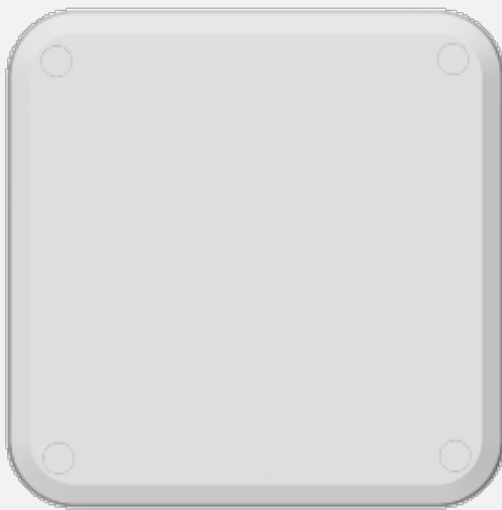


**ALLIANCE Multi-Operator DAS**  
**Multiband edgeROU Fiber2Antenna™**  
**Product Specifications / Parts List**

Main: 700 / PCS / AWS / 2500T – Add-on: 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.**

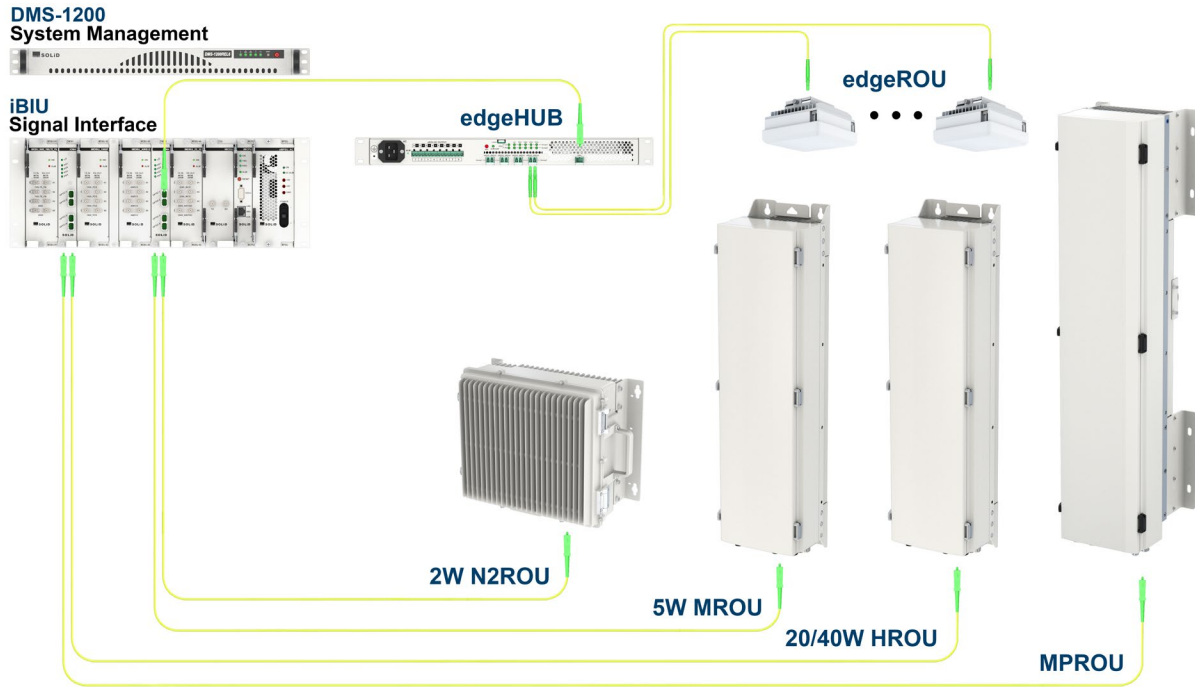
**The edgeROU remotes require the edgeHUB for power and optical connection to the headend.**

