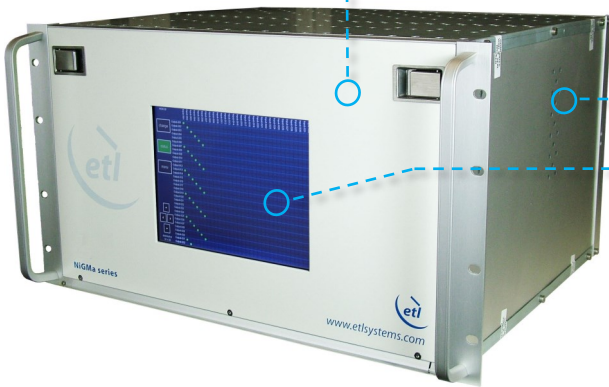




# 32 x 32 L-band Distributive Enigma Switch Matrix / Router with high linearity & 8 dB gain

**Typical applications:**

- RF content acquisition for TVRO & IPTV headends
- Signal monitoring of satellite traffic
- Remote controlled unmanned satcom sites



**1000 - 2000 MHz** operating frequency range



**High Linearity & 8 dB Gain** ensures overall RF gain signal performance is optimised



**Local control & monitoring** via front panel VGA touchscreen



**Self diagnostics** with continuous monitoring of amplifiers, CPU's & PSU's



**Expansion** in single increments or with additional matrix modules for larger systems



64 x 64 Enigma system with splitters & combiners



**Minimal impact from failure** with hot-swap single input & output RF cards, dual power supplies, dual CPU's, fans



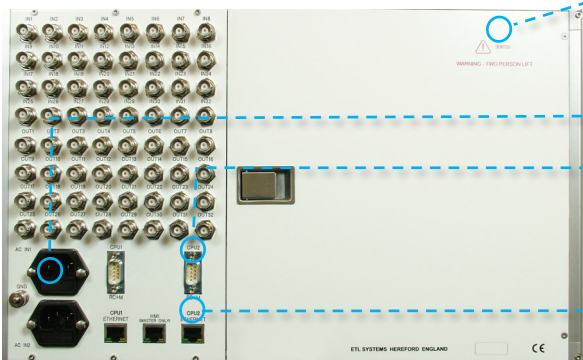
**Compact** up to 32 inputs x 32 outputs housed in a 6U high chassis



**Resilience** from dual redundant power supplies & CPU modules



**Dry contact alarm port & serial communications** for amplifier & power supply status



**Remote control & monitoring** via RJ45 Ethernet port with SNMP & web browser interface





**Technical specifications and operating parameters**

RF Parameters					
Capacity	32 inputs x 32 outputs, fully populated				
Routing	Distributive (fan-out), non-blocking		Any input can be connected to any number of outputs		
Connectors & impedances	50 Ω SMA	50 Ω BNC	75 Ω BNC	75 Ω F-type	
Frequency Range	1000-2000 MHz (L-band)				
Gain	8 ± 2 dB typical, mean across band				
Flatness	1000-2000MHz	±1.0 dB	±1.0 dB	±1.5 dB	±1.5 dB
	Any 125MHz	±0.5 dB	±2.25 dB	±2.5 dB	±2.5 dB
	Any 10MHz	±0.2 dB	±0.5 dB	±0.75 dB	±0.75 dB
Input Return Loss	Typical	18 dB	16 dB	14 dB	14 dB
	Minimum	16 dB	14 dB	12 dB	10 dB
Output Return Loss	Typical	18 dB	16 dB	14 dB	14 dB
	Minimum	16 dB	14 dB	12 dB	10 dB
Isolation Minimum between any 2 ports	I/P - I/P	60 dB			
	O/P - O/P	60 dB			
	I/P - O/P	50 dB			
Noise Figure	≤21 dB, at room temperature, 20 ± 2°C				
1dB Gain Compression Point	≥10 dBm output power				
OIP3	+22 dBm 3rd order intercept point, output power				
Group Delay	<3 ns across operational bandwidth				
Input RF Power	+ 20 dBm Absolute maximum				

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

System Control	
Local Control	Touchscreen & VGA Display
Remote Connection	Via RS232 or RS422/485 serial port and RJ45 Ethernet port on rear panel
Alarms	Dry contact (D-type) & Ethernet (RJ45)
SNMP Traps	For alarms & monitoring
Comms / Power Failure	Retains settings
Remote Control Software	Available

Power		
AC Input	85-264Vac 50-60Hz	Fused 2A
AC Consumption	100W	Max. consumption at steady state
LNB Power	None	
PSU	Dual redundant & alarmed	Diode OR. Hot swappable
CPU	Dual redundant	Hot swap
Hot-swap PSU & CPU	Yes	
MTBF	Chassis	170,740 hours
	Switch card	270,297 hours
	Splitter card	317,227 hours
		Chassis excludes HMI & RF cards

Environmental	
Operating temperature	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	20 to 90% non-condensing

Physical	
Dimensions	6U high x 450mm deep x 19" wide
Weight	35 kg
Colour	RAL9003—White (semi-matte)