



ETL Systems
Excelling in RF Engineering



Model Number:
VTR-70-xxxx

16 x 16 IF / Extended L-band Victor series Switch Matrix / Router

- Typical applications:**
- TVRO, smaller teleports and satellite ground stations.
 - Oil and gas applications.
 - RF distribution in cruise liners or luxury yachts.
 - SNG and outside broadcast trucks.



Local control & monitoring via front panel push buttons & display



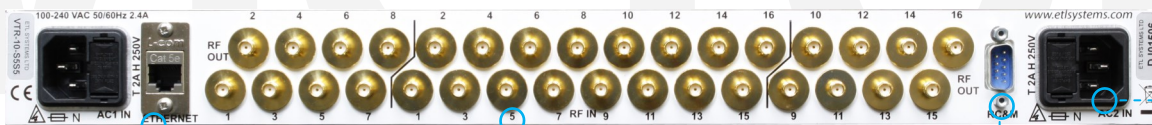
Software enabled expansion start from 4x4 and software key expand in single steps to 16x16



50 - 2500 MHz operating frequency range. Ka-band ready



Compact housed in a 1U high chassis



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



Variable gain to balance input signals



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



Resilience from dual redundant power supplies





Technical specifications and operating parameters

PRELIMINARY

RF Parameters					
Capacity	16 inputs x 16 outputs				
Routing	Distributive, non-blocking	Any input can be connected to any number of outputs			
Frequency Range	50-2500 MHz (IF / Extended L-band)				
RF Connectors	50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type	
Flatness	50-2500MHz	±1.75 dB	±1.75 dB	±2.0 dB	±2.5 dB
	850-2150MHz	±1.5 dB	±1.5 dB	±1.75 dB	±1.75 dB
	50-200MHz	±0.5 dB	±1.75 dB	±1.75 dB	±1.75 dB
	Any 36MHz	±0.25 dB	±0.30 dB	±0.35 dB	±0.35 dB
Input Return Loss	Typical	18 dB	16 dB	12 dB	10 dB
	Minimum	15 dB	14 dB	10 dB	8 dB
Output Return Loss	Typical	18 dB	16 dB	12 dB	10 dB
	Minimum	15 dB	14 dB	10 dB	8 dB
Gain	Max Gain G_{max}	+ 3 dB	Mean across band		
	Min Gain G_{min}	- 3 dB			
	Gain steps	0.25 dB	Fine monotonic gain control		
Linearity (Any gain setting)	1dB GCP	3 dBm typical			
	OIP3	+13 dBm	3rd order intercept point		
	OIP2	+20 dBm	2nd order intercept point		
Isolation	I/P - O/P	60 dB	70 dB typical		Minimum between any 2 ports
	I/P - I/P	75 dB	85 dB typical		
	O/P - O/P	75 dB	85 dB typical		
Group Delay	50-2500MHz	≤ 3 ns			
	200-2500MHz	≤ 1 ns			
Noise Figure	20 dB	Typical, maximum gain, 1 input routed to 1 output			
Input RF Power	+ 24 dBm	Absolute maximum			

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

Power		
PSU Power	85-264Vac 50-60Hz	Fused 2A
AC Consumption	50W	Max. consumption at steady state
LNB Power	None	
PSU	Dual redundant	Either PSU is rated to power the matrix. Dual mains inlet
Hot-swap PSU	No	
RF Monitoring	None	

System Control	
Local Control	Via Front Panel LCD and push buttons
Remote Control	Via RS232/485 serial port and RJ45 Ethernet port 10/100 Base T. TCP/IP, SNMP & Web browser interface.
Alarms	Dry contact (D-type) & Ethernet (RJ45) for PSU & Amp. status

Physical	
Dimensions	1U high x 500mm deep x 19" wide
Weight	6 kg
Colour	White 00-E-55 semi-gloss

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.

