

CEL-FI GO_{G32}

5G/4G/3G

Smart Signal Booster™

DATA SHEET


MODEL NUMBERS:
G32 X (Stationary)
G32 M (Mobile)
G32 P (Combo)

Cel-Fi GO 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 5G/4G/3G. 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. In addition to being cost effective and easy to install, Cel-Fi GO can easily optimized and monitored through the Cel-Fi WAVE platform.





Key Features

- Superior Performance: 100 dB Max Gain
- NEMA 4 Rated
- Multi-Carrier Support with Carrier Switching App
- Carrier Approved for 5G/4G/3G for Voice and Data
- Unconditionally Network Safe
- SMA Female 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.

Download on the  **App Store** GET IT ON  **Google play**

Wireless Features

5G/4G/3G support (WCDMA/HSPA+/LTE)
Supports two (2) bands simultaneously from a single operator FDD
Up to 100 dB system gain, per band
Peaceful coexistence with adjacent Wi-Fi (2.4 GHz & 5 GHz), femtocells, and cellular devices
Advanced digital echo-cancellation (>30 dB) 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 Female 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 (Cel-Fi 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 15,000 ft² (1,400 m²) 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
5G, 4G and 3G 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 5 MHz and 20 MHz
 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 BQB
 CE

System Management

(Software)

Supported by Cel-Fi WAVE Portal
 Cel-Fi WAVE Portal capability:
 • Status (list and map) • Commissioning • Settings • Reporting
 • Diagnostics • Alarms & Notifications • Software Updates

Antenna Ports

(Donor and Server)

Model: G32-1/3/5/7/8/20: 791–2690 MHz
Model: G32-2/4/5/12/13: 699–2180 MHz
Model: G32-1/3/0/0/0/0: 1710–2170 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	850 g

Power

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

Installation

DC Power Plug and Jack

Radio Performance

Mounting hardware included
 NEMA 4 rated power plugs and jack



The Cel-Fi 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)

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

Model No.	Max Gain	Cel-Fi WAVE Mode	Power Adapter(s)	Antennas Included	Bands Supported	Maximum UL power	Maximum DL power
G32-2/4/5/12/13X	100 dB	Stationary	AC	N/A	2, 4, 5, 12, 13	22 dBm - 2, 4 20 dBm - 5, 12, 13	10 dBm per 5 MHz
G32-1/3/5/7/8/20X	100 dB	Stationary	AC	N/A	1, 3, 5, 7, 8, 20	22 dBm - 1, 3, 5, 7, 8 20 dBm - 20	
G32-1/3/0/0/0/0X	100 dB	Stationary	AC	N/A	1, 3	22 dBm - 1, 3	
G32-2/4/5/12/13P	100 dB	Stationary	AC & SLA	N/A	2, 4, 5, 12, 13	22 dBm - 2, 4 20 dBm - 5, 12, 13	
G32-2/4/5/12/13M	65 dB	Mobile	SLA	Mobile Mag Mount and Patch Server	2, 4, 5, 12, 13	22 dBm - 2, 4 20 dBm - 5, 12, 13	
G32-1/3/5/7/8/20M	70 dB	Mobile	SLA	Mobile Mag Mount and Patch Server	1, 3, 5, 7, 8, 20	22 dBm - 1, 3, 5, 7, 8 20 dBm - 20	

NOTE: LTE 5/10/15/20 MHz and WCDMA 5 MHz bandwidths

Engineering Details

The operating frequency for each technology (2G, 3G and 4G) / service provider	Programmed to the frequencies and channels of one of the service providers.
EIRP	UL: 22dBm per band, DL: 26dBm per band
Uplink and downlink system gain	Up to 100dB
Standby Uplink noise power	0mW
Noise figure	6dB
Minimum Signal Drive	Limited by SW to: 3G RSCP: -104 dBm 4G RSRP: -120 dBm
Dynamic Range	>30dB
Automatic Oscillation detection time	Instantaneous (we use Echo mitigation techniques)
Technology	3G, 4G
Number of Frequency Bands	2 (bands 900 and 1800)
Outdoor Antenna Gain	0 dBi
Antenna Type Outdoor	Omni

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