Wistron NeWeb Corp.

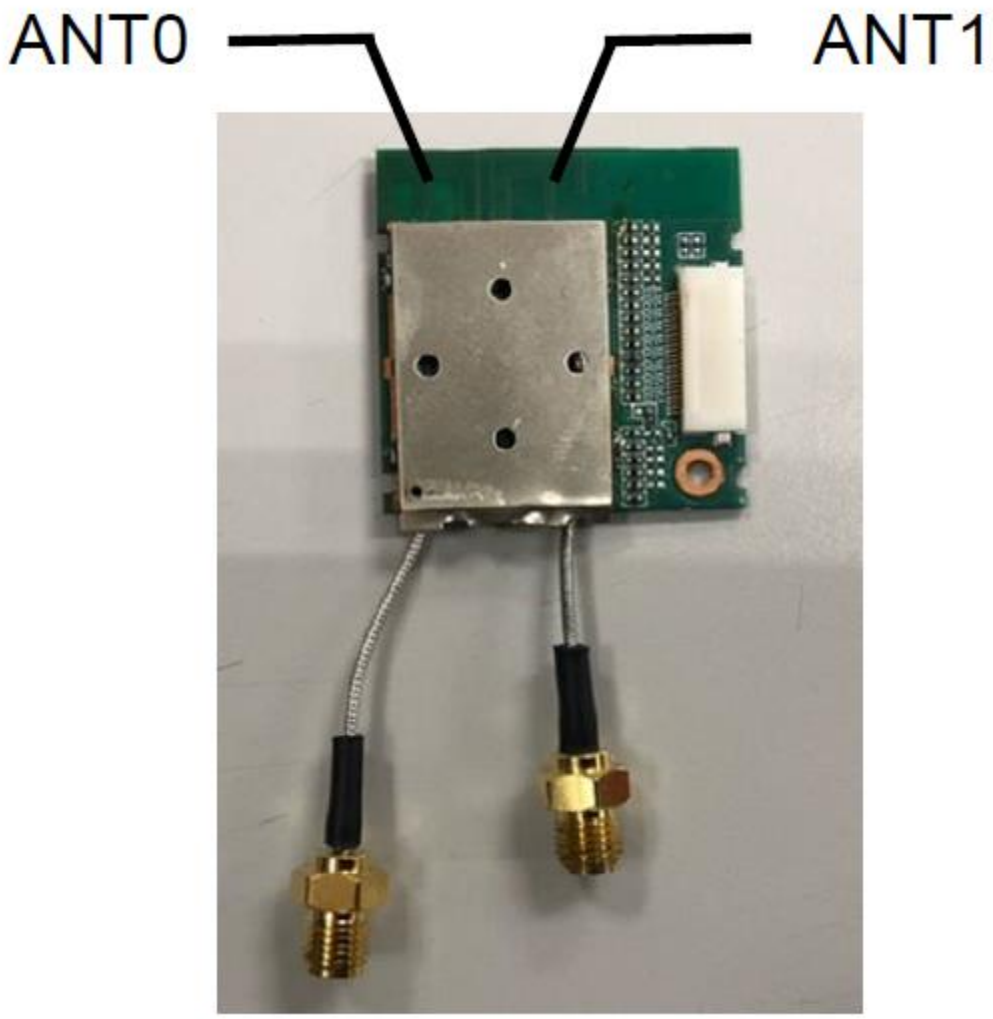
Antenna Test Report for WNC SWA52 & SWA54 module

Test person : Eason Chen

Date : 2022 April.

