

产品规格承认书

Product specifications
acknowledgment

承认厂商：_____

(Recognized manufacturers)

制造厂商： Shenzhen Bat Wireless Technology Co., Ltd

(Manufacturer)

产品名称： 2.4G PCB Antenna

(Description)

地址 (Address) : 1409, Building A, Zhiyun One Industrial
Park, No. 13 Huaxing Road, Henglang Community, Dalang Street,
Shenzhen, Guangdong, China

产品选型表：

(Product Type)

型号 Model	说明 Description	备注 Remark
BW2. 4PND37-9B1L160	IPEX1 & 160mm Cable	OD1.37 with red foam adhesive

供应商承认签栏 Vendor acknowledgement signature column

制表者 Tabulator	审核者 Auditor	核准者 Approver

客户承认栏 Client acknowledgement column

审核者 Auditor	核准者 Approver

1.1 Specifications

天线型号 Antennas Type	BW2. 4PND37-9B1L160
频率范围 Frequenc Range (MHz)	2400-2500 4900-5800
输入阻抗 Input Impendence (Ω)	50 Ω
电压驻波比 V. S. W. R	<2
增益 Gain (dBi)	3.02dBi 2.25dBi
极化形式 Polarization Type	垂直 Vertical
功率容量 Power Capacity (w)	50
雷电保护 Lingtning Protection	None
工作电压 DC Voltage (V)	None
天线尺寸 Dimension (mm)	37x9
接口形式/Connector Type :	IPEX-1
电缆型号 Cable type (mm)	ϕ 1.37
电缆长度 Cable length(mm)	160
辐射体 Radiator	None
天线颜色 Color	绿色 Green
重量 Weight(g)	None
工作温度 Operating Temperature ($^{\circ}\text{C}$)	-40~80
储藏温度 Storage Temperature ($^{\circ}\text{C}$)	-20~85

*注：以上数据仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。

*Note: The above data is for reference only, as the antenna function is more sensitive, please notify us for assessment if there is any change in the structure around the main body.

1.2 Antenna Picture



Above model: BW2.4PND37-9B1L160 (reference only)

(Cable length and antenna shape can be customized)

*注：) 因天线功能较为敏感，主体周边机构有变更请通知我们评估。

Note: The above data is for reference only, as the antenna function is more sensitive, please notify us for assessment if there is any change in the structure around the main body.

2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8753/E5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

