40dBm Multiport High Power Fiber Amplifier Module

Description

YEDFA-MP series of high power fiber amplifier combiners are especially designed for FTTx, CATV, FDC and HFC analog amplification applications that require high reliability. Compared to conventional amplifiers, these modules are more compact, powerful, stable and reliable.
This line of high power fiber amplifier combiners features a dual stage amplification configuration, pre-amplifier and power amplifier and the use of selected multi-channel splitters with extremely low IL and high reliability.
Both input and output signals are sampled and monitored with a feedback circuit. ACC (automatic current control) and APC (automatic power control) circuits are designed into the amplifier combiner to ensure high stability and reliability of output power. Standard user-friendly RS-232 interface enables reliable connectivity with customer's control system.

Features

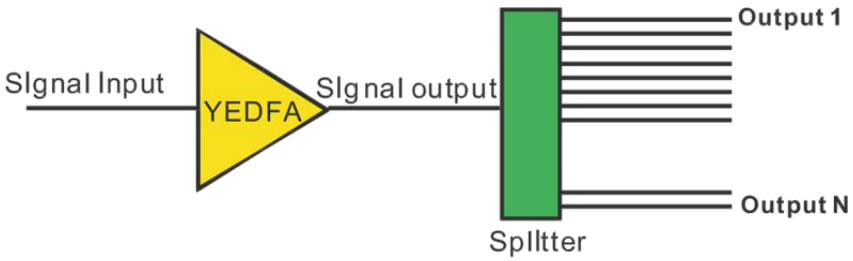
- Low noise figure
- Optional output configurations: 20dBm * 64 ports, 22dBm * 32 ports or 40dBm * 1 port, etc.
- Highly reliable laser diode pumps
- High stability and reliability based on multi-mode pumping and fiber combiner technology
- Wide operating temperature range

Applications

- Test and Measurement
- Analog CATV transmission systems
- Data & Voice optical transmission systems
- Optical distribution systems
- FTTx
- Free space communication

Specifications

Typical Function Structure



The YEDFA-MP Module Optical Characteristics

Parameter	Unit	Specifications			Notes
		Min.	Typ.	Max.	
Signal Wavelength Range	nm	1543		1565	
Input Port Power	dBm	-5		10	
Output Port Power	dBm	19		40	One port output power. Other output power upon request
Output Ports		1		64	Other ports upon request
Signal Noise Figure	dB		5.0	7.0	Pin=3dBm@1550nm
Signal Output Power Difference	dB			1.2	
Signal Output Power Stability	dB			0.4	
Return Loss	dB	40			
Polarization Dependent Gain	dB			0.5	
PMD	ps			1	
Connectors			SC/APC		Input & All Output Ports (other connector upon request)

Environmental & Mechanical Characteristics

Parameter	Unit	Typ.	Notes
Operating Temperature Range	℃	-5 to 55	
Storage Temperature Range	℃	-20 to 70	
Humidity	%	5 to 95	
Dimensions (W*D*H)	mm	300×180×55	
Cooling			Conductive via surface & Fans

Pin Out

Pin Definitions

NAME	PIN NO.	DESCRIPTION
1-6	+12V	DC12V power supply
7-12	GND	Ground
13	RS-232 Input, Rx	3.3V LVTTL
14	MCU Reset Input	3.3V LVTTL, active low
15	Pump Current Alarm	3.3V LVTTL, active high
16	RS-232 Output, Tx	3.3V LVTTL
17	Loss of Output Alarm	3.3V LVTTL, active high
18	Loss of Input Alarm	3.3V LVTTL, active high
19-20	GND	Ground
21	Case Temperature Alarm	3.3V LVTTL, active high
22	Pump Status Alarm	3.3V LVTTL, 1=pump on; 0=pump off
23	Pump Temperature Alarm	3.3V LVTTL, active high
24	NC	Not connect
25	Amplifier Disable Input	3.3V LVTTL, active high
26	Output power Mute Input	3.3V LVTTL, active high
27-28	NC	Not connect
29-34	GND	Ground
35-40	+12V	DC12V power supply

***Connector type: TSS-120-04-L-D-RA**

Electrical Characteristics（Module）

Parameters	Symbol	Min.	Typ.	Max.	Unit
Power supply	V	11	12	13	V
Power consumption	P	-	120	180	W
LVTTL input voltage	H	2.4	-	-	V
	L	-	-	0.8	V
LVTTL output voltage	H	2.4	-	-	V
	L	-	-	0.4	V

Order Information

YEDFA-MP-X-XX-XX-XX-XX/XXX-XX/XXX-X

- Interface Type: 0-RS232
- Output ports connector: SC/UPC, SC/APC etc.
- Input connector: SC/UPC, SC/APC etc.
- Port number*: 1~64
- Output power per port*: 19~40
- Package: EM=Module
- FWDM: 0=none

*Options are 20dBm * 64 ports, 22dBm * 32 ports or 40dBm * 1 port. Other options are available upon request