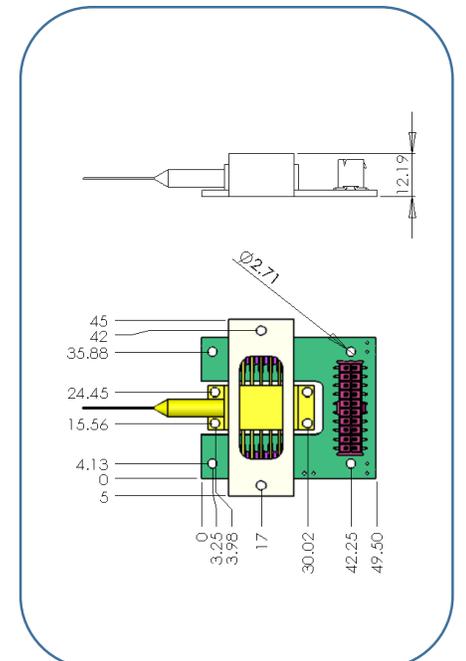
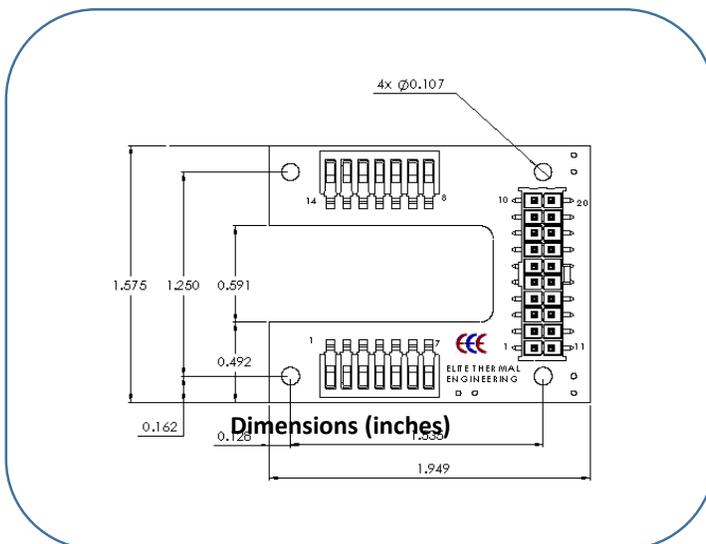
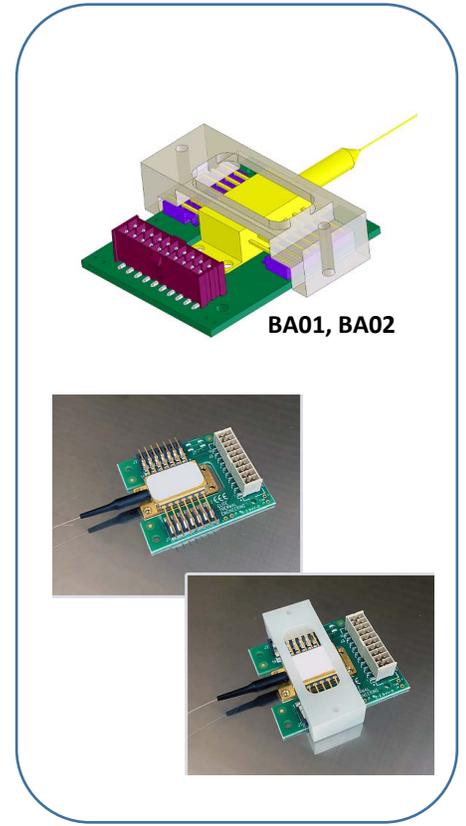


The model BA02 (configurable to all pin configurations) and the model BA01 (for Type 1 pin configurations) butterfly packaged laser diode mounting kits are designed for flush mounting butterfly packages to a cold plate or heat sink.

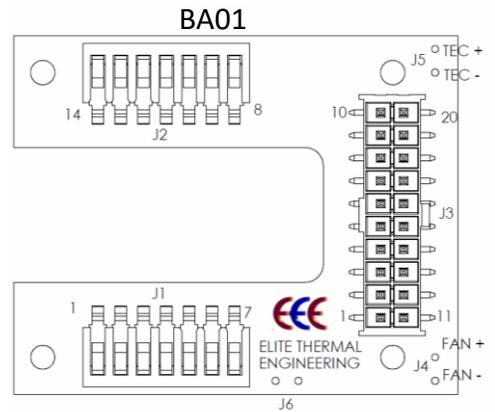
KEY FEATURES:

- ★ 14-Pin or 10-Pin butterfly package laser diode mounting PCB assembly
- ★ Two rows of zero insertion force (ZIF) PCB spring loaded headers that match the butterfly package electrical lead spacing
- ★ Contacts of the headers are spring loaded for maintaining robust electrical continuity
- ★ When compressed by the supplied plastic clamping bracket, the electrical leads of the butterfly package are pressed to the spring loaded PCB pads; the spring loaded pads provide excellent contact without stressing the electrical leads
- ★ Additional wire soldering plated holes for a fan, external TEC and thermistor
- ★ 20-Pin configurable connector at the end of PCB:
 - a. Model BA01 routes all active connections of standard pump (Type 1) laser to the pin connector at the end of PCB, and provides reverse bias protection for diode inside of butterfly
 - b. **Model BA02 routes all butterfly connections to a configurable 20-pin connector at the end of PCB, making it an universal butterfly connector**
- ★ An easy to use plastic clamping bracket is provided for clamping the butterfly contacts against the spring loaded contacts of the ZIF header, while flush mounting the butterfly package to a cold plate or heatsink
- ★ An electrical insulation sheet beneath the PCA to ensure electrical isolation from mounting surface is also provided



