

INFORMATION GUIDE

11dBi Caravan Booster Pack

Amplified Cellular Coverage

SKU: 01104C6K6

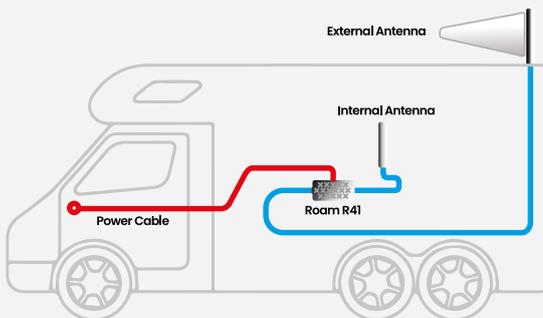
11.0 dBi
5G READY
2YR WARRANTY



AR3404

PACK INCLUDES

- ✓ CEL-FI ROAM R41
- ✓ 11 dBi Directional Log 5G Antenna
- ✓ Internal Antenna
- ✓ Vehicle Power Adaptor
- ✓ 6m Low Loss Coaxial Cable



SKU: 02485

11 dBi Directional Base Log 5G Antenna



Internal Antenna



Vehicle Power Adaptor



CEL-FI ROAM R41
SKU: 01104C06



6m Low Loss Coaxial Cable
SKU: 101205

CEL-FI ROAM R41

Mobile Cellular Coverage Solution

The CEL-FI ROAM R41 mobile cellular coverage solution delivers reliable 4G and 5G connectivity inside cars and boats, including fleet vehicles. With the latest Nextivity proprietary IntelliBoost chip, ROAM R41 offers enterprise-grade performance to solve poor coverage and enable dependable calling, texting, and streaming on the move. The system features plug-and-play operation for quick and easy set up, improving connectivity in any car, truck, RV, or boat within minutes. ROAM R41 also supports carrier switching through the Nextivity WAVE App for iOS and Android devices.



FEATURES

- Suitable for Telstra / Optus / Vodafone
- Deploy the unit anywhere in the network, with full frequency coverage
- Latest 4th generation Nextivity proprietary IntelliBoost chip delivers channelized coverage for specific mobile network operator signals
- Support for 4G and 5G dynamic spectrum sharing (DSS)
- Easy to install with plug-and-play operation



SPECIFICATIONS

Frequency Bands	1/3/5/7/8/20/26/28L
Relay Channel Bandwidths (MHz)	5/10/15/20
Networks	4G/5G
Network Protocols	WCDMA/LTE/DSS
Network Selection	Automatically (MyWave App set to "Following")
Configured to authorized operator	PLMN-IDs
Duplex Modes	FDD
# of Relay Bands (MHz max.)	1
Relay Bandwidth (MHz max.)	20
Output Downlink Power (All Bands) (dBm max.)	0
Output Uplink Power (Bands 5/8/20/26/28L) (dBm max.)	22
Output Uplink Power (Bands 1/3/7) (dBm max.)	24
System Gain (dBm max.)	100
Enterprise-Grade Echo Cancellation (dB min.)	30
Return Loss (dB typ.)	-8

BANDS

Frequency Bands	Downlink (MHz)	Uplink (MHz)	Max. Relay BW (MHz)
1	2110-2170	1920-1980	
3	1805-1880	1710-1785	20
5	869-894	824-849	
7	2620-2690	2500-2570	
8	925-960	880-915	15
20	791-821	832-862	
26	859-894	814-849	20
28L	758-788	703-733	

CEL-FI ROAM R41

Mobile Cellular Coverage Solution

INTERFACE

Donor RF Connector	SMA (f)
Server RF Connector	SMA (f)
DC Input	5.5 x 2.5 mm (f) Barrel
Device Setup	Bluetooth for WAVE App
Power & System Status	Bi-color LED (Green/Red)
Factory Debug only	USB 2.0 Micro-B
System Management & SW Updates	WAVE App for iOS 11.0 or later WAVE App for Android
Band Selection	MyWAVE App for iOS 11.0 or later MyWave App for Android

COMPLIANCE

3GPP	TS 25.143 Rel 13 3GPP TS 36.143 Rel 13
CE	Compliant RED 2014/53/EU
RoHS3	EN 63000: 2018
ACMA/RCM	AS/NZS CISPR, 32:2013
Bluetooth	LE Ver 4.2

