



CEL-FI QUATRA EVO

One or Two Operator Cellular Coverage Solution



Performance Leadership



Ease of Install



Leaders in Value



Fast Set Up



Carrier Grade Approved



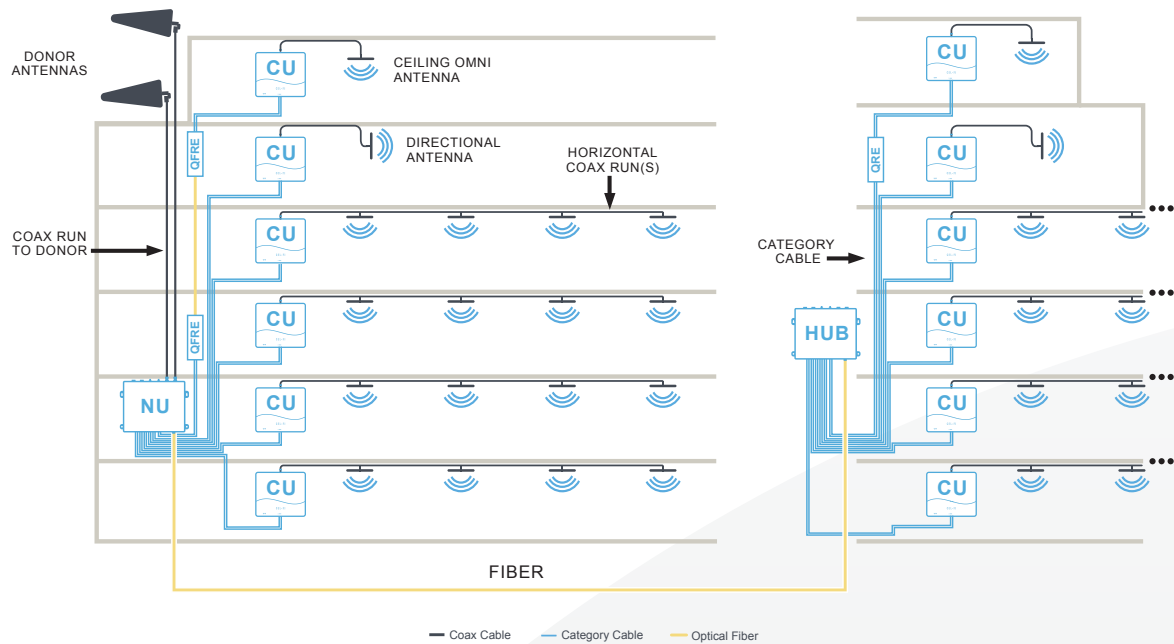
Designed for enterprises to easily solve 3G, 4G, and 5G cellular coverage challenges, CEL-FI QUATRA EVO is the right choice for places like retail stores, schools, hotels, and healthcare facilities that need to improve indoor signal coverage for one or two operators.

QUATRA EVO is an Active DAS Hybrid that is equipped with the latest 4th generation Nextivity proprietary IntelliBoost chip to ensure uniform, high-quality cellular signal throughout any building. As an all-digital solution, QUATRA EVO utilises category cabling for RF and Power-over-Ethernet architecture to deliver industry-leading signal gain and scalability. This cost-effective, carrier-grade system can be installed within days and offers fiber expansion capabilities.

Coverage Made Easy

This one or two operator / two-port solution has many of the features of our flagship, four-port QUATRA 4000 systems including:

- Scalable all-digital architecture
- Flexible configuration
- IntelliBoost technology with the best echo cancellation, gain, and coverage footprint in the industry
- 3G/4G/5G
- Support for up to Six (6) Coverage Units (CUs)
- Compatibility with optional fiber hub for even more coverage options (up to 12 CUs)
- Use of category cabling and PoE
- Hassle-free installation with minimal disruption to operations



Two Configurable Ports

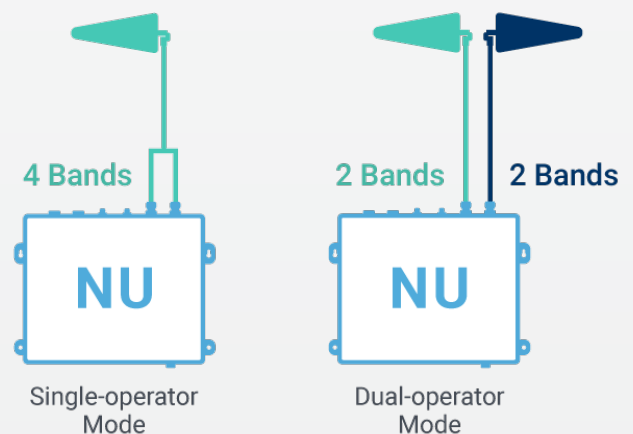
Single-operator Mode

In single-operator mode, connect a single donor signal to both ports to support four bands from same carrier.

