



CELLULAR & LOCATION TECHNOLOGIES

FIXED & MOBILE CELLULAR REPEATERS / DAS / AVL / M2M / IoT
MOBILE PHONES / FIXED MOBILE BROADBAND / TELEMETRY DATA

4G

5G

ISM

GPS

WiFi



V3.1



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CELLULAR REPEATERS



CEL-FI ROAM R41

01104C06

CEL-FI ROAM R41 Mobile
Telstra / Optus / Vodafone

The CEL-FI ROAM R41 mobile cellular coverage solution delivers reliable 3G, 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.

- » Compatible with Telstra, Optus and Vodafone
- » Suitable for cars, trucks, RVs and boats
- » 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 3G, 4G, and 5G dynamic spectrum sharing (DSS)
- » Easy to install with plug-and-play operation



CEL-FI GO G41

01104C05

CellFi Go G41 Stationary
Telstra / Optus / Vodafone

Designed to solve cellular coverage challenges for indoor environments, the CEL-FI GO G41 is the most powerful carrier-grade solution in its class. Providing up to 100 dB gain, GO G41 is powered by the latest 4th generation Nextivity proprietary IntelliBoost chip to deliver reliable 2G, 3G, 4G, and 5G voice and data performance. GO G41 also supports 5GNR operation for seamless network migration and consistent connectivity. Plus, GO G41 is network safe and can be installed within minutes.

- » Compatible with Telstra, Optus and Vodafone
- » Suitable for retail stores, branch offices, and homes
- » Latest Nextivity proprietary chip ensures industry-leading performance
- » Strong 4G and 5G connectivity inside your building
- » Up to 70dB gain improvement
- » 3 Band RX and single band relay
- » Compact: 255mm x 87mm x 28mm, 600g
- » Reliable calling, texting, and streaming



CEL-FI ROAM R41 PACKS

6.0 dBi Vehicle Booster Pack

SKU: 01104C6K1

6.0
dBi

5G
READY

2YR
WARRANTY



Internal Antenna



Vehicle Power Adaptor



Bull Bar Bracket
SKU: 02732



Guard Bracket
SKU: 02734



6 dBi External 5G Removable 905mm Antenna
SKU: 024575R

7.5 dBi Vehicle Booster Pack

SKU: 01104C6K2

7.5
dBi

5G
READY

2YR
WARRANTY



Internal Antenna



Vehicle Power Adaptor



Bull Bar Bracket
SKU: 02732



Guard Bracket
SKU: 02734



7.5 dBi External 5G Removable 1.2m Antenna
SKU: 024579R

11.0 dBi Caravan Booster Pack

SKU: 01104C6K6

11.0
dBi

5G
READY

2YR
WARRANTY



Internal Antenna



Vehicle Power Adaptor

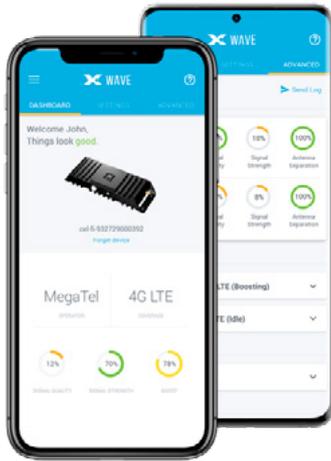


6m Low Loss Coaxial Cable
SKU: 101205



11 dBi Directional Base Log 5G Antenna
SKU: 02485

CELLULAR REPEATERS



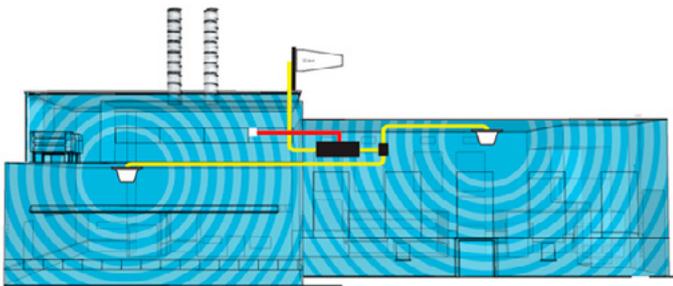
WAVE App

The CEL-FI WAVE App is designed for end users, installers and channel partners to activate and manage the CEL-FI product line. The app connects to the device via Bluetooth and is available on smartphones and tablets.

