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FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON AFB OHIO  
THE ODRA 1325 CENTRAL PROCESSING UNIT.(U)  
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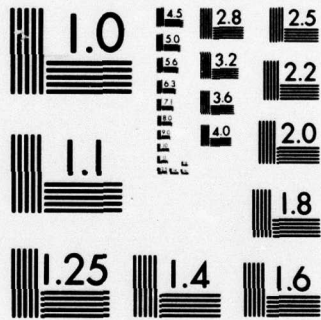
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THE ODRA 1325 CENTRAL PROCESSING UNIT



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## EDITED TRANSLATION

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THE ODRA 1325 CENTRAL PROCESSING UNIT

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TRANSLATION DIVISION  
FOREIGN TECHNOLOGY DIVISION  
WP-AFB, OHIO.

## THE ODRA 1325 CENTRAL PROCESSING UNIT

The central processing unit of the ODRA 1325 is a third generation computer designed for the processing of data, the performance of scientific and engineering calculations, and the control of industrial processes. Functionally the central processing unit of the ODRA 1325 is divided into the following subassemblies:

the control unit controls the operation of the central processing unit, selects instructions from the operation register, actuates units which carry out the functions of instructions, and controls the order in which they are performed,

the console which provides a two-directional connection between the operator and the control program,

the arithmetic unit, the basic part of the central processing unit, in which arithmetic and logical operations are performed,

the operational storage, in which information is stored,

In the ODRA 1325 central processing unit a ferrite memory with coincident core selection is used. With a storage capacity of 32 K words (K=1024 words) there is the possibility of alternating addresses, which increases the speed at which operations are performed.

The channel coordinator controls and ensures simultaneous operation of channels.

The memory coordinator ensures parallel access to memory to the individual channels and to the arithmetic unit.

Input/output channels, by means of which information is sent from external units to operational memory and vice versa.

The ODRA 1325 central processing unit has four types of channel:

symbolic--which serve to connect units for introducing and removing information (e.g., tape reader, card reader, line printer),

buffer--used to connect external memories,

multiplexer--permits introduction and removal of information in a multiple-access configuration,

industrial--used to introduce and remove information from devices of the Modular Automatic System.

The indicated logical and technical solutions give the ODRA 1325 processing unit the following characteristics:

great flexibility in creating any use configurations,  
dual programming,  
multiple access,  
high computation capacity of the system,  
great speed of input/output transmission,  
program protection before mutual (accidental) destruction.

**OPERATING DATA:**

Capacity of operational memory	16 or 32 K
Time of cycle of operational memory	1 $\mu$ s
Arithmetic	complement binary

Times for performing certain operations:

fixed decimal subtraction	3.6 $\mu$ s
fixed decimal multiplication	180.0 $\mu$ s
fixed decimal division	360.0 $\mu$ s
floating decimal multiplication	640.0 $\mu$ s
fixed decimal addition	4.0 $\mu$ s
floating decimal division	940.0 $\mu$ s
jumps	1.3 $\mu$ s

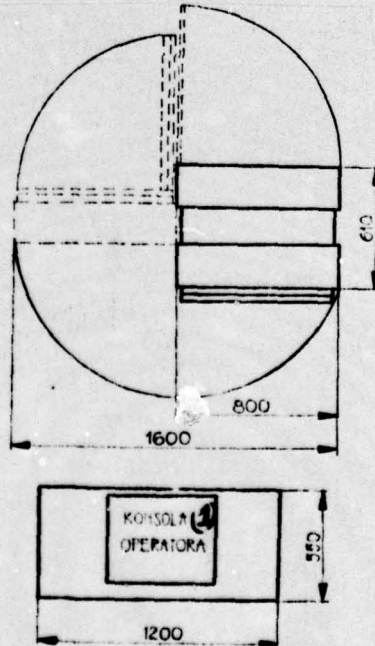
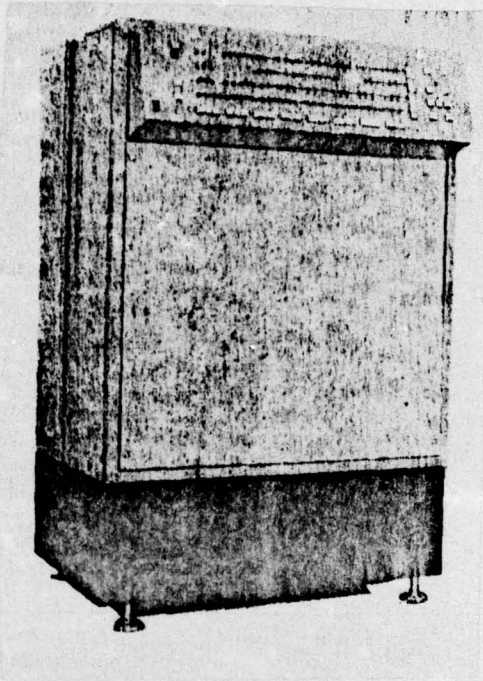
INSTALLATION DATA:

Power	220 V $\begin{matrix} +10\% \\ -15\% \end{matrix}$
Power input	50H $\pm$ 2% 2.5 kVA
Admissible ambient temperature	15-35°C
Recommended ambient temperature	20-24°C
Recommended humidity	40-60%
Weight	250 kg (including console)

Basic dimensions (in mm): central processing unit console

height	1250	745
width	800	1200
Depth	610	550

The figures are approximate. Mera Elwro reserves the right to change the data contained in this publication.



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Figure.  
Key: (1) Operator Console;  
(2) top view

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