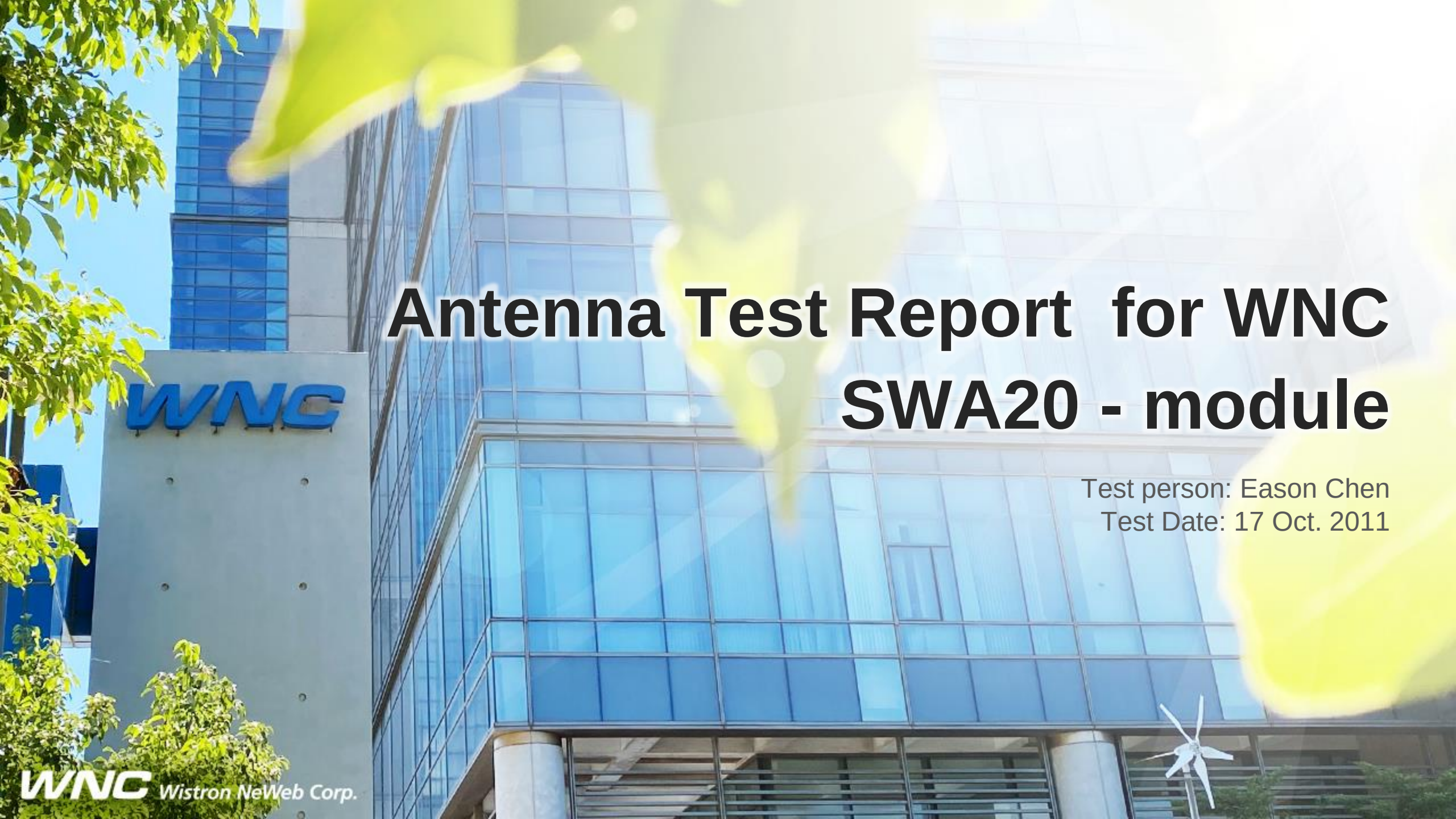


Antenna Test Report for WNC SWA20 - module

