

## Specifications

### Downstream incl. receiver module

|   |                              |  |
|---|------------------------------|--|
| Wavelength  | 1290-1600 nm                 |  |
| Opt. return loss  | > 40 dB                      |  |
| Fiber   | single mode 9/125 μm         |  |
| Optical connector                                       | E2000/APC (other on request) |  |
| Output impedance  | 75 Ohm                       |  |
| Output return loss                                      | ≥ 20 dB (-1.5 dB / oct.)     |  |
| Frequency range (determined by diplex filter)           | 47/85- 862 MHz               |  |
| Opt. input level for controlled electrical output level | -5 to +3 dBm                 |  |
| Controlled output level range                           |                              |  |
| Out1 OMI=5% per channel                                 | 87 - 102 dBμV                |  |
| Out 2,3 OMI=5% per channel                              | 99 - 114 dBμV                |  |
| Step size   | 0.1 dB                       |  |
| Equalizer range (adjustable), each output               | 0 - 15 dB                    |  |
| Step size   | 0.1 dB                       |  |
| Amplitude response (O-E)                                | < ± 0.75 dB                  |  |
| Equivalent noise input                                  | < 6 pA √Hz                   |  |
| Distortion products for CENELEC 42 Ch.                  |                              |  |
| Out2, Out3  | 114 dBμV, 6 dB slope         |  |
| CSO   | > 60 dB                      |  |
| CTB   | > 60 dB                      |  |
| Out1  | 100 dBμV, 6 dB slope         |  |
| CSO   | > 66 dB                      |  |
| CTB   | > 68 dB                      |  |
| RF test points  | -20 dB                       |  |

### Upstream incl. transmitter module

|                                       |                                  |            |
|---------------------------------------|----------------------------------|------------|
| Wavelength                            | LT 40 FP laser                   |            |
|                                       | LT 41                            | 1310±20 nm |
|                                       | LT 45/1510                       | 1510±3 nm  |
|                                       | LT 45/1530                       | 1530±3 nm  |
|                                       | LT 45/1550                       | 1550±3 nm  |
|                                       | LT 45/1570                       | 1570±3 nm  |
| Opt. output power                     | 3 dBm                            |            |
| Frequency range                       | 10 - (30)65 MHz*                 |            |
| Broadband RF-Input                    | 10 - 300 MHz (106 dBμV = 5% OMI) |            |
| Input return loss                     | ≥ 20 dB (-1,5 dB / oct.)         |            |
| RIN                                   | < -145 dB/Hz                     |            |
| Nominal input level                   | 75 dBμV                          |            |
| OMI control range                     | 3 – 10% @ 75 dBμV input          |            |
| Step size                             | 1 dB                             |            |
| Frequency response                    | ± 0.5 dB                         |            |
| Ingress control switch att. ICS 1,2,3 | 0 / 8 / >45 dB                   |            |
| RF test points upstream input         | -20 dB                           |            |
| RF test points laser in               | -20 dB                           |            |
| Reference pilot                       | 10 dB below 5% OMI               |            |
| Reference pilot frequencies           |                                  |            |
| LT 41/1310 - 6.4 MHz;                 | LT 45/1510 - 6.6 MHz;            |            |
| LT 45/1530 - 6.8 MHz;                 | LT 45/1550 - 7.0 MHz;            |            |
| LT 45/1570 - 7.2 MHz                  |                                  |            |

### General specifications

|                   |                             |             |
|-------------------|-----------------------------|-------------|
| RF connectors     | PG11                        |             |
| Supply voltage    | LR 43                       | 180-265 VAC |
|                   | LR 63                       | 27-65 VAC   |
| Power consumption | typ. incl. 1 x LR 40, LT 41 | <45 W       |
|                   | max.                        | 53 W        |
| Remote power feed | < 8 A                       |             |

|                     |                    |
|---------------------|--------------------|
| Ambient temperature | -20°... +50°C      |
| EMC                 | EN 50083-2         |
| Protection class    | IP 66              |
| Dimensions          | 288 x 125 x 302 mm |

### Downstream

#### Monitoring:

- opt. input level
- attenuator setting
- equalizer out 1,2,3 setting
- redundancy switch position
- receiver configuration
- pilot level

#### Configuration:

- attenuation out 1, 2, 3
- equalizer out 1, 2, 3
- redundancy mode
- redundancy switch position
- AGC control
- alarm / warning thresholds

### Upstream

#### Monitoring:

- opt. output level
- temperature
- transmitter configuration
- redundancy / clustering switch position
- ICS position
- reference pilot frequency

