

WA-P-LB-02-1069 Specification

1. Explanation of part number :

WA - P - LB - 02 - 1069
(1) (2) (3) (4) (5)

- (1) Product Type: Wireless Antenna
- (2) Material: PCB+cable
- (3) Frequency: 2400-2500MHz;5150-5850MHz
- (4) Coaxial Cable Type: With BLACK
- (5) Suffix: 1069

2. Operating Condition:

Temperature -40 to +70°C
Humidity 20 to 65% RH

3. Storage Condition:

Temperature -40 to +70°C
Humidity 10 to 85% RH

4. Electrical Specification :

Those specifications were specially defined for 宝时得割草机 wifi 双频天线 model, and all characteristics were measured under the model's handset testing.

4-1. Frequency Band:

Frequency Band	MHz
WIFI	2400-2500/5150-5850MHz

4-2. Impedance

50 ohm nominal

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : WA-P-LB-02-1069 Specification

DOCUMENT
NO.

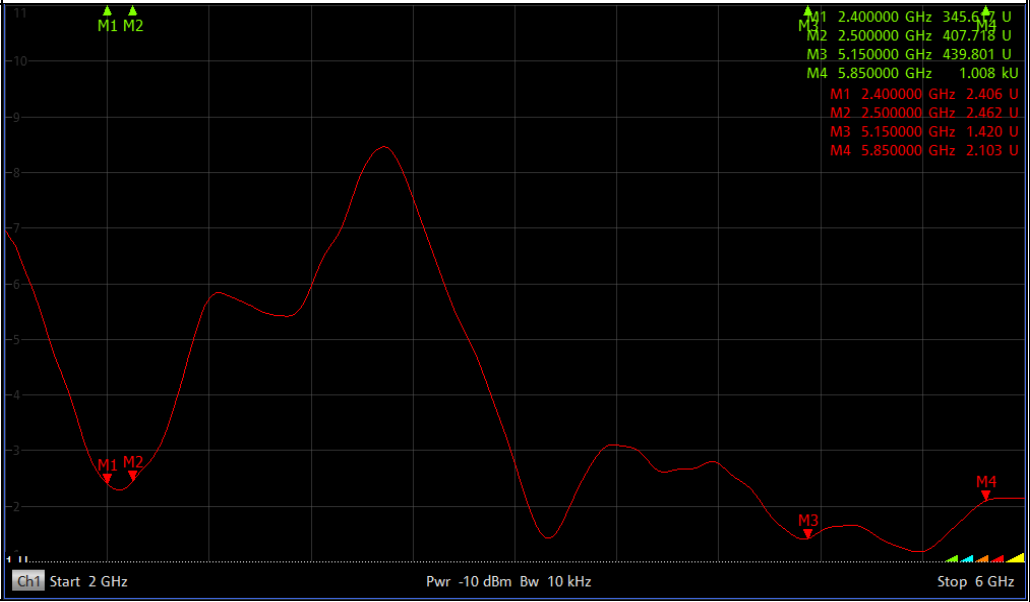
ENS000194020

PAGE REV.
P2

4-3. Matching circuit

None

4-4. VSWR

Frequency (MHz)	2400	2500	5150	5850
2-3-1.Typical Value:	≤3.0	≤3.5	≤3.0	≤3.0
2-3-2Measuring Method	1. 50 Ω 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.			
2-3-3Picture				

UNLESS OTHER SPECIFIED TOLERANCES ON : X=± X.X=±0.15 X.XX=±0.15 ANGLES=± HOLEDIA=±		 佳邦科技股份有限公司 INPAQ TECHNOLOGY CO., LTD.	
SCALE : /	UNIT : mm	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DRAWN BY : 张涛	CHECKED BY : 张涛		
DESIGNED BY : 单动力	APPROVED BY : 范东亚		
TITLE : WA-P-LB-02-1069 Specification		DOCUMENT NO.	PAGE REV.
		ENS000194020	P2

