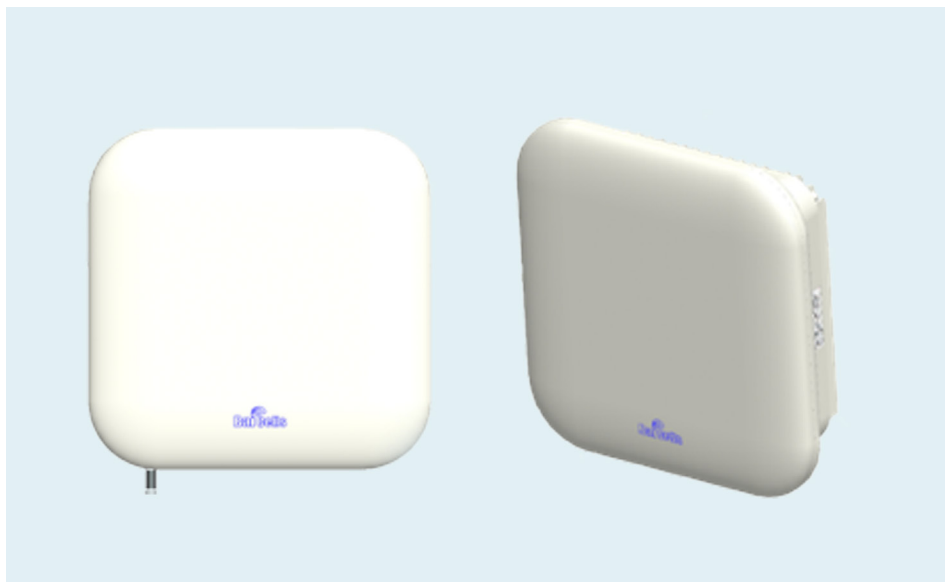


Nova 250mW eNodeB



The Baicells 250mW base station unit is shown in Figure 1-1. The side interface and LEDs are shown in Figure 1-2 and described in Tables 1-1 and 1-2.

Figure 1-1
Nova 250mW Appearance

INTRODUCTION

The Baicells Nova 250mW eNodeB is a high performance outdoor micro base station based on TD-LTE technology and which operates at 3550 - 3700 MHz frequencies. Nova supports wired backhaul connections to backbone LTE networks, providing wireless access for user terminals to implement voice and data service transmissions.

The Nova base station makes use of the current LTE transmission resources to reduce the operator's investment with low-cost, enhanced indoor coverage. This solution can be used widely by telecom operators, broadband operators, and enterprises to promote the user experience in residential and commercial settings.

FEATURES

- Integrated design of baseband and RF
- Standards-based international 3GPP TDD LTE technology that provides high-speed voice and data services. Supports a maximum transfer rate of DL: 110 Mbps, UL: 20 Mbps.
- Flexible uplink and downlink time slot ratio: 2:2 and 1:3
- Supports 10 MHz / 20 MHz operation bandwidth
- Internal antenna and integrated GPS
- PoE+ power supply; only one Ethernet cable required for data transmission and power supply
- Security services to provide timely protection against potential security risks and illegal intrusion
- Convenient, simple, GUI-based local and Web management
- LTE integration that quickly provides accurate coverage and improved network capacity
- Intuitive network management functions for managing, monitoring, and maintaining operations



Figure 1-2
Nova 250mW Interface and Indicators

Table 1-1 Interface Description

ETH RJ-45 interface, used for data configuration or data backhaul, and PoE+ power supply

Table 1-2 LED Indicators

Identity	Color	Status	Description
PWR	Green	Steady On	Power on
		OFF	No power supply
ACT	Green	Steady On	The cell is activated
		OFF	The cell is not activated
RUN	Green	Fast flash: 0.125s on, 0.125s off	The board is loading
		Slow flash: 1s on, 1s off	The board is normal
		OFF	No power input, or board fault
ALM	Red	Steady On	Hardware alarm, e.g., VSWR alarm
		OFF	No alarm

Note: 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.

TECHNICAL SPECIFICATIONS

LTE Mode TDD

LTE Frequency 3550 MHz ~ 3700 MHz

Channel Bandwidth 10 MHz, 20 MHz

Output Power 24 dBm ± 2dB

Receiving sensitivity -101 dBm

Synchronization Mode GPS synchronization

Backhaul Mode RJ-45 Ethernet backhaul

MIMO 2*2 MIMO

Dimensions

9.8 in (H) x 9.8 in (W) x 3.2 in (D)

248mm (H) * 248mm (W) * 80mm (D)

Installation Method Pole mounted, wall mounted

Antenna Internal high gain antenna

Overall Power < 20 W

Weight About 4.4 lbs (2.0 kg)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature -40°F to 131°F -40°C ~ 55°C

Humidity 5% ~ 95%

Atmospheric Pressure 70 kPa ~ 106 kPa

IP Protection Grade IP66

SOFTWARE SPECIFICATIONS

LTE Standard	TDD 3GPP Release 9
Maximum Throughput	20 MHz: DL 110 Mbps, UL 20 Mbps 10 MHz: DL 55 Mbps, UL 9 Mbps
Business Capacity	32 concurrent users (supports software upgrade to 96)
Modulation Mode	QPSK, 16QAM, 64QAM
Traffic Offload	Supports LIPA/SIPTO, which is Local IP Access and Selected IP Traffic Offload for short
SON	Self-Organizing Network: supports plug-and-play, automatic start, optimization, and configuration
RAN Sharing	Supported
Network Management Interface	TR069 interface protocol
Northbound Interface	Web service, Socket, FTP, and other interface modes
MTBF	≥ 50000 hours
MTTR	≤ 1 hour
Maintenance	Remote/local maintenance, based on SSH protocol
	Remote maintenance
	Online status management
	Performance statistics
	Failure management
	Configuration management
	Local or remote software upgrading and loading
	Logging
	Connectivity diagnosis
	Automatic start and configuration
	Alarm reporting

