



福津光电
PHOTONSTREAM

Optical fiber micro-processing
and thin film coating

Laser Diode Testing Board

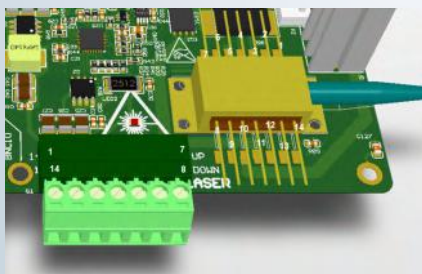
INTRODUCTION

Photonstream develop a powerful laser diode testing board, this LDT-001B testing board is a combination of current source, temperature controller, and PD monitor. The current source provides a high stability output with a fully redundant current limit for laser protection features. The built-in temperature controller can work with 10K thermistor to deliver precise laser temperature control. In view of automation test, the LDT-001B integrated the Cypress advanced USB2.0 chips for the fast PC communication. For extension design, the LDT-001B provides multiple input and output ports for external synchronous acquisition.

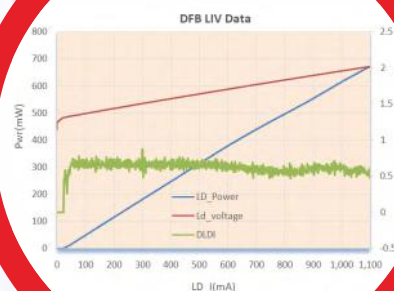
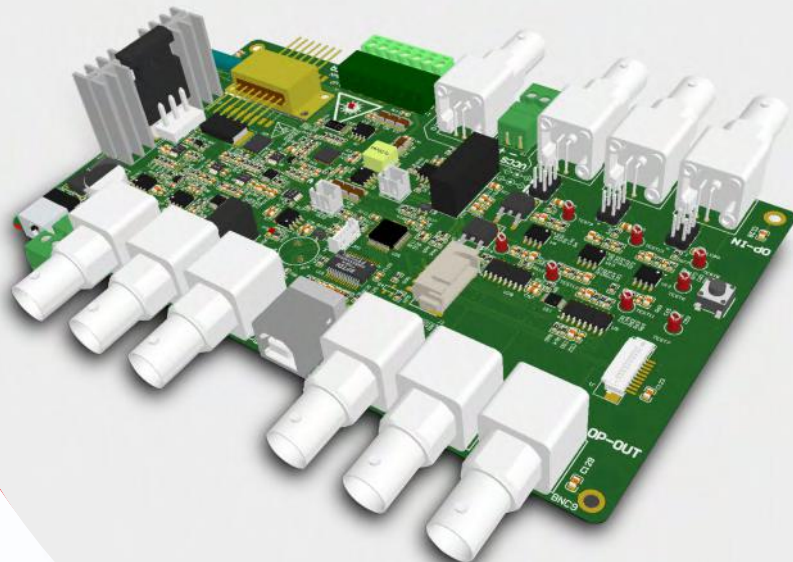
FEATURES

- ◆ Precise current source control(0~2000mA, 1mA resolution)
- ◆ Laser voltage is compliance to LD current set(max to 5V)
- ◆ Wide range of temperature set point(15°C~45°C)
- ◆ Max TEC IV(3.0A, 5.0V)
- ◆ Current set point is via command setting or external analog modulation
- ◆ 6 channels for LD_I,LD_V,MPD, Power1,Power2 and Power3 for external acquisition
- ◆ Three optical power signal channels design for COS(Chip on Sub-mount) testing(Power, Far Field Scan)
- ◆ Each power measurement channel with 4 ranges
- ◆ USB2.0 for fast communication for acquisition
- ◆ Max TEC IV(3.0A, 5.0V)

LASER PINS DEFINITION



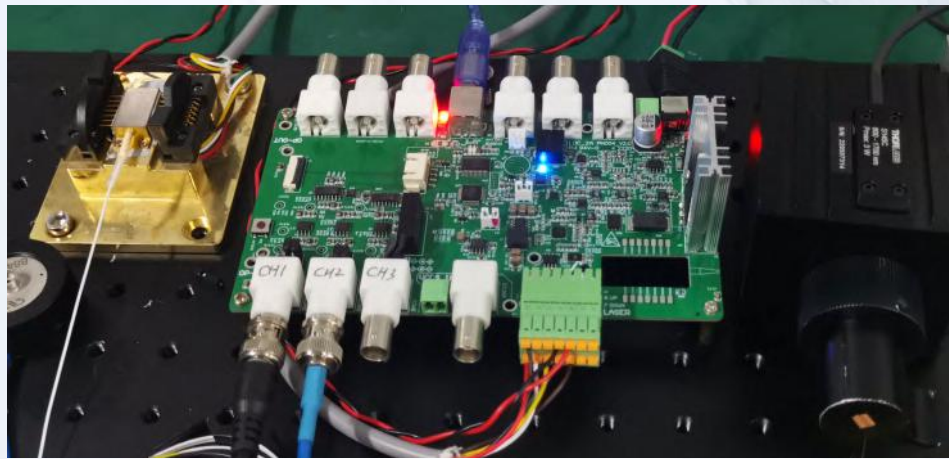
Pin#	1	2	3	4	5	6	7
Description	TEC+	Thermistor+	Monitor PD Anode	Monitor PD Cathode	Thermistor-	N/C	N/C
Pin#	8	9	10	11	12	13	14
Description	N/C	N/C	Laser Anode	Laser Cathode	N/C	N/C	TEC-



Shenzhen Photonstream Limited
Email: contact@photonstream.com
Tel: 0086-755-84166678
Fax: 0086-755-84560576
Web: www.photonstream.com
Add: 2F,BLDG 6,#168,ChangshanIZ,
Liulian,Pingdi,Longgang District,Shenzhen,China



▶ 980NM DFB BUTTERFLY LASER TEST PICTURE



▶ COMMAND LIST

Command Set	Return String/Setting Instance	Function
IDN?	PUMP TESTER	Read product identify
LAS:OFF	LAS:OFF	turn laser off
LAS:ON	LAS:ON	turn laser on
LAS:LIM XXXX	LAS:LIM 2000	Set laser current limit (mA)
LAS:LDI XXXX	LAS:LDI 0100	Set laser current (mA)
LAS:LDI?	0100	Read laser current (mA)
LAS:LDV?	2052	Read laser voltage (mV)
LAS:MPD?	0011	Read MPD current(uA)
TEC:OFF	TEC:OFF	Dis-Enable TEC
TEC:ON	TEC:ON	Enable TEC
SET T XX	SET T 20	Input Temperature set point (°C)
TEC:T?	0025	Read Temperature (°C)
TEC:I?	+0052	Read TEC current (mA)
TEC:V?	-0068	Read TEC voltage (mV)
CH 1 RAW?	00123	Read Channel_1 data,123mW
CH 2 RAW?	00121	Read Channel_2 data,121mW
CH 3 RAW?	00120	Read Channel_3 data,120mW
CH X RNG X	CH 1 RNG 0	Set first range for channel one
CH 1 RNG?	3	Read Channel_1 range number
CH 2 RNG?	2	Read Channel_2 range number
CH 3 RNG?	1	Read Channel_3 range number
VCCS ON	VCCS ON	Turn On VCC (only for firmware debug)
VCCS OFF	VCCS OFF	Turn OFF VCC (default setting)
LAS:DATA?	0308;2256;00123;0011;0024	Return data of LDI; LDV; CH1 RAW; MPD; TEC:T. Data separated by comma