



ENB-430 CBRS INDOOR eNODE-B

Compact, Efficient, Flexible



The JACS **eNB-430** is an advanced two-carrier indoor eNodeB (eNB) compliant with 3GPP LTE TDD technology. This 4x250mW eNB operates in either Carrier Aggregation (CA) mode or Dual Carrier (DC) mode.

The eNB-430 supports LTE TDD Band 48, is interoperable with a standard LTE Evolved Packet Core, and includes a TR069 network management interface to allow you to easily deploy and manage a private cellular network for mobility, security, and capacity wherever your operations require it.

Customization Benefits

Empower your workforce with value-generating solutions designed specifically to meet the needs of your business.



Hardware

- Small form factor
- Internal antenna
- Plug & play capable



Software

- Remote web management
- Evolved packet core interop
- Pre-configurable



Connectivity

- Private LTE
- LTE TDD Band 48
- IPSec protection

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STANDARD LTE TDD RAN (3GPP Release 15 compliant)	TDD UL/DL CONFIGURATION 1, 2, 6 (with Special Subframe Configuration 7)
FREQUENCY BAND B48 (3550 MHz–3700 MHz)	CHANNEL BANDWIDTH SC: 5/10/15/20 MHz CA: 40 MHz as maximum aggregated bandwidth
MULTIPLEXING MIMO: 2x2 (DL)	SECURITY Radio: SNOW 3G/AES-128 Backhaul: IPsec (X.509 AES-128, AES-256, SHA-128, SHA-256)
ETHERNET INTERFACE 1 optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)	POWER SUPPLY 12 VDC 2 A, PoE+/48 V 0.6 A, complies with IEEE 802.3at standard
PROTOCOLS IPv4/IPv6 (Dual Stack), UDP, TCP, ICMP, SNMPv2c, NTP, SSH, IPsec, TR-069, HTTP/HTTPS, 1588v2, DHCP	NETWORK MANAGEMENT IPv4/IPv6, HTTP/HTTPS, SNMPv2c, TR-069, SSH, Embedded EPC
VLAN/VxLAN 802.IQ/VxLAN	LED INDICATORS 4 x status LED CELL1/CELL2/ALM/PWR

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PERFORMANCE

PEAK DATA RATE (DC)	2X20 MHZ	DL (MBPS)	UL (MBPS)
	UL/DL Config 1	2X105	2X28
	UL/DL Config 2	2X145	2X14
	UL/DL Config 6	2x85	2x35
	2x10 MHZ	DL (MBPS)	UL (MBPS)
	UL/DL Config 1	2x51	2x14
	UL/DL Config 2	2x70	2x7
	UL/DL Config 6	2x42	2x17
	PEAK DATA RATE (CA)	2X20 MHZ	DL (MBPS)
UL/DL Config 1		210	56
UL/DL Config 2		290	28
UL/DL Config 6		170	70
2x10 MHZ		DL (MBPS)	UL (MBPS)
UL/DL Config 1		102	28
UL/DL Config 2		140	14
UL/DL Config 6		84	34
20 MHZ + 10 MHZ		DL (MBPS)	UL (MBPS)
UL/DL Config 1		156	42
UL/DL Config 2		215	21
UL/DL Config 6		127	52
20 MHZ + 15 MHZ		DL (MBPS)	UL (MBPS)
UL/DL Config 1		182	49
UL/DL Config 2		250	24
UL/DL Config 6		148	61

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<p>USER CAPACITY Up to 96 RRC connected users per cell (4 users per TTI)</p> <ul style="list-style-type: none"> • SC/CA: 96 RRC connected users • DC: 96+96 RRC connected users 	<p>LATENCY 30 milliseconds</p>
<p>RECEIVE SENSITIVITY -100 dBm (per channel)</p>	<p>MODULATION MCS0 (QPSK) to MCS27 (256 QAM) DL: QPSK, 16 QAM, 64 QAM, 256 QAM UL: QPSK, 16 QAM, 64 QAM</p>
<p>TRANSMIT POWER RANGE 0 to 24 dBm per channel (combined +30 dBm, configurable) (1 dB interval)</p>	<p>QUALITY OF SERVICE Nine-level priority indicated by QoS Class Identifiers (QCI)</p>
<p>ARQ/HARQ Supported</p>	<p>SYNCHRONIZATION GPS, 1588v2 (default)</p>

