Date: 2024/06/21
Number: A240621002
Edition: A0

QSH-3525US-001 Specification

Product Name: Passive RFID antenna
Product model: QSH-3525US-001
Manufacturer: Shenzhen Fuwit Technology Co.,Ltd
Address: 3613 Changping Business Building, No. 99 Honghua Road, Futian Free Trade Zone, Shenzhen

1. Application scope

The principle of Radio Frequency Identification (RFID) is non-contact data communication between the reader and the tag to achieve the purpose of identifying the target.
It is widely used in anti-theft devices, access control, parking lot control, production line automation, material management, etc.

2. Structural characteristics

Specification	Description
Antenna model	QSH-3525US-001
Weight	＜100g
External dimensions	35*35*6.4mm
Cable Type	RG1.13
Antenna type	Ceramic Patch Antenna
Ceramic body size	25*25*4mm
Connector model	IPEX Generation 1
Cabel Length	Exposed wire length 300mm (L can be customized)
Fixed method	/

3. Environmental characteristics

Specification	Description
Operation temperature	-40℃~+85℃
Limiting temperature	-40℃~+85℃
Relative humidity	10% to 95% RH

4. Electrical specifications

*The electrical properties of the samples described in the admission letter were measured under the following conditions: temperature: 25 ± 15 ℃; Humidity: 65±20 % RH； Instrument setting power: 1uW； Air pressure: (0.96 ± 0.1) X 105 Pa. All experimental data were obtained by measuring in a microwave anechoic chamber with a block antenna connected to a 70 * 70mm ground plane.

4.1. RFID performance

Specification	Description
Center frequency	915±3MHz
Bandwidth	>10MHz
Maximum gain	2.0 dBi typ (70x70mm Ground)
Standing-wave ratio	<1.3
Polarization mode	Right-handed circular polarization
Impedance	50 Ω

