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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