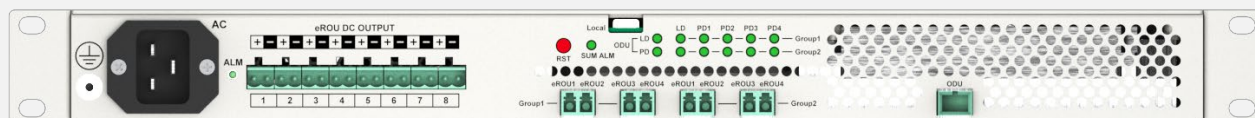


ALLIANCE Multi-Operator DAS
Multiband edgeROU Fiber2Antenna™
Product Specifications / Parts List

Main: 700 / 8085 / PCS / AWS



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.

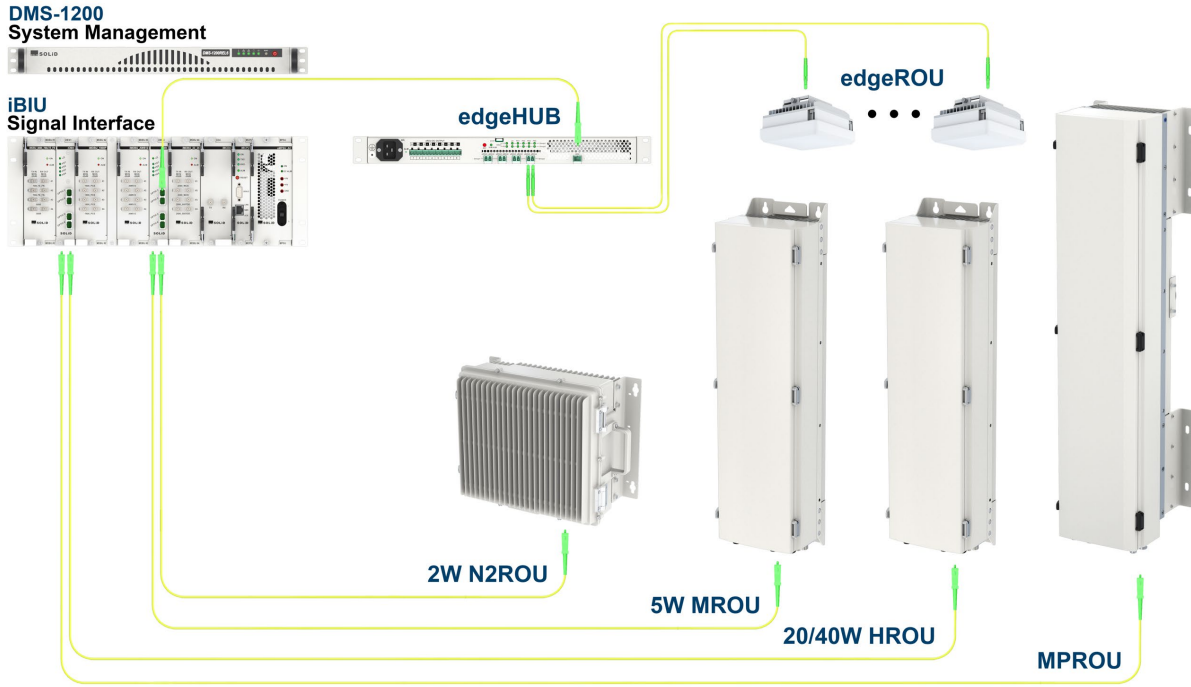
The edgeROU remotes require the edgeHUB for power and optical connection to the headend.

The Fiber2Antenna edgeROU features:

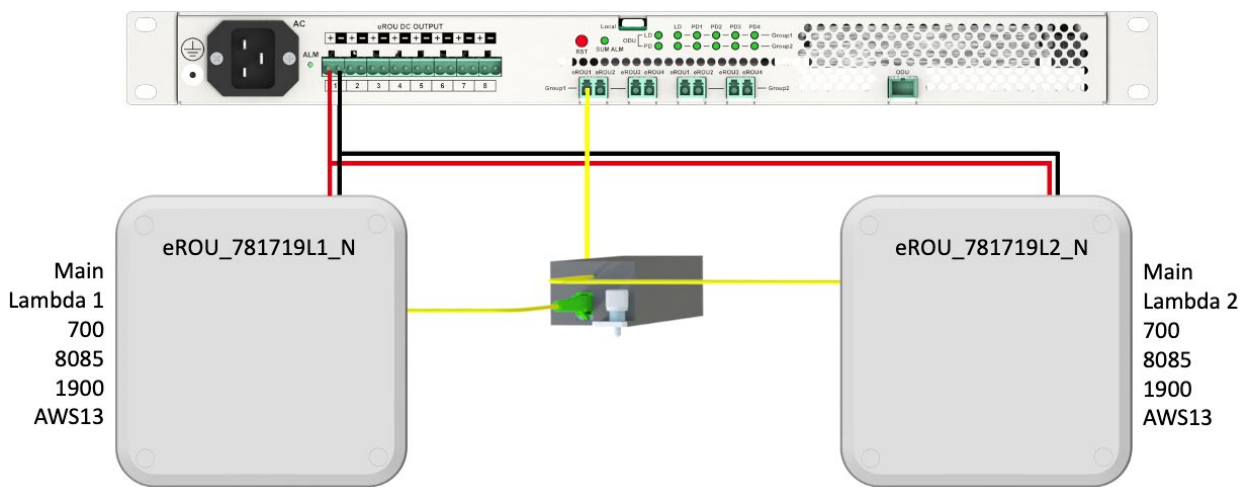
- Integrated and external antenna options
- Support for four frequency bands
- Compact size – 8.7” x 8.7” x 3.5”
- Multiple configuration options
- Flexible mounting options