MODULATION LEVELS (ADAPTIVE)

MCS	MODULATION SCHEME	RSRP (dBm)
0-4	QPSK	$-120 \leq \text{RSRP} < -110$
5-9	16 QAM	$-110 \leq \text{RSRP} < -100$
10-19	64 QAM	$-100 \leq \text{RSRP} < -85$
20-27	256 QAM	$\text{RSRP} \geq -85$

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FEATURES

VOICE	VoLTE (planned)
NSA	Supported
SON	Self-Organizing Network Automatic setup Automatic Neighbor Relation (ANR) PCI confliction detection
EPC	HaloB (Embedded EPC)
TRAFFIC OFFLOAD	Local breakout
LAYER 2 SUPPORT	Transparent Bridge Mode
MAINTENANCE	<ul style="list-style-type: none">· Local/Remote Web maintenance· Online status management· Performance statistics· Fault management· Local/Remote software upgrade· Logging· Connectivity diagnosis· Automatic start and configuration· Alarm reporting· User information tracing· Signaling trace

LINK BUDGET

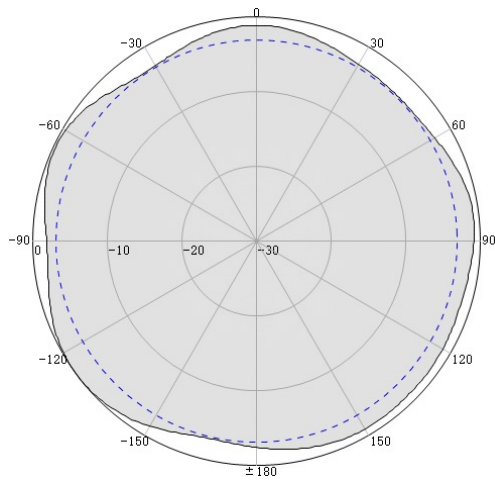
RF ANTENNA	3 dBi built-in omni antenna
GPS ANTENNA	External GPS antenna, SMA connector
MAXIMUM EIRP	33 ± 1 dBm
POWER CONTROL	UL Open-loop/Closed-loop Power Control, DL Power Allocation (3GPP TS 36.213 compliant)

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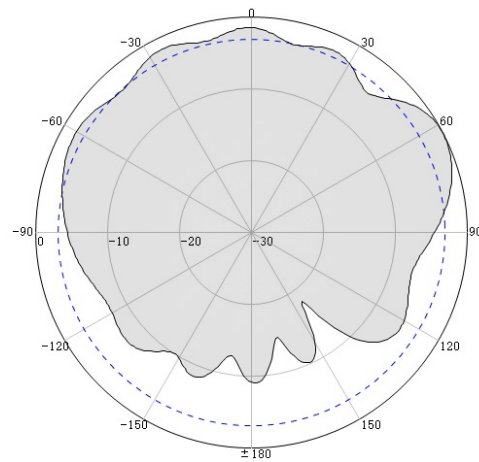
PHYSICAL

MBTF	≥ 150000 hours
MTRR	≤ 1 hour
OPERATING TEMPERATURE	23°F to 113°F / -5°C to 45°C
STORAGE TEMPERATURE	14°F to 122°F / -10°C to 50°C
HUMIDITY	5% to 95% RH
ATMOSPHERIC PRESSURE	70 kPa to 106 kPa
POWER CONSUMPTION	≤ 20 W
WEIGHT	3.3 lb/1.5 kg
DIMENSIONS (HxWxD)	8.7 x 8.7 x 1.9 inches 220 x 220 x 48 millimeters
INSTALLATION	Ceiling or wall mount

ANTENNA PATTERN



H-Pattern



V-Pattern