



CEL-FI PRO Smart Signal Booster

Improve voice and data coverage for 3G, 4G and LTE



Our Third Generation...



NEXTIVITY'S THIRD GENERATION

CEL-FI SYSTEM adds substantial capability over our previous versions. The Cel-Fi Pro is designed to dramatically **improve voice and data coverage in up to four bands for 3G, 4G and LTE** for consumers while significantly improving network capacity for mobile network operators and MVNOs.

Good things do come in small packages: Now with LTE support, Cel-Fi is **compatible with the highest data services application available**. All new patented **echo cancellation algorithms** enable Cel-Fi to offer even higher signal levels throughout the coverage area than before.

BENEFIT TO CONSUMERS

Improved Voice Coverage: Enables clear and reliable voice connections within the coverage area — 13,000 Sq. Ft.

Improved Data Throughput: For indoor areas with poor reception, Cel-Fi offers significant data throughput improvements for HSPA+ or LTE — often achieving a 4x improvement.

Improved Battery Life: Cel-Fi manages the power levels between the cell tower and user devices so that subscriber devices enjoy significant improvements in battery life.

Ease of Installation: Cel-Fi is a true “Plug and Play” system that doesn’t require the installation of external antennas, bulky coaxial cables or a configuration set-up by the subscriber. In fact, Cel-Fi intelligently and automatically senses and adapts to its environment — including changes made by the Operator or those caused by nearby user equipment like WiFi, or other Cel-Fi devices.

BENEFIT TO OPERATORS

Reduced Churn: Fewer dropped calls and higher data rates help ensure customer retention.

Higher Data Service Usage: By supporting advanced multi-carrier features, the third generation Cel-Fi system ensures that customers can maximize their data rates.

Decreased Operational Cost: Lowers cost of indoor coverage and increases capacity of WCDMA and LTE networks.

Network Safe: Cel-Fi’s embedded System-On-a-Chip technology provides real-time and automatic end-to-end gain control, thus guaranteeing it will complement the existing macro network’s capabilities.

Operator Specific: Cel-Fi’s On-Board IntelliBoost processor securely manages the enhanced services only for the Operator who authorized the system.

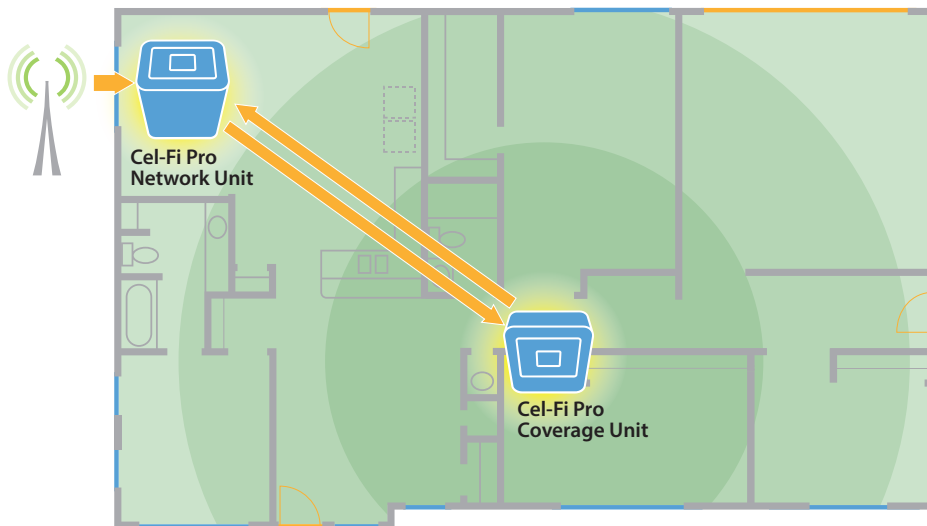
Self Adjusting: Cel-Fi automatically selects the correct frequencies for use based on channel frequency and Operator PLMNID codes, thereby eliminating additional and costly Operator provisioning efforts.

Multi Technology Support: The Cel-Fi Pro can support both WCDMA and LTE across four different cellular bands in the same system.

Multi Carrier Support: The Cel-Fi Pro system simultaneously supports multiple carriers with bandwidths anywhere from 5 to 20 MHz with a total system bandwidth of 35 MHz.

Cel-Fi Features

- Fully wireless, plug-and-play quad-band architecture for supporting—WCDMA/HSPA+/LTE, with up to 100dB of system gain in each band simultaneously.
- Patented 2-unit, 3-hop system allows flexible placement for optimal coverage.
- Processor running advanced digital echo cancellation and channel select filtering algorithm.
- Software-based optimization of integrated antenna coverage pattern which maximizes system gain and provides improved coverage and signal quality.
- Automatic Gain Control (AGC) continuously monitors system path loss and transmit power to deliver maximum gain.
- Intuitive LCD User Interface (UI) allows quick and easy installation by end-user.



Network-Safe Features

- Securely provisioned operation with ciphered software which only operates on authorized Operator's network.
- Network-Safe software prevents uplink system gain from exceeding path loss, and eliminates unnecessary rise in base station noise level.
- Uplink Muting Mode automatically shuts down uplink cellular transmissions when no active user equipment is detected.
- Embedded software ensures optimal performance and prevents out-of-specification operation.
- System shuts down upon Operator's network command or failure detection.
- Maintains end-to-end cellular communication encryption without additional risk of vulnerability.
- Peaceful coexistence with adjacent Cel-Fi systems, 802.11a/ac/b/g/n, cellular, and femtocell devices.

High-Level Specifications

- Support for 3GPP HSPA Rel. 10 features and 3GPP LTE Release 10 Features
- 5GHz link compliant with FCC Part 15 and EN 301 893
- Up to 100dB path loss between units (approximately 20 meters between NU and CU)
- Max EIRP for Multiple carriers: 22dBm downlink & 29dBm uplink
- Currently available in two Quad-Band configurations (I/III/VII/VIII or II/IV/V/XII)
- Auto-Configuring "All band scanning" feature to self adjust as Network channels change
- Up to 100dB system gain

Specifications

NETWORK UNIT

179MM (7.05") H
155MM (6.10") W
110MM (4.33") D
Weight: .54kg (19oz)

COVERAGE UNIT

160MM (6.30") H
164MM (6.46") W
79MM (3.11") D
Weight: .45kg (16oz)

ENVIRONMENT

- Operating temperature: 0° to 40°C
- Storage temperature: -25° to 60°C
- Relative humidity: 5 to 95%, noncondensing
- RoHS (2002/95/EC) six of six compliant
- WEEE (2002/96/EC)
- 3GPP TS 25.143 Rel.10
- 3GPP TS 35.143 Rel.10

CERTIFICATIONS

- EN55022 Class B
- EN61000-3-2, 3
- EN61000-4-2~6, 11
- EN 301 489 -1, 17, 23
- EN 301 893
- EN 301 908-1, 11, 15
- FCC Parts 15, 20, 22, 24, 27
- CE/CB

POWER

- 12VDC via external supply (2 included)
- External supply: 100 to 240 VAC, 47 – 63Hz
- Power consumption less than 25W per unit

FCC REQUIREMENTS:

This is a CONSUMER device.

BEFORE USE, you MUST REGISTER THIS DEVICE with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You MUST operate this device with approved antennas and cables as specified by the manufacturer. Antennas MUST be installed at least 20 cm (8 inches) from any person.

You MUST cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

The System and the Outside Antenna (if applicable) must be installed no higher than 10 meters (32'9") above ground level.



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