

承認書

客 戶: _____
品 名: WIFI Antenna
料 號: HX-A25D-WIFI
客戶料號: _____
送樣日期: 2019. 11. 21

客戶確認			供應廠商	
工程部	品保部	採購部	核准	送樣人
			趙 2019.11.21 守 剛	張晴

地址: 广东省东莞市沙田镇杨和路75号

ADD: No. 75, Yanghe Road, Shatian Town, Dongguan City,
Guangdong Province, China

TEL : 0769-81663533 FAX: 0769-89361945

E-mail:nogps@nogps.com

Http://www.nogps.com

1		2		3		4		5		6		7		8																																																																			
RoHS Compatible		CUSTOMER								REV.		DESCRIPTION		DATE																																																																			
		PART NO																																																																															
<table><tr><td>4</td><td>HX-HSTUBE2-12</td><td>热缩管</td><td></td><td>∅2.0/L=12.0 mm</td><td>1</td></tr><tr><td>3</td><td>HX-AN3204-03</td><td>金属天线</td><td>铜</td><td>0.3*33mm</td><td>1</td></tr><tr><td>2</td><td>HX-SMA9-06</td><td>SMA90° 公头公针</td><td>铜</td><td>镀金</td><td>1</td></tr><tr><td>1</td><td>HX-AN41-08</td><td>本体</td><td>PC+ABS</td><td>黑色</td><td>1</td></tr><tr><td>No.</td><td>Part Number</td><td>Description</td><td>Material</td><td>Finished</td><td>O'ty</td></tr></table> <table><tr><td colspan="4">东莞市亨松电子科技有限公司</td></tr><tr><td colspan="4">PART NAME: WIFI Antenna</td></tr><tr><td colspan="2">PART NO. : HX-A25D-WIFI.W01</td><td colspan="2">DATE: 2017-04-12</td></tr><tr><td>APPROVED BY</td><td>CHECKED BY</td><td>DESIDNED BY</td><td></td></tr><tr><td></td><td></td><td>覃剑勇</td><td></td></tr><tr><td colspan="2"></td><td>UNITS: mm</td><td>Tolerance</td></tr><tr><td colspan="2"></td><td>SCALE: 1/1</td><td>X.X ±0.50</td></tr><tr><td colspan="2"></td><td>REVISION: A</td><td>X.XX±0.15</td></tr><tr><td colspan="2"></td><td></td><td>X° ±3°</td></tr></table>																4	HX-HSTUBE2-12	热缩管		∅2.0/L=12.0 mm	1	3	HX-AN3204-03	金属天线	铜	0.3*33mm	1	2	HX-SMA9-06	SMA90° 公头公针	铜	镀金	1	1	HX-AN41-08	本体	PC+ABS	黑色	1	No.	Part Number	Description	Material	Finished	O'ty	东莞市亨松电子科技有限公司				PART NAME: WIFI Antenna				PART NO. : HX-A25D-WIFI.W01		DATE: 2017-04-12		APPROVED BY	CHECKED BY	DESIDNED BY				覃剑勇				UNITS: mm	Tolerance			SCALE: 1/1	X.X ±0.50			REVISION: A	X.XX±0.15				X° ±3°
4	HX-HSTUBE2-12	热缩管		∅2.0/L=12.0 mm	1																																																																												
3	HX-AN3204-03	金属天线	铜	0.3*33mm	1																																																																												
2	HX-SMA9-06	SMA90° 公头公针	铜	镀金	1																																																																												
1	HX-AN41-08	本体	PC+ABS	黑色	1																																																																												
No.	Part Number	Description	Material	Finished	O'ty																																																																												
东莞市亨松电子科技有限公司																																																																																	
PART NAME: WIFI Antenna																																																																																	
PART NO. : HX-A25D-WIFI.W01		DATE: 2017-04-12																																																																															
APPROVED BY	CHECKED BY	DESIDNED BY																																																																															
		覃剑勇																																																																															
		UNITS: mm	Tolerance																																																																														
		SCALE: 1/1	X.X ±0.50																																																																														
		REVISION: A	X.XX±0.15																																																																														
			X° ±3°																																																																														

Index:

