



Smart Signal Booster

# Cel-Fi SOLO



## 4th generation Smart Cellular Coverage Solution for small businesses and residential areas.

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 m<sup>2</sup> of indoor space per system. Configure with included donor and server antennas, or expand options with outdoor or multiple server antennas. The Cel-Fi commitment is to protect the operator's network, deliver the best cellular performance, and be the easiest solution to install.

Note: 5G functionality is pending carrier approvals; there is no ETA on the 5G functionality getting approved from the Australian carriers.



## Key Technologies

### IntelliBoost® Chipset

The Cel-Fi IntelliBoost baseband processor is the first six-core processor designed specifically to optimise the indoor transmission and reception of 3G/4G/5G wireless signals. With advanced filtering, equalisation and echo-cancellation techniques, Cel-Fi's architecture delivers unprecedented in-building data rates and pervasive 3G/4G/5G connectivity.

### Network Safe

Self-organising edge intelligence ensures that Cel-Fi SOLO does not interfere with other indoor wireless products such as Wi-Fi routers, Small Cells and Distributed Antenna Systems (DAS). High speed Automatic Gain Control ensures that Cel-Fi SOLO is unconditionally network safe and enables more simultaneous calls and higher data speeds.

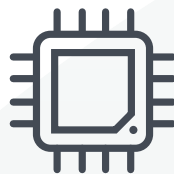
### Cel-Fi WAVE

The Cel-Fi WAVE App is designed for users to activate, manage and troubleshoot the Cel-Fi SOLO. The app connects to the device via Bluetooth and is available on smartphones and tablets. It is globally trusted and built on carrier-grade security. The device data is synced to the WAVE Portal which allows for additional data modeling and reporting.

## Key Features



Industry Leading 3G/4G/5G  
Voice and Data



Smart Signal Booster with  
IntelliBoost® Chipset Smart  
Technology



Scalable Solution for up to  
1500 m<sup>2</sup> per System



15 Min Quick Install or Advanced  
Install with Additional Antennas

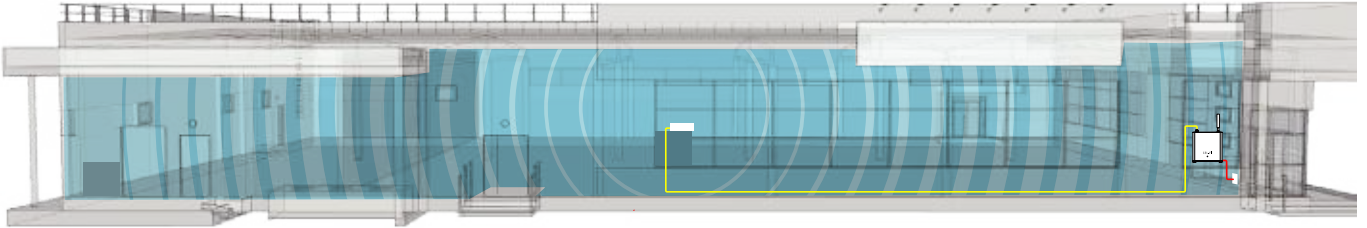


Setup and Management App



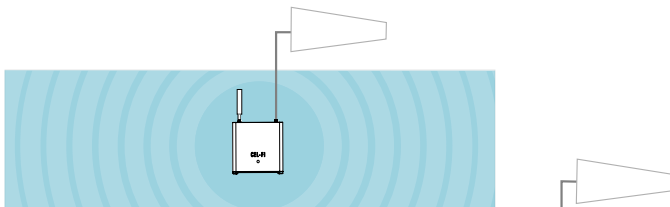
Network safe and Carrier Approved

## Quick Installation

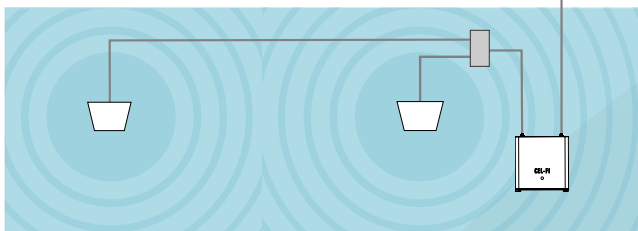


The Cel-Fi SOLO comes with a Cel-Fi Whip Antenna and Cel-Fi Patch Antenna. These can be used to get a system up and running in minutes.

