



*Product Catalogue*

*PMR & Critical  
Communications*

## Over 70 Years of Experience

Panorama Antennas is a privately owned family business, now in its third generation, and is a leading designer and manufacturer of antennas for wireless communication. Established in London in 1947, Panorama started life as a manufacturer of consumer products and buoyed by huge demand in 1952, began manufacturing TV components and antennas. With the transistor radio trend of the 1960s, Panorama's expert knowledge swiftly led us into the manufacturing of communication antennas.

Throughout the 70s and 80s, Panorama evolved to become the first specialized communication antenna manufacturer in the UK, developing a range of cellular antennas to coincide with the launch of the mobile phone network in Britain. 1990 was a year of huge change as Panorama found itself revolutionizing cellular glass mount antenna technology, filing a patent application for the first ever solid state coupling circuit. Through creating a new benchmark for quality in the production of components and leading technology development, Panorama has grown side by side with the cellular telecommunications industry.

Today Panorama produces antennas for the world's leading communication companies and has grown to include over 80 staff in 8 international sales offices, as well as operating 3 fully owned subsidiaries. Manufacturing, design and development are located in London less than a mile from the original factory. Our network of international sales representatives means that all customers get the attention and advice they require, providing local support on a global scale.

## Antennas For Next Generation

Panorama's constant cutting-edge research ensures that our antennas meet the demands of the very latest technology. With over 70 years' experience in delivering world-class antenna products, Panorama's current product range reflects our unparalleled expertise in providing high-quality performance antennas.



## Quality As Standard

### Quality Assurance

In 1989, Panorama Antennas became the first antenna manufacturer in Europe to gain ISO 9000 certification. Panorama currently holds the ISO 9001-2015 certificate for quality assurance.

### Environmental Management System.

Panorama has attained ISO 14001:2015 International standard for effective environmental management system (EMS)

### Patents

Panorama Antennas currently holds several patents and registered designs both in Europe and worldwide.

### RoHS Compliance

All products that Panorama Antennas manufactures are 100% compliant to 2015/863 RoHS 3 European legislation which is due to replace RoHS 2 regulation on 22nd July 2019. Advanced "in-house" technology enables Panorama to test supplied materials at the factory "goods in", ensuring that non-compliant material is not used in production.

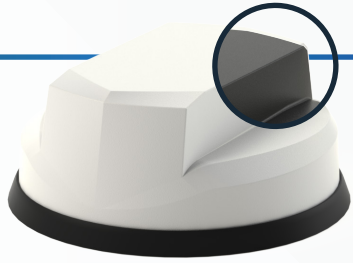
### REACH

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals, EC 1907/2007) is the European Union's chemical regulation that came into force on 1 June 2007 and will be phased in over an 11 year period (until 2018). Panorama Antennas wholeheartedly supports the objective of REACH to enhance public health and safety and the protection of the environment. Panorama is committed to meeting REACH requirements and can provide information about substances in accordance with the requirements.

### Associations

Panorama Antennas is currently a member of the following professional associations:

- **Federation of Communication Services**
- **TCCA (TETRA & Critical Communications Association)**
- **British Safety Council**
- **B-APCO (British Association of Public Communication Officers)**



# Great White 5G

## FEATURES

2x2 MiMo 5G/4G/3G/2G LTE  
 Covers 617-960 / 1710-6000MHz  
 Optional Integrated GPS/GNSS  
 Up to 6x6 MiMo WiFi 2.4/5.0GHz

The LPMM/LGMM range provides effective 2x2 MiMo operation with excellent isolation and low correlation coefficient. Available in Black or White.

**IP66  
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LGMHM-6-60-25-58	●	2x2	6x6
LGMQM-6-60-25-58	●	2x2	4x4
LGMTM-6-60	●	2x2	3x3
LGMDM-6-60	●	2x2	2x2
LGMM-6-60	●	2x2	
LPMM-6-60		2x2	

\*Part numbers refer to the white version only

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# 5G Dome Antenna

## FEATURES

4x4 MiMo 5G/4G LTE  
 617-960 / 1710-6000MHz  
 Integrated GPS/GNSS  
 Up to 6x6 MiMo WiFi 2.4/5.0GHz

The LPMM4/LGMM4 enables multiple antenna functions to be fitted using a single hole. Designed for use with Advance Pro routers that require a 4x4 4G/LTE MiMo antenna system. Available in Black or White.



**IP69K  
 RATED**



LGMHM4-6-60-25-58	●	4x4	6x6
LGMQM4-6-60-25-58	●	4x4	4x4
LGMTM4-6-60	●	4x4	4x4
LGMDM4-6-60	●	4x4	3x3
LGMM4-6-60	●	4x4	
LPMM4-6-60		4x4	

\*Part numbers refer to the white version only

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# GPSD Sharkee

## FEATURES

2X2 MiMo 4G/3G/2G LTE  
 Integrated GPS/GNSS (26dB LNA)  
 Optional 2x2 MiMo WiFi 2.4/5.0GHz

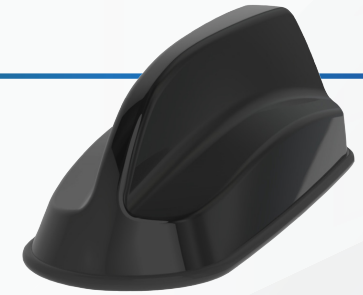
The GPSD range has a sharkfin housing with a built in whip mounting boss and can support a range of Panorama Antennas' VHF/ UHF whips.

Requiring only a single hole fixing, the GPSD reduces vehicle damage, visual impact and cost of installation, whilst protecting vehicle resale value.



