



FiberLinkB Plus

Non Redundant Broadband RF-Over-Fiber System

The broadband FiberLink*Bplus* RF-over-Fiber system for non-redundant optical transmission of RF signals is available in sizes of 1RU/19" & 3RU/19" rack mount design. It is perfectly suited for flexible and high quality optical transmission of up to 16 RF signals (broadband 50 – 2500MHz) over a distance of up to 20km.

The 1RU/19" chassis variants hold up to 4 optical TX/RX modules while the 3RU/19" chassis can be populated with up to 16 TX/RX modules.

All available chassis are designed to allow mixed population with TX/RX modules within the same chassis, while the chassis are equipped with corresponding RF ports (50Ohm or 75Ohm) which are used either as input or output port as per the individual configuration.

Additionally, this non-redundant RF-over-Fiber system comes with beneficial features such as Laser/Link monitoring, status LED's at any TX/RX module, variable gain control, RF power monitoring, hot-swappable TX/RX modules and 1:1 redundant dual power-supply. Configuration and monitoring is possible via the front-panel 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 stable signal distribution and is perfectly suited for Teleports, Satellite Earth Stations, Broadcasting and Cable/IPTV operations.



FEATURES & BENEFITS

- Versatile non redundant RF-over-Fiber system
- Broadband frequency range 50 - 3000MHz
- 1RU/19" chassis for max. 4 TX/RX modules
- 3RU/19" chassis for max. 16 TX/RX modules
- Hot swappable TX/RX modules
- Support of mixed TX/RX population
- Variable gain-control at each TX/RX module
- RF power monitoring at each TX/RX module
- Switchable LNB-supply @ each TX module (Option)
- Status LED's for each TX/RX module
- Easy local & remote configuration & monitoring
- Laser, link, PSU & access status monitoring
- Excellent quality and superior RF performance
- 1:1 redundant dual power-supply



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TECHNICAL SPECIFICATIONS

19" Chassis (Broadband 50...3000MHz)

➤ Dimensions:	1RU/19" (260mm deep) or 4RU/19" (300mm deep)
➤ Power supply:	85...265V, 50/60Hz, dual 1:1 redundancy (hot swappable)
➤ Power consumption:	<10W (1RU/19"), <600W (3RU/19")
➤ Frequency range:	50 – 3000MHz
➤ TX/RX configurations:	See 4 th page (order information)
➤ TX/RX module capacity:	Max. 4 slots @ 1RU/19" chassis; Max. 16 slots @ 3RU/19" chassis
➤ RF connectors I/O ports @ chassis:	50Ohm SMA(f), 75Ohm F(f) 50Ohm BNC(f)*, 75Ohm BNC(f)*
➤ Local configuration:	LC-Display/keypads or 5.7" colored touchscreen display
➤ Remote configuration:	Ethernet (WebGUI, SNMPv2c)
➤ Operating temperature:	0°C...50°C
➤ Storage temperature:	-10°C...70°C
➤ Humidity:	90%, non-condensing
➤ RoHs:	Compliant

**upon request*

TX Module (Broadband 50...3000MHz)

➤ Frequency range:	50...3000MHz
➤ RF input connector:	Via Chassis RF I/O ports (50Ohm SMA, BNC* or 75Ohm F, BNC*)
➤ Optical Output connector:	SC/APC
➤ Fiber type:	Single mode 9/125
➤ RF input power level:	+10dBm max. (damage level)
➤ Frequency response:	±1,0dB typ., ±1,5dB max.
➤ Return loss:	15dB typ. (≅ VSWR: 1:1.4)
➤ Laser type:	DFB with Isolator
➤ Laser class	1M
➤ Operating wavelength:	1310nm ±5nm
➤ Optical output power:	+7dBm min.
➤ Variable gain control:	-6dB...+6dB (1dB steps)
➤ Switchable LNB-supply:	13/15/18VDC, 22kHz tone, 450mA max (current monitoring) (Option)
➤ RF power monitoring:	70dB dynamic range
➤ Status LED's:	OK, Fail, Stand-By
➤ Operating temperature:	0°C...50°C
➤ Storage temperature:	-10°C...70°C
➤ Humidity:	90%, non-condensing
➤ RoHs:	Compliant

**upon request*



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TECHNICAL SPECIFICATIONS

RX Module (Broadband 50...3000MHz)

