# Acknowledgement

## SPECIFICATION FOR APPROVAL

Customer Name		Shenzhen Gangshan Guanglian Electronic Technology Co., Ltd.
CUSTOMER NAME:		The third floor of Building 11, Heshakeng Industrial Zone, Sanlian Village, Buji Town Longgang District, Shenzhen
Customer Part Number		
CUSTOMER	P/N:	1120-008-0084 2.4Gbuilt-inFPCSticker Antenna,L=45MM, domesticIPEX Interface/Hongji Wireless Long44*Width5.6MM
Product Number		
PRODUCT	P/N:	H1C45F3D380A
Product Name		
PRODUCT	NAME:	2.4Gbuilt-inFPCantenna
Specifications:	H	1C45F3D380A/2.4Gbuilt-inFPCantenna0.81Black Line
Description:	L=4	45mm+DomesticIPEX(Second generation)
Version		

**REV:** 

Aversion

Factory stamp

S	Approval	Audit	Production
1	APPROVED BY	CHECKED BY	DRAM
G			
Ν			

Customer signature

S	quality	Development	project DE
	QE	R&D	PE
G			
Ν			



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### **1. Version HistoryRevision History):**

Version Number Reversio N	Revision Page noodle <b>Revisio</b>	Change Date Change date	Revised by Revised by	Reasons and contents of revision Reason and content for revision	<sub>Remark</sub> Remarks
А	-	2024.12.21	Victor	First edition released	

illustrate:

In principle, this specification is valid for 1 year;

If either party needs to make changes, both parties must reach an agreement and the changes can be implemented; after the validity period of this specification

expires, if neither party makes any request for modification, the validity period of this specification will be extended by 1 year.

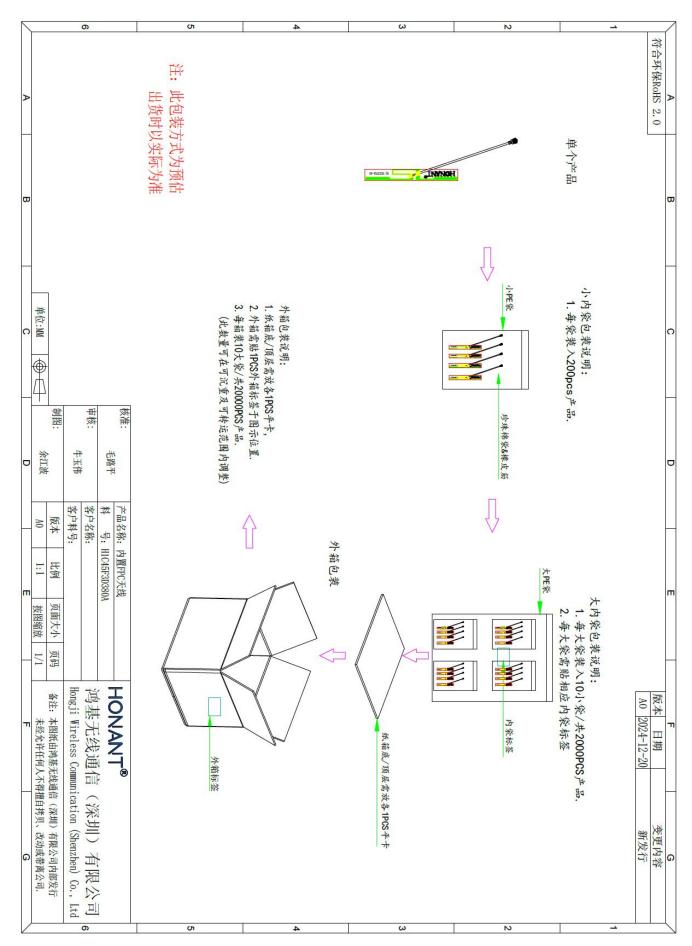
### 2. SpecificationsSpecification Table):

