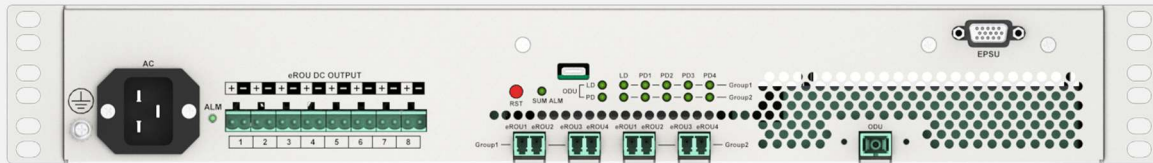


Main: C-Band MIMO (3700 – 3980MHz) – Add-on: 3450 MIMO (3450-3550MHz)



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

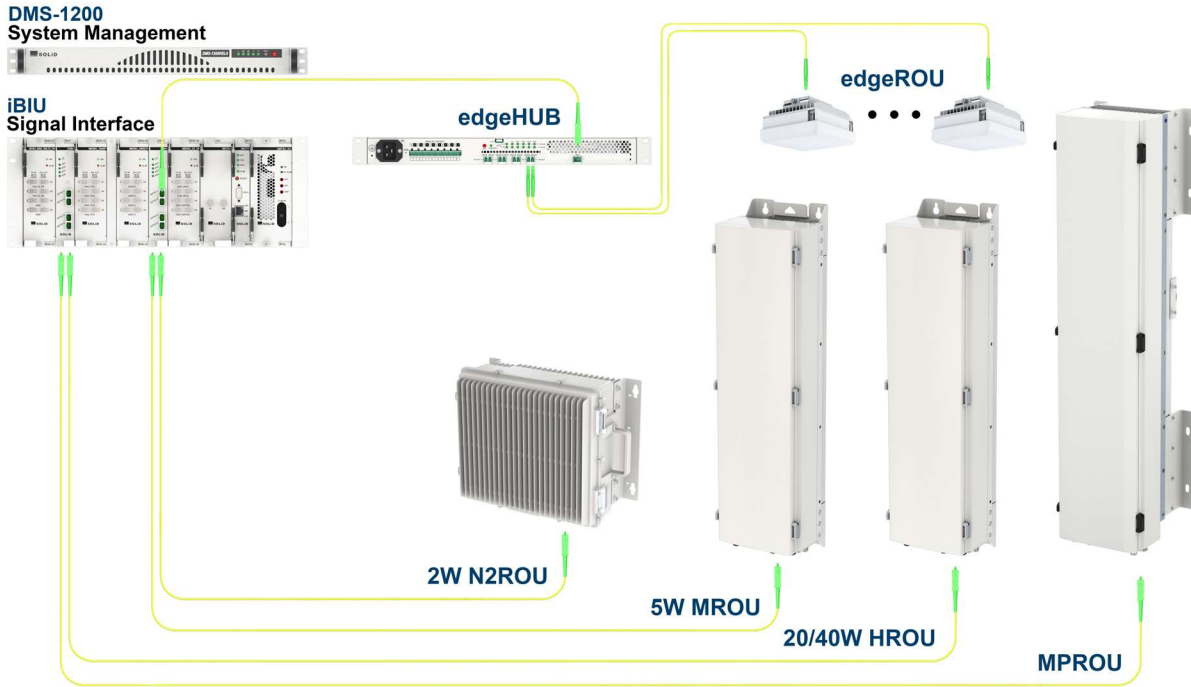
The edgeROU remotes require the edgeHUB for power and optical connection to the headend.

The C-Band edgeROU features:

- Main unit supporting C-Band MIMO (3700MHz-3980MHz)
- Add-on units covering either 3450 MIMO (3450-3550 MHz) or 700/8085/2100/1900 (SISO)
- All bands supported over a single fiber
- Integrated and external antenna options
- Compact size
- Flexible mounting options

