



Antenna and Cable Options Summary

Virtual Access offers a variety of antennas as every 3G/4G wireless deployment is different. When selecting an antenna for your device, you should consider factors such as the installation environment, mounting options and the distance between router and antenna location. For detailed information on a specific antenna, download the antenna's pdf from our website.



We provide most antennas with a cable length of up to 5 meters. We recommend you keep the cable length as short as possible to minimise cable-caused attenuation.

GENERAL PURPOSE ANTENNAS		
Part Number		Description
160-00002		<p>3G Stubby Hinged Antenna</p> <ul style="list-style-type: none"> • Designed for 3G and 4G GSM, 2.4GHz, WiFi applications • Wide band efficiency response on nearly all 2G/3G/4G frequency bands worldwide <p>Dimensions: 157 x 21mm Mounting method: Direct contact Connector: SMA FME/TNC Frequency: 850/900/1800/1900/2100MHz VSWR: ≤ 2 Gain: 2.5dBi Max input power: 50W Input impedance: 50Ω Polarization: Vertical Antenna length: 140mm Storage temperature: -30° to +70°C Operating temperature: -30° to +75°C</p>
160-00012		<p>450MHz Antenna</p> <ul style="list-style-type: none"> • High performance on all common 2G, 3G, 4G bands worldwide • Delivers wider coverage areas and more reliable connections for automotive and industrial applications <p>Dimensions: 205 x 12mm Mounting method: Direct contact Connector: SMA male Frequency: 450-470MHz Gain: 3.0dBi Max power: 30W Input impedance: 50Ω Polarization: Linear VSWR: 1:2.0</p>

160-00075		<p>Ultra-wideband 4G LTE Antenna</p> <ul style="list-style-type: none"> • Ideal for use with 4G LTE modules and devices that require the highest possible efficiency and peak gain • Quality robust IP67 UV resistant housing <p>Dimensions: 49 x 185.9mm (extended) Connector: SMA male connector Mounting method: Hinged 90° termination screw mount Temperature range: -40° to +85°C Frequencies: 700-800, 824-960, 1575.42, 1710-1880, 1710-2170, 2400-2800 (MHz)</p>
160-00096		<p>Cellular LTE Antenna</p> <ul style="list-style-type: none"> • High performance • Ground plane independent <p>Dimensions: 170 x 18 x 10mm Connector: Hinged SMA male connector Mounting method: Screw mount Temperature range: -40° to +85°C Frequencies: 698-960, 1710-2170, 2500-2700 (MHz)</p>
160-00128		<p>2.4/5.0 GHz ISM Antenna</p> <ul style="list-style-type: none"> • Low profile • Ground plane independent <p>Dimensions: 76 x 10mm Connector: RP-SMA-male-RA standard Mounting method: Screw mount Temperature range: -40° to +85°C Frequencies: 2410-2490, 4920-5925(MHz)</p>
160-00159		<p>2.4/5.0 GHz ISM Antenna</p> <ul style="list-style-type: none"> • High gain • Ground plane independent <p>Dimensions: 135 x 19 x 10mm Connector: RP-SMA-male-RA standard Mounting method: Screw mount Temperature range: -40° to +85°C Frequencies: 2410-2490, 4920-5925(MHz)</p>

