

CEL-FI QUATRA 4000c

In-Building Public and Private Cellular Coverage

MODEL NUMBERS: Q44-1M34CNU, Q41-RECU

CEL-FI QUATRA 4000c is an enterprise active DAS that delivers industry-leading public cellular coverage while enabling private cellular and IoT connectivity over a shared infrastructure. Combining intelligent multi-carrier signal distribution with support for CBRS-based private cellular networks, QUATRA 4000c helps organizations improve connectivity for employees, devices, and operational applications throughout their facilities. By supporting public cellular, private cellular, and IoT use cases on a common platform, QUATRA 4000c provides a flexible foundation for today's connectivity needs and tomorrow's wireless innovations.

Features and benefits include:

- Scalable all-digital active DAS hybrid for enterprise environments
- Converged neutral host cellular and CBRS private networking coverage solution
- Multi-carrier signal booster for 4G and 5G with industry-leading signal gain up to 100 dB
- Carrier approved and unconditionally network safe
- 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



Network Unit (NU) Coverage Unit (CU)

QUATRA 4000c Bands

Bands	Network Unit Port	Downlink (MHz)	Uplink (MHz)	Technology/Bandwidth	Uplink Power (dBm)
2	ATT, VZW, TMO	1930-1990	1850-1910	5G/4G/20 MHz	22
4	ATT, VZW, TMO	2110-2155	1710-1755	5G/4G/20 MHz	22
5	ATT only	869-894	824-849	5G/4G/HSPA/20 MHz	20
12	ATT & TMO	729-746	699-716	5G/4G/10 MHz	22
13	VZW only	746-756	777-787	5G/4G/10 MHz	22
25	ATT, VZW, TMO	1930-1995	1850-1915	5G/4G/20 MHz	22
30*	ATT only	2350-2360	2305-2315	5G/4G/10 MHz	19
48**	PVT only	3550-3700	3550-3700	5G/4G/10 MHz	22
71*	TMO only	617-652	663-698	5G/4G/20 MHz	22

*Available only with Industrial upgrade via WAVE Portal

** Available only with PVT port unlock. Contact your distributor.

QUATRA 4000c Specifications

Network Selection	Automatically best available (WAVE Portal for manual setting)
Duplex Modes	FDD & TDD
# of Relay Bands	6 max. Port 4 unlock Industrial upgrade allows total 7
Independent Operators Supported	3 max.
Relay Bandwidth per NU Donor Port (ATT/TMO/VZW)	20 + 20 MHz max.
CU DL Power (All Public Bands)	16 dBm max.
CU DL Power (PVT Port Band 48)	20 dBm max.
System Gain	100 dB max.
Enterprise-Grade Echo Cancellation	30 dB min.
Noise Figure (All Bands)	7 dB max. at ambient (8 dB max. for Band 13 only)
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	-120 to -40 dBm
RF Interface Impedance (All Ports)	50 Ω
NU to CU Cable	2x Category 5e or better 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. with Cat5e 492 ft (150 m) (984 ft (300 m) with CEL-FI QUATRA Range Extender) max. with Cat6a 23 AWG
Product Settings & SW Updates	WAVE Portal for Desktop

Network Unit Interface

Donor Port RF Connectors	4x N-type (f) (ATT TMO VZW PVT)
Power Port	IEC C13
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 4000 Fiber Hub (Q40-1234FNU)	6
Monitoring & Management	LAN RJ45
COMPASS XR and Factory Debug	USB 2.0 Micro-B

Coverage Unit Interface

Server Antenna RF Connector	N-type (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

FCC	Part 15
	Part 20
	Part 22
	Part 24
	Part 27
	Part 90
UL	Part 96
	Yes
ISED	Yes
	(for Q44-1M34CNU & Q41-RECU only)

QUATRA 4000c Power

Input Voltage	100-240 V
Power Consumption	321.3 W max.
Power Cable	Type B (US) to IEC C13
Power Supply Cable	18 AWG
Power Supply Cable Length	4.5 ft (1.37 m)
Coverage Unit Power	Power over Ethernet

