

7671V

Antenna Datasheet

Section 1 Antenna Specifications

Section 2 Configuration

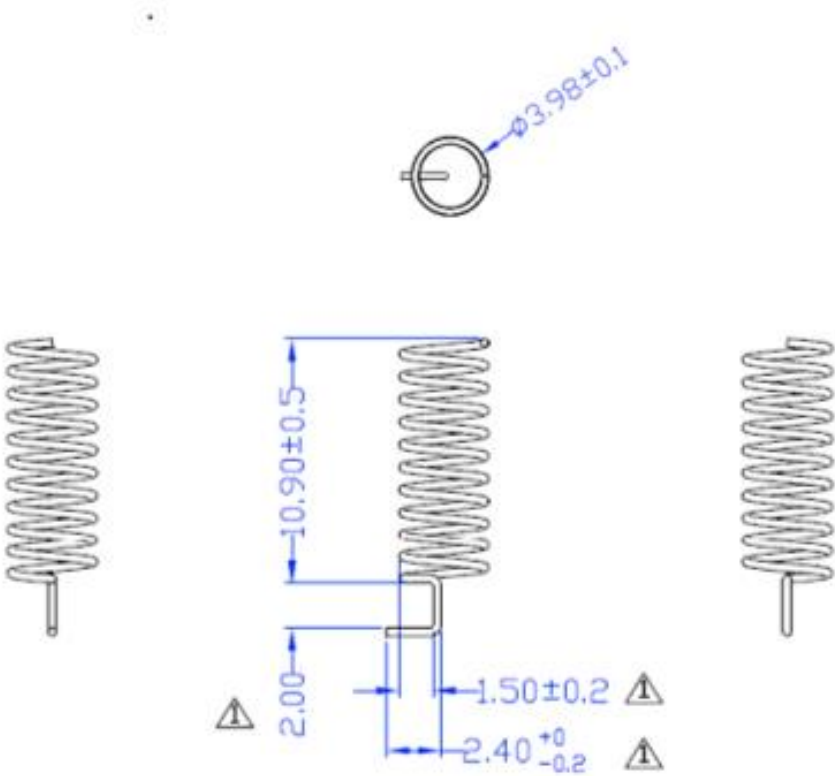
**Section 3 Test Result (Peak gain & Radiation
Pattern)**

Section 1 Antenna Specifications

Antenna Type	Helical Spring Antenna
Antenna Brand	Nutek
Antenna Model	ESR40402
Radiation pattern	Reports section 3
Frequency	902MHz ~ 928MHz
Peak gain	-1.21dBi
Manufacturer's Address	No.167, Lane 235, Bauchiau Rd., Xindian District, New Taipei City, 23145, Taiwan

Dimensions:

- Spring Diameter: 0.36mm
- Pitch: 0.8mm.
- Number of Turns: 10.5T 0.125T



Section 2 Configuration

Peak gain & Radiation pattern measurements

Measurement Setup:

Instruments: Anechoic Chamber, Network Analyzer, Standar Gain Antenna.

- Chamber description:

The NUTEK anechoic chamber is a far-field measurement system with size of 9m*6m*6m.

