

CEL-FI GO_{G41}

5G/4G/3G

Smart Signal Repeater

DATA SHEET

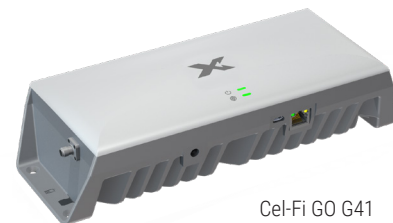
MODEL NUMBERS:

G41-9E

G41-JE

G41-NE

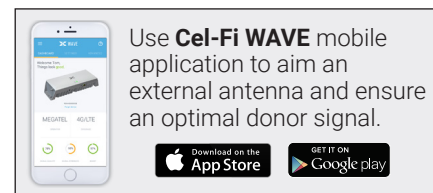
Designed to solve cellular coverage issues for indoor environments, the Cel-Fi GO G41 Smart Signal Repeater is the most powerful carrier-grade solution available. Providing up to 100 dB gain, GO G41 delivers class-leading 3G/4G/5G voice and data performance. GO G41 also supports 5GNR operation for seamless network migration and consistent connectivity. In addition to providing cellular coverage up to 3,000 m² (1,500 m² in U.K.) when configured with the included donor and server antennas, the system can be expanded with outdoor or additional server antennas for an increased coverage footprint. Plus, GO G41 is network safe and offers class-leading ease of installation.



Cel-Fi GO G41

Key Features

- Improves Cellular Coverage
- Simple Management Through Cel-Fi WAVE System
- Deploy the Unit Anywhere in the Network With Full Frequency Coverage
- Up to 3,000 m² (1,500 m² in U.K.) 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 Cel-Fi 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
3G, 4G, and 5G support, Voice and Data, network safe
LED cues provide visual feedback for ease of set up 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 3,000 m² (1,500 m² in U.K.) 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)

Compliance 3GPP TS 25.143 Rel.13
 (check individual product regional compliance) 3GPP TS 36.143 Rel.13
 Bluetooth BQB

CE
 ACMA (Australia) (G41-JE/G41-NE)
 R-NZ (New Zealand) (G41-JE/G41-NE)

System Management Via Cel-Fi WAVE cloud Portal using built-in Ethernet port
 (Software) Cel-Fi WAVE Portal capability:
 • Status (list and map) • Settings • Commissioning • Reporting
 • Alarms & Notifications • Diagnostics • Software Updates

Antenna Ports Impedance: 50 Ohms
 (Donor and Server) 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: 7 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)
	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

Bluetooth (LE Ver 4.2)	Frequency	Power
	2402 - 2480 MHz	0 dBm

Band Variations			Crossover Band Support	Kit #	Items included:
Model #	Kit #	Bands			
G41-9E	-001	1, 3, 7, 8, 20	1, 3, 7	-001	<ul style="list-style-type: none"> GO G41 Unit Power Adaptor Whip Antenna (A21-V33-100) Patch Antenna with 8M Cable (A51-100-100) 
	-002				
	-003				
G41-JE	-001	1, 3, 5, 7, 8, 28L, 40	1, 3	-002	<ul style="list-style-type: none"> GO G41 Unit Power Adaptor Whip Antenna (A21-V33-100) Patch Antenna with 1M Cable (A51-101-100) 
	-002				
	-003				
G41-NE	-001	1, 3, 5, 7, 28U, 40	1, 3	-003	<ul style="list-style-type: none"> GO G41 Unit Power Adaptor 
	-002				
	-003				

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