

RF-Matrix MX-8/8-FFO-6G

MTS-No.: 29160

Application

The MX-8/8-FFO-6G is an RF-Matrix made of dividers and semiconductor switches. The principle is full fan out. It can be used for several applications, f.e.:

- Test automation in the mobile communication area
- Remote switching of measuring instruments and test equipment
- Permanently change of components such as amplifiers, filters, attenuators, etc. without having to rewire

Description

At the MX-8/8-FFO-6G all of the outputs can be connected to maximum one input simultaneously. This can be the same input for all outputs.

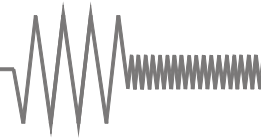
The configuration is 8 inputs and 8 outputs.

In combination with attenuators, splitters and other modules the usability can be extended.



Characteristics

- ▶ RF-Matrix, full fan out, bidirectional, made of dividers and semiconductor switches (8 inputs, 8 outputs)
- ▶ Frequency range from 500 MHz to 6000 MHz
- ▶ Switching time up to 10 ms
- ▶ On request switching time up to 0.1 ms per transmitted binary sign (S A F 1 5 ETX are six signs).
- ▶ Integrated power supply 100 V - 240 V AC
- ▶ Manual control (colour display with touchpanel)
- ▶ Remote control by USB and LAN (other interfaces or web control on request)
- ▶ 19" rack mount case with 3 HU
- ▶ Windows control programs can be offered
- ▶ High quality materials and components for extended durability
- ▶ On request Group+Block of separate components (with name / name and keyword available)
- ▶ On request switching cycles of every matrix position can be requested
- ▶ RF-Matrices can be designed according to customers individual requirements



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Configuration:

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Technical data:

1 RF-specifications:

1.1 Impedance	50 Ω		
1.2 Input power	+36 dBm max. @ each port		
1.3 Frequency range	500 MHz - 6000 MHz		
1.4 RF-connections	N female		
	min.	typ.	max.
1.5 VSWR in/out		1.4	2.1
1.6 Insertion loss (IL)			
@ 500 MHz		13.5 dB	15.0 dB
@ 3000 MHz		16.5 dB	18.0 dB
@ 6000 MHz		20.0 dB	22.0 dB
1.7 IL derating / 20 MHz		0.03 dB	
1.8 Isolation (see plot)			
@ INx/INy, INx/OUTy	100 dB	130 dB	
@ IN1/OUTy	95 dB	105 dB	
@ OUTx/OUTy, switched to other input	100 dB	130 dB	
@ OUTx/OUTy, switched to same input			
@ 500 - 790 MHz	20 dB	25 dB	
@ 790 - 6000 MHz	28 dB	35 dB	
1.9 Switching time			10 ms

2 Connections:

2.1 Front side	Power switch with integrated control lamp Colour display with touchpanel
2.2 Rear side	RF-connections Control card with control interfaces Appliance plug with the integrated fuses F1 and F2 Ground connector

3 General specifications

3.1 Power supply	100 V - 240 V 50 Hz / 60 Hz
3.2 Internal voltage	+5 V DC, +28 V DC
3.3 Control displays	Colour display with touchpanel Control lamp in the power switch
3.4 Control interfaces	USB LAN
3.5 Power consumption primarily	150 mA max. @ 230 V
3.6 Voltage supply	Standard rubber connector
3.7 Operating temperature	0 °C - +50 °C
3.8 Reference temperature for specifications	+25 °C
3.9 Dimensions	19"-unit x 3 HU x 370 mm (dimensions without handles and connections)
3.10 Colour	Front side colourless anodized Rear side colourless anodized
3.11 Weight	13.2 kg

4 Delivered parts:

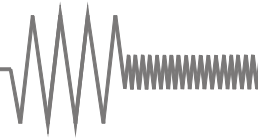
MX-8/8-FFO-6G
Power cable
CD with operating manual

5 Comments:

Warranty 12 months
RoHS-compliant Yes

6 Recommended accessories:

Shielding box of the series
MSB-02xx or MSB-01xx
RF-cables
Control software



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Typical measurements:

