

SPECIFICATION FOR APPROVAL

CUSTOMER/PROJECT Smartcores Technology Co., Ltd.

CUSTOMER P.N./

PRODUCT NAME./ HPCB Built-in antenna

MODEL NO./ 37E001A-36

SPECIFICATION/

Type of Antenna/ FPC Antenna

VERSION	DATE	REVISION DESCRIPTION
T:A	2026/01/09	Add new
T:B	2026/03/06	Modify the drawings
T:C	2026/07/02	Add new experimental data

SUPPLIER AUTHORIZED SIGNATURE/		
PREPARED	CHECKED	APPROVED
ZXJ	MXF	ZYG

CUSTOMER AUTHORIZED SIGNATURE			
PM		QE	

Please return to us one copy of "SPECIFICATION FOR APPROVAL" with your approved signature.

ADD: No.358 Liuyuan RD., Baoshan Urban Industrial District., Shanghai, PR.China.

TEL: +86-21-66276925(26/29/35) - 615

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1 Noun explanation

dBi	Decibel relative isotropic antenna
Tx	Transmit frequency
Rx	Receive frequency
TRP	Total Radiated Power
TIS	Total Isotropic Sensitivity
VSWR	Voltage Standing Wave Ratio
GSM	Global Service for Mobile communication
DCS	Digital Communication System
CDMA	Code Division Multiple Access
WCDMA	Wideband Code Division Multiple Access

