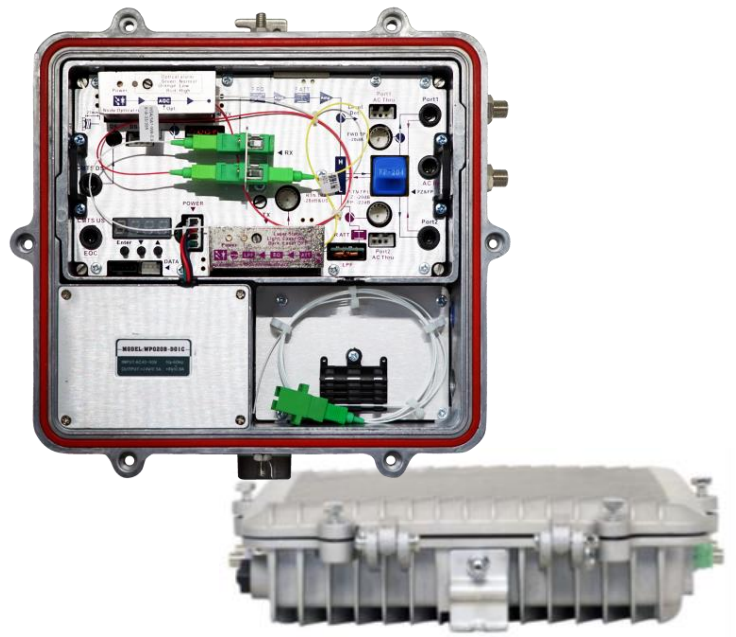


Cabinet 1 or 2-port Optical Node FTTx Solution

AON121X Series

- **Deep Fibre Node with 1 or 2 High Outputs**
- **Compact Housing**
- **Suitable for MDU Application**
- **1x 112 dB μ V or 2x 108 dB μ V**
- **GaAs amplifier device**
- **Excellent AGC performance**
- **Reserved data communication interface**
- **Burst mode for return transmissions**
- **ONU module optional**



AON121X Series 1- or 2-port 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.

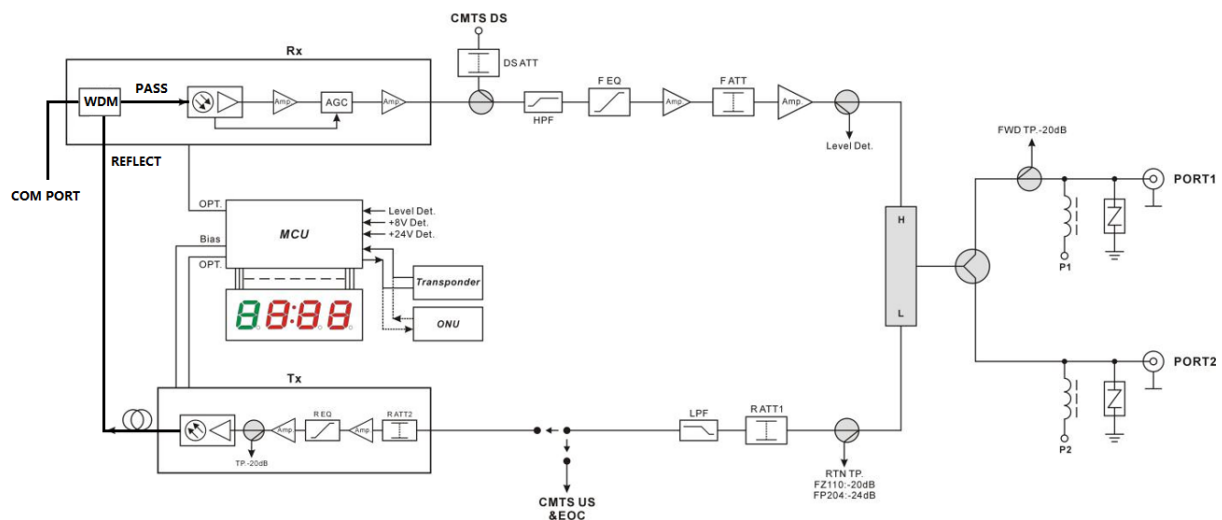
AON121X is a 1.2G Hz features a modular design for flexible applications. It has microprocessor control, a digital display, and an easy-to-use engineering debug interface. It has highly-optimized circuit design using SMT process production for smooth photoelectric signal transmissions. It has good RF 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.

AON121X 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.