Dual-operator Mode

In dual-operator mode, connect a different donor antenna to each port to support two bands from each operator.

Either mode will provide full, reliable coverage throughout the building. Proprietary technology ensures devices are connected to the best available operator bands to provide optimal connectivity for end users.



System Components



QUATRA EVO Network Unit

Model Number: Q42-FGCNU (Bands 1, 3, 5, 7, 8, 26, 28, 40)

The Network Unit (NU) is the hub of the system. Each NU works with one to six Coverage Units (CU) for maximum scalability and design flexibility.

- Receives donor signal(s) for the system
- Provides power and distributes donor signal(s) to CUs (up to six)
- Connects via Ethernet or LTE Modem to the Nextivity WAVE Platform for remote monitoring and management



QUATRA EVO Coverage Unit

Model Number: Q41-HXCU-2 (Bands 1, 3, 5, 7, 8, 26, 28, 40)

The Coverage Unit (CU) is the remote unit of the system that rebroadcasts the donor signal. The cost efficient and easy-to-deploy system leverages Power over Ethernet (PoE) for up to six CUs.

- Distributes signal across the coverage area inside the building (up to six per Network Unit)
- Power delivered by Power Over Ethernet from the NU
- Self-configuring and self-optimising
- CEL-FI QUATRA EVO CU is only compatible with CEL-FI QUATRA EVO NU



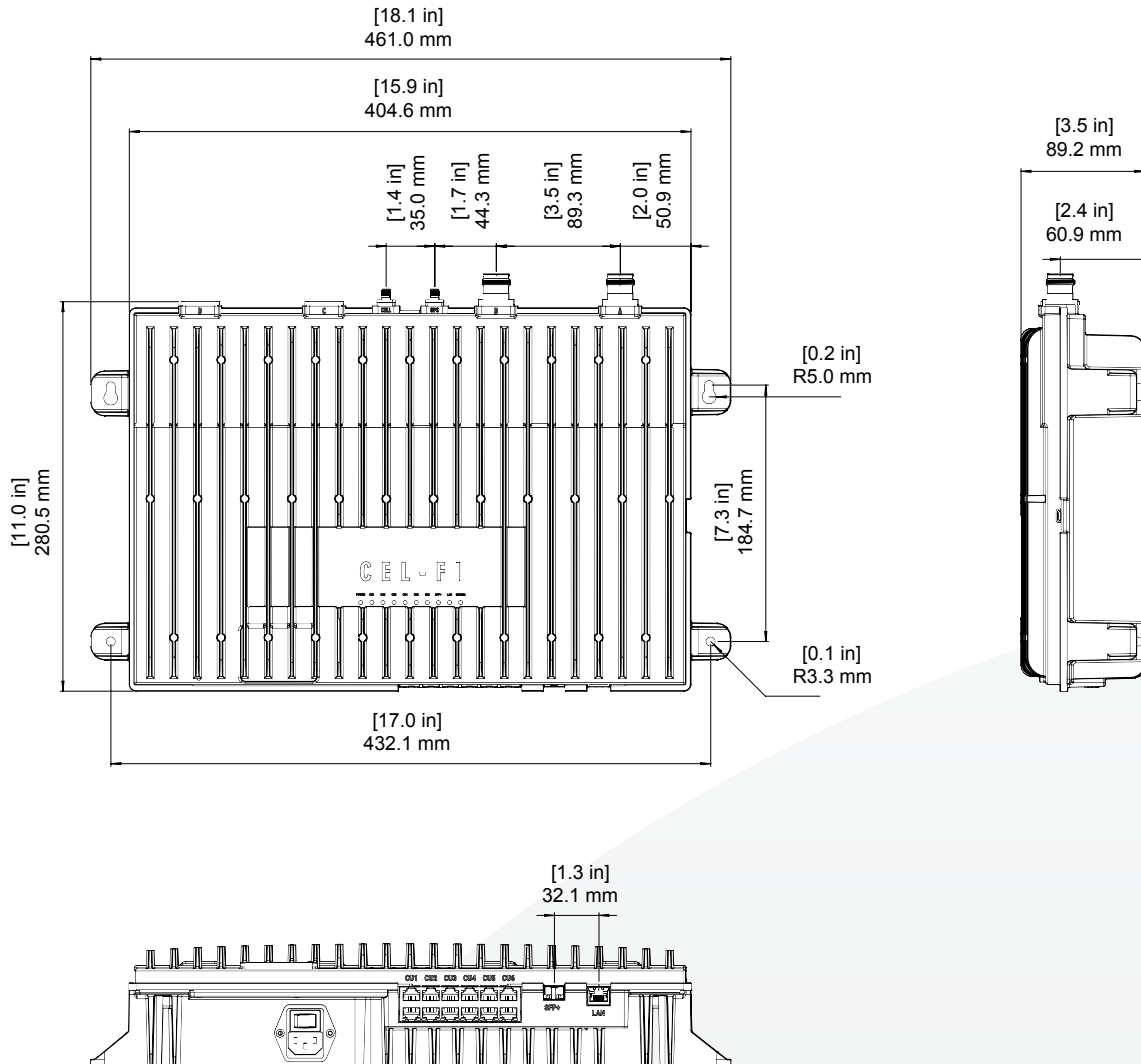
QUATRA EVO Fiber Hub (Optional)

