



Westbase.io

# Antenna Buyer's Guide



# Antenna Buyer's Guide

## From Westbase.io



*Selecting the right antenna for your customer's application is almost as important as selecting the right cellular router or gateway. This buyer's guide, along with our "Cellular Deployment Guide", has been compiled to help you to understand which antennas work best in which situations.*

The below tables provide a simple comparison of antenna features and design, as well as some use case advice. If you're still unsure which antenna is right for your application, then please feel free to reach out to our sales team for additional advice.

## Ordering your antenna

Many of the antennas included in this guide come with cable lengths and connectors which will work with our range of cellular routers and gateways straight out of the box. In order to make some models more flexible in their deployment however, certain antennas will require additional cable lengths and / or connectors.

You can use the "Standard Cable Length" and "Standard Cable Connector(s) / Termination(s)" rows to help understand this, and some antennas are even available as pre-kitted SKUs for certain routers or gateways.

When you place your antenna order with Westbase.io, please check with your account manager whether additional cables and / or connectors are required if you're unsure.

## More about Westbase.io

*Westbase.io is the leading distributor of 4G LTE and hybrid networking solutions in the UK and Europe.*

Representing a broad range of cellular and WiFi antennas, we focus on high quality solutions which deliver to customer requirements.

We provide our channel partners with technical, sales, marketing, warehousing and logistical support across our entire range of products.

**If you don't already work with Westbase.io, then please feel free to contact our sales team for more information on:**

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## In-Vehicle Antennas



| Name   | 6-in-1 In-Vehicle, Low Profile Combination Antenna - LGMM[B] & LPMM[B] Ranges | Low Profile Combination Vehicle Antenna (4G LTE, GPS, WiFi) |
|--|---|---|
| SKU  | WBTLMMLPMM (Group SKU)  | WBTLGE  |
| Application(s) Suitable For                  | External Vehicle: Cellular/WiFi/GPS   | External Vehicle: Cellular/WiFi/GPS                         |
| Cellular                                     | 2 x 4G LTE/3G/2G  | 1 x 4G LTE/3G/2G  |
| WiFi   | 2 x WiFi  | 1 x WiFi  |
| GPS  | 1 x GPS   | 1 x GPS   |
| Frequency Range (MHz)                        | 698-960<br>1700-2700<br>2500-2700<br>4900-6000<br>1575                        | 698-960<br>1710-2700  |
| Gain   | 2.3dBi (698-960)<br>5dBi (1700-2700)<br>2dBi (2400/4900-6000)                 | 2dBi (698-960, 1710-2700)                                   |
| Cross-Polarised                              | No  | No  |
| Omni/Directional                             | Omni-directional  | Omni-directional  |
| Dimensions (mm)                              | 62 x 176 (h x d)  | 70 x 115 (h x d)  |
| Operating Temperature (°C)                   | -30° to +70°  | -30° to +80°  |
| Material                                     | ASA & die cast aluminium, available in black or white                         | ASA   |
| Mounting Options                             | Panel (Magnetic mount available on request)                                   | Panel   |
| Standard Cable Type                          | CS29<br>(double shielded RG58)  | RG174 (GPS & WiFi/WiMAX)<br>CS29 (Cell/LTE)                 |
| Standard Cable Length                        | 0.3M  | 0.3M  |
| Standard Cable Connector(s) / Termination(s) | GPS: FME Female<br>Cellular: SMA Male<br>WiFi: SMA Female                     | GPS: FME Female<br>Cellular: SMA Male<br>WiFi: SMA Female   |

The LGMM/LPMM range delivers the best 'all round' performance where multiple types of antenna are required.

Available as (1) 4G & GPS, (2) 4G, GPS & WiFi or (3) 4G, GPS & Dual WiFi combinations.

