

In-Depth Investigation Into the Case Involving Lite Electric Co., Ltd.: Sample of the Agreement Document Signed by the Parties Involved.

SAMPLE APPROVAL SHEET

All Messages Have Been Delivered:

Customer	The Era of Technical Excellence
Material Description	WIFI Antenna
Body material shortage	
Specifications	
Material Loss	01-05-001-*****
Sample Submission Deadline (Date)	2026-3-20

Sign Seal:

Proprioception Prepared By	A. Ho Checked By	Ratify Approved By
Zhangtang Bridge	Xiaoxia Peng	Zhang Hongying

The corpse was examined and signs were noted:

Cheng Yu Accepted By	A. Ho Checked By	Ratify Approved By

Carrying forward the legacy:

- 2 Yuan Full Approval (Full Approval)
- 2. Conditional Approval 2. Unqualif-ied
- 2. E (Others):

The detailed analysis of the coin design specifications is available from the Limited Company.

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1、Specifications

This Benken main villa is equipped with the **B31-D WIFI antenna**, which has undergone comprehensive testing regarding its electrical performance and structural characteristics.



Figure 1: Antenna

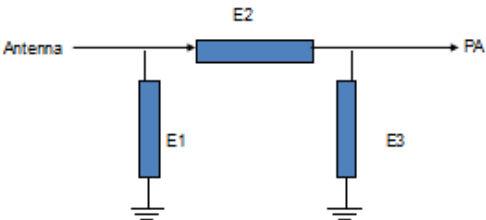
1.1 Electrical Specification Standards

1.1.1 Electrical Performance Parameters

The antenna operates in the frequency bands of **2400–2500 MHz** and **5150–5850 MHz**. The table below summarizes the electrical characteristics of our twisted-pair antenna.

Antenna	B31-D WIFI Antenna
Frequency range	2400-2500MHz 5150-5850 MHz
Zhipo Ratio	< 2
Productiveness	> 50%
Impedance	50 ohm
Polarization Method	Linear polarization

1.1.2 Matching Circuit Diagram



Element	Value
E1(0402)	Not changed
E2(0402)	Not changed
E3(0402)	Not changed

2、Test

The antenna was debugged and tested using a prototype provided by the autopsy team.

2.1 The Continental Testing of the Yu Yuan S11

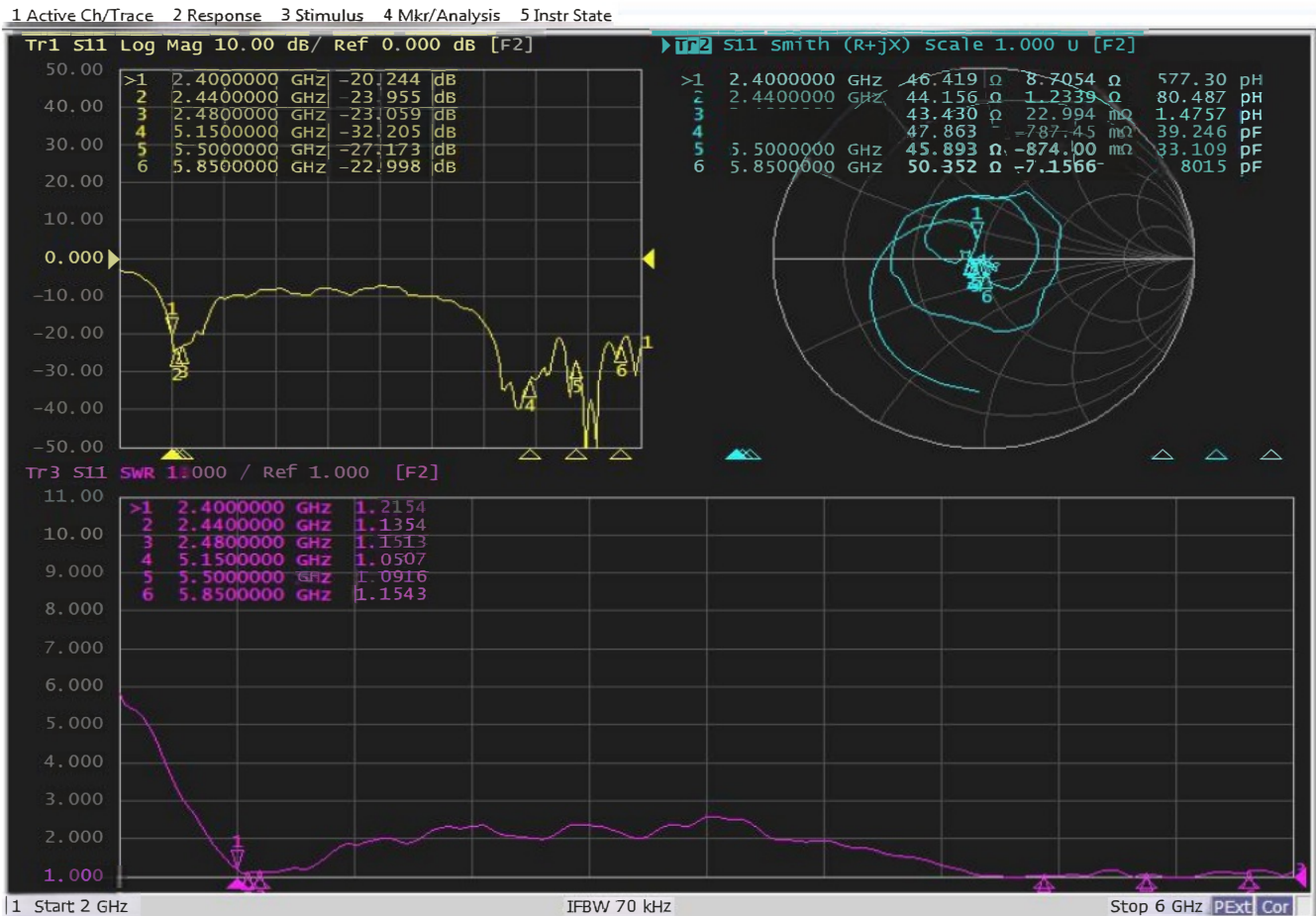
2.1.1 The Trial Court in the Province Immediately Accepted the Case

