

RON1500 RFoG Repeater

RON1500 Series

- OBI-free, cost effective
- Passive optical distribution for downstream
- 16-way RF combination for upstream
- Supports DOCSIS 3.1
- DFB laser for upstream
- LED indicators
- High-sensitivity, low-noise optical receiver
- -20 dB external RF test points
- Standard JXP plug-in PADs for all adjustments of receiver outputs and transmitter inputs
- Standard 19" 1RU size



Ascent's RON1500 Radio Frequency over Glass (RFoG) solution enables cable operators to offer Fiber-to-the-Home (FTTH) architecture without changes to standard equipment in the headend or home.

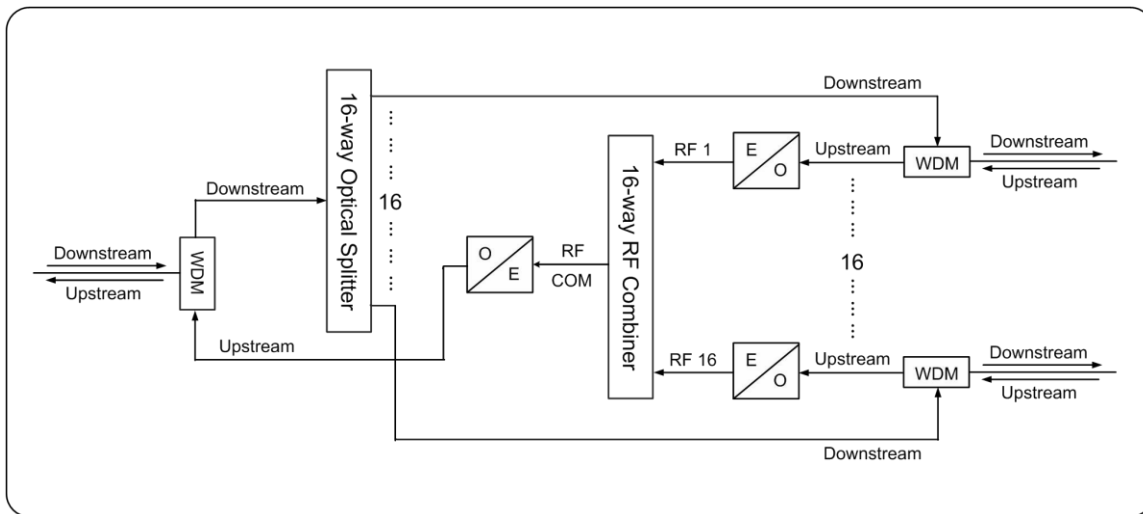
With the success of RFoG deployments comes an issue, Optical Beat Interference (OBI), which can be generated at the receiver.

Ascent's RON1500 RFoG Repeater is an OBI-free solution that enables multiple MAC domains and high-performance upstream operation in an RFoG environment, allows full DOCSIS 3.1 channel bonding to be deployed efficiently utilizing all available upstream bandwidth, and supports multiple upstream RF channel transmissions resulting in higher subscriber penetrations.

Key Features

- OBI-free, cost effective
- Passive optical distribution for downstream
- 16-way RF combination for upstream
- Supports DOCSIS 3.1
- DFB laser for upstream
- LED indicators for optical input and output
- High-sensitivity, low-noise optical receiver
- -20 dB external RF test points
- Standard JXP plug-in PADs for all adjustments of receiver outputs and transmitter inputs
- 19-inch 1RU box, compact size

Application Diagram



Specifications

Item	Description
Downstream Section	
Wavelength	1550 nm \pm 20 nm
Optical Insertion Loss	\leq 15 dB
Optical Connector	SC / APC
Optical Return Loss	\geq 45 dB
Upstream Section	
Optical Input Power	\geq -5 dBm
Receiver Wavelength	1610 nm \pm 20 nm (others optional)
Transmitter Wavelength	1610 nm \pm 20 nm (others optional)
Optical Output Power	2 dBm (others optional)
Optical Connector	SC / APC
Optical Return Loss	\geq 45 dB
Frequency Range	5 MHz to 85 MHz (other optional)
RF Test Point	- 20 dB \pm 0.75 dB
General Characteristics	
Power Supply	100 V AC to 240 V AC
Power Consumption	$<$ 22 W
Power Cord	Optional
Dimensions (W \times H \times D)	483 mm \times 45 mm \times 445 mm
Weight	4.9 kg
Operating Temperature	0 to +55 °C
Storage Temperature	-20 °C to +70 °C

Note: Unless otherwise noted, all specifications reflect typical performance and are referenced to 20°C

Ordering Information

Item	Description
RON1500-RP-D3-1-16-00-SC-AC	RON1500 RFoG Repeater D3.1, 1x16, SC/APC, +12V Power Adaptor with Continental EU Plug

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Ver. ACT_RON1500_RFoG_Repeater_Datasheet_V1a_Jul_2016