DATA SHEET

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

CEL-FI SOLO | 3G / 4G / LTE

Smart Signal Booster™

The Cel-Fi SOLO Smart Signal Booster is designed to solve cellular coverage problems for voice and data. With up to 100dB 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.

Download on the App Store | GET IT ON Google play

System Features	Smart Signal Booster™
	Multiple Installaton 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
	100dB 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 (100dB) provides best coverage footprint
	Advanced Echo-Cancelation 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
(check individual product regional compliance)

3GPP TS 25.143
3GPP TS 36.143
Bluetooth BQB
CE
ACMA (Australia)
R-NZ (New Zealand)

System Management
(Software)

Via Cel-Fi WAVE cloud portal

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° to 40° C
Convection Cooling
Relative humidity: 0% to 95%, noncondensing
RoHS (European and China compliant)
CE
IP Rating: 20

Dimensions

Height	Width	Length	Weight
163 mm	158 mm	80 mm	1.8 kg

Installation

Wall-mounting hardware included

Radio Performance

Downlink Power		Uplink Power	
All Bands	20dBm	Bands 1,3	22dBm
		Bands 5, 8, 28L	20dBm

Radio

Noise Figure: 7 dB
Return Loss: -8 dB

Group Delay

LTE 5MHz = 4.5 us
LTE 10 MHz, 15 MHz, 20 MHz = 4 us
WCDMA = 6.5 us

Band Variations:
1, 3, 7, 8, 20
1, 3, 5, 8, 28L
(Band 1 - 2 carriers)

Band	Downlink	Uplink	Bandwidth
1	2110–2170 MHz	1920–1980 MHz	Up to 20 MHz per carrier, 2 carriers
28L	758–788 MHz	703–733 MHz	Up to 20 MHz per carrier, 1 carrier
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

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