Main technical parameters of the product

Main	technical indicators	Main technical specifications				
Frequency range (MHZ)	2400-2500	Frequency Range (MHZ)	2400-2500			
Characteristic impedance(Ω)	50	Impedance(Ω)	50			
Gain(dBi)	1.66	Gain(dBi)	1.66			
Output voltage	≤2.0	VSWR	≤2.0			
Polarization	Linear polarization	Polarization	Linear			
Directionality	Omnidirectional	Radiation	Omni-directional			
Connection	Cable+IPEX	Connector Type	Cable+IPEX			
P	hysical properties	Physica	l Properties			
Antenna Materials	FPC	Antenna cover	FPC			
Operating temperature	- 20°C~+70°C	Operating Temp	- 20°C~+70°C			
Storage temperature	- 20°C~+60°C	Storage Temp	- 20°C~+60°C			

#### 3. Finished product picture (Product drawing):

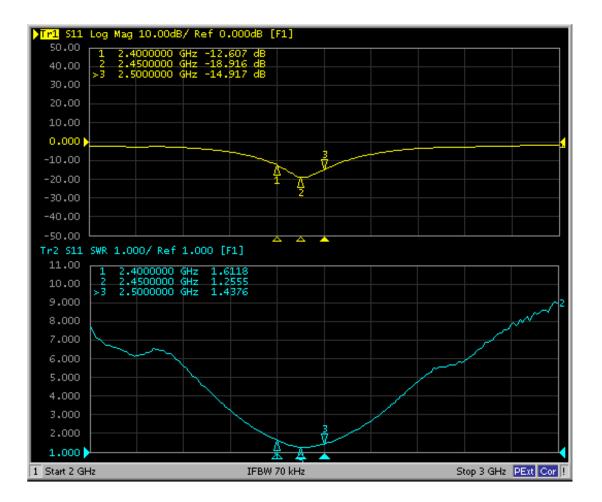
0		U1	4	ω	2	<u> </u>
物理及化学性能: 1、焊盘不可有氧化现象	电性能: 1、Frequency Range : 2、VSWR: ≪2.0					符合环保RoHS 2.0
20 <sup>5</sup> 40 40 <sup>550</sup> 50 <sup>°</sup> 100 単位: MM	2400-2500MHz 0~10		侧面		0.14±0.05 (含背胶,不含离型纸)	
<u>±0.3</u> <u>±0.5</u> <u>±0.5</u> <u>+0.5</u> 制图: 余江波	公差表 核准: 产目   ±0.2 毛路平 料   ±0.3 审核: タ			端子方向朝正面		
在/ 1 mm   客户料号:   版本 比例   0 1:1   K 按图缩放   1/1	「ア・マ」 ・ローマー 品名称:内置FPC天线 号:HIC45F3D380A	3 PPC 2 线材 1 端子	正面		5.5±0.2 43.4±0.2	-
Hongji Wireless Communication (Shenzhen) Co., 备注:本图纸由鸿基无线通信(深圳)有限公司内部发行 未经允许任何人不得擅自拷贝、该动或带离公司.	ANT <sup>®</sup> -线通信	1 FPC单面板;黑色   1 0.81黑色多芯双锡线   1 二代国产IPEX端子   期量 规格描述		нј настоа-ао	.2	版本 日期 A0 2024-12-20
n (Shenzhen) Co., Ltd 圳) 有限公司内部发行 贝、改动或带离公司.		面板;黑色 (色多芯双锡线 )户IPEX端子 规格描述	4	ω	N	<u> </u>



