

14-Pin DIL Package Laser Diode Mount and Heat Sink / LDM-DIL-T1



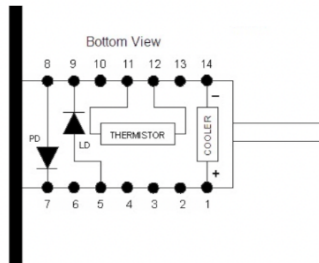
LOW COST DIL-PACKAGE LASER DIODE MOUNTING AND HEAT SINK SOLUTION

- ◇ Low Cost Mount and Heat Sink Solution
- ◇ Type 1 Laser Diode Wiring Configuration
- ◇ Shorting Jumper for ESD Protection

LDM-DIL-T1 SPECIFICATIONS

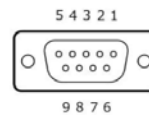
- Input Connector: 9-Pin D-Sub (Female)
- Laser Wiring Configuration: Type 1 (See Data Sheet)
- Polarity of LD: AG / CG
- Polarity of PD: Floating
- Maximum TEC Current: 3 Amps
- Dimensions: 66 mm x 50 mm x 43 mm
- Mounting Hole Dimensions: 4x 3.4mm
- Mounting Hole Pattern: 56 mm x 42 mm

Type 1 Laser Wiring Configuration



Pin	Function	Pin	Function
1	TEC (+)	14	TEC (-)
2	-	13	GND PCB
3	-	12	Thermistor
4	-	11	Thermistor
5	LD Anode (+)	10	NC (W2 Ground)
6	-	9	LD Cathode (-)
7	PD Cathode (-)	8	PD Anode (-)

DSub-9 Connection



Pin	Function
1	LD Anode (+)
2	LD Cathode (-)
3	Case Ground
4	TEC (-)
5	TEC (+)
6	PD Anode (+)
7	PD Cathode (-)
8	Thermistor
9	Thermistor



Instructions for Use

Thermal Considerations

In order to maintain constant laser diode chip temperature, a TEC is integrated into the laser diode package. To properly utilize the internal TEC with this mount and heat sink, there must be good thermal contact between the laser package and the heat sink. The use of thermal interface material between the laser diode package and the heat sink is strongly recommended. A good quality thermal grease or thermal interface pad can be used for this purpose.

DIL Package Soldering to the Mount PCB

1. Remove the PCB from the heat sink by unscrewing the four M3 screws that hold the PCB to the heat sink. Keep the four round plastic spacers.

Important! The laser diode can be damaged by ESD. Always take precautions to protect the laser diode by working in an ESD safe environment.

2. Insert the DIL laser diode into the PCB. Mind the orientation of the laser package: the square solder pad and small white dot on the top of the PCB indicate Pin 1 of the laser package. Solder the DIL laser diode pins to the PCB, following the laser manufacturer recommendations for soldering temperature. Trim the excess length of the pins.

Installation of the PCB and DIL Package on the Heat Sink

1. Apply a small amount of thermal grease on the DIL laser flange where it will contact the heat sink stub. A thin coating of thermal grease is sufficient.
2. Install the PCB with the laser diode on the mount heat sink, using the four M3 screws and the four round plastic spacers.
3. Install the two M3 screws on the heat sink stub securing the laser diode to the stub, but do not tighten yet.
4. Unscrew the two HEX screws on the heat sink stub top about 1/2 turn, just to let the stub move a bit on the heat sink.
5. Secure the laser diode to the heat sink stub by tightening the two M3 screws evenly, in two stages. The package can be distorted and/or damaged if the screws are tightened unevenly or over tightened. Secure the stub to the heat sink by tightening the two HEX screws on the top.

Notes

1. The W1 jumper is installed by default and is protects the laser diode from ESD damage by shorting the anode and cathode. Install the W1 jumper when the laser diode not in use or is disconnected from the current source.
2. Make sure to remove W1 jumper after connecting the mount to the laser source and before switching on the laser diode current source.



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HEAT SINKS**

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