RF Components

StingRay GPS Over Fibre

Standalone Receive Module

850MHz to 2450MHz

Model Number:
SRY-RX-L1-466

- Monitoring of both the Rx via 20 dB monitor port and the remote Tx via Status LED
- Powered by single or dual redundant 12V supplies
- Intended for use with ETL's GNSS transmit outdoors unit SRY-TX-L1-911

Available with connector options:

- 50 Ω SMA or BNC
- 75 Ω BNC or F-Type
- FC/APC
- SC/APC

850-2450 MHz
Operating frequency range.

Compact
Housed in rugged compact enclosure

Flexible Mounting
Through hole mounting option

Specification				
Capacity		One GNSS over Fibre Receive Unit		
Output port		50Ω BNC, SMA		
Monitor port		50Ω BNC, SMA		Output level -20 dB (Typical, for indication only)
Frequency		850MHz to 2450MHz		Use Tx with tuned antenna to select required GNSS signal.
Connector & impedances		50Ω SMA	50Ω BNC	
Link Gain (dB)		50±3	50±3	Max across band and link
Gain flatness (dB)	Any 500MHz	±2.0	±2.0	
	Any 36MHz	±0.5	±0.5	
Input Return Loss (dB)	Typ.	n/a	n/a	
	Min	n/a	n/a	
Output Return Loss (dB)	Typ.	18	18	
	Min	12	12	
Input AGC level Max (dBm)		-10		At transmitter
Input AGC level Min (dBm)		-60		At transmitter
Output AGC level Max (dBm)		-40		Set at receiver
Output AGC level Min (dBm)		-60		Set at receiver
Noise Figure (dB)		16 TBC		Typ. link 1.5GHz, -50dBm in & out
CNR (in any 4 MHz) (dB)		60 TBC		Typ. link 1.5GHz, -50dBm in & out, gain fixed
1dB GCP (dBm) 1dB Gain Compression point		-30 TBC		Typ. link 1.5GHz, -50dBm in & out, gain fixed
OIP3 (dBm)		-19 TBC		Typ. link 1.5GHz, -50dBm in & out, gain fixed
SFDR (dB/Hz$^{2/3}$)		105 TBC		Typ. link 1.5GHz, -50dBm in & out
DC consumption		4W		Max. consumption at steady state
Alarms		Antenna fail		25 mA current sink switched out
Local Monitoring		Monitoring of module and signal from Tx Via LED. LED is GREEN if optical power is between –6.2dBm & +9dBm and RED if out of this range. Contact ETL if remote monitoring and control is required.		
MTBF		> 120,000 hours		Module MTBF TBC

Broadcast

Marine Oil & Gas

SNG & VSAT

Satellite Teleport

RF Components

Model Number:
SRY-RX-L1-466

StingRay GPS Over Fibre Standalone Module

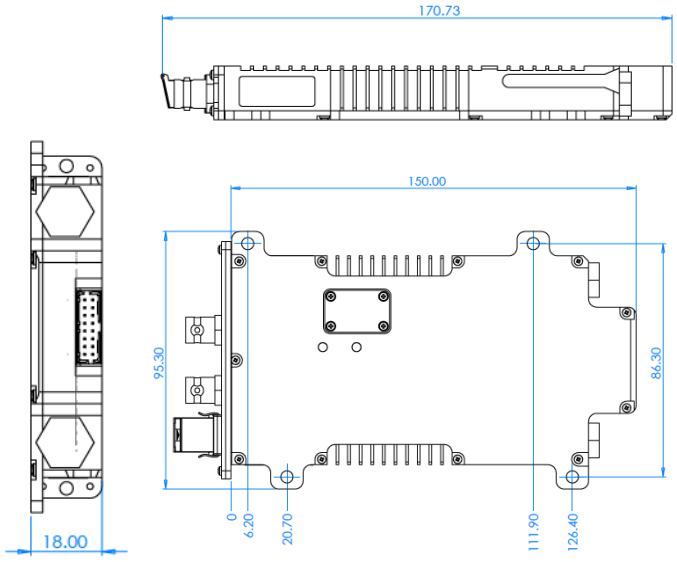
Technical specifications and operating parameters

Optical Parameters		
Optical Wavelength	1100 to 1650nm	Optimised for 1310nm and 1550 nm
Optical power in	0 to 4.5dBm	Max 10 dBm
Optical Connectors	SC/APC FC/APC	Single mode fibre Use angle polish connectors only
Environmental conditions		
Operating Temperature (°C)	-20°C to +55°C	
Storage Temperature (°C)	-40°C to +85°C	
Location	Indoor use only	Outdoor use only in ETL ODU
Humidity	20 to 90% non-condensing	Relative Humidity
Altitude	10,000 ft AMSL operational 30,000 ft AMSL storage/transport	Above Mean Sea Level
Physical Dimensions & Parameters		
Weight	0.35 Kg	
Dimensions	43mm high x 205mm deep x 18mm wide	Mounting flanges provided
Front Panel Colour	RAL9003 – White (Semi-Matte)	

Control, Monitoring & Alarms			
Control DIP Switch Position	1 2 3 4 5 6	Reserved Output power bit 3 Output power bit 2 Output power bit 1 AGC on/Gain fixed Reserved	Remove cover to access DIP switch. Output power settable -30 to -10 dBm in 3 dBm steps.
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	-61
0	0	1	-58
0	1	0	-55
0	1	1	-52
1	0	0	-49
1	0	1	-46
1	1	0	-43
1	1	1	-40

Physical Dimensions (mm)



Note: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved specification accuracy.
Note-1: Typical parameters are guide figures and measured data may deviate from the quoted figures. ETL endeavours to exceed the quoted typical parameters where practically possible.
Note-2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage. For reliable long term operation do not exceed the parameters given in above.
Note-3: The spec table is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

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