The passive S11 test device is connected in the following sequence network analyzer → Test Line → Test Jig

2.1.2 Yu Yuan S11

The table below shows the standing wave ratio values at the edge frequencies of the antenna's operating band. The waveform plots for **Return Loss** and **VSWR** obtained during testing are shown in the figure below.

Frequency (MHz)	2400	2440	2480	5150	5500	5850
VSWR	1.21	1.13	1.15	1.05	1.09	1.15
Return Loss	-20.24	-23.95	-23.05	-32.20	-27.17	-22.99



2.2 Pilot Tests on Gain and Rate of Occurrence

2.2.1 The Site for the Oceanic Test

Microwave anechoic chamber: The test frequency range is 400 MHz–6 GHz

2.2.2 The Instruments Used in the Oceanic Test

Network analyzers, standard horn antennas, multi-probe near-field antenna testing systems, and testing computers, etc.

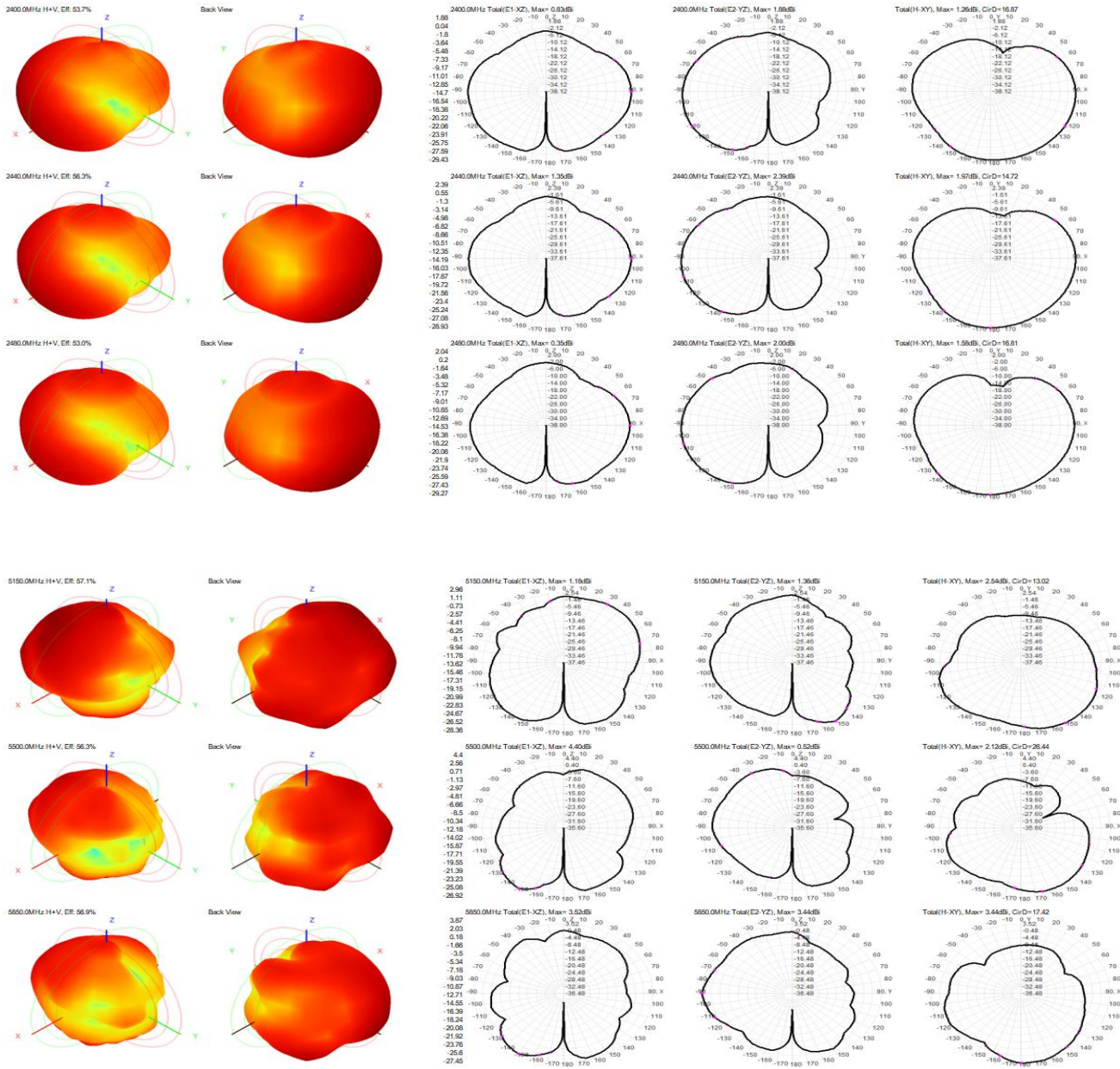
2.2.3 Test Phase 1

The results of the tests regarding efficiency and gain enhancement are presented in the table below.

Frequency(MHz)	Gain(dBi)	Efficiency(%)
2400	1.88	53.67
2410	1.86	55.20
2420	2.09	57.10
2430	2.38	57.12
2440	2.39	56.30
2450	2.21	55.44
2460	1.99	52.88
2470	2.08	52.89
2480	2.04	52.97
2490	2.32	53.68
2500	2.41	53.80

Frequency(MHz)	Gain(dBi)	Efficiency(%)
5150	2.96	57.07