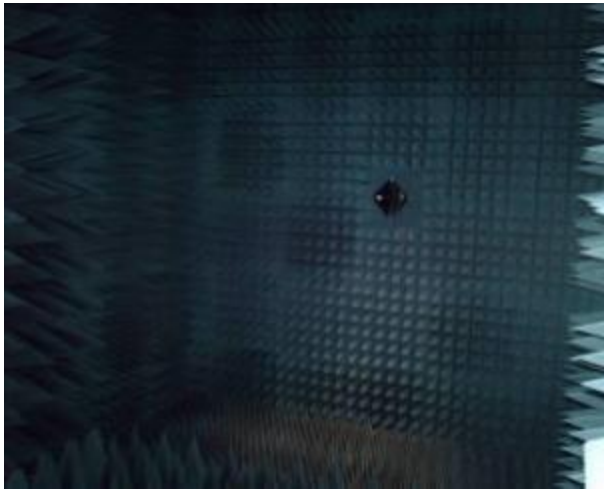


Figure.2



Figure.3



Figure.4

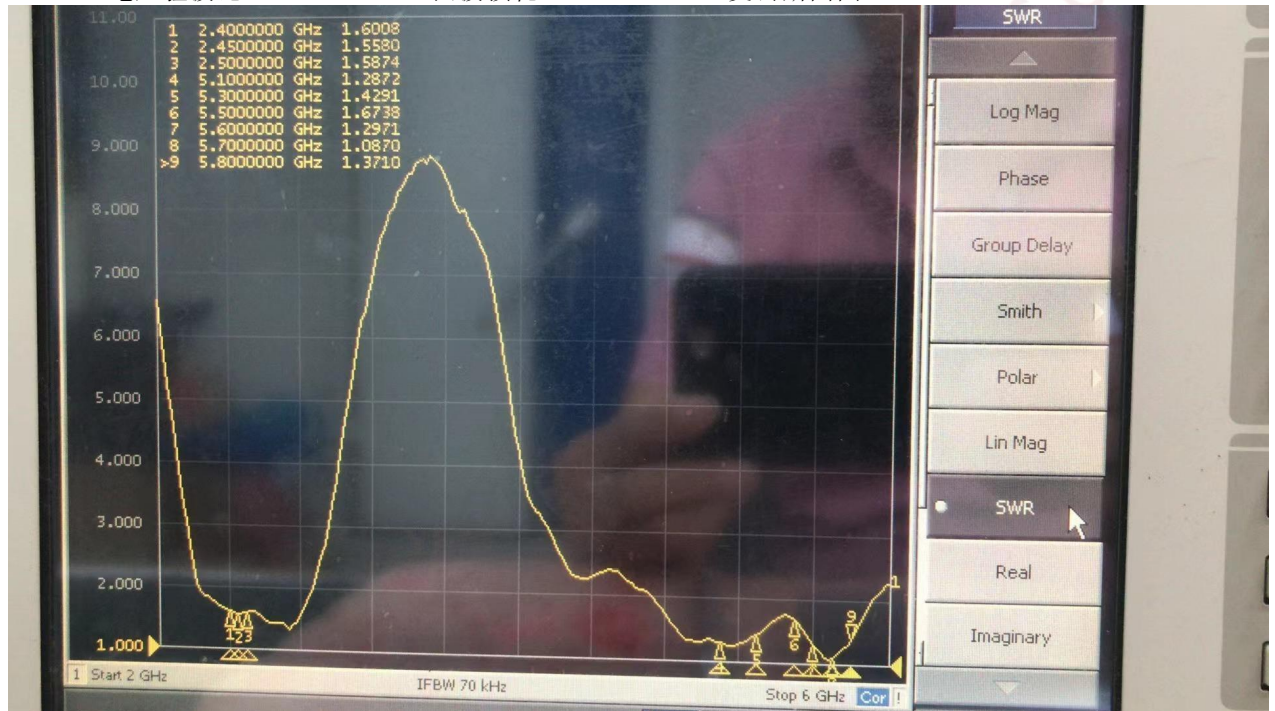


Figure.5

3. Performance Data

3.1 Passive data

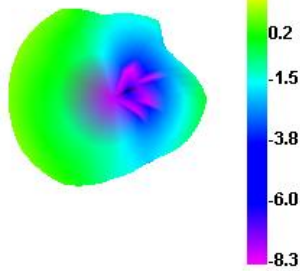
VSWR (电压驻波比) / Return Loss (回波损耗) / Smith Chart (史密斯圆图)



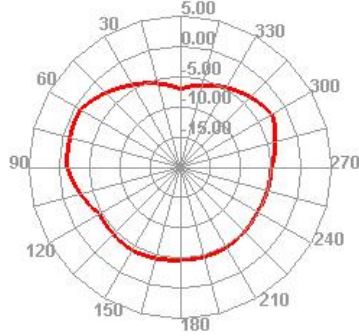
Passive Test For WIFI										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	65.99	-1.8	2.99	0.84	35.629	30.365	2.99	-8.28	48.09	47.94
2410	61.32	-2.12	2.62	0.47	32.762	28.557	2.62	-8.32	48.07	47.87
2420	60.58	-2.18	2.52	0.37	32.121	28.457	2.52	-8.49	48.18	48
2430	61.75	-2.09	2.58	0.43	32.561	29.188	2.58	-9.08	48.17	47.99
2440	64.63	-1.9	2.73	0.58	34.122	30.503	2.73	-9.66	48.33	48.11
2450	66.86	-1.75	2.86	0.71	35.326	31.534	2.86	-9.93	48.44	48.14
2460	67.45	-1.71	2.92	0.77	35.514	31.938	2.92	-9.82	48.41	48.06
2470	68.53	-1.64	3.02	0.87	35.718	32.817	3.02	-9.44	48.49	48.11
2480	67.12	-1.73	2.94	0.79	34.493	32.624	2.94	-11.1	48.63	48.18
2490	64.57	-1.9	2.74	0.59	32.811	31.763	2.74	-12.94	48.76	48.29
2500	63.95	-1.94	2.7	0.55	32.027	31.926	2.7	-14.21	48.69	48.16