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	IP20

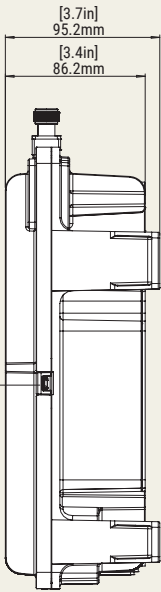
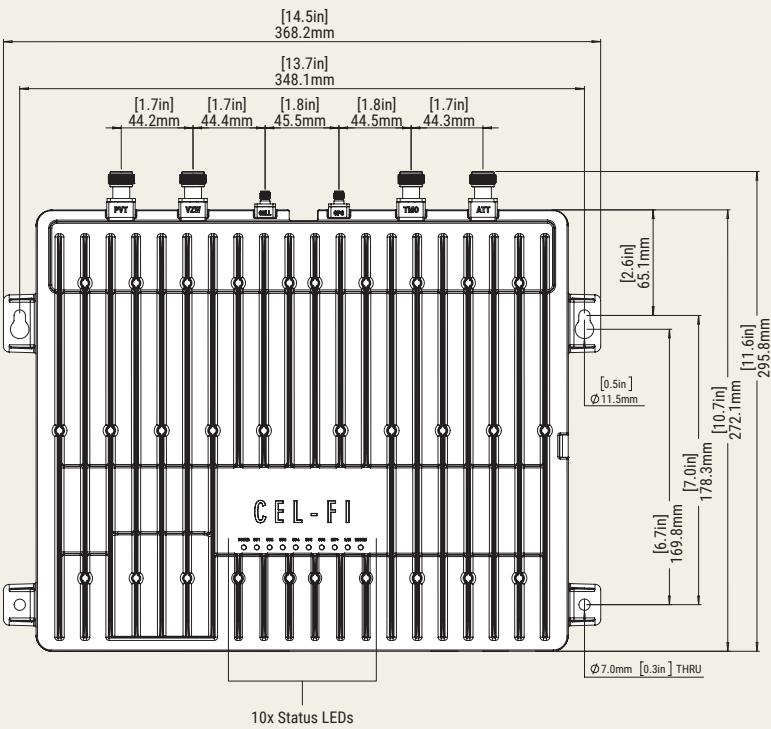
Mechanical & Packaging

Network Unit Box Contents	Network Unit
	1x AC Power Cable
	4x Mounting Screws
	4x Drywall Anchors
	1x Cellular Modem Antenna
Coverage Unit Box Contents	Coverage Unit
	4x Mounting Screws
	4x Drywall Anchors
	2x Eye Bolt w/ nuts
Network Unit Dimensions	14.5 x 11.6 x 3.7 in (368.2 x 295.8 x 95.2 mm)
Network Unit Weight	15.0 lbs (6.8 kg)
Network Unit Shipping Dimensions	20.35 x 14.69 x 5.39 in (517 x 373 x 137 mm)
Networking Unit Shipping Weight	17.64 lbs (8.0 kg)
Coverage Unit Dimensions	11.3 x 10.9 x 2.2 in (287.0 x 276.4 x 56.9 mm)
Coverage Unit Weight	9.9 lbs (4.5 kg)
Coverage Unit Shipping Dimensions	17.95 x 13.94 x 4.02 in (456 x 354 x 102 mm)
Coverage Unit Shipping Weight	11.90 lbs (5.4 kg)
Network Unit Mounting	Wall
Coverage Unit Mounting	Wall/Ceiling*

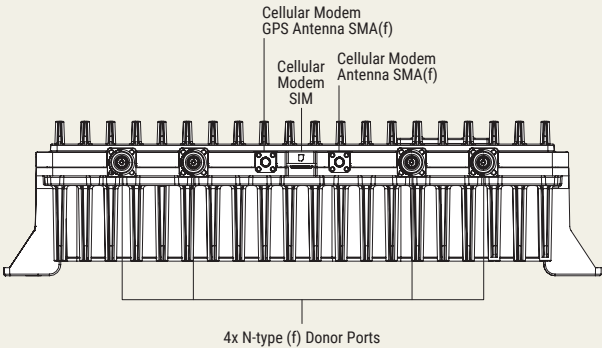
*CMA-100-100 sold separately for ceiling mount

Note: Product specifications are subject to change without prior notification.

CEL-FI QUATRA 4000c Network Unit (NU)

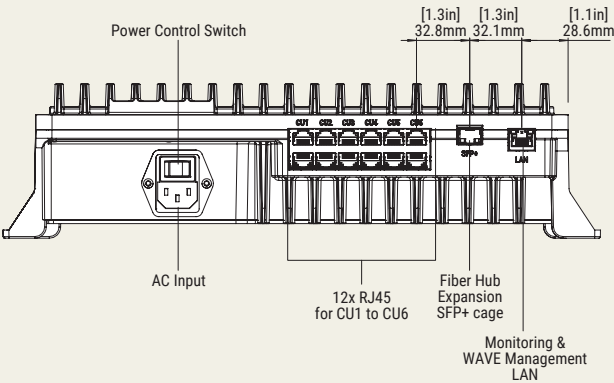


USB 2.0 Micro-B for COMPASS XR



Cellular Modem
GPS Antenna SMA(f)
Cellular Modem
SIM
Cellular Modem
Antenna SMA(f)

