Specification For Approval

Customer: Changsha mo zhi ratio

Part name: IPEX-1.13 -2.4GFPC (24 * 07) Built-in antenna-line length L=100mm

Part No: BJL-F2403-2407-I100

Customer PartNo:

Customer confirmati on		
Confirmation	check	Approver

Manufacturer recognition			
Sales	Drafters	check	Approver
Li Jin	ZhengShaojuan	Li-hua liu	Zhou Xihua
Thank you for giving us the chance t o approve samples. If you agree to pass it, please kindly send it back to us.			

Shenzhen Baijinlian Wireless Technology Co., LTD

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Tel.: 15114085156

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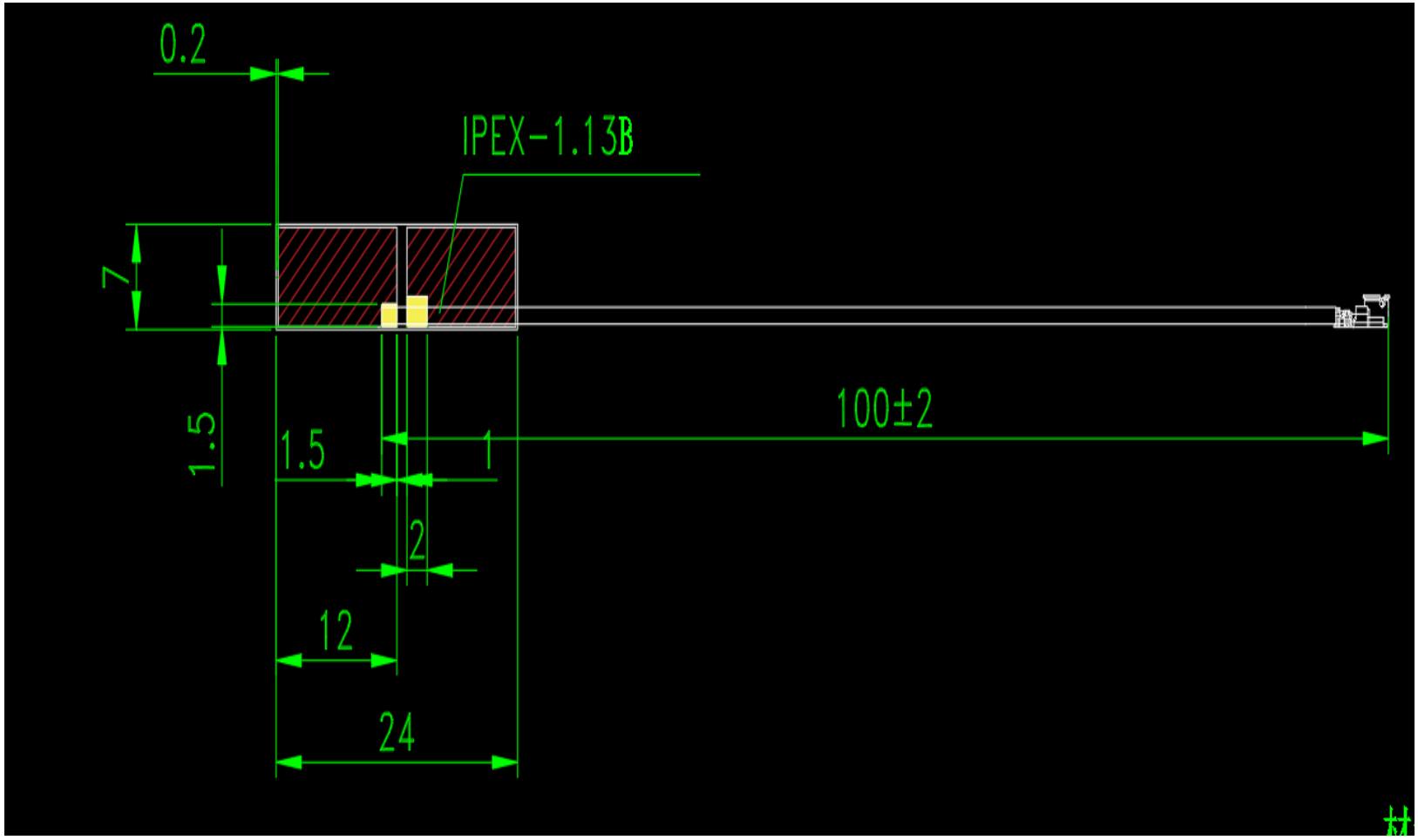
Catalog

