

Fiber Optical RF Unit (for U) Transceiver In-Building node

Transceiver Micro-node, **ORS-10xx-Bx** is designed for upstream path transmission of burst mode optical signal. CMTS analog signals are fed into the input of the **ORS-10xx-Bx** 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 **ORS-10xx-Bx** exhibits excellent distortion performance with values above standards over the entire bandwidth and temperature specifications. The **ORS-10xx-Bx** is 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
- Support most in-home applications without amplifiers
- Multiple set-top box support
- In-home power over 75ohm coaxial cabling
- LED display Laser Diode and Photo Diode operating status
- Burst-mode Laser Operation

Applications

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

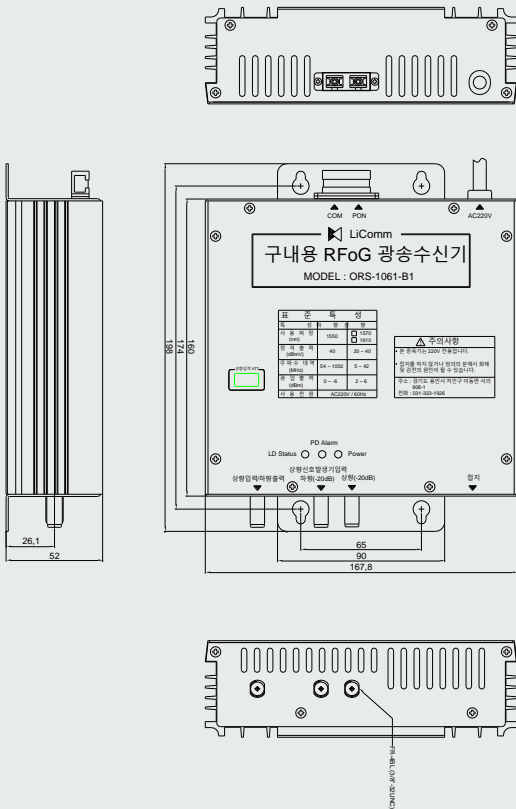
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Electrical / Optical characteristics

Transceiver In-Building node

Mechanical Dimension

(The dimensions are in millimeters)



Parameter	ORS-10xx-Bx-x-40	Unit
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 ~ +6	dBm
Output Wavelength*	1270 ~ 1610	nm
Operating Temperature Range	-20 ~ +50	°C
Supply Voltage	90~264V	V
Power Consumption	15	W

** Optical connector type : SC/APC connector

RF Characteristics

Parameter	ORS-10xx-Bx-x-40	Unit
Down Stream		
Bandwidth	54 / 85 / 108 ~ 1000	MHz
Up Tilt *	6~8	dB
Output RF signal level ** @547MHz	38~43	dBmV/CH
Output Impedance	75	ohm
Output Return Loss	≤ -14	dB
Carrier to Noise Ratio (CNR) *** @-5dBm	≥ 48	dB
Composite Second-Order (CSO) **	≥ 60	dBc
Composite Triple Beat (CTB) **	≥ 60	dBc
Up Stream		
Bandwidth	5 ~ 42 / 65 / 85	MHz
Frequency Response *	≤ 1	dBp-p
Input RF Signal Level	15~ 35	dBmV
NPR/Dynamic Range ****	35/15	dB
RF Test Point	-21 ~ -19	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%, -5dBm Input

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

Ordering Information

ORS	-	XXXX	-	XX	-	X	-	XX	-	XX
RF Bandwidth		Wavelength		RF Port		Filter		RF Output Level		Connector
10:54~1000MHz		61:1610nm		B1:1port		x:NON		40:40dBmV/ch		SA:SC-APC
11:88~1000MHz						W:WDM		43 43dBmV/ch		FA:FC-APC
						C:CWDM				
						N : 1310nm PD				

LiComm Co., Ltd.

Address

109, Baekja-ro Idong-eup, Cheoin-gu, Yongin-Si,
Gyeonggi-Do, 17126, Korea

Tel: +82-31-323-1926

Fax: +82-31-323-2447

E-mail: sales@licomm.com

Website : www.licomm.com