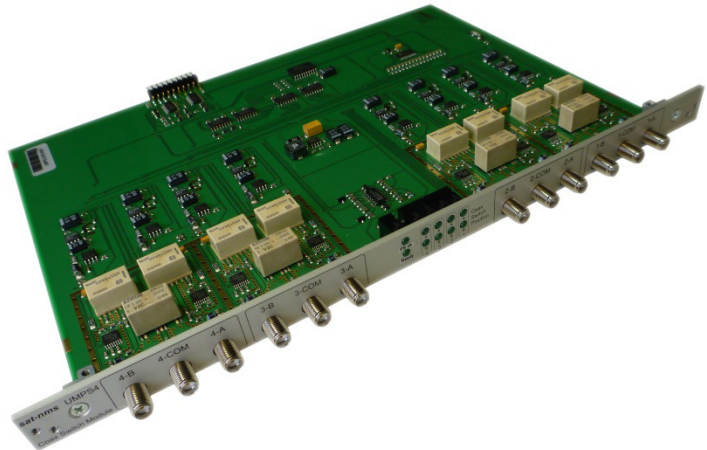


sat-nms UMPS - Universal Multipurpose Switch with integrated DC inserter, input level monitoring and automatic switch functionality

The base of the new **sat-nms** modular system is the Universal Multipurpose Chassis called **sat-nms** MPC. This chassis provides the remote M&C interface via web-browser, SNMP, HTTP GET functions and RS232 interface as in all other **sat-nms** products. It is equipped with two hot-pluggable power supplies. As an option the 2RU 19" rack-mount chassis also provides an LCD display and keyboard for local control. One **sat-nms** MPC could handle up to 5 hot-pluggable modules. This flexible system chassis is able to be fitted with a combination of different modules to meet your system requirements.

The module **sat-nms** UMPS (Universal Multipurpose Switch) with integrated DC inserter, input level monitoring and automatic switch functionality is a highly sophisticated module designed for professional satellite receive applications or signal backup switching.



Each **sat-nms** UMPS module contains four latching 2-way switches (SPDT). Each input is able to supply DC voltage to an LNB and performs monitoring of the input signal power. This enables the **sat-nms** UMPS to switch automatically to the second source in case of violation of the adjustable thresholds. In cases where the DC insertion is not required, there is a module available with an extended frequency range of 50MHz to 2150MHz.

The level monitoring and/or the current monitoring could be used for automatic backup switching of equal signals in the dedicated frequency range, like a 1:1 Modulator redundancy system or an antenna backup switching. Up to 5 Modules with 4 (a total of 20) 1:1 backup switches fit into one 19" rack-mount chassis.

All modules include extensive monitoring functionality like DC supply current measurement with min/max current threshold, signal level monitoring with min/max threshold and automatic switching in case of violation of the thresholds.

Key Features

- Switching capability
- DC Power Insertion and Monitoring
- RF Input Power Monitoring
- 19" 2RU Unit Compact Design
- Redundant Power Supplies
- Scalable Design with hot-swap Modules
- TCP/IP, SNMP, **sat-nms** MNC available

Applications

- Satellite Ground Stations and Teleports
- Cable Head-end Stations

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Application examples

Configuration #5

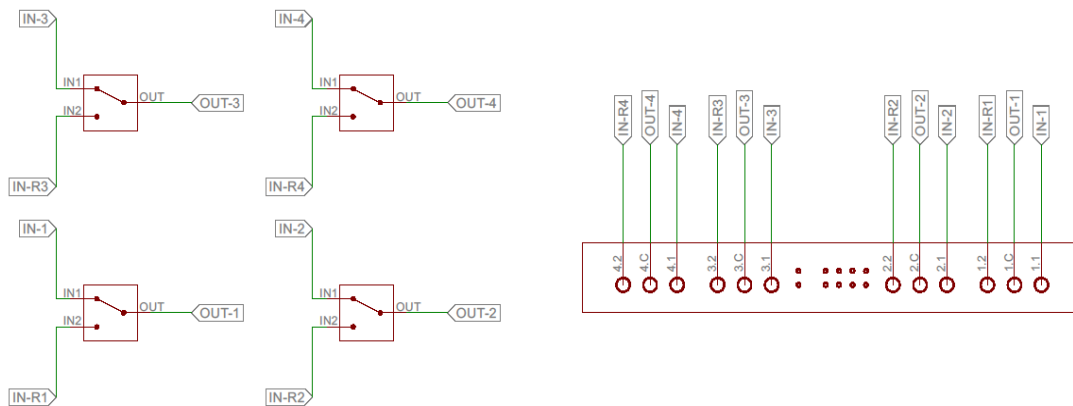
4x 1:1 signal switching system without DC supply (1x UMPS-WB)

Application: independent automatic redundancy switching of up to four 1:1 IF/RF Signals with one **sat-nms** UMPS

In stations where redundant signals from different sources must be monitored and automatically switched in case of signal loss, like outputs of modems/modulators or applications with two antennas providing the same signals to reach a higher availability of the used signals in critical applications. With the **sat-nms** MPC equipped with **sat-nms** UMPS-WB there is now a way to increase your system availability significant and cost effective. One **sat-nms** UMPS-WB can handle four 1:1 redundant signals.

Even up to 20 equal available signals in 1:1 redundancy could be managed within one **sat-nms** MPC.

UMPS Card Module



Technical Specification

RF Specification of **sat-nms** UMPS card module

Frequency Range	950 to 2150MHz optional 50 to 2150MHz without DC Insertion (must be specified at time of order)
L-Band Input Connectors	SMA female 50Ohm
L-Band Output Connector	SMA female 50Ohm
Input and Output Return Loss	> 17dB
Input Noise Figure	< 10dB
Damage Input Level	+13dBm
Insertion Loss	<3dB
DC-output at L-Band input connector	15+/-1V

M&C Interface Specification of **sat-nms** MPC

Ethernet Interface for M&C and User Interface	10/100-Base-T, via HTTP GET Requests and SNMP
Front Panel Display (Optional)	Optional LCD 16x2
RS232 M&C Interface	D-SUB 9 female
Summary Fault Indication	Relay Contact D-SUB 9 male

Electrical and Mechanical Specification, Environmental Conditions of **sat-nms** MPC

Supply Voltage	90 to 230V AC 50 to 60Hz
Connector for the two Mains Voltage AC Inputs	IEC
Redundant Power Supplies	Hot-swap Capability
Temperature Range	-20 to + 50°C
Humidity	Up to 90% non-condensing
Mechanical Size	436 x 89 x 350 mm (WxHxD), 19" 2RU
Weight	5,2kg