2.6 GHz FTTx Optical RX Solution

AON126 Series

- 45 MHz to 862 MHz (CATV)
- 950 MHz to 2600 MHz (SAT-IF)
- Compact optical receiver design
- Optional WDM for PON pass-through
- Compatible with EPON/GPON
- Low power consumption
- LED status indicator

AON126S 2.6 GHz CATV and SAT-IF Optical Receiver series is a cost-effective high-performance optical network unit which is designed and optimized to work in traditional CATV and satellite applications or for advanced Fiber-to-the-Home (FTTH) architecture networks. The wide RF spectrum supports both the CATV spectrum and satellite IF spectrum up to 2.6GHz.

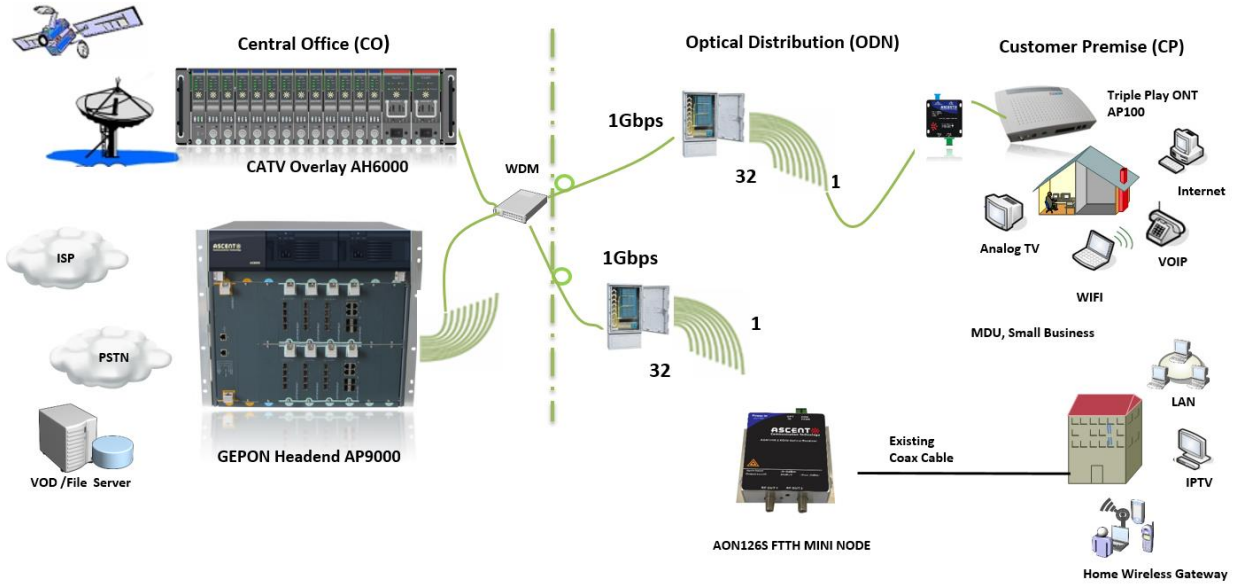
The AON126S optical receiver makes it possible for cable operators to protect their existing network investments and continue the deployment of FTTH networks for internet and VoIP delivery together with IPTV and Video On Demand systems.

The AON126S optical node designed with 1550 nm forward-path RF signals and optional WDM which allows for a video overlay over FTTH network topology and incorporates a low-noise optical receiver. An optional PON upgrade port combines these wide band 2.6 GHz CAVT and SAT-IF signals across a 1310/1490 nm EPON/GPON network, providing MSOs with a flexible platform to migrate from existing HFC systems to a PON FTTH network.

Key Features

- 2.6 GHz RF spectrum
- Wide band: 45 MHz to 862 MHz & 950 MHz to 2600 MHz
- High-performance and cost-effective CATV & SAT-IF ONU solution for FTTX networks
- Small form factor and low power consumption
- Optional integrated WDM to pass through PON signals to ONU in an FTTH network
- Powered directly using the power adaptor
- Compact and sturdy enclosure fits easily in wiring closets or network termination boxes

Application Diagram



Specifications

AON126S CATV & SAT-IF Optical Network Unit

Parameter	Description
Downstream Receiver	
Wavelength	1290 nm to 1600 nm
Optical Input Power	-13 dBm to 0 dBm
Optical Return Loss	≥45 dB
Optical Connector	LC/APC or SC/APC (specified by customer)
RF	
Bandwidth	47 MHz to 862 MHz
Output Level	66 dBµV to 86 dBµV @ 0 dBm
Flatness	±1.5 dB
Output Impedance	75 Ω
Return Loss	≥10 dB
RF Type	F-5 (Imperial)
Qty of Output Ports	2 (identical)
Link Performance[1]	
CNR	≥51.0 dB
CTB	≥61.0 dB
CSO	≥60.0 dB
SAT-IF	
Frequency Range	950 MHz to 2600 MHz
Flatness	±2.5 dB
IMD	-40 dBc
Output Impedance	75 Ω
General Characteristics	
Power Supply	12 V_{DC}
Power Consumption	≤4 W
Operating Temperature	0 to +50 °C
Storage Temperature	-20 °C to +85 °C
Relative Humidity	20 % to 85% RH (non-condensing)
Dimensions (L × W × H)	135 mm × 100 mm × 26 mm
Weight	0.3 kg

Notes:

1. Testing Conditions: 60 channels (PAL-D), input signal 0 dBm. At the condition of 5 dB noise factor, 3-class EDFA transmission is 65 km, OMI 3.5%.

Ordering Information

AON126S 2.6GHz Series FTTH Mini Node Ordering Information

AON126-	X-	X-	XX-	XX-	XX-	X

	RF Bandwidth
S	2600MHz

	Output Power
MG	86dBuV @ 0dBm

	Power Adaptor
00	None (RF Powering)
01	Australia
02	China
03	Continental Europe
04	North America

	WDM
0	No WDM Filter (1550/1310/1490 all pass)
F	WDM Filter (1550 pass) w/o PON Port
W	WDM (1550 pass) w PON Port (1310/1490)

	Optical Connector
AS	SC/APC
LA	LC/APC
US	SC/UPC

	Customization
-	Default Standard Model

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Specifications and product availability are subject to change without notice.

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