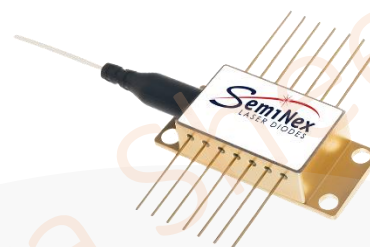


# High Power DFB 14-Pin Butterfly Fiber Module



## Part Number: 14BF-454

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



## Features

- High Output Power
- High Efficiency
- Polarization Maintenance Fiber
- Isolator Included

## Application

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



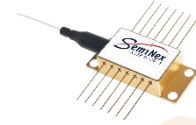
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer 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	$\lambda_c$	1311	nm (+/-1nm)
Output Power	$P_{out}$	190	mW
Linewidth	$\Delta f$	130	kHz
Side Mode Suppression Ratio	SMSR	50	dB
Relative Intensity Noise	RIN	<-140	dBc/Hz
Electrical	Symbol		Units
Power Conversion Eff.	$\eta$	11	%
Operating Voltage	$V_{op}$	2	V
Operating Current	$I_{op}$	900	mA
Threshold Current	$I_{TH}$	35	mA
Fiber Package	Symbol		Units
PM Fiber Core		8	$\mu m$
Connector Type		FC / APC	
Fiber Length		1	m
Pinout Type		Type 1	
Thermistor			
Thermistor Constant	$\beta$	3930	$\beta$
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.**		-20 to 75	°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.

Unless otherwise indicated all values are nominal.

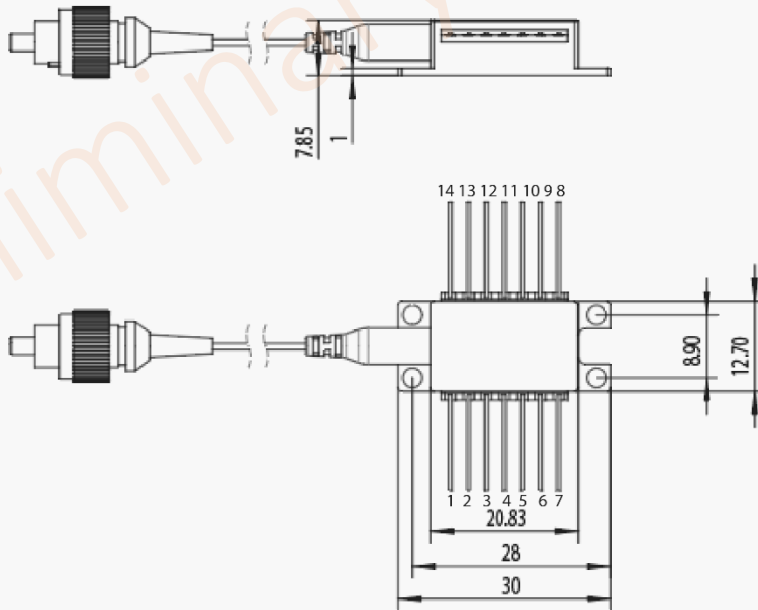
# High Power DFB

## 14-Pin Butterfly Fiber Module



### Mechanical Drawing

Pin #	Function
1	Thermoelectric Cooler (+)
2	Thermistor
3	MPD Anode (+)
4	MPD Cathode (-)
5	Thermistor
6	NC
7	NC
8	NC
9	NC
10	LD Anode (+)
11	LD Cathode (-)
12	NC
13	NC
14	Thermoelectric Cooler (-)



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