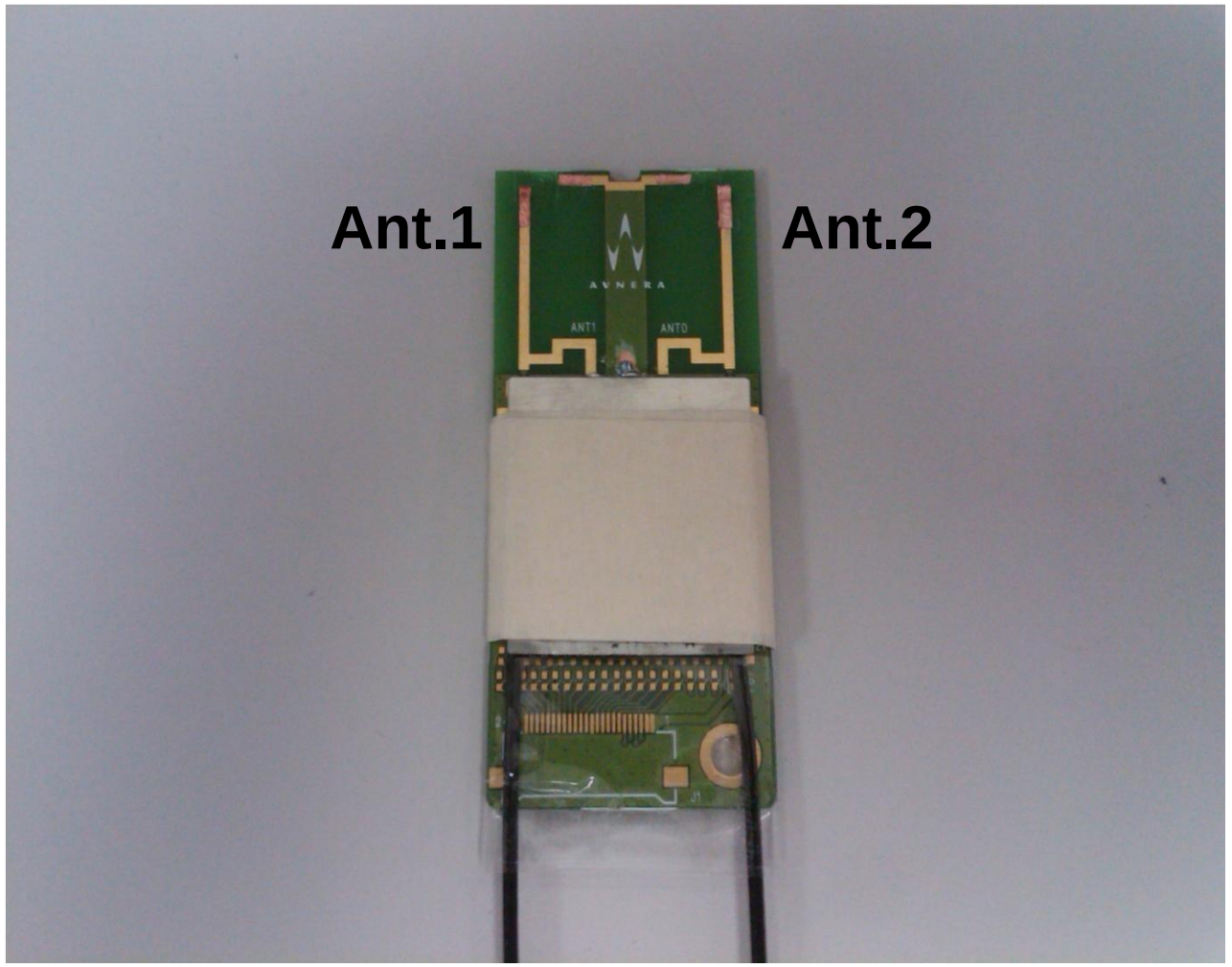
Test person: Eason Chen
Test Date: 17 Oct. 2011

WNC Wistron NeWeb Corp.

