

WISI LR 45 x xxxx

Remote-PHY Node

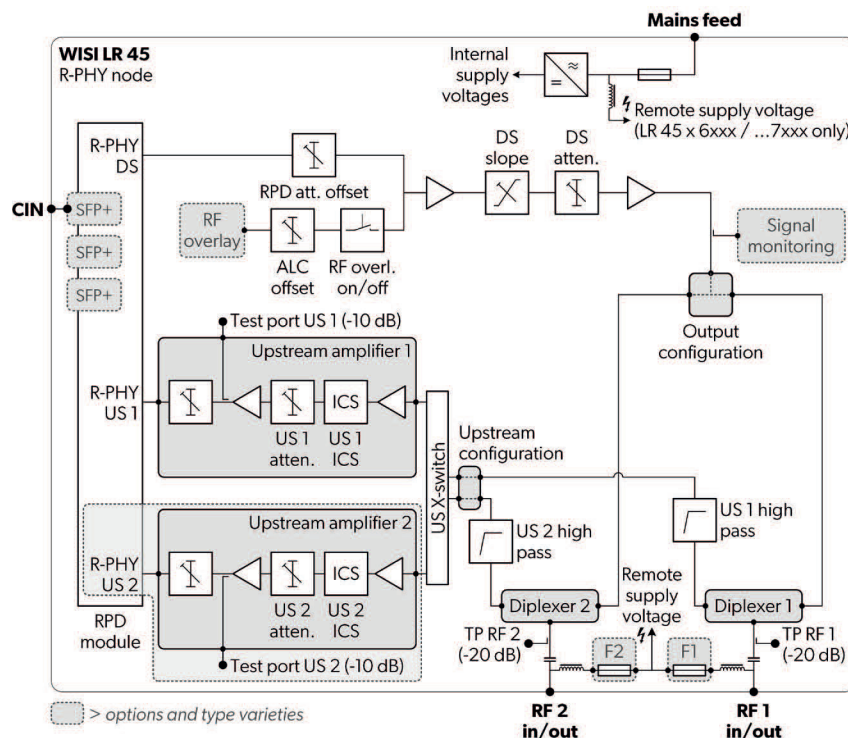


At a glance:

- High-speed 10-GbE throughput
- Single DS port, up to two US ports
- Superior RF performance
- Fully standard compliant with DOCSIS 3.0 and 3.1
- Precision IEEE 1588 PTP synchronization
- Deep fiber deployments with high-speed data and video
- Optional RF Overlay
- Superior heat anticipation

Description

The LR 45 Remote-PHY node is a perfect symbiosis of innovation and proven technology. Connected to high speed Ethernet backbones with up to 10 Gbps, the outstanding RF performance connects existing HFC networks to the digital core network. A frequency band of 1.2 GHz in downstream direction and up to 204 MHz in upstream direction provides the most flexible way of DOCSIS 3.1 migration scenarios. In conjunction with an automated configuration, which simplifies the mass deployment and the management of the node, it is the first choice for innovative forerunners as well as consistent operators. Additionally, the RF Overlay ensure the support for existng broadcast services.



Technical data	
Downstream	
Remote PHY	
Number of DOCSIS 3.0 channels	120 (Annex A), 158 (Annex B)
Number of DOCSIS 3.1 channels	6 (24...192 MHz per channel)
Number of video channels	70 (Annex A), 90 (Annex B)
RF parameters	
Frequency range	85...1218 MHz (depending on diplexer)
Attenuator downstream	20 dB (0,5 dB steps)
Equalizer downstream	0...20 dB (0,5 dB steps)
Output level single port 10 dB slope (121 x QAM256), (EN60728-3-1)	Standard Type: 112 dB μ V; High Output level type: 115 dB μ V, (BER < 1exp-9)(@ 2,5 % OMI)
Output level single port flat (121 x QAM256), (EN60728-3-1)	Standard Type: 109 dB μ V; High Output level type: 112 dB μ V, (BER < 1exp-9)(@ 2,5 % OMI)
Flatness	\pm 0,75 dB
Test point	-20 dB
RF return loss	> 18 dB (-1 dB/oct., min. 14 dB)
RF Overlay Modul	
Optical input power	-6...+2 dBm
Wavelength	1270...1610 nm
Noise current density	<4,5 pA/ \sqrt Hz
Optical return loss	>40 dB
Upstream	
Remote PHY	
Number of DOCSIS 3.0 channels	12 (12x ATDMA, 8x ATDMA + 4x SCDMA)
Number of DOCSIS 3.1 channels	2 (6,4...92 MHz per channel)
Upstream Cluster	up to 2 (see order code)
RF parameters	
Frequency range	5(15)...204 MHz (depending on diplexer)
Amplitude response	\pm 0,5 dB
Nominal RF input level	65...90 dB μ V
Attenuator upstream	30 dB (0,5 dB steps)
Test point	-10 dB
Ingress Control Switch (ICS)	0/-6/-45 dB
RF return loss	>18 dB (-1 dB/oct., min. 14 dB)
Interfaces	
Optical connectors	SC/APC, LC/UPC (see order code)
CIN Interface	3x SFP+ (daisy chaining possible), 10GBASE-LR, 10Gbase-ER, 10GBASE-ZR, 10G xPON
RF Interfaces	2x PG11 (75 Ohm)
Bluetooth antenna LB 01	1x PG11
User interfaces	
Status LED downstream	Optical input power (only with RF overlay modules)
Management ports RJ11	1 pcs. (for handset OH 41)
Management ports RJ45	1 pcs. (LMT)

Technical data	
Bluetooth version	4.0 / LE
Bluetooth profiles	GATT
Bluetooth transmit power	< 0 dBm
Bluetooth frequency	2.4 GHz
Bluetooth app compatibility	Android 4.3 or higher
General data	
Supply voltage	LR 4x x 2xxx: 180...264 V AC, LR 4x x 6xxx: 27...65 V AC
Power consumption	Standard Type: < 55 W (2 US Cluster + RF-Overlay); High Output level type: < 65 W (2 US Cluster + RF-Overlay)
Remote supply current per port	< 8 A
Output impedance	75 Ω
Dimensions (width x height x depth)	288 x 174 x 302 mm
Electro Magnetic Compatibility (EMC)	EN 50083-2
Protection class	IP 66
Ambient temperature	-20...+55 $^{\circ}$ C