4x N-type (f) Donor Ports



Power Control Switch

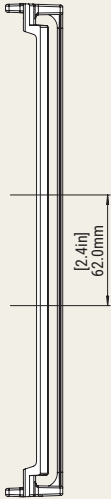
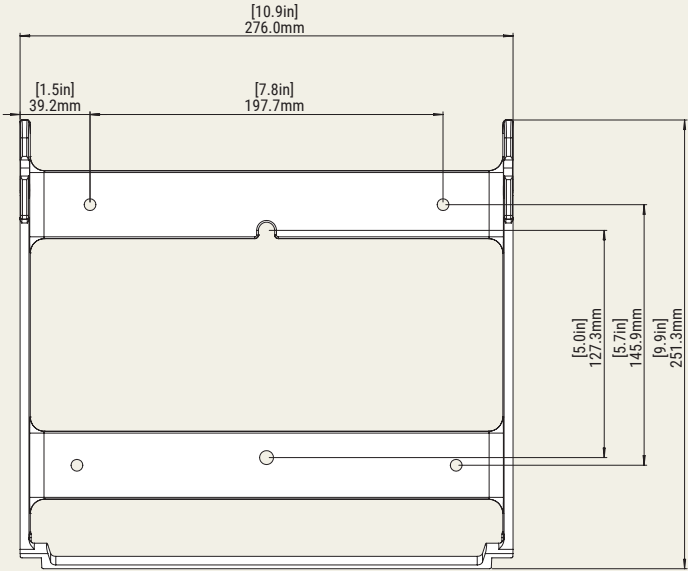
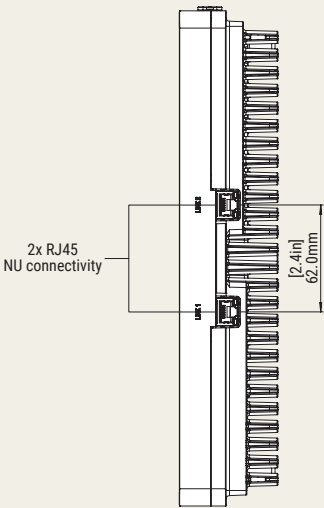
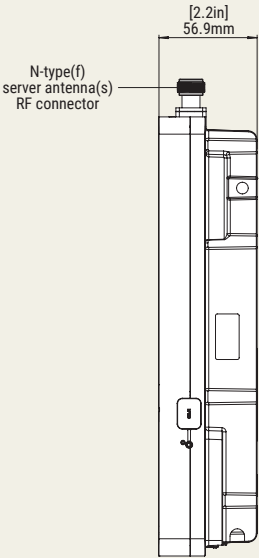
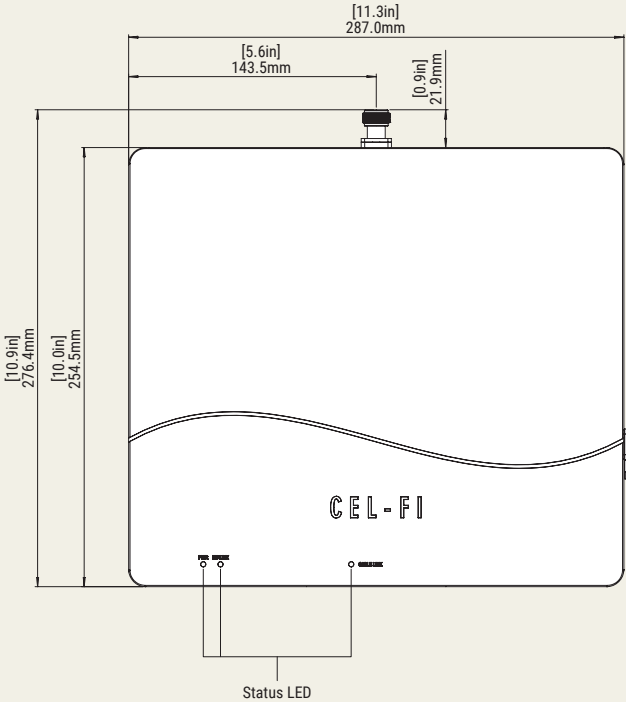
AC Input

12x RJ45
for CU1 to CU6

Fiber Hub
Expansion
SFP+ cage

Monitoring &
WAVE Management
LAN

CEL-FI QUATRA 4000c Coverage Unit (CU)



Example Diagram: 1 NU to 12 CUs