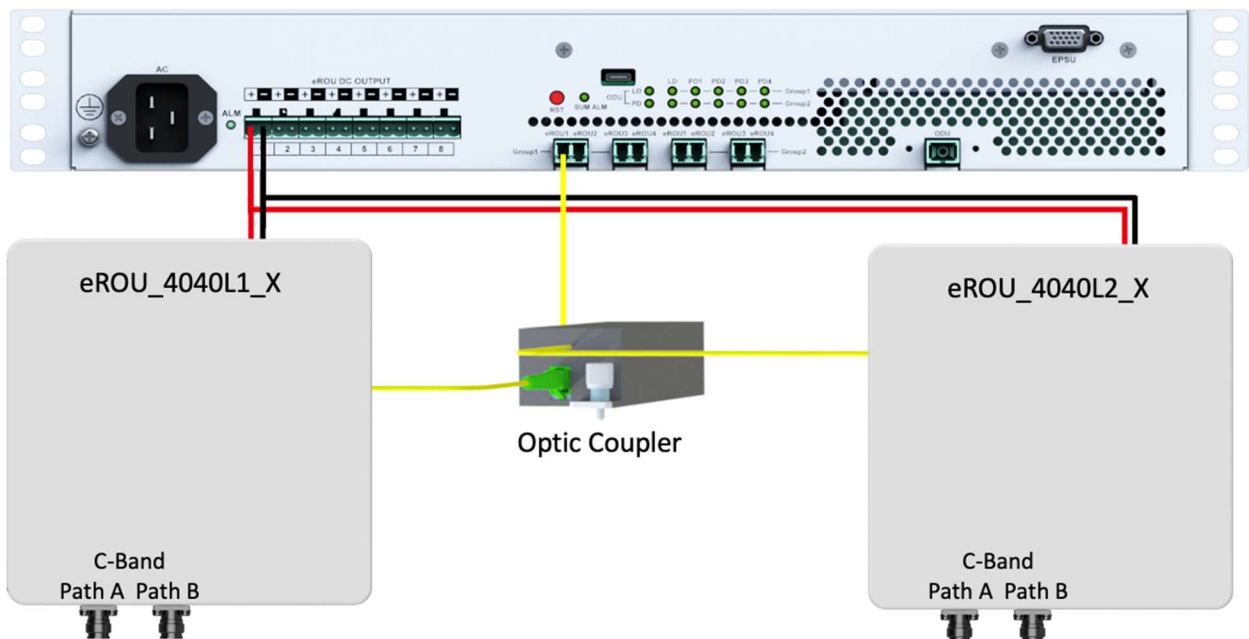
System Architecture

Flexible Architecture: the ALLIANCE headend supports all remote types.

