Specifications

Power *(network unit)*
- 54 VDC @ 2.22 Amp via external supply (51.3 to 56.7 VDC tolerance)
- External supply: 100 to 240 VAC, 47 – 63Hz
- Power consumption less than 120W max
- Network Unit provides power to Coverage Units over Cat5e (PoE)

Environmental
- Operating temperature: 0° to 40°C
- Storage temperature: -25° to 60°C
- Convection Cooling
- Relative humidity: 0% to 95%, noncondensing
- RoHS II 2011/65/EU
- IP20

Installation
- Mounting hardware included
- NU may be wall mounted (solid or hollow)
- CU may be wall or ceiling mounted
- 1 NU supports 1 to 4 CUs
- iBwave supported

Radio Performance *(check product version for specific band support)*
- Total boost all-channel bandwidth 75 MHz (2x2 MIMO uses double bandwidth per channel)
- DL Maximum NU in-band donor level -40dBm
- DL Maximum NU survival donor level 30dBm
- UL Maximum CU donor level -20dBm.
- Maximum UL power 22dBm bands 1, 2, 3, 4, 7
- Maximum UL power 20dBm band 5, 8, 12, 13, 20
- Maximum DL power 10dBm per 5 MHz bands 1, 2, 3, 4, 7
- Maximum DL power 10dBm per 5 MHz bands 5, 8, 12, 13, 20
- LTE 5/10/15/20 MHz and WCDMA 3.84/5 MHz bandwidths

Physical Specifications

Network Unit	Coverage Unit
264 x 185 x 62mm 1.2 kg (40.8 oz.)	225 x 185 x 37mm 0.83 kg (29.2 oz.)

Connections
- 4x CU RJ45 Proprietary Gigabit link
- 100m max CU cable length Cat5e
- 200m max CU cable length with Cel-Fi QUATRA Range Extender (Cat5e or Cat6)
- PoE IEEE 802.3at
- RJ45 LAN management port (10/100 Fast Ethernet)
- RJ45 LAN management output port (10/100 Fast Ethernet)
- 2x MIMO External RF Input (QMA Female 50 ohm)

Compliance *(check individual product version for specific regional compliance)*
- 3GPP TS 25.143 Rel.10
- 3GPP TS 36.143 Rel.10
- CE
- FCC Part 15, 20, 22, 24, 27
- ISED Canada
- UL 62368-1/CSA C27.2
- Bluetooth BQB
- RCM
- R-NZ

System Management *(software)*
- Cel-Fi WAVE cloud portal
- Cel-Fi WAVE Remote Management:
  - Status (list and map)
  - Diagnostics
  - Alarms & Notifications
  - Settings
  - Commissioning
  - Software Updates
  - Reporting

Product Name	Model Number	Frequency (MHz)	Bands Supported	MIMO Support	Crossover Support
QUATRA 1000	Q34-2/4/5/12	1900 / 1700 / 850 / 700a	2, 4, 5, 12	4, 12	2, 5
QUATRA 1000	Q34-2/4/5/13	1900 / 1700 / 850 / 700c	2, 4, 5, 13	4, 13	2, 5
QUATRA 1000	Q34-1/3/8/20	2100 / 1800 / 900 / 800	1, 3, 8, 20	3, 20	1, 8
QUATRA 1000	Q34-1/3/7/8	2100 / 1800 / 2600 / 900	1, 3, 7, 8	3, 7	1, 8
QUATRA 1000	Q34-1/7/8/20	2100 / 2600 / 900 / 800	1, 7, 8, 20	7, 20	1, 8
QUATRA 1000	Q34-3/5/7/28	1800/850/2600/700 APT	3, 5, 7, 28	3, 28	5, 7
QUATRA 2000	Q34-4/5/12/13/25	1700/850/700a/700c/1900	4, 9, 12, 13, 25	n/a	n/a

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powertec TELECOMMUNICATIONS pty ltd

Powertec Telecommunications Pty Ltd
16/511 Olsen Ave, Southport Qld 4215, Australia
tel +61 7 5577 0500 • www.powertec.com.au

