





Optical Fibre to S-Band Receive Module

 **1100nm-1650nm**
optical input
converted to S-Band
500-3150MHz

 **Settings**
Controlled by 5
position switch
with power &
status indicator
lights

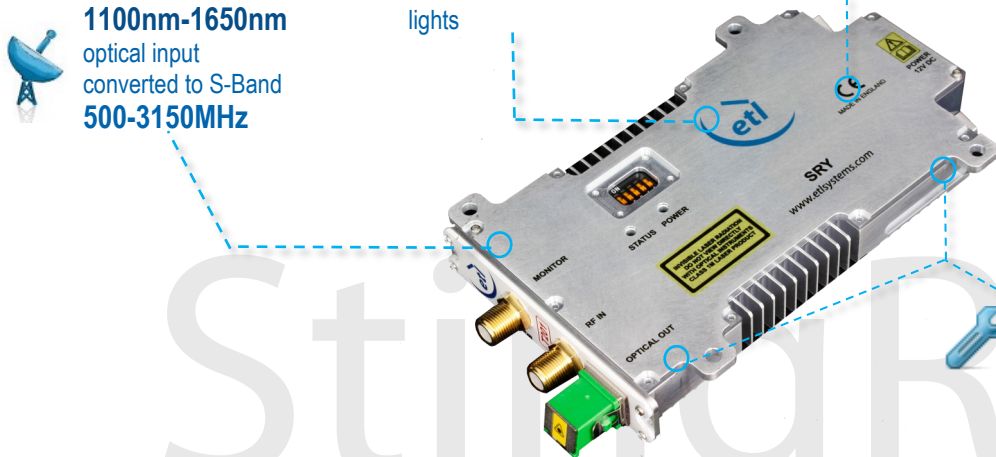
 **Compact**
EMC sealed
standalone housing
with RF monitoring
port

 **Flexible Mounting**
Tapped screw &
through hole mounting
options

- Single mode optical receiver for RF over Fibre (RoF)
- A resilient solution for satellite teleports with transition distances up to 10km
- Used in conjunction with TX S-Band Module SRY-TX-S4-487

Available with Optical Connectors:

- FC/APC
 - SC/APC
- or RF Connectors:
- 50 Ω SMA



StingRay

RF Parameters	
Frequency Range	500 to 3150 MHz
Flatness in Fixed Gain Mode	±1.5 dB 850 to 2150 MHz ±2.5 dB 850 to 2450 MHz ±3.0 dB 500 to 3150 MHz ±0.25 dB, any 36 MHz > -50dBm ±0.5 dB, any 36MHz i/p < -50dBm
Flatness in AGC mode	±1.5 dB 850 to 2150 MHz ±2.5 dB 850 to 2450 MHz ±5.5 dB 500 to 3150 MHz ±0.25dB, any 36MHz ±0.5 dB, any 36MHz i/p < -50dBm
Return Loss:	18 dB typ., 10dB min
Monitor port	-20 ± 3 dB
OIP3	Typical 17 dBm Worst Case 14 dBm
CNR (in any 36MHz)	Typical -50 dB Worst Case -45 dB
NF	Typical 10dB Worst Case 12dB
Group Delay variation	2ns over full band 1ns over any 36 MHz.
SFDR	105 dB/Hz ^{2/3} typ., 100 dB/Hz ^{2/3} min.
IMD3	-65 dBc typ., -60 dBc min.
AGC/MSG	Factory Set (Maintains set output level)
RF Output Signal Range	-30dBm to -10dBm (total power)
Max RF input	16dBm total power

Full TX &RX link with 10km fibre link using SRY-TX-S4-487. Fixed gain mode.

Full TX &RX link with 10km fibre link using SRY-RX-S4-288 in AGC mode. NOTE- In AGC mode the wideband gain control results in sharp increase in gain above 2.5GHz.

Only Available in SMA 50 ohm connectors.

Mounted on module

Test condition: 1m fibre, 10 dB gain, -22 dBm tones at 2150 and 2152 MHz

Test condition: 1m fibre, -10 dBm RF i/p power, -10 dBm RF o/p total power.

Test condition: 1m fibre, -50 dBm RF i/p power, -10 dBm o/p power

Test condition: 1m fibre, 10 dB gain, -22 dBm tones at 2150 and 2152MHz

Test condition: 1m fibre, 10 dB gain, -22 dBm tones 2150 and 2152 MHz

o/p range available under all i/p conditions

Damage level, NOT operational.

