

Testing Report

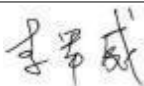
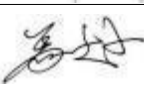
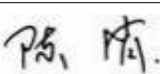
Customer Name: SHENZHEN SHIXIN ZHONGXIN TECHNOLOGY CO., LTD

Product Name: 5 G Antenna

Sample Model: F-6168

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

Issue Date: 2024.04. 28

Engineer:		Date: 2024.04. 28
Auditor:		Date: 2024.04. 28
Approver:		Date: 2024.04. 28

1. General Information

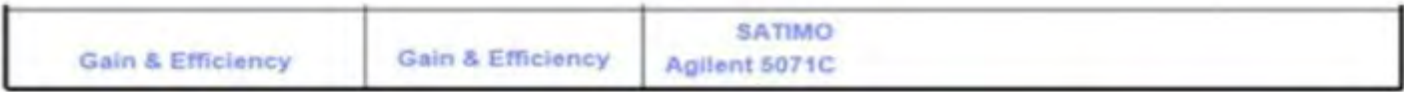
1.1 General Information of testing institutions

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

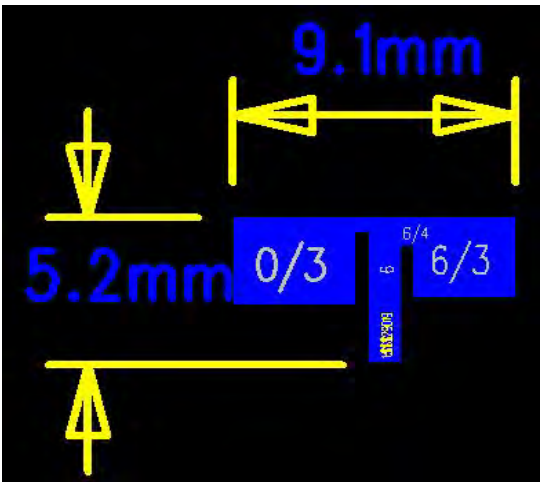
1.2 Testing principle

2. Test System

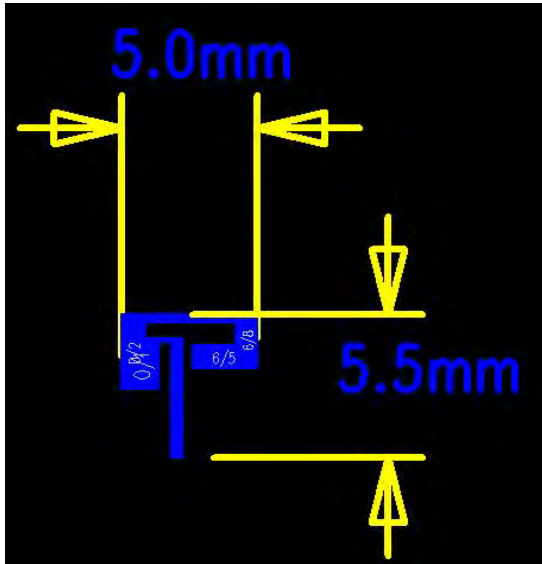
Multi-probe OTA Measurement System



Antenna Photo & Lenght(mm)_ANT1:PCB antenna



Antenna Photo & Lenght(mm)_ANT2:PCB antenna



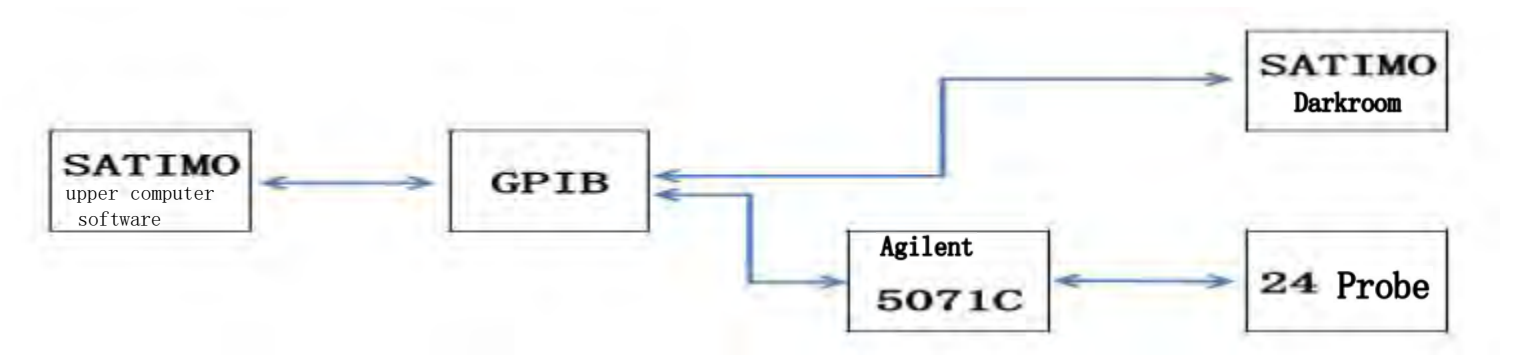
1.3 Test equipment

Equipment	Model No.	Serial No.	Manufacturer	Calibration date	Next calibration date
24 probe microwave chamber	4*3*3	NA	SATIMO	2024.03.29	2024.04.29
Network Analyzer	5071C	NA	Agilent	2024.03.29	2024.04.29

1.4 Test environment

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

1.5 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. Meanwhiel, 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

