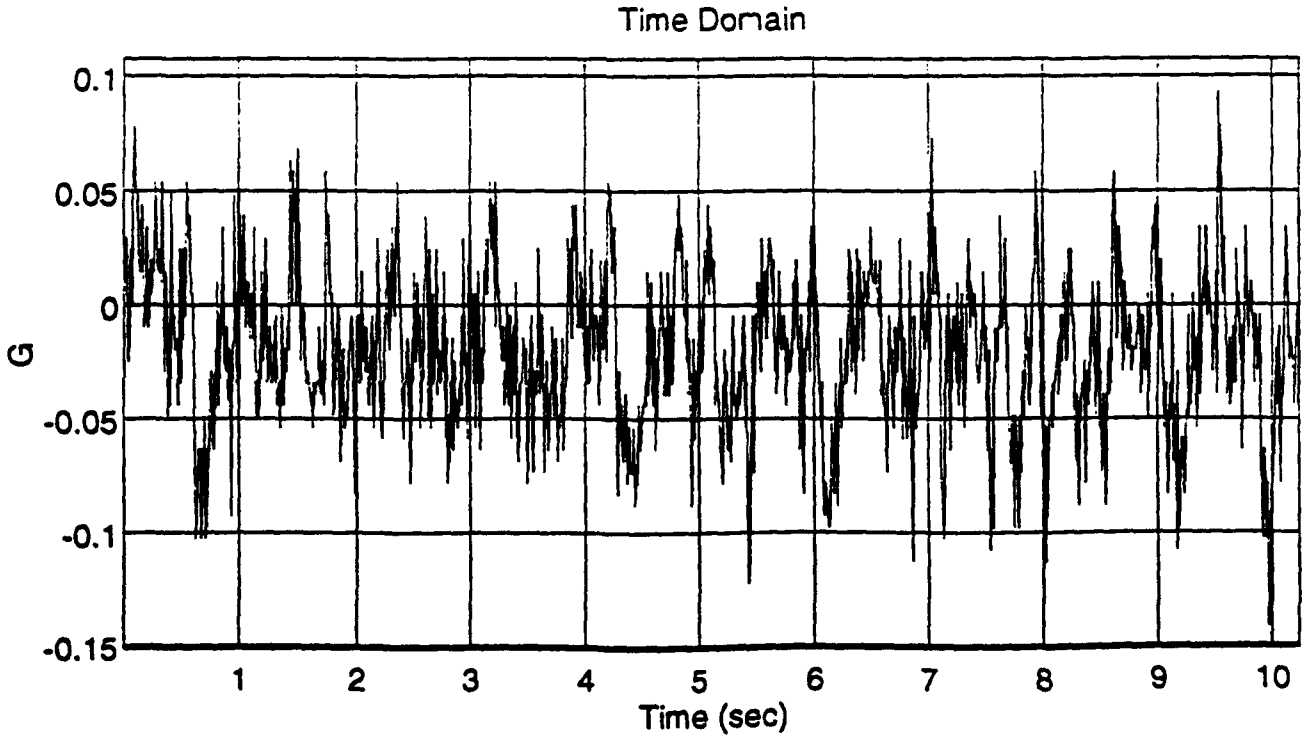

cut18-18kts-2.5ft: stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

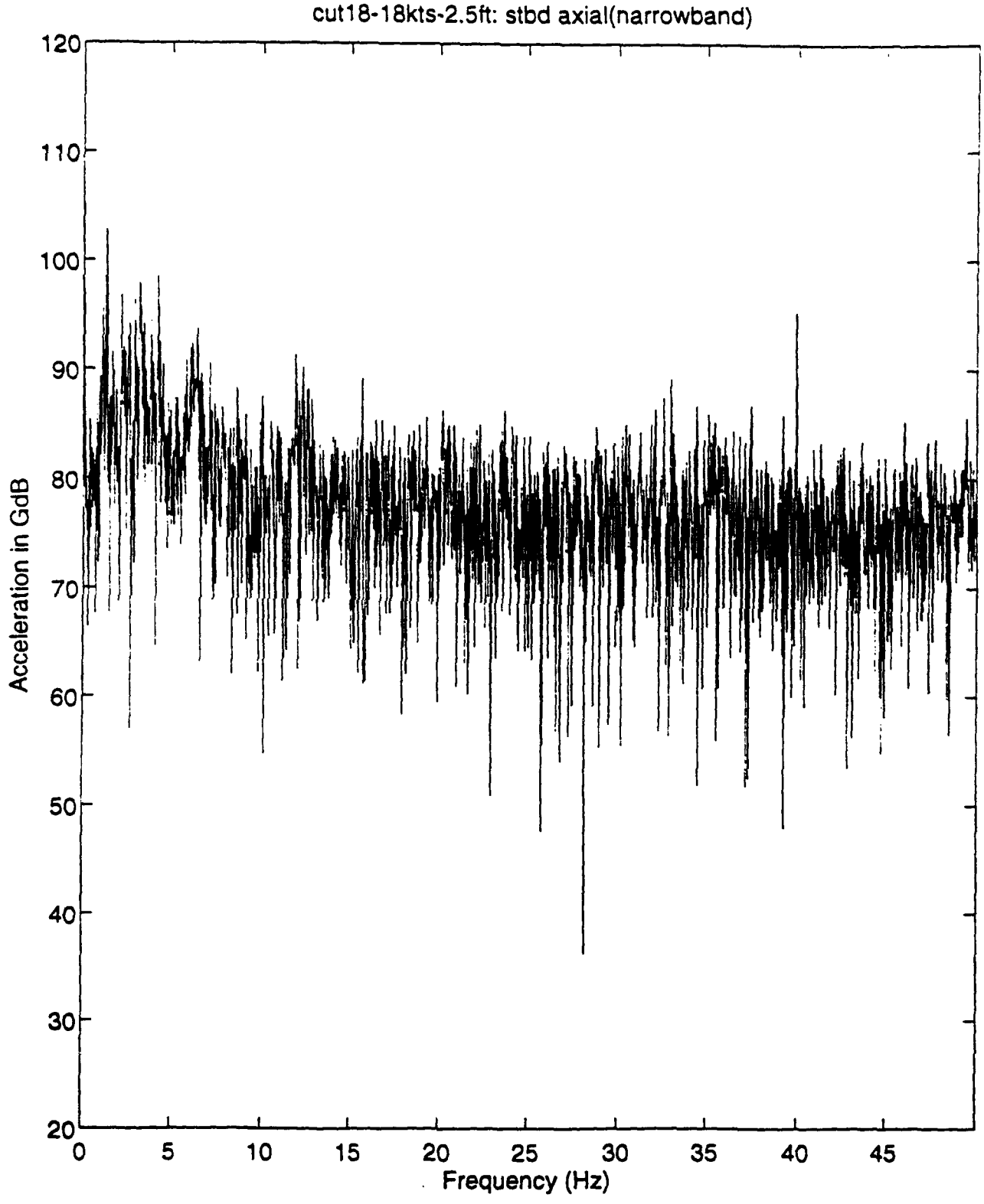
cut18-18kts-2.5ft: stbd axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01694 G
Standard deviation = 0.03401 G
The plot shows 1024 data points



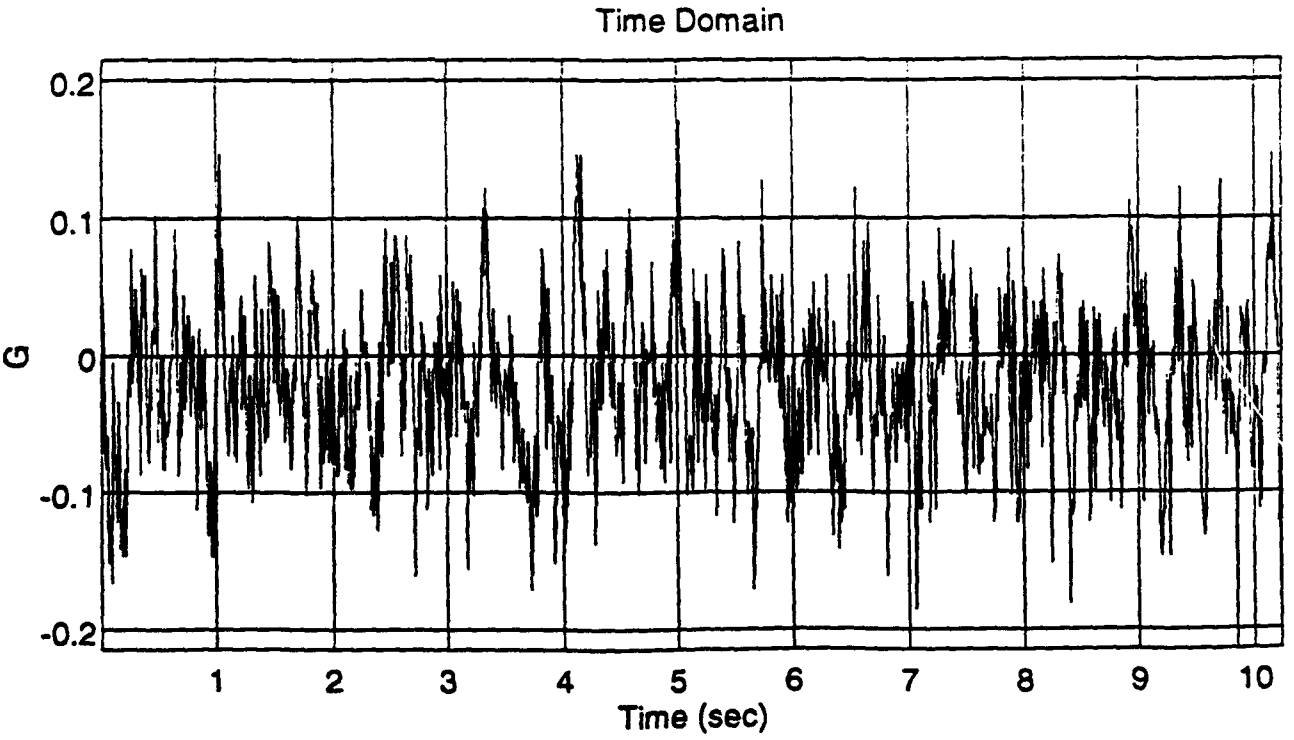

cut18-18kts-2.5ft: stbd axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

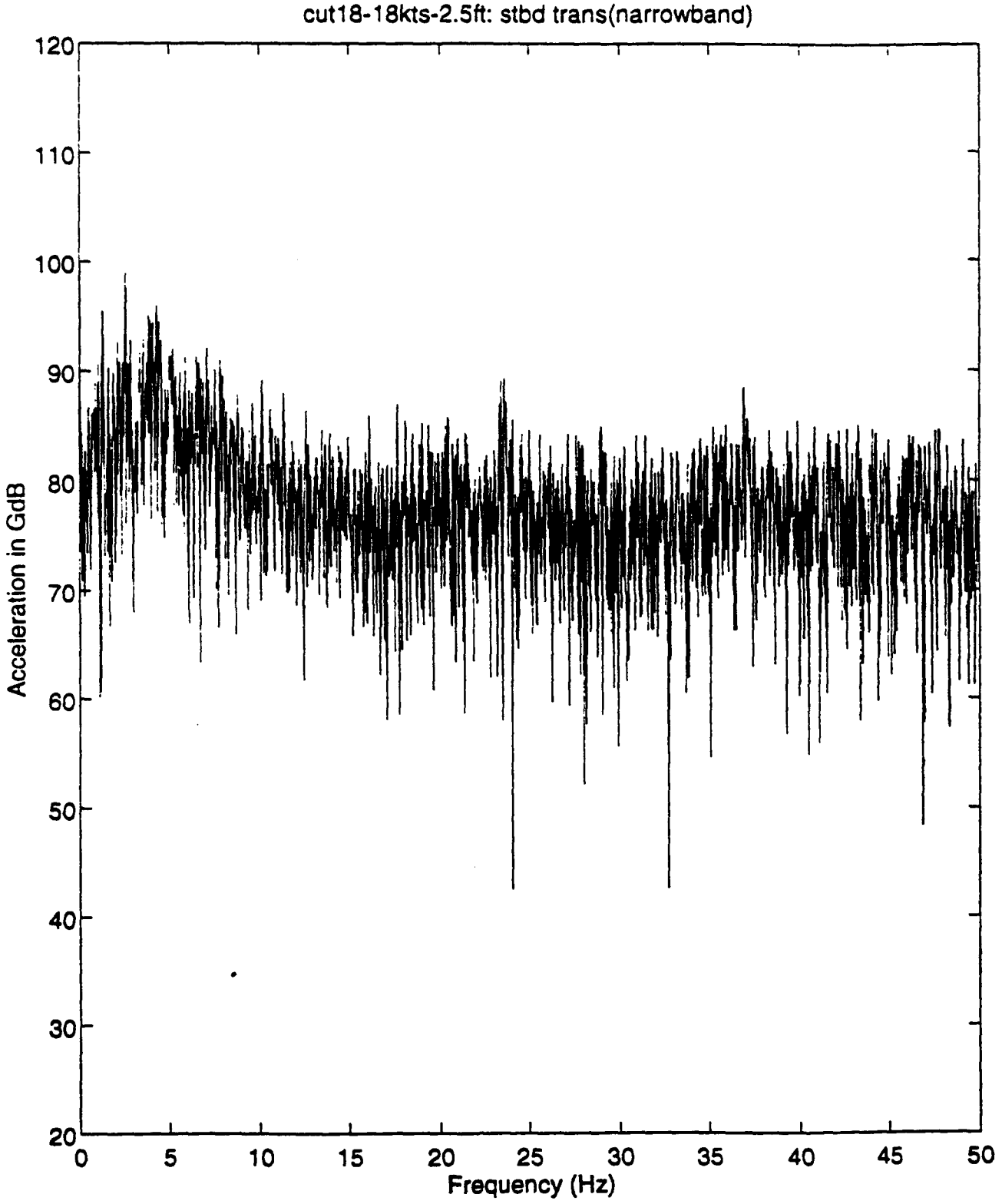
cut18-18kts-2.5ft: stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.0171 G
Standard deviation = 0.05827 G
The plot shows 1024 data points



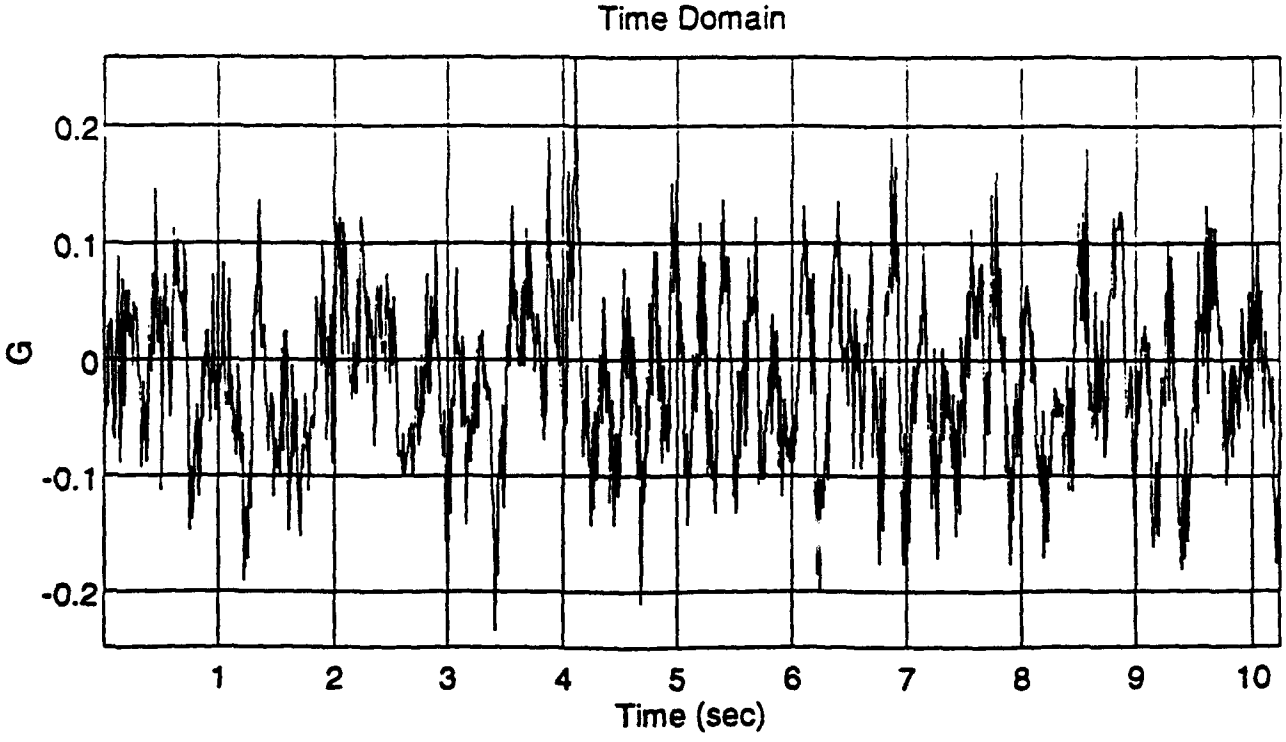

cut18-18kts-2.5ft: stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

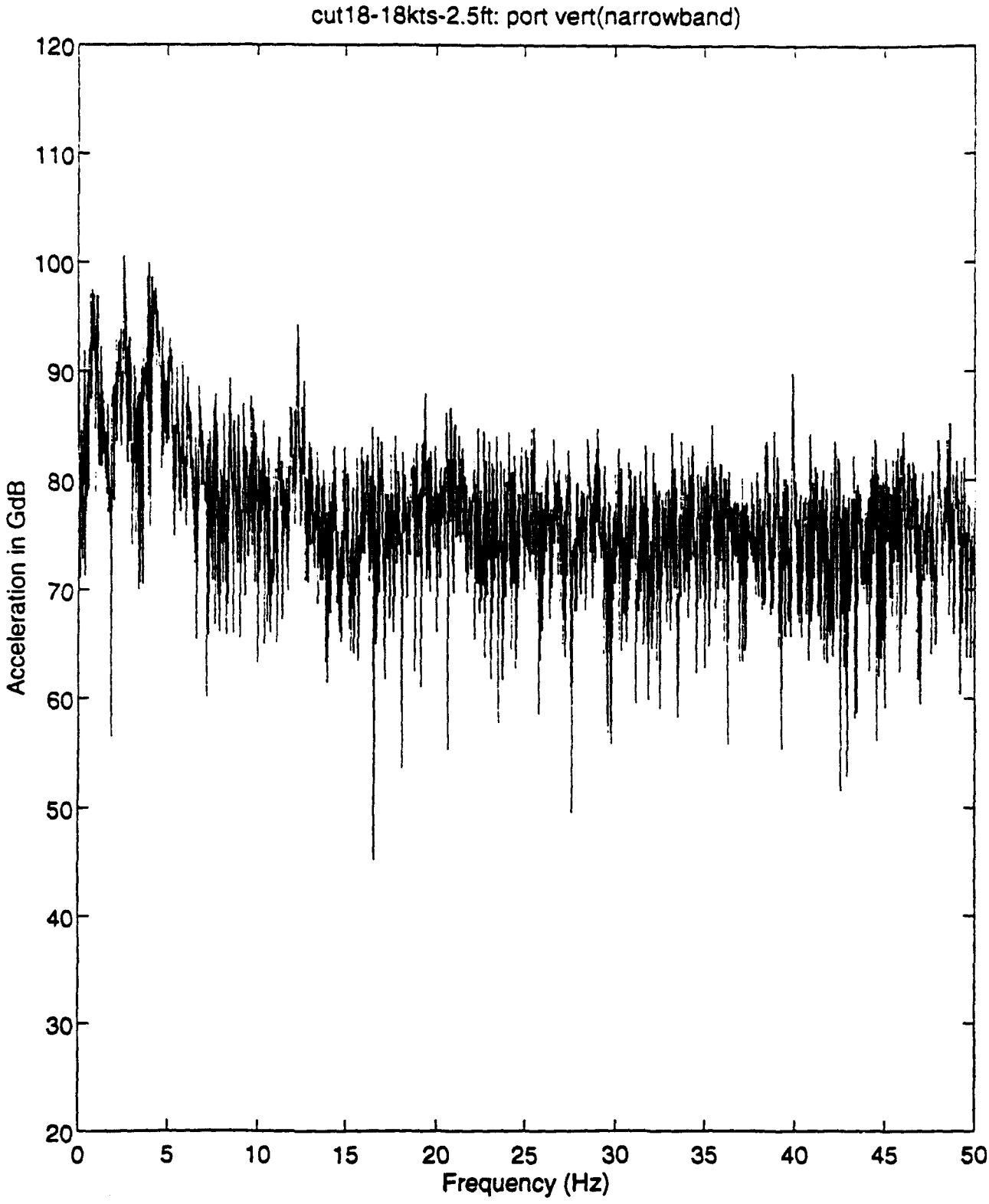
cut18-18kts-2.5ft: port vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.007835 G
Standard deviation = 0.07389 G
The plot shows 1024 data points



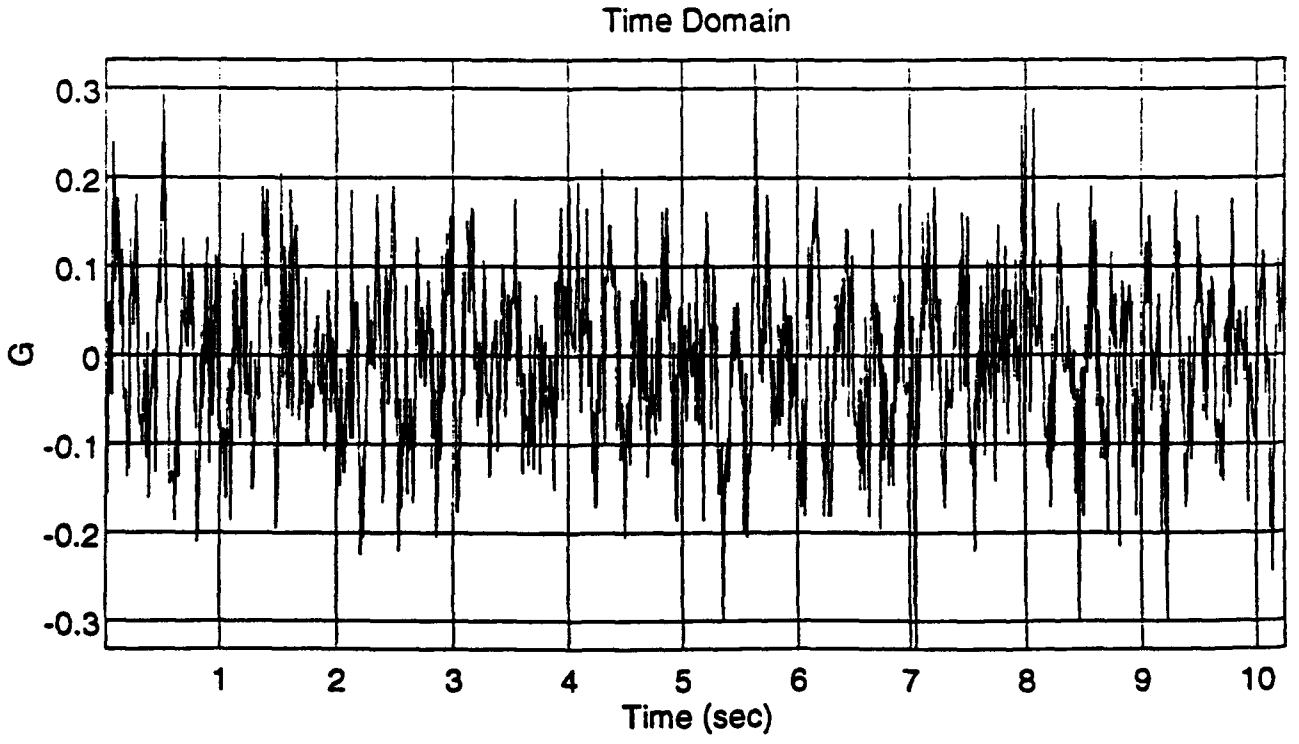

cut18-18kts-2.5ft: port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

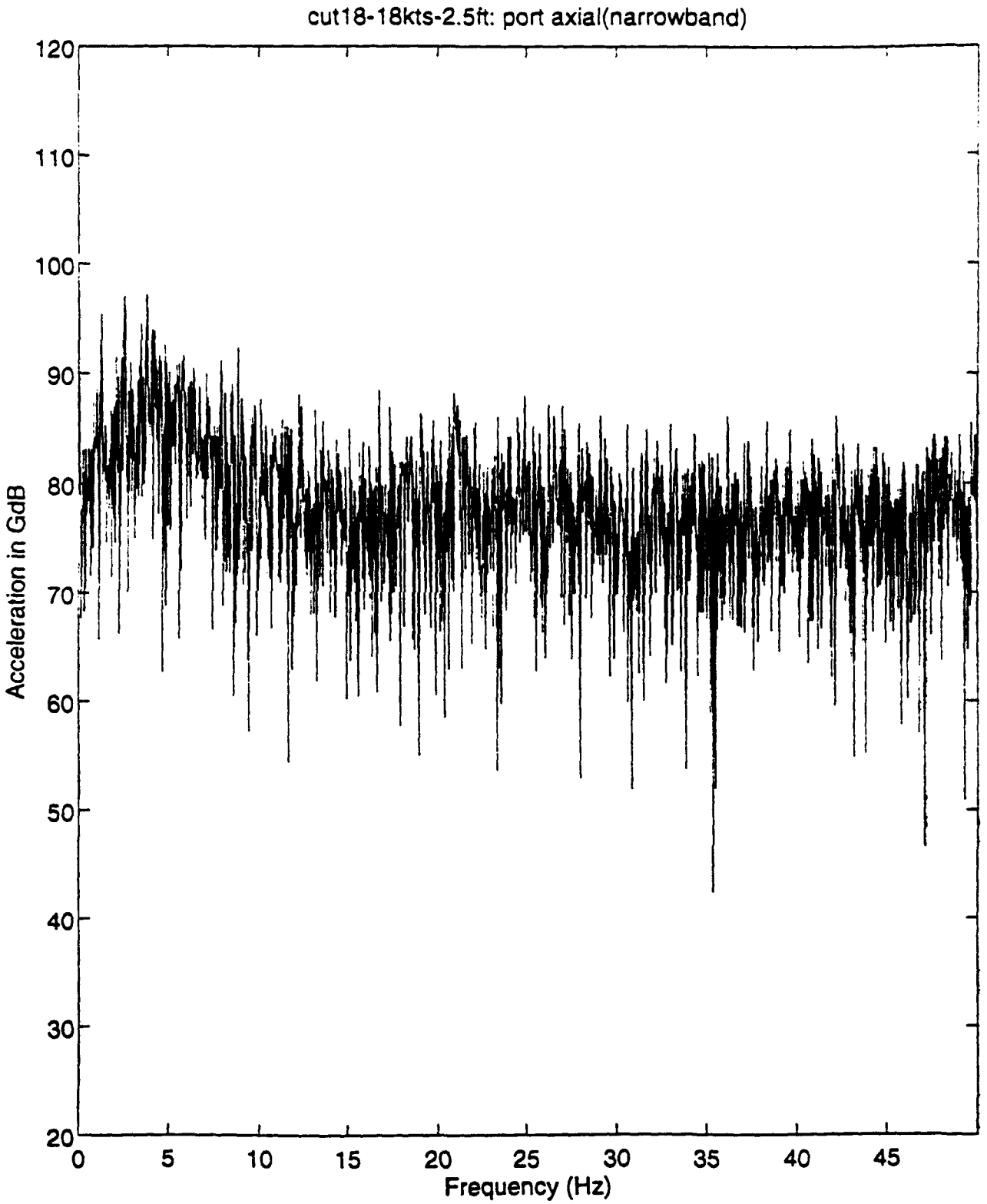
cut18-18kts-2.5ft: port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = 0.007301 G
Standard deviation = 0.09301 G
The plot shows 1024 data points



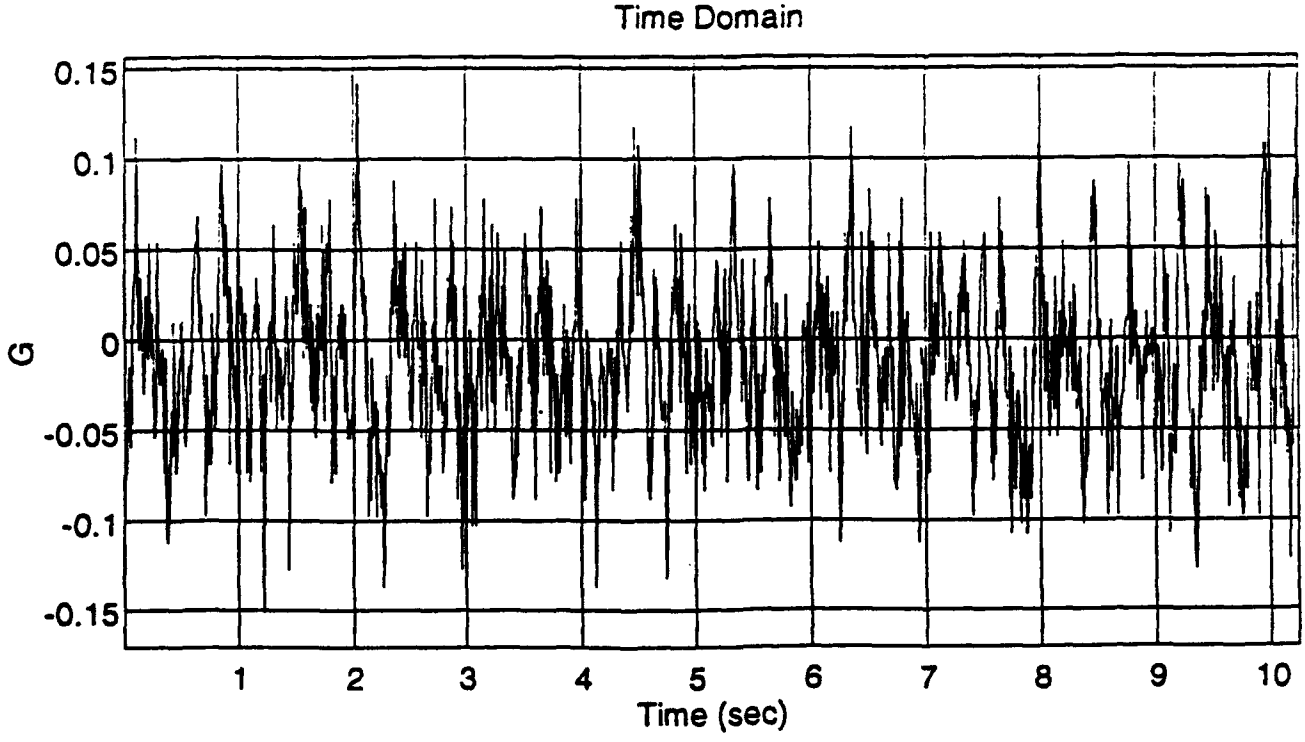

cut18-18kts-2.5ft: port axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

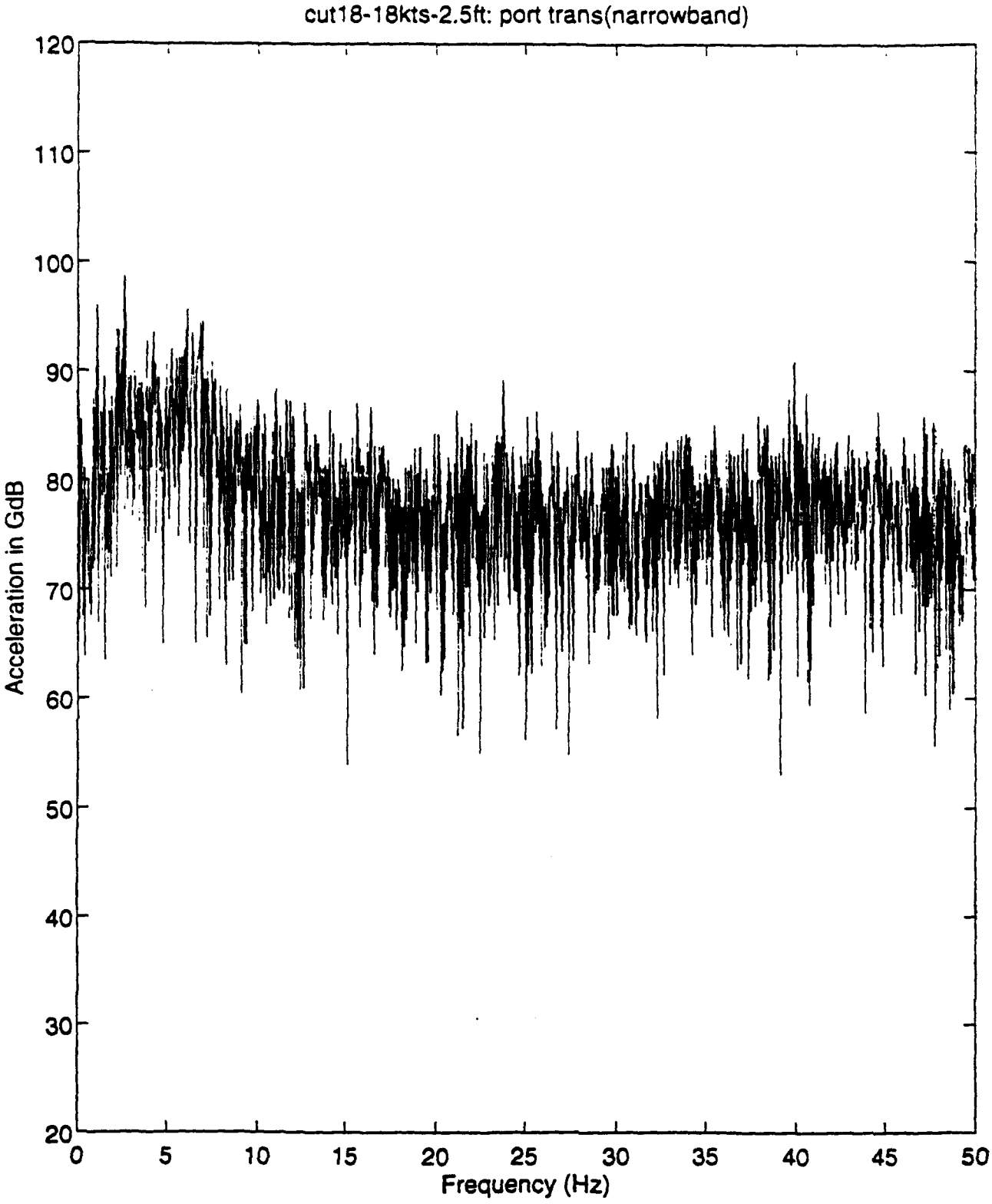
cut18-18kts-2.5ft: port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.008038 G
Standard deviation = 0.04674 G
The plot shows 1024 data points




cut18-18kts-2.5ft: port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

cut23-36kts-2.5ft: stbd vert(narrowband)

Data sampling frequency = 100 Hz

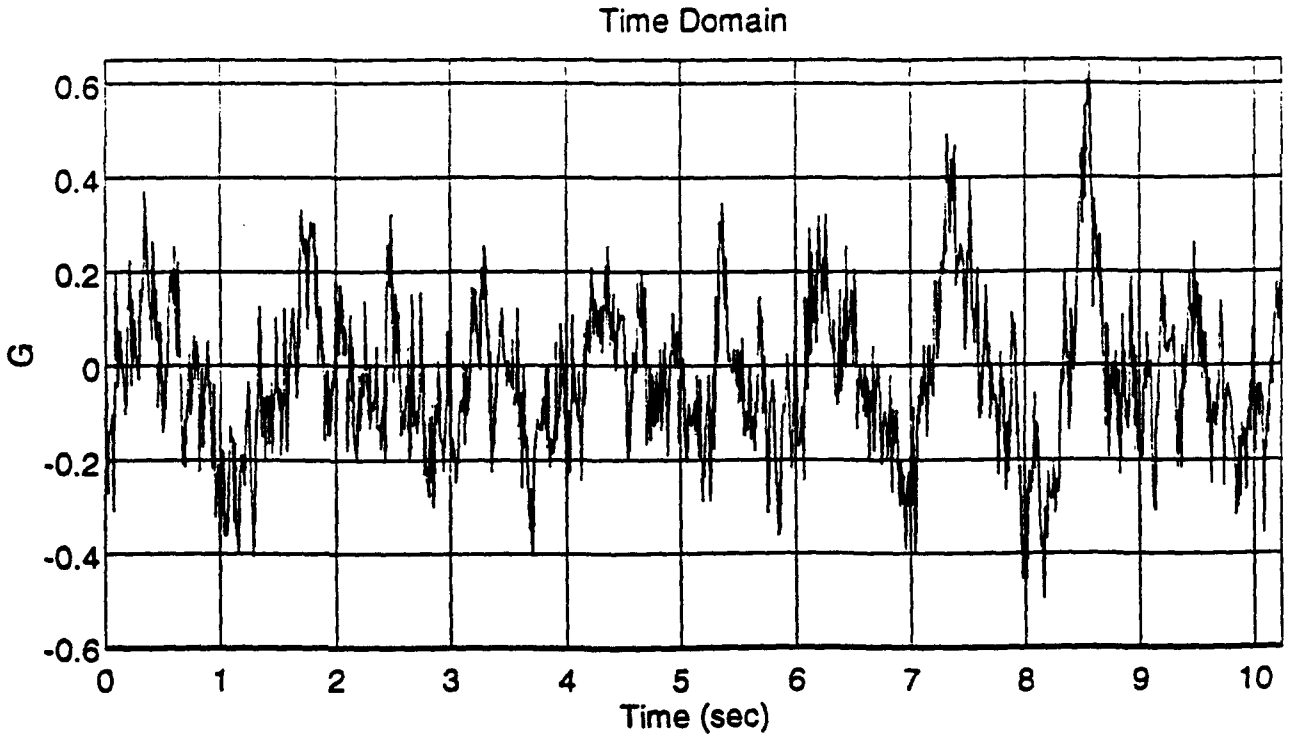
Total number of sampling data points = 4096

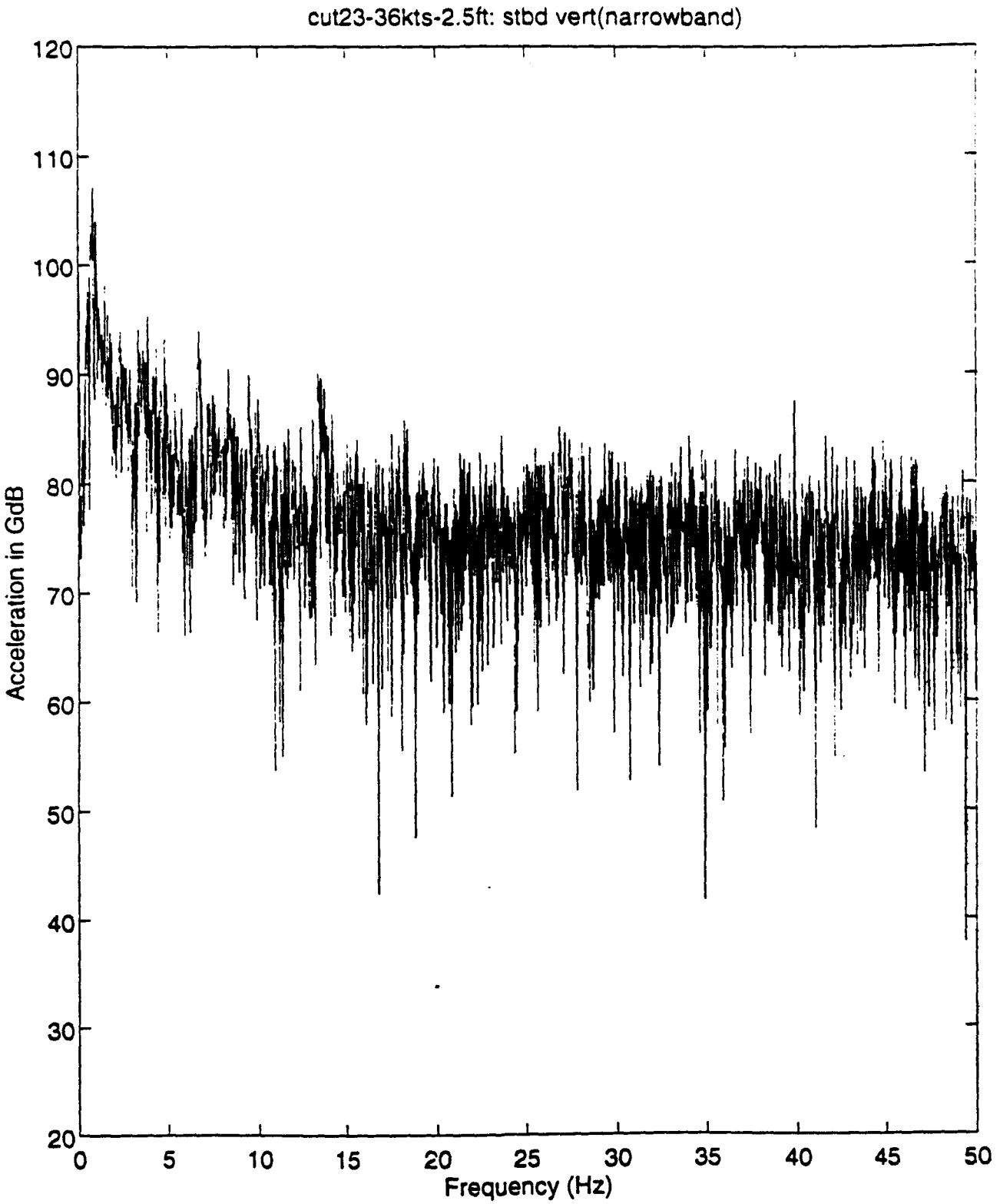
* The time domain

Mean value = -0.02906 G

Standard deviation = 0.164 G

The plot shows 1024 data points




cut23-36kts-2.5ft: stbd vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

cut23-36kts-2.5ft: stbd axial(narrowband)

Data sampling frequency = 100 Hz

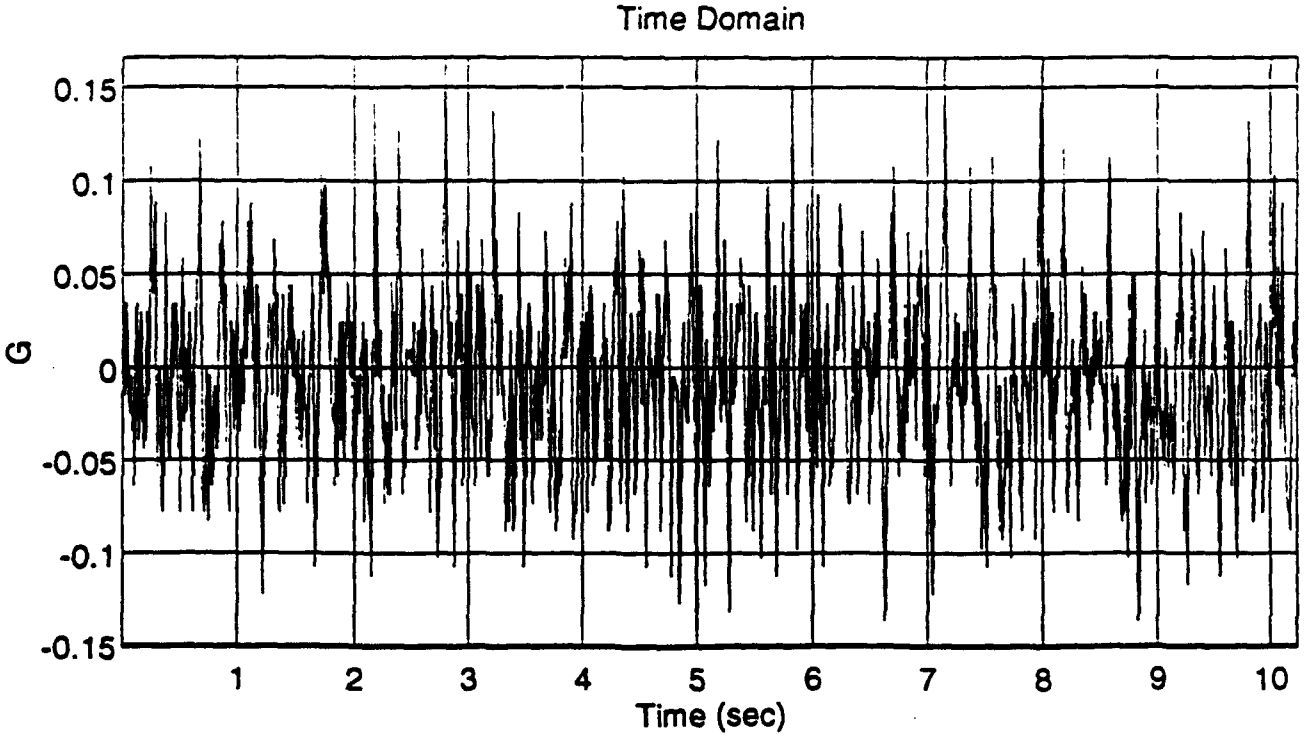
Total number of sampling data points = 4096

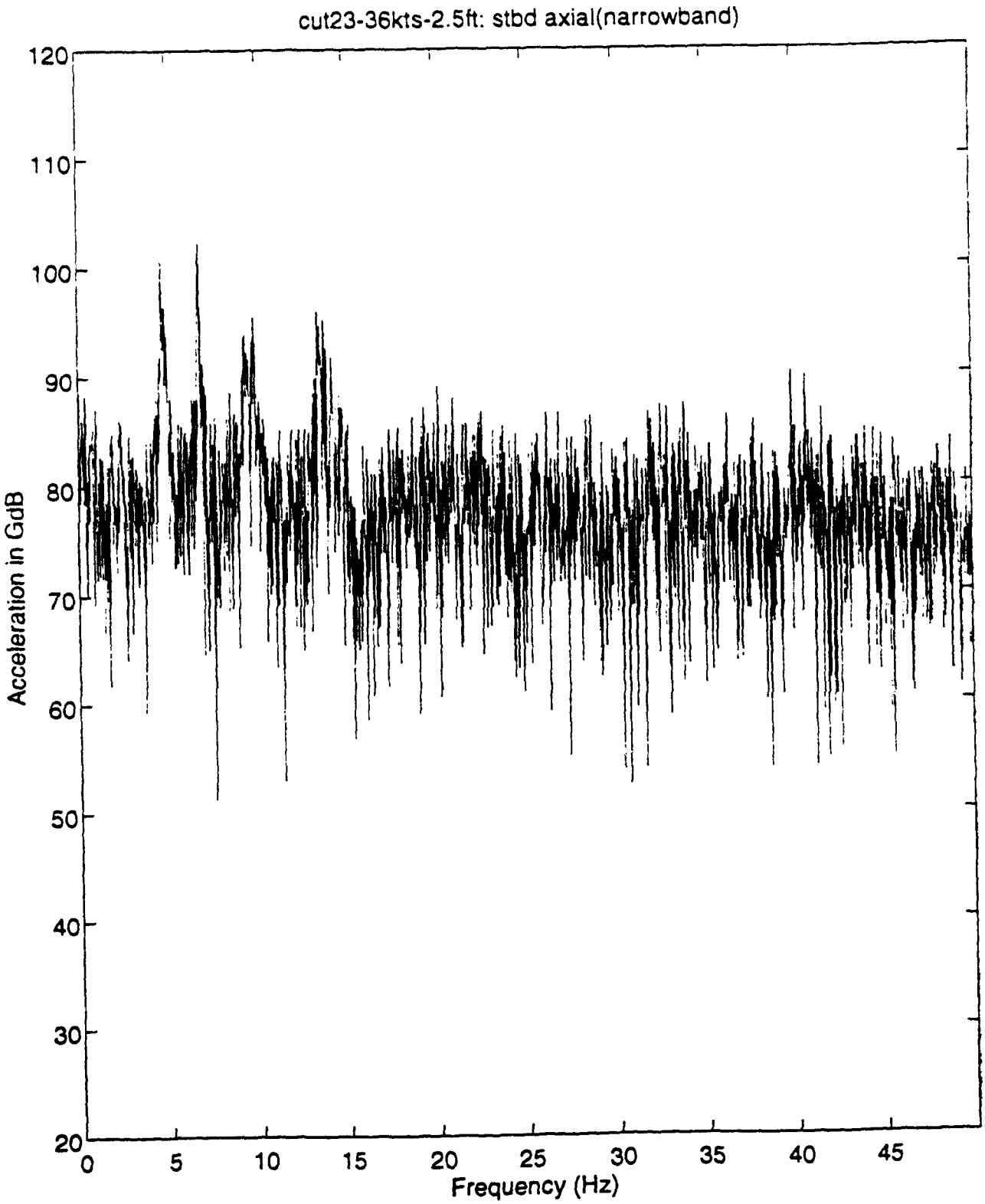
* The time domain

Mean value = -0.005884 G

Standard deviation = 0.04879 G

The plot shows 1024 data points



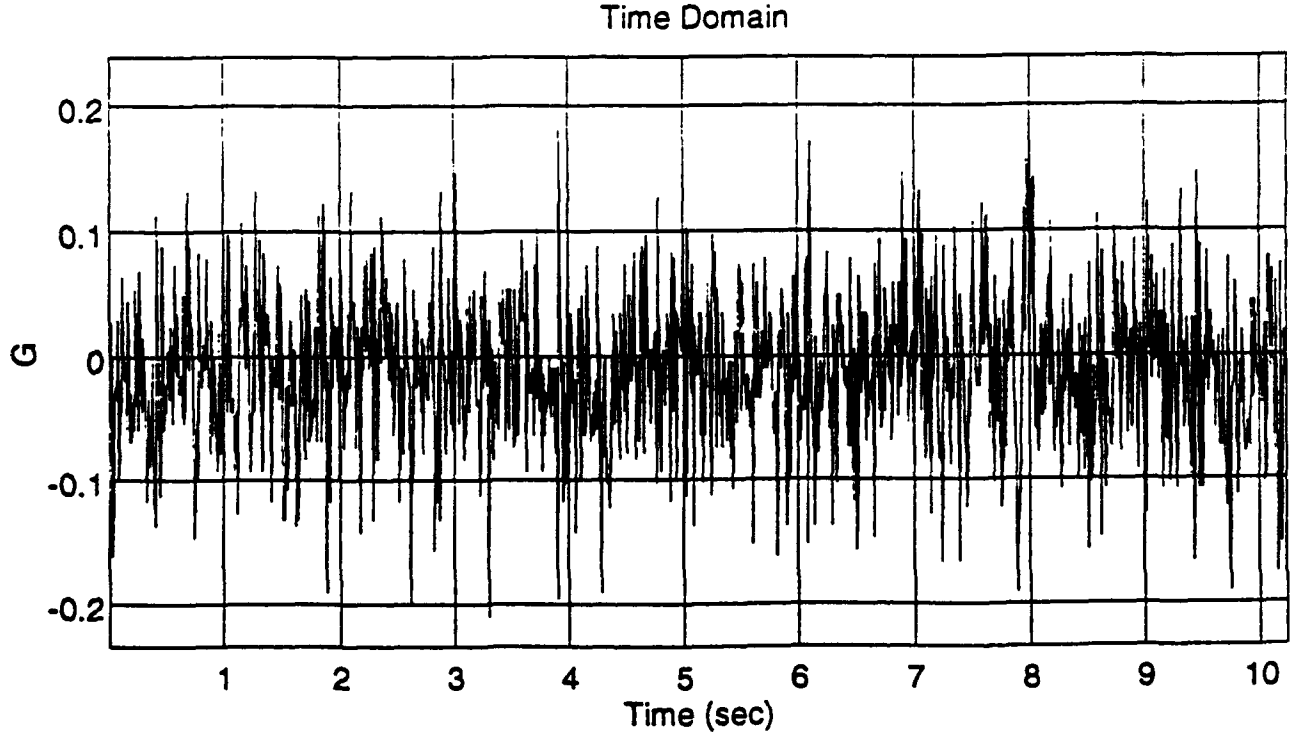

cut23-36kts-2.5ft: stbd axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

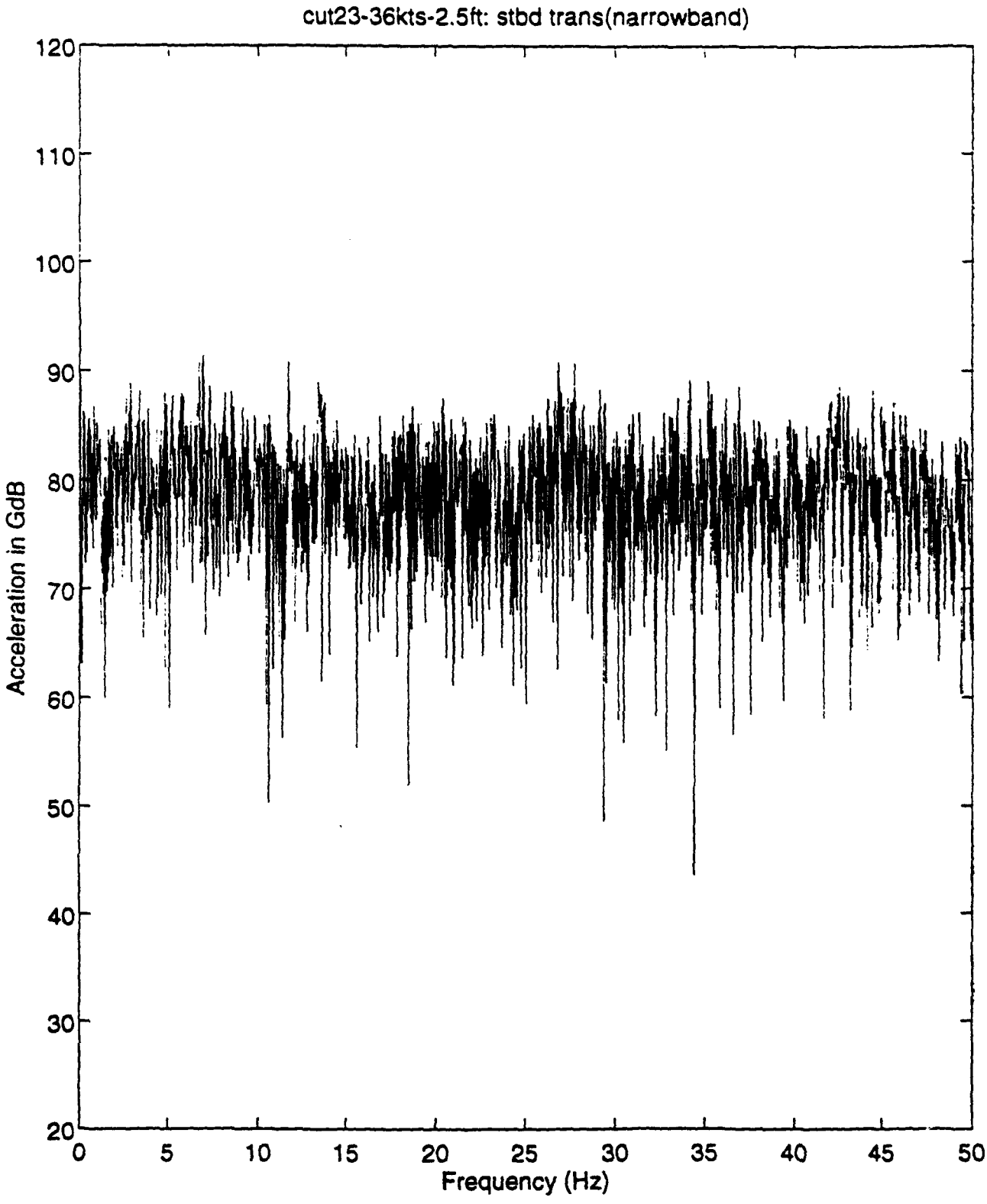
cut23-36kts-2.5ft: stbd trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01295 G
Standard deviation = 0.06155 G
The plot shows 1024 data points



