ETL Systems

Excelling in RF Engineering

Model Number:
VTRC-71-xxxx

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

Typical applications:

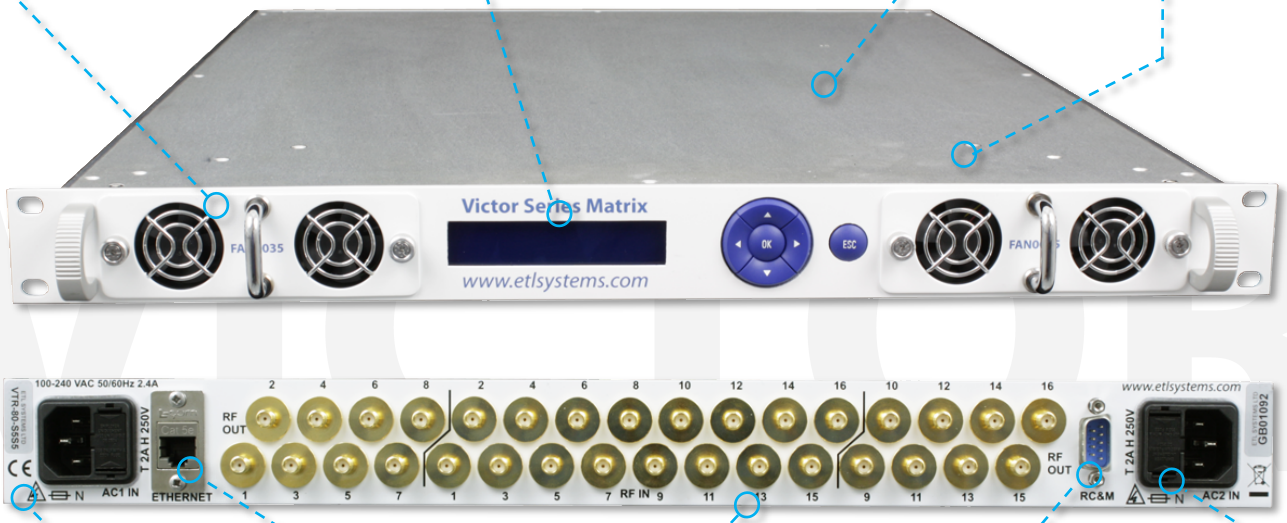
- TVRO, smaller teleports and satellite ground stations.
- Oil and gas applications.
- RF distribution in cruise liners or luxury yachts.
- SNG and outside broadcast trucks.

Hot-swap dual redundant fan modules

Local control & monitoring via front panel push buttons & display

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

Variable gain to balance input signals



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

Compact housed in a 1U high chassis

Resilience from dual redundant power supplies

Remote control & monitoring
via RJ45 Ethernet port with SNMP & web browser interface.
- Ability to lock outputs

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

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Technical specifications and operating parameters

RF Parameters					
Capacity		Up to 16 inputs x 16 outputs			
Routing		Combining, non-blocking		Many inputs can be routed to each output	
Frequency Range		50-2500 MHz (IF / Extended L-band)			
RF Connectors		50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type
Flatness	Full band	±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	±0.5 dB	±0.5 dB	±0.5 dB
	Any 36MHz (full band)	±0.3 dB	±0.35 dB	±0.4 dB	±0.4 dB
	Any 36MHz (850-2150MHz)	±0.2 dB	±0.25 dB	±0.3 dB	±0.35 dB
Input Return Loss	Typical	18 dB	16 dB	12 dB	10 dB
	Minimum 2150	10 dB	10 dB	8 dB	8 dB
	Minimum 2500	10 dB	10 dB	6 dB	6 dB
Output Return Loss	Typical	18 dB	16 dB	12 dB	10 dB
	Minimum 2150	12 dB	12 dB	8 dB	8 dB
	Minimum 2500	10 dB	10 dB	6 dB	6 dB
Gain	Gain	0 ± 2 dB		Typical, mean across band	
	Max Gain G_{max}	+ 3 dB		Typical, mean across band	
	Min Gain G_{min}	- 3 dB		Typical, mean across band	
	Gain steps	0.25 dB		Fine monotonic gain control	
1dB GCP	50-2150 MHz	1 dBm ± 2		Output power	
	2150-2500 MHz	-3 dBm ± 2		Output power	
OIP3		+10 dBm		3rd order intercept point, output power	
OIP2		+20 dBm		2nd order intercept point, output power	
Isolation	I/P - O/P	60 dB (70 dB typical)		Minimum between any 2 ports	
	I/P - I/P	70 dB (85 dB typical)		Minimum between any 2 ports	
	O/P - O/P	70 dB (85 dB typical)		Minimum between any 2 ports	
Group Delay	50-2500MHz	≤ 3 ns			
	200-2500MHz	≤ 1 ns			
Noise Figure		25 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
Altitude	10,000 feet AMSL (Above Mean Sea Level)

Power		
PSU Power	85-264Vac 50-60Hz	Fused 2A
AC Consumption	50W	Max. consumption at steady state
PSU	Dual redundant	Diode OR. Not hot swap
MTBF	114,000 hours	

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 550mm deep x 19" wide
Weight	6 kg
Colour	RAL 9003 semi-matte (white)

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.

Note 3: Typical parameters are guide figures and measured data may deviate from the quoted figures. ETL endeavours to exceed the quoted typical parameters where practically possible.

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