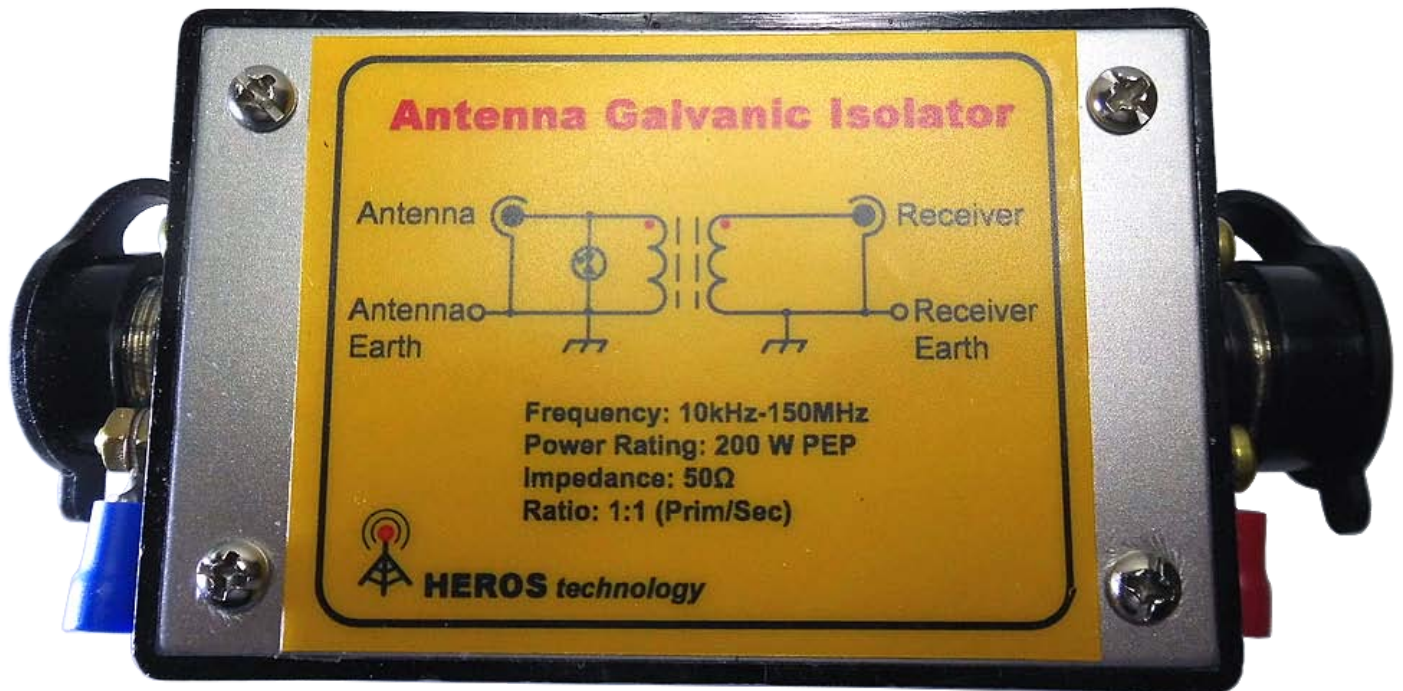




# 10kHz to 150MHz LF-HF-VHF Antenna Galvanic Isolator Indoor version

User manual. Rev 03  
(November 2018)



The broadband antenna isolator allows isolate the antenna galvanically from the receiver; only magnetic signal is coupling from the antenna.

Ground loops in SDR radios induced by the antenna feeder is very common if the computer ground is connected to the radio system.

This type of ground loop issue can be solved by using galvanic isolation between the receiver and the antenna cable.

In most receiver installations the antenna coaxial feeder is connected to mains earth at the receiver side. This can cause mains noise to enter into the receiver because either the feeder mains earth line is the return path for the antenna or noise being coupled to the antenna and radiated.

