



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.

Fibre Module



Fibre Module

Compact form factor allowing multiple modules to be housed in the Genus chassis. Each module occupies 1 slot in the chassis.



1PPS to 1MPPS and IRIG-B signal type



Hot Swap & replaceable RF module



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

Chassis Options



Local control & monitoring via HMI high resolution touchscreen



Flexible Module Configurations choose from a mixture of fibre modules with different operating frequencies.



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



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



Compact indoor & outdoor chassis options, which can be part populated



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



Secure protocols with SNMPv3



Indoor Chassis



Outdoor Unit





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.