








TriStar V/UHF-DF Antenna, 20-3000 MHz

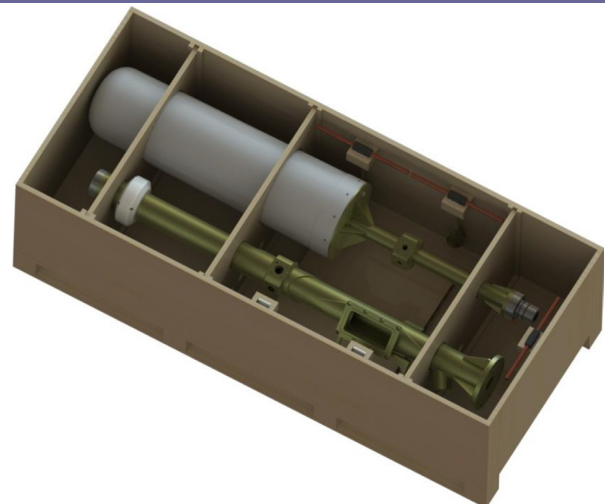
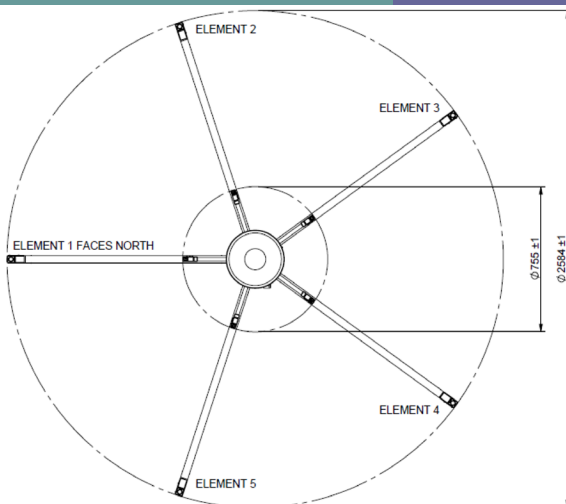
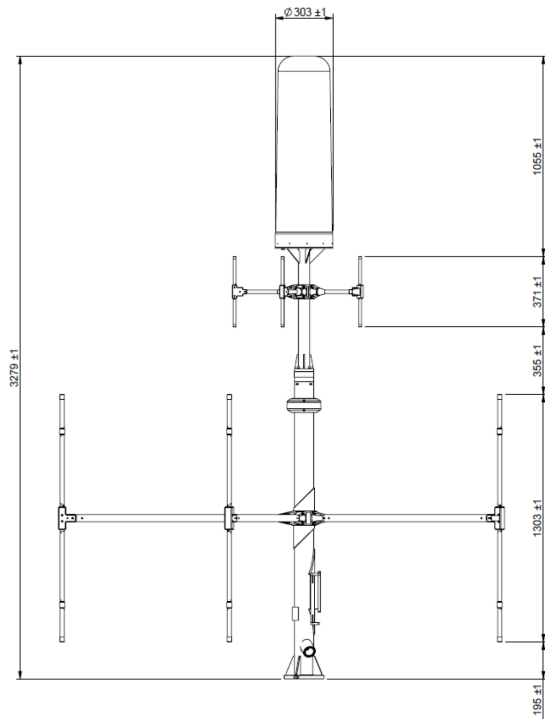
Full-size Direction Finding and Geolocation

Attached to a teamSENTINEL V/UHF DF-enabled sensor, the Espy TriStar V/UHF-DF antenna can be configured to support both Angle of Arrival direction finding (AoA DF) from 30MHz up to 3 GHz, as well as, Theater Net-centric Geolocation (TNG) of received signals from 20 MHz up to 6 GHz.

The full size elements on each band gives excellent DF performance and sensitivity. Ultimate angular resolution for strong signals is better than 2° for most of the frequency range. Dipole elements provide good cross-polarisation rejection and good performance for signals arriving from up to 15° above or below the horizon.

Designed for tower mounting. Elements are removable for easy maintenance and sparing.

-  **AoA DF coverage from 20 to 3,000 MHz**
-  **Monitoring and TNG from 20 to 6,000 MHz**
-  **Multiple simultaneous receivers tune seamlessly across antenna bands**
-  **Full-size, full-band teamSENTINEL DF correlative interferometer**
-  **Dedicated wideband omni capability**



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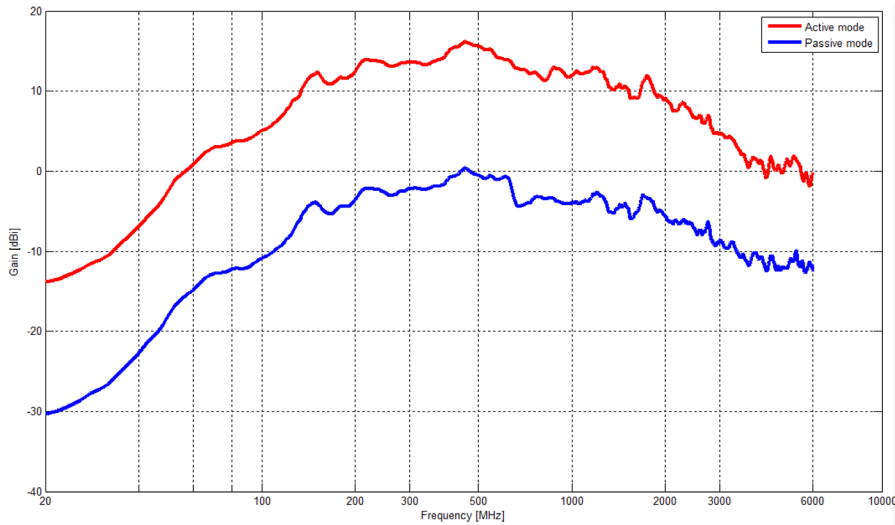


