Nova-243 Outdoor TDD eNB

INTRODUCTION

The Baicells Nova-243 eNodeB (eNB) is an outdoor base station with 2*10W output power (2x2 MIMO with 10W output each channel). It is based on standardized Long-Term Evolution (LTE) Time Division Duplexing (TDD) technology.

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 with minimal effort.

FEATURES

- Standard LTE TDD bands 38/40/41/42/48 and customized
- Peak rate 112 Mbps DL, 20 Mbps UL (20 MHz)
- Maximum 96 concurrent users
- 5/10/15/20 MHz bandwidth 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 and network management using Baicells Operations Management Console (OMC)

HARDWARE SPECIFICATIONS

<table>
<thead>
<tr>
<th>LTE Mode</th>
<th>TDD</th>
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<tbody>
<tr>
<td>Frequency Bands</td>
<td>38/40/41/42/48 and customized</td>
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<tr>
<td>Channel Bandwidth</td>
<td>5/10/15/20 MHz</td>
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<tr>
<td>Max Output Power</td>
<td>40 dBm / antenna</td>
</tr>
<tr>
<td>Receiving Sensitivity</td>
<td>Bands 38/40/41: -102 dBm  Bands 42/48: -101 dBm</td>
</tr>
<tr>
<td>Synchronization Mode</td>
<td>GPS 1588v2</td>
</tr>
<tr>
<td>Backhaul Mode</td>
<td>1 optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)</td>
</tr>
<tr>
<td>MIMO</td>
<td>DL: 2x2</td>
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<tr>
<td>Dimensions (HxWxD)</td>
<td>17.3 x 9.5 x 5.5 inches 440 x 240 x 140 millimeters</td>
</tr>
<tr>
<td>Installation Method</td>
<td>Pole or wall mount</td>
</tr>
<tr>
<td>Antenna</td>
<td>External high-gain antenna</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>&lt;160W</td>
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</tbody>
</table>
Power | -48V DC, AC adaptor (multi-national standards)
---|---
Weight | 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

<table>
<thead>
<tr>
<th>LTE Standard</th>
<th>3GPP Release 9</th>
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</table>
| Peak Rate | • 20 MHz:
  - SA1: DL 80 Mbps, UL 20 Mbps
  - SA2: DL 112 Mbps, UL 14 Mbps
• 10 MHz:
  - SA1: DL 40 Mbps, UL 10 Mbps
  - SA2: DL 55 Mbps, UL 5 Mbps |
| User Capacity | 96 concurrent |
| QoS Control | 3GPP standard QCI |
| Modulation | UL: QPSK, 16QAM, 64QAM
  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)
  • PCI conftliction detection |
| RAN Sharing | Supported |
| Network Management Interface | TR069 interface protocol |
| MTBF | ≥ 150000 hours |
| MTTR | ≤ 1 hour |

Maintenance | Remote or local maintenance
  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 |

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 10W eNB 3.5 GHz
  Bands 42/43/48 |
| BRU3510 | Nova-243 10W eNB 2.5 GHz
  Band 41 |