VEHICLE ANTENNAS

Part Number		Description
160-00019		<p>3G Magnetic Antenna</p> <ul style="list-style-type: none"> • Ideal for restricted operating areas and for portable operation • Supports cellular GSM and 3G networks <p>Dimensions: 290 x 45mm Cable: 5m RG174 Connector: SMA male connector Mounting method: Magnetic Temperature range: -45° to +75°C Frequencies: 850/900/1800/1900/2100MHz Gain: 3dBi VSWR: ≤1.5:1</p>
160-00027		<p>MA.208 Stream Cellular Antenna</p> <ul style="list-style-type: none"> • Supports GPS/LTE/GSM/UMTS • Low profile, heavy duty fully IP67 waterproof external M2M antenna <p>Dimensions: 35 x 35 x 45mm Cable: No cable included Connector: SMA male connector Mounting method: Adhesive Temperature range: -40° to +85°C Frequencies: 698-969/1710-2690MHz Gain: 3.5dBi VSWR: ≤3.6MHz</p>
160-00081		<p>Ultra-wideband LTE Dipole Terminal Antenna</p> <ul style="list-style-type: none"> • RoHS compliant • Highest efficiency for worldwide LTE and WiFi <p>Dimensions: 218 x 58mm Connector: SMA male connector Mounting method: Screw mount Temperature range: -40° to +85°C Frequencies: Various, refer to supplier datasheet Polarization: Linear</p>
160-00051		<p>Stingray Glassmount Antenna</p> <ul style="list-style-type: none"> • Combination high performance GPS/cellular antenna for AVL or fleet management • Attach to glass or under a dashboard <p>Dimensions: 55 x 1.8mm Connector: Standard 1-10m RG174 cables and connectors Mounting method: Adhesive Temperature range: -40° to +85°C Frequencies: 10MHz min Gain: 30dBi VSWR: <=2.0 Polarization: RHCP</p>

<p>160-00057</p>		<p>CMO 4G Multiband MIMO Puck Antenna</p> <ul style="list-style-type: none"> • Ideal for outdoor cabinets • Fully waterproof when mounted <p>Dimensions: 102 x 33.5mm Connector: SMA male connector Mounting method: Heavy duty screw mount Temperature range: -40° to +85°C Frequencies: 690-800/800-960/1710-2170/2500-2700MHz Gain: 1/2.5/3.8/5dBi VSWR: <2.5:1-3.0:1 Polarization: Linear</p>
<p>160-00041</p>		<p>Wideband LTE Ibar Antenna</p> <ul style="list-style-type: none"> • Covers LTE and all cellular, ISM and WiFi working frequencies in the 700-6000 spectrum <p>Dimensions: 176 x 59 x 11.6mm Connector: SMA male connector Mounting method: Adhesive Temperature range: -40° to +85°C Frequencies: 690-800/800-960/1710-2170/2500-2700MHz Polarization: Linear</p>

SUBSTATION ANTENNAS

Part Number		Description
160-00018		<p>Wall Mount Flexible Whip Monopole Antenna</p> <ul style="list-style-type: none"> • High performance on all common 2G/3G/4G bands worldwide • Delivers wider coverage areas and more reliable connections for automotive and industrial applications <p>Dimensions: 248 x 5mm Base diameter: 17.08 x 0.2mm Whip diameter: 4 x 0.2mm Mounting method: Direct contact Connector: SMA male Frequency: 698-969/1710-2690MHz Gain: 2.5dBi Input power: 2W Input impedance: 50Ω Polarization: Linear Temperature: -40° to +85°C Humidity: Non-condensing 65 to 95 RH</p>
160-00048		<p>Omni Directional Outdoor All Weather Antenna</p> <ul style="list-style-type: none"> • Designed for metering, industrial/environmental, remote asset monitoring • UV resistant fibreglass outdoor LTE band 31/CDMA/ISM 6dBi <p>Dimensions: 1094mm Connector: N-type female, U-bolt Mounting method: Wall mount, bracket included Temperature range: -40° to +85°C Frequencies: 450-470MHz Gain: 6dBi VSWR: 1.5:1 Polarization: Vertical</p>
160-00033		<p>Olympian 2 in 1 Antenna</p> <ul style="list-style-type: none"> • Compact, high performance, combination LTE and GPS/GLONASS screw mount antenna for external use on vehicle and outdoor assets worldwide <p>Dimensions: 248H x 50Dmm Connector: SMA male connector Mounting method: Heavy duty screw mount Temperature range: -40° to +85°C Frequencies: LTE/2G/3G4G: 698/960/1710-2170/2500-2800MHz; GPS: 1575.42MHz; GLONASS: 1602MHz Gain: LTE: varies depending on cable length; GPS-GLONASS: 2dBic VSWR: LTE: <3; GPS-GLONASS: <1.5-2.0 Polarization: LTE: Linear; GPS-GLONASS RHCP</p>