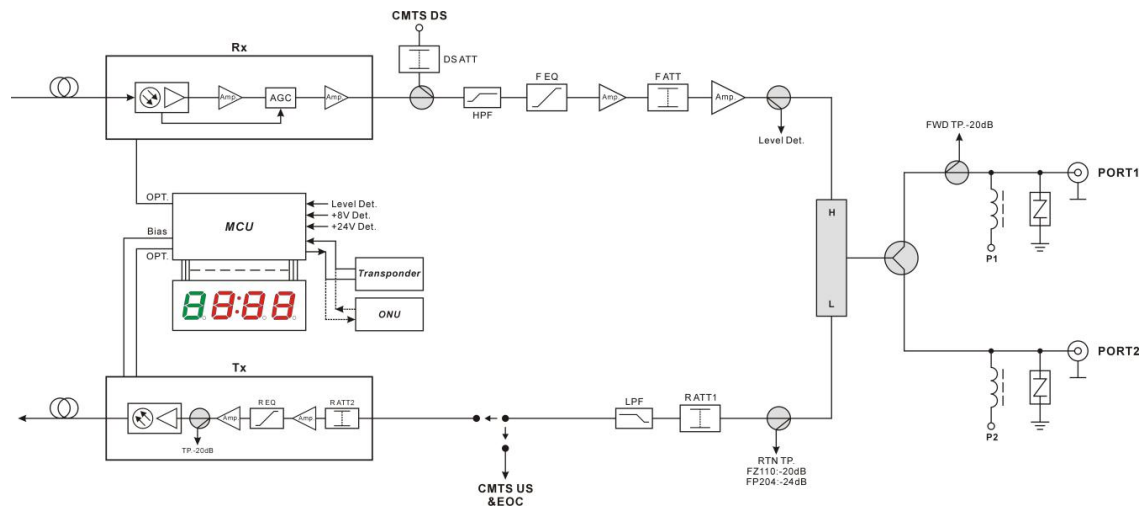
Key Features

- High response PIN photoelectric conversion tube.
- 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.
- Single Chip Microcomputer (SCM) control equipment working, LCD display the parameters, convenience and intuitive operation, and stable performance.
- Excellent AGC performance, when the input optical power range is -9 dBm to +2 dBm, the output level remains unchanged, CTB and CSO basically unchanged.
- Reserved data communication interface, can connect with the Ethernet transponder, access to network management system.
- Return emission can select burst mode to sharply decrease the noise convergence and reduce the forepart receiver number.
- ONU module optional.

Block Diagram

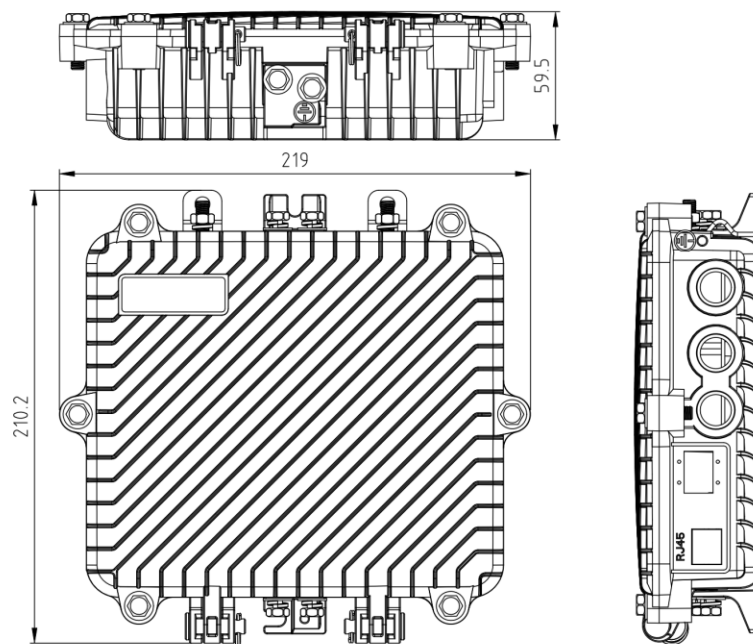


Single Fiber Option



Dual Fiber Option

Outline Dimensions



Specifications

Optical Parameters

Operating Wavelength	1260 nm 1650 nm
Pass Wavelength	1540 nm to 1560 nm
Reflect Wavelength	<1540nm >1560nm
Insertion Loss	<0.7 dB
Isolation Com-Pass	>35 dB @1490, 1577 nm
Isolation Ref-Pass	>35 dB @1270, 1310 nm
Return Loss	>45 dB
Responsivity	>0.85 mA/mW
Connector	SC/APC

RF Parameters

Downstream

Optical Power	-9 dBm to +2 dBm	
C/N	≥51 dB	Output Level 106 dBμV
C/CTB	≥63 dB	EQ 8 dB 79 ch PAL-D
C/CSO	≥60 dB	OMI = 3.5 %
Frequency Range	85 MHz to 1218 MHz	
Flatness	±0.75 dB	
Standard Output Level	≥ 106 dBμV	
Max Output Level	≥108 dBμV	
Output Return Loss	≥16 dB	
EQ Range	0 dB to 15 dB	
ATT Range	0 dBμV to 15 dBμV	

