

L-Band 128x8 MATRIX NON-BLOCKING MAS2544



The matrix distributes 128 L-Band signals to 8 receivers in the frequency range 950...2150 MHz without any blocking.

Design

The matrix is housed in a 19" subrack with very good RF shielding and consists of the following sub-assemblies:

- low noise amplifiers with high dynamic range
- I/O boards (in- and output)
- solid-state switches 4 times SP4T
- processor board
- redundant LAN interface
- voltage monitoring board
- manual control module
- redundant power supply units
- DC bias for LNB

All the necessary signal, power supply and earthing connections are provided at the rear. The mains switches are located on the front panel.

Control

The matrix is controlled via a redundant LAN interface.

Special features

In order to improve operational safety the unit can be equipped with redundant power supply units and a manual control module.

The power supply voltages and the I/O boards are monitored in a processor routine.

The selected crosspoints as well as the I/O fault messages are displayed on the manual control module.

A status string can also be requested at any time via the control interface.

The unit is constructed using a modular approach utilising 19" plug-in sub-assemblies which enable ease of installation and maintenance.

Technical data	measured a 25° C
Model number:	MAS2544
Item number:	1400084
Configuration:	128 inputs, 8 outputs non-blocking
RF specifications	
Impedance (Ohm):	75
Frequency range (MHz):	950...2150 min.
Gain (dB):	1 +/-2.0
Gain flatness (dB):	+/-2.5 typ.
Noise figure (dB):	18.0 max.
VSWR:	1.7 : 1 typ.
Intercept point (dBm):	
3rd order	+10 min.
2nd order	+20 min.
Isolation (dB):	
Out/out	40 min.
On/off	50 min.
Crosstalk	40 typ.
P1 dBc (dBm):	-7 min.
Switching elements:	solid-state switches
Further specifications	
Control:	LAN, redundant
Manual control:	LCD (4x20) & pushbuttons (3x6)
RF connectors:	F female, 75 Ohm
Power supply (Vac, Hz):	200...240, 48...62, redundant
Connector	3-pin, with mains filter & fuses
Mains switches:	with integrated lamp
DC bias (V, kHz):	13/14/18/19, 22, 300 mA max.
Temperature range (°C):	
Operating	15...25 (forced air cooling)
EMC:	in accordance to Eur. standard EN 61000-6-1 & EN 61000-6-3
Dimensions:	
Height (RU)	10
Width (inch)	19
Depth (mm)	about 480 (without connectors & handles)
Front panel:	
Front view	painted (RAL7032)

Designed & produced by NOVOTORNIK GmbH

