Model BA-01 and BA-02 adaptor kits are designed for flush mounting standard butterfly packages on a cold plate or heatsink.

The key features of the compact 40mm x 50mm adaptor kit are:

★ A PCA that

a. Provides 2 rows of zero insertion force (ZIF) PCB headers that match the butterfly's pin pattern; the contacts of the headers are spring loaded for maintaining robust electrical continuity. When compressed by the supplied clamp, the height of the contacts matches the height of butterfly pins, causing no stress to the feedthrus of the butterfly while maintaining robust electrical contact.

b. Provides wire soldering plated holes for fan, TEC and thermistor and routes to the 20-pin connector at the end of PCB.

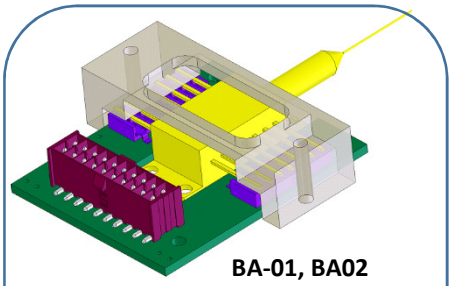
c. BA-01 routes all active connections of standard pump laser to the 20-pin connector at the end of PCB, and provides reverse bias protection for diode inside of butterfly

d. BA-02 routes all butterfly connections to the 20-pin connector at the end of PCB, making it an universal butterfly adaptor

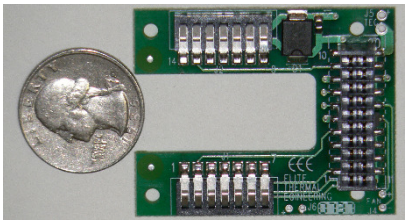
★ An easy to use plastic clamp is provided for clamping the butterfly contacts against the spring-loaded contacts of the ZIF header, while flush mounted to the cold plate or heatsink that the butterfly is mounted to.

★ An electrical insulation sheet beneath the PCA to ensure electrical isolation from mounting surface is also provided

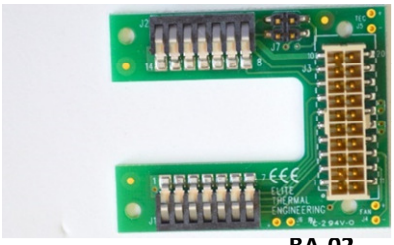
★ All mounting hardware is included (2-56 screws) for flush mounting BA-0x, butterfly and the clamp on a heatsink or cold plate



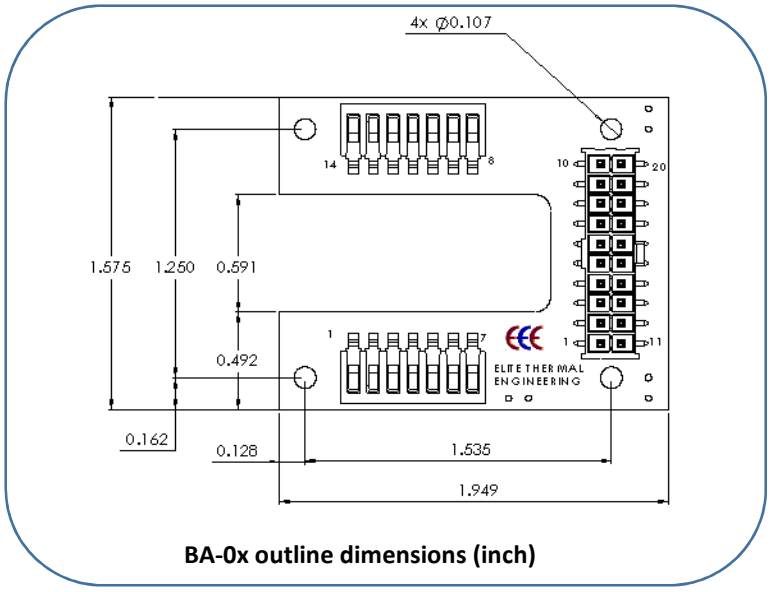
BA-01, BA02



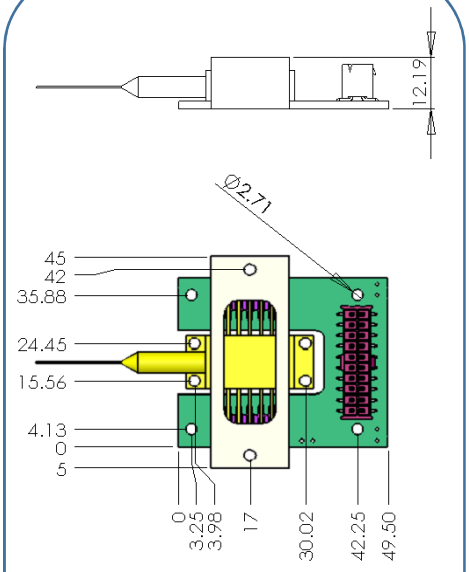
BA-01



BA-02



BA-0x outline dimensions (inch)