4.2. RFID test result

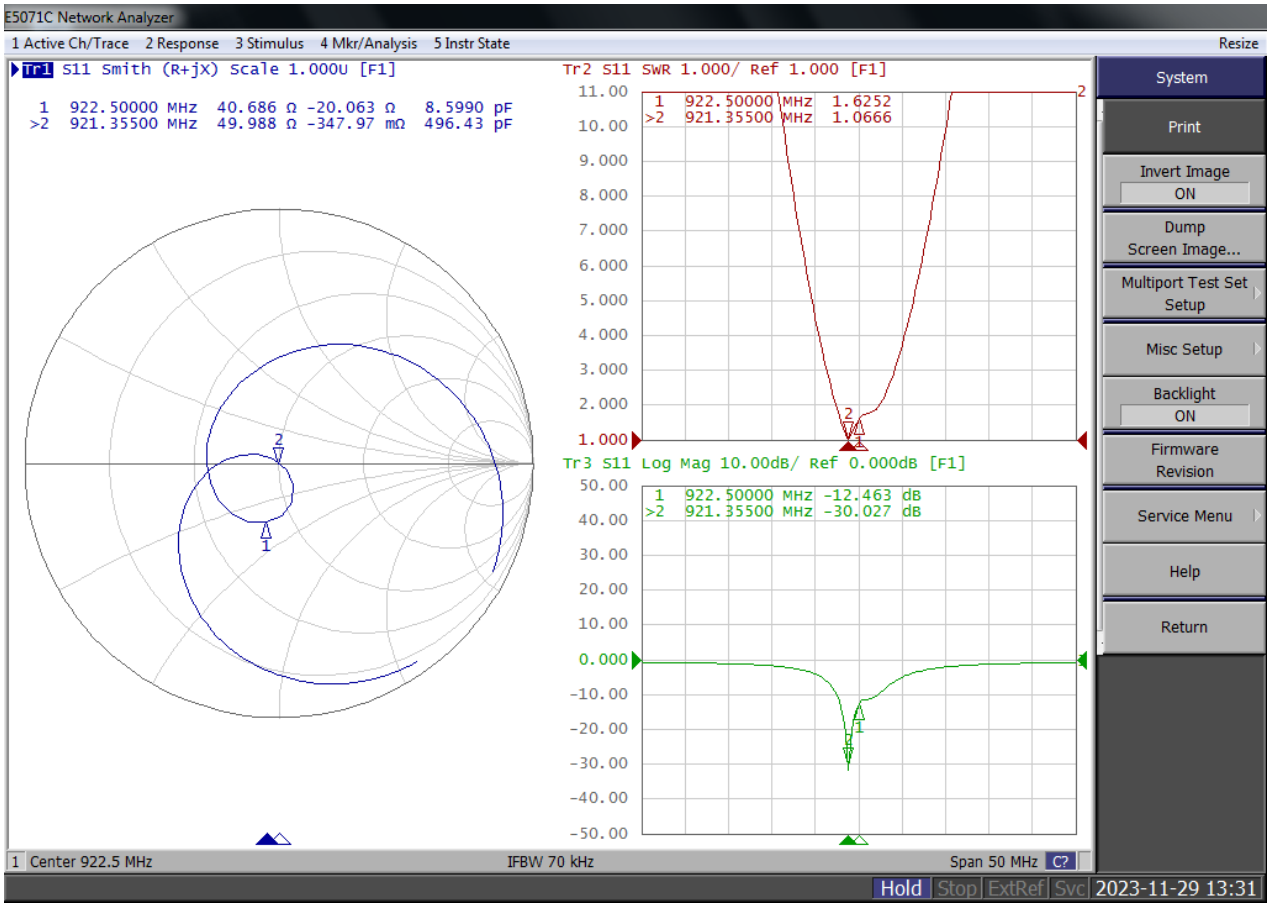

Figure 1 Ceramic antenna Smith, SWR, and Log Mag

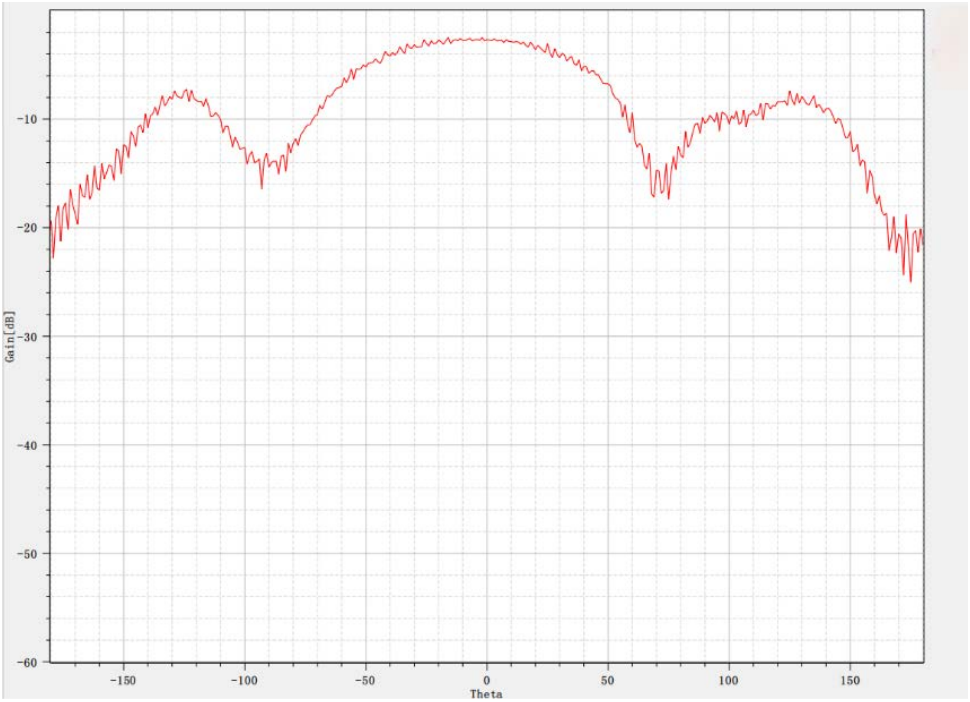

Figure 2: Gain and Efficiency of Ceramic Antenna