➤ Frequency range:	50...3000MHz
➤ Optical Input connector:	SC/APC
➤ Fiber type:	Single mode 9/125
➤ RF Output connector:	Via Chassis RF I/O ports (50Ohm SMA, BNC* or 75Ohm F, BNC*)
➤ Optical input power level:	-15dBm (min. optical sensitivity)
➤ Frequency response:	±1,0dB typ., ±1,5dB max.
➤ Return loss:	15dB typ. (≅ VSWR: 1:1.4)
➤ Operating wavelength:	1310nm – 1560nm
➤ RF output power:	+6dBm max.
➤ Variable gain control:	-10dB...+10dB (1dB steps)
➤ RF power monitoring:	70dB dynamic range
➤ Status LED's:	OK, Fail, Stand-By
➤ Operating temperature:	0°C...50°C
➤ Storage temperature:	-10°C...70°C
➤ Humidity:	90%, non-condensing
➤ RoHs:	Compliant

**upon request*

Link Specifications (Broadband 50...3000MHz)

➤ Modulation type:	Direct
➤ Max. link gain:	24dB (±1,0dB)
➤ Gain stability:	< ±0,3dB
➤ Group delay distortion:	<2ns
➤ Nominal RF Input level:	0dBm
➤ Noise figure:	26dB typ. @ full gain
➤ SFDR:	-105dB Hz typ.
➤ RF Output power:	+6dBm max.
➤ IMA3 @ -10dBm:	< -60dBc
➤ Input power dyn. Range:	-50 to +10dBm
➤ Output IP3:	+30dBm
➤ Output IP1:	+7dBm

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ORDER INFORMATION

19" Chassis (Broadband 50...3000MHz)

Chassis Type	Short Description	Chassis size	Capacity TX/RX slots	Max. Links	RF coax I/O connectors
FLC1120Bplus-50S FLC1120Bplus-75F FLC1120Bplus-50B* FLC1120Bplus-75B	1RU/19" modular TX/RX chassis, 50 – 3000MHz, 2 TX/RX slots, 2 RF coax I/O's, local configuration via LC-Display/keypads, remote configuration via Ethernet-Interface (WebGUI, SNMP), 1:1 redundant dual power-supply	1RU/19"	2	1	2 x 50Ohm SMA(f) 2 x 75Ohm F(f) 2 x 50Ohm BNC(f)* 2 x 75Ohm BNC(f)*
FLC1140Bplus-50S FLC1140Bplus-75F FLC1140Bplus-50B* FLC1140Bplus-75B*	1RU/19" modular TX/RX chassis, 50 – 3000MHz, 4 TX/RX slots, 4 RF coax I/O's, local configuration via LC-Display/keypads, remote configuration via Ethernet-Interface (WebGUI, SNMP), 1:1 redundant dual power-supply	1RU/19"	4	4	4 x 50Ohm SMA(f) 4 x 75Ohm F(f) 4 x 50Ohm BNC(f)* 4 x 75Ohm BNC(f)*
FLC3160Bplus-50S FLC3160Bplus-75F FLC3160Bplus-50B* FLC3160Bplus-75B	3RU/19" modular TX/RX chassis, 50 – 3000MHz, 16 TX/RX slots, 16 RF coax I/O's, local configuration via touchscreen display, remote configuration via Ethernet-Interface (WebGUI, SNMP), 1:1 redundant dual power-supply	3RU/19"	16	16	16 x 50Ohm SMA(f) 16 x 75Ohm F(f) 16 x 50Ohm BNC(f)* 16 x 75Ohm BNC(f)*

*upon request

TX & RX Modules (Broadband 50...3000MHz)

Module Type	Short Description	Optical I/O connector	Frequency range
FLT3000plus	Optical Transmitter TX-Module, broadband 50 - 3000MHz, RF coax Input via FLC(R) chassis RF coax I/O panel, Optical Output SC/APC, variable gain-control, RF power monitoring	SC/APC	50 - 3000MHz
FLR3000plus	Optical Receiver RX-Module, broadband 50 - 3000MHz, Optical Input SC/APC, RF coax Output via FLC(R) chassis RF coax I/O panel, variable gain-control, RF power monitoring	SC/APC	50 - 3000MHz

Options

Type	Short Description
Option 105	Switchable LNB-supply (13/15/18VDC, 22kHz tone, ON/OFF), for FiberLinkBplus TX modules(FLT3000plus)