DATA SHEET

CEL-FI GO G41 | 3G/4G/5G

Smart Signal Repeater

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 5GNR. 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 m² 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.

Download on the App Store | GET IT ON Google play

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 ft2 (3,000 m2) 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)

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Compliance *(check individual product regional compliance)*

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)

System Management *(Software)*

Via Cel-Fi WAVE cloud portal using built-in Ethernet port
Cel-Fi WAVE Portal capability:

- Status (list and map)
- Commissioning
- Diagnostics
- Software Updates
- Settings
- Reporting
- Alarms & Notifications

Antenna Ports *(Donor and Server)*

Impedance: 50 Ohms
Port-to-port Isolation: >110 dB
Connector: SMA FEMALE
Return Loss: <-8 dB

Environmental

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

Power Consumption

40W *(max)*

Dimensions

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

Installation

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

Radio

Noise Figure: 8 dB
Return Loss: -8 dB

Group Delay

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

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