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# Product Information

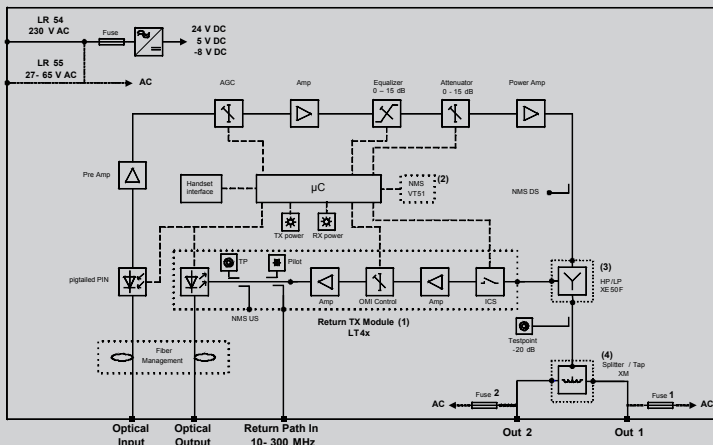
LR 54 / S Compact Fiber Node local feed

LR 55 / S Compact Fiber Node remote feed



## WISI COMPACT LINE

- ▶ Compact optical receiver / transmitter
- ▶ Upstream transmitter LT4x plugable
- ▶ Diplex filter XE50F and splitter/tap
- ▶ modules XM plugable
- ▶ All settings by WISI control unit OK 41A
- ▶ Interface for NMS function
- ▶ Automatic level control (ALC) for constant output level



### Accessory

Note: If one LT4x (1) is ordered, one XE50F (3) is required.

XM = splitter/tap (4)

LT4x = Upstream transmitter (1)

# LR 54 / 55 / S Compact Fiber Node

## Specifications

### Downstream incl. receiver module

Wavelength	1290-1600 nm
Opt.Return loss	> 40 dB
Fiber	single mode 9/125 µm
Optical connector	SC/APC (E2000 on request)
Output impedance	75 Ohm
Output return loss	≥ 20 dB (-1.5 dB / oct.)
Frequency range	47/85- 862 <sup>1)</sup> MHz
Opt. input level for controlled electrical output level	-7 to +0 dBm
Controlled output level (ALC on, 5% OMI)	112 dBµV
Attenuator range	0-15 dB
- Step size	0.5 dB
Equalizer range (each output adjustable)	0 - 15 dB
- Step size	0.5 dB
Equivalent noise input	≤ 5 pA /√Hz
Distorsion products for CENELEC 42 Ch.	110 dBµV, flat 113 dBµV, 9 dB slope
CSO	> 60 dB
CTB	> 60 dB
RF test point	-20 dB

### Upstream incl. transmitter module

Wavelength	LT 40 S (FP laser)	1310±40 nm
S = SC/APC	LT 41 S	1310±20 nm
	LT 45 S / 1430	1430±2 nm
	LT 45 S / 1450	1450±2 nm
	LT 45 S / 1470	1470±2 nm
	LT 45 S / 1490	1490±2 nm
	LT 45 S / 1510	1510±2 nm
	LT 45 S / 1530	1530±2 nm
	LT 45 S / 1550	1550±2 nm
	LT 45 S / 1570	1570±2 nm
	LT 45 S / 1590	1590±2 nm
	LT 45 S / 1610	1610±2 nm
Opt. output power		3 dBm
Frequency range		10 - 30/ 65 <sup>1)</sup> MHz
Broad band RF input	10-300 MHz (106 dBµV = 5 % OMI)	
Input return loss		≥ 18 dB
RIN - LT 41/45		< -145 dB/Hz
- LT 40		< -135 dB/Hz
Nominal input level		75 dBµV
OMI control range	3 – 8% @ 75 dBµV input	
- Step size		1 %
ICS		0 / 8 / >45 dB
RF test points laser in		75 dBµV = 5% OMI
Reference pilot		3.16% OMI
Pilot-Frequencies		
LT 40, 41 S / 1310	- 6.5 MHz;	LT 45 S / 1470 - 6.2 MHz;
LT 45 S / 1430	- 5.8 MHz;	LT 45 S / 1490 - 6.4 MHz;
LT 45 S / 1450	- 6.0 MHz;	LT 45 S / 1510 - 6.6 MHz;

LT 45 S / 1530 - 6.8 MHz; LT 45 S / 1570 - 7.2 MHz;  
LT 45 S / 1610 - 7.6 MHz; LT 45 S / 1590 - 7.4 MHz;  
LT 45 S / 1550 - 7.0 MHz;

### General

RF connectors	PG11
Power supply	LR 54 / S 180 –265 VAC LR 55 / S 27-65 VAC
Lightning protection at power supply / RF inputs	2 / 6 kV <sup>2)</sup>
Power consumption	25 W
Remote power current	< 8 A
Ambient temperature	-20°C... +55°C
Storage temperature	-25°C...+75°C
EMC	EN 50083-2
Protection class	IP 66
Dimensions	260 x 215 x 95 mm

### Downstream - settings and reading via handset or NMS transponder

#### Monitoring:

- opt. input level
- Attenuator
- Equalizer out

#### Configuration:

- Attenuator in 0-20 dB (@ ALC off)
- out 0-15 dB
- Equalizer 0-15 dB
- ALC control on / off
- Alarm / warning thresholds

### Upstream

#### Monitoring:

- opt. output level
- Temperature

#### Configuration

- Laser on / off
- ICS 0 / 8 / >45 dB
- Alarm / Warning thresholds<sup>3)</sup>
- Pilot on / off

### Alarme / Warnungen<sup>3)</sup>:

- Optical input power too high / too low
- Optical transmitting power too high / too low
- Temperature too high / too low
- ALC range limit

All alarm / warning thresholds are variable!

1) depends on diplex filter

2) EN 61000-4-5 1,2 / 50 µs pulse

3) only HMS

### Accessory

- XE 50 F Diplexfilter version /0300 - 30 MHz or /0650 65 MHz
- XM 51 Output splitter



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