

700 / PCS / AWS / 2500T – 600 / 8085 / WCS / CBRS Version



ALLIANCE provides a flexible system architecture. A mixture of edgeROU, N2ROU, MROU, HROU, and MPROU remotes may be connected to a common iBIU headend to solve any coverage requirement.

The edgeROU is the smallest, highest power, and lowest cost fiber-to-the-edge active DAS remote available.

The edgeROU remotes require the edgeHUB for power and optical connection to the headend.

The edgeROU features:

- Integrated and external antenna options
- Support for four frequency bands
- Small size – 8.7" x 8.7" x 3.5"
- Multiple configuration options
- Flexible mounting options

System Architecture

Flexible architecture: the ALLIANCE headend supports all remote types.

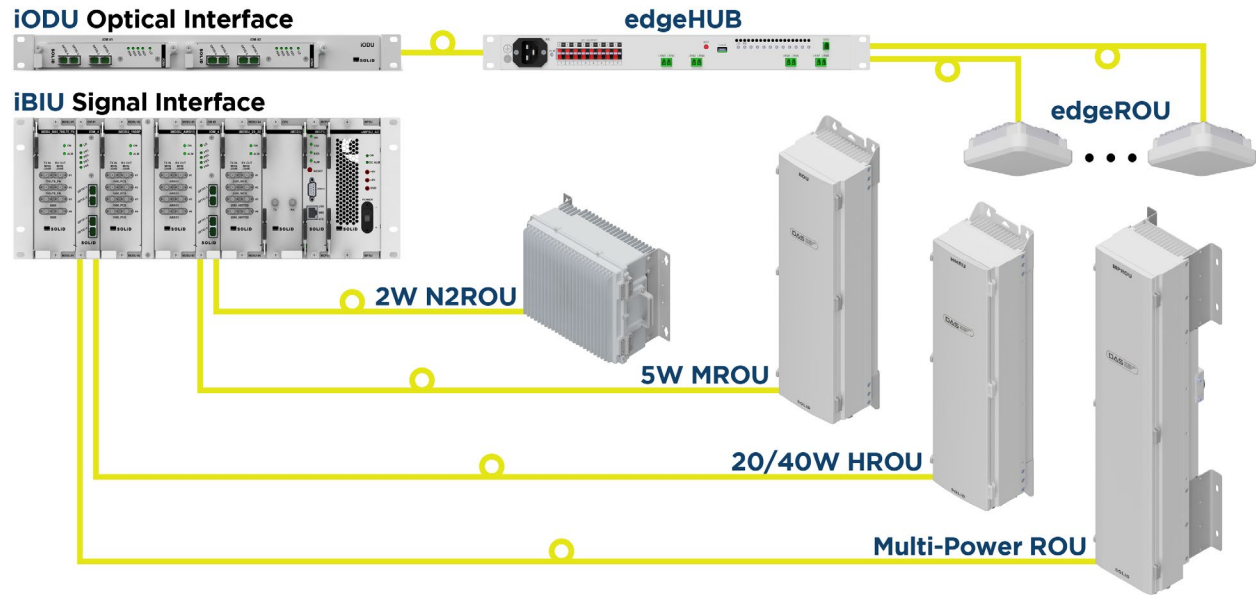
DMS1200 System Management



iODU Optical Interface

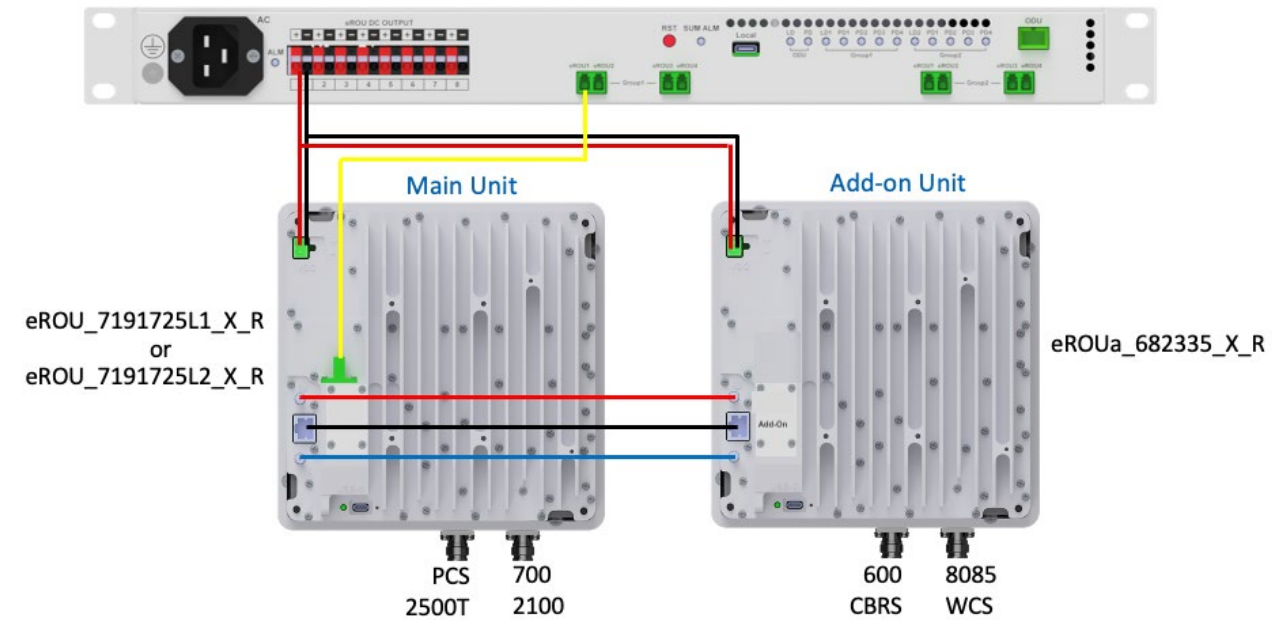


iBIU Signal Interface

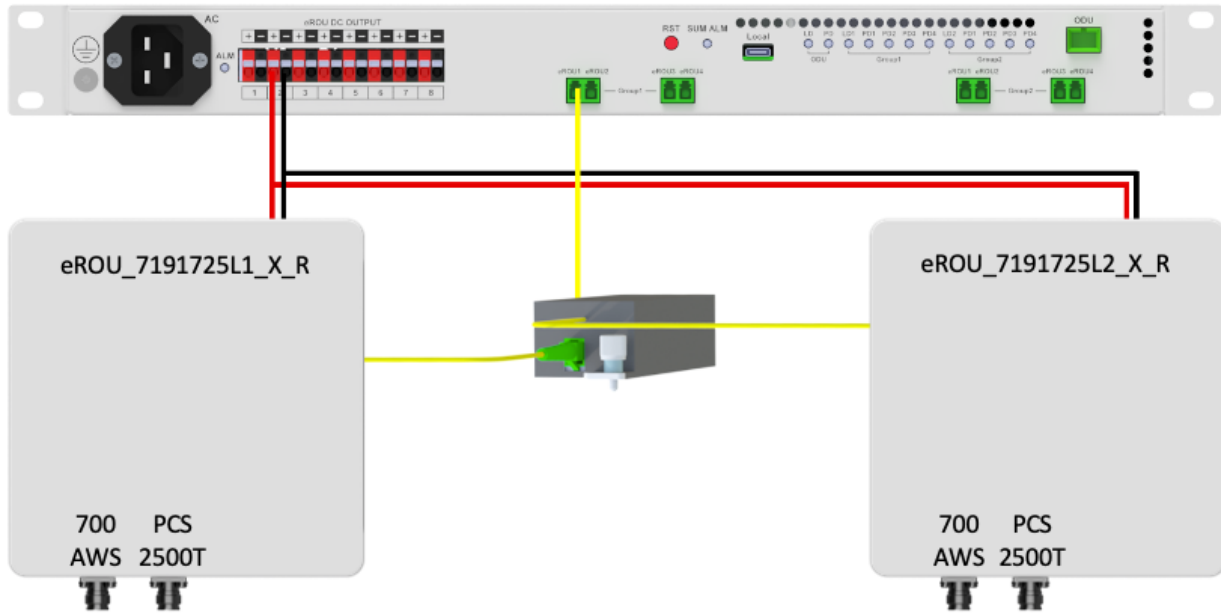


Flexible deployments:

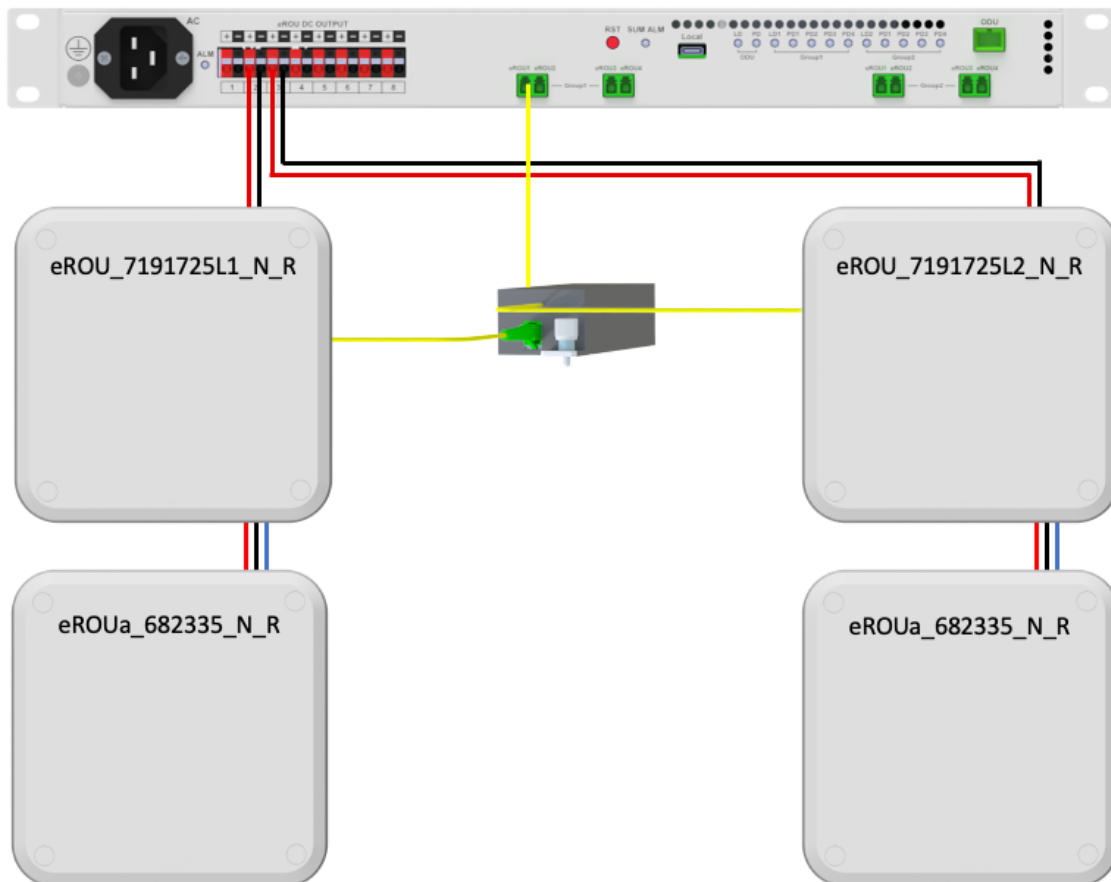
edgeROU Main and edgeROU Add-on are co-located.



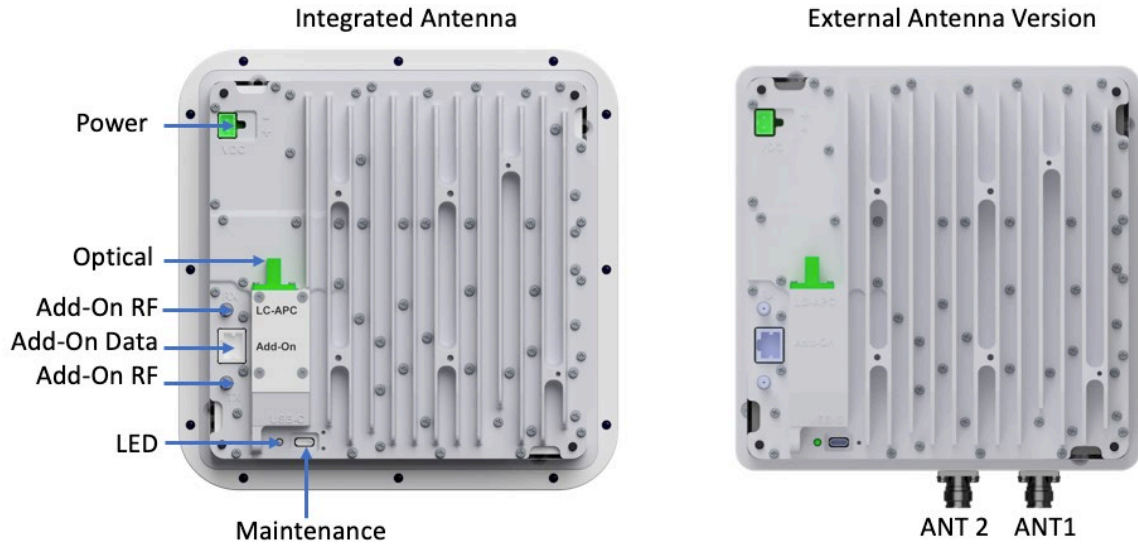
Two edgeROUs in separate locations in cascade configuration using an optical coupler (requires different Lambda versions).