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

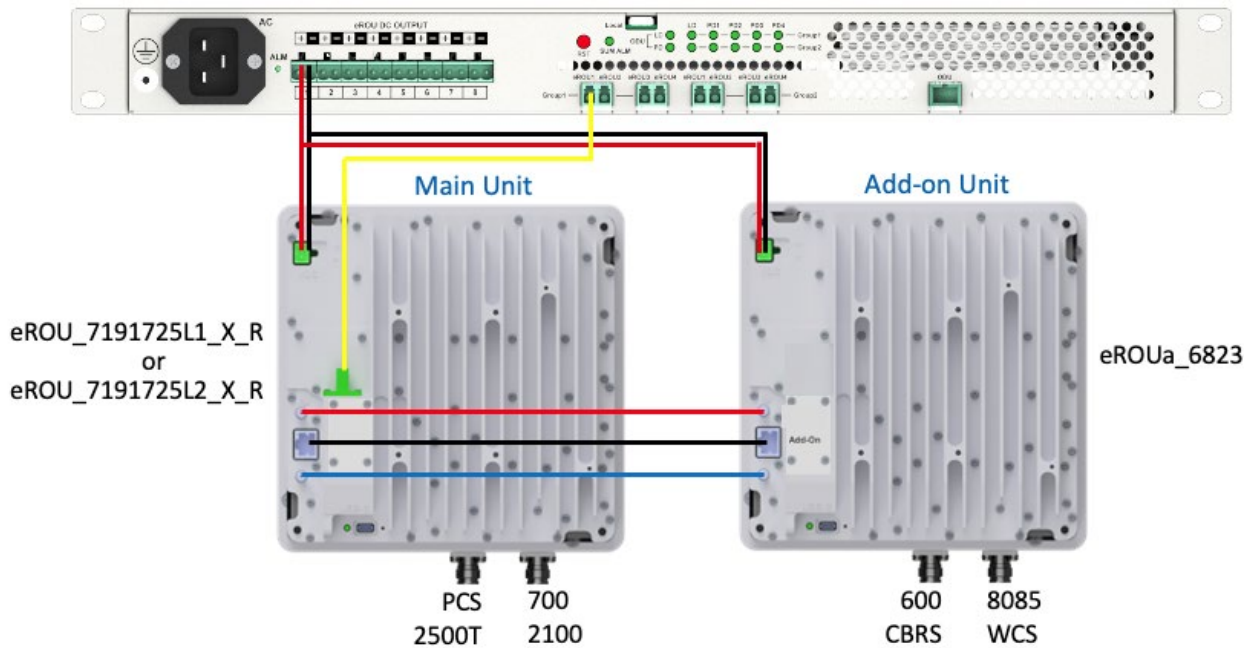
# System Architecture

Flexible architecture: the ALLIANCE headend supports all remote types.