Abstract

- Antenna Type and Displacement
- Peak Gain
- Antenna Performance (VSWR)
- Antenna Performance (Isolation)
- Antenna Performance (System Co-ordinate)
- Antenna Performance (Radiation Pattern)
- Measurement setup info. & test method
- Test Procedure & SW
- Calibrated and measurement equipment table list

Antenna Type and Displacement



Model	Manufacturer
SWA20	Wistron Neweb Corporation 20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan

Peak Gain

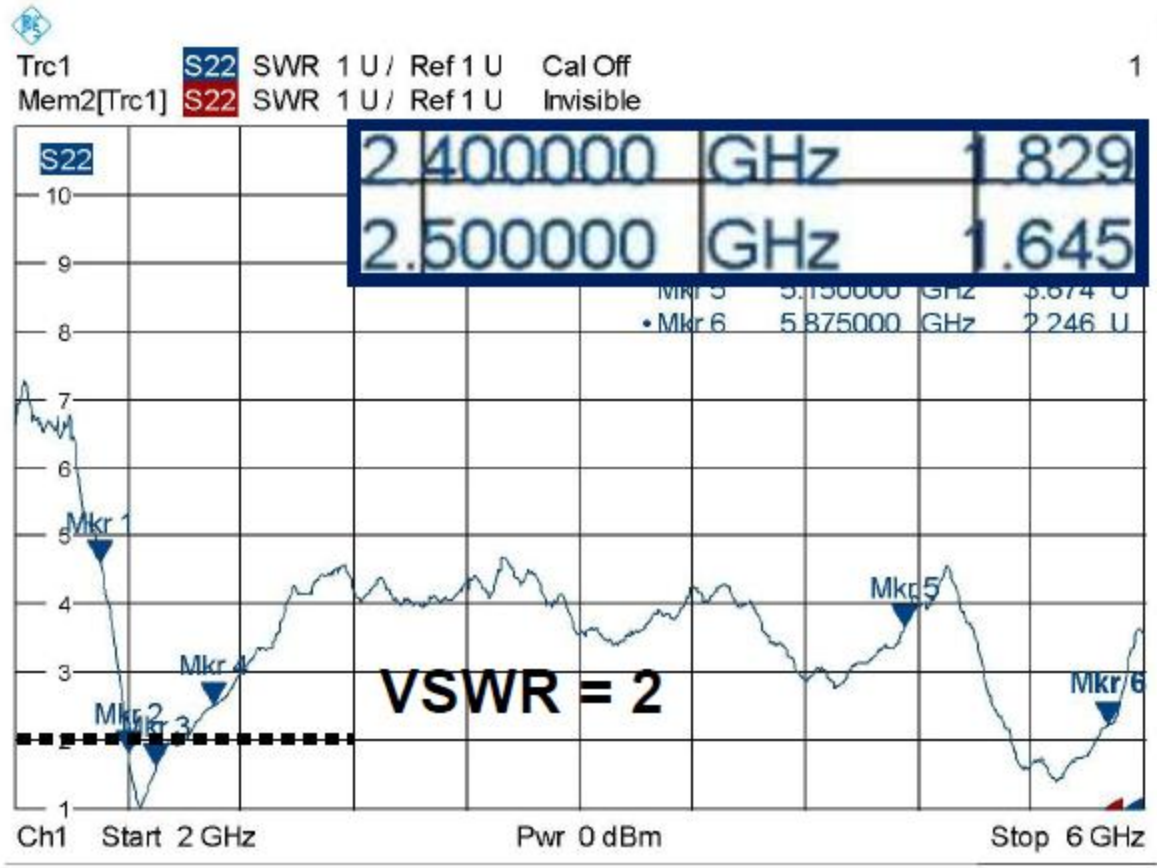
	Freq.MHz	2400	2450	2500
Ant1	Peak Gain	3.7	3.9	3.29
	Peak Gain@	Theta=218; phi=33	Theta=220; phi=56	Theta=145; phi=52
Ant2	Peak Gain	3.3	3.5	2.66
	Peak Gain@	Theta=203; phi=144	Theta=201; phi=131	Theta=163; phi=142