### Use Case Advice

6-in-1, 5-in-1, 4-in-1, 3-in-1 or 2-in-1 versions are available, as well as pre-kitted options which include cables and connectors / terminations built specifically for Westbase.io cellular gateways and routers. [See our website for the full range of options.](#)

Best for vehicle applications where a more discreet combination antenna is needed, although only features SiSo 4G LTE which can compromise quality of signal

## In-Vehicle Antennas (continued)



| Name   | GPSPD "Sharkee" Multifunction MiMo Antenna   | 4G LTE, GPS TRNBG Train Antenna   |
|--|--|---|
| SKU  | WBTGPSPD (Group SKU)   | WBTTRN  |
| Application(s) Suitable For                  | External Vehicle: Cellular/WiFi/GPS  | External Train: Cellular/WiFi   |
| Cellular                                     | 1 x 4G LTE/3G/2G   | 1 x 4G LTE/3G/2G  |
| WiFi   | 2 x WiFi (WBTGPSPD-5-03)   | 2 x WiFi  |
| GPS  | 1 x GPS  | Optional  |
| Frequency Range (MHz)                        | 1562-1612<br>698-960<br>1710-2170<br>2500-3800<br>2300-2500 (WBTGPSPD-5-03)<br>4900-6000 (WBTGPSPD-5-03)   | 698-960<br>1700-2170  |
| Gain   | 2dBi (698-960)<br>5dBi (1710-3800)   | 5dBi (698-960)<br>7dBi (1710-2700)<br>10dBi (4.9-6GHz)  |
| Cross-Polarised                              | No   | No  |
| Omni/Directional                             | Omni-directional   | Omni-directional  |
| Dimensions (mm)                              | 50 x 17 x 60 (h x l x w)   | 98 x 102 x 242 (h x w x l)  |
| Operating Temperature (°C)                   | -40° to +80°   | -40° to +80°  |
| Material                                     | ASA, EPDM, Aluminium Alloy   | Radome Material: LEXAN EXL9330<br>Base Material: Cast Aluminium, Alocrom 1000 coated              |
| Mounting Options                             | Single Hole Mount  | 4 x Mounting holes to suit M12 bolts  |
| Standard Cable Type                          | RG174  | N/A   |
| Standard Cable Length                        | 0.3M   | N/A   |
| Standard Cable Connector(s) / Termination(s) | GPS/GNSS: FME Female<br>Cellular: SMA Male<br>WiFi: SMA Female (WBTGPSPD-5-03)<br>[Whip: FME Male]   | N/A   |
| Use Case Advice                              | The GPSPD is ideal for use when a more compact, combination antenna is needed than the LGMM/LPMM suits while still providing best-in-class signal quality.<br><br>6-in-1, 5-in-1, 4-in-1, 3-in-1 or 2-in-1 versions are available as pre-kitted options, including cables and connectors / terminations built specifically for Westbase.io cellular gateways and routers. <a href="#">See our website for the full range of options.</a> | The TRNB is housed in a high impact, weather-proof housing making it perfect for trains or trams. |

## In-Vehicle Antennas (continued)



| Name   | Windscreen or Dashboard Mount 4G LTE, GPS In-Vehicle Combination Antenna | Tri-Function Telematics Antenna  | Compact Dual-band WiFi Fin Antenna |
|--|--|--|------------------------------------|
| SKU  | WBTGPSC-30   | WBTGPSCO-30  | WBTFIN-03                          |
| Application(s) Suitable For                  | Internal Vehicle: Cellular/GPS   | Internal Vehicle: Cellular/GPS/WiFi  | External Vehicle: WiFi             |
| Cellular                                     | 1 x 4G LTE/3G/2G   | 1 x 4G LTE   | N/A                                |
| WiFi   | N/A  | 1 x WiFi   | 2 x WiFi                           |
| GPS  | 1 x GPS  | 1 x GPS/GNSS   | N/A                                |
| Frequency Range (MHz)                        | 698-960<br>1710-2700<br>2500-2700  | 698-960<br>1710-2700   | 698-960<br>1500-6000               |
| Gain   | 2dBi (698-960, 1710-2700, 2500-2700)                                     | 1.5dBi (890-960)<br>4.5dBi (1710-2170)<br>4.5dBi (2500-2700)<br>6dBi (2.4 GHz)<br>7dBi (4.9-6.0 GHz) | 2dBi (698-960, 1500-6000)          |
| Cross-Polarised                              | No   | No   | No                                 |
| Omni/Directional                             | Omni-directional   | Omni-directional   | Omni-directional                   |
| Dimensions (mm)                              | Windscreen: 13 x 64 x 80<br>Dashboard: 15 x 70 x 70<br>(h x w x l)       | 15 x 13 x 84.5 (h x l x d)   | 40 x 48 x 68 (h x w x l)           |
| Operating Temperature (°C)                   | -40° to +80°   | -30° to +70°   | -40° to +80°                       |
| Material                                     | UV Stable ABS  | UV stable flame retardant ABS plastic  | UV stable ABS                      |
| Mounting Options                             | Adhesive   | Adhesive   | Panel                              |
| Standard Cable Type                          | RG174  | Cellular: CS29<br>WiFi: CS32<br>GPS: LMR-100A-FR   | CS30                               |
| Standard Cable Length                        | 3M   | 3M   | 0.3M                               |
| Standard Cable Connector(s) / Termination(s) | SMA Male   | Cellular: SMA Male<br>WiFi: SMA Male RP<br>GPS: SMA Male   | SMA Male                           |