GPSD-7-27	●	2x2	
GPSD-7-27-24-58	●	2x2	2x2

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# SHK Sharkee®

## FEATURES

2X2 MiMo 4G/3G/2G LTE  
 Optional 2x2 or 3x3 MiMo WiFi  
 Optional GPS/GNSS (26dB LNA)

The SHK range provides multiple functions in a single hole mounting, reducing vehicle damage, install time and visual impact. The SHK has OEM sharkfin styling and allows fast installation of multiple antennas. Available in Black or White.



SHK-7-27		2x2	
SHKG-7-27	●	2x2	
SHKG-7-27-24-58	●	2x2	2x2
SHKG-7-27-T24-58	●	2x2	3x3

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## GPSB 'Sharkee'®

### FEATURES

- SiSo 4G/3G/2G LTE
- Dualband 2.4/5GHz WiFi
- Integrated GPS (26dB LNA)
- OEM Style Sharkfin housing

The GPSB 'Sharkee' is an automotive multi-function antenna, which has a mounting stud for a whip antenna. A wide range of whips (single, dual or tri-band) are available for VHF/UHF and 700/800MHz band operation.

The GPSB reduces visual impact and only requires a single 19mm (3/4") hole, which results in reduced installation time/cost whilst helping to maintain vehicle resale value.

	Frequency (MHz)
GPSB	698-960, 1710-2170, 2500-2700 (Cellular), 2400, 4900-6000 (WiFi) + Optional Whip 1575 (GPS)

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## Combination GPS/GNSS & Whip

### FEATURES

- Integrated GPS/GNSS (26dB LNA)
- Single 15mm hole mount
- Whip mounting stud

The GPSK antenna is a rugged combination base with a whip mounting stud. A wide range of antenna whips are available to fit the GPSK, including TETRA, Cellular and WiFi types.

The GPSK is an ideal solution for vehicle mounted Airwave/TETRA terminals and Mobile Data equipment. It can also be supplied as a complete 'plug and play' kit for all available TETRA and DMR radios.



	Whip
GPSK-TET	380-430MHz
GPSK-C3G	900, 1800, 1900, 2100MHz
GPSK-W24	2400MHz

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## Stingray Internal Antenna

### FEATURES

- Variants available with:
- SiSo Wideband LTE/Cellular
- 1x or 2x2 MiMo WiFi
- Integrated GPS/GNSS (26dB LNA)
- Available with SMA or FAKRA connectors
- Dashboard or windshield mount

This internal antenna offers a "3 in 1" solution ideal for telematics or other vehicle communications, where the antenna needs to be fitted discretely or for a "no hole" installation.

Meeting the requirements of UNECE Regulation R 118, the antenna is suitable for use in M3 Category vehicles (Transportation). The antenna housing is UV resistant and flame retardant, while the integrated coax cables are flame retardant, low smoke specification.



	GPS/ GNSS	MiMo LTE	WiFi
GPSCO-24-58	•	•	•
GPSCO-7-27-24-58	•	•	
GPSCOM-24-58	•		2x2

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## MiMo Bat

### FEATURES

- 2x2 MiMo LTE/Cellular
- 1x or 2x2 MiMo WiFi
- Integrated GPS/GNSS (26dB LNA)
- Dashboard or windshield mount

It can be fitted on any non-conductive surface and with integral low loss cables and is an easy, quick, 'plug and play' solution which meets requirements of UN ECE 118.01; making it suitable for transportation vehicles.



	GPS/ GNSS	MiMo LTE	MiMo WiFi	WiFi
BATM-7-38			2x2	
BATGM-7-38	•		2x2	
BATGM-7-38-24-58	•		2x2	•
BATGM2-7-38-24-58	•		2x2	2x2

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## Low Profile Cellular LTE

### FEATURES

- Includes 4G/5G + Global Cellular Bands
- Covers 698-3800MHz
- Compact and Robust
- Cost effective solution

The Panorama LPB series is a multi-band antenna, in a 82mm (3.22") high, tough radome, designed to perform in any environment. It features an integral low loss coaxial cable, available in various lengths/connector configuration.

The antenna is ideal for a SiSo requirement, or a pair can be used, with correct spacing to provide MiMo function.

	Termination	Cables
LPB-7-27-05SP	SMA Male	0.5m (1.6')
LPB-7-27-2SP	SMA Male	2m (6.6')
LPB-7-27-2F	FME Female	2m (6.6')
LPB-7-27-5SP	SMA Male	5m (16.4')
LPB-7-27-5F	FME Female	5m (16.4')

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## 'The Fez'

### FEATURES

- Optional GPS/GNSS (26dB LNA)
- Optional 1x or 2x2 MiMo WiFi
- 2G/3G/4G Wideband LTE/cellular
- Ground plane independent

The LG[P]E antenna series is a range of low profile antennas with a robust compact housing.

Designed to be tough yet cost effective, the antennas are completely enclosed in a moulded housing made from weather and impact resistant plastic. The range is supplied with short fly leads and can be kitted with Panorama Antennas' low loss extension cables in various lengths.

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LPE-7-27		•	
LGE-7-27	•	•	
LGE-7-27-24-58	•	•	•
LGEM-7-27-24-58	•	•	2x2

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## GPS / GNSS Antennas

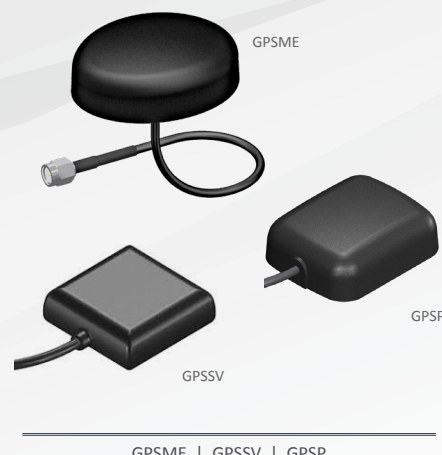
### FEATURES

- Active GPS/GNSS element (26dB LNA)

Vehicle positioning is an intrinsic part of vehicle and fleet management and is achieved by use of GPS/GNSS technology. An effective antenna with high performance filtering is required to provide reliable operation.