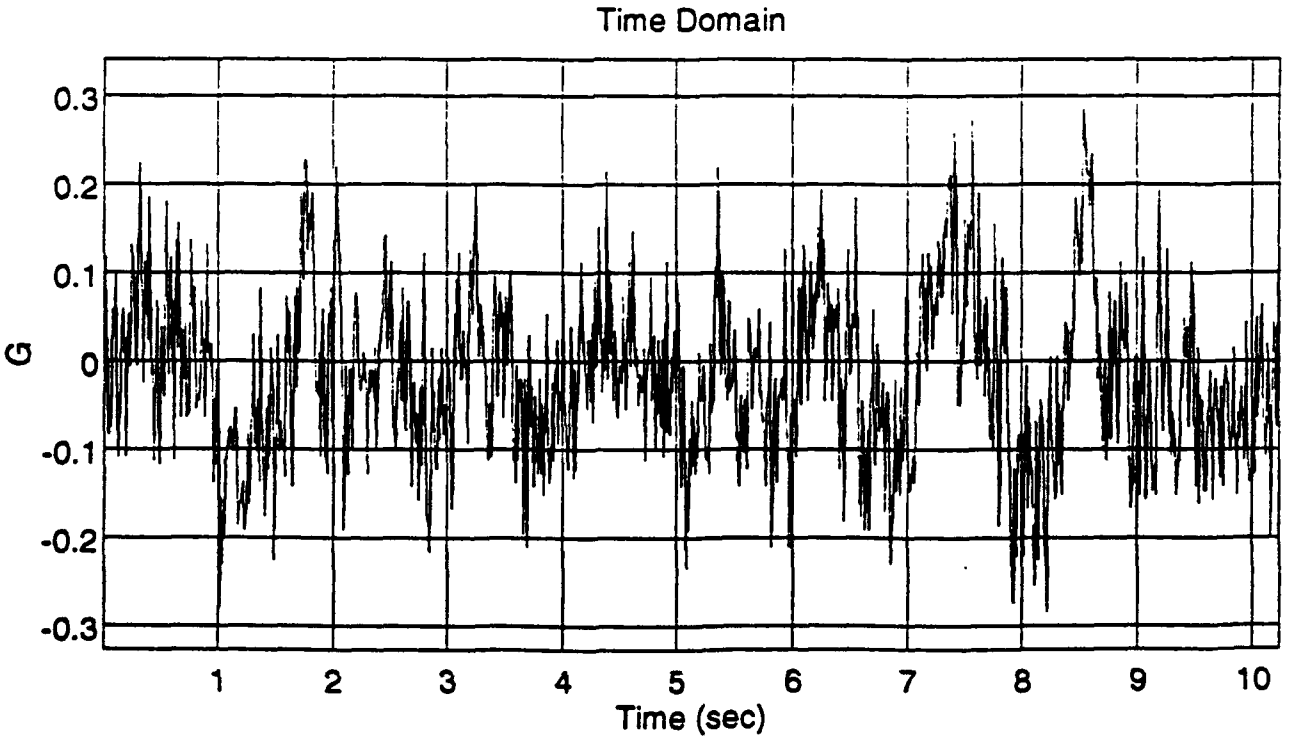

cut23-36kts-2.5ft: stbd trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

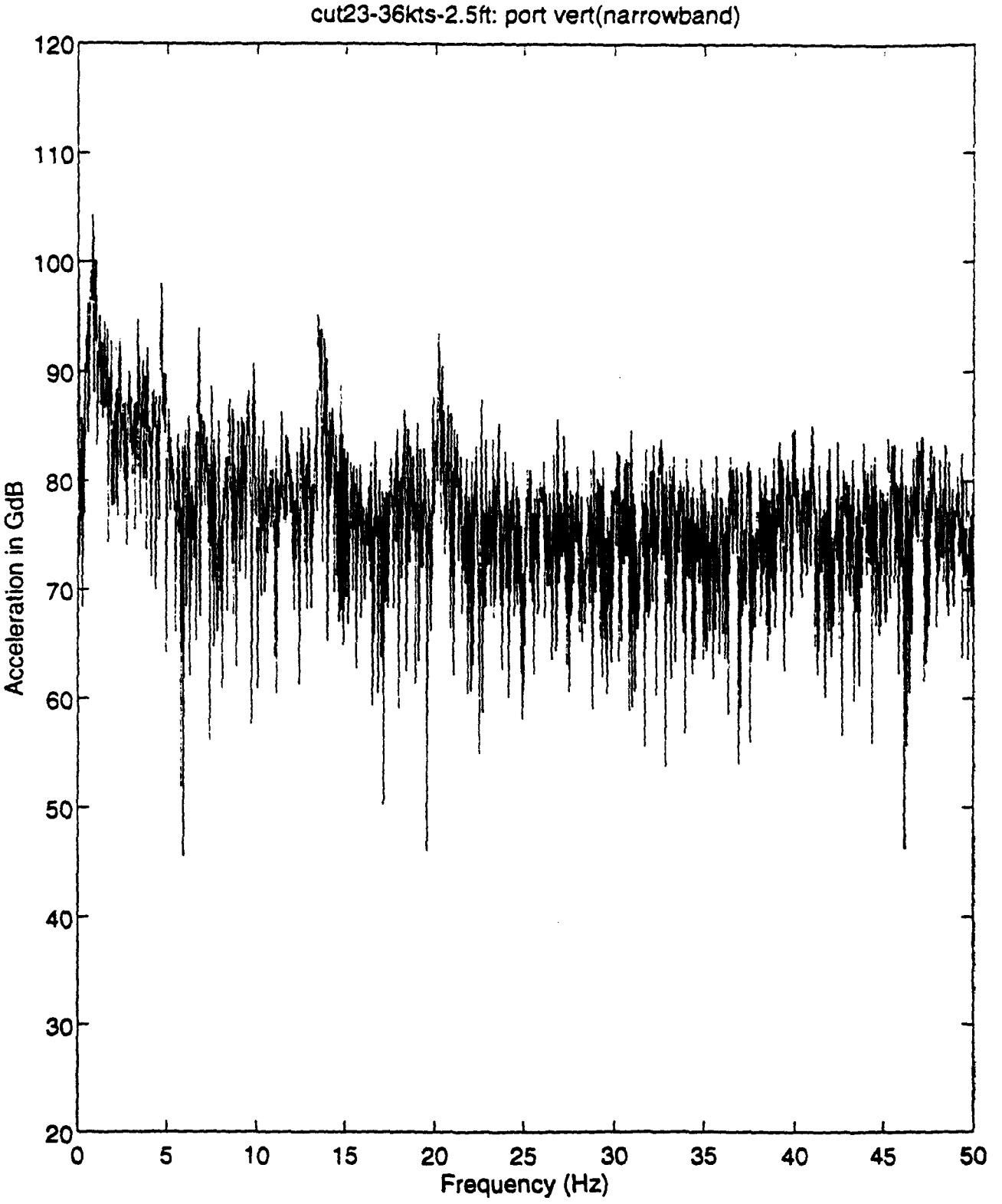
cut23-36kts-2.5ft: port vert(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01843 G
Standard deviation = 0.09354 G
The plot shows 1024 data points



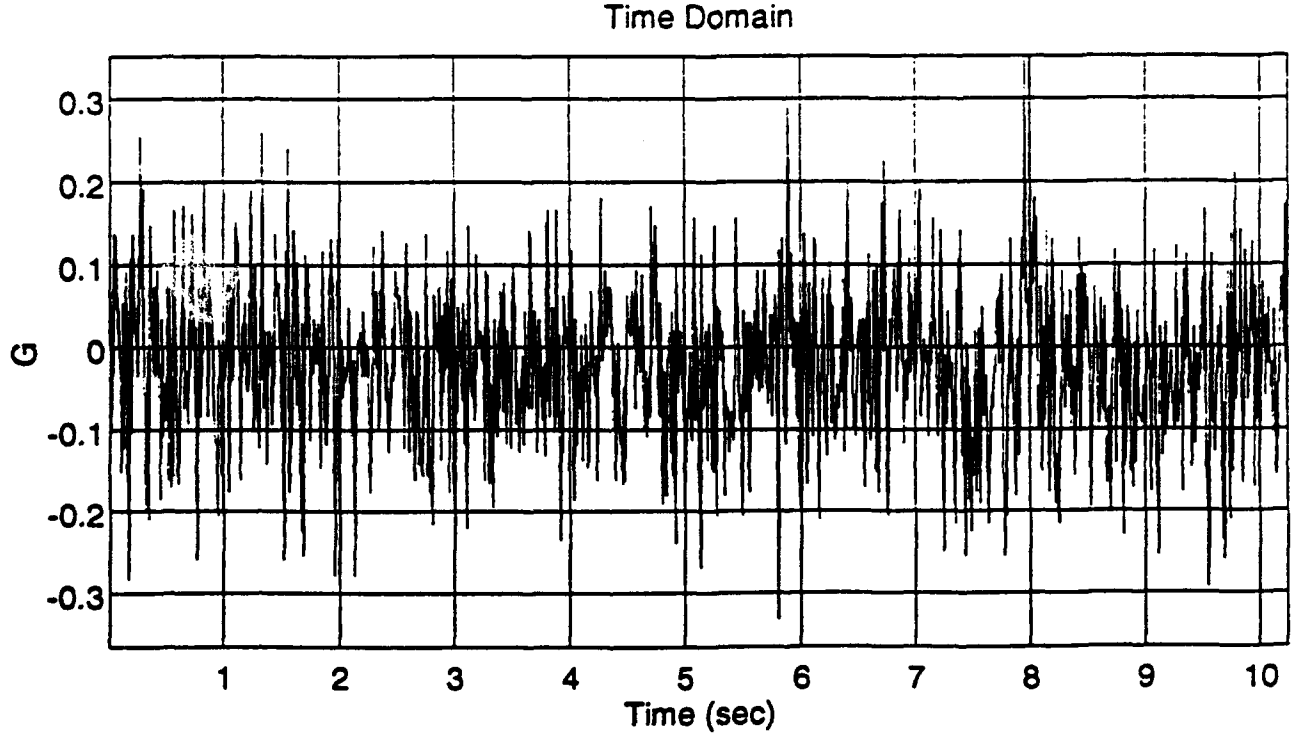

cut23-36kts-2.5ft: port vert(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

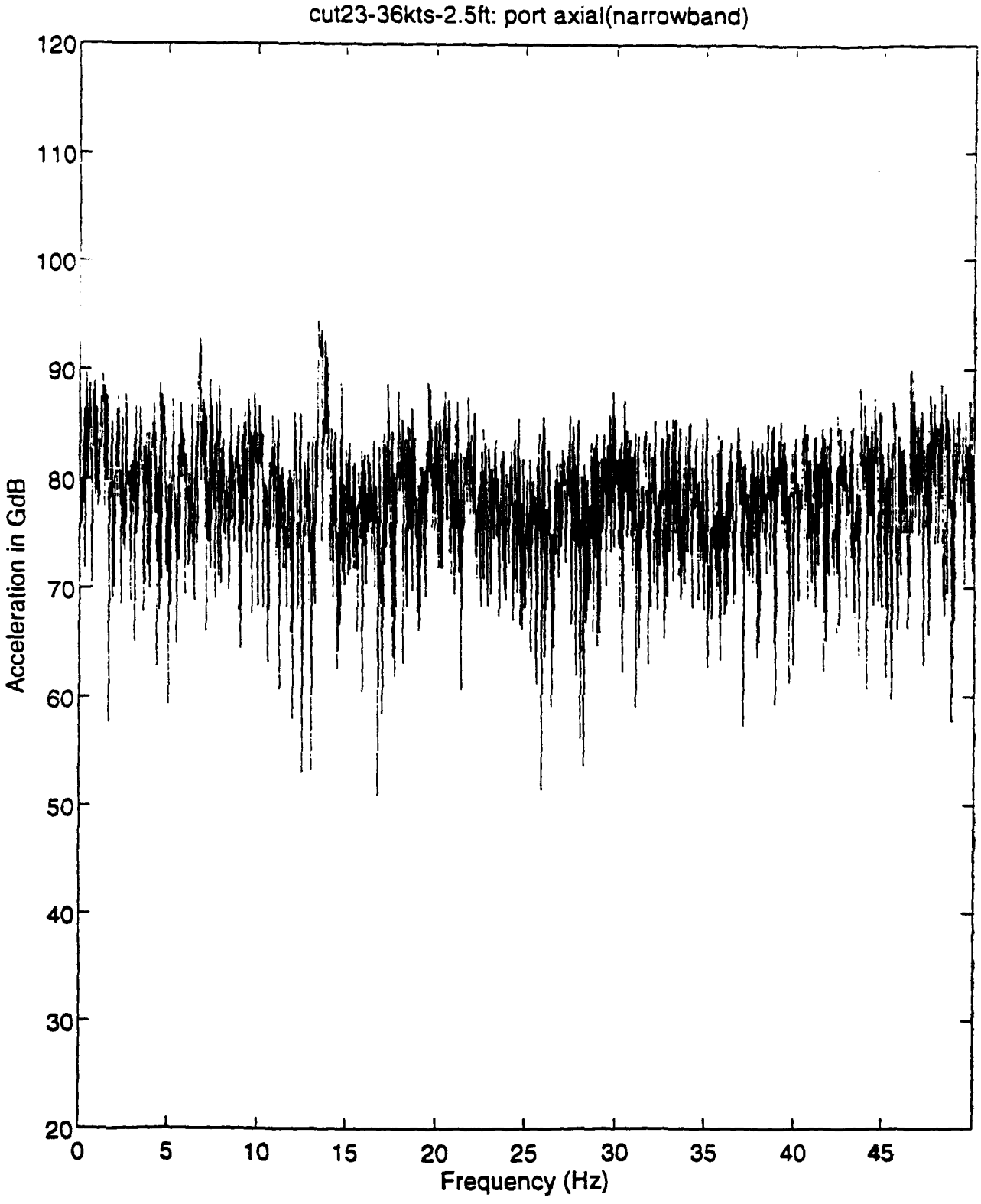
cut23-36kts-2.5ft: port axial(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.01183 G
Standard deviation = 0.09632 G
The plot shows 1024 data points



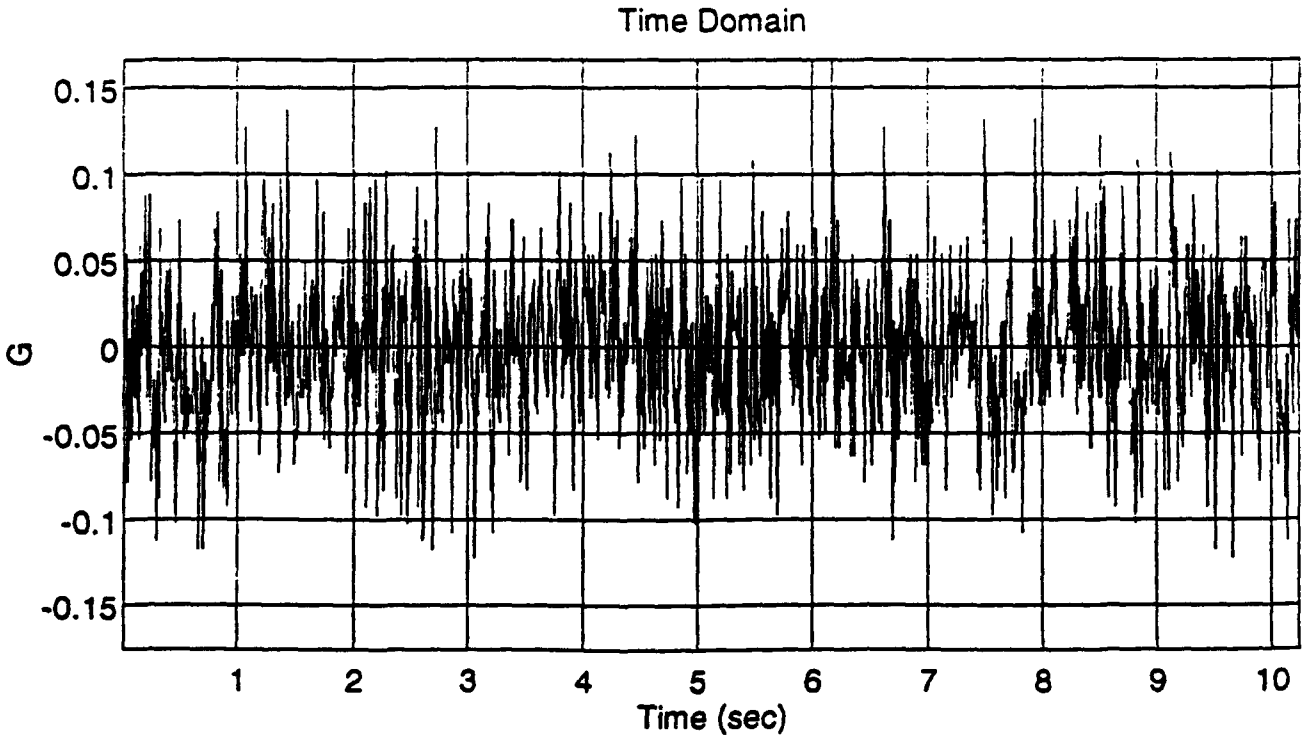

cut23-36kts-2.5ft: port axial(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45

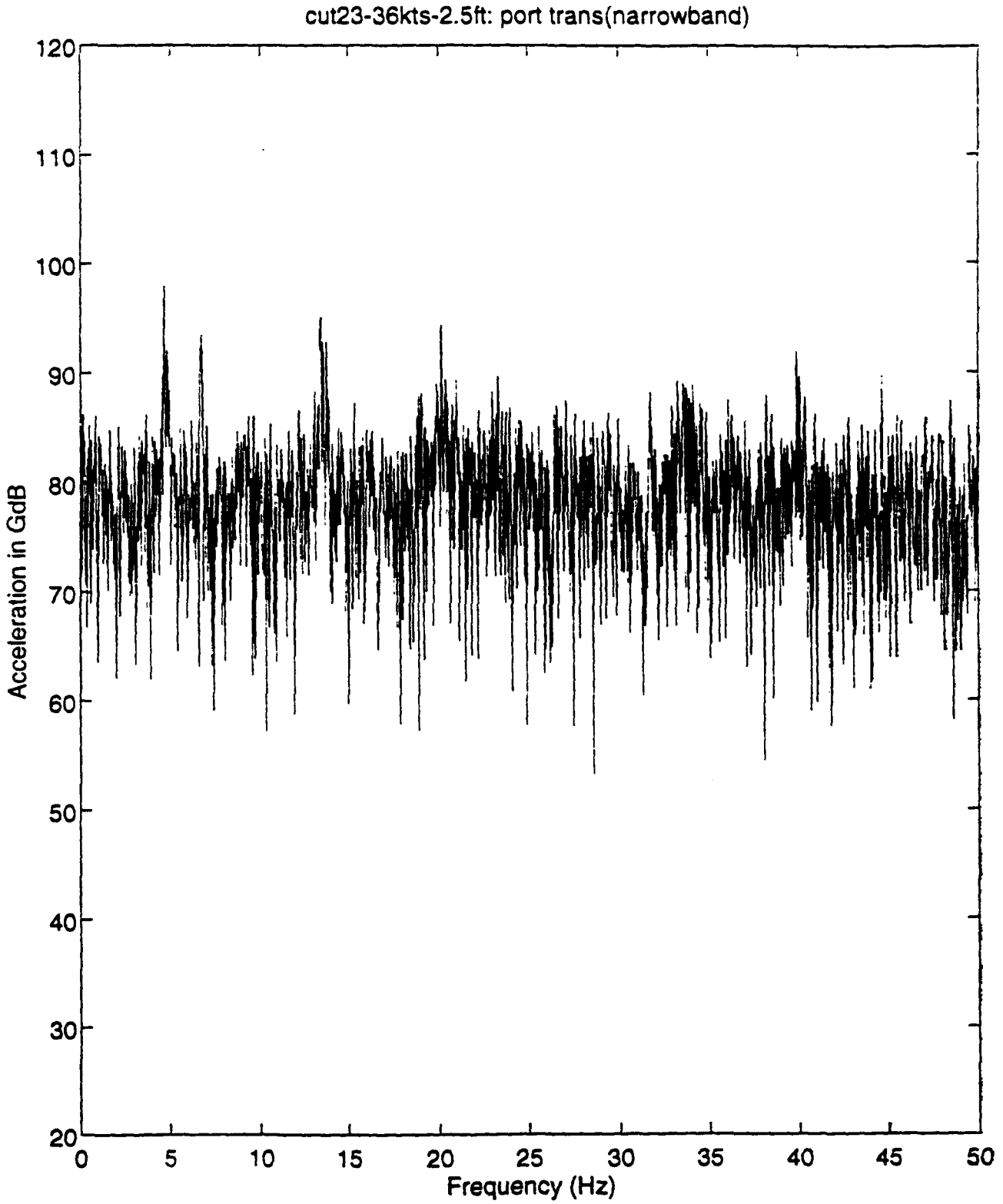
cut23-36kts-2.5ft: port trans(narrowband)

Data sampling frequency = 100 Hz
Total number of sampling data points = 4096

* The time domain

Mean value = -0.005474 G
Standard deviation = 0.04653 G
The plot shows 1024 data points




cut23-36kts-2.5ft: port trans(narrowband)
Acceleration in GdB
Frequency (Hz)
120
110
100
90
80
70
60
50
40
30
20
0
5
10
15
20
25
30
35
40
45
50

APPENDIX D

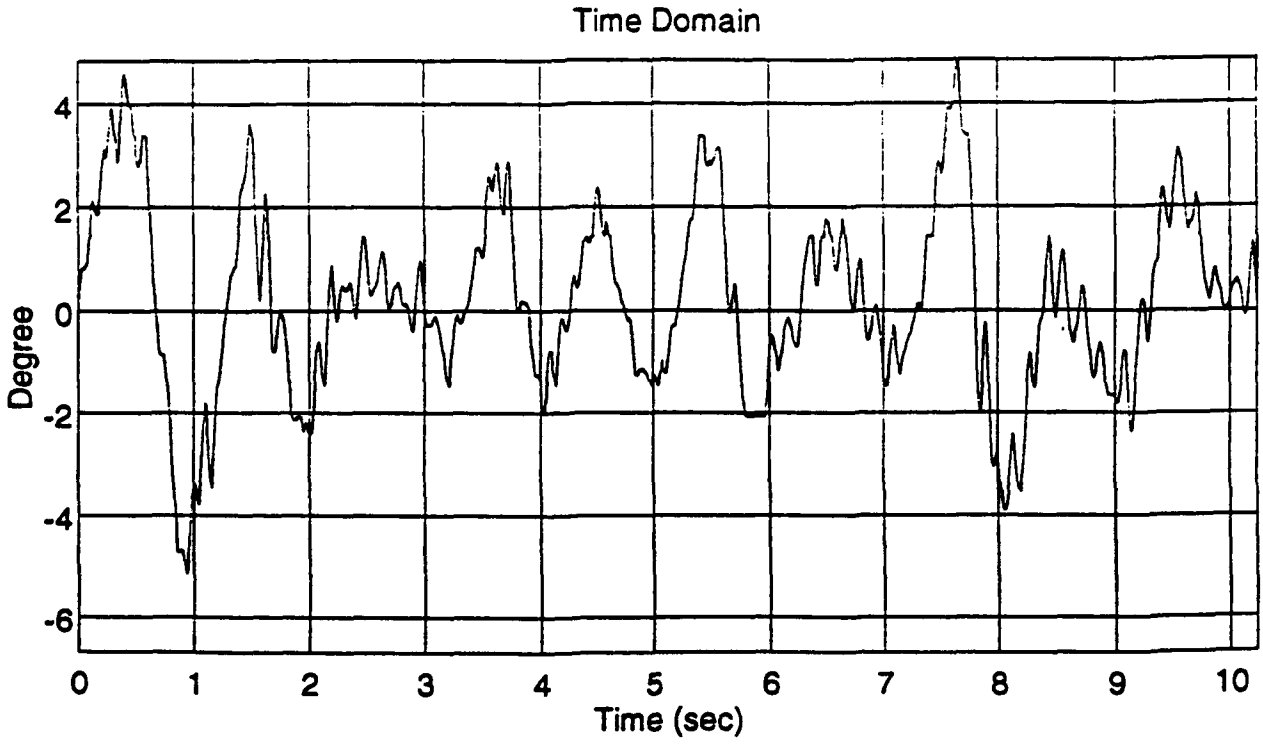
PITCH AND ROLL TEST DATA

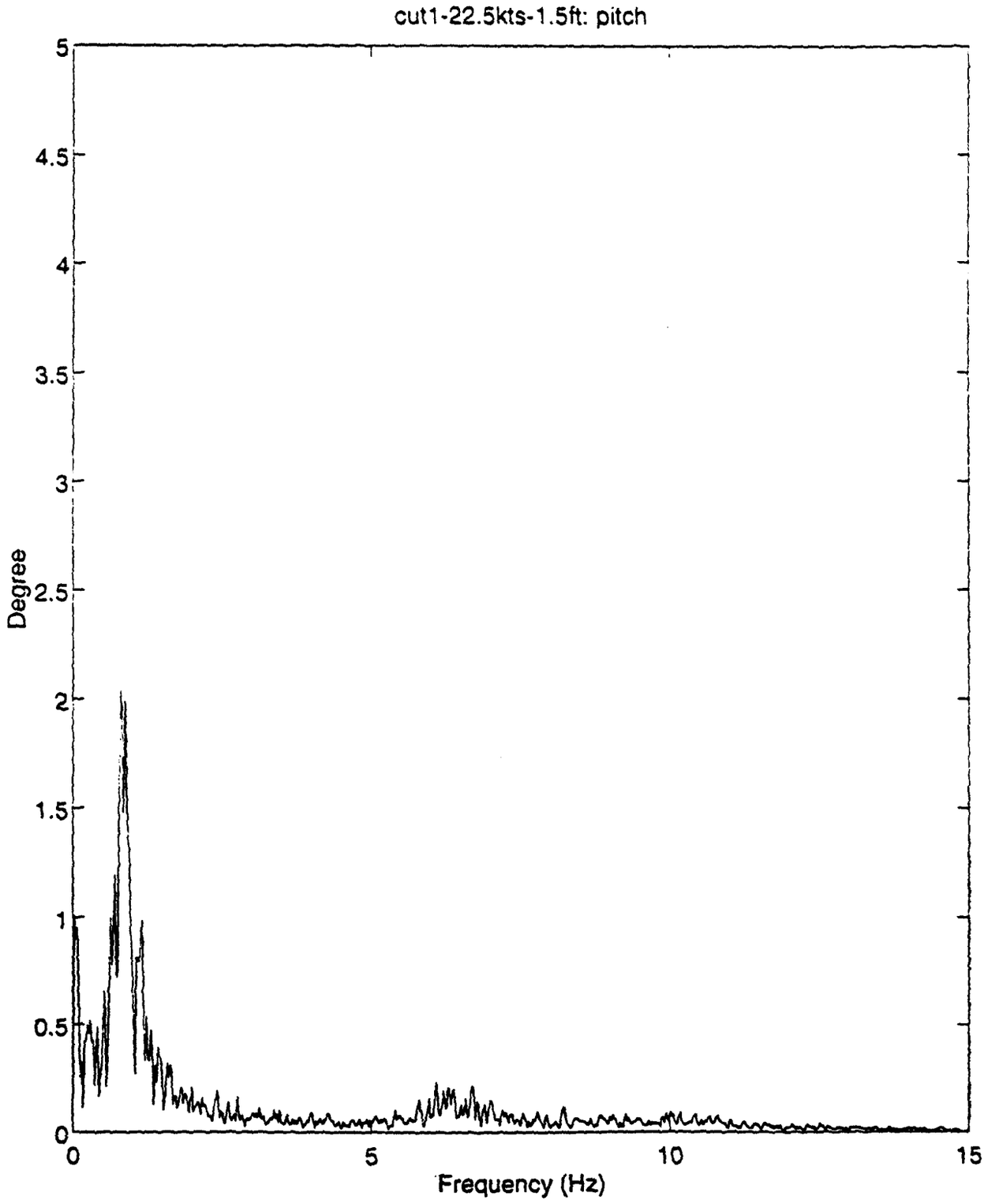
cut1-22.5kts-1.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.08096 Degree
Standard deviation = 1.804 Degree
The plot shows 1024 data points



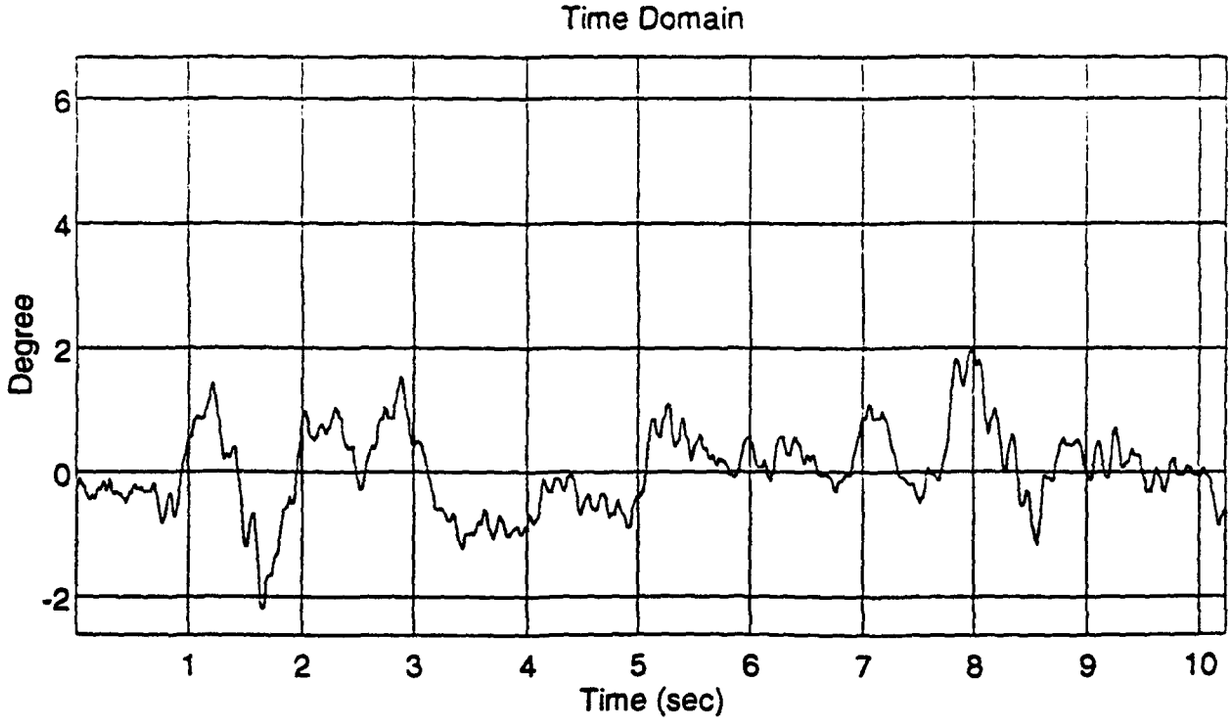

cut1-22.5kts-1.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

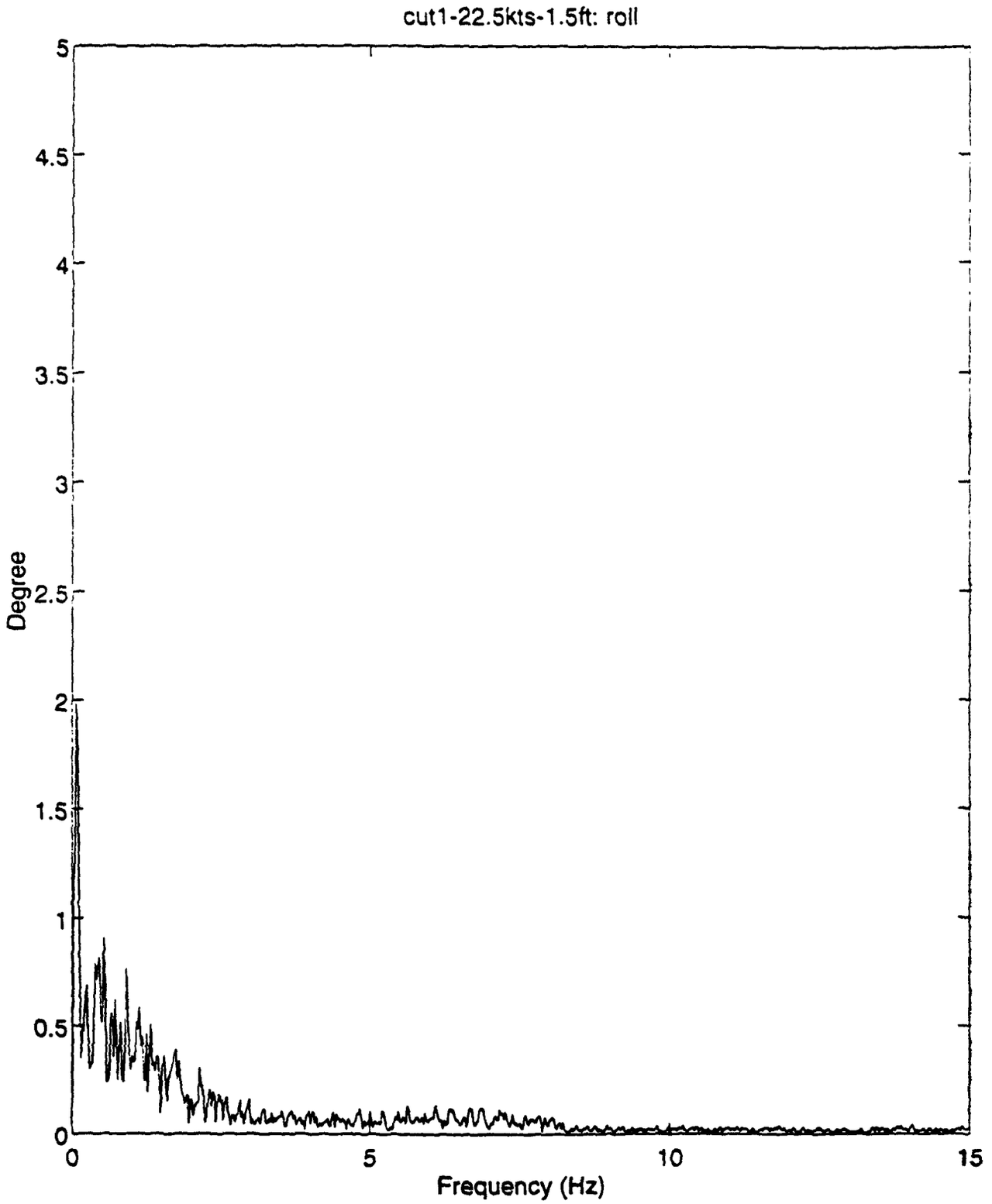
cut1-22.5kts-1.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.3369 Degree
Standard deviation = 1.045 Degree
The plot shows 1024 data points



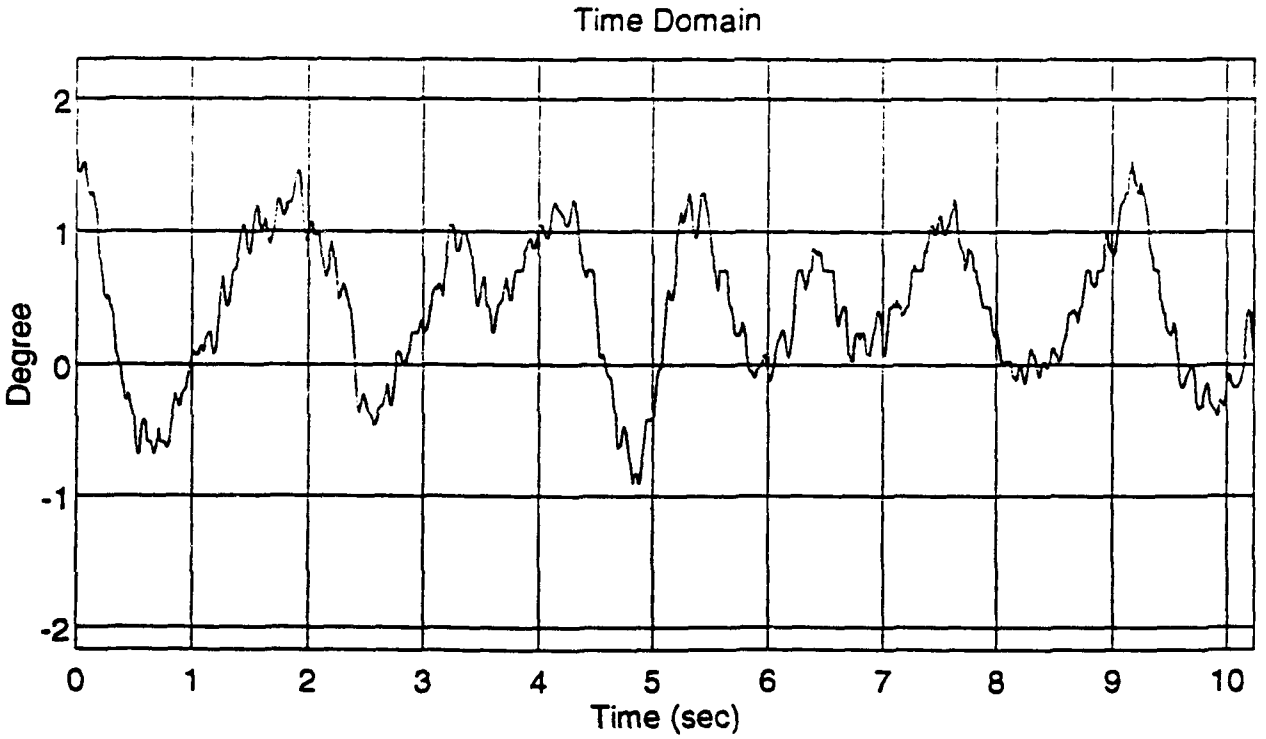

cut1-22.5kts-1.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

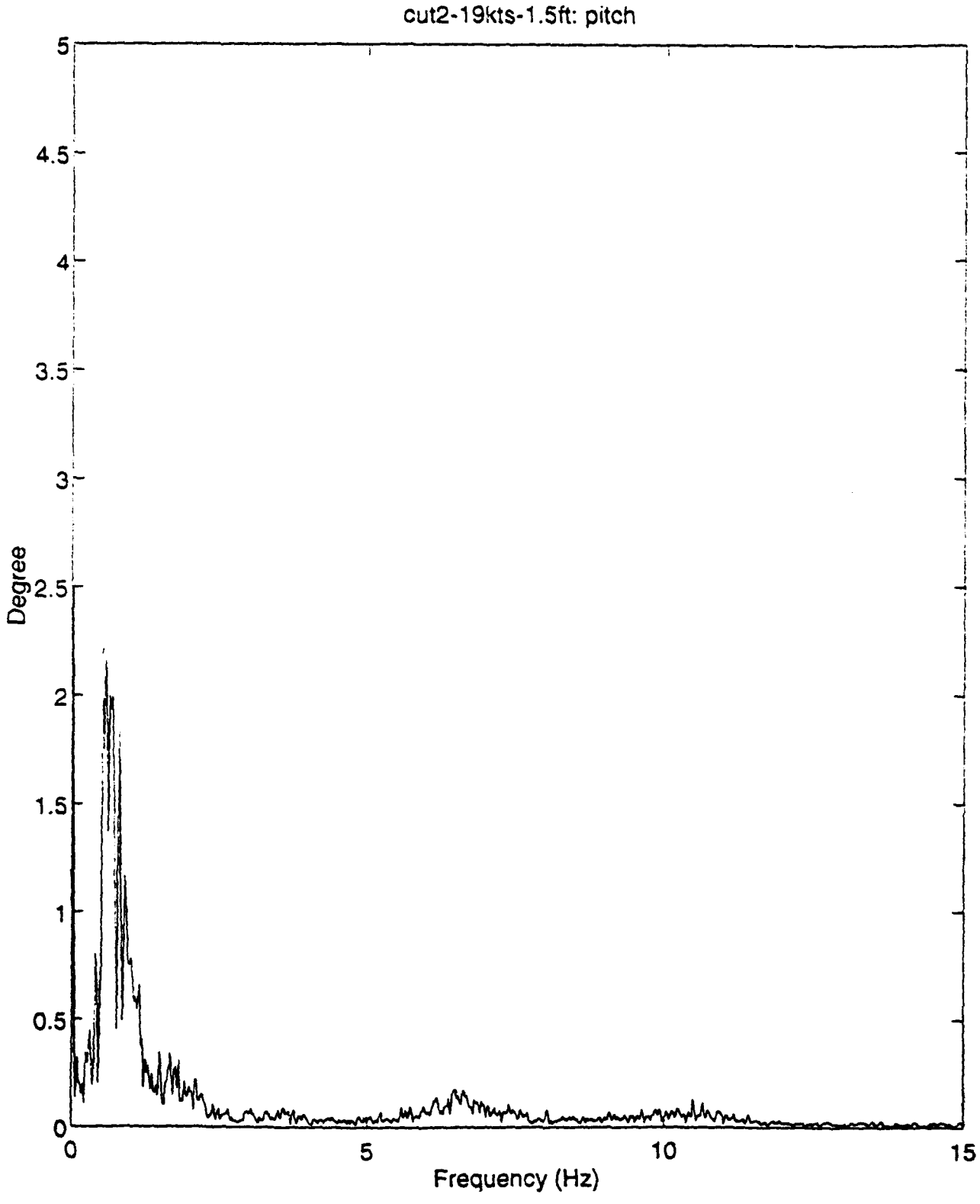
cut2-19kts-1.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.3519 Degree
Standard deviation = 0.7258 Degree
The plot shows 1024 data points



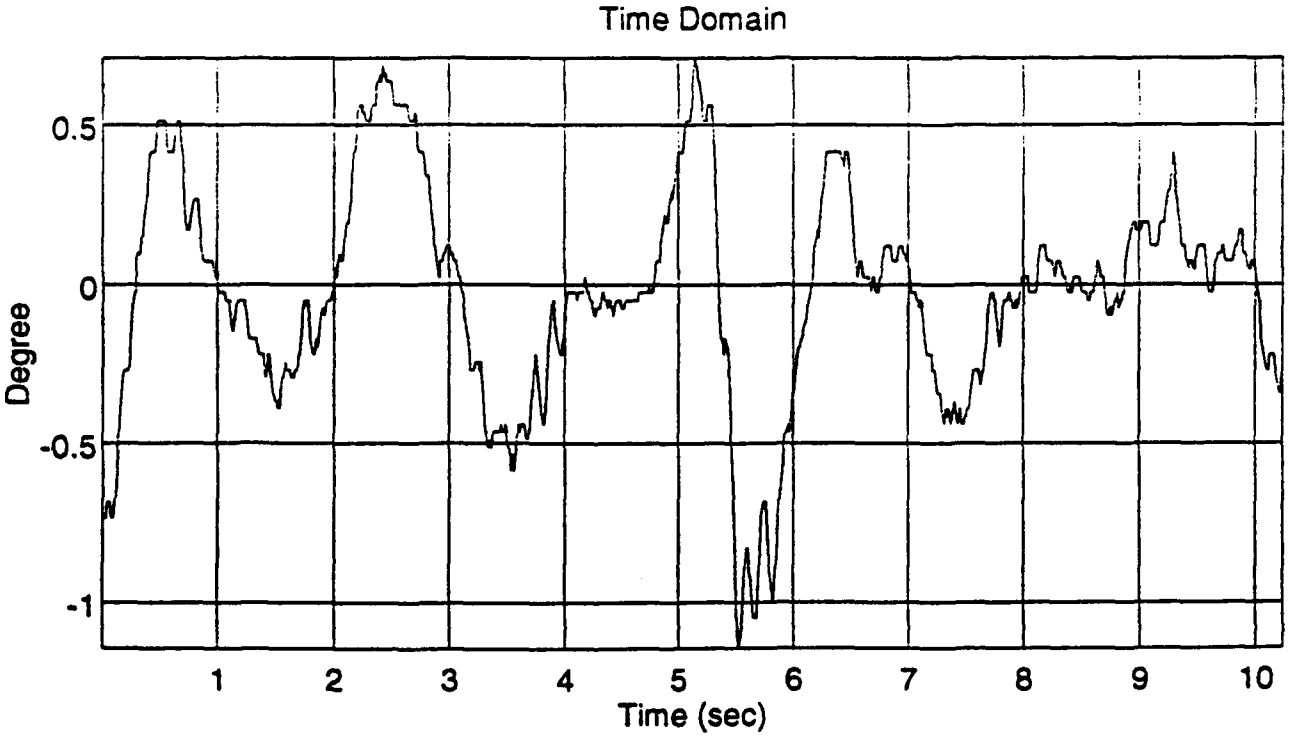

cut2-19kts-1.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

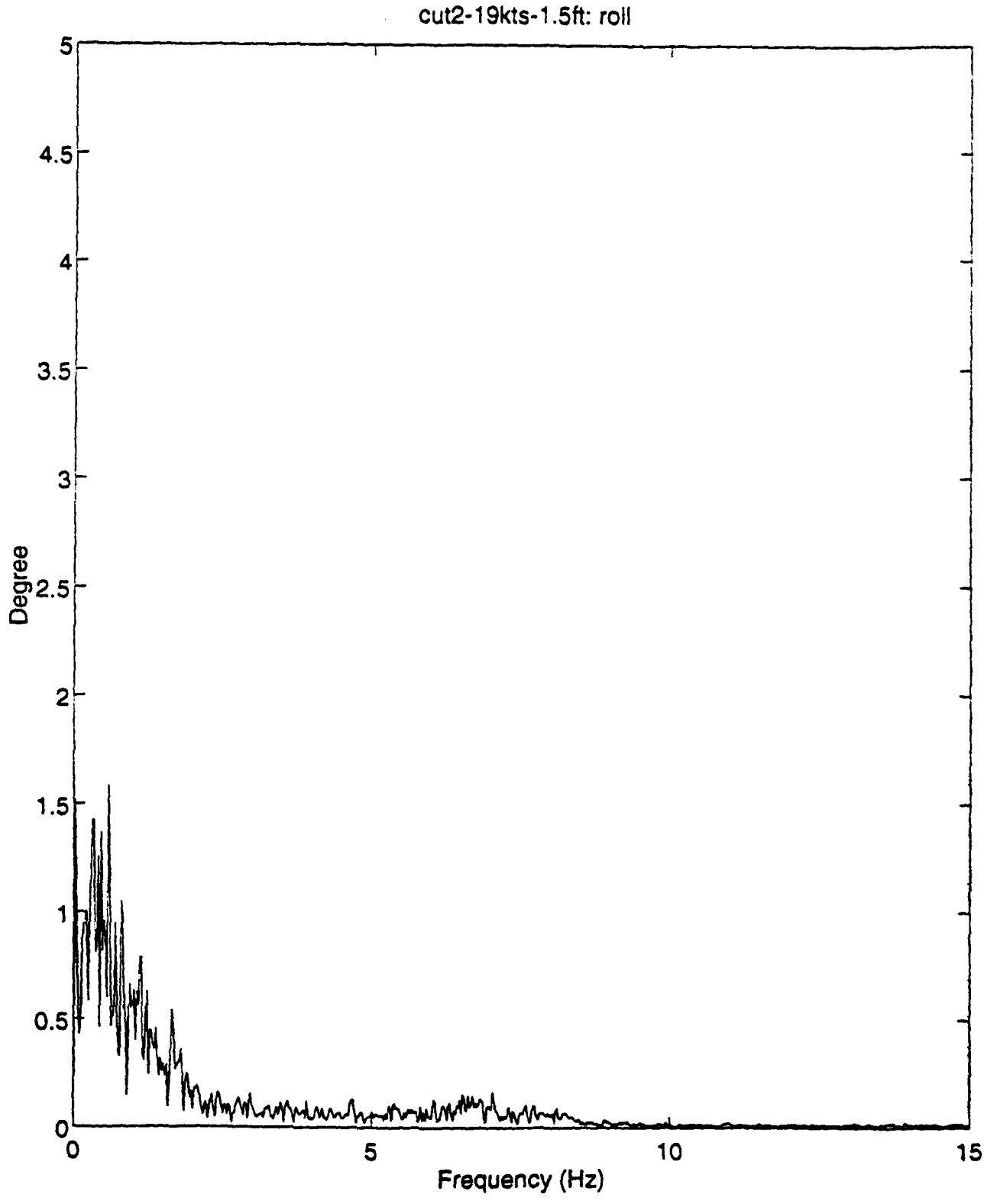
cut2-19kts-1.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.0378 Degree
Standard deviation = 0.3075 Degree
The plot shows 1024 data points




cut2-19kts-1.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut3-32kts-1.5ft: pitch

Data sampling frequency = 100 Hz

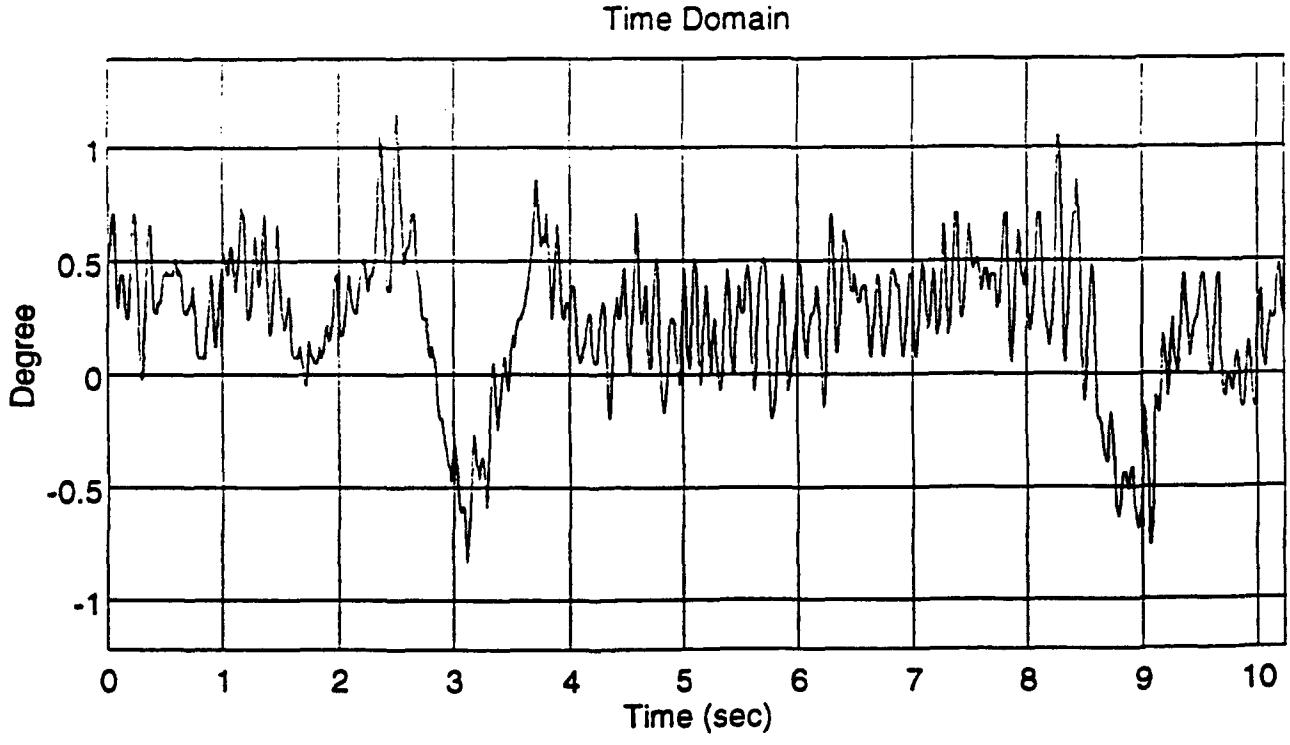
Total number of sampling data points = 8192

