

485-04-08 LaserPak, 4A



The **485-04-08** mirrors much of the functionality of our 4304 LaserSource, with 4 Amps and 8 Voltages of output capability. With a lower cost and smaller footprint, the LaserPak fits better into embedded applications and other low cost applications.

High Compliance

The 485-04-08 features a high 8V compliance for higher voltage applications, such as LED testing or quantum cascade lasers (QCLs), as well as excellent performance with lower voltage laser diodes.

Analog or Computer -- Your Choice

The 485 Series LaserPaks provide both a robust analog interface as well as computer control (USB or RS232) for precise remote operation (you can even use both interface simultaneously). The analog interface provides on/off control, status, and analog monitor of current and voltage, while the computer interface provides complete control over all operating parameters.

Analog Modulation

The 485-04-08's analog interface supports modulation rates up to 50kHz.

- 4A range
- 8V compliance
- 0.1mA resolution
- <100uA noise
- USB and RS-232 interfaces

Develop with a LaserSource, Deploy with a LaserPak

The LaserPak is command-set compatible with the LaserSource and also features the identical laser interface. This means you can start your development with the LaserSource, a robust benchtop instrument with a full user interface and display, then move to the lower cost LaserPak as you roll out the application to production or your end-users.

Simple Multi-Channel System

Using the [1402C-RM Rack Mount Tray](#), you can quickly rack groups of 3 or 5 Paks into a rack for a quick multi-channel system.



USB & RS232 Computer Interfaces

Includes for USB and RS232 computer interfaces standard.



Field Configurable AC Input

The LaserPak is configured in the factory for either 115V (485-04-08-115) or 230V (485-04-08-230) operation, but can be reconfigured in the field for either voltage.

Specifications

Model Numbers	485-04-08-115 for 115 VAC 485-04-08-230 for 230 VAC <i>Field configurable</i>
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CW Mode Specifications

LASER CURRENT	
Range (mA)	0 – 4000
Resolution (mA)	0.1
Accuracy (\pm [% set+mA])	0.05% + 0.8
Stability (ppm, time)	< 10, 1 hour
Temperature Coeff (ppm/°C)	50
Noise/Ripple (μ A rms, low BW)	< 100
Transients (μ A)	< 400
Compliance Voltage (V)	8
Modulation Bandwidth (kHz)	50
Modulation Input Range	0 – 10V, 10k Ω
PHOTODIODE CURRENT	
Range (μ A)	5 – 10000
Resolution (μ A)	1
Accuracy (\pm [% set+ μ A])	0.05% + 1
Stability (ppm, time)	< 200, 24 hours
Temperature Coeff (ppm/°C)	< 200
PD Bias (V)	No Bias, -3V, or -5V (jumper)
LASER VOLTAGE	
Range (V)	0 – 8
Resolution (V)	0.001
Setpoint Accuracy (\pm [% set+V])	0.05% + 0.005
Measurement Accuracy (\pm [% reading+V])	0.05% + 0.004

LIMITS

Current Limit Accuracy (mA)	40
Voltage Limit Accuracy (\pm % FS)	2.5%

ANALOG INTERFACE

Inputs	On/off control, analog modulation input
Outputs	Analog current monitor, analog photodiode monitor, on/off state, stable state
Connector	DB-15, male

GENERAL

Laser Connector	DB-9, female
Photodiode/Interlock	On LDD connector
Computer Interface	USB 2.0 Full Speed (Type B), RS-232 (DB-9, male)
Input Power	115V or 230V (jumper selectable), 50 / 60Hz
Size (H x W x D) [inches (mm)]	3.0 (77) x 4.5 (115) x 8.5 (216)
Operating Temperature	+10°C to +40°C
Storage Temperature	-20°C to +60°C