The GPSP offers a permanent, panel mounted option, whilst the GPSME provides the convenience and flexibility of a temporary, no holes solution with a tough magnetic fixing.

The GPSSV type is ideal for covert installation and is supplied with both adhesive and hook/loop pad fixings. A 3m coax cable is supplied as standard, but a version with a 30cm fly lead is available which can be used with an extension coax cable where required.



GPSME | GPSSV | GPSP

General Use

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## Low Profile Dome

### FEATURES

- Rugged design for heavy duty applications
- Fit on plastic or metal panel
- Easy installation

The Panorama low profile antenna range has been designed to perform under extreme pressure. The outer housing is designed to withstand high impacts while maintaining its functionality. Can be used with/without ground plane (Subject to tuning).

An excellent solution for demanding applications in transportation.

Non-GPS	Frequency (MHz)
LP390	380-400
LP420	410-430
LP440	430-450
LP460	450-470
LPL-S5	806-870

GPS Variant	Frequency (MHz)
LG390	380-400
LG420	410-430
LG440	430-450
LG460	450-470
LGL-S5	806-870

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# Glass Mount Antenna

## FEATURES

- Excellent performance
- No hole installation
- Solid state coupling (GM versions)
- Quick and easy installation
- Windscreen or rear window mounting



The antenna capacitively couples through glass and its high positioning gives it good performance and near omni-directional radiating pattern similar to a roof-mounted ¼ wave (For GM versions).

The whip can be easily removed for the car wash.

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	Frequency (MHz)
AOG143	138-148
AOG151	142-160
AOG161	156-174
GM390	380-400
GM420	410-430
GM435	425-455
GM455	445-470
GM-S4	450-470
GMG-S5	806-870

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# Half-Wave UHF Antenna

## FEATURES

- Flexible whip
- Ground plane independent
- Moulded coaxial cable
- Suitable for vehicles or fixed site applications

The HM range of antennas can be mounted on any surface. The antenna is ideal for motorcycles but can also be used on other vehicles, boats or fixed sites.

The HM antenna range has a rugged design with a flexible nylon covered whip. The base features a moulded cable entry and an M14 mounting bolt.



	Frequency (MHz)		Frequency (MHz)
HM-S1	380-400	HM-S4	450-470
HM-S2	410-430	HM-480	470-490
HM-TET	380-430	HM-495	480-510
HM-433	430-440	HM-S5	806-870
HM-451	438-472	HM-D	896-960

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# UHF Marine Antenna

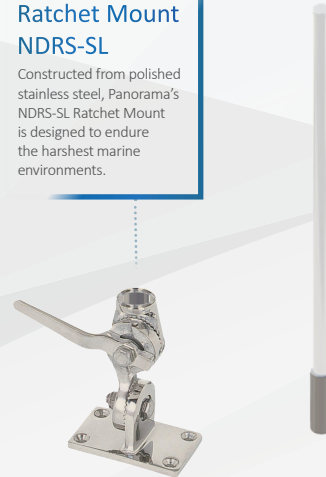
## FEATURES

- Various UHF frequencies
- Ratchet or deck mount option
- Optional GPS (23dB LNA)
- Constructed from marine grade materials

The NA Series antenna fits standard 1"x14TPI marine mounting systems. Can also be supplied with custom extension coaxial cable sets to meet the customer's specific installation requirements.

### Ratchet Mount NDRS-SL

Constructed from polished stainless steel, Panorama's NDRS-SL Ratchet Mount is designed to endure the harshest marine environments.



	Frequency (MHz)		Frequency (MHz)
NA-S1-GPS	380-400	NA-S1	380-400
NA-S2-GPS	410-430	NA-S2	410-430
NA-440-GPS	430-450	NA-440	430-450
NA-S4-GPS	450-470	NA-S4	450-470
NA-S5-GPS	806-870	NA-S5	806-870

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# Heavy Duty SiSo Rail Antenna

## FEATURES

- Standard four hole rail fixing
- Various frequency versions available
- Optional GPS/GNSS (26dB LNA)
- Full rail industry certification

The TRNC(G) series antenna has been designed specifically to meet railway engineering standards and features a DC grounded radiating element.

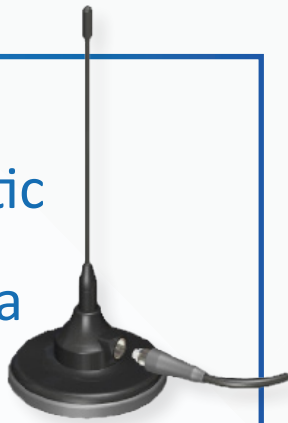
The TRNC(G) antenna has a heavy duty cast aluminium base and is housed in a high impact, flame retardant radome moulded in Ultem which provides ingress protection to IP67 (or IPX9K) and meets EN45545.



	GPS/GNSS	LTE	WiFi	UHF
TRNC-7-60		•	•	
TRNCG-7-60	•	•	•	
TRNC-TET				•
TRNC(G)-TET	•			•
TRNC-S4				•
TRNC(G)-S4	•			•

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# Magnetic Mount Antenna



## FEATURES

- Temporary fit
- Easy removal
- Strong magnetic retention

The MD range of antennas is a popular choice for vehicles that require a temporarily fixed antenna.

