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Nextivity CEL-FI QUATRA 4000e Network Unit, 1/3/7/8/20

SKU: RPR-CF-00844

MPN: Q44-E999CNU

Barcode: 812037032646

Description

The Cel-Fi QUATRA 4000e Network Unit (NU) forms the central component of Nextivity's flagship hybrid DAS solution. QUATRA 4000e is an enterprise-grade multi-operator digital repeater system used to resolve poor in-building 4G-5G mobile coverage in medium-sized buildings.

QUATRA 4000e uses ordinary Cat5e/Cat6 ethernet cables to interconnect up to six Coverage Units (CU) placed around the building, and an additional six CU when using the Fibre Hub (purchased separately). The Network Unit establishes a strong interconnection to the network operator, either through a donor antenna or Small Cell input, and each Coverage Unit then outputs this signal at full strength (+16 dBm per channel).

As a hybrid-digital solution that uses ordinary ethernet cabling, installation of the system is quick and simple.

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The Network Unit supports up to four Mobile Network Operators, allowing coverage from all networks to be improved simultaneously. This includes support of Private LTE/5G networks, allowing the combination of both public and private networks inside the building.

Q4000e NU supports the commonly utilised mid-bands, B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), TDD B40 (2300 MHz) along with B8 and B20 low-bands common in Europe.

The Q4000e NU supplies power to each CU using Power over Ethernet (PoE). The maximum distance of each CU from the NU depends on the cable type. Most Cat5e cables support a distance of up to 100 metres (200 metres with the QRE), Cat6 cables support a distance of up to 150 metres (300 metres with the QRE). The Fibre Range Extender (QFRE) allows CU to be placed up to 2 kilometres away.

The QUATRA Fibre Hub expands the NU capacity by supporting an additional six CU. The Fibre Hub connects via the NU's SFP

Nextivity

Nextivity, Inc. develops and sells in-building cellular coverage technology products and solutions. The Company helps wireless subscribers and increases radio frequency network capacity for mobile network operators. Nextivity operates in the State of California.

Nextivity is best known for its Cel-Fi range of mobile repeater solutions which provide low cost improved in-building coverage solutions.

RF Specification

Simultaneous Bands:	8	Relay Bandwidth:	140 MHz
Downlink Max. Gain:	100 dB	Uplink Max. Gain:	100 dB
Supported Technologies:	4G LTE, 5G NR	Noise Figure:	≤ 7 dB

Supported Bands

Frequency Band	Duplex Method	MIMO	Uplink Output Power	Max. Channel Width	Downlink Start Frequency	Downlink Stop Frequency	Uplink Start Frequency	Uplink Stop Frequency
B1 (2100 MHz)	FDD	1x1 SISO	22 dBm	20 MHz	2110 MHz	2170 MHz	1920 MHz	1980 MHz
B3 (1800 MHz)	FDD	1x1 SISO	22 dBm	20 MHz	1805 MHz	1880 MHz	1710 MHz	1785 MHz
B7 (2600 MHz)	FDD	1x1 SISO	22 dBm	20 MHz	2620 MHz	2690 MHz	2500 MHz	2570 MHz
B8 (900 MHz)	FDD	1x1 SISO	20 dBm	20 MHz	925 MHz	960 MHz	880 MHz	915 MHz
B20 (800 MHz)	FDD	1x1 SISO	20 dBm	20 MHz	791 MHz	821 MHz	832 MHz	862 MHz
B40 (2300 MHz)	TDD	1x1 SISO	22 dBm	20 MHz	2300 MHz	2390 MHz	2300 MHz	2390 MHz

RF Connections

RF Connector Function	Quantity	RF Interface	Notes
Donor Input	1	4.3-10 Female	Operator #1
Donor Input	1	4.3-10 Female	Operator #2
Donor Input	1	4.3-10 Female	Operator #3
Donor Input	1	4.3-10 Female	Operator #4

Network Interfaces

Wireless Interfaces

Cellular Module

Technologies:	4G LTE

SIM Cards

Quantity	SIM Type
1	Nano SIM (4FF)

Modem RF Connectors

RF Connector Function	Quantity	RF Interface	Notes
Cellular	1	SMA Female	
GNSS	1	SMA Female	GPS (Future Functionality)

Ethernet Interfaces

Interface	Quantity	Function	Signalling	PoE Input
RJ45 Copper	6	Coverage Unit (CU) Downlink		802.3at PoE+
RJ45 Copper	6	Coverage Unit (CU) Uplink		802.3at PoE+
RJ45 Copper	1	Management Interface	100BASE-T	
SFP Fibre/Copper		Fibre HUB		

