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

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-Cancellation 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
<table>
<thead>
<tr>
<th>Height</th>
<th>Width</th>
<th>Length</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>186 mm</td>
<td>186 mm</td>
<td>127 mm</td>
<td>1.8 kg</td>
</tr>
</tbody>
</table>

## Installation
Wall-mounting hardware included
### Radio Performance

<table>
<thead>
<tr>
<th>Downlink Power</th>
<th>Uplink Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Bands</td>
<td>20 dBm</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Radio Connections

- Noise Figure: 7 dB
- Return Loss: -8 dB
- PoE IEEE 802.3at
- LTE 5 MHz = 5.5 us
- LTE 10 MHz, 15 MHz, 20 MHz = 5.5 us
- WCDMA = 7.5 us

### Band Variations

<table>
<thead>
<tr>
<th>Band</th>
<th>Downlink</th>
<th>Uplink</th>
<th>Bandwidth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2110–2170 MHz</td>
<td>1920–1980 MHz</td>
<td>Up to 20 MHz per carrier, 2 carriers</td>
</tr>
<tr>
<td>3</td>
<td>1805–1880 MHz</td>
<td>1710–1785 MHz</td>
<td>Up to 20 MHz per carrier, 1 carrier</td>
</tr>
<tr>
<td>7</td>
<td>2620–2690 MHz</td>
<td>2500–2570 MHz</td>
<td>Up to 20 MHz per carrier, 1 carrier</td>
</tr>
<tr>
<td>8</td>
<td>925–960 MHz</td>
<td>880–915 MHz</td>
<td>Up to 15 MHz per carrier, 1 carrier</td>
</tr>
<tr>
<td>20</td>
<td>791–821 MHz</td>
<td>832–862 MHz</td>
<td>Up to 20 MHz per carrier, 1 carrier</td>
</tr>
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</tr>
<tr>
<td>5</td>
<td>869–894 MHz</td>
<td>699–716 MHz</td>
<td>Up to 20 MHz per carrier, 1 carrier</td>
</tr>
<tr>
<td>8</td>
<td>925–960 MHz</td>
<td>777–787 MHz</td>
<td>Up to 15 MHz per carrier, 1 carrier</td>
</tr>
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<td>758–788 MHz</td>
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