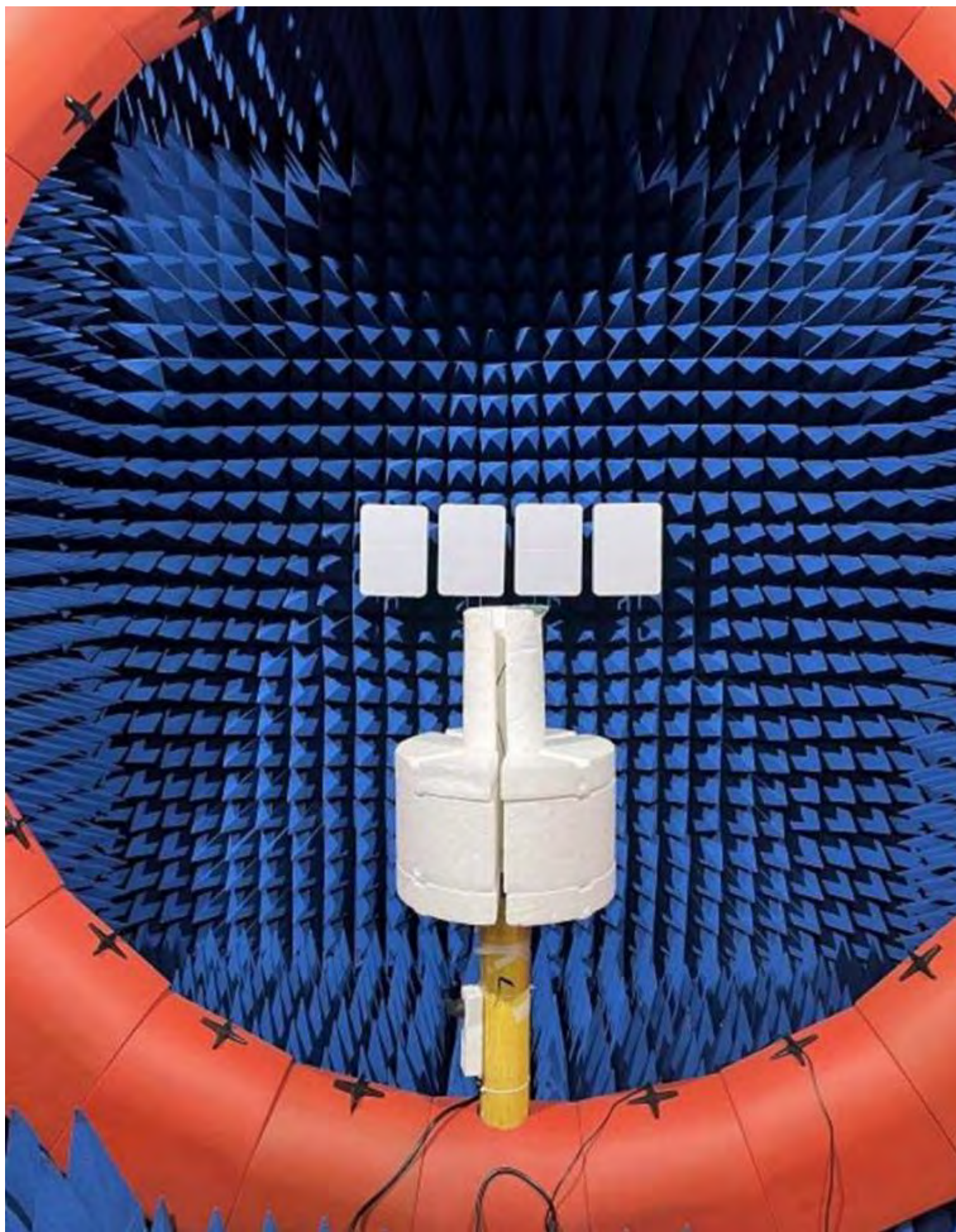
2.1 Client information

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

2.2 Description of EUT(S)

Product Name	5.2G/5.8G Antenna
Sample Model	F-6168
Antenna Size	ANT1:9.1*5.2mm
	ANT2:5.0*5.5mm
Antenna Type	PCB antenna
Serial No.	/
Test Item	Antenna Gain, Radiation pattern
Frequency Range	5155-5245MHz 5730-5848MHz
Received Date	2024.04.28
Test Date	2024.04. 28
Remark	The length of the RF cable is 50mm

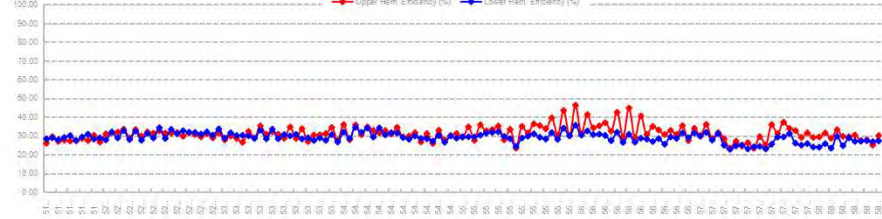
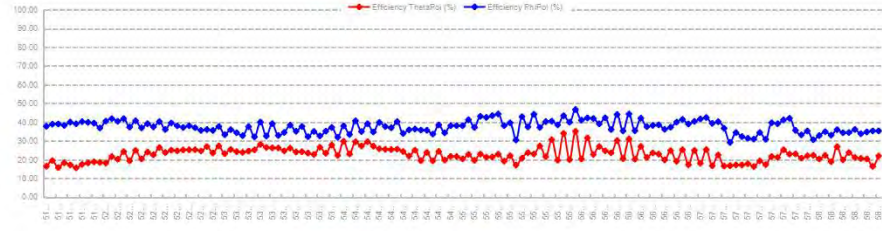
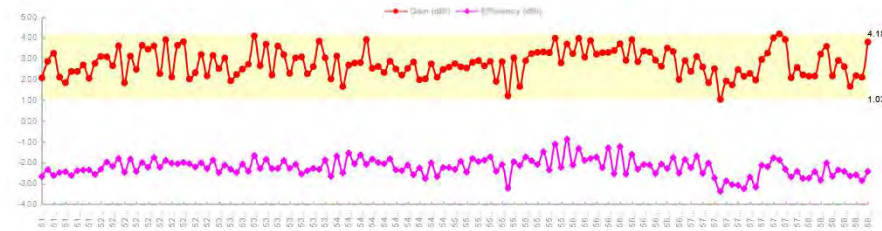
The test photos



ANT1



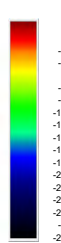
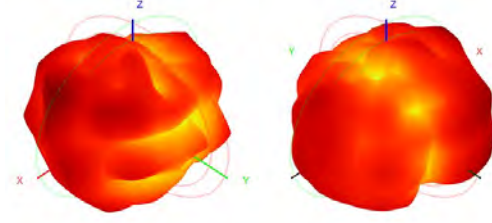
深圳市合拓科技有限公司

