

### Application

The VHF3088T is an affordable high-gain low-profile antenna for use on vehicles. The antenna has an equivalent performance to a 3.5 m whip although less than a third of the height.

The antenna has been designed to resolve all the problems associated with long whips on vehicles such as breakages, interference with high voltage lines or the need to be tied down when travelling at speed.

The antenna is a direct replacement for existing VHF whip antennas and uses the same NATO base support.

The very high performance of the antenna over the complete 30 to 88 MHz range is obtained through the use of low loss PIN diode switching of a low-loss radiating system. An excellent VSWR is assured through the use of a digitally controlled automatic control circuit.

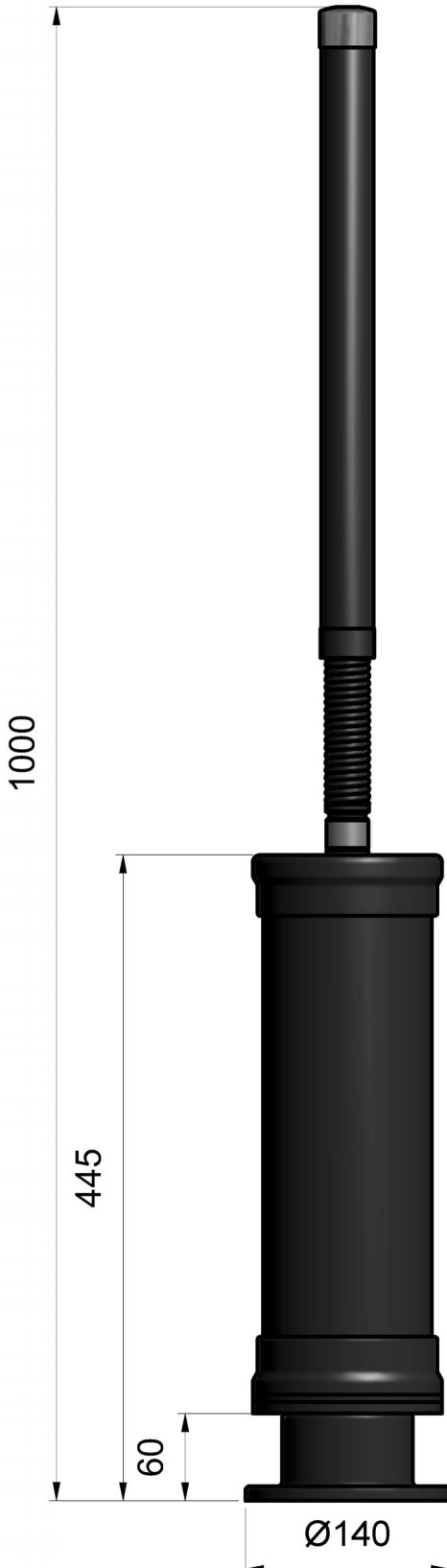
The antenna tuning time is less than 60  $\mu$ s and so can be used with all modern tactical VHF radios.

### Electrical Specifications:

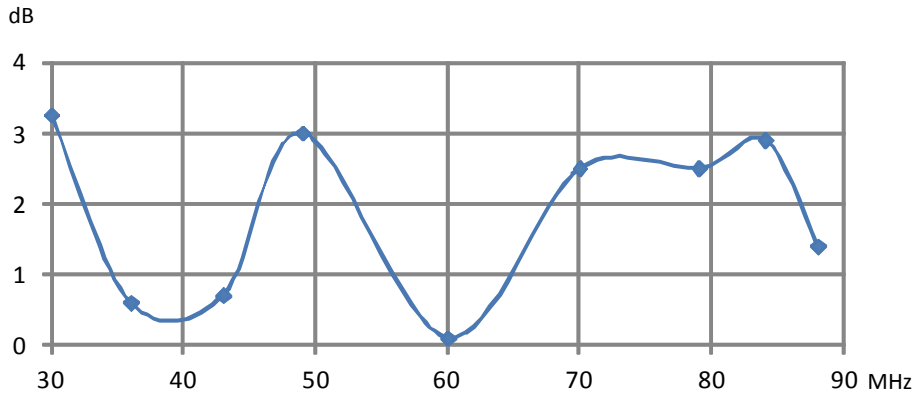
Frequency range	30-88MHz
VSWR	< 2.5:1 on tuned frequency
Nominal impedance	50 ohm
Power rating	75 W CW
Gain	See diagram
Instantaneous bandwidth	> 300 KHz
Radiation pattern	Azimuth: Omnidirectional Elevation: As per a 1/4 wave whip
Polarization	Vertical when vertically installed
Power supply	Average 5W @ 24V DC
Connector	RF: BNC female Control: See diagram

### Mechanical Specifications:

Design	Low loss PIN diode tuned element with passive radiator
Length	1 m
Weight	3.8 kg
Wind rating	55 m/s = 125 mph
Finish	Polyurethane lacquer, black drab. Black base. Other colours on request
Temperature range	-55 °C, +71°C; -67 °F, +160 °F



**Gain Curve:**



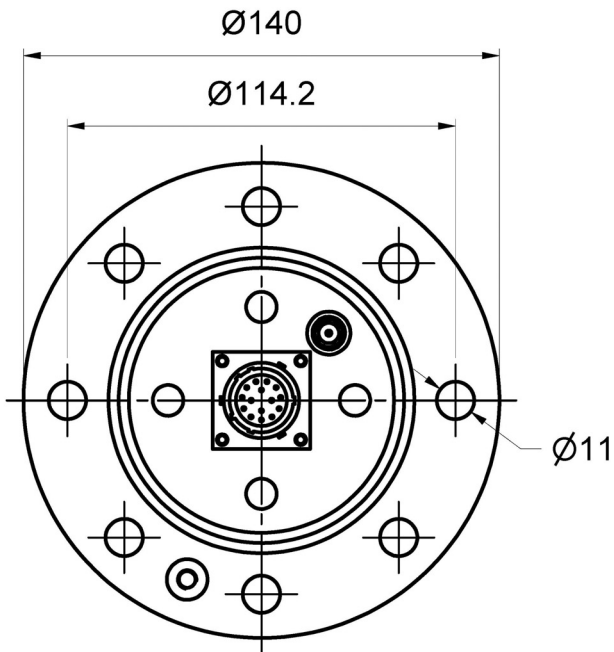
(relative gain compared to a Comrod 3.4 metre centre-fed antenna)

**Interface description:**

The antenna is extremely efficient because it is a narrow-band high-Q antenna. The required frequency information to tune the antenna is obtained in digital format from the radio.

The standard antenna interfaces directly to any tactical radio having a SNAP output such as all US Army SINCGARS compatible radios.

For radios which do not have a SNAP output, Comrod can adapt the antenna to the required digital format.



RF Connector: BNC Female  
Data Connector: PT02A-14-15P

