

Victor Series Switch Matrix/Router

16 x 16 Combining IF/L-band

VTRC-171 is an extended IF/L-band 16 x 16 combining matrix in a compact 1U chassis.



Images for reference only





RF Parameters					
Capacity		Up to 16 inputs x 16 outputs			
Routing		Combining, non-blocking		Many inputs can be routed to each output	
Frequency Range		50-2500 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	±2.5 dB
	850-2150 MHz	±1.5 dB	±1.5 dB	±1.75 dB	±1.75 dB
	50-200 MHz	±0.5 dB	±0.5 dB	±0.5 dB	±0.5 dB
	Any 36 MHz (Full Band)	±0.3 dB	±0.35 dB	±0.4 dB	±0.4 dB
	Any 36 MHz (850-2150MHz)	±0.2 dB	±0.25 dB	±0.3 dB	±0.35 dB
Input Return Loss	Typ.	18 dB	16 dB	12 dB	10 dB
	Min. <2150MHz	10 dB	10 dB	8 dB	8 dB
	Min. <2500MHz	10 dB	10 dB	6 dB	6 dB
Output Return Loss	Typ.	18 dB	16 dB	12 dB	10 dB
	Min. <2150MHz	12 dB	12 dB	8 dB	8 dB
	Min. <2500MHz	10 dB	10 dB	6 dB	6 dB
Gain	Gain	0 ± 2 dB		Typical, mean across band	
	Gain Control	-3 to +3 dB			
	Gain Steps	0.25 dB			
1 dB GCP	50-2150 MHz	Typical. +1 ± 2 dBm		Output power, at Unity Gain	
	2150-2500 MHz	Typical. -3 ± 2 dBm			
OIP3	Full Band	+ 10 dBm		Typical at Unity Gain	
OIP2	Full Band	+ 20 dBm		At Unity Gain	
Isolation	I/P - O/P	60 dB		Minimum between any 2 ports	
	I/P - I/P	70 dB			
	O/P - O/P	70 dB			
Group Delay		≤ 3 ns over 50 to 2500 MHz ≤ 1 ns over 200 to 2500 MHz			
Noise Figure	Full Band	25 dB (Typical with one input routed to one output), Unity Gain			
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	
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	50W	Max. consumption at steady state, no load
PSU	Dual redundant	Diode OR
MTBF	114,000 Hours	
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 550mm deep x 19" wide	
Weight	10 kg	
Colour	RAL 9003 semi-matte (white)	
Spec. Version	0.1	

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.