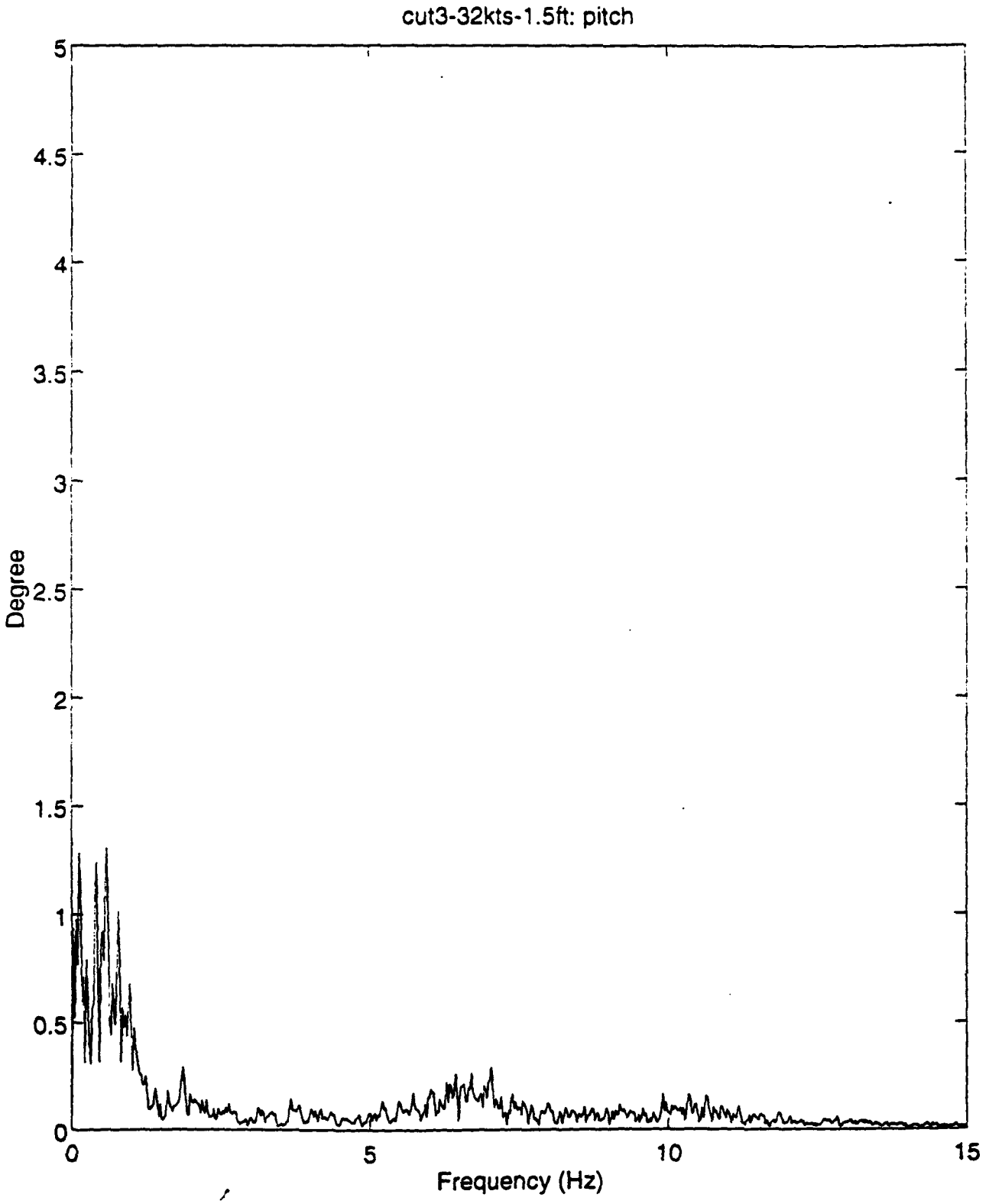
* The time domain

Mean value = 0.1615 Degree

Standard deviation = 0.4265 Degree

The plot shows 1024 data points



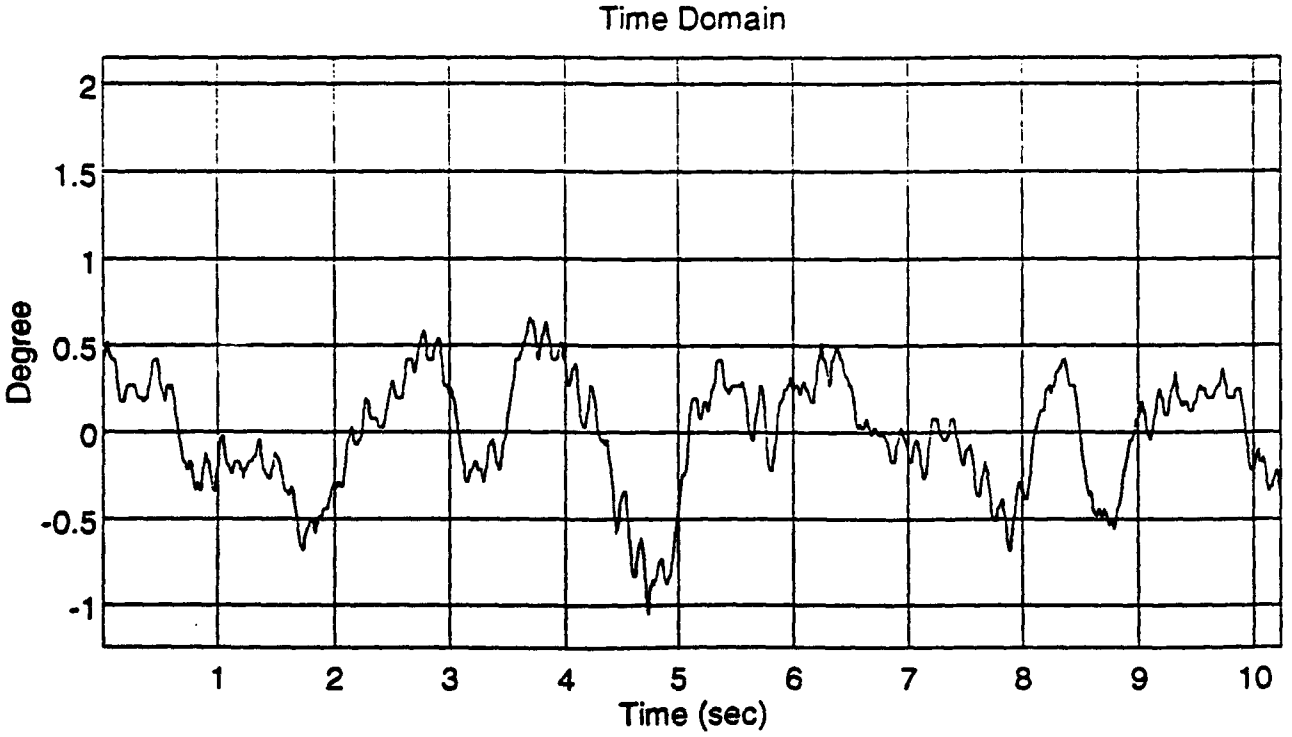

cut3-32kts-1.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

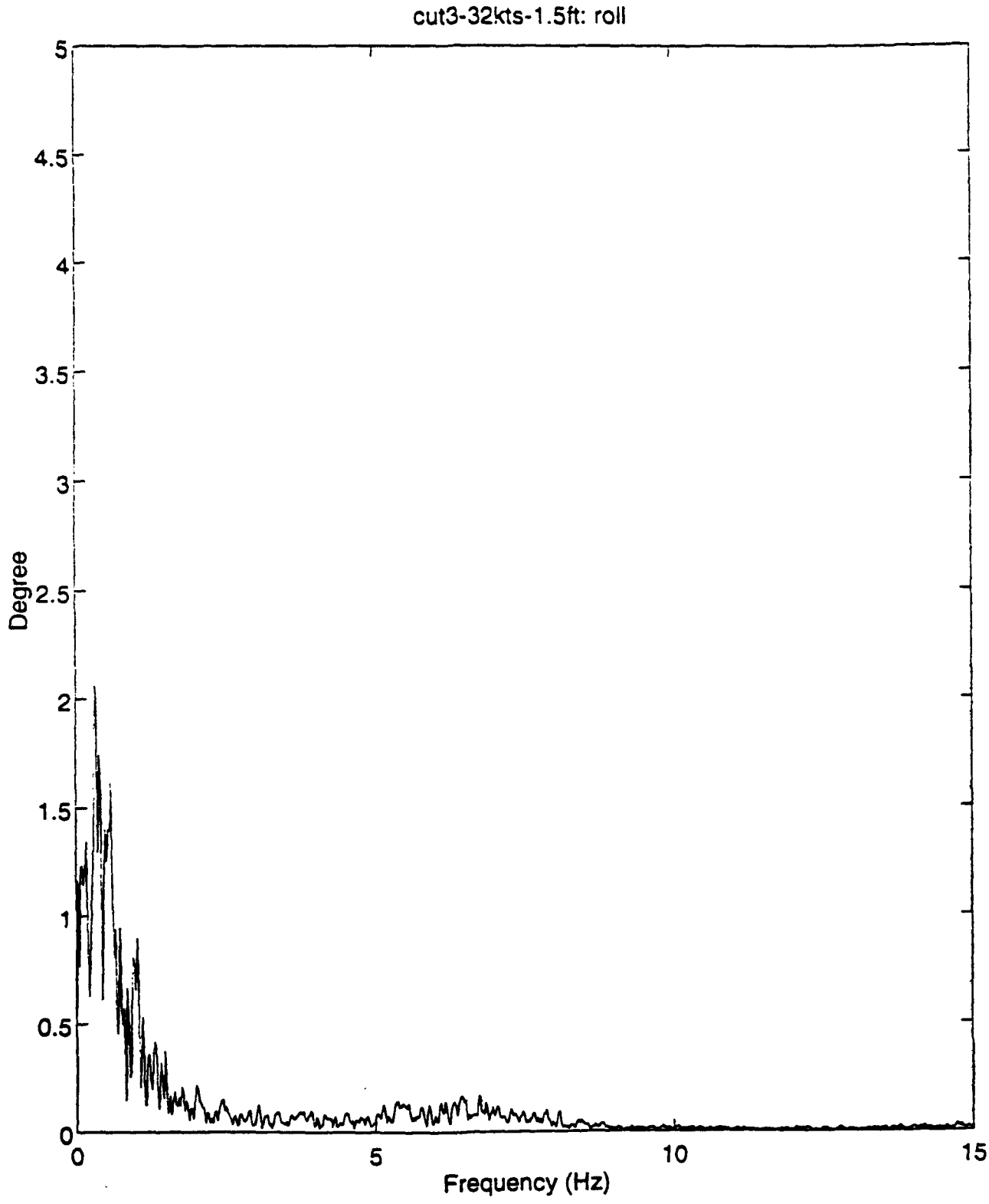
cut3-32kts-1.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.05908 Degree
Standard deviation = 0.4023 Degree
The plot shows 1024 data points



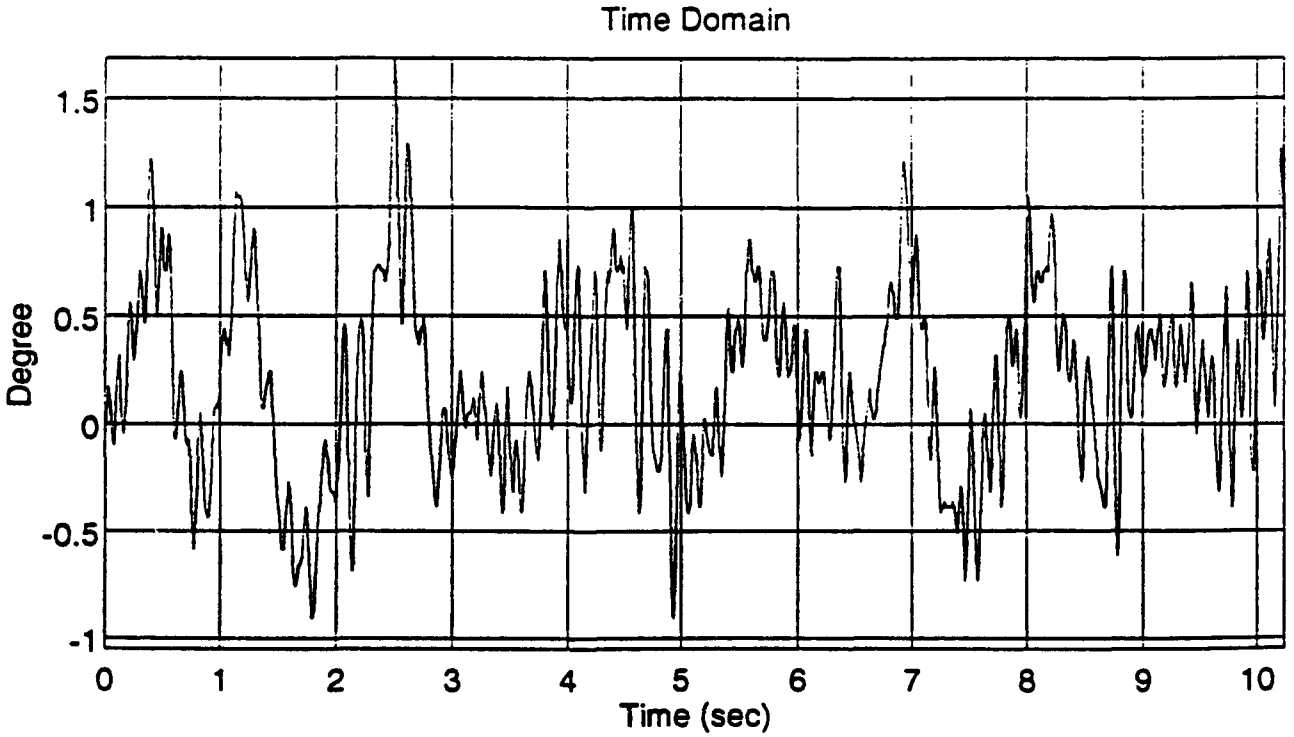

cut3-32kts-1.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

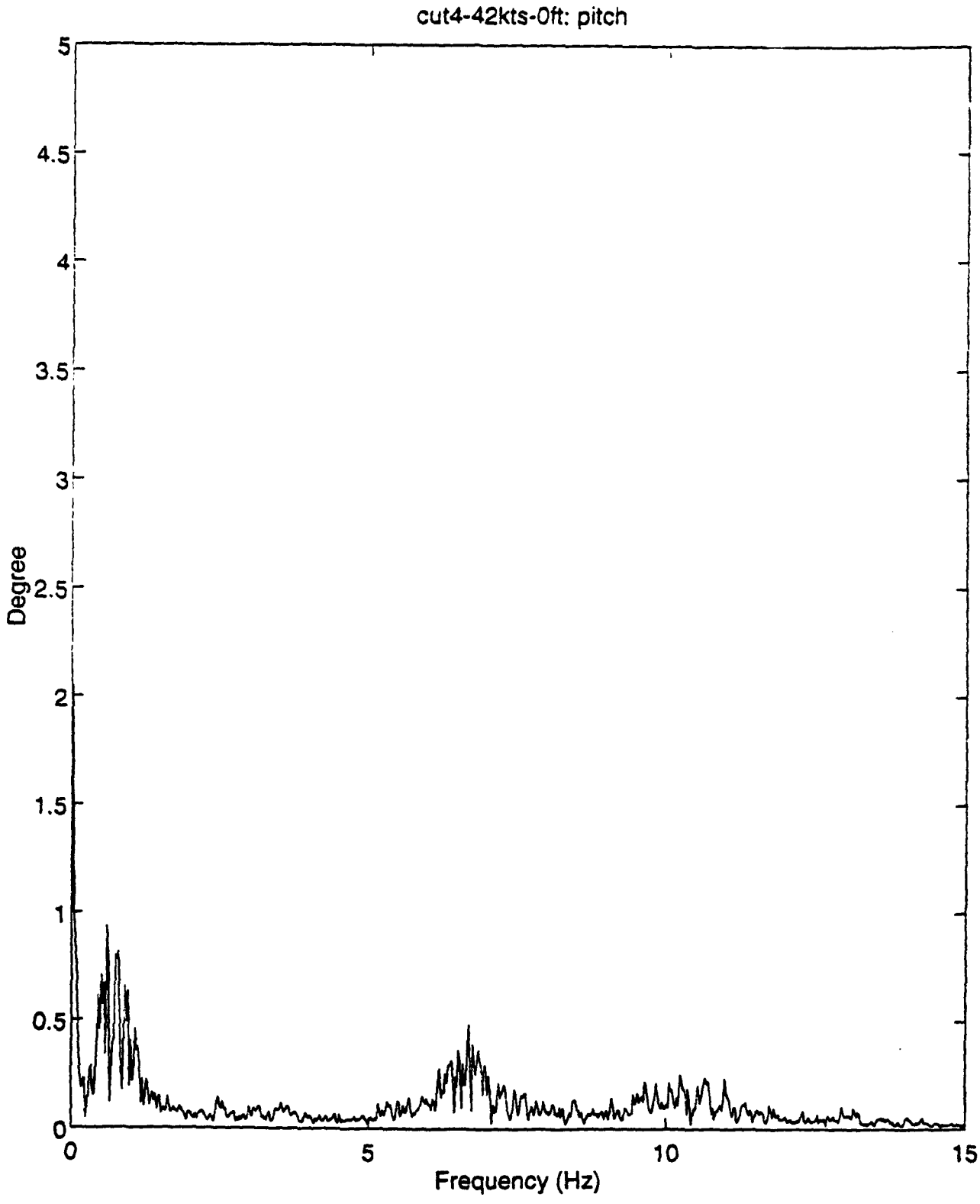
cut4-42kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.1776 Degree
Standard deviation = 0.3605 Degree
The plot shows 1024 data points



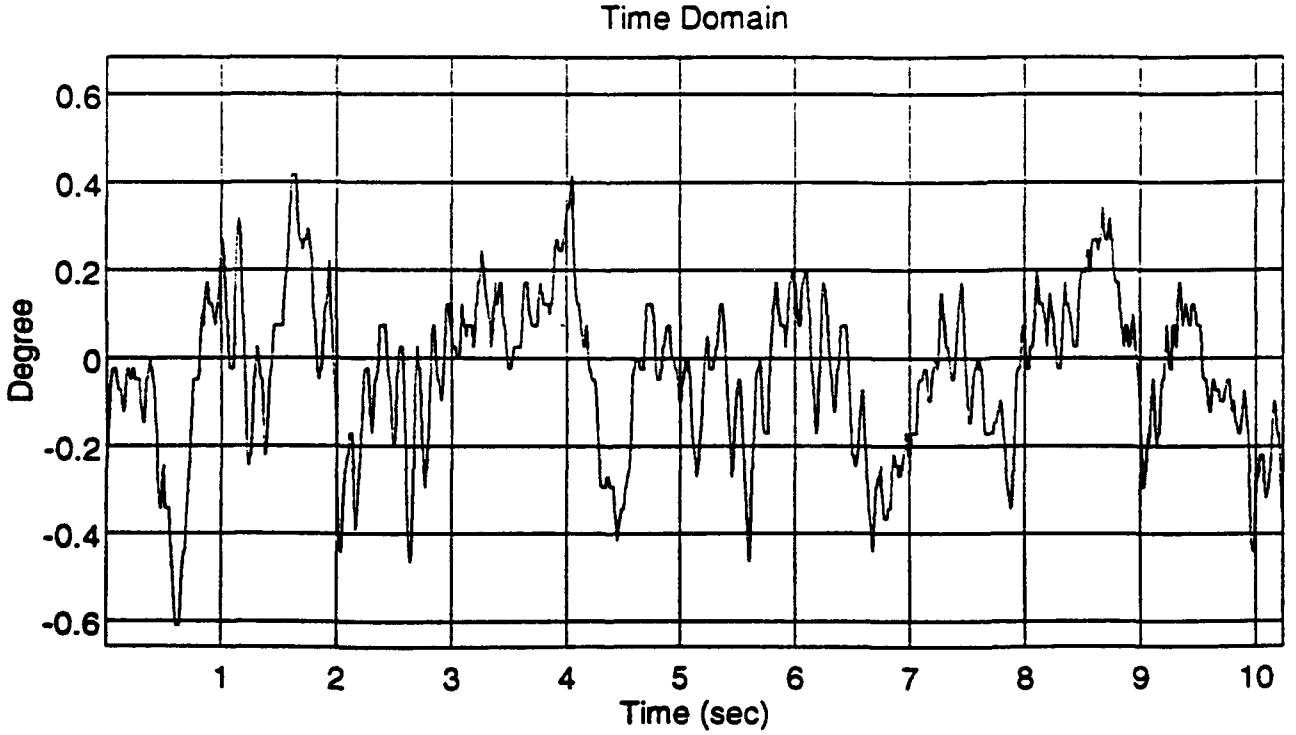

cut4-42kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

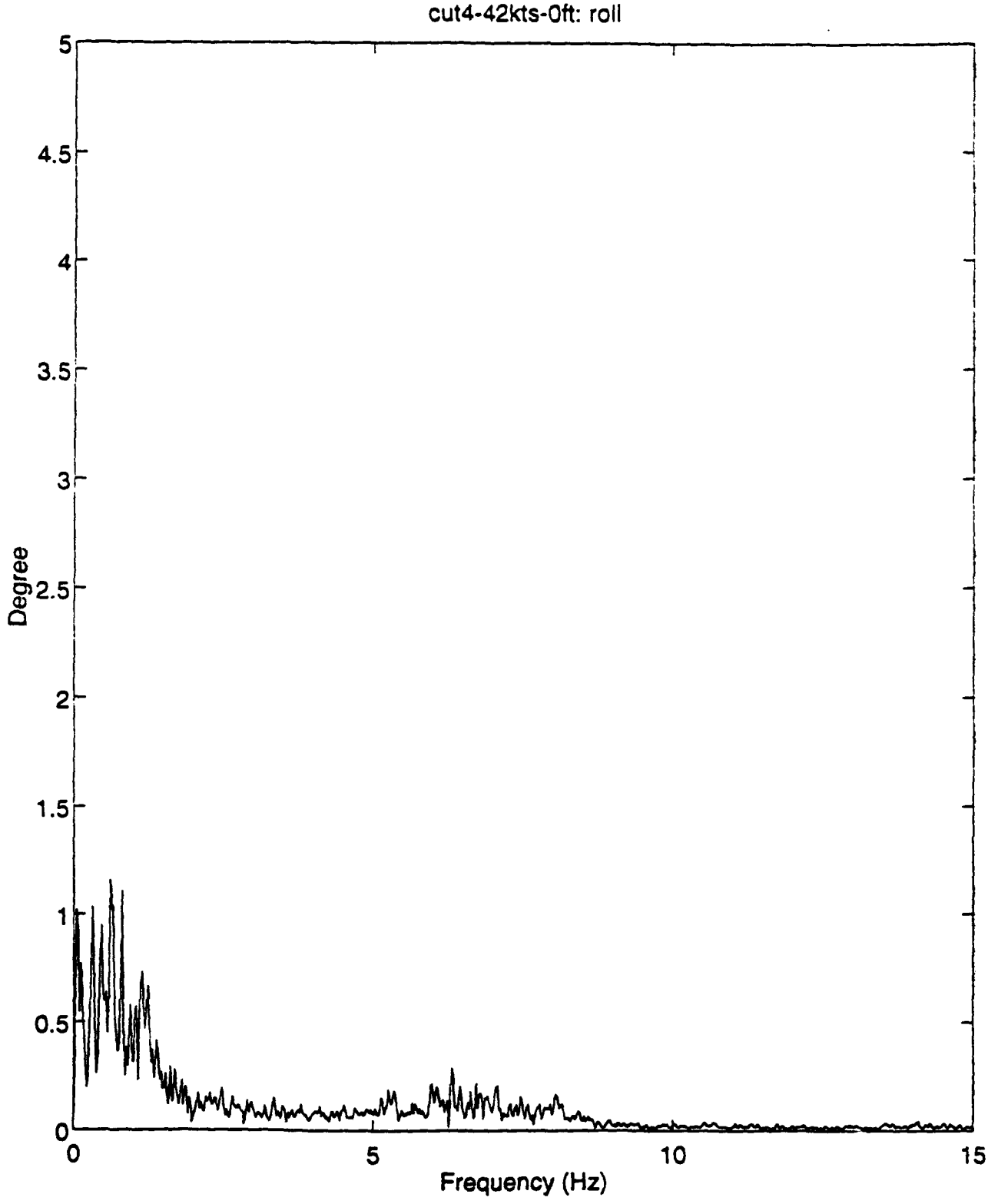
cut4-42kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.005444 Degree
Standard deviation = 0.2041 Degree
The plot shows 1024 data points



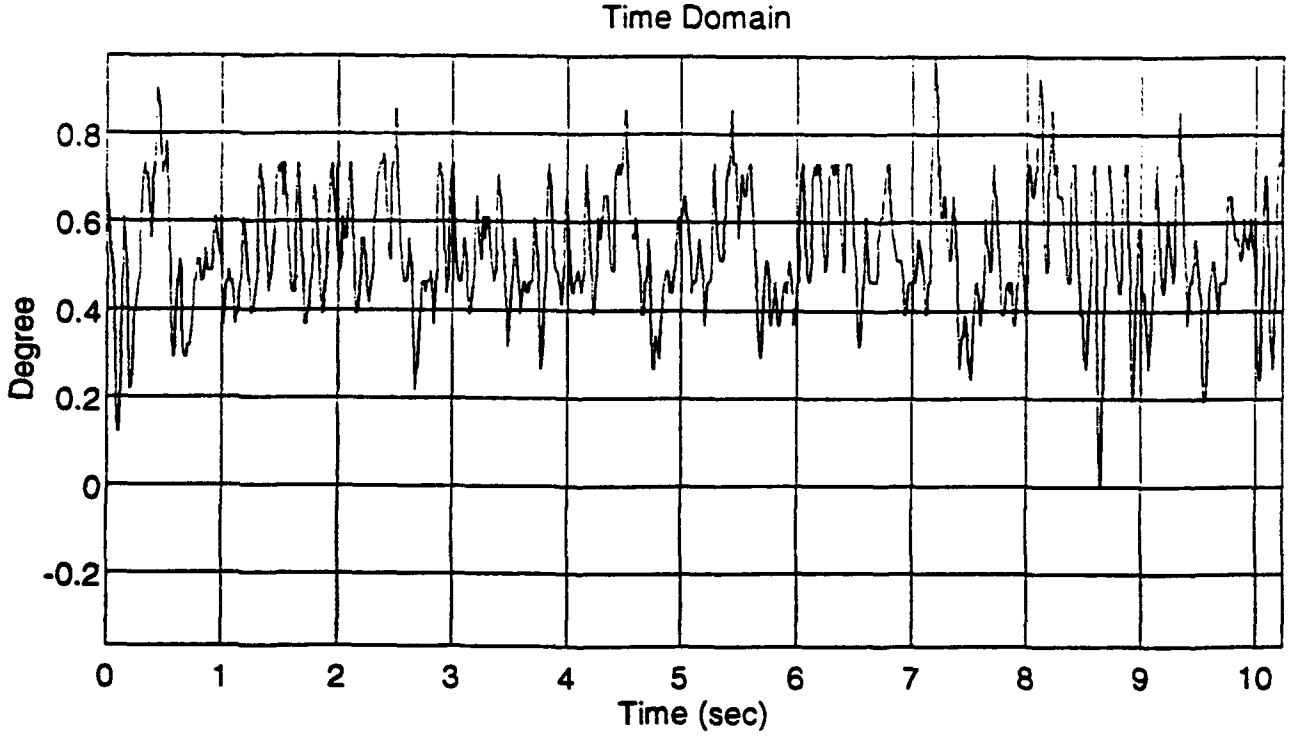

cut4-42kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

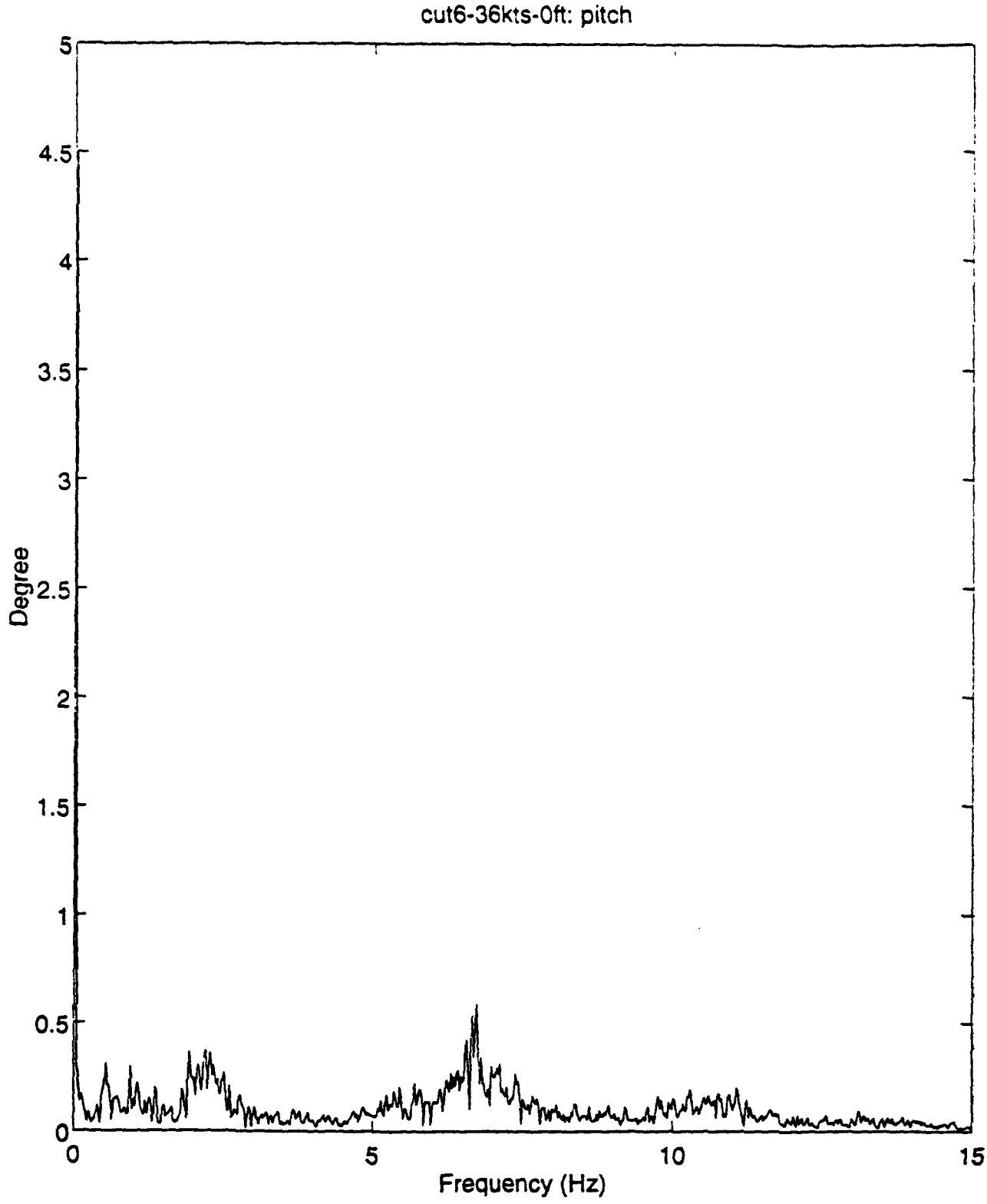
cut6-36kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.335 Degree
Standard deviation = 0.2035 Degree
The plot shows 1024 data points



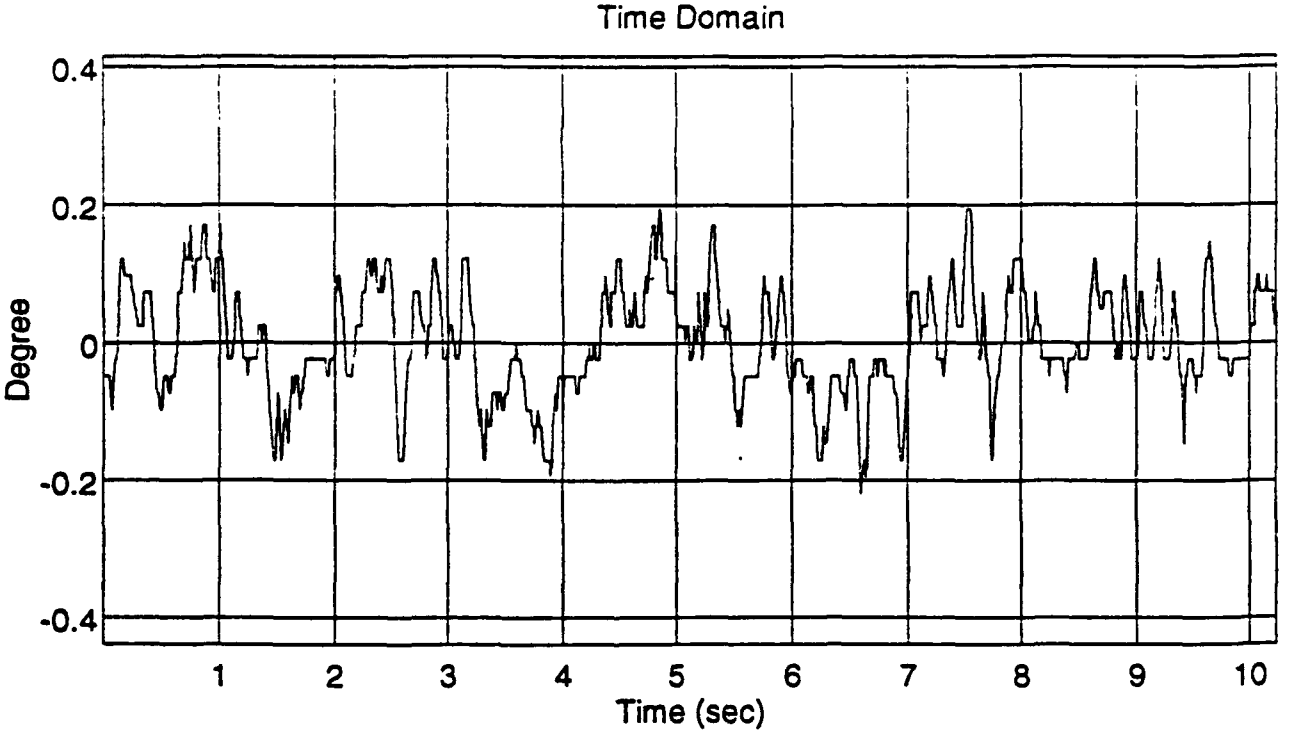

cut6-36kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

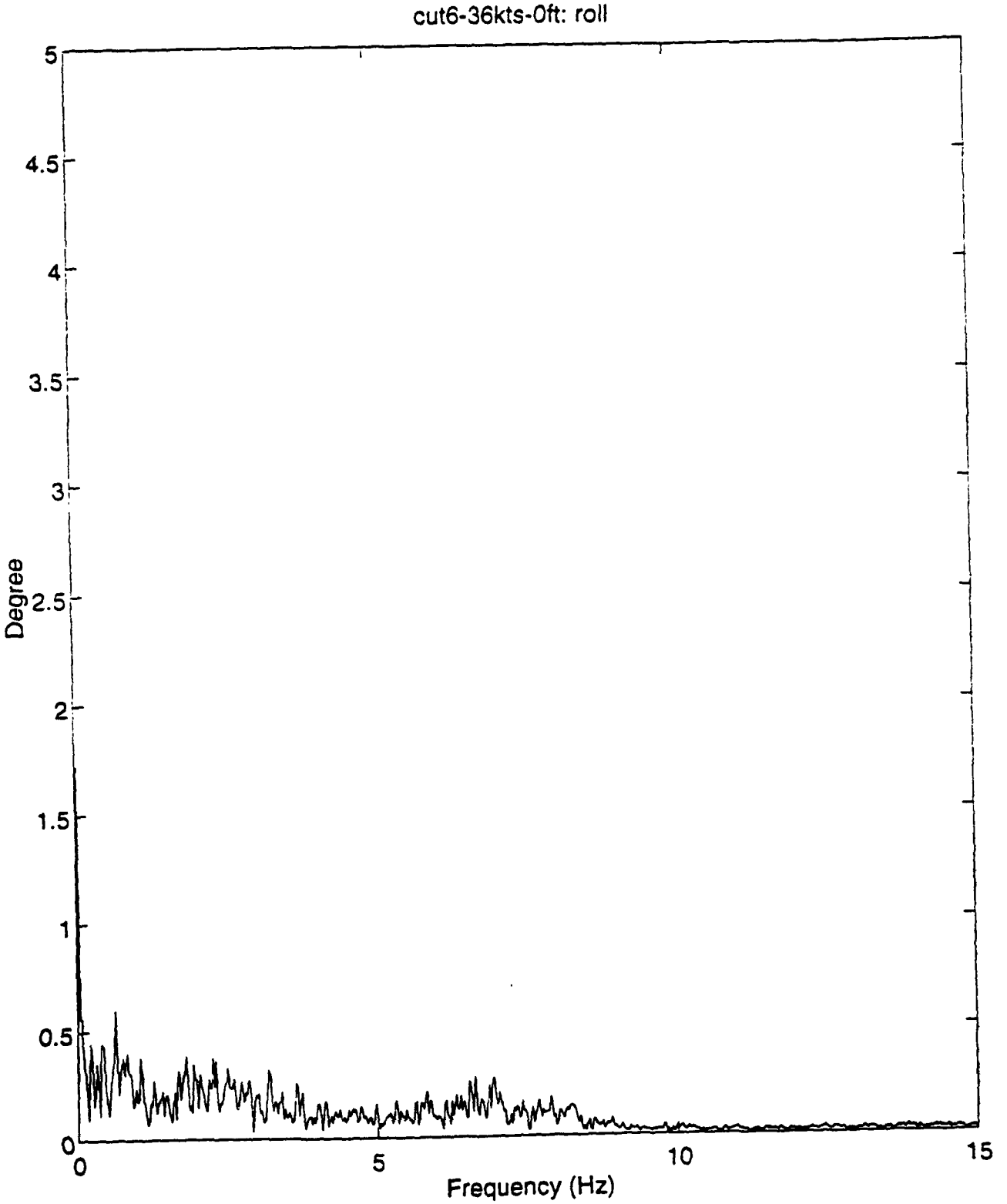
cut6-36kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.002226 Degree
Standard deviation = 0.09836 Degree
The plot shows 1024 data points




cut6-36kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut7-25kts-0ft: pitch

Data sampling frequency = 100 Hz

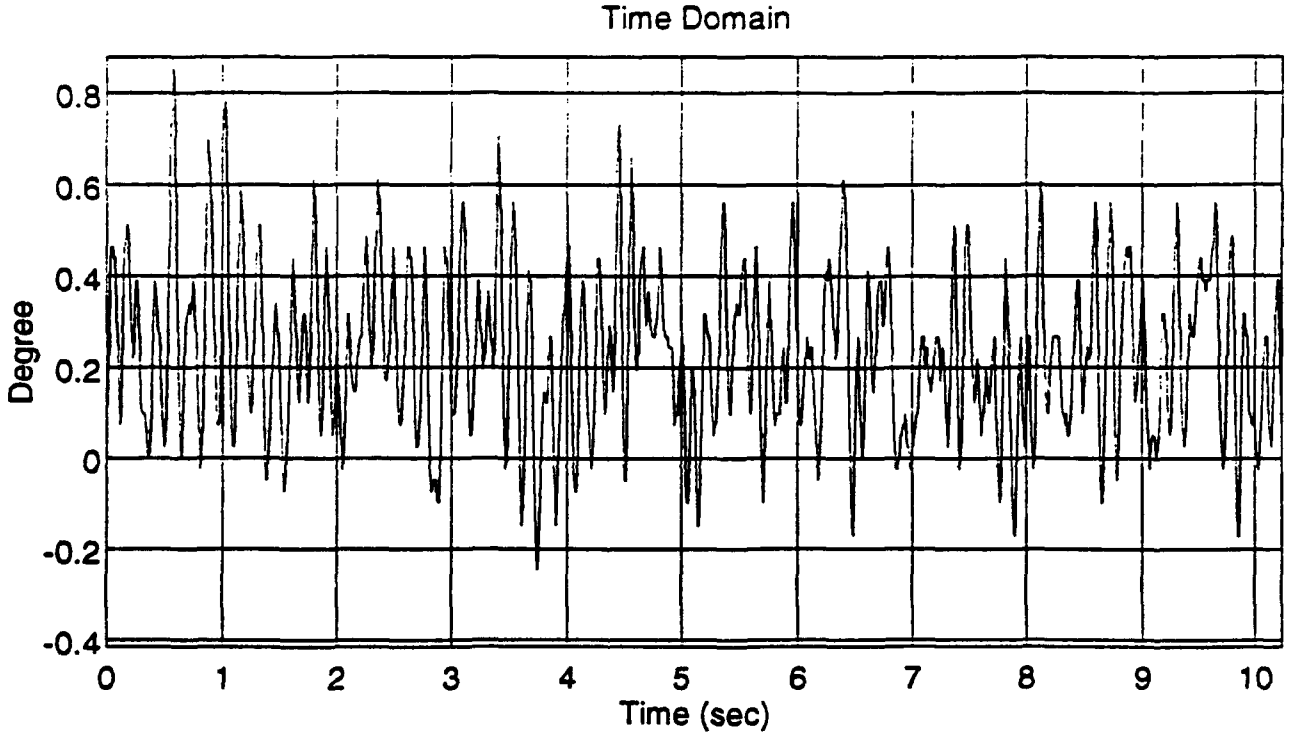
Total number of sampling data points = 8192

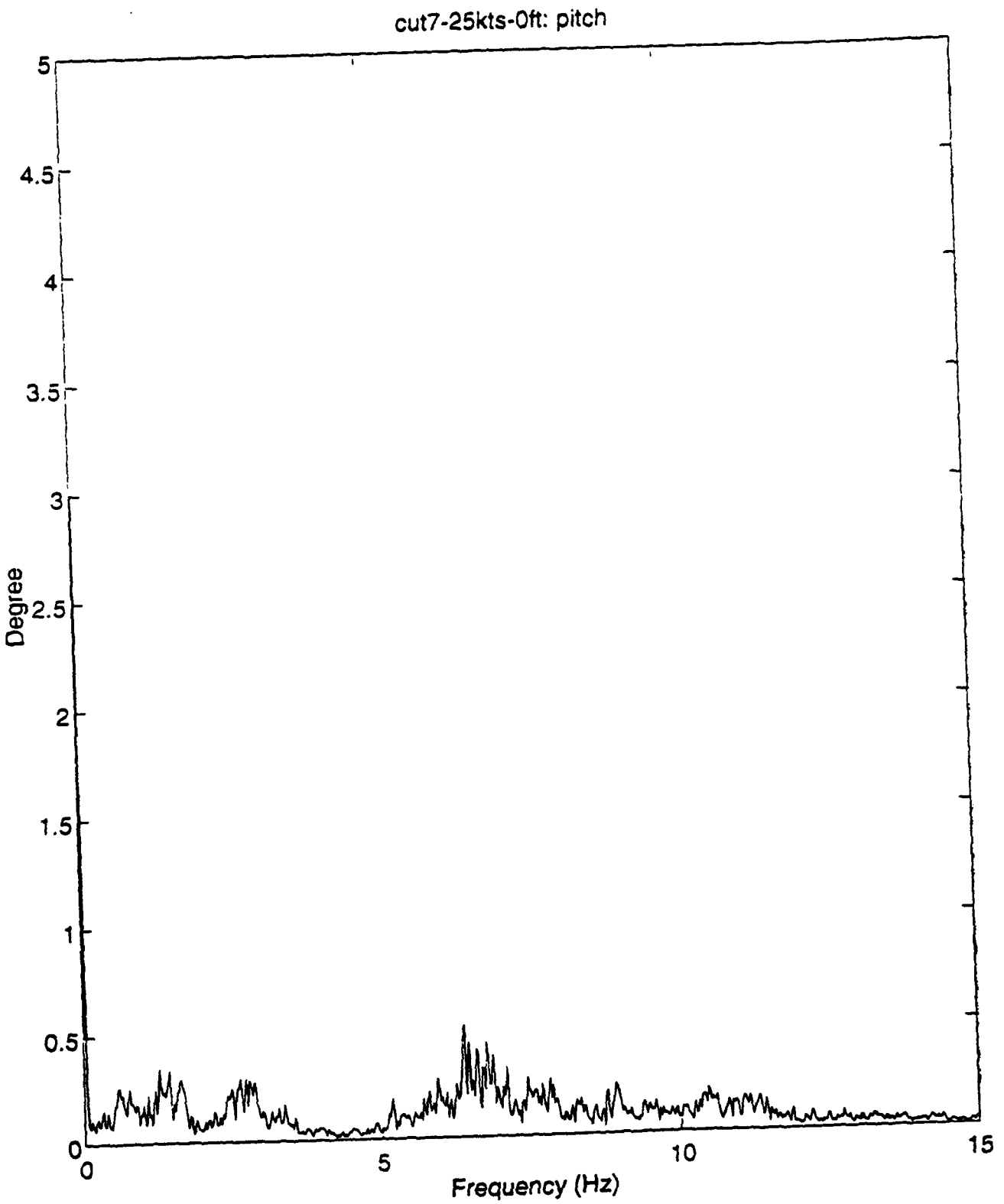
* The time domain

Mean value = 0.2341 Degree

Standard deviation = 0.174 Degree

The plot shows 1024 data points



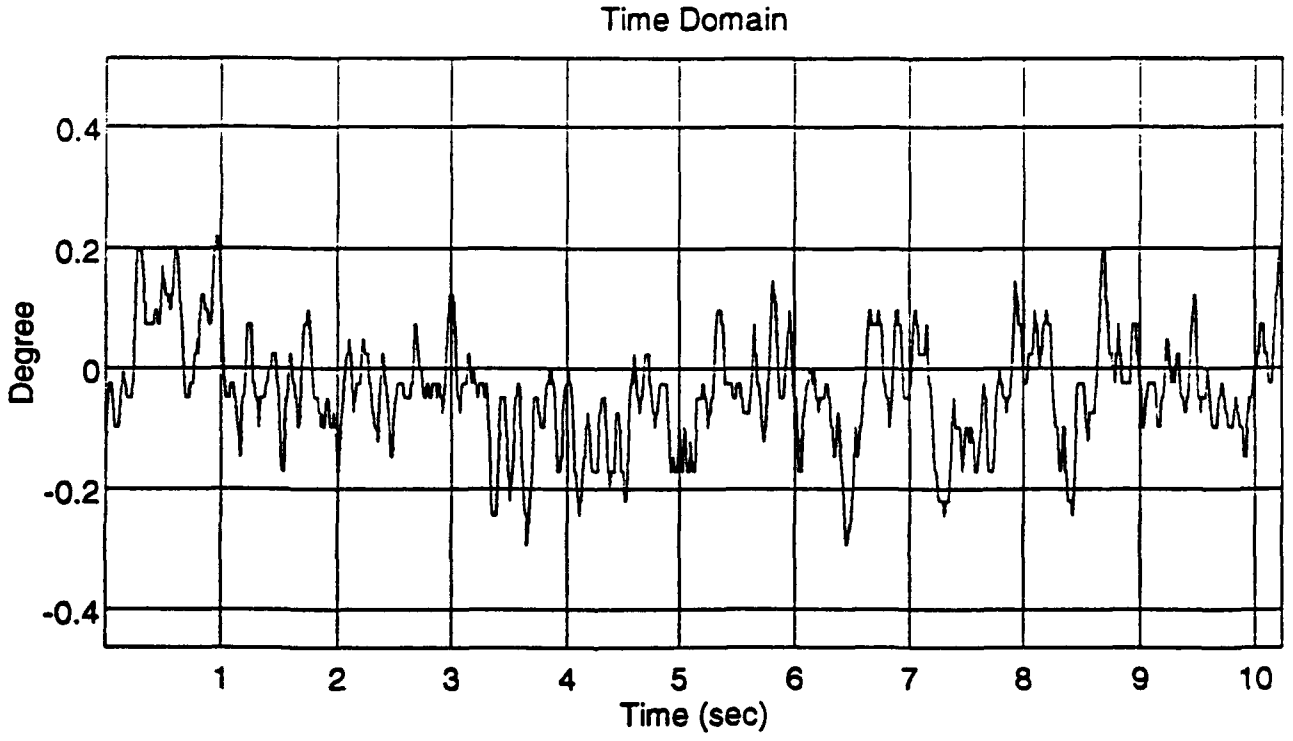

cut7-25kts-0ft: pitch
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Degree
0
5
10
15
Frequency (Hz)

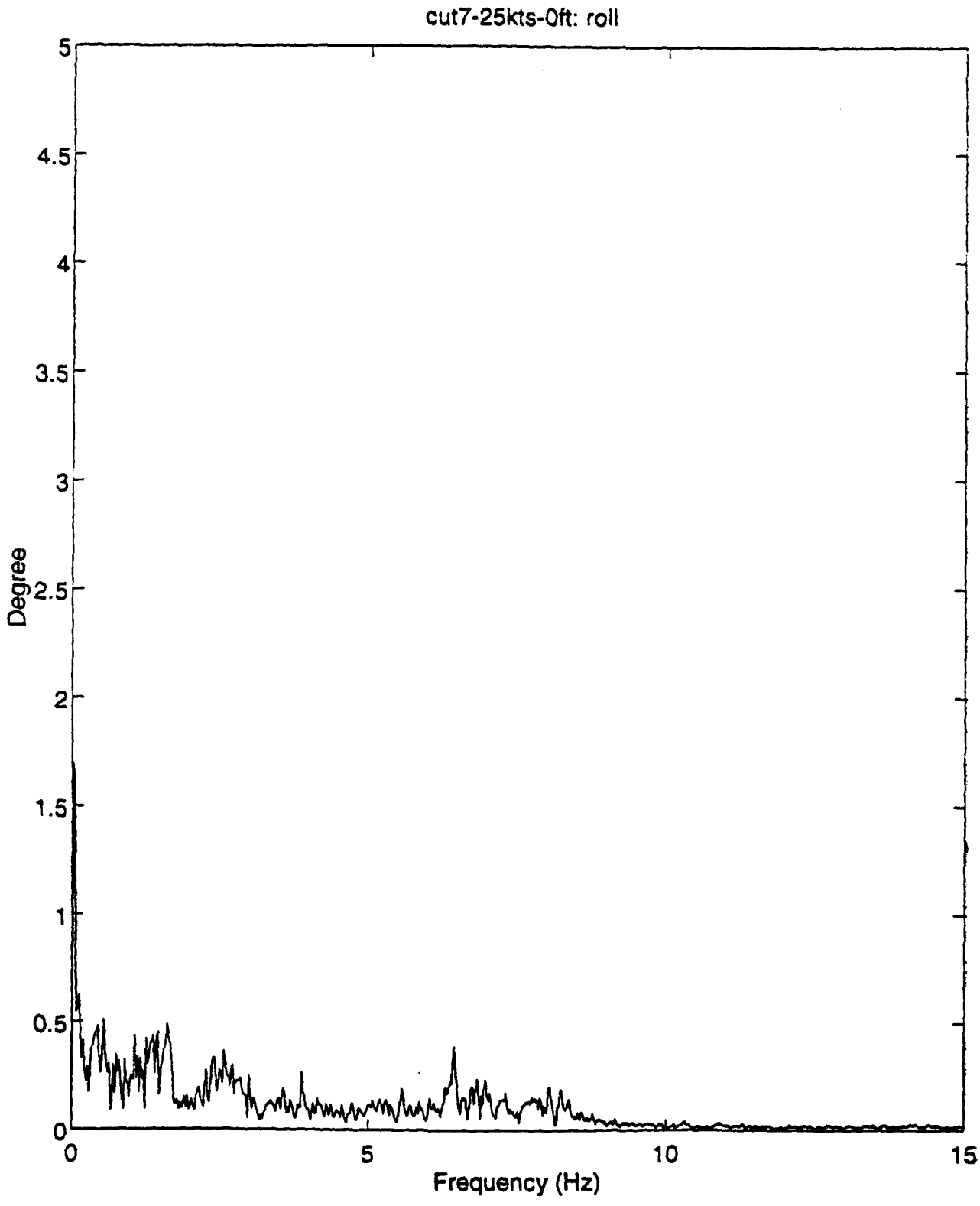
cut7-25kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.007571 Degree
Standard deviation = 0.1286 Degree
The plot shows 1024 data points



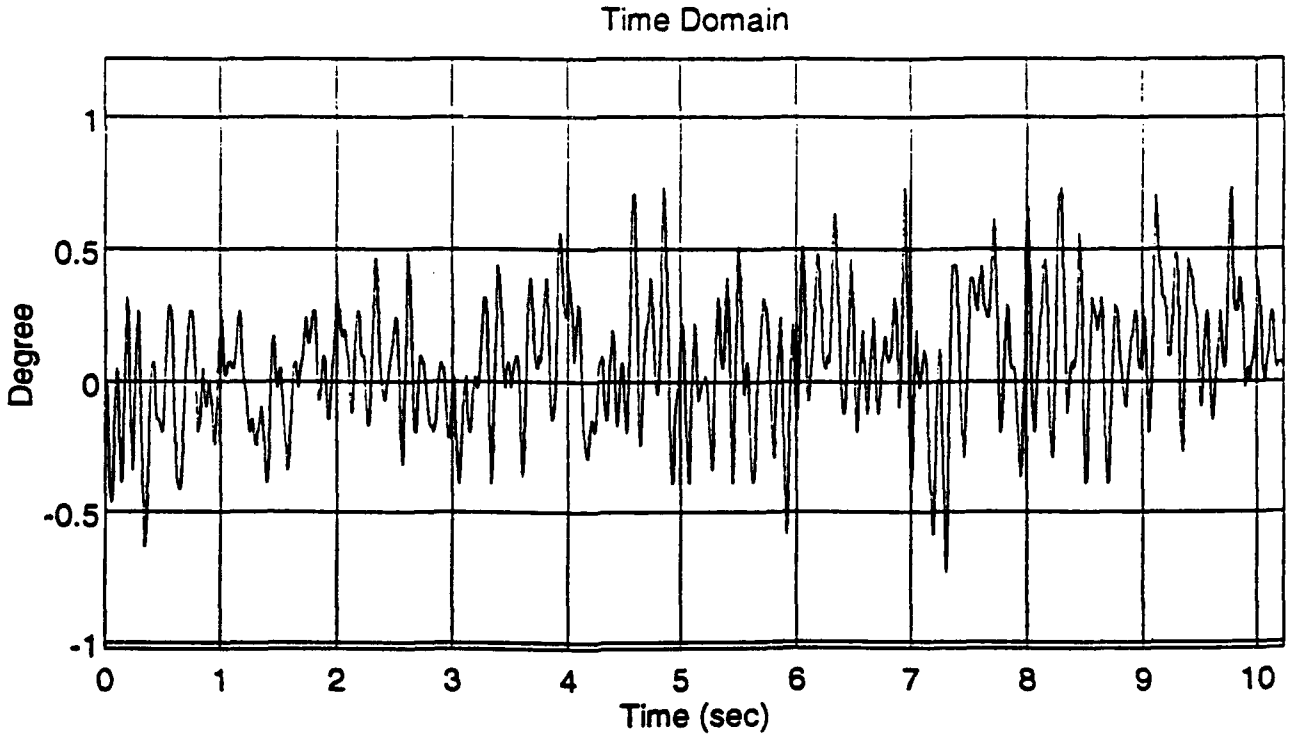

cut7-25kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

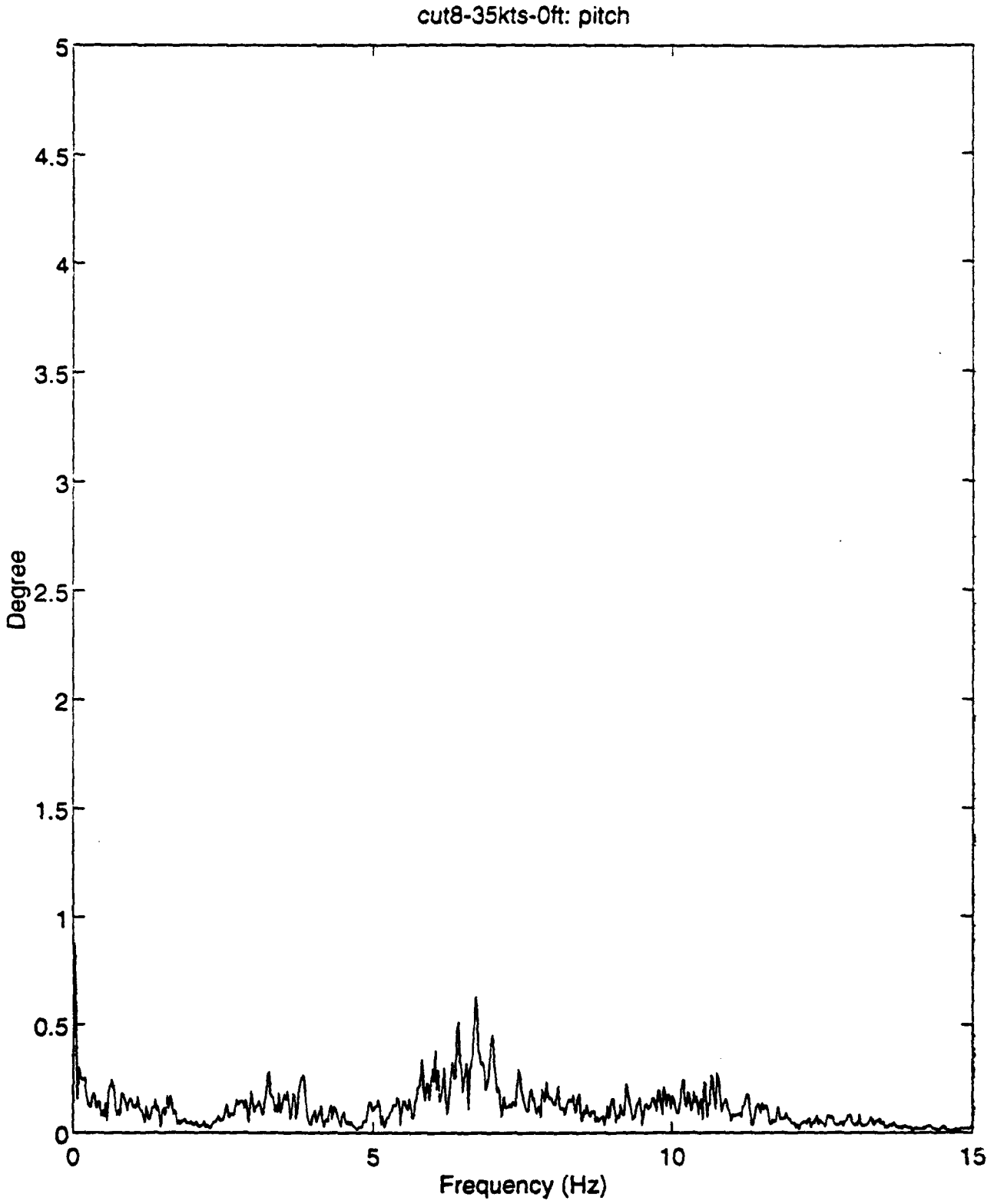
cut8-35kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.07238 Degree
Standard deviation = 0.2708 Degree
The plot shows 1024 data points