edgeROU Cascade + Add-on. Enables four edgeROUs to share a single edgeHUB optical port.



edgeROU Components



| edgeROU | Notes |
|--|---|
| Power IN | Terminal_Block_CONN_2P (TLPS-302V-02P-G) |
| Optical Port | Optical connection to edgeHUB, LC/APC |
| Add on RF | RF connection to edgeROU Add-on, 2 QMA-type female |
| Add on Data | Data connection to edgeROU Add-on, RJ45 |
| Maintenance Port | For connection to management PC, USB-C |
| LED Indicator | Status indicator: Green: normal operation. Red: summary alarm |
| Antenna Ports (External Antenna version only) | Two 2.2-5 type female |

edgeROU Specifications

| Frequency Bands, MHz | | | |
|----------------------|---------------|------------------------|-------------------------|
| Band | Downlink (TX) | Uplink (RX) | Instantaneous Bandwidth |
| 600 | 617 - 652 | 663 - 698 | 35 |
| 700 | 729 - 768 | 699 - 716 777 - 798 | 39 DL / 38 UL |
| 8085 | 862 - 894 | 817 - 849 | 32 |
| PCS | 1930 - 1995 | 1850 - 1915 | 65 |
| AWS | 2110 - 2180 | 1710 - 1780 | 70 |
| WCS | 2350 - 2360 | 2305 -2315 | 10 |
| 2500T | 2496 - 2690 | 2496 - 2690 | 194 |
| CBRS | 3550 - 3700 | 3550 - 3700 | 150 |

Each remote unit will have a subset of these bands.

| edgeROU RF Characteristics | |
|---|---|
| Output Power (External Antenna Versions) | 19 dBm (600/700/8085), 23 dBm (PCS/AWS/WCS/2500T/CBRS) |
| EIRP (Internal Antenna Versions) | 20 dBm (600/700), 21 dBm (8085), 25 dBm (PCS), 26 dBm (AWS), 27 dBm (WCS), 28 dBm (2500T/CBRS) |
| Input Power | ≤ -50 dBm |
| ALC Range | 25 dB |
| VSWR | < 1.8:1 |

| RF Parameters | 600 MHz | 700LTE + Band 14 | 800/ 850 Cell | 1900 PCS | 2100 AWS | 2300 WCS | 2500TDD (FB) | 3500 CBRS |
|---------------------|---------|------------------|---------------|----------|----------|----------|--------------|-----------|
| NF UL (typical) | 7.4 dB | 7.8 dB | 6.1 dB | 7.1 dB | 4.7 dB | 5.8 dB | 6.5 dB | 8.0 dB |
| NF UL (max) | 8.0 dB | 8.4 dB | 6.9 dB | 7.6 dB | 5.8 dB | 6.3 dB | 7.1 dB | 8.4 dB |
| IIP3 UL (typical) | -16.9 | -17.7 | -17.3 | -18.0 | -17.4 | -17.1 | -21.4 | -21.7 |
| IIP3 UL (max) | -18.0 | -18.6 | -17.8 | -19.1 | -18.4 | -18.5 | -22.4 | -23.0 |
| EVM DL (typical) | 1.7 % | 2.0 % | 1.4 % | 3.0 % | 2.4 % | 2.0 % | 3.2 % | 1.7 % |
| EVM DL (max) | 1.8 % | 2.2 % | 2.0 % | 3.5 % | 2.6 % | 2.7 % | 3.4 % | 2.3 % |
| Ripple DL (typical) | 1.6 dB | 1.7 dB | 2.2 dB | 3.4 dB | 2.7 dB | 1.5 dB | 3.4 dB | 2.8 dB |
| Ripple DL (max) | 5dB | 5dB | 5dB | 5dB | 5dB | 5dB | 5dB | 5dB |

NOTES: NF (noise figure) represents system noise tested with one remote connected. EVM performance includes 0.7% error from signal source. NF, IIP₃ and EVM specs are measured with 0 dB attenuation.

