



StingRay RF Over Fibre

100 series 10MHz Reference modules

The StingRay 100 Series 10MHz Reference modules provide distribution of 10 MHz timing and reference to lock oscillators in both up and down converters (LNB & BUC) with minimal loss. The 10MHz modules can be used with our range of StingRay 100 series RF over Fibre modules and chassis, which are designed to give compact fibre links of up to 10 km (Link budget 4 dB). The transmit modules benefit from a high and wide dynamic range with automatic link optimisation ensuring high quality broadband signals. 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 LNB powering & redundancy systems.

Typical applications:

- Used in conjunction with 100 series L-band & Broadband fibre modules
- General satcoms timing & reference – 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

Fibre Modules



10 MHz operating frequency range



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



Distribution of 10MHz timing and reference across site with minimal loss



Flexibility 10 MHz modules can be housed in same chassis as fibre modules

Chassis Options



Compact chassis options, which can be part populated



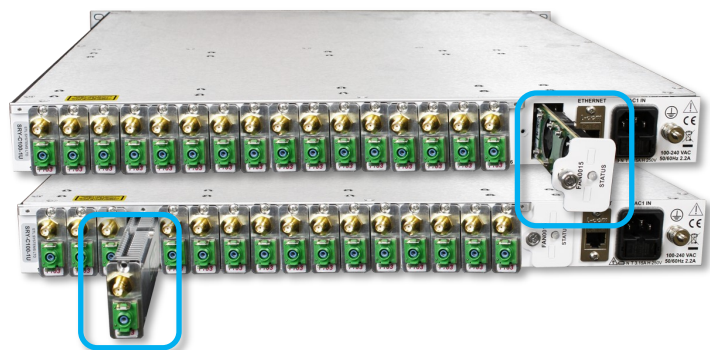
Resilience from dual redundant hot-swap power supplies, hot-swap fibre modules & fans



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



Local control & monitoring via front panel push buttons & display





RF Parameters (TX & RX Modules)

Model Number		SRY-TX-Y-107 (transmit)	SRY-RX-Y-108 (receive)
Frequency Range		10 MHz reference tone	
Return Loss	Typical	18 dB 50Ω SMA	18 dB 50Ω BNC
	Minimum	12 dB 50Ω SMA	12 dB 50Ω BNC
RF Signal Range		Input 0 to +15 dBm total power (Operational i/p range)	Output: 0 dBm to +15 dBm total power (o/p range available under all i/p conditions)
Max RF Input		+25 dBm total power (Damage level, NOT operational)	-
AGC / MSG		Factory set . Once AGC level set, gain can be fixed.	AGC Settable output power level. Once AGC level set gain can be fixed.
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: 5.5 ± 2 dBm	Input: 0 to 7 dBm, Max 10 dBm
Power Consumption		6W	4W
Monitoring		Includes laser optical output power	Optical input power status of amplifier stages RF output power
Module Swap		Hot swap	
MTBF		>200,000 hours (TBC)	TBC
RF Connectors		BNC 50 Ω - B5 / SMA 50 Ω	
Optical Connectors		S5/ FA - FC/APC or SA - SC/APC	

Environmental Conditions

Operating Temperature	-20°C to +60°C	
Storage Temperature	-40°C to +9°C	
Location	Indoor use only	
Humidity	20 to 90% non-condensing (relative humidity)	
Altitude	10,000 ft AMSL operational 30,000 ft AMSL storage / transport	10,000 ft AMSL (above mean sea level)
Mass	0.18kg	
Size	43.5 x 18 x 209.5 mm	

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.

Please see separate datasheet for 100 series chassis options.