sales@powertec.com.au

CEL-FI™

QUATRA

In-Building Cellular Solution

powertec TELECOMMUNICATIONS pty ltd Distributed in Australia and New Zealand

CEL-FI QUATRA

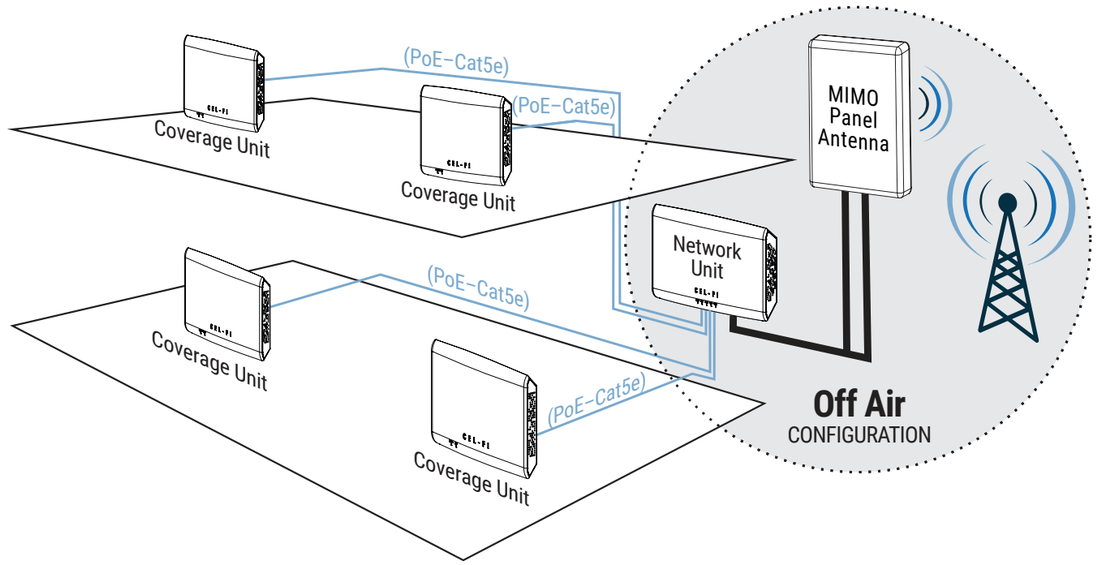
Mobile Coverage for Buildings

Spotty cellular coverage, poor voice quality, dropped calls, and dead zones continue to plague employees and visitors in middleprise buildings. Cel-Fi QUATRA is an Active DAS Hybrid that solves this problem. It is an affordable, all-digital solution. It provides uniform, high quality cellular signal throughout building, scalable to the size needed. Cel-FI QUATRA is carrier approved and guaranteed network safe.

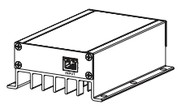
Unlike older analog boosters and passive DAS technology, Cel-Fi QUATRA delivers a cellular signal that is up to 1000x stronger, utilising CAT5e cabling for RF and Power over Ethernet, with no signal attenuation right to the perimeter of the building. QUATRA can be installed in just days (compared to months typical of other solutions), and at a price point that meets the middleprise budget.

- **Maximum Gain** | Industry Leading Off-air or Supercell for Voice and Data
- **Best Performance**: Active DAS Hybrid with IntelliBoost® Chipset Smart Technology
- **Cellular Coverage**: Models available for different carriers
- **Ease of Setup**: Built for Installers with RFoE / PoE and Maximised by AntennaBoost™
- **Cel-Fi WAVE**: Remote Monitoring and Management Platform
- **Network Safe**: Carrier Approved

Scalable Coverage Area: Up to 5k m² per Network Unit



CEL-FI QUATRA SOLUTION COMPONENTS



Cel-Fi QUATRA Range Extender
A Power over Ethernet (PoE) device that extends the maximum distance between the NU and the CU by 200 metres.

Cel-Fi MIMO Panel Antenna
Connects to any Cel-Fi QUATRA MIMO-enabled NU or CU with QMA (quick connect) cables.

Cel-Fi Mount
An indoor/outdoor mount designed to secure a donor signal antenna for Cel-Fi QUATRA and work with the Cel-Fi WAVE Antenna Positioning Application.

ADDITIONAL POWERTEC SOLUTION COMPONENTS

Blackhawk XPOL MIMO Antenna
ideal in areas with low donor signal, or to maximise the incoming signal.

Blackhawk Omni MIMO Antenna
ideal in areas with decent donor signal and multiple cell towers.

QMA Patch Cable
available with SMA or N-type connectors.

InStock Splitter
available in 2/3/4 way splitters, with SMA or N-type connectors.

The Building Blocks

Cel-Fi WAVE Portal

- Cel-Fi device and asset management
- Data modeling and reporting
- Mobile and computer applications
- Globally trusted carrier-grade security
- Users can access the Cel-Fi WAVE portal through the dashboard interface, or integrate it via APIs.

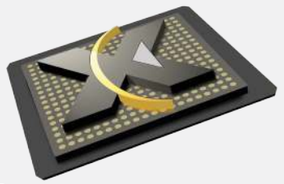
Scalable Configuration

Cel-Fi QUATRA can be installed off-air, using either a MIMO panel or omni donor antenna to provide high-quality in-building wireless connectivity. Cel-Fi QUATRA can be deployed by installers or IT personnel with Cat5e skills (no RF engineering skills needed). Cel-Fi QUATRA is a scalable solution that utlisies one or multiple NUs, depending on the environment and size of the space, with up to four distributed CUs connected to each NU.

Network Safe

Self-organizing edge intelligence ensures that Cel-Fi QUATRA does not interfere with other indoor wireless products such as Wi-Fi routers, Small Cells, and Distributed Antenna Systems (DAS). High speed Automatic Gain Control ensures that Cel-Fi QUATRA is unconditionally network safe, and enables more simultaneous calls and higher data speeds.

IntelliBoost™ Chipset



The Nextivity IntelliBoost™ baseband processor is the first six-core processor designed specifically to optimise the indoor transmission and reception of 3G and 4G/LTE wireless signals. With advanced filtering, equalisation and echo-cancellation techniques, Nextivity has developed an architecture which delivers unprecedented in-building data rates and pervasive 3G and 4G/LTE connectivity. The IntelliBoost processor ensures that Cel-Fi products never negatively impact the macro network while providing maximum coverage.