



## **Multiport 1550nm CATV Erbium Doped Fiber Amplifier**

**RCI OA3400 Series**

### **Technical Specification**



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## 1.0 PRODUCT DESCRIPTION

OA3400(1RU) series is a high power multi-ports optical amplifier with gain spectrum band within 1540~1563nm. It is mainly designed for the application of CATV or 1~8 continuous banding channel (ITU wavelength). It offers a flexible and low-cost solution for CATV large area coverage of metropolises and medium-sized cities.

OA3400 optical amplifier adopts the world's top class pump laser and active optical fiber. Perfect APC, ACC and ATC control, excellent design in the ventilation and heat-dissipation ensure the long life and high reliable work of pump laser.

OA3400 has extremely low noise figure, the entire unit adopts twin-stage amplification, and the pre-amplifier adopts low noise EDFA, output cascade adopts high power EDFA. When input optical power  $P_{in}=0dBm$ , the noise figure of unit is: Typ  $\leq 4.5dB$ , Max  $\leq 5.0dB$  Unlike other kind of product which need high optical power input to maintain lower noise figure.

OA3400 LCD at the front panel offers the work index of all equipment and warning alarms. The laser will switch off automatically if optical power is missing, which offers security protection for the laser. RS232 and RJ45 offer serial commutation and SNMP network management port. All the optical port of optical amplifier can be installed in the front panel or back panel.

OA3400 optional two-way optical input (built-in 2x1 optical switch), can be used for self-healing ring network or redundant backup network.

OA3400 with carrier-class reliability and network security management, high quality, high reliability and excellent cost performance and is ideal for system integrators and system operator.

OA3400:19" 1RU rack, The total maximum output power of 37dBm (5000mW), optional output port up to 32 optional port .

## 2.0 PRODUCT FEATURE

- Total output power optional 500~5000mW(27~37dBm)
- 19" 1RU rack, optional output port up to 32 optional port.
- Built-in low noise pre-amplifier, not necessary EDFA cascade, extremely lower the CNR, MER degradation of the system
- Low noise figure ( Typ  $\leq$ 4.5dB, Max  $\leq$ 5.0dB )
- Perfect RS232, SNMP
- Telecom level safety reliability and network management.
- Simplified machine-room links, improve the system reliability.
- Simple and reliable in construction/maintenance
- Optional dual optical input, built-in 2 × 1 optical switch
- Dual power supply optional, 1+1 backup
- Can reduce the 98% device space usage
- Can reduce the 85% device purchase cost
- Can reduce 95% power consumption
- The best cost performance in industry.

## 3.0 MAIN APPLICATION

- AM CATV
- Digital CATV
- DBS & MMDS
- FTTx PON

## 4.0 Technique index

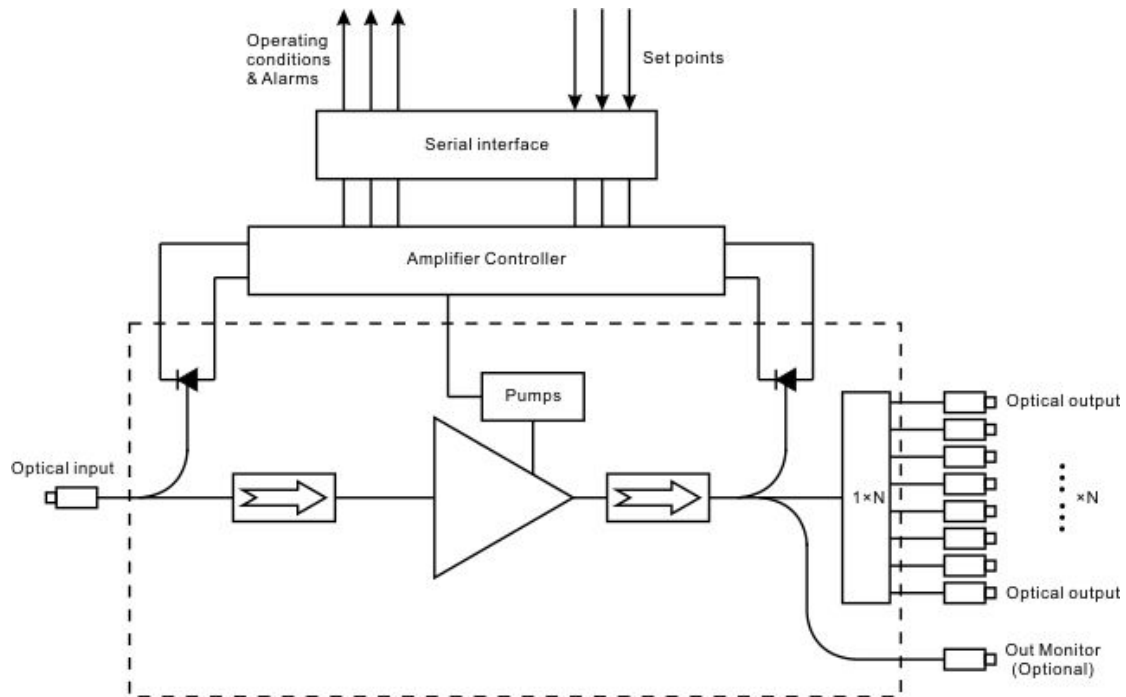
Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	Operating wavelength range	(nm)	1540		1563	CATV
	Input power	(dBm)	-10		+10	
	Total output power <sup>1)</sup>	(dBm)			37	
	Number of output ports	(pcs)			32	
	Each output power	(dBm)	0		22	
	Difference of output power	(dB)	-0.5		+0.5	
	Output optical power monitoring	(dB)		-20		Optional
	Output power adjustable range	(dBm)	-6		0	
	Noise figure (Pin=0dBm)	(dB)		4.5	5.5	OA3400
				5.0	6.0	OA3400S
	Switch time	(ms)			8.0	OA3400S
	Polarization dependence loss	(dB)			0.3	
	Polarization dependence gain	(dB)			0.4	
	Polarization mode dispersion	(ps)			0.3	
	Input/output isolation	(dB)	30			
Pump power leakage	(dBm)			-30		
Echo loss	(dB)	55			APC	
General feature	Network management interface		RJ45			SNMP
	Series interface		RS232			
	Power supply	(V)	90		265	220VAC
			30		72	-48VDC
	Power consume	(W)			50	
	Operating temp.	(°C)	-5		65	
	Storage temp.	(°C)	-40		80	
Operating relative humidity	(%)	5		95		

