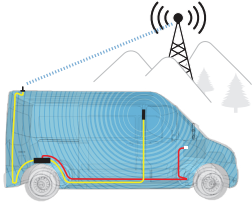


# CEL-FI™ GO

## Improve Voice and Data Coverage for 3G / 4G / LTE

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



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.



### 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.



### System Features

Smart Signal Booster™  
Two Versions available

- Stationary: 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:

- Up to 100dB 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 reformatting  
 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 m<sup>2</sup> (13,000 ft<sup>2</sup>), 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.