The tough magnetic base will retain the antenna to the roof or boot. Available in all standard VHF and UHF bands, as well as customer-specific frequencies.

Frequency (MHz)		Frequency (MHz)	
MD146-5	141-151	MD420-5	410-430
MD161-5	156-164	MD-TET-5	380-430
MD168-5	162-174	MD-451-5	430-472
MD390-5	380-400	MD-S5-5	806-870

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# UHF / VHF Elevated Antenna

## FEATURES

- Mast mount
- VHF, UHF and Tri-Band versions
- Ideal for fixed radio terminal applications
- Quick assembly and installation

Quick and easy to assemble and deploy in the field, this is a unique antenna solution that is ideal where coverage needs to be improved.

### UHF Versions

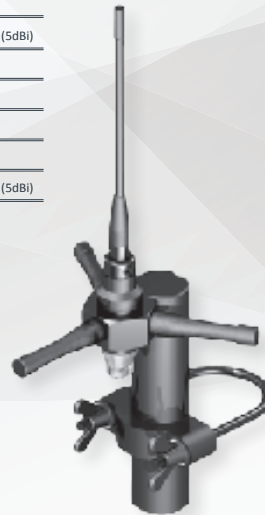
BSU-TET	380-430
BSU-TETG5	380-430 (5dBi)
BSU-UT	406-472
BSU-U	430-472
BSU-S4	450-470
BSU-W	470-512
BS800	804-870 (5dBi)

### VHF Versions

BSV-E3	67-74
BSV-E4	74-81
BSV-E5	81-88
BSV-H3	132-143
BSV-H4	141-151
BSV-H5	149-159
BSV-H6	156-162
BSV-H7	162-174

### Tri-Band Versions

BSV-155-S4-821	145-174 / 420-480 / 764-894
BSV-155-U1-B1	150-160 / 410-470 / 746-806
BSV-155-U1-S1	150-160 / 410-470 / 806-870



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# Rapid Deployment Clip Dipole

(CDV/CDU Series)

## FEATURES

- Rugged construction
- Fast installation
- Moulded in coaxial cable

The 'Clip Dipole' range is designed for quick and easy assembly and installation on remote sites. An ideal product for temporary use at a public or sports event.

### Frequency (MHz)

CDV-E3	67-74
CDV-E4	74-81
CDV-E5	81-88
CDV-H3	132-143
CDV-JRC	139-157
CDV-H4	141-151

CDV-H5	149-159
CDV-H6	156-162
CDV-H7	162-174
CDV-K5	174-192
CDV-K6	192-208
CDV-K7	208-225

CDU-S1	380-400
CDU-S2	410-430
CDU-TET	380-430
CDU-U1	410-470
CDU-T2	420-456
CDU-U	430-472
CDU-U2	450-512



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# Rapid Deployment 1/2 Wave

(CD Series)

## FEATURES

- Groundplane independent
- Fast 'clip on' installation
- Moulded coaxial cable

The performance and scope of portable equipment can often be considerably improved by elevating the antenna to a more effective height. Clip antennas provide an easy way to do this. The CD series features a rugged single end fed 1/2 wave element.

The jaws of the spring clip are moulded in nylon and are adjustable for any angle. The clip mount features a fully moulded coaxial connection for weather protection and resilience.

### Frequency (MHz)

CD390	380-400
CD420	410-430
CD433	430-450
CD458	445-470
CD800	806-870
CD900	870-960

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## Magnetic Mount 4G/LTE

### FEATURES

Covers LTE + Global cellular bands  
698-960MHz and 1710-2700MHz  
Improves range  
Easy installation

The Panorama LPBEM low profile antenna range has been designed to perform in any environment. At only 82mm (3.22") high and in a robust high impact radome, the antenna is almost impervious to daily wear, tear and impact.

The LPB offers excellent performance across a wide bandwidth when it is mounted on a 400 x 400mm (15.75" x 15.75") ground plane.

	Termination	Cable Length
LPBEM-7-27-2SP	SMA Plug	2m (6.5")
LPBEM-7-27-2F	FME Jack	5m (16'5")

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## Covert Internal Multi-Band

### FEATURES

Wideband LTE / Cellular element  
Simple adhesive pad fitment  
Can be fitted on glass or plastic panel

The EF-BC3G-26 antenna is a low cost single 4G/3G/2G product that can be fitted on any non-conductive surface. It is typically fitted on a window and with correct spacing, a pair can be installed to provide a covert 2x2 MiMo antenna system.



LTE

EF-BC3G-26

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## Low Profile Internal MiMo WiFi

### FEATURES

Ceiling mount  
Low profile, robust housing  
Ground Plane Independent  
Available as 2x2, 3x3 or 4x4 MiMo WiFi

The CM(x)-24-58 range provides a compact, robust internal WiFi antenna. The antenna has integral ultra-low loss coax cables with pre-fitted reverse polarity SMA plugs. The antenna compliance ensures that it is suitable for use in buildings, railway rolling stock and other transportation modes.



MiMo WiFi

CM2-24-58	2x2
CM3-24-58	3x3
CM4-24-58	4x4

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## Internal On-Glass WiFi Antenna

### FEATURES

Compact dipole antenna  
Flexible moulded design  
Integral sealed coaxial cable  
Standard or Reverse polarity SMA plug

The EF-W24 antenna is suitable for covert or discrete installations. The antenna is supplied with an adhesive pad and can be fixed on a vehicle window glass or plastic trim panel. Ideal for connection to an in-vehicle router, the antenna can provide a 2.4GHz wireless hot spot function.