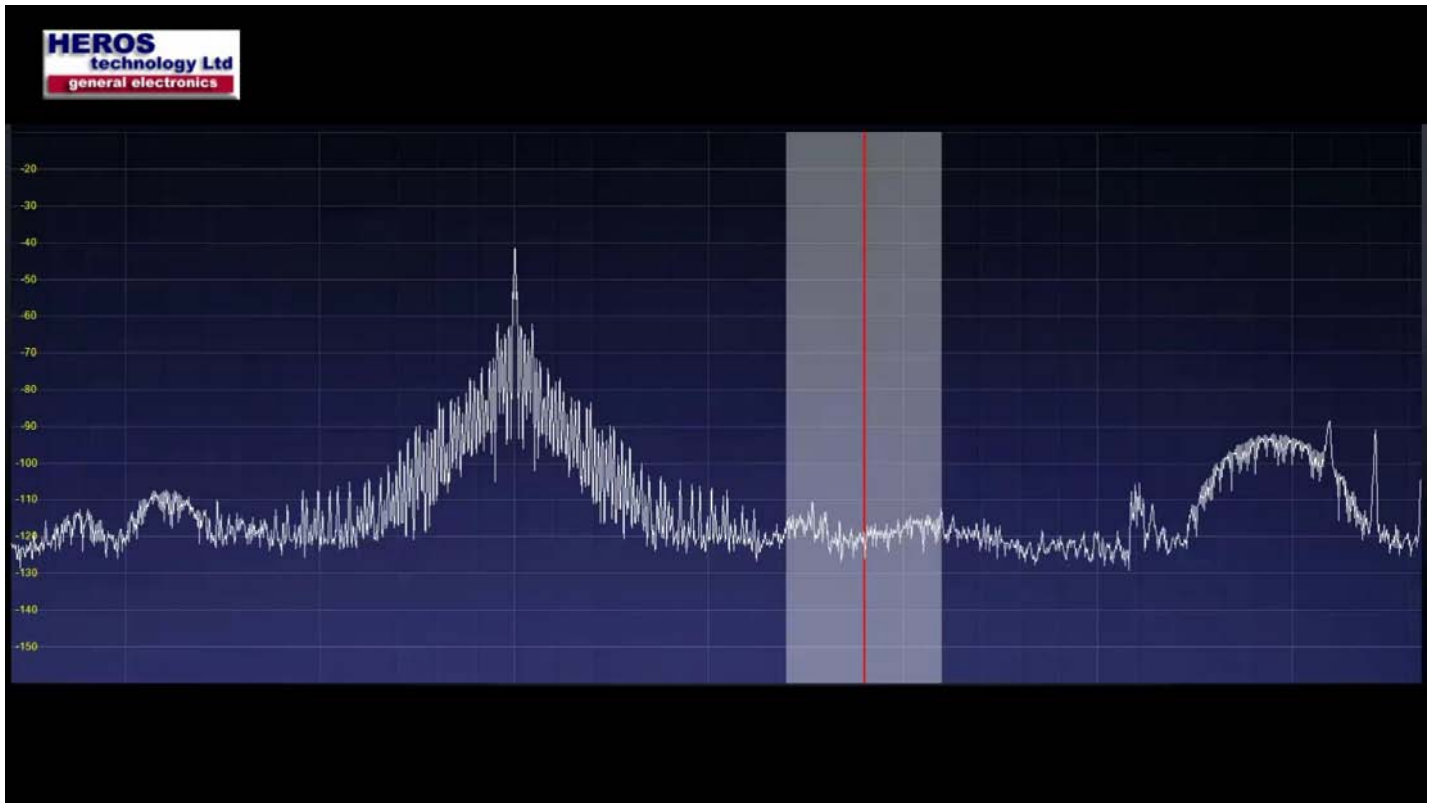
The Antenna Isolator can achieve up to 40dB noise rejection, depending on installation.

A high isolation broadband transformer assembled on a large toroid core (T130) is used in order to avoid distortion products due excessive level of RF signals.