Model Number: Q40-E9FNU

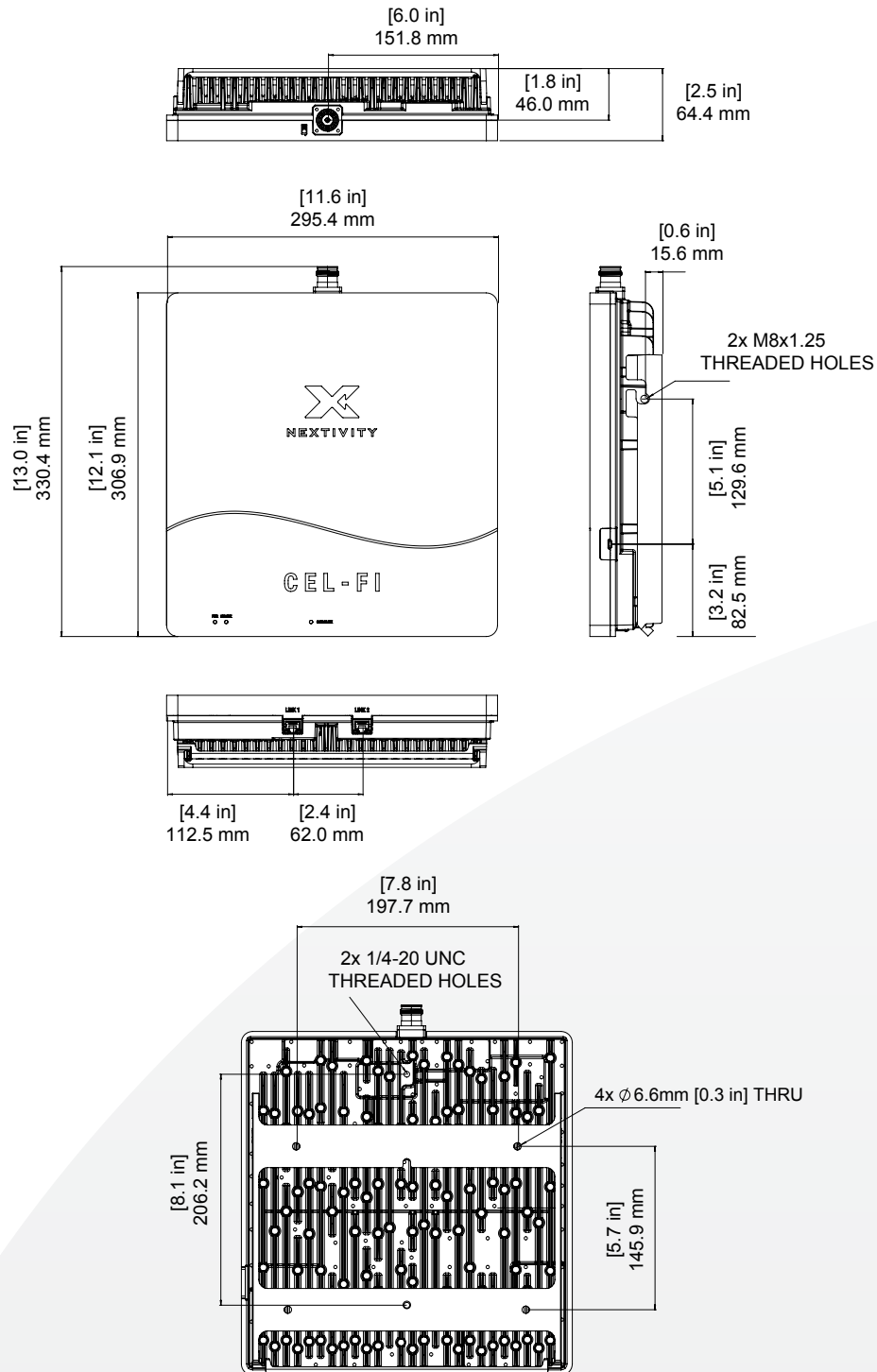
CEL-FI QUATRA EVO Fiber Hub expands the Network Unit capacity from six to up to twelve Coverage Units. The fiber hub can be installed 1.24 miles (2.0 km) away from the NU to cover large spaces while maintaining the same signal quality throughout the system.