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

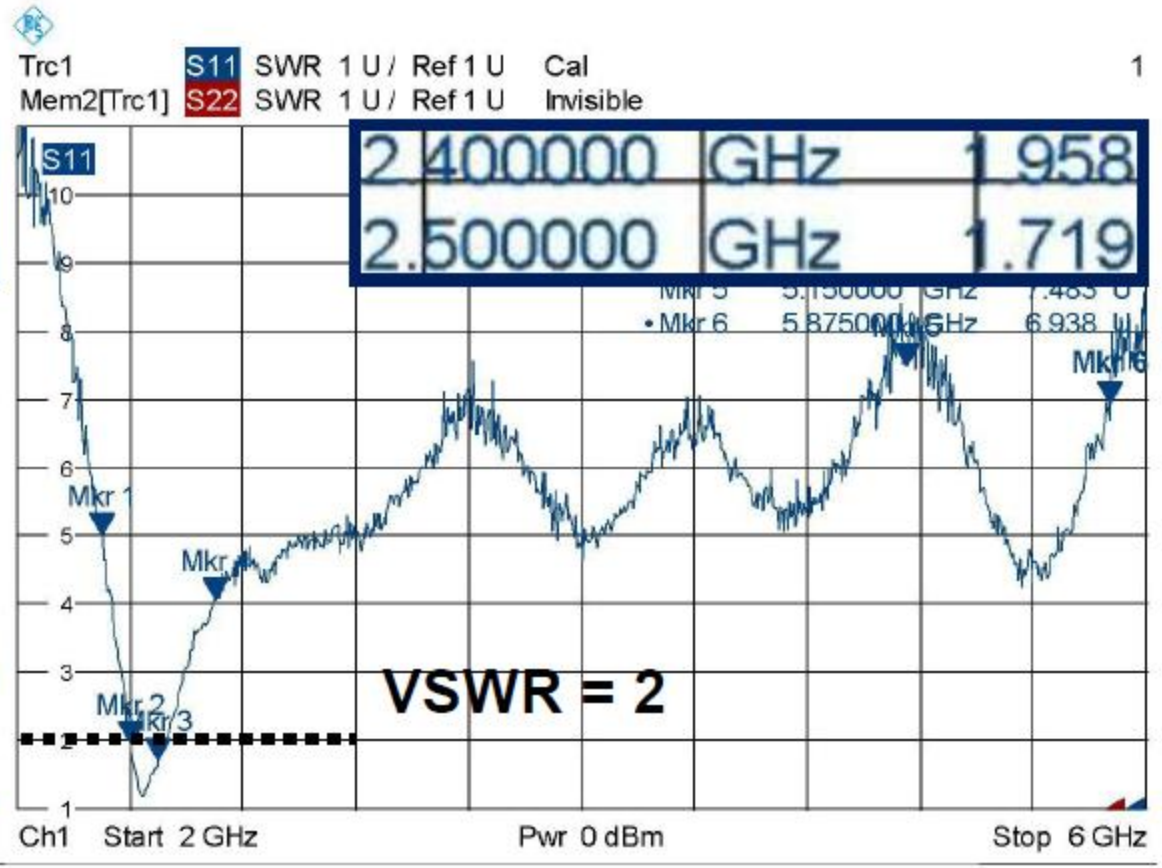
Above Peak Gain= on board antenna peak gain path loss+ Chamber's receiving RX peak gain.

WNC

Antenna Performance (VSWR)

