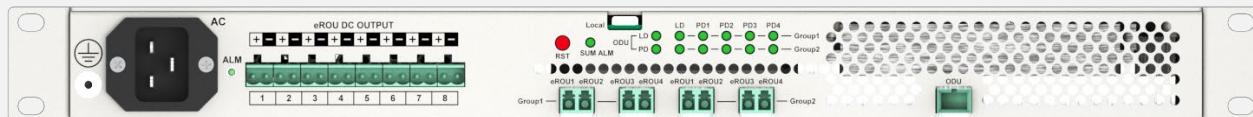


ALLIANCE Multi-Operator DAS
Multiband edgeROU Fiber2Antenna™
Product Specifications / Parts List

Main: PCS / AWS / WCS / 2500T – Add-on: 600 / 700 / 8085 / CBRS



ALLIANCE provides a flexible system architecture where any combination of ALLIANCE remote units 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.

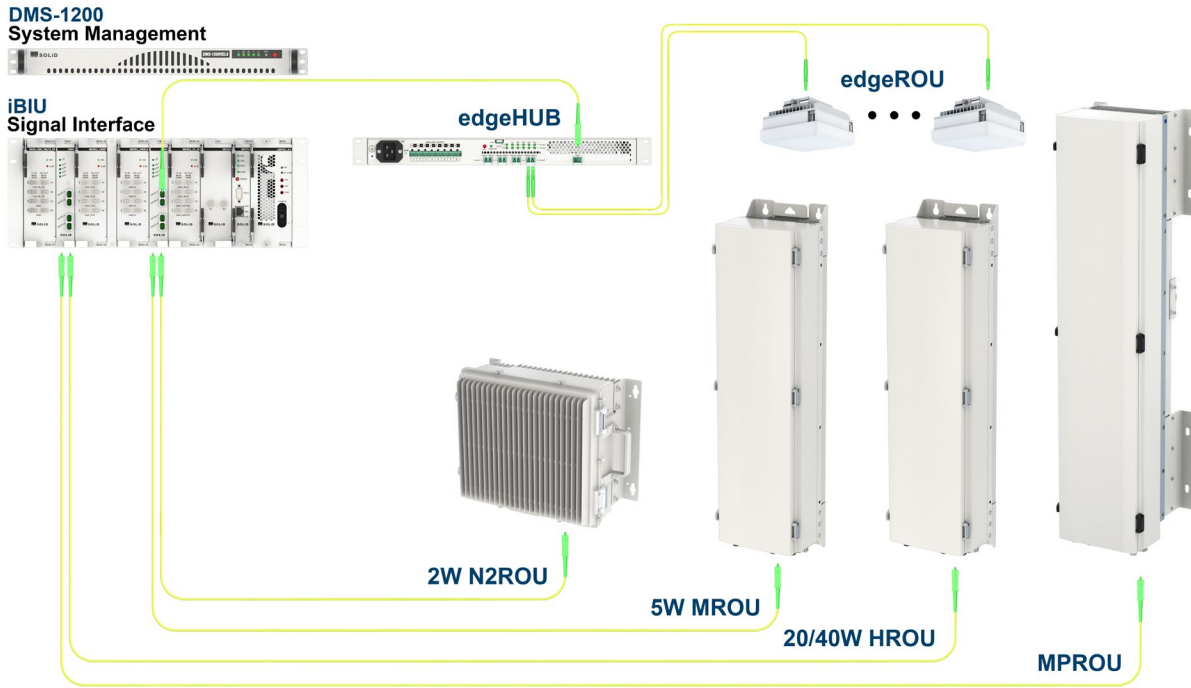
The edgeROU remotes require the edgeHUB for power and optical connection to the headend.

