C-Band GENUS StingRay RF over Fibre module

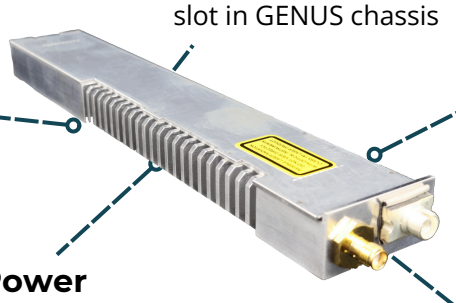
with 22KHz tone and 13V/18V LNB power

StingRay C-band Transmit and Receive RF Over Fibre modules to fit GENUS 1U or ODU chassis. The transmit module can provide LNB power 13/18VDC, 22kHz tone up to 500 mA. When installed in a 10MHz distributing chassis, the TX module can inject a user-settable and switchable 10MHz tone of between -10 and +10 dBm.

Module

Compact
Each module occupies 1 slot in GENUS chassis

Tx & Rx
module options for transmit and receive chains up to 10km



500 - 6725MHz
Operating frequency range

LNB Power
13/18V on Tx modules

High Isolation
between modules for signal quality

Chassis

Resilience
Dual redundant hot swap power supplies; field replaceable CPU and HMI

Local Control & Monitoring
Front panel capacative HMI touchscreen

Secure Protocols
with SNMPv3 and HTTPS

Compact
1U indoor and compact ODU chassis options available

Configurable
Choose from a mixture of fibre modules with different operating frequencies, or house alongside other RF functions

10MHz Reference
Optional field-replaceable internal 10MHz reference and external reference inject port with auto detection

Remote Control & Monitoring
via RJ45 Ethernet port with SNMP and web browser interface

RF Parameters			
Model Numbers		SRY-G1S-TCX-167-XXXX	SRY-G1S-RCX-168-XXXX
Flatness (dB) (Full TX &RX link with 10km fibre link, Fixed gain mode, input -10 dBm, output -10 dBm)	850 - 2150MHz	±1.5	
	500 - 3150MHz	±2.0	
	3150 - 6725MHz	±3.0	
	3400 - 4200MHz	±1.5	
	5725 - 6725MHz	±2.0	
	Any 36MHz	±0.25 (500 to 3150 MHz) ±0.30 (3150 to 6725 MHz)	
Return Loss (db)	500 - 3150MHz	18 typical, 14 minimum	
	3150 - 6725MHz	14 typical, 10 minimum	
Gain Setting Modes		Manual Gain Control (MGC), Automatic Gain Control (AGC), Fixed Gain (FG)	
Manual Gain Range		60 dB (in 0.5 dB steps)	
OIP3 **Test condition:** 1m fibre, 10dB gain, -22dBm tone levels	500 - 3150MHz	20 dBm typical, 17 dBm worst case	
	3150 - 6725MHz	15 dBm typical, 12 dBm worst case	
CNR (in any 36MHz) **Test condition:** 1m fibre, -10dBm RF i/p power, -10dBm RF o/p total power	500 - 3150MHz	-50 dB typical, -45 dB worst case	
	3150 - 6725MHz	-45 dB typical, -40 dB worst case	
Noise Figure **Test condition:** 1m fibre, -50dBm RF i/p power, -10dBm o/p power	500 - 3150MHz	9 dB typical, 12 dB worst case	
	3150 - 6725MHz	11 dB typical, 14 dB worst case	
Group Delay Variation	500 - 3150MHz	2ns over full band 1.5ns over any 36MHz	
	3150 - 6725MHz	3ns over full band 1.5ns over any 36MHz	
SFDR **Test condition:** 1m fibre, 10dB gain, -22dBm tone levels	500 - 3150MHz	107 dB/Hz2/3 typical 102 dB/Hz2/3 minimum	
	3150 - 6725MHz	100 dB/Hz2/3 typical 95 dB/Hz2/3 minimum	
RF Signal Range		-60 to -10dBm (total power) Operational range	
Max RF Input		16dBm total power. Damage level, NOT operational.	
10MHz Level at Output		-10 to +10 dBm, user settable via the chassis. Accuracy ±1.0 dB.	
10MHz Isolation		-40 dB, between adjacent modules in same chassis.	

RF Parameters		
Model Numbers	SRY-G1S-TCX-167-XXXX	SRY-G1S-RCX-168-XXXX
Laser Type	DFB	-
Optical Wavelength	1310 ± 10 nm	1100 to 1650nm. (Optimised for 1310nm and 1550nm)
Optical Power	**Output:** 4.5 ±2.5 dBm (3.8 dBm typical)	**Input:** 0 to 4.5dBm (10 dBm max.)
Optical Connectors	FC/APC , SC/APC Single mode fibre. Use angle polish connectors only.	
Module Dimensions	19 x 38 x 253 mm. 0.2kg. GENUS 1U series mountable.	
Power Consumption	15W typical (with 18V 500mA LNB power)	4W typical

LNB Power	
Number of Modules Fitted	Total Power Available for LNB Powering at 18V
16	115W
14	120W
≤13	Limited by module specifications
Spec. Version	0.2

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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