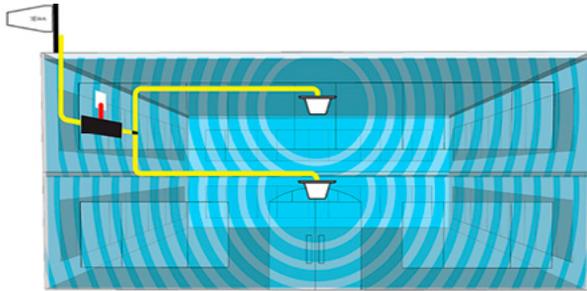
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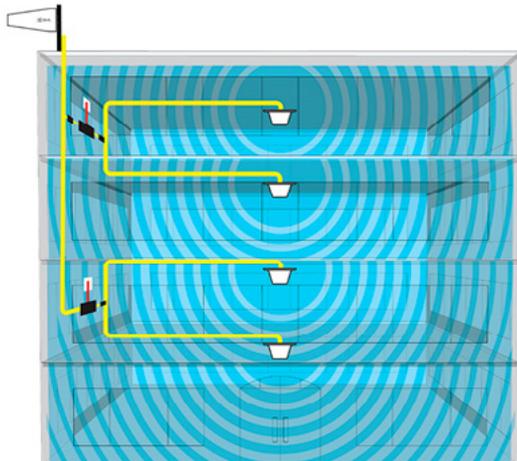
STATIONARY INSTALLATION



Typical Single Level Install

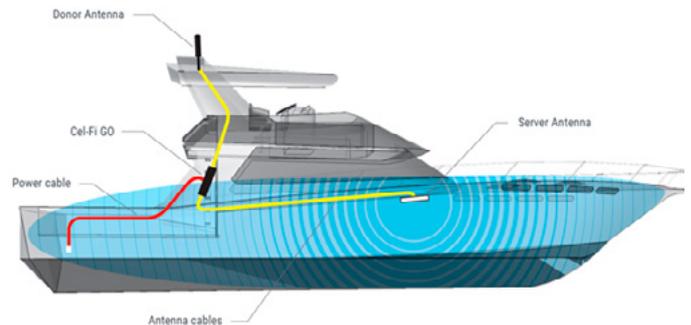
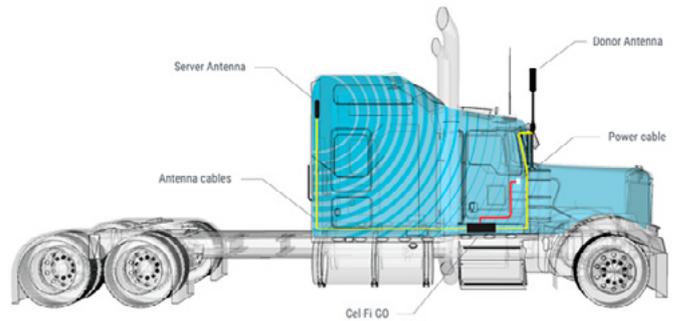
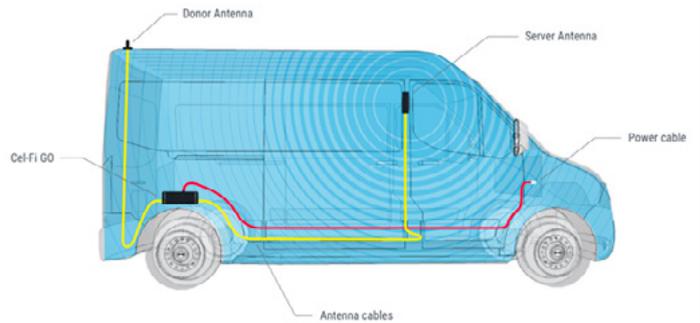


