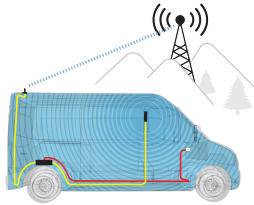


CEL-FI GO_{G31}

3G/4G/LTE

Smart Signal Booster™



Cel-Fi GO uses Cel-Fi's award-winning network safe Smart Booster technology to improve voice and data cellular performance in a variety of mobile and indoor environments.


DATA SHEET

MODEL NUMBERS:
G31-3/5/28_EXA
G31-3/8/28_EXA
G31-3/8/28U_EXA
G31-3/5/28M_EXA
G31-3/8/28M_EXA
G31-3/8/28UM_EXA





Benefits:

- **Superior performance: 100dB max gain with IntelliBoost**
- **Environmental rating: Outdoor NEMA 4 Rating**
- **Multi-carrier support with carrier switching**
- **Multi-user support**
- **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.

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

System Features

Smart Signal Booster™

Two Versions available

- Stationary Unit: includes AC Power Supply
- Mobile Unit: includes 12V CLA Power Supply

A variety of carrier options are available

LED User Indicators for Mode and Status

IP-54 rated for use in harsh conditions

Cel-Fi GO is a cabled solution using an outside Donor antenna and an inside Server antenna

Selectable modes: WCDMA/LTE/AUTOMATIC

Simple, built-in, self-test

Unlocked: Cell phones do not need to be registered

Support for Cel-Fi WAVE mobile & desktop application

End-to-end cellular communication encryption without additional risk of vulnerability

Rigid cast-aluminum casing with integrated mounting holes

Conduction cooling

Wireless Features

Smart Signal Booster™

Supports voice and data services: WCDMA/HSPA+/LTE (FDD).

System Gain:

- Stationary Unit: Up to 100dB system gain
- Mobile Unit: Up to 70dB system gain

Bluetooth Low-Energy (BTLE) communications with smartphones for connection to the Cel-Fi WAVE mobile app

Automatic Gain Control (AGC) based on fast real-time echo-cancellation

Advanced digital echo-cancellation (>30dB) and channel select filtering algorithms

Cel-Fi actively manages the cellular link between the cell tower and user devices

Extremely linear RF front-end

Adaptive signal equalization

Based on Nextivity's 3rd-generation (ARES) chipset

Mobile Network and Network Protection Features

Unconditionally network safe

Available Carrier Configurations:

- Telstra (Bands 3/5/28)
- Vodafone (Bands 3/8/28)
- Optus (Bands 3/8/28)

Cel-Fi supports multiple cellular channels with bandwidths from 5 to 20 MHz

Total system relay bandwidth of 20 MHz

Support for 3GPP Rel. 10 features

Seamless integration with the Macro networks

Provider-specific booster: Cel-Fi boosts service only for the Operator PLMNIDs the device is authorized and configured for

Software-managed system intelligence prevents uplink system gain from exceeding path loss, eliminating unnecessary rise in base station noise level

Uplink Muting Mode automatically shuts down uplink cellular transmissions when no active user equipment is detected
 System shuts down by Operator's network command or failure detection
 User/System Registration options available, to help MNOs understand booster deployments


System Benefits

Stationary or Mobile (Nomadic) cellular coverage

May be used in any number of conventional installation scenarios, or to replace outdated or illegal repeaters
 Single button control allows user to select WCDMA(3G), LTE(4G) or AUTOMATIC to let GO relay the best available technology
 Ability to learn and adapt to changing network channels or network rearming
 No ongoing maintenance needed, nor reliance upon Internet, GPS, or handsets to be configured on the system
 Software Updates and technical support, with the Cell-Fi WAVE mobile app
 Any subscriber device from the configured Operator will benefit from improved coverage
 Cellular communications remain encrypted and secure
 User Interface (UI) LEDs provide visual feedback for ease of setup
 Easy to mount
 Silent operation