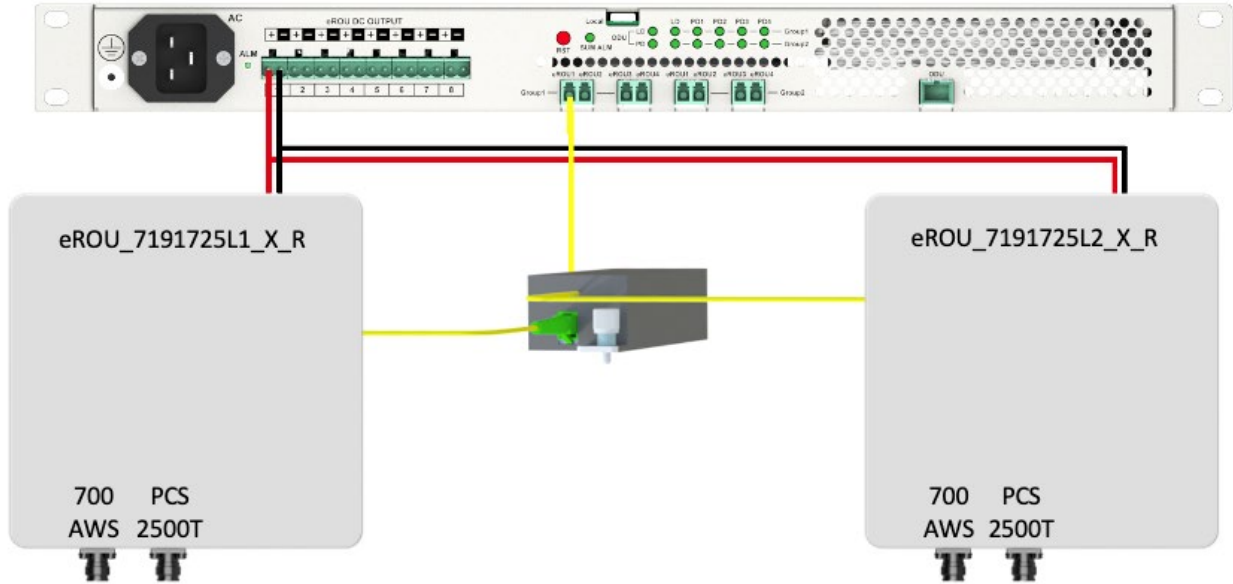


Flexible deployments:

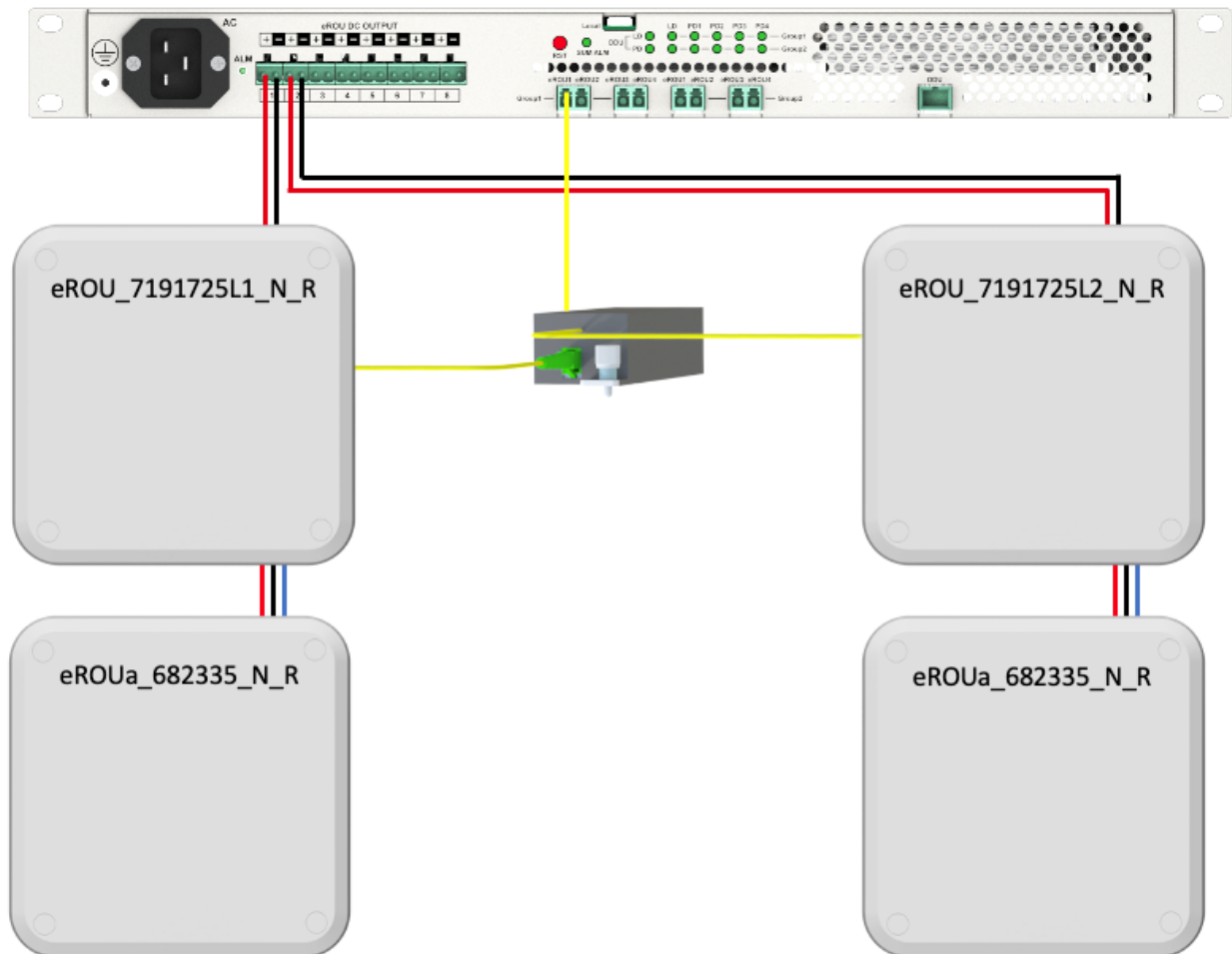
edgeROU Main and edgeROU Add-on are co-located.