Typical Double Level Install



Typical Three Level Install

MOBILE INSTALLATION



Typical Mobile Installs

MARINE				MOBILE						
5G	5G	5G	5G	5G	5G	5G	5G	5G	5G	5G
02462CH	02463CH	02461C	024579BW	024573	024575	024575R	024579	024579R	024579RK	024581RK
3 / 7.5 dBi	3 / 7.5 dBi	3 dBi	3 / 7.5 dBi	3 dBi	3 / 6 dBi	3 / 6 dBi	3 / 7.5 dBi	3 / 7.5 dBi	3 & 7.5 dBi	3 & 6 dBi
1800 mm	2400 mm	365 mm	1040 mm	420 mm	905 mm	905 mm	1220 mm	1220 mm	420 mm & 1220 mm	605 mm & 917 mm
DECK MOUNT	DECK MOUNT	MAST MOUNT	MAST MOUNT	VEHICLE	VEHICLE	VEHICLE REMOVABLE	VEHICLE	VEHICLE REMOVABLE	VEHICLE REMOVABLE	VEHICLE REMOVABLE
5m x LL195 SMA Plug	5m x LL195 SMA Plug	N Socket	N Socket	5m x LL195 SMA Plug						

CD MULTI-BAND

2x5G 2xWi-Fi 2xGPS



02942051P 6 Band Shark Fin Antenna

2x5G / 2xWi-Fi / 2xGPS/GNSS

2x5G 4xWi-Fi 2xGPS



02942052M 8 Band Low Profile Surface Antenna

2x5G / 4xWi-Fi / 2xGPS/GNSS

4x5G 4xWIFI 2xGNSS



0294211 Mobile Multi-band 10+1 Port Antenna

4x5G / 4xWi-Fi / 2xGNSS

4x5G 4xWIFI 2xGNSS



0294212 Mobile Multi Band 10 Port Antenna

4x5G / 4xWi-Fi / 2xGNSS

A FIXED SITE OMNI **R** RAIL

5G



024584

Cellular 5G 3dB Base Dipole Antenna

690-960, 1710-2700, 3500-3700 MHz

5G



024563

Cellular 5G 3.0dB Mobile/Fixed Site Low Profile Panel Mount Antenna

695-960, 1710-2700, 3500-3800 MHz

5G



02471R 5G Antenna on Glass

690 - 960MHz, 1710 - 2700MHz

4G GPS



0294206R 4G + GPS Low Profile Antenna

690 - 960MHz, 1710 - 2700MHz



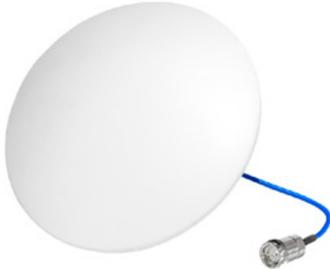
CABLE KIT for Multiband AVL Panel Mount Antenna

Cable kits can be customised and labelled to meet your specific requirements.

Contact us for required termination.

FIXED SITE INDOOR OMNI-DIRECTIONAL

5G Wi-Fi



024513 Cellular 5G/Wi-Fi Indoor Ultra-Slim Ceiling Antenna
4.3-10 Socket | 698-960, 1710-6000 MHz

5G Wi-Fi



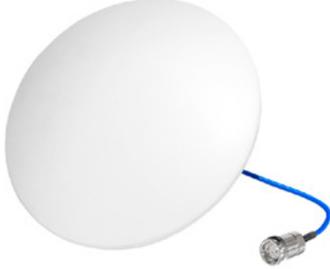
024513N Cellular 5G/Wi-Fi indoor Ultra-Slim Ceiling Antenna
N Socket | 698-960, 1710-6000 MHz

5G



024571G3 Cellular 5G Adhesive/Stick-on Dipole Antenna
690-960, 1710-2700, 3500-3700 MHz