POWER SUPPLY

Power Consumption (W) max.	18
Input Voltage (VDC)	11.5 to 15
Input Current (A max.)	1.5
Power Supply Plug	Automobile Auxiliary Power
Power Supply Cable	18 AWG
Power Supply Cable Length	5m

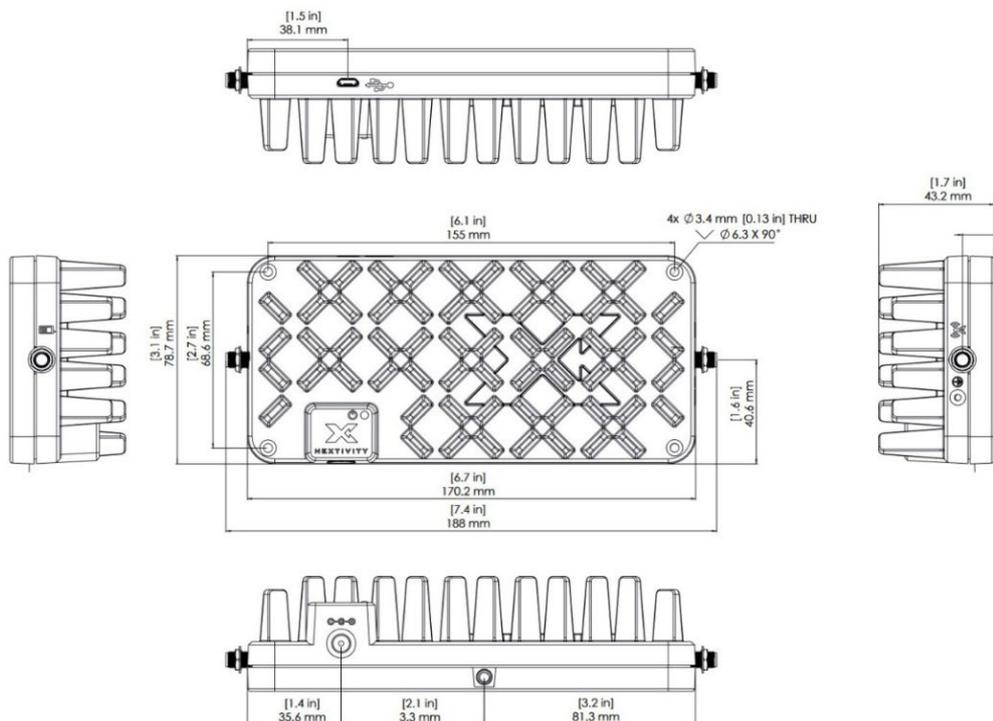
ENVIRONMENTAL

Operating Temperature	0 to 60 °C
Storage Temperature	-35 to 70 °C
Heat Dissipation	Passive Convection
Surface Temperature max. at ambient	44 °C
Non-condensing Humidity	0 to 95%
Ingress Protection Rating	IPX0

CEL-FI ROAM R41 MAIN UNIT OUTLINE

	Multi-Carton			Individual Carton	
Part Number	Dimensions mm	# of Units	Weight KG	Dimensions mm	Weight KG
01104C06	435*217*235	10	8.7	215*82*97	0.7

CEL-FI ROAM R41 MAIN UNIT OUTLINE



Benelec Cellular 5G 11dBi Directional Log Base Outdoor Shrouded Antenna with Mounting Bracket

The Benelec 02485 is a high-performance directional log-periodic antenna engineered for broadband applications across multiple 5G sub-6 GHz frequency bands, including 698–960 MHz, 1710–2700 MHz, and 3300–4000 MHz. With high directional gain and a low VSWR, it is ideally suited for Fixed Wireless Access (FWA), rural or edge deployments, and network site surveys where reliable and focused signal reception or transmission is required.

The antenna features log-periodic dipole design principles, providing stable radiation characteristics and consistent performance across its wide frequency range. All antenna elements are housed within a sealed fiberglass radome, offering robust protection from environmental conditions. Weighing only 1.2 kg, the antenna is lightweight and supports quick and flexible deployment in both permanent and temporary installations.

