

Manufacturer:Dongguan Chuangjie Electronics Co., Ltd.

Address:No.6, Qilin East Road, Daning, Humen Town, Dongguan City

Antenna Type: Internal Antenna

Technical drawing of the ZX SIGNAL 0819-X1 antenna assembly. The drawing includes a top view showing dimensions: a width of 10.00±0.2, a length of 37.00±0.2, and a mounting hole diameter of 1.10±3. It also shows a side view with a thickness of 0.11. The assembly consists of a double-sided adhesive backing surface, a release paper, and a terminal direction. The drawing is labeled with 'ZX SIGNAL 0819-X1' and 'UV glue'.

REV		DATE	DESCRIPTION
X1		03/11-2026	New Issue
A		04/08-2026	X1-A

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X1		03/11-2026	New Issue
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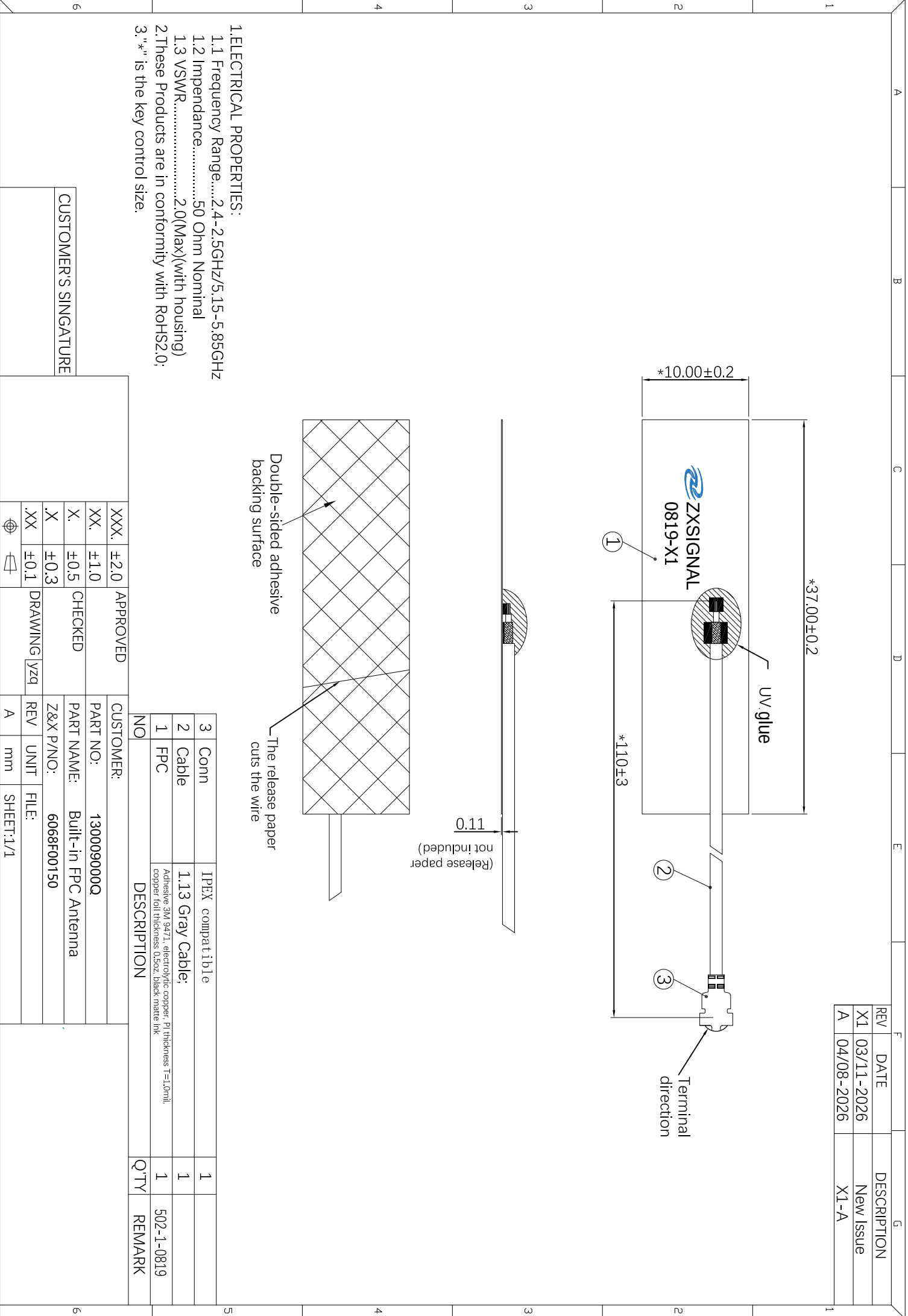
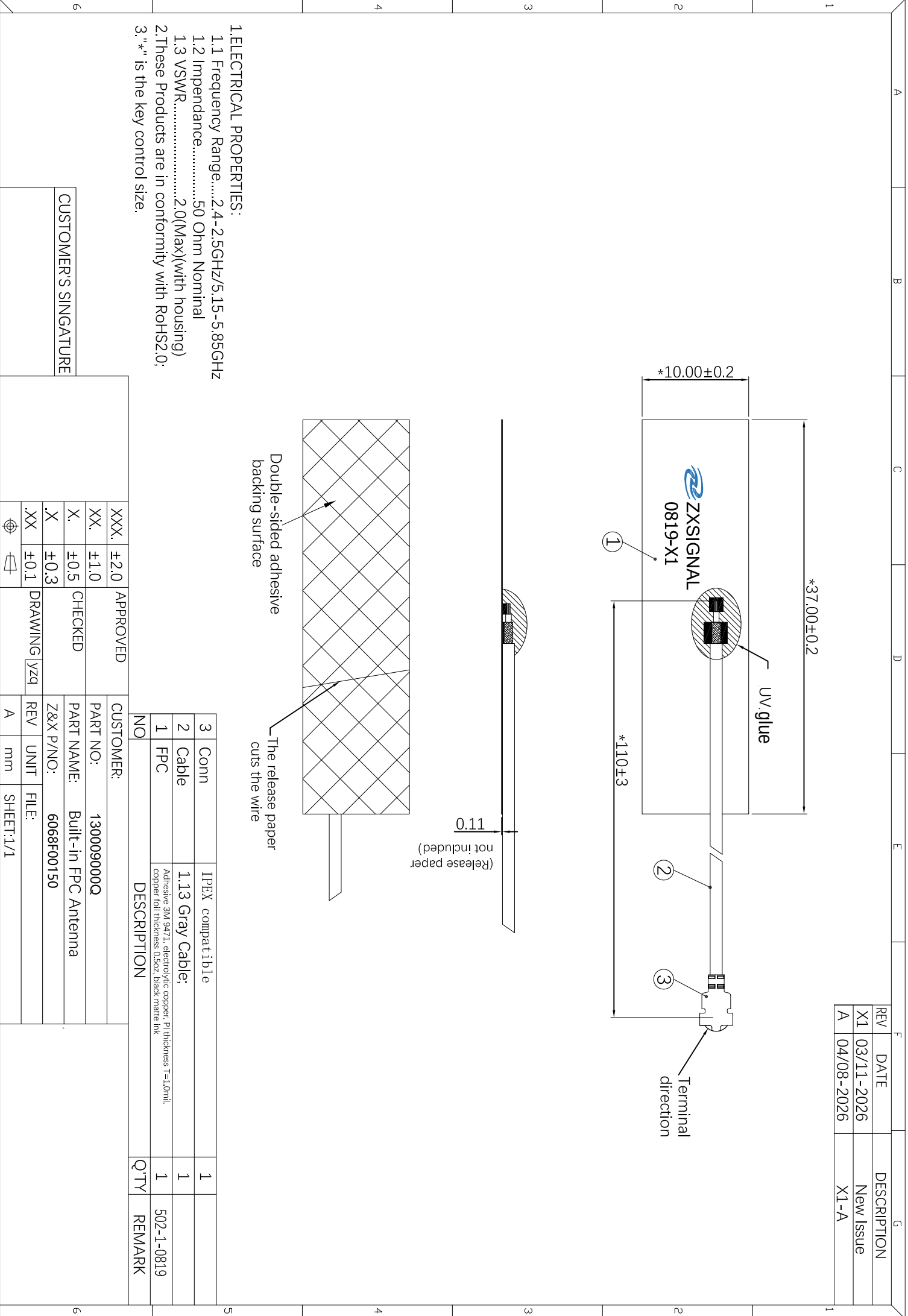
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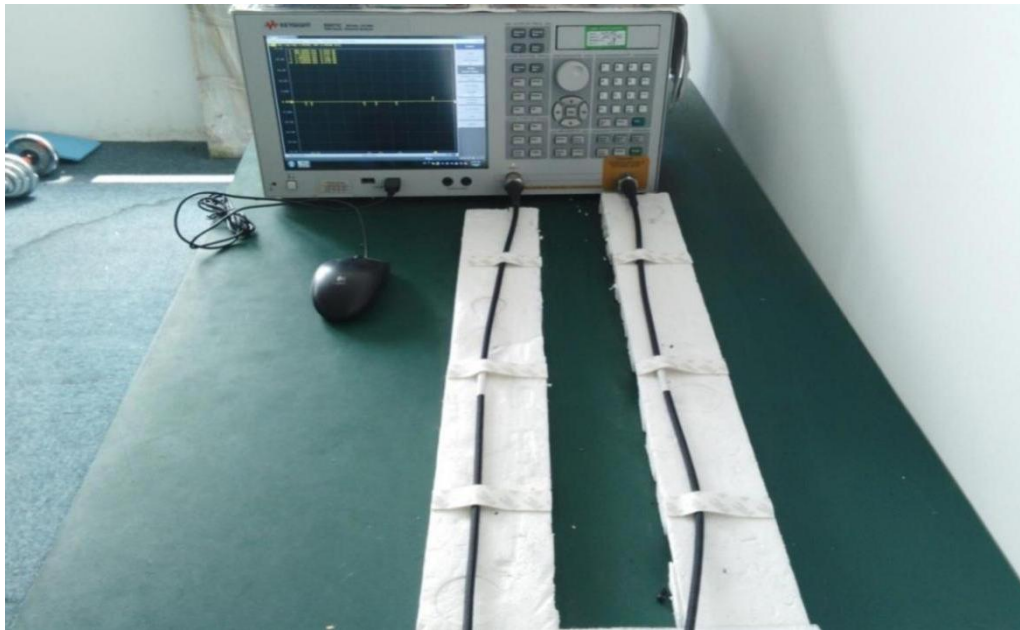


