ETL Systems

Excelling in RF Engineering

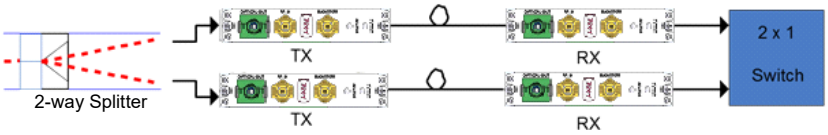
Model Number: SRY-SW-B2-222

StingRay RF over Fibre 2:1 Broadband Switch

The StingRay 200 Series of RF over fibre chassis are designed to give compact fibre links of up to 10 km (Link budget 4 dB).

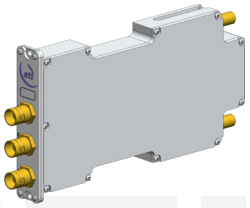
Typical applications:

- 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 10km



ETL's 2x1 switch module can be used as part of a 1+1 redundancy system. This comprises an active 2-way splitter module with a pair of Tx modules at the transmit end, and a high reliability 2x1 switch module with a pair of Rx modules at the receive end.

1+1 Redundant Fibre Modules



50 - 2450 MHz operating frequency range

Switch module triggered by RF detection at the input ports if level is outside the predefined range between -10 to -30 dBm mean power

Chassis Options

Compact indoor & outdoor 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

10MHz Inject from an external source chassis option

Local control & monitoring via front panel push buttons & display

Indoor chassis showing hot-swap power supply modules , fibre modules and fans

Outdoor Unit (ODU)

ETL Systems

Excelling in RF Engineering

Model Number: SRY-SW-B2-222

Technical specifications and operating parameters

PRELIMINARY

RF Parameters (Splitter and Switch Modules)		
Model Number		SRY-SW-L1-214-xxxx
Frequency Range		50 to 2450 MHz (IF to Extended L-band)
Gain		0 dB ± 1 dB
Flatness	50-2450MHz	TBC
Return Loss	50 ohm SMA	18 dB typical, 12 dB minimum
	50 ohm BNC	18 dB typical, 12 dB minimum
	75 ohm BNC	16 dB typical, 12 dB minimum
	75 ohm F-type	16 dB typical, 12 dB minimum
Isolation		-40 dB (-10 dBm tone across operational bandwidth unselected input to output)
1dB Gain Compression Point		+7 dBm (output power)
OIP3		+20 dBm
Noise Figure		12 dB
Group Delay Variation		2ns over full band, 1ns over any 36MHz
RF Input Signal Range		-33 to –5 dBm (total power)
Max RF Input		16 dBm total power (Damage level, NOT operational)
Power Consumption		<3W
MTBF		>550,000 hours, Module MTBF
RF Connector Options		BNC 50 Ω - B5 / SMA 50 Ω - S5 / BNC 75 Ω - B7 / F-type 75 Ω - F7

Chassis Options - Technical Specifications							
Model Numbers	SRY-C200-1U	SRY-C207-1U	SRY-C201-2U	SRY-C206-2U	SRY-C205-2U	SRY-C204-2U	SRY-ODU-201
Capacity	Up to 4 2xx series modules		Up to 16 2xx series modules			Up to 10 2xx series modules	
Redundancy options	1+1 redundancy configuration available with modules SRY-L1-DIV213 & SRY-L1-SW214					4+1 redundancy	1+1 redundancy
Dimensions	1U high x 450 mm deep x 19" wide		2U high x 450 mm deep x 19" wide				407 high x 356 deep x 254" wide
Local Control & Monitoring	Front panel LCD and keypad						Optional
Remote Control & Monitoring	Ethernet via RJ45, 10baseT/100BaseTx			Ethernet via optical 1000BaseLX SFP module	Ethernet via RJ45, 10baseT/100BaseTx		
	ETL protocol over TCP/IP, SNMP, built in web server. Serial port. Dry contact alarm summary.						
Module Features Monitored	Includes: Temperature, RF Power, Optical Power, PSU status & Individual fans						
LNB Power	Up to 0.5A per channel, not exceeding 2.8A total		Up to 500mA per channel, 8A total				Yes Module must support LNB
10MHz Injection	-	+9 dBm, input level (27 dBm max. level)	-	-	+15 dBm input level (27 dBm max. level)	-	With SRY-OPT16-10M
PSU Power	100-240 VAC 50/60Hz (Fused 6A, Dual IEC)						
PSU Redundancy	Dual Hot-Swap Modules, Diode OR						
AC Power Consumption	< 150 W all channels		<405 W all channels			<312 W all channels	< 260 W all channels
Heat Load	< 65 W, 222 BTU/hr		< 220 W, 495 BTU/hr			< 200 W, 450 BTU/hr	<145 W, 495 BTU/hr
Operating/Storage Temperature	Operating: 0 to 50˚C / Storage: -20˚C to +75˚C						See SRY-ODU-201 datasheet
Humidity	20 to 90% non-condensing						
Weight	TBD kg		12 kg				21 kg
Front Panel Colour	RAL9003 White semi-matte						

ETL SYSTEMS LIMITED
Coldwell Radio Station
Madley
Hereford
England HR2 9NE

TELEPHONE
+44 (0)1981 259020

EMAIL
info@etlsystems.com

FACSIMILE
+44 (0)1981 259021

WEB
www.etlsystems.com