Size (W)×(D)×(H)	(")	19×14.3×1.75	1RU (19")
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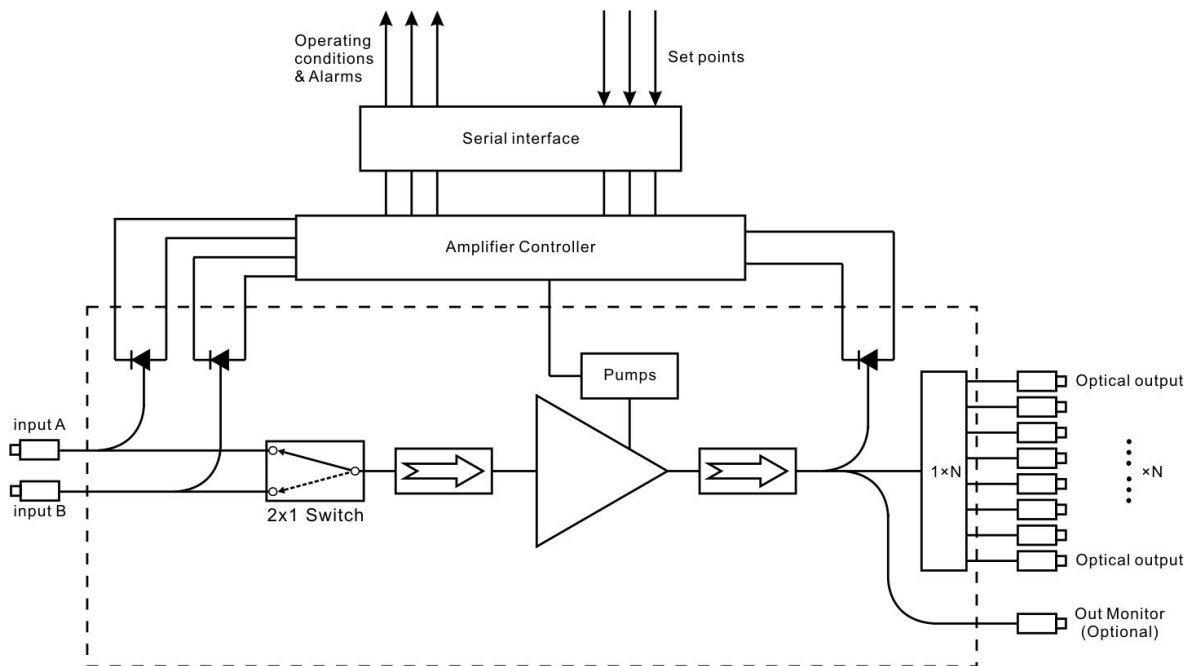
Remark: Output power can be customized by user.

