



INTRODUCTION

The Baicells Nova-243 eNodeB (eNB) is an outdoor Long-Term Evolution (LTE) product that operates in Time Division Duplexing (TDD) mode. This eNB provides users with high-speed broadband wireless access to the Internet using 2*10W output power (2x2 MIMO with 10W output each channel). This unit is compact, lightweight, and easy to deploy.

The Nova-243 eNB offers excellent performance, helping operators to provide better coverage and higher capacity.

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

FEATURES

Note: Features may vary based on model or region.

- Standard LTE TDD Bands 41/42/43
 - Customization may be requested; contact sales_na@baicells.com
- Complies with 3GPP Release 9 standards
- GUI-based local and remote Web management
- TR069 network management interface support
- Any IP based backhaul can be used, including public transmission by Internet Protocol Security (IPSec)
- Higher transmission power for extended coverage
- Cloud /Local/Embedded EPC (HaloB) is supported for more convenient and economic deployment
- Excellent non-line-of-sight (NLOS) coverage performance

- Peak rate (up to): DL 110 Mbps, UL 14 Mbps @ 20 MHz bandwidth
- 96 concurrent users
- IoT with all standard LTE Evolved Packet Core (EPC)
- Lower power consumption to reduce OPEX, can be powered easily by Baicells compact outdoor UPS EPB41511/EPB83521/EPB93531

HARDWARE SPECIFICATIONS

LTE Mode	TDD
Frequency Bands	41/42/43 and customized
Channel Bandwidth	5/10/15/20 MHz
Max Output Power	40 dBm / port
Power Supply	+/- 48V DC, AC adaptor (multi-national standards)
Power Consumption	< 160W
Receive Sensitivity	-101 dBm @band42/43
Synchronization	GPS, 1588v2
Interfaces	2 RJ-45 Ethernet interfaces (1 GE ea.)
MIMO	DL: 2x2
Installation	Pole or wall mount
Antenna Type	External high-gain antenna compatible with eNB N-Type connectors

Dimensions (HxWxD)	17.3 x 9.5 x 5.5 inches 440 x 240 x 140 millimeters
Weight	26 lbs / 12 kg
MTBF	≥ 150000 hours
MTTR	≤ 1 hour

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9
Peak Rate (up to)	20 MHz: - SA0: DL 50 Mbps, UL 42 Mbps - SA1: DL 80 Mbps, UL 28 Mbps - SA2: DL 110 Mbps, UL 14 Mbps
SA - Subframe Assignment (configurable parameter)	10 MHz: - SA0: DL 25 Mbps, UL 21 Mbps - SA1: DL 40 Mbps, UL 14 Mbps - SA2: DL 55 Mbps, UL 7 Mbps
SA0: config. 0 (DSUUU) SA1: config. 1 (DSUUD) SA2: config. 2 (DSUDD)	
User Capacity	96 concurrent users
QoS Control	3GPP standard QCI
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM, 64QAM
Voice	VoLTE, Circuit Switched Fallback (CSFB) to GSM
Traffic Offload	Local breakout
SON	Self-organizing network: • Automatic setup • Automatic Neighbor Relation (ANR) • PCI confliction detection
RAN Sharing	Multi-Operator Core Network (MOCN)
Network Mgmt	TR069
Spectrum Scanning	Supported
UL Interference Detection	Supported
Maintenance	<ul style="list-style-type: none"> • Remote/local maintenance • Online status management • Performance statistics • Fault management • Local or remote software upgrade • Logging • Connectivity diagnosis • Automatic start and configuration • Alarm reporting

- KPI reporting
- User information tracing
- Signaling trace

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°F to 131°F -40°C to 55°C
Storage Temperature	-49°F to 158°F -45°C to 70°C
Humidity	5% to 95%
Atmospheric Pressure	70 kPa to 106 kPa
Ingress Protection Rating	IP66
Power Interface Lightning Protection	Differential Mode: ±10 KA Common Mode: ±20 KA

GLOBAL PART NUMBERS

BRU3501	Nova-243 outdoor TDD eNodeB - LTE Release 9, 2x10W (40 dBm), 2 port, 3.5 GHz, B42/43 <ul style="list-style-type: none"> • FCC certification: 2AG32BRU3501 (3550-3700 MHz) • IC certification: 20982-BRU3501 (3550-3700 MHz)
BRU3510	Nova-243 outdoor TDD eNodeB - LTE Release 9, 2x10W (40 dBm), 2 port, 2.5 GHz, B41 <ul style="list-style-type: none"> • FCC certification: 2AG32BRU3510 (2501-2685 MHz) • IC certification: 20982-BRU3510 (2500-2690 MHz)
BRU3511	Nova-243 outdoor TDD eNodeB - LTE Release 9, 2x10W (40 dBm), 2 port, 3.5 GHz, B42 <ul style="list-style-type: none"> • IC certification: 20982-BRU3511 (3450-3600 MHz)

Note: Customized versions may be requested.