Victor Series Switch Matrix/Router

16 x 16 Distributive L-band

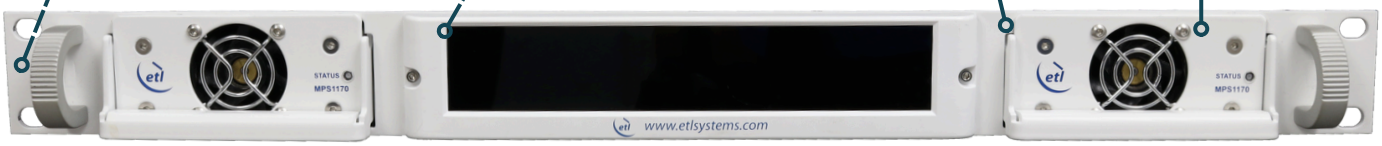
VTR-101 is an extended L-band 16x16 distributive matrix in a compact 1U chassis.

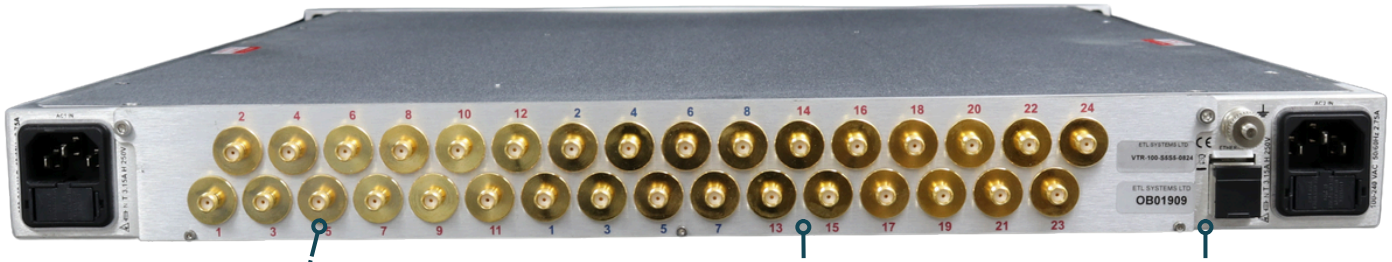
850-2450 MHz
Operating frequency range. Ka-band ready

Local control & monitoring
via front panel capacitive HMI touchscreen

Variable gain
to balance input signals

Secure Communications
with SNMP3, HTTPS





Remote control & monitoring
via RH45 Ethernet, RJ45, 10Base T/100BaseTX, ETL TCP/IP protocol, SNMPv3 & Web browser interface

Compact
housed in a 1U high chassis

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

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		50 Ω SMA	50 Ω BNC	75 Ω BNC	75 Ω 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	Typ.	20 dB	20 dB	14 dB	14 dB
	Min.	14 dB	14 dB	10 dB	8 dB
Output Return Loss	Typ.	20 dB	20 dB	14 dB	14 dB
	Min.	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			
1 dB GCP	850-2150 MHz	Mln. 4 dBm		1 dB Gain Compression point, output power, at Unity Gain	
	2150-2450 MHz	Mln. 2 dBm			
OIP3	Full Band	18 dBm typ., 13 dBm min.		At Unity Gain	
	850-2150 MHz	19 dBm typ., 16 dBm min.			
OIP2	Typ.	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	
	850-2150 MHz	Typical 13 dB, max. 16dB		Unity Gain, with one input routed to one output	
Input RF Power		+20 dBm		Absolute maximum	
Spurious	Carrier Related	-65 dBc		Excluding harmonics. max. Carrier level -10dBm	
	Carrier Un-related	-85 dBm		With 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		0.05 dB/°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)
Spec. Version	1.3

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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