



CEL-FI™  
by NEXTIVITY™

# Cel-Fi™ GO Smart Signal Booster™

Improve cellular and data service for 3G and 4G Network



The Cel-Fi GO uses Nextivity's 3rd generation technology to dramatically improve consumer cellular voice and data coverage in any 3G and 4G throughout the network, while at the same time improving network capacity. Overall, an improvement for both service providers and users.

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.

Cel-Fi GO is a 3G/4G cellular signal amplifier that uses Nextivity's award winning technology to provide up to 100 dB of signal gain (1000x that of traditional boosters), while unconditionally protecting the Operator's network.

## BENEFIT TO CONSUMERS

**Improved Voice Coverage:** Enables clear and reliable voice connections within the coverage area – whether a car, marine vessel, large home, or office.

**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 transmit much less power and enjoy improvements in battery life.

**Ease of Installation:** Cel-Fi GO has two options available: as a Mobile Kit that includes a 12V CLA style power adapter, or as a Stationary Kit that includes an AC Adapter. Once installed, Cel-Fi GO intelligently and automatically senses and adapts to its environment – including Operator network changes, or those caused by other nearby Cel-Fi devices or boosters.

## BENEFIT TO OPERATORS

**Mode Selectable:** Push button, or use the WAVE app, selection between 3G, 4G or AUTO.

**Reduced Churn:** Fewer dropped calls and higher data rates help ensure customer satisfaction and 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 eliminates interference common to lower-performing boosters, and provides real-time automatic end-to-end gain control, guaranteeing it will protect and complement the existing macro network's capabilities.

**Operator Specific:** Cel-Fi's processor securely manages the performance improvement only for the Operator who authorized and deployed the system.

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

**Multi Technology Support:** The Cel-Fi GO supports either WCDMA or LTE across three different cellular bands, and selects the best candidate band and technology to (in AUTO mode).

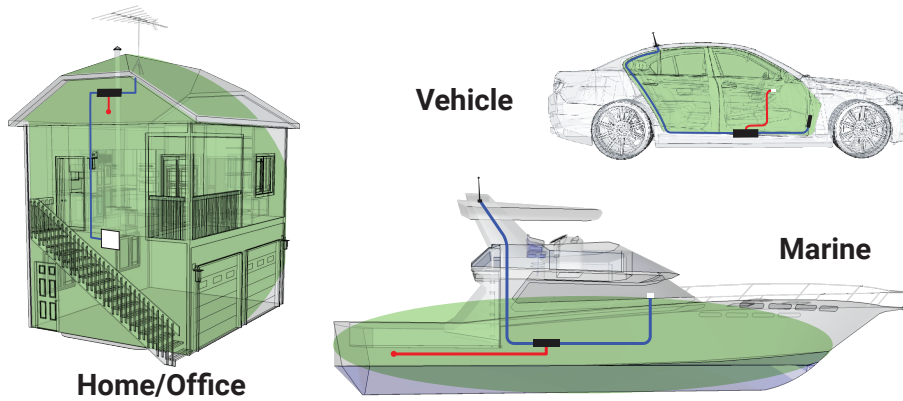
**Multi Carrier Support:** The Cel-Fi GO system simultaneously supports multiple carriers with bandwidths anywhere from 5 to 20 MHz with a total relay bandwidth of 20 MHz.



Cel-Fi Safe

## Cel-Fi GO Features

- Cel-Fi GO automatically adjusts its coverage depending on the kinds of antennas used, and GO variant (Mobile or Stationary).
- Rigid cast-aluminum casing with integrated mounting holes for easy installation.
- Processor running advanced digital echo cancellation and channel select filtering algorithm.
- Automatic Gain Control (AGC) continuously monitors system path loss and transmit power to deliver maximum gain.
- Intuitive LED User Interface (UI) allows quick and easy installation by end-user.
- Cel-Fi GO supports both Bluetooth LE and USB, enabling connection to the WAVE app
- Use the WAVE app with Cel-Fi GO for advanced functionality
- SMA connectors for Donor and Service antenna connections:



## 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.
- Advanced unconditionally network safe architecture.
- Advanced fast echo cancellation for up to 100 dB system gain.
- Max conducted power for Multiple carriers: 16dBm downlink & 22dBm uplink.
- Supports bands 3/5/28.
- Auto-Configuring "All band scanning" feature to self adjust as Network channels change.
- Full local and remote Nextivity WAVE and CLOUD management support.
- 20 MHz maximum aggregate relay bandwidth.

## Specifications

### GO

255mm (L) 28mm (H)  
87mm (W) Weight: 0.6kg (21.16oz)

### ENVIRONMENT

- Operating temperature: 0° to 65°C
- Storage temperature: -25° to 65°C
- Relative humidity: 0 to 95%, noncondensing
- 3GPP TS 25.143 Rel.10
- 3GPP TS 36.143 Rel.10

### STANDARDS

- CE
- RoHS II 2011/65/EU
- RCM (Australia)
- R&TTE 1999/5/EC
- R&TTE 1999/519/EC
- EN 60950-1:2006+ A11/A12/A1/A2
- EN 301 489-23 v1.5.1
- EN 301 489-17 v2.2.1
- EN 301 908-1 v5.2.1
- EN 301 908-11 v5.2.1
- EN 301 908-15 v5.2.1
- EN 62311 (2008)
- Bluetooth LE Certification BQB



### POWER OPTIONS

- 12 VDC via external supply
- External supply: 100 to 240 VAC, 47 – 63Hz
- Power consumption less than 15W per unit

### ANTENNA REQUIREMENTS

- SMA Female Donor Antenna Connector (50 ohm)
- SMA Female Service Antenna Connector (50 ohm)
- VSWR <2:1
- Antennas should support appropriate device band frequencies.

### COMPLIANCE CONTACT

- In the event of regulatory compliance issue, please contact Nextivity Inc. directly. Contact information is available at [www.nextivityinc.com](http://www.nextivityinc.com)

### PATENTS

- This product is covered by Nextivity, Inc., US patents and patents pending. Please refer to [Cel-Fi.com](http://Cel-Fi.com) for details