

# CEL-FI™ GO G41

powertec

## 3G/4G/5G

Smart Signal Repeater

DATA SHEET

The Cel-Fi GO G41 Smart Signal Repeater is designed to solve cellular coverage problems for voice and data. With support for 5G NR operation in traditional LTE bands, the system supports seamless migration to 5G NR. At up to 100 dB of gain, it is the most powerful carrier grade solution available. The Cel-Fi GO G41 covers up to 3,000 square meters of indoor space per system. Configure with included donor and server antennas, or expand options with outdoor or multiple server antennas. The Nextivity commitment is to protect the operator's network, deliver the best cellular performance, and be the easiest solution to install.



Cel-Fi GO G41

## Benefits:

- Improves cellular coverage
- Simple management through WAVE system
- Deploy the unit anywhere in the network, with full frequency coverage
- Up to 3,000 m<sup>2</sup> coverage area
- Support for Dynamic Spectrum Sharing (DSS)



Use **Cel-Fi WAVE** mobile application to aim an external antenna and ensure an optimal donor signal.



### System Features

Smart Signal Repeater  
Multiple Installation options supported.  
LED User Indicators for Status  
Simple, built-in, self-test  
SMA-Female RF Connectors for Donor and Server, for flexible deployment  
Support for Cel-Fi WAVE mobile application suite, as well as Cel-Fi COMPASS  
Ethernet port for easy connectivity to WAVE Portal for professional installers  
Convection cooling

### Wireless Features

Carrier Grade, Smart Signal Repeater  
3G/4G/5G NR  
Up to 100 dB gain  
Multiple RF Front End configurations available  
Total system relay bandwidth: Up to 40 MHz  
Relays two (2) bands simultaneously (up to 20 MHz each)  
Supports multiple channels per band in bands 1, 3 and 7  
Advanced digital echo cancellation

### Mobile Network & Network Protection Features

Automatic configuration of all system parameters  
Provider-specific system: Cel-Fi distributes and boosts service only for the Operator PLMN-IDs 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  
Supports Dynamic Spectrum Sharing (DSS)  
Nextivity purpose-built, high-performance, six core ASIC processor, provides best performance at lowest cost

### Wireless 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 User Equipment (UE) from the designated Operator  
Supports in-band and guard-band NB-IoT deployments

### System Benefits

Clear and reliable cellular connections within coverage area up to 30,000 ft<sup>2</sup> (3,000 m<sup>2</sup>) per system  
Highest gain (100 dB) provides best coverage footprint  
Advanced Echo-Cancellation allows Cel-Fi to transmit more power with lower antenna isolation requirements giving the largest coverage footprint.  
Linearity eliminates IMD desense issues  
Dynamic gain control ensures maximum gain – best coverage – at all times in ever changing RF environments, without user intervention

### Mobile Network Benefits

Flexibly deploy on LTE, DSS, 5G, VoLTE, LTE-Advanced, NB-IoT and WCDMA networks  
Automatically adjusts channel bandwidths  
UE control is transparent and remains centralized in the network core (no gateways or third-party software)

<b>Compliance</b> <i>(check individual product regional compliance)</i>	3GPP TS 25.143 Rel.13 3GPP TS 36.143 Rel.13 Bluetooth BQB CE ACMA (Australia) (G41-JE/G41-NE/G41-QE) R-NZ (New Zealand) (G41-JE/G41-N)
--	---

<b>System Management</b> <i>(Software)</i>	Via Cel-Fi WAVE cloud portal using built-in Ethernet port Cel-Fi WAVE Portal capability: <ul style="list-style-type: none"> <li>• Status (list and map)</li> <li>• Commissioning</li> <li>• Diagnostics</li> <li>• Software Updates</li> <li>• Settings</li> <li>• Reporting</li> <li>• Alarms &amp; Notifications</li> </ul>
---	--

<b>Antenna Ports</b> <i>(Donor and Server)</i>	Impedance: 50 Ohms Port-to-port Isolation: >110 dB Connector: SMA FEMALE Return Loss: <-8 dB
---	---

<b>Environmental</b>	Operating temperature: 0°C to 40°C Convection Cooling Relative humidity: 0% to 95%, non-condensing RoHS (European and China compliant) CE IP Rating: 20
----------------------	--

<b>Power Consumption</b>	40W (max)
--------------------------	-----------

Dimensions	Height	Width	Length	Weight
	63 mm	107 mm	260 mm	2 kg

<b>Installation</b>	Wall-mounting hardware included
---------------------	---------------------------------

Radio Performance	Downlink Power / Per Band		Uplink Power / Per Band	
	All Bands	20 dBm	Bands 1, 3, 7, 40	22 dBm
	All Bands (UK license exempt)	16 dBm	Bands 5, 8, 20, 28L, 28U	20 dBm

<b>Radio</b>	Noise Figure: 8 dB Return Loss: -8 dB
--------------	--

<b>Group Delay</b>	LTE 5 MHz – 20 MHz = 5.5 us
--------------------	-----------------------------

Band Configurations	Band	Downlink	Uplink	Bandwidth
	1	2110–2170 MHz	1920–1980 MHz	Up to 20 MHz per carrier, 2 carriers
	3	1805–1880 MHz	1710–1785 MHz	Up to 20 MHz per carrier, 2 carriers
	5	869–894 MHz	824–849 MHz	Up to 15 MHz per carrier, 1 carrier
	7	2620–2690 MHz	2500–2570 MHz	Up to 20 MHz per carrier, 1 carrier (2 in G41-9E & G41-QE)
	8	925–960 MHz	880–915 MHz	Up to 15 MHz per carrier, 1 carrier
	20	791–821 MHz	832–862 MHz	Up to 20 MHz per carrier, 1 carrier
	28L	758–788 MHz	703–733 MHz	Up to 20 MHz per carrier, 1 carrier
	40	2300 - 2390 MHz (TDD LTE)		Up to 20 MHz per carrier, 1 carrier

Band Variations	Model Numbers	Bands	Crossover Band Support
	G41-9E-xxx	1, 3, 7, 8, 20	1, 3, 7
	G41-JE-xxx	1, 3, 5, 7, 8, 28L, 40	1, 3
	G41-NE-xxx	1, 3, 5, 7, 8, 28U, 40	1, 3
	G41-QE-xxx	1, 3, 5, 7, 28L	1, 3, 7

Kit Configuration	Model Numbers	In The Box
	G41-xE-001	UNIT + WHIP ANTENNA (A21-V33-100) + ANTENNA WITH 8M CABLE (A51-100-100)
	G41-xE-002	UNIT + WHIP ANTENNA (A21-V33-100) + ANTENNA WITH 1M CABLE (A51-101-100)
	G41-xE-003	UNIT ONLY

Copyright © 2021 by Nextivity, Inc, U.S. All rights reserved. The Nextivity and Cel-Fi logos are registered trademarks of Nextivity Inc. All other trademarks or registered trademarks listed belong to their respective owners. Designed by Nextivity in California. data\_go-g41\_eur\_21-0310