

CEL-FI™ GO G41 | 3G/4G/5G

Smart Signal Repeater

DATA SHEET

MODEL NUMBERS:

G41-JE-xxx
G41-9E-xxx
G41-NE-xxx
G41-QE-xxx

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 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.



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)

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: <ul style="list-style-type: none"> • 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)
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Dimensions	Height	Width	Length	Weight
	63 mm	107 mm	260 mm	2 kg

Installation	Wall-mounting hardware included
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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
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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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