



NanoLink 2302: Integrated Indoor Small Cell

NL 2302

OVERVIEW

The NL 2302 is FDD LTE small cell targeted at indoor enterprise environments. The units can be installed by both end-users in “Plug-and-Play” mode and technicians in planned deployment. With 2*125mW output power and high performance, the NL 2302 can help mobile operators improve coverage and capacity with minimum cost.



FEATURES

- Standard LTE bands: FDD bands 1/3
- Peak data rate (20MHz) FDD:
DL 150Mbps (64QAM)
UL 75Mbps (64QAM)
- Maximum 32 VoLTE users, 32 RRC active users and 64 RRC-connected users
- 5/10/15/20 MHz operation bandwidth
- All IP-based backhaul many IP backhaul methods can be used, including RJ45 Ethernet and SFP
- Plug-and-play with SON features, including self-configuration, self-optimization, self-healing
- Local Web GUI management, network management with HeNB management server
- Compact and beautiful design, supplied with high-performance integrated antennas.
- PoE supported.
- Lower power consumption to reduce OPEX.



ENVIRONMENT

Operating Temperature	-5°C to + 40°C
Storage Temperature	-45°C to +70°C
Operating Humidity	5% to 95%
Storage Humidity	5% to 95%
Housing self-extinguishing class	V-0
IP Rating	IP30
Shock when packaged	ETSI 300 019 1-2 (class 2.3) ; NEBS GR63
Shock unpackaged	Max Drop Height: 750mm in hard ground

HARDWARE SPECIFICATIONS

LTE Mode	FDD
Frequency Bands	FDD: 1 and 3
Channel Bandwidth	5/10/15/20 MHz
Characteristic Impedance	50Ω
Number of RF Ports	4 RF (2*ANT, SNF, GPS)
Max Output Power	21 dBm / antenna
Transmitter Performance	36.141, Home BS compliance
Receiver Performance	36.141, Home BS compliance
Synchronization	GPS, IEEE 1588v2 PTP, Network Listening
Backhaul	1 RJ45 Ethernet (10/100/1000 Auto-negotiating); SFP
Power Supply	90 ~ 254V AC to 12V DC; POE+ (IEEE 802.3 at standard)
Dimensions	220mm (H) * 220mm (W) * 40mm (D)
Weight	< 1kg
Power Consumption (W)	< 13W
Antenna	Internal: 3 dBi < 120°; External: 5 dBi omni antenna
Installation	Desktop, Ceiling or Wall mounted
Material	Top: plastic; Bottom: cast-aluminium



SOFTWARE SPECIFICATION

LTE Standard	3GPP Release 12
Peak Data Rate (20MHz BW)	DL 150Mbps (64QAM) UL 75Mbps (64QAM)
Modulation	DL: QPSK, 16QAM, 64QAM UL: QPSK, 16QAM, 64QAM
Max User Number	32 VOLTE users 32 RRC active users 64 RRC connected users
Voice Solution	VoLTE, eSRVCC, CSFB
SON Features	<p>Self-configuration:</p> <ul style="list-style-type: none"> • Automatic Neighbor Relation (ANR) • Physical Cell Identity (PCI) • Autoconfiguration • Radio Environment Management (REM) • S1/X2 autoconfiguration • RACH channel self-configuration • Channel Selection • Transmission Power Management <p>Self-optimization:</p> <ul style="list-style-type: none"> • MRO, MLB, CCO, RACH organization <p>Self-healing:</p> <ul style="list-style-type: none"> • Automatic cell outage detection • Software recovery
Maintenance	<p>Online status monitoring and management</p> <p>Performance management, KPI recording</p> <p>Fault management, Alarm reporting</p> <p>Configuration management</p> <p>Local or remote software upgrade</p> <p>User information tracing</p>
MTBF	≥ 150000 hours
MTTR	≤ 1 hour

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