LAND ANTENNA RANGE

GME

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QUALITY ACCESSORIES

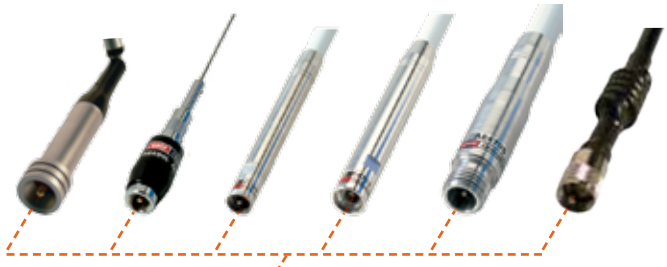
477 MHz, 27 MHz, mobile phone, AM/FM antennas, mounting brackets, springs and bases.

GME ANTENNA - 477 MHz

NEW

AE4700 SERIES*

The AE4700 series is the most diverse and adaptable range of large vehicle mount antennas on the market today. Engineered with the coaxial termination protected inside the spring assembly and easy screw down fit of the whip, the antenna can easily be changed for different gain and lengths to suit operating conditions. This is beneficial when travelling from flatter open plains where a two metre, high gain antenna is needed compared to driving in the city where a lower gain, shorter length is required.



Interchange whips without changing the AE4705/6 spring base.

Any of the whips in the AE4700 range can be effortlessly interchanged without changing the AE4705/6 spring base. The AE4401, AE409L and AE4013 will also fit onto the spring base, this offers an alternative to thicker radomes.

*Patent No. 776598

dBi – dBd COMPARISON

There are a number of different ways an antennas gain can be rated, the most common two are dBi and dBd. dBi is the amount of gain of an antenna with respect to an isotropic radiator where as dBd refers to the antenna gain with respect to a dipole.

It is now becoming more common in the radio industry for dBi to be used when rating antennas. To covert the dBi to dBd the following formula can be used dBd = dBi – 2.15.

G1 Ground independent
W Also available in white
G Also available in grey
NZ New Zealand versions available

477 MHz ANTENNA RANGE

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AE4001	Highly flexible stainless steel wire whip, chrome ferrule.	150	2.1
AE4002	Highly flexible stainless steel wire whip (internal), black heat shrink chrome ferrule.	151	2.1
AE4005 G1	Highly flexible, threaded base and mounting nut for easy installation includes 4.5 m of low loss coaxial cable.	370	2.1
AE4007	Heavy duty stainless steel whip, (3.5 mm) chrome plated ferrule.	600	6.6
AE4008	Heavy duty black stainless steel whip, (3.5 mm) chrome plated ferrule.	600	6.6
AE4012	Heavy duty stainless whip (2.5 mm) chrome ferrule.	600	6.6
AE4012K1 G1	AE4012 whip with high quality elevated feed, 4.5 m of low loss coaxial cable.	780	6.6
AE4012K2 G1	AE4012 whip with high quality elevated feed and electro polished stainless steel parallel spring, 4.5 m low loss coaxial cable.	860	6.6
AE4013 G1	Highly flexible whip, designed to mount onto SO239.	380	2.1
AE4014 G1	White fibreglass raydome with electro polished ferrule and stainless steel spring, 4.5 m of low loss coaxial cable.	800	2.1

477 MHz ANTENNA RANGE

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AE4014G GI	Grey fibreglass raydome with electro polished ferrule and stainless steel spring, 4.5 m of low loss coaxial cable.	800	2.1
AE4017	Heavy duty black stainless steel whip, (2.5 mm) chrome plated ferrule.	600	6.6
AE4017K1 GI	AE4017 whip with high quality elevated feed, 4.5 m of low loss coaxial cable.	780	6.6
AE4017K2 GI	AE4017 whip with high quality elevated feed and electro polished stainless steel parallel spring, 4.5 m low loss coaxial cable.	860	6.6
AE4018	Fibreglass with heavy duty braid and precision wound copper element, black heat shrink and chrome plated ferrule.	640	6.6
AE4018W	Fibreglass with heavy duty braid and precision wound copper element, white heat shrink and chrome plated ferrule.	640	6.6
AE4018K GI NEW	AE4018 whip with high quality elevated feed with 4.5 m of low loss coaxial cable	850	6.6
AE4018WK GI NEW	AE4018W whip with high quality elevated feed with 4.5 m of low loss coaxial cable.	850	6.6
AE4018K1 GI	AE4018 whip with high quality elevated feed and electro polished stainless steel barrel spring, 4.5 m low loss coaxial cable.	980	6.6
AE4018WK1 GI	AE4018W whip with high quality elevated feed and electro polished stainless steel barrel spring, 4.5 m low loss coaxial cable.	980	6.6
AE4018K2 GI NEW	AE4018W whip with high quality elevated feed and electro polished stainless steel parallel spring, 4.5 m low loss coaxial cable.	955	6.6
AE4018WK2 GI NEW	AE4018W whip with high quality elevated feed and electro polished stainless steel parallel spring, 4.5 m low loss coaxial cable.	955	6.6

