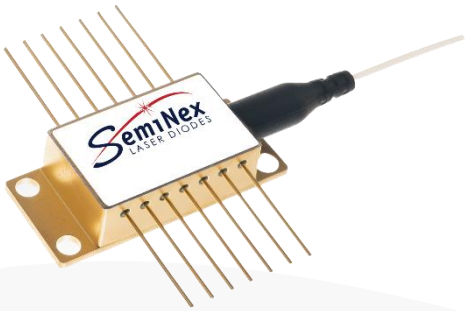
High Power DFB
14-Pin Butterfly Fiber Module

Part Number: 14BF-454



High Power 14-Pin DFB Butterfly Fiber Coupled Module
Single-Mode DFB
Wavelength at 1311nm

Features

- High Output Power @ 190mW
- High Efficiency
- Polarization Maintenance Fiber
- Isolator Included

Application

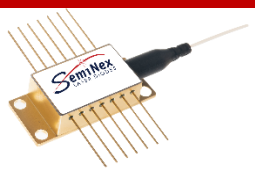
- Optical Communications
- Optical Networks
- Network Test Equipment
- LiDAR

SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

High Power 14-Pin DFB Butterfly Fiber Module

Specification

14BF-454



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1311	nm (±5 nm)
Output Power	P_{out}	190	mW
Linewidth @ Iop	Δf	<200	kHz
Side Mode Suppression Ratio	SMSR	50	dB
Relative Intensity Noise	RIN	<-140	dBc/Hz
Extinction Ratio (minimum)	ER	20	dB
Electrical	**Symbol**		**Units**
Power Conversion Eff.	η	11	%
Operating Voltage	V_{op}	2	V
Operating Current	I_{op}	900	mA
Threshold Current	I_{TH}	35	mA
Fiber Package	**Symbol**		**Units**
Fiber Type	PM 1310nm, 900µm jacket		
Connector Type		FC / APC	
Fiber Length		1	m
Pinout Type		Type 1	
Thermistor			
Thermistor Constant	β	3930	β
Thermistor Resistance	R	10	K ohm
Voltage (TEC) – Typ, Max	V_{TEC}	2, 8.2	V
Current (TEC) – Typ, Max	I_{TEC}	0.3, 2.6	A
		Range	
Temperature Coefficient		0.1	nm/°C
Operating Temp.**		0 to 50	°C
Storage Temp.		-40 to 85	°C

Specified values are rated at a constant heat sink temperature of 20°C.
**High temperature operation will reduce performance and MTTF.

WARNING - FIBER HANDLING
- Do NOT bend the fiber tighter than 26 mm radius during installation or handling.
- Do NOT bend the fiber tighter than 52 mm radius during normal operation or long-term use.
- Exceeding these limits may cause permanent fiber damage and increased optical loss.

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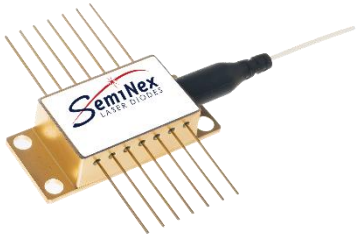
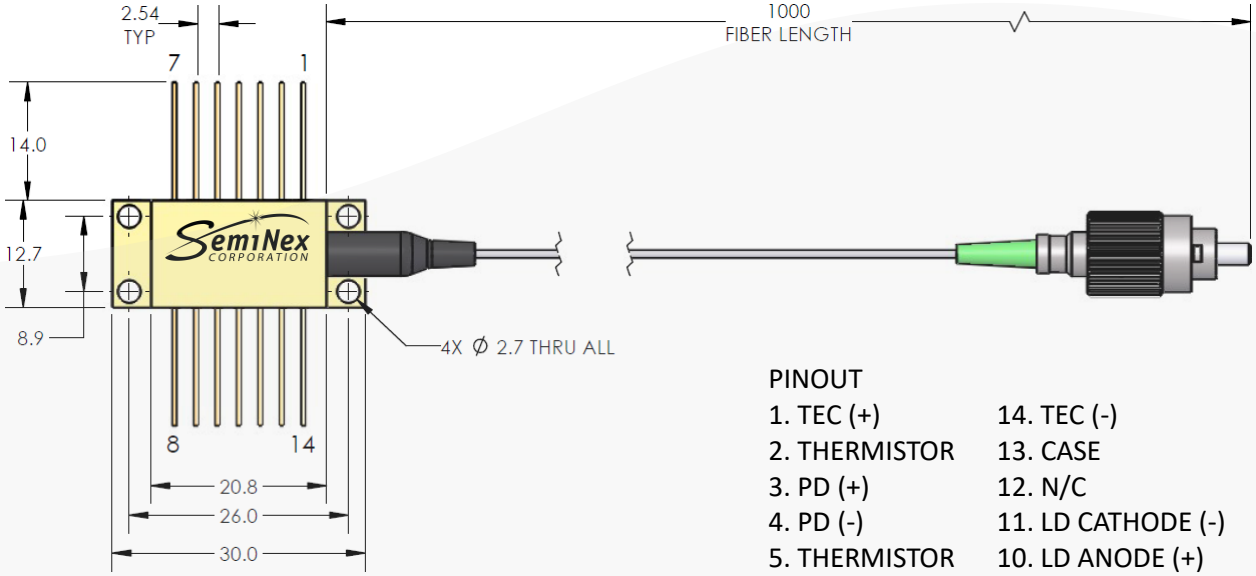
High Power DFB
14-Pin Butterfly Fiber Module

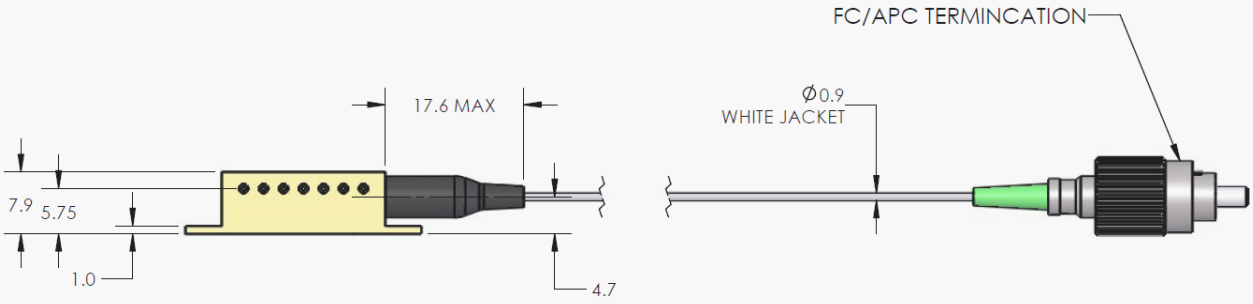
Mechanical Drawing





PINOUT

1. TEC (+)	14. TEC (-)
2. THERMISTOR	13. CASE
3. PD (+)	12. N/C
4. PD (-)	11. LD CATHODE (-)
5. THERMISTOR	10. LD ANODE (+)
6. N/C	9. N/C
7. N/C	8. N/C



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