

### Application

The VHF30600CEF is an ultra wideband 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 novel design gives it an excellent gain and radiation pattern across the whole frequency range. The antenna needs no adjustment for different frequencies as all the tuning elements are within the whip.

Bases are available to suit different mounting configurations with optional L1 & L1/L2 GPS.

### Electrical Specification (Antenna)

Frequency range	30 - 600 MHz
VSWR	< 3.5, see diagram
Nominal impedance	50 ohm
Power rating	100 W
Gain	see diagram overleaf
Radiation pattern	Azimuth: Omnidirectional
Polarisation	Vertical
Connector	BNC female, others on request
EMP	DC grounded on 50 ohm side (extra EMP protection available as option)

### Mechanical specifications:

Design	Centre fed dipole for UHF. End-fed whip for VHF <sup>1</sup> . Radiating element completely enclosed in epoxy/fibreglass laminate. Metal parts are plated brass and stainless steel.	
Length	Total:	2.65m (104 in)
	Lower whip:	1.14m (45in)
	Upper whip:	1.45m (57in)
	Base:	0.24m (9.5in)
Weight	Total:	3.75kg (8.2lbs)*
	Lower whip:	1.2kg (2.6lbs)
	Upper whip:	0.3kg (0.7lbs)
	Base:	2.25kg (5lbs)*
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 base. Base options specified overleaf.

<sup>1</sup> Ground-plane is required

## Base Options



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



**B**  
NATO 6-hole  
6 x M6 or 1/4" Bolts  
on 111mm (4.37in) PCD  
Base diameter 140mm (5.5in)



**C**  
NATO  
50mm Thread  
Base diameter 95mm (3.74in)



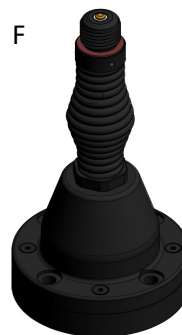
**D**  
Mast Mount Bracket  
Rigid (no spring)  
24mm Spigot  
50mm Spigot  
Customer Specified



**E**  
NATO 4-hole  
Rigid (no spring)  
4 x M10 or 3/8" Bolts  
on 114mm (4.5in) PCD  
Base diameter 140mm (5.5in)

## GPS Electrical Specification

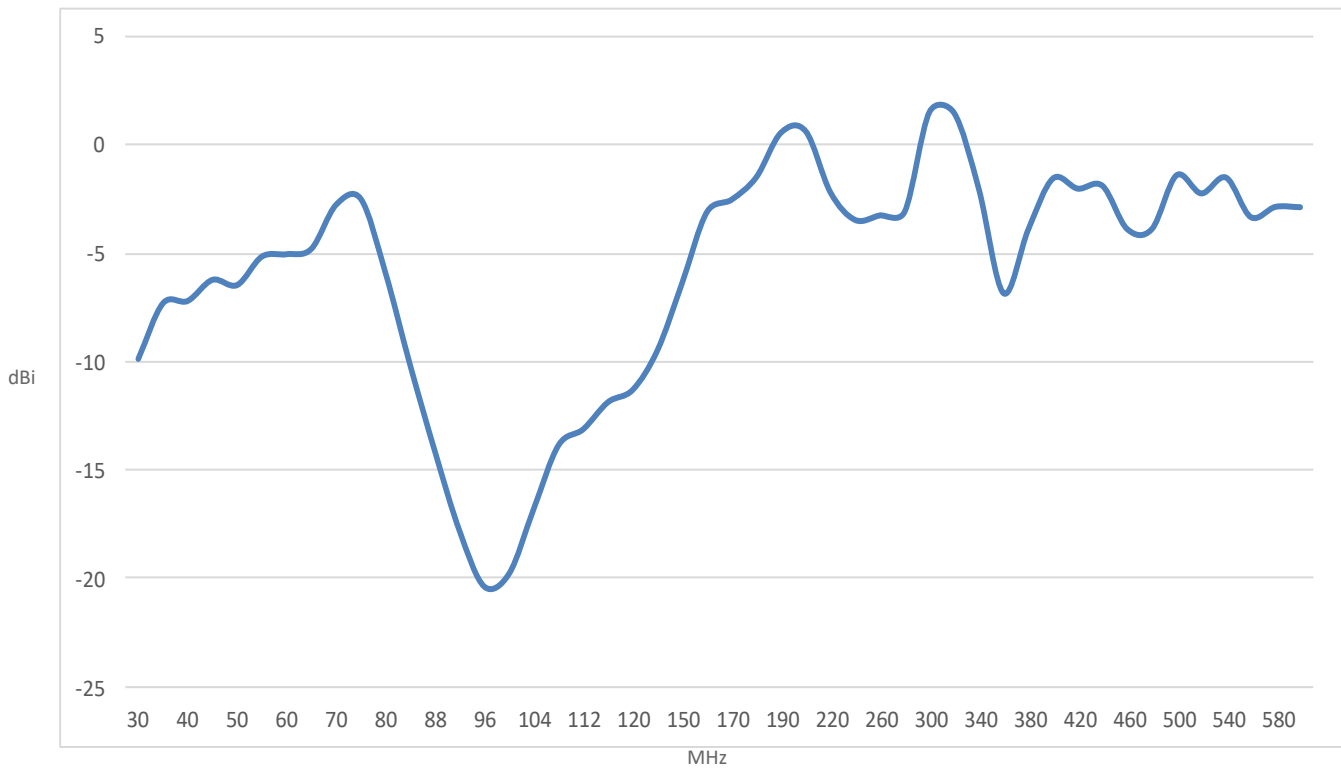
	<b>L1 GPS</b>	<b>L2 GPS</b>
Frequency Band	1575 MHz	1227 MHz
Supply Voltage	2.7-5.5V	2.7-5.5V
Pre-amplifier	25 dB @ 5V	25 dB @ 5V
Noise Figure	2.5dB	2.5dB
Supply Current	< 60mA	< 60mA
Polarisation	RHCP	RHCP
Connector	SMA female	SMA female



