

FP4514 Multi-Section Laser Controller



Product Brief

FEATURES

- Five channels
- Programmable current sources
- TEC drivers for butterfly laser and the case
- Read-back for:
 - Laser section voltages
 - TEC current
 - Laser temperature
 - Case temperature
- GUI control
- RS232 interface

OVERVIEW

The FP4514 Laser Controller is a stand-alone solution for open-loop drive of a multi-section 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 FP3013x and FP3015x tunable lasers.

SPECIFICATIONS

Parameter	Symbol	Value	Unit
Gain Full Scale Current	GFSI	180	mA
Phase Full Scale Current	PFSI	20	mA
Front Mirror Full Scale Current	FMFSI	90	mA
Back Mirror Full Scale Current	BMFSI	90	mA
SOA Full Scale Current	SOAFSI	300	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