1. RF Fixture Experiment

1.1 Test Setup

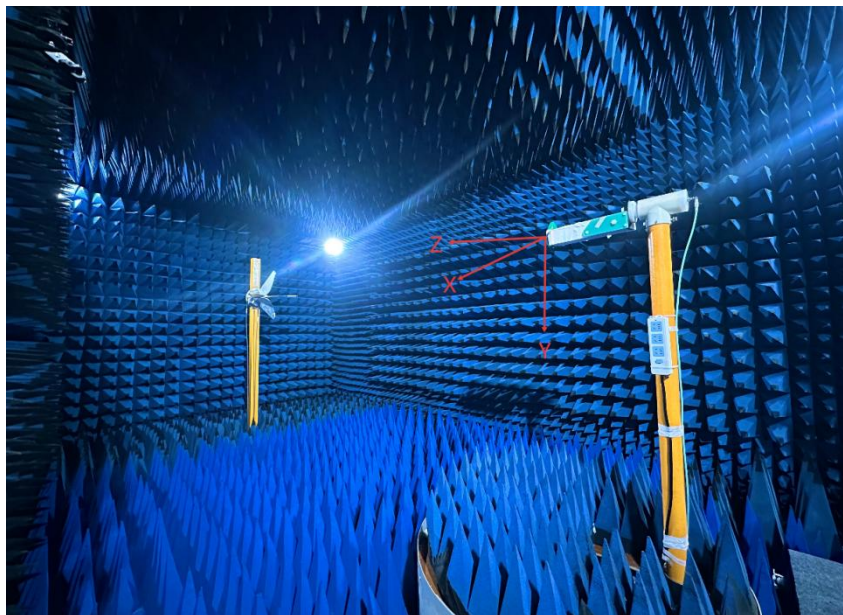
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

