

118-512 MHz VHF/UHF Band Magnetic Mount Antenna

- Compact magnetic mount for easy-to-setup temporary installations
- Excellent performance over wide bandwidth

ELECTRICAL SPECIFICATIONS

Frequency Range	118-512 MHz
Matching	Passive
Polarization	Nominally Vertical
Antenna Type	Monopole, ground plane required
Radiation Pattern	Omnidirectional
VSWR	≤ 3.5
Gain	(See typical patterns on pg 2)
Power Rating	50 W (RMS)
Nominal Impedance	50 Ω

MECHANICAL

RF Connection	Type 'N' Female
Radiator	Aluminum Alloy
Mounting	3.46 inch (88 mm) magnet (vertical holding force typically 280 N when mounted on .031 inch (.8 mm) steel sheet)
Height	16.93 inches (430 mm)
Weight	1.99 lbs (.90 kg)
Standard Color	Black
Surface Protection	Rubber Coating
Foot Print	3.46 inches (88 mm)

ENVIRONMENTAL SPECIFICATIONS

Temperature	
Operating	-40° C to +55° C
Storage	-40° C to +85° C
Humidity	MIL-STD-810E Method 507.3 Procedure III (cycle with extreme at 95% RH, +60° C)
Blowing Rain	MIL-STD-810F Method 506.4 Procedure I (rainfall rate 150 mm/h, wind speed 30 m/s)
Water Immersion	MIL-STD-810F Method 512.4 Procedure I (depth 39.37inches / 1 m)
Wind Speed	100 mph (160 km/h)

FEATURES

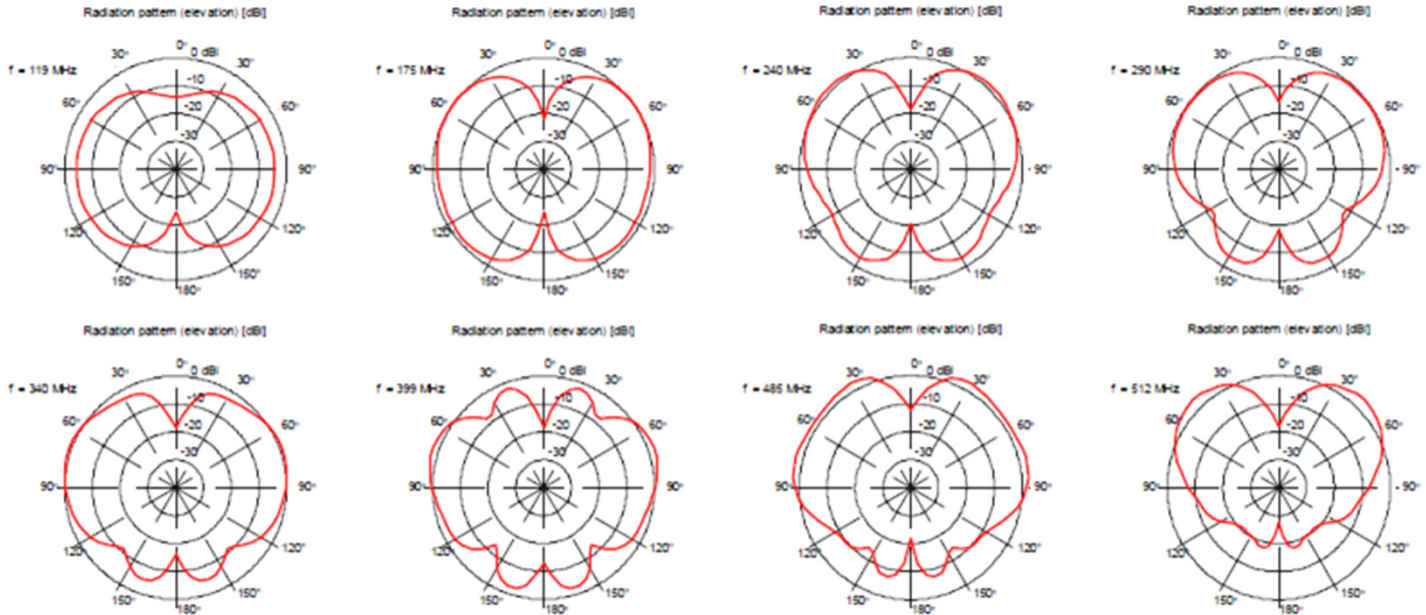
The WB-512M antenna is a magnetic mount antenna with an frequency bandwidth of 118-512 MHz. The antenna is for applications where a quick set and removal of the antenna is required or where a permanent installation is not possible.

