



SPECIFICATIONS

Frequency Range

20-3000 MHz in one band

Array Element Types

Nine fans (DF)

One bicone (Monitor/DF)

Directivity

2-9 dBi (Fan DF Element)

RF Switch

High dynamic range solid-state switch with broad-band RF preamp. Includes test and DF Cal circuits.

Outputs

Two (DF sample, monitor/DF ref)
50 ohm, Type N connectors

Inputs

Power & control, MIL-C-38999 connector

Sensitivity

20 MHz -4 dB μ V/m
100 MHz -15 dB μ V/m
500 MHz -18 dB μ V/m
1 GHz -15 dB μ V/m
2 GHz -8 dB μ V/m
3 GHz -5 dB μ Vm

Dimensions

0.4 m high x 0.8 m diameter

Weight

18 kg

Environmental

Operating Temp:

-25° to +50° C ambient

Storage Temp:

-40° to +60° ambient

The TCI **Model 645 VHF/UHF Antenna** is designed for applications, requiring a compact, accurate, multi-element, direction finding (DF) antenna, combined with a sensitive omni-directional monitoring antenna. The 645 provides broadband operation from 20 to 3000 MHz for both DF and signal monitoring, when used in TCI's Spectrum Monitoring System (SMS) or COMINT DF. Typical DF accuracy is 2° rms. The 645 Antenna supports calibrated signal amplitude measurements over the full frequency range. The 645 includes built-in test equipment (BITE) for automatic testing and verification of the operational status of the antenna.

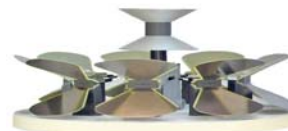
The 645 Antenna features a nine-element directional DF array, plus a single omni-directional monitoring antenna. The DF array in the 645 consists of nine vertically-polarized fan elements that are housed in a plastic radome. The radome also includes a broad-band biconical monitoring antenna and a broad-band RF switch. In SMS or DF systems, the RF switch commutates signals from the DF elements to an external multi-channel DF/Monitoring receiver and generates test signals for DF calibration and automatic system self-test.

FEATURES

- 20–3000 MHz broadband antenna for DF, monitoring, and metrics
- Rugged, lightweight construction for easy installation and long life
- Ideal for transportable, mobile, covert and portable applications
- Smaller size alternative to the classic TCI 641 Antenna*
- Unique design provides optimum balance between compact size and good sensitivity over wide frequency range
- Includes built-in test and calibration unit, as well as magnetic flux gate compass



645 in Thule case



front view



DF spectrum processor



645 in radome