



# TS-1055 OVERVIEW

## Active Loop Antenna

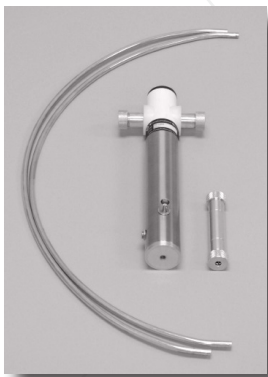
**The Challenge:** Design the World's first deployable VLF/LF/MF/HF/VHF Active Receiving Loop Antenna that can be disassembled and taken anywhere in the world at a moment's notice. Make sure it has a massive bandwidth with impressive gain. Design a truly ruggedized unit that can withstand harsh operating environments like Alaska, Afghanistan and Iraq. Finally - make it actually affordable!

**The Answer:** The precision engineered Active Loop Antenna from TS Engineering.

Incorporating a revolutionary, super low noise hybrid GaAs field-effect transistor (FET), the TS-1055 set a new standard in magnetic field signals detection. Designed for H-Field reception from 10 kHz to 55 MHz, the internal wideband transformer effectively couples all signals to the GaAs FET amplifier for an impressive gain rating of +35 dB. It actually works well below and far above the specified frequency range. The output can be connected to any receiver or spectrum analyzer and can be used for commercial emissions standards testing or DOD MIL-STD-461B Magnetic Field testing.

The advantage of a magnetic loop antenna is that it only responds to the magnetic field component of the received RF signals. H-Field or near field reception reduces the generally noisy E-Field signals caused by electrical devices such as light dimmers, florescent lighting, switching power supplies, computers, monitors and so on. Loop antennas have maximum reception in the plane of the loop. When there are multiple emitters originating in different directions the loop can be rotated or turned to "null out" the unwanted emitter simply by slowly rotating the loop.

This feature-rich antenna was custom designed for SIGINT and multiband communications applications. Please feel free to call us for further information.



**Can be taken apart for storage and shipping!**

### Features

- ▷ Active Loop Antenna
- ▷ 19.7" Loop (50 cm)
- ▷ Ultra Low-noise Hybrid GaAs FET
- ▷ VLF/LF/MF/HF/VHF Coverage
- ▷ 1/2 Half the Cost of Competing Antennas
- ▷ High Gain with Constant Antenna Factors
- ▷ Compact Design and Easily Deployable
- ▷ Assembly Time: <1 Minute
- ▷ SIGINT and Commercial Uses
- ▷ Wideband Indoor Reception
- ▷ Designed for Linear Power Supplies
- ▷ Excellent Power Handling
- ▷ Wide Operating Temperature Range
- ▷ Quality Fit and Finish
- ▷ ISO 9001 Construction
- ▷ Superior Engineering!

Antenna Type	19.7" Magnetic Loop Antenna
Frequency Range	10 kHz to 55 MHz Without Tuning Usable from 1 kHz - 100 MHz
Impedance	50 Ohms, nominal
VSWR	<2:1, average
Antenna Gain	Approximately +35 dB From 10 kHz - 55 MHz
Intercept Points	>55 dBm (2nd Order) >35 dBm (3rd Order)
Polarization	Vertical, Closed Loop without Tuning Elements
Current/Voltage	95 mA at 12 VDC 11-13 VDC Input Range
Connector	BNC Female Out to Receiver
Power Connector	2.1mm Pin, Center +
Mounting	1/4"-20 Female Thread on Base
Dimensions (Max)	H: 27" W: 19" D: 2"
Housing	Stainless Steel
Weight	18 oz
Environmental	-20° F to +62° F

*"Quadruple the performance at half the cost? It's time to throw your old loop antenna in the trash."*

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