



HF-SA-17

High Frequency
Spiral Antennas



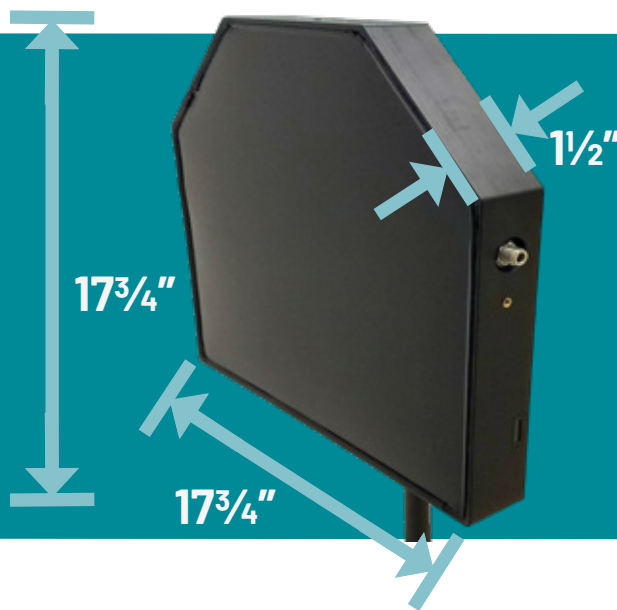
Compact MIL-STD Compliant Antennas

Scientific Applications & Research Associates

SUMMARY

The HF-SA-17 is a compact flat spiral antenna which provides a low profile and wide bandwidth across the full MIL-STD-188-125-1/2 frequency band of 10 kHz-1 GHz.

The antenna is a passive receive or transmit antenna designed for limited space testing applications in shielding measurements, EMI testing, and coupling measurements. The maximum power of the antenna is 100 watts. The antenna is provided in an encapsulated package to provide environmental protection. The antenna is constructed and individually assembled, tested during and after construction, and is provided with a calibration as a function of frequency. The "N" type RF connector is recessed in the outside edge of the package to provide access and protection for the cable and connector. Recessed 1/4-20 inserts are provided on two sides for mounting to small footprint, monopod, magnetic base antenna stands (which are sold separately).

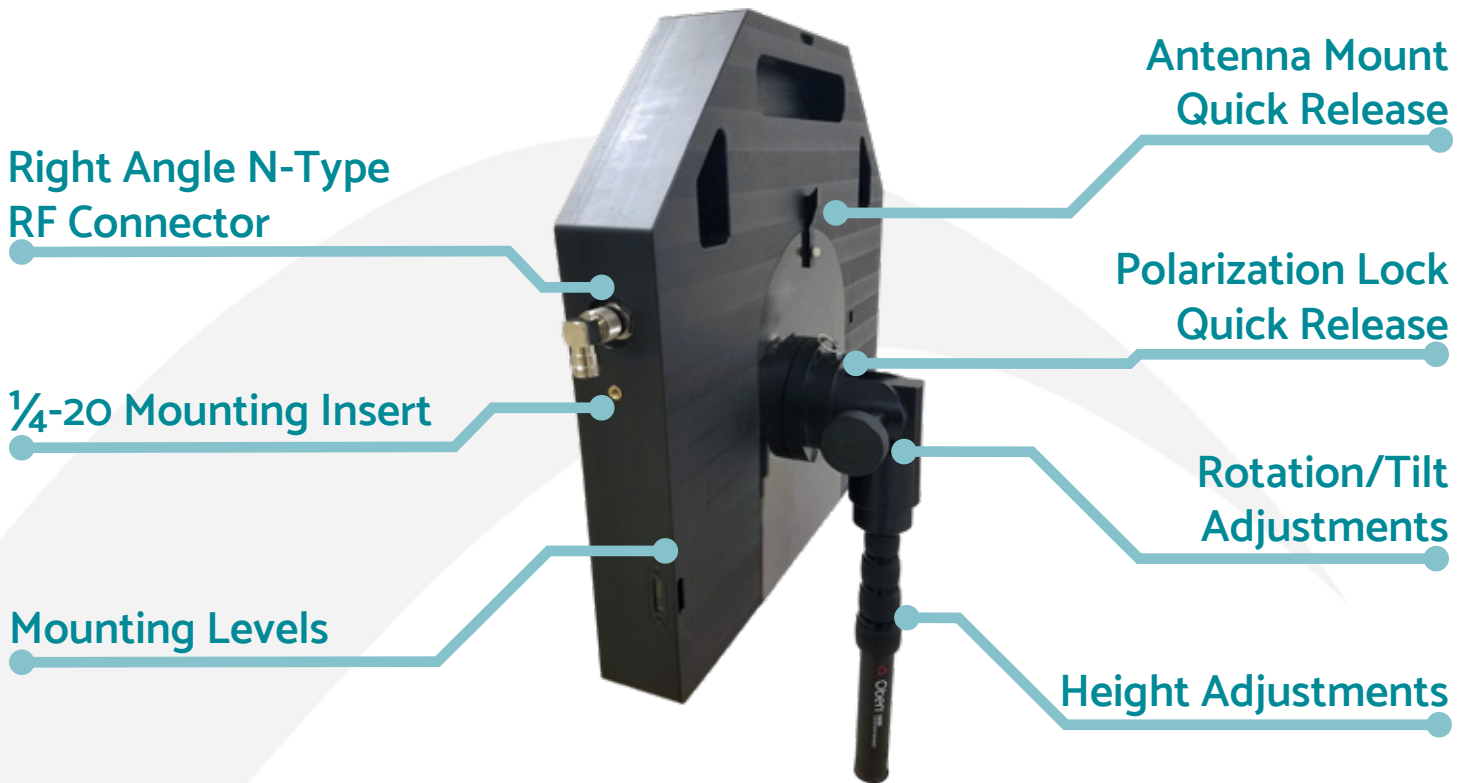


ANTENNA PACKAGE PHYSICAL PARAMETERS

HF-SA-17 Physical Parameters	
Dimensions:	• 17 3/4" x 17 3/4" x 2 3/4"
Weight:	• ~15 lbs.
Connections:	• 1 Female N-Type SMA Connector
Mounting:	• 1/4-20 Threads (2)