2 Test equipment

network analyzer

Agilent8960

SATIMO64 chamber

3 Working frequency band

The yellow Identification is the using band

Band	
Wifi5G	5150MHz ~5850MHz
Wifi2.4G	2400MHZ~2500MHZ

4 Test project

4.1 VSWR plot

4.2 Simth plot

4.3 Radiation pattern

4.4 Gain & Efficiency

4.5 TRP&TIS

5 Antenna parameter

5.1 VSWR

5.1.1 VSWR plot

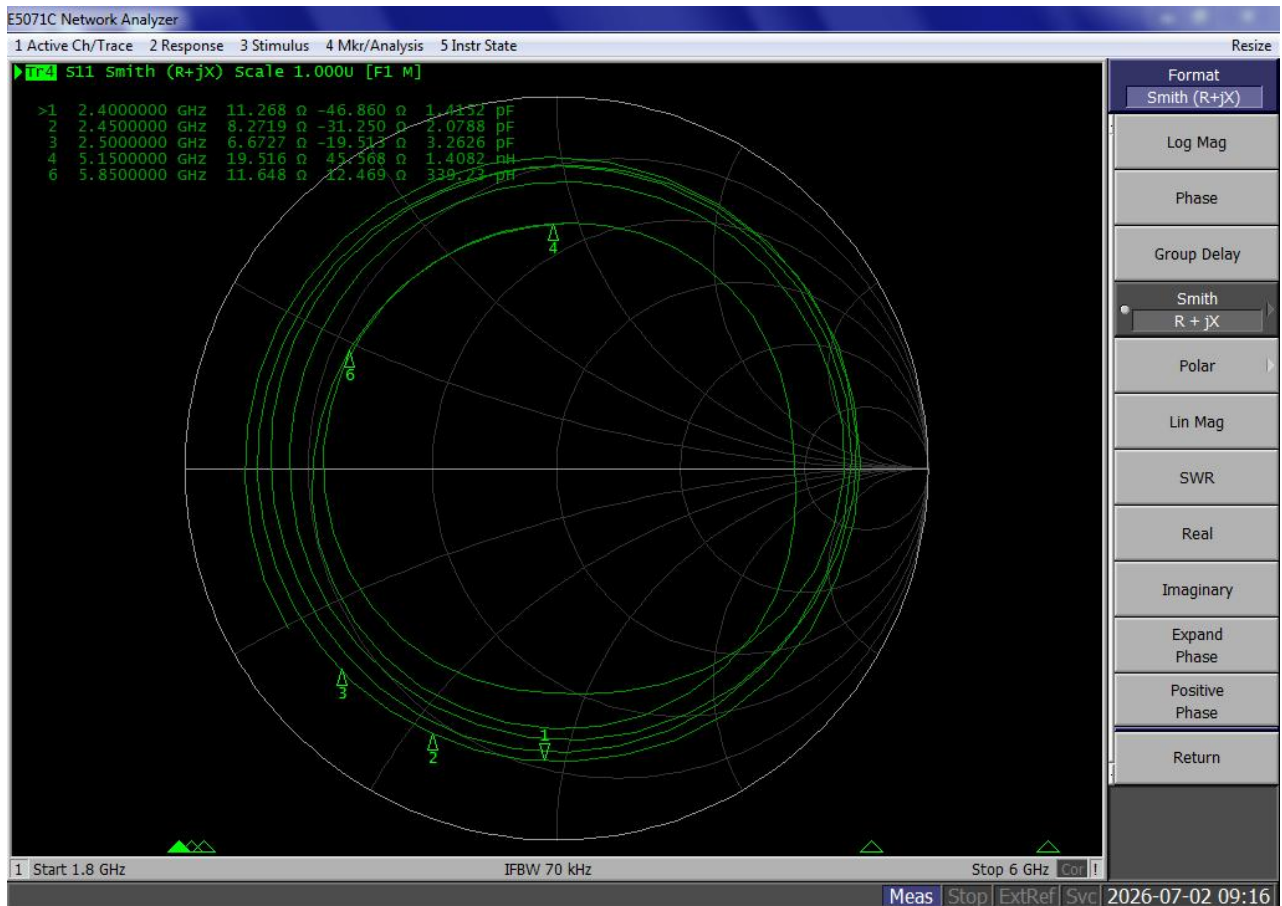
5.1.2



5.1.3 VSWR data

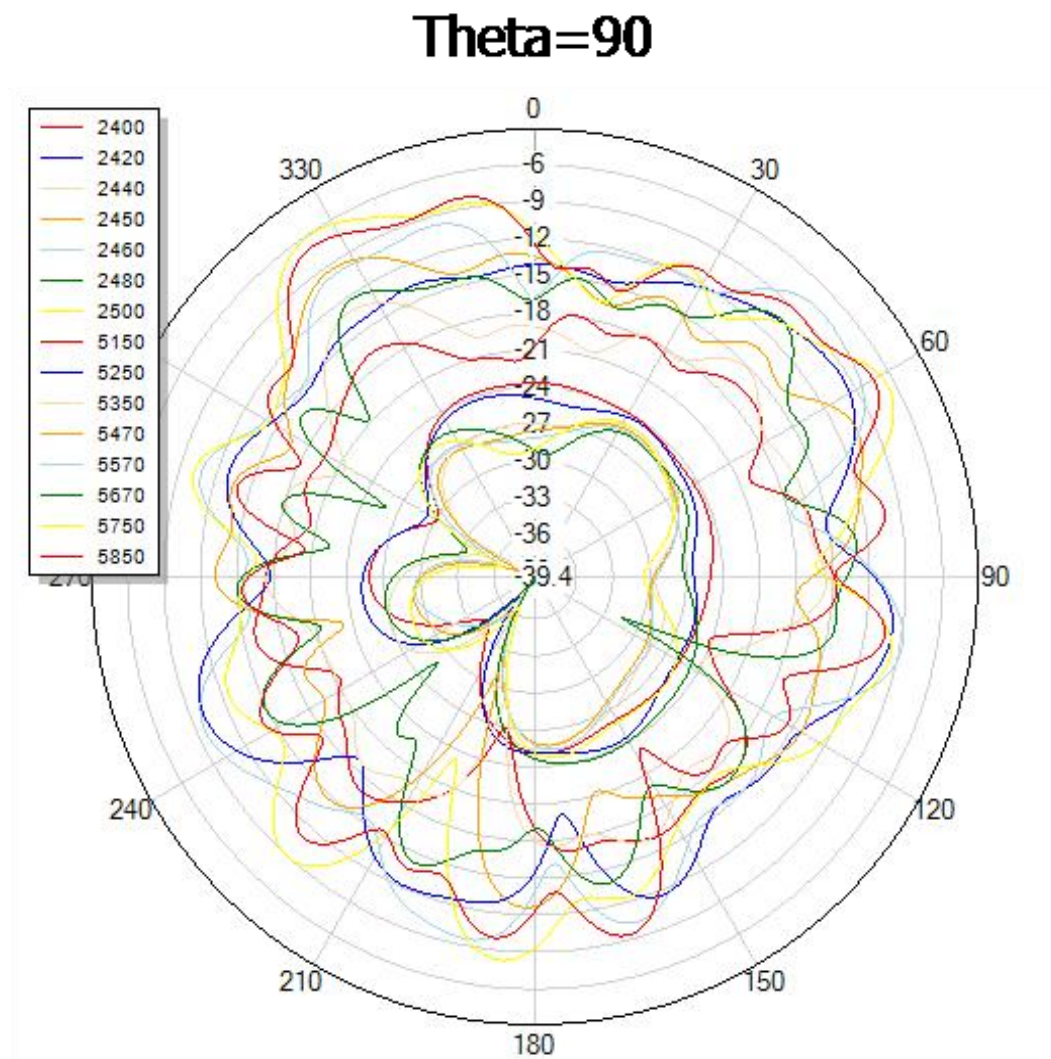
Freq/MHz	2400	2450	2500	5150	5850
VSWR	8.46	8.45	8.66	4.88	4.57

