

INTRODUCTION

The product is a dual-mode high-performance BBU for distributed solutions, capable of operating simultaneously in GSM and Long-Term Evolution (LTE) Frequency Division Duplex (FDD) modes, and is hardware-ready for NR 5G technology.

The BBU includes multiple models. Depending on the customer's deployment scale, one or two optical interface boards can be flexibly deployed, and it supports both AC and DC power supplies. When paired with an RRU, the BBU provides flexible indoor/outdoor distributed solutions, offering operators high-performance, multi-scenario wireless solutions. By integrating multiple technologies, it helps operators enhance network coverage, increase network capacity, eliminate coverage blind spots, and improve cell-edge performance.

This distributed solution (BBU+RRU) adopts the Common Public Radio Interface (CPRI), featuring convenient deployment and flexible configuration while effectively meeting wireless network capacity and coverage requirements.

This product comes with a standard one-year warranty; an extended warranty is available.

HIGHLIGHTS

NOTE: Features can vary based on model or region.

- Built on an advanced platform to provide high throughput.
- Easy to deploy, reducing CAPEX, while lower power consumption reduces OPEX.
- Flexible frequency usage, compatible with RRUs operating in GSM and LTE FDD modes.
- Supports GPS and 1588V2 synchronization.
- Supports 3 sectors (each sector can support 2 x LTE + 1 x GSM cell).
- Each LTE cell supports operating bandwidths of 5 MHz, 10 MHz, 15 MHz, and 20 MHz.
- Each GSM carrier supports an operating bandwidth of 200kHz.
- Peak rate per cell (FDD): Up to DL 380 Mbps with 4x4 MIMO and up to UL 75 Mbps.
- User Capacity (FDD): Supports 500 users per cell, 3000 users per BBU

- User Capacity (GSM): Supports 60 users per sector (4TRX).
- Each LTE cell supports downlink 256QAM and uplink 256QAM (*).
- Supports MORAN.
- Supports flexible back haul methods.
- GUI-based local and remote Web management.
- Highly secured with equipment certification against potential intrusion risk.
- Plug-and-play with self-organizing network (SON) capabilities.
- Supports the TR-069 network management interface.
- Via software upgrade, GSM cells can be smoothly evolved into LTE-FDD or NR-FDD cells (*).

(*) Support will be available later.

TECHNOLOGY

Standard	LTE/GSM/NR*
Channel Bandwidth	LTE: 5/10/15/20MHz GSM: 200KHz
Multiplexing	LTE: 4x4 MIMO GSM: 2T2R
Security	Radio: SNOW 3G/AES-128/ZUC Backhaul: IPsec (X.509 AES-128, AES-256, SHA-128, SHA-256)
Voice	LTE: VoLTE, Circuit Switched Fallback (CSFB) to GSM GSM: Circuit domain (full rate/half rate/AMR)
Maintenance	• Remote/local maintenance • Online status management • Performance statistics • Fault management • Local or remote software upgrade • Logging • Connectivity diagnosis • Automatic start and configuration • Alarm reporting • User information trace • Signaling trace
Network Management	IPv4, HTTP/HTTPS, TR-069, SSH

VLAN/VxLAN	802.1Q/VxLAN
Power Control	UL Open-loop/Closed-loop Power Control, DL Power Control
Quality of Service	Nine-level priority indicated by QoS Class Identifiers (QCI)
ARQ/HARQ	Supported
Synchronization	GPS/1588V2
Voice Coding Standard for GSM	EFR/HR/FR/AMR
Latency	30 ms
Modulation	LTE: MCS0 (QPSK) ~ MCS27 (256QAM) - UL: QPSK, 16QAM, 64QAM - DL: QPSK, 16QAM, 64QAM, 256QAM GSM: GMSK
Supported Cells per sector	Each sector supporting a maximum of 2 x 4T4R LTE-FDD cells + 1 x 4TRX GSM cell: 1 x 2TRX GSM cell 1 x 4TRX GSM cell 1 x 4T4R LTE-FDD cell 1 x 4TRX GSM cell + 1 4T4R LTE-FDD cell 2 x 4T4R LTE-FDD cells 2 x 4T4R LTE-FDD cells + 1 x 4TRX GSM cell

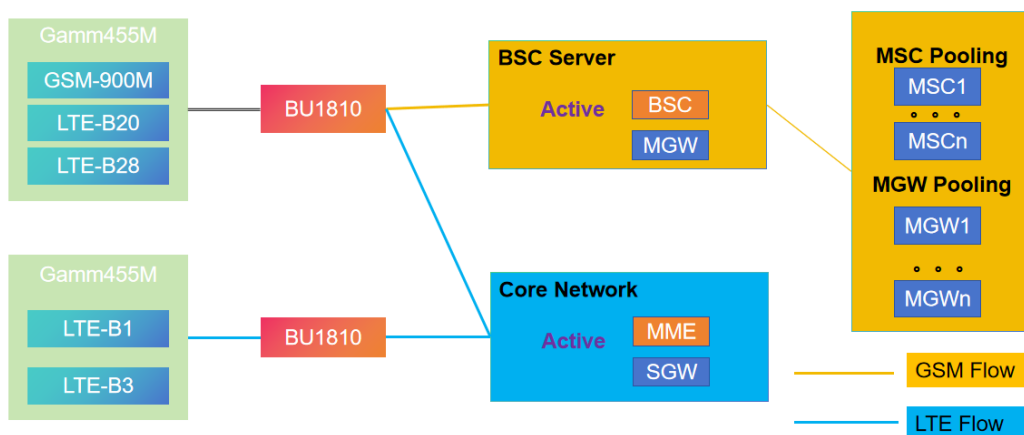
HARDWARE SPECIFICATIONS

Backhaul	1 x optical (SFP+)
Cascading	1 x optical (SFP+)
Fronthaul	4 x optical (SFP+) (10Gbps) for CPRI
Mgmt. Interface	1 x RJ-45 Ethernet interface (1GE)
GPS Antenna	External GPS antenna, SMA connector
Power Supply	110/220VAC or -40VDC ~ -57VDC, nominal -48VDC
LED Indicators	10 x status LED

	PWR/RUN/ACT/ALM BH1/BH2 FH1/FH2/FH3/FH4
MTBF	≥ 150000 hours
MTTR	≤ 4 hours
IP level	IP31
Operating Temperature	23°F to 113°F / -5°C to 45°C
Storage Temperature	-40°F to 131°F / -40°C to 55°C
Humidity	5% to 95% RH
Power Consumption	Maximum 120W, typical 90W
Weight	5.8 kg
Dimensions (HxWxD)	Without rack ears: 17.3 x 1.73 x 11.9 inches/440 x 44 x 302.5 mm With rack ears: 17.3 x 1.73 x 11.9 inches/440 x 44 x 311.5 mm
Installation	Standard 19-inch cabinet or wall mount

NETWORK ARCHITECTURE REFERENCE

1 BU + 1 RRU(1G+2L) and 1 BU + 1 RRU(2L)



For RRU specifications, refer to corresponding data sheet.