WA-P-LE-02-289 Specification

1. Explanation of part number :

WA	_	P	_	LE	_	02	_	289
(1)		(2)		(3)		(4)		(5)

(1) Product Type：Wireless Antenna

(2) PCB: PCB+CABLE

(3) Frequency : 2400~2500MHz&5100~5800MHz&5925~7125MHz

(4) Coaxial Cable Type :Black

(5) Suffix : 289

2. Storage Condition:

Temperature -40 to +85℃

Humidity 20 to 90% RH

Recommended storage condition：

Store in room condition as listed below: Temperature -20℃~+45°C, Humidity 80% Max

3. Operating Condition:

Temperature -40 to +70℃

Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for K2-A13 WIFI model, and all characteristics were measured under the model's handset testing jig .

4-1. Frequency Band:

Frequency Band	MHz
WIFI	**2400~2500 & 5100~5800 & 5925~7125**

4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

4-4. VSWR

4-4.1 Measuring Method

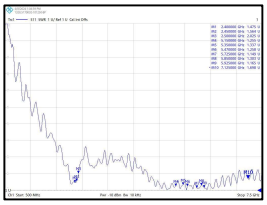
1.A 50Ωcoaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2.Keeping this jig away from metal at least 20cm

4-4.2 Measurement frequency points and VSWR value

VSWR	Frequency (Unit MHz)	Spec	1	2	3	4	5
WIFI Antenna	2450	≦3.0	1.5	1.8	1.6	1.3	1.4
	5350	≦3.0	1.3	1.3	1.4	1.3	1.3
	5925	≦4.0	1.1	1.1	1.1	1.1	1.1
	7125	≦4.0	1.7	1.5	1.5	1.5	1.5
	Judgement		ok	ok	ok	ok	ok

Antenna-1



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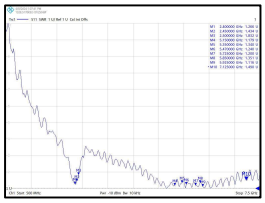

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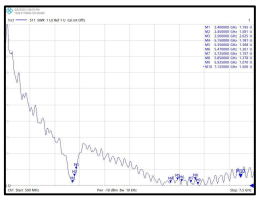

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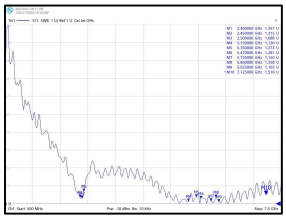
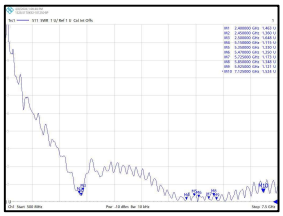


Antenna-5

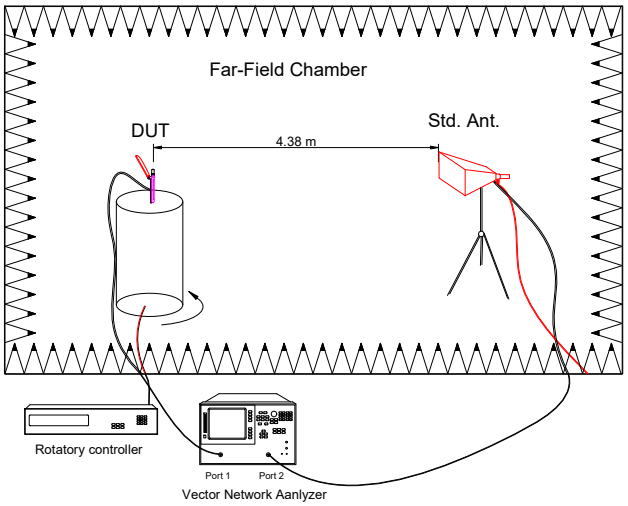


4-5. Efficiency and Gain

4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition



1. An anechoic chamber (8mx4mx3.5m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quite room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

4-5.3 Efficiency and Gain

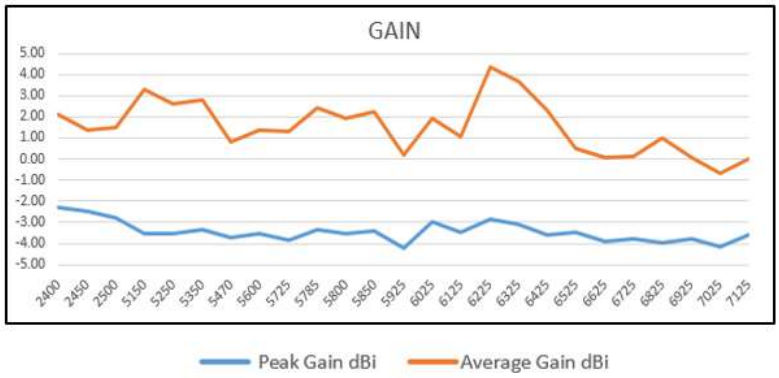
Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows Peak Gain and Average Gain.

