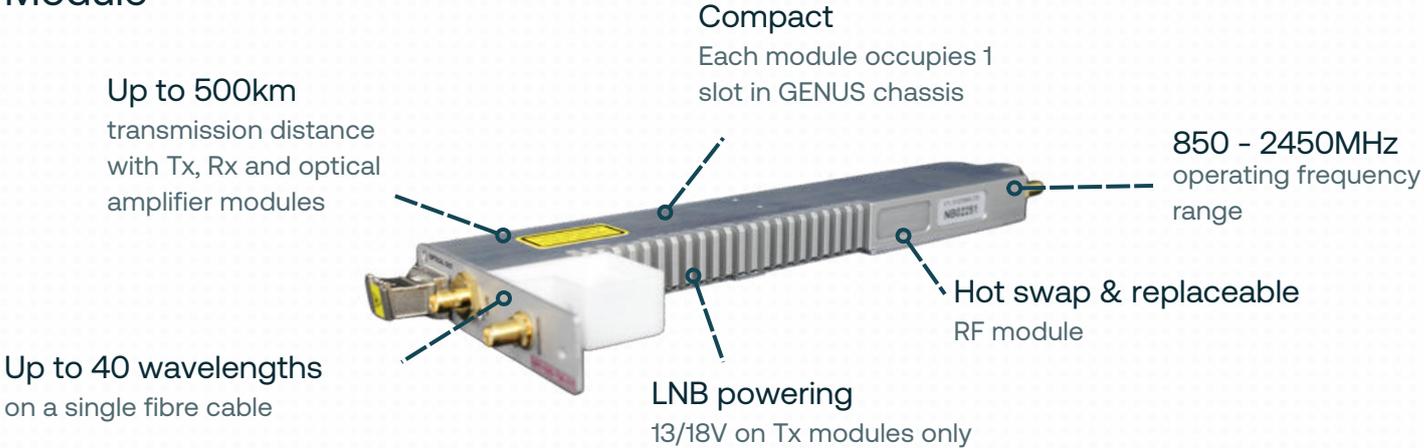


StingRay RF over Fibre GENUS Module DWDM

L-band modules

StingRay DWDM L-band Transmit and Receive RF Over Fibre modules to fit Genus 2U chassis or ODU. The transmit module can provide LNB power 13/18VDC, 22kHz tone up to 500 mA. When fitted with a 10 MHz distributing module the TX/RX module can inject an external or internal 10 MHz tone onto the L-band feed. Transmission distance up to 500 km with optical amplifiers. The transmit modules benefit from a high and wide dynamic range with automatic link optimisation ensuring high quality L-band transmission.

Module



Chassis



Resilience

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

Secure Protocols

with SNMPv3 and HTTPS

Compact

2U indoor and compact ODU chassis options available

Local Control & Monitoring

Front panel capacitive HMI touchscreen

10MHz Reference

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

Configurable

Choose from a mixture of fibre modules with different operating frequencies

Remote Control & Monitoring

via RJ45 Ethernet port with SNMP and web browser interface



RF Parameters		
Model Numbers	SRY-G2S-TXXS2-333	SRY-G2S-RS2-334
Module Width	1 chassis slot	
Frequency Range	850 - 2450 MHz	
Flatness	850 - 2150MHz	±1.0 dB, Fixed gain mode
	2150 - 2450MHz	±1.8 dB, Fixed gain mode
	Any 36MHz	±0.25 dB, Fixed gain mode
	Output AGC Flatness	-
Return Loss	50 ohm SMA	18 dB typ., 12 dB min
	50 ohm BNC	18 dB typ., 12 dB min
	75 ohm BNC	16 dB typ., 12 dB min
	75 ohm F-type	16 dB typ., 12 dB min
Gain Setting Modes	Manual Gain Control (MGC), Automatic Gain Control (AGC), Fixed Gain (FG)	
Manual Gain Range	60 dB in 0.5 dB steps MGC gain mode allows link optimisation for better Noise or Distortion performance.	
Monitor Port	-20 dBc +/-3 dB SMA 50 ohm connector	
OIP3	Typical 17 dBm, Worst Case 14 dBm Test condition: 1m fibre, 10dB gain. -22dBm Tones at 2150 & 2152MHz	
CNR (in any 36MHz)	Typical -50 dB, Worst Case -45 dB Test condition: 1m fibre, -10 dBm RF i/p power, -10 dBm RF o/p total power.	
Noise Figure	Typical 12 dB, Worst Case 15 dB Test condition: 1m fibre, -50 dBm RF i/p power, -10 dBm o/p power	
Group Delay Variation	<2ns over full band. <1ns over any 36 MHz.	
SFDR	112 dB/Hz ^{2/3} typ., 108 dB/Hz ^{2/3} min Test condition: 1m fibre, 10 dB gain, -22 dBm tones at 2150 & 2152MHz	
RF Signal Range	Input: -50 to -10 dBm (total power) Operational i/p range	Output: -50 dBm to -10 dBm (total power) o/p range available under all i/p conditions
Max RF Input	16 dBm total power. Damage level, not operational.	-
Laser Type	DFB. Optical isolator for improved performance.	-
Optical Wavelength	DWDM C-Band see centre wavelengths table	1100 to 1650nm
LNB Power	18/13V ± 5%, 500mA max	-
Optical Connectors	FC/APC , SC/APC, Single mode fibre. Use angle polish connectors only.	
Power Consumption	15W typical, with 18V 500 mA LNB power	4W typical
Module Swap	Hot swap	
MTBF	>200,000 hours	



LNB Power	
No. of Single Modules Fitted	Total Power available for LNB powering @18V
16	115 W
14	120 W
≤13	Limited by module specification

Centre Wavelengths - SRY-G2S-TxxS2-333		
ITU Channel	Wavelength / nm	Frequency / THz
C60	1529.55	196.00
C59	1530.33	195.90
C58	1531.12	195.80
C57	1531.90	195.70
C56	1532.68	195.60
C55	1533.47	195.50
C54	1534.25	195.40
C53	1535.04	195.30
C52	1535.82	195.20
C51	1536.61	195.10
C50	1537.40	195.00
C49	1538.19	194.90
C48	1538.98	194.80
C47	1539.77	194.70
C46	1540.56	194.60
C45	1541.35	194.50
C44	1542.14	194.40
C43	1542.94	194.30
C42	1543.73	194.20
C41	1544.53	194.10
C40	1545.32	194.00
C39	1546.12	193.90
C38	1546.92	193.80
C37	1547.72	193.70
C36	1548.51	193.60
C35	1549.32	193.50
C34	1550.12	193.40
C33	1550.92	193.30
C32	1551.72	193.20
C31	1552.52	193.10



Centre Wavelengths - SRY-G2S-TxxS2-333		
ITU Channel	Wavelength / nm	Frequency / THz
C30	1553.33	193.00
C29	1554.13	192.90
C28	1554.94	192.80
C27	1555.75	192.70
C26	1556.55	192.60
C25	1557.36	192.50
C24	1558.17	192.40
C23	1558.98	192.30
C22	1559.79	192.20
C21	1560.61	192.10
C20	1561.42	192.00

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.