- Donor source over fiber
- Ofcom license exempt and FCC certified
- SFP+ module not included

CEL-FI QUATRA EVO Network Unit (NU)



CEL-FI QUATRA EVO Coverage Unit (CU)





Specifications

CEL-FI QUATRA EVO	
Frequency Bands	1/3/5/7/8/20/26/28/40
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	4 max.
Independent Operators Supported	2 max.
Relay Bandwidth per NU Donor Port A or B	20 + 20 MHz max.
CU DL Power (All Bands in UK only)	16 dBm max.
System Gain	100 dB max.
Enterprise-Grade Echo Cancellation	30 dB min.
Noise Figure (All Bands)	7 dB max. at ambient, (UL: 9.2/ DL: 10.2 for Q42-FGCNU & Q41-HXCU-2 respectively)
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 -40 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) max.
Product Settings & SW Updates	WAVE Portal and WAVE Field Tool
NETWORK UNIT INTERFACE	
Donor Port RF Connectors	2x 4.3-10 (f) (A B)
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



PRODUCT DATASHEET
CEL-FI QUATRA EVO

NU-Hub Expansion	SFP+
# of CU max per CEL-FI QUATRA EVO Fiber Hub (Q40-E9FNU)	6
Monitoring & Management	LAN RJ45
WAVE FIELD Tool	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
WAVE FIELD Tool	USB 2.0 Micro-B
COMPLIANCE	
3GPP	TS 25.143 Rel 13
	3GPP TS 36.143 Rel 13
CE	Compliant
	RED 2014/53/EU
RoHS3	EN 63000: 2018
OFCOM	VTS 2102
ACMA/RCM	AS/NZS CISPR, 32:2013
QUATRA EVO POWER	
Input Voltage	85-264 VAC
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		
	Network Unit	Coverage Unit
Main Unit Dimensions	18.1 x 11.0 x 3.5 in (461 x 281 x 89 mm)	13.0 x 11.6 x 2.5 in (330 x 295 x 64 mm)
Main Unit Weight	19.4 lbs (8.80 kg)	11.3 lbs (5.13 kg)
Mounting	Wall	Wall/Ceiling*

*CMA-100-100 sold separately for ceiling mount

Bands

Bands	Downlink (MHz)	Uplink (MHz)	Technology/ Bandwidth	Uplink Power (dBm)	Downlink Power (dBm)
1	2110-2170	1920-1980	5G/4G/3G/20 MHz	22	20
3	1805-1880	1710-1785	5G/4G/3G/20 MHz	22	20
5**	869-890	824-845	5G/4G/3G/20 MHz	20	20
7	2620-2690	2500-2570	5G/4G/3G/20 MHz	22	20
8*	925-960	880-915	5G/4G/3G/2G/15 MHz	20	20
26**	859-890	814-845	5G/4G/3G/20 MHz	20	20
28	758-803	703-748	5G/4G/3G/20 MHz	20	20
40*	2300-2390	2300-2390	5G/4G/3G/20 MHz	22	20

* Port A only
 ** Port B only



Ordering Information

Model	Q42-FGCNU	Q41-HXCU-2
Region	EMEA/APAC	
Frequency Bands	1/3/5/7/8/26/28/40	
Box Contents	Network Unit	Coverage Unit
	1x AC Power Cable	4x Mounting Screws
	4x Mounting Screws	4x Drywall Anchors
	4x Drywall Anchors	2x Eye Bolt w/ nuts
	1x Cellular Modem Antenna	
Shipping Dimensions (in (mm))	23.9 x 14.7 x 5.6 in (607 x 374 x 141 mm)	18.2 x 15.8 x 4.6 in (462 x 402 x 116 mm)
Shipping Weight (lbs (kg))	22.5 lbs (10.21 kg)	13.6 lbs (6.2 kg)
GTIN-12 (U.P.C.)	812037034428	812037034411
Harmonised Tariff Schedule (HTS)	8517.18.00.50	
Export Control Classifications Number (ECCN)	EAR99	

* Port A only
 ** Port B only