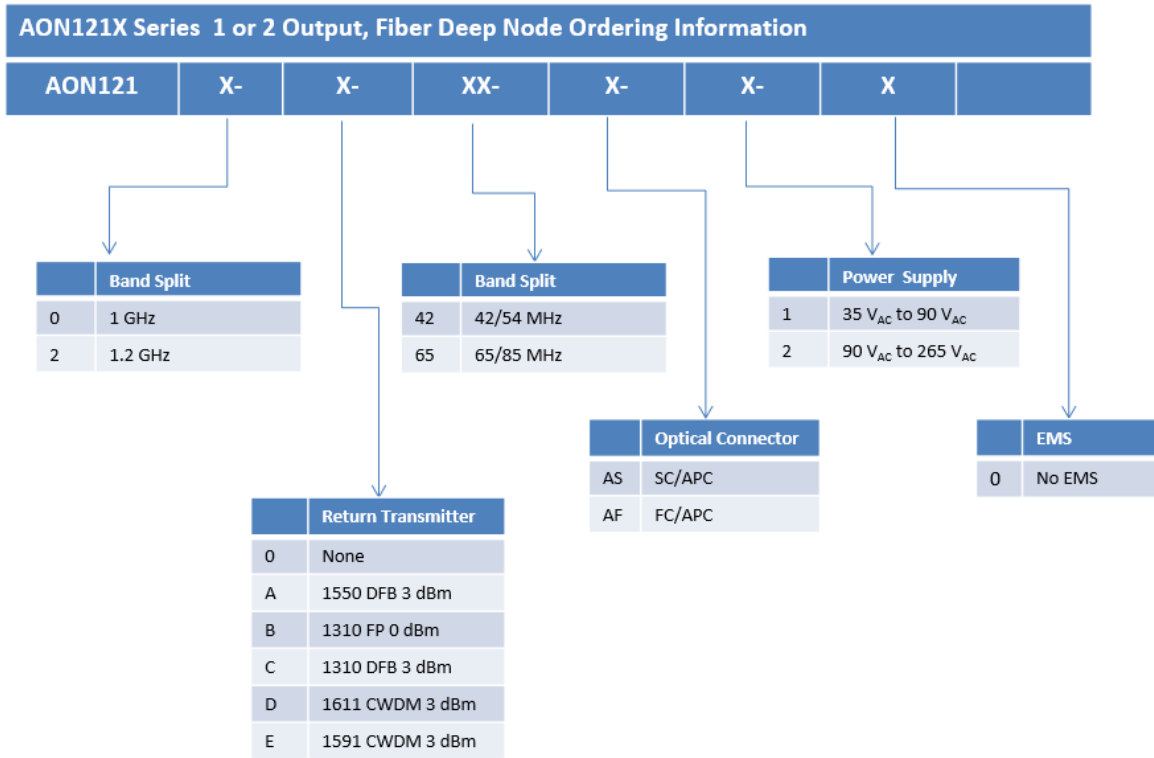
Upstream

Optical Wavelength	1611 nm
Output Optical Power	3 dBm, DFB
Frequency Range	5 MHz to 65 MHz
Flatness in Band	± 0.75 dB
Input Return Loss	≥16 dB
Input Level	72 dBμV to 85 dBμV
Output Impedance	75 Ω
NPR Dynamic Range	≥15 dB (NPR ≥ 30 dB)

General

Supply Voltage	AC (150 to 265) V / AC (35 to 90) V
Operating Temperature	-40 °C to +60 °C
Storage Temperature	-40 °C to +65 °C
Relative Humidity	0 % to 95% (non-condensing)
Consumption	≤20 VA
Dimension (L×W×H)	280 mm × 260 mm × 70 mm
Net Weight	2.8 kg

Ordering Information



Contact Information



Ascent Communication Technology Ltd

AUSTRALIA

140 William Street, Melbourne
Victoria 3000, AUSTRALIA
Phone: +61-3-8691 2902

CHINA

Unit 1933, 600 Luban Road
200023, Shanghai CHINA
Phone: +86-21-60232616

EUROPE

Pfarrer-Bensheimer-Strasse 7a
55129 Mainz, GERMANY
Phone: +49 (0) 6136 926 3246

HONG KONG SAR

Unit 9, 12th Floor, Wing Tuck Commercial Centre
177 Wing Lok Street, Sheung Wan, HONG KONG
Phone: +852-2851 4722

USA

2710 Thomes Ave
Cheyenne, WY 82001, USA
Phone: +1-203 816 5188

VIETNAM

15 /F TTC Building, Duy Tan Street
Cau Giay Dist., Hanoi, VIETNAM
Phone: +84 243 795 5917

WEB: www.ascentcomtec.com

EMAIL: sales@ascentcomtec.com

Specifications and product availability are subject to change without notice.
Copyright © 2021 Ascent Communication Technology Limited. All rights reserved.
Ver. ACT_AON121X_Series_Optical_Node_Datasheet_V1i_Jan_2021