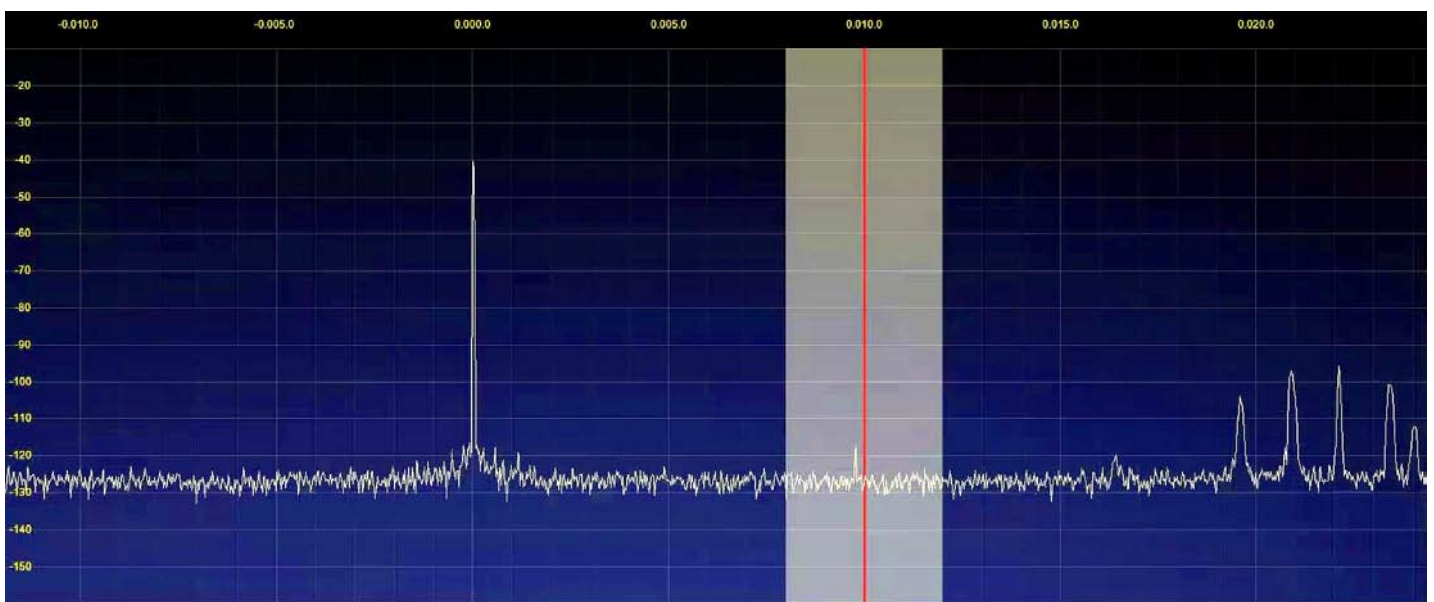
In addition gas discharge tube is included in order to minimize static damage.

### Features:

- Frequency range: 10KHz to 150MHz
- Insertion loss: 0.5dB max@ 60MHz.
- Power rating: 10Watt max.
- Input/Output impedance: 50 Ohm..
- Connectors: SO-239, N, BNC options
- Gas discharge tube for static discharge to earth.
- Enclosure: Aluminum cover and ABS material rated to UL 94V-0. Protection IP54.
- Size: 86mmx57mmx36mm( 3.4x2.2x1.4in)



"Frying noise" on receiver antenna port without in-line Antenna Galvanic Isolator



Same noisy situation but with in-line plugged-in Antenna Galvanic Isolator.

# Antenna Galvanic Isolator Cabling

Noise being picked up directly by the antenna will not reduce.

Longwire, Yagi.....any antenna

Antenna Z match, balun etc

Avoid any cable running parallel to the antenna feeder coaxial cable.

Antenna earth side Soil

Low impedance earthing

Grounding must be done in wet soil away from buried service utilities such as Gas, Electricity, etc.

