



The matrix distributes 64 L-Band signals to 64 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)
- power dividers 4 times 4-way
- matrix boards 8x8
- solid-state switches 4 times SP4T
- processor board
- LAN and serial interface
- manual control module (optional)
- redundant power supply units (optional)
- DC bias for LNB (optional)

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

Control

The matrix is controlled via a LAN and a serial interface.
Other interfaces are possible on request.

Special features

In order to improve operational safety the unit can be equipped with redundant power supply units, voltage monitoring board and 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	
Model number:	MAS5640
Item number:	(will be assigned after order)
Configuration:	16 inputs, 16 outputs non-blocking
RF specifications	
Impedance (Ohm):	50/75
Frequency range (MHz):	950...2150 min.
Gain (dB):	1 +/-1.5 max.
Gain flatness (dB):	+/-2.0 typ.
Noise figure (dB):	18.0 max.
VSWR:	1.8 : 1 max.
Intercept point (dBm):	
3rd order	+8 min.
2nd order	+20 min.
Isolation (dB):	
Out/out	40 min.
On/off	45 min., 50 typ.
Crosstalk	45 min., 50 typ., worst case
P1 dBc (dBm):	-7
Switching elements:	solid-state switches
Further specifications	
Control:	LAN and serial
Manual control:	LCD (4x20) & pushbuttons (3x6)
RF connectors:	SMA or F female, or tbd.
Power supply (Vac, Hz):	115/230, 47...63
Connector	3-pin, with mains filter & fuses
Mains switches:	with integrated lamp
Temperature range (°C):	
Operating	0...50, forced air cooling rec.
EMC:	in accordance to Eur. standard EN 61000-6-1 & EN 61000-6-3
Dimensions:	
Height (RU)	21
Width (inch)	19
Depth (mm)	about 480 (without connectors & handles)
Front panel:	
Front view	painted (RAL7032)