



Model Number: VTRC-56-xxxx

16 x 16 Victor IF / Extended L-band Combining Matrix Router

Extended L-band Frequency Range (50-2500MHz)



Front View of Model VTRC-56-xxxx

ETL's Victor Series IF – Extended L-band matrix, operate over the 50 -2500MHz frequency range and provides a full fan-in (combining) high performance 16x16 matrix with local and remote control in a very **compact form factor**.

This matrix is designed for uplink chains for 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** to balance input signals. Key RF parameters such as Isolation, frequency response and linearity are all at class-leading levels, ensuring that we can offer **excellent RF performance** for your RF uplink chain. Local control is provided via a compact keypad and display; while remote control is available via serial and Ethernet ports.



Rear View of Model VTRC-56-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 Enigma series matrices.





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RF Engineering and Custom Build

Technical specifications and operating parameters

PRELIMINARY SPECIFICATIONS

RF Parameters					
Capacity	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	50-2500MHz	±1.75 dB	±1.75 dB	±2.0 dB	±2.5 dB
	850-2500MHz	±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	±0.35dB
Input Return Loss	18 dB typ	16 dB typ	12 dB typ	10 dB typ	
	15 dB min	14 dB min	10 dB min	8 dB min	
Output Return Loss	18 dB typ	16 dB typ	12 dB typ	10 dB typ	
	15 dB min	14 dB min	10 dB min	8 dB min	
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			
	OIP2	+20 dBm			
Isolation	I/P - O/P	60 dB	70 dB typ.	Minimum between any 2 ports	
	I/P - I/P	75 dB	85 dB typ.		
	O/P - O/P	75 dB	85 dB typ.		
Noise Figure	20 dB		Typical, max gain setting, 1 input routed to 1 output		
Maximum 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		
AC Power	85-264Vac 50-60Hz,	Fused 2A
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 option available.
Display	Front panel LCD

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

Key Features	
Housed in a compact 1U high chassis	
Local & remote control	
Variable gain	
Dual redundant power supplies	

