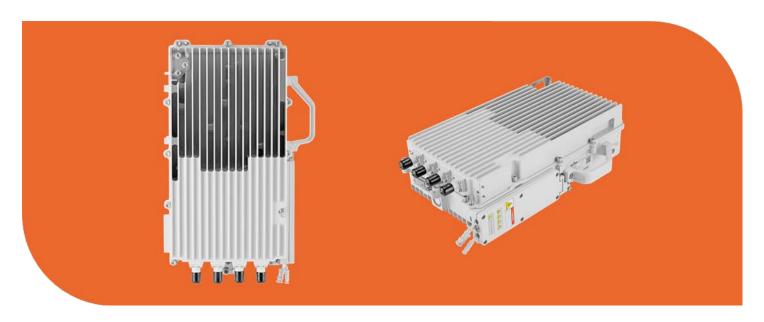
Nova-246 Outdoor TDD eNodeB

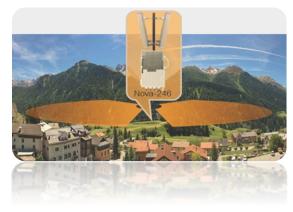




INTRODUCTION

The Baicells Nova-246 is a powerful outdoor dual carrier eNodeB (eNB) with 2x20W output power - that's 2x2 MIMO with 20 Watts per channel housed in one unit. Using two 2-port antennas or one 4-port antenna with one Nova-246 in split mode not only increases capacity but enables economical wireless broadband access in challenging locations.

Take, for example, a small rural community surrounded by mountains, with homes and businesses along a narrow valley corridor. Two 180° sectors facing opposite directions and attached to Nova-246 provides a "butterfly" coverage solution.



The Nova-246 eNB is based on the most prevalent high-speed wireless networking technology in the world today: Long-Term Evolution (LTE). It conforms to 3GPP standards and uses Time Division Duplexing (TDD) technology.

Using Band 41, this eNB is a good choice for addressing non-line-of-sight (NLOS) challenges; it provides the power and LTE intelligence to help penetrate obstructions such as heavy foliage, tall buildings, and hilly terrain.

In a later software upgrade, Nova-246 will offer the option to operate in Carrier Aggregation (CA) mode. CA mode combines contiguous or non-contiguous channels into a single data channel (up to 40 MHz) for even greater capacity.

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

HIGHLIGHTS

Note: Features may vary based on model or region.

- Standard LTE TDD Band 41
 - Customization may be requested; contact sales_na@baicells.com.
- Dual carrier (split mode), with planned software upgrade to Carrier Aggregation
- Extended cell coverage via higher transmission power
- Minimized power consumption to reduce OPEX
- Excellent non-line-of-sight (NLOS) coverage performance
- Peak rate: (up to) 220 Mbps DL, 14 Mbps UL with 2x20 MHz spectrum
- Maximum 192 concurrent users total (96/carrier)
- GUI-based local and remote management
- TR-069 network management protocol supported
- Attaches to any IP based backhaul, including public transmission
- IoT with all mainstream EPC vendors

HARDWARE SPECIFICATIONS

LTE Mode	TDD
Frequency Band	41 and customized
Channel Bandwidth	10/15/20 MHz
Max Output Power	43 dBm per carrier
Power Supply	-48V DC (-57V to -42V DC), AC adaptor (multi-national standards)
Power Consumption	< 180W
Rx Sensitivity	-102 dBm
Synchronization	GPS
Interfaces	1 optical (SFP) and 1 RJ-45 Ethernet (1 GE)
MIMO	DL: 2x2 per carrier
Dimensions (HxWxD)	17.3 x 9.5 x 4.7 inches 440 x 240 x 120 millimeters
Weight	26.5 lbs / 12 kg

SOFTWARE SPECIFICATIONS

LTE Standard	3GPP Release 9
Peak Rate (up to) SA - Special subframe Assignment (configurable parm)	2x20 MHz - Per Carrier: SA1: DL 80 Mbps, UL 28 Mbps SA2: DL 110 Mbps, UL 14 Mbps 2x10 MHz - Per Carrier: SA1: DL 40 Mbps, UL 14 Mbps SA2: DL 55 Mbps, UL 7 Mbps
User Capacity	192 concurrent users total (96 concurrent users per carrier)
QoS Control	3GPP standard QCI
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM, 64QAM
Traffic Offload	Local IP Access (LIPA) Selected IP Traffic Offload (SIPTO)
SON	Self-organizing network: • Automatic setup • Automatic Neighbor Relation (ANR) • PCI confliction detection
RAN Sharing	Supported
Network Mgmt	TR-069
MTBF	≥ 150000 hours
MTTR	≤1 hour
Spectrum Scanning	Supported

UL Interference Detection	Supported
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%
Atmospheric Pressure	70 kPa ~ 106 kPa
Ingress Protection Rating	IP66
Power Interface Lightning Protection	Differential mode: ±10 KA Common mode: ±20 KA

GLOBAL PART NUMBERS

sBS21001	Nova-246 outdoor dual carrier TDD eNodeB - LTE Release 9, 2x20W (43 dBm), 2T2R, 48VDC, 1 Eth+1Opt, external antenna(s), B41
	(2496-2690 MHz)
	FCC certification: In progress

Notes:

- $1 Other \ models \ available \ for \ other \ regions. \ Contact \ sales_na@baicells.com.$
- $\ensuremath{\text{2}}$ Customized versions may be requested.