5.2 Simth plot



5.3 Radiation pattern

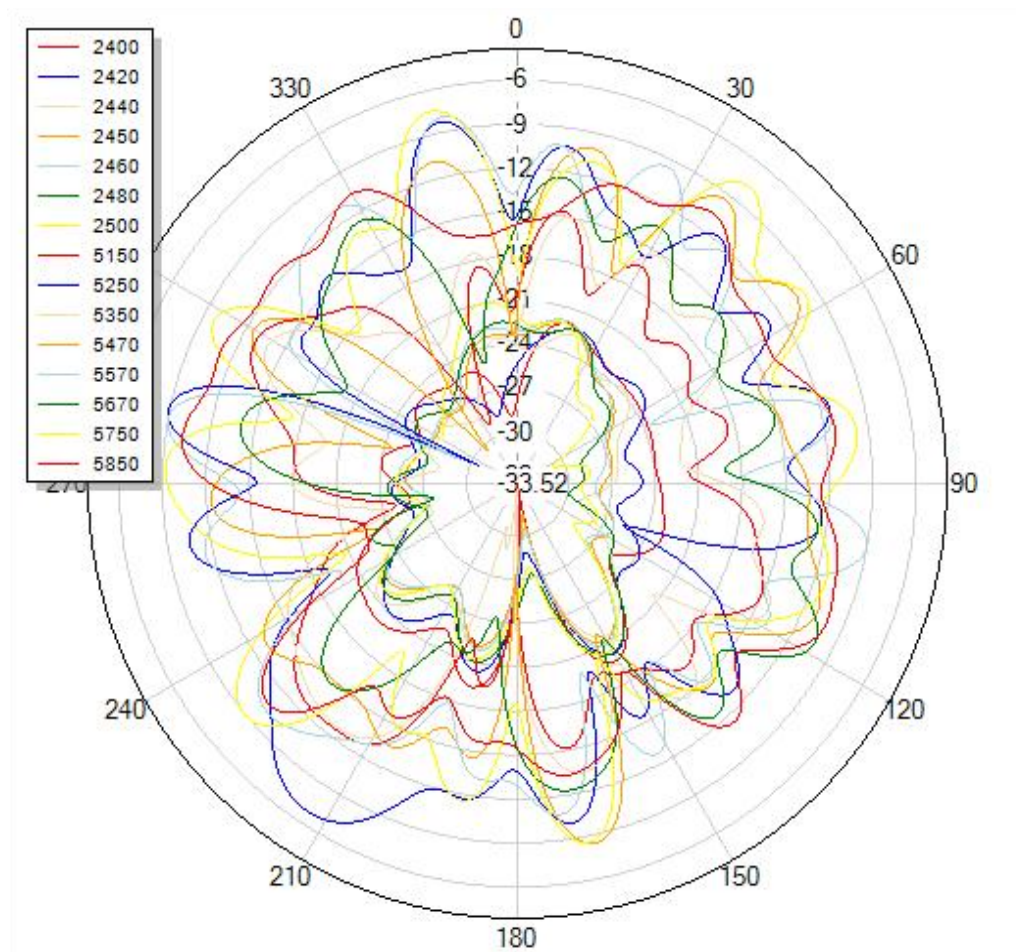
5.3.1 H-plane



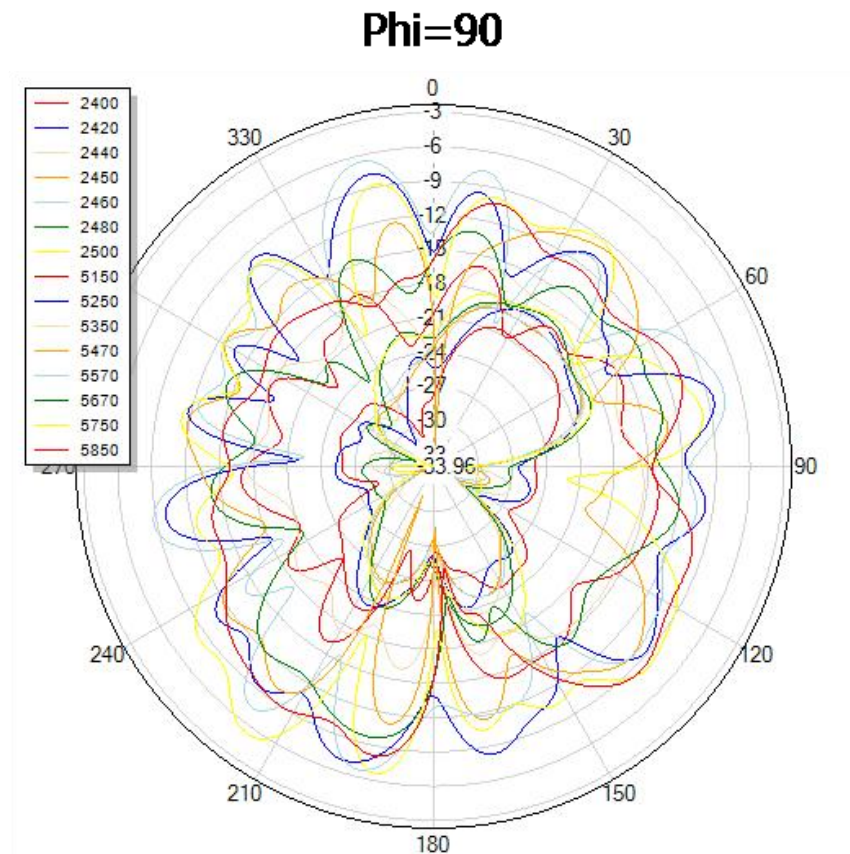
5.3.2 E-plane

E1

Phi=0



E2



5.4 UGain & Efficiency

Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.00	-13.76	7.97
2420.00	-13.95	7.52
2440.00	-13.62	7.86
2450.00	-13.85	7.32
2460.00	-13.87	7.33

2480.00	-13.31	8.11
2500.00	-13.04	8.42
5150.00	-8.54	11.35
5250.00	-10.16	11.57
5350.00	-9.47	12.88
5470.00	-6.36	13.71
5570.00	-6.55	12.44
5670.00	-7.12	11.52
5750.00	-8.38	10.38
5850.00	-8.44	10.05

