

CEL-FI™ SOLO

3G / 4G / LTE

Smart Signal Booster™

DATA SHEET

MODEL NUMBER:
H41-9B-xxx
H41-AB-xxx
H41-9C-xxx
H41-AC-xxx



The Cel-Fi SOLO Smart Signal Booster is designed to solve cellular coverage problems for voice and data. With up to 100 dB of gain, it is the most powerful carrier grade solution available. The Cel-Fi SOLO covers up to 1,500 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.

Benefits:

- Boosts cellular coverage
- Data and Voice support, in one solution
- Deploy the unit anywhere in the network, with full frequency coverage
- Up to 1,500 m² coverage area



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



System Features

Smart Signal Booster™
Multiple Installation options supported.
LED User Indicators for Status
Simple, built-in, self-test
Unlocked: Cell phones do not need to be registered
Support for Cel-Fi WAVE mobile application
End-to-end cellular communication encryption without additional risk of vulnerability
Convection cooling

Wireless Features

Carrier Grade, Smart Signal Booster
3G / 4G / LTE
100 dB gain
Five (5) RF front ends (check model number for bands specifics)
60 MHz relay bandwidth
Relays three (3) channels simultaneously (up to 20 MHz each)
Can simultaneously relay two (2) Band 1 signals // 3G and 4G LTE
SMA RF Connectors for Donor and Server, for flexible deployment

Mobile Network and Network Protection Features

Supports multiple channels with bandwidths of 5/10/15/20 MHz per channel
Works with any user equipment (UE) on the configured network (no whitelist/blacklist)
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
System shuts down upon Operator's network command or failure detection
Nextivity purpose-built, high-performance, six core ASIC processor, provides best performance at lowest cost

Wireless Benefits

Distribute and boost cellular coverage
3G and 4G support, Voice and Data, network safe
LED cues provide visual feedback for ease of setup and status
Works with any subscriber device from the designated Operator
Supports peaceful co-existence with guard band NB-IoT deployments

System Benefits

Clear and reliable cellular connections within coverage area up to 15,000 ft² (1,500 m²) per system
Highest gain (100 dB) provides best coverage footprint
Advanced Echo-Cancellation allows Cel-Fi to transmit more power without feedback interference
Subscriber devices (UE) require less transmit power for improved battery life
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, VoLTE, LTE-Advanced, NB-IoT and WCDMA networks, with multiple cellular bands, simultaneously
Automatically adjusts channel bandwidths between 5 MHz and 20 MHz
UE control is transparent and remains centralized in the network core (no gateways or third-party software)

Compliance <i>(check individual product regional compliance)</i>	3GPP TS 25.143
	3GPP TS 36.143
	Bluetooth BQB
	CE
	ACMA (Australia)
	R-NZ (New Zealand)

System Management <i>(Software)</i>	Via Cel-Fi WAVE cloud portal
	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 <i>(Donor and Server)</i>	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 <i>(max)</i>	40W
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Dimensions	Height	Width	Length	Weight
	163 mm	158 mm	80 mm	1.8 kg

Installation	Wall-mounting hardware included
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Radio Performance	Downlink Power		Uplink Power	
	All Bands	20 dBm	Bands 1,3	22 dBm
		Bands 5, 8, 28L	20 dBm	

Radio	Noise Figure: 7 dB
	Return Loss: -8 dB

Group Delay	LTE 5 MHz = 5.5 us
	LTE 10 MHz, 15 MHz, 20 MHz = 5.5 us
	WCDMA = 7.5 us

Band Variations:	Band	Downlink	Uplink	Bandwidth
1, 3, 7, 8, 20	1	2110–2170 MHz	1920–1980 MHz	Up to 20 MHz per carrier, 2 carriers
1, 3, 5, 8, 28L <i>(Band 1 - 2 carriers)</i>	3	1805–1880 MHz	1710–1785 MHz	Up to 20 MHz per carrier, 1 carrier
	5	869–894 MHz	824–849 MHz	Up to 20 MHz per carrier, 1 carrier
	7	2620–2690 MHz	2500–2570 MHz	Up to 20 MHz per carrier, 1 carrier
	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

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