Ver:06

Antenna Type and Displacement



Peak Gain

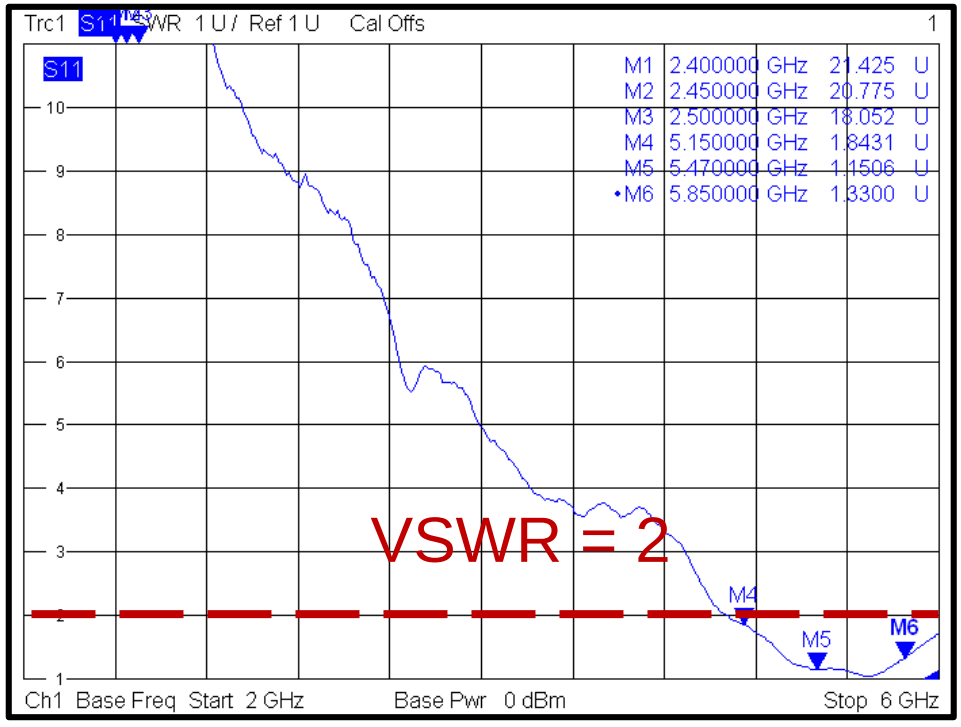
	Freq. MHz	5150	5250	5725	5875
Ant0	Peak Gain	4.3	4.32	4.9	4.5
	Peak Gain @	Theta = 197 ; phi = 81	Theta = 188 ; phi = 175	Theta = 187 ; phi = 183	Theta = 175 ; phi = 176
Ant1	Peak Gain	0.69	2.4	3.5	2.96
	Peak Gain @	Theta = 310 ; phi = 235	Theta = 315 ; phi = 255	Theta = 100 ; phi = 181	Theta = 273 ; phi = 178

Peak Gain(dBi), Avg Gain(dB), theta/phi(degrees)

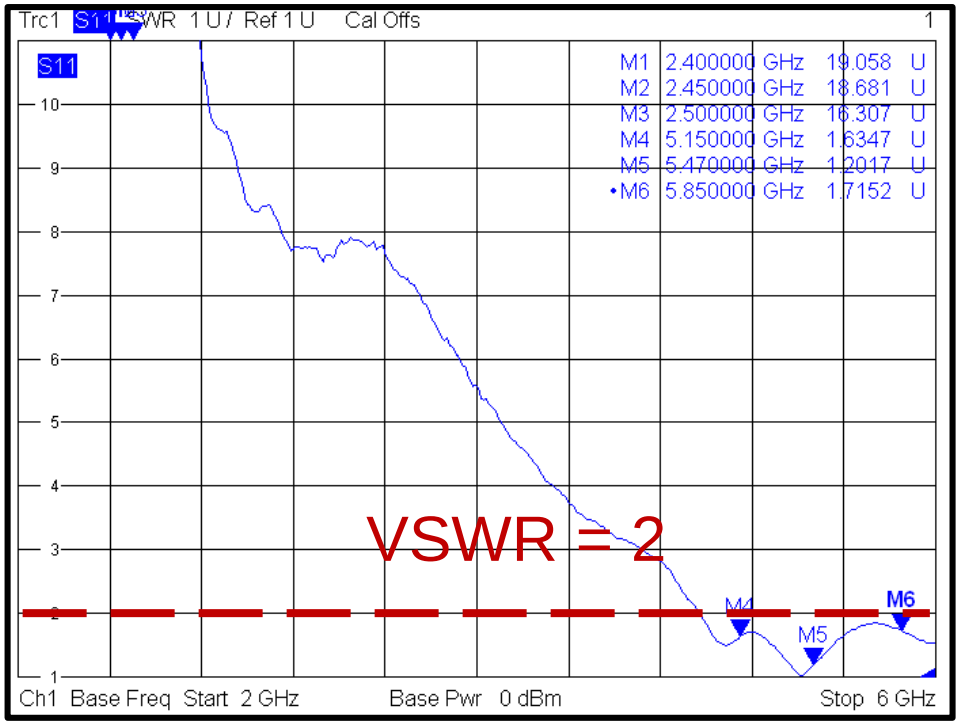
Above Peak Gain= on board antenna peak gain-path loss+ Chamber's receiving RX peak gain.