#### 4. Packaging Specifications (Packaging specifications):

### 5. Test report:

5.1: Network Analyzer Test Report

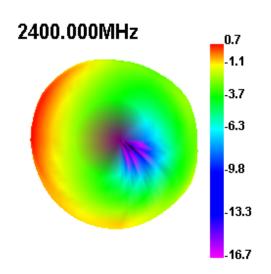


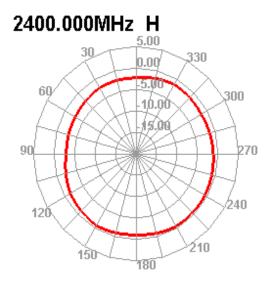
### 5.2 Antenna gain and efficiency

	Passive Test For 2400										
Freq	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min	Attenut	Attenut	
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	Hor	Ver	
2400	50.62	-2.17	0.69	-1.46	30.896	29.723	0.69	-16.74	46.87	46.67	
2410	52.59	-2.03	0.77	-1.38	31.843	30.747	0.77	-16.35	46.85	46.74	
2420	55.98	-1.81	1.14	-1.01	33.907	32.075	1.14	-16.18	46.98	46.85	
2430	51.86	-2.09	0.81	-1.34	31.729	30.134	0.81	-16.64	47.05	46.99	
2440	53.97	-1.94	1	-1.15	33.014	30.952	1	-16.3	47.31	47.29	
2450	56.85	-1.75	1.02	-1.13	34.403	32.446	1.02	-15.22	47.72	47.63	
2460	56.96	-1.43	1.29	-0.86	36.974	34.985	1.29	-14.02	47.76	47.66	
2470	58.73	-1.21	1.34	-0.81	38.62	37.105	1.34	-12.96	47.73	47.52	
2480	56.88	-1.14	1.37	-0.78	38.737	38.14	1.37	-12.37	47.76	47.52	
2490	57.78	-0.93	1.66	-0.49	40.801	39.976	1.66	-12.02	47.89	47.63	
2500	55.63	-1.1	1.51	-0.64	39.282	38.348	1.51	-12.04	47.75	47.52	
					· · · ·		Application Information				
							O4Version 4.95.303				
							TotalTime		3m 12s 530	ms	
							Additionallr	AdditionalInfor NULL			

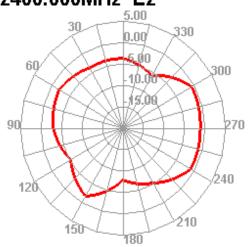
#### 5.3: Active test report

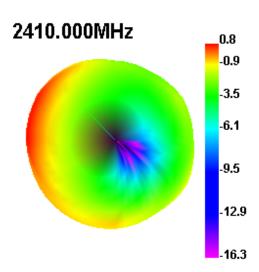
Active Measurement Report											
Manufacturer				Model							
Item	Tester	Measurement	Azimuths	Elevations	Standard	Band	Channel	Frequency	MaxValue	TIS	TRP
1	Cmw500	Tis_with_Eirp	Every30	Every30	WIFI_B	B_11M	1	2412	-82.44	-77.56	15.33
2	Cmw500	Tis_with_Eirp	Every30	Every30	WIFI_B	B_11M	6	2437	-83.82	-79.06	16.11
3	Cmw500	Tis_with_Eirp	Every30	Every30	WIFI_B	B_11M	13	2472	-79.08	-73.95	16.48

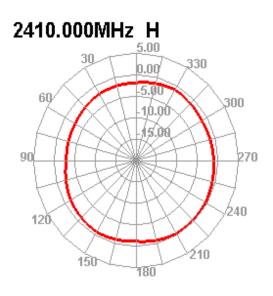




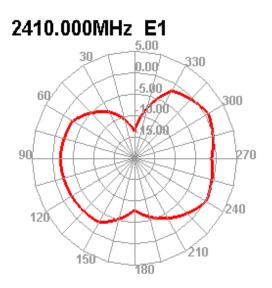
2400.000MHz E1 5.00 30 ,330 <u>0.00</u> 5.00  $60^{\prime}$ ,300 10.00 15.00 90 270 240 120 210 150 180

