



ProLink RF-over-Fiber System

FLC TX/RX chassis variants

Made
in
Germany

GENERAL

The ProLink RF-over-Fiber system offers mechanical options in 1 & 3RU/19" design for flexible and high quality optical distribution of up to 16 RF signals (L-Band, IF*, 10MHz*) over a distance of up to 10km. The 1RU/19" chassis variants can be equipped with up to 2 optical TX/RX modules while the 3RU/19" chassis can be populated with up to 16 TX/RX modules.

The chassis are designed to allow mixed configurations for insertion of L-Band, IF*, 10MHz* and/or TX/RX modules within the same chassis. Furthermore the ProLink system offers various advantageous features such as Laser, Link and RF power monitoring, a -20dB measurement port at any TX/RX module as well as variable gain adjustment and switchable LNB-supply (TX only) individually adjustable for each TX/RX module.

Configuration and monitoring of the ProLink System can easily being done locally via LC-Display or 5,7" touchscreen while remote configuration is available via its Ethernet-Interface (WebGUI, SNMP).

This professional RF-over-Fiber system stands for perfect RF performance as well as error free signal distribution and is perfectly suited for Teleports, Satellite Earth Stations, Broadcasting and CATV/IPTV operations.

FLC102A TX/RX Chassis (1RU/19")



FLC316A TX/RX Chassis (3RU/19")



FEATURES

- 1RU/19" or 3RU optical transmission chassis for up to 16 optical TX/RX modules
- Compact & professional signal transmission (for L-Band, IF and 10MHz* frequency-range)
- Up to 16 RF signals over fiber transmission (per chassis)
- Insertion of max. 16 ProLink TX and/or RX modules
- Hot swappable TX/RX modules
- Chassis variants supporting mixed TX/RX configuration
- Variable gain-adjust & RF power monitoring (via TX/RX module)
- Switchable LNB-supply (13/15/18VDC, 22kHz via TX module)
- 1:1 power-supply redundancy (hot-swappable)
- Easy local & remote configuration & monitoring (WebGUI, SNMP)
- LED's displaying laser, link, psu & access status
- Optionally with potential free error-contact (DB9 female), 3 status levels (unit fail, power-supply fail, module fail)

*Upon request

TECHNICAL SPECIFICATIONS

- > **Dimensions:** 1RU/19" or 3RU/19",
- > **Power-supply:** 85...240V, 50/60Hz
- > **Power consumption:** <10 (1RU/19"), <60W (3RU/19")
- > **Frequency-ranges:** L-Band 950...2.150MHz
IF 40...200MHz, 10MHz*
- > **TX/RX configurations:** see table below
- > **TX/RX Module slots:** 1RU/19", max. 2 slots
3RU/19", max. 16 slots
- > **Local configuration:** LC-Display or 5,7" touchscreen
- > **Remote config.:** Ethernet (WebGUI, SNMPv2c)
- > **Operating temperat.:** 0...50°C
- > **Storage temperature:** -10°C...70°C
- > **Humidity:** 90% non-condensing
- > **RoHS:** Compliant

*Upon request

OPTION

- > **Option 103:** potential free error-contact (DB9 female), 3 status levels (unit fail, power-supply fail, module fail)

CHASSIS ORDER INFORMATION & TX/RX configuration variants

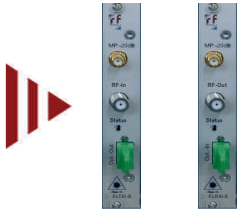
Chassis Type	Chassis size	Max. Qty. Links	Max. TX/RX slots
FLC102A ProLink TX/RX Chassis	1RU/19" rack mount	2	2 (TX and/or RX)
FLC316A ProLink TX/RX Chassis	3RU/19" rack mount	16	16 (TX and/or RX)



ProLink RF-over-Fiber System

Optical TX (Transmit) & RX (Receive) modules

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FLTXI-S Optical Transmitter, IF

