

L-Band RF Over Fibre ODU

1310nm Transmit

Flexible Mounting
Band on to pole or bolt
to wall

Compact &
Weatherproof
Housed in IP65 rated
weatherproof
enclosure

850-2450MHz
Extended L-band
operating frequency



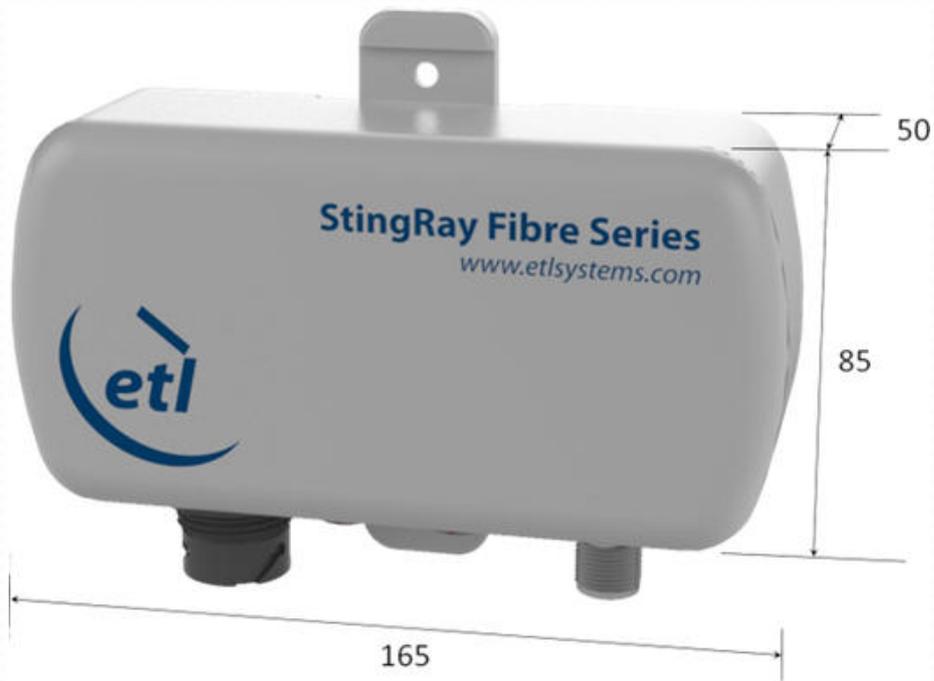
Monitoring
Optical and RF levels
reported at receiver

RF Parameters		
Capacity	One RF over Fibre Optical Transmit Unit	
Power Connector	1K - LEMO FGL1K.302.CLLK75Z	Cable mount LEMO 1K series 2 pin
Input ports	50Ω N-type, 75Ω F-type.	DC power available, do not connect to power source.
Fibre output connector	Senko IP-SC/APC	
Frequency	850MHz to 2450MHz	
Connector & impedances	50Ω N-type	75Ω F-type
Input Return Loss (dB)	Typ.	18
	Min.	10
Gain flatness (dB)	±2.0 Across Band	
OIP3 (dBm)	Typical 17 dBm Worst Case 14 dBm	Test condition: SRY-TX-L1-923 , 0 dB optical link loss, -22 dBm tones at 2150 and 2152 MHz
CNR (in any 36MHz) (dB)	Typical -50 dB Worst Case -45 dB	Test condition: SRY-TX-L1-923 , 0 dB optical link loss, -10 dBm RF i/p power, -10 dBm RF o/p total power.
NF (dB)	Typical 12dB Worst Case 15dB	Test condition: SRY-TX-L1-923 , 0 dB optical link loss, -50 dBm RF i/p power, -10 dBm o/p power
Group Delay variation (ns)	2 over full band	1 over any 36MHz
SFDR (dB/Hz ^{2/3})	105 typ., 100 min	Test condition: SRY-TX-L1-923 , 10 km fibre, -13 dBm tones at 2150 and 2152 MHz
IMD3 (dBc)	-65 typ., -60 min.	Test condition: SRY-TX-L1-923 , 10 km fibre, -13 dBm tones at 2150 and 2152 MHz
RF Input Signal Range, total power (dBm)	-60 to -10	Operational i/p range
Max RF input total power (dBm)	16	Damage level, NOT operational.
LNB Power	13/18 Vdc, 22 kHz, 500mA max	Short circuit protected
Module input voltage (V DC)	12	Use with PSU SRY-12-916-0KXX
DC consumption (W)	15	Max with 18V, 500mA LNB power
External PSU Redundancy	Dual redundant hot swap external units	Separate Unit



RF Parameters		
Local Monitoring	Full remote monitoring, PSU voltage, RF amp current, temperature, laser power, RF modulation power, laser optical power	Contact ETL if remote monitoring and control is required.
MTBF	> 200,000 hours	
Optical Parameters		
Laser Type	DFB	Two stage optical isolator for improved performance
Optical Wavelength (nm)	1310 ± 10	
Optical Power output (dBm)	3.8 ±2.5	
Optical Connectors	Senko IP-SC/APC	Single mode fibre
Control, Monitoring & Alarms		
Control Switch Position	1 2 3 4	LNB on/off LNB 13/18 v LNB 22 kHz on/off AGC on/Gain fixed
Indicator Lights	Power Status Green Status Red	Module powered Module OK Internal monitoring alarm
Monitoring includes	Laser Optical Output Power Status of amplifier stages Module temperature	Monitored in each module
AGC	Factory set	Once AGC level set, gain can be fixed
Environmental Conditions		
Operating Temperature (°C)	-20°C to +55°C	
Storage Temperature (°C)	-40°C to +85°C	
Location	Indoor or outdoor use to IP65	Mount out of direct sunlight
Humidity	TBA	Relative Humidity
Altitude	10,000 feet AMSL	Above Mean Sea Level
Physical Dimensions & Parameters		
Weight	TBD kg	
Dimensions	85mm high x 50mm deep x 165mm wide	Excluding mounting flanges and connectors
Front Panel Colour	RAL9003 – White (Semi-Matte)	

Physical Dimensions (mm)



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.