

Fiber Optical RF Unit Transceiver for R-ONU



OCS-1061-L1



OCS-1061-MDU



ORS-1061-B1

Transceiver Optic-Node, **R-ONU series** are designed for upstream path transmission of burst mode optical signal. CMTS analog signals are fed into the input of the **R-ONU series** and converted into optical signal and transmitted to HFC/ CATV networks.

Additionally, the micro-Node's ability to operate over a wide optical input range allows for a variety of system designs without degrading performance. The wide bandwidth supports the delivery of up to 77 CATV analog signals or a combination of analog and digital channels, including HDTV broadcast. The **R-ONU series** exhibits excellent distortion performance with values above standards over the entire bandwidth and temperature specifications. The **R-ONU series** are flexibility to grow your network to meet customer demand now and coming future.

Features

- PON compatible
- Extended spectrum RF video
- Universal HFC set top box and head-end support
- Transparent return path capability
- Optical loss AGC with 0 ~ -6dBm (optional +2 ~ -8dBm)
- Support most in-home applications without amplifiers
- Multiple set-top box support
- In-home power over 75ohm coaxial cabling
- Burst-mode Laser Operation
- Optional for MDU with 38dBmV/ch available
- Optional for ORS-1061-B1 with 49dBmV/ch available

Applications

- Receiver module for CATV network in HFC and RFoG nodes
- Video overlay in passive optical networks (PON)

Electrical / Optical characteristics

| Parameter | Model | | | Unit |
|-------------------------------------|--|--------------|-------------|-----------------|
| | OCS-1061-L1 | OCS-1061-MDU | ORS-1061-B1 | |
| Supply Voltage | +12 | +12 | 90 ~264 | $V_{DC} V_{AC}$ |
| Operating Temperature Range | 0 ~ +50 | -20 ~ +50 | -20 ~ +50 | °C |
| Supply Current +12V _{DC} | 300~340 | 420~450 | - | mA |
| Power Consumption | 4.1 | 5.4 | 15 | W |
| Down Stream | | | | |
| Input Optical Power | -6 ~ 0 | | | dBm |
| Optical Loss AGC | -6 ~ 0 | | | dBm |
| Input Wavelength | 1290 ~ 1610 | | | nm |
| Responsivity (@1550nm) | > 0.9 | | | A/W |
| Optical Input Return loss* | < -40 | | | dB |
| Up Stream | | | | |
| Output Optical Power | +2 ~ +4 | | | dBm |
| Output Wavelength | 1610 | | | nm |
| Output Wavelength (Optional) | 1330, 1350, 1370, 1390, 1410, 1430, 1450, 1470, 1490, 1510, 1530, 1590 | | | nm |

* Optical connector type : SC/APC connector

RF Characteristics

| Parameter | Model | | | Unit |
|---|----------------------|--------------|-------------|---------|
| | OCS-1061-L1 | OCS-1061-MDU | ORS-1061-B1 | |
| Down Stream | | | | |
| Bandwidth | 54 / 85 / 108 ~ 1000 | | | MHz |
| Frequency Response * | ≤ 3 | | | dBp-p |
| Output RF signal level ** @1000MHz | 18 ~ 20 | 36~38 | 47~49 | dBmV/CH |
| Output Impedance | 75 | | | ohm |
| Output Return Loss | ≤ -14 | | | dB |
| Carrier to Noise Ratio (CNR) *** @-6dBm | ≥ 47 | | | dB |
| Composite Second-Order (CSO) ** | ≥ 60 | | | dBc |
| Composite Triple Beat (CTB) ** | ≥ 60 | | | dBc |
| RF Test Point | -21 ~ -19 | | | dB |
| Up Stream | | | | |
| Bandwidth | 5 ~ 42 / 65 / 85 | | | MHz |
| Frequency Response * | ≤ 2 | | | dBp-p |
| Input RF Signal Level | 15~ 45 | | | dBmV |
| NPR/dynamic Range**** | 35/15 | | | dB |
| Input Return Loss | ≤ -14 | | | dB |

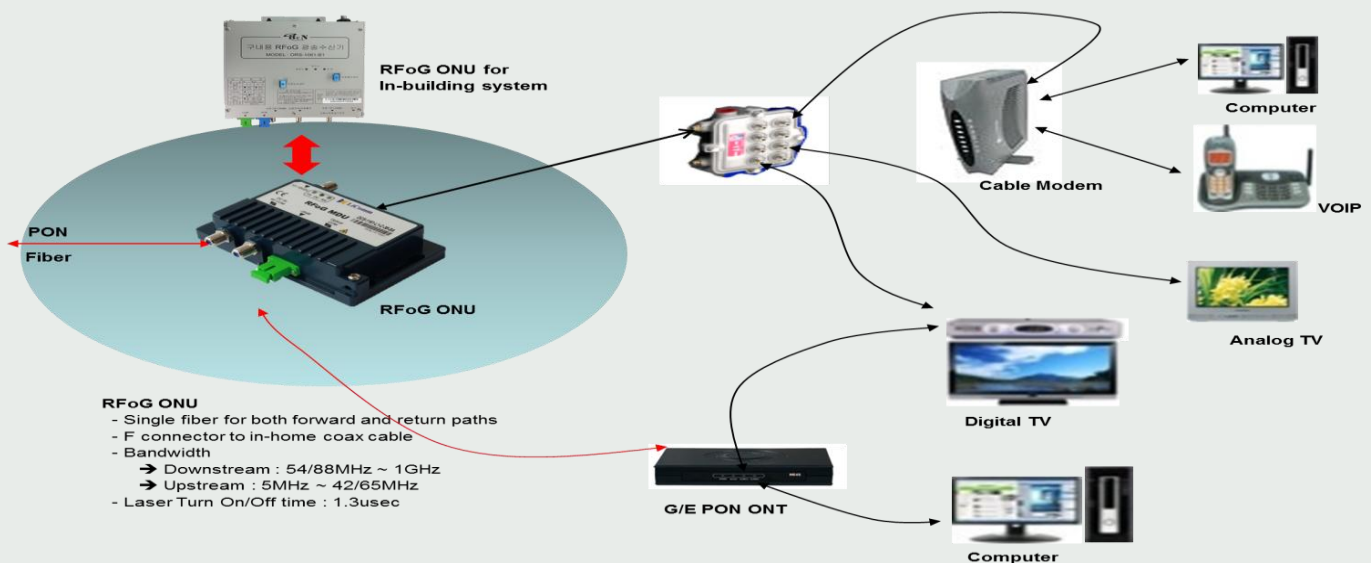
* Peak to valley

** 77NTSC Channel loading, 0dBm Optical input with OMI=3.5%

*** 77NTSC Channel loading, OMI=3.5%, -6dBm Input

**** 12dB Link(15km fiber + Loss) , 60MHz BW noise

Subscriber Description



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