Antenna Performance (VSWR)

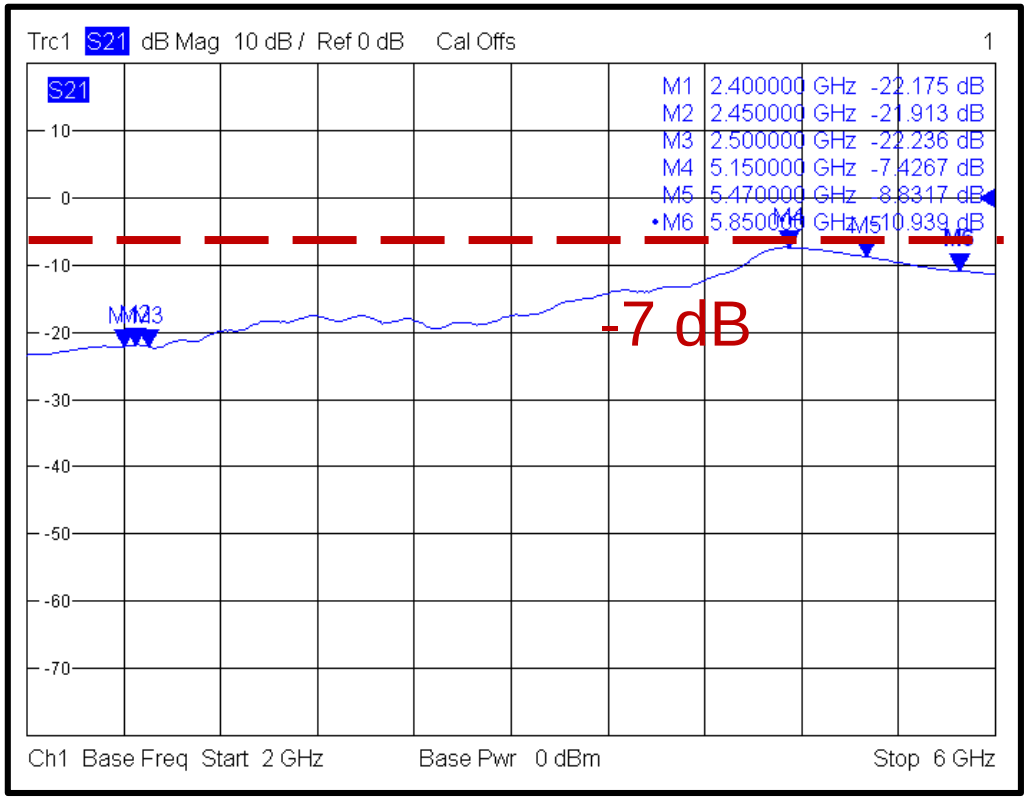
Ant. 0



Ant. 1

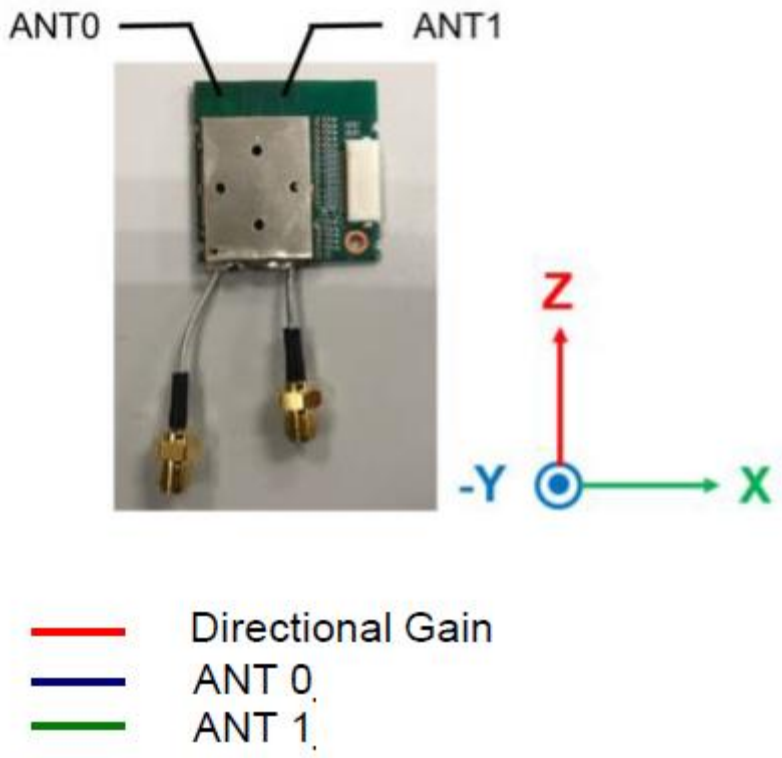


Antenna Performance (Isolation)



