



ETL Systems

New technologies
in RF distribution

Model Number:
SRY-G2S-TY-315-xxxx
SRY-G2S-RY-316-xxxx

StingRay RF Over Fibre Genus Modules

10MHz modules with ultra low phase noise and 10km nominal range

Typical applications:

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

StingRay 10MHz Transmit and Receive RF Over Fibre Genus Modules to fit Genus 2U chassis. With ultra low phase noise and 10km nominal range.

Local control & monitoring via HMI high resolution touchscreen

Compact housed in a 2U high chassis with capacity for up to 16 modules

10MHz reference tone operating frequency range

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

Hot Swap & replaceable modules

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

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

Rear image is for indication only.

Chassis - Specification

Dimensions / Weight / Colour	2U high x 550mm 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





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StingRay Module

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

Preliminary Specification

StingRay TX & RX Module - RF Parameters		
Model Numbers	SRY-G2S-TY-315-xxxx	SRY-G2S-RY-316-xxxx
Frequency Range	10 MHz	
Input Connectors & impedances	50Ω SMA or BNC.	
Input return loss (dB)	Typ. 20dB. Min 15 dB	N/A
Output return loss (dB)	N/A	Typ. 16dB. Min 12 dB
Input AGC level Max (dBm)	+12 dBm. Levels total power including noise	
Input AGC level Min (dBm)	0 dBm Min I/P for max O/P	
Output AGC level Max (dBm)	+12 dBm. Levels total power including noise	
Output AGC level Min (dBm)	0. dBm	
Max Input RF Power (dBm)	+16 dBm. Damage level	
Monitoring Port (SMA 50 Ohm Connector)	-20dBc ±3 dB	
Frequency Offset (Hz)	Phase Noise Typ (dBc/Hz)	Phase Noise Max (dBc/Hz)
0.1	-120	-110
1	-132	-120
10	-144	-130
100	-149	-140
1000	-150	-145
10000	-151	-147
100000	-152	-147
1000000	-152	-147
Laser Type	DFB	-
Optical Wavelength	1310 ± 10 nm	1100 to 1650nm. Optimized for 1310nm and 1550 nm
Optical Power output/input	Output: 5.5 ±2 dBm.	0 to 7dBm. Max 10 dBm
Power Consumption	5W Typical	3W Typical
Optical Connectors	FC/APC , SC/APC Single mode fibre.	
Gain Setting Modes	Manual Gain Control (MGC) Automatic Gain Control (AGC) Fixed Gain (FG)	
Module Dimensions	TBC. Genus 2U series mountable.	
Module Swap	Hot swap	
Operating Temperature	-40°C to +55°C	
Storage Temperature	-40°C to +85°C	
Location	Indoor use	
Humidity	20 to 90% non-condensing	
Altitude	10,000 feet AMSL	
Spec Version	1.0	1.0

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.

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