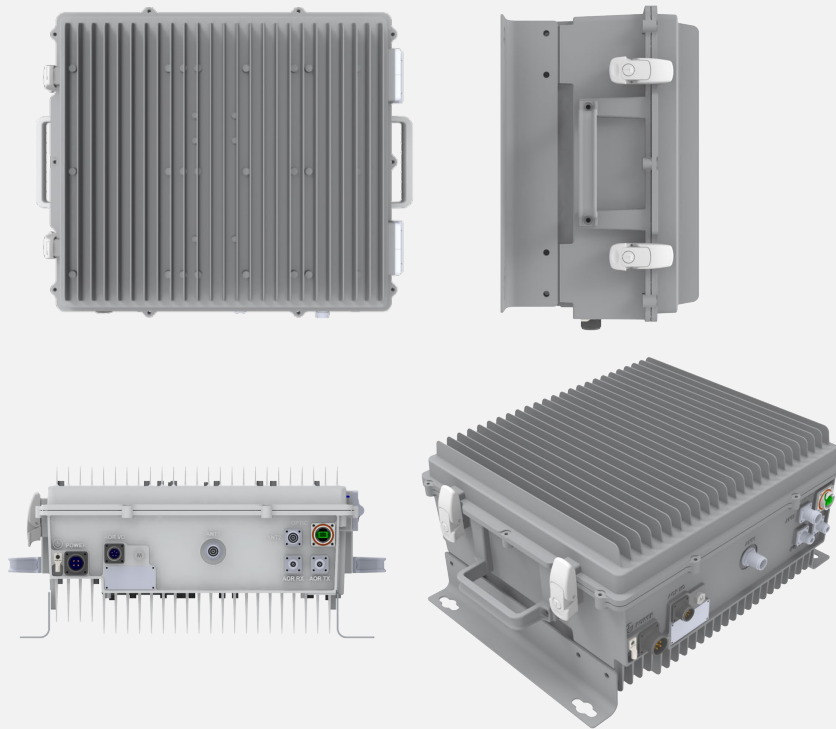


SOLID ALLIANCE™ TR



ALLIANCE-TR is a multi-operator DAS solution that supports wireless services all from a common head end and delivered over a single fiber.

ALLIANCE-TR offers unparalleled RF performance, cost efficiency and flexibility.

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

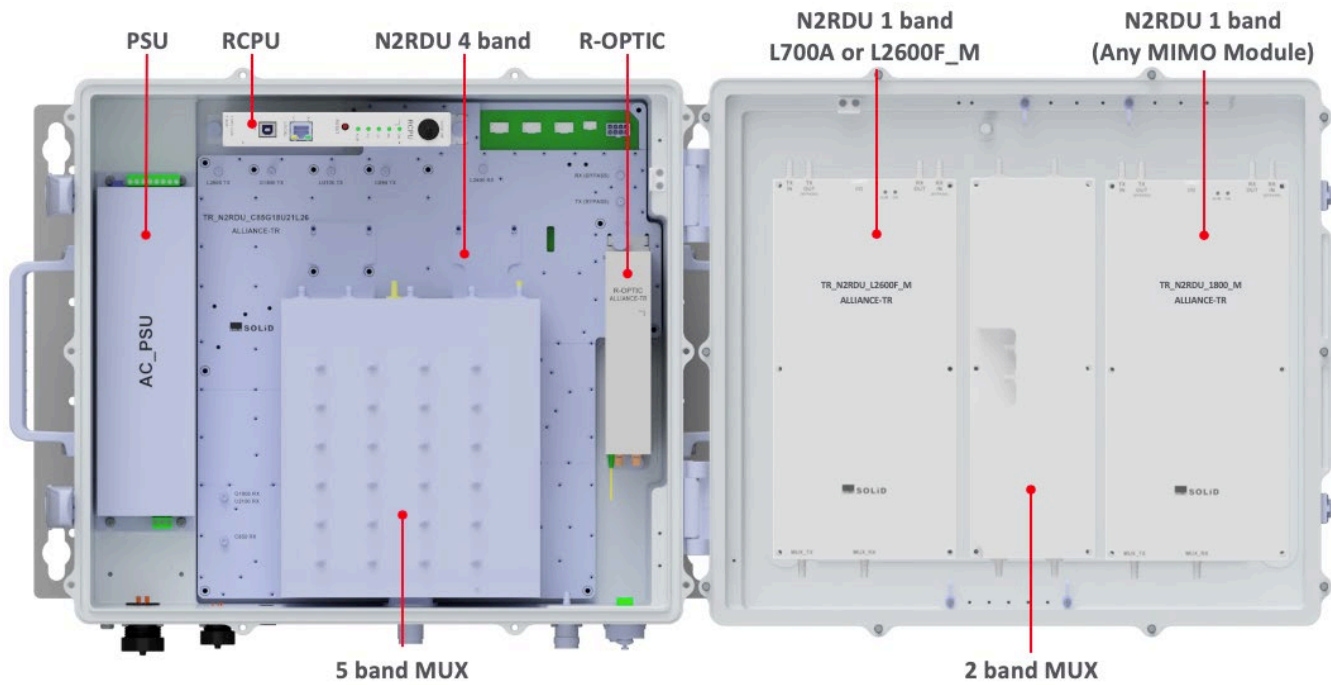
- Guaranteed RF power control
- 4G certified, MIMO capable
- NEMA 4 certified, UL labeled
- Simplified installation, commissioning, management
- Wall, indoor or outdoor mounting
- Convection cooled
- Available in two models to satisfy regional band requirements

