Nova-227 Outdoor TDD eNB

INTRODUCTION

The Nova-227 is a unique tool for your toolbox. We have built and priced this lower power 2x250mW LTE 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 like townhomes and apartments.

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 and other devices, such as at traffic intersections.

FEATURES

- Supports standard LTE TDD bands 38, 39, 40, 41, 42, 43, and 48
- Compact, all-in-one design of internal antenna and integrated GPS, suitable for private and public deployments
- 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 EPC vendors
- Excellent NLOS coverage performance
- Max throughput of 112 Mbps DL, 20 Mbps UL with 20 MHz spectrum
- 96 concurrent users
- Supports emergency gateway (eGW) option for S1 aggregation to reduce signaling load of MME
- Supports local traffic offload and charging with eGW, and with both integrated local gateway and external eGW
- Highly secured with equipment certification against potential intrusion risk
- Plug-and-play with SON capabilities

HARDWARE SPECIFICATIONS

LTE Mode	TDD
Frequency Bands	38/39/40/41/42/43/48
Channel Bandwidth	10 / 20 MHz
Output Power	24 dBm / antenna
Power Supply	PoE+ IEEE 802.3at
Receiving Sensitivity	-100 dBm @ Bands 42/43/48 -101 dBm @ Bands 38/39/40/41
Synchronization Mode	GPS
Backhaul Mode	One RJ-45 Ethernet backhaul interface (1 GE)
MIMO	DL: 2*2
Dimensions (HxWxD)	9.8 x 9.8 x 3.2 inches 248 x 248 x 80 millimeters
Installation Method	Pole or wall mount
Antenna	13 dBi internal high-gain antenna • Horizontal Beamwidth 65° • Vertical Beamwidth 20° • Polarization: ±45°
Antenna Gain	13.5 ± 0.5 dBi
Power Consumption	< 20 W
Weight	4.4 lbs (2.0 kg)

Note 1: Different models support different frequency bands.

Note 2: 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.

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 10 MHz: • SA1: DL 40 Mbps, UL 14 Mbps • SA2: DL 55 Mbps, UL 7 Mbps
User Capacity	96 concurrent users
QoS Control	3GPP standard QCI
Modulation Mode	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: • Automatic setup • Automatic Neighbor Relation (ANR) • PCI confliction detection

RAN Sharing	Supported
Network Management Interface	TR069 interface protocol
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

GLOBAL PART NUMBERS

pBS2120	Nova-227 250mW eNB Bands 42/43
pBS11004	Nova-227 250mW eNB Bands 40/41