

sat-nms LFTX/RX-W L-Band Fiber Optical Transmitter/Receiver

The **sat-nms** LFTX-W Fiber Optical Transmitter and **sat-nms** LFRX-W Fiber Optical Receiver form together a high performance optical link for wideband analog multi-carrier RF transportation on fiber optical media. They are available as standalone modules, integrated in 2RU 19" rack-mount chassis or integrated in outdoor cabinets for outdoor use. These two types of optical converter modules form together an optical link, normally sliding into the 19" chassis or the "minihub" in an outdoor cabinet:

sat-nms LFTXL-W Optical Transmitter converting from RF input spectrum to optical output at 1310nm

sat-nms LFRXL-W Optical Receiver regenerating the optical signal back to an RF spectrum

SatService offers the LFTX/RX-W modules for the following frequency band:

sat-nms LFTXL-W and LFRXL-W 950 to 2450MHz

The 19" 2RU chassis can host up to 10 of these modules which can be mixed in any slot configuration. The modules are hot swappable. Redundancy switching is for the moment not foreseen for this -W configuration. In this case please refer to the other **sat-nms** LFTX/RX datasheet which also covers 10MHz and IF band.



All modules include RF gain adjustment and extensive monitoring. The 19" rack-mount chassis also provides an LCD Display and keyboard for local MNC. The remote MNC interface is via web-browser, SNMP, HTTP GET functions and RS232 interface as in all other **sat-nms** products.



Key Features

- Wider L-band frequency coverage
- band 19" 2RU Unit Compact Design
- Redundant hot swap Power Supplies
- RX or TX Modules hot-swap as well

Applications

- Satellite Ground Stations and Teleports
- Cable Head-end Stations

Contact Information

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Technical Specification

RF Specification

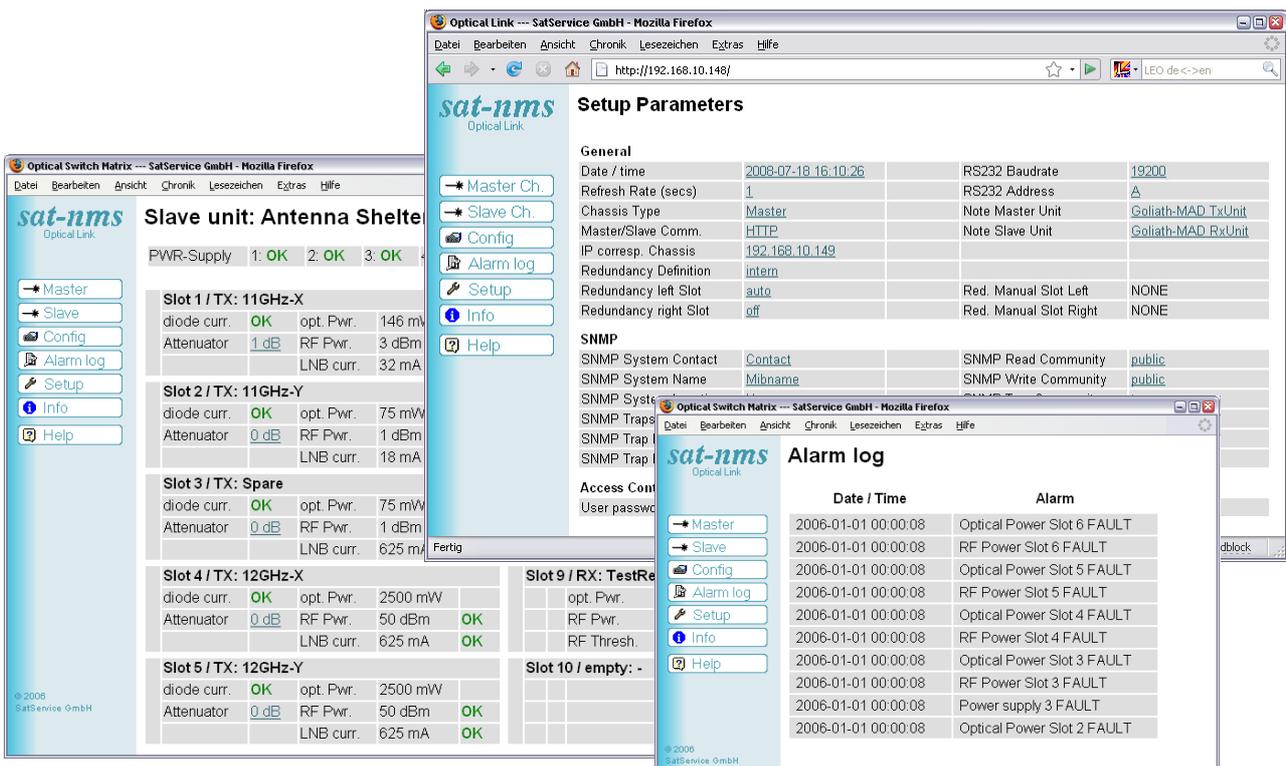
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|--|---|
| Frequency Range | 950 to 2450MHz |
| L-Band Input Connectors (Transmitter) | SMA female 50Ohm |
| L-Band Output Connector (Receiver) | SMA female 50Ohm |
| Input and Output Return Loss | > 17dB |
| L-Band Input and Output Test Connector | SMA female 50 Ohm |
| Optical Connectors | E2000 or FC/APC |
| Input Noise Figure Total Optical Link | < 30dB with 13dB Attenuator Setting |
| Gain Flatness Total Link | +/- 2 dB (950 to 2450MHz), +/-0.25dB in any 40MHz |
| Gain of Complete Link with Attenuator Setting of 14dB | 0dB |
| Attenuation TX Card (adjustable via local and remote interface)* | 0 to 31dB in 1dB Steps |
| Attenuation RX Card (adjustable via local and remote interface)* | 0 to 31dB in 1dB Steps |
| Input Signal max. (Total Level)* | -5 dBm (+10dBm damage level) |
| Output Level max. (Total Power)* | +5dBm |
| Intermodulation at -13dBm Input Level | <-40 dBc |
| DC-output at L-Band input connector (<i>sat-nms</i> LFTX only) | No DC supply voltage for <i>sat-nms</i> LFTX-W |