477 MHz ANTENNA RANGE

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AE4006	Fibreglass with heavy duty braid and precision wound copper element, black heat shrink and chrome plated ferrule.	1200	8.1
AE409L GI	Fold down antenna with 2 stainless steel whip sets (differing gains), 4.5 m of low loss coaxial cable.	830/1230	6, 9
AE4401 GI	Fold down stainless steel/anodised finish with 4.5 m of low loss coaxial cable pre terminated FME connector and adaptor.	850	6
AE4701 GI	White fibreglass raydome with electro polished ferrule and stainless steel parallel spring, 4.5 m of low loss coaxial cable.	580	2.1
AE4702 GI	White fibreglass raydome with electro polished ferrule and stainless steel barrel spring, 4.5 m of low loss coaxial cable.	1040	6.6
AE4703 GI	White fibreglass raydome with electro polished ferrule and medium duty stainless steel parallel spring, 4.5 m of low loss coaxial cable.	1100	6.6
AE4703G GI	Grey fibreglass raydome with electro polished ferrule and medium duty stainless steel parallel spring, 4.5 m of low loss coaxial cable.	1100	6.6
AE4705 GI	White fibreglass raydome with electro polished ferrule and heavy duty stainless steel barrel spring, 4.5 m of low loss coaxial cable.	1200	6.6
AE4705G GI	Grey fibreglass raydome with electro polished ferrule and heavy duty stainless steel barrel spring, 4.5 m of low loss coaxial cable.	1200	6.6
AE4706 GI	White fibreglass raydome with electro polished ferrule and heavy duty stainless steel barrel spring, 4.5 m of low loss coaxial cable.	2100	8.1
AE4706G GI	Grey fibreglass raydome with electro polished ferrule and heavy duty stainless steel barrel spring, 4.5 m of low loss coaxial cable.	2100	8.1

27 MHz/MOBILE PHONE/AM/FM & BASE STATION

27 MHz ANTENNA RANGE

CODE	TYPE	LENGTH (mm)
AE2001	Black flexible rubber helical pre-tuned for 27 MHz.	320
AE2007	Stainless steel base loaded pre-tuned for 27 MHz.	1200
AE2007N	Stainless steel base loaded pre-tuned for 26 MHz.	1200
AE2008	Black stainless steel base loaded pre-tuned for 27 MHz.	1200
AE220 G1	Black fibreglass base loaded helical whip, pre-tuned for 27 MHz, 4.5 m of low loss coaxial cable.	1100
AE220N G1	Black fibreglass base loaded helical whip, pre-tuned for 26 MHz, 4.5 m of low loss coaxial cable.	1100
AE221W G1	White fibreglass base loaded helical whip, pre-tuned for 27 MHz, 4.5 m of low loss coaxial cable.	1100
AE2400	Black fibreglass helical whip, pre-tuned for 27 MHz.	600
AE2400N	Black fibreglass helical whip, pre-tuned for 26 MHz.	600
AE2401	Black fibreglass helical whip, pre-tuned for 27 MHz.	900
AE2401N	Black fibreglass helical whip, pre-tuned for 26 MHz.	900
AE2402	Black fibreglass helical whip, pre-tuned for 27 MHz.	1200
AE2402N	Black fibreglass helical whip, pre-tuned for 26 MHz.	1200
AE2403N	Black fibreglass helical whip, pre-tuned for 26 MHz.	1500

MOBILE PHONE

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AT6DB G1	Dual band mobile phone antenna (824-960 MHz), white fibre glass raydome chrome ferrule and spring 4.5 m of low loss cable.	800	6.1
AT6DBG G1	Dual band mobile phone antenna (824-960 MHz), grey fibre glass raydome chrome ferrule and spring 4.5 m of low loss cable.	800	6.1

AM/FM

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AEM2	Black fibreglass helical whip pre tuned for AM and FM broadcast bands.	1560	
AEM3	Black fibreglass helical whip pre-tuned for AM and FM broadcast bands.	800	