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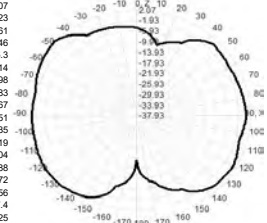
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5150.0MHz H+V, Eff: 54.2%

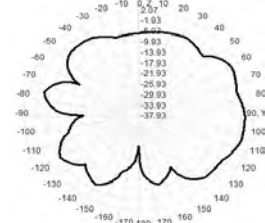
Back View



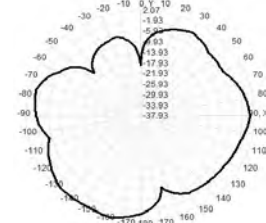
5150.0MHz Total(E1-XZ), Max= 2.07dBi



5150.0MHz Total(E2-YZ), Max= -0.46dBi

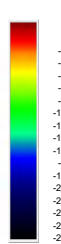
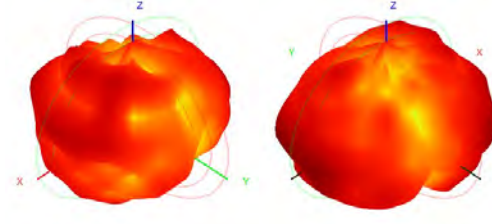


Total(H-XY), Max= 1.73dBi, CirD=20.59

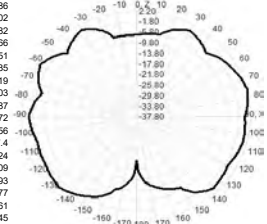


5155.0MHz H+V, Eff: 58.3%

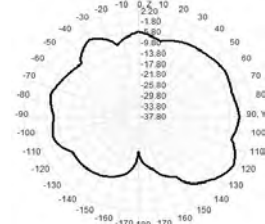
Back View



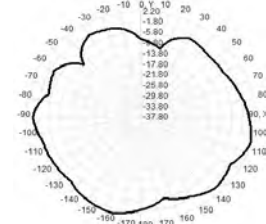
5155.0MHz Total(E1-XZ), Max= 2.20dBi



5155.0MHz Total(E2-YZ), Max= 0.23dBi

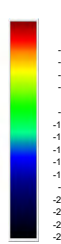
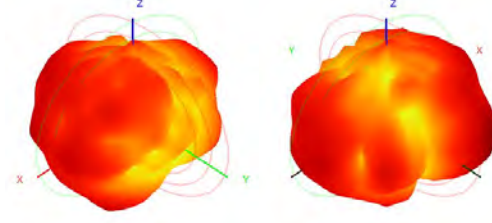


Total(H-XY), Max= 1.84dBi, CirD=13.08

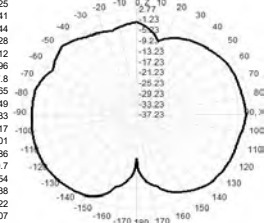


5160.0MHz H+V, Eff: 54.7%

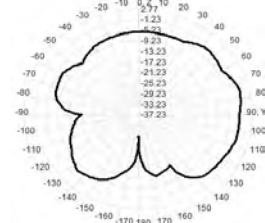
Back View



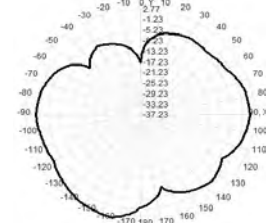
5160.0MHz Total(E1-XZ), Max= 0.93dBi



5160.0MHz Total(E2-YZ), Max= -0.76dBi

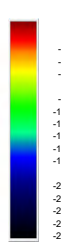
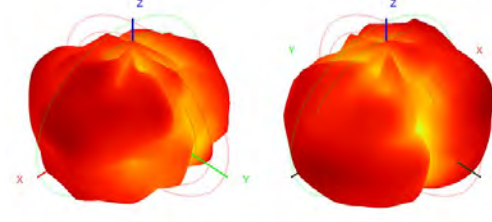


Total(H-XY), Max= 2.77dBi, CirD=20.32

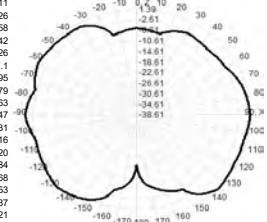


5165.0MHz H+V, Eff: 56.5%

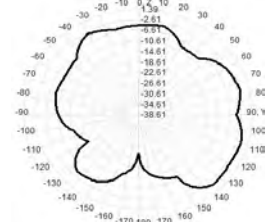
Back View



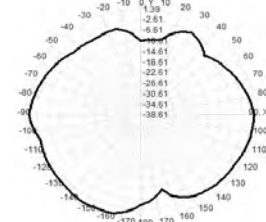
5165.0MHz Total(E1-XZ), Max= 1.39dBi



5165.0MHz Total(E2-YZ), Max= -1.37dBi

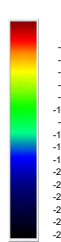
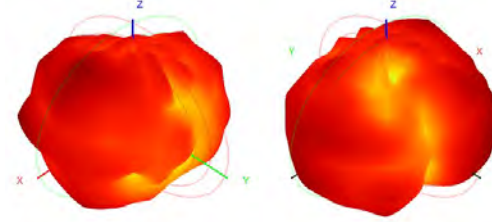


Total(H-XY), Max= 0.96dBi, CirD=11.69

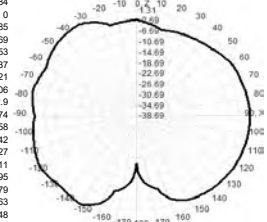


5170.0MHz H+V, Eff: 57.1%

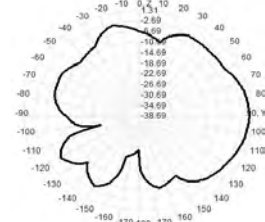
Back View



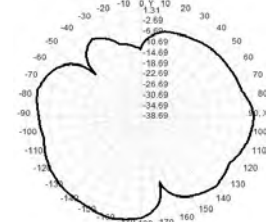
5170.0MHz Total(E1-XZ), Max= 1.19dBi



5170.0MHz Total(E2-YZ), Max= 0.01dBi

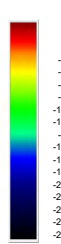
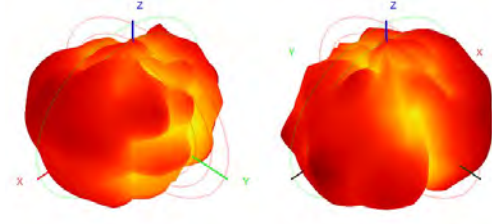