FLTX10M-S Optical Transmitter, 10MHz*

- Frequency range: 40...200MHz (FLTXI-R)
10MHz (FLTX10M-R)
- RF Input connector: 50Ohm SMA(f)/BNC(f)
or 75Ohm BNC(f)
- RF Input level: 0dBm max.
10dBm max. (FLTX10M-R)
- Frequency response: $\pm 0,5\text{dB typ./} \pm 1,0\text{dB max.}$
- Return loss: 18dB (Δ VSWR: 1:1.29)
- Optical Output connectors: E2000 or SC/APC
- Operating wavelength: 1310nm
- Optical power: +5dBm
- Port matching: 18dB (all ports)
- Gain adjustment*: -15...+15dB* (MGC/AGC)
*not f. 10MHz
- RF power monitoring: 60dB
- Measurement port: -20dB
- Operating temperature: 0...50°C
- Storage temperature: -10°C...70°C
- Humidity: 90% non-condensing
- RoHS: Compliant

FLTXL-S Optical Transmitter, L-Band

- Frequency range: 950...2150MHZ
- RF Input connector: 50Ohm SMA(f) or 75Ohm F(f)
- RF Input level: 0dBm max.
- Frequency response: $\pm 0,5\text{dB typ./} \pm 1\text{dB max.}$
- Return loss: 16dB (Δ VSWR: 1:1.38)
- Optical Output connectors: E2000 or SC/APC
- Operating wavelength: 1310nm
- Optical power: +5dBm
- Gain adjustment: -15...+15dB (MGC/AGC)
- RF power monitoring: 70dB
- Measurement port: -20dB
- LNB supply: 13/15/18V, 22kHz, 400mA
- Operating temperature: 0...50°C
- Storage temperature: -10°C...70°C
- Humidity: 90% non-condensing
- RoHS: Compliant

FLRXI-S Optical Receiver, IF

FLRX10M-S Optical Receiver, 10MHz

- Frequency range: 40...200MHz (FLRXI-R)
10MHz (FLRX10M-R)
- Optical Input connectors: E 2000 or SC/APC
- Operating wavelength: 1310 - 1560nm
- Optical Input level: +10dBm
- RF Output connector: 50Ohm SMA(f)/BNC(f)
or 75Ohm BNC(f)
- Frequency response: $\pm 0,5\text{dB typ./} \pm 1,0\text{dB max.}$
- Return loss: 18dB (Δ VSWR: 1:1.29)
- Gain adjustment*: -15...+15dB* (MGC/AGC)
*not f. 10MHz
- RF power monitoring: 60dB
- Measurement port: -20dB
- Operating temperature: 0...50°C
- Storage temperature: -10°C...70°C
- Humidity: 90% non-condensing
- RoHS: Compliant

FLRXL-S Optical Receiver, L-Band

- Frequency range: 950...2150MHz
- Optical Input connectors: E 2000 or SC/APC
- Operating wavelength: 1310 - 1560nm
- Optical Input level: +10dBm max.
- RF Output connectors: 50Ohm SMA(f) or 75Ohm F(f)
- Frequency response: $\pm 0,5\text{dB typ./} \pm 1,0\text{dB max.}$
- Return loss: 16dB (Δ VSWR: 1:1.38)
- Gain adjustment: -15...+15dB (MGC/AGC)
- RF power monitoring: 70dB
- Measurement port: -20dB
- Operating temperature: 0...50°C
- Storage temperature: -10°C...70°C
- Humidity: 90% non-condensing
- RoHS: Compliant

Link Specifications (10MHz & IF modules)

- IMA3 @ -10dBm @ 0dB Gain: < -66dBc
- IP1: +10dBm max.
- Noise Figure: < 23dB (for TX/RX link)
- Spurious free dynamic range: 109dBm/Hz
- RF output power: +10dBm max.

Link Specifications (L-Band modules)

- IMA3 @ -10dBm: < -60Bc
- IP1: +10dBm
- Noise Figure: < 20dB (for TX/RX link)
- Spurious free dynamic range: 107dBm/Hz
- RF output power: +10dBm max.

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