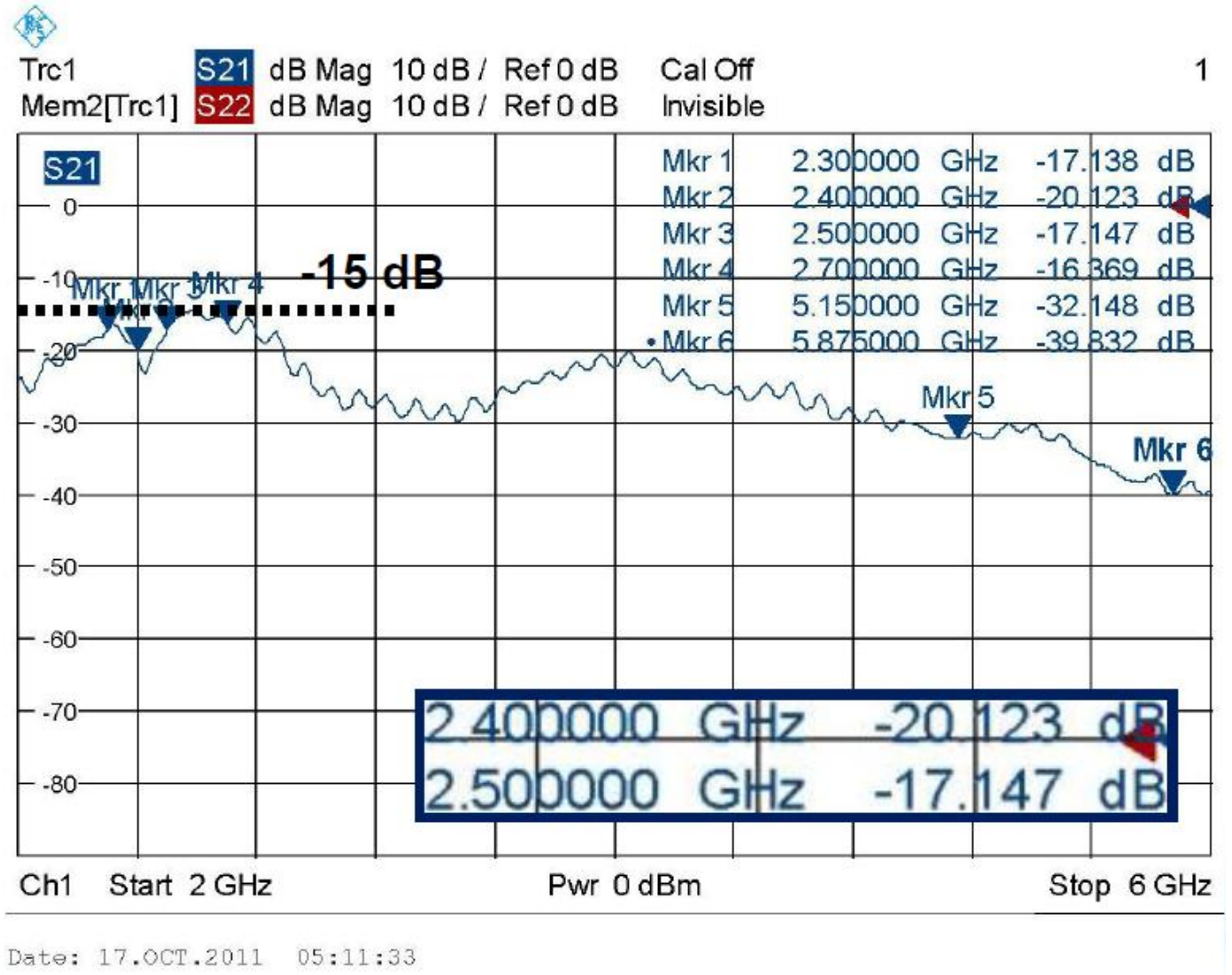


Antenna 1

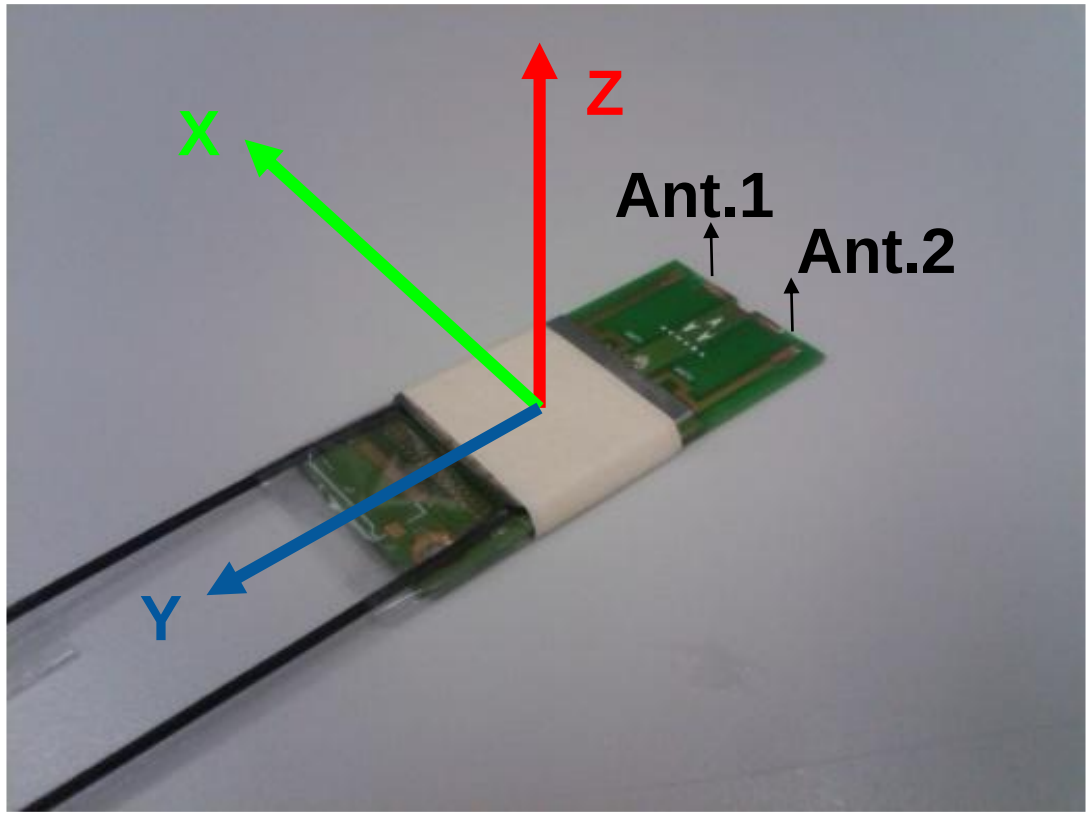