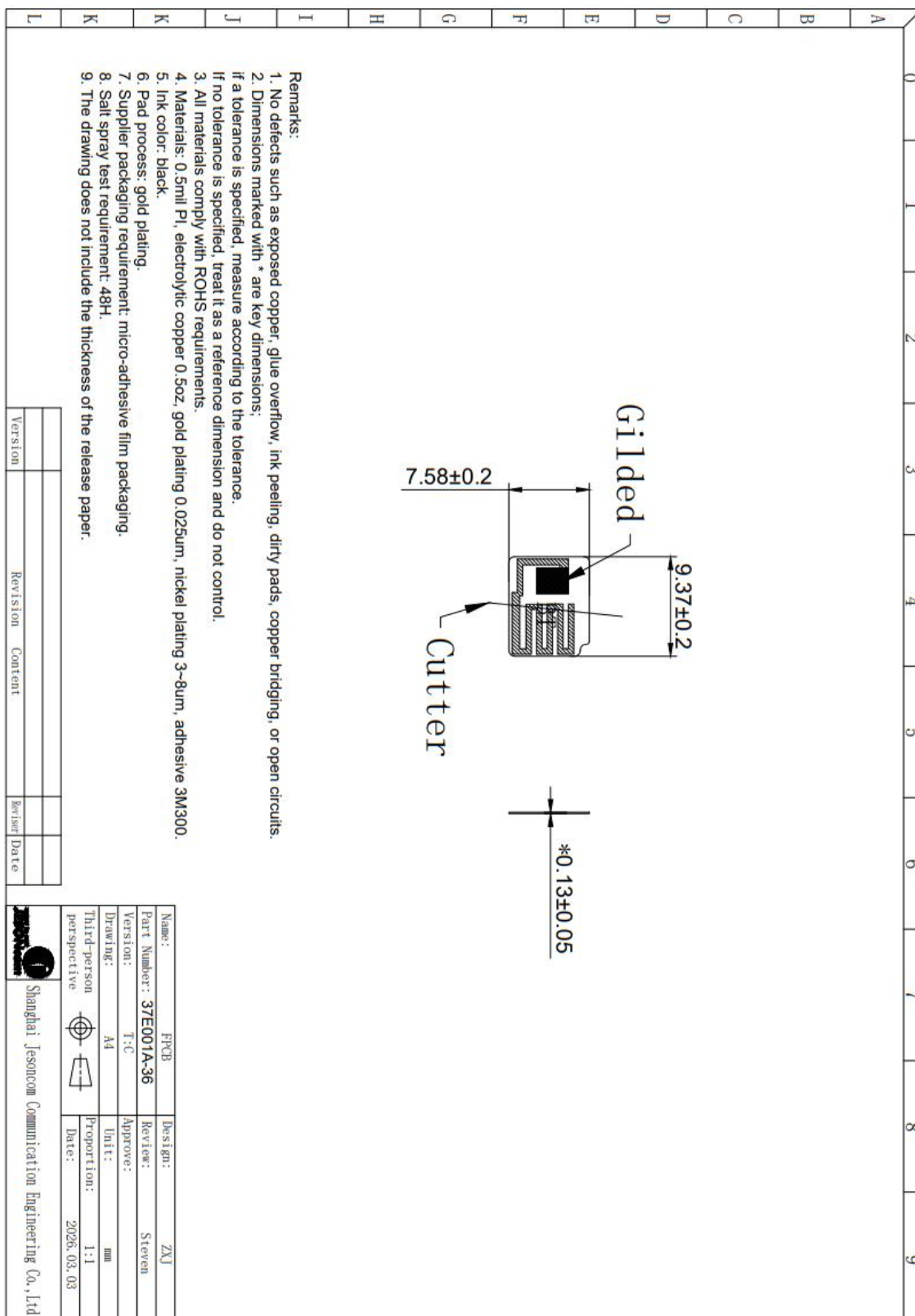
6 Environmental treatment suggestions

Environment does not need treatment

7 Impedance matching

No processing is needed for the match

8 Antenna plan



9 Antenna installation guide

9.1 Antenna installation instructions



10 Other(manner of packing)

None