System Architecture

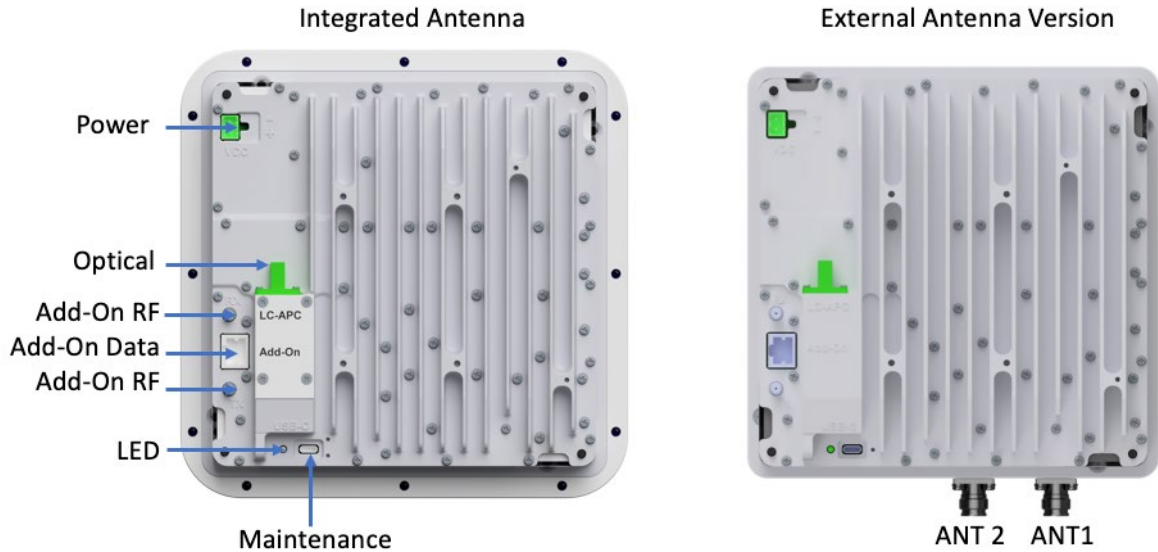
Flexible architecture: the ALLIANCE headend supports all remote types.



Flexible deployment: Two edgeROUs can share a single edgeHUB optical and power port
Two edgeROUs in separate locations connected 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
Antenna Ports	Two 2.2-5 type female (External Antenna version only)

edgeROU 7/8/17/19 Specifications

Frequency Bands, MHz			
Band	Downlink (TX)	Uplink (RX)	Instantaneous Bandwidth
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 - 2190	1695 - 1780	80 DL / 85 UL

* Includes Band 70 and partial of AWS4 in band 66

RF Characteristics, System	
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

RF Characteristics, edgeROU (L1 and L2)	
Output Power (External Antenna Versions)	19 dBm (700/8085), 23 dBm (AWS/PCS)
EIRP (Internal Antenna Versions)	20 dBm (700), 21 dBm (8085), 25 dBm (PCS), 26 dBm (AWS)
Input Power	≤ -50 dBm
ALC Range	25 dB
VSWR (max)	< 1.8:1

RF Parameters	700LTE + Band 14	800/ 850 Cell	1900 PCS	2100 AWS
NF UL (typical)	7.0	5.4	7.1	4.8
NF UL (max)	7.8	7.3	7.8	6.1
IIP3 UL (typical)	-20.0	-20.7	-20.1	-20.0
IIP3 UL (max)	-21.2	-23.7	-21.4	-22.7
EVM DL (typical)	1.3	1.2	1.5	1.4
EVM DL (max)	1.7	1.4	1.8	1.6
Ripple DL (typical)	2.9	2.4	4.2	3.8
Ripple DL (max)	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.

Optical Characteristics – edgeHUB to edgeROU	
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

Power Supply	
Voltage	39 to 57 VDC (supplied from eHUB)
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

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 / Cooling	Wall or ceiling (recessed or above) / Convection cooling
Operating Temp / Humidity	-5 to +50 °C (+23 to +122 °F) / 5% to 90%, non-condensing

Physical Interfaces			
External Antenna	Two 2.2-5, female		
External Antenna Ports	eROU_781719_X	Port 1	700/AWS
		Port 2	8085/PCS
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

Remote Units	
eROU_781719L1_X	edgeROU, Main, 700/8085/1900/AWS, Lambda 1, External Antenna, 2.2-5
eROU_781719L2_X	edgeROU, Main, 700/8085/1900/AWS, Lambda 2, External Antenna, 2.2-5
eROU_781719L1_N	edgeROU, Main, 700/8085/1900/AWS, Lambda 1, Internal Antenna
eROU_781719L2_N	edgeROU, Main, 700/8085/1900/AWS, Lambda 2, 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
eROU_CASCADE_KIT	Optical Coupler, edgeROU Cascade

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

SOLiD Data Sheet - ALLIANCE edgeROU Version 17192325-67835

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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