

FTTX High Performance Optical Amplifier



AT5200 EDFA Series

- **Video-Overlay for FTTx Applications**
- **Up to 64 Output Ports**
- **Optional Optical Switch**
- **Low noise, High Performance**
- **Intuitive Front Panel LCD Display**
- **Adjustable Output**
- **Universal Management with Craft Interface**
- **SNMP Management**

AT5200 2RU Erbium-Doped Fiber Amplifier (EDFA) offers a flexible and scalable multiport optical amplification for high quality video transmission in CATV networks. Together with ACT AT5000 series 1550nm transmitter, the AT5200 EDFA provides an ideal video overlay solution in high density FTTX networks to bring the video services to business and home premises.

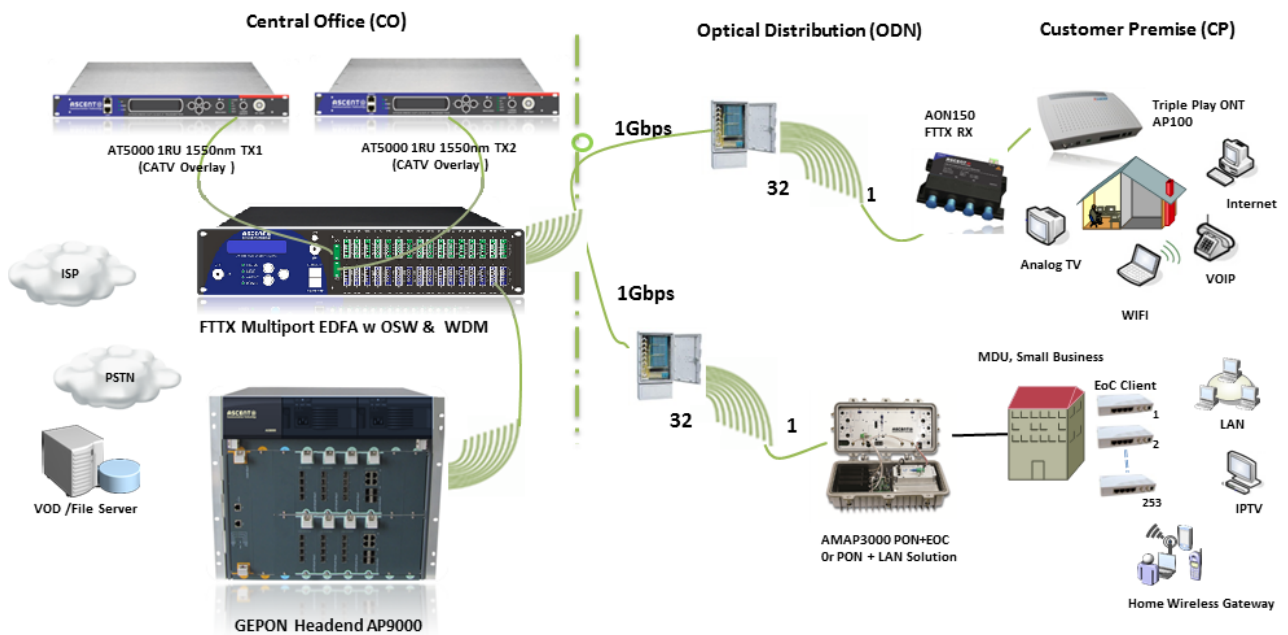
AT5200 EDFA series simplifies the application by offering low noise, high output power, and intuitive front panel LCD display to make operator's life easier. The optical amplifier is packaged in a self-contained 19" sub-rack of 1 or 2 RU with redundant universal mains power supply and SNMP management.

The optical output power level can be ordered from 13 dBm to 26dBm with variable output features available. Multiport EDFAs accommodates up to 16 output ports in 1RU setting and 64 output ports in 2RU setting. Combined with our AT5000 1550nm direct or externally modulated laser transmitter, MSOs can quickly deploy and activate advanced multi-media services in long distance video transmission and high subscriber count FTTH networks.

