

WA-P-LB-03-079 Specification

1. Explanation of part number :

WA - P - LB - 03 - 079
(1) (2) (3) (4) (5)

(1) Product Type: Wireless Antenna

(2) Material: PCB

(3) Frequency : WIFI (2.4GHz-2.5GHZ,5.1GHz~5.8GHz)

(4) Coaxial Cable Type : 03

(5) Suffix :079

2. Electrical Specification :

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

2-1. Frequency Band:

Frequency Band	GHz
WIFI	2.4-2.5GHz,5.1-5.8GHz

2-2. Impedance

50 ohm nominal

1UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±

ANGLES=± HOLEDIA=±

SCALE : UNIT : mm

DRAWN BY:李志强 CHECKED BY: 李志强

DESIGNED BY : 张冲 APPROVED BY : 胡志清

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2-3. VSWR

2-3-1.Measurement frequency points and VSWR value

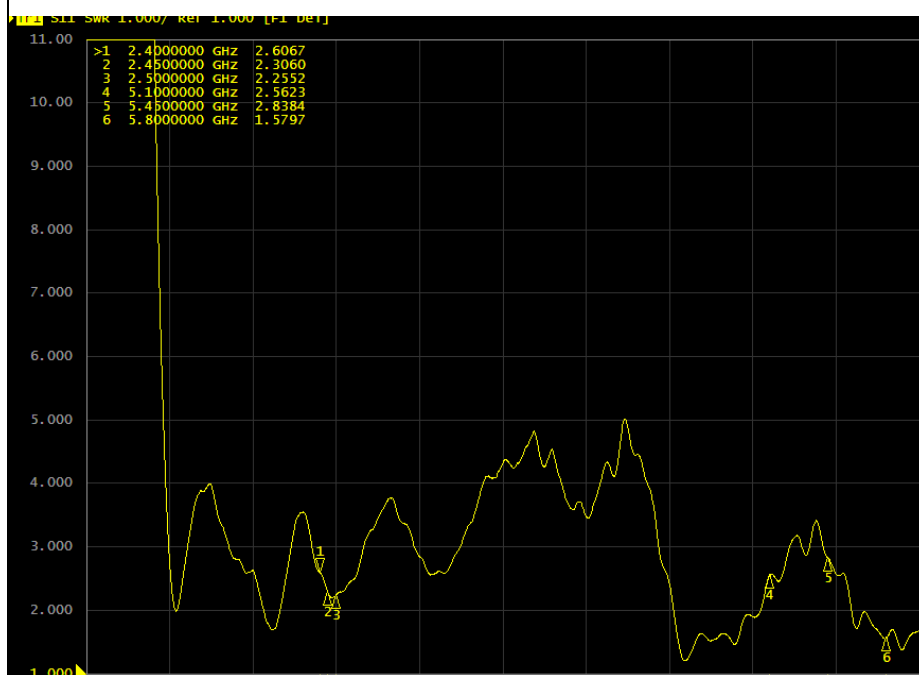
Frequency (MHz)	2400	2500	5100	5800
VSWR	2.61	2.26	2.56	1.58

2-3-2. VSWR

Frequency Band(MHz)	2400	2450	2500	5800
2-3-3. Typical Value:	≤ 3.5	≤ 3.5	≤ 3.5	≤ 3.5

2-3-4 Measuring Method	1. A 50Ω coaxial cable is connected to the PCB. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm
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2-3-5 Picture



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2-4. Efficiency and Gain

- 量测仪器：微波暗室，网络分析仪，标准天线。
- 微波暗室说明：

这是本公司设置在深圳的微波暗室，本微波暗室是属于一套远场量测系统,暗室的大小为 2.6 米 x1.6 米 x1.6 米 ， 静区尺寸(Quiet zone)大小为 15 厘米 x15 厘米 x15 厘米。