Antenna Performance (System Co-ordinate)

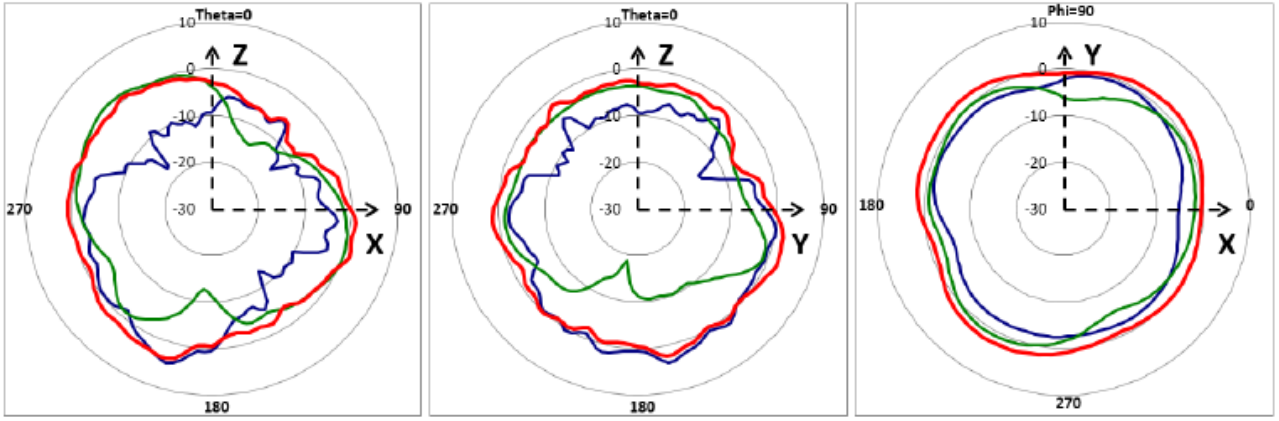
Co-Ordinate System



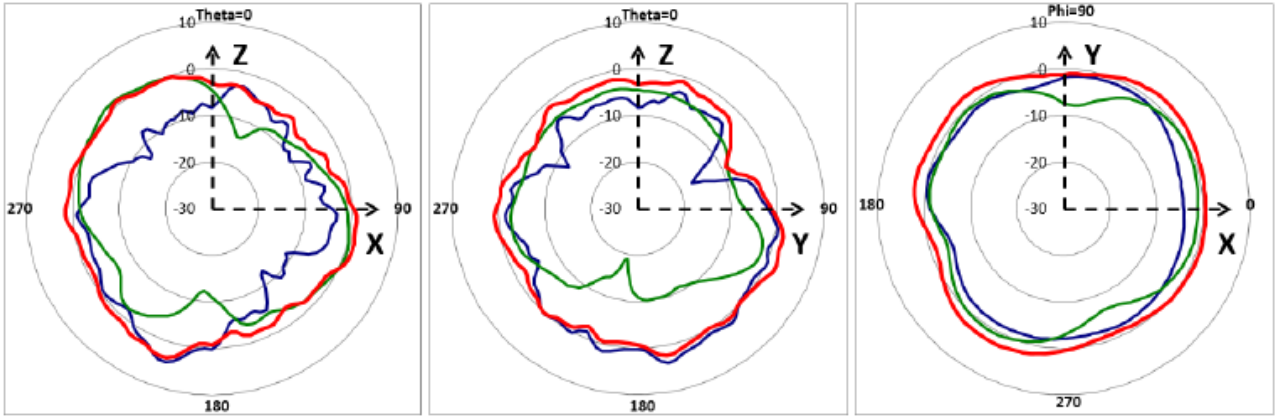
Antenna Performance (Radiation Pattern)