1. Reliability Testing
2. Specification
3. S Parameter Test Data
4. Antenna Radiation Pattern

=====

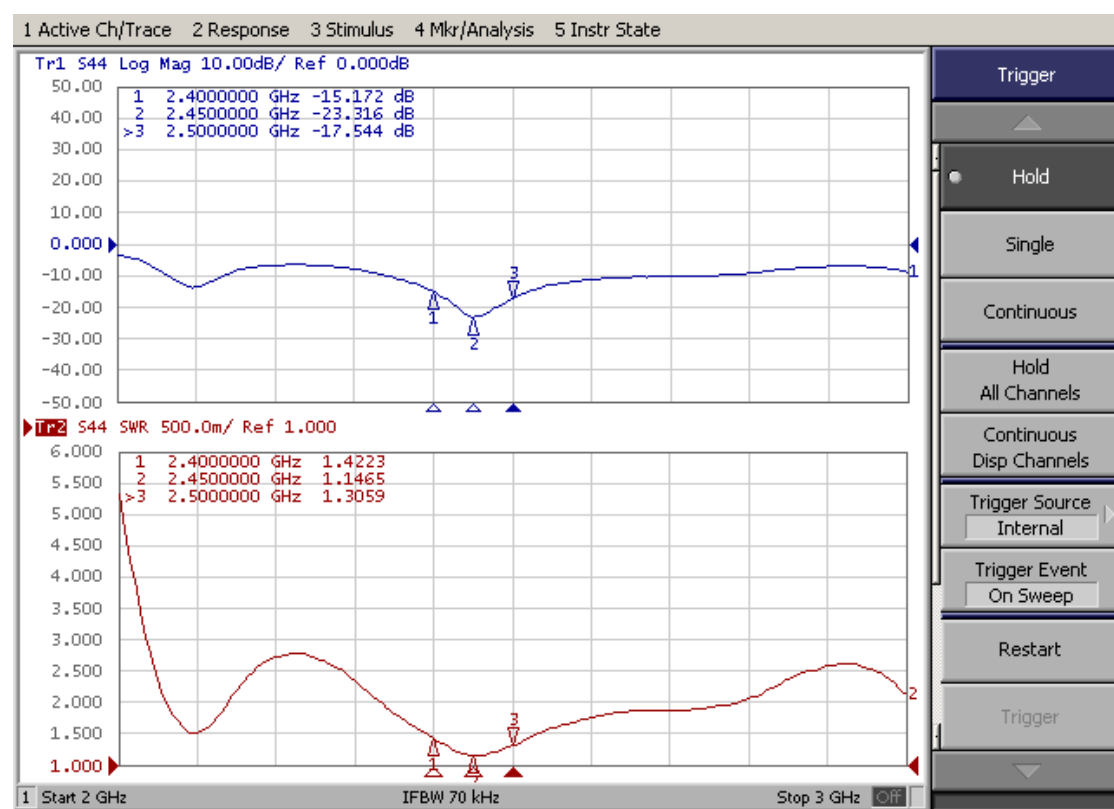
1. Reliability Testing

Test Item	Procedure	Requirement
1. Visual inspection and Dimension Check	Applicable methods using x5 magnification	follow specification
2. Rapid Changing of Temperature	-40°C (30minutes) to 80°C (30minutes); 24 cycles	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
3. Damp Heat	24 hours at 60°C; 90 ~ 95% RH	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
4. Endurance	24 hours at 80°C	After 2 hours recovery: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$
5. Connector Pull Strength Test	≥ 1.0 Kg	Hold 2~3S: 1. no visible damage 2. bandwidth tolerance < $\pm 5\%$

2. Specification

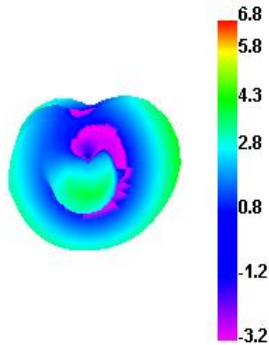
A. Electrical Characteristics	
S.W.R.(Tested in PC)	≤ 2.0 @ 2400~2500 MHz
Typical Antenna Gain	6.8dBi
Impedance	50 Ohm
B. Material	
Material of Radiator	CU
Connector Type	SMA
C. Environmental	
Operation Temperature	- 30 °C ~ + 85 °C
Storage Temperature	- 30 °C ~ + 85 °C

3. S.W.R. Testing Result

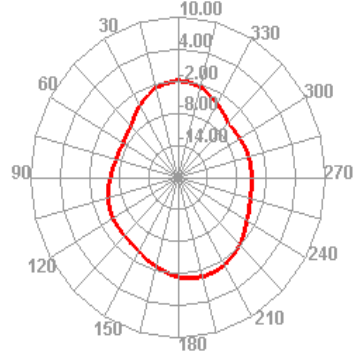


Passive Test For WIFI 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	74.49	-1.28	6.8	4.65	27.978	46.507	6.8	-13.15	8.08	0	45.25	45.22

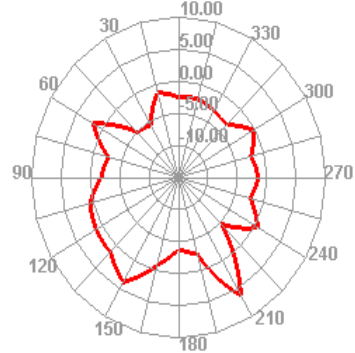
2400.000MHz



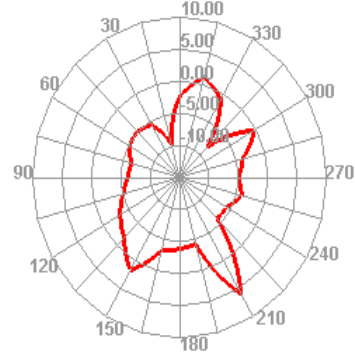
2400.000MHz H



2400.000MHz E1



2400.000MHz E2



4. Antenna Radiation Pattern

Testing Equipment Specification:

Antenna Anechoic Chamber Dimension: 8 x 4 x 4 m

Quiet Zone: 600mm @1 GHz

Isolation: >100dB @ 1 MHz ~ 10 GHz

Testing Equipment: Agilent 5071B

Received Antenna: 0.7 ~ 6.0 GHz for Gain Calibration

Double Ridged Horn Antenna