| System RF Characteristics | |
|------------------------------------|--|
| System Gain (excluding POI) | TX: < 1GHz: 39 dB per band TX: > 1GHz: 43 dB per band RX: 47 dB (FDD); 27 dB (TDD) |
| Gain Control Range Step: 0.5 dB | TX: 30 dB iMDBU; 25 dB edgeROU RX: 30 dB iMDBU; 25 dB edgeROU |

| edgeROU Optical Characteristics | |
|---|---|
| Optical Wavelength | TX: 1310nm, RX: 1550nm |
| Number of Optical Fibers | One (WDM), LC-APC |
| Optical Link Budget edgeHUB to edgeROU | 5 dBo without optical coupler; 1 dBo with optical coupler |

| edgeROU Power Supply | |
|----------------------|---------------|
| Voltage | 39 to 57 VDC |
| Power Consumption | 35 watts, max |

| Power Cabling Max Length from edgeHUB to edgeROU (AWG #14~18 copper wire recommended) | | |
|--|----------------|-------------------|
| Each power port from the edgeHUB or Expansion Power Supply (EPSU) can provide power for one edgeROU or, by splitting the power lead, two edgeROUs. | 1 edgeROU | 2 edgeROUs (each) |
| | AWG 14: 1,000m | AWG 14: 300m |
| | AWG 16: 600m | AWG 16: 200m |
| | AWG 18: 400m | AWG 18: 100m |

| edgeROU Physical Characteristics | |
|---|---|
| Size (WxHxD) | Internal antenna: 220 x 220 x 90mm (8.7 x 8.7 x 3.5 in) |
| | External antenna: 200 x 200 x 73 mm (7.9 x 7.9 x 2.9 in) |
| Weight | Internal antenna: 2.6 kg, 5.7 lbs. |
| | External antenna: 3.0 kg, 6.6 lbs. |
| Sealing Class | IP50 |
| Mounting | Wall or ceiling (recessed or above) |
| Operating Temperature | -5 to +50 °C, +23 to +122 °F |
| Operating Humidity | 5% to 90%, non-condensing |
| Cooling | Convection |

| edgeROU Physical Interfaces | | | |
|------------------------------------|---|--------|-----------|
| External Antenna | Two 2.2-5, female | | |
| External Antenna Ports | eROU_7191725_X_R (Applies to both L1 and L2) | Port 1 | 700/AWS |
| | | Port 2 | PCS/2500T |
| | eROUa_682335_X_R | Port 1 | 8085/WCS |
| | | Port 2 | 600/CBRS |
| Power | Two pin header | | |
| Optical | One LC-APC, simplex, single mode | | |
| Management | USB-C | | |
| Add On edgeROU | Two QMA female, one RJ45 | | |

| edgeROU Standards Compliance |
|--|
| <ul style="list-style-type: none"> EN 62368-1 FCC Part 15, Class A, FCC Part 22, FCC Part 24, FCC Part 27, FCC Part 90, FCC Part 96 UL2043 Plenum WEEE |
| 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. |

Ordering Information

| eROU Remote Units | |
|--------------------|--|
| eROU_7191725L1_X_R | eROU, Main, 700/1900/AWS13/2500, Lambda 1, External Antenna, 2.2-5 |
| eROU_7191725L1_N_R | eROU, Main, 700/1900/AWS13/2500, Lambda 1, Internal Antenna |
| eROU_7191725L2_X_R | eROU, Main, 700/1900/AWS13/2500, Lambda 2, External Antenna, 2.2-5 |
| eROU_7191725L2_N_R | eROU, Main, 700/1900/AWS13/2500, Lambda 2, Internal Antenna |
| eROUa_682335_X_R | eROU, Addon, 600/8085/2300/3500, External Antenna, 2.2-5 |
| eROUa_682335_N_R | eROU, Addon, 600/8085/2300/3500, Internal Antenna |
| Accessories | |
| eROU_WALL_BKT | edgeROU Wall Mount Bracket |
| eROU_CEILING_BKT | edgeROU Drop Ceiling Mount Bracket |
| eROU_PSU_KIT | edgeROU External PSU, 2m Cable, Adapter (Optional) |
| eROU_CASCADE_KIT | Optical Coupler, edgeROU Cascade |

Related information is available in these documents from the [SOLiD Support](#) website.

SOLiD Data Sheet - ALLIANCE edgeROU version 17192325-67835

SOLiD Data Sheet - ALLIANCE edgeROU version 781719

SOLiD Data Sheet - ALLIANCE edgeHUB

SOLiD Data Sheet - ALLIANCE Expansion Power Supply Unit (EPSU)

ALLIANCE DAS - edgeHub-edgeROU Operations & Install Guide



SOLID Gear, Inc.
 800 Klein Road, Suite 200
 Plano, TX 75074
 PHONE: 888.409.9997
 EMAIL: sales@solid.com
 WEB: www.solid.com

