

# WISI LX 15 S 2270

Full Spectrum Transmitter



## Description

The WISI OPTOPUS LX 15 S 2000 Transmitter series is part of WISI's CCAP migration solution. It is ideal for cost-effective transmission of full-spectrum 1.2 GHz channel loads over fiber. Its applications include DOCSIS 3.1 HFC and RFoG as well as RF overlay in PON networks.

## At a glance:

- Broad frequency range for DOCSIS 3.1
- Wide transmission reach for capacity utilization of centralized headend sites
- Cost-efficient solution for broadcast and full-spectrum transmission of downstream signals
- Tunable wavelength (optional) enables flexible assignment in DWDM systems

## Technical data

RF signal path	
Frequency range	47...1218 MHz
Nominal level BC-input	78 dB $\mu$ V (per PAL ch.)
Nominal level NC-input	82 dB $\mu$ V (per QAM ch., 6 dB backoff to PAL)
Level control NC	-2...+2 dB
Level control composite RF	-5...+5 dB (ALC switchable)
Slope control	-2...+2 dB
Frequency response	-0,5...+0,5 dB

## Optoelectronic properties

Laser type	Temperature stabilized DFB laser
Wavelength	1555,75 nm
Optical output power	> +5 dBm
Transmission length	0...65 km
SBS suppression	up to 12 dBm
Relative intensity noise	< -155 dB $\nu$ /Hz

## Signal quality, mixed load (30 ch. PAL + 60 ch. QAM256)

Carrier-to-noise-ratio (CNR)	>51 dB (Transmission over 40 km fiber, Rx input power 0 dBm)
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Composite second order (CSO)	>64 dB (Transmission over 40 km fiber, Rx input power 0 dBm)
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Composite triple beat (CTB)	>64 dB (Transmission over 40 km fiber, Rx input power 0 dBm)
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Modulation error rate (MER)	>44 dB (Transmission over 40 km fiber, Rx input power 0 dBm)
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Bit error rate (BER)	<1e-9 (Transmission over 40 km fiber, Rx input power 0 dBm)
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## Signal quality, all-QAM loading (120 ch. QAM256 258...1218 MHz)

Modulation error rate (MER)	>41 dB (Transmission over 40 km fiber, Rx input power 0 dBm)
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Bit error rate (BER)	<1e-9 (Transmission over 40 km fiber, Rx input power 0 dBm)
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## Signal interfaces

RF return loss	>20 dB
Decoupling NC/BC input	>50 dB
Input test port	-20 dB (relative to BC input)
Output test port	75 dB $\mu$ V (at 5% OMI)
Optical return loss	>40 dB

## Connectors

F-socket rear	2 pcs. (BC input, NC input)
F-socket front	1 pcs. (Test port: composite input / driver output switchable)
SC-APC connectors	1 pcs. (opt. output)

## Technical data

General Data	
Dimensions (width x height x depth)	30 x 133 x 320 mm (Optopus module)
Power consumption max.	<9 W
Operating temperature range	-5...+45 °C (ETSI EN 300 019-1-3 class 3.2)
Enclosure Classification	IP30
Laser safety	EN 60825-2 hazard level 1M
EMC	EN 50082-1, EN 50082-2, EN 50083-2, EN 55022 class B

## Packaging data

Sales unit	1 pcs.
Dimensions (WxHxD) sales unit	440 x 200 x 60 mm
Packaging volume sales unit	5,28 dm <sup>3</sup>
Gross weight sales unit	1,745 kg
EAN	4010056745165
Article number	74516
Customs tariff number	85176100

