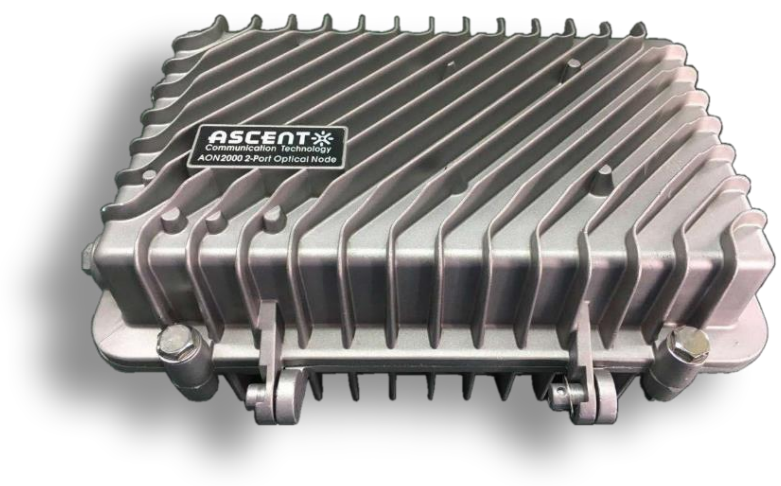
1.2GHz 2 or 4-port Optical Node FTTx Solution



AON212X Series

- **2x2 Segmentable Optical Node with 2 or 4 Outputs**
- **Strand mount housing**
- **Suitable for MDU Application**
- **High 110 dBµV Output**
- **GaAs amplifier device**
- **Excellent AGC performance**
- **On board equalization**
- **40-90 VAC cable plant-powered or local powering**

AON212X Series 2x2 Segmentable two-way Optical Node is part of ACT Deep Fiber solution, which has been designed to deliver interactive CATV, high capacity DOCSIS Data and other advanced services. The cost-effective node platform helps service providers expand bandwidth of their existing HFC network while minimizing capital investment.

AON212X is a 1.2G Hz features a modular design for flexible applications. It has microprocessor control, a digital display, and an easy-to-use engineering debug interface.

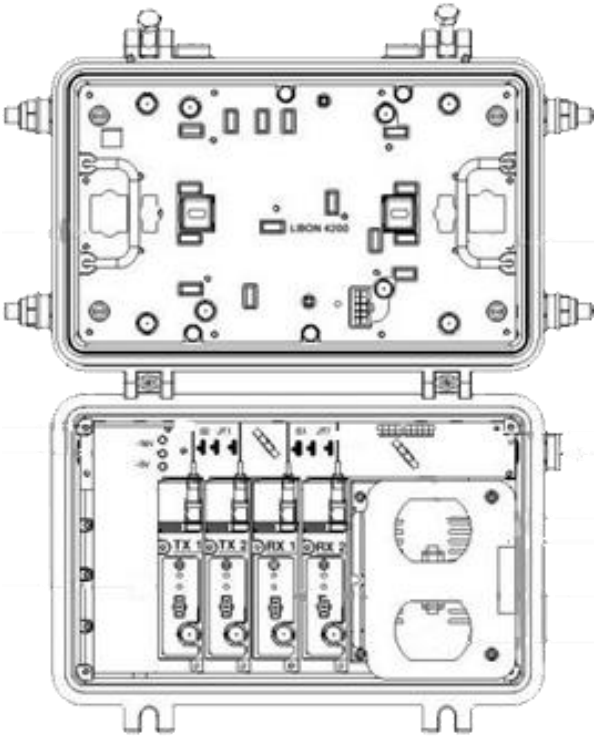
It has highly-optimized circuit design using SMT process production for smooth photoelectric signal transmissions. It has good RF attenuation with high accuracy with its use of a specialized RF attenuation chip. It uses GaAs technology to achieve high gains and low distortion, and has excellent AGC performance.

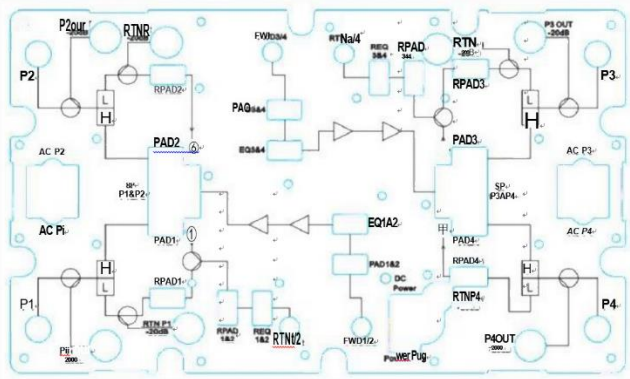
AON212X node suits the last mile fiber deep access networks and also provides the optional HMS interface to support the remote monitoring capability in advanced network management system.