5G DAS



02642 DAS Ultra-Thin Omni Ceiling Antenna
4.3-10 Socket | 350-6000MHz

5G DAS



02642N DAS Ultra-Thin Omni Ceiling Antenna
N Socket | 350-6000MHz

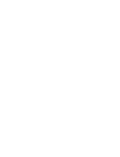
5G



02492 Cellular 5G 8.5dBi Base Indoor Panel Antenna
698-960, 1710-2700, 3400-4000 MHz

FIXED SITE OUTDOOR DIRECTIONAL

5G



02484E4 Cellular 5G 14dBi Directional Log Base Antenna
PIM Rated | 694 - 960 MHz, 1700 - 3700 MHz

5G



02485 Cellular 5G 11dBi Directional Log Base Outdoor Shrouded Antenna with Mounting Bracket
698 - 960, 1710 - 2700, 3300 - 4000 MHz

FIXED SITE OUTDOOR

5G



024921
5G Low PIM Outdoor Panel Antenna
698-960, 1710-2700, 3400-4000 MHz

5G



024922
5G Low PIM Outdoor MIMO Panel Antenna
698-960, 1710-2700, 3400-4000 MHz

5G



024579B
Cellular 5G 7.5dBi Marine Base Antenna
690-960, 1710-2700, 3500-3700 MHz

5G



024579BW
Cellular 5G 7.5dBi Marine Base Antenna (White)
690-960, 1710-2700, 3500-3700 MHz

GPS

029327 Active GPS Glass Mount Wi-Fi Antenna 2.4GHz 28 dBi 2300 - 2500 MHz		0294105 Magnetic Waterproof GPS Antenna 27 dBi GPS 1575.42 ± 2MHz		0294104B GPS Fixed-Site External Antenna 28 dBi L1 GPS 1575.42 ± 1.023 MHz	
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RF LOW LOSS 50Ω CABLES

RG58 LOW LOSS STRANDED CENTRE 5.0MM 50Ω COAX CABLE						
SKU	ATTENUATION LOSS			CONDUCTOR	FITS	
	MHz	450	900			2000
05603 100m	MHz	0.27	0.395	0.7	FLEXIBLE STRANDED CENTRE	STANDARD RG58C/U CONNECTORS
	dB/m					

1/2" LOW LOSS COAX CORRUGATED FEEDER CABLE						
SKU	ATTENUATION LOSS			CONDUCTOR	FITS	
	MHz	450	900			2000
05703 500m	MHz	0.0475	0.0685	0.107	SOLID CENTRE	SPINNER MLS SERIES CONNECTORS
	dB/m					

LL195 LOW LOSS SOLID CENTRE 5.0MM 50Ω COAX CABLE						
SKU	ATTENUATION LOSS			CONDUCTOR	FITS	
	MHz	450	900			2000
056031 100m	MHz	0.26	0.37	0.645	SOLID CENTRE	STANDARD RG58C/U CONNECTORS
	dB/m					

LL400 LOW LOSS SOLID CENTRE 10MM 50Ω COAX CABLE						
SKU	ATTENUATION LOSS			CONDUCTOR	FITS	
	MHz	450	900			2000
056041 100m	MHz	0.094	0.125	0.198	SOLID CENTRE	L400/LMR400 CONNECTORS E.G SPRING FINGER CENTER
	dB/m					

RF 50Ω CONNECTORS

040013	SMA Plug for RG58
040014	SMA Plug for LL400 / LMR400
04206	N Plug for RG58 / RG223
04225	N Socket for RG8 / LM400 / LMR400
04209	N Plug for RG8 / LL400 / LMR400
048309	4.3-10 DIN Plug for LL400
048319	4.3-10 DIN Socket for LL400
048305MS	4.3-10 DIN Plug for 1/2" Feeder
048305MLS	4.3-10 DIN Plug Angled for 1/2" Feeder
048315MS	4.3-10 DIN Socket for 1/2" Feeder
042005MLS	N Plug for 1/2" Feeder Cable
042105MLS	N Socket for 1/2" Feeder Cable