Radio ANT Input 50Ω coaxial cable

Radio Earth post

Antenna Galvanic Isolator

Antenna feeder 50Ω coaxial cable

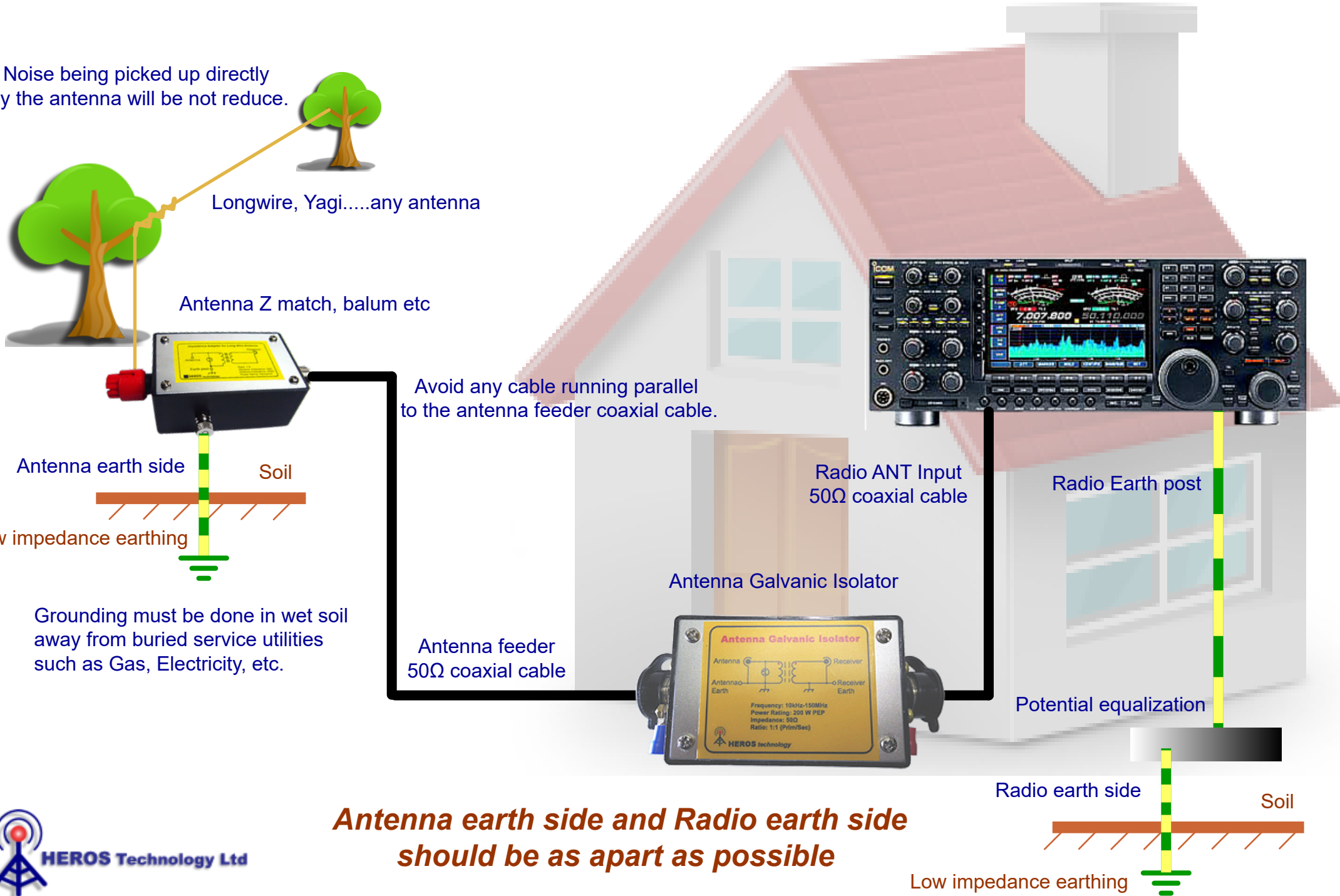
Potential equalization

Radio earth side