4-5. Efficiency and Gain

4-5.1 Measuring equipment

Measuring instrument:

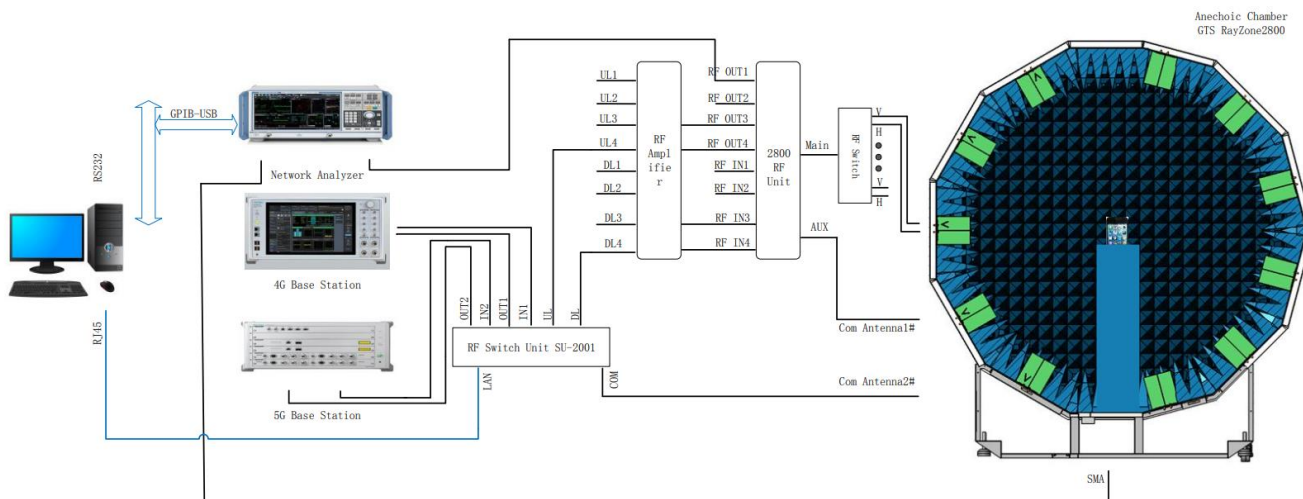
Microwave chamber, Network analyzer, and standard antenna.

Instructions for microwave chamber:

This is a microwave chamber set up by our company in Suzhou, This microwave chamber belongs to a set of near-field measurement system. The size of the chamber is 2.95M * 3M * 3M.



RayZone2800 Test Setup



The microwave chamber, shown above, using a unique multi-probe technique, The aim is to reduce the measurement time of the whole measurement system. The measuring system use multi-probe array instead of single probe to scan the measured surface of the antenna under test, a single probe has the capability of measuring orthogonal polarization amplitude and phase, it also has a wide frequency range, the corresponding multi-probe array is switched quickly by electronic switch, greatly improved the measurement efficiency.

The probe model: MA186960A(400MHz~7.5GHz) . Because of its capability of broadband frequency and the orthogonal polarization function, the number of probes needed to be equipped with the system is reduced; The small size of the probe reduces the coupling between the probes, make it is possible to insert probes of other frequency bands between probes, then a single system can support a wider frequency range.

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

PAGE REV.
P2

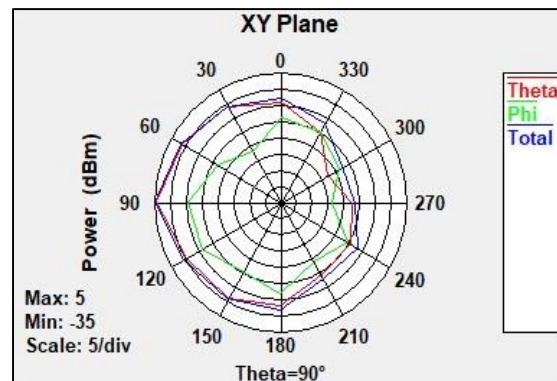
4-5.2 Chamber definition

1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet 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 Antenna Passive Test Result