Broadcast



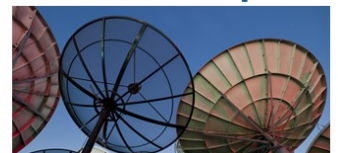
Marine Oil & Gas



SNG & VSAT



Satellite Teleport





Technical specifications and operating parameters

Optical Parameters		
Optical Wavelength	1100 to 1650nm	Optimised for 1310nm and 1550 nm
Optical power in	0 to 4.5 dBm	Max 10 dBm
Optical Connectors	FC/APC SC/APC	Single mode fibre Use angle polish connectors only
Non RF Parameters		
Module swap	Hot swap	
Power supply voltage	12V ±1V	Single or dual redundant power
Power consumption	4 W	
MTBF	> 250,000 hours	

Environmental conditions		
Operating Temperature	-20°C to +60°C	Mount away from sources of heat. Forced air cooling may be required dependant on application.
Storage Temperature	-40°C to +90°C	
Location	Indoor use	Outdoor use as part of ETL ODU only
Humidity	20 to 90% non-condensing	Relative Humidity
Altitude	10,000 ft AMSL operational 30,000 ft AMSL storage/ transport	Above mean sea level

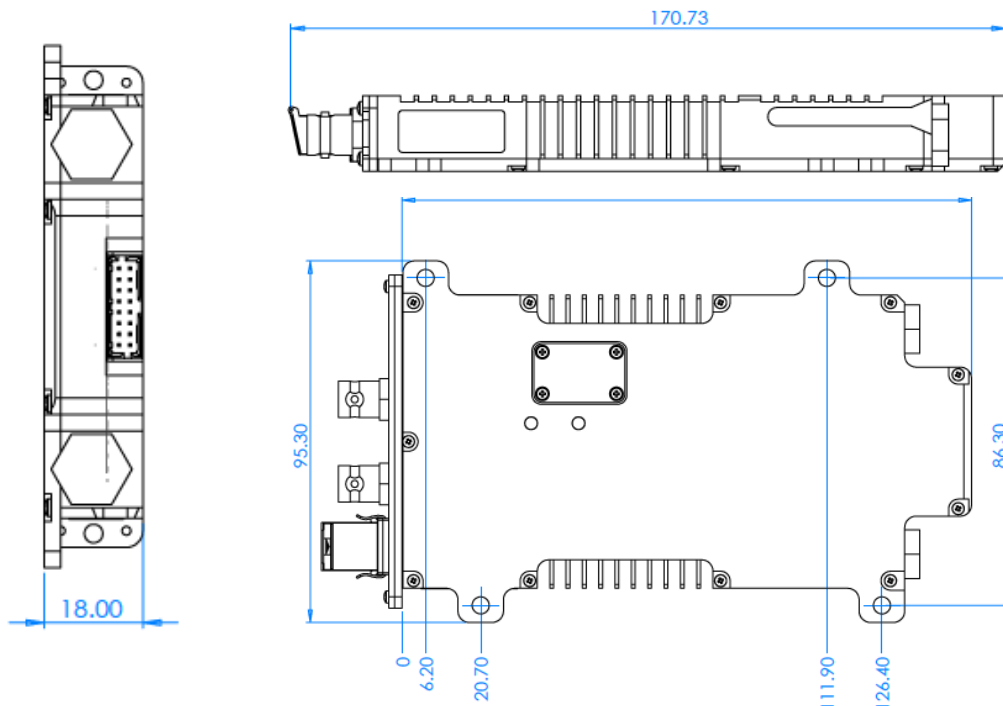
Control, Monitoring & Alarms			
Control	1	Reserved	Remove cover to access DIP switch. Output power settable -30 to -10 dBm in 3 dBm steps.
DIP Switch	2	Output power bit 3	
Position	3	Output power bit 2	
	4	Output power bit 1	
	5	AGC on/Gain fixed	
	6	Reserved	
Indicator lights	Power Status Green		Module powered Module OK
Monitoring includes	Status of amplifier stages Module temperature		Monitored in each module
AGC	Settable output power level		Once AGC level set, gain can be fixed

Position marked on switch			Output
2	3	4	Power/dBm
0	0	0	-31
0	0	1	-28
0	1	0	-25
0	1	1	-22
1	0	0	-19
1	0	1	-16
1	1	0	-13
1	1	1	-10

* 1 = switch is in ON position
0 = switch is in OFF position

! Operation beyond these limits may cause instantaneous and permanent damage.

Physical Dimensions



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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