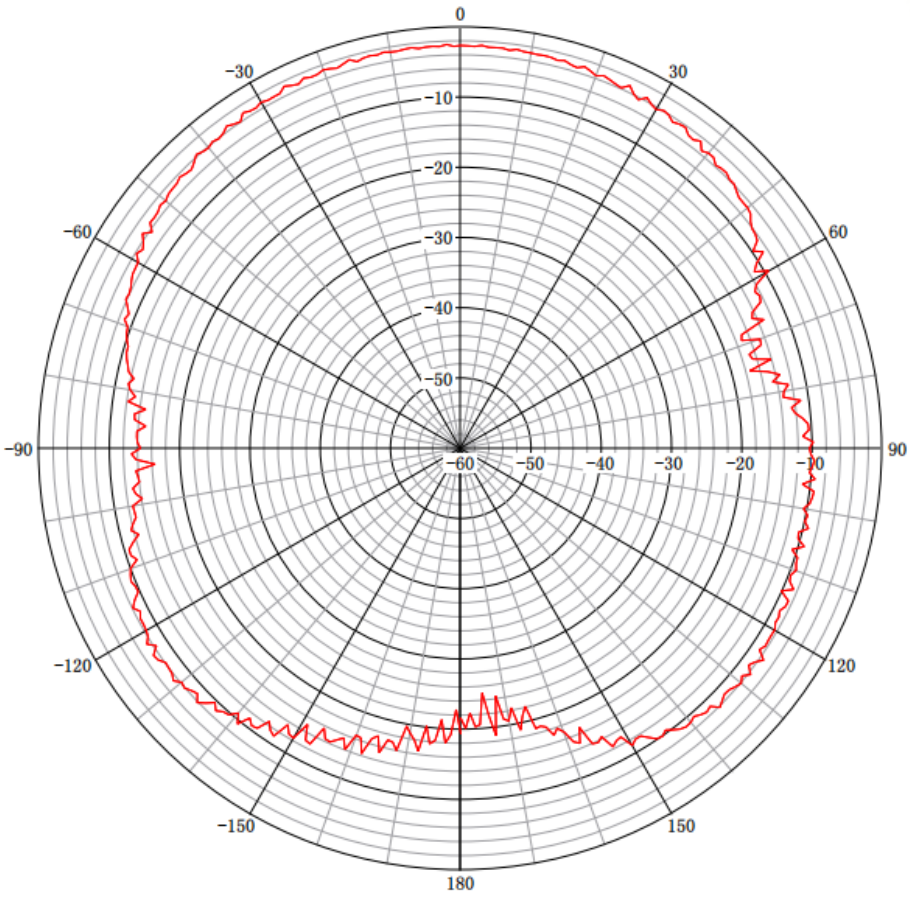

Figure 3 E-plane directional diagram of ceramic antenna

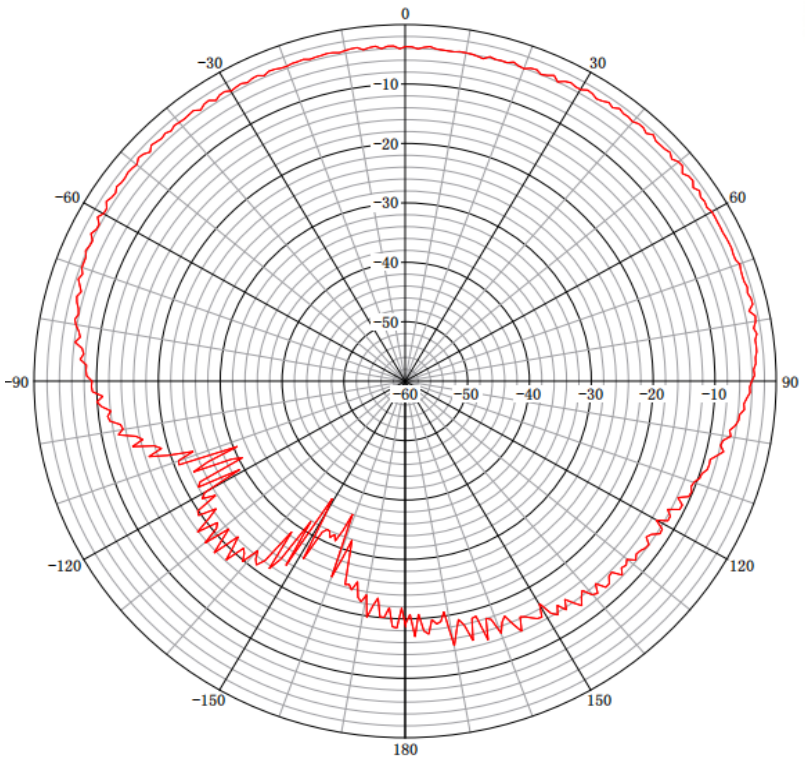

Figure 4 H-plane directional diagram of ceramic antenna

5. Antenna appearance dimensions