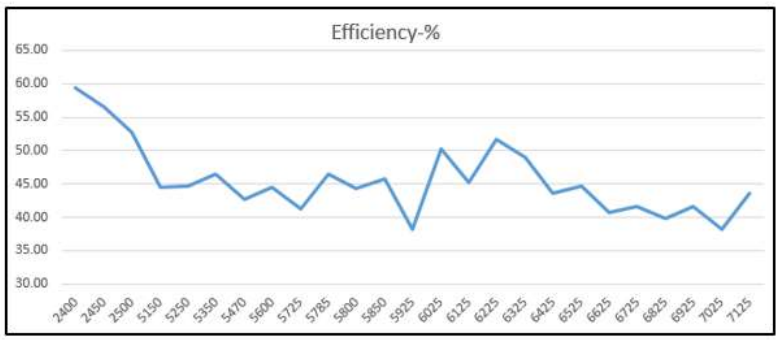
4-5-3-1 Electrical specification

Frequency (MHz)	Average Efficiency (%)
2400~2500	>55
5100~5825	>40
5925~7125	

4-5.3-2 Efficiency and Gain Test Data

Freq-MHz	Average Gain-dBi	peak Gain-dBi	Efficiency-%
2400	-2.26	2.12	59.38
2450	-2.48	1.36	56.50
2500	-2.78	1.51	52.77
Average	-2.51	1.66	56.22
5150	-3.52	3.28	44.46
5250	-3.50	2.62	44.64
5350	-3.33	2.78	46.43
5470	-3.69	0.79	42.71
5600	-3.51	1.35	44.54
5725	-3.85	1.32	41.24
5785	-3.32	2.41	46.51
5800	-3.54	1.94	44.27
5850	-3.39	2.26	45.81
Average	-3.52	2.08	44.51
5925	-4.19	0.20	38.13
6025	-2.99	1.92	50.23
6125	-3.45	1.09	45.16
6225	-2.87	4.38	51.60
6325	-3.10	3.65	48.94
6425	-3.60	2.32	43.67
6525	-3.50	0.48	44.66
6625	-3.91	0.06	40.66
6725	-3.81	0.16	41.59
6825	-3.99	0.98	39.90
6925	-3.81	0.06	41.63
7025	-4.18	-0.69	38.17
7125	-3.61	0.00	43.52
Average	-3.62	1.12	43.68





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TITLE : WA-P-LE-02-289 Specification

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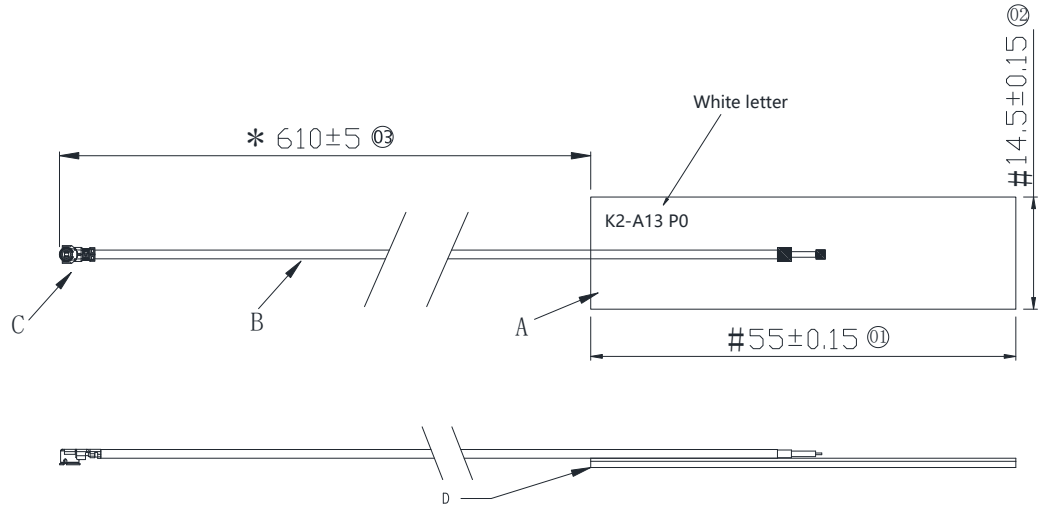
5. Mechanical Specification:

Mechanical Configuration: ("*"is CPK "*" is important dimension)



Material list :

Item	Description	Material	Quantity
A	PCB	FR4 55x14.5mm,T0.4mm	1
B	Cable	WIR OD1.13mm Low Loss Black	1
C	Connector	CON,MHF-4L Plug Connector	1
D	TAP	VHB 0.8t	1

6. UL File No:

ITEM	DESCRIPTION	SUPPLIER	UL File No
1	PCB		
2	CABLE		

7. Product Picture:

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