



FlexLink R25 Combining Matrix IF 10-200MHz

...designed for perfect signals



IF 10 – 200MHz Combining Switch Matrix System 64:64

The FlexLink R25 represents an unique, innovative & clever IF 200MHz Combining Switch Matrix system (10 – 200MHz), built into a 5RU/19" rack mount chassis with only 500mm depth. It comes as scalable fan-out/distributive system allowing to switch/route any selected input to any or all outputs enabling to switch/route various inputs to a dedicated output. The 5RU/19" chassis can be assembled with various input/output configurations from 8:8 to 64:64 (symmetrically & unsymmetrically).

This Switch Matrix replaces very cost-effective standard fix distribution systems and offer a maximum in flexibility combined with state-of-the-art functionalities, features, excellent RF performance and various options. All matrix switch boards are hot-swappable and easy to replace without removing any cables.

The flexible modular design makes it possible to mix the input and output connectors with various connector types (50Ohm SMA or BNC) giving the operator flexibility for future expansions. The FlexLink R25 features variable gain control & RF power monitoring.

Beyond its state-of-the-art and unique mechanical concept, all the functionalities and options the FlexLink R25 also assures superior and stable RF performance at the highest quality level.



The FlexLink R25 matrix system can be configured and monitored locally via its front-side 7/10.4" colored touchscreen. Remote configuration can be done via an Ethernet-Interface (WebGUI, SNMP).

RF-Design's local and remote configuration platform for the FlexLink R25 allows the configuration of all relevant matrix settings including routing/switching settings, cross point locking, signal-path backup routing with reverse switch-back, double back-up storage of all settings/configurations, variable gain control and of course all available options (if activated).

The configuration software also supports user administration management and user rights assignment, logbook function, storage functions and various parameter-monitoring functions for critical RF values but also for each individual switchboard, power supplies and ventilators.

The FlexLink R25 is ideal for flexible signal assignments and perfectly suited for RF distribution applications in Teleports, Satellite Earth Stations as well as Broadcast and CATV/IPTV headend operations.

FEATURES & BENEFITS

Conceptual Features R25 5RU Version

- ▶ Space saving 5RU/19" modular rack mount design
- ▶ IF 10-200MHz support
- ▶ From 8:8 to up to 64:64 inputs/outputs within one chassis as fan-in/combining system
- ▶ Easy expandable with external components
- ▶ Coax inputs & outputs 50Ohm SMA(f) or BNC(f)
- ▶ Hot-swappable controller card and matrix switch boards
- ▶ 10.4" front-side touchscreen LC-Display for local configuration
- ▶ 1000MBit Ethernet-Interface (WebGUI, SNMPv2c)
- ▶ 1:1 redundant dual power supply (hot-swappable)

Hardware & RF Features

- ▶ Variable gain control (@ any output)
- ▶ Threshold alarming (local and remote signaling)
- ▶ RF power monitoring (@ any input/output)
- ▶ Switching time is 50 ms
- ▶ Input connectors available as 50Ohm SMA or BNC
- ▶ Output connectors available as 50Ohm SMA or BNC
- ▶ Superior RF performance @ Isolation and Frequency Response

Software & Configuration Features

- ▶ Local and remote configuration for all relevant settings and adjustments
- ▶ Local configuration via 7/10.4" colored touchscreen LC-Display
- ▶ Remote configuration via 1000MBit Ethernet-Interface and RS232 (WebGUI, SNMPv3)
- ▶ User administration with user rights management
- ▶ Cross point/routing locking for individual users
- ▶ Signal path backup routing with reverse switch-back
- ▶ Logbook and storage function
- ▶ Various parameter monitoring & error diagnosis functions for critical RF values, all switch boards, fan speed, psu's...
- ▶ Save operation via double back-up storage for all settings



TECHNICAL SPECIFICATIONS

General Specifications 5RU Units

Dimensions:	5RU/19", 500mm deep, 45kg
Switch Matrix Type:	Fan-In/combining
Configuration Variants:	8:8 – 64:64 (increments of 8), symmetrical & unsymmetrical
Power Supply:	85 – 230, 50/60Hz, 1:1 redundant (hot- swappable)
Power Consumption:	<350W (@64:64 configuration)
Frequency Range:	IF 10-200MHz
Available I/O Connectors:	50Ohm SMA(f), 50Ohm BNC(f)
Variable Gain Control:	-10dB to +6dB (1dB steps)
RF Power Monitoring:	60dB dynamic range
Input Level Control:	Monitoring threshold adjustment/alarming
Local Configuration:	10" Touchscreen LC-Display
Remote Configuration:	RJ45 Ethernet-Interface (WebGUI, SNMPv2c)
Serial Interface:	RS232*

*Option

RF Specifications Combining Matrix

Frequency Range:	IF 10 - 200MHz
Frequency Response:	± 0,5dB typ. ±1dB max.
Group Delay Variation:	±2 ns max.
Noise Figure:	<12dB
Input/Output Return Loss:	16dB min., 18dB typ.
Isolation:	≥80dB typ. (In/In), ≥80dB typ. (In/Out), ≥80dB typ. (Out/Out)
Operational Input Power:	-70dBm to 0dBm nominal, 10dBm max. (Recommended)
RF Input Power:	+13dBm max. (damage level, depends on gain setting)
RF Output Power:	+18dBm max. (damage level, depends on gain setting)
IMA3 @ -10dBm:	<60dBc
P1dB:	+8dBm
SFDR:	< -80dBm

Environmental Specifications

Location:	Indoor use only
Operating Temperature:	0°C to 45°C
Storage Temperature:	-10°C to 65°C
Humidity:	90%, non-condensing

ORDER INFORMATION

Type	Type No.:	Short Description
FlexLink R25C_5-IF200MHz-Combining Matrix Chassis - For custom configuration	9001514	ZF Combining Switch Matrix System 64:64 Input/Output config., 50Ohm SMA(f), 50 - 200MHz, front panel touchscreen, RJ45 Ethernet interface (WebGUI, SNMP), 1:1 PSU, 15 x Center Switch-Board 8:8
FlexLink R25C_5-IF200MHz ISB0816C Combiner Board	9001515	Input Switch Board, 8 x RF Input, IF 10 - 200MHz, 50Ohm SMA(f)
FlexLink R25C_5-IF200MHz-OSB1608C Combiner Board 50S	9001516	Output Switch Board, 8 x RF Output, IF 10 - 200MHz, 50Ohm SMA(f)