ETL Systems

Excelling in RF Engineering

Model Number:
SRY-ODU203

StingRay RF over Fibre Outdoor Unit

The StingRay RF over Fibre Outdoor unit (ODU) is a robust weatherproof (IP65 rated) enclosure which has been designed to be wall or post mounted close to the antenna. It can accommodate up to 4 Transmit or Receive 400 series StingRay Fibre modules.

The transmit modules benefit from a high and wide dynamic range with automatic link optimisation ensuring high quality transmission. Resilience is provided by a full hot-swap, modular design.

Typical applications:

- Designed to be wall or post mounted close to an antenna
- Distribution of comms traffic across site with minimal loss

(O) = Optional Item

IP65 rated Weatherproof enclosure can house up to 4 single RX or TX 400 series modules

Remote control & monitoring via RJ45 Ethernet port with SNMP & web browser interface.
Ethernet options:
- Copper Ethernet interface (O)
- Single optical Ethernet interface (O)

LNB powering 13/18V & 22KHz tone (provided on TX modules)

Sunshade to protect from direct sunlight / solar loading (O)

Reliability from dual redundant field serviceable power supplies

Local control & monitoring Dip switches located under access panel

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- Outdoor Enclosure Specifications -

Physical	
Capacity	Up to 4 4xx series modules
RF Connector Options (As defined on the modules)	BNC / SMA / F-type
Impedance Options (As defined on the modules)	50Ω / 75Ω
Dimensions	407 x 154 x 254 mm
Weight	TBD
Colour	White RAL9003 semi-matte

System Control		
Local Control	Local settings selectable via DIP switches in the modules	
Remote Control & Monitoring	Ethernet (RJ45) Port, 10BaseT/100BaseTx or optical, including ETL TCP/IP protocol, SNMP & Web Browser Interface	Optical Ethernet connection 1310 nm, 10 km reach bidirectional over two single mode optical fibres
Monitoring	Temperature, RF power & optical power	Remotely

Power		
LNB Power	Yes, Module must support LNB power	
AC Power	100-240Vac 50/60Hz	Lightning protection suitable for local installation conditions should be provided
AC Consumption	<120 W all channels occupied	Total AC input
Heat Load	<60 W, 205 BTU/hr	
PSU	Dual Redundant	Diode OR
Field Serviceable PSUs	Yes	

Environmental		
Operating temperature	-20 to +55 4 feeds with no LNB power	
	-20 to +50 8 feeds with LNB power	
Location	Outdoor or indoor use	
Storage temperature	-40 to +80˚C	
Humidity	Internally 20-90% RH, non-condensing	Internal humidity sensor (option)
Altitude	10,000 ft / 3,000 m AMSL	

- Fibre Module Options -

Module Model # for chassis above	Type	Capacity	Frequency	LNB Powering	-20dB Monitor Port
SRY-TX-L1-401	Transmit	Single	850-2450 MHz (L-Band)	✓	✓
SRY-RX-L1-402	Receive	Single	850-2450 MHz (L-Band)	×	✓
SRY-TX-B2-403	Transmit	Single	50-2450 MHz (Broadband)	✓	✓
SRY-RX-B2-404	Receive	Single	50-2450 MHz (Broadband)	×	✓

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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StingRay ODU Options Overview

○ = Option

Model Number / Description		ODU201	ODU203	ODU205	ODU206	ODU209
ODU basic features & functionality						
Internal chassis capacity 10 x 200 series modules (Single or dual modules)		✓		✓	✓	✓
Mounting plate capacity 4 x 400 series component modules			✓			
IP65 rated enclosure		✓	✓	✓	✓	✓
1+1 redundancy configuration option		✓	✓	✓	✓	✓
Dual redundant hot swap power supplies		✓		✓	✓	✓
Dual redundant field serviceable power supplies (not hot swap)			✓			
Controller CPU card		✓		✓	✓	✓
RJ45 Ethernet port for remote communications (copper Ethernet interface as standard)		✓		✓	✓	✓
13/18V 22 kHz LNB powering 500mA		✓	✓	✓	✓	
Hot swap fibre modules		✓	✓	✓	✓	✓
Hot swap fan tray		✓		✓	✓	✓
Operating temperature range -20°C to +45°C , 12 feeds with LNB power (higher to +55°C with limited modules)		✓	✓			
Operating temperature range -20°C to +55°C , 10 feeds with LNB power					✓	
Operating temperature range –40°C to +65°C				✓		
Standard cable glands and hole configuration		✓	✓	✓	✓	✓
Status LEDs on gland plate		✓		✓	✓	✓
ODU Additional Options						
Control						
SRY-OPT4-LCU	Local control panel with keypad / display	○	○	○	○	○
SRY-OPT3-OPE-xx	Optical Ethernet converter for remote communications over fibre 10 km	○	○	○	○	○
SRY-OPT10-EC1	Ethernet Copper Interface provides additional surge protection	○	○	○	○	○
SRY-OPT23-CPU	ODU203 CPU card upgrade		○			
Fixing / Mounting / Locks						
SRY-OPT6-BR1	Bolts and spacers for wall mount	○	○	○	○	○
SRY-OPT7-BR2	Pole mounting bracket	○	○	○		
SRY-OPT26-BR2	Pole mounting bracket				○	○
SRY-OPT9-DRL	Key operated door lock, replaces screwdriver operated door lock	○	○			
Environmental						
SRY-OPT1-40C	Thermostat controlled heater for -20°C to -40°C	○	○	○	○	○
SRY-OPT2-60C	Thermostat controlled heater for -20°C to -60°C	○	○	○	○	○
SRY-OPT8-SUN	Sun shade to protect from solar loading / direct sun light	○	○	○		
SRY-OPT127-SUN	Sun shade to protect from solar loading / direct sun light				○	○
Patch Panels / Cables						
SRY-OPT11-TRY-xx	Fibre management tray and optical patch panel (excluding patch leads)	○		○	○	○
SRY-OPT5-PPN-xxxx	F-Type RF patch panel to facilitate easy cabling (excluding patch leads)	○		○	○	○
SRY-OPT12-CCB-xxxx	Coaxial patch lead (to connect RF ports of the fibre modules to the patch panel)	○		○	○	○
SRY-OPT13-FPC-xx	Fibre patch cable (to connect optical ports of the fibre modules to the fibre patch panel)	○		○	○	○
SRY-FPT-xx-1M	1 metre fibre pig tail with FC/APC (or SC/APC) connector to splice onto unconnectorised fibre	○	○	○	○	○
SRY-OPT14-GP1	Fit Roxtec CF 16 EMC Cable gland for up to 28 cables	○		○	○	○
SRY-OPT15-GP2	Custom gland plate to customer design (excluding glands and connectors)	○		○	○	○
Other						
SRY-OPT16-10M	Internal 10 MHz passive splitter for 10 MHz distribution to modules	○		○	○	○