

StingRay RF over Fibre GENUS Optical Amplifier Module

Dense Wavelength Division Multiplexing (DWDM)

The StingRay range of optical amplifiers compensate for module loss and boost the optical power to extend the transmission distance of signals carried up to 500 km. Optical amplifiers should be used with StingRay DWDM GENUS RF over fibre units, which are designed to provide compact fibre links, with up to forty wavelengths on a single fibre cable. The modules benefit from a high and wide dynamic range with automatic link optimisation ensuring high quality RF over fibre transmission. The StingRay optical amplifier system comprises of either a pre-amplifier module, a post-amplifier module or an inline amplifier module and designed to operate within the 2U or ODU GENUS series chassis.

Module



Image for reference only

Signal Boost

Up to 22dBm output power

1500nm

typical operating wavelength

500km Transmission Distance

when used with StingRay DWDM fibre modules

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



Optical Parameters				
Model Number		SRY-G2S-OAC-804-XX Optical Pre-Amplifier	SRY-G2S-OAC-806-XX Optical Post-Amplifier	SRY-G2S-OAC-805-XX Optical Line Amplifier
Spec. Version		0.1	0.1	0.1
Operating Wavelength	Minimum	1529 nm	1529 nm	1529 nm
	Typical	1550 nm	1550 nm	1550 nm
	Maximum	1561 nm	1561 nm	1561 nm
Output Optical Power	(Saturated)	Typ. 13 dBm	Typ. 22 dBm (In APC mode, the output power is fixed and settable from +12dBm to +22dBm)	Max. 18 dBm (In APC mode, the output power is fixed and settable from +12 dBm to +18dBm)
Input Optical Power	Minimum	-30 dBm	-10 dBm	-15 dBm
	Maximum	-10 dBm	+6 dBm	+12 dBm
Gain (Can be set in AGC mode)	Minimum	20 dB	17 dB	6 dB
	Typical	23 dB	20 dB	14 dB
	Maximum	26 dB	23 dB	18 dB
Gain Flatness	Maximum	1.5 dB	1.5 dB	1.5 dB
Noise Figure	Typical	5 dB	5 dB	4.5 dB
Output Power Stability	Typical	±0.05	±0.05	±0.05
	Maximum	±0.1	±0.1	±0.1
Return Loss		-45 dB	-45 dB	-45 dB
Polarisation Dependent Gain	Maximum	0.3 dB	0.3 dB	0.3 dB
Polarisation Mode Dispersion (ps)	Maximum	0.5	0.5	0.5
Input & Output Ports		FC/APC or SC/APC		
Electrical Specifications				
Operating Temperature		-5°C to +60°C		
Storage Temperature		-40°C to +80°C		
Location		Indoor use only		
Humidity		10 to 85% non-condensing (relative humidity)		
Altitude		10,000 feet AMSL		
Physical Dimensions & Parameters				
Weight		0.3kg		
Dimensions		Module uses 2 chassis slots (TBC)		
Front Panel Colour		RAL9003 - White (semi-matte)		

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.