APPLICATION

- Cellular communications
- Cellular repeaters
- Multi-band base station
- Fixed wireless access
- Network site surveys
- Rural or edge signal boosting



ELECTRICAL SPECIFICATIONS

Frequency MHz	698-960	1710-2700	3300 – 4000
Gain	9.5 dBi	10.5 dBi	11 dBi
Horizontal Beam Width	85 °	65 °	60 °
Vertical Beam Width	60 °	55 °	55 °
VSWR	≤ 1.8		
Input Impedance	50 Ω		
Front-to-Back Ratio	≥ 15 dB		
Polarization	Vertical		
Intermodulation IM3 (2 x 33 dBm)	≤ -150 dBc		
Maximum Input Power	50 W		
Lightning Protection	DC Ground		

MECHANICAL SPECIFICATIONS

Inner Connector Type	N Socket
Installation	Pole-holding
Radiating Element Material	Al
Operating Temperature	-40 °C to +65 °C
Windy Velocity	60 m/s
Dimensions	405 x 210 x 65 mm
Net Weight	1.2 kg

PACKAGING

One Antenna per Pack

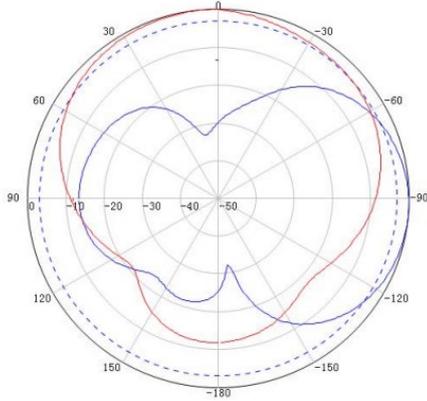


WARRANTY

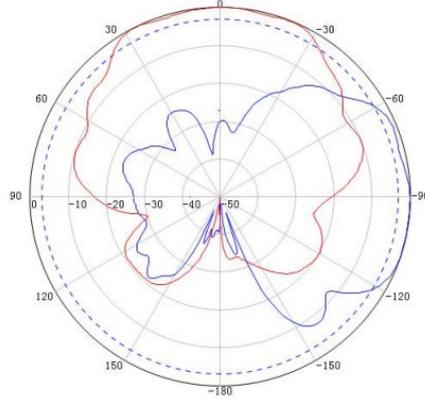
3-Year Warranty
(Refer to [Benelec Terms and Conditions](#))

Benelec Cellular 5G 11dBi Directional Log Base Outdoor Shrouded Antenna with Mounting Bracket