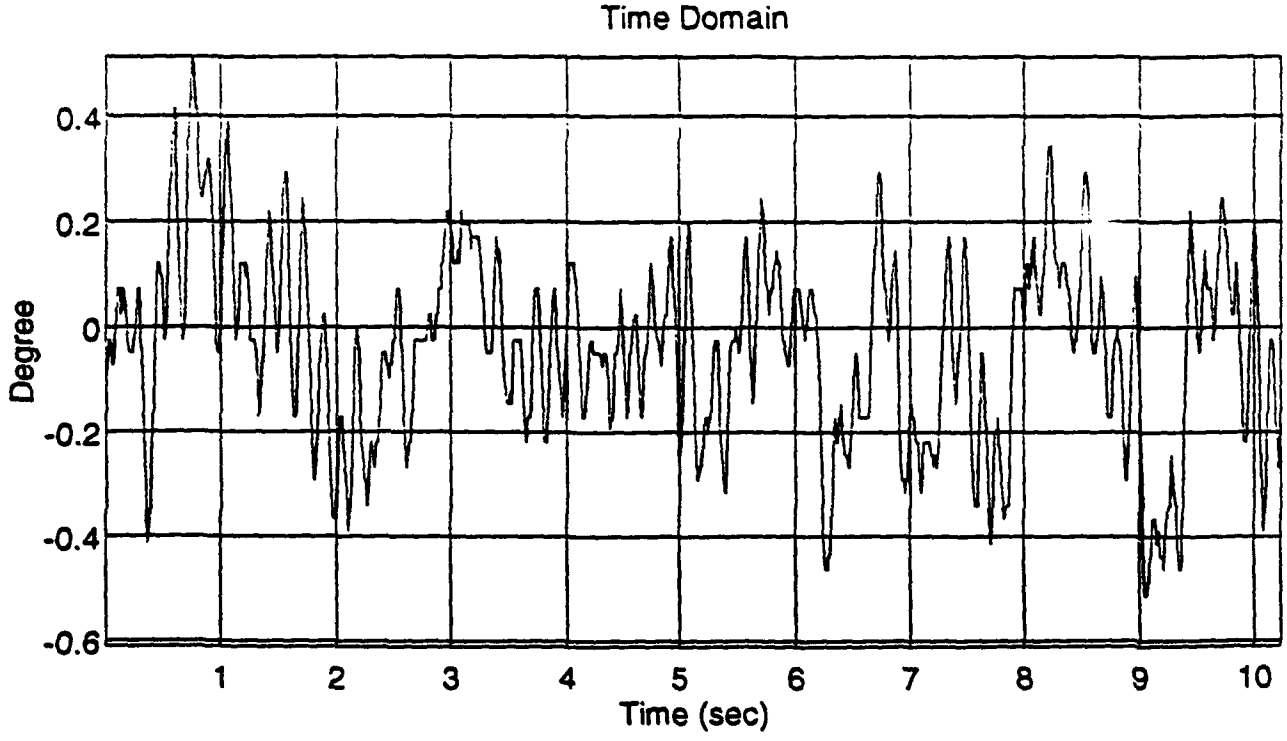

cut8-35kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

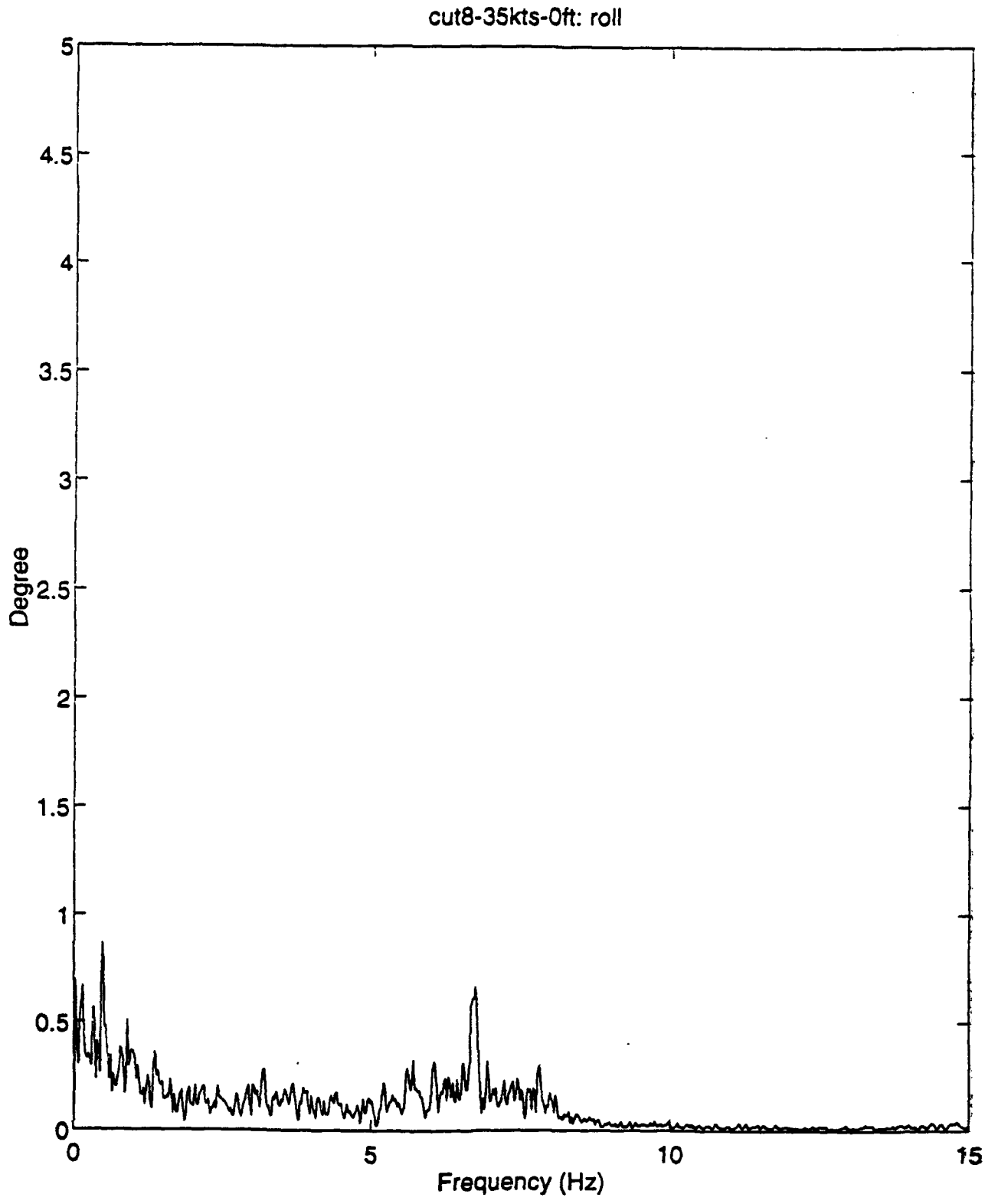
cut8-35kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.03203 Degree
Standard deviation = 0.1658 Degree
The plot shows 1024 data points



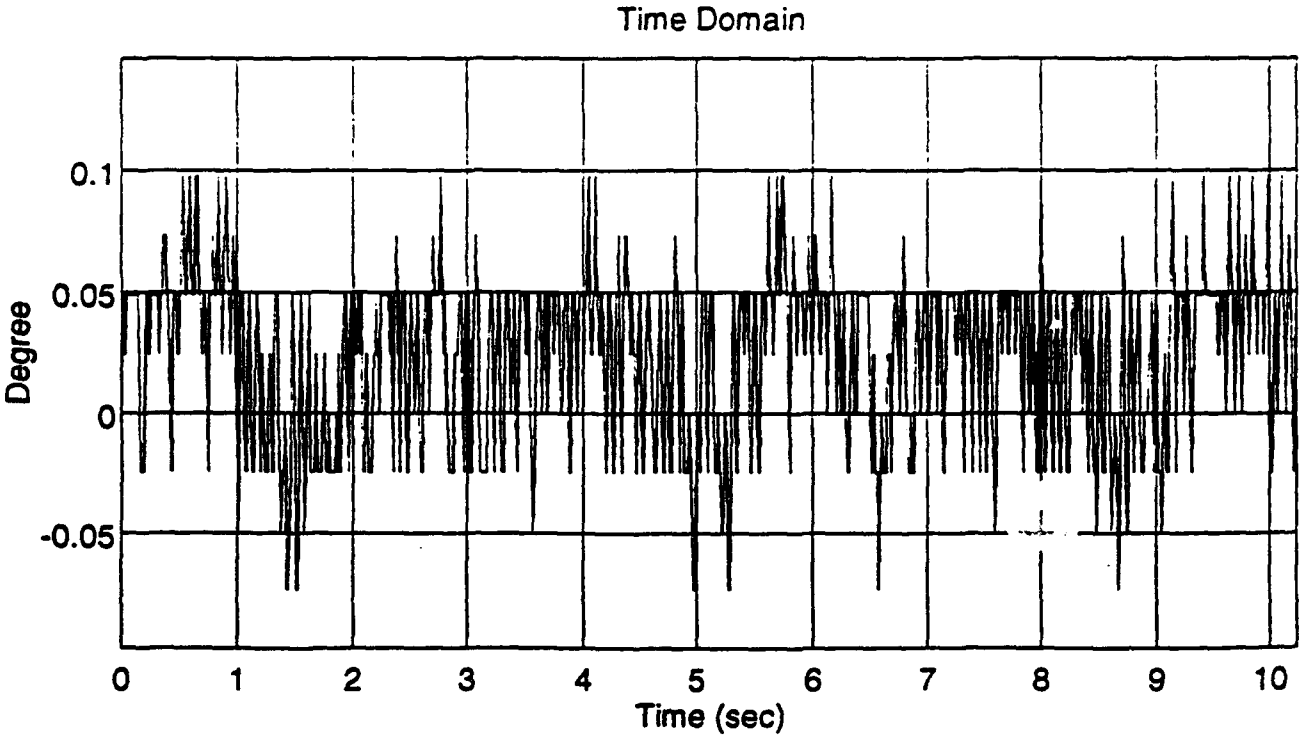

cut8-35kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

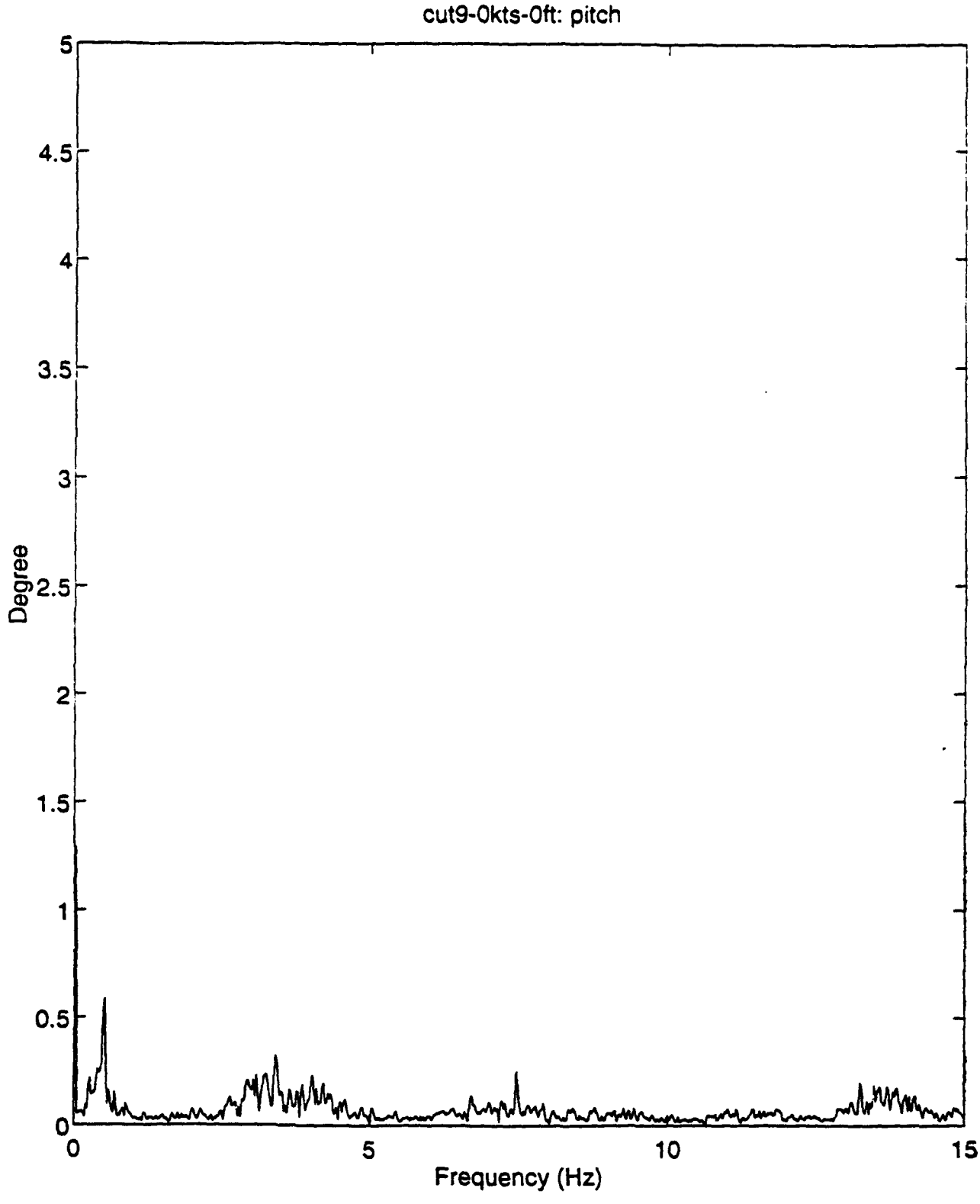
cut9-0kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.02871 Degree
Standard deviation = 0.03487 Degree
The plot shows 1024 data points



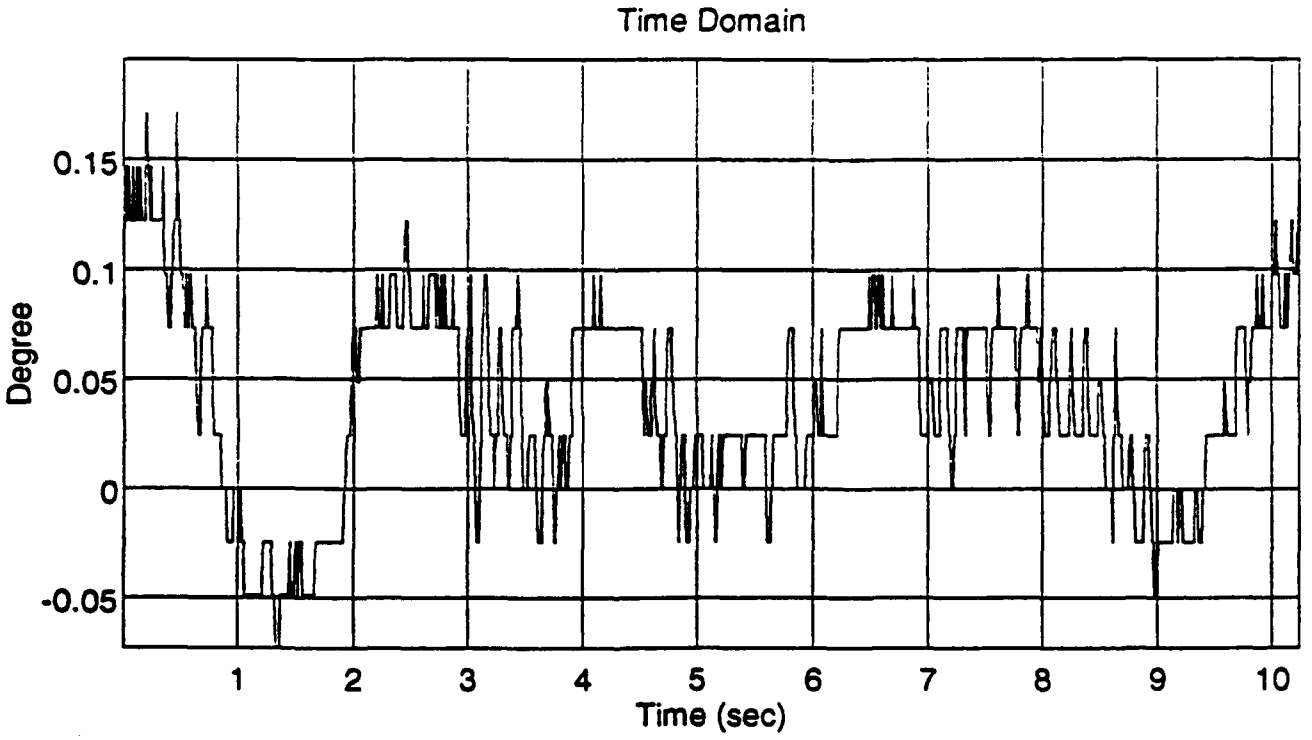

cut9-0kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

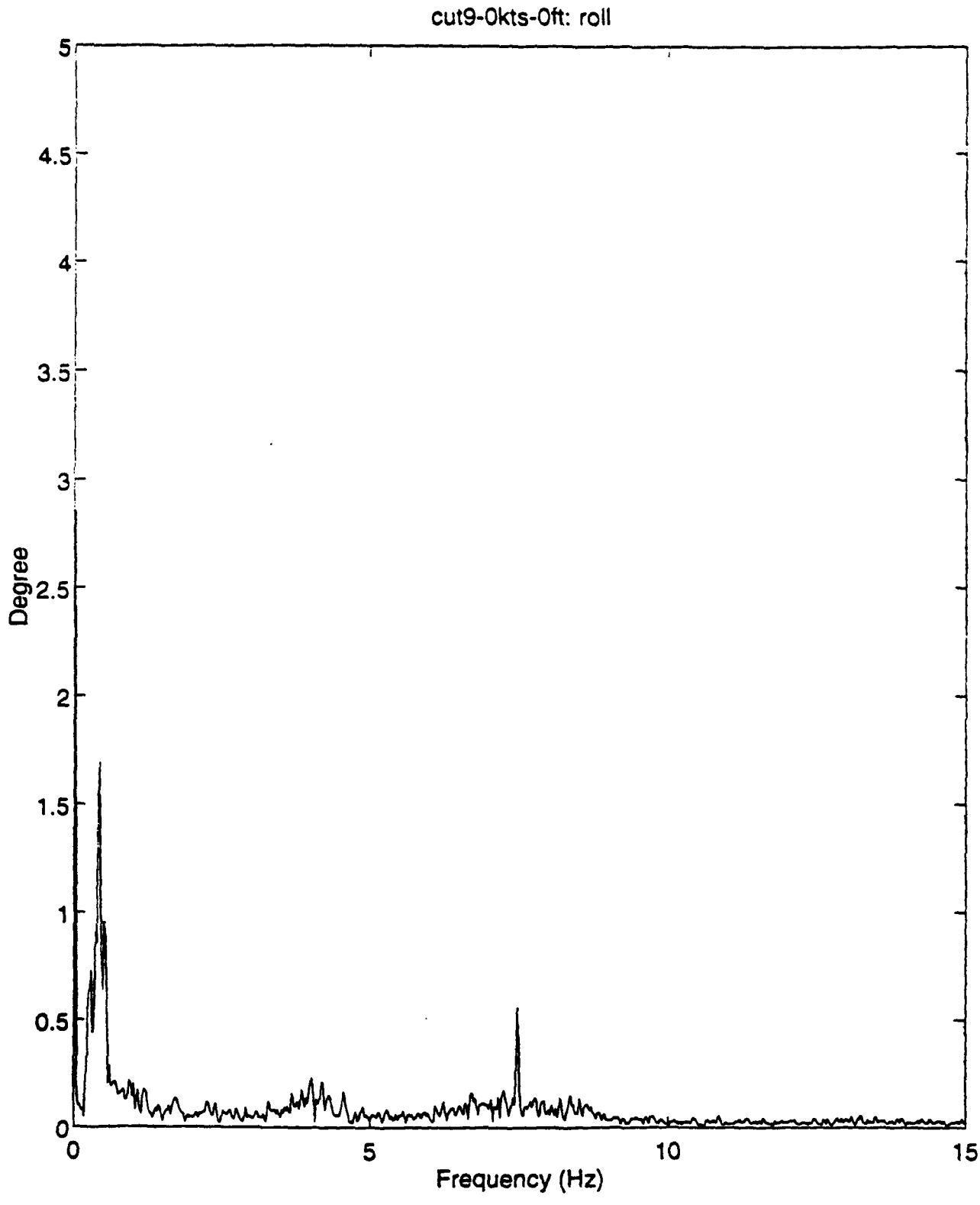
cut9-0kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.04681 Degree
Standard deviation = 0.04323 Degree
The plot shows 1024 data points



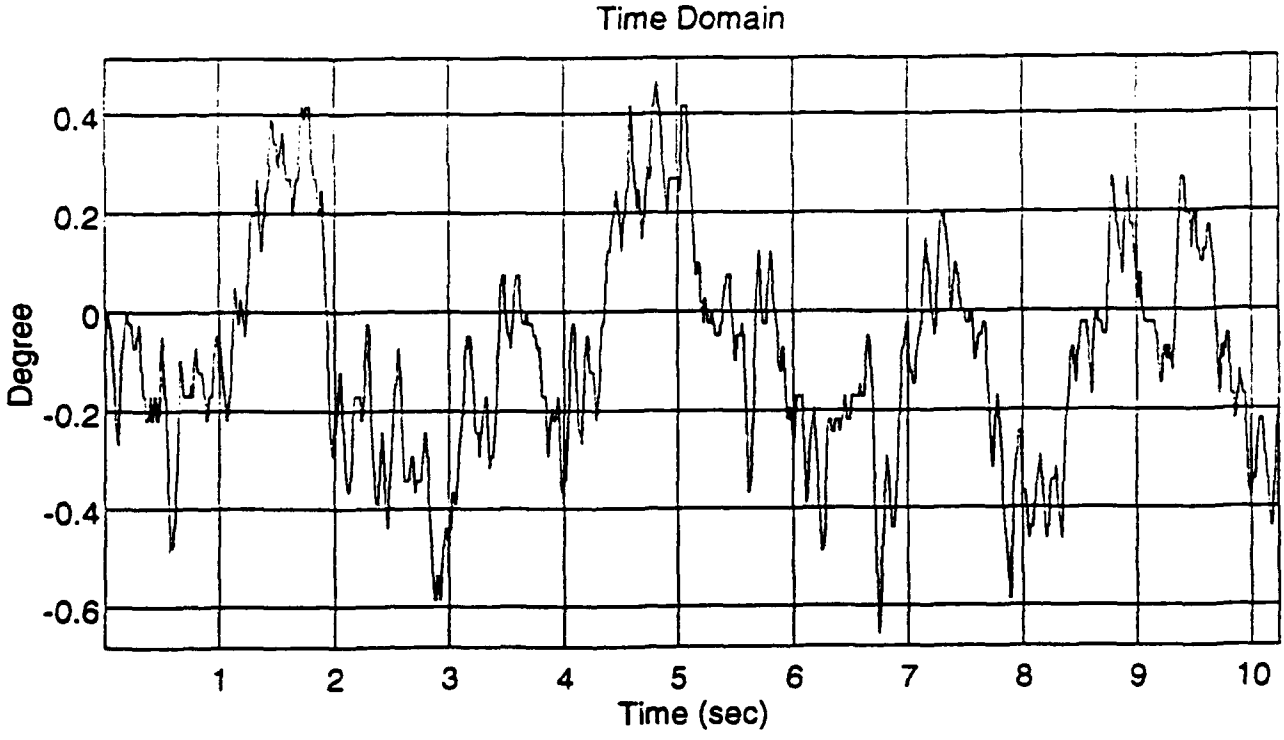

cut9-0kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

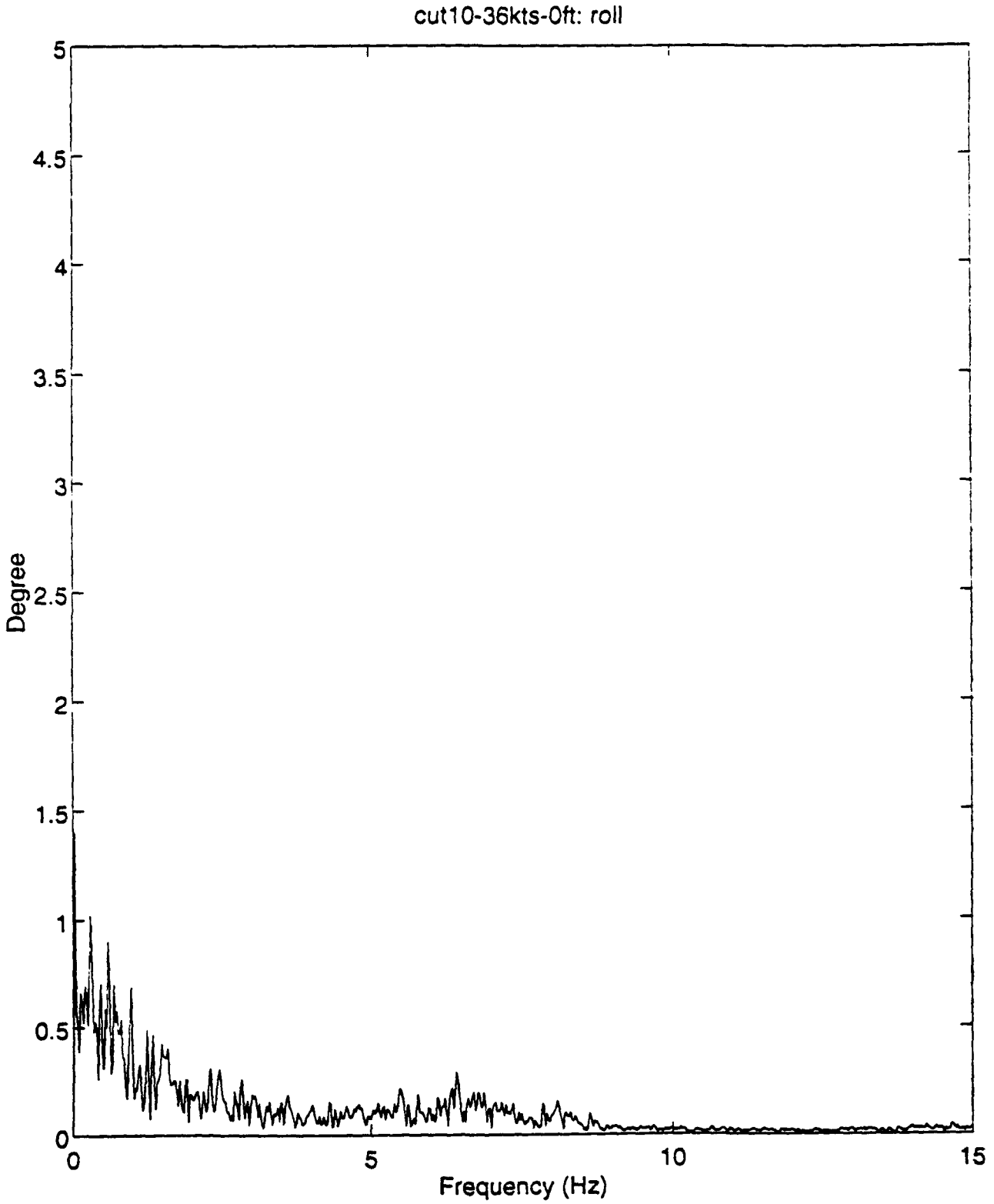
cut10-36kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.09969 Degree
Standard deviation = 0.1771 Degree
The plot shows 1024 data points



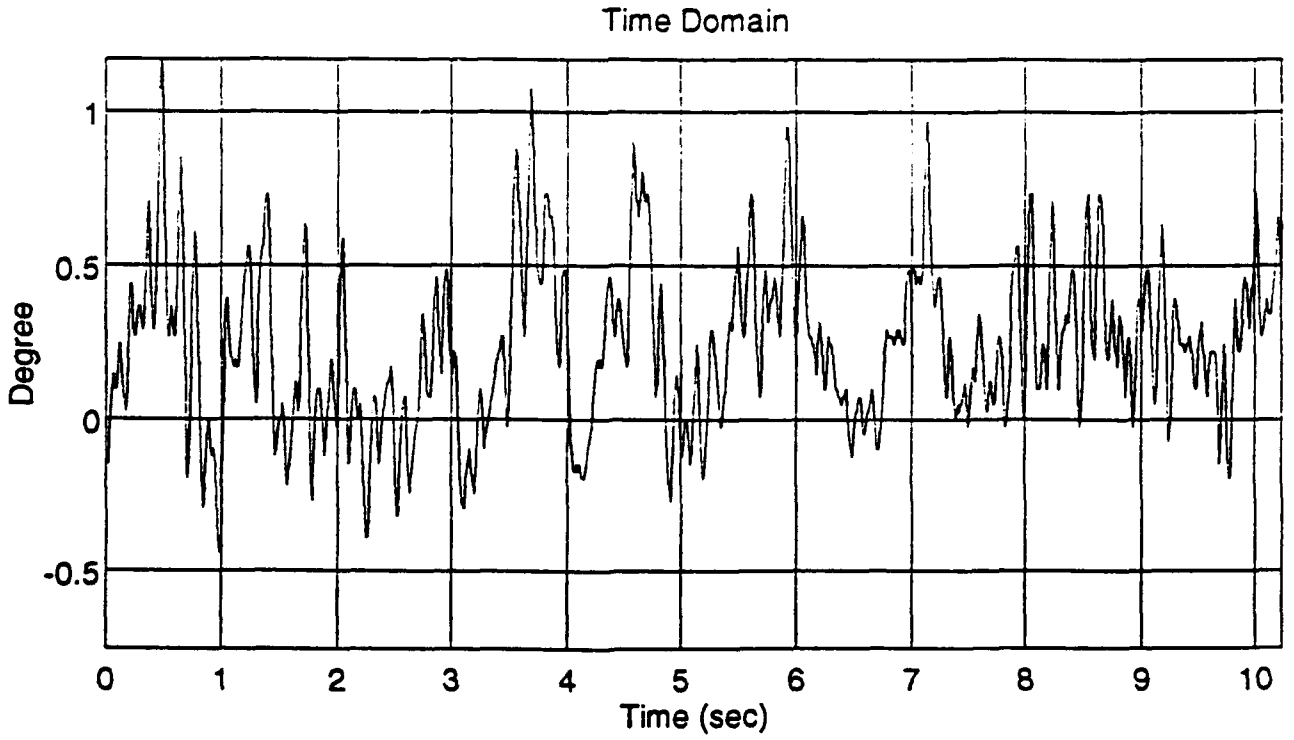

cut10-36kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

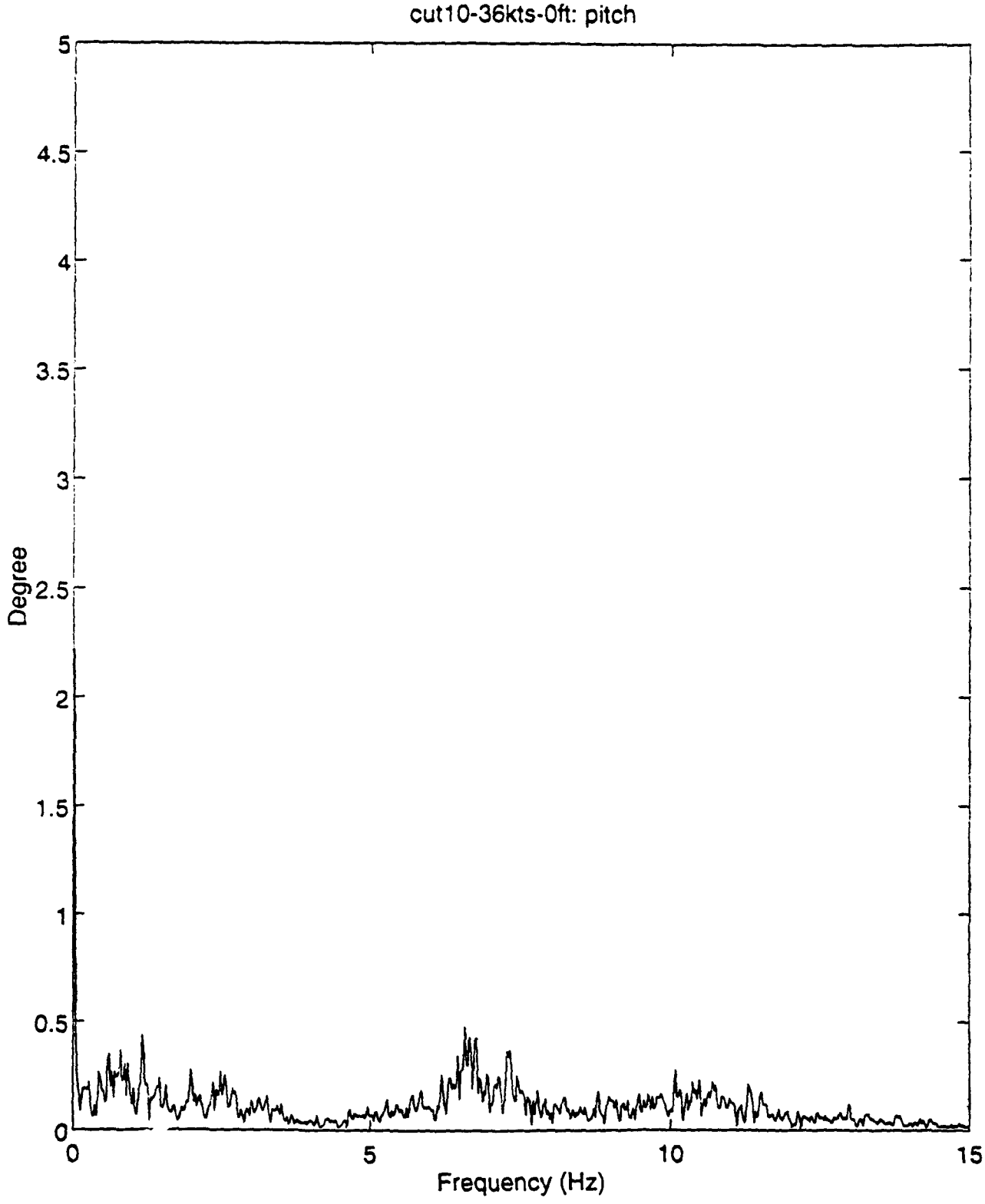
cut10-36kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.2474 Degree
Standard deviation = 0.23 Degree
The plot shows 1024 data points



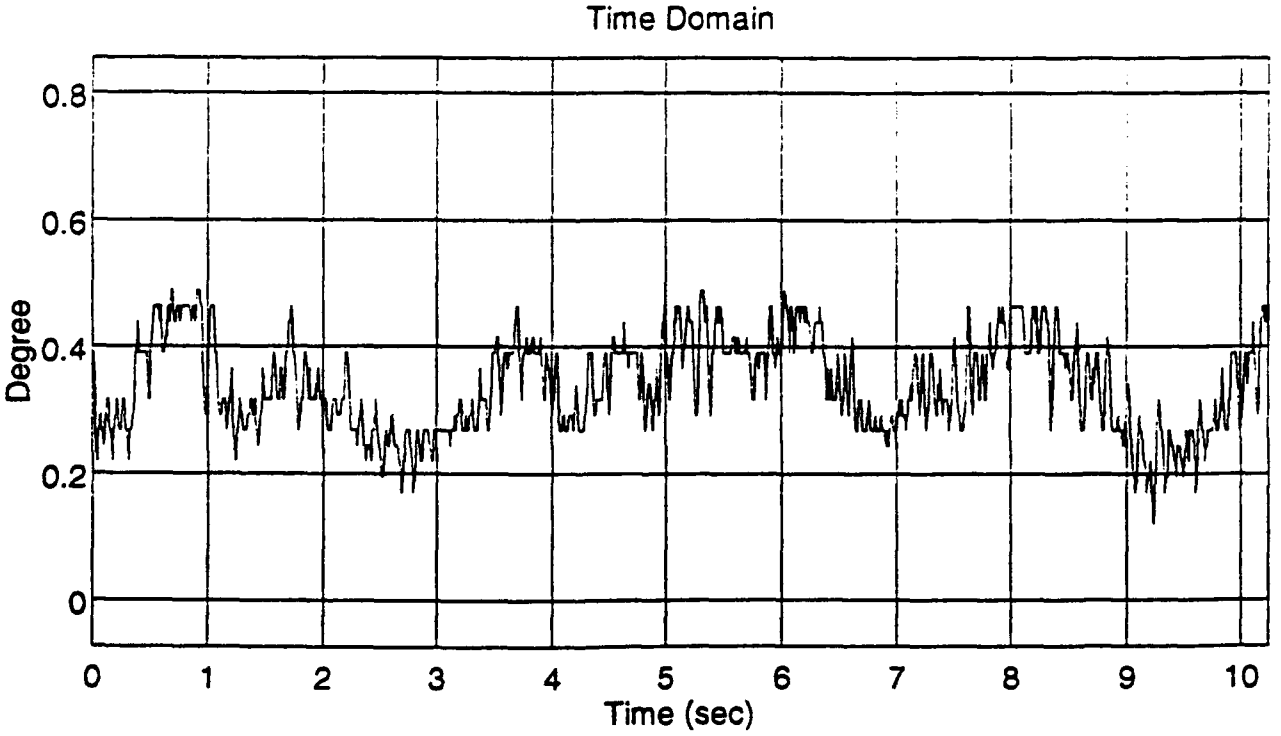

cut10-36kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

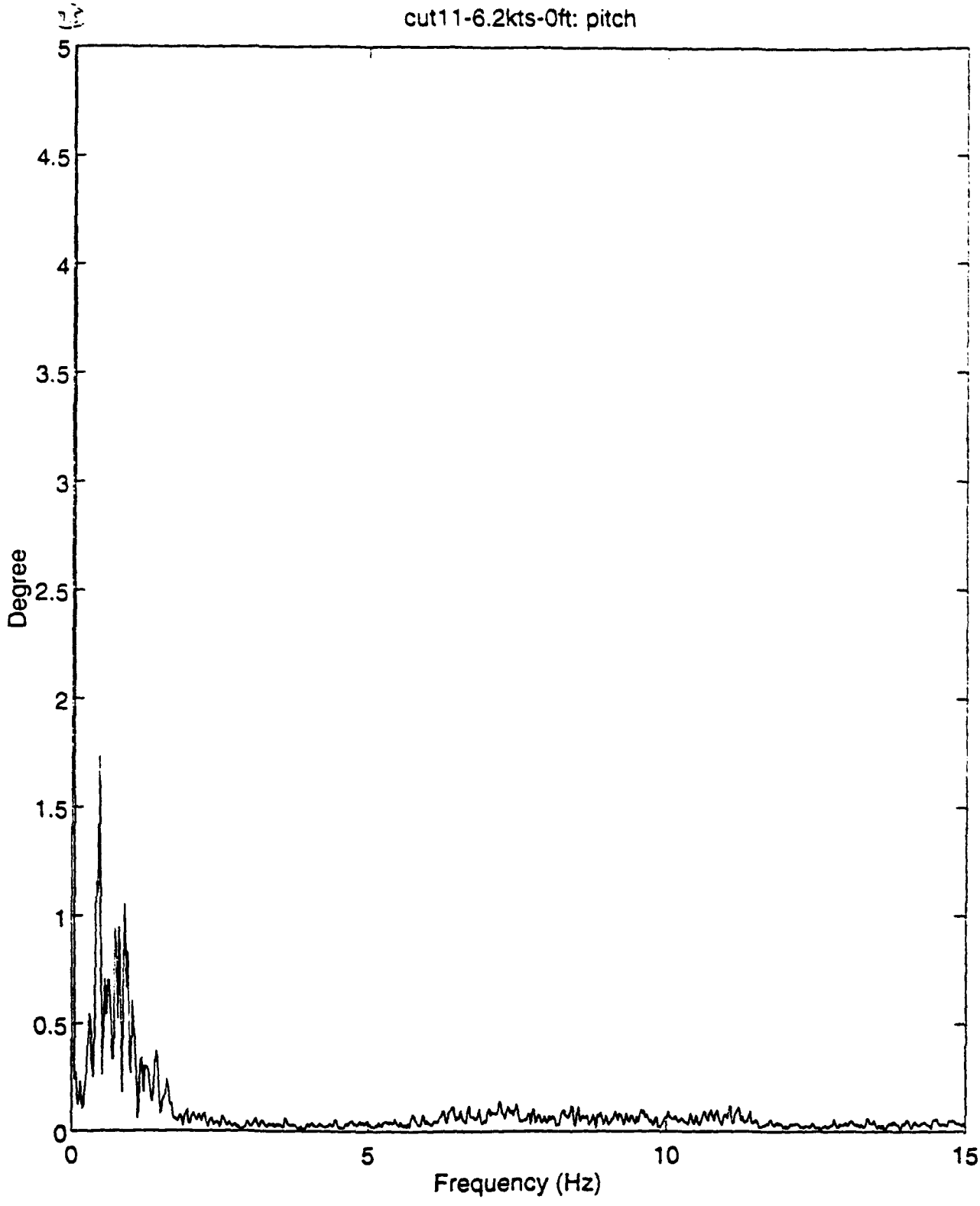
cut11-6.2kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.3864 Degree
Standard deviation = 0.1409 Degree
The plot shows 1024 data points



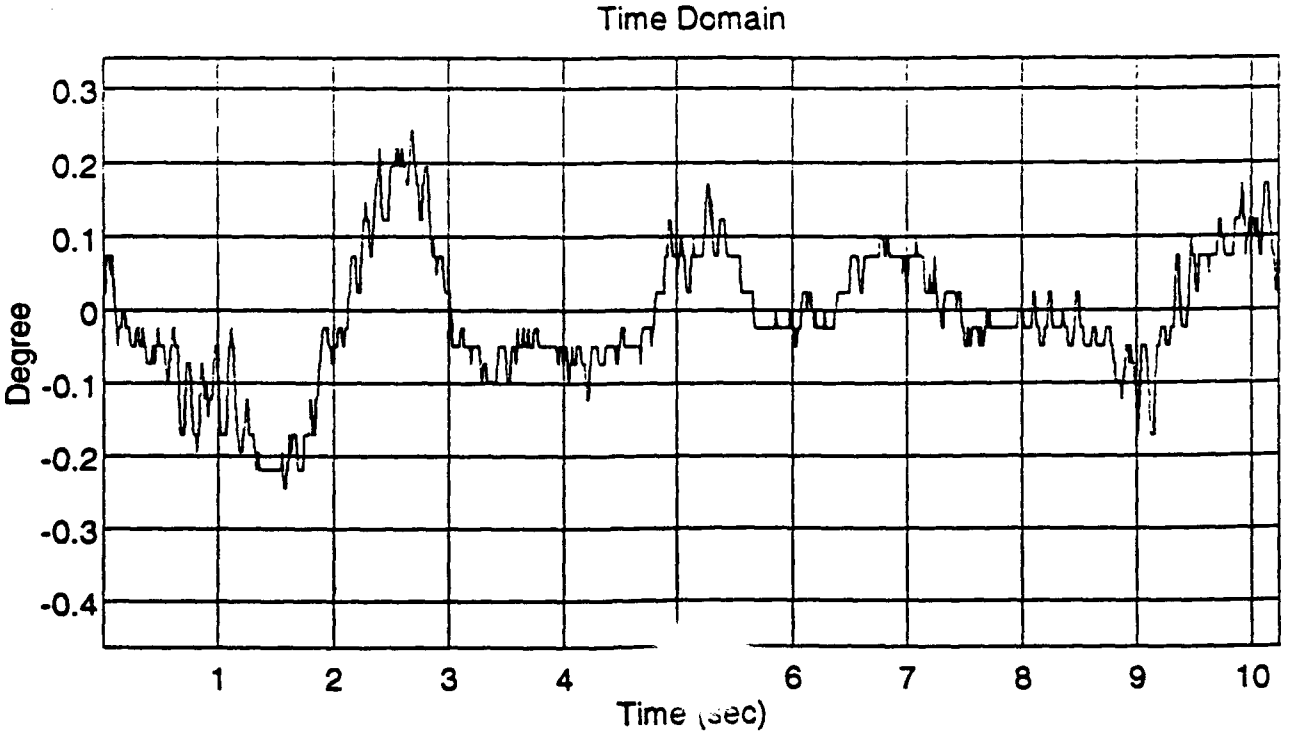

cut11-6.2kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

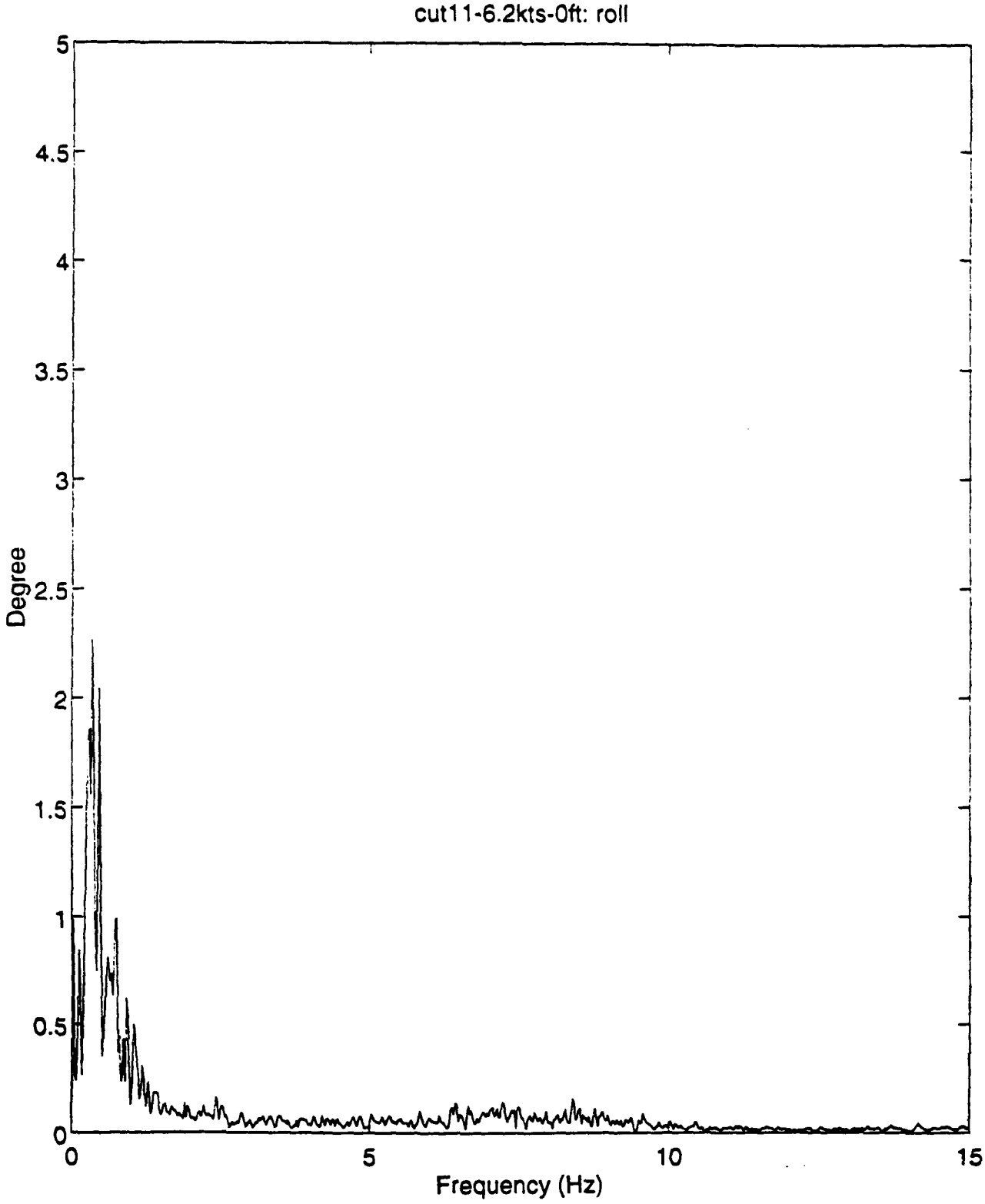
cut11-6.2kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.02842 Degree
Standard deviation = 0.124 Degree
The plot shows 1024 data points



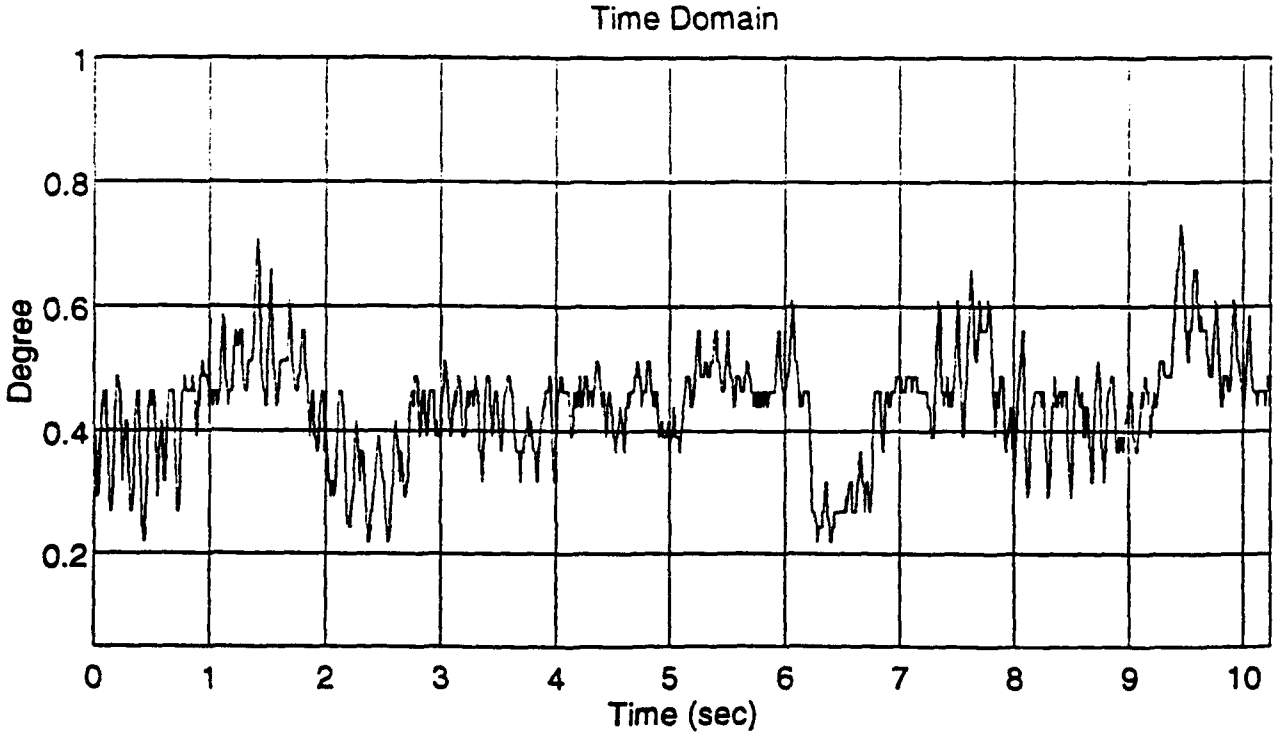

cut11-6.2kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

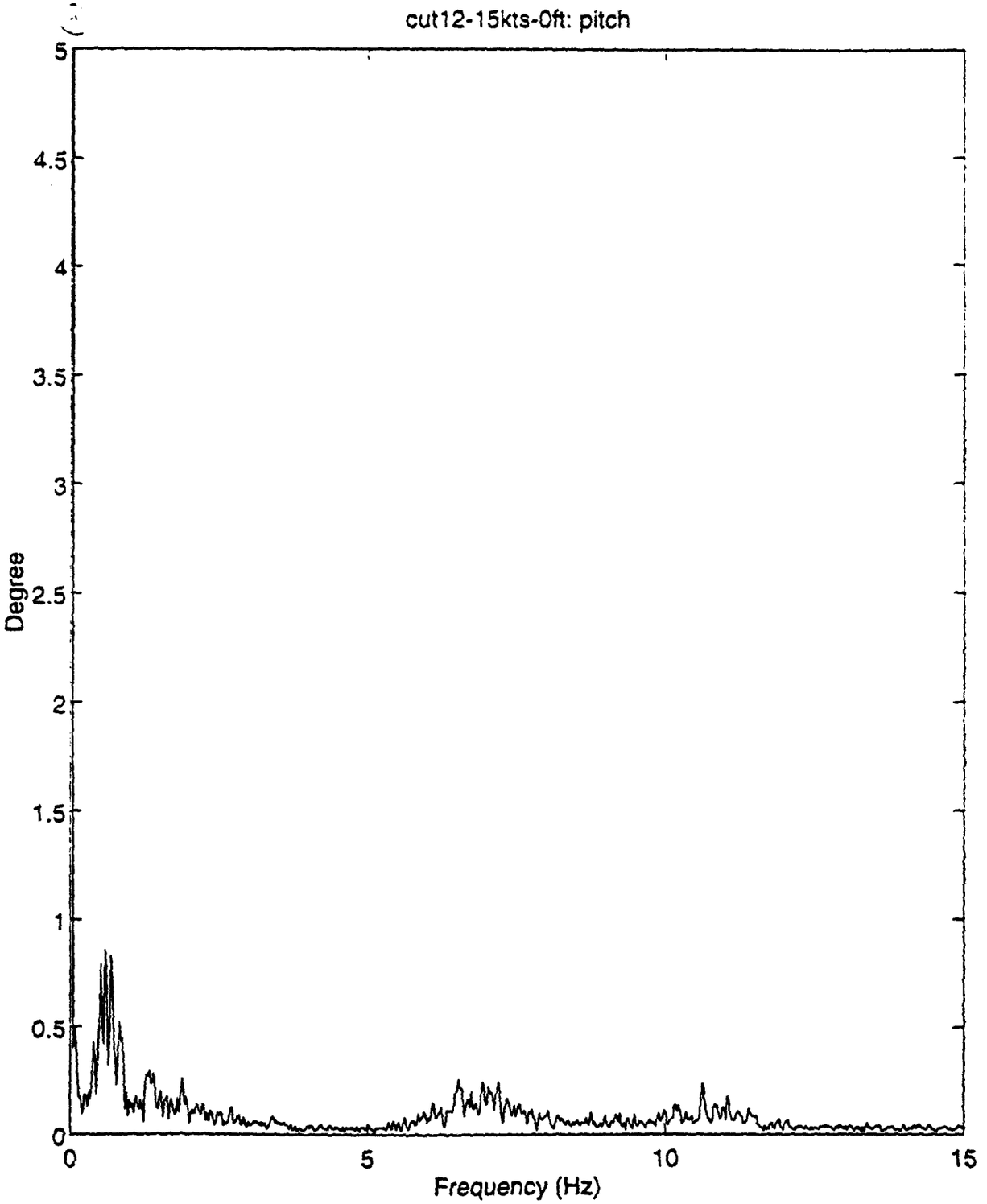
cut12-15kts-0ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.5103 Degree
Standard deviation = 0.1173 Degree
The plot shows 1024 data points