amendant record

Version date The Engineer modified the content
A02025-04-01 Zheng Shaojuan new construction

1. Product size diagram



2. Product appearance

External size	24*07mm	fixed form	3M back glue
weight	/	Connector model	IPEX
Shell color	/	cable	1.13 cable + 100mm

3. Antenna performance parameters

project	characteristic	unit
frequency range	2400～2500	MHz
output impedence	50	Ω
standing-waveratio	Contrast waveform (empty test)	——
gain	3	dBi
Polarization mode	linear polarization	
radiation direction	omnidirectional	
Maximum input power	50	W
working temperature	-40～+85	℃
storage temperature	-40～+85	℃

4. Wire specifications

1.13 Cable structure diagram

configuration parameter

	material	diameter (mm)
1. Internal conductor	tinned wird	7/0.08±0.02
2. Insulators	Solid polyethylene (PE)	0.66±0.02
3. External conductor	tinned wird	0.88±0.05
4. Cover	Polyperfluoroethylene propylene FEP	1.13±0.05

Electrical performance parameters

electric capacity (pF/m)	96±3
impedance (ohm)	50
speed (%)	66
bending radius (mm)	≤7

Maximum operating voltage (VMS)	1000
Maximum operating frequency (MHz)	6000
Operating temperature range is (℃)	-40 to + 85

Attenuation (typical value)

frequency (MHz)	damping (>dB/m)
100	0.42
400	0.58
1000	2.20
2000	3.40
3000	4.20
4000	4.50
5000	5.20
6000	5.60

5. Environmental experiments

Environmental test report

5.1 High and low temperatureconstant humidity test

P / N	BJL-F2403-2407-I100G		Product name specification	2.4G built-in FPC antenna
test item	High temperature, low temperature, constant humidity test			
detection device	Constant temperature and humidity test box		Test the number	
acceptance standard	1. The metal surface coating has no shedding, cracks and wrinkles; no discoloration, cracks, deformation and bonding in non-metallic parts.			
Test name	test item	ask	experimental method	The result is determined
hot test	temperature (℃) Test Sample Temperature Time (h) Test Duration (h) recovery time (h)	85±3 1 2 1	test procedure: A) Put the test parts into the test box, and then adjust the temperature of the hot box to 85℃± 3℃ to monitor the time. B) At room temperature for 1 hour after the test for routine inspection.	qualified

cold test	temperature (℃) Test Sample Temperature Time (h) Test Duration (h) recovery time (h)	-40±3 1 2 1	test procedure: A) Put the test piece into the test box, and then adjust the cold box temperature to-40℃± 3℃ to monitor the time. B) After the test, it was placed at room temperature for 1 hour for routine inspection.	qualified
Constant damp heat test	temperature (℃) relative humidity (%) Duration of the Test (h)	+40±3 90-95 21	A) Put the test piece into the test box, and then set the test box temperature to + 40℃± 3℃, the humidity is 90-95%, monitoring time.	qualified
	recovery time (h)	1	B) At room temperature for 1 hour after the test for routine inspection.	
Inspector: Lu Xiaojun Review: Wang Hongkun, approval: Xiao Tianfang				