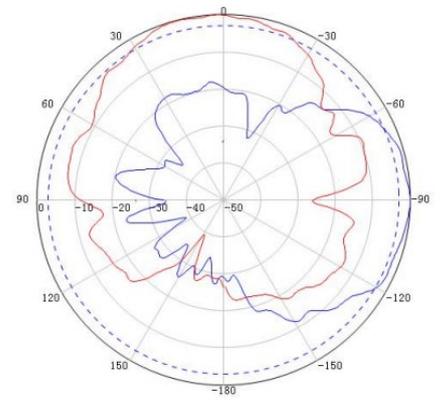
RADIATION PATTERNS



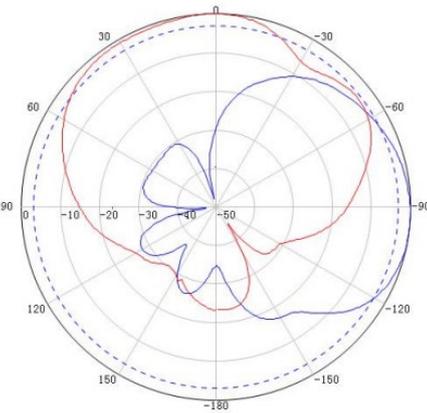
698 MHz



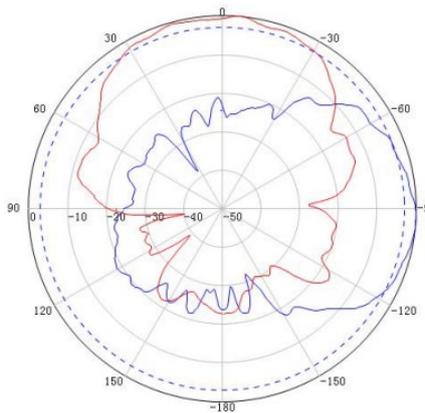
1710 MHz



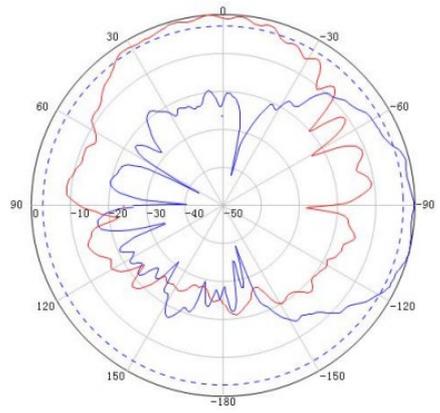
3400 MHz



960 MHz



2690 MHz



3700 MHz

**Benelec 6m LL195
SMA Plug to N Plug Lead**



The 101205 is a 6 m prepared coaxial lead, assembled using Benelec 052034 LL195 low-loss coaxial cable. It features a Ø420# N-type male crimp plug on one end and a Ø0013 SMA male plug on the other. Both connectors are weather-protected with glue-lined heat shrink at the cable entry points, ensuring durability in outdoor environments.

FEATURES

- Characteristic Impedance: 50 Ohm
- VSWR: < -1.2 (0 – 3 GHz)

PACKAGING

Packaging: Sealed Poly Bag, 1 per pack; Includes cable ties
 Dimensions: 300 mm x 300 mm x 100 mm
 Gross Weight: 0.32 kg

WARRANTY

1-Year Warranty
 [Refer to Benelec Terms and Conditions]

RF LOSS (APPROX.)

500 MHz	2.23 dB
2000 MHz	7.74 dB

INSTALLATION

The SMA connector is not weatherproof and is not recommended for outdoor use.

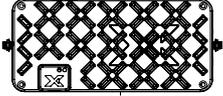
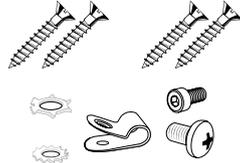
The N-Type plug is weatherproof; however, when used outdoors, it is recommended that all external connections be sealed with self-amalgamating tape, such as Benelec's 50522 (80K).

To apply the self-amalgamating tape: remove the separator, stretch the tape to approximately twice its original length, and wrap it continuously with each turn overlapping the previous by half, covering the entire coaxial joint. For additional protection, one or two layers of PVC electrical tape may be applied over the self-amalgamating tape.



ROAM R41 Quick Start Guide

Included In the Box

		
Main Unit	Automobile Auxiliary Power Adapter	Mobile Donor Antenna*
		
Server Antenna*	Mounting Hardware	Ground Cable



KIT#:

R41-9B-001	R41-YB-001
R41-9B-002	R41-YB-002
R41-9B-003	R41-YB-003

Model#	Bands Supported	Link	Output Power (dBm)
R41-YB	1/3/5/7/8/26/28L	Downlink	0
		Uplink	22
R41-9B	1/3/7/8/20	Downlink	0
		Uplink	22
Power/Status LED Indicator			
LED Behavior		Translation/Error State	
No light		Device is powered OFF	
Solid Orange		Device is powered ON	
-		Device is booting up	
Slow blinking green		Device is band scanning to acquire network signals	
Solid Green		Device is operating normally and providing coverage	
Solid Red		Hardware Error (ES1) – Disconnect & Reconnect	
Flash RED 1 time & OFF for 4sec		Device is not receiving signal from the cellular network (ES2)	
Flash RED 2 times & OFF for 4sec		Donor input signal is too strong for the device (ES4)	
Flash RED 3 times & OFF for 4sec		Device's server antenna is too close to donor antenna (ES7)	
Flash RED 4 times & OFF for 4sec		Device is disabled by the operator (ES9)	
Flash RED 5 times & OFF for 4sec		Device location lock pending (ES10)	
Flash RED 6 times & OFF for 4sec		Device registration pending (ES11)	
Flash RED 7 times & OFF for 4sec		Device Self-Test Failed (ES12)	

Nextivity WAVE Software

Download the **WAVE App** to monitor and manage the status of your **ROAM R41**.

Scan to Download



Download the **MyWave App** to set your **ROAM R41** to automatically track the base station to which your phone is connected.

Scan to Download

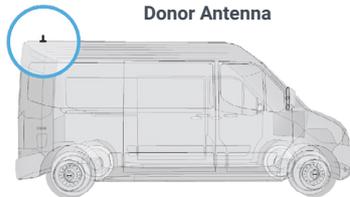


Quick Installation

IMPORTANT: Your **CEL-FI GO G41** is electronic equipment. The **CEL-FI GO G41** must be kept indoors and in a dry, cool, well ventilated area.