	Termination	WiFi
EF-W24-3RPSP	Reverse Polarity SMA Male	●
EF-W24-3SP	SMA Male	●

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## Dipole Antenna

### FEATURES

- Dipole construction
- Covert bumper mounting
- Flexible wire elements for easy positioning

The covert vehicle dipole antenna is specifically designed for installations where the presence of an antenna must be undetectable.

This specialist antenna is available in versions for VHF of UHF bands and requires tuning during installation to achieve optimal VSWR match. The antenna feed incorporates a 'Bazooka' balun to improve the frequency stability.

	Frequency (MHz)
VCD-VL-5F	68-88
VCD-VH-5F	130-175
VCD-S1-5F	380-400
VCD-S2-5F	410-430
VCD-S4-5F	450-470

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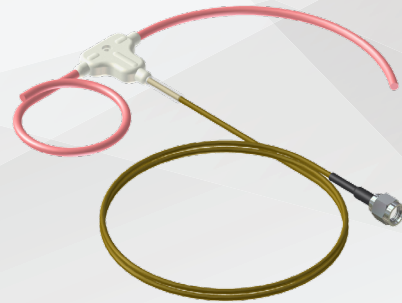
## Bodyworn Dipole

### FEATURES

- Dipole antenna
- Tuning optimised to individuals body
- Flexible wire elements
- Features fully molded T-piece

This antenna can be incorporated in clothing or body armour/stab vests and should be oriented with elements on a vertical plane.

Once in position, the antenna can be tuned to achieve the optimum VSWR/match.



	Frequency (MHz)		Frequency (MHz)
BWDT-H3	132-143	BWDT-T2	420-450
BWDT-H4	141-151	BWDT-S4	450-470
BWDT-H5	149-159	BWDT-495	470-520
BWDT-H6	156-162	BWDT-815	806-870
BWDT-H7	162-174	BWDT-24	2400
BWDT-TET	380-430		

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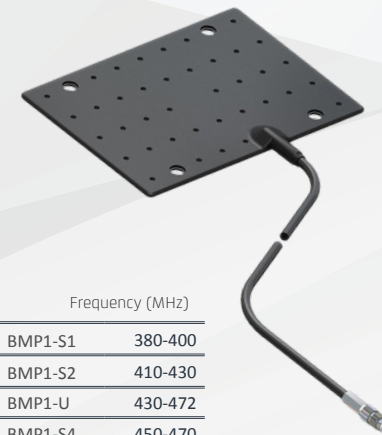
## Bumper Antenna

### FEATURES

- Fully covert application
- Mounted behind plastic bumper
- Flexible construction
- Does not require any tuning

The Panorama Bumper Mount Antenna is designed for covert operations and other applications which require a vehicle antenna that is effectively invisible.

For optimum performance two bumper antennas can be used, one at the front of the vehicle and one at the rear, to help create a more omni-directional pattern around the vehicle and enable better network coverage. The BMP2 kits come complete with a power divider and 2 bumper mount antennas.



	Frequency (MHz)
BMP1-S1	380-400
BMP1-S2	410-430
BMP1-U	430-472
BMP1-S4	450-470
BMP1-7-27	700-2700
Dual Version	
BMP2-S1-DPD	380-400
BMP2-S2-DPD	410-430
BMP2-S4-DPD	450-470

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## Internal On Glass Antenna

### FEATURES

- Semi covert window mount antenna
- Install with no vehicle damage
- Flexible moulding to allow fitting to curved glass

The EF 'easy fit' antennas provide an effective low-visibility 'no-hole' solution.

With their secure but easy to fit adhesive pad mountings, the EF antenna provide a huge range of possibilities for the installer and is ideal for temporary installation in short-term use vehicles.

	Frequency (MHz)		Frequency (MHz)
EF-S1	380-400	EF-W	470-512
EF-S2	410-430	EF-S5	806-870
EF-S3	380-420	EFBAD	698-960
EF-S4	450-470		

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## Offset Dipole

### FEATURES

- Improves range
- Easy installation
- Light weight solution
- External & Internal use

The ODP wall mount antenna range is a simple and cost efficient way of providing an fixed antenna for fixed terminals.

	Frequency (MHz)
ODP-H5	149-159 (2dBi)
ODP-H6	156-162 (2dBi)
ODP-H7	162-174 (2dBi)
ODP-TET	380-430 (2dBi)
ODP-433	410-450 (2dBi)
ODP-S4	450-470 (2dBi)
ODP-S1G6-4B	380-400 (6dBi)
ODP-S2G6-4B	410-430 (6dBi)
ODP-S4G6-4B	450-470 (6dBi)

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## High-gain UHF Directional

### FEATURES

- 8dBi peak gain
- Directional panel antenna
- Wall or mast mount

The WM8-TET is a directional panel antenna. The heavy duty ASA radome is resistant to weathering and suitable for outdoor use in challenging environments. The enclosure is vented by a high performance GORE® gland which allows it to breathe while keeping moisture and contaminants out, further increasing service life.



WM8-TET	380-400
WM8-U2	450-520

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Circular Polarised	Frequency	Polarisation
WM8LCP-TET-NJ	380-430	RHCP
WM8LCP-TET-NJ	380-430	LHCP

InBuilding or Light Duty Applications

## Ceiling Mount UHF Antenna

### FEATURES

- Easy installation
- In building UHF coverage
- Suitable for airports and stadiums

The Panorama UHF ceiling antenna can be used to provide network coverage in large buildings for the public services. Used in airports, large campus sites and shopping centres, the antenna can help to reduce holes in coverage and improve signal strength.



