160 Port Fan-Out RF Matrix Switch

QX42450V48X48CS1AA32000

48X48 SMA Controller

Exclusive Flexible Matrix Architecture, Industry Leading Specifications, and Hot-Swappable Components Provide an *XTREME* Signal Management Solution

The ***XTREME 160*** L-band matrix switch is a full fan-out (distributive) non-blocking signal management solution that routes an input to any or all outputs. The design features an industry exclusive flexible architecture that supports both symmetric and asymmetric configurations of up to 160 combined inputs and outputs in a compact 4 RU chassis. Hot-Swappable Input, Matrix, and Output RF Cards, redundant power supplies, and cooling fans provide maximum reliability.

850-2450 MHz Operating Range

Flexible Matrix Configurations including (64x64, 32x128, 80x48, 48x80, 24x40)

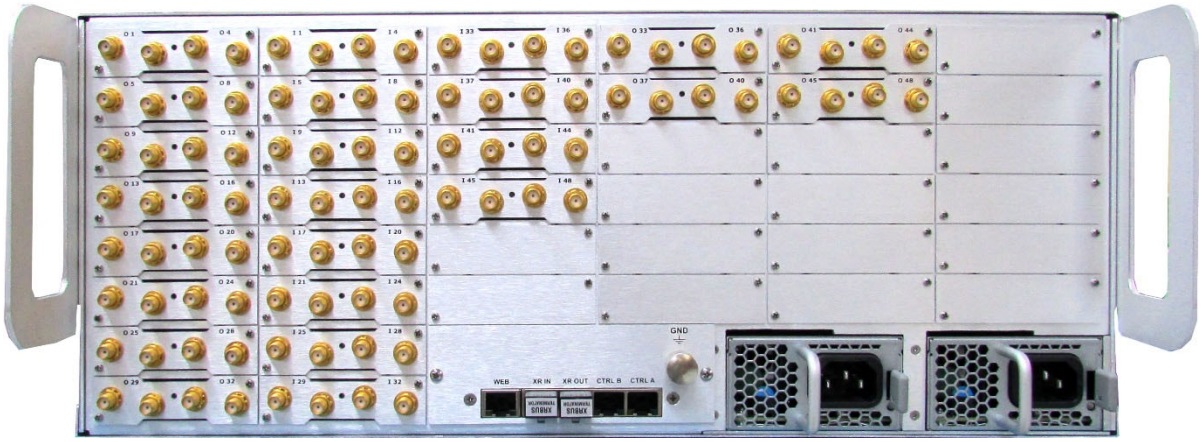
Redundant Hot Swappable Power Supplies

8.4" Integrated Touchscreen LCD

All active cards are Hot-swappable in less than a minute

Adjustable Input and Output Gain

Hot Swappable Cooling Fans



250 Airport Road • Indiana, PA 15701 • (800) 839-3658 • (724) 349-1412 • Fax: (724) 349-1421
http://www.quintechelectronics.com/ • info@quintechelectronics.com

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Specifications and Operating Conditions

QX42450V48X48CS1AA32000		
As Configured/Fully Populated:	48X48/64X64	
RF Connectors:	SMA	
Optical Connectors:	N/A	
Operating Frequency:	950-2150 MHz	850-2450 MHz
Frequency Response[§]: Default Gain[1]: typically[*] Centered @ 0 dB	± 2 dB	± 3 dB
Any 36 MHz:	± 0.5 dB	
Input P1dB:		
@ Default Gain:	0 dBm min	0 dBm min
@ Max Input Gain*:	-7 dBm	-7 dBm
Noise Figure:		
@ Default Gain:	14 dB max	17 dB max
@ Max Input Gain*:	9 dB	9 dB
OIP3:		
Default Gain:	+10 dBm min	
Input Return Loss:	14 dB min	
Output Return Loss:	14 dB min	
Isolation:		
Input to Input:	60 dB min	
Output to Output:	60 dB min	
Input to Output:	55 dB min	50dB min
Input Gain Range:	-19.5 to +12 dB in .5 dB steps	
Output Gain Range:	-20.5 to +11 dB in .5 dB steps	
RF Sensing Range:	-50 to 0 dBm	
AGC Tracking Range:	-40 to -10 dBm setpoint	
Switching Speed:	150 mS per crosspoint typical *	
	<5 uS from break to make	
Maximum Input Power: (No Damage)	20 dBm (30 VDC max on any port)	
	Optical: +10 dBm (Wavelength 900-1650 nm)	
Group Delay Variation:	5nS	
Optical Input Specifications:	N/A	
LNB Power	0/13/18 V, 22 kHz Up to 500 W available for LNB Power Individual ports limited to 750 mA Short Circuit Protection with Automatic Reset Status: Under Current (<50 mA), Short and Normal	

Control:	
Front Panel/Web Server, Dual Redundant QPE CPU Cards	
Local Control:	
8.4" Front panel Touchscreen LCD	
Remote Control:	
10/100/1000 BaseTx Ethernet Port to Web Server Controller	
Independent 10/100 BaseTx Ethernet Ports to each QPE Controller	
SNMP	V2c, v3
TCP/IP	Quintech 2.15 Protocol (Port 9100)
Web Server	
Secure Web Server with Custom SSL Certificate	
TELNET with option to disable	
Macro Scripting Language to Automate Changes and Monitoring	
XR Bus Expansion Standard	
Optional Ethernet Expansion	
NTP Time Client	

Alarms and Logging:
SNMP Traps on Status Change
SNMP Trap on Crosspoint Change
SysLog, SQL, or CSV Format Log File
Q-Sense:
Primary and Backup Input Pairs: Backup is automatically switched if the Primary Input falls below the threshold level.

Power and Cooling Requirements:	
AC Input Range:	100-240 VAC Autoranging 50/60 Hz 5A
Hot-Swappable Redundant Supplies with Separate AC Inlets	
Power Consumption:	380 W max, 800 W max w/LNB Power
Fans:	Hot swappable
Matrix and Input, Output RF Modules:	Hot Swappable

Physical:	
Dimensions:	4 RU (7.0" H x 19" W x 23.25" D)
Weight:	78 lbs. gross (boxed) 59 lbs. net

Environmental Parameters:	
Operating Temperature:	0 to 50° C
Storage Temperature:	-10° C to 70°C
Humidity:	up to 95% RH non-condensing
Altitude:	10,000 feet AMSL

* typical refers to expected product performance that is useful in application of the product but is not covered by the product warranty

[1] Specifications valid at unity gain (Input Gain = 0, Output Gain = 0).
Optical link specs vary based on transmitter.

[§] Frequency response in the 950-2150 MHz band may increase in extreme fan-out use; worse case <±2.25 dB.

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