Total(H-XY), Max= 1.31dBi, CirD=17.98

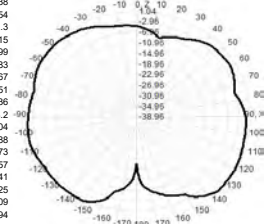


5175.0MHz H+V, Eff: 54.7%

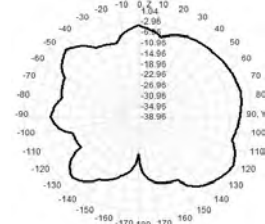
Back View



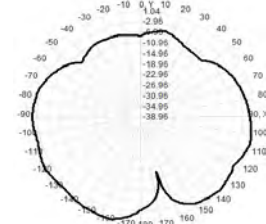
5175.0MHz Total(E1-XZ), Max= 0.92dBi



5175.0MHz Total(E2-YZ), Max= -1.04dBi

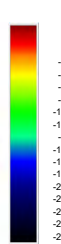
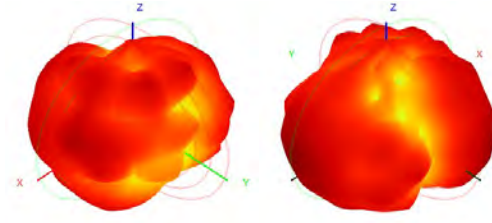


Total(H-XY), Max= 1.04dBi, CirD=18.68

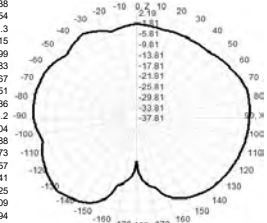


5180.0MHz H+V, Eff: 57.7%

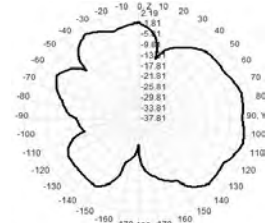
Back View



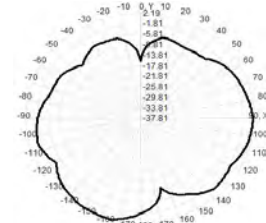
5180.0MHz Total(E1-XZ), Max= 2.19dBi



5180.0MHz Total(E2-YZ), Max= -0.20dBi

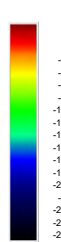
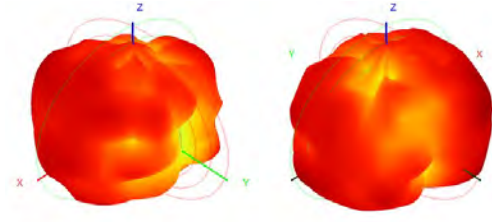