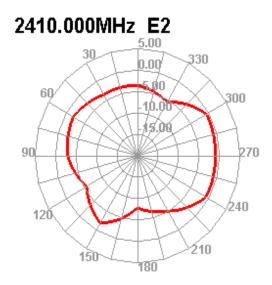


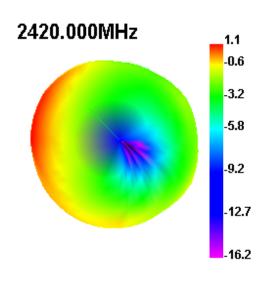


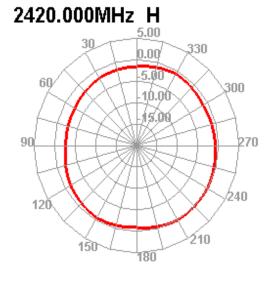


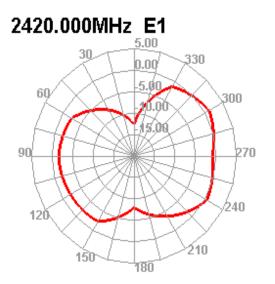
2400.000MHz E2

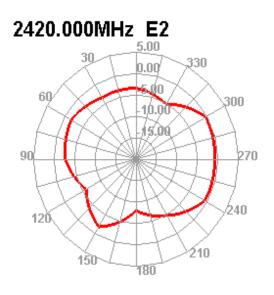


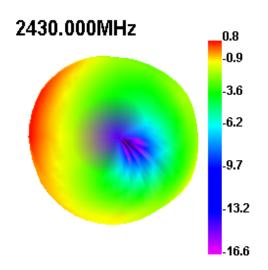


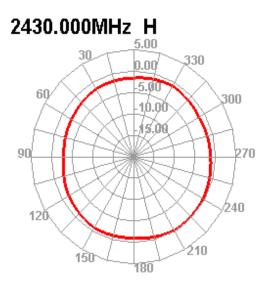


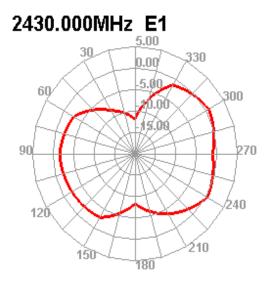


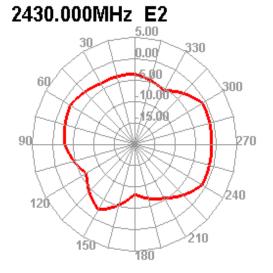


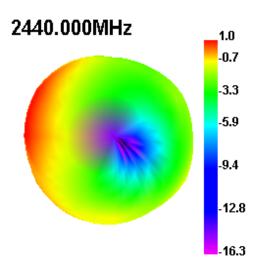


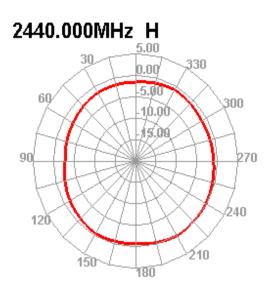


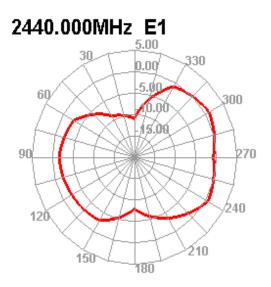


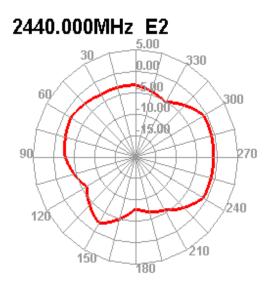


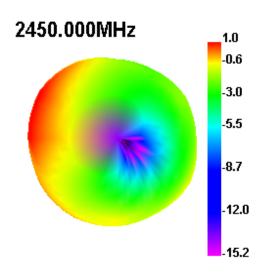


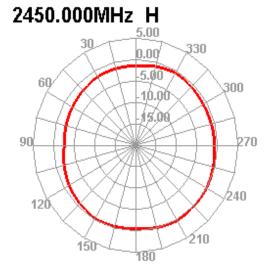


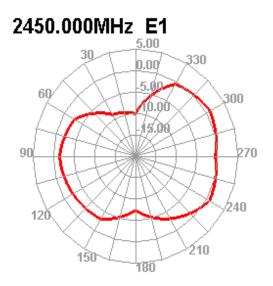


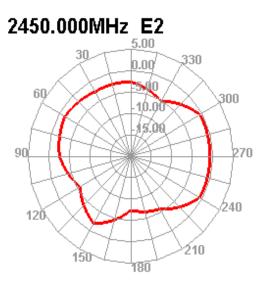