MNC Interface Specification

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|--|---|
| Ethernet Interface for MNC and User Interface | 10/100-Base-T, Via http GET Requests and SNMP |
| Front Panel Display | LCD 16x2 |
| RS232 MNC Interface | D-SUB 9 female |
| Summary Fault Indication | Relay Contact D-SUB 9 male |
| I/O Output for external WG-Switching (Transmitter) | SUB-D 9 Socket |

Electrical and Mechanical Specification, Environmental Conditions

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|---|--|
| Supply Voltage | 90 to 230V AC 50 to 60Hz, 75W |
| Connector for the two Mains Voltage AC Inputs | IEC |
| Redundant Power Supplies | Hot-swap Capability available as an Option |
| Temperature Range operating (storage) | 0°C to + 50°C (-30°C to +70°C) |
| Humidity | Up to 90% non-condensing |
| Mechanical Size of Mainframe | 436 x 89 x 350 mm (WxHxD), 19" 2RU |
| Weight (depending on installed modules and options) | from 4,9kg to 8,9kg |



The image displays two screenshots of the *sat-nms* web interface. The top screenshot shows the 'Setup Parameters' page, which is divided into 'General' and 'SNMP' sections. The 'General' section includes fields for Date/Time, Refresh Rate, Chassis Type (Master/Slave), Master/Slave Comm. (HTTP), IP correspond. Chassis, Redundancy Definition (intern), Redundancy left Slot (auto), and Redundancy right Slot (off). The 'SNMP' section includes fields for SNMP System Contact, SNMP System Name, SNMP System Description, SNMP Traps, and SNMP Trap I. The bottom screenshot shows the 'Alarm log' page, which displays a table of alarm events with columns for Date/Time and Alarm. The alarm log shows several entries for 'Optical Power Slot X FAULT' and 'Power supply 3 FAULT'.