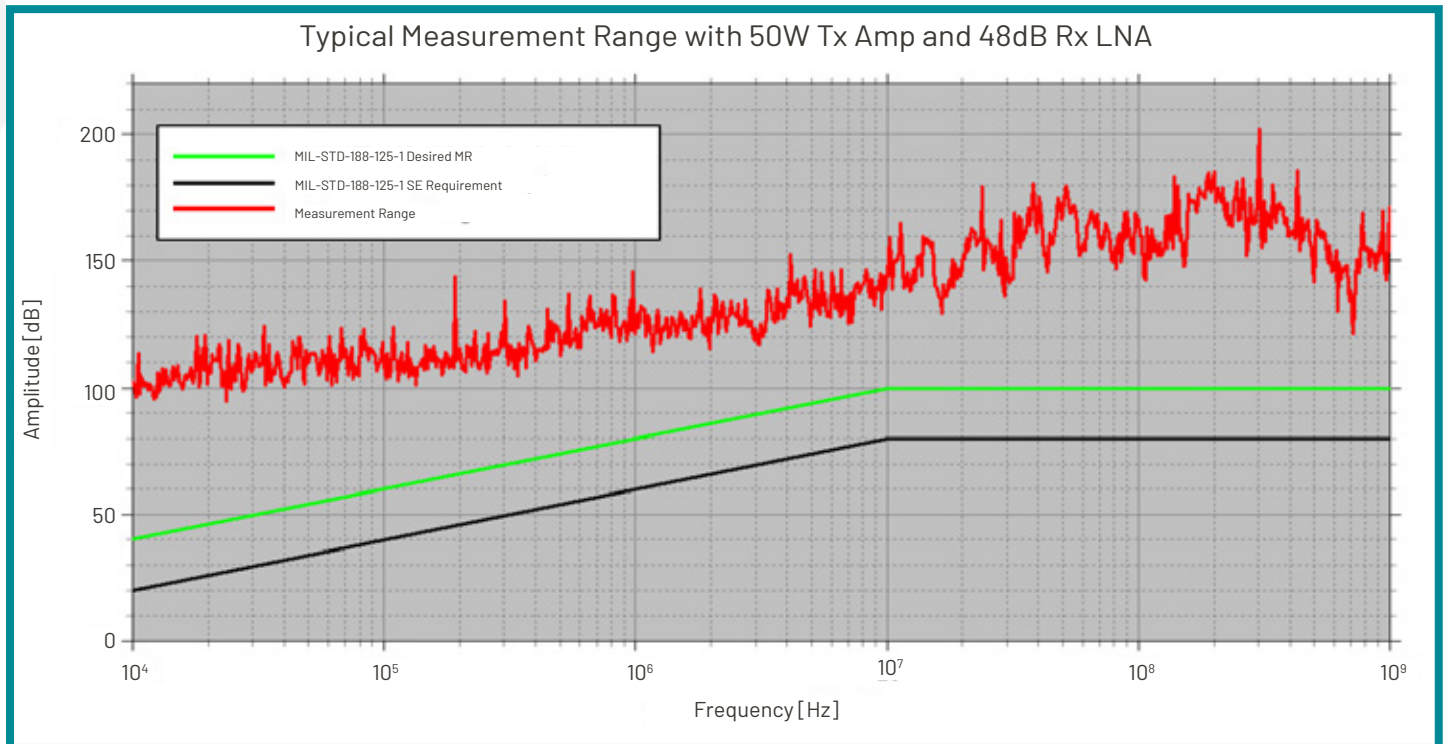
ANTENNA PURCHASE INCLUDES:

- 1.) One HF-SA-17 Antenna
- 2.) Antenna Calibration Data
- 3.) Limited Warranty
- 4.) Installation Recommendations



MIL-STD-188-125-1 MEASUREMENT RANGE

The following figure shows the measurement range (taken in accordance with the MIL-STD-188-125 Appendix A requirement) conducted with the SARA's PAATS System and the HF-SA-17 antenna.



*The RX unit was placed inside a shielded, low-external-noise environment. The measurement was taken using a 50 Watt amplifier, with the antennas separated by 1.2 m, and a receive-side LNA gain of 48 dB – a typical receive-side gain in SARA's PAATS system.

ARTICULATING STAND OPTION

SARA offers two mounting configurations for the HF-SA-17 antennas: a height-adjustable stand and a pivot/rotation “dovetail” attachment.

The height-adjustable stand extends up to 7 ft from its fully compact size of 3 ¼ ft. The stand is outfitted with magnet locks, allowing it to securely couple to the included mobile-base, or any magnetic surface.

The dovetail attachment adds more flexibility in antenna positioning. It clips into the antenna face, and mounts on the height-adjustable stand. A pivot joint allows the antenna face to rotate towards the floor or ceiling, while a polarization lock pin changes the antenna polarization by 90°.

Standard Antenna



Dovetail Attachment



Height-Adjustable Stand



Min: 3 ¼ ft
Max: 7 ft



Locking
Magnetic
Switches

Mobile Base



CONTACT Us

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