Total(H-XY), Max= 1.88dBi, CirD=18.00

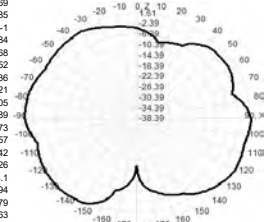


5185.0MHz H+V, Eff: 58.1%

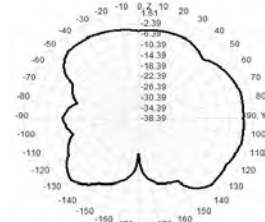
Back View



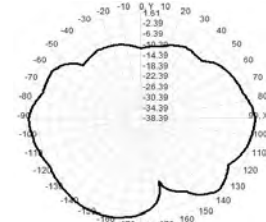
5185.0MHz Total(E1-XZ), Max= 1.61dBi



5185.0MHz Total(E2-YZ), Max= -1.35dBi

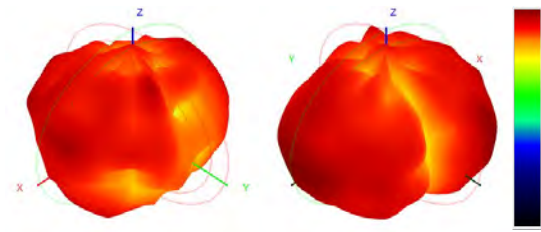


Total(H-XY), Max= 1.61dBi, CirD=15.06

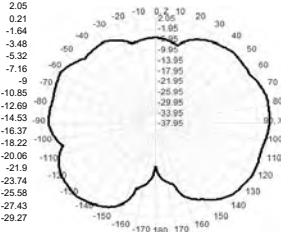


5190.0MHz H+V, Eff: 58.3%

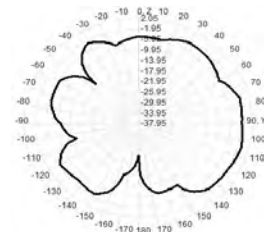
Back View



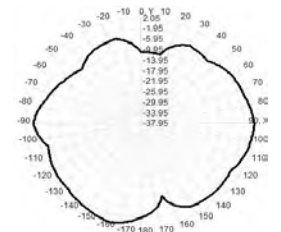
5190.0MHz Total(E1-XZ), Max= 2.05dBi



5190.0MHz Total(E2-YZ), Max= -1.01dBi

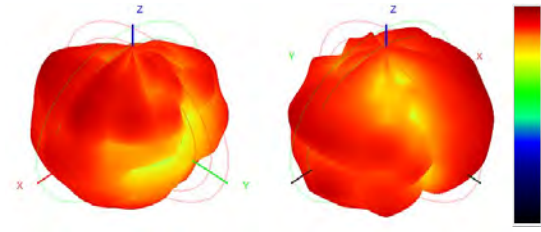


Total(H-XY), Max= 1.70dBi, CirD=12.65

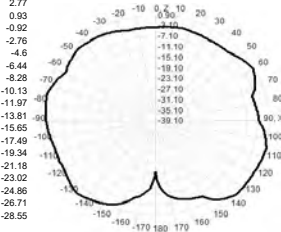


5195.0MHz H+V, Eff: 55.4%

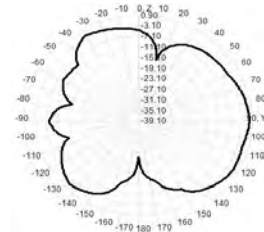
Back View



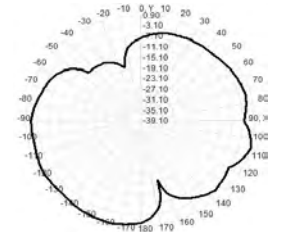
5195.0MHz Total(E1-XZ), Max= 0.81dBi



5195.0MHz Total(E2-YZ), Max= -0.41dBi

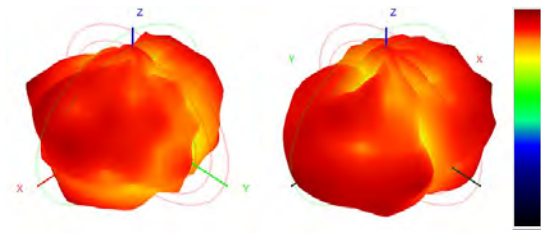


Total(H-XY), Max= 0.90dBi, CirD=19.21

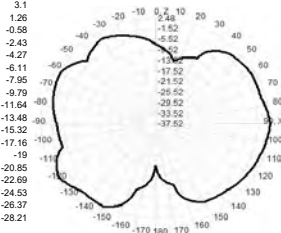


5200.0MHz H+V, Eff: 58.7%

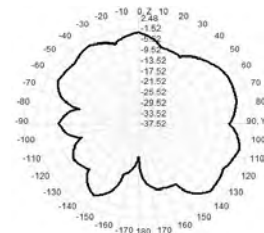
Back View



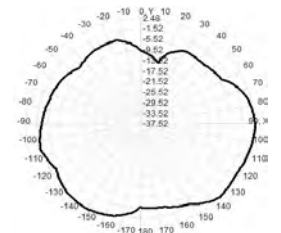
5200.0MHz Total(E1-XZ), Max= 2.48dBi



5200.0MHz Total(E2-YZ), Max= -1.11dBi

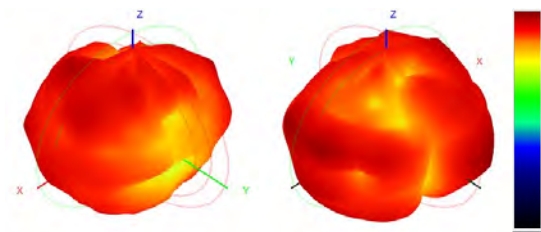


Total(H-XY), Max= 2.48dBi, CirD=16.15

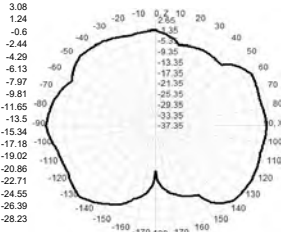


5205.0MHz H+V, Eff: 63.5%