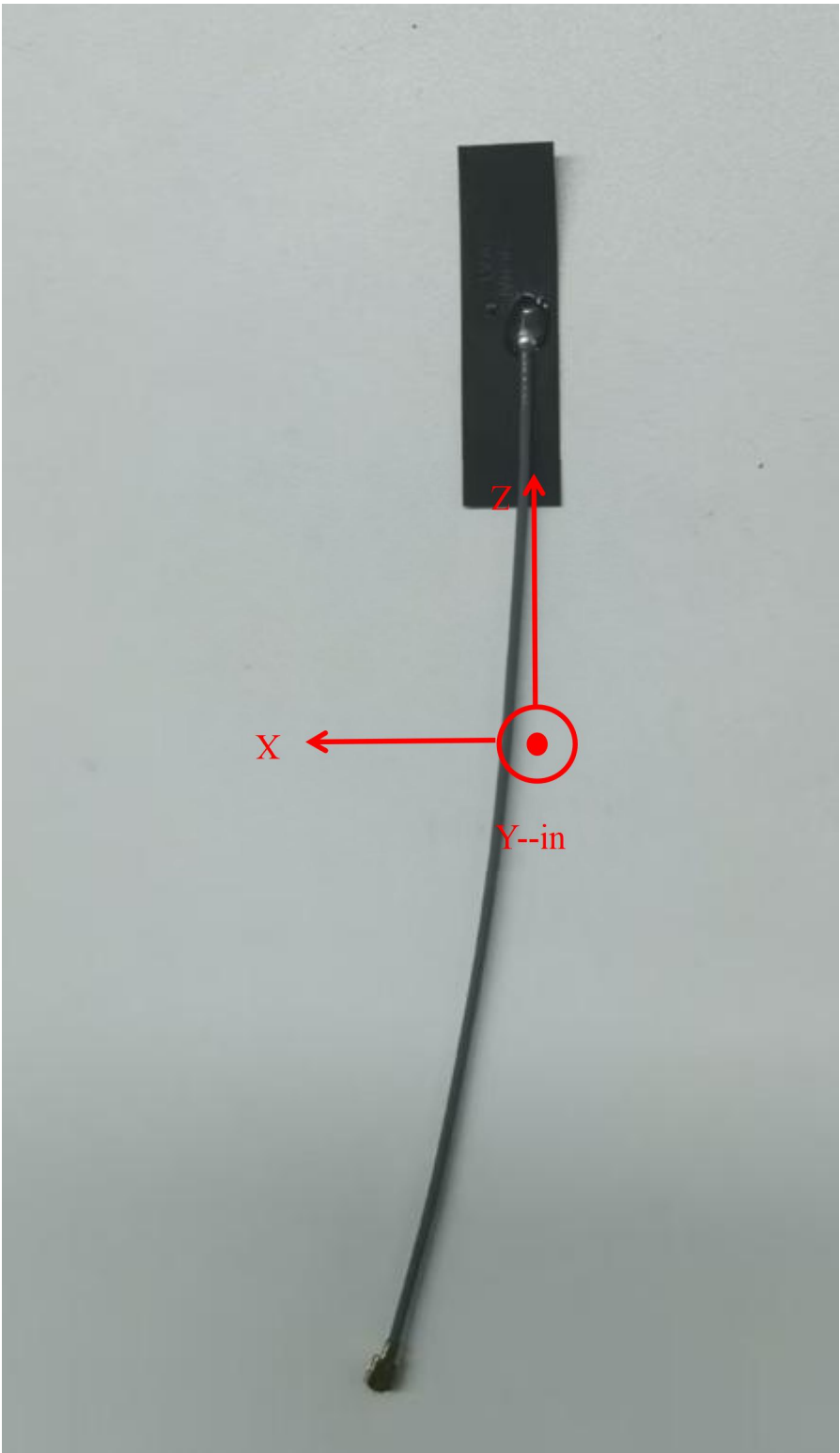


1.1.2 Anechoic Chamber Test Setup

The gain of the antenna was measured in the anechoic chamber. The chamber provides less than -30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is: 7m*4m*3m. The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.

