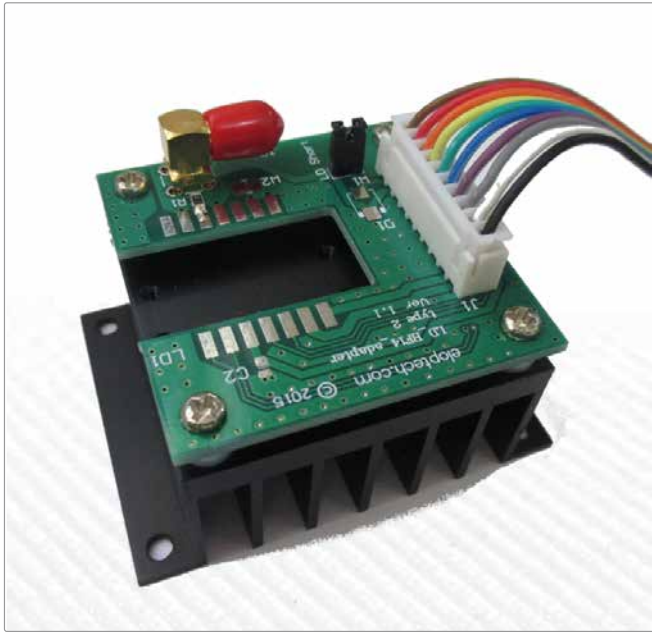# Type-2 Butterfly Package Laser Diode Mount / BTY-T2-XHS

Butterfly Packaged Laser Diode Mount with SMA RF Modulation Connector

◊ **Type-2 Laser Diode Pin Configuration**

◊ **SMA Connector for RF Input**

◊ **Shorting Jumper for ESD Protection**

Pin	Function	Pin	Function
1	Thermistor	14	NC
2	Thermistor	13	LD Anode (+)
3	LD Cathode (–)	12	Modulation
4	PD Anode (+)	11	LD Anode (+)
5	PD Cathode (–)	10	NC
6	TEC (+)	9	Case Ground
7	TEC (–)	8	Case Ground

XH-Connector Pin Assignment

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

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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.

Butterfly Package, Soldering to the Mount PCB

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

1. Apply a small amount of thermal grease on the butterfly laser package base where it will contact the heat sink. A thin coating of thermal grease is sufficient; there should be no thick spots or build-up. Alternately a thermal interface pad can be used.
2. Insert the butterfly 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.
3. The package should be secured to the heat sink using all four screws. The screws should be tightened evenly in two stages. The package can be permanently distorted and damaged if the screws are tightened unevenly or over-tightened.
4. Solder the butterfly laser diode pins to the PCB, following the laser manufacturer recommendations for soldering temperature. If needed, trim the excess length of the pins.

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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