# HE-238 Series Helical Antennas

The HE-238 series antennas are a family of high power, wide band, helical antennas that operate in the 1.2 to 1.8 GHz range. These heavy-duty antennas will provide years of reliable in either military or commercial applications.

Antennas orders come with pole-mounting A motorized dual-mount, which will hardware. house up to two HE-238 antennas, is also available. The dual-mount is available in manual and motorized modes. The motorized mount will allow users to reposition the antenna (along azimuth and elevation planes) remotely for remote applications.

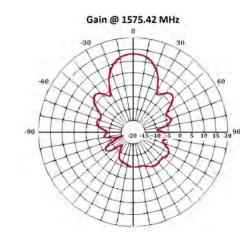
service

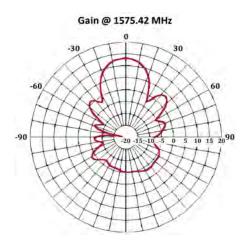
These antennas will provide years of trouble-free service in extreme environments and are currently in use by several U.S. Military installations in remote locations.

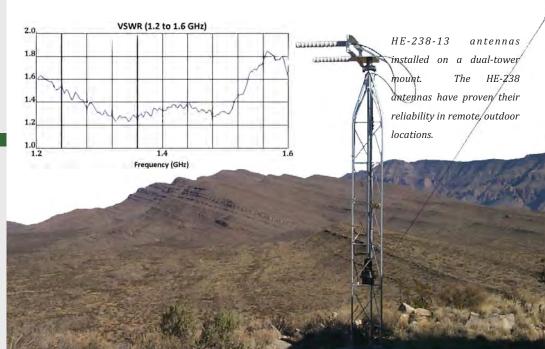
## FEATURES

- Ideal for GPS applications
- Ideal for GSM mobile phone applications
- RHCP and LHCP models available
- Sealed in rugged radome for years of outdoor use
- Lightweight
- Durable
- Suitable for high-power applications
- Adjustable dual mount available

## PERFORMANCE







#### **HE-238-8 SPECIFICATIONS** FREQUENCY 1.2 to 1.8 GHz GAIN 10.5 dB POLARIZATION RHCP HPBW 40° MAX. POWER 500 W MAX. VSWR 2:1 max. CONNECTOR Type N (female)

HE-238-11 SPECIFICATIONS			
FREQUENCY	1.2 to 1.8 GHz		
GAIN	11.5 dB		
POLARIZATION	RHCP		
HPBW	35°		
MAX. POWER	500 W		
MAX. VSWR	2:1 max.		
CONNECTOR	Type N (female)		

HE-238-13 SPECIFICATIONS			
FREQUENCY	1.2 to 1.8 GHz		
GAIN	13 dB		
POLARIZATION	RHCP		
HPBW	30°		
MAX. POWER	500 W		
MAX. VSWR	2:1 max.		
CONNECTOR	Type N (female)		
DIMENSIONS	30"(l) x 12"(w)		
WEIGHT	2 lbs		

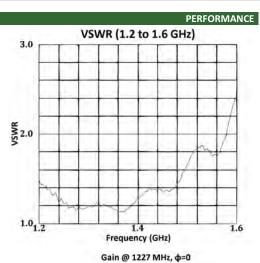
## MOTORIZED DUAL MOUN

AZIMUTH	360°
ELEVATION	-15° to +15°



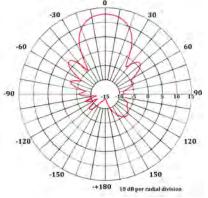
**Directional Antennas ANTENNAS** 

# HE-238-165-HH Direction Finding Antenna



The HE-0238-165-HH is a handheld directionfinding antenna. Used by multiple government entities, this antenna is constructed entirely out of aircraft certified 6061-T6 aluminum and G-10 fiberglass within a 100% sealed radome that will provide many years of quality and reliable service in the field. Previous models have achieved a 2:1 VSWR across the band. Antennas come packaged with shoulder straps and a mounted magnetic compass.

### Gain @ 1227 MHz, ф=90



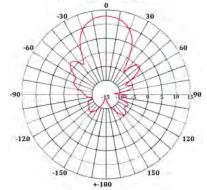
Gain @ 1575 MHz, ф=90

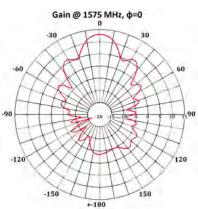


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SPECIFICATIONS		
REQUENCY	1.2 to 1.6 GHz	
GAIN	15 dBi (@ F <sub>0</sub> )	
OLARIZATION	RHCP	
IPBW	27° (@ F <sub>0</sub> )	
AX. POWER	Receive only	
/AX. VSWR	2:1 max.	
CONNECTOR	Type-N (female)	
DIMENSIONS	7" x 35"	
VEIGHT	5.25 lbs	







-150

-90

-120

The HE-500-10 is a high-power right-hand circularly polarized (RHCP) communications antenna. The goal in designing this device was to produce an antenna that would be electrically superior and extremely rugged.