DAS COMPONENTS

5G HYBRID COMBINERS

17831S	4G 2:2 Port Hybrid Combiner Ns Spinner BN923070, -155dBc, 25dB Isolation
17832S	5G 2:2 Port Hybrid Combiner 4.3-10s Spinner BN923083, -153dBc, 25dB Isolation
178323S	5G/UHF 380-3800MHz 3:3 Hybrid Combiner 4.3-10s Spinner BN570754, -160dBc, 28dB Isolation
17834S	5G 4:4 Port Hybrid Combiner 4.3-10s Spinner BN570681, -153dBc, 25dB Isolation

5G DIRECTIONAL COUPLERS/TAPPERS

174312	4G 694 - 2700 MHz Directional Coupler 4.8dB Ns Spinner BN923071, -155dBc
174313	4G 694 - 2700 MHz Directional Coupler 6dB Ns Spinner BN923056, -155dBc
174314	4G 694 - 2700 MHz Directional Coupler 10dB Ns Spinner BN923058, -155dBc
174315	4G 694 - 2700 MHz Directional Coupler 15dB Ns Spinner BN923059, -155dBc
174312S	5G Directional Coupler/Tapper 4.8dB 4.3-10s Spinner BN818449, -153dBc W/ Bracket B30578
174313S	5G Directional Coupler/Tapper 6.1dB 4.3-10s Spinner BN818450, -153dBc W/ Bracket B30578
174314S	5G Directional Coupler/Tapper 10.4dB 4.3-10s Spinner BN818454, -153dBc W/ Bracket B30578
174315S	5G Directional Coupler/Tapper 15.1dB 4.3-10s Spinner BN818456, -153dBc W/ Bracket B30578

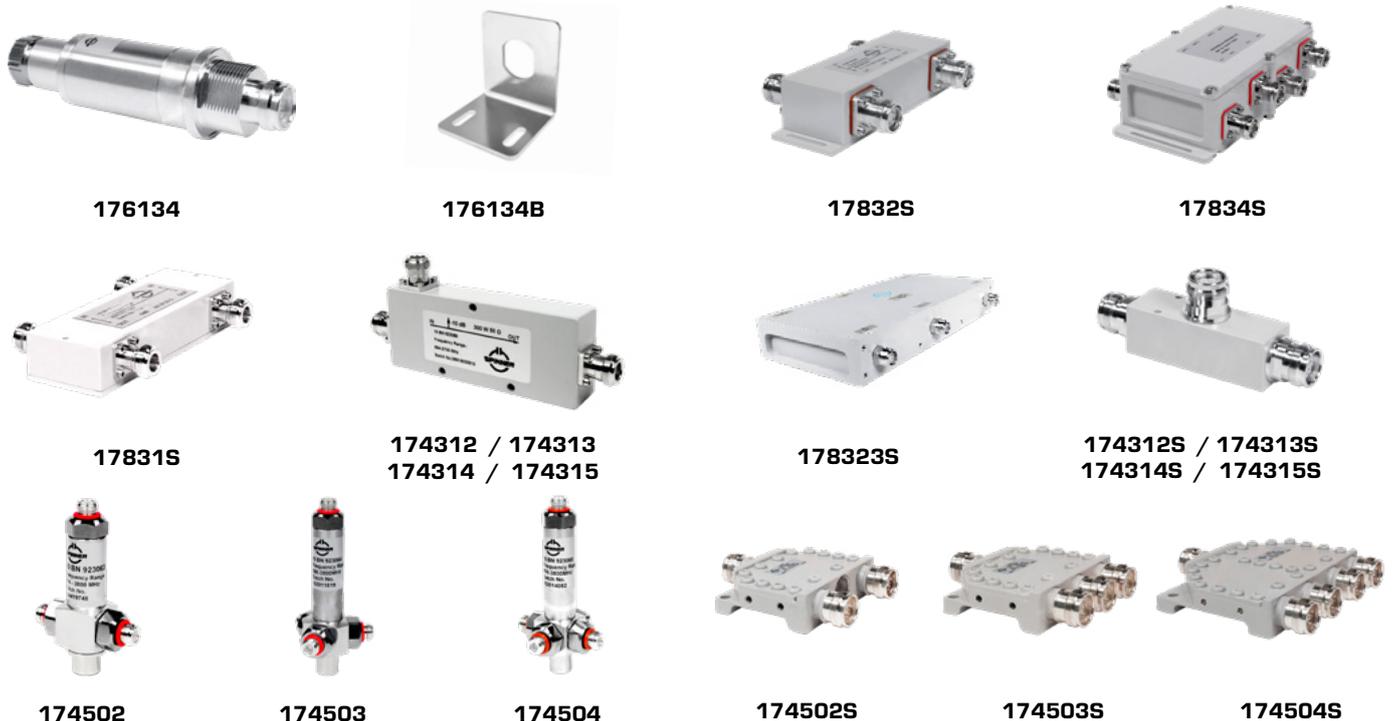
Other coupling values available on request, Replacement brackets also available.