The Espy Corporation

"Helping discover the way"



TriStar V/UHF-DF Antenna, 20-3000 MHz



SYSTEM SPECIFICATIONS

ELECTRICAL

Frequency Range (MHz)	20-6,000 Monitoring 20-3,000 DF
Feed Power Handling	0.5 W (receive only)
Polarization	Vertical
Nominal Input Impedance	50 Ω

DF

DF type	Correlative interferometer
Frequency Bands (MHz)	A: 20-300 B: 300-1000 C: 1000-3000
DF accuracy in azimuth (RMS)	A: 2° B: 2° C: 2°

MONITORING

Frequency bands (MHz)	20-6000
Monitoring antennas	Combined Monopoles

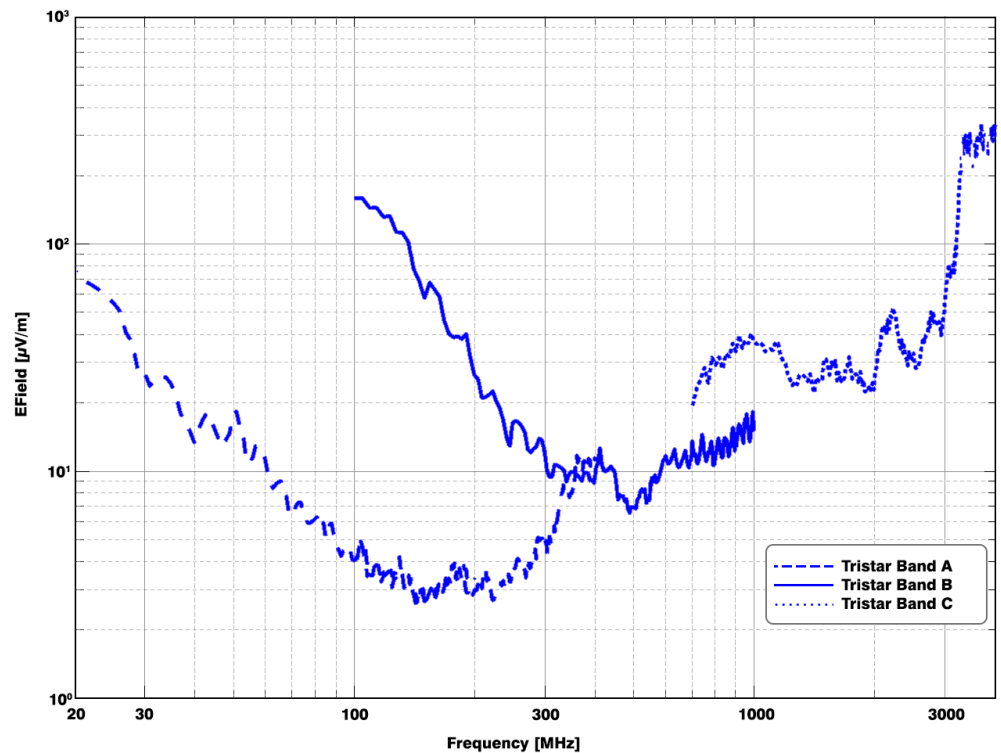
The teamSENTINEL TriStar antenna system provides full-size DF elements to increase sensitivity and DF RMS performance. The integrated active monitoring antenna provides excellent coverage for the full DF and monitoring range. Its small cross-sectional wind area provides increased wind speed tolerance. Antenna shafts and elements are removable for easy servicing and compact shipping.

MECHANICAL SPECIFICATIONS

Weight	121.25 lbs (55 kg)
Shipping Weight	298 lbs (135 kg)
Shipping Dimensions	1.55 m x 0.9 m x 0.6 m
Height Assembled	11.15 ft (3.4 m)
Diameter (Max)	8.7 ft (2.7 m)
Wind Loading	4.265 ft ² (1.3 m ²)
MAX Wind Speed	100 mph (160 km/h) (without ice)
Operating Temperatures	-86° to 158° F (-123° to 70° C)
Operating Humidity	95%

DF Sensitivity for Tristar

E-Field required for 2° RMS accuracy with NF = 9dB and BW = 25kHz



Each antenna is factory calibrated by Espy to support both AoA DF and TNG. Additional site calibration is required for optimal TNG operations.

PRELIMINARY DATA SHEET

SUBJECT TO CHANGE WITHOUT NOTICE



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