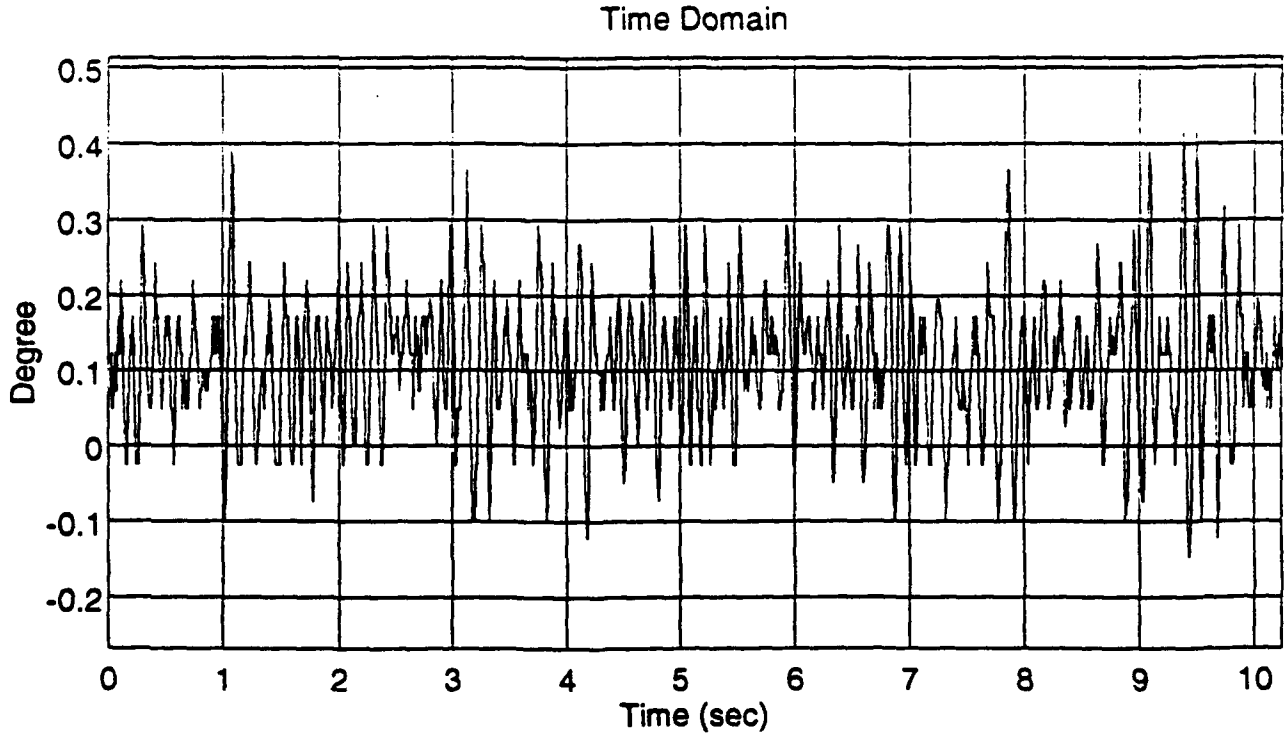

cut12-15kts-0ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

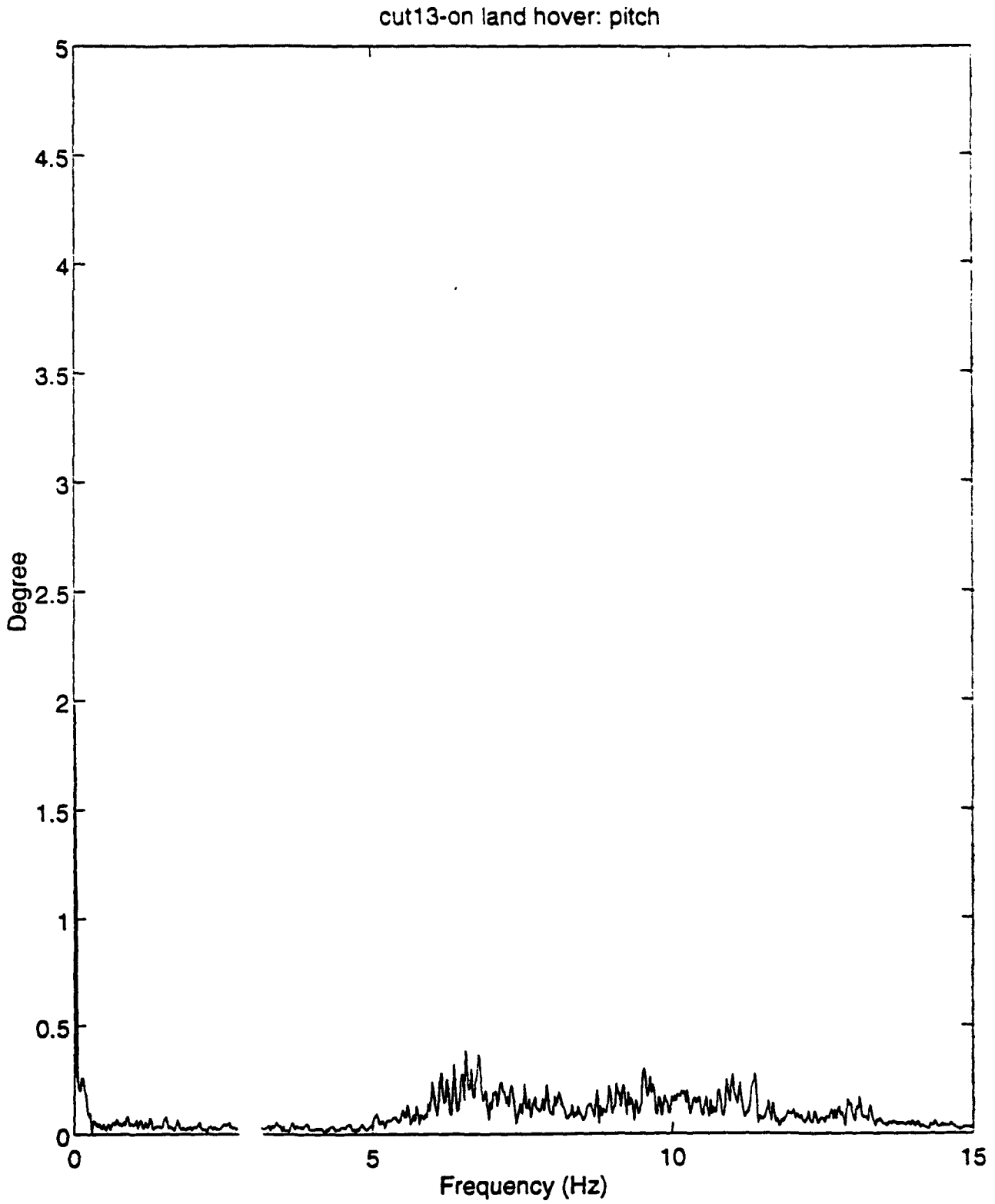
cut13-on land hover: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.1178 Degree
Standard deviation = 0.1045 Degree
The plot shows 1024 data points



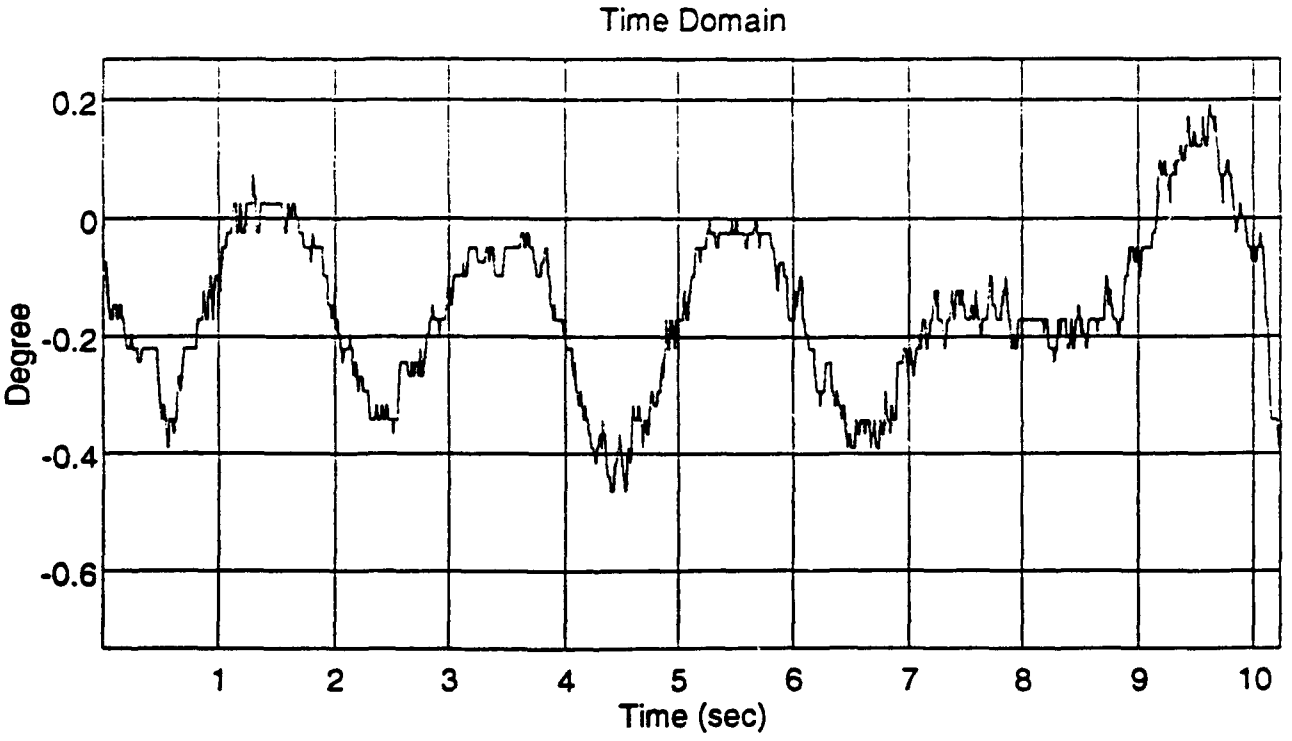

cut13-on land hover: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

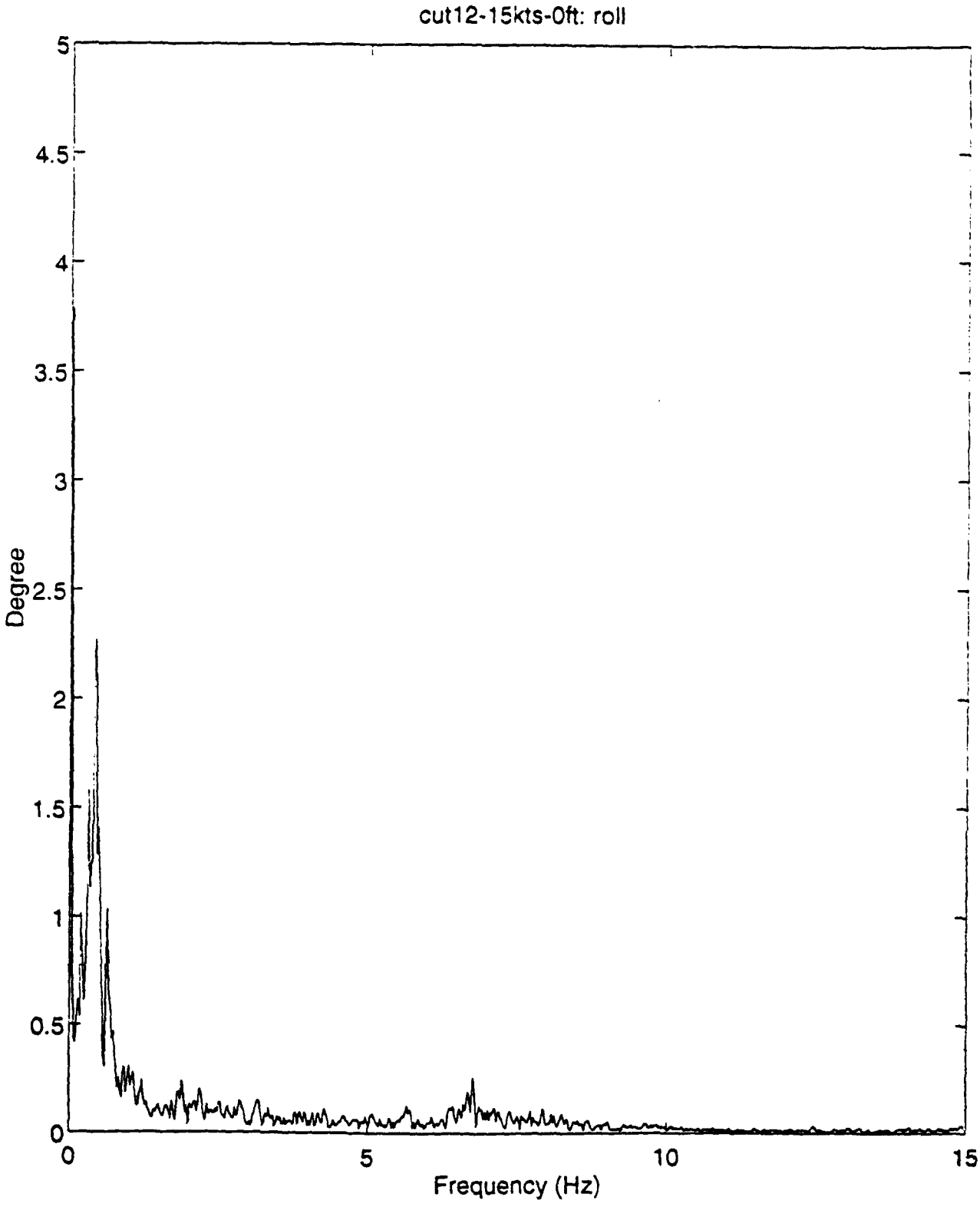
cut12-15kts-0ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.1103 Degree
Standard deviation = 0.144 Degree
The plot shows 1024 data points



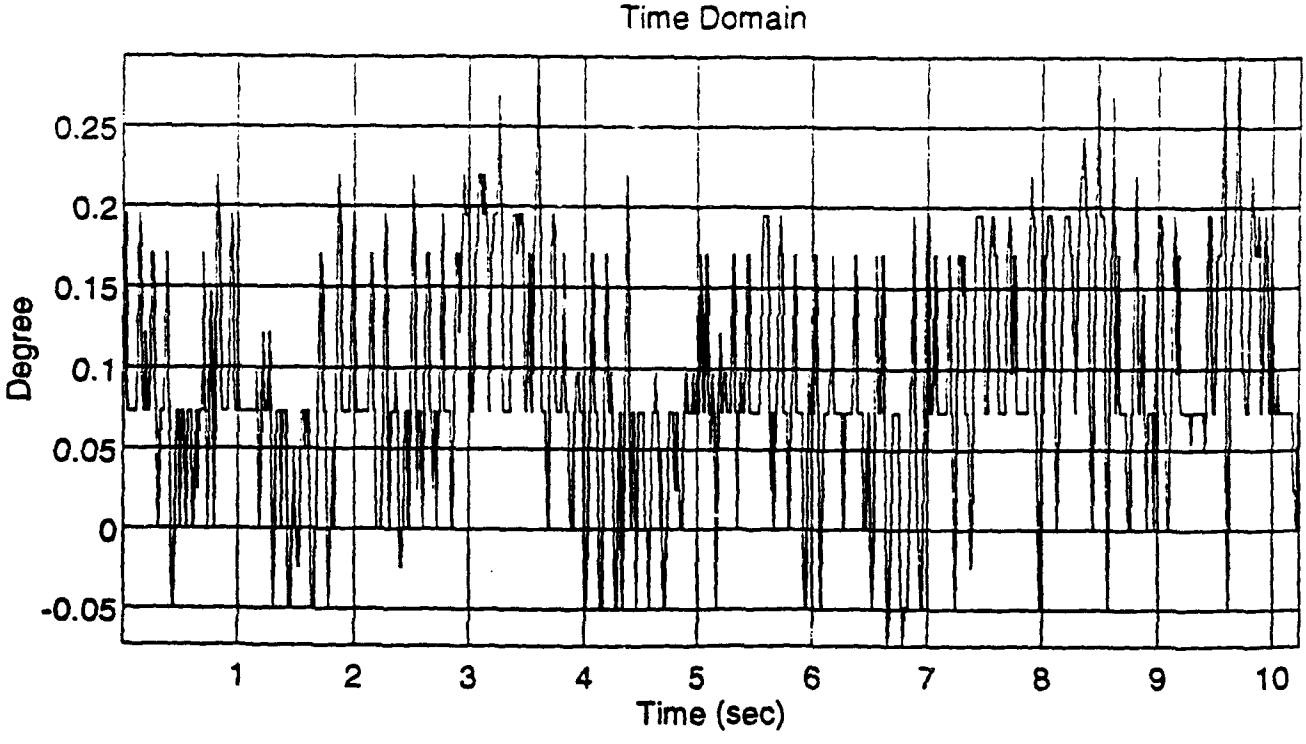

cut12-15kts-0ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

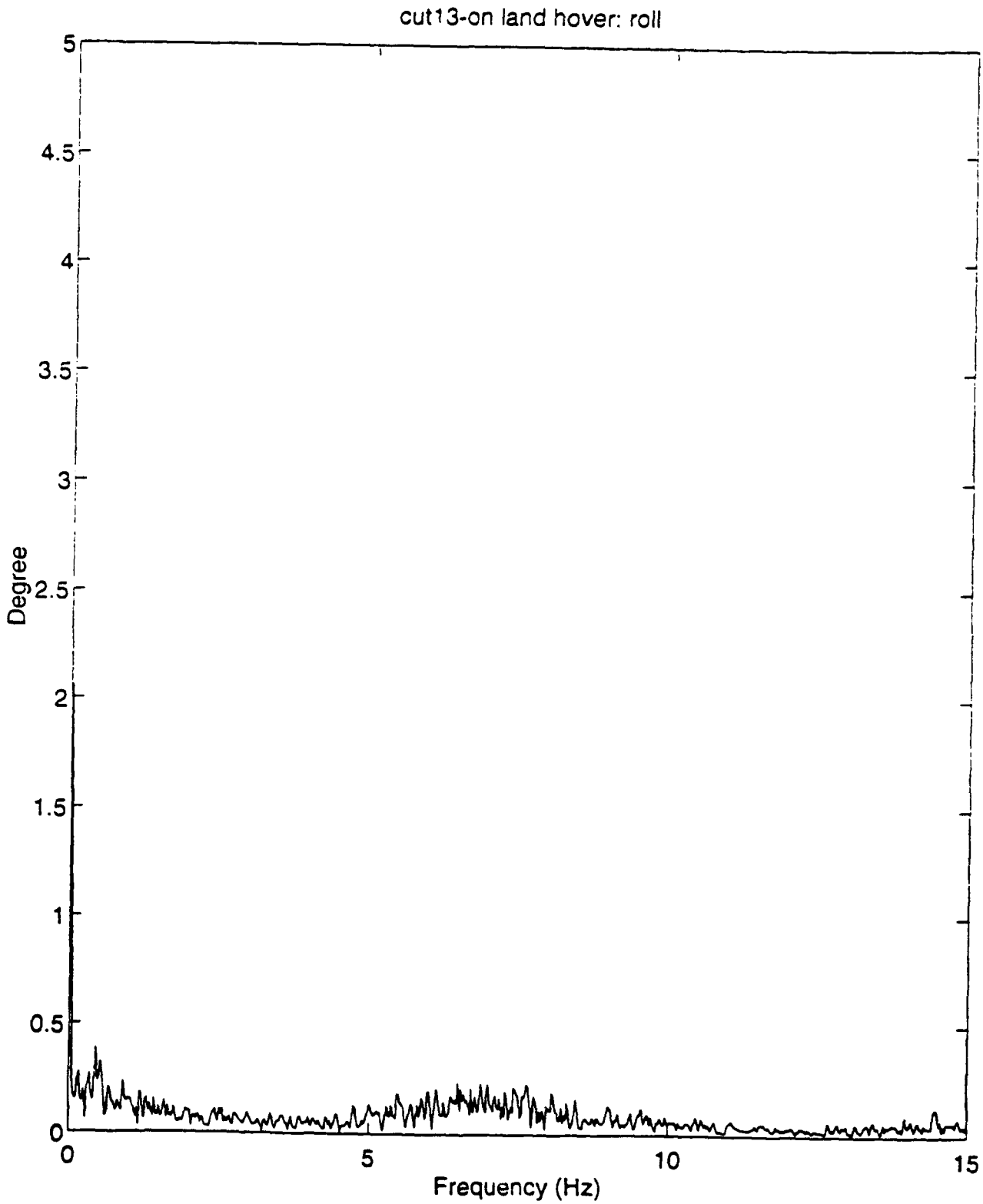
cut13-on land hover: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.08604 Degree
Standard deviation = 0.07024 Degree
The plot shows 1024 data points



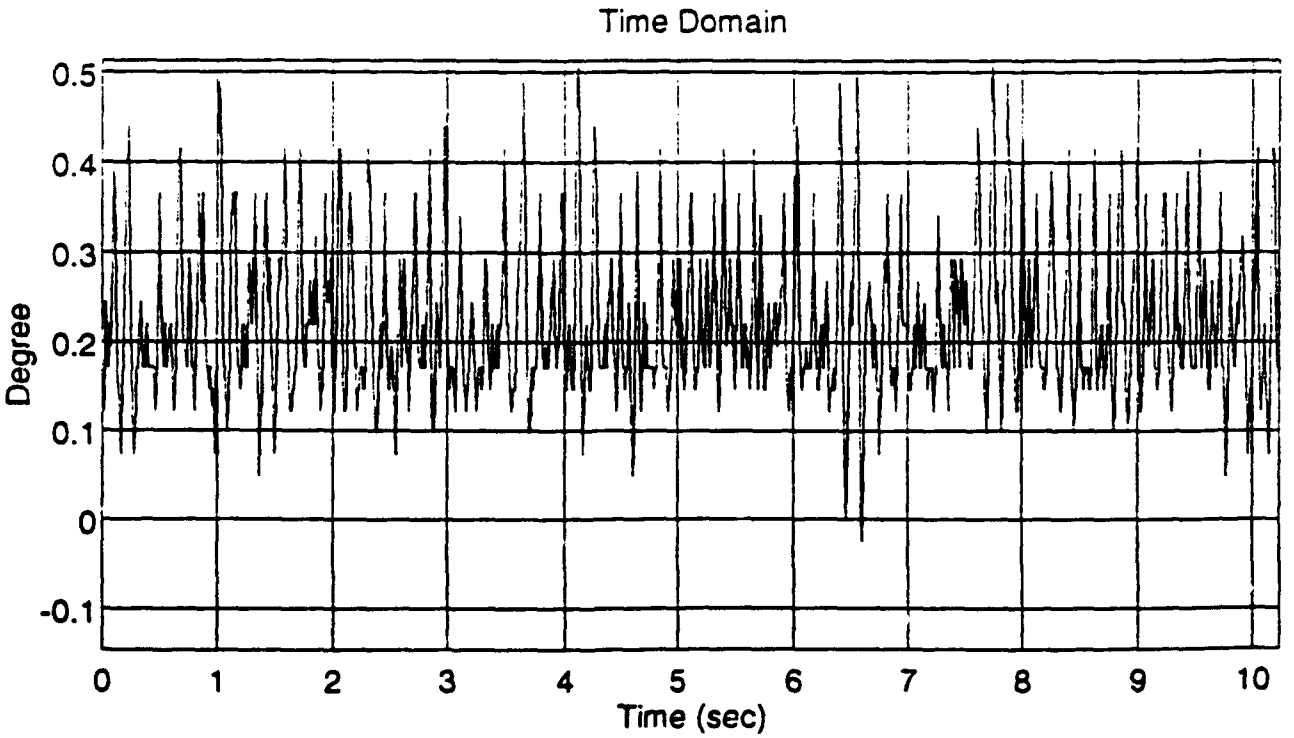

cut13-on land hover: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

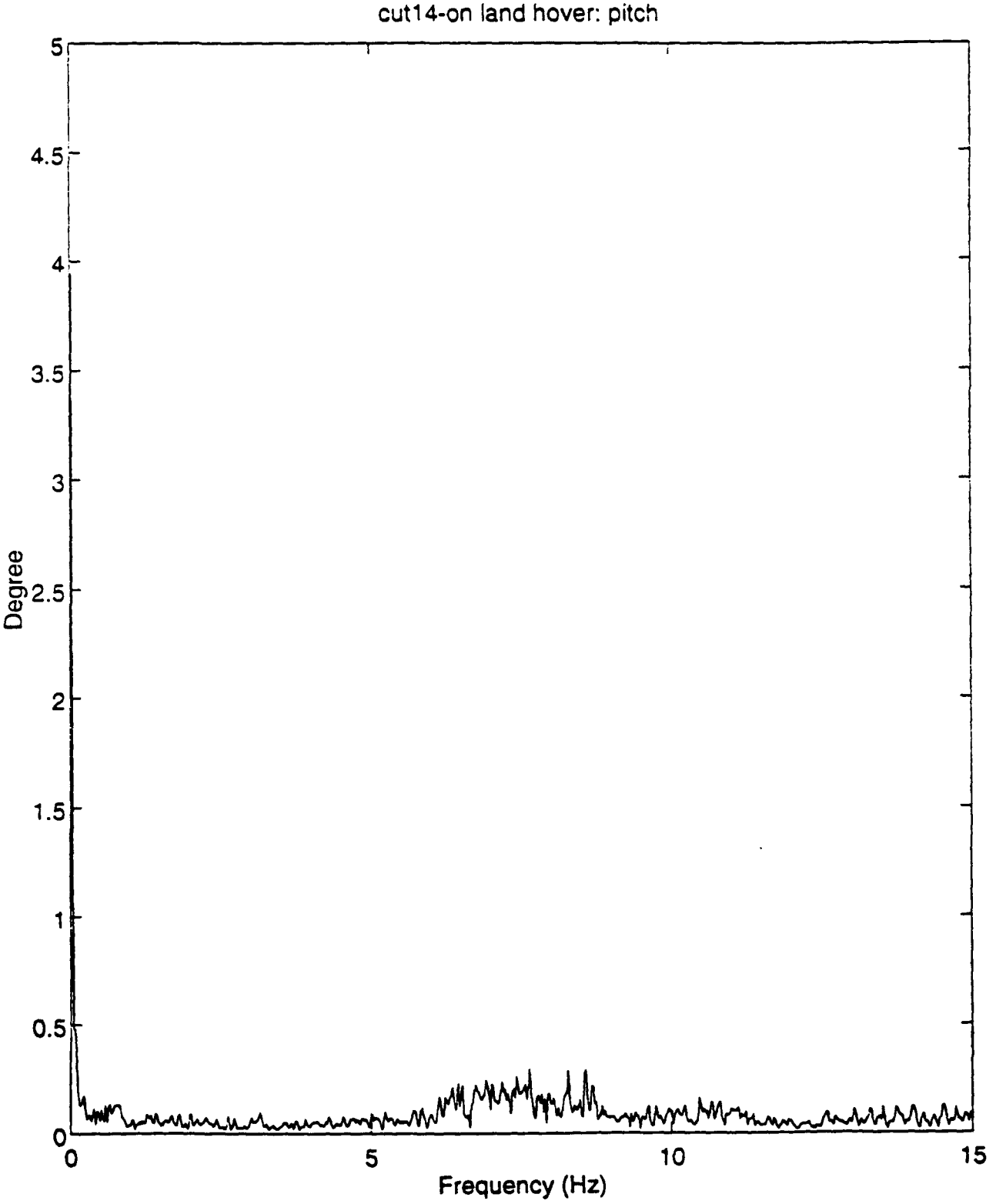
cut14-on land hover: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.1865 Degree
Standard deviation = 0.1153 Degree
The plot shows 1024 data points



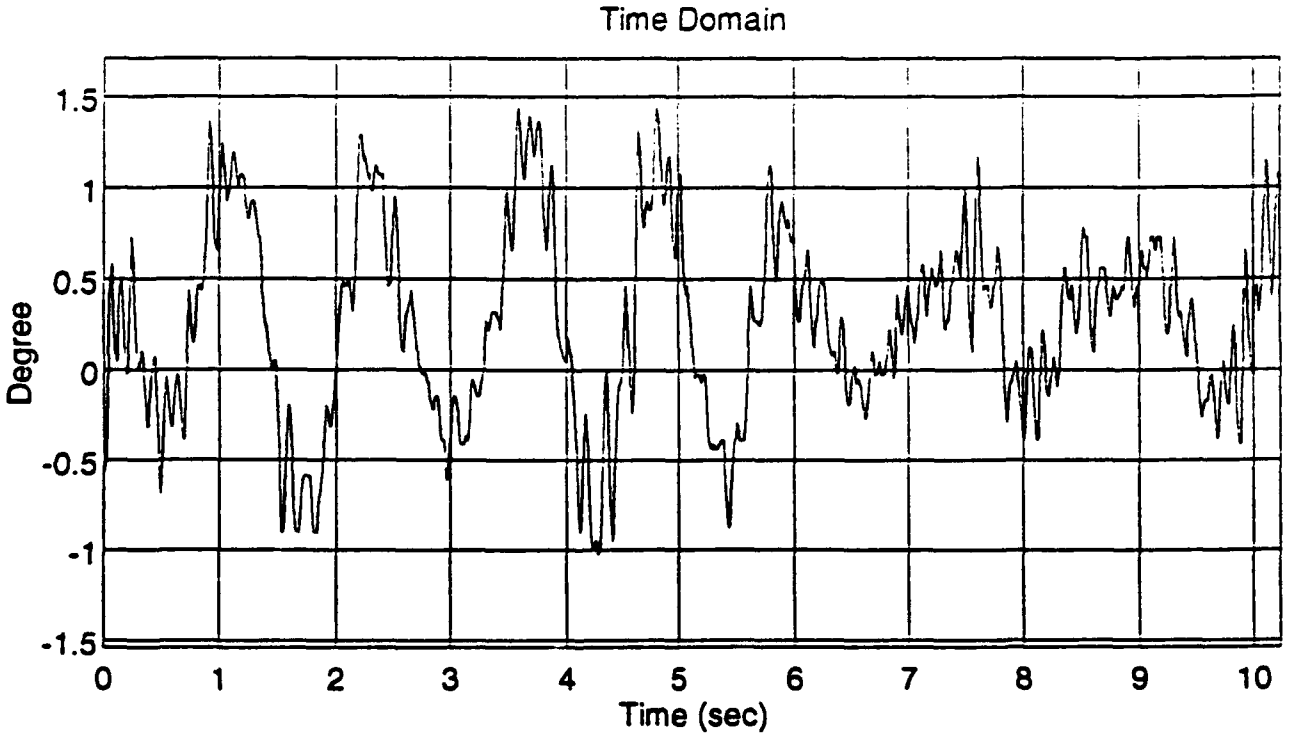

cut14-on land hover: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

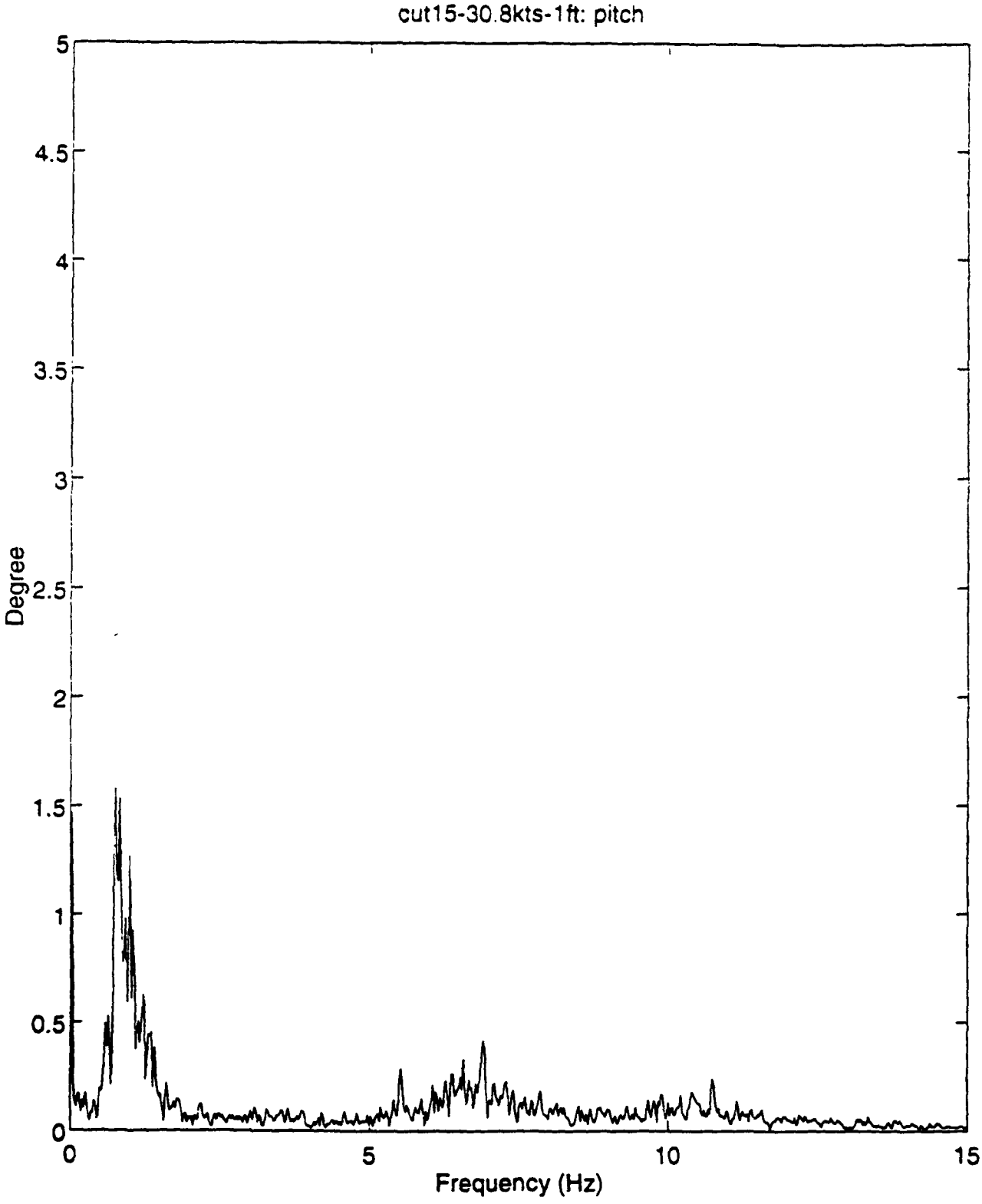
cut15-30.8kts-1ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.2476 Degree
Standard deviation = 0.4579 Degree
The plot shows 1024 data points



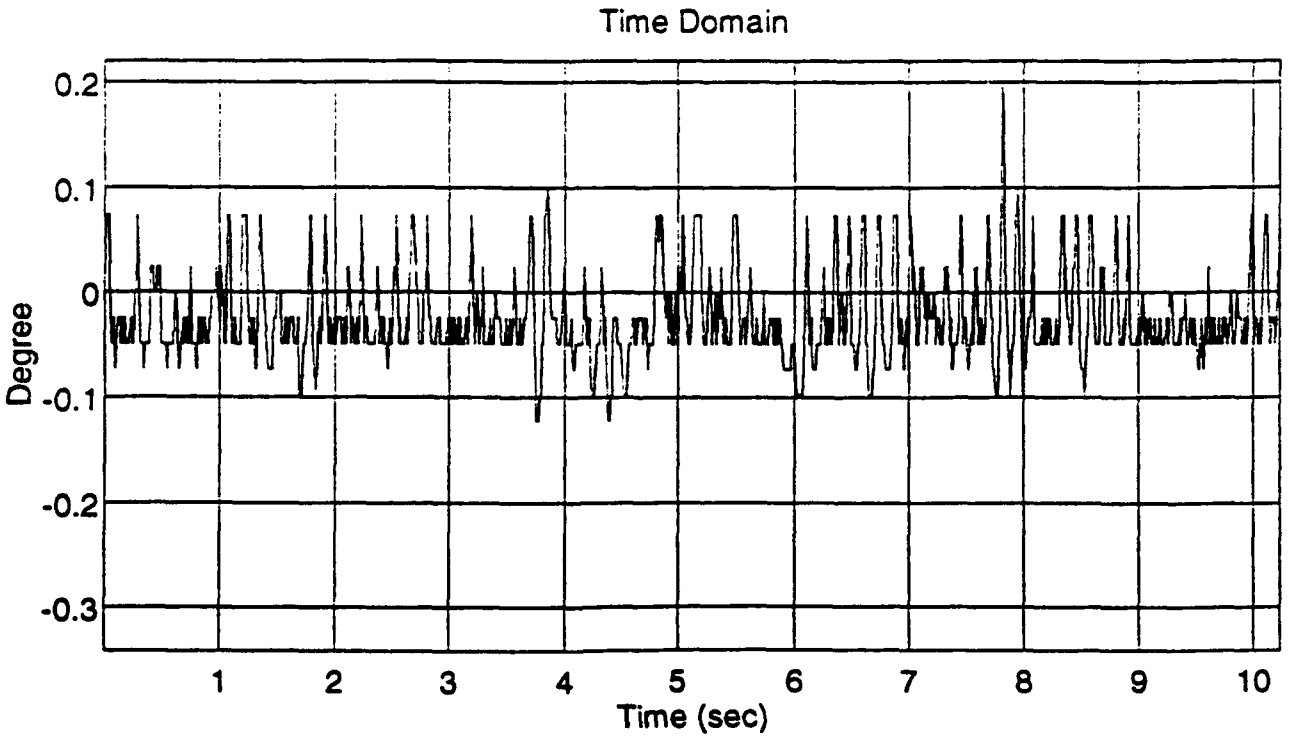

cut15-30.8kts-1ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

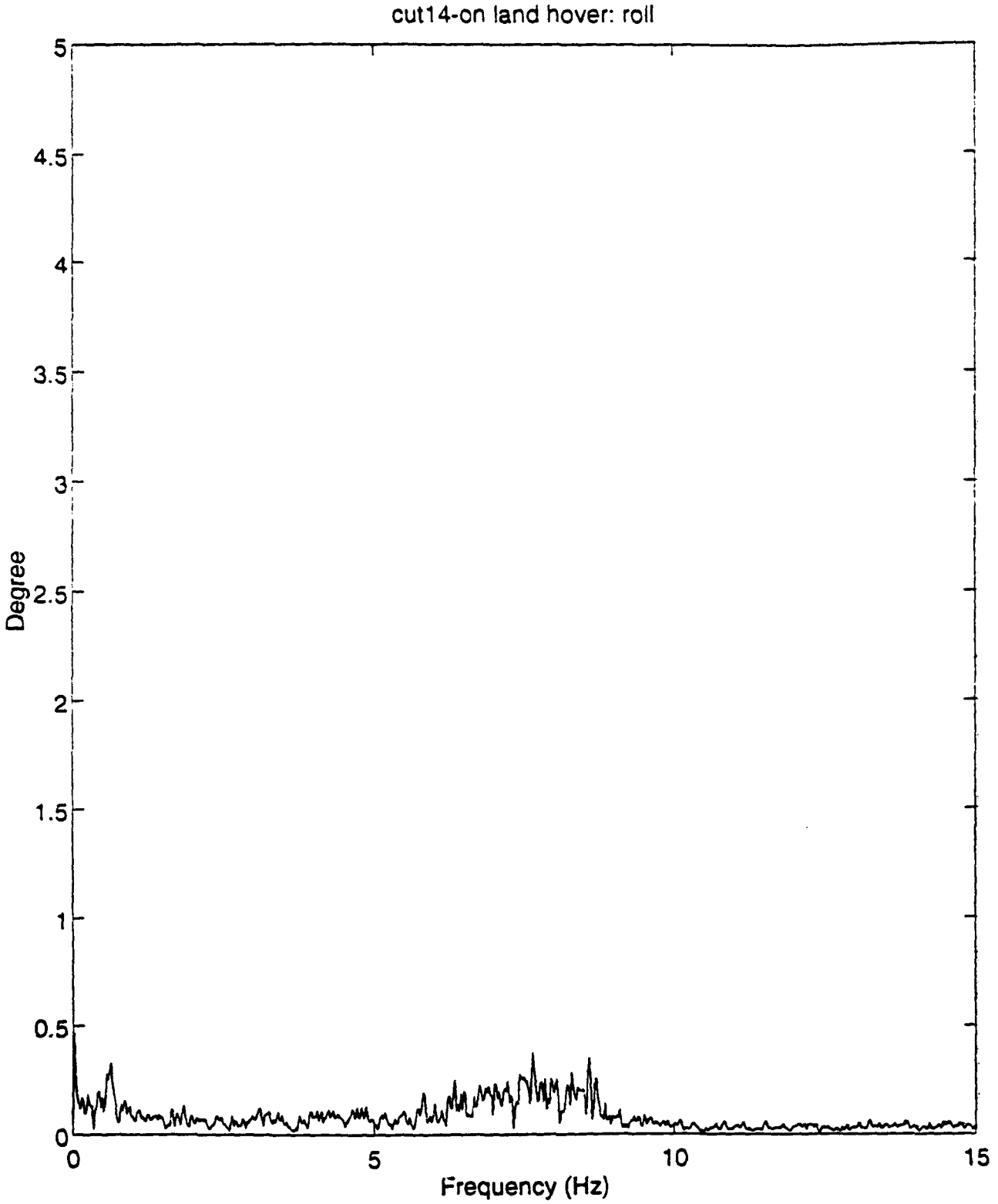
cut14-on land hover: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.0202 Degree
Standard deviation = 0.04972 Degree
The plot shows 1024 data points



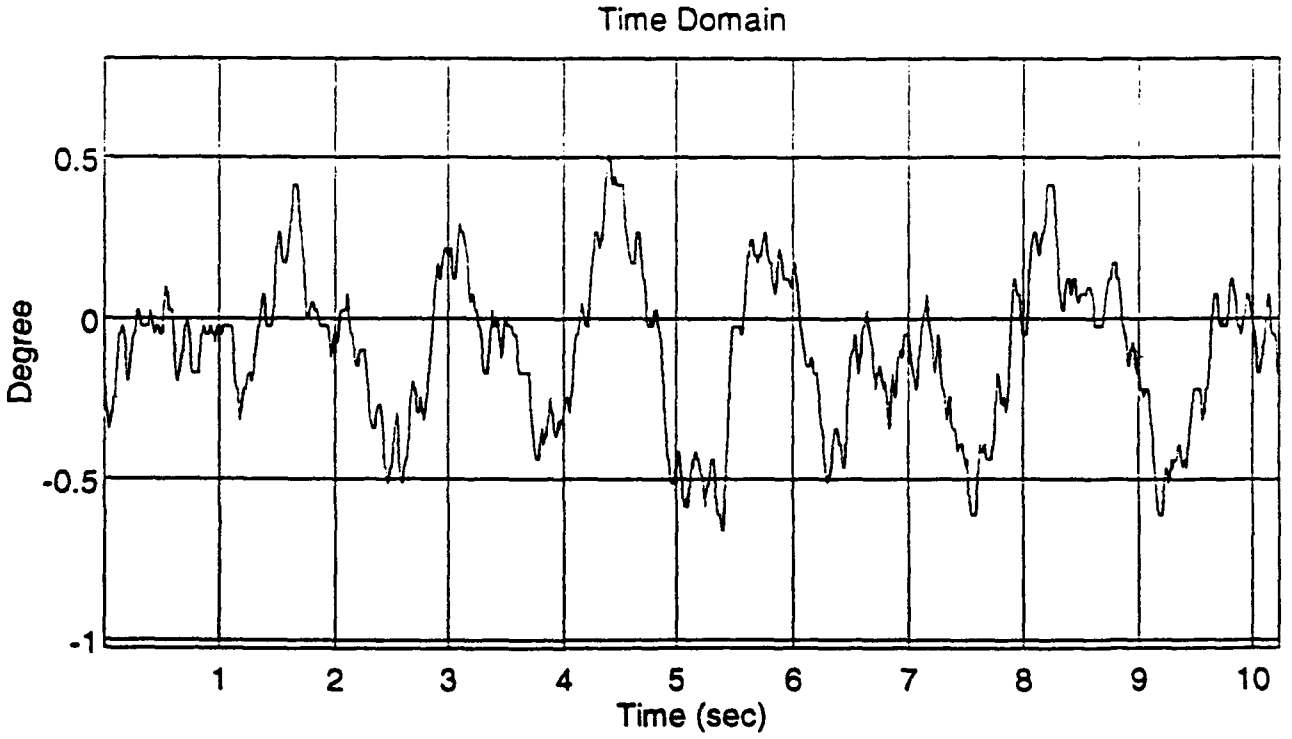

cut14-on land hover: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

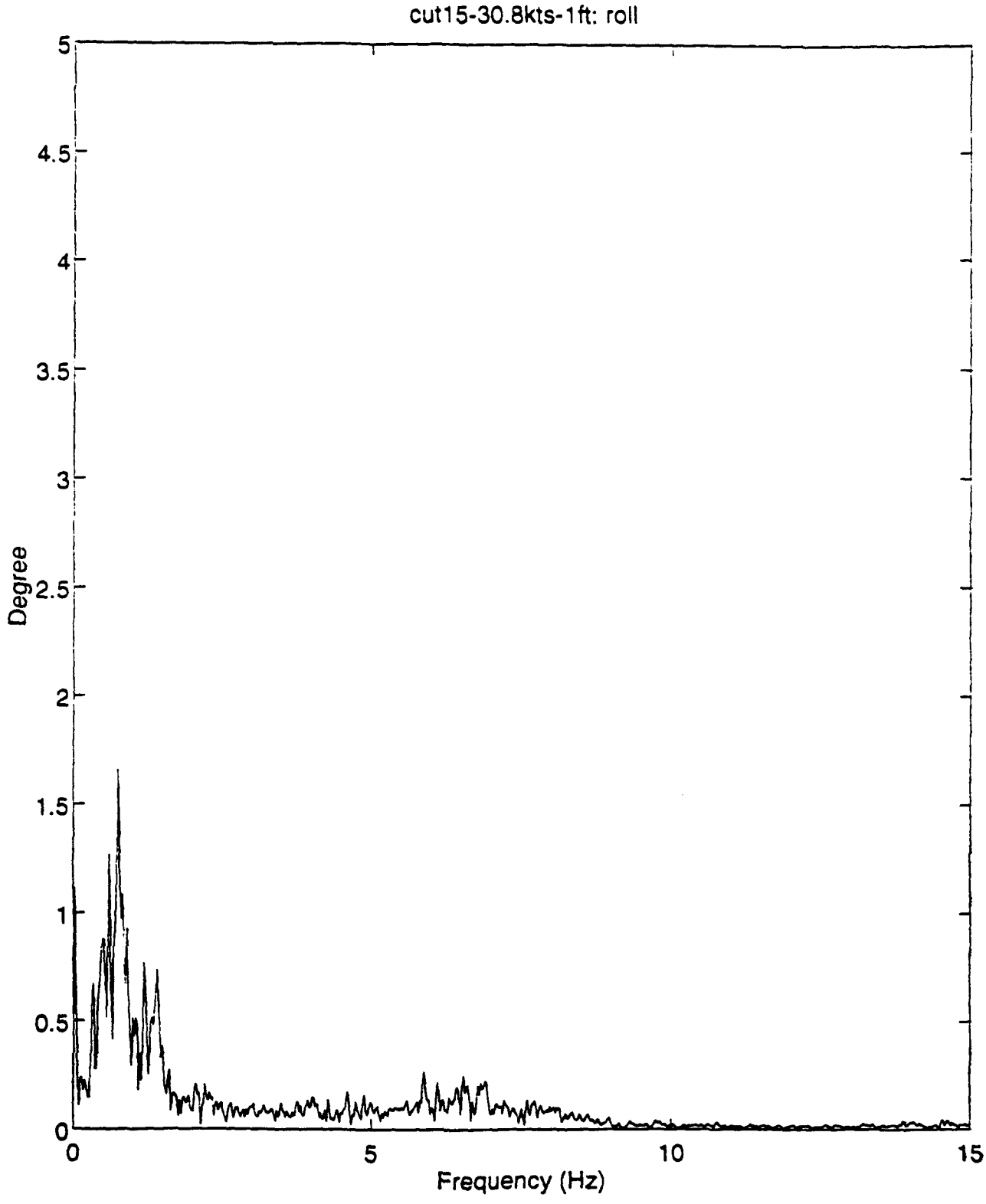
cut15-30.8kts-1ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.07879 Degree
Standard deviation = 0.232 Degree
The plot shows 1024 data points



