Model Number: VTR-10-xxxx

RF Engineering
and Custom Build

NEW

16 x 16 Victor IF / L-band Matrix

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**. 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					
Capacity		16 inputs x 16 outputs			
Routing		Distributive, non-blocking	Any input can be connected to any number of outputs		
Frequency Range		50-2150 MHz (IF / L-band)			
RF Connectors		50Ω SMA	50Ω BNC	75Ω BNC	75Ω F-type
Flatness	50-2150MHz	±1.75 dB	±1.75 dB	±2.0 dB	±2.0 dB
	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	10 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	10 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	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	
	I/P - I/P	75 dB	85 dB typ		
	O/P - O/P	75 dB	85 dB typ		
Group Delay		≤ 1.0 ns	Pk - pk, any 60MHz segment		
Noise Figure		17 dB at max gain setting			Typical values
		21 dB at unity gain setting			
		25 dB at min gain setting			

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 47-63Hz, Fused 2A	250W max consumption
LNB Power	0V/13V/18V, 22KHz on/off selectable via front panel LCD display 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	

System Control		
Local Control	Via Front Panel LCD display 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	

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
LNB Powering
Local & remote control
RF Detection
Variable gain
Dual redundant power supplies

ETL SYSTEMS LIMITED
Coldwell Radio Station
Madley
Hereford
England HR2 9NE

TELEPHONE
+44 (0)1981 259020

EMAIL
info@etlsystems.com

FACSIMILE
+44 (0)1981 259021

WEB
www.etlsystems.com

RoHS COMPLIANT

THE QUEEN'S AWARDS FOR ENTERPRISE: 2007

THE QUEEN'S AWARDS FOR ENTERPRISE: 2009

ims INTERNATIONAL ISO 9001 certified

UKAS QUALITY MANAGEMENT 078