Key Features

- 1.2 GHz and 50dBmV output capabilities
- 2x2 segmentable optical node with high-level output ports & low distortion
- Optimized circuit design, SMT process production, optimized signal path, make the photoelectric signal transmission smoother
- Specialized RF attenuation chip, with good RF attenuation and equilibrium linear, high accuracy
- GaAs amplifier device, power doubler output, with high gain and low distortion
- Excellent AGC performance, when the input optical power range is -9 dBm to +2 dBm
- Various Diplex filters available in 42/54 & 204/258 MHz
- RF Bi-directional Test Point:-20dB
- On board equalization adjusted by 1dB stepped plug-in ATT
- Operating Temperature: -40℃ to +60℃(-40F to +140F)

Block Diagram





Specifications

Parameter		Description	Note
Optical Receive Wavelength	without WDM with WDM	1270 nm to 1600 nm 1310 nm to 1550 nm	
Optical Receive Test Point		1 V/mW	
Optical Input Power/AGC		-6 to +2 dBm	
Optical Return Loss		45 dB	
Frequency Range		FH-1220 MHz	(1)
Flatness of Frequency Response	f=FH-1220 MHz	±1.0 dB	
RF Test Point		-20 dB±1.0	
Output Return Loss	up to 800 MHz above 800 MHz	16 dB 14 dB	
Reference Output Level	±1.0 dB @1220 MHz	50 dBmV	(2)
Slope		14 dB	
C/N(2)		51 dB	
CTB(2)		-64 dB	
CSO(2)		-60 dB	
Optical Wavelength		1310 nm,1550 nm,1610 nm or CWDM	
Optical Output Power		2 or 3 mW	(3)
Optical Return Loss		45 dB	
RF Input Level		15-40 dBmV	(4)
Dynamic Input Range	NPR≥38 dB	15 dB	(5)
Frequency Range		5-FL MHz	(1)
Flatness of Frequency Response	f =5-FL MHz	±0.75 dB	
RF Test Point		-20 dB±1.0	
Input Return Loss		16 dB	
Input Voltage		40-90 V AC	
Power Consumption		≤50 W	
Power passing capacity		12A	
Surge Withstand Capability		IEEE 587 C62.41-1991-Cat B3,Combination Wave,6 kV, 3 kA.8/20 µs	
Operating Humidity		5-95%,non-condensing	
Operating Temperature		-40 °C to +60 °C(-40 °F to +140 °F)	
Dimensions (H x W x D)		9.0"Hx14.0"Wx6.8"D (22.9Hx35.6Wx17.3D cm)	
Weight		13.2 lb(6.0 kg)	

NOTES:

(1)Standard options (FL/FH=42/54, 85/102)

(2)-1 dBm optical input, 3.5%OMI/CH, 79CH NTSC, digital CH above 550 MHz at-6 dB offset

(3)Tolerance on optical output power is +0.71-0.3 dBm.

(4)RF Input level to the node can be varied by changing the Reverse attenuation pads.

(5)80 MHz broadband noise load, 13 dB link loss

Ordering Information

AON212X Series 2 or 4 Output, Fiber Deep Node Ordering Information

AON212	X-	X-	XXX	X-	X-	X-	X

	Bandwidth
0	1 GHz
2	1.2 GHz

	Band Split
085	65~85MHz
105	85~105MHz
258	204~258MHz

	Power Supply
1	35 V_{AC} to 90 V_{AC}
2	150 V_{AC} to 265 V_{AC}

	WDM
-	No WDM

	Return Transmitter
0	None
A	1550 DFB 3 dBm
B	1310 FP 0 dBm
C	1310 DFB 3 dBm
D	1611 CWDM 3 dBm
E	1591 CWDM 3 dBm

	Optical Connector
AS	SC/APC
AF	FC/APC

	EMS
0	No EMS with Internal Optical Connector

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Specifications and product availability are subject to change without notice.

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