### Use Case Advice

Ideal for use in owned vehicles where the customer doesn't want to make a hole, although it's smaller size and placement inside the vehicle can compromise signal quality.

This antenna incorporates elements for cellular, dual-band WiFi and GPS/GLONASS/BEIDOU, offering a "3-in-1" product solution. Meeting the requirements of UNECE Regulation R118, the antenna is ideal for vehicle communications and telematics and use in M3 category vehicles.

Best for use where WiFi needs to be deployed outside the vehicle (as it fixes to the vehicle roof) and a combination antenna with WiFi built in isn't suitable.

## In-Vehicle Antennas (continued)

|   |  |   |  |
|---|--|---|--|
|   |   |   |   |
| <b>Name</b>   | 'Easy Fit' WiFi Antenna  | GPSSV Adhesive Pad or Velcro GPS Antenna  | GPS Panel Mount Base Antenna   |
| <b>SKU</b>  | WBTW24-20  | WBTGPSSV-03   | WBTGPSP  |
| <b>Application(s) Suitable For</b>                  | Internal Vehicle: WiFi   | Internal Vehicle: Cellular/GPS  | External Vehicle: WiFi   |
| <b>Cellular</b>                                     | N/A  | 1 x 4G LTE  | N/A  |
| <b>WiFi</b>   | 1 x WiFi   | N/A   | N/A  |
| <b>GPS</b>  | N/A  | 1 x GPS/GNSS  | 1 x GPS  |
| <b>Frequency Range (MHz)</b>                        | 2400-2485  | 698-960<br>1710-2700  | 1575   |
| <b>Gain</b>   | 2dBi (2400-2485)   | 26dB  | 26dB   |
| <b>Cross-Polarised</b>                              | No   | No  | No   |
| <b>Omni/Directional</b>                             | Omni-directional   | Omni-directional  | Omni-directional   |
| <b>Dimensions (mm)</b>                              | 113 x 19 (h x w)   | 34.6 x 13.2 x 34.6 (l x h x 2)  | 18.5 x 60 x 50 (h x l x d)   |
| <b>Operating Temperature (°C)</b>                   | -40° to +80°   | -40° to +80°  | -40° to +80°   |
| <b>Material</b>                                     | Engineering plastic  | ABS   | High Impact UV stable ABS  |
| <b>Mounting Options</b>                             | Adhesive   | Adhesive / Velcro   | Wall/Panel   |
| <b>Standard Cable Type</b>                          | RG174  | RG174   | RG174  |
| <b>Standard Cable Length</b>                        | 2M   | 3M  | 6M   |
| <b>Standard Cable Connector(s) / Termination(s)</b> | FME Female   | SMA Male  | SMA Male   |
| <b>Use Case Advice</b>                              | Its compact design and adhesive pad fixing, makes the 'Easy Fit' suitable for when a more discreet vehicle WiFi antenna is needed, and the car owner doesn't want to make holes. | The GPSSV has the ability to mount temporarily on any non-metallic and non-conductive surface using either Velcro or adhesive pads. It can be provided with various cables and connectors as a plug and play' kit for most GPS receivers. | The GPSP offers high performance GPS. Mounted on the roof of a vehicle with a single hole installation, the GPSP provides optimal performance with complete tracking for fleet management or logistics planning. |