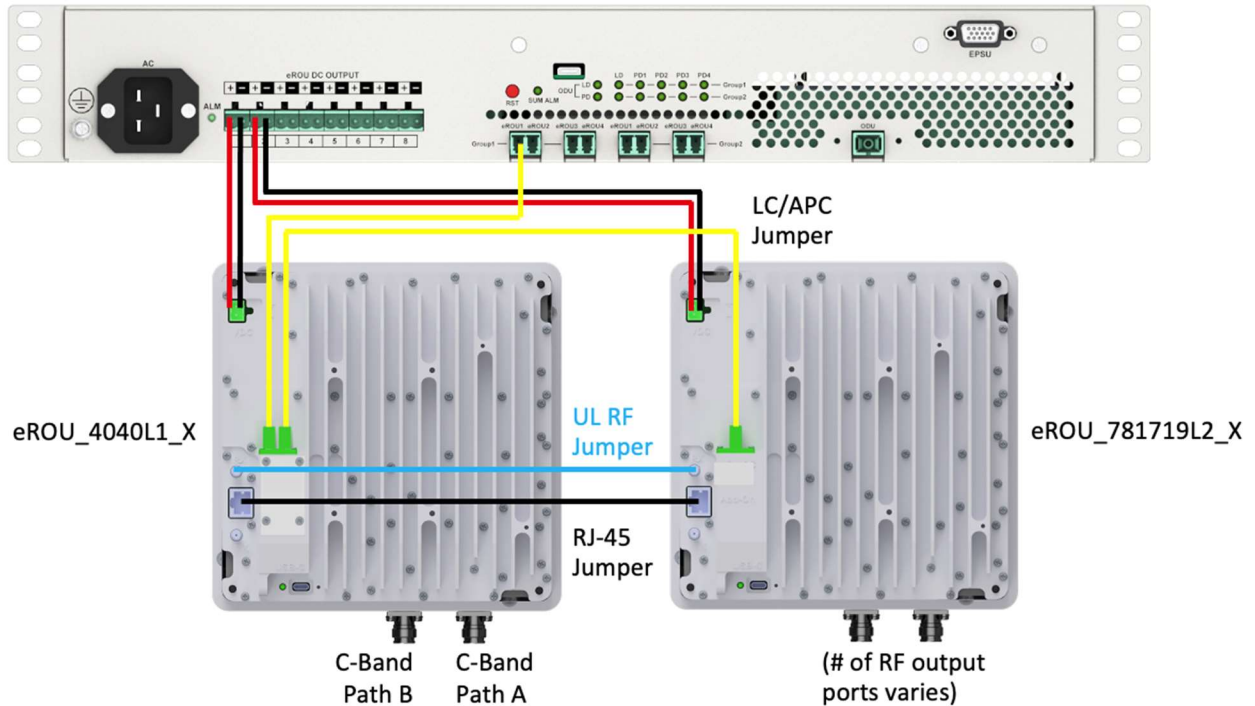


Flexible Deployments

The eROU_4040 main unit and eROUa_3434 add-on can be deployed together as a standalone network. For increasing band coverage, the eROU_4040 main unit can also be cascaded with a second eROU_4040 unit. Cascading two main units requires mixing the Lambda versions (i.e., pair L1 with L2 or L2 with L1) and using the optic coupler (eROU_CASCADE_KIT) to split the optical feed from the eHUB. When cascaded, each eROU_4040 main unit can also accept an eROUa_3434 add-on.

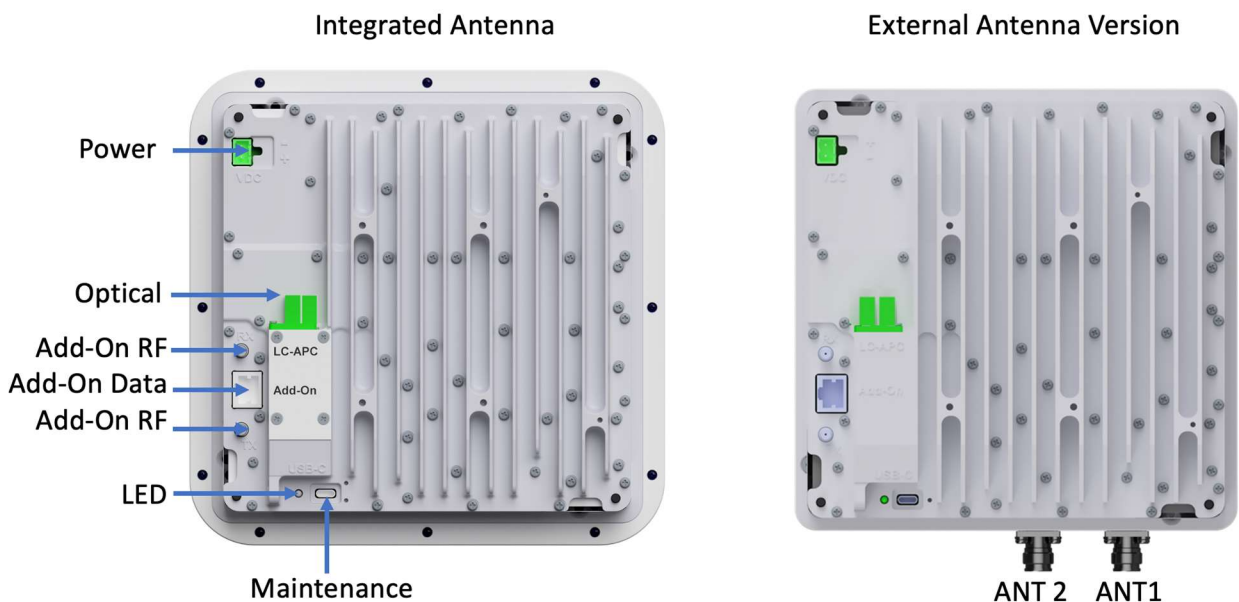


The eROU_4040 main unit can also be paired with the eROU_781719 main unit. When pairing these units, mix the Lambda versions. For example, pair eROU_4040L2 with eROU_781719L1 or pair eROU_4040L1 with eROU_781719L2. The eROUa_3434 add-on cannot be used if the eROU_4040 is being used as an add-on to eROU_781719.