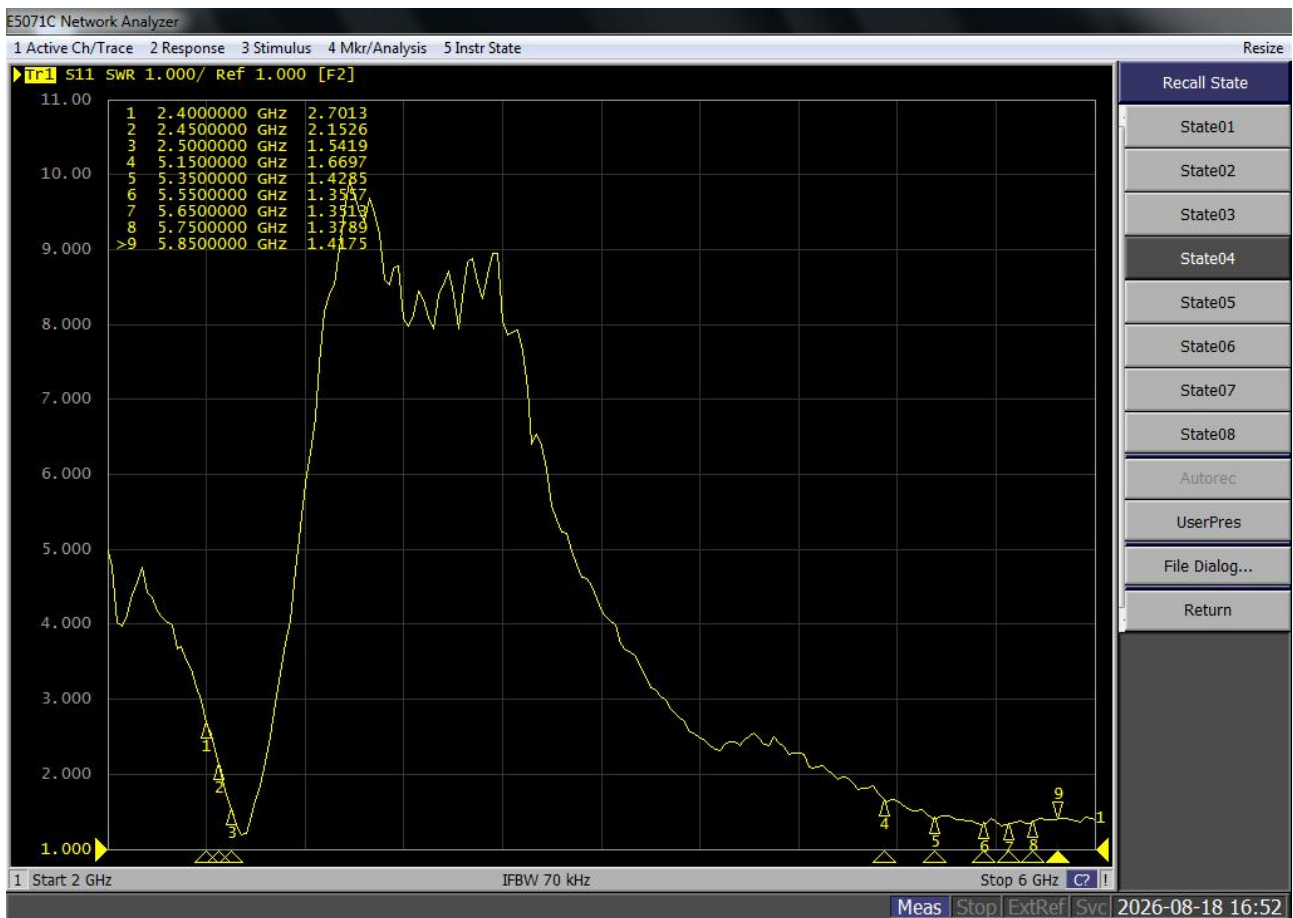


2.Antenna Solution



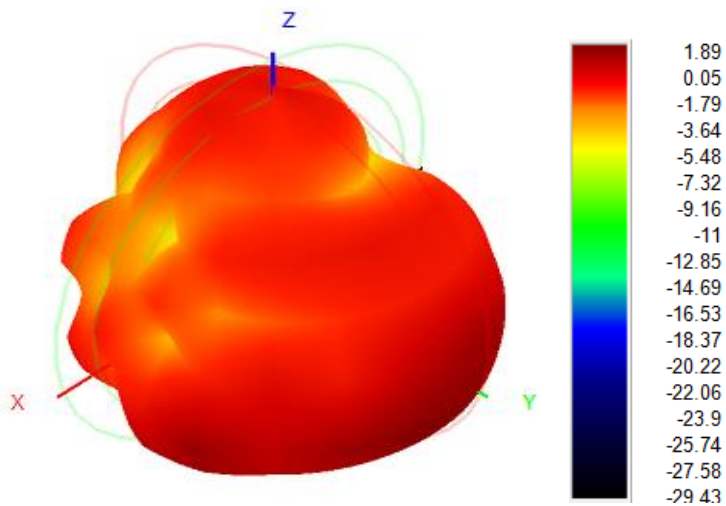
Freq.(MHz)	2400	2450	2500	5150	5350	5550	5650	5750	5850
VSWR	2.03	2.25	2.57	1.67	1.43	1.35	1.35	1.38	1.42
Gain(dBi)	1.86	1.89	1.85	3.47	2.41	4.19	3.08	3.20	3.70