polar. : V ; polar. : V ; polar. : H

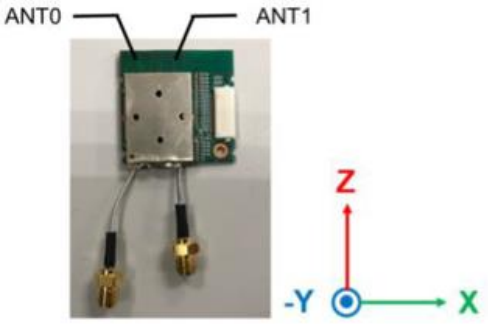
5150MHz



5250MHz



Co-Ordinate System

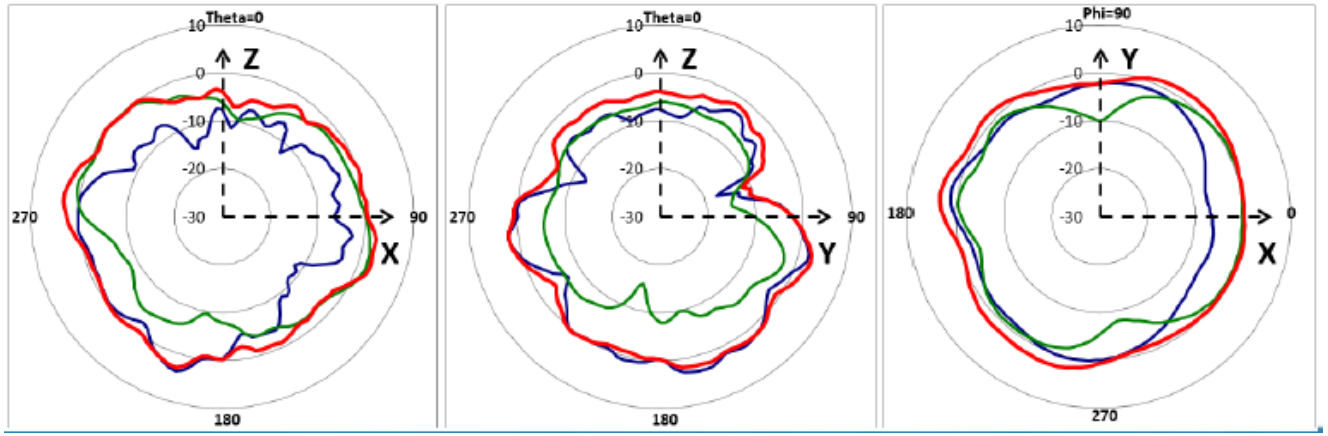


Directional Gain
ANT 0
ANT 1

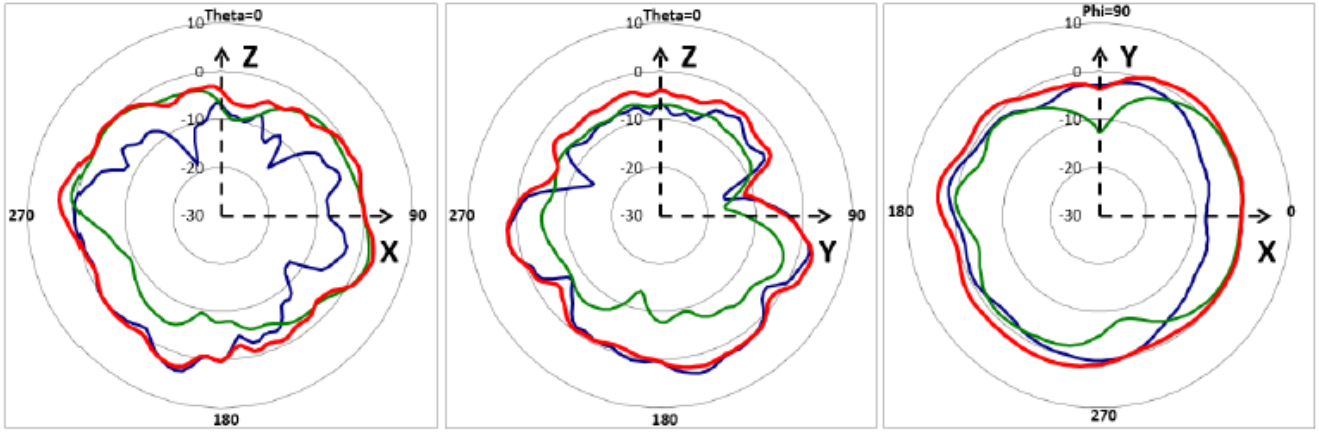
Antenna Performance (Radiation Pattern)

