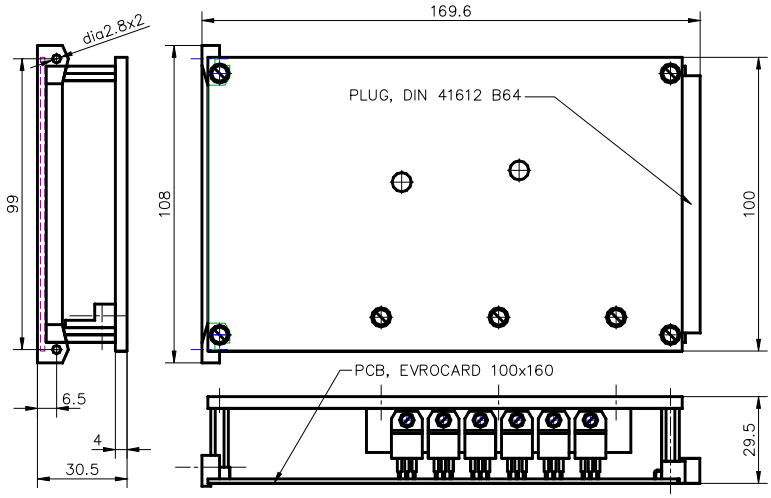
SUPERLUM

Board-Level OEM Driver PILOT4-PCB: Current & Temperature Controller

PILOT4-PCB driver offers precise low-noise, high-stability current and temperature control of SLD modules with built-in thermo-electric cooler. A board-level product provides great flexibility for integration into OEM systems and allows OEMs to develop efficient and cost-effective solutions.



Features:

- Easy to use
- Effective SLD protection
- Constant current or constant power control mode
- Ideal for cost-effective OEM solutions based on Superlum SLD modules
- 5 kHz modulation on request

Technical parameters

Current source, constant current mode	
SLD current range*	0 – 400 mA
SLD voltage, maximum	3V
Accuracy (50 – 400 mA)	0.5 mA
Temp. coefficient	< 120 ppm/°C
Short term stability (1 hr)	< 100 ppm
Noise (DC to 20 MHz, peak-to peak)	< 10 µA
Current source, constant power mode	
Photodiode current range	0.05 – 4.00 mA
Accuracy	0.1 µA
Temp. coefficient	< 120 ppm/°C
Short term stability (1 hr)	< 100 ppm

PD monitor section	
PD monitor reverse voltage	5 V
PD monitor current range	0 – 20 mA
SLD protection section	
SLD current limit range*	5 – 400 mA
Accuracy (50 – 400 mA)	1 mA
TEC controller section	
Maximum TEC current	1200 mA
Maximum TEC voltage	5.0 V
Stabilization temperature range**	10 °C to +40 °C
Accuracy	± 0.1 °C
Short term stability R set (20 °C)	± 0.01 °C
Thermistor current	100 µA

* up to 500 mA upon request.

** it is considered that 10K3CG2 of BetaTherm Ltd. NTC Thermistors are used in SLD modules.

General Data

Size (printed circuit board with integrated heat-sink)	170 × 100 × 30 mm
Power requirements	9.0 V ± 5%, 2.0 A (max)
DC input ripple/noise (DC to 20 MHz, peak-to-peak)	20 mV (max)
Current requirements	2.0 A (max)
Operating temperature	0 °C to +40 °C
Weight	0.3 kg

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