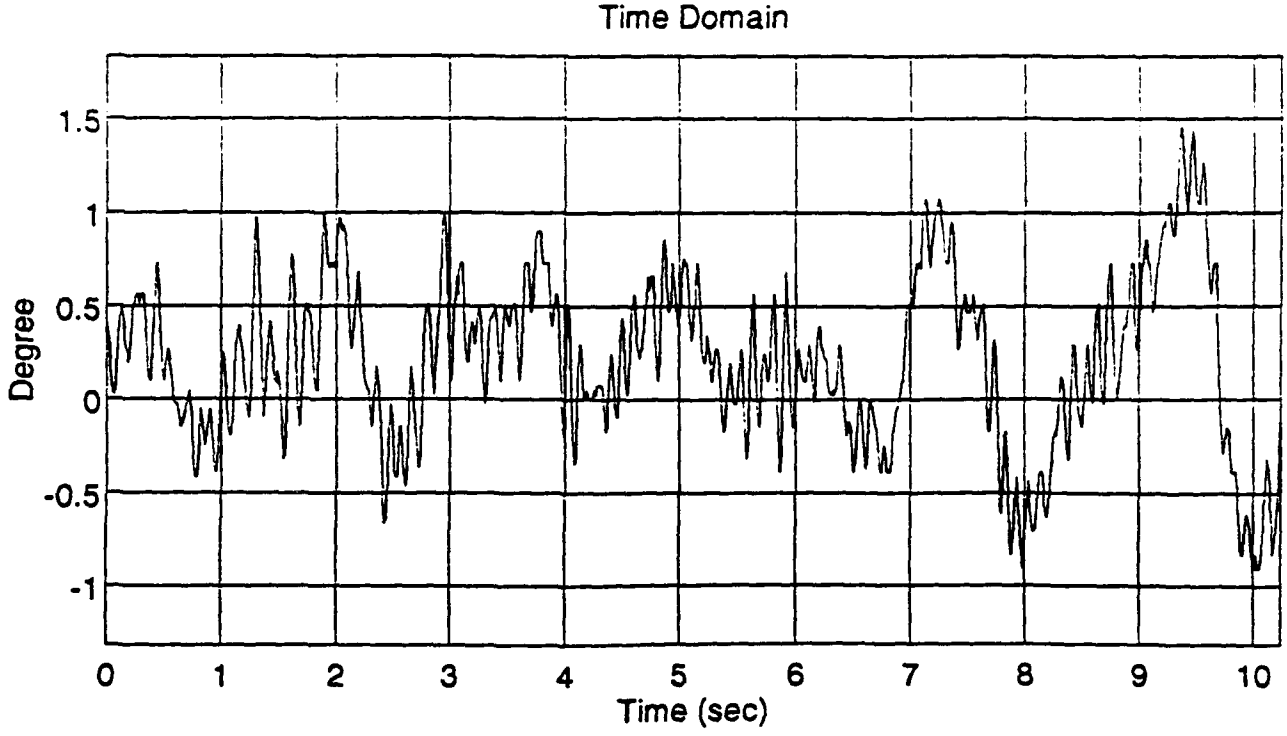

cut15-30.8kts-1ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

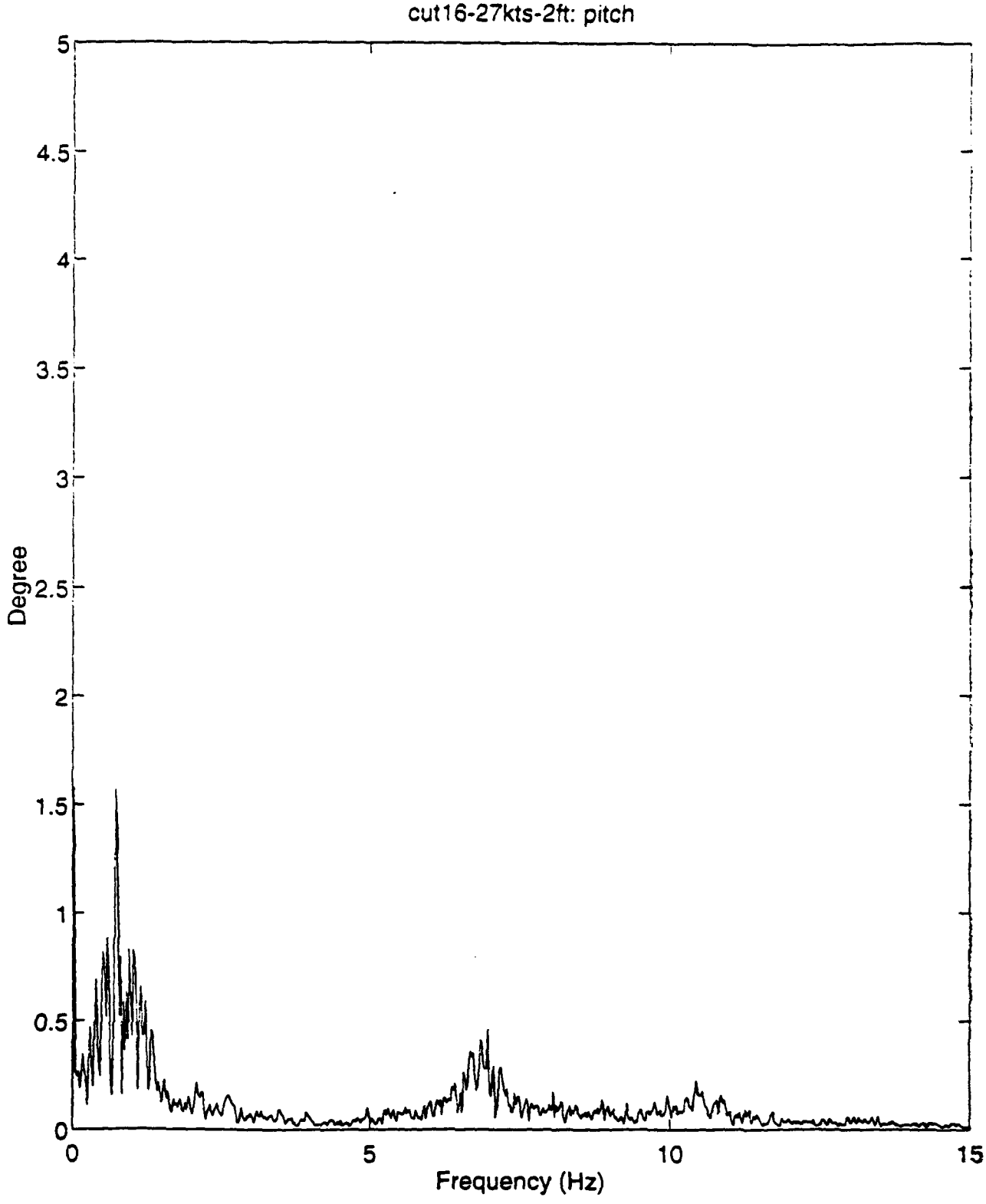
cut16-27kts-2ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.2249 Degree
Standard deviation = 0.4391 Degree
The plot shows 1024 data points



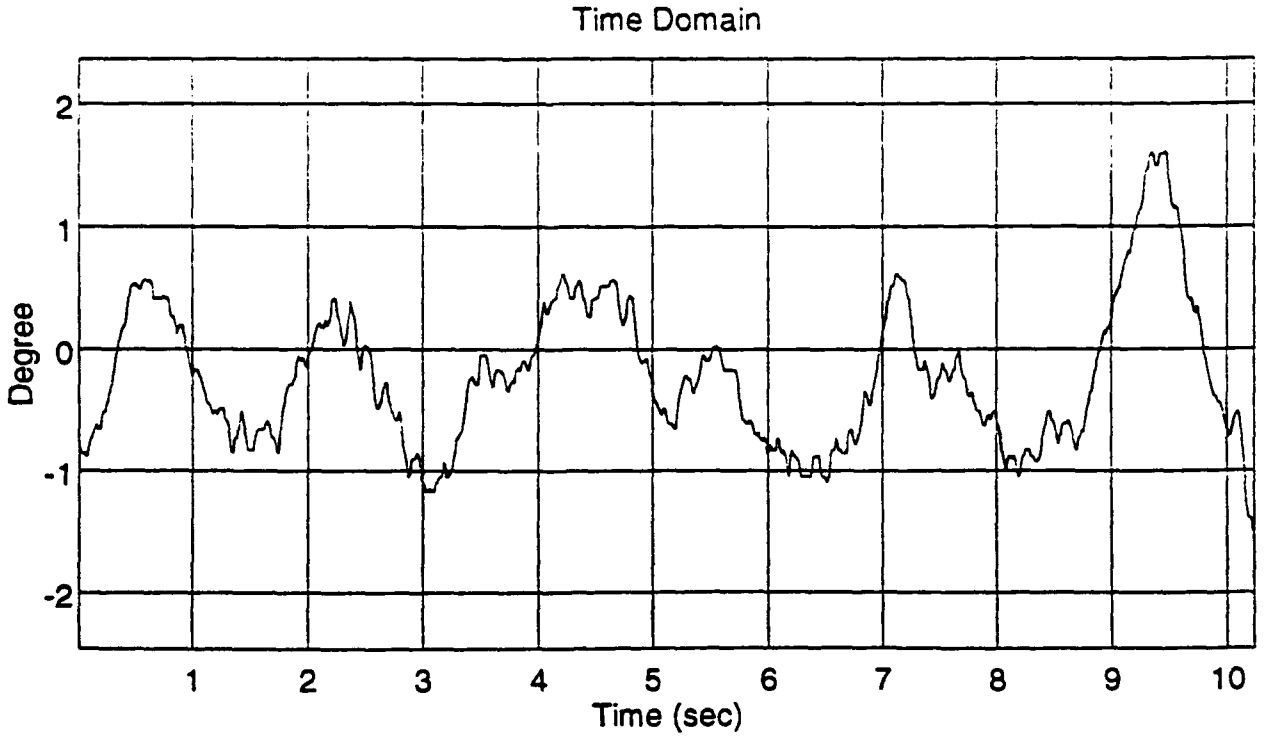

cut16-27kts-2ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

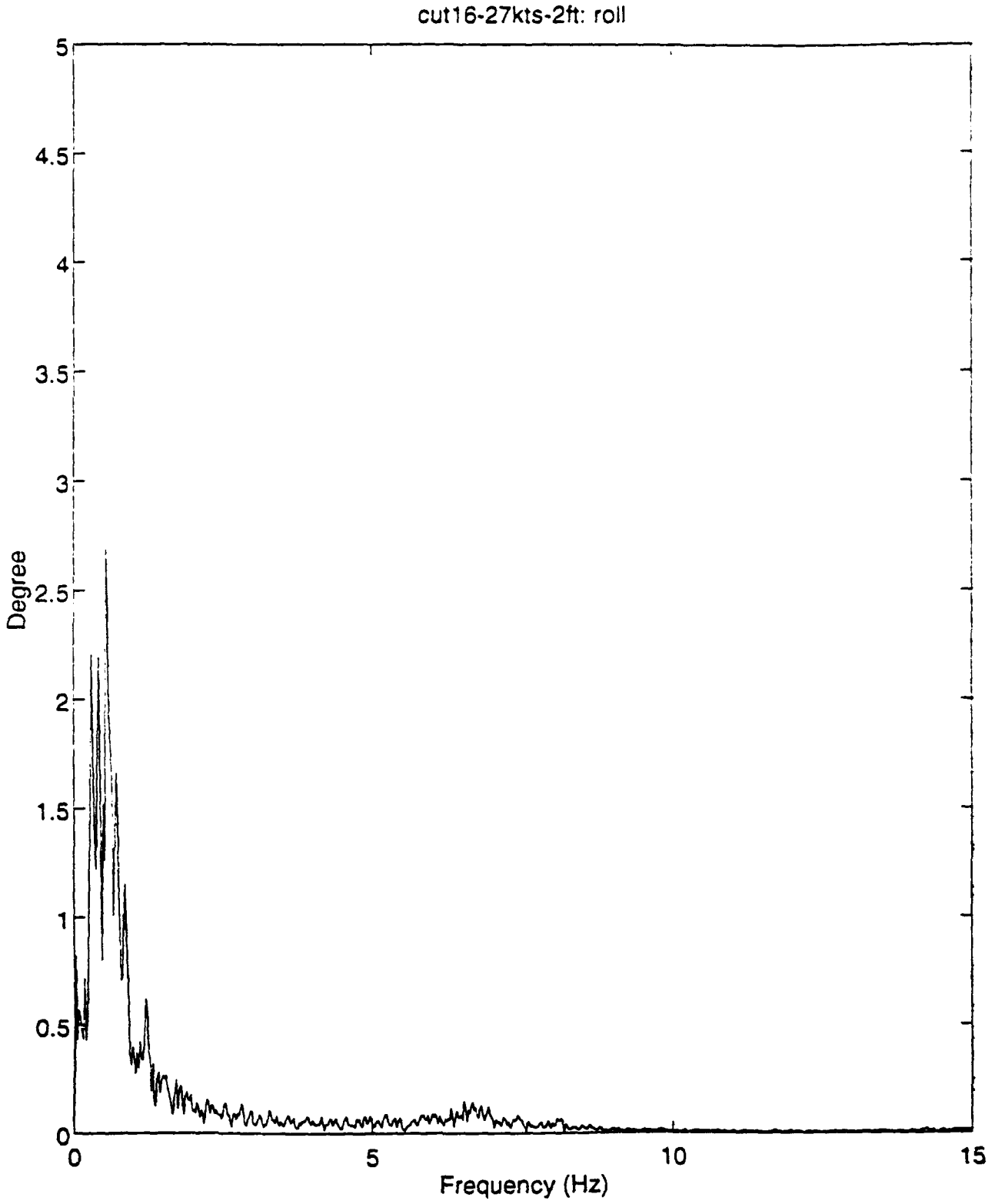
cut16-27kts-2ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.1441 Degree
Standard deviation = 0.657 Degree
The plot shows 1024 data points



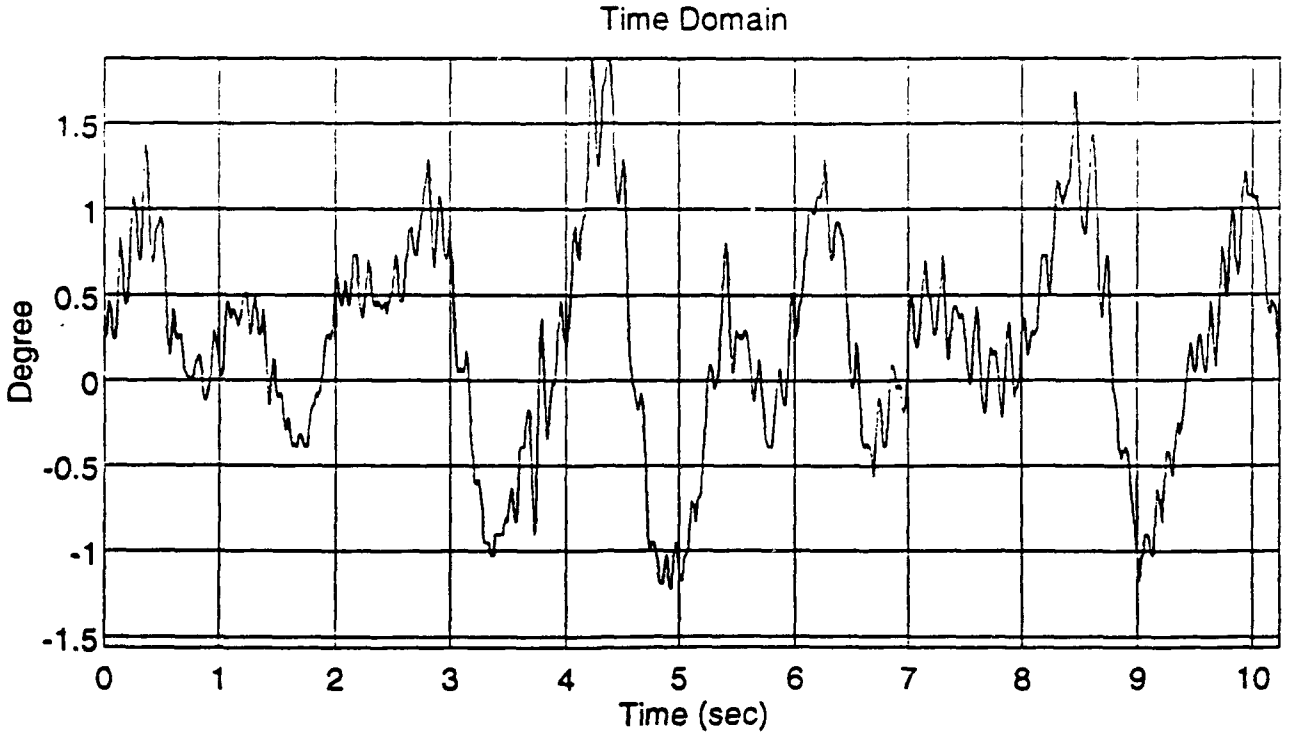

cut16-27kts-2ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

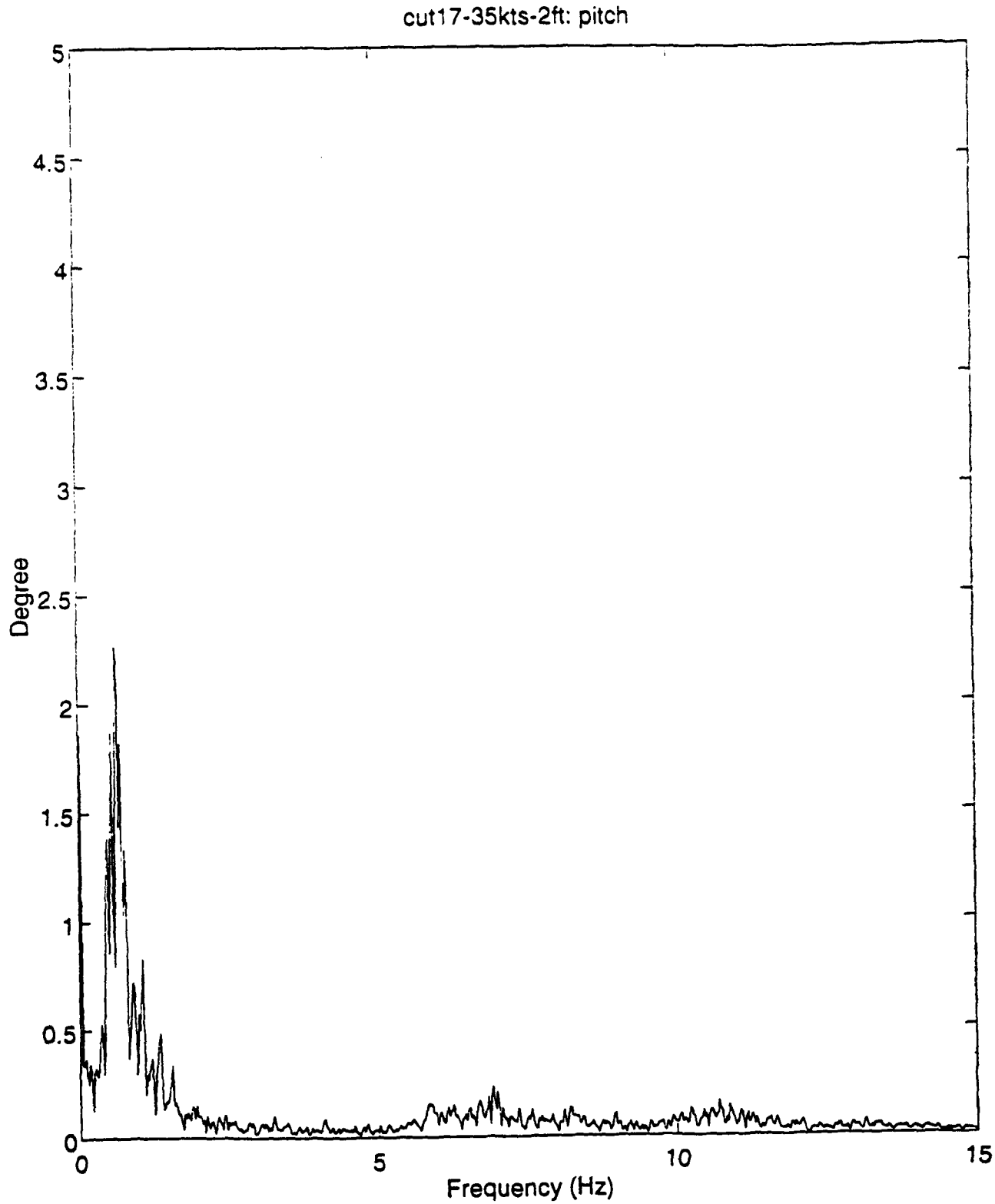
cut17-35kts-2ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.2322 Degree
Standard deviation = 0.5317 Degree
The plot shows 1024 data points



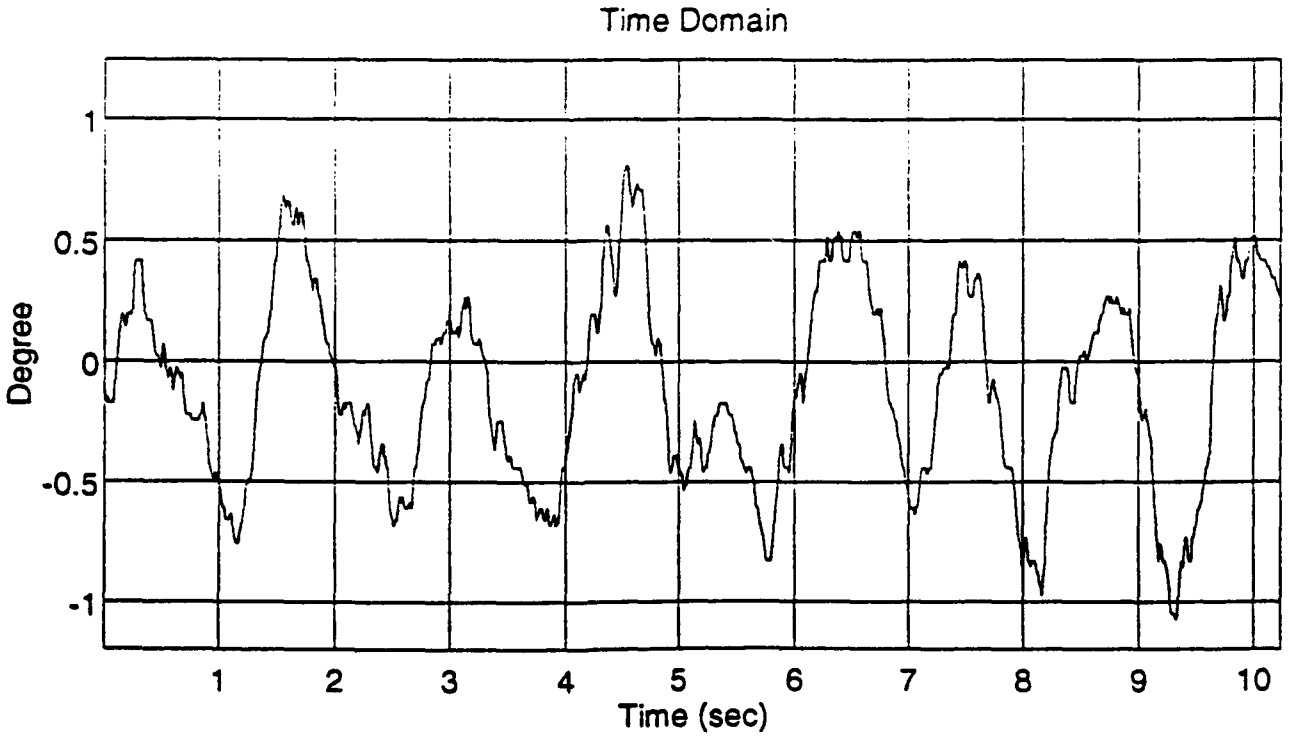

cut17-35kts-2ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

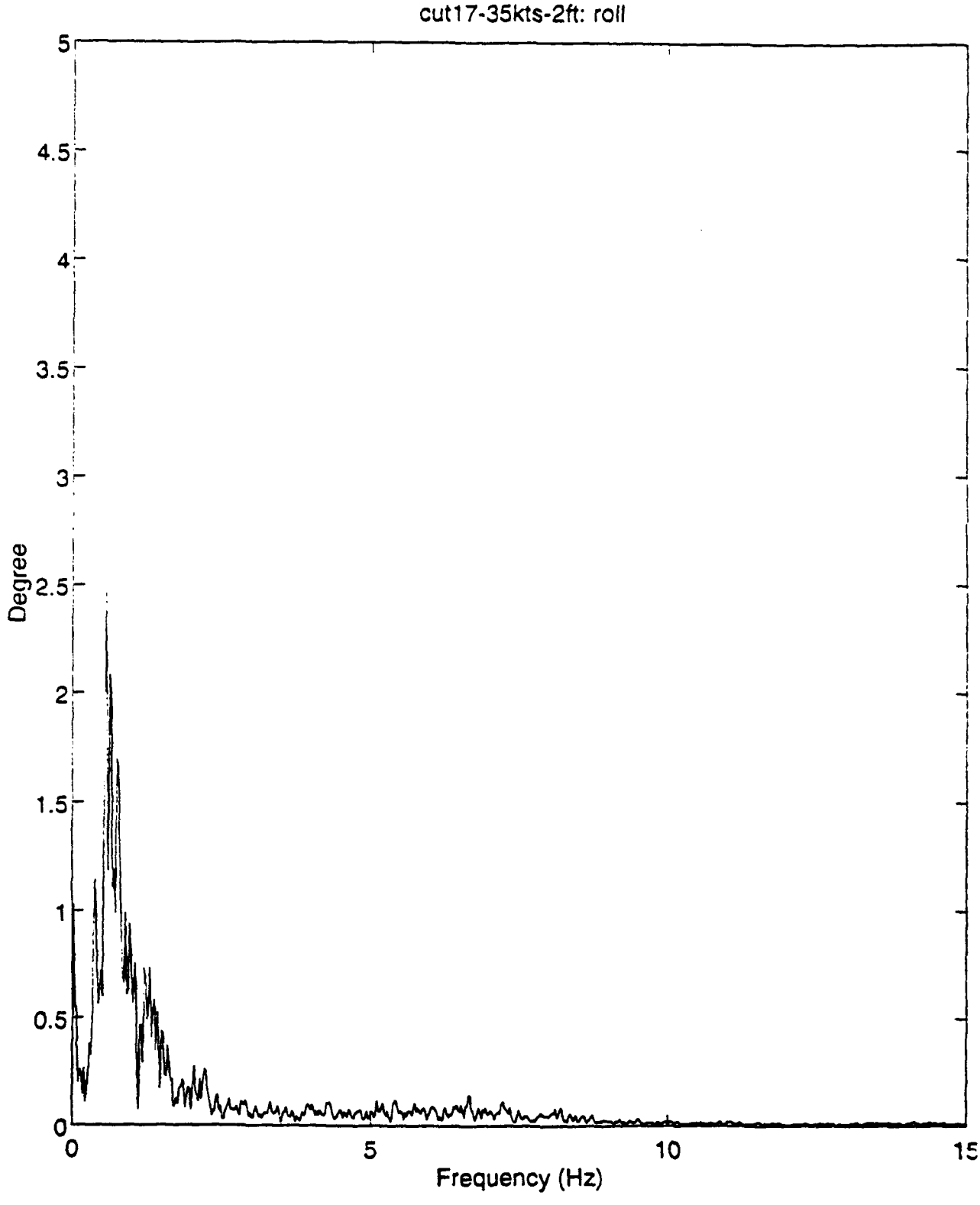
cut17-35kts-2ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.05963 Degree
Standard deviation = 0.3872 Degree
The plot shows 1024 data points



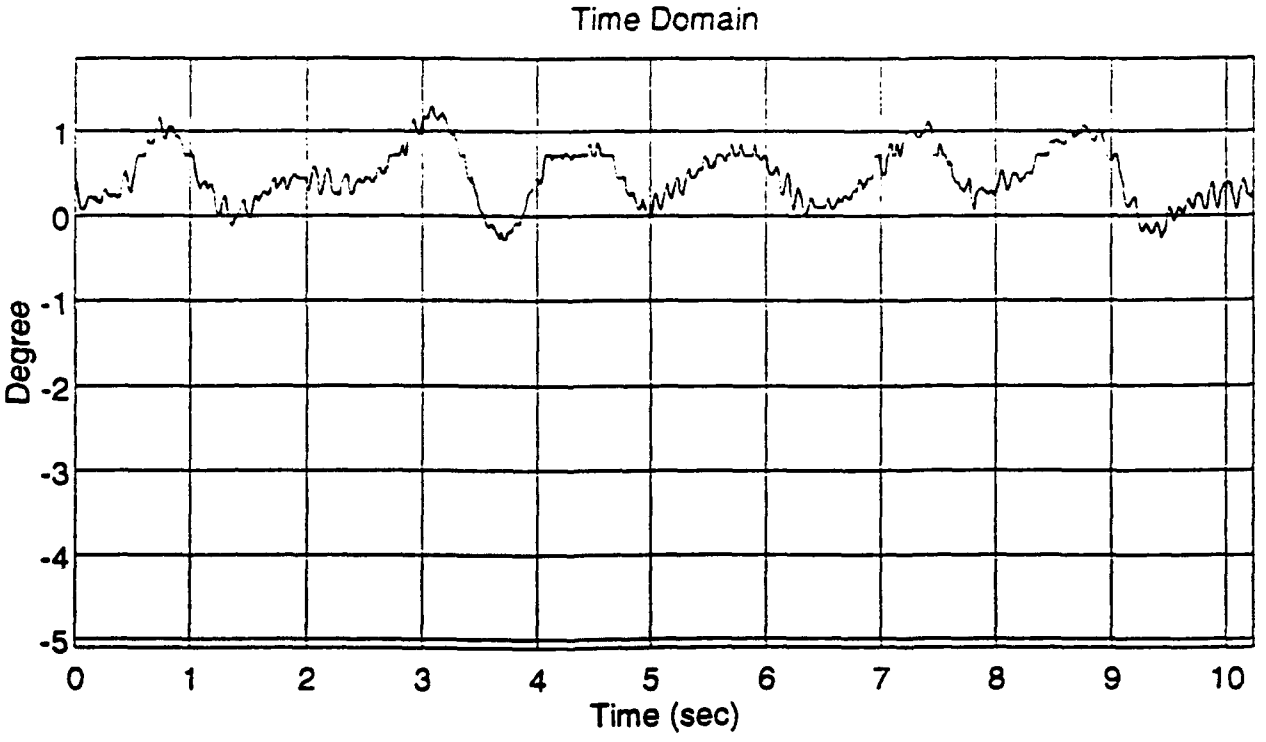

cut17-35kts-2ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

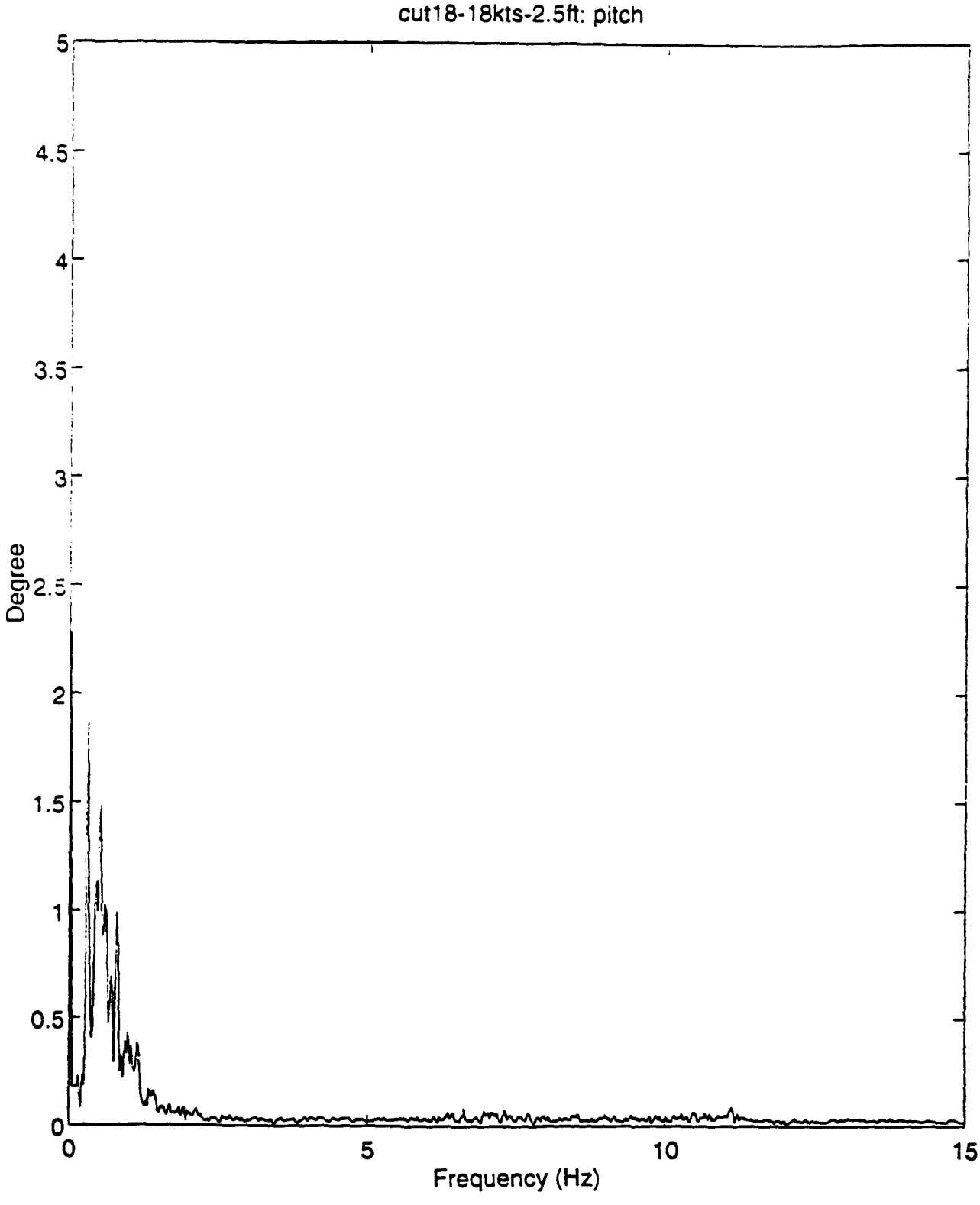
cut18-18kts-2.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.4381 Degree
Standard deviation = 0.5344 Degree
The plot shows 1024 data points



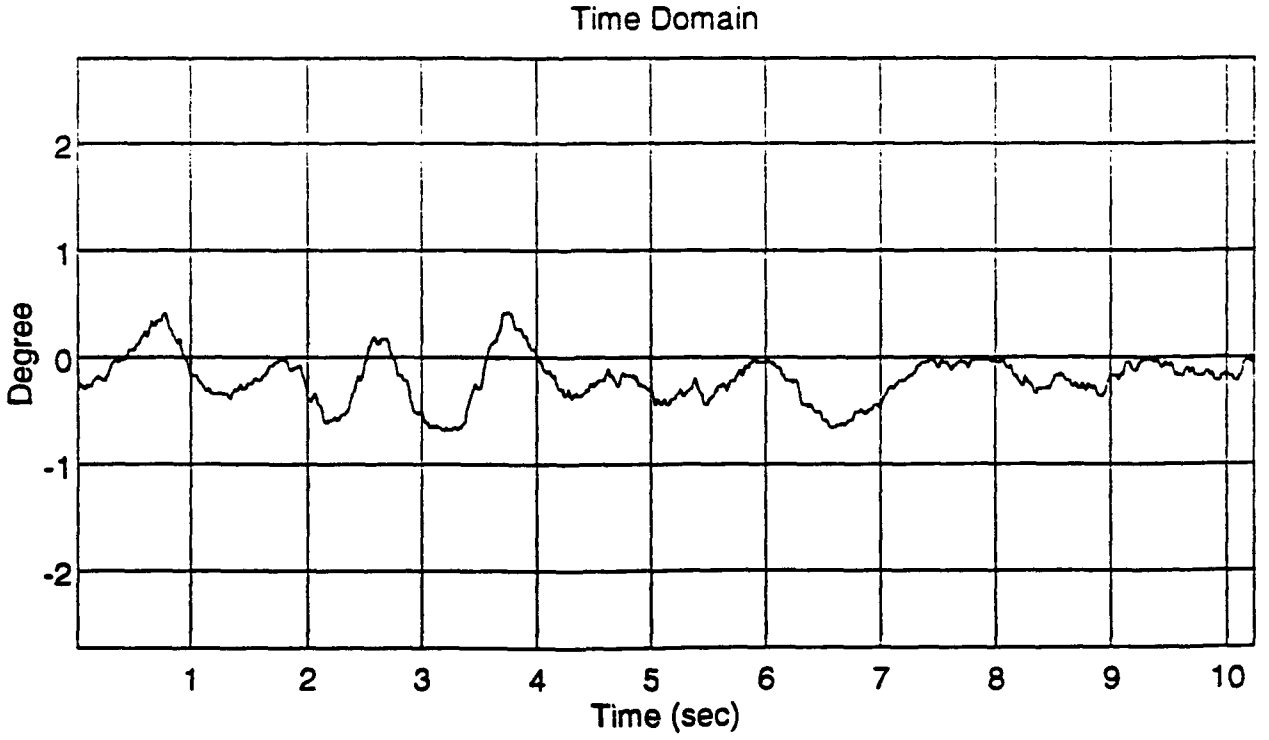

cut18-18kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

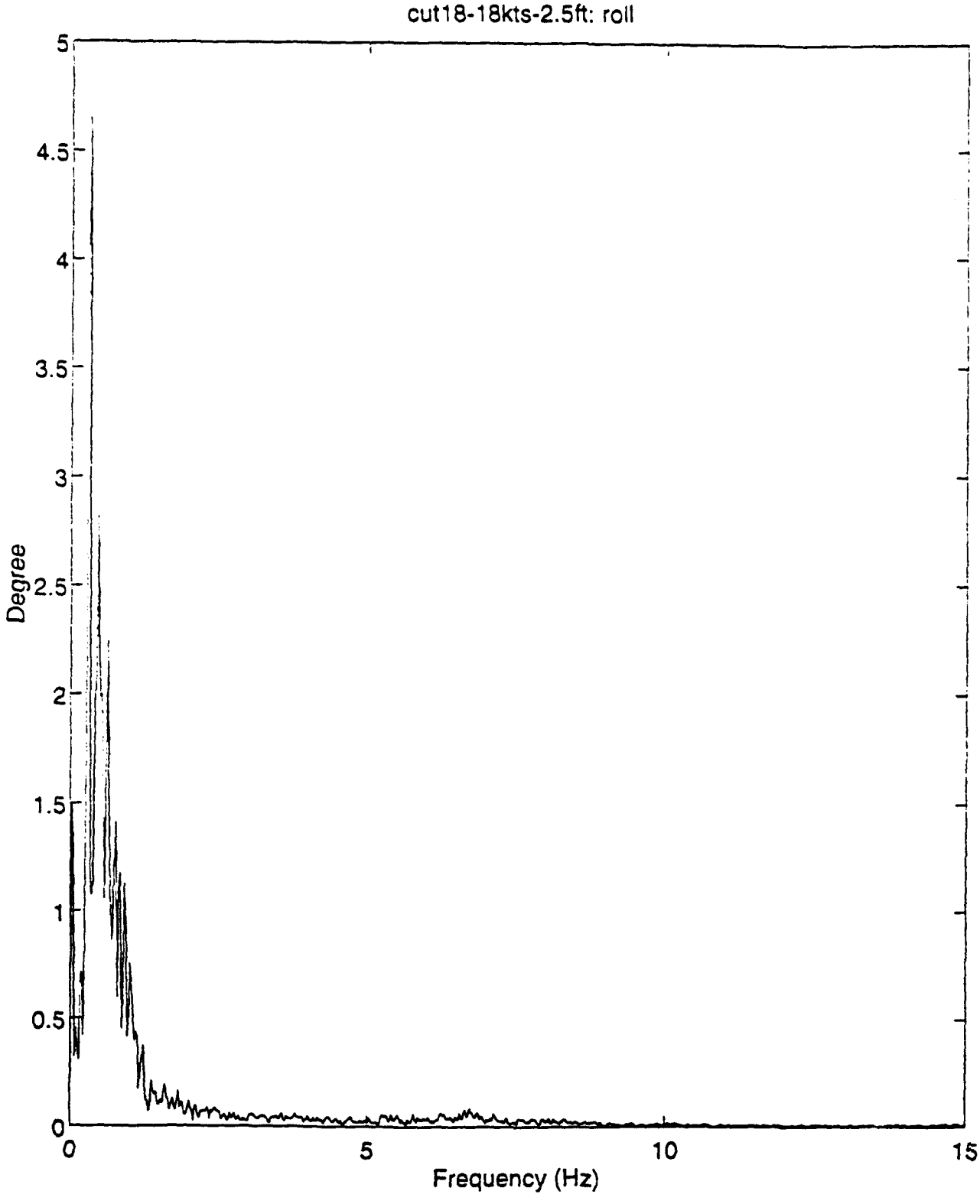
cut18-18kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.08459 Degree
Standard deviation = 0.5632 Degree
The plot shows 1024 data points



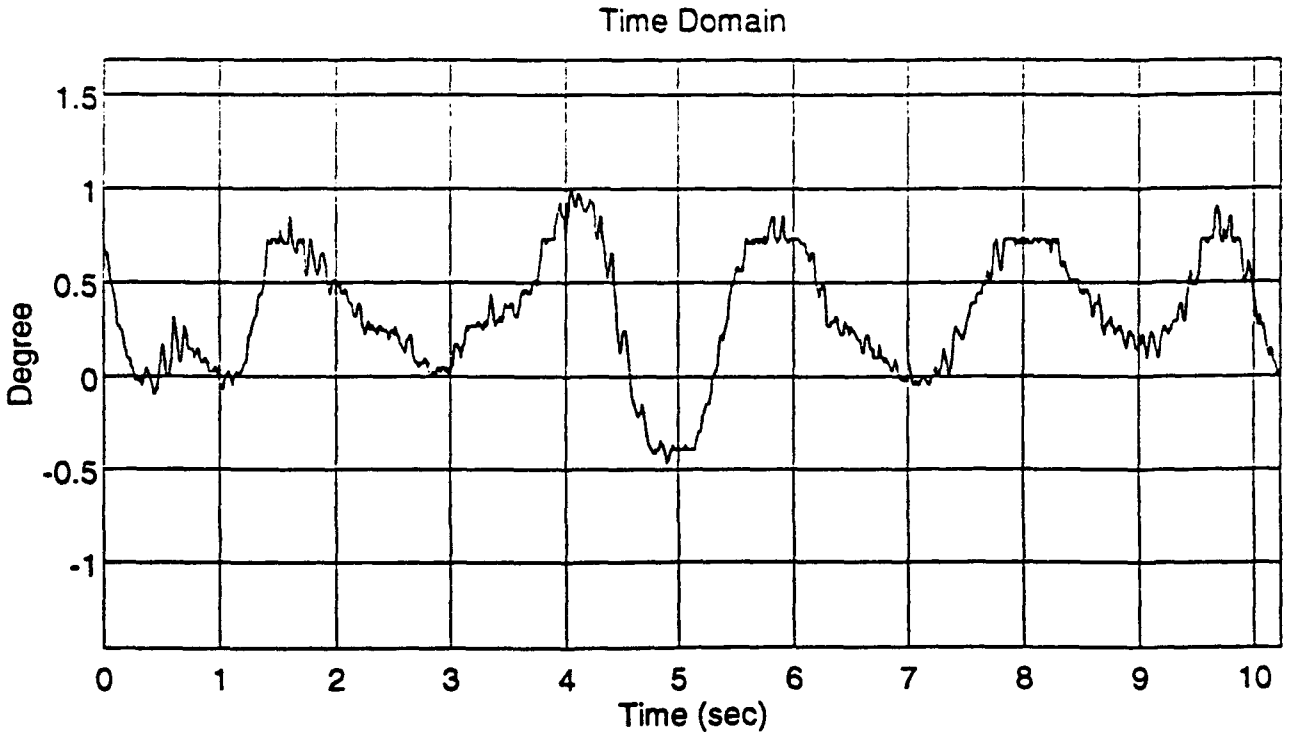

cut18-18kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

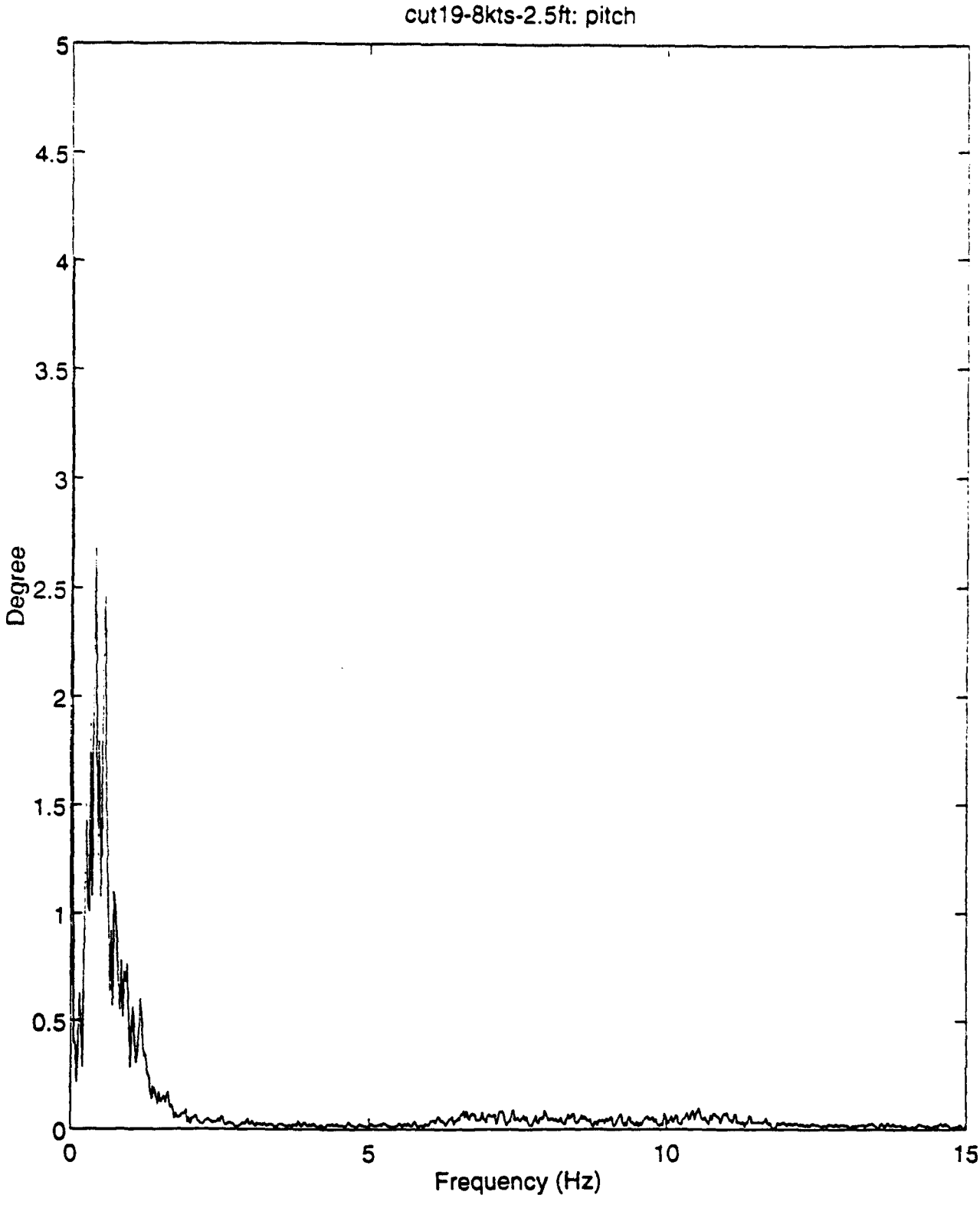
cut19-8kts-2.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.3557 Degree
Standard deviation = 0.4101 Degree
The plot shows 1024 data points



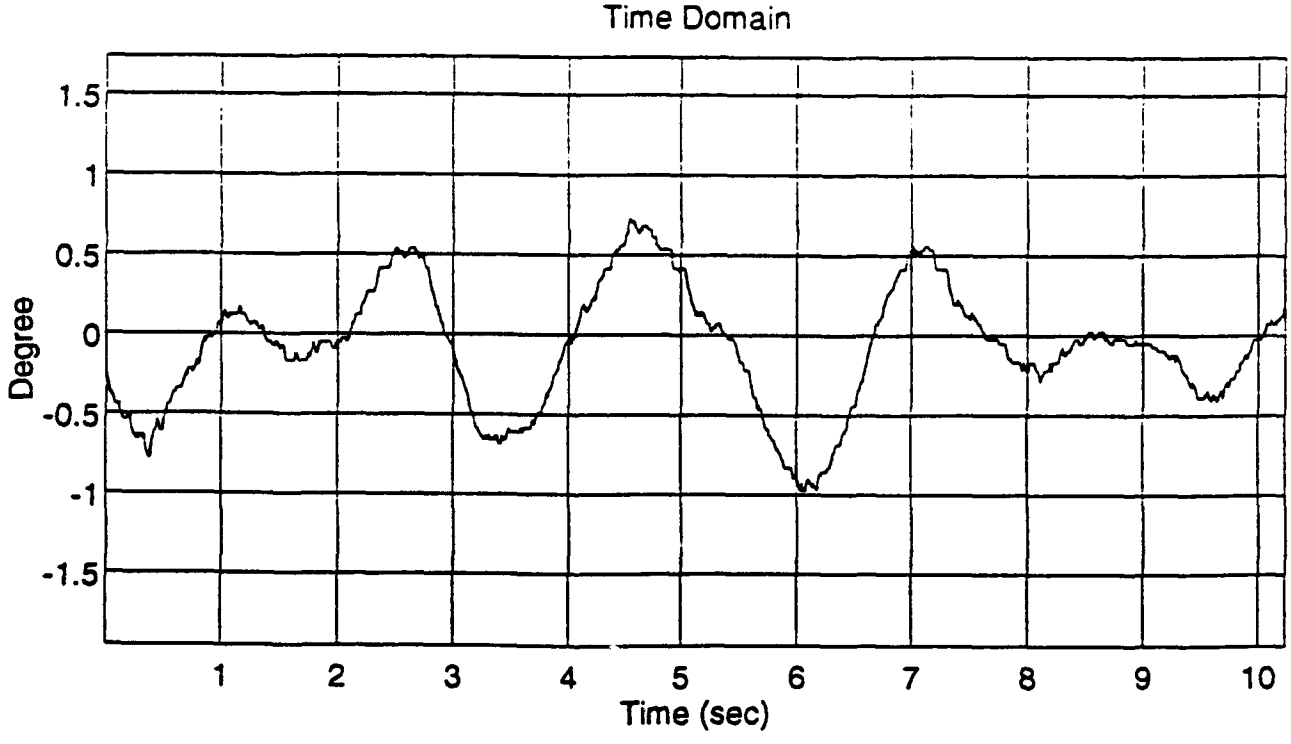

cut19-8kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

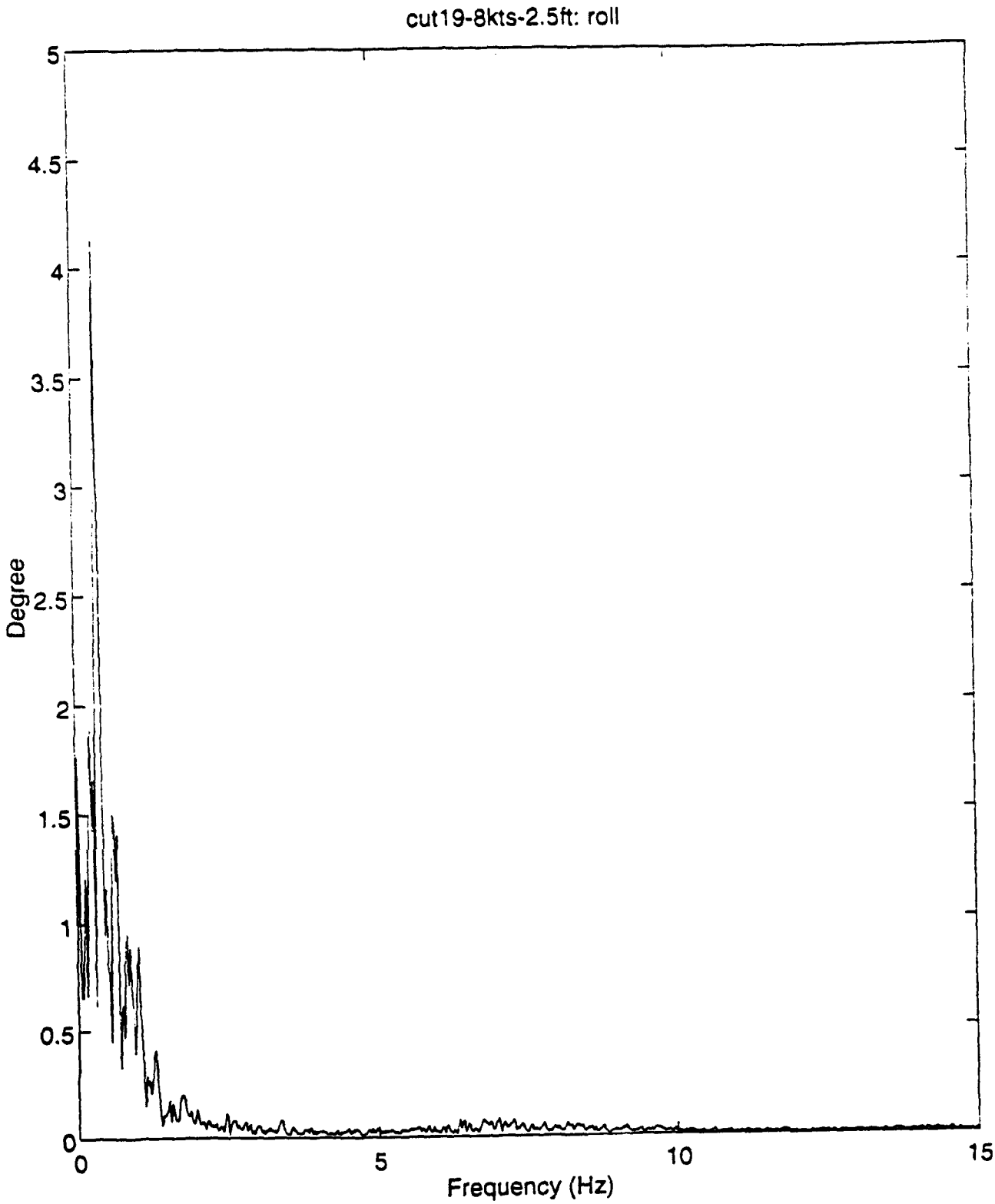
cut19-8kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.09997 Degree
Standard deviation = 0.4634 Degree
The plot shows 1024 data points