The edgeROU features:

- External antenna port(s)
- Support for four frequency bands
- Compact size – 7.9” x 7.9” x 3.1”
- Flexible deployment configurations
- Flexible mounting options

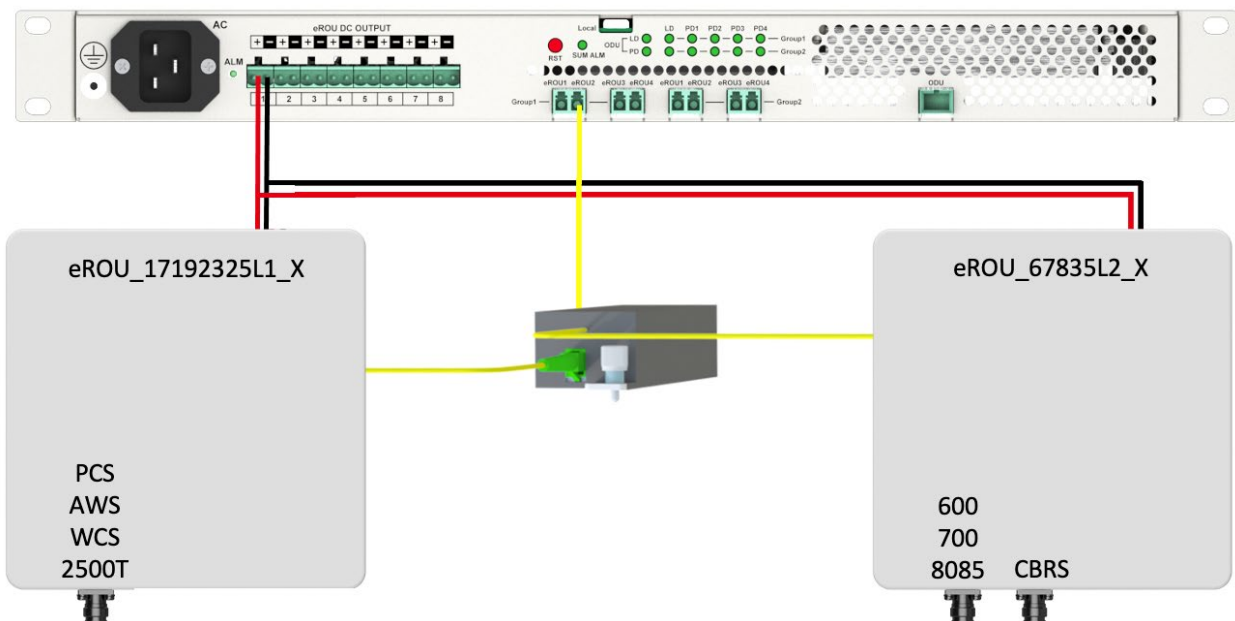
System Architecture

Flexible architecture: the ALLIANCE headend supports all remote types.