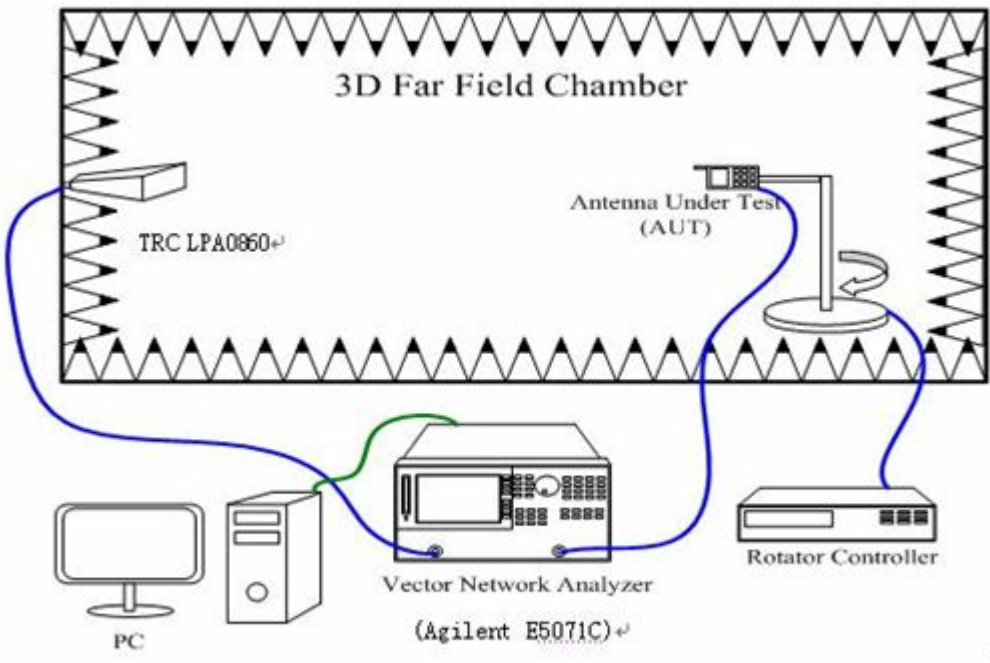


图. 1. 微波暗室内仪器设置 r.↵

图. 1 为微波暗室内的仪器设置及网络分析仪的联接图，发射天线(本暗室所使用发射天线的型号为 TRC LPA0860 800MHZ-6GHZ)到待测天线(AUT)的距离为 1.35 米，待测天线放置在旋转平台上,藉由控制转台旋转的角度可对待测天线做概略性及较为准确的量测。

将待测天线放置于旋转台上,并测得其各个平面(ZY 平面及 ZX 平面)的 360 度场强数据。再将待测天线换置成标准偶极天线(本暗室所使用的标准偶极天线型号为 TRC AD series dipole antenna 800MHz~2500MHz)将其 360 度的场强数据测出，以作换算增益标准值，经由式 1 的换算即可获得待测天线的增益值及方向图。

$$G_{AUT} = G_{stand} + P_{AUT} - P_{stand}$$

G_{AUT} : Gain of AUT
 G_{stand} : Gain of Standard Gain Antenna
 P_{AUT} : Measured Power of AUT
 P_{stand} : Measured Power of Standard Gain Antenna

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2-4-1 Efficiency and Gain

2-4-1-1 电气测试要求

Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	>30	>1
2450	>30	>1
2500	>30	>1
5100	>30	>1
5400	>30	>1
5800	>30	>1

2-4-1-2 电气测试数据

Frequency (MHz)	Efficiency (%)	Peak Gain (dBi)
2400	50.13	2.63
2450	52.41	2.68
2500	51.65	2.66
5100	45.69	2.50
5400	47.32	2.57
5800	46.28	2.54

3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm) (* dimension is important dimension)

The appearance of the antenna is according to drawing Figure

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Technical drawing showing the TOP and BOTTOM views of the INPAQ V1 module.

TOP 油墨面 (Top View):

- Overall width: 57.1 ± 0.2
- Distance from left edge to mounting hole center: 6.3 ± 0.3
- Distance from mounting hole center to cable connector: 24.9 ± 0.30
- Cable width: 12.3 ± 0.2
- Mounting hole diameter: 6.3 ± 0.30
- Distance from left edge to cable connector: 4.0 ± 0.30
- Distance from left edge to cable connector: 5.8 ± 0.30
- Label: 丝印线 (Silk Screen Line)
- Label: 焊锡高度 MAX1.5mm (Solder Height MAX 1.5mm)
- Label: INPAQ V1

BOTTOM View:

- Distance from left edge to mounting hole center: 0.80 ± 0.1
- Mounting hole diameter: $2 \times R0.6 \pm 0.05$
- Mounting hole diameter: $2 \times R1.2 \pm 0.05$