Frequency (MHz)	H-Pol(dBi)	V-Pol(dBi)	Peak Gain (dBi)	Average (dBi)	Efficiency (%)
2400	3.99	-5.72	4.49	-3.44	45.32
2412	3.97	-5.49	4.50	-3.14	48.54
2437	3.26	-5.77	3.77	-3.10	49.01
2450	3.15	-5.84	3.67	-2.98	50.33
2462	2.84	-6.22	3.35	-3.02	49.92
2500	1.78	-6.95	2.33	-3.11	48.81
5150	0.98	-0.67	3.93	-3.29	46.92
5250	-0.44	-3.07	4.25	-3.40	45.75
5350	-0.57	-5.03	5.03	-3.52	44.50
5470	-0.27	-4.69	5.69	-3.28	47.00
5600	-1.08	-7.96	4.95	-3.46	45.05
5725	0.17	-7.99	5.93	-3.63	43.32
5785	-1.58	-8.06	4.98	-3.62	43.46
5850	-1.23	-8.15	5.52	-3.67	42.94

2400 MHz



Center Frequency	2400 MHz
Three-dimensional (dBi) peak	4.49

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

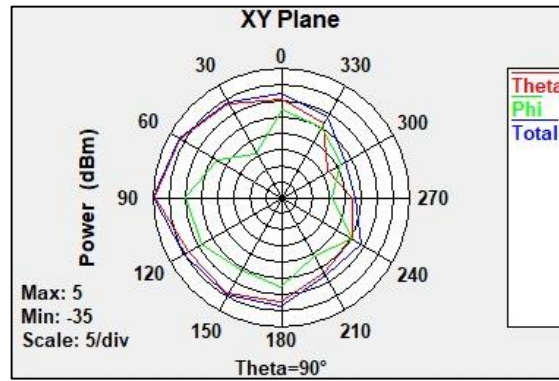
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

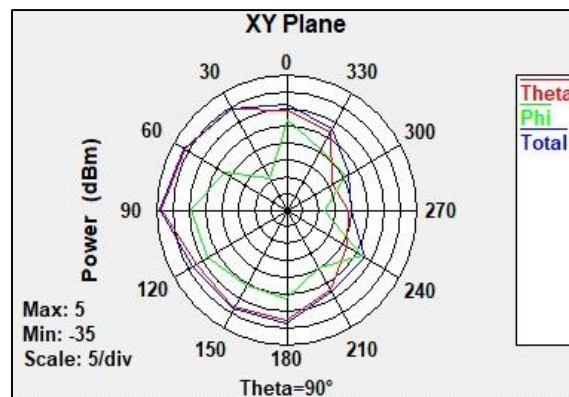
PAGE REV.
P2

2412 MHz



Center Frequency	2412 MHz
Three-dimensional (dBi) peak	4.50

2437 MHz



Center Frequency	2437 MHz
Three-dimensional (dBi) peak	3.77

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

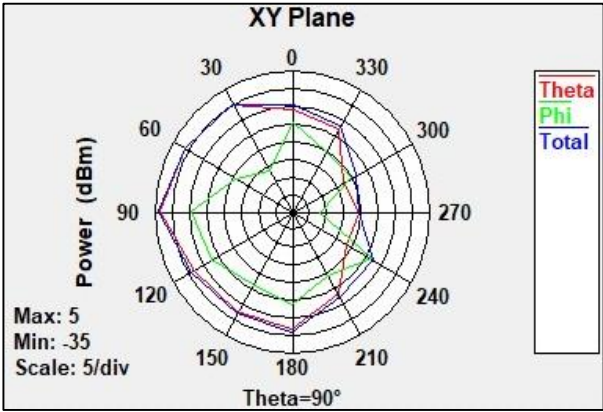
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