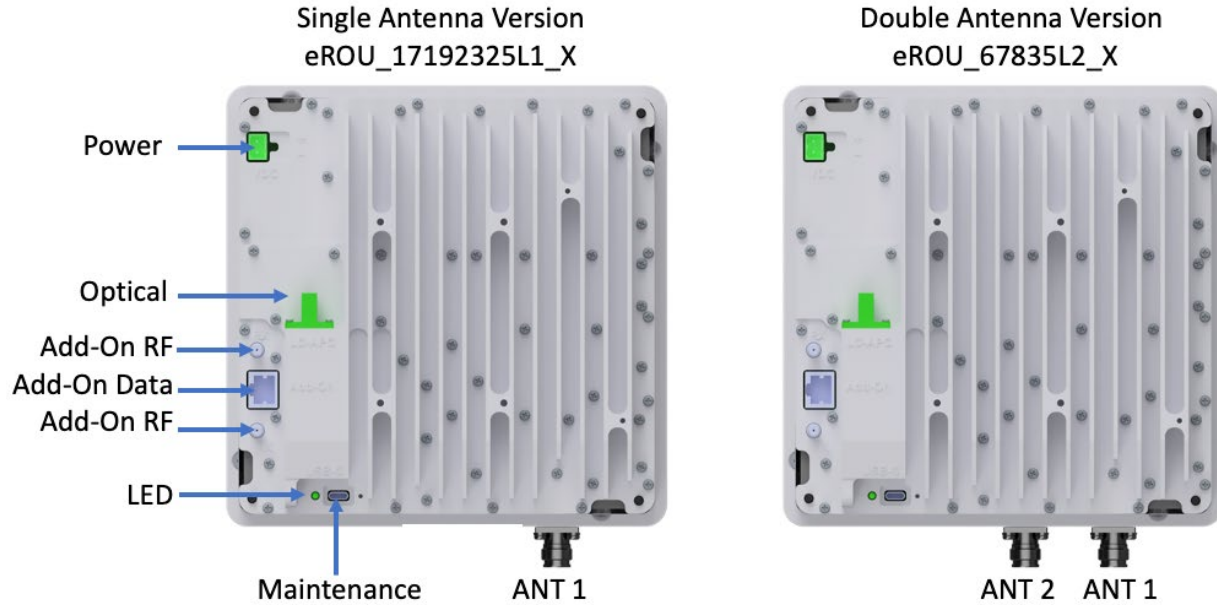


Flexible deployment: Two edgeROUs can share a single edgeHUB optical and power port

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



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
External Antenna Ports	2.2-5 type female: Two antenna ports for eROU 6-7-8-35; One antenna port for eROU 17-19-23-25

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 - 2020	1850 - 1915	90 DL / 65 UL
AWS *	2110 - 2180	1695 - 1780	70 DL / 85 UL
WCS	2350 - 2360	2305 -2315	10
2500T	2496 - 2690	2496 - 2690	194
CBRS	3550 - 3700	3550 - 3700	150

* Includes Band 70
Each remote unit will have a subset of these bands.

edgeROU RF Characteristics	
Output Power	17 dBm (600/700/8085), 21 dBm per band (PCS/AWS/WCS/2500T) 23 dBm (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 AWS1+3	2300 WCS	2500TDD (FB)	3500 CBRS
NF UL (typical)	5.3	6.0	5.6	7.4	4.4	5.6	6.9	8.1
NF UL (max)	6.1	7.7	7.1	7.8	5.1	6.2	7.8	8.3
IIP3 UL (typical)	-20.2	-19.6	-20.0	-19.0	-18.8	-20.2	-21.7	-23.0
IIP3 UL (max)	-21.3	-20.4	-20.8	-19.6	-19.9	-21.0	-23.8	-24.8
EVM DL (typical)	1.6	1.1	2.0	1.6	1.3	1.5	2.3	1.5
EVM DL (max)	2.0	1.4	2.1	1.9	1.4	1.9	2.6	1.8
Ripple DL (typical)	4.3	3.1	3.3	3.7	1.3	1.5	3.4	3.4
Ripple DL (max)	5	5	5	5	5	5	5	5

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. IIP₃ spec is measured at -50dBm input power.

System RF Characteristics	
System Gain (excluding POI)	TX: < 1GHz: 37 dB per band > 1GHz to < 3GHz: 41 dB per band > 3GHz (CBRS): 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

edgeHUB to 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)	200 x 200 x 78 mm (7.9 x 7.9 x 3.1 in)
Weight	4.5 kg, 9.9 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	One or Two 2.2-5, female		
External Antenna Ports	eROU_17192325L1_X	Port 1	All Bands
	eROU_67835L2_X	Port 1	600/700/8085
		Port 2	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 	
<p>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.</p>	

Ordering Information

edgeROU Remote Units	
eROU_17192325L1_X	edgeROU, Main, PCS/AWS/WCS/2500T, Lambda 1, One External Antenna, 2.2-5
eROU_67835L2_X	edgeROU, Main, 600/700/8085/CBRS, Lambda 2, Two External Antennas, 2.2-5

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

Additional information is available in the following documents, available from [SOLiD Support](#). See Also:

SOLiD Data Sheet - ALLIANCE edgeROU Version 7191725-682335

SOLiD Data Sheet - ALLIANCE edgeROU Version 781719

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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