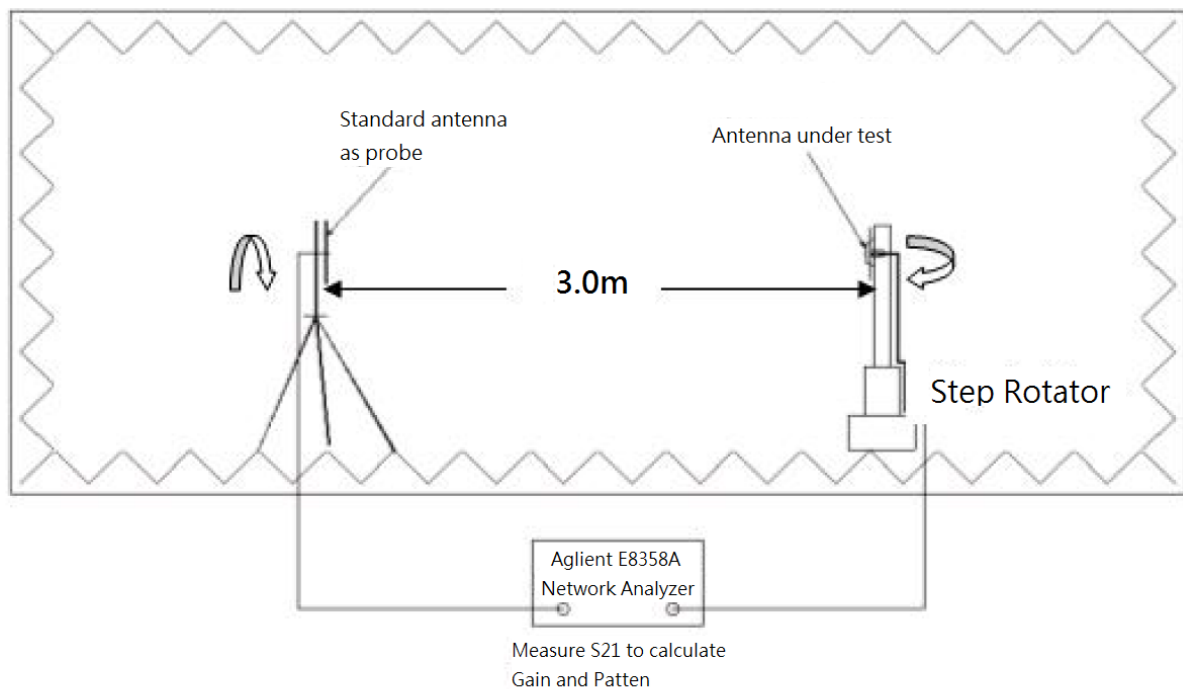


Fig. 1. The interior components of the anechoic chamber.

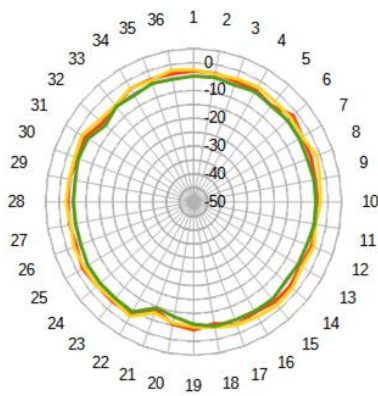
Fig. 1 shows the interior components of Anechoic chamber and the connection to the network analyzer. The distance between standard antenna as probe and antenna under test (AUT) is 3.0m. The antenna under test is fixed on a step rotator. We can control the rotating angle for accurate measurement.

The probing antenna is the ETS 26MHz ~3000MHz Model (3142C BiConiLog Antenna Model 3142C).

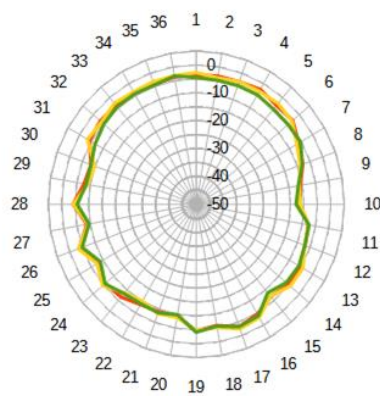
While we measure the radiation patterns by rotating AUT with 360 degrees and repeat again by replacing the AUT with the standard gain antenna under test, we compare both data and using a formula to obtain the gain of AUT. The standard gain antenna is a gain helical (TI CC-ANTENNA-DK 915MHz #6).

Section 3

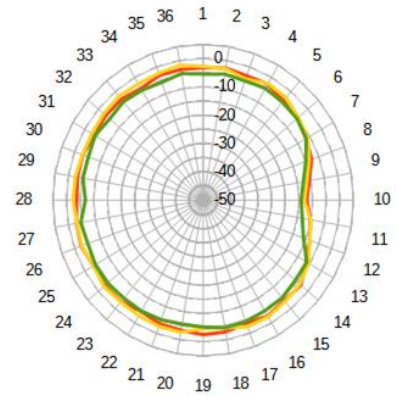
Test Result (Peak gain & Radiation Pattern)



XZ-Plane Gain



YZ-Plane Gain



XY-Plane Gain

— 902 MHz
— 915 MHz
— 928 MHz