5G SYMMETRIC SPLITTERS

174502	5G Splitters 2 Way Ns Spinner BN923063, -160dBc
174503	5G Splitters 3 Way Ns Spinner BN923064, -160dBc
174504	5G Splitters 4 Way Ns Spinner BN923065, -160dBc
174502S	5G Splitters 2 Way 4.3-10s Spinner BN433006, -160dBc w/ Mounting bracket B23656
174503S	5G Splitters 3 Way 4.3-10s Spinner BN433007, -160dBc w/ Mounting bracket B23656
174504S	5G Splitters 4 Way 4.3-10s Spinner BN433008, -160dBc w/ Mounting bracket B23657

5G EMP PROTECTORS

176134	5G EMP Protector Quarter Wave Stub 4.3-10s Spinner BN766440 -165dBc
176134B	Bracket for 176134B



CELLULAR ANTENNA ACCESSORIES

VEHICLE BRACKETS	
02714S	Fold-down Mobile Antenna Gutter Bracket
02726S	Heavy Duty Mobile Gutter Bracket (6mm hole)
02728	Mirror/Roof Antenna Bracket
02730	Bracket BullBar Right Angle
027303	Adjustable Lip Mount Mobile Antenna Bracket
027313	Wrap Around Antenna Bracket (45mm)
027314	Wrap Around Antenna Bracket (50mm)
027315	Wrap Around Antenna Bracket (63mm)
027316	Wrap Around Antenna Bracket (76mm)
02732	Heavy Duty Bull Bar Antenna Bracket
02734	Z Trunk Groove Antenna Bracket
027423	Super Sucker Magnetic Suction Antenna Base



BASE & MARINE BRACKETS	
02735	Marine 2 Way Knuckle Antenna Base 1" Thread
02737	Marine 2 Way Knuckle Antenna Base 1" Thread Stainless Steel
025222	Marine Flat Mounting Bracket with Cable Slot
027281	Base Antenna Wall Bracket (16mm x 223mm)
02729	Base Antenna Wall Bracket (16mm x 58mm)
027291	Wall Mount Antenna Bracket (50mm Long)

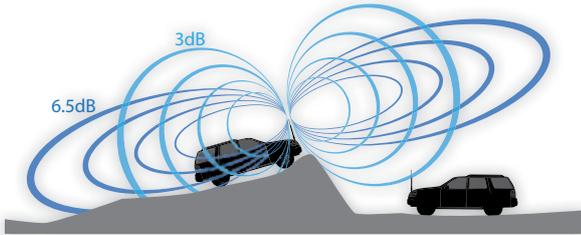
LOW LOSS CABLE ASSEMBLIES	
101208	2m LL195 SMA Plug to N Plug Lead
10120948	10m LL400 SMA Plug to 4.3-10 Plug Lead
10120949	10m LL400 SMA Plug to N Plug Lead
1012097	30m LL400 SMA Plug to N Plug Lead
101205	Coaxial Lead 6m x LL195 SMAp to Np
1012095	Coaxial Lead 12m x LL400 SMAp to Np
10120951	Coaxial Lead 15m x LL400 SMAp to Np
1012096	Coaxial Lead 20m x LL400 SMAp to Np



ANTENNA SELECTION GUIDE

WHICH ANTENNA DO I NEED?