Antenna 2

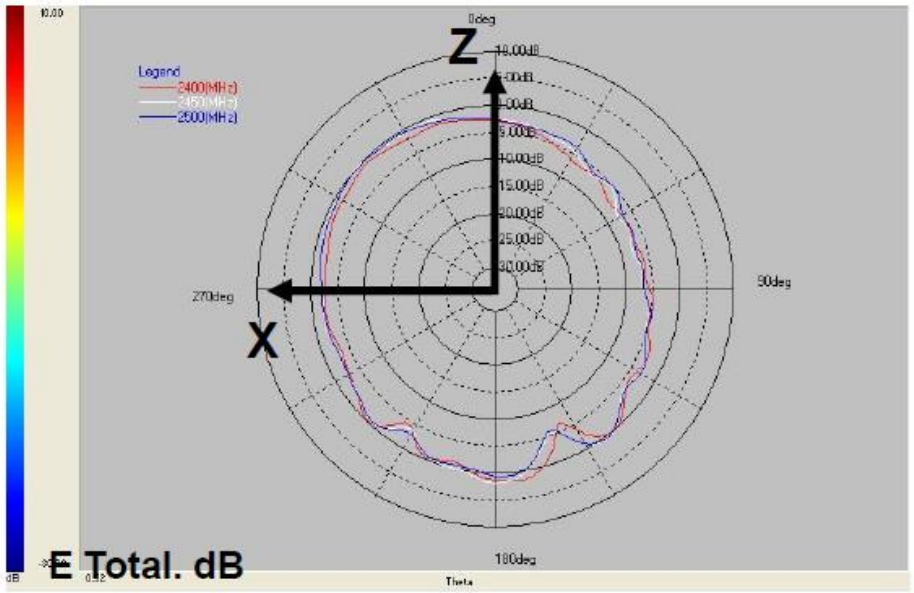
Antenna Performance (Isolation)