1

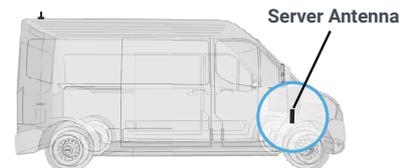
Install Donor Antenna



Mount your **Donor Antenna** on the exterior and towards the rear of your automobile or boat, depending on the design and type of vehicle. Make sure you consider the cable connection to the **Main Unit** with your location choice. **Note:** For best performance, ensure there is 50 cm of metal around the base of the antenna.

2

Install the Server Antenna

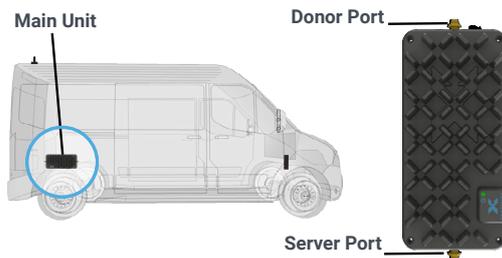


Install the **Server Antenna** in the cabin/deck towards the front of the vehicle where coverage is needed. Make sure to mount the **Server Antenna** horizontally.

Note: The **Donor Antenna** should be separated/isolated as far away as possible from the **Server Antenna**, greater separation provides the best performance.

3

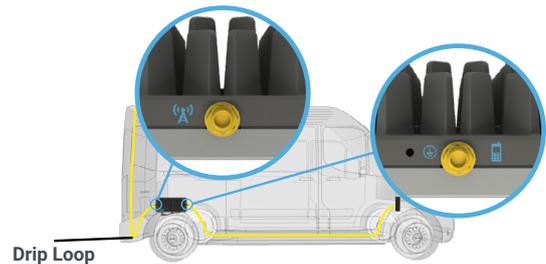
Select the Main Unit Location



Find a suitable location to securely mount the **Main Unit**. When installed, the **Main Unit** should have airflow and be in a position that doesn't contact other objects. Make sure the location provides enough distance for all the cables to connect. It's best to ensure all cables reach desired locations **BEFORE** mounting the device.

4

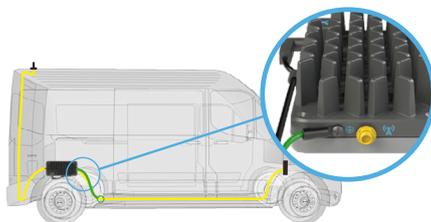
Attach Server and Donor Antennas



Attach the **Donor Antenna** and **Server Antenna** to the **Main Unit**. **Note:** Adding a drip loop to the **Donor Antenna** cable is crucial as it prevents water from flowing down the cable and damaging the Main Unit's electronic equipment.

5

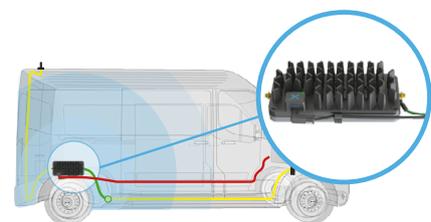
Install Ground Cable



Using the provided M3 screw, attach one end of the ground cable to the **Main Unit** and the other end to the chassis of the automobile or boat.

6

Plug in the Main Unit



Using the provided M3 screw, attach one end of the ground cable to the **Main Unit** and the other end to the chassis of the automobile or boat.



Frequently Asked Questions

What is CEL-FI ROAM R41?

The CEL-FI ROAM R41 is a cellular coverage solution designed to boost signal in vehicles and small spaces.

What are the suitable applications for this product?

The CEL-FI ROAM R41 unit is designed to work in a small space such as a car or caravan when used with the appropriate antenna. You can also use it to boost signal in a single small room using the Caravan Booster Pack with a 12V power supply. A power supply can be purchased separately.

What range of improvement in signal can I expect?

The CEL-FI ROAM R41 unit will boost cellular signal from one bar up to full bars but requires at least one bar of signal to be available.

What are the supported Network Carriers?

The CEL-FI ROAM R41 unit works with Telstra, Optus & Vodafone.
(Telstra branded units will only work with Telstra)

Can I use ROAM R41 with more than one mobile network at once?

No, the CEL-FI ROAM R41 will only work with one operator at a time.

What is the Nextivity WAVE App?

The Nextivity WAVE app is for product registration, configuration and provides an interface to switch carriers. The app connects via bluetooth and is available on iOS and Android devices.