

## Modular Power and Signal Redundancy Chassis

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

The **RP1** modular chassis provides centralized power control and signal redundancy options. Hot-Swappable redundant power supplies, I/O Modules, and a field replaceable cooling fan provide maximum reliability. Eight card slots provide combinations of up to 16 Bias-T DC Power Inserters, eight 2x1 redundancy switches, or 16 quick disconnect switchable power outputs.

Redundant Hot-swappable Power Supplies  
Eight Hot-swappable Card Slots with Flexible Configurations  
Field Replaceable Cooling Fan

Gigabit Ethernet  
10MHz Reference Distribution to all Slots  
XR Bus Expansion

**Dual RF LNB Power Bias-T (F, BNC, SMA) Option**

700-3000 MHz Extended L-Band Operating Range  
LNB Power 400 mA per Input 13/18 V with 22 kHz Tone  
Short Circuit Protection with Automatic Reset and Status Monitoring

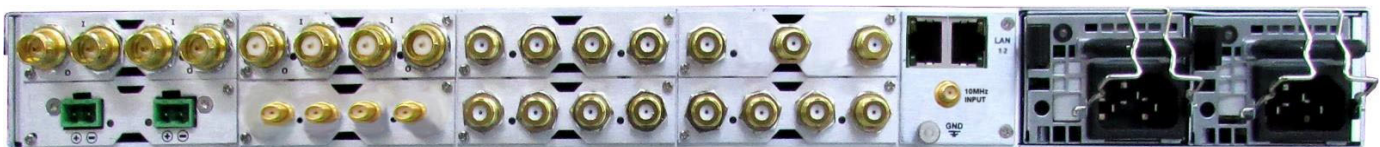
**Dual 2-pin DC Power Supplies with Quick Disconnect Card Option**

13-14.2V and 18-19.8V @ 750 mA per port  
Short Circuit Protection with Automatic Reset and Status Monitoring

**2X1 RF Sensing Redundancy Switch Option**

F(f), 50 Ω or 75 Ω BNC(f), SMA(f), or SC, LC Optical Inputs  
Manual or automatic switchover

Backup is automatically switched to the Secondary Input if the Primary Input falls below the threshold level.



# XTREME RP1

## Specifications and Operating Conditions

Chassis Specifications:	
8 hot swappable card slots	
Card Type Options:	Dual LNB Bias-T Power Inserter
	Dual Power 2-Pin Quick Disconnect
	2x1 RF Sensing Redundancy Switch

LNB Power Each Port All Card types	0/13/18 VDC, 22 kHz*
	400 mA nominal (550 mA peak inrush), 750 mA (2 pin)
	Short Circuit Protection with Automatic Reset
	Status: Under Current (<50 mA), Short, and Normal

Dual LNB Bias-T RF Option			
Operating Frequency (MHz):	950-2150	950-2500	700-3000
Insertion Loss:	1 dB max		1.5 dB max
Return Loss:	14 dB min	12 dB min	10 dB min
Isolation:	65 dB min		
Connector Options:	F(f), 50 Ω or 75 Ω BNC(f), SMA(f)		

2x1 RF Sensing Redundancy Switch Option (automatic or manual control)			
RF or Optical Inputs (Primary, Secondary), 1 RF Output per card			
0/13/18 VDC, 22 kHz LNB Power Supplied to each input			
Operating Frequency (MHz):	950-2150	950-2500	700-3000
Insertion Loss:	3 +/- .5 dB	3 +/- 1 dB	3.5 +/- 1 dB
Return Loss:	13 dB	13 dB	9 dB
Isolation:	50 dB	50 dB	45 dB
RF Sensing Range:	(-50 to 0 dBm) RF input, (-35 to 0 dBm) Optical Input		
RF Switching Time:	1 uS make/break, 1 second max response time		
Connector Options:	F(f), 50 Ω or 75 Ω BNC(f), SMA(f), SC, LC		
Q-Sense:	Primary and Backup Input Pairs: Backup path is automatically switched to if the primary input falls below the threshold level.		
Under a no power condition the switch will default to the primary position.			
Maximum Input power:	24 dBm (30VDC), 10dBm max optical		
Optical Wavelength:	Optical: +10 dBm max (900-1650 nm)		

10 MHz Distribution and Passing	
Maximum Input Level:	0 dBm

Control	
Local Control:	
Front Panel 2.2" LCD Display with Rotary Knob	
Remote Control:	
Single or Dual 10/100/1000 Base Tx Ethernet Ports	
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	
XR Bus Expansion Standard	
Optional Ethernet Expansion	
NTP Time Client	

Alarms and Logging:	
SNMP Traps on Status Change	
SNMP Trap on Switch Change	
SysLog, SQL, or CSV Format Log File	

Power and Cooling Requirements:	
AC Input Range:	100-240 VAC Auto-ranging 50/60 Hz 5A max
Hot-Swappable Redundant Supplies with Separate AC Inlets	
Power Consumption:	10 W Standby, 200 W fully loaded
Fan:	Long-life ball bearing fan (field swappable)
RF and Power Modules:	Hot Swappable

Physical:	
Dimensions:	1 RU (1.75" H x 19" W x 18.5" D)
Weight:	12 lbs. gross (boxed), 9 lbs. net
Certifications:	CE, TUV NRTL, FCC Part 15

Environmental Parameters:	
Operating Temperature:	0 to 50° C
Storage Temperature:	-10° C to 75° C
Humidity:	20 % to 90% non-condensing
Altitude:	10,000 feet AMSL

\* 13.0-14.2V and 18.0-19.8V adjustment range for cable loss compensation