Eff.%	51.64	51.23	51.11	67.49	65.76	68.31	61.57	68.26	68.92

S11

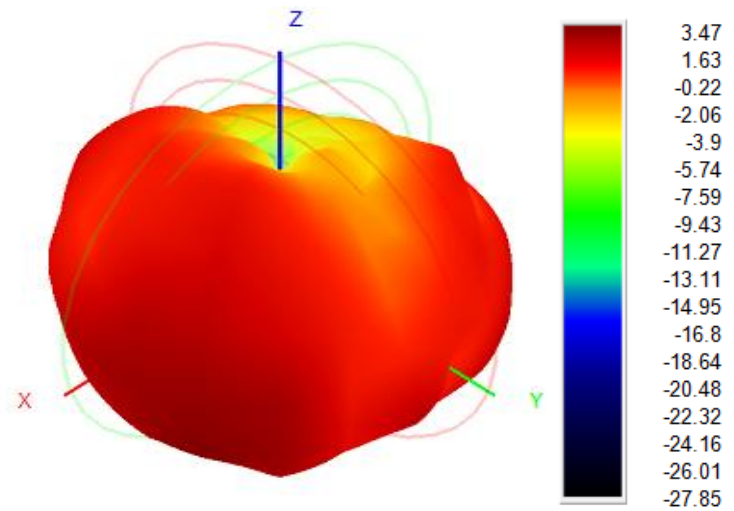


Radiation patterns:3D(2450/5150/5550/5850MHz)

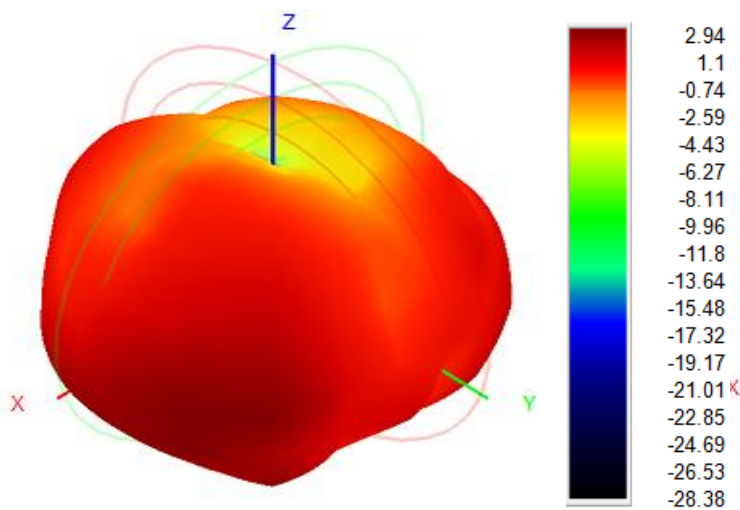
2450MHz



5150MHz



5550MHz



5850MHz

