

# Raman Amplifier EA20 00 Series

## Application

1. SDH、ATM telecom long distance optical Transmission
2. Analog digital TV long distance Optical Transmission system
3. Long span system
4. 10G, 40G system



## Feature

- Distributed low-noise amplification
- Compact size: 1U Rack
- Easy control and operate: Dual CPU process control Loops and the upper Interface respectively
- High stability and reliability: MTBF > 150000 hours
- Perfect network Management interface: Ethernet RS-485 and RS232
- SNMP Network management Or provide SNMP Mib
- Single channel , DWDM or C+L band is available
- Intelligent temperature control system: power consumption and hot Radiation reduce 30% than common products
- Pump polarization-Independent design
- OEM is available
- Compatible with Bellcore GR-1312-CORE

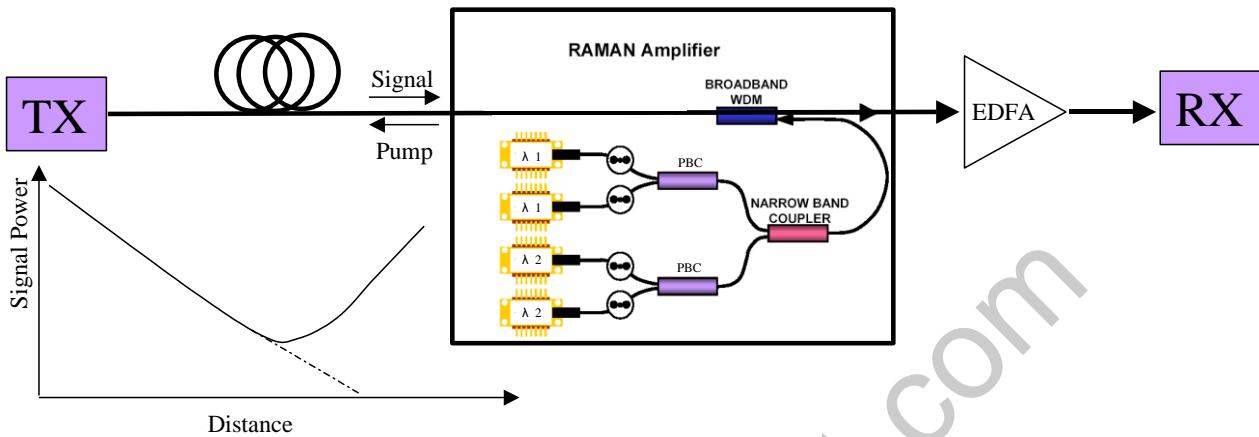
## Description

This product is high power Raman Amplifier which is used in low noise, Long span or high speed Optical Transmission system. Using transmission fiber as the gain medium to form distributed to enlarge, reduce system noise and will get best gain and noise index mix the our EDFA product.

Each Pump output power can be adjustable independently which is suitable for a variety network applications and to enlarge the bandwidth

Intelligent network management system. Perfectly network interface: Ethernet, RS-485 and RS-232 network, and the open network management interface ensure the connectivity with all other network management system.

## Raman Amplifier system structure and Network figure



## Optical Characteristics

Parameters	Symbol	Min	Typ	Max	Unit
Operating wavelength	$\lambda_c$	1525	1550	1565	nm
Pump wavelength	$\lambda_p$	1425	-----	1505	nm
Pump output power <sup>(1)</sup>	$P_o$	-----	500	1000	mW
ON/OFF Gain <sup>(1)</sup>	G	6	-----	14	dB
Gain Flatness <sup>(2)</sup>	FL	-----	1	-----	dB
Polarization Dependent Gain	PDG	-----	-----	0.3	dB
PMD	PMD	-----	-----	0.3	ps
Relative Noise Figure	NF	-----	-----	0	dB

(1) : Optional

(2) : For DWDM System

## Electric Characteristics

Parameters	Symbol	Min	Typ	Max	Unit
Power supply ※	Vps	85/170	110/220	132/264	VAC
Consumption ※※	P	----	----	18	W

※ Power supply 110VAC, 220VAC and -48VDC is optional

※※ Actual consumption depend on output power and environment temperature.

