



广州市高科中实通信技术有限公司
Gaoke Ant Co., Ltd.

Specification For Approval

Customer Hongcheng Electronic Technology Co., Ltd.

Supplier Gaoke Ant Co., Ltd

Production Name WIFI built-in antenna

Production Number GKZS-WIFI-AD4607-RF1.13I-86

Supplier Signature		
Engineer	Checked by	Approved by
Zhou Yintao	Xie Qianju	Yang Jingsong
2023-04-14	2023-04-14	2023-04-14

Customer Signature		
Engineer	Checked by	Approved by
Date:	Date:	Date:

Remark: Note : After the customer confirms and stamps, please return this admits to our company.

Gaoke Ant Co.,Ltd

Add:2 Floor, No. 22 Guangcong South Road, Shengang, Taiping town, Conghua District,
Guangzhou, Guangdong, China 510980

Tel: 020-87080630/87080639/87080632

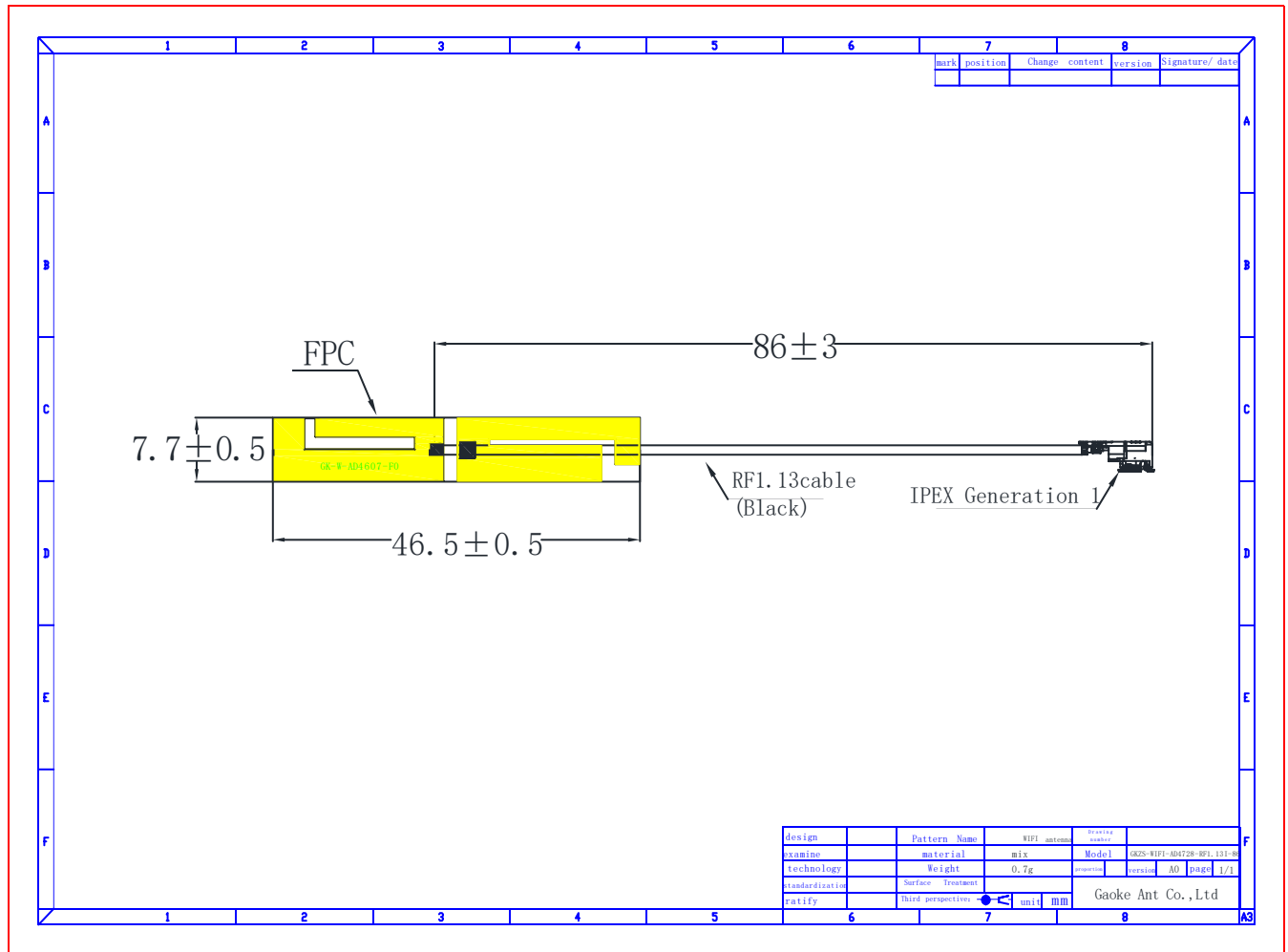
Fax: 020-87080731

<http://www.gkzs.com.cn>



Description Record

1.Product Structure Drawing (mm)