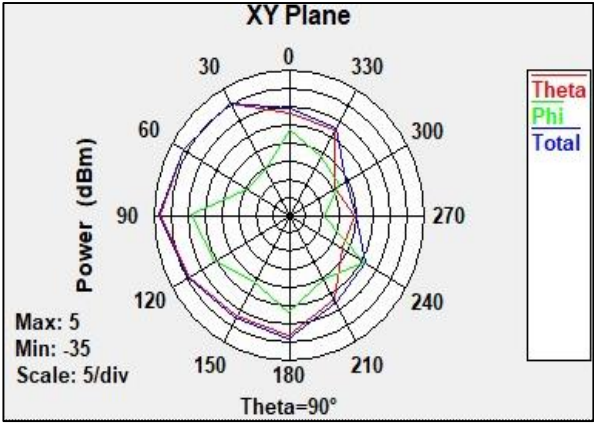
PAGE REV.
P2

2450 MHz



Center Frequency	2450 MHz
Three-dimensional (dBi) peak	3.67

2462 MHz



Center Frequency	2462 MHz
Three-dimensional (dBi) peak	3.35

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

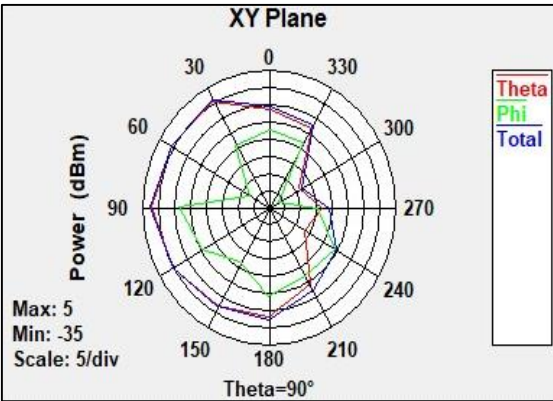
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

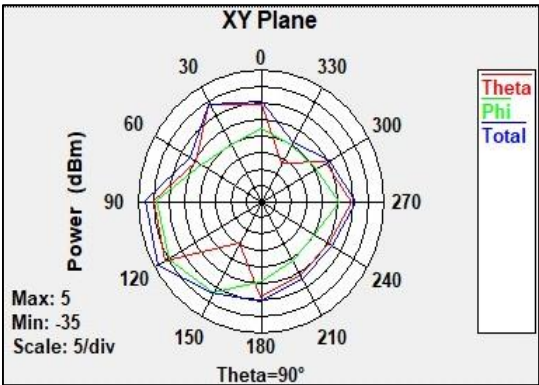
PAGE REV.
P2

2500 MHz



Center Frequency	2500 MHz
Three-dimensional (dBi) peak	2.33

5150 MHz



Center Frequency	5150 MHz
Three-dimensional (dBi) peak	3.93

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

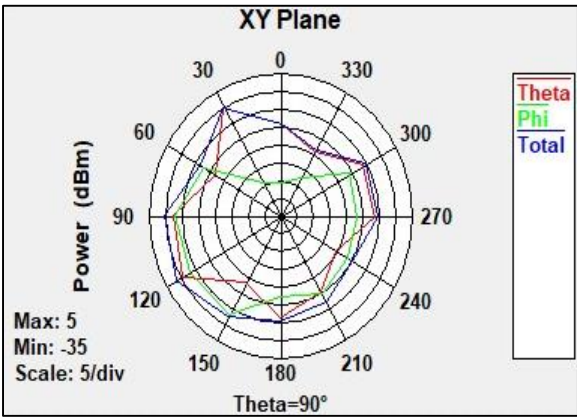
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

