

# CEL-FI SOLO

## In-Building Cellular Coverage Solution

**MODEL NUMBERS: H41-9X-XXX, H41-AX-XXX**

The CEL-FI SOLO solve cellular coverage problems for voice and data. With up to 100 dB of gain, it is the most powerful carrier-grade solution available in its class. SOLO can be configured with the included donor and server antennas or expanded with outdoor or multiple server antennas. The Nextivity commitment is to protect the operator's network, deliver the best cellular performance, and provide the easiest solutions to install.

**Features and benefits include:**

- Improves cellular coverage
- 3G, 4G, and 5G voice and data support
- Deploy the unit anywhere in the network with full frequency range



CEL-FI SOLO



Use the Nextivity **WAVE** mobile application to aim an external antenna and ensure an optimal donor signal.



### System Features

- 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 Nextivity 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 and network safe
- 3G, 4G, and 5G voice and data
- 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: 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, 4G, and 5G 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

Highest gain (100 dB) provides best coverage footprint  
Advanced Echo-Cancelation allows device 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 version for specific regional compliance)*

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

## System Management *(Software)*

Nextivity WAVE cloud portal  
Nextivity 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 50°C  
Convection Cooling  
Relative humidity: 0% to 95%, noncondensing  
RoHS II 2011/65/EU  
CE  
IP20

## Power Consumption *(max)*

40W

## Dimensions

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

## Installation

Wall-mounting hardware included

## Radio Performance

Downlink Power		Uplink Power	
All Bands	20 dBm	Bands 1, 3, 7	22 dBm
		Bands 5, 8, 20, 28L	20 dBm

## Radio

Noise Figure: 7 dB

Return Loss: -8 dB

PoE IEEE 802.3at

## Connections

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	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
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
1	2110–2170 MHz	2500–2570 MHz	Up to 20 MHz per carrier, 2 carriers
3	1805–1880 MHz	880–915 MHz	Up to 20 MHz per carrier, 1 carrier
5	869–894 MHz	699–716 MHz	Up to 20 MHz per carrier, 1 carrier
8	925–960 MHz	777–787 MHz	Up to 15 MHz per carrier, 1 carrier
28L	758–788 MHz	832–862 MHz	Up to 20 MHz per carrier, 1 carrier