Physical Specification

Ingress Protection:	IPX0	Min. Operating Temperature:	0 °C
Mounting:	Screw / Bolt	Max. Operating Temperature:	40 °C
Dimensions:	330 × 272 × 85 mm	Weight:	6.5 kg
Compliance/Certifications:	CE , R-NZ , RCM		

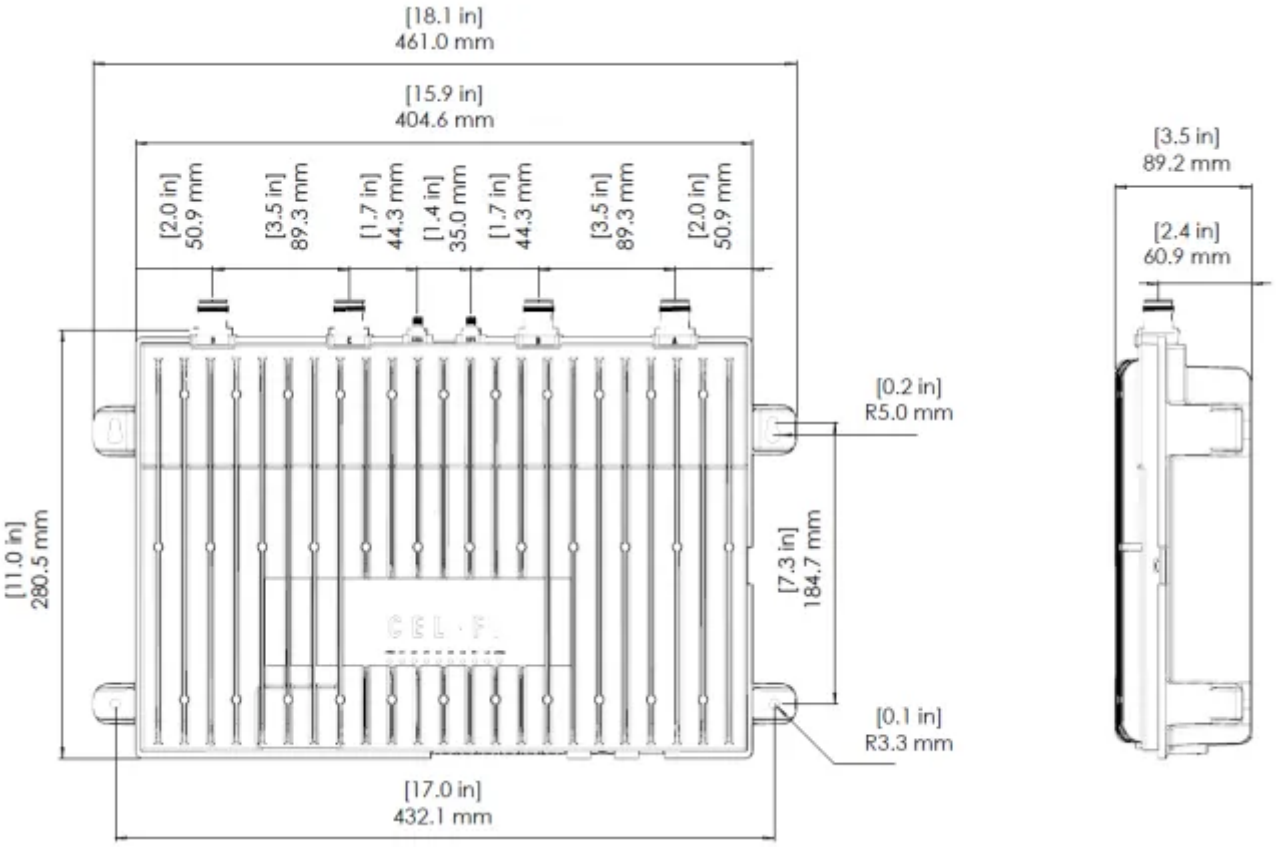
Device Power Specifications

Max. Consumption:	480 W	Typical Consumption:	230 W

Power Interface

Power Connector	Nominal Voltage	Min. Input Voltage	Max. Input Voltage	Voltage Type
IEC C13 / C14	240 V	85 V	264 V	AC

Drawing


[18.1 in]
461.0 mm
[15.9 in]
404.6 mm
[2.0 in]
50.9 mm
[3.5 in]
89.3 mm
[1.7 in]
44.3 mm
[1.4 in]
35.0 mm
[1.7 in]
44.3 mm
[3.5 in]
89.3 mm
[2.0 in]
50.9 mm
[0.2 in]
R5.0 mm
[11.0 in]
280.5 mm
[7.3 in]
184.7 mm
[0.1 in]
R3.3 mm
[17.0 in]
432.1 mm
[3.5 in]
89.2 mm
[2.4 in]
60.9 mm

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