	Frequency (MHz)
CM-S1-08NJ	380-400
CM-S2-08NJ	410-430
CM-S4-03NJ	450-470

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## Bracket Mount

### FEATURES

- Used with fixed radio terminals
- Wall mount or mast mount
- Improves range

The bracket mount antenna range is an easy to install solution, ideal for a fixed radio terminal in an office.

	Frequency (MHz)
BM390	380-400
BM420	410-430
BM451	430-472
BM460	450-470
BM-S5	806-872
BM900	890-960

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## M8 & M8A

### FEATURES

- Panel mount
- Rugged design
- Modular stud fitting
- Interchangeable whips

The M8 is the “industry standard” panel mount base. It incorporates stainless steel earthing teeth and a fully moulded construction with high quality coaxial cable for low loss and long term reliability.

The base is easy to fit and can be installed from above or below the panel. With the modular stud fitting, almost any antenna in the Panorama range can be fitted to the base.

Panel Thickness

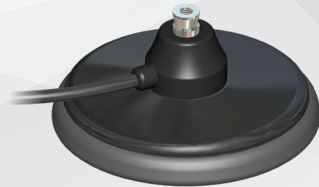
M8	0-4mm
M8A	4-6mm

## MMR

### FEATURES

- Temporary mount
- Rugged magnetic mount
- Modular stud fitting

The MMR is large secure magnetic base for professional use that supports a full range of antenna whips. It features a fully moulded construction with high quality coaxial cable.



	Cable Length	Cable Length
MMR	5m (16.5")	102mm (4.0")

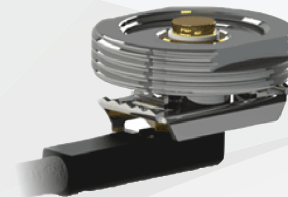
## NMO Panel Mount Base

### FEATURES

- Panel mount
- Suitable for various whips
- Stainless steel earthing teeth

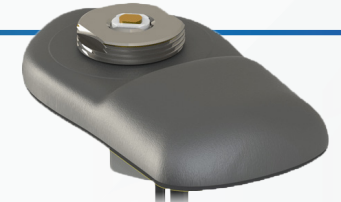
The Panorama ‘NMO’ 3/4 inch panel mount antenna base combines compatibility with NMO style antennas with rugged engineering and high quality construction.

This quality panel mount is made from nickel plated brass to resist corrosion, and the earthing teeth are stainless steel to provide excellent earthing with every installation.



### SAB-181

The NMO fitting can be converted to Panorama modular stud with the SAB-181 accessory. This allows use with the full modular antenna range. The fitting can be used with both products.



## Panel Mount Base With GPS

### FEATURES

- Panel mount
- Rugged low profile design
- NMO fitting
- Interchangeable whips

The GPSNMO is a GPS combination antenna that features a low-profile NMO mount and a high-performance GPS element with 26dB gain LNA.

This base fits on panels up to 6.5mm thick with a single hole, and is supplied with 5m length cables.



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## Rigid 1/4 Wave Whip

### FEATURES

- 1/4 wave whip
- Removable for car wash
- Hinged & non-hinged versions

The AQB & AQHB are Panorama's standard single frequency 1/4 wave rigid whips. These antennas feature a 17-7 PH stainless steel rod with a plated brass terminal protected by black nylon moulding.

Hinged	Frequency (MHz)	Non-Hinged	Frequency (MHz)
AQHB-H4A	138-155	AQB-H4A	138-155
AQHB-H6A	155-174	AQB-H6A	155-174
AQHB-TET	380-430	AQB-TET	380-430
AQHB-U	430-472	AQB-U	430-472
AQHB-W	470-512	AQB-W	470-512
AQHB-S5	806-870	AQB-S5	806-870

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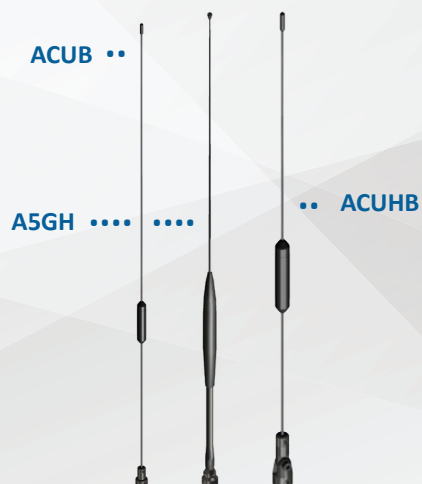
## High-gain Whips

### FEATURES

- High gain
- Removable for car wash
- Hinged & non-hinged versions

The A5G series is a 5dBi broadband colinear antenna. The phasing coil is over-moulded to provide a rugged antenna for demanding applications.

The ACU series is a 7dBi gain antenna for use where network coverage is poor.



Non-Hinged	Frequency (MHz)	Hinged	Frequency (MHz)
A5GM-TET	380-430	A5GH-TET	380-430
A5GM-S4	450-470	A5GH-S4	450-470
ACUB-S1	380-400	ACUHB-S1	380-400
ACUB-S2	410-430	ACUHB-S2	410-430
ACUB-U	430-472	ACUHB-U	430-472
ACUB-460	450-470	ACUHB-460	450-470
ACUB-W	470-512	ACUHB-W	470-512

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## Medium Gain Whips

### FEATURES

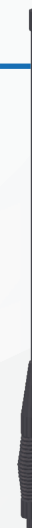
- Gain whips
- Rugged construction
- Hinged base and removable whip

The AVGHB/AUGHB range is a durable solution for vehicle installations requiring a medium gain antenna. The antennas feature a fully encapsulated impedance matching coil and a 17-7PH stainless steel whip.



