### VHF302700TB-WBS

VHF/UHF/L-S Band vehicle whip, tri-band, monopole/dipole/dipole, 1.64 m, 30-88 MHz, 225-450 MHz, 700-2700 MHz

Tactical Antennas: Vehicle Mount



### **Features**

- Unique tri-band design (patented)
- 30-88 MHz, 225-450 MHz & 700-2700 MHz
- Single RF port for VHF/UHF/L-S band
- Designed for operation on all vehicles including armoured
- 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: 30-88 MHz   |  |
|-------------------|--|--|
|                   | UHF: 225-450 MHz   |  |
|                   | L-S band: 700-2700 MHz                                       |  |
|                   | GPS (option): L1 - 1575.42 ± 10 MHz<br>L2 - 1227.60 ± 10 MHz |  |
| VSWR              | VHF: ≤ 3.5:1, UHF: ≤ 3.0:1, L-S band: ≤ 3.0:1                |  |
| Nominal Impedance | 50 ohm   |  |
| Power Rating      | VHF: 50 W, UHF: 50 W, L-S Band: 50 W                         |  |
| Gain              | See graphs overleaf  |  |
| Radiation Pattern | Omnidirectional within ±2 dB                                 |  |
| Polarisation      | Vertical   |  |
| Connector         | VHF/UHF/L-S band: N female                                   |  |
|                   | GPS (option): SMA female                                     |  |

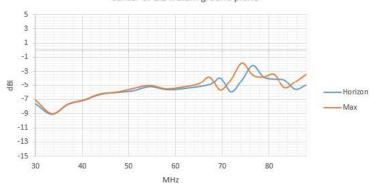
### **Mechanical Specifications**

| Design            | VHF: End feed monopole. UHF: Dipole. L-S band: Dipole elements. Radiating elements completely enclosed in epoxy/fibreglass laminate. Metal parts are brass, aluminium and stainless steel. |  |
|-------------------|--|--|
| Length            | 1.61 m   |  |
| Weight            | Whip: 1.2 kg   |  |
|                   | Base: 2.7 kg   |  |
| Wind Rating       | 55 m/s (201 kph)   |  |
| Finish            | Polyurethane lacquer   |  |
| Temperature Range | - 55°C to + 71°C   |  |

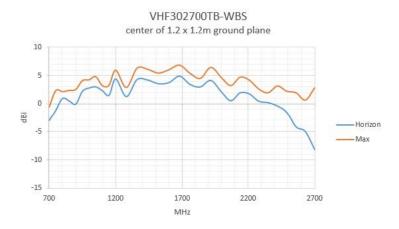




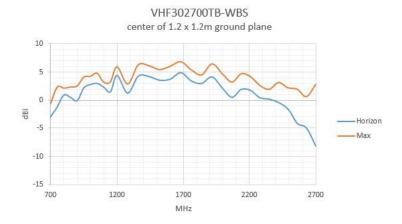
## VHF302700TB-WBS center of 1.2 x 1.2m ground plane



VHF gain, dBi, in the centre of 1.2 x 1.2m (4 x 4 ft) ground plane. Gain will improve significantly on a 3 x 3m (10ft x 10ft) ground-plane



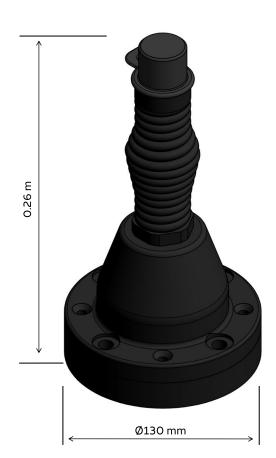
UHF gain, dBi



L-S band gain, dBi

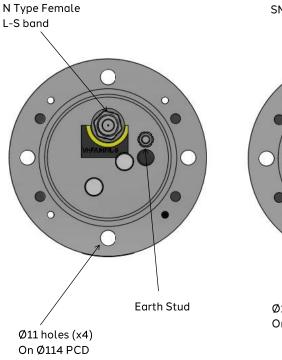


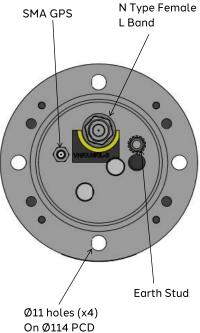
#### **NATO 4-Hole Base**



### **Standard Base**

# L1/L2 GPS Base





### **GPS Electrical Specifications**

|                | L1 GPS           | L1/L2 GPS                            |
|----------------|------------------|--------------------------------------|
| Frequency Band | 1575.42 ± 10 MHz | 1227.60 ± 10 MHz<br>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                              |
| Polarisation   | RHCP             | RHCP                                 |
| Connector      | SNA female       | SMA female                           |



