

FP4516 Multi-Section Laser Controller

Product Brief

FEATURES

- Five channels of independently programmable current sources
- TEC driver for butterfly laser
- TEC driver for butterfly case
- Read-back for:
 - Laser section voltages
 - TEC current
 - Laser temperature
 - Case temperature
- GUI for control
- RS232 serial interface

OVERVIEW

The FP4516 Laser Controller is a stand-alone solution for open-loop drive of a multisection tunable laser. It has integrated sources providing five channels of independently programmable output current. It provides separate TEC control for laser and package and read-back of all laser section voltages, TEC currents, laser temperature and case temperature. A simple GUI for control over RS232 interface is included. Compatible with all of our tunable laser products.

SPECIFICATIONS

Parameter	Symbol	Value	Unit
Gain Full Scale Current	GFSI	360	mA
Phase Full Scale Current	PFSI	40	mA
Front Mirror Full Scale Current	FMFSI	180	mA
Back Mirror Full Scale Current	BMFSI	180	mA
SOA Full Scale Current	SOAFSI	600	mA
Current Setpoint Resolution (SOA)		19	uA
Current Setpoint Resolution (others)		11	uA
Minimum Compliance Voltage		2.3	V
Voltage Readback Resolution		804	uV
Maximum TEC Driver Voltage	Vtec Max	5	V
Maximum TEC Driver Current	Itec Max	1.5	A
Temperature Setpoint Minimum		0	°C
Temperature Setpoint Maximum		50	°C
Temperature Setpoint Resolution		0.06	°C
Temperature Readback Resolution		0.06	°C
TEC Current Readback Resolution		1.6	mA
Temperature Stability		0.01	°C

