

# CEL-FI QUATRA 4000e

# In-Building Cellular Coverage Solution

MODEL NUMBERS: Q44-E999CNU, Q41-EECU

Solving cellular coverage challenges for enterprise environments, CEL-FI QUATRA 4000e is a multi-carrier Active DAS Hybrid that offers uniform, high-quality cellular signal throughout any building. As an all-digital solution, QUATRA 4000e utilizes category cabling for RF and Power-over-Ethernet architecture to deliver industry-leading signal gain and scalability. In addition to unmatched performance, this cost-effective, carrier-grade system offers fiber expansion capabilities and can be installed within days. QUATRA 4000e is also carrier approved and guaranteed network safe.



Coverage Unit (CU)

#### Features and benefits include:

- · Scalable all-digital Active DAS Hybrid for enterprise
- Multi-carrier signal booster for 3G, 4G, and 5G with industry-leading signal gain up to 100 dB
- Lossless RF signal and Power-over-Ethernet (PoE) distribution with easy-to-install category cable architecture
- Site installation flexibility with operator specific donor antenna or small cell signal source
- Remotely monitor and configure with Nextivity WAVE Portal cloud management
- · Carrier approved and unconditionally network safe

#### **Bands**

Bands	Downlink MHz	Uplink MHz	Technology / Bandwidth	Uplink Power (dBm)	Downlink Power (dBm)
1	2110-2170	1920-1980	5G/4G/3G/20MHz	22	22
3	1805-1880	1710-1785	5G/4G/3G/20MHz	22	22
7	2620-2690	2500-2570	5G/4G/3G/20MHz	22	22
8	925-960	880-915	5G/4G/3G/15MHz	20	22
20	791-821	832-862	5G/4G/3G/20MHz	20	22
40*	2300-2390	2300-2390	5G/4G/3G/20MHz	22	19

<sup>\*</sup> Available only on Donor Port A

#### **Specifications**

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Frequency Bands	1/3/7/8/20/40
Relay Channel Bandwidths (MHz)	5/10/15/20
Network Protocols	WCDMA/LTE/DSS/NR
Network Selection	Automatically best available (WAVE Portal for manual setting)
Duplex Modes	FDD & TDD
# of Relay Bands	8 max. (2 bands per NU donor port)
Independent Operators Supported	4 max.
System Gain	100 dB max.
Enterprise-Grade Echo Cancellation	30 dB min.
Noise Figure (All Bands)	7 dB max. at ambient
Return Loss	-8 dB max.
UL Transmit EVM	8.5 %, 16-QAM with full RB allocation
DL Transmit EVM	8.5%, E-TM3.1
DL Input Level	-100 to -38 dBm
RF Interface Impedance (All Ports)	50 Ω
NU to CU Cable	2x Category Cables ANSI/TIA/EIA 568-B Compliant
NU to CU Cable Distance	328 ft (100 m) (656 ft (200 m) with CEL-FI QUATRA Range Extender)
Product Settings & SW Updates	WAVE Portal for Desktop

### **Network Unit Interface**

Donor Port RF Connectors	4x 4.3-10 (f)
Power Port	IEC C14
Power Control	ON/OFF Switch
Cellular Modem Antenna Connector	1x SMA (f)
Cellular Modem GPS Antenna Port	1x SMA (f)
Cellular Modem SIM	Nano SIM (Included with 1-year free service)
Status LED (Power/LAN/Modem)	Bi-Color Green/Red
Status LED (6x CU Link/SFP+)	Green
CU Interface	2x RJ45 per CU
# of CU max. per NU	6
NU-Hub Expansion	SFP+
# of CU max per CEL-FI QUATRA 4000e Fiber Hub (Q40-EFNU)	6
Monitoring & Management	LAN RJ45
COMPASS XR and Factory Debug	USB 2.0 Micro-B

## **Coverage Unit Interface**

Server Antenna RF Connector	4.3-10 (f)
NU Connectivity	2x RJ45
Status LED (Power)	Bi-Color Green/Red
Status LED(NU Link/Cable Link)	Green
Factory Debug Only	USB 2.0 Micro-B

## Compliance

3GPP	TS 25.143 Rel 13 & 3GPP TS 36.143 Rel 13
CE	Compliant RED 2014/53/EU
ICASA	Yes
OFCOM	IR2102 & UKCA
RoHS3	EN 63000:2018

### **Power**

Input Voltage	85-264 V
Input Current	2.45 A
Power Consumption	480 W max.
Power Cable	Type C (EU) or Type I (AUS) or Type G (UK) to IEC C13
Power Supply Cable	18 AWG
Power Supply Cable Length	6 ft (1.8 m)
Coverage Unit Power	PoE+ per IEEE 802.3at

