

Victor Series Switch Matrix/Router

16 x 16 Combining L-band

VTRC-102 is an extended L-band 16 x 16 combining matrix in a compact 1U chassis with output RF detection.



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 RJ45 Ethernet via RJ45, 10BaseT/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 signal monitoring
of each output

RF Parameters					
Capacity		Up to 16 inputs x 16 outputs			
Routing		Combining, non-blocking		Many inputs can be routed to each output	
Frequency Range		850-2450 MHz			
Switching Time		< 50ms (From receipt of a command to implementation of path change)			
RF Detect		-35 dBm to +10 dBm RF power detection at each output port (RF reported power, indicative only)			
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	Full Band	+10 dBm		Output power	
	850-2150 MHz	+13 dBm			
OIP3	Full Band	20 dBm		Typical	
	850-2150 MHz	25 dBm			
OIP2	Typ.	36 dBm		2nd order intercept point	
	Min.	34 dBm			
Isolation	I/P - O/P	60 dB		Minimum between any 2 ports	
	I/P - I/P	75 dB			
	O/P - O/P	75 dB			
Group Delay		≤ 1 ns			
Noise Figure	Typ.	20 dB (Typical with one input routed to one output)			
	Max.	22 dB (Typical 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		Within 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, no load	
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	1.0

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.