<p>160-00092</p>		<p>G Multiband External Wall Mount Omni Antenna</p> <ul style="list-style-type: none"> • Waterproof compact • Suitable for 4G/LTE, 3G and GSM bands <p>Dimensions: 2159 x 34mm + L-bracket Connector: N-female connector Mounting method: Mounting bracket Temperature range: -40° to +85°C Frequencies: 690-960/1710-2170/2500-2700MHz Gain: 2-3dBi Polarization: Linear-Vertical</p>
<p>160-00076</p>		<p>FGO Penta-band High Gain Omni Antenna</p> <ul style="list-style-type: none"> • Ideal for fringe networks • Supports GSM, 3G and 4G/LTE operations <p>Dimensions: 390 x 32mm Connector: N-female connector Mounting method: Mounting bracket Temperature range: -40° to +70°C Frequencies: 690-960/1710-2170/2500-2700MHz Peak gain: 5dBi VSWR: <2.0:1 Polarization: Linear</p>
<p>160-00078</p>		<p>Permanent Mount External Antenna</p> <ul style="list-style-type: none"> • Ideal for outdoor cabinets, vehicles, transport, utilities • IP67 <p>Dimensions: 79.45H x 42Dmm Connector: SMA male connector Mounting method: Heavy duty screw mount Temperature range: -40° to +85°C Frequencies: 450, 460, 470MHz Gain: -3.23, -2.65, -2.72dBi Polarization: Vertical</p>
<p>430-00159</p>		<p>4 x 5GNR MIMO and GNSS Screw Mount Heavy Duty Antenna</p> <ul style="list-style-type: none"> • Anti-rotation mounting • Customizable cable and connector <p>Dimensions: Ø 96 x H 130 mm Connector: SMA male connector Mounting method: SMA male standard (other connectors available) Temperature range: -40° to +85°C Frequencies: 1575.42, 1598-1610MHz</p>

Custom Length Antenna Extension Cables

Virtual Access offers a variety of custom length extension cables for the 160-00064 WMO wall-mount multi-band omni antenna only.

Note: in the cable part number, xx refers to the length of cable required. For example, a 10 metre BWL195 SMA male connector cable will have a part number 840-00022-10.

VA Model Number		Description
840-00022-xx		<p>BWL195 SMA male connector</p> <ul style="list-style-type: none"> • Low loss 50 Ohm coaxial cable • SMA male to SMA male connector <p>Outer diameter: 4.95mm Minimum bend radius: 25/50mm Attenuation per metre at 2GHz: 0.48dB</p>
840-00023-xx		<p>BWL195 N type connector</p> <ul style="list-style-type: none"> • Low loss 50 Ohm coaxial cable • N type male to SMA male connector <p>Outer diameter: 4.95mm Minimum bend radius: 25/50mm Attenuation per metre at 2GHz: 0.48dB</p>
840-00024-xx		<p>BWL400 N type connector</p> <ul style="list-style-type: none"> • Ultra low loss 50 Ohm coaxial cable • N type male to SMA male connector <p>Outer diameter: 10.30mm Minimum bend radius: 50/100mm Attenuation per metre at 2GHz: 0.19dB</p>
840-00029-xx		<p>RG58 SMA-F to SMA-M connector</p> <ul style="list-style-type: none"> • Low loss 50 Ohm coaxial cable • SMA female to SMA male connectors <p>Outer diameter: 4.95mm Minimum bend radius: 4.95mm Attenuation per metre at 2GHz: 0.75dB</p>
840-00160-xx		