



## StingRay RF Over Fibre Genus Module 1PPS to 1MPPS, and IRIG-B (DCLS TTL) Over Fibre Modules

### Typical applications:

- Teleports & Earth Stations
- Satellite Operations
- Government & Defence applications
- Telemetry, Tracking & Command
- High Resilience applications

SRY-G2S-TY-323 & SRY-G2S-RY-324 are optical transmitter and receiver modules for 1PPS up to 1MPPS, and IRIG-B DCLS TTL over Fibre, built in a compact EMC sealed housing which converts 1PPS up to 1MPPS signals to 1310nm for transmission over single mode fibre. It uses optically isolated DFB laser and is suited up to 10km. Can also be used with ETL model D0216S1UIA-22512 Dual input 16-way Time & Frequency Distribution unit.

**Resilience** from dual redundant hot-swap power supplies & field replaceable CPU & HMI

**Local control & monitoring** via HMI high resolution touchscreen

**Compact** housed in a 2U high chassis with capacity for up to 17 modules

**Hot Swap & replaceable** modules

**Field replaceable Internal 10MHz reference source** and external reference inject port with auto detection (optional)

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

For Illustration only.

### Chassis - Specification

Dimensions / Weight / Colour	2U high x 510mm deep x 19" wide / <10 kg / RAL9003—White (Semi-matte)
Capacity	Total of 17 module slots. Note that 1 slot may be used for fan (if required) and 1 slot may be used for 10 MHz EXT inject module (if required). Note actual modules may require >1 slot. Refer to required module spec table.
Temperature	Operating: 0°C to +45°C / Storage: -20°C to +75°C
Location / Humidity / Altitude	Indoor use only / 20 to 90% non-condensing / 10,000 feet AMSL (Operational) 30,000 feet AMSL (Storage) Above Mean Sea Level
Control & Monitoring	Local: HMI touch screen Remote: Ethernet via RJ45, 10BaseT/100 BaseTx. TCP/IP, SNMP V3 & HTTPS & Web browser interface HMI and CPU field replaceable. Each module independently monitored and reported.
MTTR	20 minutes (15 minutes to retrieve spare part and 5 mins to replace) Applies to LRUs only and assumed in house stock
AC Input / Consumption	85-264Vac 50/60Hz / 150W
PSU Redundancy	Dual redundant and alarmed Diode OR. Hot swappable
Input & Output ports	Dependant upon module fitted



### StingRay Module

Compact form factor allowing multiple modules to be housed in 2U chassis.  
Each module uses 1 slot in the chassis.

RF Parameters (TX and RX)		
Model Number	SRY-G2S-TY-323-xxxxxx	SRY-G2S-RY-324-xxxxxx
Signal	Input: 1PPS to 1MPPS and IRIG-B DCLS (50 ohm TTL)	Output: 1PPS to 1MPPS and IRIG-B DCLS (50 ohm TTL)
Input / Output ports	50Ω SMA, BNC.	
Input/Output Monitor ports	1kΩ SMA	
Input / Output Level	Input: Up to 5V peak nominal TTL	Output: 5V TTL peak nominal (when terminated with 50Ω)
Duty Cycle	0 to 100%	
Rise/Fall Time	<20ns Measured between 10% low and 90% high thresholds.	
Jitter	<200ps RMS	
Laser Type	DFB (Two stage optical isolator for improved performance)	N/A
Optical Wavelength (nm)	1310 ± 10	1100 to 1650nm (Optimised for 1310nm and 1550 nm)
Optical Power output (dBm)	+6 dBm typical	N/A
Optical Power in (dBm)	N/A	0 to +6 dBm (Max 10 dBm )
Power Consumption	< 5W	< 4W
MTBF	TBC	>250,000
RF Connectors	SMA 50 Ω (S5) / or BNC 50 Ω (B5)	
Optical Connectors	FC/APC (FA) or SC/APC (SA) Single mode fibre, Use angle polish connectors only	
Operating Temperature	-20 to +55 °C	
Storage Temperature	-40 to +85 °C	
Location	Indoor use	
Humidity	20 to 90% non-condensing. Relative Humidity	
Altitude	10,000 feet AMSL (Above Mean Sea Level)	
Control & Monitoring	Local front panel control and remote control via ethernet. 10/100BaseT. TCP/IP, SNMP, Web browser.	
Temperature Monitors	Each module TTL frequency monitored, all are independently monitored and reported.	
Module Monitoring	Laser optical output & input power, Status of amplifier stages in each module	
Dimensions	87 x 19 x 225 mm	
Slots Used	1	1
Weight	0.35 kg	

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.