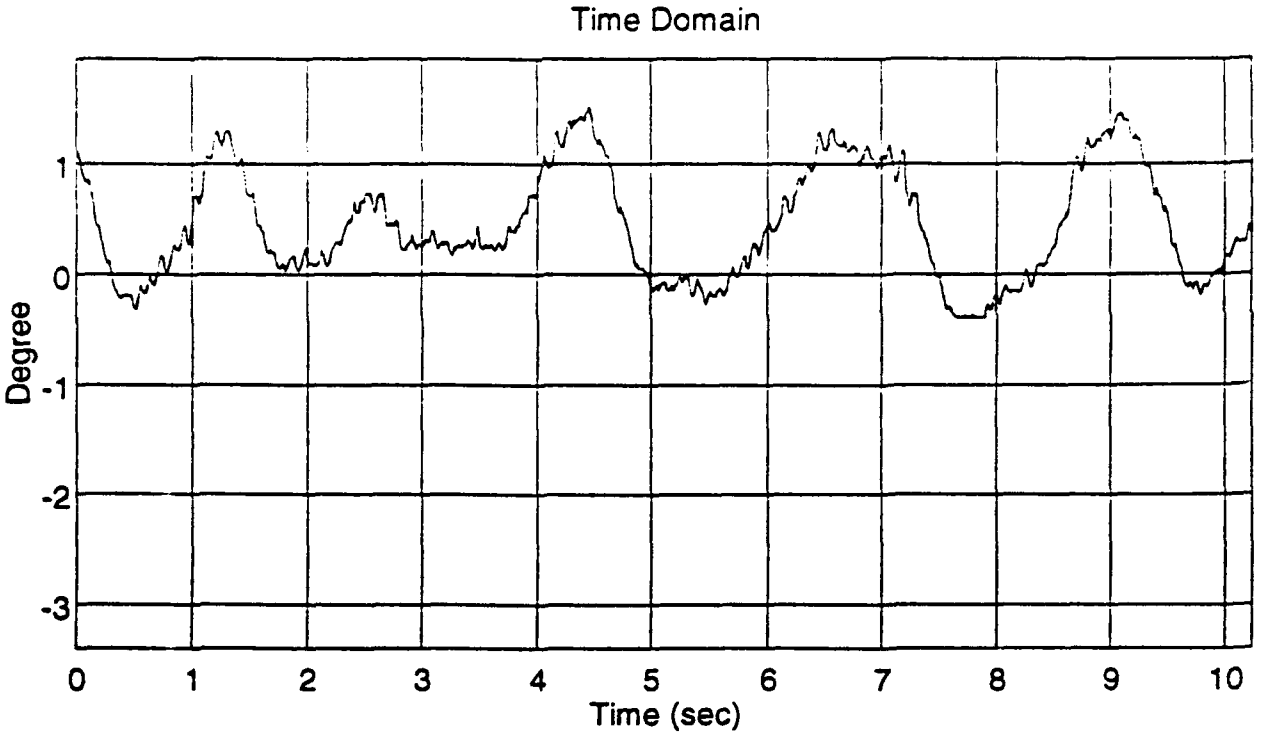

cut19-8kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

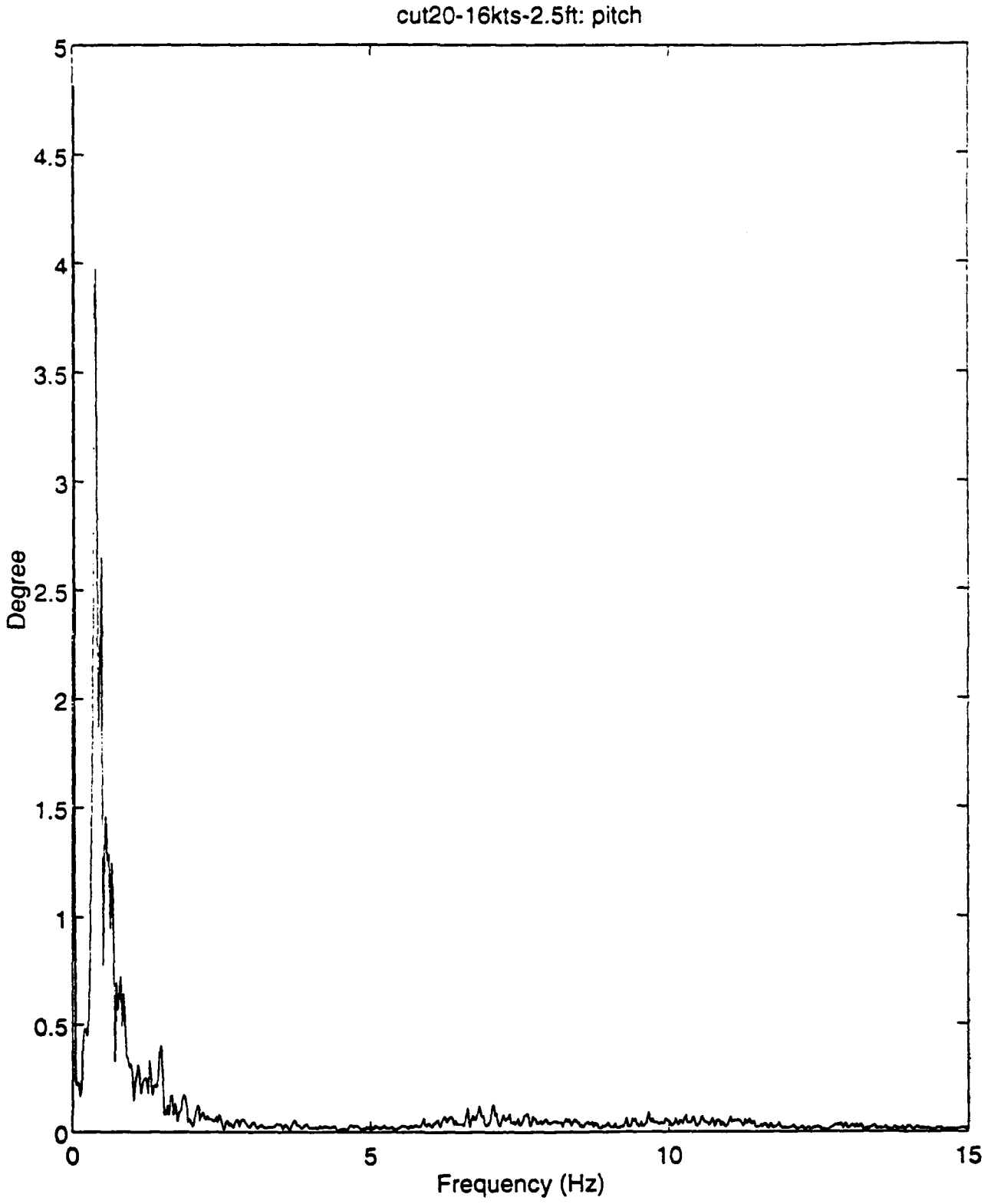
cut20-16kts-2.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.4596 Degree
Standard deviation = 0.4844 Degree
The plot shows 1024 data points



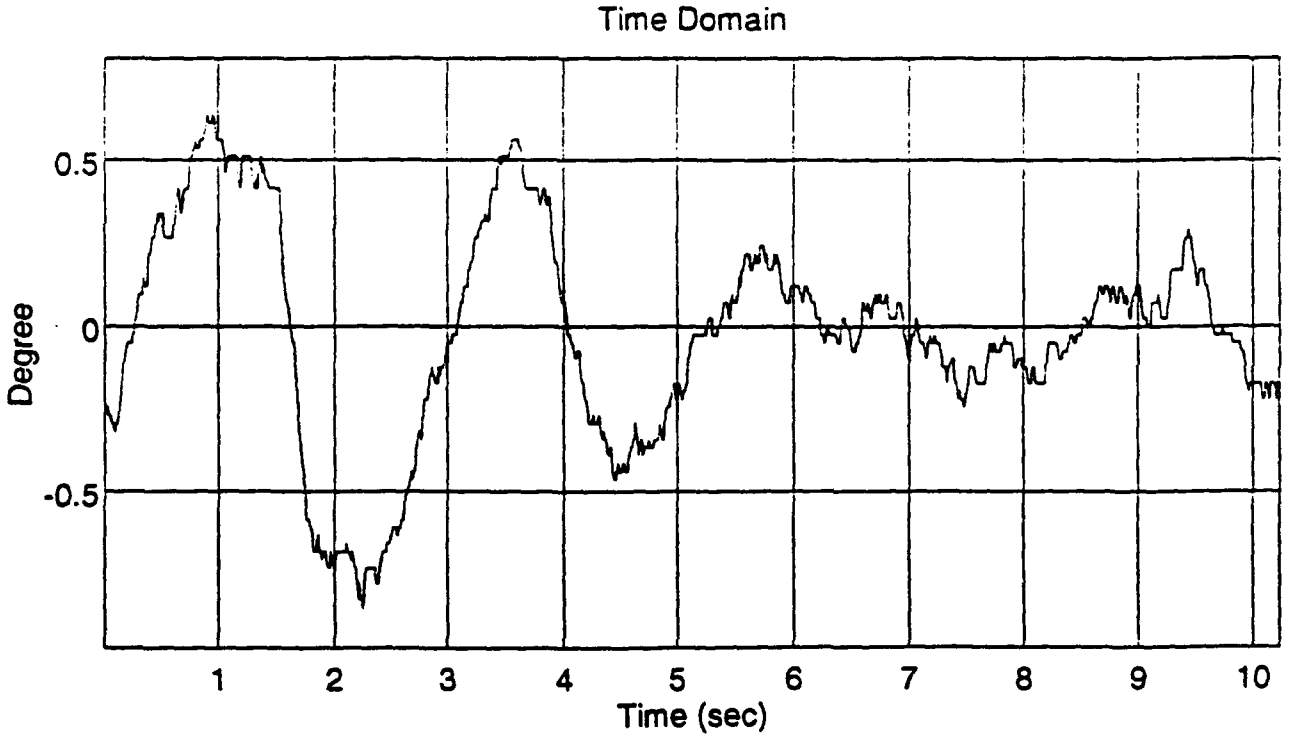

cut20-16kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

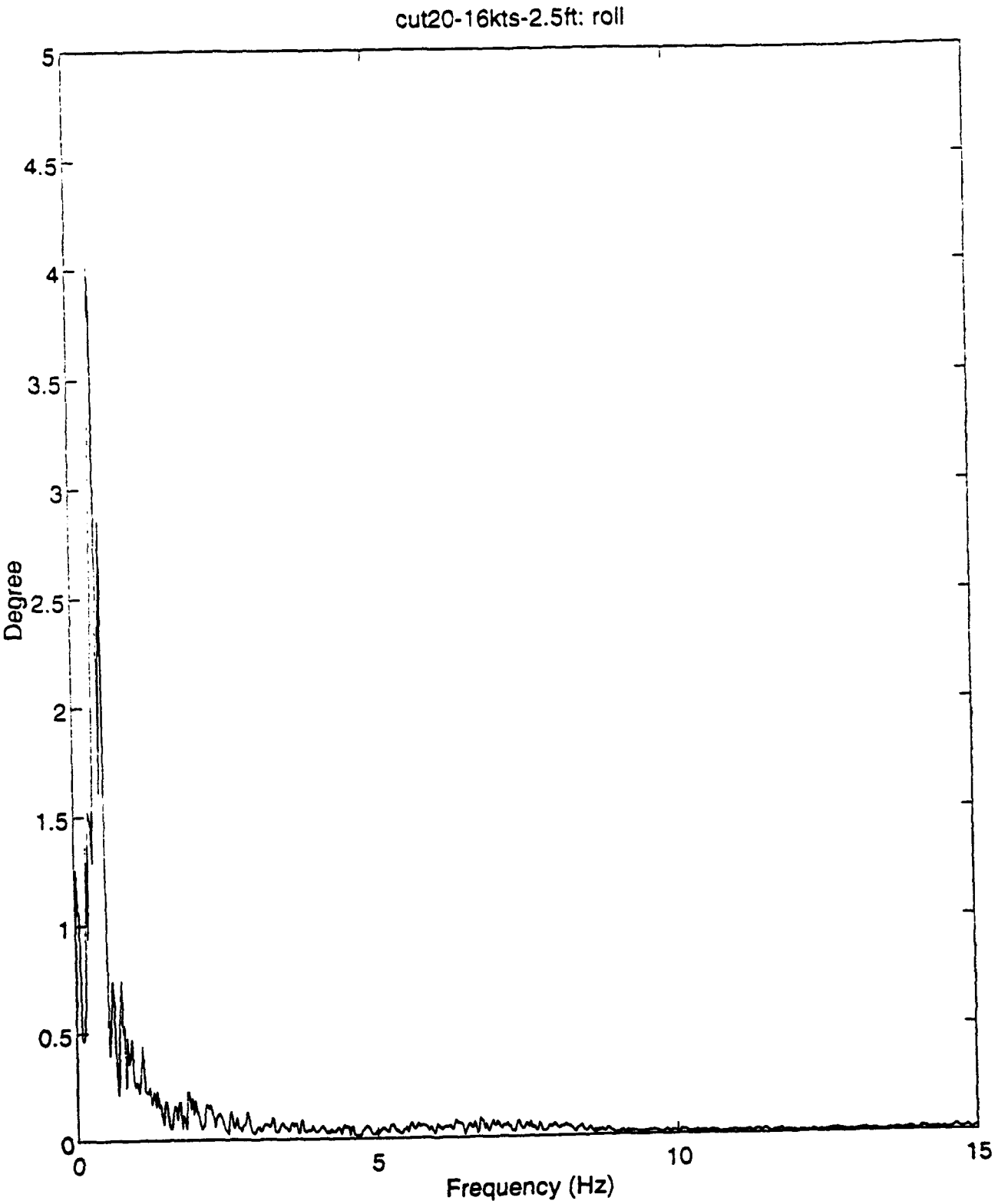
cut20-16kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.06888 Degree
Standard deviation = 0.3014 Degree
The plot shows 1024 data points




cut20-16kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut21-25kts-2.5ft: pitch

Data sampling frequency = 100 Hz

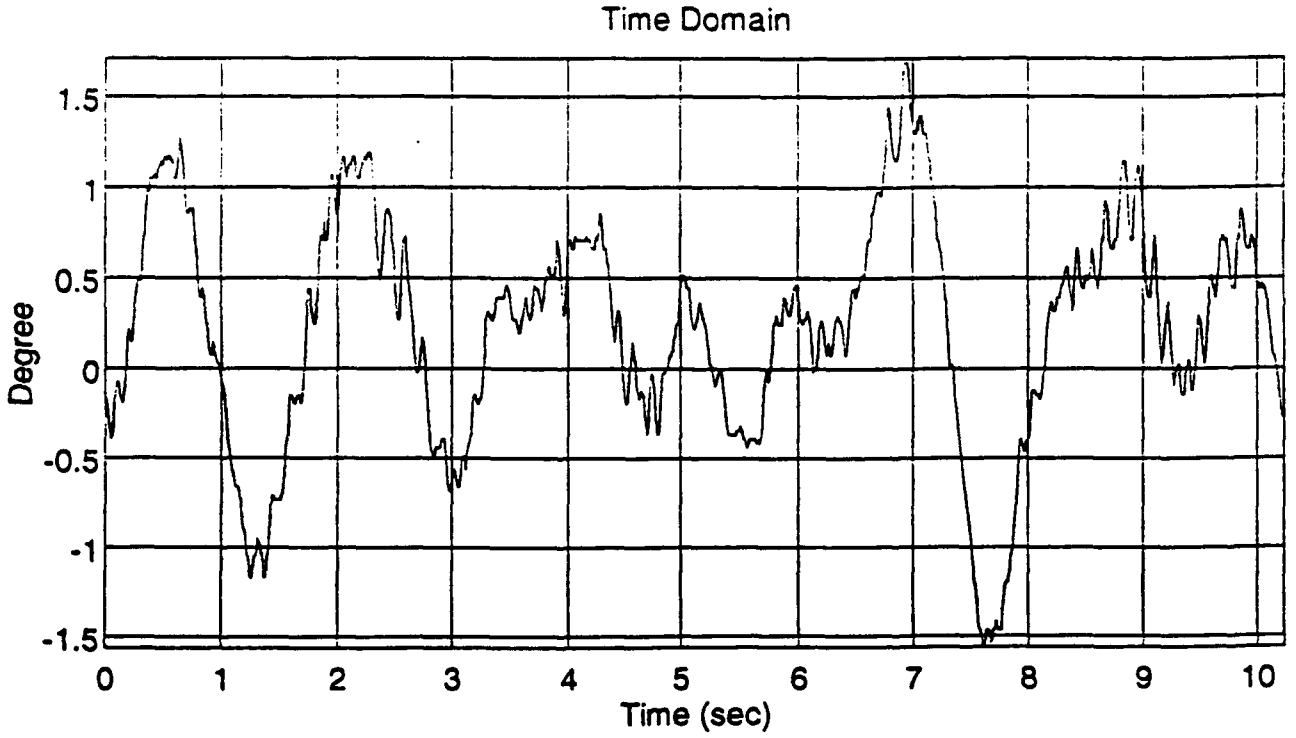
Total number of sampling data points = 8192

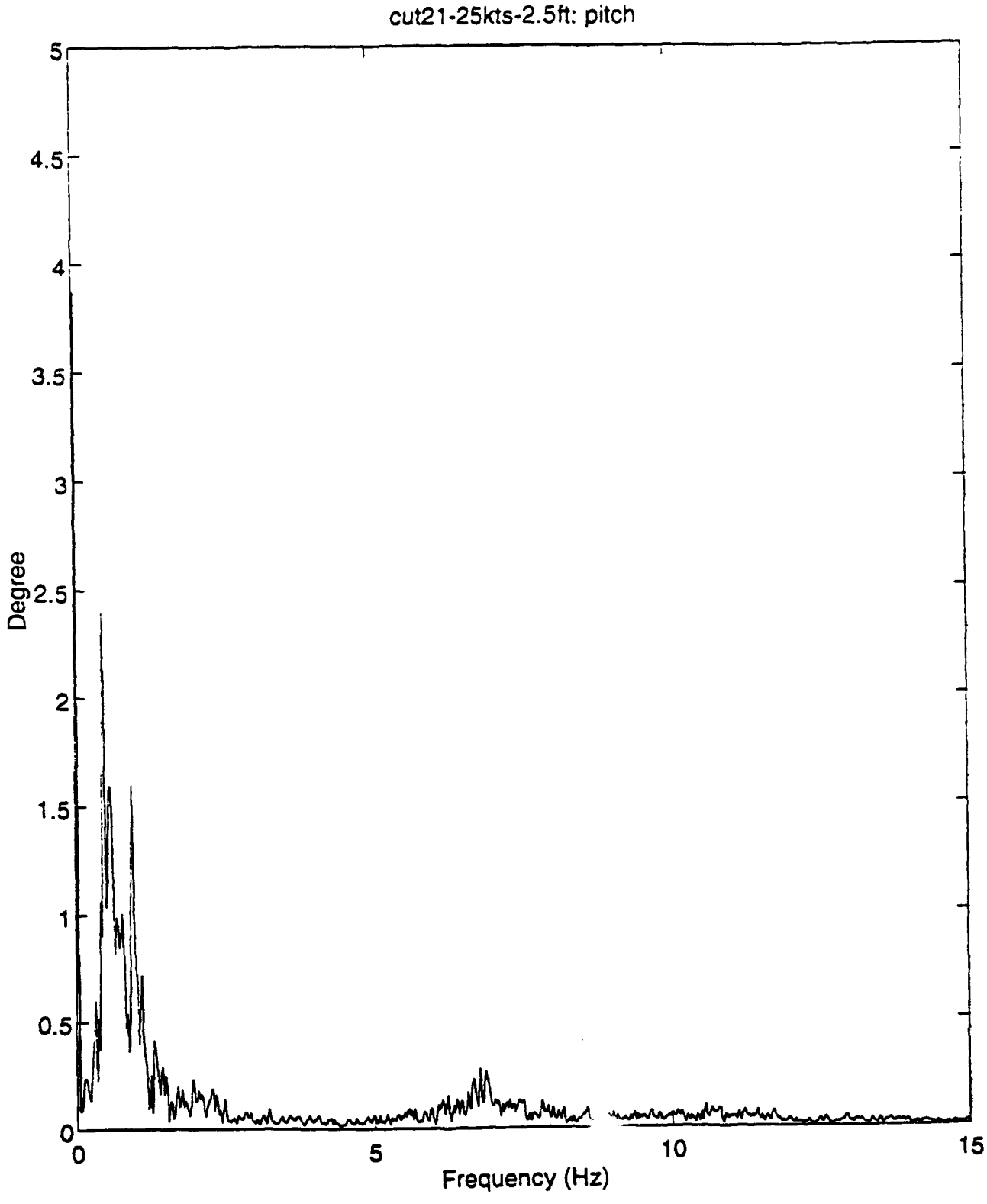
* The time domain

Mean value = 0.4181 Degree

Standard deviation = 0.4755 Degree

The plot shows 1024 data points



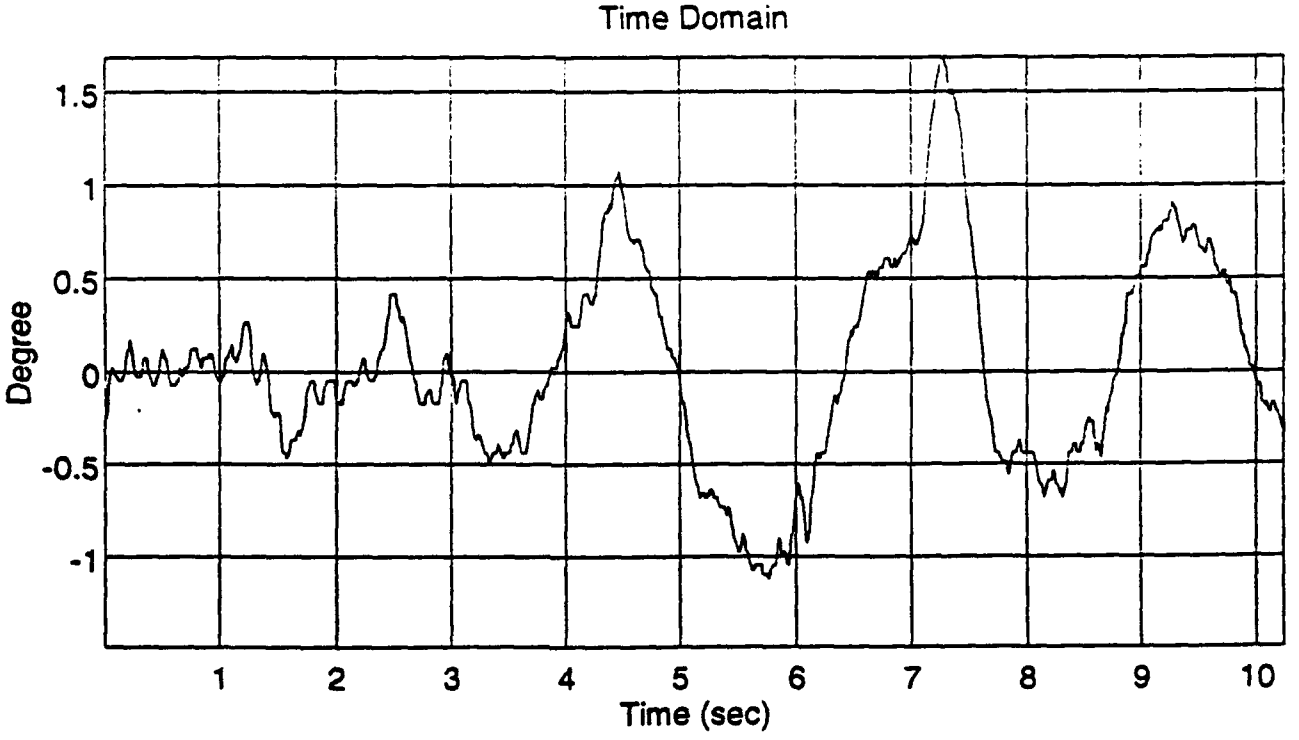

cut21-25kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

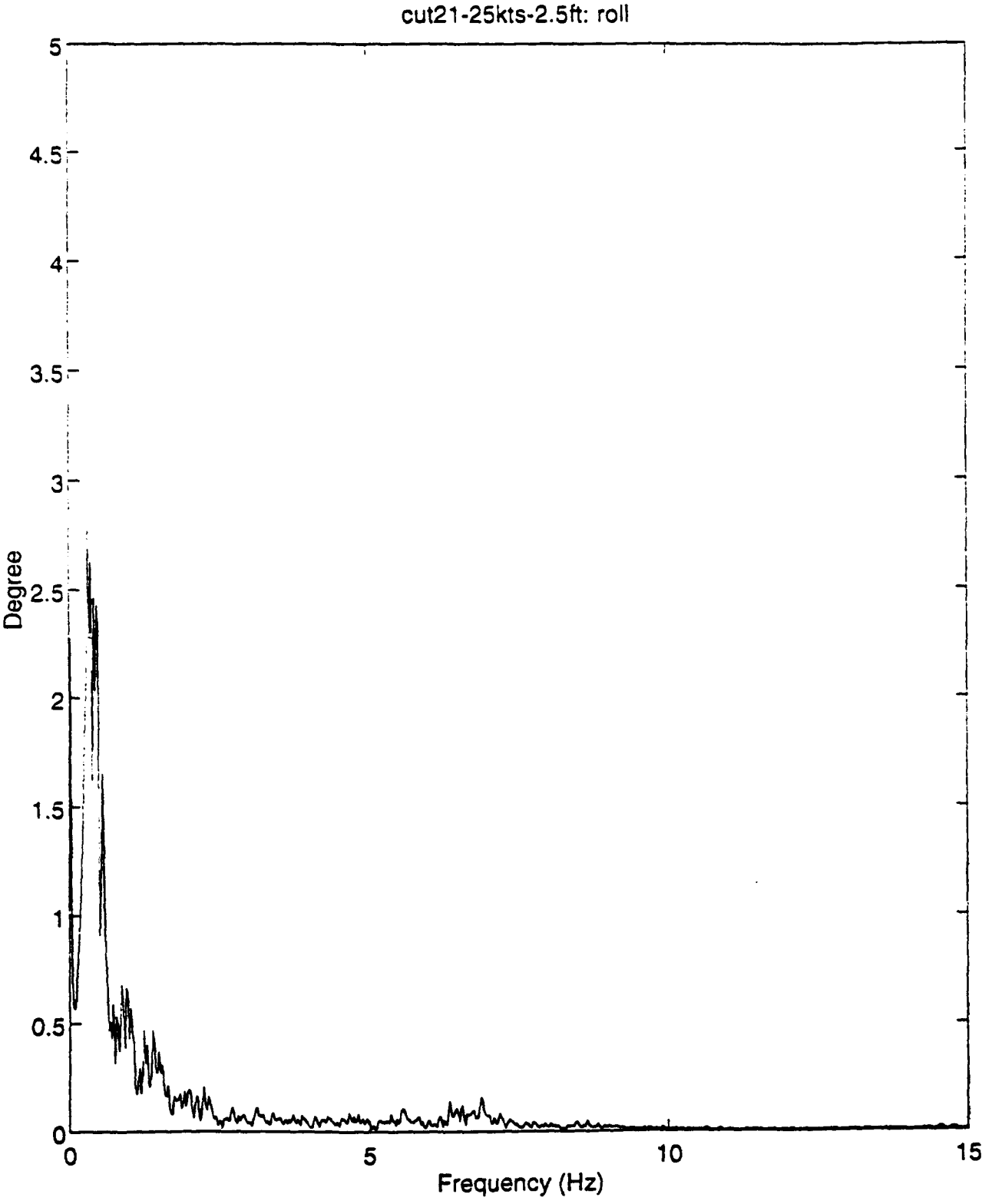
cut21-25kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.1043 Degree
Standard deviation = 0.4681 Degree
The plot shows 1024 data points



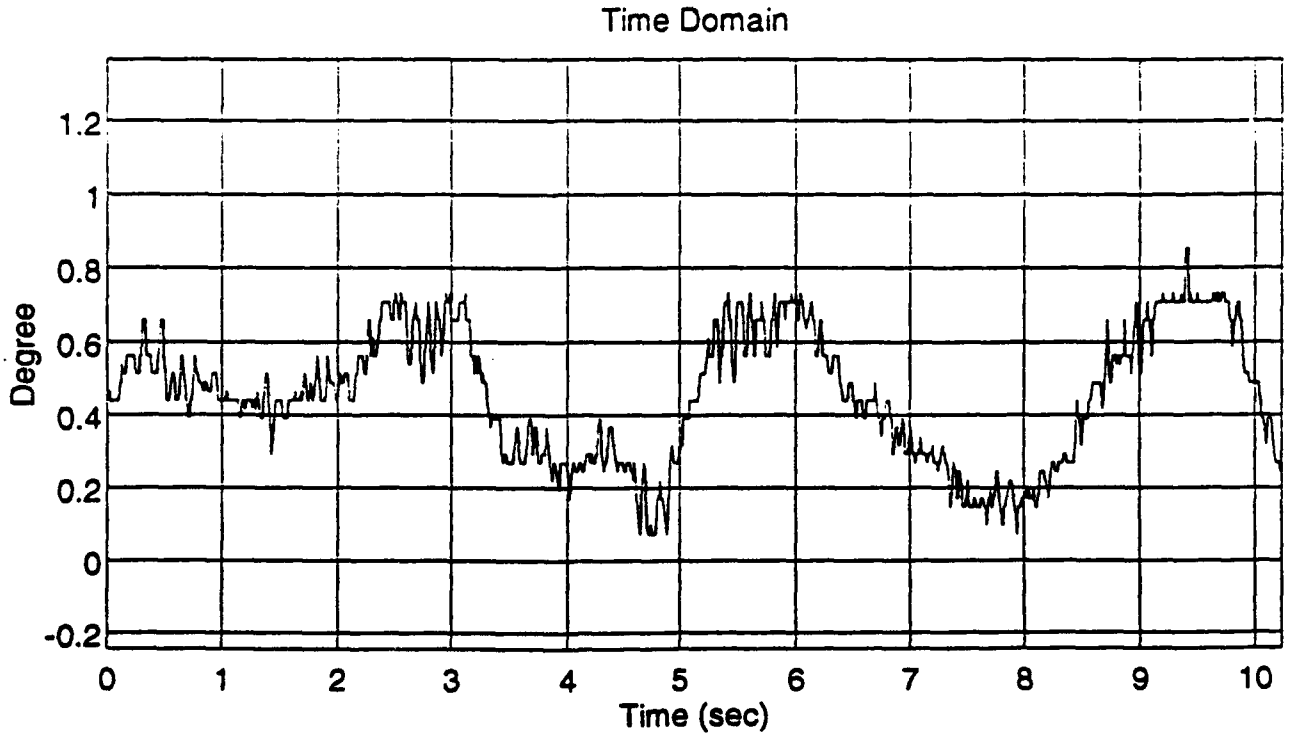

cut21-25kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

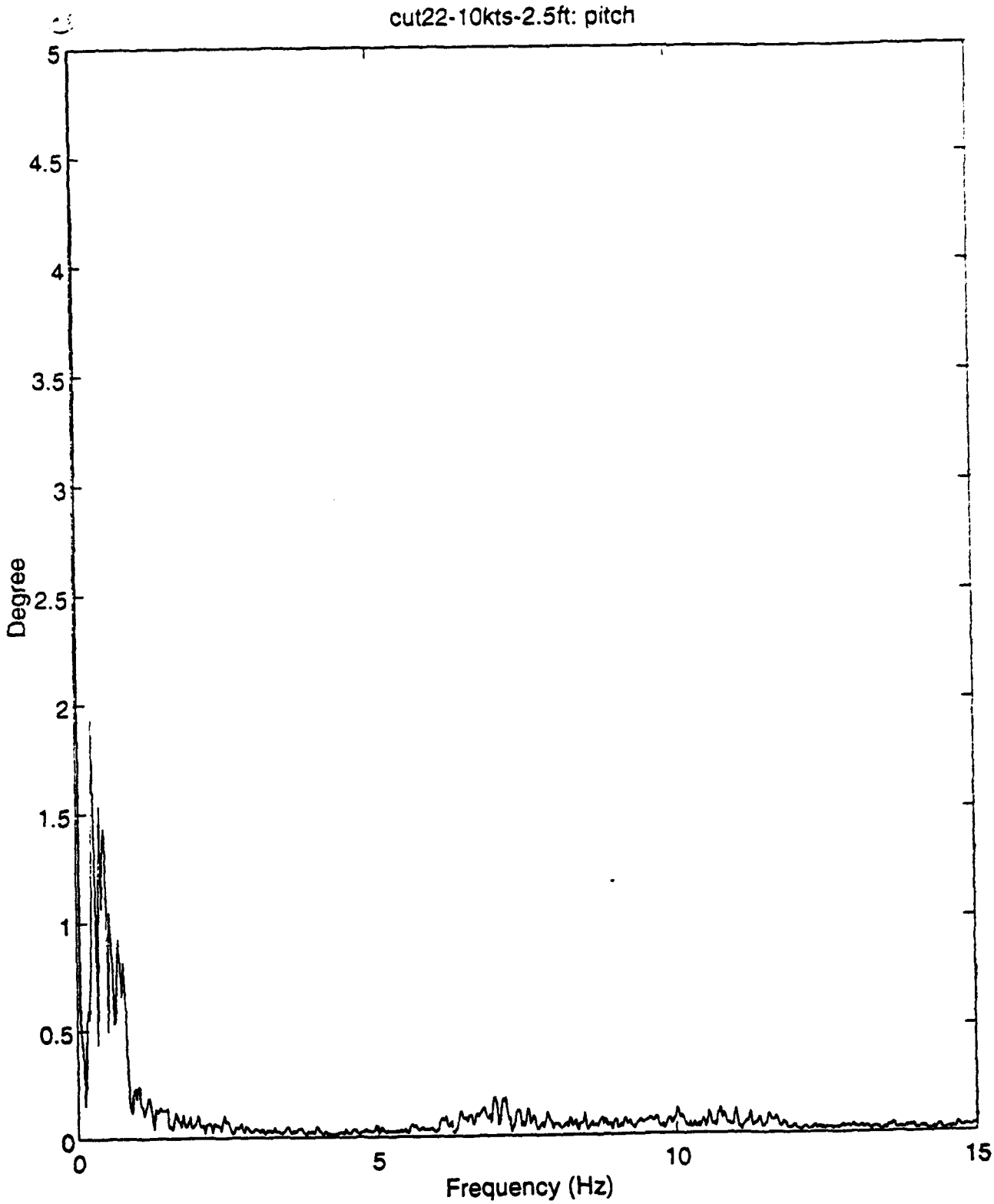
cut22-10kts-2.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.4982 Degree
Standard deviation = 0.2393 Degree
The plot shows 1024 data points



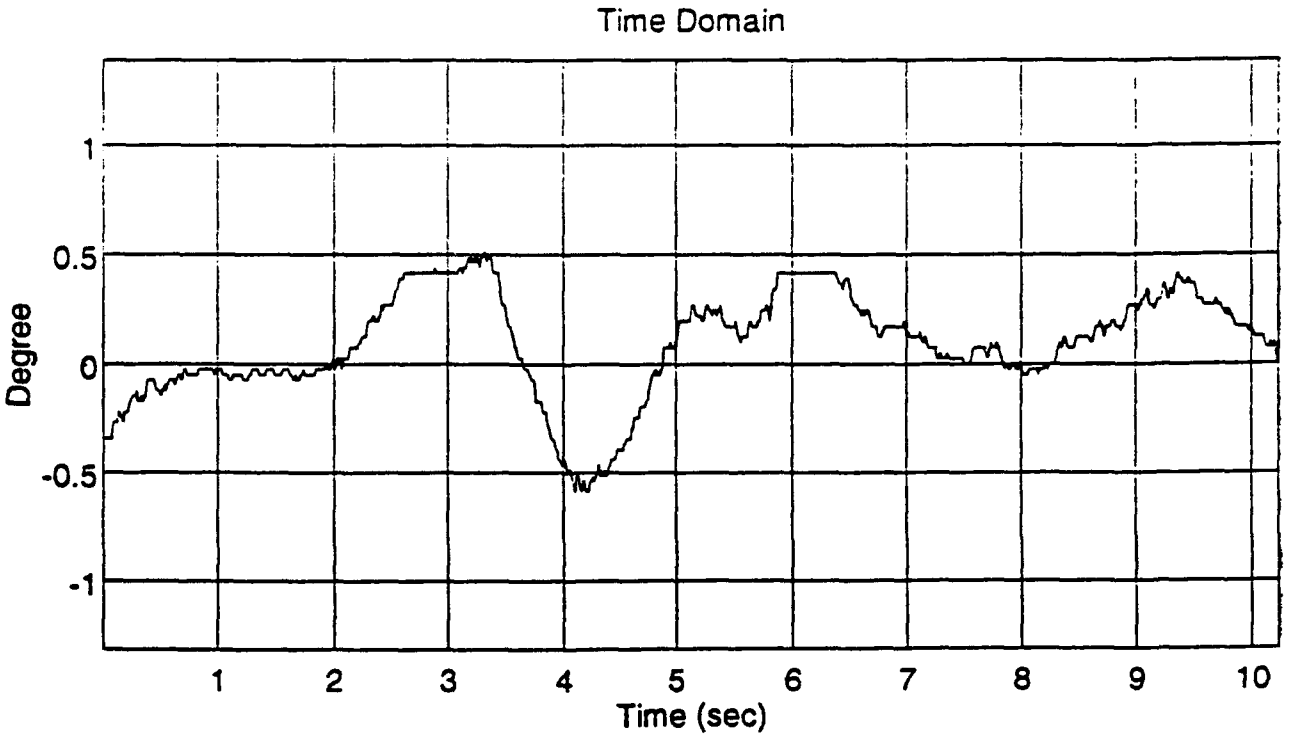

cut22-10kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

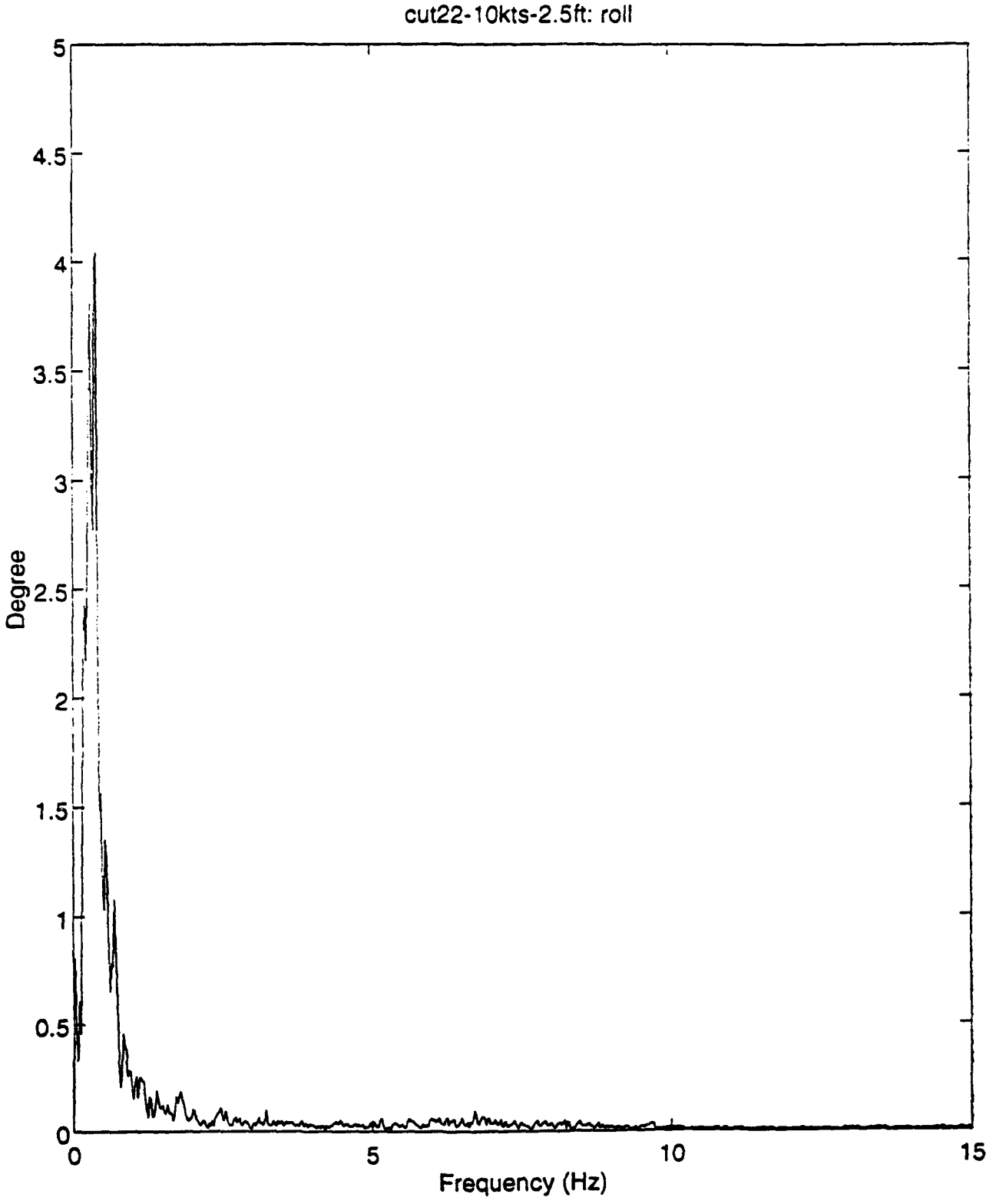
cut22-10kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.0431 Degree
Standard deviation = 0.4245 Degree
The plot shows 1024 data points



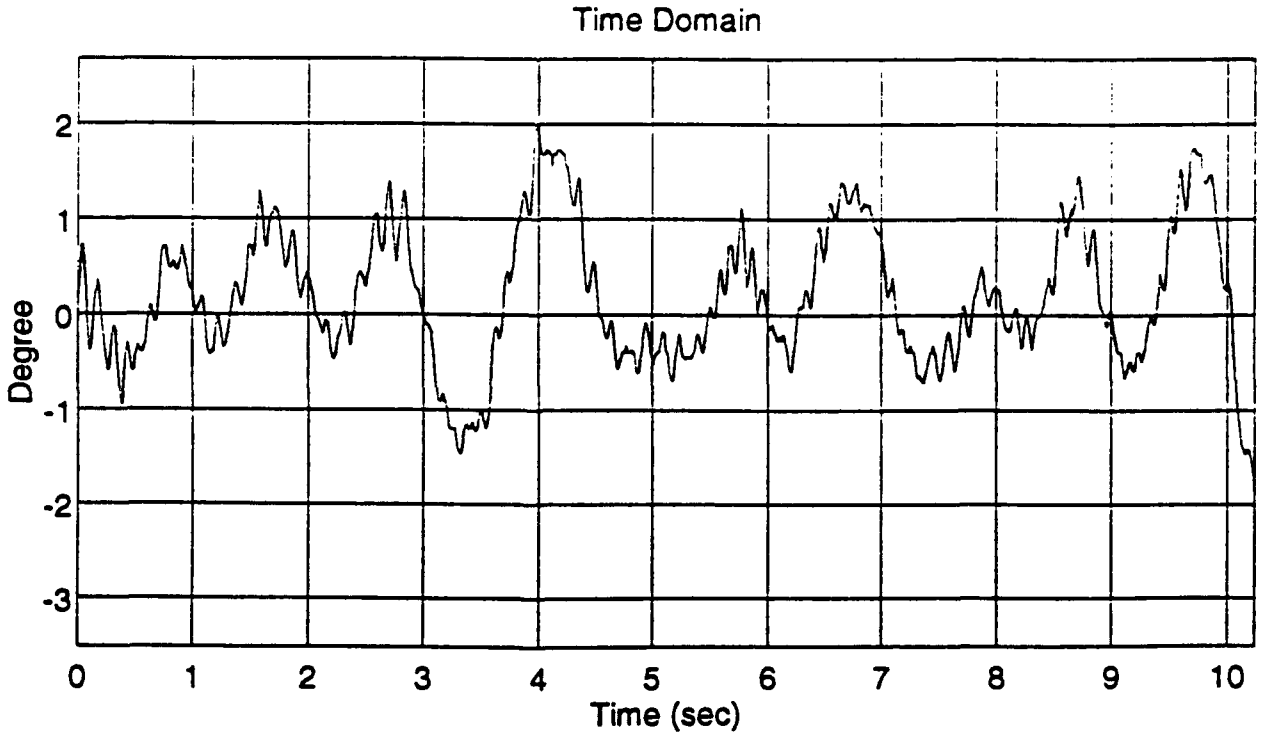

cut22-10kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

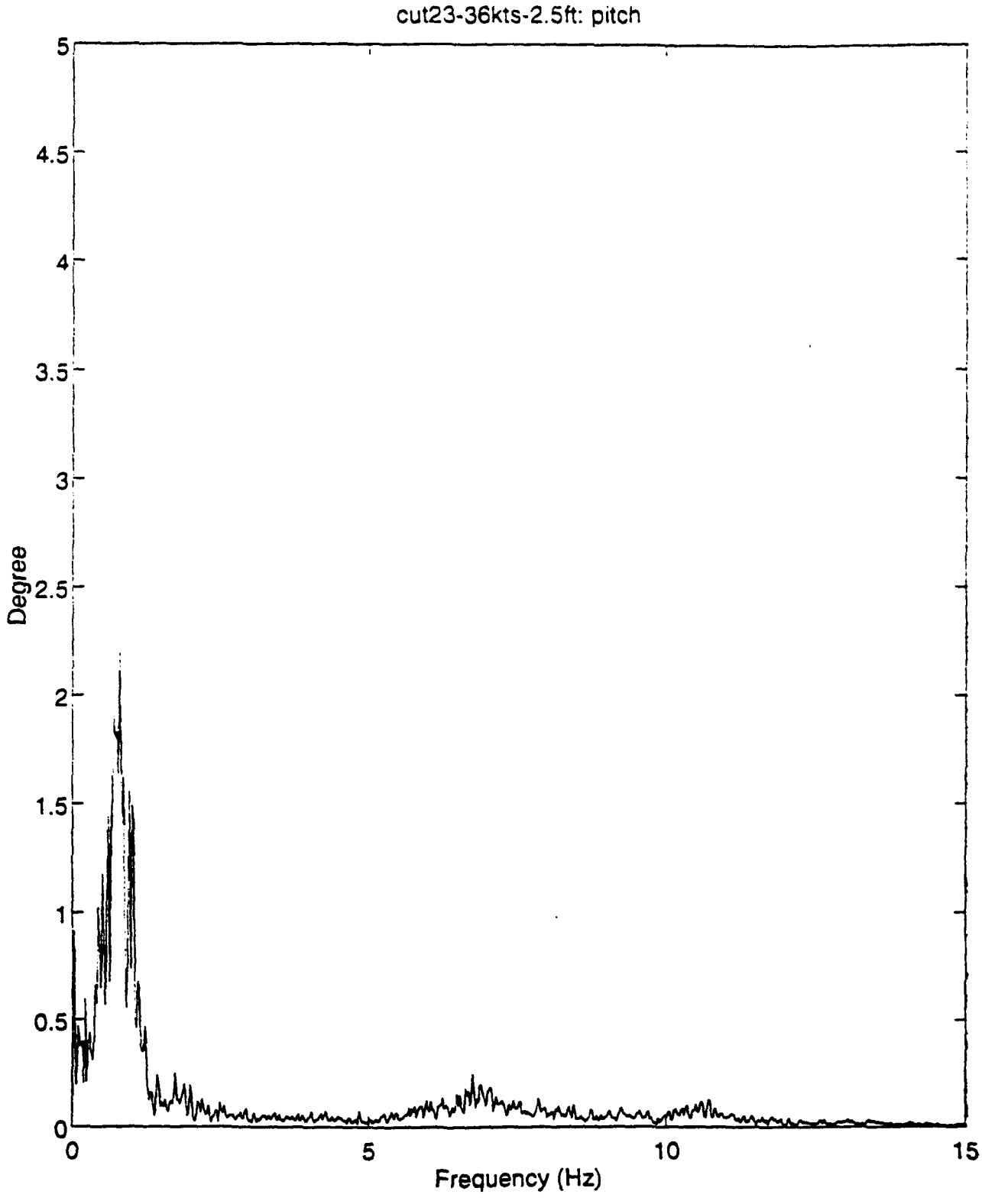
cut23-36kts-2.5ft: pitch

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = 0.1134 Degree
Standard deviation = 0.9591 Degree
The plot shows 1024 data points



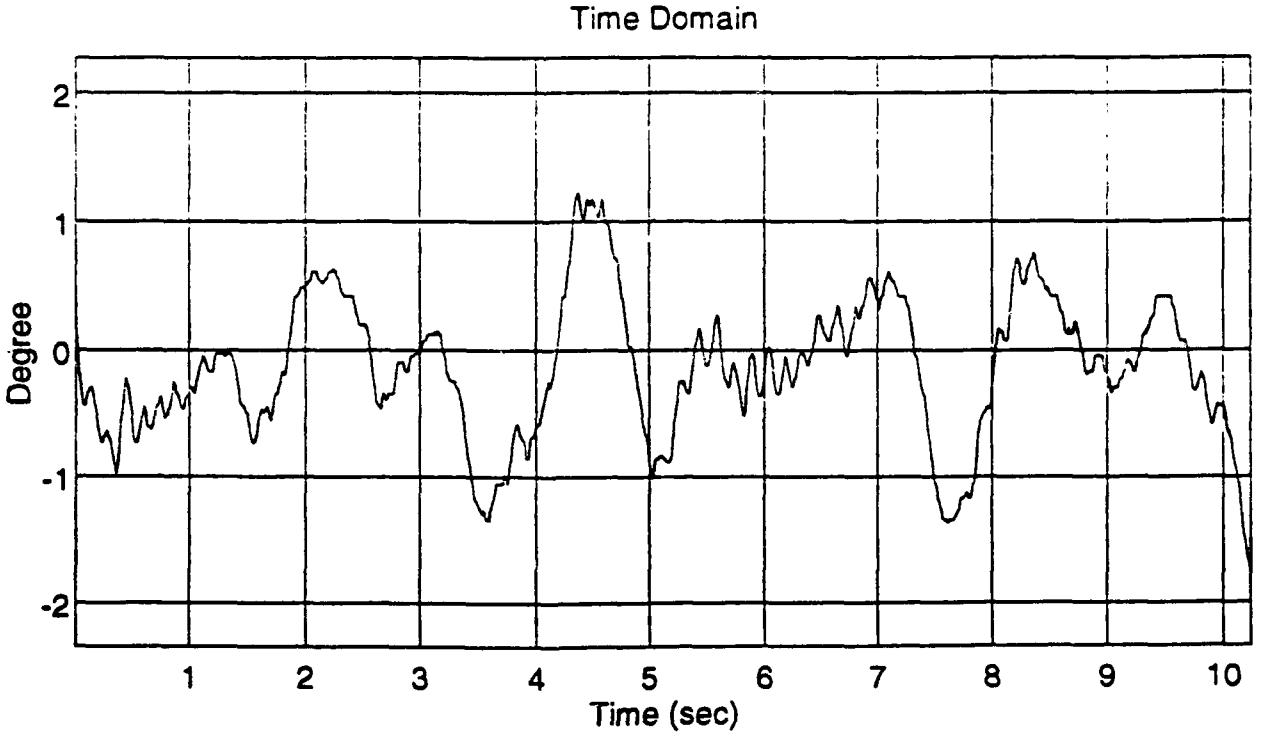

cut23-36kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

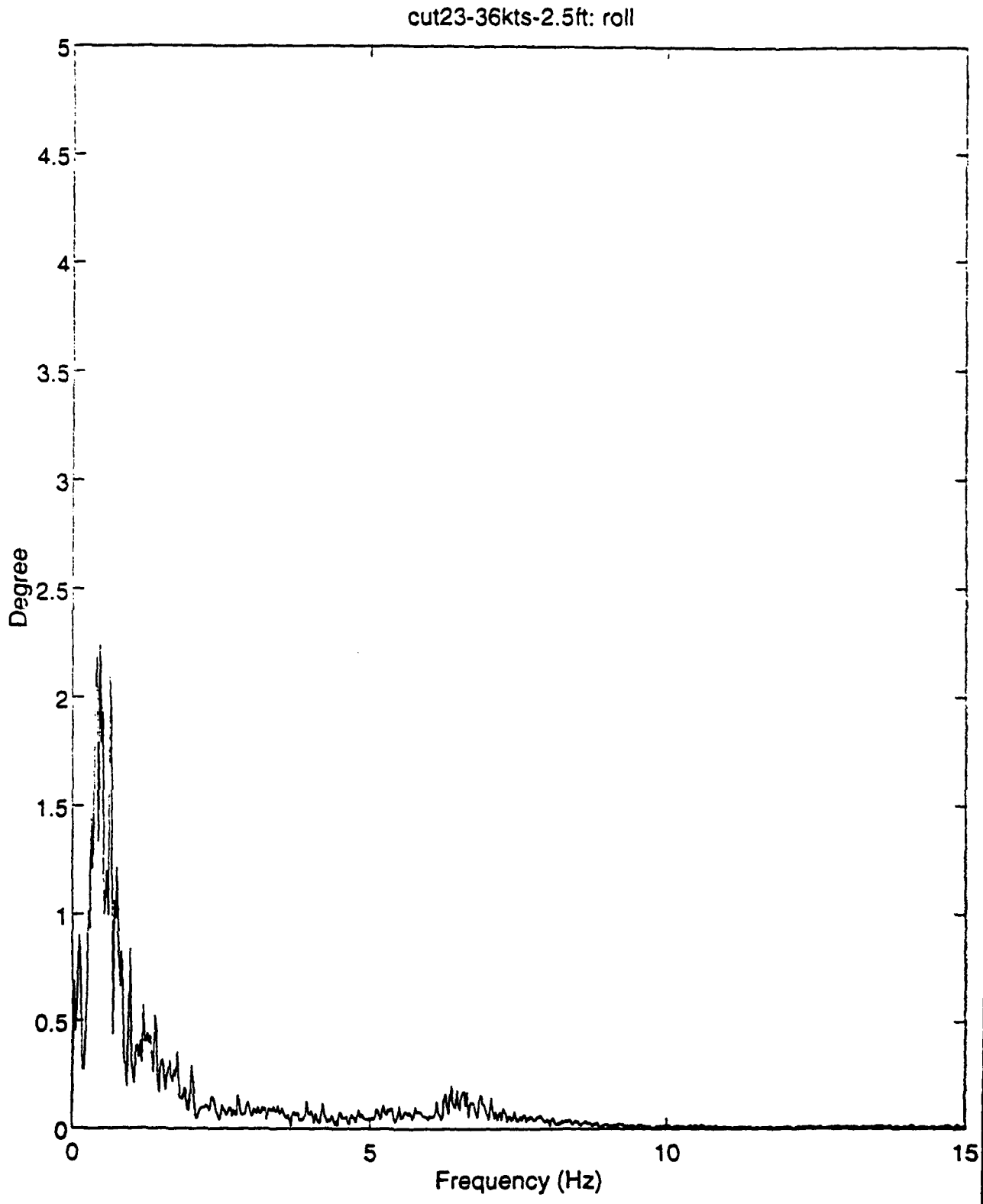
cut23-36kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.1349 Degree
Standard deviation = 0.6546 Degree
The plot shows 1024 data points




cut23-36kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut24-22kts-2.5ft: pitch

Data sampling frequency = 100 Hz

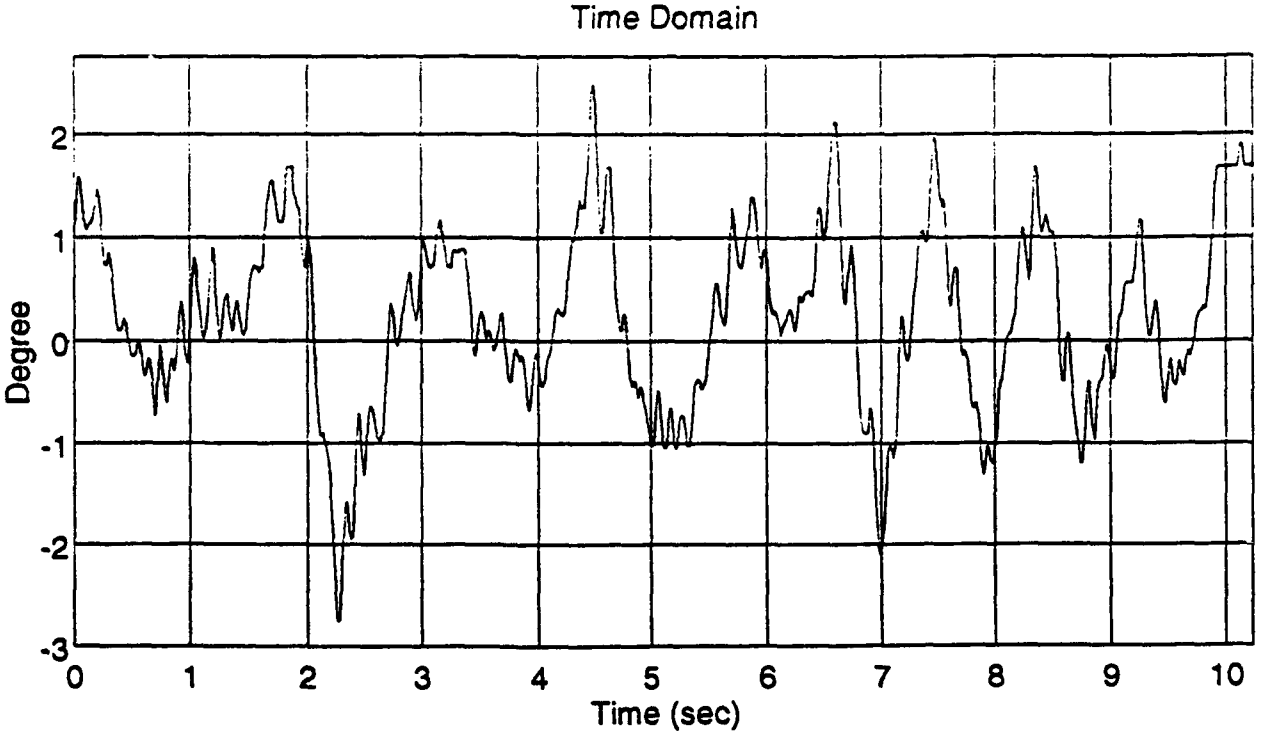
Total number of sampling data points = 8192

