

Application

The UHF225450VM/HG is a UHF vehicle antenna designed for use on all modern in-service military platforms, including armoured or soft skin, metal chassis or composite, wheeled or tracked.

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

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

Electrical Specification (Antenna)

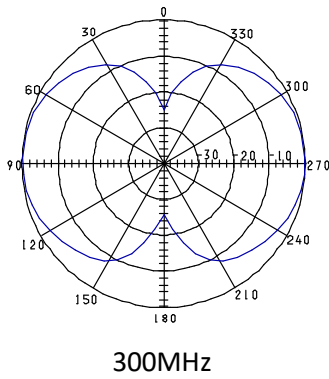
Frequency range	225 - 450 MHz
VSWR	<3:1
Nominal impedance	50 ohm
Power rating	100W
Gain	0.5 ... 2 dBi
Radiation pattern	Azimuth: Omnidirectional Elevation: See diagram
Polarisation	Vertical
Connector	BNC Female, others on request

Mechanical specifications:

Design	Centre fed dipole. Radiating elements completely enclosed in epoxy/fibreglass laminate. Metal parts are plated brass and stainless steel.
Length	Total: 0.87m (34 in) Element: 0.68m (27 in) Base (Option A): 0.22m (8.6 in)
Weight	Whips - 1.1 kg (2.4 lbs) Complete - 2.85 kg (6.3 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.

Radiation Diagram, Elevation



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

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:-



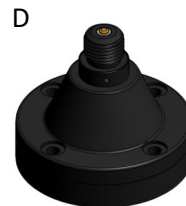
A
NATO 4-hole Spring
4 x M10 or 3/8" Bolts
on 114mm (4.5in) PCD
Base diameter 140mm (5.5in)
Base height 215mm (8.5in)



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 (4.5in) 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 (4.4in) 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)



I
Mast Mount Bracket
40mm (1.57in) Socket
42mm (1.65in) Socket
50mm (1.97in) Socket
55mm (2.16in) Socket
Customer Specified