## In-Vehicle Antennas (continued)



| Name   | Dashboard / Windshield MIMO WiFi Antenna | Low Profile NMO 2G/3G/4G Antenna                       | GPS Magnetic Mount Base    |
|--|--|--|----------------------------|
| SKU  | WBTRAYM2                                 | WBTLPNMO   | WBTGPSM                    |
| Application(s) Suitable For                  | Internal Vehicle: WiFi                   | External Vehicle: Cellular                             | External Vehicle: WiFi     |
| Cellular                                     | N/A                                      | 1 x 4G LTE   | N/A                        |
| WiFi   | 2 x WiFi                                 | N/A  | N/A                        |
| GPS  | N/A                                      | N/A  | 1 x GPS                    |
| Frequency Range (MHz)                        | 2.4/4.9 – 6.0 GHz                        | 698-960<br>1710-2700                                   | 1575                       |
| Gain   | 6dBi (2.4GHz)<br>7dBi (4.9 – 6.0GHz)     | 4dBi (698-960)<br>5dBi (1710-2170)<br>6dBi (2170-2700) | 26dB                       |
| Cross-Polarised                              | No                                       | No   | No                         |
| Omni/Directional                             | Omni-directional                         | Omni-directional                                       | Omni-directional           |
| Dimensions (mm)                              | 15 x 131 x 84.5 (h x l x d)              | 82 x 44 (h x d)  | 60 x 50 x 15.5 (l x w x h) |
| Operating Temperature (°C)                   | -30° to +70°                             | -30° to +70°   | -40° to +80°               |
| Material                                     | UV Stable Flame Retardant ABS Plastic    | ASA & Plated Brass                                     | N/A                        |
| Mounting Options                             | Acrylic Adhesive                         | Groundplane  | N/A                        |
| Standard Cable Type                          | CS32                                     | N/A  | N/A                        |
| Standard Cable Length                        | 3M                                       | N/A  | N/A                        |
| Standard Cable Connector(s) / Termination(s) | SMA Male (Rev Pol)                       | NMO  | N/A                        |

### Use Case Advice

Meeting the requirements of UNECE Regulation R118, the antenna is best suitable for use in M3 Category vehicles (transportation) with easy and quick installation on the windshield or dashboard – perfect for providing a discreet WiFi solutions.

The LPNMO is a low cost, high performance antenna for challenging applications. Its robust, low profile design with NMO fitment make it ideal for public safety applications.

The GPSM antenna is a robust and efficient magnetic mount antenna with the ability to mount temporarily on any panel. It can be provided with various cables and connectors as a 'plug & play' kit for most GPS receivers.



## In-Vehicle Antennas (continued)



|   |  |
|---|--|
| <b>Name</b>   | Combination Base Antenna   |
| <b>SKU</b>  | WBTGPSK  |
| <b>Application(s) Suitable For</b>                  | External Vehicle: WiFi   |
| <b>Cellular</b>                                     | N/A  |
| <b>WiFi</b>   | N/A  |
| <b>GPS</b>  | 1 x GPS  |
| <b>Frequency Range (MHz)</b>                        | WBTGPSSK-FF: 1575<br>WBTGPSGK-FF: 1575-1610<br>WBTGPSKM: 1575                                      |
| <b>Gain</b>   | 26dB   |
| <b>Cross-Polarised</b>                              | No   |
| <b>Omni/Directional</b>                             | Omni-directional   |
| <b>Dimensions (mm)</b>                              | WBTGPSK: 18.5 x 60 x 50mm<br>WBTGPSGK: 18.5 x 60 x 50mm<br>WBYGPSKM: 34 x 71.5mm                   |
| <b>Operating Temperature (°C)</b>                   | -40° to +80°   |
| <b>Material</b>                                     | ABS  |
| <b>Mounting Options</b>                             | WBTGPSK-FF - Panel<br>WBTGPSGK-FF - Panel<br>WBTGPSKM - Magnetic                                   |
| <b>Standard Cable Type</b>                          | RG174  |
| <b>Standard Cable Length</b>                        | WBTGPSK-FF – 0.3M<br>WBTGPSGK-FF – 0.3M<br>WBTGPSKM – 3M   |
| <b>Standard Cable Connector(s) / Termination(s)</b> | WBTGPSK-FF: FME Plug<br>WBTGPSGK-FF: FME Socket<br>WBTGPSKM: 1x SMA Plug (GPS), 1x FME Jack (Whip) |

**Use Case Advice**

The Panorama GPSK antenna range is a dual function antenna with an active GPS element, suitable for vehicle environments.






