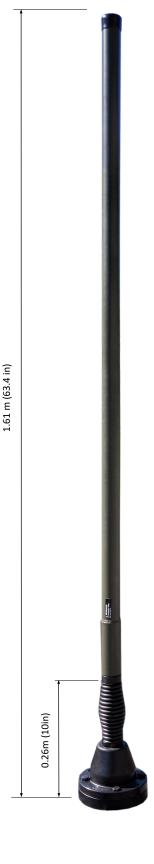


# **VHF302700TB-WBS**

Tri-Band VHF, UHF & L-S Band Antenna, Single RF Port (L1/L2 GPS Option)



### **Features:**

- Unique tri-band design (patented)
- 30-88MHz, 225-450MHz & 700-2700MHz
- Single RF port for VHF/UHF/L-S band
- Designed for operation on all vehicles including armored
- Suitable for operation on shelters, masts or in other permanent installations
- · Rugged high quality antenna with a durable construction
- NATO flange base with spring
- UHF dipole and L-S band antenna elements are located high up in the whip for maximum range
- VHF requires a ground plane
- Optional L1/L2 GPS installed in antenna base

### **Electrical specifications:**

Frequency range	VHF: UHF: L-S band: GPS (option):	30-88 MHz 225-450 MHz 700-2700 MHz L1 - 1575.42 ± 10 MHz L2 - 1227.60 ± 10 MHz
VSWR	VHF: $\leq$ 3.5:1, UHF: $\leq$ 3.0:1, L-S band: $\leq$ 3.0:1	
Nominal impedance	50 Ω	
Power rating	VHF: 50 W, UHF: 50 W, L-S Band: 50 W	
Gain	See graphs overleaf	
Radiation pattern	Omnidirectional within ±2 dB	
Polarization	Vertical	
Connector	VHF/UHF/L-S t GPS (option): S	oand: N female SMA female

### **Mechanical specifications:**

Design	VHF: End feed monopole. UHF: Dipole. L-S band: Dipole elements. Radiating elements completely enclosed in epoxy/fiberglass laminate. Metal parts are brass, aluminum and stainless steel.
Length	1.61 m (63.4 in)
Weight	Whip: 1.2 kg (2.6 lbs) Base: 2.7 kg (5.9 lbs)
Wind rating	55 m/s (123 mph)
Finish	Polyurethane lacquer
Temperature range	-55°C to +71°C, -67°F to +160°F

# center of 1.2 x 1.2m ground plane 5 3 1 -1 -3 -5 -7 -9 -11 -13 -15

VHF302700TB-WBS

VHF gain, dBi, in the center of  $1.2 \times 1.2 \text{m}$  (4 x 4 ft) ground plane. Gain will improve significantly on a 3 x 3m (10ft x 10ft) ground-plane

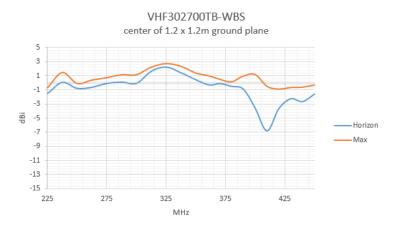
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80

30

40

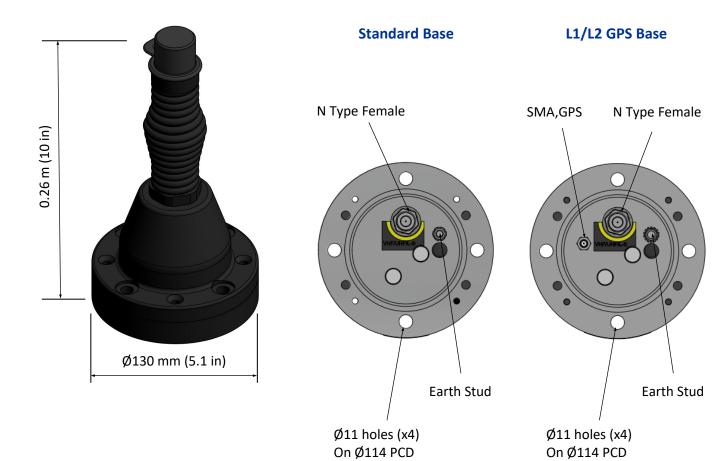
50



UHF gain, dBi



L-S band gain, dBi



## **GPS Electrical Specification**

	L1 GPS	L1/L2 GPS
Frequency Band	1575.42 ± 10 MHz	1227.60 ± 10 MHz 1575.42 ± 10 MHz
Supply Voltage	2.7-5.5 V	2.7-5.5 V
Pre-amplifier	25 dB @ 5 V	26.5 dB @ 5 V
Noise Figure	2.5 dB	2.5 dB
Supply Current	< 20 mA	< 42 mA
Polarization	RHCP	RHCP
Connector	SMA female	SMA female