- » Gain describes the shape of the radiation from an antenna.
- » Use a higher gain antenna for better performance in open, flat terrain.
- » Use a lower gain antenna for better performance in rough, mountainous terrain or urban areas.
- » We recommend using a lower gain antenna for communications in vehicle convoy situations.



- » Glass-mount antennas are ideal for built-up city areas where signal strength is higher.
- » High gain antennas are better suited for regional areas where long range is required.
- » Fixed-site directional antennas send all the signal in one direction—they need to be rotated and/or tilted until the strongest cell site signal is obtained during installation.
- » Fixed-site omni-directional antennas are ideal when a reasonable signal is available in the area, making this an easier installation option.

CONNECTOR IDENTIFICATION



CABLE / CONNECTOR ADVICE

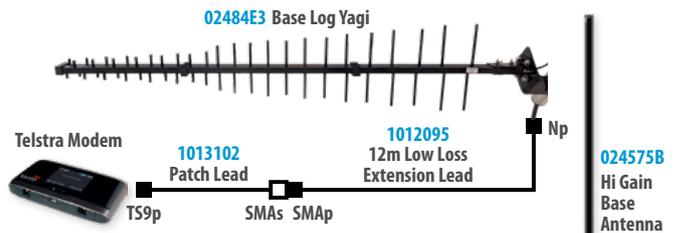
- » Only use low-loss cables for cellular installations, as cable quality is as important as the antenna. Benelec cables are designed to provide optimum performance.
- » Do not crimp or damage the cable during installation.
- » Do not bend the cable at an extreme radius.
- » Ensure all fittings are properly tightened.
- » Waterproof any exposed connectors.

MOUNTING TIPS

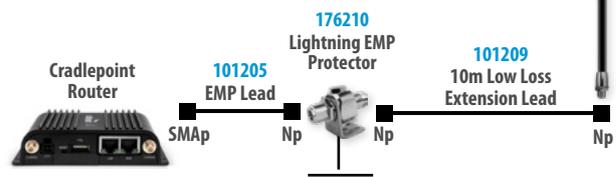
- » For better performance, mount the antenna higher on the vehicle or as high as possible in a fixed installation. Height improves performance and range.
- » Do not mount antennas close to each other; the minimum distance should be 70 cm between UHF and Cellular antennas. The further apart the two antennas, the better the performance of each respective antenna.
- » Do not mount antennas closer than 70cm to any metal vertical surface.
- » Antennas must be mounted vertically, which is especially important with higher-gain antennas.
- » Avoid attaching any objects to the antenna, as it could affect the performance of the communication system.
- » Do not mount antennas operating on the same band at the same horizontal level, unless a switch selects between them.

WIRING CONFIGURATIONS

- » Patch leads are used to interface your device with an external antenna or other devices.



- » EMP protectors provide lightning protection for your modems and should be used in lightning-prone areas.



MIMO

MIMO technology utilizes Multiple Input and Multiple Output antennas to maximize the signal link and data carrying capacity of the wireless system.

Typically, WiFi (802.11n) 2.4 / 5.8GHz systems or newer 4G LTE-A transceiver systems (eg, broadband wireless modems) have two antenna ports, and thus need a MIMO dual port antenna system to make use of this technology.

Should you use only one port, this will result in reduced data rates.

Benelec recommends using our MIMO range of antennas where two antenna ports are provided. Benelec can offer a range of both WiFi and 4G MIMO antennas to suit your application.



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