

# CEL-FI GO X

## Cellular / LTE

Smart Signal Booster™



DATA SHEET

MODEL NUMBERS:  
G32-2/4/5/12/13X  
G32-1/3/5/7/8/20X

Cel-Fi GO X uses Nextivity's award-winning, network-safe Cel-Fi Smart Signal Booster technology to dramatically improve voice and data coverage in up to two (2) bands for 3G, 4G, and LTE. It is designed to improve indoor and outdoor cellular coverage when one bar is available outdoors, by allowing an antenna to be used to improve indoor cellular performance. Cel-Fi GO X is cost efficient and easy-to-deploy by an installer, and can be easily optimized and monitored by the Cel-Fi WAVE platform.

### Benefits:

- **Superior Performance: 100dB Max Gain**
- **NEMA 4 Rated**
- **Multi-carrier Support with Carrier Switching app**
- **Carrier Approved for 3G / 4G / LTE for Voice and Data**
- **Unconditionally Network Safe**
- **SMA Antenna Connectors**
- **Cel-Fi WAVE Management Platform**



**Cel-Fi WAVE** is a smartphone app that will help you get the best performance from your Cel-Fi GO X.



### Wireless Features

3G & 4G / LTE support (WCDMA / HSPA+ / LTE)  
Supports two (2) bands simultaneously from a single operator  
FDD  
Up to 100dB system gain, per band  
Peaceful coexistence with adjacent Wi-Fi (2.4 GHz & 5 GHz), femtocells, and cellular devices  
Advanced digital echo-cancellation (>30dB) and channel select filtering algorithms  
Automatic Gain Control (AGC) based on fast real-time echo-cancellation  
Linear RF front end  
Adaptive signal equalization  
Uses Nextivity's 3rd-generation "ARES" chipset

### System Features

SMA connectors for Donor and Server antennas  
NEMA 4 rated enclosure and connectors  
Support for BIAS-TEE power through Server port  
Glanceable LED User Interface (UI)  
Supporting smart phone application (WAVE)  
Convection cooled cast aluminum chassis  
Easy mounting capability  
Mounting screws and anchors included

### Mobile Network and Network Protection Features

Global band combinations available  
Systems are pre-configured for a single carrier (network operator)  
Supports multiple channels with bandwidths of 5/10/15/20 MHz per channel  
Works with any user equipment (UE) on the configured network (no whitelist/blacklist)  
Up to 40 MHz system relay bandwidth  
Support for 3GPP Release 10 features  
Provider-specific system: Cel-Fi distributes and boosts service only for the Operator PLMNIDs for which the device is authorized and configured  
Secure and ciphered provisioning  
System intelligence accurately establishes proper safe uplink power in real time  
Uplink Muting Mode automatically shuts down uplink cellular transmissions when no active user equipment is detected  
System shuts down upon Operator's network command or failure detection

### Wireless Benefits

Clear and reliable cellular connections within coverage area up to 12,500 ft<sup>2</sup> (1000 m<sup>2</sup>) per system  
Highest gain (100 dB) provides best coverage footprint  
Advanced Echo-Cancellation allows Cel-Fi to transmit more power without feedback interference  
Subscriber devices (UE) require less transmit power for improved battery life  
Linearity eliminates IMD desense issues  
Dynamic gain control ensures maximum gain — best coverage — at all times in ever changing RF environments, without user intervention  
Nextivity purpose-built, high-performance, six core ASIC processor, provides best performance at lowest cost

## System Benefits

Distribute and boost cellular coverage  
 3G and 4G support, Voice and Data, network safe  
 LED cues provide visual feedback for ease of setup and status  
 Works with any subscriber device from the configured Operator

## Mobile Network Benefits

Flexibly deploy on LTE, VoLTE, LTE-Advanced, and WCDMA networks, with multiple cellular bands, simultaneously  
 Automatically adjusts channel bandwidths between 5MHz and 20MHz  
 UE control is transparent and remains centralized in the network core (no gateways or third-party software)

## Compliance

(check individual product version for specific regional compliance)

3GPP TS 25.143 Rel.10  
 3GPP TS 36.143 Rel.10  
 FCC Part 15, 20, 22, 24, 27  
 ISED (Industrie Canada)  
 Bluetooth SIG  
 CE

## System Management

(Software)

Supported by WAVE cloud portal  
 WAVE Portal capability: Status (List and Map) Commissioning Diagnostics Software Updates  
 Settings Reporting Alarms & Notifications

## Antenna Ports

(Donor and Server)

699 – 2180 Mhz  
 Impedance: 50 Ohm  
 Return Loss: 8 dB  
 Output Protection

## Environmental

Operating temperature: 0° to 65° C  
 Convection Cooling  
 Relative humidity: 0% to 95%, noncondensing  
 RoHS 2 (European and China compliant)  
 WEEE  
 NEMA 4  
 Surface Temp at any point (30° ambient): 53° C

## Dimensions

Height	Width	Length	Weight
43.5 mm	96.5 mm	272.5 mm	850g

## Power

9.6 – 16.5V  
 2A current draw  
 16W nominal power consumption

## Installation

Mounting hardware included

## DC Power Plug and Jack

NEMA 4 rated power plugs and jack



## Radio Performance

The GO system can boost up to two (2) bands concurrently. Either profile can be selected:  
 A) One (1) High band boost and one (1) low band boost or B) Two (2) high bands boost

## Band Variations:

(check product version for specific band support)

Model Number	G32-2/4/5/12/13X		G32-1/3/5/7/8/20X
Bands Supported	2, 4, 5, 12, 13		1, 3, 5, 7, 8, 20
Band	Downlink	Uplink	MHz
1	2110-2170 MHz	1920-1980 MHz	Up to 20MHz contiguous boost, HSPA or LTE
2	1930-1990 MHz	1850-1910 MHz	Up to 20MHz contiguous boost, HSPA or LTE
3	1805-1880 MHz	1710-1785 MHz	Up to 20MHz contiguous boost, HSPA or LTE
4	2110-2155 MHz	1710-1755 MHz	Up to 20MHz contiguous boost, HSPA or LTE
5	869-894MHz	824-849 MHz	Up to 15MHz contiguous boost, HSPA or LTE
7	2620-2690MHz	2500-2570 MHz	Up to 20MHz contiguous boost, LTE
8	925-960 MHz	880-915 MHz	Up to 15MHz contiguous boost
12	729-746 MHz	699-716 MHz	Up to 10MHz contiguous boost, LTE
13	746-756 MHz	777-787 MHz	Up to 10MHz contiguous boost, LTE
20	791-821 MHz	832-862 MHz	Up to 20MHz contiguous boost, LTE

Maximum DL in-band donor level -40dBm  
 Maximum UL power 22dBm EIRP bands 1, 2, 3, 4, 7, 8  
 Maximum UL power 20dBm EIRP band 5, 12, 13, 20  
 Maximum DL power 10dBm per 5 MHz EIRP bands 1, 2, 3, 4, 7, 8  
 Maximum DL power 10dBm per 5 MHz EIRP bands 5, 12, 13, 20  
 LTE 5/10/15/20MHz and WCDMA 5MHz bandwidths