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.

CEL-FI SOLO

CEL-FI SOLO
WITH LTE MODEM

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
- Optional: Integrated category 1 LTE modem for remote management (H41-xC-xxx variants include modem)

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

Power Consumption

(max)

40W

Dimensions

Height	Width	Length	Weight
186 mm	186 mm	127v mm	1.8 kg

Installation

Wall-mounting hardware included

Radio Performance

Downlink Power	
All Bands	20 dBm

Uplink Power	
Bands 1,3, 7	22 dBm
Bands 5, 8, 20, 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:

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
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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