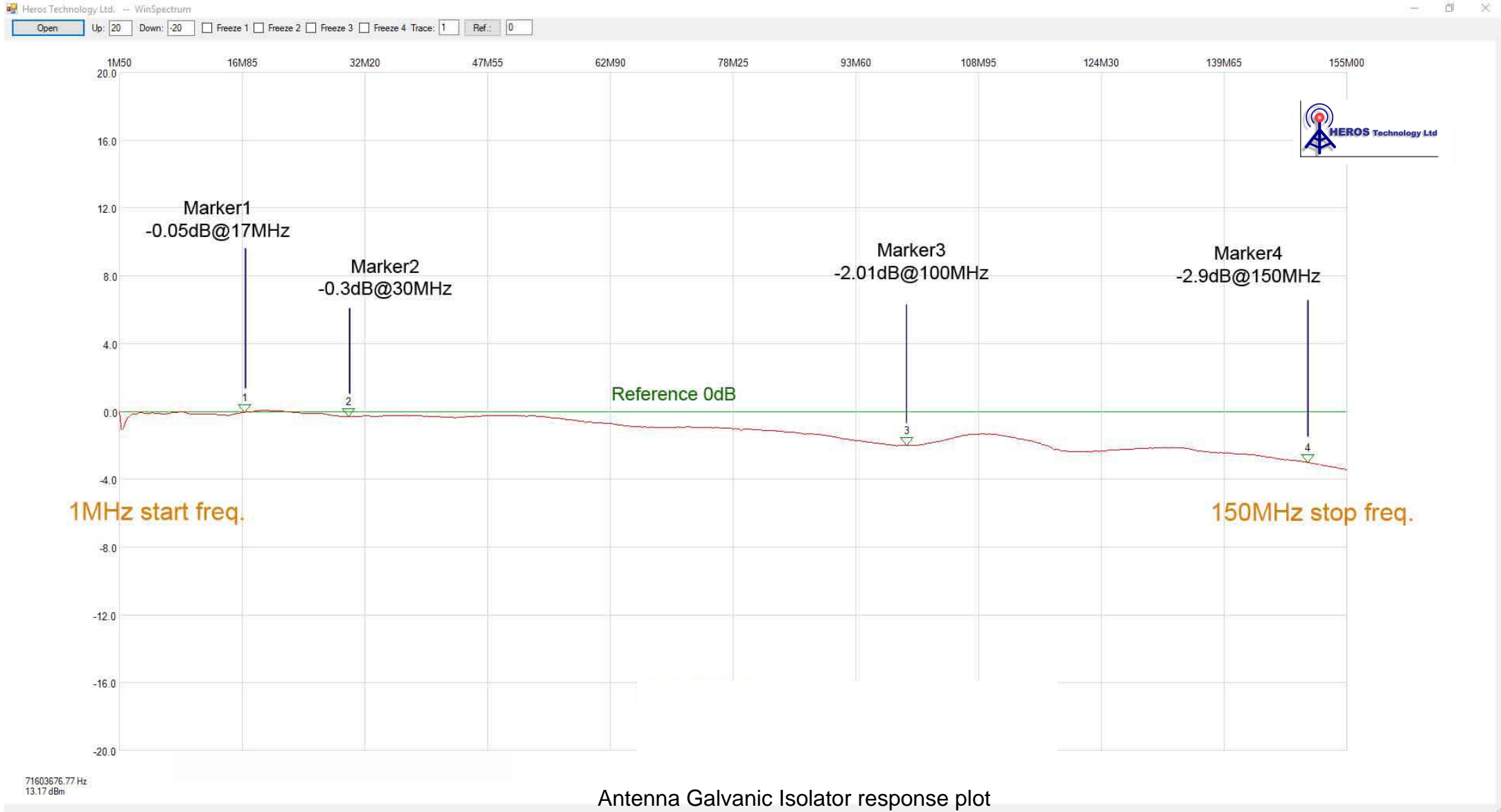
Soil

Low impedance earthing

**Antenna earth side and Radio earth side should be as apart as possible**









## NOTES:

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