## Fixed Location Antennas



| Name   | 4G LTE Low Profile Mag Mount Antenna                   | 4G LTE MAR Wideband Magnetic Mount Antenna | 4G LTE Wall Mount Low Profile Antenna            |
|--|--|--|--|
| SKU  | WBTLPBEM-20  | WBTMAR-20                                  | WBTLPW-BC-20                                     |
| Application(s) Suitable For                  | Fixed Location (Internal): Cellular                    | Fixed Location (Internal): Cellular        | Fixed Location (Internal): Cellular              |
| Cellular                                     | 1 x 4G LTE   | 1 x 4G LTE/3G/2G                           | 1 x 4G LTE                                       |
| WiFi   | N/A  | N/A  | N/A  |
| GPS  | N/A  | N/A  | N/A  |
| Frequency Range (MHz)                        | 698-960<br>1710-2700                                   | 698-960<br>1710-2700                       | 698-960<br>1710-2700                             |
| Gain   | 3dBi (698-960)<br>4dBi (1710-2170)<br>5dBi (2170-2700) | 2dBi (698-960, 1710-2700)                  | 2dBi (698-960, 1710-2700)                        |
| Cross-Polarised                              | No   | No   | No   |
| Omni/Directional                             | Omni-directional                                       | Omni-directional                           | Omni-directional                                 |
| Dimensions (mm)                              | 95 x 48 (h x d)  | 100 (whip length)                          | 19.6 x 165 x 32 (h x l x w)                      |
| Operating Temperature (°C)                   | -40° to +80°   | -40° to +80°                               | -30° to +70°                                     |
| Material                                     | UV stable ASA & aluminium                              | TPE + Polyamide                            | ASA  |
| Mounting Options                             | Magnetic   | Magnetic                                   | Industrial grade adhesive pad / 2 x 4.8mm screws |
| Standard Cable Type                          | RG174  | RG174                                      | RG174  |
| Standard Cable Length                        | 2M   | 2M   | 2M   |
| Standard Cable Connector(s) / Termination(s) | SMA Male   | SMA Male                                   | SMA Male   |

|                 |  |  |   |
|-----------------|--|--|---|
| Use Case Advice | The LPBEM is a magnetic mount antenna suitable for temporary fit applications.   | The MAR is flexible and discreet, and is an ideal choice for temporary mounting situations, or for fixing to metal enclosures which aren't likely to be disturbed. It is ideal for M2M / IoT applications. | With its low profile, vandal and tamper proof design, the LPW antenna offers a robust, effective antenna, which is easy to install, and lasts the lifetime of the installation. Perfect for M2M / IoT applications. |
|                 | Although intended for magnetic mounting on a conductive ground plane, this antenna can also be used for desk mounting. Perfect for M2M / IoT applications. |  |   |

## Fixed Location Antennas (continued)

|  |  |  |  |
|--|---|---|---|
| Name   | 4G LTE Screw-On PWB Antenna   | 4G LTE DMM Portable MiMo Antenna  | B4BE 4G LTE Bracket Mount Antenna   |
| SKU  | WBTPWB-SC   | WBTDMM-20   | WBTB4BE   |
| Application(s) Suitable For                  | Fixed Location (Internal): Cellular/WiFi  | Fixed Location (Internal): Cellular/WiFi  | Fixed Location (Internal or External): Cellular                                     |
| Cellular                                     | 1 x 4G LTE/3G/2G  | 1 x 4G LTE/3G/2G  | 1 x 4G LTE/3G/2G  |
| WiFi   | N/A   | 2 x WiFi  | N/A   |
| GPS  | N/A   | N/A   | N/A   |
| Frequency Range (MHz)                        | 698-960<br>1710-2170<br>2396-2700   | 698-960<br>1710-2700  | 698-960<br>1710-2700  |
| Gain   | 2dBi (698-960, 1710-2170, 2396-2700)  | 2.5dB (698-960)<br>4dBi (1710-2700)   | 2dBi (698-960)<br>4dBi (1710-2700)  |
| Cross-Polarised                              | No  | No  | No  |
| Omni/Directional                             | Omni-directional  | Omni-directional  | Omni-directional  |
| Dimensions (mm)                              | 162 x 22 (l x w)  | 137 x 151 (h x w)   | 164 x 48 (h x w)  |
| Operating Temperature (°C)                   | -40° to +80°  | -40° to +80°  | -40° to +80°  |
| Material                                     | ABS   | UV stabilised ABS   | ABS, aluminium and galvanised steel   |
| Mounting Options                             | Screw-on  | Desk/Window/Screen Clip   | Wall/Mast   |
| Standard Cable Type                          | N/A   | RG174   | CS29 (double shielded RG58)   |
| Standard Cable Length                        | N/A   | 2M  | 5M (WBTB4BE-50)<br>0.5M (WBTB4BE-05)  |
| Standard Cable Connector(s) / Termination(s) | SMA Male  | SMA Male  | SMA Male  |

