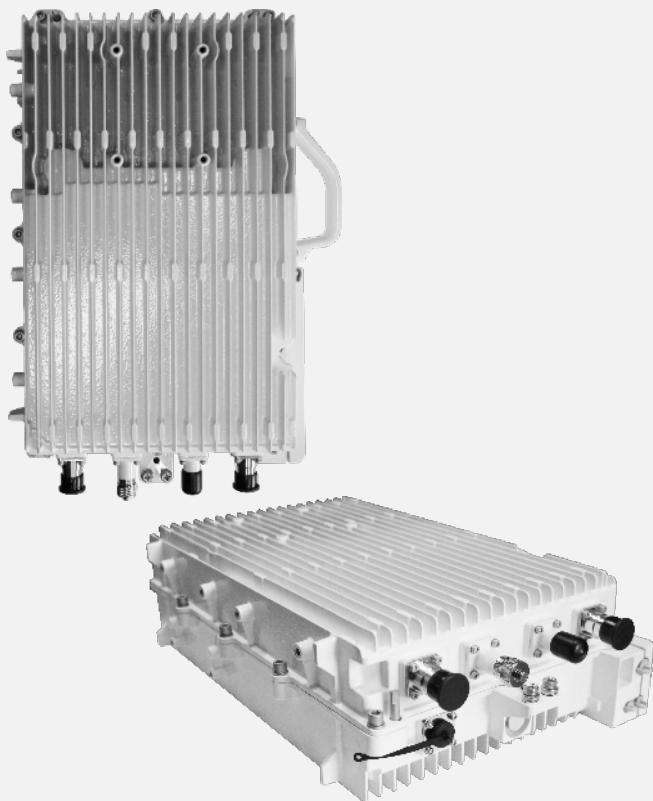




INTRODUCTION

The Baicells Nebula246 is a 2 x 20W outdoor GSM Base Transceiver Station (BTS) product and hardware-ready for LTE FDD and NB-IoT technology. BSC is provided on an external Server. This unit supports access to the backbone network through wired way. This unit is compact, lightweight, and easy to deploy.

The Nebula246 offers excellent coverage performance. Therefore, this unit is suitable for scenarios that require wide coverage range and a large number of access terminals. The Nebula246 can be widely used in telecom operators.

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 GSM 900MHz and DCS 1800MHz with customization
- Complied with 3GPP Release 12 standard
- Compact, all-in-one design, easy to install and deploy
- Telephone traffic up to 5000 erlangs
- Supports GPS synchronization
- Supports high-gain external antenna
- Supports Internet Protocol Security (IPsec) bidirectional authentication and soft/hard encryption 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
- Supports Full-Rate and Half-rate Codec (CS calls)
- Supports software upgrade to NB-IoT

HARDWARE SPECIFICATIONS

Mode	GSM
Frequency Bands	GSM 900MHz and DCS 1800MHz (customization)
Max Output Power	2 x 43dBm per channel
Power Supply	48VDC, with AC adaptor (multi-national standards)
Power Consumption	< 220W
Synchronization	GPS
Interfaces	One optical (SFP) and one RJ-45 Ethernet interface (1 GE)
Installation	Tower or wall mount
Antenna Type	External high gain antenna compatible with 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

Standard	3GPP Release 12
Capacity	5000 erlangs
Modulation	GMSK
Network Interfaces	Abis interface from BTS to BSC A interface from BSC to MSC
Port Mapping	Supported
Diagnosis	Ping, route trace
Southbound Interface	Web service, Socket, FTP
Network Mgmt.	TR069
Maintenance	• 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

sBS1500	Nebula246 Outdoor GSM Base Station, GSM 900, UL:880 MHz–915 MHz, DL:925 MHz–960 MHz, 2T2R, 20W(43 dBm), 48VDC, external antenna/GPS
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NOTE: Customized versions can be requested.

NETWORK ARCHITECTURE

