

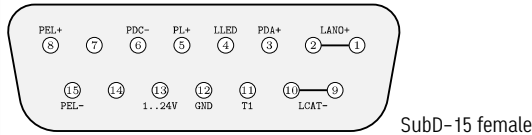
Tabletop Laser & Peltier Controller

Type: ds11-la0.5v14-pa02v14-t8535-v0-691



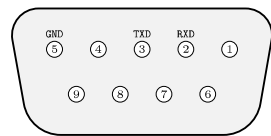
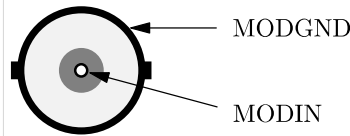
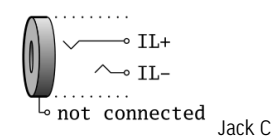
- Laser max.: 500mA - 14V, noise reduced
- TEC max.: 2A - 14V
- t-rise-fall <2μs (optional <1μs)
- Supply Voltage: 100~230VAC - 50/60Hz
- External, Analog and Digital Modulation
- Internal Pulse Generator
- Continuouse Pulses, Single Pulse, Pulse Bursts,
- Internal or External Triggered
- Bias Current option
- Pilot Laser Support
- External Supply max. 1..22V - 800mA for Fan etc.
- Photo Diode Current Monitor max. 4mA
- optional additional TEC stage

Laser & Peltier Connector



PIN.No	Abbr.	Function
1;2	LANO+	Laser Diode Anode (+)
3	PDA+	Photo Diode Anode (+) ¹⁾
4	LLED	Laser Active LED - Anode (+), 5V over 470R, v.s. GND
5	PL+	Pilot Laser (+), v.s. GND
6	PDC-	Photo Diode Cathode (-) ¹⁾
8	PEL+	Peltier element (+)
9;10	LCAT-	Laser Diode Kathode (-)
11	T1	Temperature Sensor 1 Input, default NTC10kΩ, v.s. GND
12	GND	Common Ground
13	1-24V	1 to 24V Supply, max. 500mA, vs. GND, supports fan etc.
15	PEL-	Peltier element (-)

¹⁾ Photodiode inputs are free floating; they are internally clamped with 10kΩ; LPCA - command measures the voltage over this resistor; it can measure max. 4V, i.e. I_{max}. 400μA->4V; you may freely increase this range by externally adding a resistor.

RS232 Connector	AMOD/DMOD Connector	Interlock Connector
 <p style="text-align: center;">SubD-9, female</p>	 <p style="text-align: center;">BNC</p>	 <p style="text-align: center;">Jack Connector 3.5mm</p>
Standard RS232-Connector connected to PC 9600-Baud-8N1(No Null-Modem Cable !)	Input-Impdanz 10kOhm Digital Modulation with TTL-Pegel Analog Modulation 0-4[V] => 0-I _{max} [A]	Interlock - Laser runs only if closed (ca. 5mA over 2V -> R _{Interlock} <=400R)

Tabletop Laser & Peltier Controller

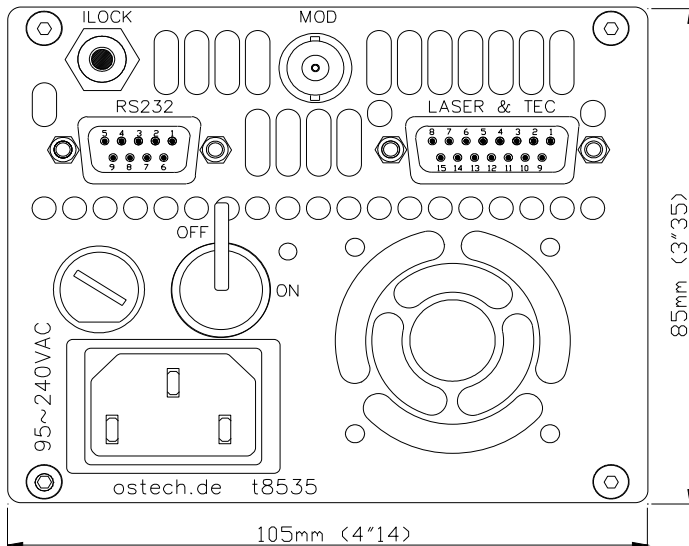


fig: ds11-t85-rear; length 200mm (8")

Revision overview:

03.04.2018: "v0" - version 0, new setup, derived from type 119-v6

References:

<http://www.ostech.de/en/products/laser-drivers/ds11-t85>
<http://www.ostech.de/en/downloads/manuals/ds-en.pdf>
<http://www.ostech.de/en/downloads/labview>

Accessories

- kab-lpa08-16pol-subd15m-oe-1.5m-39
cable 16x0.35qmm SUBD15-Gold-6,5A/Pin to open end length 1m5
- acc-converter-usb-to-rs232-1m5-iso-417
RS232 to USB converter optical isolated with FTDI-Chip cable 1.5m
- hsp-06-btf-v0-631
butterfly-mount for-btf14-housing, including-passive-cooler-block with integrated-fan, layout-0 Qmax-6W rth-2,2°C/W