



StingRay RF Over Fibre

100 series L-band modules with fixed gain & high linearity

The StingRay 100 Series extended L-band RF over fibre chassis are designed to give compact fibre links of up to 10 km. The transmit modules benefit from a wide dynamic range. Resilience is provided by a full hot-swap, modular design.

Other options in the StingRay series: The StingRay range is also available with additional features such as RF monitoring ports, high linearity, switchable 13/18V & 22KHz tone LNB powering, redundancy systems and 10 MHz injection.

- Typical applications:**
- For input powers up to 0 dBm
 - Ku-band and Ka-band ready for HTS applications
 - Distribution of comms traffic across site with minimal loss
 - General satcoms– teleports, video head-ends, TVRO
 - Compact solution for small quantity links such as tactical HQ
 - A resilient solution for satellite teleports with transition distances up to 10 km

Fibre Modules



850-2450 MHz operating frequency range



TX & RX module options to transmit and receive signals up to 10 km



Fixed Gain 0 dBm, 0 dB link



High isolation between modules for signal quality



High Linearity with high 1dB Gain Compression



Chassis Options



Compact chassis options, which can be part populated



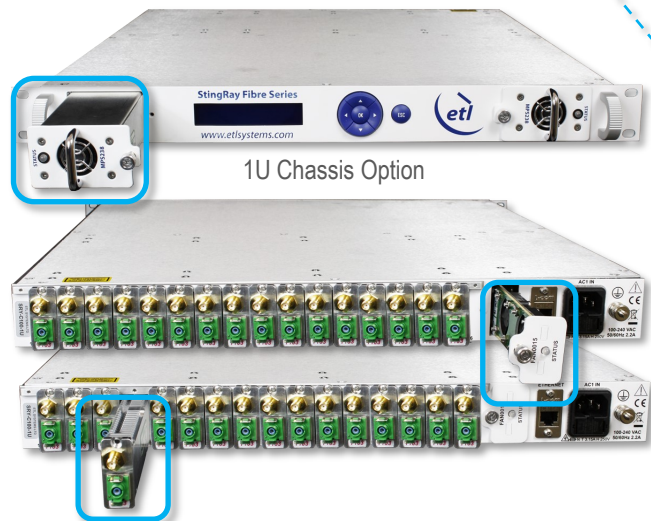
Resilience from dual redundant hot-swap power supplies, hot-swap fibre modules & fans



Remote control & monitoring via RJ45 Ethernet port with SNMP & web browser interface



Local control & monitoring via front panel push buttons & display



1U Chassis Option

Hot-swap Power Supply (available on some chassis options), Fan & Fibre Module





PRELIMINARY SPECIFICATIONS

RF Parameters (TX & RX Fibre Modules)									
Model Number		SRY-TX-L1-109 (Transmit / TX)				SRY-RX-L1-110 (Receive / RX)			
Frequency Range		850-2450 MHz (Extended L-band)							
Flatness	850-2150MHz	±1.5 dB							
	850-2450 MHz	±2.0 dB							
	Any 36MHz i/p >-50dBm	±0.25 dB							
	Any 36MHz i/p <-50dBm	±0.5 dB							
Return Loss	Typical	50Ω SMA	18 dB	50Ω BNC	18 dB	50Ω SMA	18 dB	50Ω BNC	18 dB
	Minimum		12 dB		12 dB		12 dB		12 dB
Link Gain		0 dB nominal							
1dB Gain Compression		+6 dBm							
OIP3		17 dBm typical, 14 dBm minimum (Test conditions: 1m fibre, 10 dB gain, -22 dBm tones at 2150 and 2152 MHz)							
CNR (in any 36 MHz)	Typical	-51 dB (Test conditions: 1m fibre, 0 dBm RF i/p power, 0 dBm RF o/p power)							
	Worst case	-45 dB (Test conditions: 1m fibre, 0 dBm RF i/p power, 0 dBm RF o/p power)							
Group Delay Variation		±2ns over full band (Test conditions: 1m fibre, 0 dBm RF i/p power, 0 dBm RF o/p total power)							
		±1ns any 36MHz (Test conditions: 1m fibre, 0 dBm RF i/p power, 0 dBm RF o/p total power)							
SFDR		113 dB/Hz ^{2/3} typical, 108 dB/Hz ^{2/3} minimum (Test conditions: 1m fibre, 0 dB gain, -22 dBm tones at 2150 and 2152 MHz)							
RF Signal Range		Input: <0 dBm (total power) Operational I/P range				Output: 0 dBm maximum			
Max RF Input		16 dBm total power (Damage level, NOT operational)				-			
MSG		MSG: Settable gain							
Noise Figure		18 dB typical, 21 dB worst case (Test conditions: 1 m fibre, 0 dBm RF i/p power, 0 dBm o/p power)							
Noise Floor		-156 dBm/Hz typical (Test conditions: 1 m fibre, 0 dBm RF i/p power, 0dBm o/p power)							
Laser Type		DFB (Optical isolator for improved performance)				-			
Optical Wavelength		1310 ± 10 nm				1100 to 1650 nm		Optimised for 1310 nm and 1550 nm	
Optical Power		Output: +6 ± 2.5 dBm				Input: 0-4.5 dBm, Max 10 dBm			
Power Consumption		3.5W				2W			
LNB Power		None							
MTBF		>200,000 hours				292,550 hours			
RF Connectors		BNC 50 Ω - B5 / SMA 50 Ω - S5 (contact ETL for 75 Ω connector options)							
Optical Connectors		FA - FC/APC or SA - SC/APC							

Please see separate datasheet for 100 series chassis options.