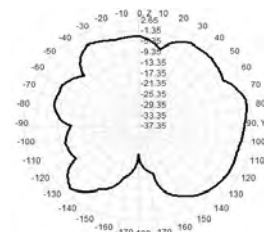
Back View



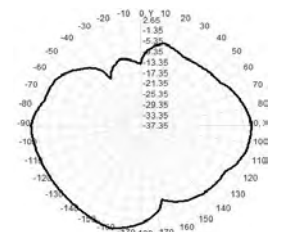
5205.0MHz Total(E1-XZ), Max= 2.65dBi



5205.0MHz Total(E2-YZ), Max= 1.36dBi

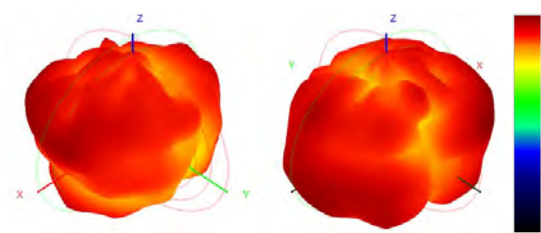


Total(H-XY), Max= 2.65dBi, CirD=19.38

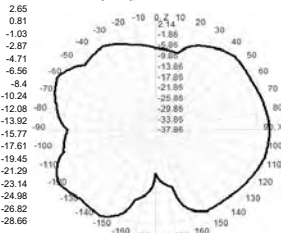


5210.0MHz H+V, Eff: 60.7%

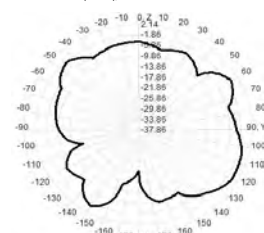
Back View



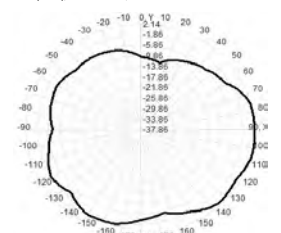
5210.0MHz Total(E1-XZ), Max= 1.89dBi



5210.0MHz Total(E2-YZ), Max= -0.25dBi

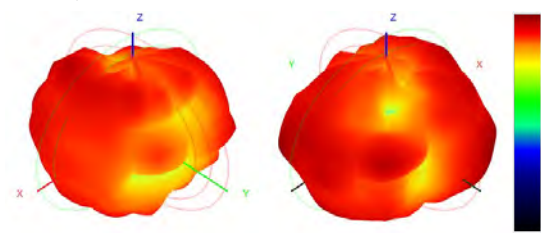


Total(H-XY), Max= 2.14dBi, CirD=13.80

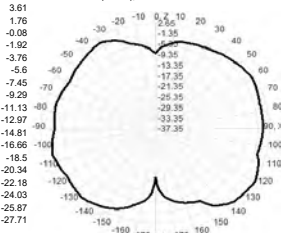


5215.0MHz H+V, Eff: 66.1%

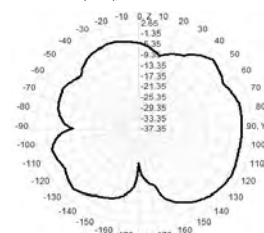
Back View



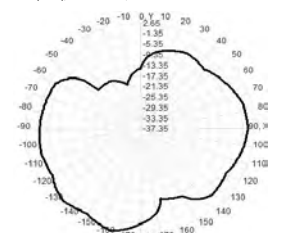
5215.0MHz Total(E1-XZ), Max= 2.65dBi



5215.0MHz Total(E2-YZ), Max= -0.43dBi

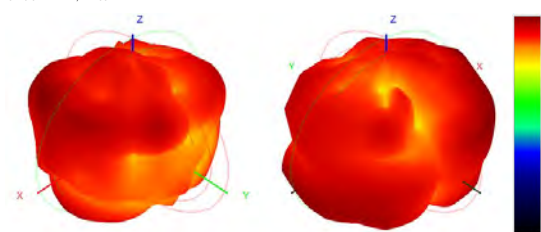


Total(H-XY), Max= 2.42dBi, CirD=22.58

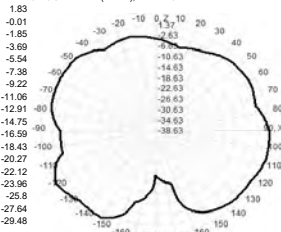


5220.0MHz H+V, Eff: 56.7%

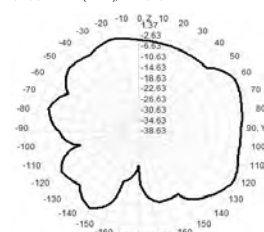
Back View



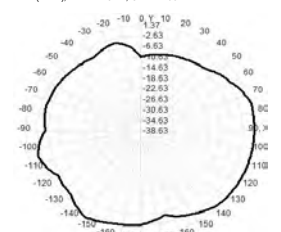
5220.0MHz Total(E1-XZ), Max= 1.37dBi



5220.0MHz Total(E2-YZ), Max= 0.29dBi

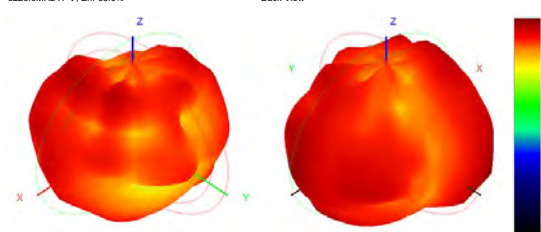


Total(H-XY), Max= 1.28dBi, CirD=12.03

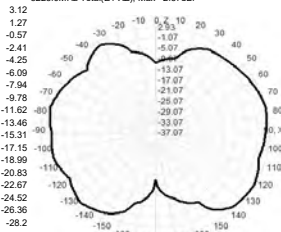


5225.0MHz H+V, Eff: 65.6%

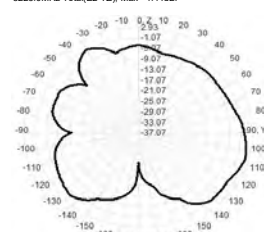
Back View



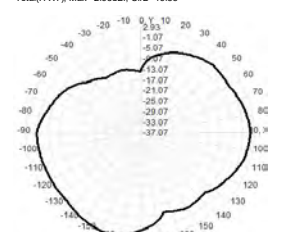
5225.0MHz Total(E1-XZ), Max= 2.57dBi