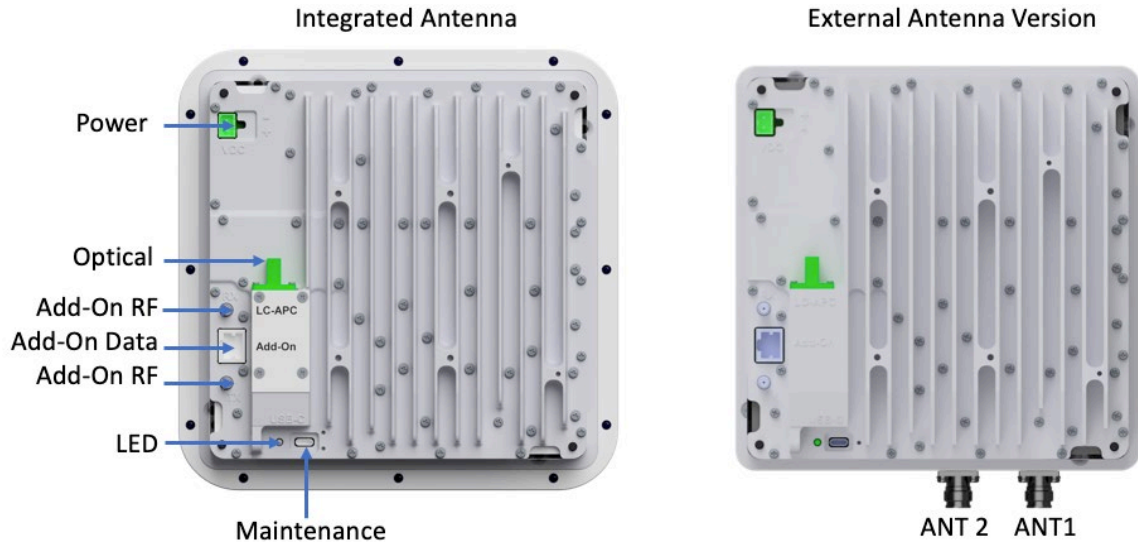
Two edgeROUs in separate locations in cascade configuration using an optical coupler (requires different Lambda versions).



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 (max)	< 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, IIP<sub>3</sub> and EVM specs are measured with 0 dB attenuation. IIP<sub>3</sub> spec is measured at -50dBm input power.

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

<b>Power Cabling Max Length from edgeHUB to edgeROU (AWG #14~18 copper wire recommended)</b>		
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

<b>edgeROU Physical Characteristics</b>	
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

<b>edgeROU Physical Interfaces</b>			
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		

<b>edgeROU Standards Compliance</b>	
	<ul style="list-style-type: none"> <li>EN 62368-1</li> <li>FCC Part 15, Class A, FCC Part 22, FCC Part 24, FCC Part 27, FCC Part 90, FCC Part 96</li> <li>UL2043 Plenum</li> <li>WEEE</li> </ul>
	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 edgeROU Version 7191725-682335*

*SOLiD Data Sheet - ALLIANCE edgeROU C-Band Version*

*SOLiD Data Sheet - ALLIANCE edgeHUB*

*SOLiD Data Sheet - ALLIANCE edgeHUB WDM Version*

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

*ALLIANCE DAS - edgeHub-edgeROU Operations & Install Guide*



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