### Use Case Advice

Its screw-on, 'plug and play' fixing allows for easy installation, making it perfect for any 4G LTE/3G/2G modem or router where a strong cellular signal is available.

Also available as a WiFi only antenna for when the WiFi signal does not need to cover a large footprint.

Its flexible choice of mounting options mean that this antenna is truly portable; it can be set up easily in any situation, and then moved on to another location just as easily.

It's also perfect for situations where the customer doesn't want to affix a wall/mast mount to the outside of a building. By mounting it in a window using the provided sucker pads, it avoids external alterations and can still achieve a strong signal.

This antenna is an ideal solution for connecting any business or M2M machine and modem devices.

## Fixed Location Antennas (continued)



| Name   | 4G LTE Low Profile Antenna                                      | 4G LTE Wall Mount High Gain Omni-directional MiMo Antenna | 4G LTE Wall Mount High Gain Directional MiMo Antenna |
|--|---|---|--|
| SKU  | WBTLPB-50   | WBTWMMG-50  | WBTWMM-50  |
| Application(s) Suitable For                  | Fixed Location (External): Cellular                             | Fixed Location (Internal or External): Cellular           | Fixed Location (Internal or External): Cellular      |
| Cellular                                     | 1 x 4G LTE/3G/2G  | 2 x 4G LTE/3G/2G  | 2 x 4G LTE/3G/2G                                     |
| WiFi   | N/A   | N/A   | N/A  |
| GPS  | N/A   | N/A   | N/A  |
| Frequency Range (MHz)                        | 698-960<br>1710-2700  | 698-960<br>1710-2700                                      | 698-960<br>1710-2700                                 |
| Gain   | 3dBi (700/800)<br>4dBi (900/1800)<br>5dBi (1900/2100/2400/2600) | 2dBi (698-960)<br>4dBi (1710-2170)<br>5dBi (2.2-2.7GHz)   | 6dBi (698-960)<br>9dBi (1710-2700)                   |
| Cross-Polarised                              | No  | No  | No   |
| Omni/Directional                             | Omni-directional  | Omni-directional  | Directional  |
| Dimensions (mm)                              | 82 x 48 (h x d)   | 155 x 155 (h x w)   | 230 x 180 (h x w)                                    |
| Operating Temperature (°C)                   | -40° to +80°  | -30° to +80°  | -30° to +70°   |
| Material                                     | High impact UV stable ABS                                       | ASA   | ASA  |
| Mounting Options                             | Panel (requires ground plane)                                   | Wall/Mast/Desk  | Wall /Mast/Desk                                      |
| Standard Cable Type                          | Low Loss COAX   | CS29  | CS29 Coax  |
| Standard Cable Length                        | 0.5M or 5M  | 5M  | 5M   |
| Standard Cable Connector(s) / Termination(s) | SMA Male  | SMA Male  | SMA Male   |

### Use Case Advice

This cost effective antenna performs well across a wide bandwidth and is adaptable to any environment.

It is particularly handy where a more discreet external antenna is required. Perfect for M2M / IoT applications.

This antenna incorporates two separately fed ultra wideband elements in a single housing.

It offers a weather-proof, rugged housing and is equipped to provide client-side MiMo support. It is suitable for a wide range of applications.

This diverse antenna is ideal for indoor or outdoor applications where 4G LTE is required but a strong signal is not easily available.

It is suitable for a wide range of applications.