5225.0MHz Total(E2-YZ), Max= 1.44dBi

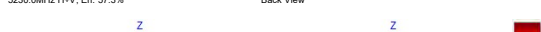


Total(H-XY), Max= 2.93dBi, CirD=16.83

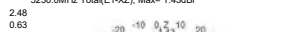


5230.0MHz H+V, Eff: 57.3%

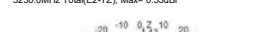
Back View



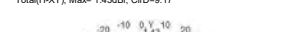
5230.0MHz Total(E1-XZ), Max= 1.43dBi

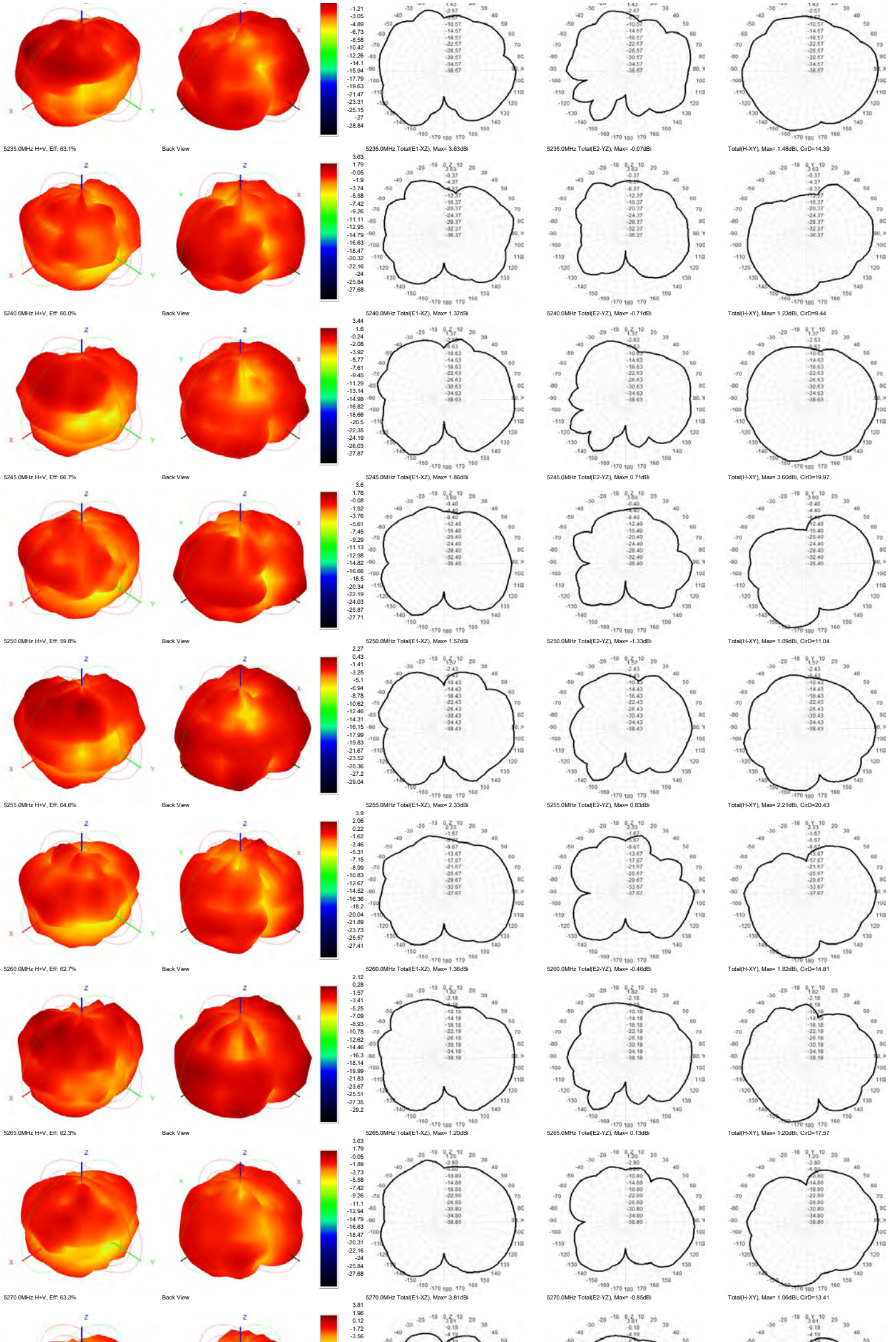


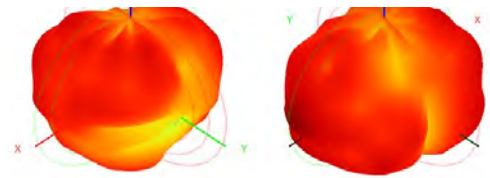
5230.0MHz Total(E2-YZ), Max= 0.53dBi



Total(H-XY), Max= 1.43dBi, CirD=9.17

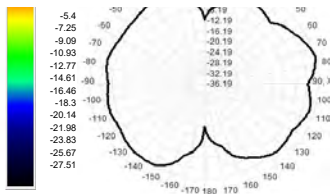




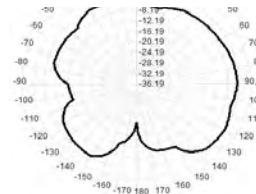


02/0.UMPHZ 11V, EST. 02.379

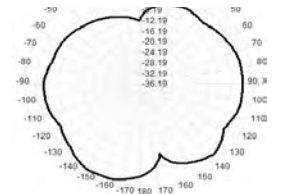
BACK VIEW



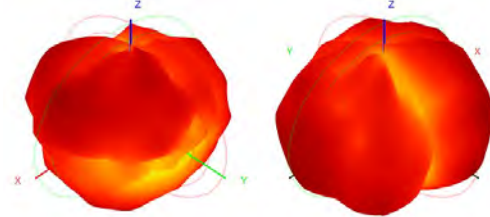
02/0.UMPHZ 100B(E-T-AZ), MAX= 1.01000



02/0.UMPHZ 100B(E-T-AZ), MAX= 0.89000

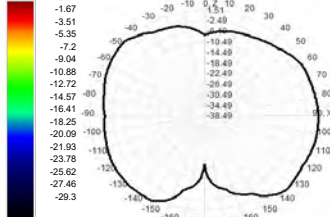


100B(T-AZ), MAX= 1.00000, UPL=10.00

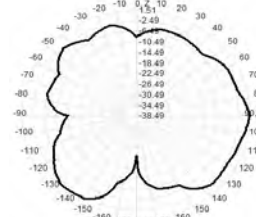


04/0.UMPHZ 11V, EST. 04.279

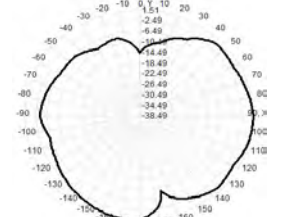
BACK VIEW



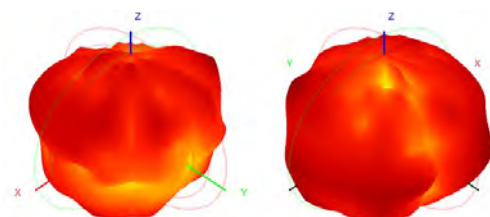
04/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



04/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

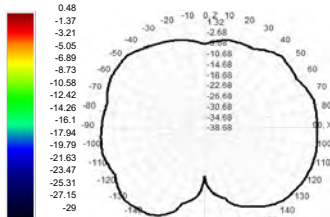


100B(T-AZ), MAX= 1.00000, UPL=10.00

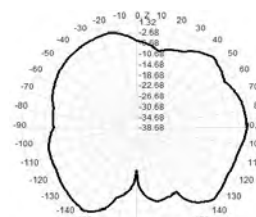


06/0.UMPHZ 11V, EST. 06.279

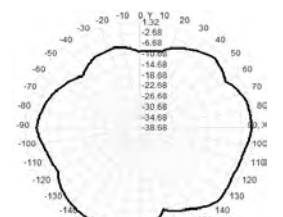
BACK VIEW



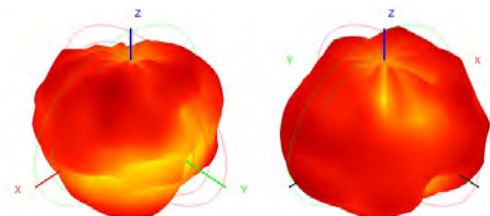
06/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



