WISYCOM

MATF

RF OVER FIBER PROGRAMMABLE MATRIX/COMBINER

The MATF is designed to centralized RF distribution management integrating fiber and copper endpoint technologies with advanced matrix coupling in one compact frame, which offer a powerful platform that adapts to nearly any installation or workflow. Whether for theater, corporate, broadcast or OB applications, the antenna matrix offers new levels of scalability and remote management.

8 zones

Diversity Zones

Programmable combiner up to 8 zones in diversity configuration. Configurable by software in 8 zones into 4 outputs or dual 4 zones into 2 outputs

RF over Fiber

The optical module slot allows to replace the coaxial cable with fiber and place the antennas miles away

Integrated RF Scanner

Built-in spectrum analyzer to check inputs before they are switched into the combined signals or to monitoring combined signal

VHF & UHF

Wideband RF Technology

Extreme wideband system from 170 to 1260 MHz

Touchscreen Control

Easy configuration via the large colour touchscreen display

Antenna Control

Remote control of gain and filter thru coaxial cable of Wisycom smart antennas LFA, ADFA and BFA (coaxial modules)

OTHER FEATURES

- Redundant power supply, AC and DC powered
- Programmable gain control on each inputs
- Antenna booster supply toggled on each coaxial input independently
- Voltage and current monitoring on each booster supply with alarm
- Monitoring of optical level on each optical input module with alarm
- Remote management and monitor of alarms thru Ethernet 10/100 base TX

Wisycom Srl
Wisycom Srl - Via Tiepolo, 7/E I-35019 Tombolo (PD) Italy
Tel. +39 0424 382605 - e-mail : sales@wisycom.com

wisycom.com

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CONFIGURATION

MATF {8 input modules}

- '**C**' for coaxial module
- '**F**' for optical* module, *compatible with BFLT2 M0, BFLT1, MFL no Mux*
- '**M**' for optical* module with M2 multiplexer, *compatible with BFLT2 M2*

*max 6 optical modules

Standard configurations:

MATFCCFFCCFF	**4 coaxial input modules (slots items: 1,2,5,6)** **4 optical input modules without multiplexer (slots items: 3,4,7,8)**
MATFCCFFFFFF	**2 coaxial input modules (slots items: 1, 2)** **6 optical input modules without multiplexer (slots items: 3,4,5,6,7,8)**
MATFCFFFCFFF	**2 coaxial input modules (slots items: 1, 5)** **6 optical input modules without multiplexer (slots items: 2,3,4,6,7,8)**
MATFCCMMCCMM	**4 coaxial input modules (slots items: 1,2,5,6)** **4 optical input modules with M2 multiplexer (slots items: 3,4,7,8)**
MATFCCMMMMMM	**2 coaxial input modules (slots items: 1, 2)** **6 optical input modules ith M2 multiplexer (slots items: 3,4,5,6,7,8)**

Power supply PSP15019-XF is included, Power supply cable CAL-xx not included

ACCESSORIES & RELATED

Item: BFLT2_Fx-M0-D1
Dual RF over Fiber transmitter, selectable filter, antenna control (LFA type), SFP socket and remote control interface
compatible with MATF 'F' module

Item: LFA
Directive Wideband Active antenna with integrated filters
remote controlled
410-1300 MHz
compatible with MATF 'C' module

Item: BFLT2_Fx-M2-D1
Dual RF over Fiber transmitter with multiplexer M2, selectable filter, antenna control (LFA type), SFP socket and remote control interface
compatible with MATF 'M' module

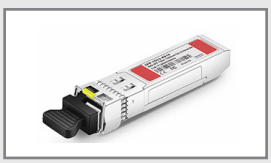
Item: ADFA
Omnidirectional Wideband Active antenna with integrated filters
remote controlled
430-1260 MHz
compatible with MATF 'C' module

Item: BFLT1
Single Laser RF over Fiber transmitter with selectable filter, Bluetooth control interface
compatible with MATF 'F' module

Item: LBNA2
Wideband Directional Active Antenna
430-870 MHz
compatible with MATF 'C' module

Item: MUX-M2DUAL
Double Optical Multiplexer/Demultiplexer to convert M0 to M2 or viceversa.

Item: ADB3
Wideband Omnidirectional Passive Antenna
430-1260 MHz
compatible with MATF 'C' module



Item: SFP-MOD2
SFP module for installation into external switch
TX 1550nm, RX 1310nm
for Data connection with BFLT2-Fx-M0-D1, BFLT2-Fx-M2-D1,

Item: BFA
Wide-band booster
with integrated filters
remote controlled
430-1260 MHz
compatible with MATF 'C' module

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TECHNICAL SPECIFICATIONS

RF SPECS.	Frequency ranges	170 MHz to 1260 MHz
	Input gain	-25 to +3dB, 0.5dB steps; independent regulation for each input module, A and B separately
	OIP3	+22 dBm typ. for coaxial module (3dB gain) +18 dBm typ. for optical module (3dB gain)
	Amplifier linearity	± 1 dB typ. for coaxial module
	Noise figure	6 dB typ. for coaxial module (3dB gain) 15 dB typ. for optical module (3dB gain)
OUT	Output Connectors	4 x BNC-F (4A & 4B), 50 Ω
COAXIAL IN	Connector	2 x BNC-F (A & B), 50 Ω
	max RF input level	-10 dBm, overload alarm
	Antenna booster powering	+12V DC / 220 mA +12V DC / 400 mA High Boost, for max 2 coaxial modules (software configurable)
OPTICAL IN	Optical Connector	2 x LC/APC for optical module without MUX, 'F' version 1 x SC/APC for optical module with MUX (1510nm & 1550nm), 'M' version **Note: All fiber links require single-mode fiber. The maximum supported number of optical modules is 6.**
	Optical input level	-6 dBm to +6 dBm (0.25 mW to 4 mW)
	Absolute max optical power	10 mW DO NOT EXCEED MAX INPUT OPTICAL POWER!
	Wavelength	1300 nm to 1650 nm for 'F' module 1510 nm and 1550 nm for 'M' module
SCANNER	Frequency range	170 MHz - 260 MHz and 460 MHz - 1260 MHz
	Input channels	Software selectable between 1 of the 8 input modules or combined signals
	Frequency resolution	50 kHz
	Input attenuator	Software selectable between 0 dB, 10 dB and 20 dB
	Timebase accuracy (0-50°C)	±2.5 ppm max
	Display Noise Level	-112 dBm typ.
	Displayed amplitude range	-117 dBm to -17 dBm
	Max input level	-7 dBm, 20 dB input attenuation
	Amplitude accuracy	±1.5 dB typ.
	Input IIP3	+15 dBm typ., 0 dB input attenuation
	Sweep Speed	70 MHz/s with diversity inputs
	Full range sweep time	13 seconds
OTHERS	USB port	For future use
	Managing interface	Touch display menu, 2 buttons and encoder, Remote Control thru Ethernet 10/100 BaseT interface
	Power supply	85V - 264V AC, 47-63 Hz, 150W max, FUSE T3,15A 10V - 28V DC, 150W max
	Max power consumption	80 W typical, 2 coaxial modules High Boost and 6 optical modules
	Display	1424 x 280 px. colors touch display 16.7 M
	Temperature range	-10 °C to +50 °C
	Dimensions	483 mm x 43.8 mm x 349 mm (LxHxD)
	Weight	4.5 kg approx.

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