2.product physical image (Single antenna and overall assembly)



Schematic diagram of WiFi antenna



Schematic diagram of the installation position of the built-in WiFi antenna



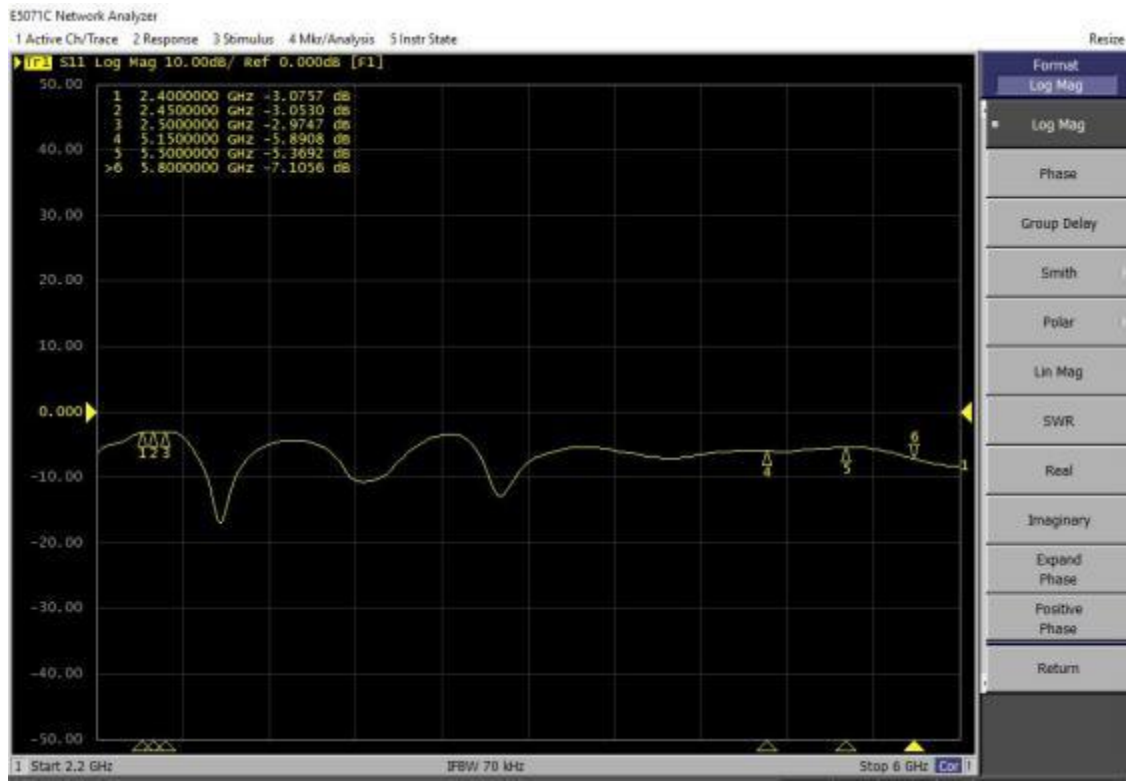
3. Antenna technical parameters

Antenna form	Built in Antenna
working Frequency	2400-2500MHz
Gain	1.61dBi (average) 、 2.17dBi (peak)
Antenna efficiency	44.35% (average) 、 49.72% (peak)
VSWR	≤ 11.5
Ploriaztion	linear polarization
Axial Ratio	≤ 3.0
Radiation pattern	Omnidirectional
impedance	50 Ω
Interface	IPEX generation 1/RF1.13 wire (black), total length 86mm
Overall dimensions	46.5x7.7mm
Weight	0.7g
Operatin Temp	-40℃~80℃
manufacturer	Gaoke Ant Co., Ltd
Test equipment	Agilent 8573E3、CMW500、Computer、receiving source (for
Test laboratory	Anechoic chamber (Gaoke Ant Co., Ltd)
testing procedure	S11 LOG→S11 SWR→Direction map (2D and 3D) →Efficiency curve→Gain curve