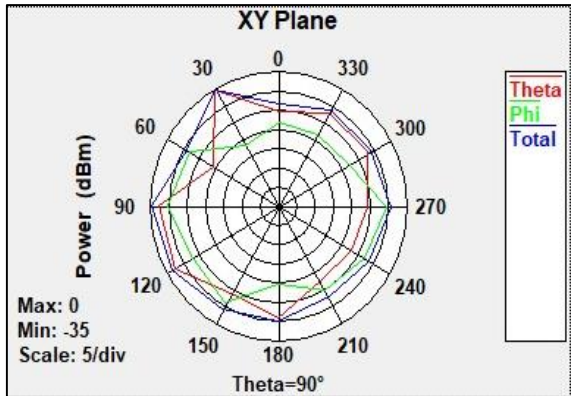
PAGE REV.
P2

5250 MHz



Center Frequency	5250 MHz
Three-dimensional (dBi) peak	4.25

5350 MHz



Center Frequency	5350 MHz
Three-dimensional (dBi) peak	5.03

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

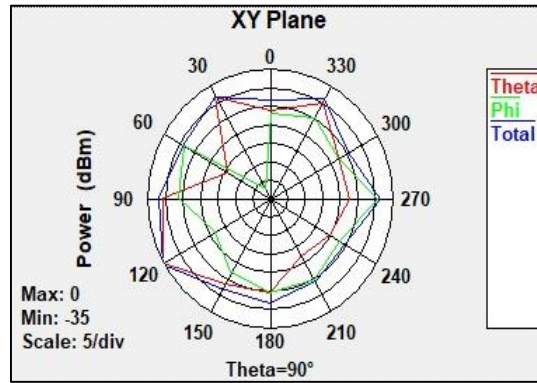
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

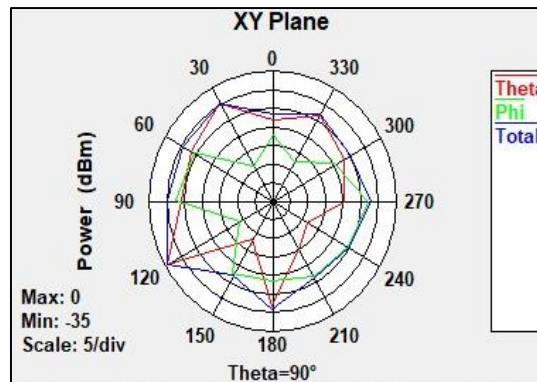
PAGE REV.
P2

5470 MHz



Center Frequency	5470 MHz
Three-dimensional (dBi) peak	5.69

5600 MHz



Center Frequency	5600 MHz
Three-dimensional (dBi) peak	4.95

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

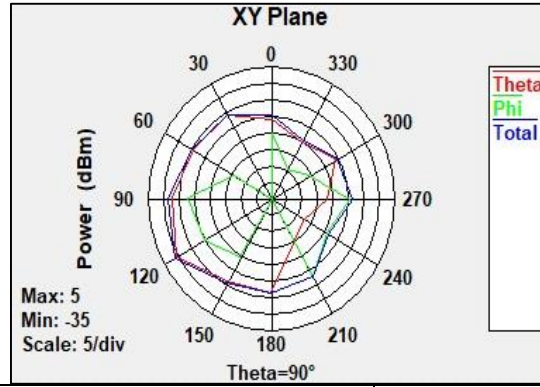
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