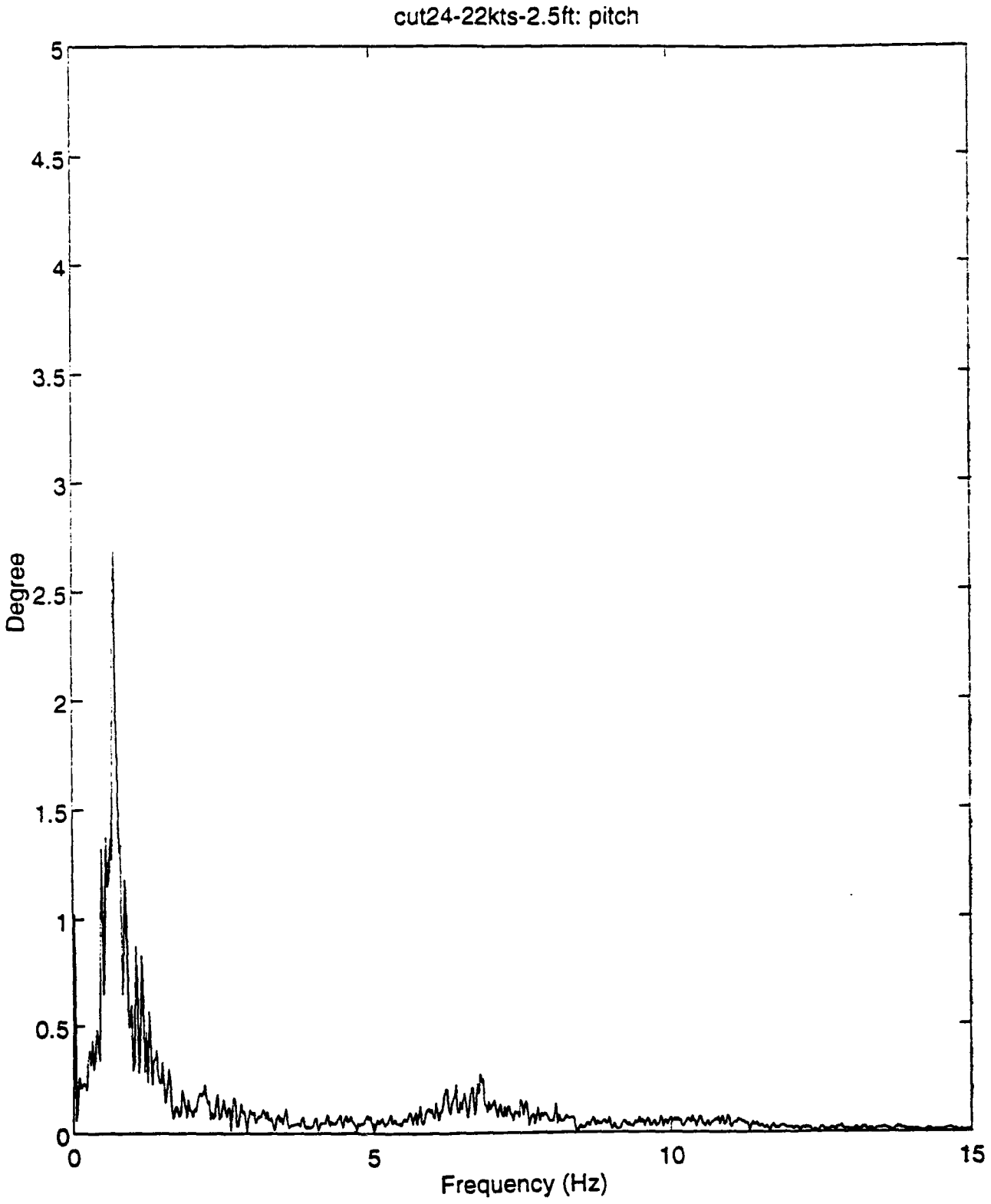
* The time domain

Mean value = 0.2186 Degree

Standard deviation = 0.9433 Degree

The plot shows 1024 data points



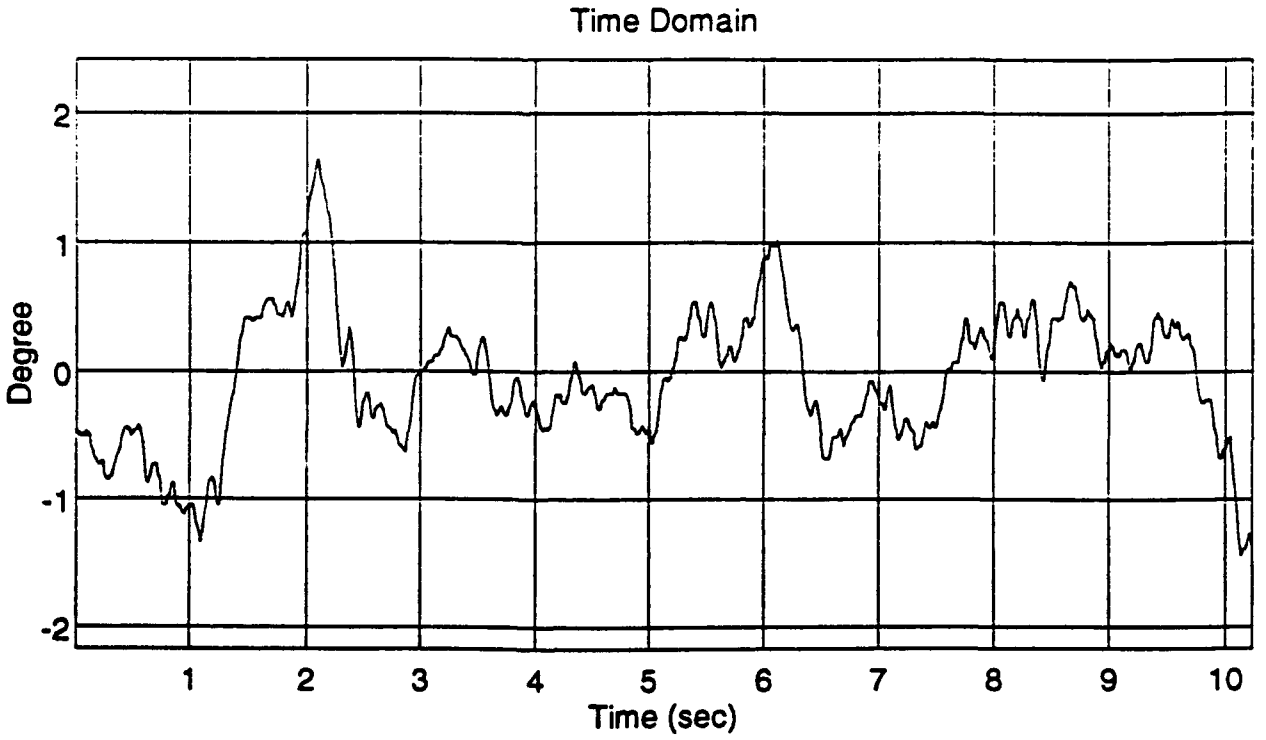

cut24-22kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

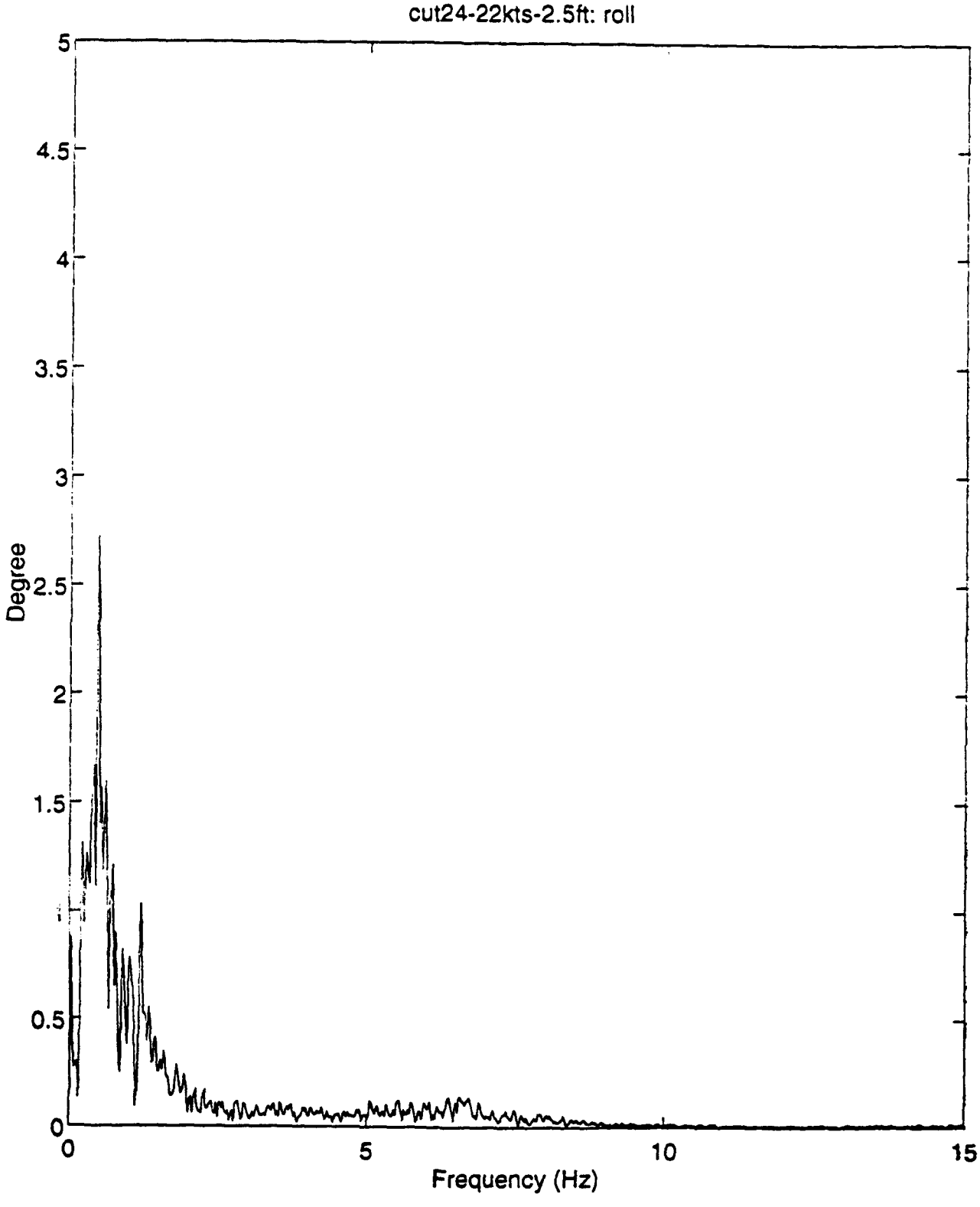
cut24-22kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.04645 Degree
Standard deviation = 0.6464 Degree
The plot shows 1024 data points




cut24-22kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut25-25kts-2.5ft: pitch

Data sampling frequency = 100 Hz

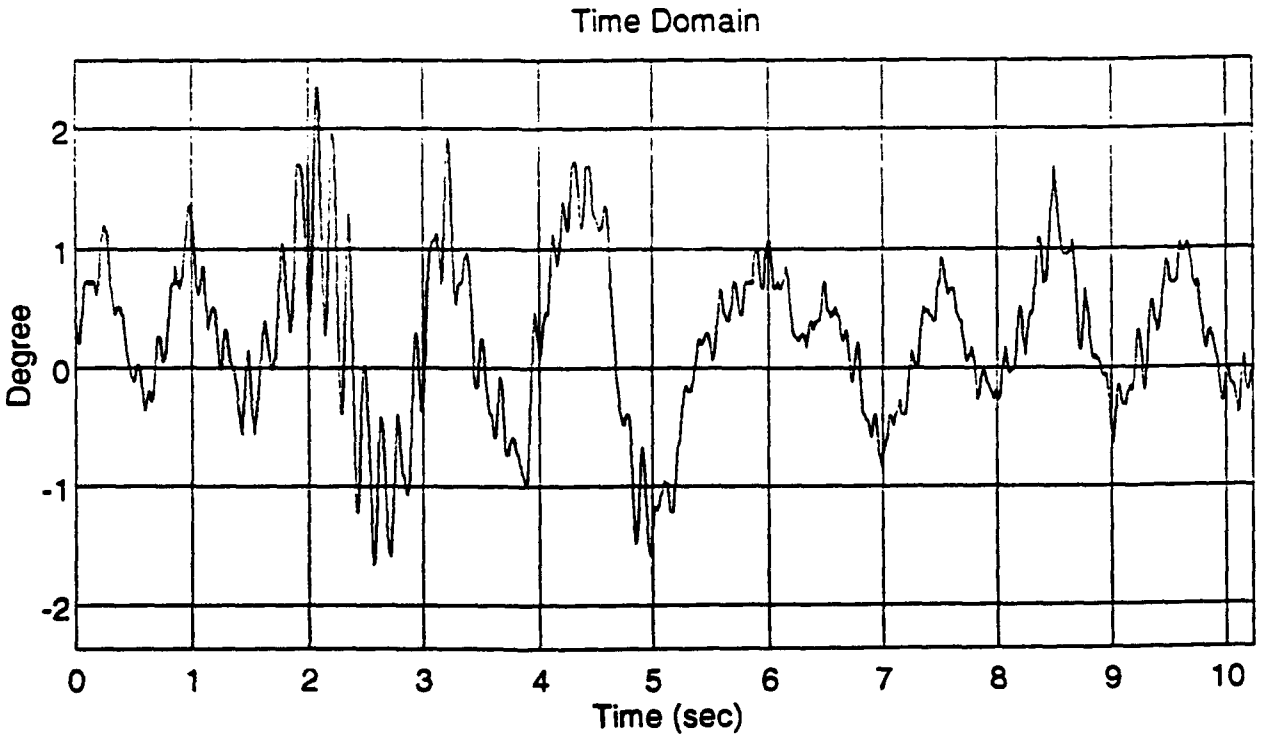
Total number of sampling data points = 8192

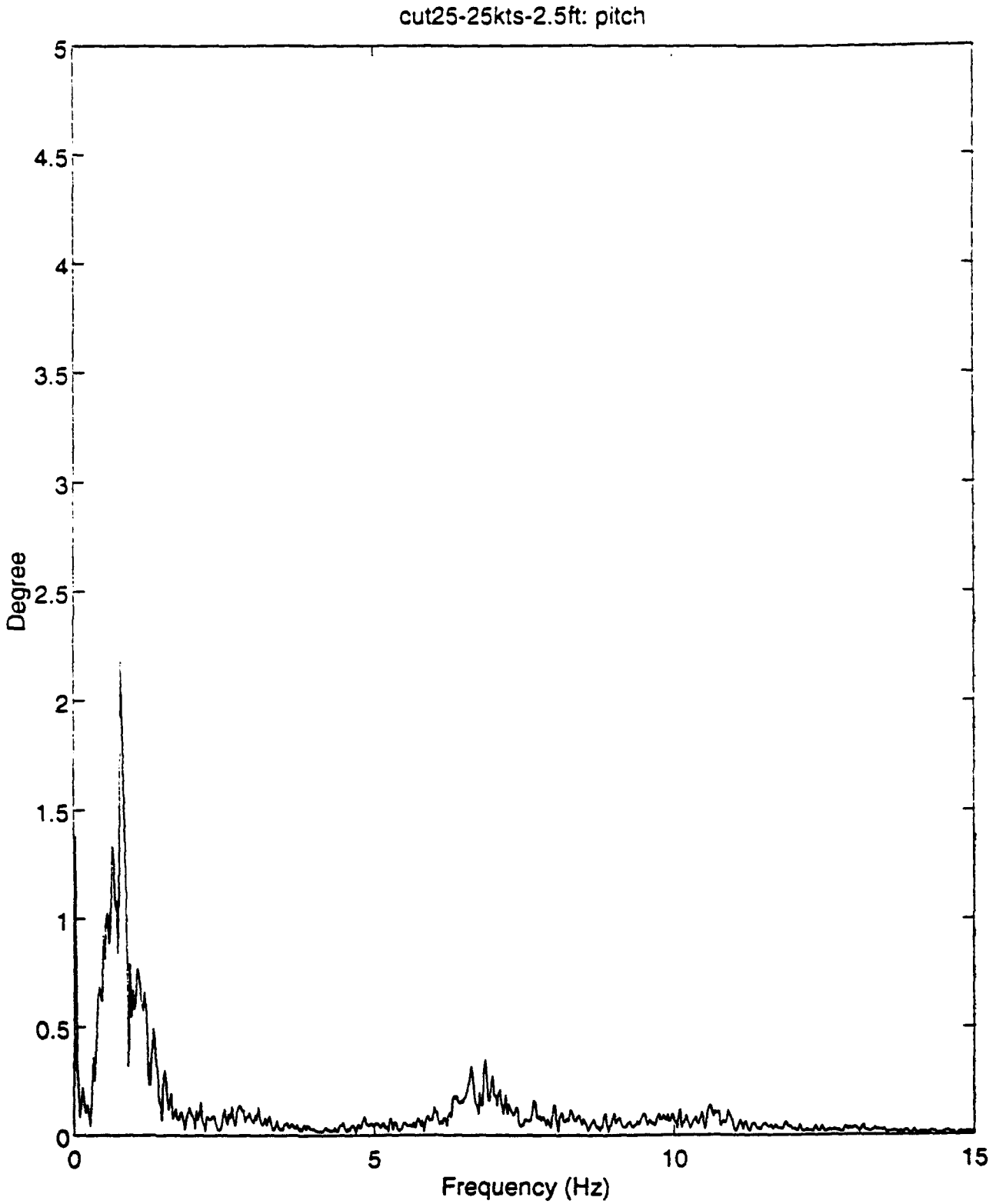
* The time domain

Mean value = 0.2431 Degree

Standard deviation = 0.671 Degree

The plot shows 1024 data points



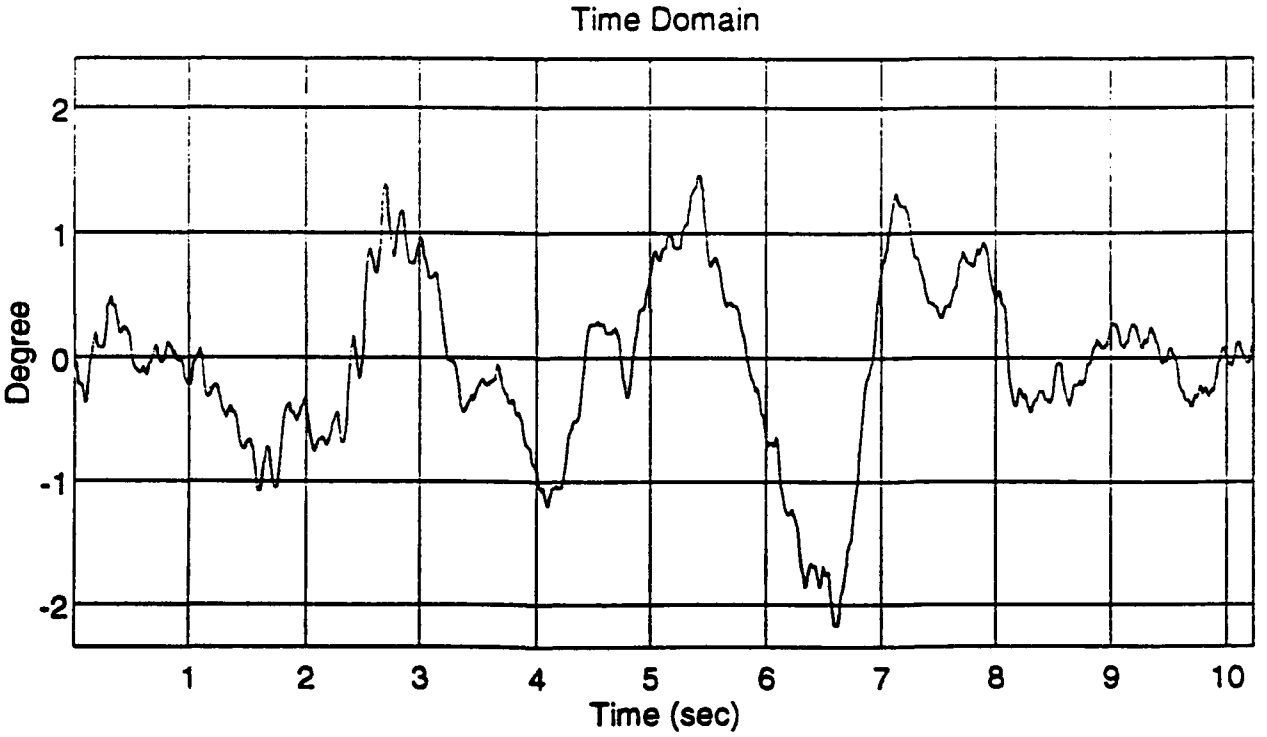

cut25-25kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

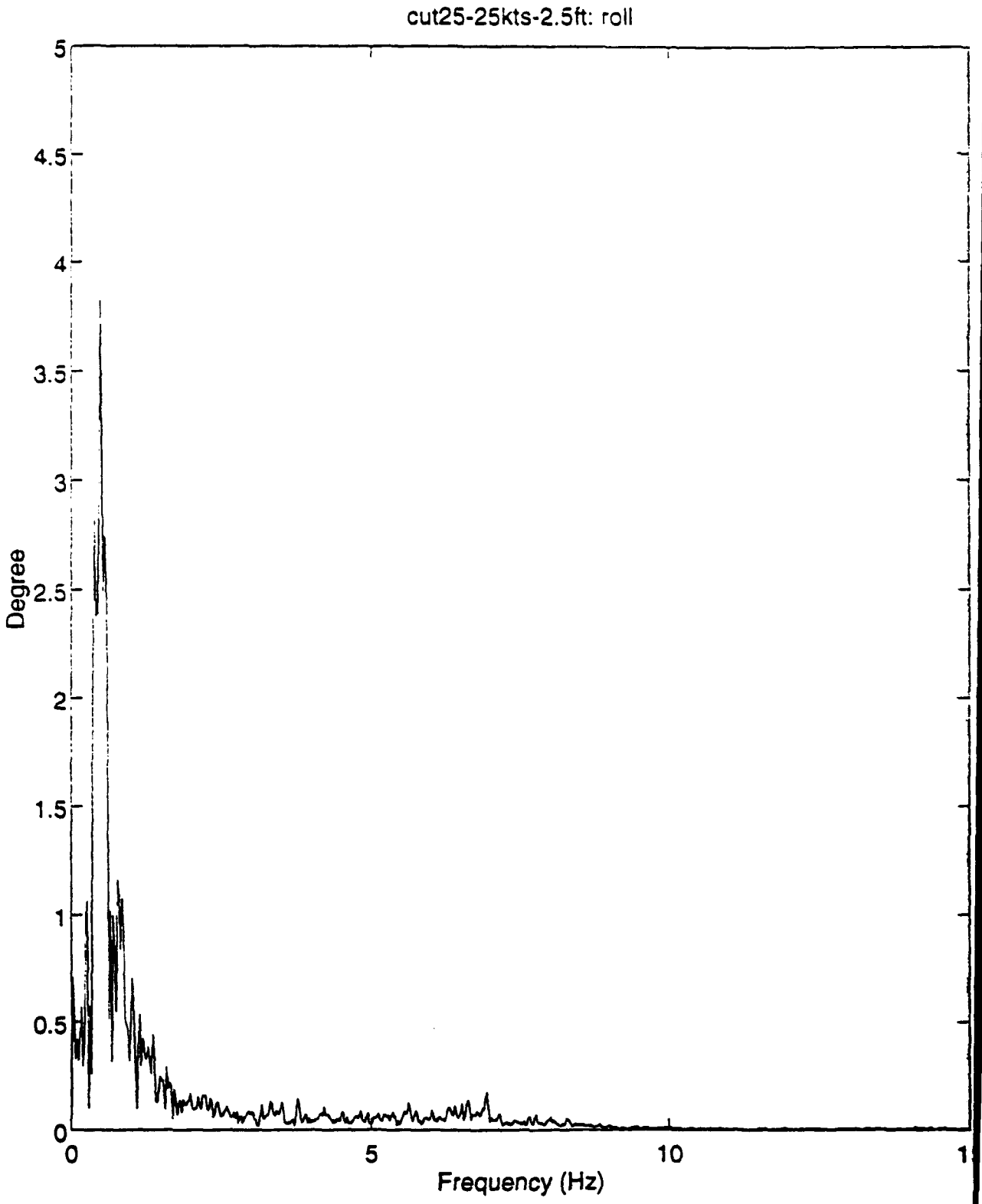
cut25-25kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.01234 Degree
Standard deviation = 0.835 Degree
The plot shows 1024 data points




cut25-25kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10

cut26-30kts-2.5ft: pitch

Data sampling frequency = 100 Hz

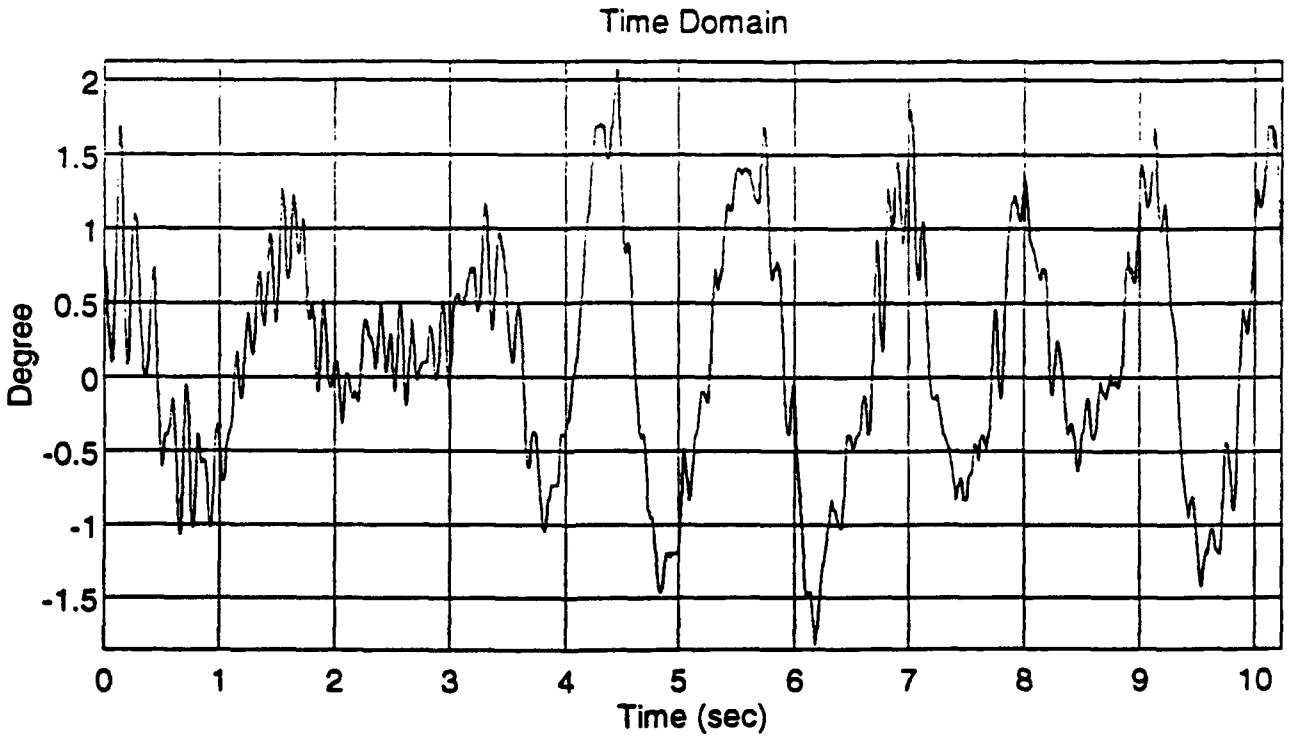
Total number of sampling data points = 8192

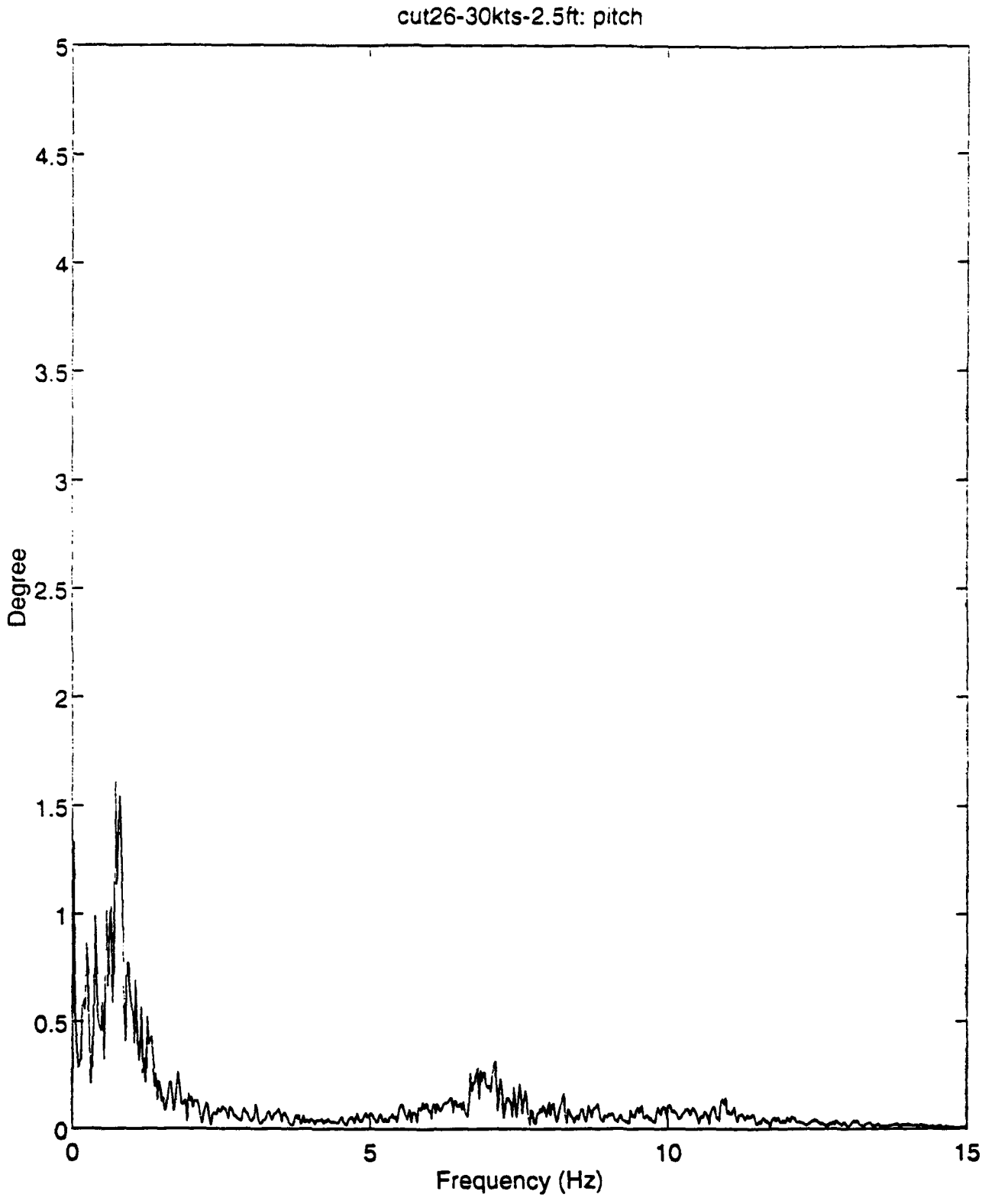
* The time domain

Mean value = 0.2005 Degree

Standard deviation = 0.6042 Degree

The plot shows 1024 data points



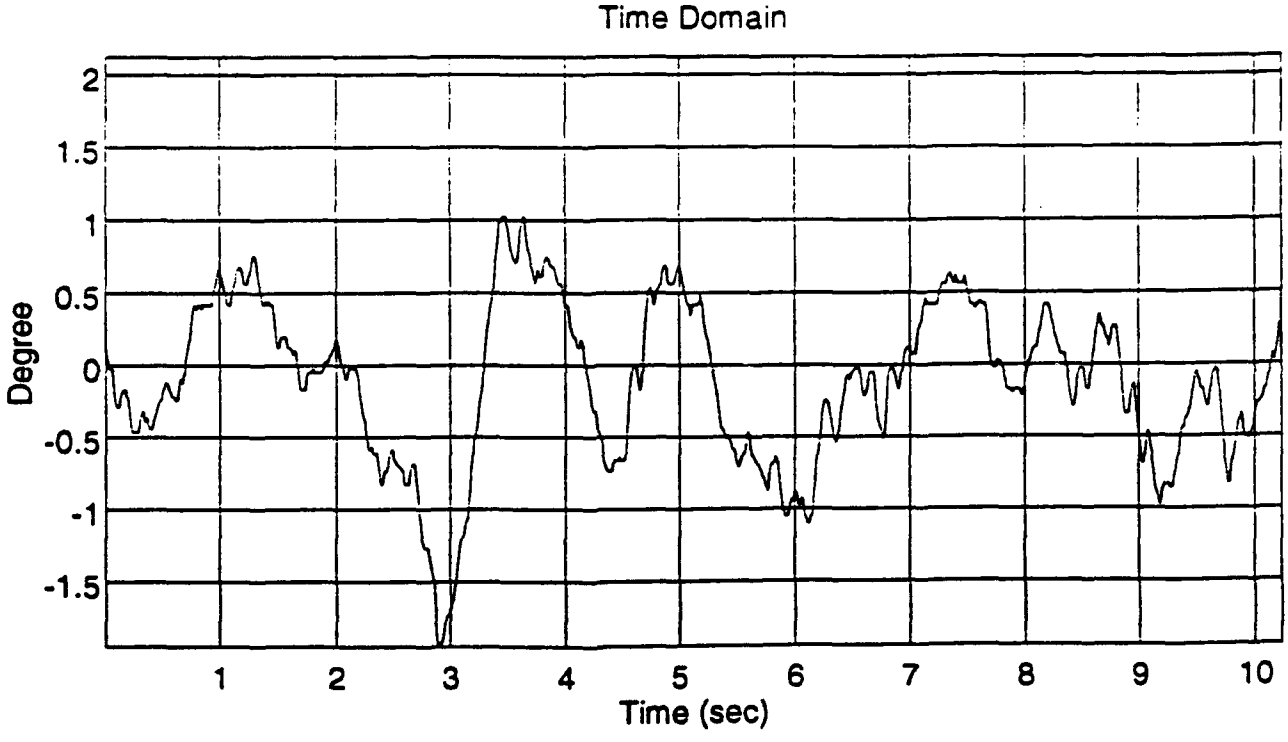

cut26-30kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

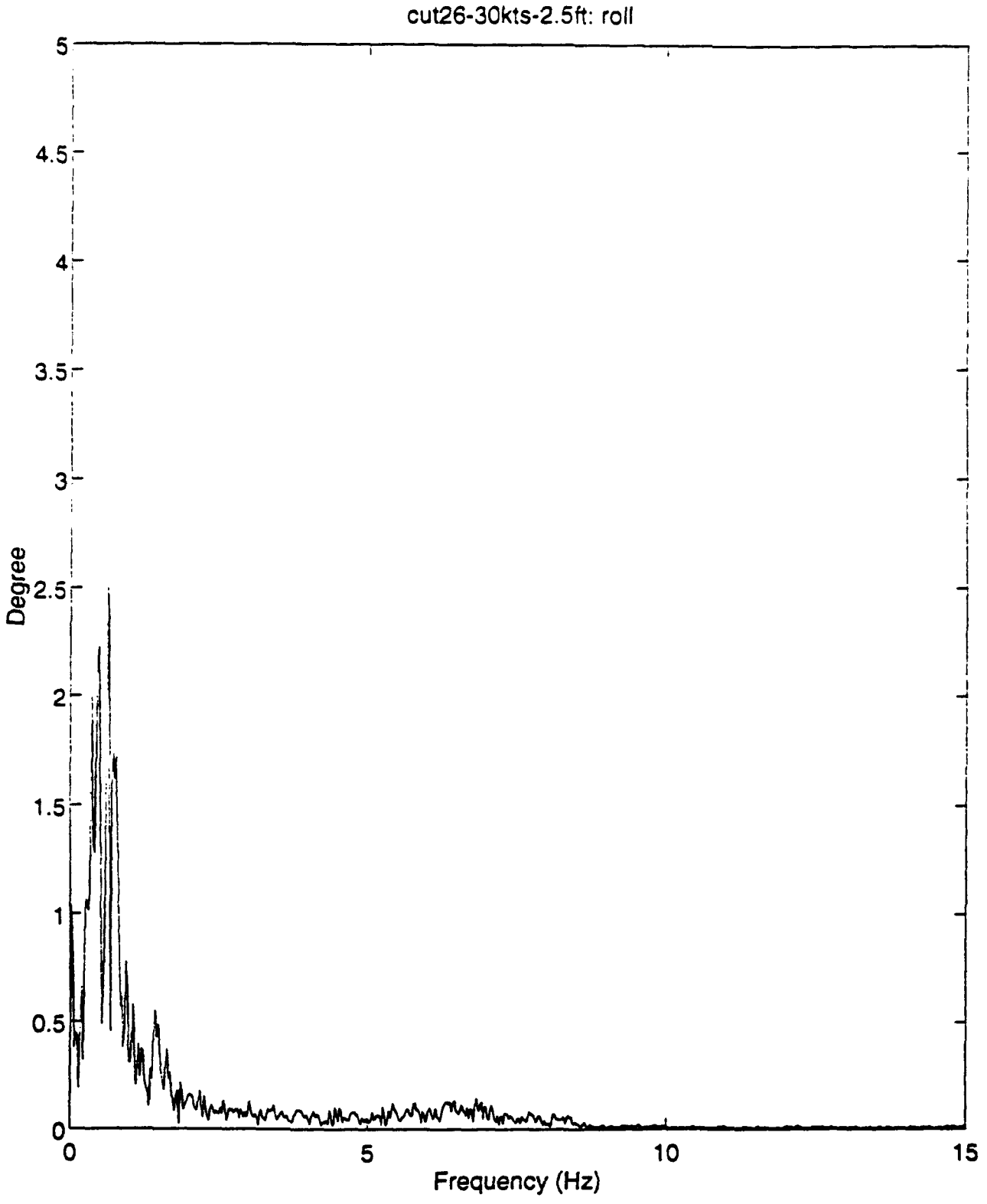
cut26-30kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.02648 Degree
Standard deviation = 0.5728 Degree
The plot shows 1024 data points




cut26-30kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

cut27-31kts-2.5ft: pitch

Data sampling frequency = 100 Hz

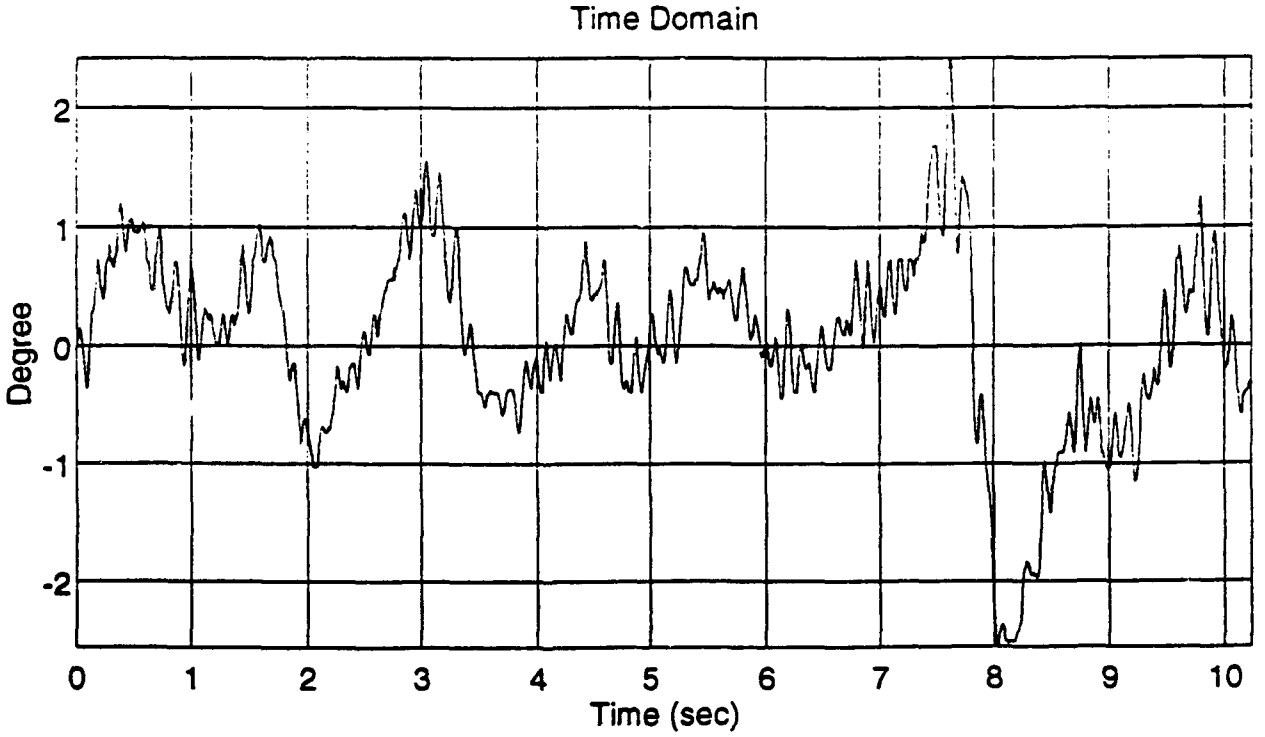
Total number of sampling data points = 8192

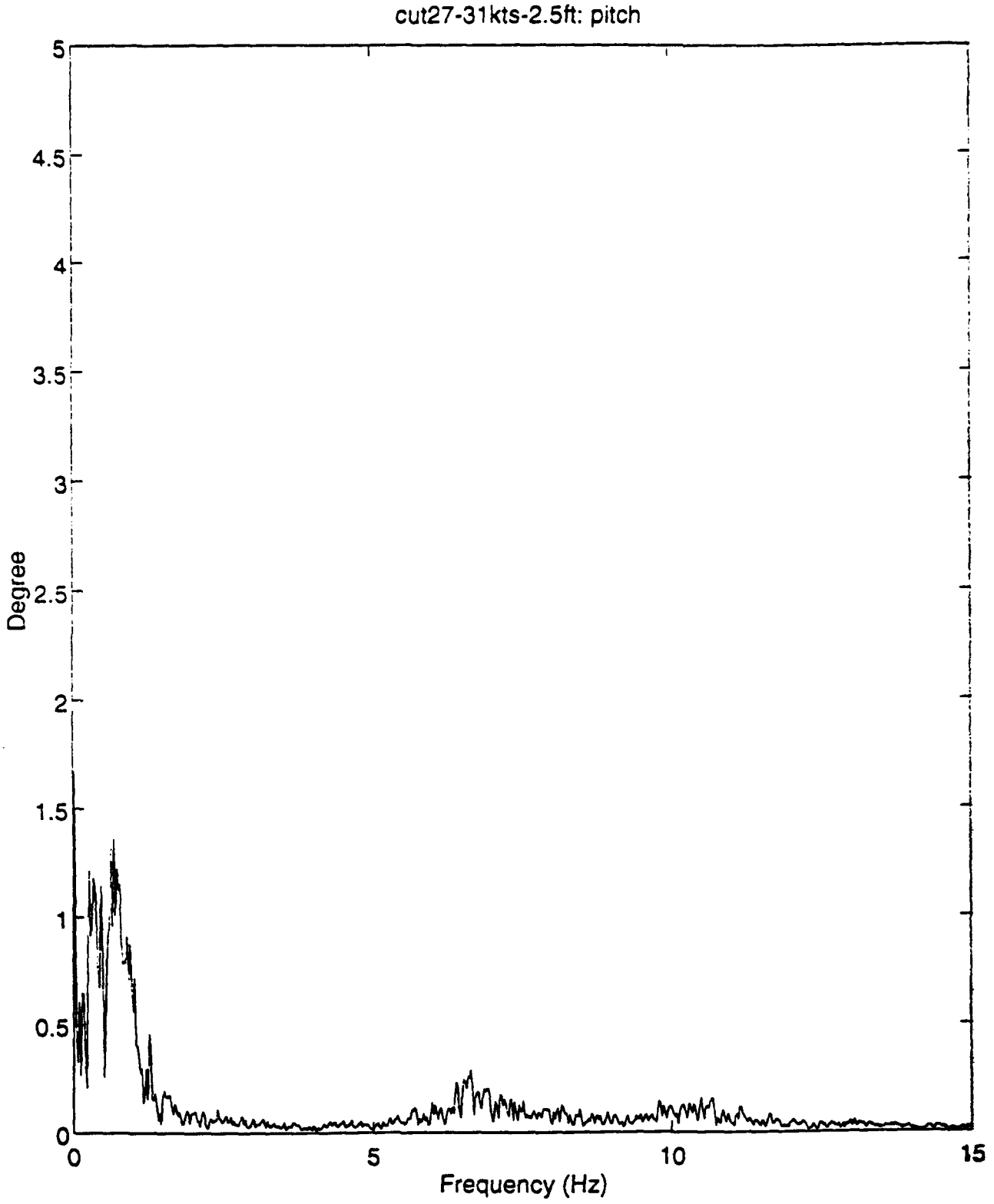
* The time domain

Mean value = 0.232 Degree

Standard deviation = 0.5933 Degree

The plot shows 1024 data points



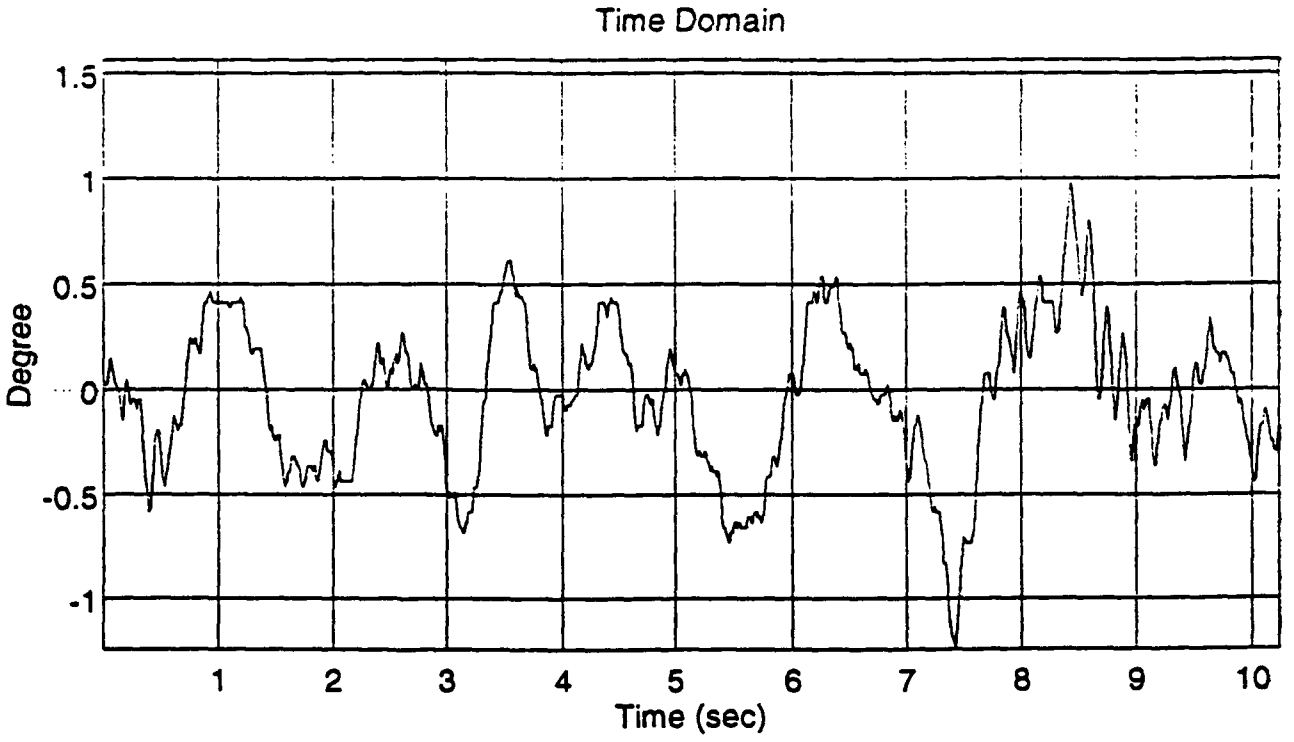

cut27-31kts-2.5ft: pitch
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

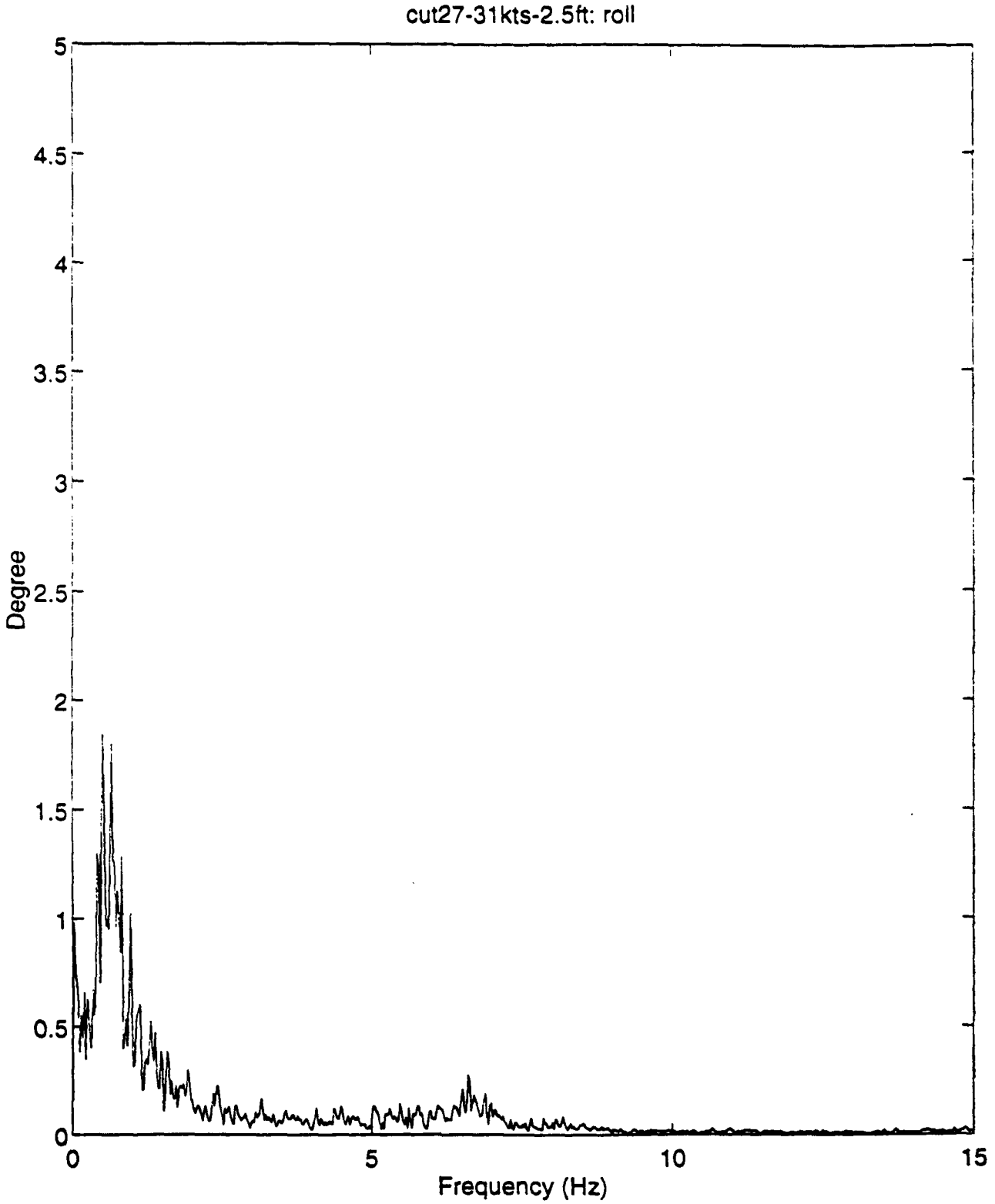
cut27-31kts-2.5ft: roll

Data sampling frequency = 100 Hz
Total number of sampling data points = 8192

* The time domain

Mean value = -0.03554 Degree
Standard deviation = 0.3809 Degree
The plot shows 1024 data points




cut27-31kts-2.5ft: roll
Degree
Frequency (Hz)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
5
10
15

INITIAL DISTRIBUTION LIST

		No. of Copies
1.	Defense Technical Information Center Cameron Station Alexandria, Virginia 22304-6145	2
2.	Library, Code 52 Naval Postgraduate School Monterey, California 93943-5002	2
3.	Naval Engineering Curricular Office, Code 34 Naval Postgraduate School Monterey, California 93943-5000	1
4.	*Professor Y. S. Shin, Code ME/Sg* Department of Mechanical Engineering Naval Postgraduate School Monterey, California 93943	2
5.	Dr. E. Michael Golda Carderock Division, Naval Surface Warfare Center Annapolis Detachment Code 812 Annapolis, MD 21042-5067	3
6.	Mr. Thomas Fikse Carderock Division, Naval Surface Warfare Center Annapolis Detachment Code 812 Annapolis, MD 21042-5067	1
7.	Mr. Edward Thomas Carderock Division, Naval Surface Warfare Center Annapolis Detachment Code 812 Annapolis, MD 21042-5067	1
8.	Eric Hoy, LT USN Naval Engineering Curricular Office, Code 34 Naval Postgraduate School Monterey, California 93943-5000	1