## Advanced Installations

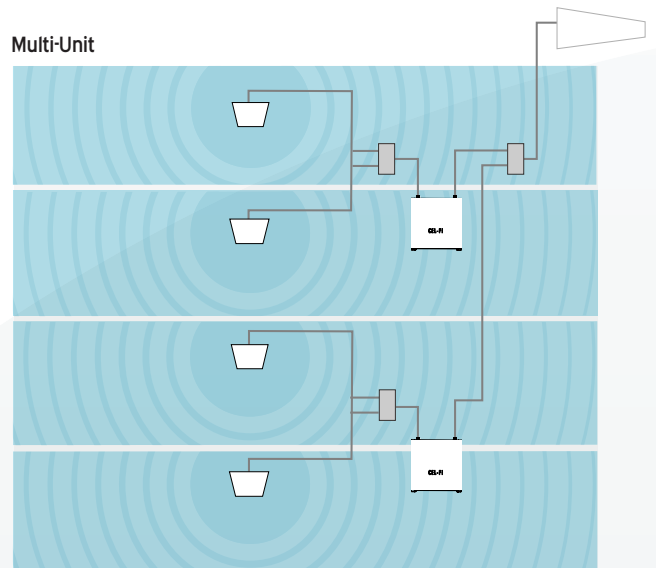


External Antenna



Splitting Server Antenna

Multi-Unit



If you need a more powerful donor antenna you can connect the Cel-Fi SOLO to an outdoor Wideband Directional Antenna. If you need to get coverage to more areas of your building, you can use Splitters and connect to multiple Server Antennas.



## Specifications

<b>System Features</b>	Smart Signal Booster™
	Multiple Installation 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)
<b>Wireless Features</b>	Carrier Grade, Smart Signal Booster
	3G / 4G / 5G
	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
<b>Mobile Network and Network Protection Features</b>	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 authorised 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
<b>Wireless Benefits</b>	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



<b>System Benefits</b>	Clear and reliable cellular connections within coverage area up to 15,000 ft <sup>2</sup> (1,500 m <sup>2</sup> ) per system
	Highest gain (100 dB) provides best coverage footprint
	Advanced Echo-Cancellation 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
	Nextivity purpose-built, high-performance, six core ASIC processor, provides best performance at lowest cost
<b>Mobile Network Benefits</b>	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 centralised in the network core (no gateways or third-party software)
	Off-load the macro network in Supercell mode, or use to improve macro capacity and building propagation/penetration
	UE control is transparent and remains centralised in the network core (no gateways or third-party software)
<b>Compliance</b> (check individual product regional compliance)	3GPP TS 25.143
	3GPP TS 36.143
	Bluetooth BQB
	CE
	RCM (Australia)
	R-NZ (New Zealand)
<b>System Management</b> (Software)	Via Cel-Fi WAVE cloud portal
	Cel-Fi WAVE Portal capability: <ul style="list-style-type: none"> <li>• Status (list and map)</li> <li>• Commissioning</li> <li>• Diagnostics</li> <li>• Software Updates</li> <li>• Settings</li> <li>• Reporting</li> <li>• Alarms &amp; Notifications</li> </ul>
<b>Antenna Parts</b> (Donor and Server)	Impedance: 50 Ohms
	Port-to-port Isolation: >110 dB
	Connector: SMA FEMALE
	Return Loss: <-8 dB



<b>Environmental</b>	Operating temperature: 0°C to 50°C			
	Convection Cooling			
	Relative humidity: 0% to 95%, non-condensing			
	RoHS (European and China compliant)			
	CE			
	IP Rating: 20			
<b>Power Consumption (max)</b>	40W			
<b>Dimensions</b>	Height	Width	Length	Weight
	186 mm	186 mm	127 mm	1.8 kg
<b>Installation</b>	Wall-mounting hardware included			
<b>Radio Performance</b>	Downlink Power		Uplink Power	
	All Bands	20 dBm	Bands 1, 3, 7	22 dBm
			Bands 5, 8, 20, 28L	20 dBm
<b>Radio</b>	Noise Figure: 7dB			
	Return Loss: -8 dB			
<b>Group Delay</b>	LTE 5 MHz = 5.5 us			
	LTE 10 MHz, 15 MHz, 20 MHz = 5.5 us			
	WCDMA = 7.5 us			
<b>Band Variations</b> 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



## Cel-Fi SOLO Kits

### Kit: KH41-9B-STD



Cel-Fi SOLO  
H41-9B-xxx  
H41-AB-xxx



Power Supply



Cel-Fi HP PATCH  
Antenna  
A51-100-100



Cel-Fi WHIP  
Antenna  
A21-100-100



Coax Cable  
(10m)

### Kit: KH41-9B-PRO



Cel-Fi SOLO  
H41-9B-xxx  
H41-AB-xxx



Power Supply



2x Cel-Fi HP  
PATCH Antenna  
A51-100-100



Cel-Fi WHIP  
Antenna  
A21-100-100

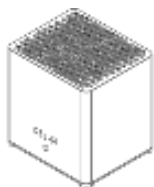


Coax Cable  
(10m)



Coax Cable  
(20m)

### Kit: KH41-9B-003



Cel-Fi SOLO  
H41-9B-xxx  
H41-AB-xxx



Power Supply

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### Why Rising Connection is using equipment designed and built by Nextivity?

- Designed and built for the most varied conditions in the world including Australian environment.
- Worldwide proven and respected Industry Experience including in the Australian Telecommunications Industry.
- Expertise support and customer focused staff.
- Up to date with technology and bringing to market the best quality technology available for Reliable Commercial use

This demonstrates to Rising Connection that you will have the Quality, Reliability and Product Support.