5.2 Free drop test

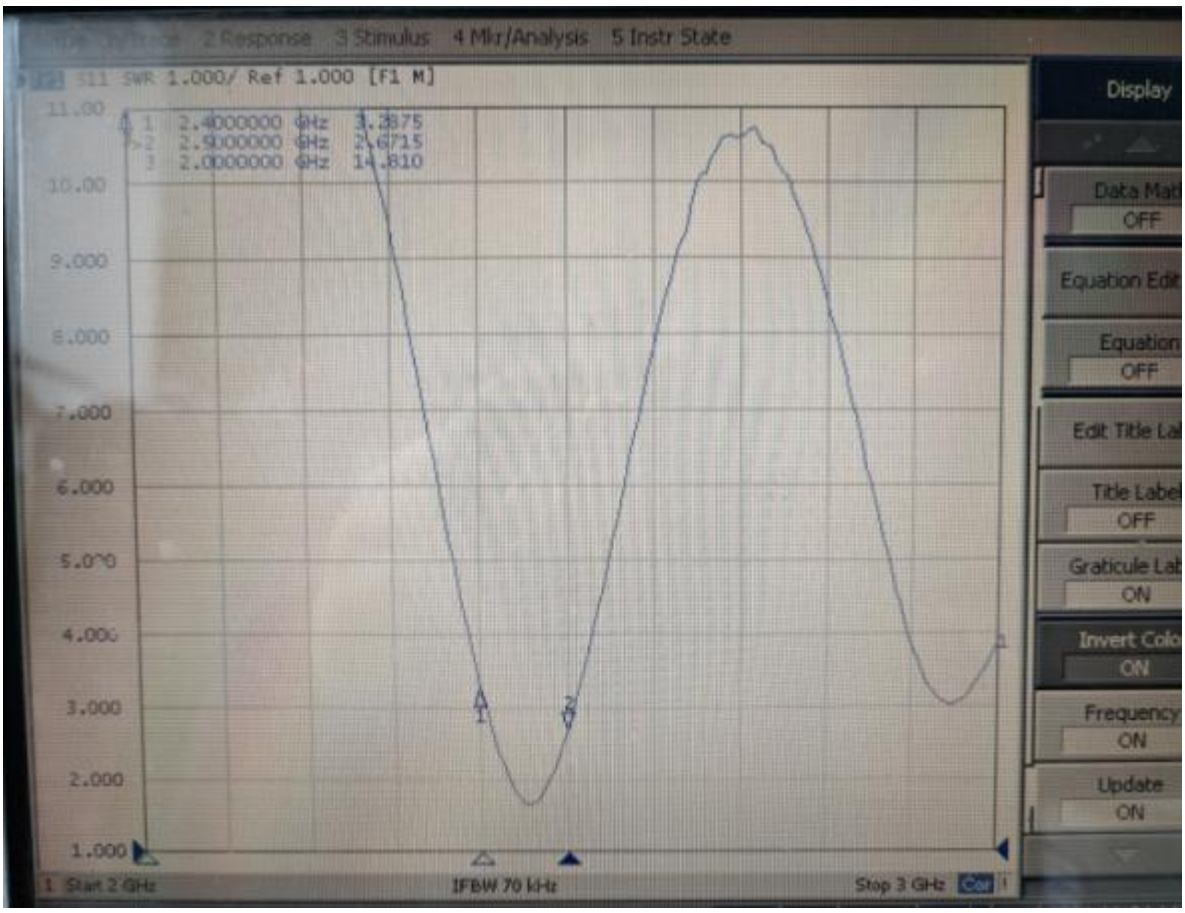
P / N		Product name specification		
test item	Free fall test			
detection device	A meter high desktop	Test the number		
acceptance standard	1. Falling at 1 meter high, the product does not fall off, cracks, and other bad, no deformation and other phenomena.			
Test name	test item	ask	experimental method	The result is determined
Free fall test	Drop height of 1000mm	Ffalls two times	test procedure: A) The tested piece is dropped at 1000mm and will undergo routine inspection after the test.	qualified
Inspector: Lu Xiaojun Review: Wang Hongkun, approval: Xiao Tianfang				

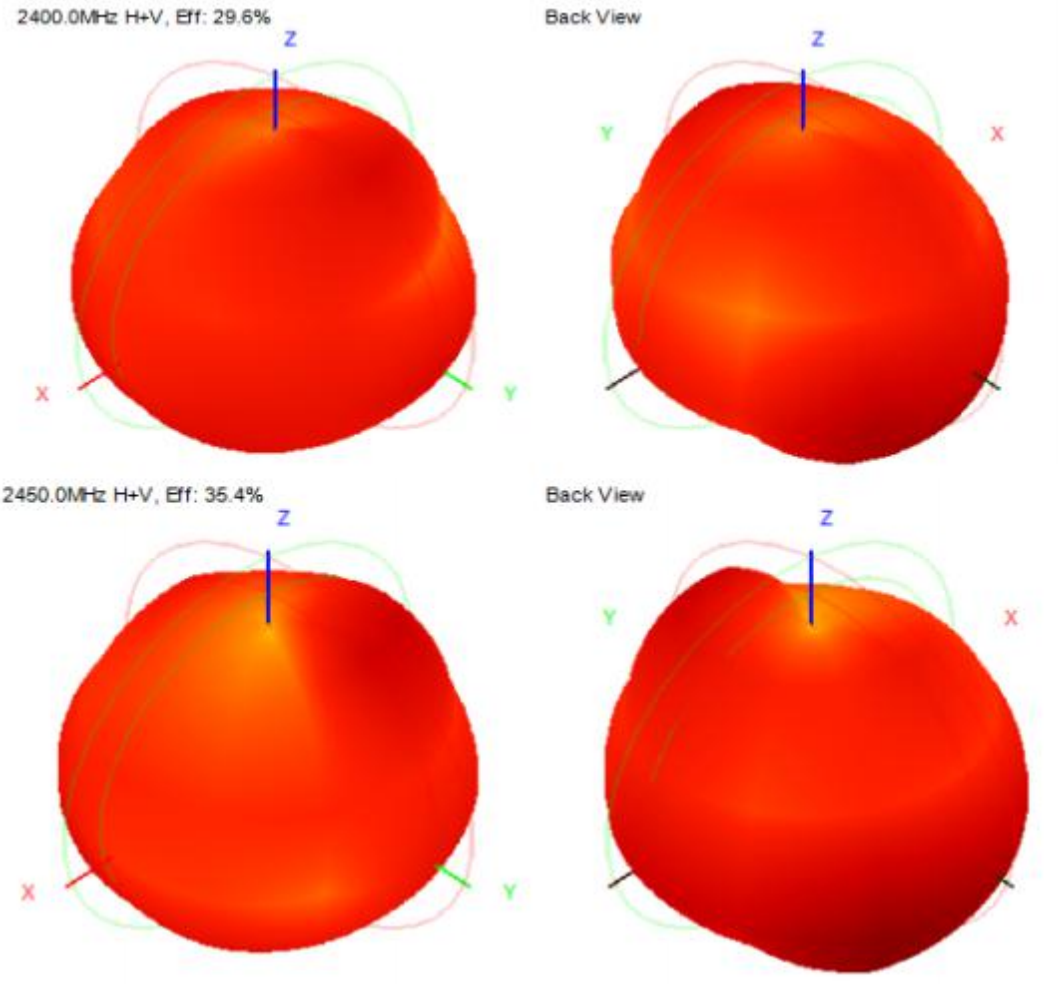
5.3 Salt spray test

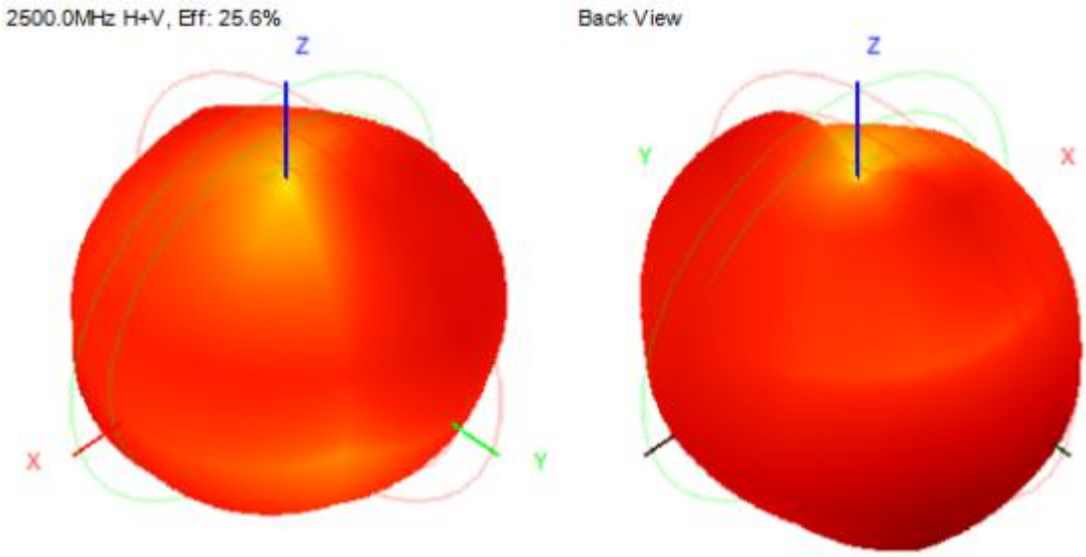
P / N			Product name specification	
test item	salt spray test			
detection device	Salt mist test machine		Test the number	
inspection standards	1. No metal coating; no rust, corrosion, oxidation and other appearance.			
Test name	test item	ask	experimental method	The resultis determined
salt spray test	1.NaCl concentration: 2. Air pressure: 3. PH value: 4. Spray amount: 5. Saline test temperature setting a. Laboratory temperature: b. Pressure bucket temperature: 6. Test time:	40-60g/1kg 1.0±0.01kgf ㎡ 6.5-7.2 1.0-2.0ml/80c/h。 35±1℃ 47±1℃ 24H	test procedure: a) just the salt mist tester to the relevant test conditions. b) inPlace the test piece into the salt spray tester for 24 hours. After the test, rinse with clean water, visually ins ect the a earance of the tested pieces, and conduct routine inspection.	qualified
Inspector: Lu Xiaojun Review: Wang Hongkun, approval: Xiao Tianfang				

6. Test of the antenna performance

Frequency ID	Frequency (MHz)	Gain (dBi)	Efficiency (%)
1	2300.0	-6.30	9.83
2	2310.0	-6.14	10.36
3	2320.0	-5.61	11.53
4	2330.0	-5.19	12.77
5	2340.0	-4.69	13.18
6	2350.0	-3.54	16.25
7	2360.0	-2.72	18.68
8	2370.0	-2.11	21.10
9	2380.0	-1.53	24.35
10	2390.0	-1.28	25.77
11	2400.0	-0.72	29.62
12	2410.0	-0.38	31.14
13	2420.0	-0.19	32.91
14	2430.0	-0.30	34.56
15	2440.0	-0.34	34.82
16	2450.0	-0.41	35.43
17	2460.0	-0.83	33.16
18	2470.0	-0.88	31.37
19	2480.0	-0.90	29.81
20	2490.0	-1.07	28.01
21	2500.0	-1.56	25.57


2 Response
3 Stimulus
4 Mkr/Analysis
5 Instr State
S11 SWR 1.000/ Ref 1.000 [F1 M]
1 2.4000000 GHz 3.2875
2 2.9000000 GHz 2.6715
3 2.0000000 GHz 14.810
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 2 GHz
IFBW 70 kHz
Stop 3 GHz
Display
Data Math
OFF
Equation Edit
Equation
OFF
Edit Title Lab
Title Label
OFF
Graticule Lab
ON
Invert Colo
ON
Frequency
ON
Update
ON


2400.0MHz H+V, Eff: 29.6%
Back View
2450.0MHz H+V, Eff: 35.4%
Back View
Z
X
Y



7. Actual pictures of the prototype