ALLIANCE Multi-Operator DAS

Public Safety 2W Remote Unit (PS2ROU)

Product Specifications / Parts List

The ALLIANCE Release 6 platform is SOLiD's multi-operator, neutral host Distributed Antenna System (DAS) that efficiently delivers wireless RF signals into any indoor or outdoor location difficult to cover with traditional macro networks.

The Public Safety 2W Remote Optic Unit (PS2ROU) can support up to five bands for public safety, paging and 2-way communications.

Rugged construction meets the latest fire codes and requirements for harsh environmental conditions.

The 2W PS2ROU features:

- Easy install, commissioning, and management
- Rack or wall, indoor or outdoor mounting
- Rugged Construction: UL50E Type 4X enclosure
- 700PS, 800PS, 900 Paging, VHF, and UHF all in a single remote
- 6 external alarms, programmable as either inputs or outputs

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Specifications

RF Parameters		700PS_FN	800PS	900_PA	VHF+UHF
Input Power	TX	LPOI: -10 to +20 dBm	LPOI: -10 to +20 dBm	LPOI: -10 to +20 dBm	LPOI: -5 to +20 dBm
	RX	-50 dBm max	-50 dBm max	-50 dBm max	-54 dBm max
Output Power	TX	33 dBm ± 0.5 dB	33 dBm ± 0.5 dB	33 dBm ± 0.5 dB	24 dBm ± 0.5 dB
	RX	-3 dBm ± 1 dB	-3 dBm ± 1 dB	-3 dBm ± 1 dB	-3 dBm ± 1 dB
System Gain	TX	23-53 dB	23-53 dB	23-53 dB	14-39 dB
	RX	27-47 dB	27-47 dB	27-47 dB	31-51 dB
Spurious Emissions		Maximum Intermodulation Distortion. TX: ≤ -13 dBm @ 9kHz to 5GHz			
Nominal Impedance		50 Ohm			
VSWR		1.8:1 max.			
NOTES: TX Input power refers to the DAS headend. TX Output power is measured at the antenna port. TX and RX Output power is ± 0.5 dB. Additional gain control available at headend including uplink gain control.					

RF Parameters	700PS	800PS	900 Paging	VHF	UHF
Uplink NF (max.)	6 dB	6 dB	6 dB	6 dB	6 dB
Downlink	758-775	851-860	929-941	136-174	380-512
Uplink	788-805	806-815	896-902	136-174	380-512
NOTES: Noise figure represents system noise and tested with one remote connected. Add 2 dB to noise figure when using the Optic Expansion Unit (OEU or iOEU) or 1-port optic modules.					

Optical	Specification
Wavelength	Tx: 1550 nm; Rx: 1310 nm
Loss	4-port optic module: 5 dBo max.; 1-port optic module: 10 dBo max.

Regulatory	Specification
Type Approval	FCC Part 15 Compliant
FDA/CDRH	This equipment uses a Class 1 LASER according to FDA/CDRH Rules. This product conforms to all applicable standards of 21 CFR Chapter 1, Subchapter J, Part 1040.
UL	UL62638-1 UL Type 4X Enclosure

Mechanical	Specification
Mounting Type	Wall or rack (fits standard 19” rack. 14U height). Vertical mounting only.
Antenna Connectors	4.3-10 Female
External Alarm Interface	6 External Alarms, configurable as input or output relay
Optical Connector	SC / APC, step ferrule, waterproof, single mode fiber, cable gland included
Monitoring Port	SMA Female
Craft Port	Serial interface RS-232 9-pin D-sub Male
Power Consumption	160W for 4 bands (700PS_FN, 800PS, VHF/UHF) 210W for 5 bands (700PS_FN, 800PS, 900_PA, VHF/UHF) 100W for 2 bands (700PS_FN, 800PS)
Dimensions (WxHxD)	19 x 24.8 (14U) x 9.8 inches (482.6mm x 630mm x 250mm) including wall mount bracket
Weight	69 lbs. (31kg) max with 3 RDUs
Ingress Protection	UL Type 4X, NEMA 4X, IP66 Compliant
Operating Environment	Temp: 14° to 122°F / -10° to 50°C / Humidity: 5 to 90% non-condensing

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Product Description

Unit Name	Unit Description
Public Safety Remote Optic Unit (PS2ROU)	Enclosure including RCPU, RPSU_AC or DC, Multiplexer, and R-Optic
Remote Power Supply Unit (RPSU)	AC: 100 to 240V. DC: -42 to -56V
Remote Central Processor Unit (RCPU)	Controls and monitors signals for each unit, has programmable alarm inputs and outputs
Remote Drive Unit (RDU)	Filters and amplifies downlink / uplink signals
Remote Optic Module (R-Optic)	Converts downlink optical signals to RF and uplink RF signals to optical
Multiplexer	Combines downlink signals and separates uplink signals for each band
External Fan Unit (Optional)	Turns on/off automatically based on operator-defined temperature settings

Ordering Information

Base Model: The base model includes the multiplexer, CPU, Power supply unit, R-Optic unit, and wall mount brackets. Specify the power supply type (AC or DC) when ordering.

Amplifier Modules: Order the corresponding amplifiers for the bands you need: (PS2RDU_800PS_700PS_FN, PS2RDU_900_PA, PS2RDU_E_VHF_UHF).

Splitter Kit: Order the splitter kit (PS2WAY_KIT) if using either the 900MHz or VHF/UHF modules, or if using both modules.

Blank Modules: If the remote will support only the PS2RDU_800PS_700PS_FN module, then none are required. For any other scenario, order blanks (ROU_B) for any unused slots.

Rack Mount Kit: Order the rack mount kit (PS2_BRKT_Rack) for mounting the unit in a standard 19” rack. The unit can be wall mounted without any additional hardware.

Part Number	Description
PS2ROU_AC	Public Safety Remote Optical Unit Chassis - AC Power
PS2ROU_DC	Public Safety Remote Optical Unit Chassis - DC Power
ROU_B	Blank Amplifier Module
PS2RDU_800PS_700PS_FN	Amplifier Module, 700PS/800PS including FirstNet
PS2RDU_900_PA	Amplifier Module, 900MHz
PS2RDU_E_VHF_UHF	Amplifier Module, VHF & UHF
PS2WAY_KIT	Divider Kit, Required with either VHF/UHF or 900MHz Modules
PS2_BRKT_Rack	Rack Mount Kit

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TL9000 R6.3 / R5.7 ISO9001 CERTIFIED ISO14001 CERTIFIED ISO45001 CERTIFIED

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