The eROU_4040 main unit and eROUa_3434 add-on are offered with internal or external antennas. The C-Band and/or A110 edgeROUs require the edgeHUB WDM version for power and optical connection to the headend and the corresponding iMDBUs in the headend that support these bands.

edgeROU Components



edgeROU	Notes
Power IN	Terminal_Block_CONN_2P (TLPS-302V-02P-G)
Optical Ports	1) Optical connection to edgeHUB, LC/APC 2) Optical connection to add-on eROU_781719, 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	Frequency	Maximum Occupied Bandwidth
C-Band	3700 - 3980	280
3450	3450 - 3550	100

edgeROU RF Characteristics	
Output Power (External Antenna Versions)	C-Band: 24 dBm (Path A and Path B) 3450: 21 dBm (Path A and Path B)
EIRP (Internal Antenna Versions)	C-Band: 28.5 dBm (Path A and Path B) 3450: 25.5 dBm (Path A and Path B)
Input Power	≤ -50 dBm
ALC Range	25 dB
VSWR (max)	< 1.8:1

RF Parameters	C-Band 3700 - 3980	3450 3450 - 3550
NF UL (typical)	7.1 dB	7.3 dB
NF UL (max)	7.9 dB	7.8 dB
IIP3 UL (typical)	-23.6	-21.7
IIP3 UL (max)	-23.9	-21.3
EVM DL (typical)	1.5 %	1.4 %
EVM DL (max)	1.8 %	1.8 %
Ripple DL (typical)	4.6 dB	3.6 dB
Ripple DL (max)	5 dB	5 dB

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: C-Band 44 dB per band; 3450 41 dB per band RX: 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: 1330nm, 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	
Cable Distance (Typical)	1 edgeROU	2 edgeROUs
	AWG 14: 1,000m	AWG 14: 300m
	AWG 16: 600m AWG 18: 400m	AWG 16: 200m 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 Temp / Humidity	-5 to +50 °C, +23 to +122 °F / 5% to 90%, non-condensing
Cooling	Convection

edgeROU Physical Interfaces			
External Antenna	Two 2.2-5, female		
External Antenna Ports	eROU_4040_X (both L1 and L2) eROU_3434_X	Port 1	Path A
		Port 2	Path B
Power	Two pin header		
Optical	Two LC-APC, simplex, single mode (1330nm)		
Management	USB-C		
Add-on edgeROU	Two QMA female, one RJ45		

edgeROU Standards Compliance	
<ul style="list-style-type: none"> UL 62368-1 FCC CFR 47 PART 15 Subpart B Class A FCC CFR 47 Part 2, Part 27 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

Remote Units	edgeROU Description
eROU_4040L1_N	eROU, Main, C-Band MIMO, Internal Antenna, Lambda 1
eROU_4040L2_N	eROU, Main, C-Band MIMO, Internal Antenna, Lambda 2
eROU_4040L1_X	eROU, Main, C-Band MIMO, External Antenna, Lambda 1, 2.2-5
eROU_4040L2_X	eROU, Main, C-Band MIMO, External Antenna, Lambda 2, 2.2-5
eROUa_3434_X	eROU, Add-on, 3450-3550MHz MIMO, External Antenna, Lambda 2, 2.2-5
eROUa_3434_N	eROU, Add-on, 3450-3550MHz MIMO, Internal Antenna, Lambda 2

Hub Equipment	
eHUB_SR_WDM_AC *	edgeHUB Subrack, PSU included, AC, WDM (for 3450/C-Band), Delay Module (optional)
* This version of edgeHUB is required when using C-Band and /or A110 edgeROUs.	

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
eROU_CASCADE_KIT	Optical Coupler, edgeROU Cascade
EPSU_SUBRACK	Expansion PSU Subrack, Supports 3 HOPUSU, PSU Purchased Separately
HOPUSU_AC	PSU module for HOU, EPSU, and eHUB, AC Input
HOPUSU_BLK	EPSU Blank Module

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

SOLiD Data Sheet - ALLIANCE edgeROU Version 17192325-67835

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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