Key Features

- Low noise, high performance pump laser
- FTTP high power multi-ports optical amplifier with gain spectrum band within 1540~1563nm
- Built-in WDM to connect PON OLT Uplink and Combined PON + CATV output
- Up to 64 uplink optical ports (OLT 1310/1490nm)
- Up to 64 combined output ports (1550nm CATV + 1310/1490nm data stream)
- Suitable for analog and digital CATV systems, DOCSIS, FTTH and more applications
- Suitable for 1550 nm DWDM applications for multiple wavelengths on single fibre
- Nominal output powers from 13dBm to 26dBm per port
- Adjustable output power
- Laser cooling: Thermoelectric Cooler (TEC)
- Extend analog and digital CATV to suit long distance feeders or larger FTTH distribution systems
- Local or remote monitoring and configuration
- SNMP/HTTP monitoring, management and control

Application Diagram



Specifications

AT5200 EDFA Erbium-Doped Fiber Amplifier - 19" 1 or 2RU

Operating CATV wavelength, nm	1540 to 1563
OLT pass wavelength, nm	1310/1490 (signal pass-through)
CATV pass wavelength loss, dB	0.8
OLT pass wavelength loss, dB	0.8
Input power, dBm	-10 to 10, 3dBm typical, -6dBm ~ 8dBm (constant output)
Maximum output power, dBm	21dBm per port (32/64 PON ports), adjustable -3dB
Maximum output ports	8, 32, 64 (SC/APC, LC/APC, LC/UPC)
Output Power Stability, dB	-0.5, +1dB
Port Isolation (CATV & OLT), dB	40
Noise Figure, dB (PIN=0dBm)	<5
Build-in WDM for PON	PON signal pass-through when EDFA is off
Insertion loss	Transmission band <=0.8dB, Reflection band<=0.6dB
Polarization dependence loss, dB	0.1
Polarization dependence gain, dB	0.4
Polarization mode dispersion, ps	0.1
Input/output isolation, dB	60
Echo loss, dB	55
Built-in Optical RX (optional)	RF output: 70dBuV min adjustable CNR: Min 47dB
Optical Switch (optional)	2 optical inputs, Switch time <=0.5s, IL <=1dB, User-defined input threshold Automatic switching when input is low and back when recover, if both below threshold, higher input is selected
SNMP	RJ45 (MIB provided), monitoring input port, output port power, power supply, bias current, laser temperature Set alarm threshold
Serial Interface	RS232
Power Supply	Dual PS (1+1), 90 to 265 VAC or 30 to 72 VDC Optional DC output for external load available 5VDC, 2A
Power Consumption, W	150 Max
Operating Temp, °C	-5 to 65
Storage Temp, °C	-40 to 80
Operating relative humidity, %	-5 to 95
Dimensions (W x D x H)	480x420x88 mm, 19x16.5x3.5 inch
Weight, kg	9 kg
Ship weight	13 kg

Ordering Information

AT 5200 Series FTTX Multiport Optical EDFA Ordering Information								
AT-	5X-	EDFA-	XX-	XX-	XX-	XX	X	-X
	Gain Type		Output Power (after WDM)		Optical Connector* (Common & PON)		Power Supply	
51	Multiport	18	18dBm	SC	SC/APC & SC/PC	2	Dual PS for multiple output version	
52	Multiport + WDM	19	19dBm	LC	LC/APC & LC/PC			
		20	20dBm					Optical Switch or Receiver
		21	21dBm					- No Optical Switch or RX
			Combined Output Port (1310/1490/1550)		Power Supply			S Built-in Optical Switch
		08	8 Optical Output	AC	90 to 265 VAC Australia Plug			R Built-in Optical RX
		16	16 Optical Outputs	DC	30 to 72 VDC			O Built-in Optical Switch & RX
		32	32 Optical Outputs	A3	90 to 265 VAC with Continental EU Plug			
		64	64 Optical Outputs	A4	90 to 265 VAC with North America Plug			

* The maximum output power per port is 26dBm. 1550 Optical Input Connector is SC/APC. Output power is measured after WDM. Contact ACT Sales Representative for more information.

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