Operation

The New 2W Remote Optic Unit (N2ROU) delivers +33 dBm output power at the antenna port. The N2ROU is available in two models to satisfy regional band requirements:

- N2ROU_8519A1326: Base configuration covers 850C, 1900P, AWS13, and L2600F. Optional add-on bands include: L700A, 1900P_M, AWS13_M, or L2600F_M.
- N2ROU_85182126: Base configuration covers 850C, 1800, U2100, and L2600F. Optional add-on bands include: L700A, 1800_M, or L2600F_M.

The N2ROU can support up to five bands simultaneously. The enclosure incorporates a simplified and compact NEMA 4 design. An example configuration is shown below.



Unit Name	Unit Description
New 2W Remote Optic Unit (N2ROU) Enclosure	Includes: 5-band multiplexer, RCPU, R-Optic, AC power supply, and 4-band base N2RDU (850C/1900P/AWS13/L2600F or 850C/1800/U2100/L2600F).
New 2W Remote Drive Unit (N2RDU)	Amplifies down / uplink signals. Each model includes a 4-band base N2RDU. Add-on N2RDUs include SISO L700A and MIMO modules for 1800, 1900P, AWS13, L2600F bands.
Remote Optic Unit	RF to Optic / Optic to RF conversion
Power Supply (RPSU)	AC: 120V (100~240V), Output +29.2V
Remote Central Processor Unit (RCPU)	Controls and monitors signals of each unit. Provides management port.
Multiplexer (SISO 5 band and MIMO 2 band)	To utilize common antenna output, the multiplexer combines Tx signals from the RDUs and distributes Rx signals to the RDUs. - SISO 5 band: covers the base bands plus L700A. - MIMO 2 band: required when using one or both MIMO modules.

Specifications

Mechanical	Specification
Mounting Type	Wall Mounting (indoor or outdoor)
Connectors	Antenna port type: 4.3-10 DIN. Serial interface: RS232 9-pin D-sub Male
Power Consumption	175W (4-band base configuration) 220W (4-band base configuration + L700A) 265W (4-band base configuration + two MIMO modules)
Dimensions	Width: 571mm handle to handle, 535mm with mounting bracket, 470mm w/o bracket Height: 420mm Depth: 260mm Mounting bracket can be removed as needed.
Weight	31.5kg (4-band base configuration) 33kg (4-band base configuration + L700A) 36.5kg (4-band base configuration + two MIMO modules)

Environmental	Specification
Environmental & IP Rating	IP66 Compliant, NEMA4
Operating Temperature (°C)	-10°to 50°C
Operating Humidity	5 to 90% non-condensing

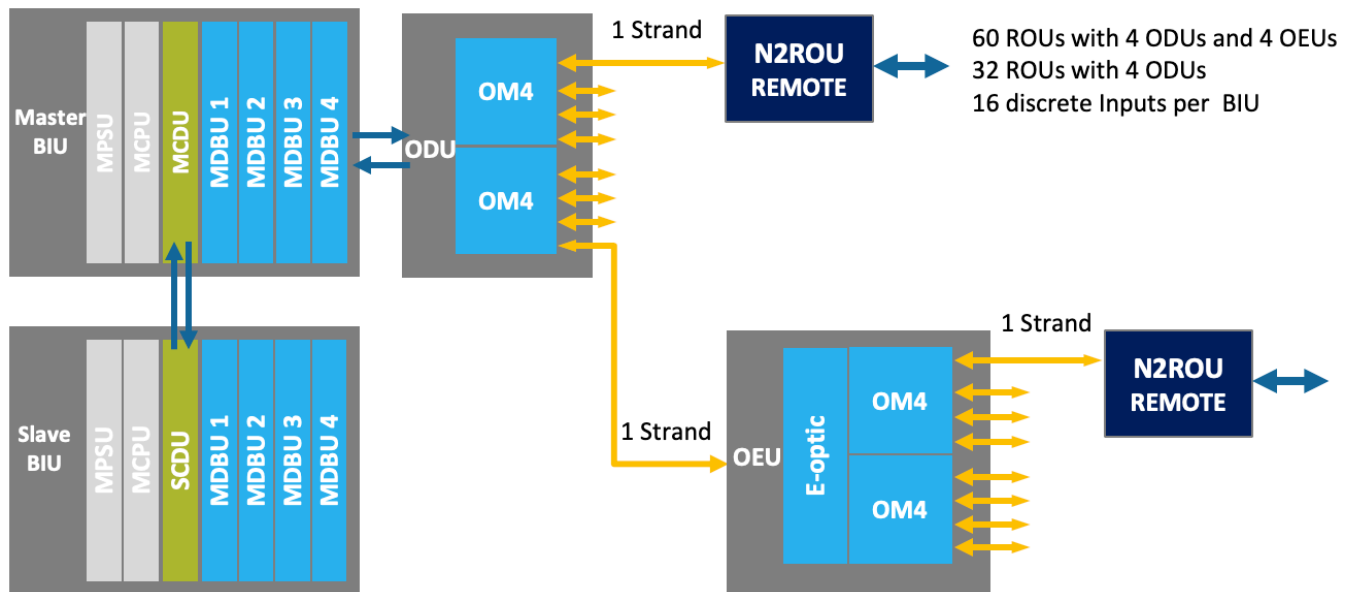
Regulatory	Specification
Type Approval & Certification	UL (UL60950-1), FCC (CE)
EMC	FCC Part 15 compliant (CE)