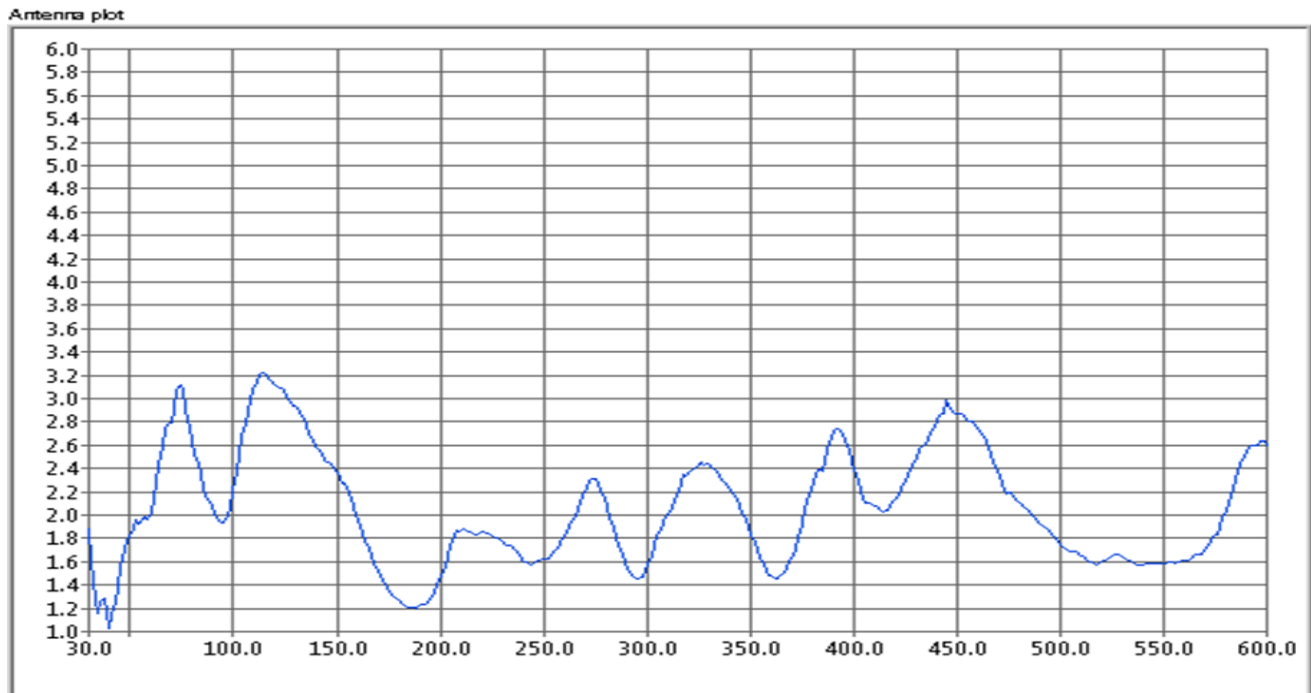
**F**  
NATO 4-hole Spring GPS Base  
L1 & L1/L2 GPS available  
4 x M10 or 3/8" Bolts  
on 114mm (4.5in) PCD  
Base diameter 140mm (5.5in)

## Antenna Options

Product	Description
Whip Bag	Protective carrying bag for upper and lower whip sections.



Antenna installed in the centre of a 3 x 3m ground plane



Typical VSWR Curve  
Antenna installed on the corner of a 3 x 3m ground plane