

REPORT DOCUMENTATION PAGE

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4. TITLE AND SUBTITLE Testbed for Multi-Wavelength Optical Code Division Multiplexing Based on Passive Linear Unitary Filters			5. FUNDING NUMBERS F49620-96-1-0453	
6. AUTHOR(S) Eli Yablonovitch				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) University of California, Los Angeles Electrical Engineering Dept. Los Angeles, CA 90095-1594			8. PERFORMING ORGANIZATION REPORT NUMBER KD84Fintech-1	
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12 a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited			12 b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) <p>The bandwidth demanded for Internet traffic has been constantly growing in response to more bandwidth hungry applications such as high-resolution motion picture transmission. An optical fiber has about 10 tera-bits per second (Tbps) available bandwidth and is the ideal medium to link tomorrow's bandwidth hungry applications.</p> <p>The equipment purchased under this grant has permitted UCLA to purchase a number of broad-band optical components, including especially some unique code division multiplexing filters that permitted us to demonstrate optical code division multiplexing of a multi-wavelength signal source.</p>				
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Title: Testbed for Multi-Wavelength Optical Code Division Multiplexing Based on Passive Linear Unitary Filters
 Award number: F49620-96-1-0453, PI: Eli Yablonovitch, PM: Alang Craig

Item	Vendor	Price
MC Modular Multi-channel Tunics	Photonetics Inc.	\$119,178.92
Temperature Controller	Newport Corp	\$2,115.29
Microblk Stage	Meeles Griot	\$4,094.38
Optical fibers	Newport Corp	\$1,842.77
DAT Drive	Fry's Electronics	\$1,485.16
Digital Oscilloscope	ITC Electronics	\$1,061.92
Rotator/Polarizor	Optics for Research	\$2,979.81
Laptop system (ethernet etc.)	Fry's Electronics	\$4,436.08
Dell Computer	Dell Marketing LP	\$2,217.15
CaibeSystem parts	Angeles Valve & Fitting Co.	\$763.23
High vacuum pump	Precision Instruments	\$1,623.75
Dell Optiflex Computer	Dell Marketing LP	\$7,658.54
TP-IB Frequency Tripler	Uniwave Technology Inc.	\$16,368.69
IR Camera	Electrophysics	\$6,038.61
MilleniaX-P SolidState Laser	Spectraphysics	\$32,232.05
Polarization splotters	JDS Fitel Inc.	\$8,321.04
Power supplies	Hewlette Packard	\$5,222.21
Measurement Device	Newport Corp	\$10,847.86
Laserjet 5M Color	Future Computing Services	\$5,144.93
Tunable Diode Laser System	New Focus Inc.	\$29,177.88
DSP Lock-in Amplifier	Stanford Research	\$4,008.79
Lightwave Multimeter System	Hewlette Packard	\$7,756.00
Computer Systems	MicronElectronics	\$20,437.44
3-Port Circulator	Uniphase Telecom Products	\$6,500.58
Interferometer	Photonic Integration Research	\$24,272.50
Intel Dual Pentium	MicronElectronics	\$6,492.76
Toshiba Tecra 730X	Micro World	\$7,350.19
HP Lightwave Clock/Data receiver	Hewlette Packard	\$16,021.00
Laser Printer	KIS Computer Center	\$4,316.30
Millenia Pro Plus computer	Micron Electronics	\$10,064.42
SCANNING MONO-CHROMETER	Jobin Ivan Inc (I.S.A.)	\$5,000.25
DSP Lock-in-amplifier, Optical Chopper	Stanford Research	\$4,764.50
Total		\$379,795.00

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