Passive Test For WIFI5G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	51.31	-2.9	1.88	-0.27	22.733	28.581	1.88	-18.89	57.95	57.06
5200	53.53	-3.61	1.56	-0.59	20.493	23.034	1.56	-18.62	57.55	56.83
5300	48.73	-4.12	1.15	-2	17.671	21.06	1.15	-16.29	57.16	56.32
5400	48.54	-3.14	1.77	-1.38	23.541	24.996	1.77	-14.36	58.32	57.48
5500	54.59	-3.13	2.2	-0.95	25.558	23.028	2.2	-17.86	58.91	57.66
5600	52	-2.84	1.9	-0.25	27.787	24.214	1.9	-17.08	59.51	58.82
5700	63.68	-2.7	2.25	0.1	30.373	23.306	2.25	-19.7	60.54	59.93
5800	65.41	-2.41	1.87	-0.28	33.923	23.488	1.87	-14.83	61.14	60.57

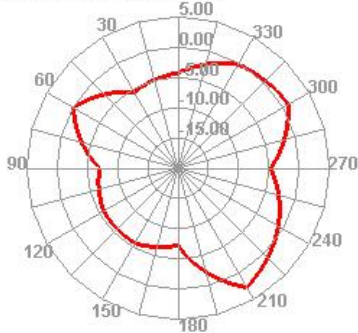
2400.000MHz



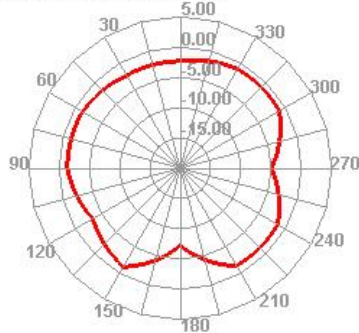
2400.000MHz H



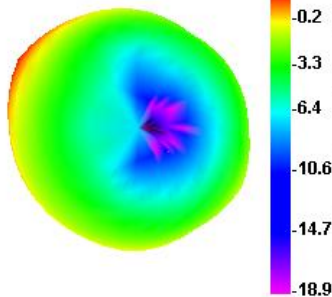
2400.000MHz E1



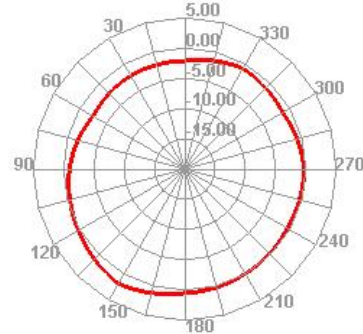
2400.000MHz E2



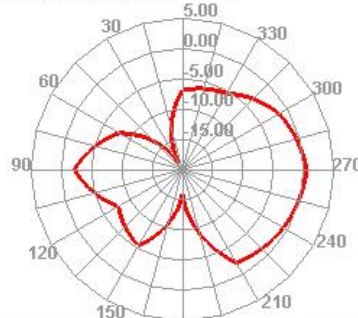
5100.000MHz



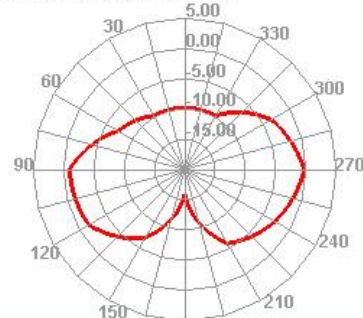
5100.000MHz H



5100.000MHz E1

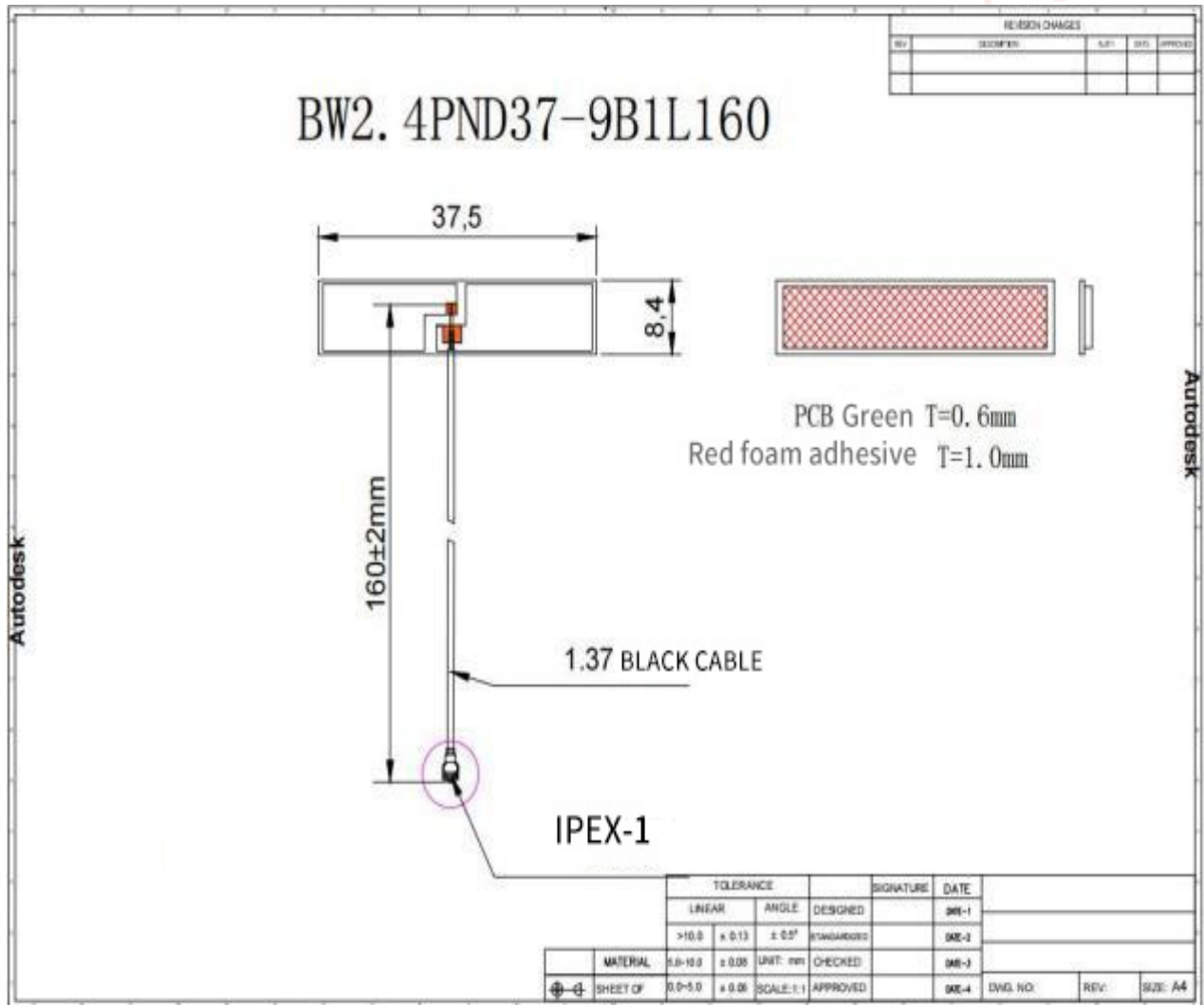


5100.000MHz E2



4. Mechanical Specification

4.1 Assembly Drawing



5.免责声明:

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