

Application

The VHF30108VM is a broadband VHF antenna designed for use on all modern in-service military platforms, including armoured or soft skin, metal chassis or composite, wheeled or tracked. Rigid versions are available for shipboard and fixed station applications. Brackets are also available for masts and pole mounting.

Bases are available for vehicle, mast and fixed mounting with optional L1 & L1/L2 GPS.

The antenna is a dipole design so does not require a ground plane to operate.

Electrical Specification (Antenna)

Frequency range	30 - 108 MHz
VSWR	See diagram
Nominal impedance	50 ohm
Power rating	100 W
Gain	See diagram
Radiation pattern	Azimuth: Omnidirectional Elevation: See overleaf
Polarisation	Vertical
Connector	BNC Female, others on request

Mechanical specifications:

Design	Centre fed dipole. Radiating elements completely enclosed in epoxy/fibreglass laminate. Metal parts are plated brass and stainless steel.
Length [#]	Total: 3.3 m (130 in) Lower Whip: 1.8 m (71 in) Upper Whip: 1.45 m (57 in) Base (Option A): 0.22 m (9 in)
Weight	Whips - 1.65 kg (3.6 lbs) Complete - 3.4 kg (7.5 lbs)*
Wind rating	55 m/s = 125 mph
Finish	Polyurethane lacquer.
Colour	Customer Specified
Installation	See base option table
Temperature range	-55 °C, +71 °C; -67 °F, +160 °F

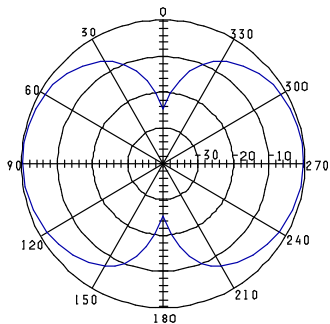
* Weight with standard NATO 4 hole vehicle base. Base options specified overleaf.

Nominal dimensions subject to manufacturing tolerances.

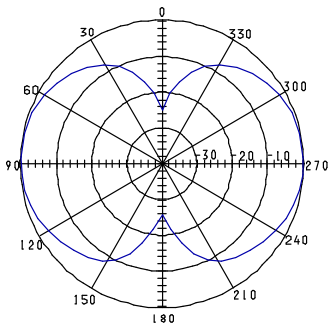
GPS Electrical Specification (option)

Configuration	L1 GPS	L1/L2 GPS
Frequency Band	1575.42 ± 10 MHz	L1 1575.42 ± 10 MHz L2 1227.60 ± 10 MHz
Supply Voltage	2.7-5.5V	2.7-5.5V
Pre-amplifier	26.5 dB @ 5V	26.5 dB @ 5V
Noise Figure	2.5dB	2.5dB
Supply Current	< 40mA	< 60mA
Polarisation	RHCP	RHCP
Connector	SMA female	SMA female

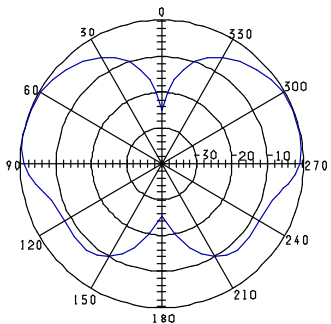
Radiation Diagram, Elevation:



30MHz

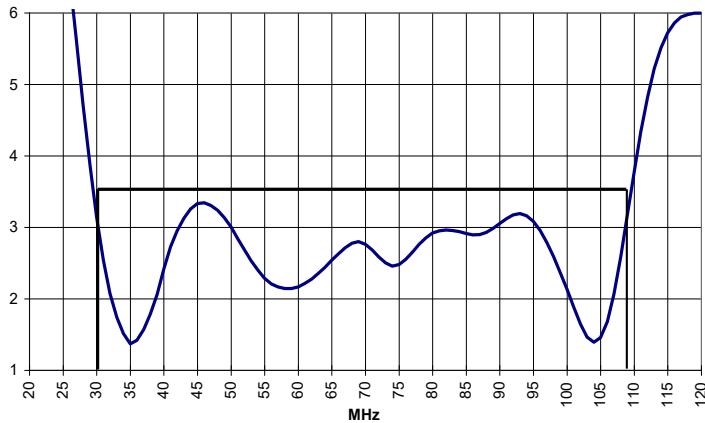


60MHz



88MHz

VSWR

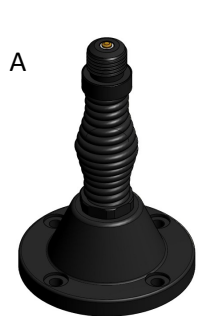


Antenna Options

Product	Description
Whip Bag	Protective carrying bag for upper and lower whip sections.
Tie Down Kit	Allows the whip to be tied down to the vehicle while in motion.

Antenna Base Options

Bases are available to suit most installations including vehicle, mast and shelter mounting. Many are available with optional L1 & L1/L2 GPS. All bases are supplied with a protective top cap. See below for mounting options:-



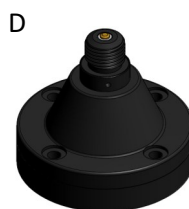
A
NATO 4-hole Spring
4 x M10 or 3/8" Bolts
on 114mm (4.5in) PCD
Base diameter 140mm (5.5in)
Base height 215mm (8.5in)



B
NATO 4-hole Spring GPS
4 x M10 or 3/8" Bolts
on 114mm (4.5in) PCD
Base diameter 140mm (5.5in)
Base height 240mm (9.5in)



C
NATO 4-hole Rigid
4 x M10 or 3/8" Bolts
on 114mm PCD
Base diameter 140mm (5.5in)
Base height 100mm (4in)



D
NATO 4-hole Rigid GPS
4 x M10 or 3/8" Bolts
on 114mm (4.5in) PCD
Base diameter 140mm (5.5in)
Base height 125mm (5in)

Bases A,B,C & D are also available with optional NATO 6-hole pattern 6 x M6 or 1/4" Bolts on 111mm (4.37in) PCD



E
NATO 50mm Thread
with Spring
Base diameter 74mm (2.9in)
Base height 188mm (7.4in)



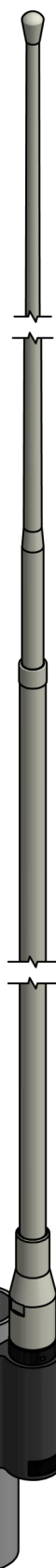
F
NATO 50mm Thread GPS
with Spring
Base diameter 95mm (3.7in)
Base height 230mm (9in)



G
NATO 50mm Thread
Rigid
Base diameter 74mm (2.9in)
Base height 60mm (2.4in)



H
General Purpose
Bulkhead Adaptor
Mounting hole diameter
22mm (0.87in)



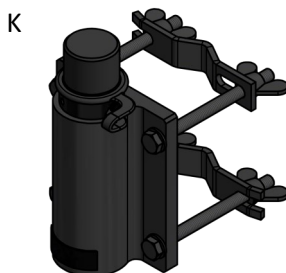
Mast or Pole Mounting Options



I
Mast Mount Bracket
40mm (1.57in) Socket
50mm (1.97in) Socket
Customer Specified



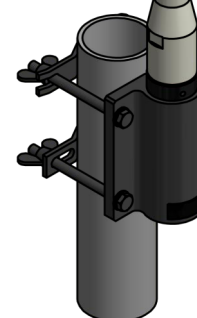
J
Mast Mount Bracket
24mm (0.94in) Spigot
40mm (1.57in) Spigot
50mm (1.97in) Spigot
Customer Specified



K
Mast Mount Bracket
Tube clamp to suit poles
up to 65mm



L
Tube Clamp Adaptor
Clamp area diameter 38mm (1.5in)
Clamp area length 80mm (3.2in)
N-type female bottom connector



VHF30108VM shown in
grey, pole mounted using
mast mount bracket K