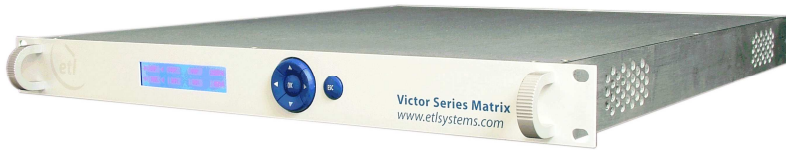




Model Number: VTR-10-xxxx

16 x 16 Victor IF / L-band Matrix

With LNB Powering, variable gain and RF detection

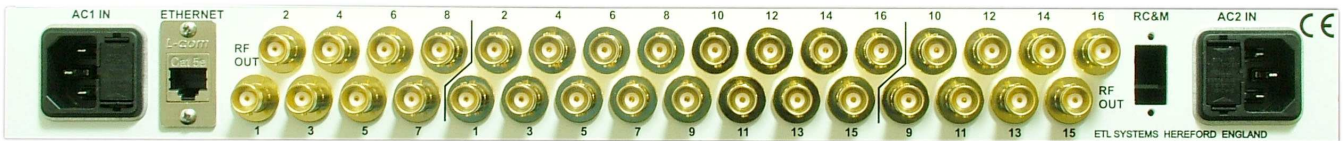


Front View of Model VTR-10-xxxx

ETL's new Victor Series of IF through L-band matrices, operate over the 50-2150MHz frequency range and provide a full fan-out high performance 16x16 matrix with local and remote control in a very **compact form factor**.

This new design of matrix is ideal for TVRO, smaller teleports and satellite ground stations, providing the flexibility of RF routing. The matrix can be used for L-band, IF, and broadband applications

Victor also offers **variable gain** on each of the inputs. Isolation, frequency response and linearity are all at class-leading levels, ensuring that we can offer **excellent RF performance** for your RF receive chain. Local control is provided via a compact keypad and display; while remote control is available via serial and Ethernet ports. Adjustable RF Monitoring is available on each of the inputs detecting if the signal strength goes above or below a set limit.



Rear View of Model VTR-10-B5B5 (with 50 ohm BNC connectors)

Victor brings the normal **resilience** you would expect from ETL with dual redundant power supplies; and monitoring and alarms for RF amplifier and power supply status. Victor is well suited to mission critical applications with restricted rack space which preclude using the hot swap NiGMA series matrices.





Model Number: VTR-10-xxxx

16 x 16 Victor IF / L-band Matrix Router

RF Engineering
and Custom Build

Technical specifications and operating parameters

RF Parameters					Environmental				
Capacity		16 inputs x 16 outputs				Operating temperature		0 to 45°C	
Routing		Distributive, non-blocking		Any input can be connected to any number of outputs		Location		Indoor use only	
Frequency Range		50-2150 MHz (IF / L-band)				Storage temperature		-20°C to +75°C	
RF Connectors		50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type	Humidity		20 to 90% non-condensing	
Flatness		50-2150MHz	±1.75 dB	±1.75 dB	±2.0 dB	±2.0 dB	Power AC Power: 85-264Vac 47-63Hz, Fused 2A, 250W max consumption LNB Power: 0V/13V/18V, 22KHz on/off selectable via front panel LCD or remotely via serial or Ethernet port, 350mA max per channel, LNB current monitoring PSU: Dual redundant, Either PSU is rated to power the matrix. Dual mains inlet Hot-swap PSU: No		
		850-2150MHz	±1.4 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	±0.25 dB	±0.30 dB	±0.35 dB	±0.35dB			
Input Return Loss		15 dB typ	15 dB typ	14 dB typ	14 dB typ				
		11 dB min	11 dB min	10 dB min	8 dB min				
Output Return Loss		16 dB typ	15 dB typ	14 dB typ	14 dB typ				
		12 dB min	12 dB min	10 dB min	8 dB min				
Gain		Max Gain G_{max}	+ 3 dB		Mean across band		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 RF Monitoring: -50 to +5 dBm, Input Power, High & Low Limits Display: Front panel LCD		
		Min Gain G_{min}	- 3 dB						
		Gain steps	0.25 dB						
Linearity		1dB GCP	3 dBm typical, 0 dBm minimum (Any gain setting)						
		IP3	12 dBm minimum						
		IP2	20 dBm minimum						
Isolation		I/P - O/P	60 dB	70 dB typ	Across full band, 50 to 2150MHz		Physical Dimensions: 1U high x 500mm deep x 19" wide Weight: 6 kg Colour: White 00-E-55 semi-gloss		
		I/P - I/P	75 dB	85 dB typ					
		O/P - O/P	75 dB	85 dB typ					
Group Delay		Over 50-2150MHz	≤ 3.0 ns						
		Over 850-2150MHz	≤ 1.0 ns						
		Any 36MHz (over 850 - 2150)	≤ 0.5 ns						
		Any 36MHz (over 50 - 2150)	≤ 1.5 ns						
Noise Figure		17 dB at max gain setting			Typical values		Key Features Housed in a compact 1U high chassis LNB Powering & 22KHz RF Detection Variable gain on each input Local & remote control Dual redundant power supplies		
		21 dB at unity gain setting							
		25 dB at min gain setting							

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