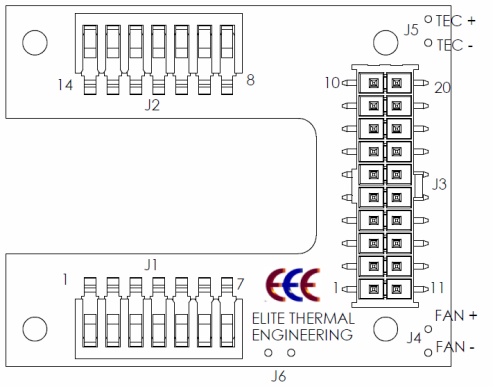


BA-0x mounting pattern (mm)

Table 1 below lists the pin out designations for BA-01.

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			

BA-01



Please note that only the butterfly packages that comply with the listed butterfly pin outs can be used with BA-01, users are recommended to check the butterfly pin outs carefully before making the connections. Butterflies that offer pin outs that differ from table 1 should use BA-02.

BA-02

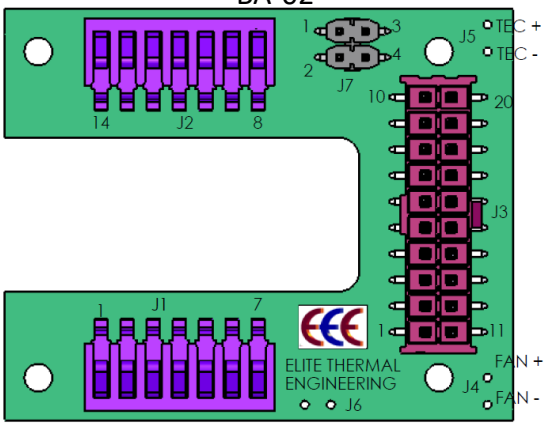
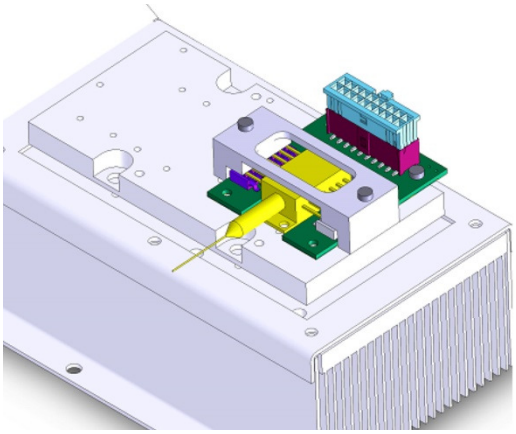


Table 2 below lists the pin out designations for BA-02.

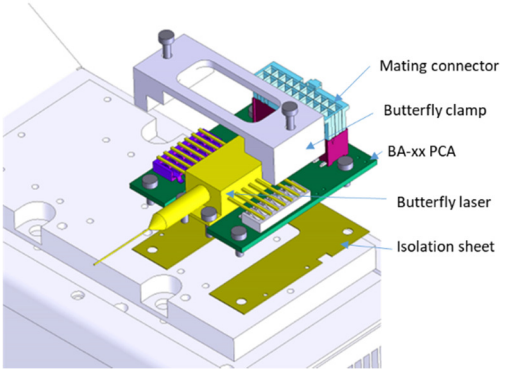
20 pin connector	Butterfly ZIF header	Plated holes for soldering wires	Rated current (A)
1	1		9
2	2		4
3	3		4
4	4		4
5	5		4
6	6		4
7	7		4
8	8		4
9	9		4

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

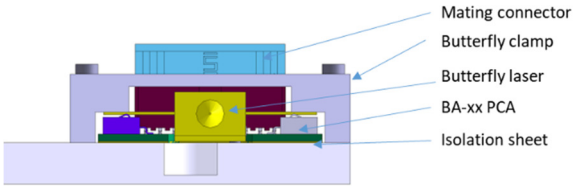


The connector on BA for user interface is SAMTEC IPL-1-110-02-S-D, the mating connector the user needs is SAMTEC IPD1-10-D-K. The crimp contact insert for the mating connector is CC79L-2024-01-L. SAMTEC offers value-add service for the related cable assembly.

Installation 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