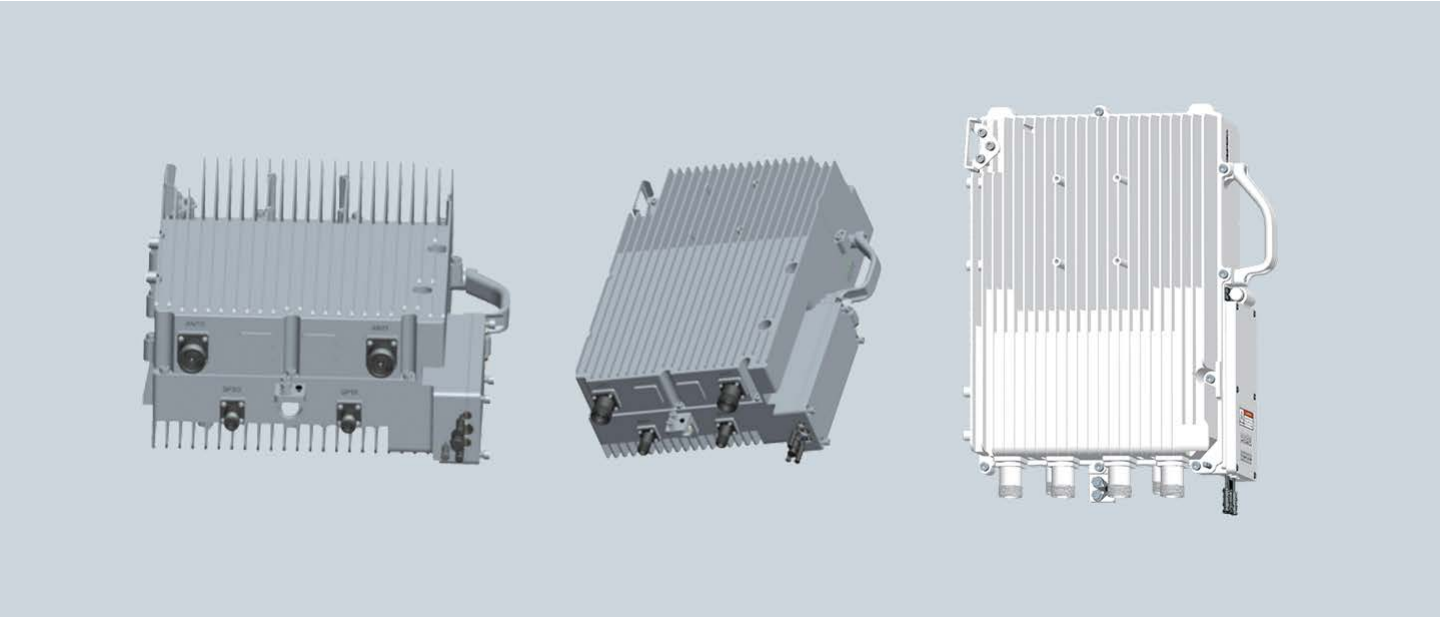
Nova-243 Outdoor FDD/TDD eNB



INTRODUCTION

The Baicells Nova-243 eNodeB (eNB) is an outdoor LTE FDD/TDD base station with 2*10W output power (2x2 MIMO with 10W output each channel). The unit is compact, lightweight, and easy to deploy.

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

FEATURES

- Standard LTE network modes:
  - FDD bands 1/3/7
  - TDD bands 38/40/41/42/48 and customized
- Peak rate (20 MHz):
  - FDD: 150 Mbps DL, 50 Mbps UL
  - TDD: 112 Mbps DL, 20 Mbps UL
- Maximum 255 (FDD) and 96 (TDD) concurrent users
- 5 / 10 / 15 / 20 MHz bandwith operation
- Higher transmission power for extended coverage
- Lower power consumption to reduce OPEX
- Any IP based backhaul can be used, including public transmission
- Plug-and-play with SON capabilities
- IoT with most EPC vendors
- Excellent NLOS coverage performance
- Local and Web GUI management, network manage using BaiOMC

HARDWARE SPECIFICATIONS

LTE Mode	FDD/TDD
Frequency Bands	FDD: 1/3/7 TDD: 38/40/41/42/48 and customized
Channel Bandwidth	5/10/15/20 MHz
Max Output Power	40 dBm / antenna
Receiving Sensitivity	FDD: -104 dBm TDD Bands 42/48: -101 dBm TDD Bands 38/40/41: -102 dBm
Synchronization Mode	GPS 1588v2 (TDD)
Backhaul Mode	1 optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2x2
Dimensions (HxWxD)	FDD: 17.3 x 11.8 x 6.3 inches 440 x 300 x 160 millimeters TDD: 17.3 x 9.5 x 5.5 inches 440 x 240 x 140 millimeters

Installation Method	Pole or wall mount
Antenna	External high-gain antenna
Power Consumption	FDD: < 180W TDD: <160W
Power	-48V DC, AC adaptor (multi-national standards)
Weight	FDD: 44 lbs (20 kg) TDD: 26 lbs (12 kg)

Note 1: Different models support different frequencies.
Note 2: The test method of receiving sensitivity is proposed by the 3GPP TS 36.104, which is based on 5 MHz bandwidth, FRC A1-3 in Annex A.1 (QPSK, R=1/3, 25RB) standard.

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9
Peak Rate	• FDD 20 MHz: DL 150 Mbps, UL 50 Mbps • FDD 10 MHz: DL 75 Mbps UL 25 Mbps • TDD 20 MHz: - SA1: DL 80 Mbps, UL 20 Mbps - SA2: DL 112 Mbps, UL 14 Mbps • TDD 10 MHz: - SA1: DL 40 Mbps, UL 10 Mbps - SA2: DL 55 Mbps, UL 5 Mbs
User Capacity	Maximum 255 (FDD) and 96 (TDD) concurrent users
QoS Control	3GPP standard QCI
Modulation	FDD UL: QPSK, 16QAM FDD DL: QPSK, 16QAM, 64QAM TDD UL: QPSK, 16QAM, 64QAM TDD DL: QPSK, 16QAM, 64QAM
Voice Solution	CSFB, VoLTE, eSRVCC
Traffic Offload	• Local IP Access (LIPA) • Selected IIP Traffic Offload (SIPTO)
SON	Self-organizing network: • Automatic setup • Automatic Neighbor Relation (ANR) (TDD) • PCI confliction detection
RAN Sharing	Supported
Network Management Interface	TR069 interface protocol
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Maintenance	Remote or local maintenance Online status management Performance statistics Fault management Local or remote software upgrade
	Logging Connectivity diagnosis Automatic start and configuration Alarm reporting KPI recording User information tracing Signaling trace (TDD)

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

BRU3510-B4243	Nova-243 10W eNB Bands 42/43
BRU3510-B41	Nova-243 10W eNB Bands 40/41