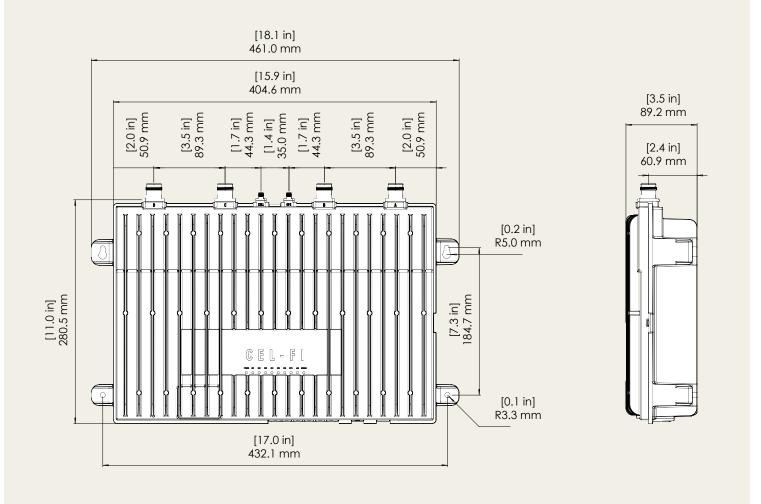
### **Environmental**

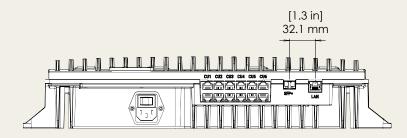
Operating Temperature	32 to 104 °F (0 to 40 °C)
Storage Temperature	-31 to 158 °F (-35 to 70 °C)
Heat Dissipation	Passive Convection
Surface Temperature	111°F (44 °C) max. at ambient
Non-condensing Humidity	0 to 95%
Ingress Protection Rating	IPX0

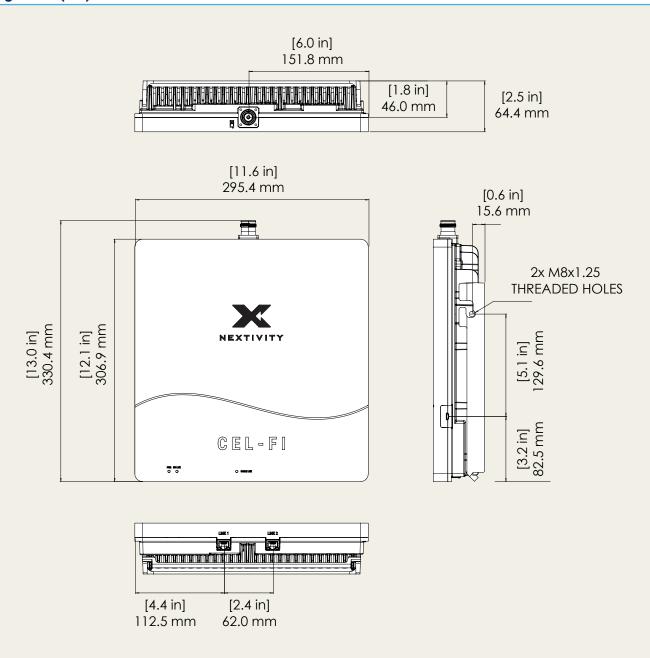
### **Mechanical & Packaging**

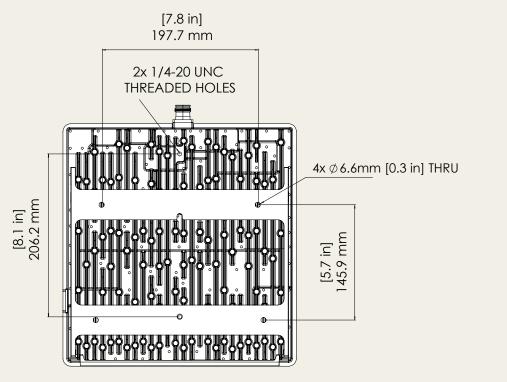
Network Unit
1x AC Power Cable
4x Mounting Screws
4x Drywall Anchors
1x Cellular Modem Antenna
Coverage Unit
4x Mounting Screws
4x Drywall Anchors
2x Eye Bolt w/ nuts
18.1 x 11.0 x 3.5 in (461 x 281 x 89 mm)
19.4 lbs (8.80 kg)
23.9 x 14.7 x 5.6 in (607 x 374 x 141 mm)
22.5 lbs (10.21 kg)
13.0 x 11.6 x 2.5 in (330 x 295 x 64 mm)
11.3 lbs (5.13 kg)
18.2 x 15.8 x 4.6 in (462 x 402 x 116 mm)
13.6 lbs ( 6.2 kg)
Wall
Wall/Ceiling*

<sup>\*</sup>CMA-100-100 sold separately for ceiling mount

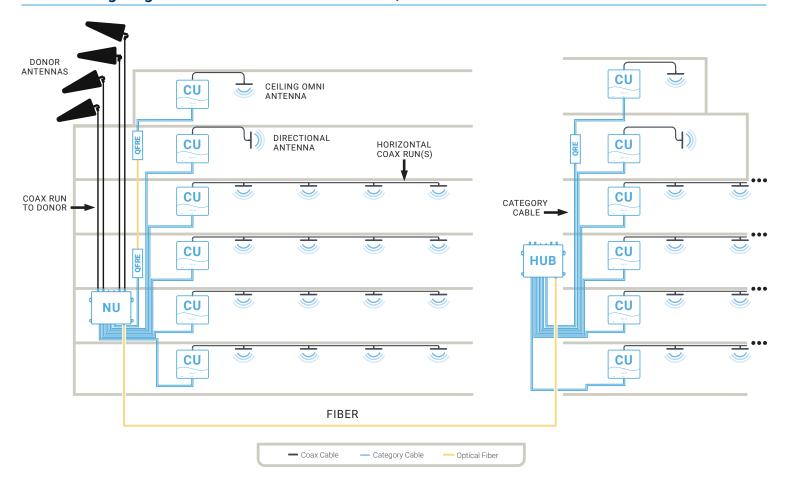








### Two-Building Diagram: 1 NU to 12 CUs with CEL-FI QUATRA 4000e Fiber Hub





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