polar. : V ; polar. : V ; polar. : H

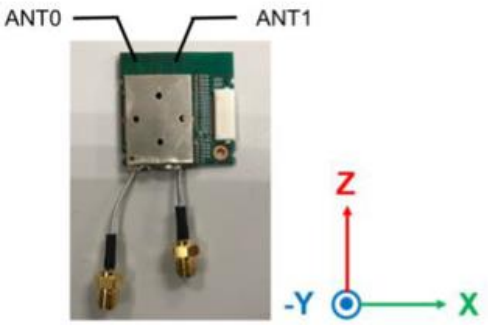
5725MHz



5875MHz

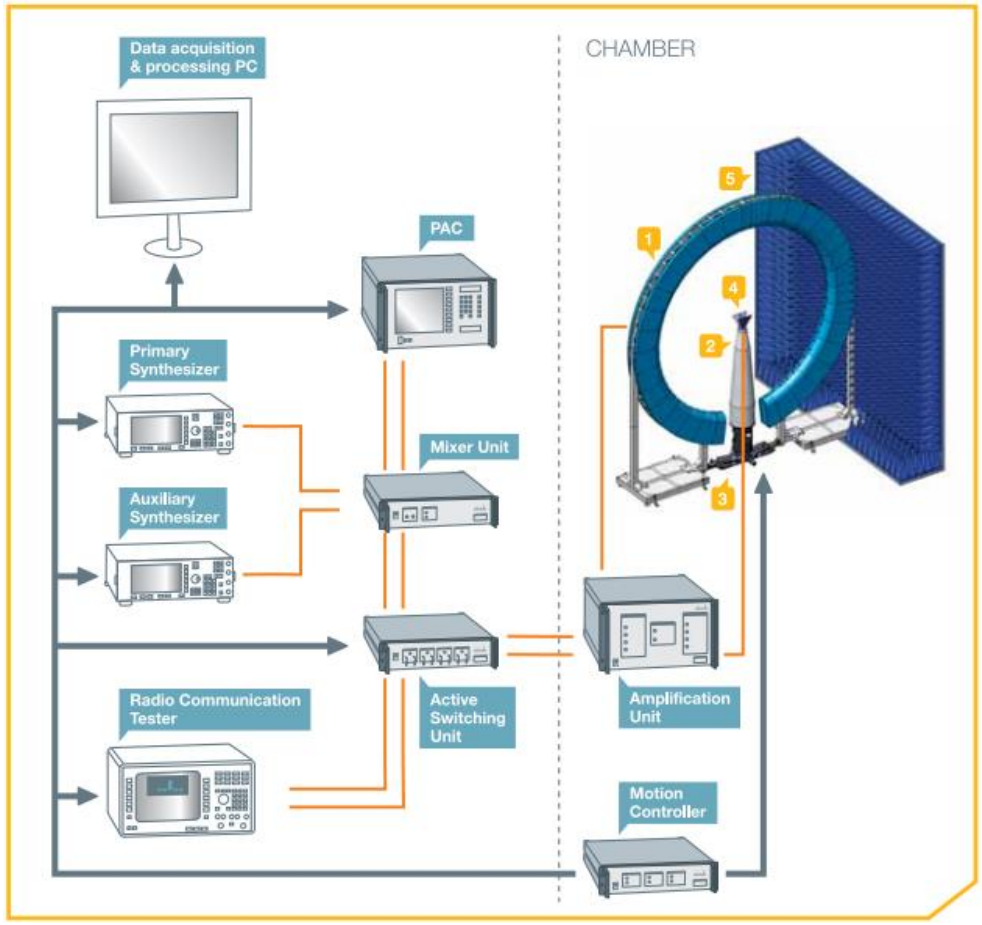


Co-Ordinate System



Directional Gain
ANT 0
ANT 1

Measurement setup info. & test method:



SG 64 uses analog RF signal generators to emit EM waves from the probe array to the antenna under test (AUT) or vice versa.