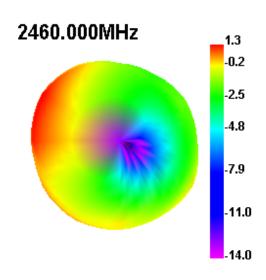


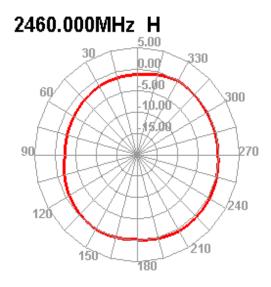


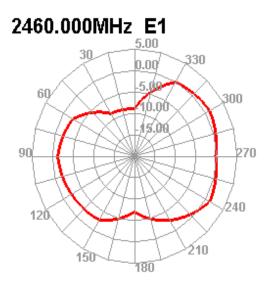


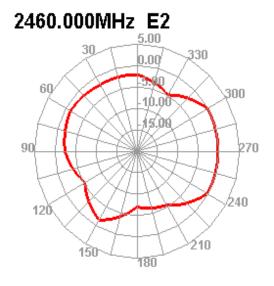


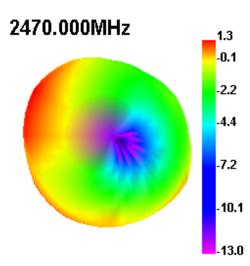




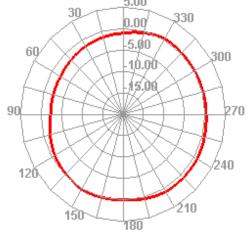


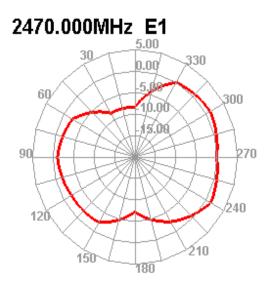


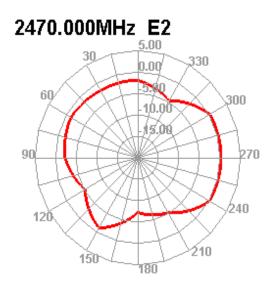


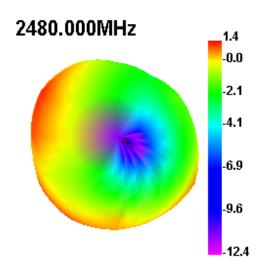


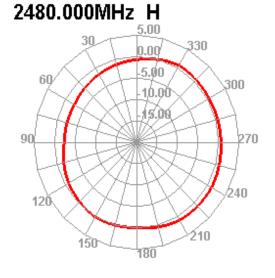
2470.000MHz H

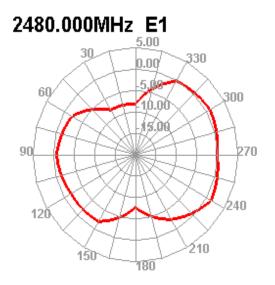


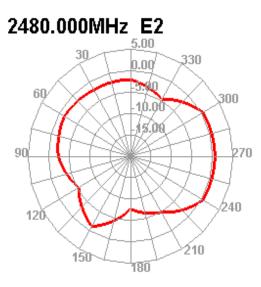


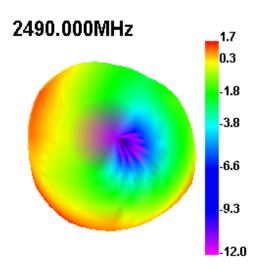


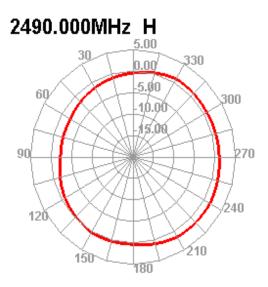












2490.000MHz E1 5.00 3Q. 330 0.00 5.00 60⁄ 300 10.00 15.00 90 270 240 12Ŏ **210** 150 180