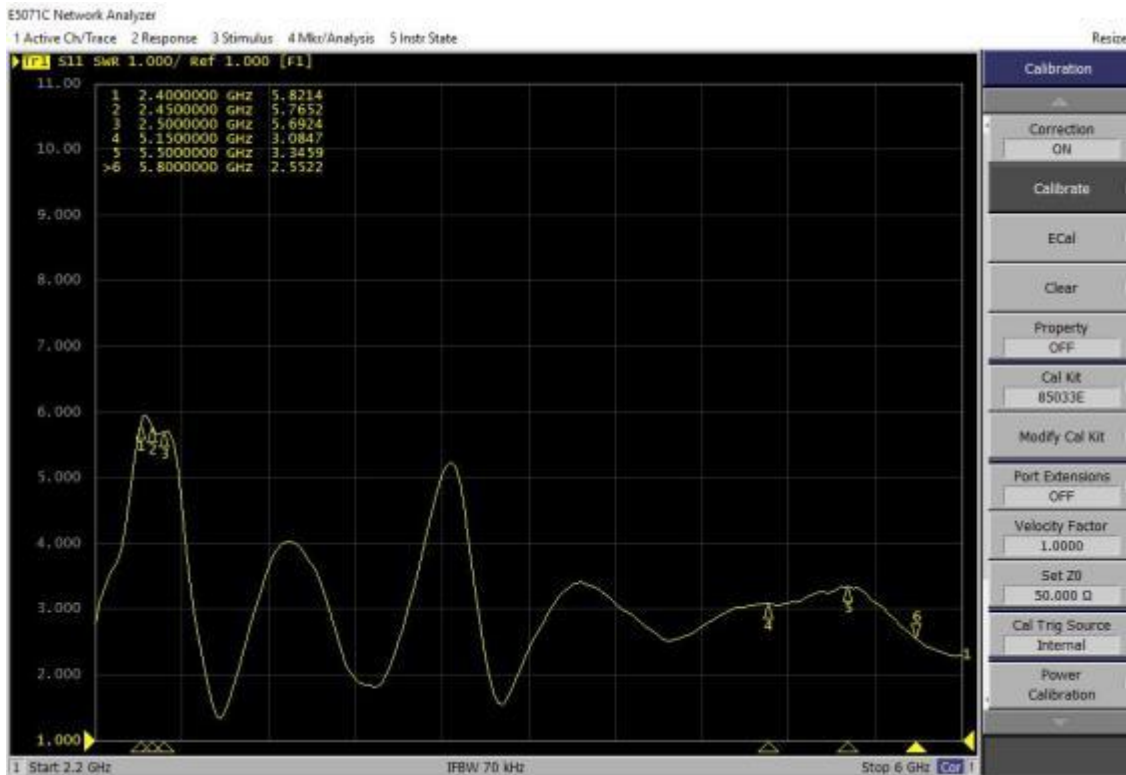
4. Antenna performance testing

1. Single antenna performance tes

(1) Return loss



(2) standing-wave ratio

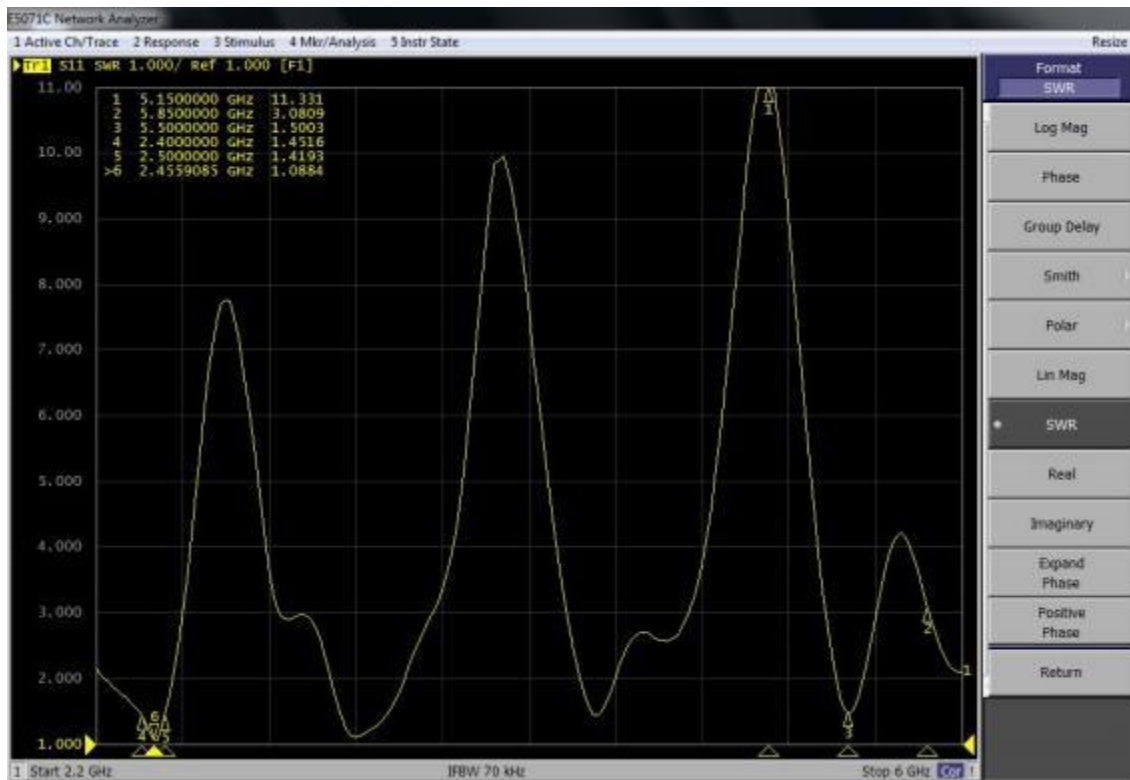


2. Overall antenna performance test

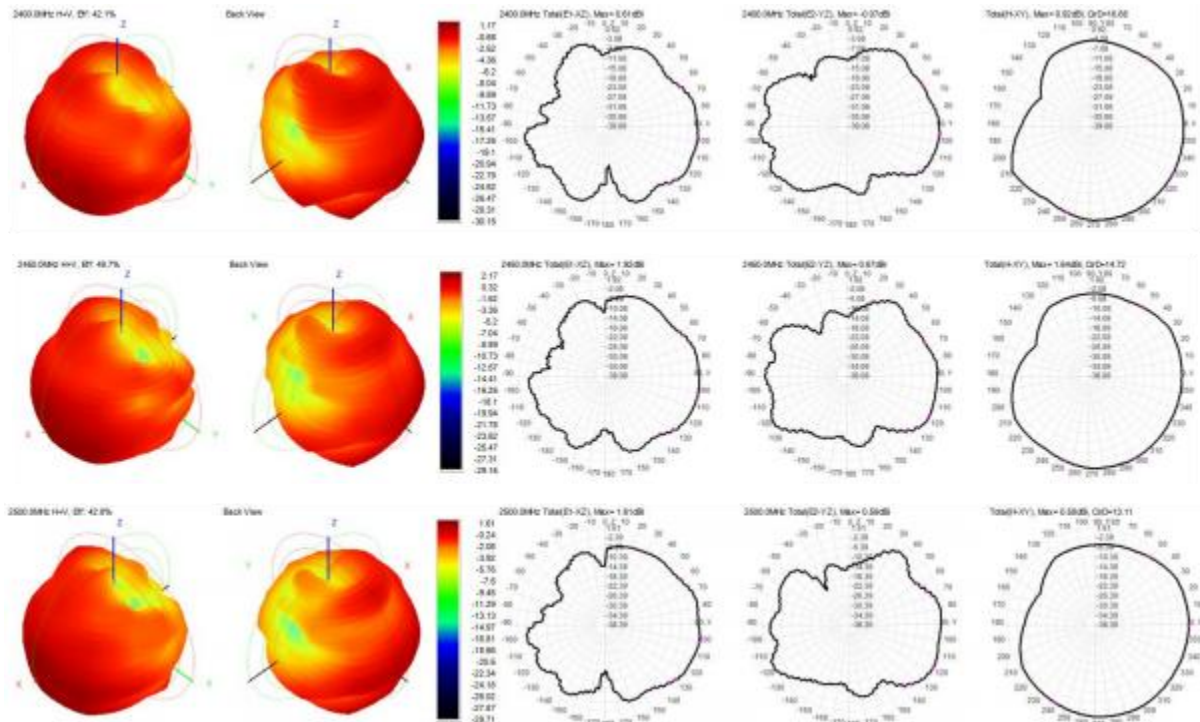