Optical	Specification
Optic	SC / APC (Step Ferrule)
Laser Diode / Photo Diode	1550nm / 1310nm
Optic Loss	4-port optic module: 5 dBo max. 1-port optic module: 10 dBo max. @ ODU to ROU or OEU to ROU

Frequency Band	Downlink (Tx)			Uplink (Rx)	
	Frequency (MHz)	Bandwidth (MHz)	Output Power (dBm)	Frequency (MHz)	Bandwidth (MHz)
L700A	758 ~ 803	45	33	703 ~ 748	45
850C	869 ~ 894	25	33	824 ~ 849	25
1800 / 1800_M	1805 ~ 1880	75	33	1710 ~ 1785	75
1900P / 1900P_M	1930 ~ 1995	65	33	1850 ~ 1915	65
U2100	2110 ~ 2170	60	33	1920 ~ 1980	60
AWS13 / AWS13_M	2110 ~ 2180	70	33	1710 ~ 1780	70
L2600F / L2600F_M	2620 ~ 2690	70	33	2500 ~ 2570	70

RF Parameters – All Bands		
Input Power	Tx	+23 dBm to 43 dBm
	Rx	-50 dBm max
Output Power	Tx	33 dBm ±0.5dB
	Rx	-5 dBm ±0.5dB
System Gain	Tx	45 dB
	Rx	25 to 45 dB
Noise figure	Rx	6 dB max
Spurious	Tx	Spurious Emissions: ≤-13 dBm @ 9kHz to 5GHz
VSWR	1.5 max at each band In / Out ports	
Nominal Impedance	50 ohm	

Topology



Part Numbers

Part Number	2W N2ROU, RDU Amplifiers
TR_N2ROU_85182126_5B_AC	2 WATT Remote Unit, 850/1800/2100/L2600F – AC (includes 5-band multiplexer)
TR_N2ROU_8519A1326_5B_AC	2 WATT Remote Unit, 850/1900P/AWS13/L2600F – AC (includes 5-band multiplexer)
TR_N2ROU_MUX1826	2 WATT MIMO Multiplexer, 1800_M and/or L2600F_M
TR_N2ROU_MUX1926	2 WATT MIMO Multiplexer, 1900P_M and/or L2600F_M
TR_N2ROU_MUXA1326	2 WATT MIMO Multiplexer, AWS13_M and/or L2600F_M
TR_N2RDU_700A	2 WATT Amplifier Module, 700A
TR_N2RDU_1800_M	2 WATT Amplifier Module, 1800_M
TR_N2RDU_1900P_M	2 WATT Amplifier Module, 1900P_M
TR_N2RDU_AWS13_M	2 WATT Amplifier Module, AWS13_M
TR_N2RDU_L2600F_M	2 WATT Amplifier Module, L2600F_M

Ordering Information

The base models include a 4-band N2RDU (850C/1900P/AWS13/L2600F or 850C/1800/U2100/L2600F), 5-band multiplexer, CPU, AC power supply, and R-Optic unit. The L700A band module and MIMO modules can be ordered at initial purchase or added later in the field. The L700A module connects to the 5-band multiplexer. An additional 2-band MIMO multiplexer is required when using one or two MIMO modules.



Brazil: Av. Paulista, 2300, Andar Pilotis, CEP 01310-300, São Paulo – SP, Brazil
Mexico: Av. Juan Vázquez de Mella 481, Edificio CAD, Segundo Piso, Oficina 42 Col. Los Morales, Del. Miguel Hidalgo, Polanco, C.P 11510, Ciudad de México