# Smart Compact Optical Receiver FTTx Solution

## AON1110E Series

- Advanced optical AGC
- High performance low power consumption GaAs chip
- EQ and ATT both use the professional electric control circuit
- Built-in Ethernet transponder
- External high reliability low power consumption power supply

AON1110E 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 receiver helps operators expand the bandwidth of their existing HFC network while minimizing capital investment. The AON1110E 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 116 dBμV.

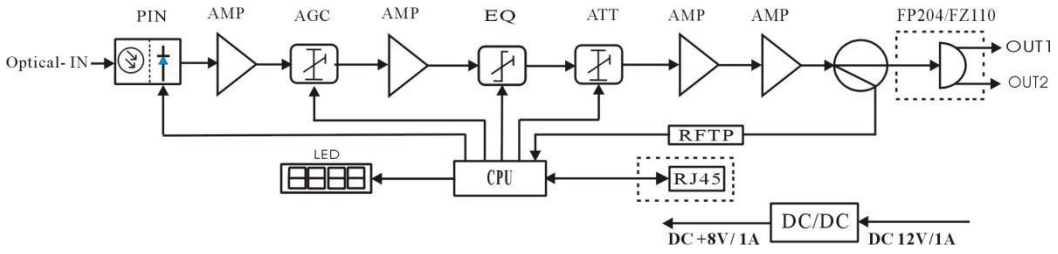
The AON1110E deep fiber node adopts advanced optical AGC control technique, the maximum AGC control range (adjustable) is -9 to +2 dBm. Combined with ACT's converged headend AH1000 optical platform, AON1110E series deep fiber optical node is an ideal product to provide MSOs with an economical, flexible HFC access solution.

AON1110E node provides the web management interface to support the remote monitoring capability in advanced network management system.

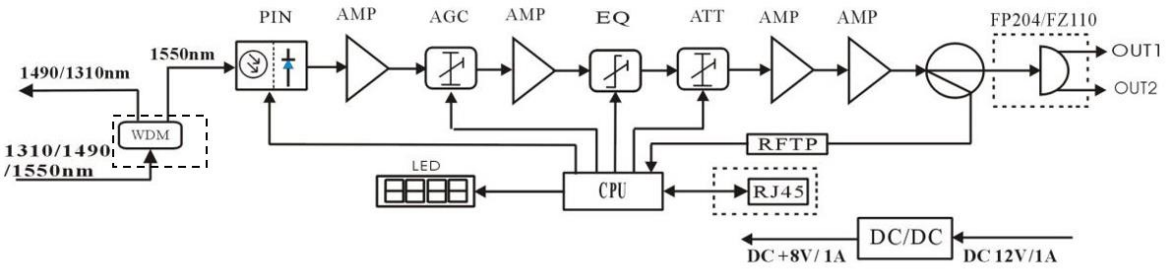
## Key Features

- Adopt advanced optical AGC control technique, the maximum AGC control range (adjustable) is - 9 to + 2dBm
- RF amplifier part adopts the high performance low power consumption GaAs chip, which makes the output level higher
- EQ and ATT both use the professional electric control circuit, make the control more accurate, operation more convenient
- Built-in Ethernet transponder, support remote network management (optional)
- Compact structure, convenient installation, is the first choice equipment of FTTB CATV network
- External high reliability low power consumption power supply

## Block Diagram




**Standard Optical Receiver**




**Optical Receiver with PON Passthrough**

**Note:** The circuit in the dashed box is optional configuration circuit.

## Specifications

| Item | Unit | Technical Parameters | |
|---|---|---|---|
| **Optical Parameters** | | | |
| Receiving Optical Power | dBm | -9 to +2 | |
| Optical Return Loss | dB | >45 | |
| Optical Receiving Wavelength | nm | 1100 to 1600 or 1530 to 1620 | |
| Optical Connector Type | | SC/APC or FC/APC | |
| Fiber Type | | Single mode | |
| **Link Parameters** | | | |
| C/N | dB | ≥ 51 | 42ch, OMI=4.0%, Pin=-2dBm, |
| C/CTB | dB | ≥ 60 | EQ=9dB,116dBuV@ FZ120 output, |
| C/CSO | dB | ≥ 62 | 112dBuV@FP204 output. |
| **RF Parameters** | | | |
| Frequency Range | MHz | 45 to 862/1003 | |
| Flatness In Band | dB | ±0.75 (Slope: 5.5±1dB) | |
| Rated Output Level | dBμV | 116 (FZ120) | 112 (FP204) |
| Max Output Level | dBμV | 118 (AGC:-7 to +2 tap) | 114 (AGC:-7 to +2 two-way splitter) |
| 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) | |
| **General Characteristics** | | | |
| Power Voltage | V | DC12V/1A | |
| Operating Temperature | °C | -40 to 60 | |
| Consumption | VA | ≤8.5 | |
| Dimension | mm | 178 (L) * 115 (W) * 40 (H) | |

## Ordering Information

| Product Name | Product Description |
|---|---|
| AON1110E-S-00-AS-2-1 | AON1110E 1 GHz single input optical receiver, one RF output with Web GUI and SNMP, SC/APC, Main PS 220V |

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Specifications and product availability are subject to change without notice.

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