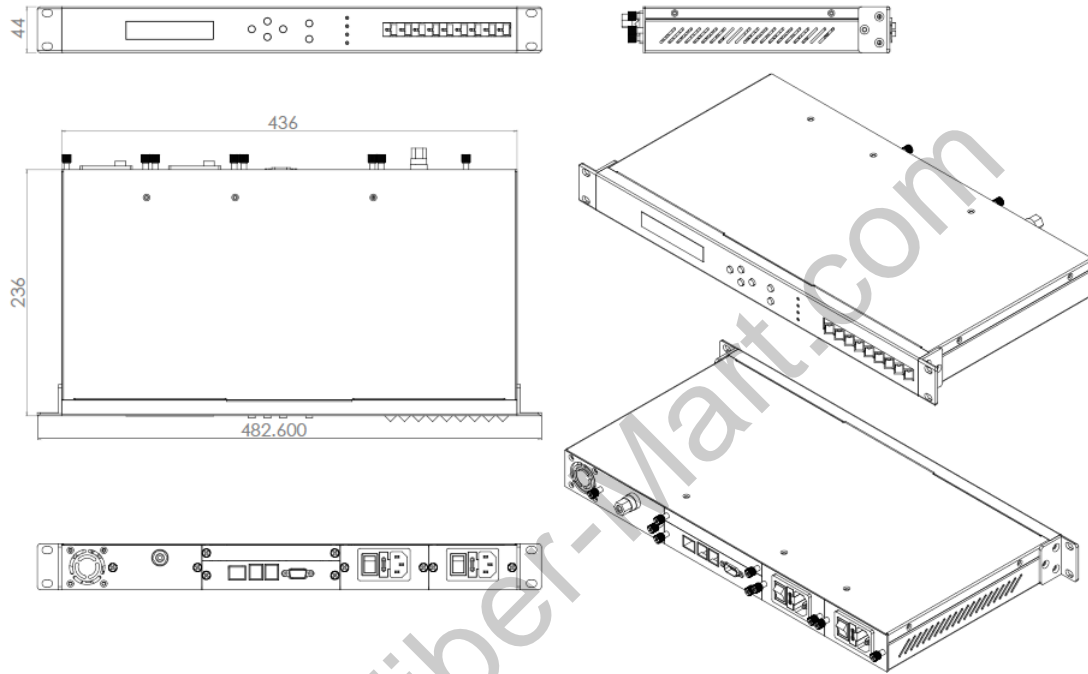
## Environmental Characteristics

Parameters	Symbol	Min	Typ	Max	Unit
Operation Temperature	Tw	-5	----	60	°C
Storage Temperature	Ts	-40	----	80	°C
Humidity	----	10	----	85	%

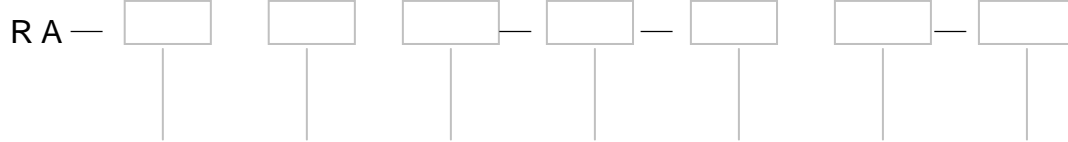
(3) : No condensation

## Mechanical Dimension

RA1A00:483\*236\*44 (mm)



## Order Information



Category	Mechanical	Application	Gain	Voltage1	Voltage2	Interface	SNMP
RA: Raman Amplifier	12: 1 U  Double power supplies	1: C band	06: 6dB	1:110VAC	1:110VAC	2:SC/APC	0: W/O
			...	2:220VAC	2:220VAC	4:FC/APC	1: W/
			14:14dB	3:110~220VAC	3:110~220VAC	6:LC/APC	
				4:-48VDC	4:-48VDC	9:other	
				9:other	9:other	0: none	

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