ETL Systems
New technologies
in RF distribution

Model Number:
VTR-101-1616

Up to 16x16 Distributive 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.

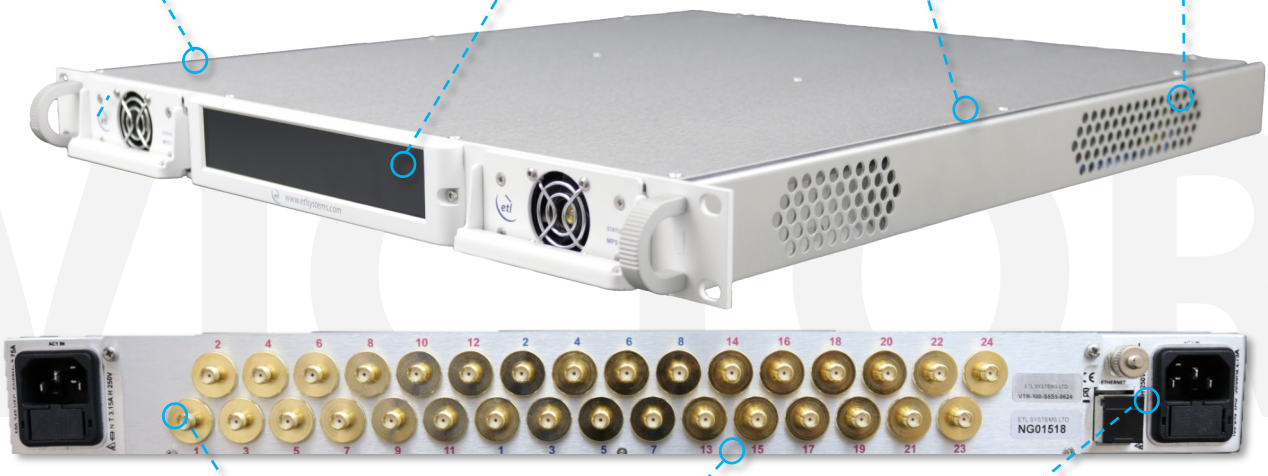
VTR-101 is an Extended L Band 16x16 Distributive Matrix in a compact 1U chassis

Variable gain to balance input signals

850 - 2450 MHz operating frequency range. Ka-band ready

Local control & monitoring via front panel capacitive HMI touchscreen.

Secure Communications with SNMPv3, HTTPS



Compact housed in a 1U high chassis

Note that the Images are for indication purposes only. Actual unit may differ.

Remote control & monitoring via RJ45 Ethernet via RJ45, 10BaseT/100BaseTx, ETL TCP/IP protocol, SNMPv3 & Web Browser Interface

Resilience from dual redundant hot-swap power supplies & field serviceable HMI & CPU

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Technical specifications and operating parameters

RF Parameters					
Capacity		Up to 16 inputs x 16 outputs			
Routing		Distributive, non-blocking		Any input can be connected to any number of outputs	
Frequency Range		850—2450 MHz			
Switching Time		< 50ms (From receipt of a command to implementation of path change)			
RF Connectors		50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type
Flatness	Full band	±1.75 dB	±1.75 dB	±2.0 dB	±2.0 dB
	850-2150 MHz	±1.25 dB	±1.25 dB	±1.5 dB	±1.5 dB
	Any 36 MHz	±0.3 dB	±0.3 dB	±0.5 dB	±0.5 dB
Input Return Loss	Typical	20 dB	20 dB	14 dB	14 dB
	Minimum	14 dB	14 dB	10 dB	8 dB
Output Return Loss	Typical	20 dB	20 dB	14 dB	14 dB
	Minimum	14 dB	14 dB	10 dB	8 dB
Gain	Gain	0 ± 2 dB		Typical, mean across band	
	Gain Control	0 to +5 dB		Settable at each input	
	Gain steps	0.25 dB			
1dB GCP	850-2150MHz	Min 4 dBm		1dB Gain Compression point, output power, At Unity Gain.	
	2150-2450MHz	Min 2 dBm			
OIP3	Full Band	18 dBm Typical. 13 dB Minimum, At Unity Gain			
	850-2150MHz	19 dBm Typical. 16 dB Minimum, At Unity Gain			
OIP2	Typical	26 dBm		At Unity Gain	
	Min	24 dBm		At Unity Gain	
Isolation	I/P - O/P	60 dB		Minimum between any 2 ports	
	I/P - I/P	75 dB		Minimum between any 2 ports	
	O/P - O/P	75 dB		Minimum between any 2 ports	
Group Delay		≤ 1 ns			
Noise Figure	Full Band	Typical 14 dB, max 17 dB		Unity Gain, with one input routed to one output.	
	850-2150MHz	Typical. 13 dB, max 16 dB		Unity Gain, with one input routed to one output.	
Input RF Power		+ 20 dBm		Absolute maximum	
Tech Spec Version		1.2			
Spurious	Carrier Related	-65 dBc		Excluding harmonics. Max Carrier level -10dBm	
	Carrier Un-related	-85 dBm		Within operating frequencies	

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 (Operational) 30,000 feet AMSL (Storage)
Gain stability vs Temperature	0.05dB/°C

Power			
PSU Power		85-264Vac 50-60Hz	Fused 2A
AC Consumption		20W	Max. consumption at steady state
PSU		Dual redundant	Diode OR.
MTBF	Chassis	> 250,000	
	Matrix Card	> 100,000	

System Control	
Local Control & Monitoring	HMI
Remote Control & Monitoring	Ethernet via RJ45, 10BaseT/100BaseTx ETL TCP/IP, SNMPv3,HTTPS, Built in Web Server
Alarms	Via Ethernet (RJ45) or HMI
PSU Redundancy	Dual Redundant & Alarmed

Physical	
Dimensions	1U high x 650mm deep x 19" wide
Weight	10 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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