接头端

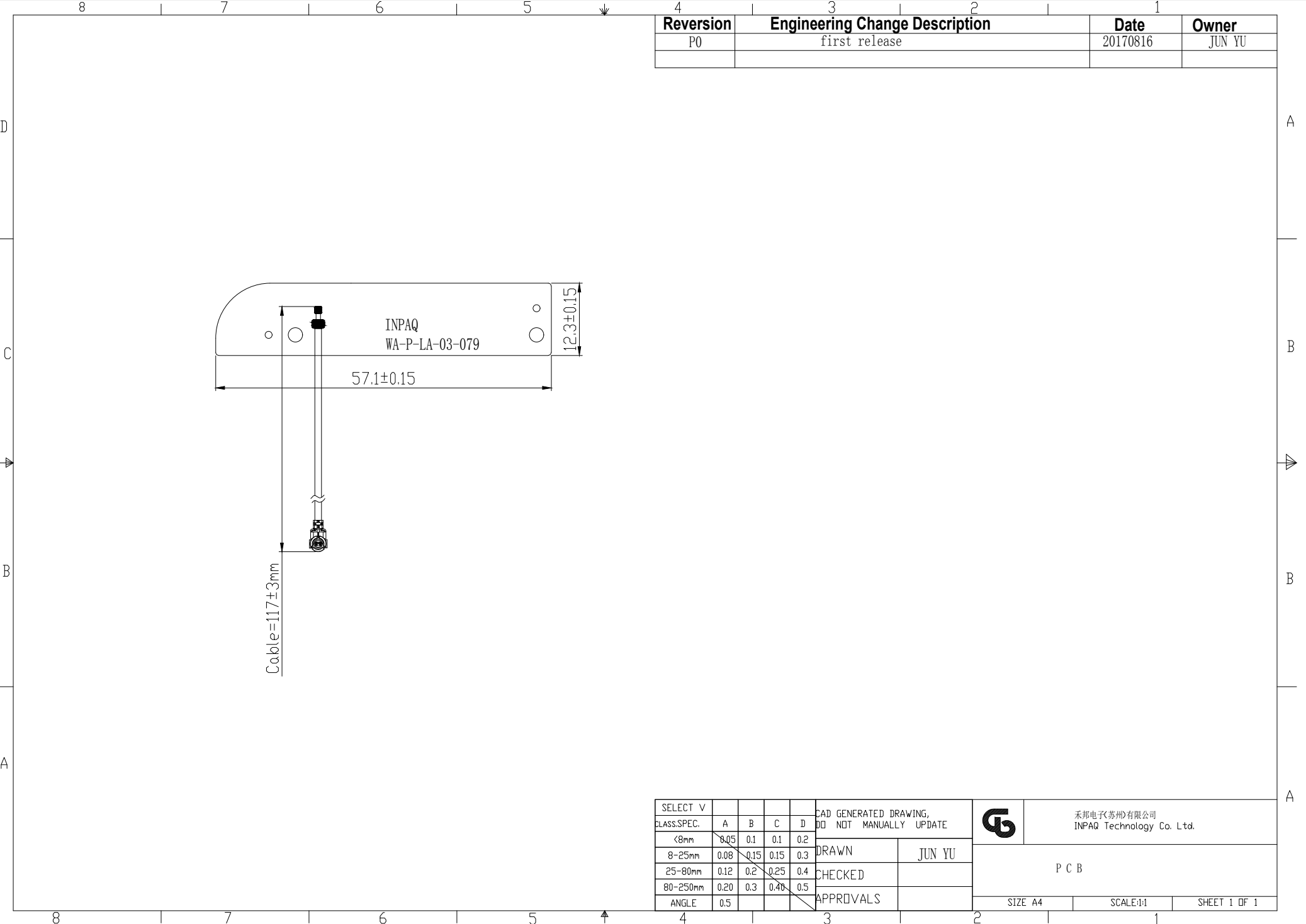
H

core

braid

Connector: I-PEX MHF(20278-112R-13); Cable: RF Cable 1.13 (GRAY)
 线长(含接头) H: 117±3mm

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Reversion	Engineering Change Description	Date	Owner
P0	first release	20170816	JUN YU

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CLASS.SPEC.	A	B	C	D	DRAWN			JUN YU		
<8mm	0.05	0.1	0.1	0.2	CHECKED		P C B			
8-25mm	0.08	0.15	0.15	0.3	APPROVALS					
25-80mm	0.12	0.2	0.25	0.4						
80-250mm	0.20	0.3	0.4	0.5						
ANGLE	0.5									
							SIZE A4		SCALE:1:1	SHEET 1 OF 1