It uses the NPAC as an RF receiver for antenna measurements. The NPAC also drives the electronic scanning of the probe array.

The NPAC includes the fastest and most accurate sources and receivers on the market.

Test Procedure & SW :

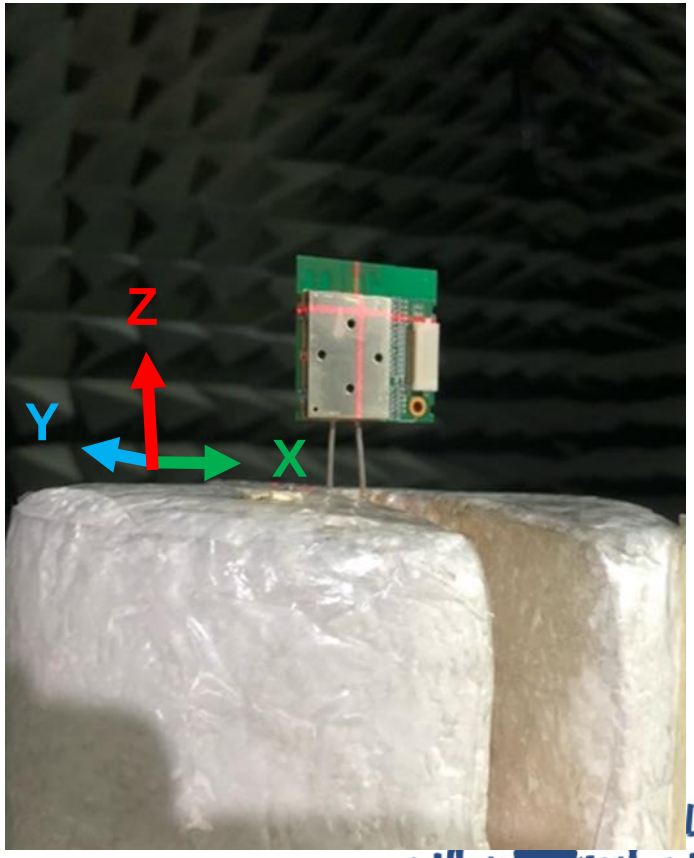
Place the device at the center of the chamber.

Connect the antenna cable to RF cable of the chamber

Run Satimo test SW (**NPAC Spherical Measurement, v1.5.4 (GIT-E6965664)) which is Satimo's proprietary SW.**

Get 3D data in 2.8125 degree step from phi 0°~360°and theta -90°~ +90°, including efficiency, peak gain, 2D & 3D radiation pattern.

This is passive measurement, which means the device is off and not in any operating mode.



Calibrated and measurement equipment table list:

Device	Type/Model	Serial#	Manufacturer	Characteristics	Calibrated Date	Calibrated Until
SG64 Chamber	Standard	SG64	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Turn Table	Customization	-	Machinery Dept.	-	2022/03/30	2023/03/30
New Probe Array Controller	N/A	1102341-4535	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Power Supply Unit	N/A	1103211-13204	MVG	-	2022/03/30	2023/03/30
Activve Switching Unit	N/A	1102347-7214	MVG	400MHz~6GHz	2022/03/30	2023/03/30
TX Amplification Unit	N/A	1102527-5909	MVG	400MHz~6GHz	2022/03/30	2023/03/30
RX Amplification Unit	N/A	1102536-3823	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Transfer Swittching Unit	N/A	1102183-3351	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Mixer Unit	N/A	1102545-7208	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Power And Control Unit	N/A	1102706-7209	MVG	-	2022/03/30	2023/03/30
Antenna Probe	DP 400-6000	-	MVG	400MHz~6GHz	2022/03/30	2023/03/30
Cable 13.7m - 400MHz to 18GHz	SS402	00100A1F5A1XXS	Woken	-	2022/03/30	2023/03/30
Temperature & Humidity Meter	HTC-01	-	Metravi	-	2022/03/30	2023/03/30

Note:

1. There are 63 set ANT probes in WNC's SG64 Chamber.
2. This ant. test chamber is located in WNC which address is :
   Add: 20 Park Avenue II (or Yuanchiu 2nd Rd.), Hsinchu Science Park, Hsinchu 300, Taiwan
   Tel: +886-3-666-7799

WNC®

Smarter Solutions for a Smarter Future