



INTRODUCTION

This Baicells Nebula246 eNodeB (eNB) is an outdoor Narrow Band Internet of Things (NB-IoT) product that operates in Frequency Division Duplexing (FDD) mode. This eNB supports access to the backbone network through wired way to offer Internet of Things data access for various terminals. This unit is compact, lightweight, and easy to deploy.

The Nebula246 eNB offers excellent coverage performance, which can access more terminals than other kinds of eNBs. Therefore, this eNBs are suitable for scenarios that require wide coverage range and a large number of access terminals. The Nebula246 eNB can be widely used in telecom operators, enterprises, and Internet of Things application, etc.

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

HIGHLIGHTS

NOTE: Features can vary based on model or region.

- Standard LTE FDD Bands 5/8/26
- Complies with 3GPP Release 14 standards
- Compact, all-in-one design, easy to install and deploy
- 15km wide coverage
- One eNB supports two cells to double the capacity
- Maximum 2x 64k access per day large capacity
- Supports 200kHz operating frequency
- Supports GPS synchronization
- Supports high-gain external antenna
- Supports eDRX and PSM the energy conservation
- Supports CIoT EPS optimized data transmission
- Supports Internet Protocol Security (IPsec) bidirectional authentication and soft/hard encryption transmission to ensure data secure transmission
- Higher device safety certificate to prevent external attacks by UE bidirectional authentication and user confidentiality protection
- Any IP based backhaul can be used, including public transmission protected by IPsec
- Lower power consumption to reduce OPEX, can be powered easily by Baicells compact outdoor Smart UPS
- Built-in Dynamic Host Configuration Protocol (DHCP) service, Domain Name Server (DNS) client and Network Address Translation (NAT) function
- GUI-based local and remote Web management
- TR069 network management protocol support

HARDWARE SPECIFICATIONS

LTE Mode	Type-B FDD
Frequency Bands	Band5/8/26 and customized
Channel Bandwidth	200kHz
Max Output Power	43 dBm / channel
Power Supply	48VDC, with AC adaptor (multi-national standards)
Power Consumption	< 220W
Receive Sensitivity	-126dBm@15kHz (no repetition)
Synchronization	GPS, NTP
Interfaces	One optical (SFP) and one RJ-45 Ethernet interface (1 GE)
Installation	Pole or wall mount
Antenna Type	External high gain antenna compatible with eNB mini-DIN connectors
Dimensions (HxWxD)	16.9 x 10.8 x 5.7 inches 430 x 275 x 145 millimeters
Weight	34.6 lbs / 15.7kgs
MTBF	≥ 150000 hours
MTTR	≤ 1 hour

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 14
Device Capacity	2 x cells per eNB
Peak Rate (up to)	DL 150kbps, UL 220kbps
User Capacity	2 x 64k access per day
Work Mode	Stand-alone
Coverage Security	Maximum Coupling Loss (MCL) 150dB
Modulation	QPSK, BPSK
Network Mode	NAT
Port Mapping	Supported
Diagnosis	Ping, route trace

Southbound Interface	Web service, Socket, FTP
Network Mgmt	TR069
Maintenance	<ul style="list-style-type: none">• Date & time setting, device reboot, resume factory setting, restore configuration file• Remote/local maintenance• Online status management• Performance statistics• Fault management• Local or remote software upgrade• Logging• Connectivity diagnosis• Automatic start and configuration• Alarm reporting

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

sNBS1200	Nebula246 outdoor NB-IoT eNB, Band8, UL:880 MHz–915 MHz,DL:925 MHz–960 MHz,2T2R,20W(43 dBm),48VDC, external antenna/GPS
sNBS1210	Nebula246 outdoor NB-IoT eNB, Band5/26, UL:814 MHz–849 MHz,DL:859 MHz–894 MHz,2T2R,20W(43 dBm),48VDC, external antenna/GPS

NOTE: Customized versions can be requested.