06/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

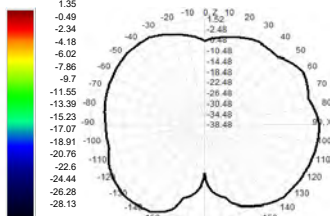


100B(T-AZ), MAX= 1.00000, UPL=10.00

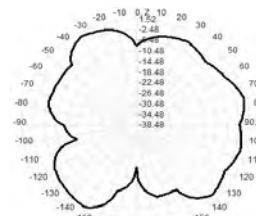


08/0.UMPHZ 11V, EST. 08.279

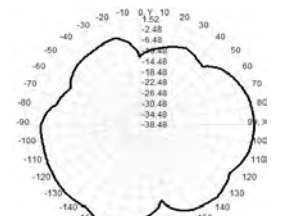
BACK VIEW



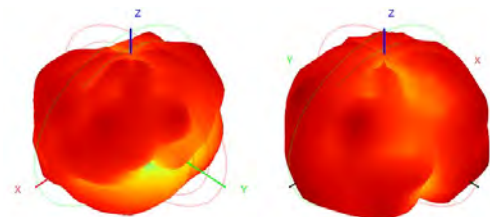
08/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



08/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

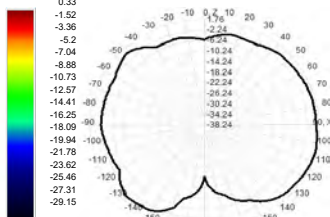


100B(T-AZ), MAX= 1.00000, UPL=10.00

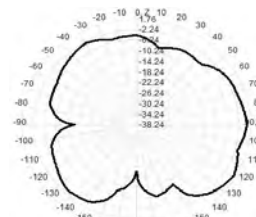


10/0.UMPHZ 11V, EST. 10.279

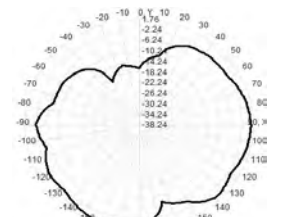
BACK VIEW



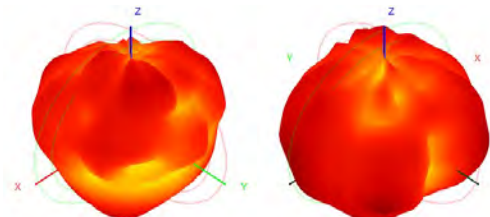
10/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



10/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

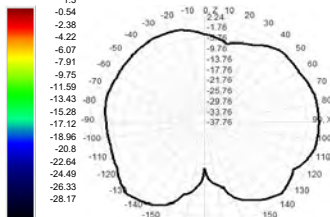


100B(T-AZ), MAX= 1.00000, UPL=10.00

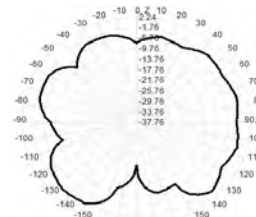


12/0.UMPHZ 11V, EST. 12.279

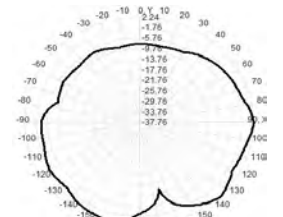
BACK VIEW



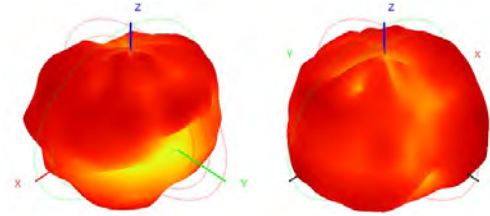
12/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



12/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

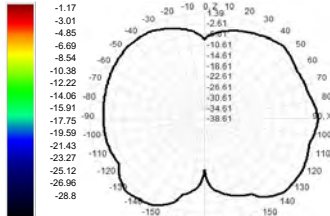


100B(T-AZ), MAX= 1.00000, UPL=10.00

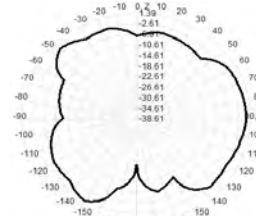


14/0.UMPHZ 11V, EST. 14.279

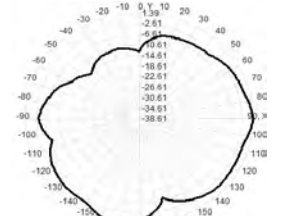
BACK VIEW



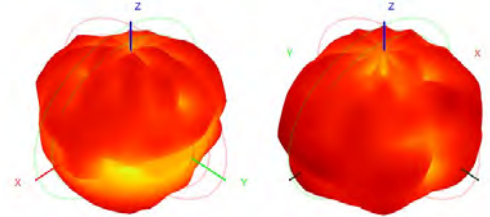
14/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



14/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

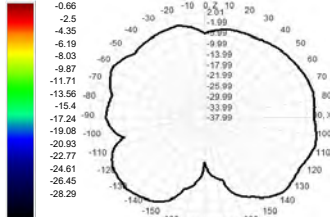


100B(T-AZ), MAX= 1.00000, UPL=10.00

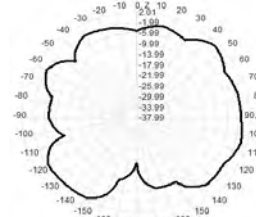


16/0.UMPHZ 11V, EST. 16.279

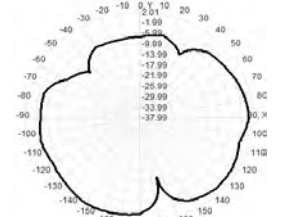
BACK VIEW



16/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



16/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000

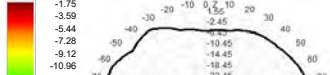


100B(T-AZ), MAX= 1.00000, UPL=10.00

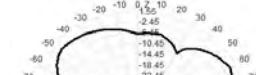


18/0.UMPHZ 11V, EST. 18.279

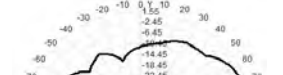
BACK VIEW



18/0.UMPHZ 100B(E-T-AZ), MAX= 1.02000



18/0.UMPHZ 100B(E-T-AZ), MAX= 0.92000



100B(T-AZ), MAX= 1.00000, UPL=10.00