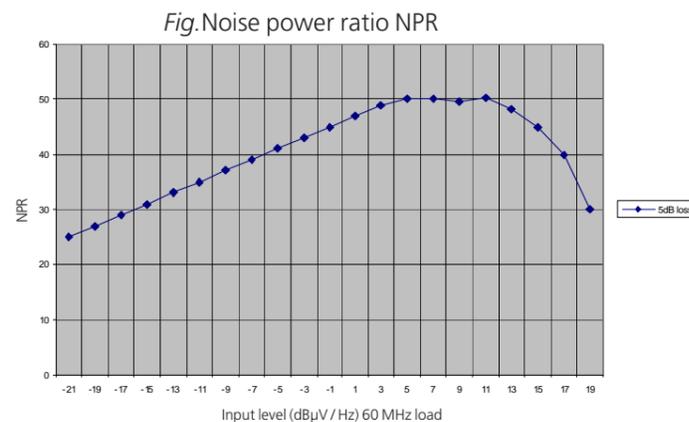
#### Configuration:

- laser
- OMI
- ICS1, ICS2, ICS3
- redundancy / clustering switch position
- alarm / warning thresholds

#### Alarms / Warnings:

- optical input power too high / too low
- optical transmitting power too high / too low
- temperature too high / too low
- AGC range limit
- pilot level too high / too low

All alarm / warning thresholds are variable



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# PRODUCT INFORMATION



## WISI FIBER LINE

### LR 43 local feed Redundant Optical Node LR 63 remote feed

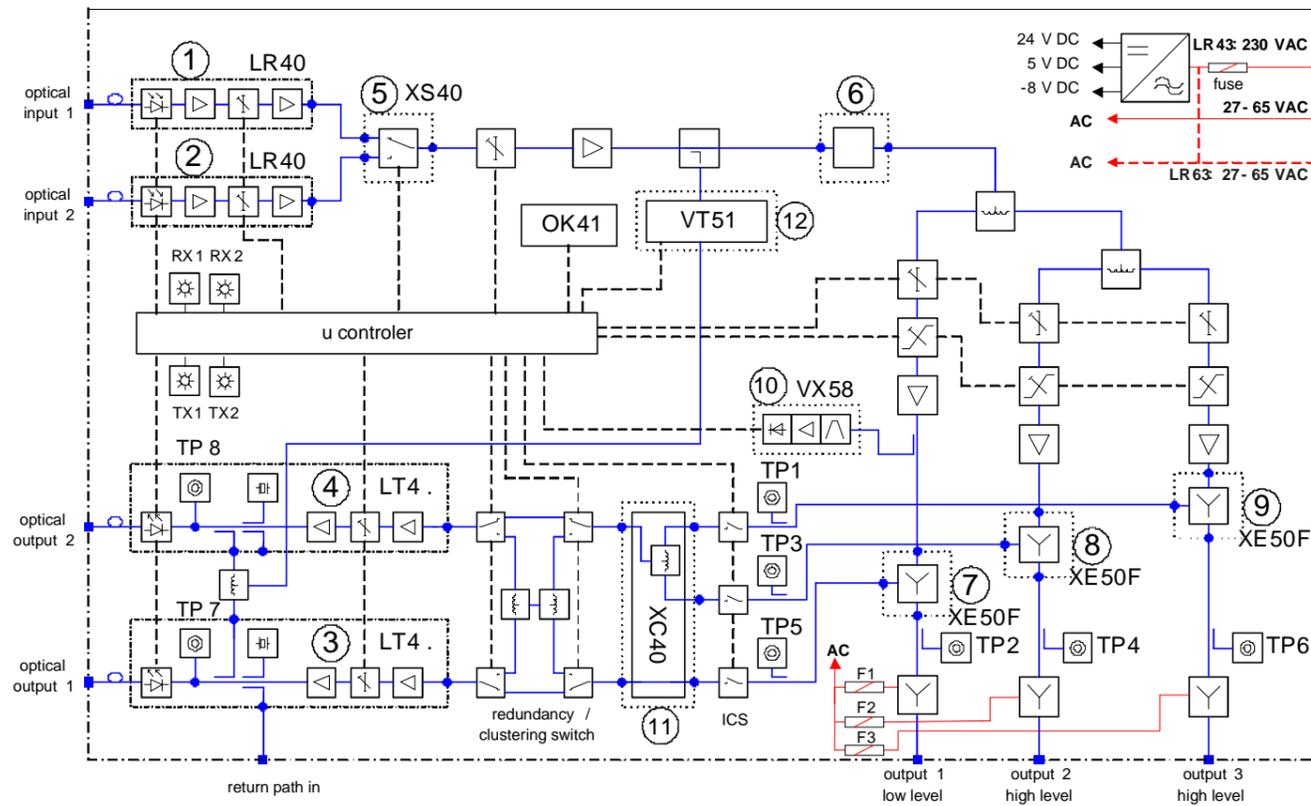
- Redundant Node with three active outputs
- Integrated splice box
- Plug-in optical transmitter and receiver modules (2 each)
- All settings (level, slope etc.) by WISI OK41A handset or NMS if a HMS transponder is used
- Alignment without signal interruption
- Interface for NMS functionality
- Electronic upstream configuration redundancy / clustering
- ICS switch for each input
- Automatic level control (ALSC) via optical input power or pilot controlled VX 58



