Victor Series Switch Matrix/Router

24 x 8 Combining L-band

VTRc-100 is an extended L-band 24 x 8 combining matrix in a compact 1U chassis.

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 Parameters				
Capacity		Up to 24 inputs x 8 outputs		
Routing		Combining, non-blocking	Any 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 Connectors		50 Ω SMA	50 Ω BNC	75 Ω BNC	75 Ω F-type
Flatness	Full Band	±1.25 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	±0.2 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	12 dB	10 dB	8 dB
Output Return Loss	Typ.	20 dB	20 dB	14 dB	14 dB
	Min.	14 dB	12 dB	10 dB	8 dB
Gain	Gain	0 ± 1 dB	Typical, mean across band	
	Gain Control	-5 to +5 dB	Settable at each input	
	Gain Steps	1 dB		
1 dB GCP	850 MHz	7 dBm	1 dB Gain Compression point, output power, at Unity Gain	
	1500 MHz	7 dBm		
	2150 MHz	5 dBm		
	2450 MHz	5 dBm		
OIP3	Full Band	Typ. 24 dBm, Min. 20 dBm	At 0 dB Gain	
	850-2150 MHz	Typ. 24 dBm, Min. 21 dBm		
OIP2	Typ.	33 dBm	At 0 dB Gain	
	Min.	30 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.	23 dB at 0 dB Gain, with one input routed to one output		
	Max.	26 dB at 0 dB Gain, with one input routed to one output		
Input RF Power		+20 dBm	Absolute maximum	
Environmental				
Temperature		Operating: 0 to 45˚C Storage: -20˚C to +75˚C		
Location / Humidity		Indoor use only / 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		40W	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	1.5

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.