BASE STATION ANTENNAS

CODE	TYPE	LENGTH (mm)	GAIN (dBi)
AE2102 G1	27 MHz base antenna, white fibreglass raydome, stainless steel base, N connector fitting.	5400	
AE4106 G1	477 MHz base antenna, white fibreglass raydome, stainless steel base, N connector fitting.	1500	6
AE4108 G1	477 MHz base antenna, white fibreglass raydome, stainless steel base, N connector fitting.	2400	8
AE4110 G1	477 MHz base antenna, white fibreglass raydome, stainless steel base, N connector fitting.	3900	10

GAIN GUIDE

GME offers a wide range of 27 MHz, 477 MHz, mobile phone and AM/FM antennas. Manufactured to exacting high standards to accessorise the GME range of market leading radios. Suitable for all applications whilst offering exceptional performance, reliability and value.

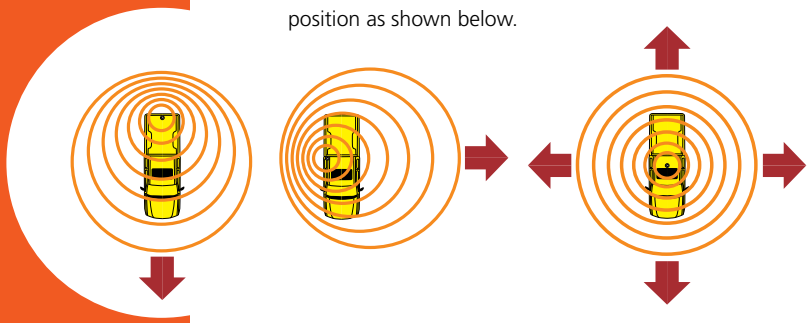
Two important factors when choosing an antenna are the mounting position and the desired radiating patterns for the terrain in which the antenna is to be used.

MOUNTING POSITIONS

An antenna needs a large uniform metal surface beneath the radiating elements to perform correctly. This is referred to as a 'ground plane'. Therefore the best position to install an antenna is in the centre of a metal roof, however, this is not always possible and installation on a bull bar or mirror mount is often necessary. In this case a 'ground independent' antenna should be used to give the antenna its desired radiating pattern without a metal ground plane.

RADIATING PATTERN ON A FLAT METAL SURFACE

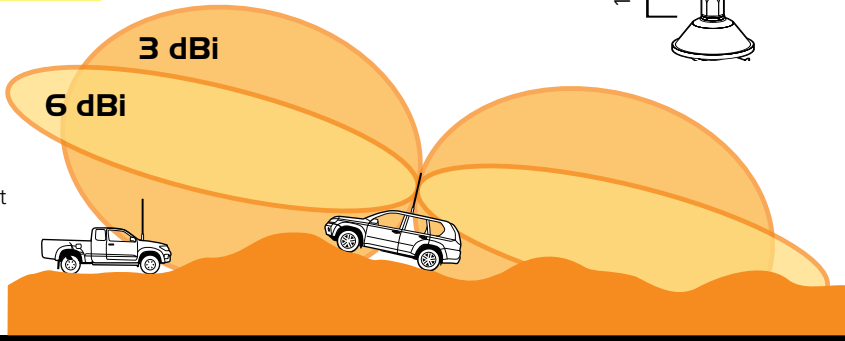
The direction of a 'non ground independent' antenna radiation pattern varies with the vehicle mounting position as shown below.



REAR	Strongest to the front, weak to the rear.
LEFT	Strongest to the right, weaker to the left (antenna right – vice versa).
CENTRE	All directions equal (best).

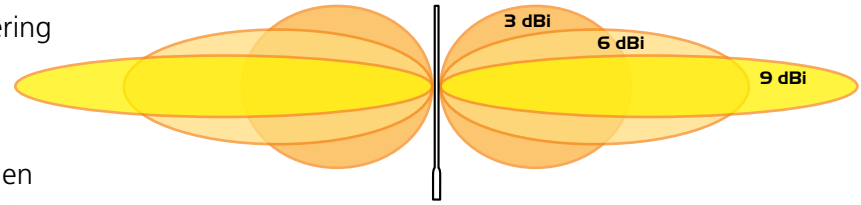
THE ANTENNA TO SUIT THE TERRAIN

Lower gain antennas are more suited for hilly terrain where reception does not depend on the angle of the antenna, as shown right.