Wireless Benefits

Mobile Network and Network Protection Benefits

Automatically adapts to fit area to be covered, from small vehicles to large homes or offices up to 1200 m² (13,000 ft²), or more for open spaces
 The highest performance, fully-certified, signal booster possible in the power class
 Real-time adapting capability ensures the best possible user experience, in actual user environments, which are constantly changing, with a variety of signals present
 Bluetooth LE enables the system to communicate with smartphones and the Cel-Fi WAVE mobile app, improving the user experience and adding capability to the product 
 The Linearity of Nextivity's high-performance precision-calibrated RF front end virtually eliminates Intermodulation Desense (IMD) issues
 Maximizes signal-to-noise (SNR) ratio—provides better data rates without negatively impacting macro cells
 Allows for 30dB more gain than traditional boosters
 Cel-Fi remains fully functional, even when there are other RF emitters present

Mobile Network and Network Protection Benefits

Supports most network configurations of LTE and UMTS/WCDMA
 Reduce returns, customer care calls, and provide the best product experience to users
 Unlike wideband amplifiers, ensure the equipment capex benefits only your network—third-party macro cells are completely unaffected by Cel-Fi GO Network operators can be assured Cel-Fi devices are being used as intended, with registration and location lock option available
 Completely network safe, doesn't degrade macro capacity. Ultimate control of the devices in the field resides with the network operator
 Registration options allow control over device deployment and may be used to prevent unauthorized use

RF Specification	Band Specific Radio				
Model Number (Base)	Band 3	Band 5	Band 8	Band 28 (L)	Band 28 (U)
G31-3/5/28	Yes	Yes		Yes	
G31-3/8/28L	Yes	-	Yes	Yes	
G31-3/8/28U	Yes	-	Yes		Yes
Frequency DL (MHz)	1805 - 1880	869 - 894	924 - 960	758 - 788	773 - 803
Frequency UL (MHz)	1710 - 1785	824 - 849	880 - 915	703 - 733	718 - 748
Duplex Distance (MHz)	95 MHz	45 MHz	45 MHz	55 MHz	55 MHz
Maximum Relay Bandwidth (MHz)	20 MHz	15 MHz	20 MHz	20 MHz	20 MHz
UL TX Power Max (Conducted) (dBm)	22dBm	20dBm	20dBm	20dBm	20dBm
DL TX Power Max (Conducted) (dBm)	10dBm per 5 MHz (16dBm max)	10dBm per 5 MHz (15dBm max)	10dBm per 5 MHz (16dBm max)	10dBm per 5 MHz (16dBm max)	10dBm per 5 MHz (16dBm max)

Versions Available

Mobile: GO unit + 12V CLA adapter
 Stationary: GO unit + AC adapter

Power

9.6 to 28.8 VDC via external supply
 External supply: 100 to 240 VAC, 47 - 63Hz
 Power consumption less than 15W per unit

Antenna Requirements

50ohm antenna matching
 Antenna cables require SMA-Male connectors
 VSWR <2:1
 Antennas should support appropriate device band frequencies

Environmental Ambient operating temperature: 0° to 65°C
Storage temperature: -25° to 65°C
Relative humidity: 0% to 95%, noncondensing
RoHS II 2011/65/EU
WEEE (2002/96/EC)
ErP 2009/125/EC

Physical Specifications

Height	Width	Length	Weight
255 mm	87 mm	28 mm	(600g)*

SMA Female Donor Antenna Connector
SMA Female Service Antenna Connector
IP54 Rated

Standards*

R&TTE 1999/5/EC EN 60950-1:2006+A11/A12/A1/A2
R&TTE 1999/519/EC RCM Mark
EN 301 489-17, 23 CE Mark
EN 301 908-1, 11, 15 CISPR 25
EN 300-328 ISO 763702
EN 62311 3GPP TS 25.143 Rel.10
R-NZ

Note: Certifications are regional; not all products need or have the same certifications. Please check the specific model number to determine exactly which certifications it has.

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