-+180 10 dB per

120

150

These antennas are custom matched from 584 to 876 MHz to achieve a 1.5: 1 VSWR across the band. The final design is a high quality product that will provide years of performance in any environment. Mounting hardware is provided with the HE-500-10 to securely fasten the antenna to a 2" diameter pipe.

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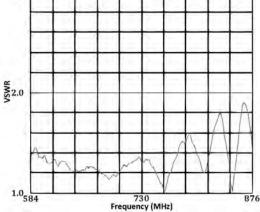
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FREQUENCY	584 to 876 MHz	Ś
GAIN	12 dB	
POLARIZATION	RHCP	
HPBW	35°x35°	
MAX. POWER	500 Watts CW	
MAX. VSWR	1.8:1	
CONNECTOR	Type-N	
DIMENSIONS	12"w x 39"l	
WEIGHT	15 lbs.	

ANTENNAS Directional Antennas

TMC Design Corporation





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SPE	
FREQUENCY	5.0 to 6.0 GHz
GAIN	11.75 dBiC (F <sub>0</sub> )
POLARIZA- TION	RHCP
HPBW	35° x 35° (f <sub>0</sub> )
MAX. POWER	200 W, CW
MAX. VSWR	1.8:1 max.
CONNECTOR	Type N (female)

5.0"(l) x 4.0"(dia.)

0.5 lbs

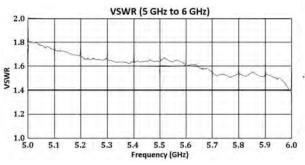
DIMENSIONS

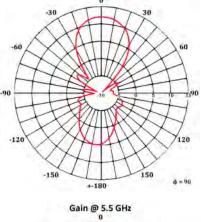
WEIGHT

## HE-580-10 Small Helical Antenna

The HE-0580-10 is a high-power, right-hand circular-polarized (RHCP) heavy duty small antenna that can suit both commercial and military applications. The antenna is constructed entirely of aircraft certified 6061-T6 aluminum and G-10 fiberglass with a copper radiator which is all enclosed in a sealed radome. This will ensure the antenna provides many years of quality service. In addition, these antennas are manually matched to achieve a low 2:1 VSWR across the 5.0 to 6.0 GHz band.

- Made for high-frequency operation
- Very small physical footprint





Gain @ 5.5 GHz

PERFORMANCE

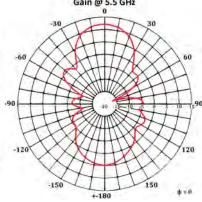
PERFORMANC

3.0

SWR

1.0 230

FEATURES



VSWR (230 to 360 MHz)

295

+-180

Frequency (MHz)

360

90

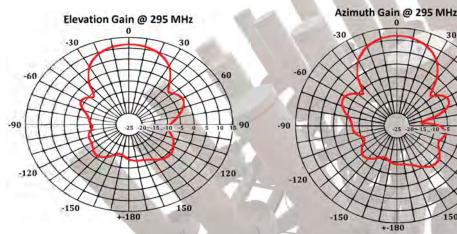
150

# HE-1000 Series Helical Antennas

The HE-1000 series antennas are high-power, wide band, severe-duty antennas that can serve in both military and commercial applications. The antennas are constructed entirely of aircraft certified 6061-T6 aluminum with copper radiators all enclosed in 100% sealed radomes.

Multiple HE-1000 antennas have previously been used in arrays to increase beamwidth without sacrificing directivity.

The HE-1000 models are currently in use by several U.S. military installations in remote locations due to the years of proven, trouble-free service that these antennas can provide.



FREQUENCY	225 to 400 MHz	
GAIN	10 dB	
POLARIZATION	LHCP or RHCP	
HPBW	45°	
MAX. POWER	1000 W	
MAX. VSWR	1.9:1 max	
CONNECTOR	N, HN or LC	
DIMENSIONS	50" x 28"	
WEIGHT	43 lbs	
HE-1000-10 SPECIFICATIONS		
	230 to 360 MHz	

HE-1000-EC SPECIFICATIONS

HE-1000-10 2	PECIFICATIONS
FREQUENCY	230 to 360 MHz
GAIN	10 dB
POLARIZATION	RHCP
HPBW	45°
MAX. POWER	1000 W
MAX. VSWR	1.5:1 max
CONNECTOR	N, HN or LC
DIMENSIONS	52.68" x 30.00"
WEIGHT	45 lbs

2010 Antenna Catalog

TMC Design Corporation