(1) Return loss



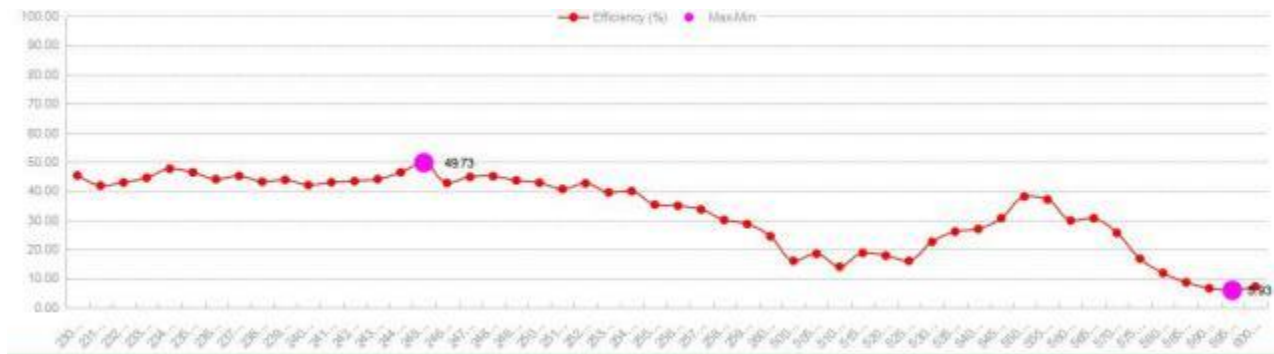
(2) standing-wave ratio



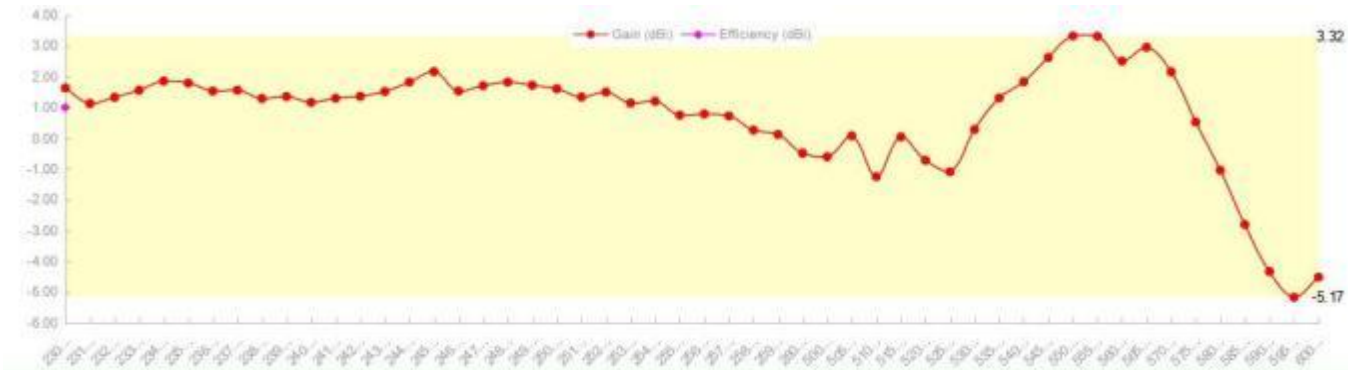
(3) Direction map (2D and 3D maps)



(4) Efficiency curve



(5) Gain curve





3. Gain&Efficiency Table

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400.0	-3.76	1.17	42.05
2410.0	-3.67	1.30	43.00
2420.0	-3.63	1.36	43.38
2430.0	-3.56	1.52	44.09
2440.0	-3.33	1.83	46.43
2450.0	-3.03	2.17	49.73
2460.0	-3.69	1.53	42.79
2470.0	-3.84	1.71	44.84
2480.0	-3.46	1.82	45.07
2490.0	-3.65	1.72	43.66
2500.0	-3.68	1.61	42.84