

### 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)

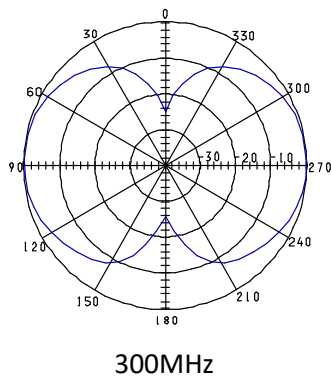
Frequency range	225 - 450 MHz
VSWR	<3:1
Nominal impedance	50 ohm
Power rating	100W
Gain	0.5 ... 2 dBi
Radiation pattern	Azimuth: Omnidirectional Elevation: See diagram
Polarisation	Vertical
Connector	BNC Female, others on request

### 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) <sup>#</sup>	
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	

<sup>#</sup> 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:-



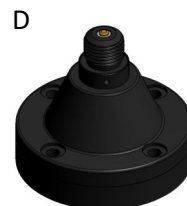
**A**  
NATO 4-hole Spring  
4 x M10 or 3/8" Bolts  
on 114mm (4.5in) PCD  
Base diameter 140mm (5.5in)  
Base height 215mm (8.5in)



**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

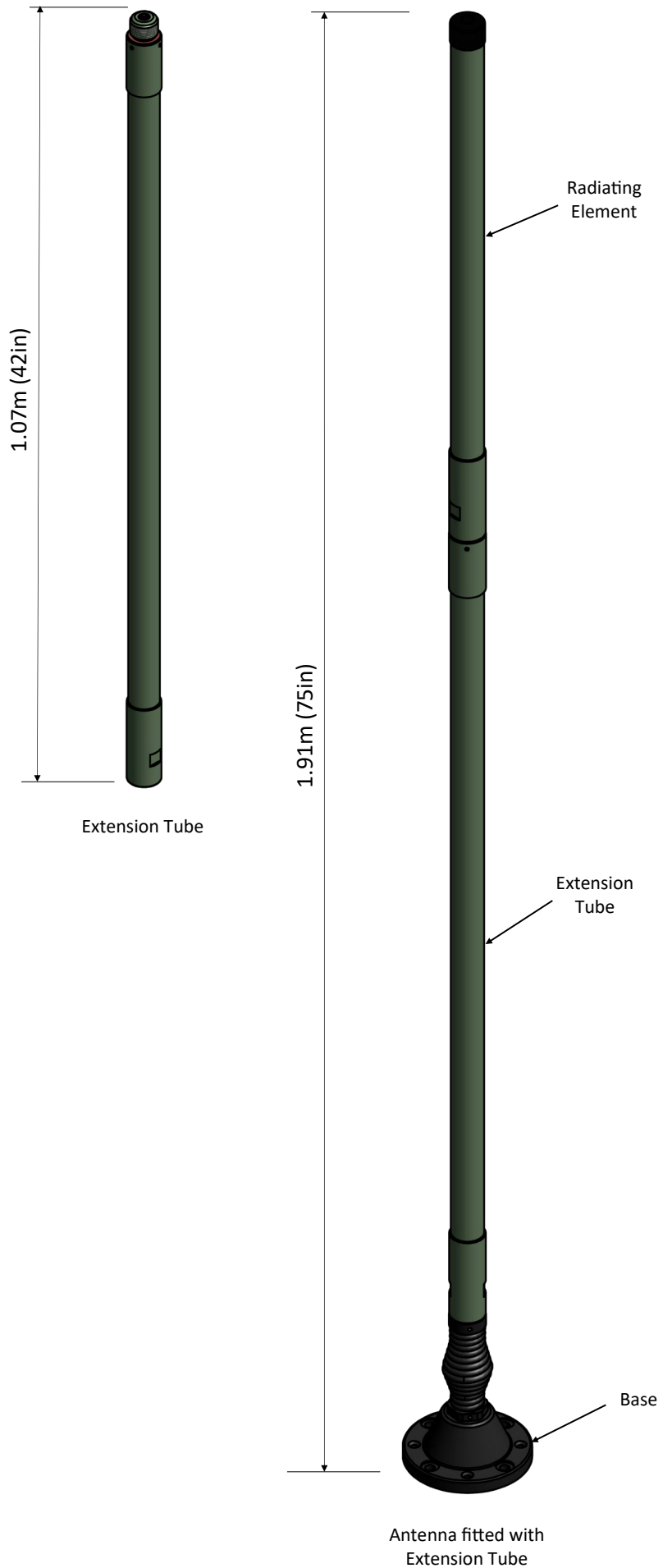


**J**  
Mast Mount Bracket  
24mm (0.95in) Spigot  
40mm (1.57in) Spigot  
50mm (1.97in) Spigot  
Customer Specified

### 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.

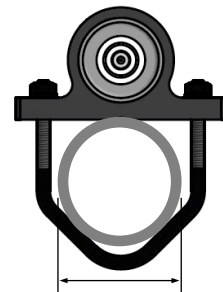
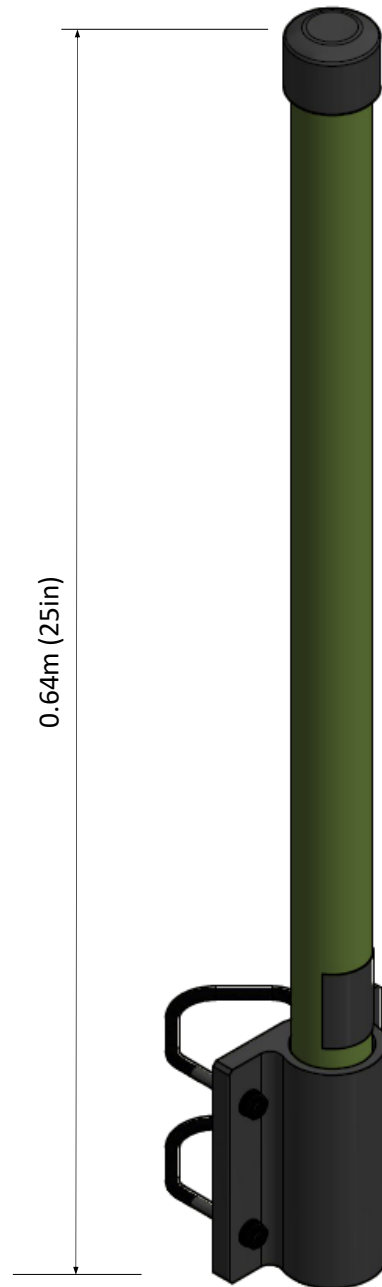
The extension fits in between the top of the base and the bottom of the radiating element. It can be fitted onto all the base options listed.



**UHF225450M**

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

Supplied with U-bolts to fit pole size  $\varnothing$  25-65 mm



Mounting pole diameter  
25-65 mm (1-2.5 in)