Frequency (MHz)		Frequency (MHz)	
AVGHB-H4	141-151	AUGHB-S1	380-400
AVHGB-H5	149-159	AUGHB-S2	410-430
AVGHB-H6	156-162	AUGHB-TET	380-430
AVGHB-H7	162-174	AUGHB-U	430-472

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## VHF Wideband Antenna

### FEATURES

- Wideband VHF antenna
- Integrated shock mount

The AVWB is a rugged wide band VHF antenna, suitable for users who operate over the full range of VHF frequencies.

The AVWB is compatible with all of the modular bases in the Panorama range.

Supplied with an integrated shock mount, the antenna is protected from impact and damage in low clearance situations.

Frequency (MHz)	
AVWB-SM-39-68	138-169
AVWB-SM-51-74	151-174

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## VHF ¼ Wave Flexible Whip

### FEATURES

- OEM bee-sting style
- Wideband ¼ wave
- Flexible overmoulded base

The AFBQ is a rugged VHF ¼ wave whip for use on GPSK & GPSB base types. This antenna whip is styled to resemble an OEM 'bee sting' type design and is both discrete and durable, featuring an overmoulded shock spring and stainless steel rod.

	Frequency (MHz)
AFBQ-H4A	138-155
AFBQ-H6A	155-174
AFBQ-H5	149-159
AFBQ-H7	162-174

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## 5dBi Gain Flexible Whips

### FEATURES

- OEM bee-sting style
- High peak gain
- Flexible overmoulded construction

The AFGB offers omni-directional performance with 5dBi peak gain. The antenna whip is styled like an OEM 'bee-sting' type antenna and is both discrete and durable featuring an overmoulded coil and stainless steel rod.

The antenna base is flexible for added damage resistance and can be mounted on a range of Panorama GPS combination bases.



	Frequency (MHz)
AFGB-395	380-410
AFGB-S2	410-430
AFGB-S4	450-470
AFGB-832	760-870
AFGB-B1	745-806
AFGB-S5	806-870

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## ¼ Wave Flexible Whips

### FEATURES

- 1/4 wave whip 2dBi Gain
- Removable for car wash
- Rugged and flexible

AFB type features a multi-wire elements within a black nylon tube.

AFNT type features a nickel titanium wire for ultra flexibility and low visibility.



	Frequency (MHz)	Frequency (MHz)	
AFNT-H4A	138-155	AFB-S1	380-400
AFNT-H6A	155-174	AFB-S2	410-430
AFNT-TET	380-430	AFB-TET	380-430
AFNT-U430	450-470	AFB-U	430-472
AFNT-U2	450-512	AFB-UT	406-472
		AFB-S4	450-470
		AFB-W	470-520
		AFM-835	806-870

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## Tri-Band Whips

### FEATURES

- Tri band function
- Flexible rod with wound element
- Fits Panorama GPS combination bases

The ASF whips are stylish, discrete and durable, featuring a flexible overmoulded base section and a black jacketed flexible wound rod element.

Designed to be mounted on the GPSB, GPSD and GPSK range of bases, and used with a Panorama Triplexer.

	Frequency (MHz)
ASF-155-U2-B1	150-160 / 450-512 / 745-806
ASF-155-U2-S5	150-160 / 450-512 / 806-876
ASF-155-S4-821	150-160 / 450-470 / 764-896

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# VHF / UHF Diplexer

## FEATURES

Allows dual band antenna to be used with 2 radios or dual band radio with separate VHF and UHF antennas

The Panorama VHF/UHF diplexer is housed in a compact, robust die cast case for reliability and easy mounting.

The Diplexer uses a stripline design to provide low insertion loss with high port to port isolation and high power handling capability.



Frequency (MHz)		
DPX-210-270	VHF	50-210
	UHF	270-1000

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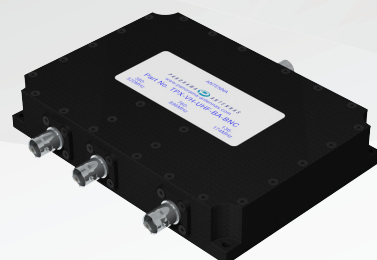
# VHF / UHF / 7-800MHz Triplexer

## FEATURES

Low insertion loss, high port-to-port isolation  
Use one antenna for 3 radios or vice versa  
VHF, UHF, 7/800MHz

The Panorama triplexer, TPX-VH-UHF-BA-TNC can either combine the signals from three antennas to a single multiband radio or split the signal from a tri-band antenna to three separate radios. Each port provides a low insertion loss passband for the respective frequency range. The unit is available with TNC female connector type on each port

This compact unit requires no power and can easily be installed in the roof lining of any vehicle or mounted next to the radio.



Frequency (MHz)		
TPX-VH-UHF-BA-TNC	VHF	136-174
	UHF	380-520
	7/800	760-896

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# VHF / UHF With 7-800MHz Diplexer

## FEATURES

Use one antenna for 2 radios  
Splits VHF & UHF from 7/800MHz & cellular  
Easy to install

The DPX-500-700 offers the opportunity to utilise a single multiband antenna with two radios. This conserves valuable vehicle real estate and saves on antenna installation costs.

The diplexer has low loss characteristics and is perfect for splitting a single antenna to a VHF or UHF radio and a 7/800MHz radio.

The diplexer is compact enough to locate in a vehicle headliner and is fitted with FME (m) connectors.