SAFETY WARNING:

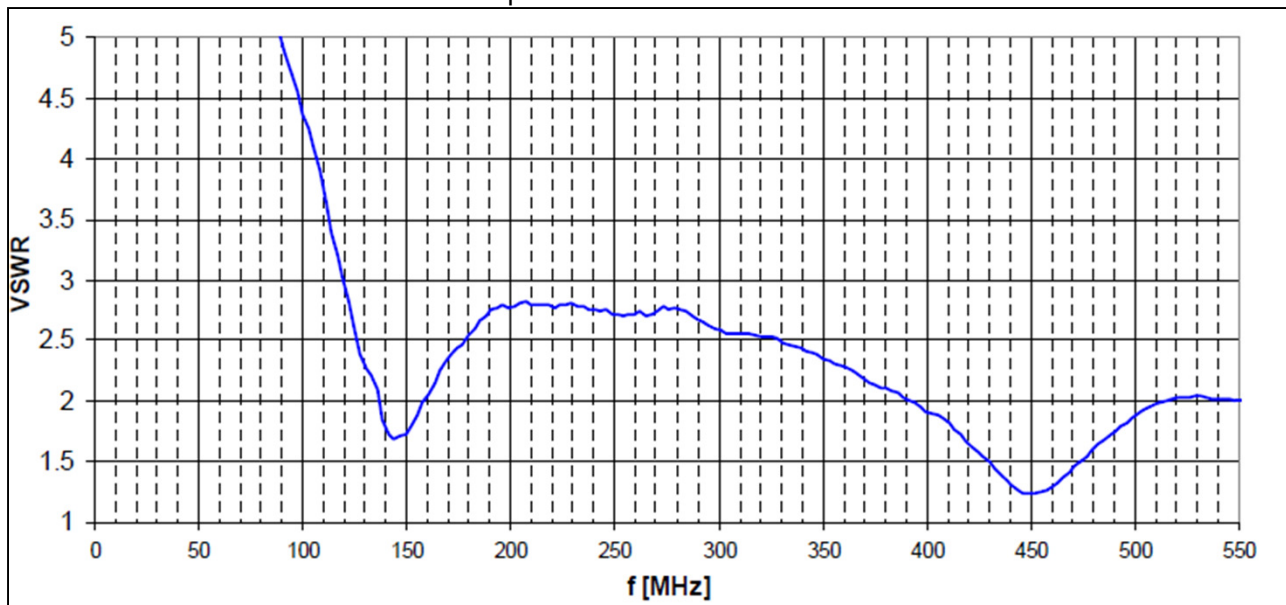
Great care should be taken when handling strong magnetic products. Magnetic mounts may cause painful pinching injuries. When using a magnetically mounted device on a moving vehicle the device may lift off from the vehicle even at moderate speeds in case of collision. Therefore a secondary retention system should always be used to prevent unintentional detachment or loss of the device (the properly tightened feeder cable could possibly be used for this purpose. For maximum grip the surface of the vehicle and the bottom of the magnet should be very dry and clean of dirt, snow, and ice prior to attaching the device.



Measured free space radiation patterns with the antenna mounted in the center of a 78.74 in x 78.74 in (2 m x 2 m) ground plane:



Measured VSWR response with the antenna mounted on a car roof:



For proper operation the antenna needs a ground plane for which a size of at least 1.0 m² is recommended. The size and the shape of this ground plane may affect the performance of the antenna. For perfect operation there should be free space around the antenna.