

Smart Compact Optical Receiver FTTx Solution

AON1110C Series



- **1 GHz forward working frequency**
- **Optical AGC**
- **110 dB μ V output**
- **High-performance low power consumption GaAs chip**
- **Electric control circuit for EQ and ATT**
- **Optional PON WDM (Loop-out)**
- **Built-in Ethernet transponder**
- **SNMP & Web GUI**

AON1110C Series Optical Receiver is part of ACT's Deep Fiber solution, which has been designed to deliver high-quality CATV and other advanced services. This cost-effective compact mini receiver helps operators expand the bandwidth of their existing HFC network while minimizing capital investment. The AON1110C compact node has smart LED, SNMP, and Web GUI for convenient management and is suitable for MDU, FTTB or FTTC applications with high output up to 110 dB μ V.

The AON1110C deep fiber node is equipment with Automatic Gain Control circuit to maintain constant output power with optical input from -9 dBm to +2 dBm. Combined with ACT's converged headend AH1000 optical platform, AON1110C series deep fiber optical node is an ideal product to provide MSOs with an economical, flexible HFC access solution.

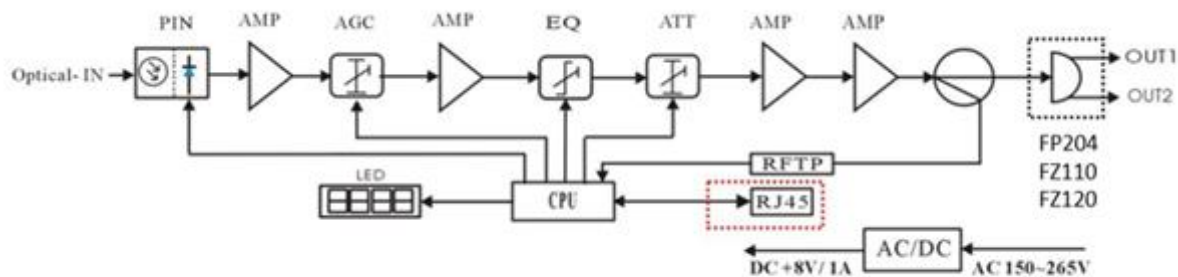
AON1110C node provides the web management interface to support the remote monitoring capability in advanced network management system.

Key Features

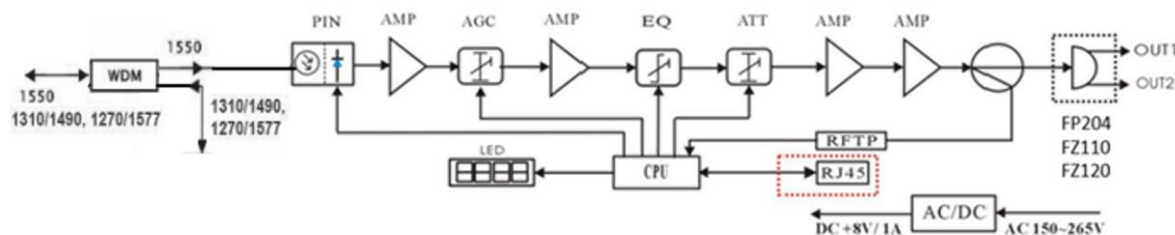
- Utilizes advanced optical AGC technique, optical AGC control range: -9 dBm to +2 dBm adjustable
- Optical AGC, can automatically switch according to the pre-set switching threshold, or manually forced switch
- Forward working frequency extended to 1 GHz, RF amplifier part adopts the high-performance low power consumption GaAs chip, maximum output level up to 110 dBμV
- EQ and ATT both use the professional electric control circuit, make the control more accurate, operation more convenient
- Optional PON WDM (Loop-out)
- Built-in Ethernet transponder, support remote network management (optional)

Block Diagram

Without WDM



With WDM



Specifications

Item	Unit	Technical Parameters	
Optical Parameters			
Receiving Optical Power	dBm	-9 to +2	
Optical AGC Range	dBm	+2 to -9/-8/-7/-6/-5/-4 (adjustable)	
Optical Return Loss	dB	>45	
Optical Receiving Wavelength	nm	1100 to 1600	
Optical Connector Type		SC/APC or SC/PC specified by the user	
Fiber Type		Single mode	
RF Parameters			
Frequency Range	MHz	45 to 860/1003	
Flatness in Band	dB	≤±0.75	
Output Return Loss	dB	≥16	
Output Impedance	Ω	75	
Electrical Control EQ Range	dB	0 to 20 (0.5dB step)	
Electrical Control ATT Range	dB	0 to 20 (0.5dB step)	
Rated Output Level	dBμV	≥ 108	FZ110 output
		≥ 104	FP204 output
Max. Output Level	dBμV	≥ 110	FZ110 output, -9 to +2dBm
C/N	dB	≥51	42ch, OMI=3.0%, Pin=-1dBm,
C/CTB	dB	≥60	110dBuV @ FZ110,
C/CSO	dB	≥60	106dBuV@FP204 output,
			EQ=9dB
MER	dB	≥38	112ch digital signal (114 to 1002MHz), OMI=3.0%, optical receiving power is in AGC range, output level >104dBuV @FP204, >106dBuV@FZ120, EQ=9dB
BER		<1.0E-9	
General Characteristics			
Power Voltage	V	AC (150 to 265) V or DC 12V/1A External power supply	
Operating Temperature	°C	-40 to 60	
Power Consumption	VA	≤ 8	
Dimension	mm	190(L) * 110(W) * 52(H)	

Ordering Information

AON1110C Series Optical Receiver Ordering Information							
AON11	XXC-	X-	XX-	X-	X-	X-	X
	Bandwidth	Optical RX			Output Option	Power Supply	
08C	862MHz	S Single Optical RX			0 Two equal level outputs(FP204)	1 12 VDC/1 A External Power Supply	
10C	1003MHz				1 One main output, one - 10dB output(FZ110)	2 150 to 265 VAC	
					2 One main output, one - 20dB output(FZ120)		
	WDM		Optical Connector			EMS	
NC	Operating wavelength: 1100 to 1620nm		AS SC/APC			0 No EMS	
WF	Built-in optical filter, operating wavelength:1550nm		AF FC/APC			1 EMS	
WG	Built-in GPON WDM, operating wavelength: 1550nm, PON wavelength: 1310/1490nm looping out						
WX	Built-in XGS WDM, operating wavelength:1550nm, PON wavelength: 1310/1490nm & 1270/1577nm looping out						

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