RADIATING PATTERNS

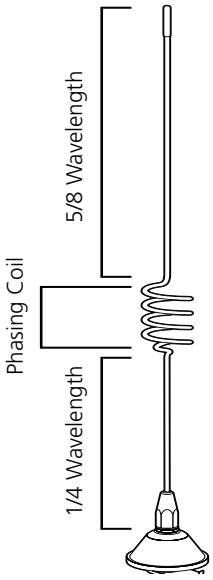
It is important to understand the relation of an antenna's gain to its radiating pattern, as shown below. As the electrical design of the antenna is modified to increase

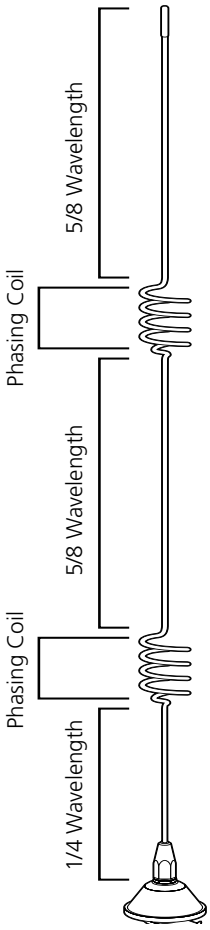


the gain, the omnidirectional pattern is squashed in a vertical plane and is enhanced in a horizontal plane. This expands the signal's coverage. A high gain antenna will therefore give increased coverage on flat terrain but the elevation will be limited making it unsuitable in mountainous regions.

ANTENNA CONSTRUCTION

Below are two examples of the electrical construction of antennas. High gain antennas (typical 8 to 9 dBi) are usually longer than lower gain antennas (typical 6 to 7 dBi).





Please note it is recommended to use an antenna of fibreglass construction for bull bar mounting or extensive off-road use.

MOUNTING BRACKETS

MB017

MB018

MB034

MB035

MB401SS

MB403SS

MB404SS

MB405SS

MB406SS

MB407

MB407SS

MB03

MB024SS

MB408B

MB408SS

MB101SS

MB102SS

MB103SS

MB104SS

MB105SS

MOUNTING BRACKETS

CODE	TYPE	THICKNESS
MB017	Ford Falcon/Territory driver's side front.	1.5 mm stainless steel.
MB018	Ford Falcon/Territory passenger's side front.	1.5 mm stainless steel
MB034	Mirror mount single.	Premium cast stainless steel
MB035	Mirror mount double.	Premium cast stainless steel
MB401SS	Mirror mount.	2.5 mm stainless steel.
MB403SS	L-shaped universal.	1.5 mm stainless steel
MB404SS	Holden bracket.	1.5 mm stainless steel
MB405SS	L-shaped.	2.5 mm stainless steel
MB406SS	VT Commodore gutter bracket.	1.5 mm stainless steel
MB407	Bonnet/boot 'Z'.	2 mm stainless steel
MB407SS	Bonnet/boot 'Z'.	1.5 mm stainless steel
MB03	Adjustable gutter mount.	Stainless steel
MB024SS	Bull bar antenna mounting.	3 mm stainless steel
MB408B	Bull bar antenna mounting.	3 mm black mild steel
MB408SS	Bull bar antenna mounting.	3 mm stainless steel
MB101SS	38 mm bull bar bracket.	3 mm stainless steel
MB102SS	45 mm bull bar bracket.	3 mm stainless steel
MB103SS	50 mm bull bar bracket.	3 mm stainless steel
MB104SS	63 mm bull bar bracket.	3 mm stainless steel
MB105SS	76 mm bull bar bracket.	3 mm stainless steel

SPRINGS AND BASES

CODE	TYPE
AB001	27/477 MHz base (5/16" TPI thread).
ABL001	27/477 MHz base with 4.5 m low loss foam coaxial (5/16" TPI thread).
ABL002	Elevated feed with 4.5 m low loss foam coaxial (BSW thread).
ABL004	S0239 centre, with 5 m low loss foam coaxial (suits AE4700 series).
AB406	Magnetic base/lead assembly (5/16" TPI thread).
AS001	Light duty parallel spring (BSW thread).
AS002	Medium duty barrel spring (BSW thread).
AS003	Medium duty parallel spring (BSW thread).
AS004	Heavy duty barrel spring (suits AE4705/6).

AB001

ABL001

ABL002

ABL004

AB406

AS001

AS002

AS003

AS004

ISO 9001: 2008
AU97\0906
List of certified characteristics available at www.sgs.com