Frequency (MHz)		
DPX-500-700	VHF/UHF	50-500
	700-2500	700-2500

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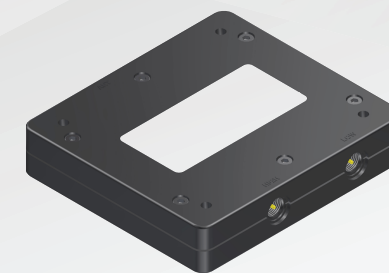
# Low / High Pass Filter

## FEATURES

Low insertion loss  
High out of band rejection  
F-HP270-F (High Pass Filter)  
F-LP270-F (Low Pass Filter)

The F-HP270-F offers an ideal solution for protecting UHF radios from out of band interference. The F-HP270-F can be used with the F-LP210-F to protect co-located VHF / UHF systems from interfering with each other.

The filter is compact enough to locate in a vehicle headliner and is fitted with FME (m) connectors on all ports.



Frequency (MHz)	
F-LP210-F	0-210
F-HP270-F	270-1000

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## UHF Antenna Combiner

### FEATURES

Combines two UHF radios to one

When you can only fit one antenna on a vehicle, then this combiner is the solution providing > 26dB isolation over 380-430MHz with an antenna match at 1.2:1 and low insertion loss.

#### Technical Note:

The isolation provided by this device is dependent on the antenna VSWR. An antenna match of 1.5:1 VSWR will result in a reduction of isolation to 20dB. Higher VSWR on the antenna port will result in a further reduction in isolation between the TX ports. does not exceed 1.5:1.

	Frequency (MHz)
DBLC-TET-N	380-500

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## GPS Splitter

### FEATURES

Reduce installation costs  
Run two GPS receivers from a single antenna  
DC block on one port

The Panorama DPD-GPS allows you to run two GPS receivers from a single antenna. The DPD-GPS splits the received signal from the antenna to two receivers while only allowing one of the receivers to feed voltage to the antenna, ensuring that the antenna is able to function correctly.

The DPD-GPS allows both GPS receivers to use an optimally located antenna, thereby reducing clutter and installation costs.



	Frequency (MHz)
DPD-GPS	1562-1614

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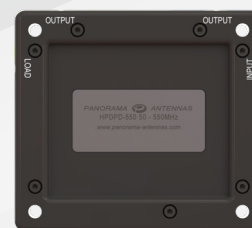
## VHF/UHF Splitter/Combiner

### FEATURES

Optimise antenna performance  
Connect two antennas to one radio

The HPDPD-550 series is a range of power dividers designed to split the power from a radio to distribute it to two separate antennas. Designed to support Panorama Antennas' covert VCD (VHF) and BMP (UHF) bumper / fender mount antennas the HPDPD-550 range comes in three variants for up to 15W, 60W and 150W Input Power respectively,

Covering a frequency range from 50-550MHz the HPDPD efficiently distributes power to two antennas with low insertion loss allowing users to install covert antennas at opposite ends of a vehicle to ensure maximal coverage.



	Frequency (MHz)
HPDPD-550	50-550

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## MTP850 Adapter

### FEATURES

Remote antenna adaptor for Motorola MTP850 radio  
Spring loaded contact pin  
Sturdy quick release lock

A 'one of a kind product' the ADPT-85-05SJ is specifically designed for use with the Motorola MTP850 TETRA radio. With spring loaded contact pin and durable quick fit/release feature, it is both simple to connect and reliable to use. Designed for use with any antennas from Panoramas' temporary, vehicle and body worn ranges the ADPT unlocks the full potential of the MTP850 radio for covert, surveillance and other tactical applications.

**Note:** The standard belt clip cannot be used in conjunction with this adaptor.

Cable Length	50cm (19.6")
Cable Type	RG316
Connector	SMA Jack (f)

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# Ultra-flexible UHF Portable Antenna

- Radio specific ¼ wave whip
- Ultra-flexible multi strand wire whip
- Fully moulded connector
- Ideal for covert/bodyworn applications

## FEATURES

This antenna features an ultra-flexible ¼ wave whip. Tuned to match the radio characteristics, it will provide consistent performance across the full operating frequency range.



Compatibility

SFQ-SC21-TET	Sepura SC21
SFQ-SRP2-TET	Sepura SRP/SRH
SFQ-MT8-TET	Motorola MTP850

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# VHF / UHF Portable Antennas



MXK



PXX



MFX



MFXU



MVQ



MQ



PUG

Description	moulded compressed helical	moulded compressed helical	moulded VHF helical	moulded UHF helical	moulded UHF quarterwave	moulded UHF quarterwave	UHF halfwave
Freq. (MHz)	67-88	141-225	141-366	330-512	141-336	330-512, 698-960	350-512

\*Various connector / radio types available. Check Panorama website.

# Coaxial Adapters

Panorama has an extensive range of coaxial adaptors for different applications. Our most popular types are listed here – enquire if you don't see what you need.

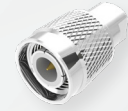
## Part no. CA-BP-FP

BNC Plug (m) to FME Plug (m)



## Part no. CA-TP-FP

TNC Plug (m) to FME Plug (m)



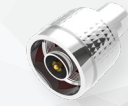
## Part no. CA-SP-FP

SMA Plug (m) to FME Plug (m)



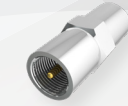
## Part no. CA-NP-FP

N Plug (m) to FME Plug (m)



## Part no. CA-FP-FP

FME Plug (m) to FME Plug (m)



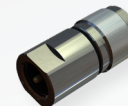
## Part no. CA-PLP-FP

PL259 Plug (m) to FME Plug (m)



## Part no. CA-MP-FP

Mini-UHF Plug (m) to FME Plug (m)



## Part no. CA-NP-SAJ

N Plug (m) to SMA jack adapter (f)



## Part no. CA-FJ-FJ

FME Jack (f) to FME Jack (f)





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