NEXTIVITY
Smarter by Design

Data Sheet

CEL-FI GO G32

Smart Signal Booster

MODEL NUMBERS: G32-2/4/5/12/13X, G32-1/3/5/7/8/20X, G32-2/4/5/15/13P

CEL-FI GO G32

CEL-FI GO uses the award-winning, network safe Nextivity Smart Signal Booster technology to dramatically improve voice and data coverage in up to two (2) bands for 3G, 4G, and 5G. It is designed to improve indoor and outdoor cellular coverage when one bar is available outdoors. In addition to being cost effective and easy to install, CEL-FI GO can be easily optimized and monitored through the Nextivity WAVE platform.

Features and benefits include:

- Superior Performance: 100 dB Max Gain
- NEMA 4 Rated
- Multi-Carrier Support with Carrier Switching App
- Carrier Approved for 3G, 4G, and 5G Voice and Data
- Unconditionally Network Safe
- SMA Female Antenna Connectors
- Nextivity WAVE Management Platform

Use Nextivity **WAVE** App to view real-time system performance.

Download on the App Store | GET IT ON Google Play

Wireless Features

3G, 4G, and 5G 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 proprietary 3rd-generation “ARES” chip

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 (Nextivity 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 pre-configured for a single carrier (network operator)
Supports multiple channel bandwidths of 3.84/5/10/15/20 MHz per channel
Works with any user equipment (UE) for the configured network (no whitelist/blacklist)
Up to 40 MHz relay bandwidth
Support for 3GPP Release 10 features
Provider-specific system: 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
Highest gain (100 dB) provides best coverage footprint
Advanced Echo-Cancelation allows device to transmit more power without feedback interference
Subscriber devices 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-per
formance, six core ASIC processor, provides best performance at lowest cost

System Benefits

Distribute and boost cellular coverage
3G, 4G, and 5G 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 in 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 (Industre Canada)
Bluetooth BQB
CE

System Management (Software)

Supported by Nextivity WAVE
Nextivity WAVE Remote Management: Status (list and map), Commissioning, Diagnostics, Software Updates, Settings, Reporting, Alarms & Notifications

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
RoHRoHS 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

Mounting hardware included

DC Power Plug and Jack

NEMA 4 rated power plugs and jack

Radio Performance

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	Boost
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: 22 dBm per band, DL: 26 dBm per band
Uplink and downlink system gain	Up to 100 dB
Up to 100dB Standby Uplink noise power	0mW
Noise figuret	6 dB
Minimum Signal Drive	Limited by SW to: 3G RSCP: -104 dBm 4G RSRP: -120 dBm
Dynamic Range	>30 dB
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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