## Fixed Location Antennas (continued)



| Name   | Wall Mount Gain Low PIM MiMo Directional Antenna       | LP[G]AM Compact Low Profile MiMo 2G/3G/4G Antenna          | FGO 4G LTE High Gain Omni Antenna                      |
|--|--|--|--|
| SKU  | WBTWMMMLP8G  | WBTLPGAM   | FGO-5M195-SM   |
| Application(s) Suitable For                  | Fixed Location (Internal/External): Cellular           | Fixed Location (Internal/External): Cellular/GPS           | Fixed Location (External): Cellular                    |
| Cellular                                     | 1 x 4G LTE/3G/2G                                       | 2 x 4G LTE/3G/2G   | 1 x 4G LTE/3G/2G                                       |
| WiFi   | N/A  | 1 x WiFi   | N/A  |
| GPS  | N/A  | N/A  | N/A  |
| Frequency Range (MHz)                        | 790-960<br>1710-2170                                   | 698-960<br>1710-3800<br>1562-1621 (LGAM)                   | 790-960<br>1710-2170<br>2500-2700                      |
| Gain   | 6dBi (698-960)<br>9dBi (1710-2170)<br>6dBi (2396-2700) | 1.5dBi (698-960)<br>4.5dBi (1710-2170)<br>5dBi (2500-3800) | 4dBi (790-960)<br>5dBi (1710-2170)<br>4dBi (2500-2700) |
| Cross-Polarised                              | No   | No   | No   |
| Omni/Directional                             | Directional  | Omni-directional   | Omni-directional                                       |
| Dimensions (mm)                              | 230 x 180 x 94 (h x w x d)                             | 49 x 150 x 45 (h x l x w)                                  | 354 x 45 (h x d, excluding bracket)                    |
| Operating Temperature (°C)                   | -30° to +70°   | -30° to +70°   | -40° to +70°   |
| Material                                     | PC / ASA   | UV Stable ABS Plastic                                      | Fibreglass   |
| Mounting Options                             | Desk/Pole/Mast/Wall/Panel                              | Wall/Panel/Acrylic Pad                                     | Wall/Mast  |
| Standard Cable Type                          | 2x Microwave TFT-LF 402                                | RG174  | Low Loss, RF   |
| Standard Cable Length                        | 0.5M   | 3M   | 5M   |
| Standard Cable Connector(s) / Termination(s) | 2x 4.3-10 Female                                       | SMA  | SMA Male   |

### Use Case Advice

This antenna is a wall mount gain, low PIM MiMo directional antenna, suitable for in-building applications. Its weather proof housing however makes its suitable for outdoor applications as well.

This antenna has been designed to provide MiMo Cellular / LTE antenna function for IoT and M2M applications. A version of this antenna is also available with GPS.

Where a discreet, high gain antenna is required, the FGO is perfect for 4G LTE access for a wide range of applications.

## Fixed Location Antennas (continued)



|   |  |
|---|--|
| <b>Name</b>   | HGO 4G LTE High Gain Blade Antenna                                   |
| <b>SKU</b>  | 2154004  |
| <b>Application(s) Suitable For</b>                  | Fixed Location (External): Cellular/WiFi                             |
| <b>Cellular</b>                                     | 1 x 4G LTE/3G/2G   |
| <b>WiFi</b>   | 1 x WiFi   |
| <b>GPS</b>  | N/A  |
| <b>Frequency Range (MHz)</b>                        | 790-960<br>1710-1880<br>1920-2170                                    |
| <b>Gain</b>   | 5dBi (GSM 900/1800/LTE 800)<br>6dBi (UMTS)<br>5+6dBi (WLAN/LTE 2600) |
| <b>Cross-Polarised</b>                              | No   |
| <b>Omni/Directional</b>                             | Omni-directional   |
| <b>Dimensions (mm)</b>                              | 335 x 166 x 144 (h x d x w, with bracket)                            |
| <b>Operating Temperature (°C)</b>                   | -20° to +80°   |
| <b>Material</b>                                     | Thermoplastic UV stabilised cover                                    |
| <b>Mounting Options</b>                             | Wall/Mast  |
| <b>Standard Cable Type</b>                          | White Low Loss   |
| <b>Standard Cable Length</b>                        | 0.5M or 5M   |
| <b>Standard Cable Connector(s) / Termination(s)</b> | SMA Male   |

**Use Case Advice** Where directional antennas are unsuitable, the HGO guarantees high gain across all bands. Works across a broad range of applications.