## 5.0 OPTIC/ELECTRICAL SCHEMA

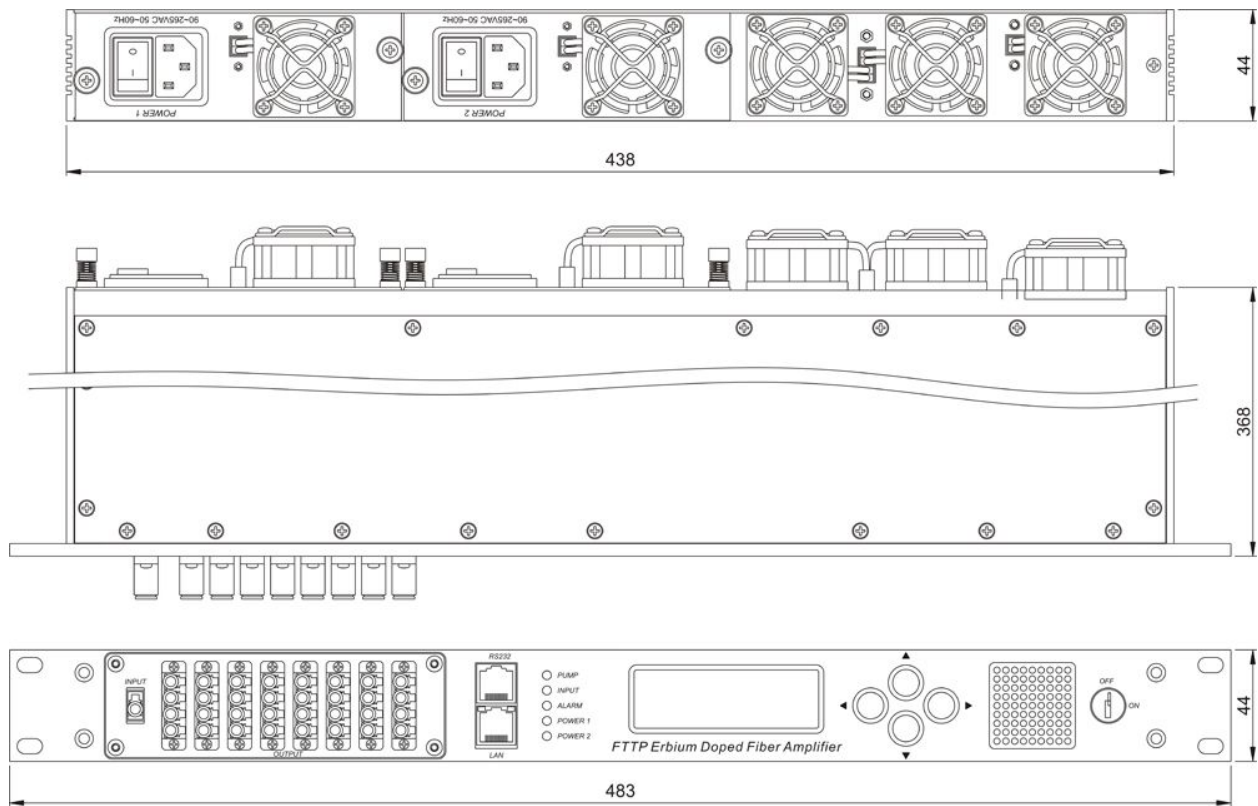
### 5.1 OA3400 (conventional)



### 5.2 OA3400S (Built-in Optical Switch)



## 6.0 1U hot plug frame



## 7.0 Product series

Model number	Total output power	Number of output port	Each port output power	Connector
OA3427-8-XX	27dBm(500mW)	8	16.5	SC/APC、LC/APC
OA3427S-8-XX				
OA3428-8-XX	28dBm(630mW)	8	17.5	SC/APC、LC/APC
OA3428S-8-XX				
OA3429-8-XX	29dBm(800mW)	8	18.5	SC/APC、LC/APC
OA3429S-8-XX				
OA3429-16-XX		16	15.0	
OA3429S-16-XX				
OA3430-8-XX	30dBm(1000mW)	8	19.5	SC/APC、LC/APC
OA3430S-8-XX				
OA3430-16-XX		16	16.0	
OA3430S-16-XX				
OA3431-8-XX	31dBm(1260mW)	8	20.5	SC/APC、LC/APC
OA3431S-8-XX				
OA3431-16-XX		16	17.0	
OA3431S-16-XX				
OA3432-8-XX	32dBm(1600mW)	8	21.5	SC/APC、LC/APC
OA3432S-8-XX				
OA3432-16-XX		16	18.0	
OA3432S-16-XX				
OA3433-16-XX	33dBm(2000mW)	16	19.0	SC/APC、LC/APC
OA3433S-16-XX				
OA3433-32-LX		32	15.5	LC/APC
OA3433S-32-LX				
OA3434-16-XX	34dBm(2500mW)	16	20.0	SC/APC、LC/APC
OA3434S-16-XX				
OA3434-32-LX		32	16.5	LC/APC
OA3434S-32-LX				
OA3435-16-XX	35dBm(3200mW)	16	21.0	SC/APC、LC/APC



OA3435S-16-XX	35dBm(3200mW)	16	21.0	SC/APC、LC/APC
OA3435-32-LX		32	17.5	LC/APC
OA3435S-32-LX				
OA3436-16-XX	36dBm(4000mW)	16	22.0	SC/APC、LC/APC
OA3436S-16-XX		32	18.5	
OA3436-32-LX				
OA3436S-32-LX	37dBm(5000mW)	32	19.5	SC/APC、LC/APC
OA3437-32-LX				
OA3437S-32-LX				

