



The matrix distributes 32 L-Band signals to 32 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 switches are located on the front panel.

### Control

The matrix is controlled via a LAN and a serial interface.

A manual control module with LC display and pushbuttons could be integrated on the front panel.

### 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          |   |
|-------------------------|---|
| Model number:           | measured at 25° C<br>MAS5320                                  |
| Item number:            | (will be assigned after order)                                |
| Configuration:          | 32 inputs, 32 outputs<br>non-blocking                         |
| RF specifications       |   |
| Impedance (Ohm):        | 50/75   |
| Frequency range (MHz):  | 950...2150  |
| Gain (dB):              | 1 +/- 1.5 max.  |
| Gain flatness (dB):     | +/- 2 typ.  |
| Noise figure (dB):      | 18.0 max.   |
| Intercept point (dBm):  |   |
| 3rd order               | +8 min.   |
| 2nd order               | +20 min.  |
| P1 dBc (dBm):           | -7  |
| VSWR:                   | 1.8 : 1 max.  |
| Isolation (dB):         |   |
| Out/out                 | 40 min.   |
| On/off                  | 45 min., 50 typ.  |
| Crosstalk               | 45 min., 50 typ.<br>(worst case)                              |
| Switching elements:     | solid-state switches  |
| Further specifications  |   |
| Control:                | LAN and serial  |
| Manual control:         | LCD (4x20) & pushbuttons (3x6)                                |
| RF connectors:          | F female/SMA female   |
| 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...25, forced air cooling<br>recommended                     |
| EMC:                    | in accordance to Eur. standard<br>EN 61000-6-1 & EN 61000-6-3 |
| Dimensions:             |   |
| Height (RU)             | 6   |
| Width (inch)            | 19  |
| Depth (mm)              | about 480<br>(without connectors & handles)                   |
| Front panel:            |   |
| Front view              | painted (RAL7032)   |