



AL Wireless



ADU511

4G/5G Dual-RAT Baseband Unit

ADU511 is a low-power 4G/5G Dual-RAT baseband unit built on Marvell SoC. With standard fronthaul and backhaul interfaces, the ADU511 can not only meet the coverage requirements for operators' networks but it can meet the large UL/URLLC requirements for private networks too.

Highly capable Baseband

- 4G and 5G Dual-RAT supported. The number of 4G and 5G cells is software configurable, which can save the cost of upgrading from 4G to 5G
- TDD and FDD supported
- Sub 6G / mm wave supported
- Up to 64T64R

Supports Frame Structure Reconfiguration to Enable Large Uplink Bandwidth

Supports 1D3U large uplink frame structure, the uplink peak throughput up to 680 Mbps per cell can meet the UL bandwidth requirement from applications such as AR/VR, remote control, and industrial vision, at the same time, the downlink peak throughput can reach up to 700Mbps per cell.

Standard Interface for Easy Integration

- 3GPP-Compliant Standard NG interface, more than 6 different 5GC have been integrated with this DU
- Fully verified O-RAN-compatible eCPRI interface enables quick integration with 3rd party FHGW/RU. More than 7 different FHGW/RUs are deployed together with the DU

Multiple Synchronization Schemes

Supports GNSS / IEEE 1588 / SyncE synchronization schemes for easier deployment in various scenarios.

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PRODUCT SPECIFICATION

Carrier Capacity ⁽¹⁾ (Typical)	4 x 4T4R 5G + 4 x 2T2R 4G
Peak Throughput per Cell	5G 4T4R TDD: DL 1700 Mbps / UL 250 Mbps (DDDDD DDSUU, S: 6:4:4) DL 1500 Mbps / UL 375 Mbps (DDDSU DDSUU, S: 10:2:2) DL 700 Mbps / UL 680 Mbps (DSUUU DSUUU, S: 10:2:2) 4G 2T2R FDD: DL 195 Mbps / UL 75 Mbps
Number of Users	Maximum active users per cell: 5G 400 / 4G 128 Maximum connected users per cell: 5G 1200 / 4G 384
Synchronizarion Scheme	GNSS / IEEE1588 v2 / SyncE
I/O Interface	25G / 10G SFP+, NG 8x25G / 10G SFP+, eCPRI
Dimensions (W x H x D)	447 mm x 44 mm x 420 mm
Power Supply	100 V ~ 240 V AC @ 50 ~ 60 Hz -36 V to -72 V DC
Operating Temperature	-5°C to +55°C

⁽¹⁾ Number of 4G and 5G cells is software configurable



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