... a link to the future



## Block diagram

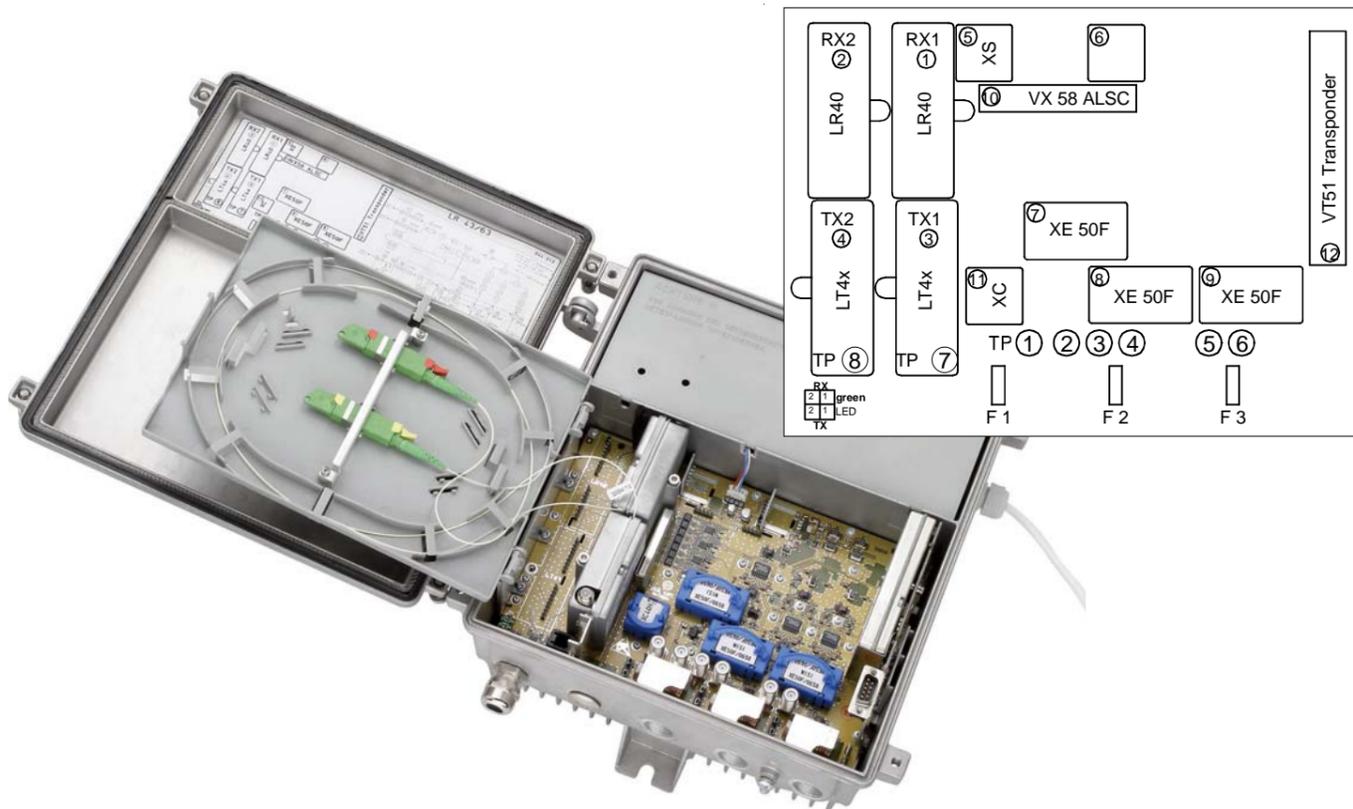


## Accessories

### Ordering information

| Slot No. | Type   | LR 43 / LR 63 factory config. | Accessories Options |
|----------|--|-------------------------------|---------------------|
| (1)      | LR 40 opt. Rx  | X                             | —                   |
| (2)      | LR 40 opt. Rx  | —                             | X                   |
| (3)      | LT 40 FP laser<br>or<br>LT 41 1310 nm opt. Tx<br>or<br>LT 45 1510 nm opt. Tx | —                             | X                   |
| (4)      | LT 40 FP laser<br>or<br>LT 41 1310 nm opt. Tx<br>or<br>LT 45 1510 nm opt. Tx | —                             | X                   |
| (5)      | XS 40 switch   | Jumper                        | X                   |
| (6)      | Universal plug-in  | Jumper                        | X                   |
| (7)      | XE 50F diplexer  | —                             | X                   |
| (8)      | XE 50F diplexer  | —                             | X                   |
| (9)      | XE 50F diplexer  | —                             | X                   |
| (10)     | VX 58 ALSC mod.  | —                             | X                   |
| (11)     | XC 40 config. modul.   | —                             | X                   |
| (12)     | VT 51 transponder  | —                             | X                   |

## Site plan



### Accessory

OK41 / 41A handset

### Note:

If LR 40 (2) is ordered, also one XS 40 (5) is required.  
If LT 4... (3) / (4) is ordered, also one XC 40 (11) is required.

Attention: XE 50F is not compatible with XE 50!!