



INTRODUCTION

The Nova-227 is a unique tool for your toolbox. We have built and priced this lower power 2x250mW microcell eNodeB (eNB) specifically for tightly clustered pockets of customers, coverage holes, edges of your network, or simply opportunistic micro targeting, like RV parks, marinas, and high-density dwellings such as townhomes and apartments. As with all Baicells products, the Nova-227 supports Long-Term Evolution (LTE) technology, and it operates in Time Division Duplexing (TDD) mode.

When paired with self-install indoor user equipment (UE), such customer sets can be captured quickly and with a near immediate ROI. For private network operators, this microcell is perfect for clusters of cameras, such as those used at traffic intersections, and other devices. 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 TDD Bands 41/42/43/48
 - Customization may be requested; contact sales_na@baicells.com.
- 2.5 GHz or 3.5 GHz models
- Complies with 3GPP Release 9 standards
- GUI-based local and remote Web management
- TR069 network management protocol support
- Compact, all-in-one design of internal antenna and integrated GPS

- Any IP based backhaul can be used, including public transmission
- Lower power consumption to reduce OPEX
- PoE+ power supply; only one Ethernet cable required for data transmission and power supply
- IoT with most LTE Evolved Packet Core (EPC) vendors
- Excellent non-line-of-sight (NLOS) coverage performance
- Peak rate (20 MHz): DL 112 Mbps, UL 20 Mbps
- 32 concurrent users
 - License for 96 users available upon request; contact sales_na@baicells.com.
- Highly secured with equipment certification against potential intrusion risk

HARDWARE SPECIFICATIONS

LTE Mode	TDD
Frequency Bands	41/42/43/48 and customized
Channel Bandwidth	5/10/15/20 MHz
Max Output Power	24 dBm / antenna
Power Supply	PoE+ IEEE 802.3at
Power Consumption	< 20 W
Rx Sensitivity	-101 dBm @ B41 -100 dBm @ B42/43/48
Synchronization	GPS
Interface	One RJ-45 Ethernet backhaul interface (1 GE)

MIMO	DL: 2x2
Installation	Pole or wall mount
Antenna Type	13 dBi internal high-gain antenna <ul style="list-style-type: none"> Horizontal Beamwidth 65° Vertical Beamwidth 20° Polarization: ±45°
Antenna Gain	13.5 ± 0.5 dBi
Electrical Down Tilt	-10 degrees
Dimensions (HxWxD)	9.8 x 9.8 x 3.2 inches 248 x 248 x 80 millimeters
Weight	4.4 lbs / 2.0 kg

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9
Peak Rate	20 MHz: SA1: DL 80 Mbps, UL 20 Mbps SA2: DL 112 Mbps, UL 14 Mbps
SA - Special Subframe Assignment (configurable)	10 MHz: SA1: DL 40 Mbps, UL 14 Mbps SA2: DL 55 Mbps, UL 7 Mbps
User Capacity	32 concurrent users; license for 96 users available upon request
QoS Control	3GPP standard QCI
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM, 64QAM
Voice	VoLTE*
Traffic Offload	Local IP Access (LIPA) Selected IP Traffic Offload (SIPTO)
SON	Self-organizing network: <ul style="list-style-type: none"> Automatic setup Automatic Neighbor Relation (ANR) PCI confliction detection
RAN Sharing	Supported
Network Mgmt	TR069
MTBF	≥ 150000 hours
MTTR	≤ 1 hour
Spectrum Scanning	Supported
UL Interference Detection	Supported

Maintenance	<ul style="list-style-type: none"> 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
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*Future software release

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 ~ 106 kPa
Ingress Protection Rating	IP66

GLOBAL PART NUMBERS

pBS11004	Nova-227 outdoor TDD eNodeB - LTE Release 9, 2x250mW (24 dBm), 2 port, 10.5 dBi integrated 65-degree antenna, 2.5 GHz, B41 <ul style="list-style-type: none"> FCC certification: 2AG32PBS11004 (2501-2685 MHz) IC certification: 20982-PBS11004 (2500-2690 MHz)
pBS2120	Nova-227 outdoor TDD eNodeB - LTE Release 9, 2x250mW (24 dBm), 2 port, 13 dBi integrated 65-degree antenna, 3.5 GHz, B42/43/48 <ul style="list-style-type: none"> FCC certification: 2AG32PBS2120 (3655-3695 MHz) IC certification: 20982-PBS2120 (3650-3700 MHz)

Notes:

- 1 - Other models available for other regions. Contact sales_na@baicells.com.
- 2 - Customized versions may be requested.