



## INTRODUCTION

This Baicells Nova-249 eNodeB (eNB) is an outdoor Long-Term Evolution (LTE) product that operates in Frequency Division Duplexing (FDD) mode. This eNB provides users with high-speed broadband wireless access to the Internet using 2\*40W output power (2x2 MIMO with 40W output each channel). This unit is compact, lightweight, and easy to deploy.

The Nova-249 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 FDD Bands 3/5/8/28
  - Customization may be requested; contact [contact@baicells.com](mailto:contact@baicells.com).
- Complies with 3GPP Release 9 standards
- GUI-based local and remote Web management
- TR069 network management protocol support
- External high-gain antenna
- Higher transmission power for extended coverage
- Any IP based backhaul can be used, including public transmission protected by Internet Protocol Security (IPSec)

- Excellent non-line-of-sight (NLOS) coverage performance
- Peak rate (up to) DL 150 Mbps, UL 50 Mbps @ 20 MHz
- 256 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 EPB83521/EPB93531
- Support RET function AISG 2.0.

## HARDWARE SPECIFICATIONS

LTE Mode	FDD
Frequency Bands	3/5/8/28 and customized
Channel Bandwidth	Band3/28: 5/10/15/20 MHz Band5/8: 5/10MHz
Max Output Power	46 dBm / channel
Power Supply	- 48V DC, with AC adaptor (multi-national standards)
Power Consumption	Typical < 300W, MAX < 360W
Receive Sensitivity	-102 dBm
Synchronization	GPS
Interfaces	One optical (SFP) and one RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2x2
Installation	Pole or wall mount

Antenna Type	External high gain antenna compatible with eNB mini-DIN connectors
Dimensions (HxWxD)	Band3: 16.9 x 10.8 x 4.4 inches 430 x 275 x 113 millimeters  Band5/8/28: 16.9 x 10.8 x 5.4 inches 430 x 275 x 137 millimeters
Weight	Band3: 26.5 lbs / 12kg Band5/8/28: 33.1 lbs / 15kg
MTBF	≥ 150000 hours
MTTR	≤ 1 hour

## SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9
Peak Rate (up to)	20MHz: DL 150Mbps, UL 50Mbps 10MHz: DL 75Mbps, UL 25Mbps
User Capacity	256 concurrent users
QoS Control	3GPP standard QCI
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM
Voice	VoLTE, Circuit Switched Fallback (CSFB) to GSM and UTRAN
Traffic Offload	Local breakout
SON	Self-Organizing Network <ul style="list-style-type: none"> <li>• Automatic setup</li> <li>• Automatic Neighbor Relation (ANR)</li> <li>• PCI confliction detection</li> </ul>
RAN Sharing	Multi-Operator Core Network (MOCN)
RET	Supported
Network Mgmt	TR069
UL Interference Detection	Supported
Maintenance	<ul style="list-style-type: none"> <li>• Remote/local maintenance</li> <li>• Online status management</li> <li>• Performance statistics</li> <li>• Fault management</li> <li>• Local or remote software upgrade</li> <li>• Logging</li> <li>• Connectivity diagnosis</li> <li>• Automatic start and configuration</li> <li>• Alarm reporting</li> <li>• User information tracing</li> <li>• Signaling Trace</li> </ul>

## 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 NUMBER

sBS32000	Nova-249 outdoor FDD eNodeB - LTE Release 9, 2x40W (46 dBm), 2 port, UL1710 MHz-1785 MHz/DL1805 MHz-1880 MHz, B3
sBS32030	Nova-249 outdoor FDD eNodeB - LTE Release 9, 2x40W (46 dBm), 2 port, UL824 MHz-849 MHz/DL869 MHz-894 MHz, B5
sBS32101	Nova-249 outdoor FDD eNodeB - LTE Release 9, 2x40W (46 dBm), 2 port, UL880 MHz-915 MHz/DL925 MHz-8960MHz, B8
sBS32070	Nova-249 outdoor FDD eNodeB - LTE Release 9, 2x40W (46 dBm), 2 port, UL703 MHz-748 MHz/DL758 MHz-803 MHz, B28

Note: Customized versions may be requested.