

# Nova-436 Outdoor TDD eNB



## INTRODUCTION

The Nova-436 is our next generation of LTE eNodeB (eNB). In addition to the Baicells price:performance you have come to expect, these advanced 4x1W base stations deliver carrier aggregation, even across discontinuous channels, or may be used to “split sector” for maximum footprint and capacity in one package.

Unlike competitive products, each Nova-436 carrier can have as high as 20 MHz of independent channel width. As is true of all Baicells eNB designs, the Nova-436 is lightweight, draws low wattage, and can be plug-and-play.

## FEATURES

### Easy Deployment

- Slim design, suitable for private and public deployments
- Any IP based backhaul can be used, including public transmission
- Lower power consumption to reduce OPEX
- IoT with most EPC vendors

### Better Performance

- Standard LTE TDD band 48
- Supports 2 carriers, and software upgradeable to 2 CC carrier aggregation
- Maximum aggregate peak rate of DL 224 Mbps and UL 20 Mbps with 2x20 MHz spectrum
- NLOS coverage performance.
- Maximum 96 users per carrier in split mode and 32 users in CA mode (software upgrade to 64)
- Use 4-port antenna or 2 antennas with 2 ports
- Supports emergency gateway (eGW) option for S1 aggregation to reduce the signaling load of the Mobility Management Entity (MME).
- Supports local traffic offload and charging in cooperation with eGW, and with both integrated Local Gateway (LGW) and external eGW.
- Supports 5/10/15/20 MHz bandwidth on each carrier

### Easy Management

- Local and remote GUI; network management BaiOMC
- Highly secured with equipment certification against potential intrusion risk.

## HARDWARE SPECIFICATIONS

LTE Mode	TDD
Frequency Band	Band 48
Channel Bandwidth	5 / 10 / 15 / 20 MHz on each carrier
Max Output Power	30 dBm / antenna
Receiving Sensitivity	-100 dBm
Synchronization Mode	<ul style="list-style-type: none"> <li>• GPS</li> <li>• 1588v2</li> </ul>
Backhaul Mode	1 optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)
MIMO	DL: 2*2 on each carrier
Dimensions (HxWxD)	12.2 x 9.4 x 4.1 Inches 310 x 239 x 105 millimeters
Installation Method	Pole or wall mount
Antenna	External high-gain antenna (2) 2-port or (1) 4-port
Power Consumption	< 60W
Power Supply	+/- 48VDC AC adaptor (multi-national standards)
Weight	12.1 lbs (5.5 kg)

## SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 12
Peak Rate	2x20 MHz: - SA1: DL 2x80 Mbps, UL 20 Mbps - SA2: DL 2x112 Mbps, UL 14 Mbps 2x10 MHz: - SA1: DL 2x40 Mbps, UL 2*14 Mbps - SA2: DL 2x55 Mbps, UL 2*7 Mbps
User Capacity	<ul style="list-style-type: none"> <li>• 96 users per carrier in split mode</li> <li>• 32 users in CA mode (software upgrade to 64)</li> </ul>
QoS Control	3GPP standard Quality of Service Class Identifier (QCI)
Modulation	UL: QPSK, 16QAM, 64QAM DL: QPSK, 16QAM, 64QAM
Voice Solution	CSFB, VoLTE, eSRVCC
Traffic Offload	Local IP Access (LIPA) Selected IP Traffic Offload (SIPTO)

SON	Self-organizing network: <ul style="list-style-type: none"> <li>• Automatic setup</li> <li>• Automatic Neighbor Relation (ANR)</li> </ul> PCI confliction detection
Spectrum Scanning	Supported
UL Interference Detection	Supported
RAN Sharing	Supported
Network Management Interface	TR069 interface protocol
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Maintenance	Remote/local maintenance Online status management 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% RH
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

mBS2130	Nova-436 1W eNB Band 48
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