

## 27~30dBm High Power Polarization Maintaining Fiber Amplifier Module (two stages)

### ►► Description

BeamQ high power polarization maintaining fiber amplifier modules are designed to output optimal optical performance with high reliability and stability. These amplifier modules are especially developed for PM transmission, sensors and LIDAR applications.

This line of PM high power fiber amplifier modules is built based on power combining configuration, the use of selected components with extremely high PER and low EL values and careful management of splice joints to preserve polarization. Both input and output signals are sampled and monitored with a feedback circuit to protect the amplification system. APC (automatic power control) and ACC (automatic current control) circuits are designed into the amplifier to ensure high stability and reliability of output power. Standard user-friendly RS-232 interface enables reliable connectivity with customer's control system.

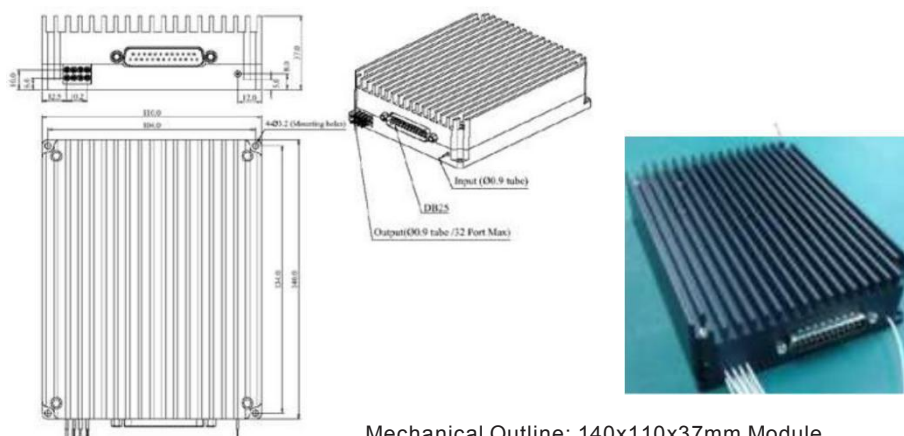
### ►► Features

- High polarization extinction ratio
- Low noise figure
- RS-232 interface
- Highly reliable laser diode pumps
- High stability and reliability based on multi-mode pump and PM fiber combining technology

### ►► Applications

- LIDAR & Sensor
- Test and Measurement
- Coherent synthesizing & Spectrum synthesizing
- Frequency conversion
- Microwave optics
- Booster amplifier for PM transmitters

### ►► Typical Mechanical Structure



## ►► Specifications:

### Optical Characteristics

Parameter	Unit	Typ.	Notes
Operating wavelength	nm	1545~1565	Other wavelength upon request. Refer to illustration below
Output power	dBm	+27   +30	
Input power	dBm	-10 ~ +10	
Polarization Extinction Ratio	dB	>17	
Polarization Axis		Slow axis	
Output power stability	dB	<0.3	APC mode, over 2 hours
Noise figure	dB	<6.0	Pin=0dBm@1550n
Control mode		Selectable	APC or ACC
Return loss	dB	>40	900µm Jacket, 1m-long
Output fiber type		SM15-PR-U25A-H	Other type upon request
Connector type		FC/APC, SC/APC	

### Mechanical & Environmental characteristics

Parameter	Unit	Typ.	Notes
Dimensions(L×W×H)	mm	140×110×37	Module
Cooling		Conductive via bottom surface and fan cooling	Heat sink is needed
Operating temperature	℃	0 to +50	
Storage temperature	℃	-20 to +70	
Humidity	%	10 to 90	

## ►► Pin Out

### Electrical PIN Assignment

Pin No.	Name	Description
1,2,3,4,12,24	+24V	Positive Supply Voltage. DC 24V.
5,6	NC	No connect.
7	Case Temperature Alarm	Output pin. LVTTTL 3.3V = alarm.
8	Loss of Output Alarm	Output pin. LVTTTL 3.3V = alarm.
9	LD2 Temperature Alarm	Output pin. LVTTTL 3.3V = alarm.
10	LD1 Temperature Alarm	Output pin. LVTTTL 3.3V = alarm.
11	MCU RESET Input	Input pin. LVTTTL 3.3V = reset.
13,14,15,16,17,25	GND	Ground reference point for 24V DC source.
18	RS232 TX	Transmitter Data Output of the Serial (UART) Port.
19	Loss of Input Alarm	Output pin. LVTTTL 3.3V = alarm.
20	Output Power Mute Input	Input pin. LVTTTL 3.3V = mute.
21	Amplifier Disable Input	Input pin. LVTTTL 3.3V = disable.
22	RS232 RX	Receiver Data Input of the Serial (UART) Port.
23	GND	Ground reference point for the Serial (UART) Port.
	S1,S2	The connector mounting PIN, connected to the Ground reference point for 24V DC source.

### Electrical Characteristics

Parameters	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V	18	24	36	V
Power Consumption	P	-	30	40	W
L Input Voltage	H	2.4	-	-	V
	L	-	-	0.8	V
TTL Output Voltage	H	2.4	-	-	V
	L	-	-	0.4	V

## ►► Order Information

YEDFA-PM-EM-B2-XX-XX/XXX

