

## Technical Data LX 18S XXXX

### Features

- High Density Dual Transmitter
- Docsis 3.1 Ready
- Hot Plug In/Out
- Adjustable OMI
- Adjustable Slope
- Automatic Level Control (ALC)
- Adjustable NC-Input
- High RF Input Isolation
- OMI Control Testport
- SBS Suppression
- Electronic Predistortion
- Adjustable Dispersion Compensation

### Technical Data

- Laser Type	Temperature Controlled DFB-Laser
- Wavelength	1555 ± 0,5 nm or DWDM Channel (100 GHz-Grid)
- Optical Output Power	10 dBm (10 mW)
- Relative Intensity Noise (RIN)	< -155 dBHz <sup>-1</sup>
- Optical Return Loss	> 40 dB
- Frequency Range	15... 1218 MHz
- Input Level	BC-Input: 78 dBμV (PAL-Level) NC-Input: 82 dBμV (QAM-Level, 6 dB back off)
- Gain Control Range	± 5 dB
- Slope Control Range	± 2 dB
- NC-Offset	± 2 dB
- Isolation between NC- & BC-Input	≥ 50 dB
- Channel Isolation	≥ 60 dB
- Test Point	-20/-30 dB BC-/NC-Input & 75 dBμV @ 5% OMI
- Electrical return loss	≥ 20 dB
- Ripple (E-O)	≤ ± 0,5 dB
- Max Fiber Length	
LX18S 1XX0	0-25 km
LX18S 1XX1	0-15 km
LX18S 1XX2	0-45 km
- SBS-Suppression	
LX18S 1XX0	16 dBm
LX18S 1XX1	21 dBm
LX18S 1XX2	16 dBm



Technical Data  
Opt. Transmitter LX18S 1XXX

- Signal Performance

LX18S 1XX0/1XX1

CSO  $\geq 60$  dBc\*

CTB  $\geq 65$  dBc\*

CNR  $\geq 51$  dB\*

MER  $\geq 42$  dB\*

\*measured @ 20km (LX18S 1XX1 10km), 3,3% OMI, -1 dBm @ opt. Receiver  
channel load 36 analog and 60 QAM256 channels

LX18S 1XX2

MER  $\geq 40$  dB \*\*

BER  $\leq 10E-9$  \*\*

\*\* 40km fiber, 2,6% OMI, -1 dBm @ opt. Receiver

channel load 121 QAM256 channels

**Adjustment:**

- Laser on / off
- ALC on / off
- Attenuator 0...10 dB
- Slope -2...+2 dB
- NC-Offset -2...+2 dB
- Dispersion Compensation (fiber length) 0...50 km
- SBS-Suppression on / off


**Measurement:**

- Optical Output Power dBm
- Laser Current mA
- Laser Temperature °C
- TEC Current mA
- RF-Level dB

**Alarms:**

Threshold (Warning/Alarm) Adjustable

- Optical output power to high / to low
- RF-Level to high / to low
- Laser current to high
- TEC current to high

		
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**LED-Display:**

Optical Output Power (Popt)	
green	Output Power OK
yellow	Warning: Output Power to high / to low
red	Alarm: Output Power to high / to low

RF Level	
green	Total Input Level OK
yellow	Warning: Total Input level to high / to low
red	Alarm: Total input level to high / to low

**General Data**

- Optical connector SC/APC
- RF-Connector F (75 Ohm)
- Housing WISI LX-Chassis
- Supply voltage 12 VDC
- Power consumption  $\leq 16$  W
- Operating temperature  $-5^{\circ} \dots +45^{\circ}\text{C}$  (EN300 019-1-3 Class 3.2)

		
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