# DUALMAX-HELICAL/UHF

## Helical element with UHF antenna combo

### Description

The DUALMAX-HELICAL/UHF is a high performance multi-band antenna that combines proprietary Maxtena quadrifilar Helicore® technology with a monopole-type antenna in a single form factor.

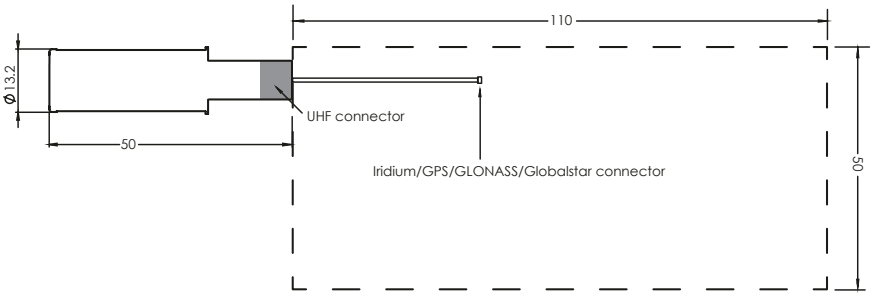
The DUALMAX-HELICAL/UHF combines two antennas with a custom cable and connector. The helical element can be tuned for the GPS/GLONASS band, Iridium network or Globalstar network. The helical element is integrated with a monopole-type UHF antenna providing a frequency range between 300 MHz and 800 MHz.

The antenna can be encased in a protective radome and measures 50 mm in length by 13.2 mm in diameter from the top to the base. The interface is a standard U.FL connector and is also available as a SMA, TNC, or other. The cable length and thickness can be customized.

This multi-band antenna combo is the ideal solution for applications requiring simultanous access to different satellite systems for emergency communication; two examples are Iridium and COSPAS-SARSAT or Globalstar and COSPAS-SARSAT.

### Mechanical Specifications

dimensions are in mm




### Electrical Specifications

Typical helical/UHF performance

| Parameter | Design Specifications | |
|---|---|---|
| Frequency | 1500 - 1700 MHz | 300 - 800 MHz |
| Polarization | RHCP or LHCP | Linear |
| Antenna element peak gain | 2.5 dBic | 0 dB |
| Efficiency | 60% | 60% |
| Bandwidth (-1dB) | 20 MHz | 8% fractional bandwidth |
| Axial Ratio | 0.2 dB (typical)/0.5 dB (max) | N/A |
| VSWR | 1.5 (max) | 1.5 (max) |
| Impedance | 50 Ohm | 50 Ohm |
| Operating temp. | from -40˚C to 85˚C | from -40˚C to 85˚C |

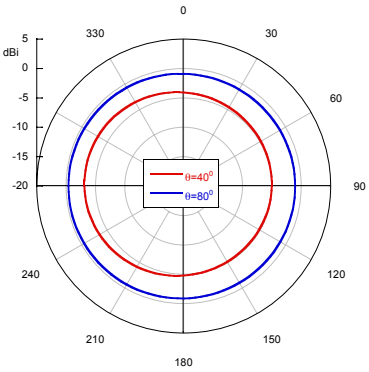
*measured on a 110 x 50 mm right edge installed vertical ground plane

### Applications

- Emergency Position Indicating Radio Beacons (EPIRB)
- Personal Locator Beacons (PLB)
- Aviation Distress Beacons (ELT)
- Military Radio
- Handheld Navigation

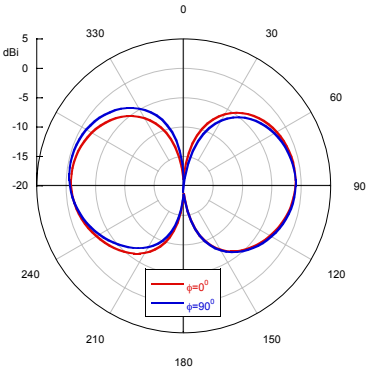
### Realized gain (Azimuth*)

Typical VHF band



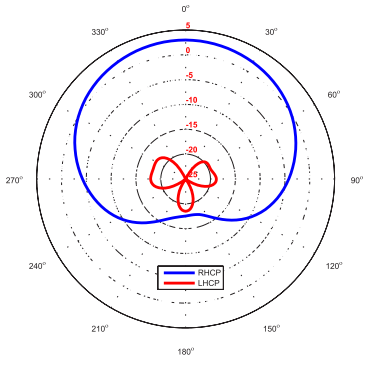

### Realized gain (Elevation*)

Typical VHF band




### Realized gain (Elevation)

Helical element pattern





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