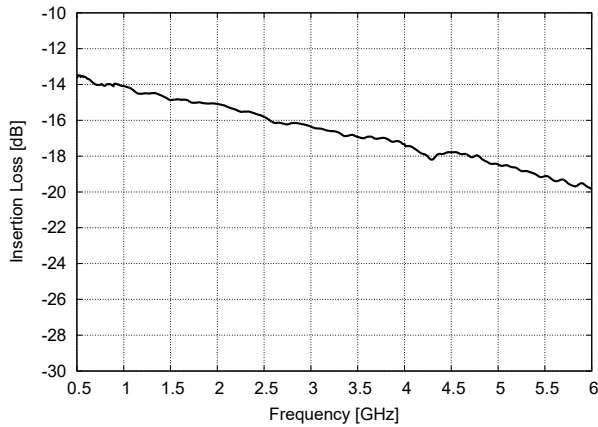


Fig. 1: Input port to output port insertion loss

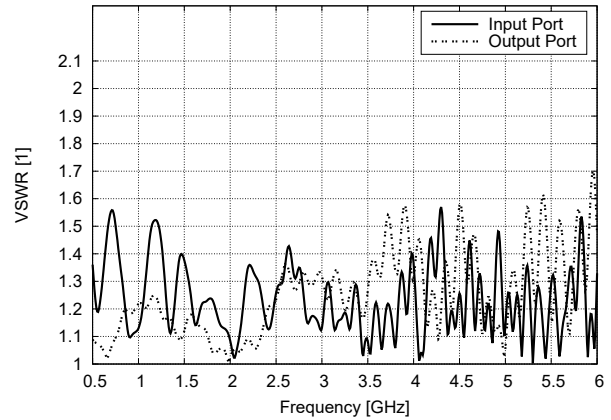


Fig. 2: VSWR for input and output ports

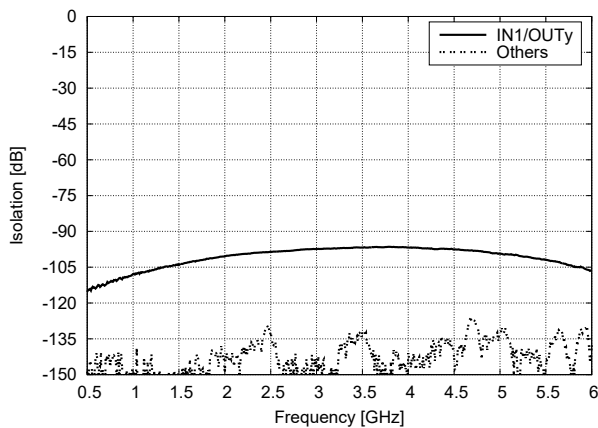


Fig. 3: Isolation between input port and output port

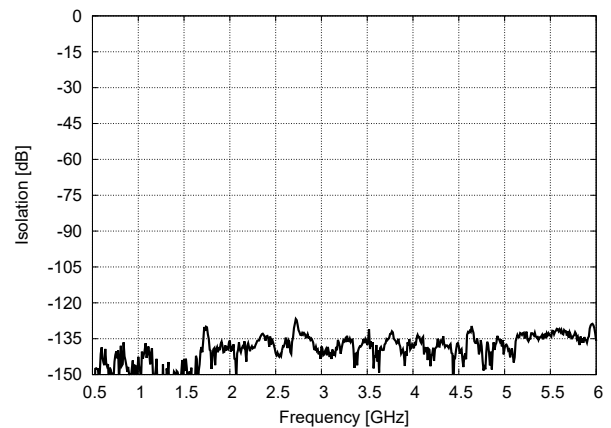


Fig. 4: Isolation between input ports

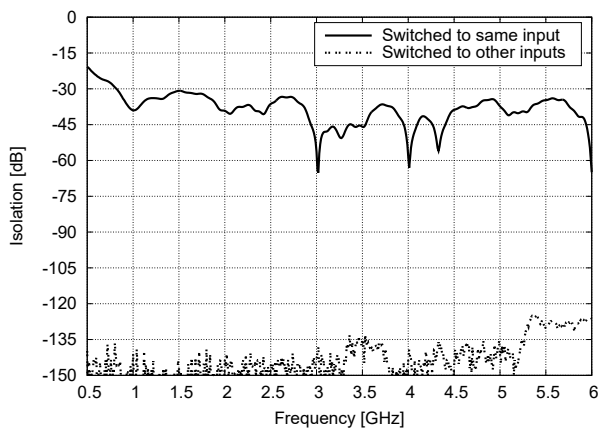
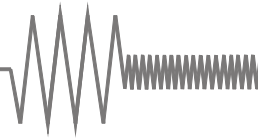


Fig. 5: Isolation between output ports



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Views:

