

# Testing Report



Customer Name: SHENZHENSHIXINZHONGXIN TECHNOLOGY.CO.,LTD

Product Name: BT Antenna

Sample Model: H20

Reference Standard: *GB/T9410-2008; ANSI/IEEE Std 149-1979*

Issue Date: 2024.02.29

Engineer:		Date:2024.02.29
Auditor:		Date:2024.02.29
Approver:		Date:2024.02.29

# 1. General Information

## 1.1 General Information of testing institutions

<b>Name</b>	Shenzhen Hetuo Technology Co.,Ltd.
<b>Addresses</b>	Room 1202B, Building C6, Hengfeng Industrial City, Xixiang, Baoan District, Shenzhen
<b>Tel</b>	18665849001
<b>E-mail</b>	18665849001@163.com
<b>Equipment</b>	Agilent 5071C

## 1.2 Testing principle

### Multi-probe OTA Measurement System



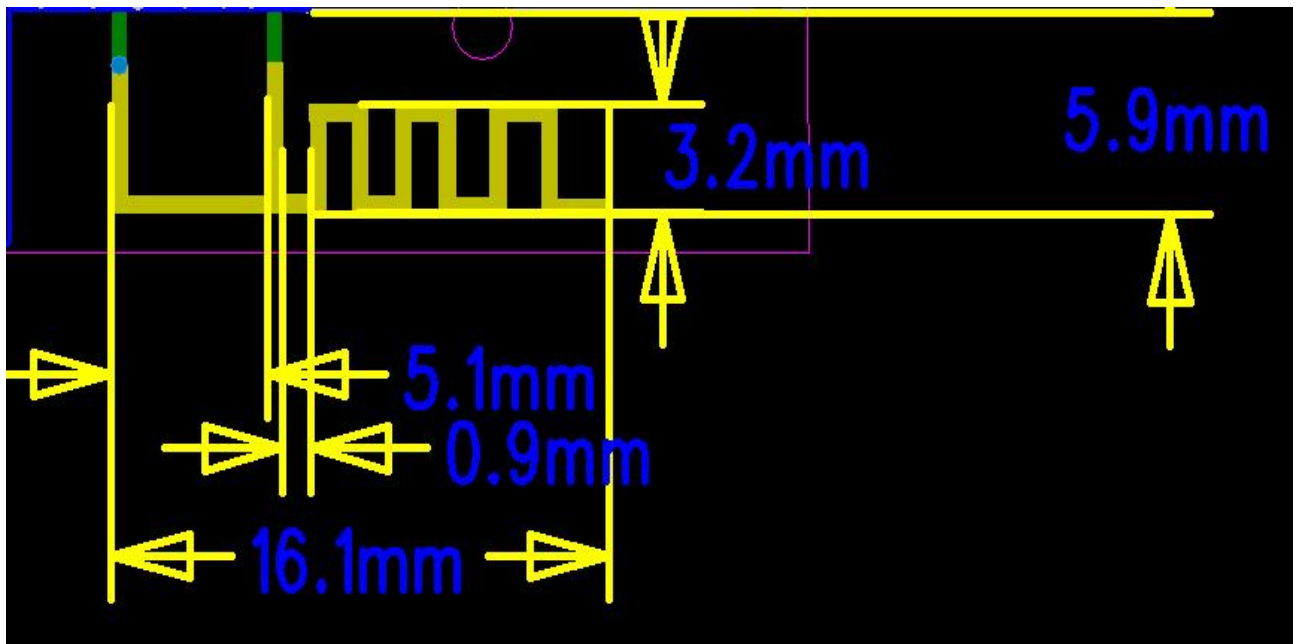
## 1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
24 probe microwave chamber	4*3*3	NA	FEITU	2023.12.31	2024.03.01
Network Analyzer	5071C	NA	Agilent	2023.12.31	2024.03.01

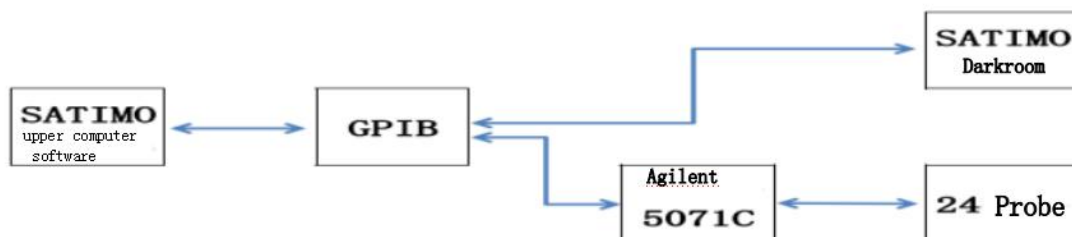
## 1.4 Test environment

Temperature	24°C ± 1.5°C
Humidity	45%RH
Pressure	101kPa

## 1.5 Antenna Photo & Length(mm)



## 1.6 Brief summary of Procedure



1. SATIMO turn on the Upper Computer Software, Name: VeryView99.exe, Version No.: V1.10;
2. VeryView99 via GPIB (General Purpose Interface Bus) to control the shielding room (darkroom)'s SATIMO;
3. Meanwhile, GPIB control the Agilent 5071C to read the Antenna data by 24 Probe;
4. Agilent 5071C will analyse the data and generate the result;
5. Agilent 5071C will feedback to VeryView99 software to generate the test report.

## 2. Sample Information

### 2.1 Client information

<b>Name</b>	SHENZHEN SHIXINZHONGXIN TECHNOLOGY.CO.,LTD
<b>Address</b>	A1, Shajing Donghuan Industrial Zone, Bao 'an District, Shenzhen
<b>Contacts</b>	Ma Chao
<b>Tel</b>	18218809918
<b>E-mail</b>	machao@c-chip.com.cn

### 2.2 Description of EUT(S)

<b>Product Name</b>	BT Antenna
<b>Sample Model</b>	H20
<b>Antenna Size</b>	5.9*16.1mm
<b>Antenna Type</b>	PCB antenna
<b>Gain</b>	-0.88dBi
<b>Test Item</b>	Antenna Gain,Radiation pattern
<b>Frequency Range</b>	2400-2500MHz
<b>Received Date</b>	2024.02.27
<b>Test Date</b>	2024.02.29
<b>Remark</b>	The length of the RF cable is 50mm



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Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-8.21	-8.09	-8.28	-8.16	-7.94	-7.82	-7.67	-7.14	-7.17	-6.81	-6.48
Gain (dBi)	-2.88	-3.11	-2.82	-2.60	-2.00	-1.72	-1.57	-1.35	-1.13	-1.10	-0.88
Efficiency (%)	15.11	15.53	14.85	15.28	16.08	16.51	17.11	19.32	19.19	20.83	22.51
Directivity (dB)	5.32	4.97	5.46	5.56	5.87	6.10	6.10	5.75	6.04	5.72	5.66
Peak Gain Position (Theta)	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00
Peak Gain Position (Phi)	150.00	150.00	135.00	135.00	150.00	150.00	150.00	150.00	120.00	135.00	120.00
Efficiency ThetaPol (%)	9.12	9.13	8.52	8.51	8.87	9.08	9.40	10.92	10.99	12.03	12.92
Efficiency PhiPol (%)	5.99	6.40	6.33	6.76	7.21	7.43	7.70	8.40	8.20	8.81	9.55
Upper Hem. Efficiency (%)	6.22	6.51	6.31	6.54	6.65	6.59	6.71	7.45	7.59	8.17	8.82
Lower Hem. Efficiency (%)	8.89	9.02	8.54	8.73	9.43	9.92	10.40	11.87	11.60	12.67	13.70
T90(H) 圓度	15.71	12.41	11.32	14.25	14.42	16.42	17.26	18.19	18.90	17.13	22.22
Gain 15deg (dBi)											
E1(XZ) 波瓣寬度	45.00	71.00	71.00	68.00	69.00	67.00	62.00	58.00	65.00	63.00	66.00
E1(XZ) 前後比	2.76	3.20	3.07	4.51	4.73	5.15	5.55	5.17	4.96	5.04	4.04
E2(YZ) 波瓣寬度	112.00	163.00	167.00	122.00	127.00	97.00	98.00	88.00	82.00	82.00	84.00
E2(YZ) 前後比	0.78	0.76	0.82	0.75	0.34	0.31	0.38	0.52	1.05	2.01	2.66
最大增益於軸比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
傾角10度最大(大)軸比(P)	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Hc(XY) 波瓣寬度	184.00	117.00	180.00	94.00	99.00	85.00	101.00	98.00	128.00	125.00	122.00
Hc(XY) 前後比	6.08	6.80	8.19	7.96	7.34	6.67	6.25	6.06	5.26	6.50	6.38
Empty											