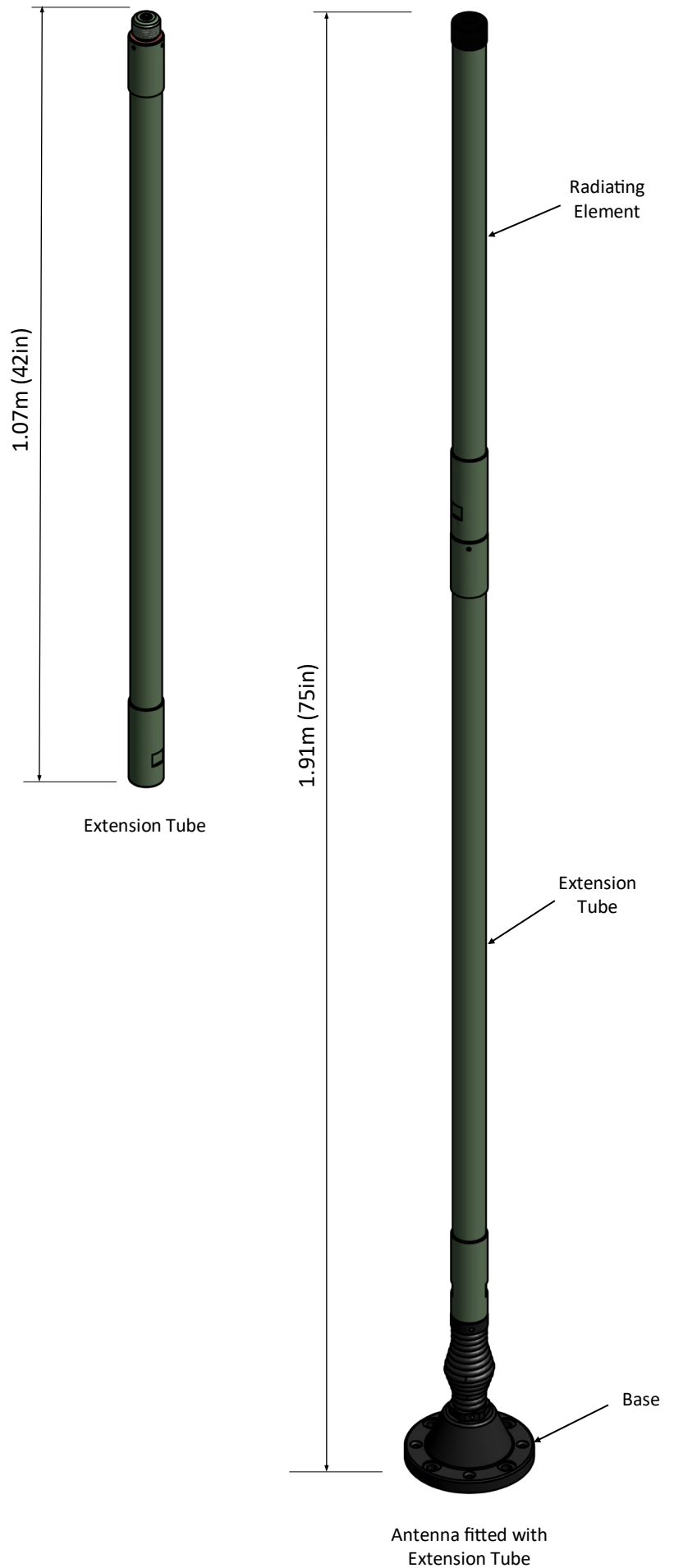


J
Mast Mount Bracket
24mm (0.95in) Spigot
40mm (1.57in) Spigot
50mm (1.97in) Spigot
Customer Specified

Optional Extension Tube

An extension tube is available to raise the height of the radiating element by 1 metre. This can be used if the radiating element on the standard base is too close to any metallic components causing potential radiation pattern distortion.

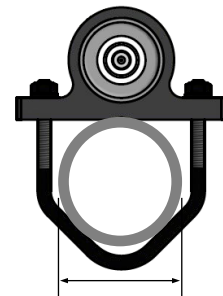
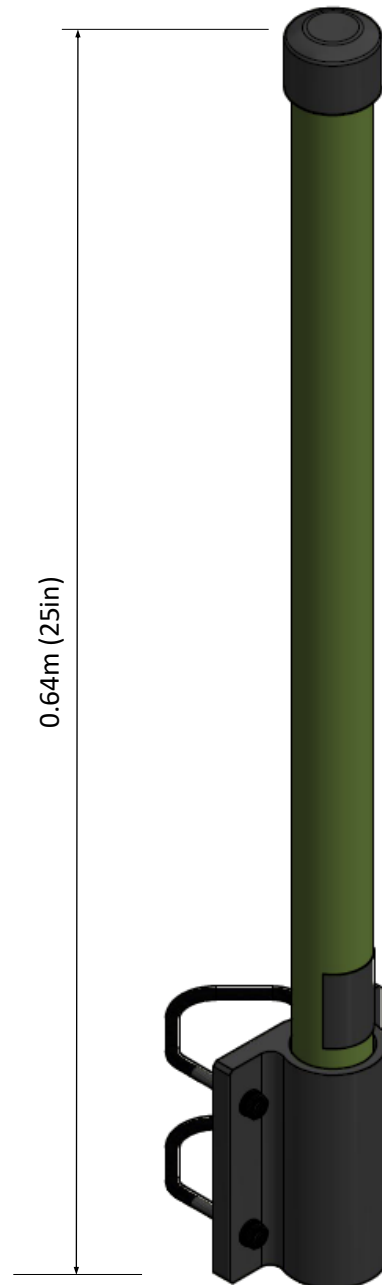
The extension fits in between the top of the base and the bottom of the radiating element. It can be fitted onto all the base options listed.



UHF225450M

A permanent mast mount version is also available. (Part No. UHF225450M)

Supplied with M6 U-bolts to fit pole size \varnothing 33-60 mm



Mounting pole diameter
33-60 mm