5200	3.03	56.51
5250	3.50	59.61
5300	3.44	56.88
5350	3.92	55.44
5400	4.29	56.54
5450	4.34	56.06
5500	4.40	56.29
5550	4.30	57.38
5600	4.52	57.91
5650	3.89	57.04
5700	4.04	59.96
5750	4.12	60.24
5800	4.02	57.16
5850	3.87	56.89

2.2.4 Passive Radiation Direction Pattern



2.3 Active Testing

2.3.1 OTA Test Result

WIFI							
2402-2480MHZ				5180-5845MHZ			
WIFI 802.11b 11Mbps	Channel	TRP (dBm)	TIS (dBm)	WIFI 802.11A 5G	Channel	TRP (dBm)	TIS (dBm)
	1	15.76	-85.20		36	12.93	-72.63
	6	14.20	-84.11		100	14.05	-72.73
	11	14.48	-85.38		165	12.64	-71.19
WIFI 802.11g 54Mbps	Channel	TRP (dBm)	TIS (dBm)	WIFI 802.11AC 5G	Channel	TRP (dBm)	TIS (dBm)
	1	15.21	-72.48		36	12.54	-70.06
	6	13.65	-71.95		100	11.43	-68.22
	11	14.12	-72.56		165	12.35	-68.72
WIFI 802.11n MCS7	Channel	TRP (dBm)	TIS (dBm)				
	1	15.34	-68.59				
	6	13.95	-67.93				
	11	14.48	-68.44				

3、 Introduction

Based on the prototype provided by Wu Yingshi, this antenna was further refined. The aforementioned electrical characteristics were tested under environmental conditions using the test prototype, with evaluations focusing on both electrical performance and structural integrity. ☐ To request technical assistance, please contact us ↓

4、Product Structure Diagram