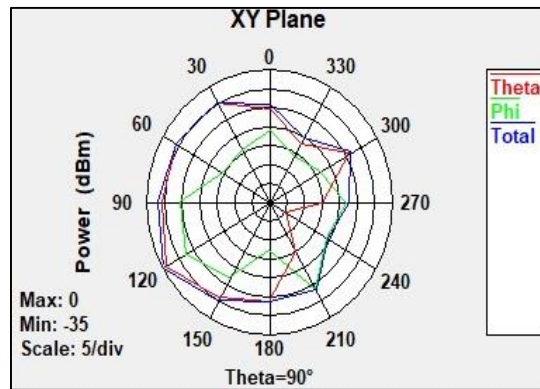
PAGE REV.
P2

5725 MHz



Center Frequency	5725 MHz
Three-dimensional (dBi) peak	5.93

5785 MHz



Center Frequency	5785 MHz
Three-dimensional (dBi) peak	4.98

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

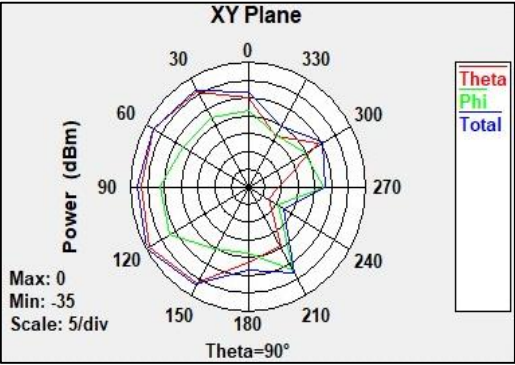
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

PAGE REV.
P2

5850 MHz



Center Frequency	5850 MHz
Three-dimensional (dBi) peak	5.52

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

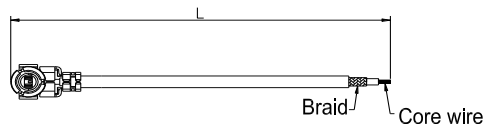
DOCUMENT
NO.

ENS000194020

PAGE REV.
P2

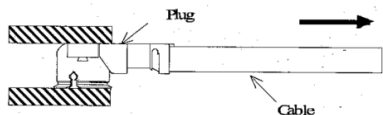
5. Mechanical Specification :

5.1 Cable length: L: 70 ± 2 mm; Connector: 1.13 IPEX1

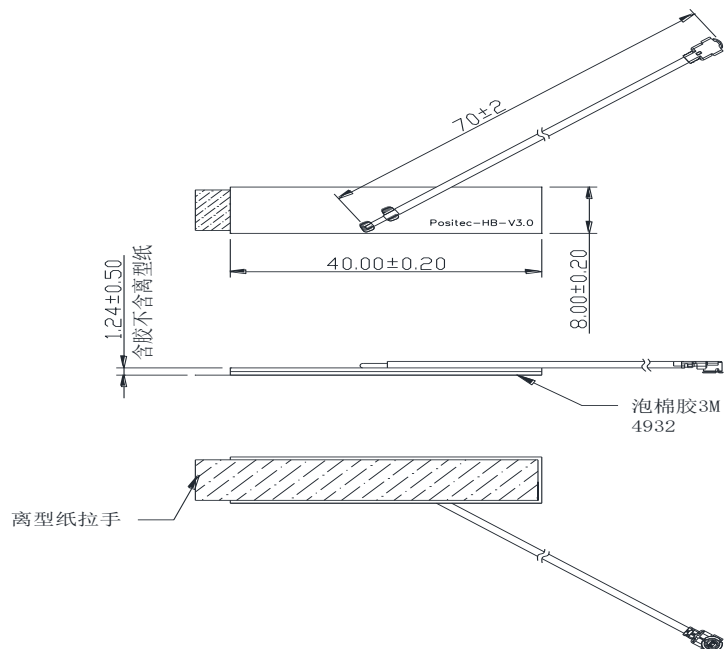


5.2 端子与线材之间拉拔力大于 1kgf

拉拔力大于 1kgf



5.3 Mechanical Configuration(unit:mm):



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=±0.15 X.XX=±0.15

ANGLES=± HOLEDIA=±

SCALE : /

UNIT : mm

DRAWN BY : 张涛

CHECKED BY : 张涛

DESIGNED BY : 单动力

APPROVED BY : 范东亚

TITLE : WA-P-LB-02-1069 Specification



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

ENS000194020

PAGE REV.
P2