MODEL LDM-BUTTERFLY/BA01

20 pin connector	Butterfly ZIF header		Plated holes for soldering wires	Rated current (A)
1	5	thermistor		1
2	4	PD cathode -		1
3	3	PD anode +		1
4	2	thermistor		1
5	1	TEC +		6
6			J6 Cold plate thermistor	1
7			J6 Cold plate thermistor	1
8	14	TEC -		6
9	13	Case ground		1
10		N/C		1
11	11	Laser cathode -		4
12	11	Laser cathode -		4
13	10	Laser Anode +		4
14	10	Laser Anode +		4
15			J4 Cold plate fan +	1
16			J4 Cold plate fan -	1
17			J5 Cold plate TEC +	1
18			J5 Cold plate TEC +	1
19			J5 Cold plate TEC -	1
20			J5 Cold plate TEC -	1
	6, 7, 8, 9, 10, 12 Not connected			

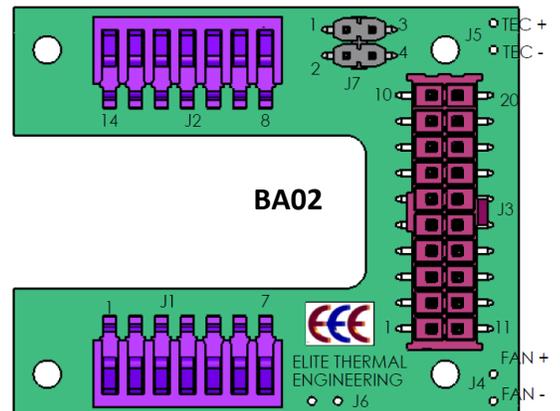


Please note that only the butterfly packages that comply with the listed butterfly pin-outs can be used with BA01, users are recommended to check the butterfly pin outs carefully before making the connections.

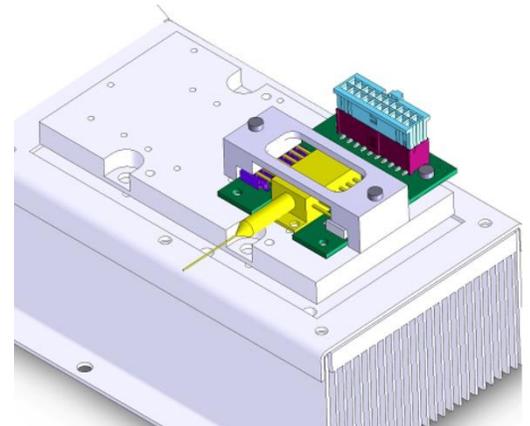
MODEL LDM-BUTTERFLY/BA02

Table 2 below lists the pin out designations for BA02

20 pin connector	Butterfly ZIF header	Plated holes for soldering wires	Rated current (A)
1	1		9
2	2		4
3	3		4
4	4		4
5	5		4
6	6		4
7	7		4
8	8		4
9	9		4



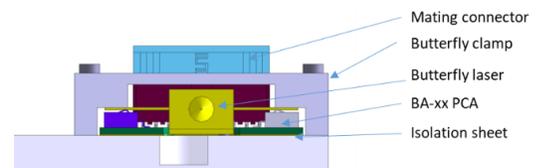
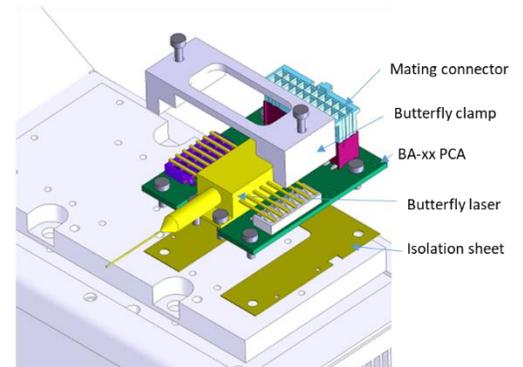
10	10		4
11	11		4
12	12 by shorting pin #2 & 4 of J7	J4 fan + w/pin# 2 & 4 of J7 open	4
13	13 by shorting pin#1 & 3 of J7	J4 fan - w/pin#1 & 3 of J7 open	4
14	14		9
15		J4 Cold plate fan +	5
16		J4 Cold plate fan -	5
17		J6 Cold plate thermistor	4
18		J6 Cold plate thermistor	4
19	1	J5 Cold plate TEC -	9
20	14	J5 Cold plate TEC -	9



The connector for user interface is SAMTEC IPL-1-110-02-S-D, the mating connector is SAMTEC IPD1-10-D-K.

MOUNTING INSTRUCTIONS:

- Place the thin isolation sheet on mounting surface
- Place the BA-xx PCA over the isolation sheet and tighten it down with 4 provided 2-56 x 0.25" screws
- Place the butterfly laser on the mounting surface and align the mounting holes and the pins, and tighten it down with 4 provided 2-56 x 0.25" screws
- Place the plastic clamp on top of the butterfly/BA-xx PCA, align the mounting holes and screw the clamp down with the two provided 2-56 x 0.75" screws



Elite Thermal Engineering, LLC
 22914 11th Ave, W.
 Bothell, WA 98021
 Tel: 425-770-8147
 Email: contact@elitethermalengineering.com
 Web: www.elitethermalengineering.com