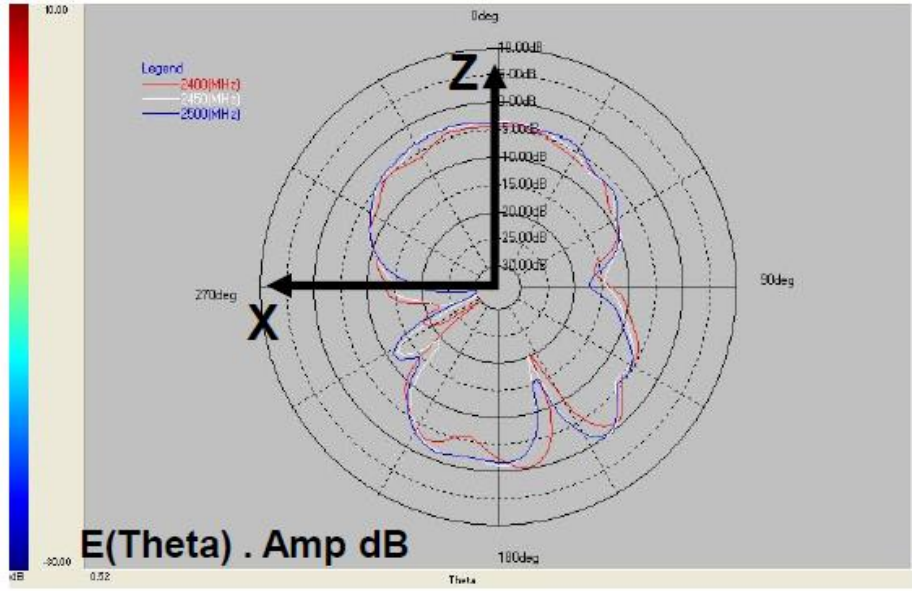


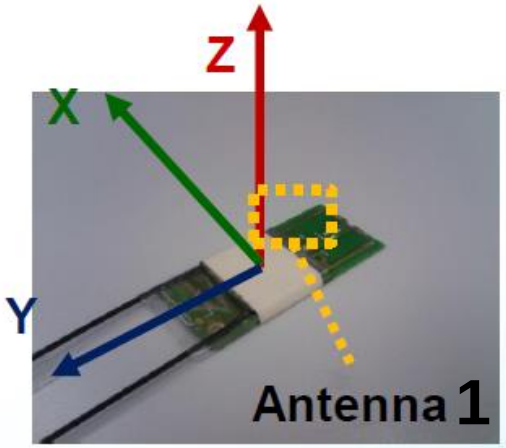
Antenna Performance (System Co-ordinate)

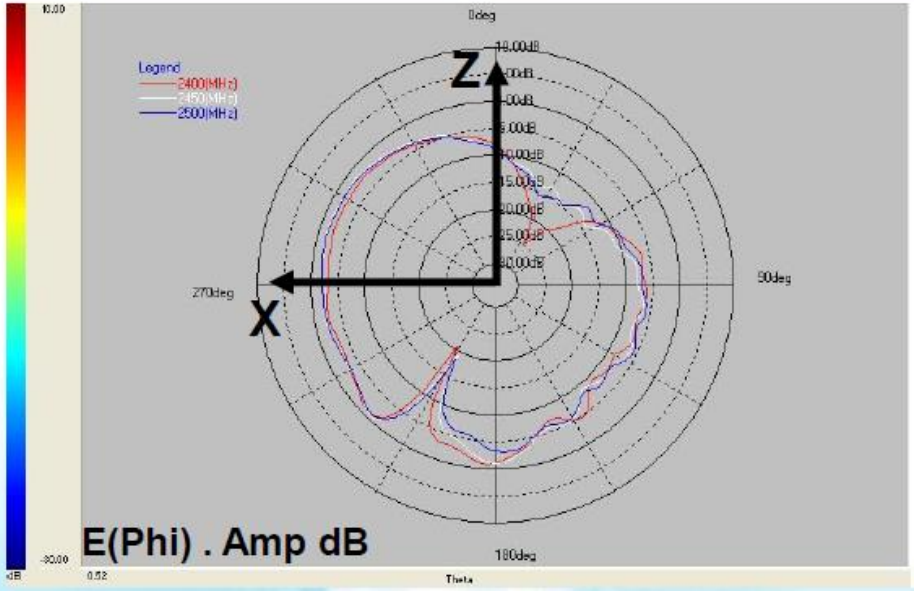


Antenna Performance (Radiation Pattern)

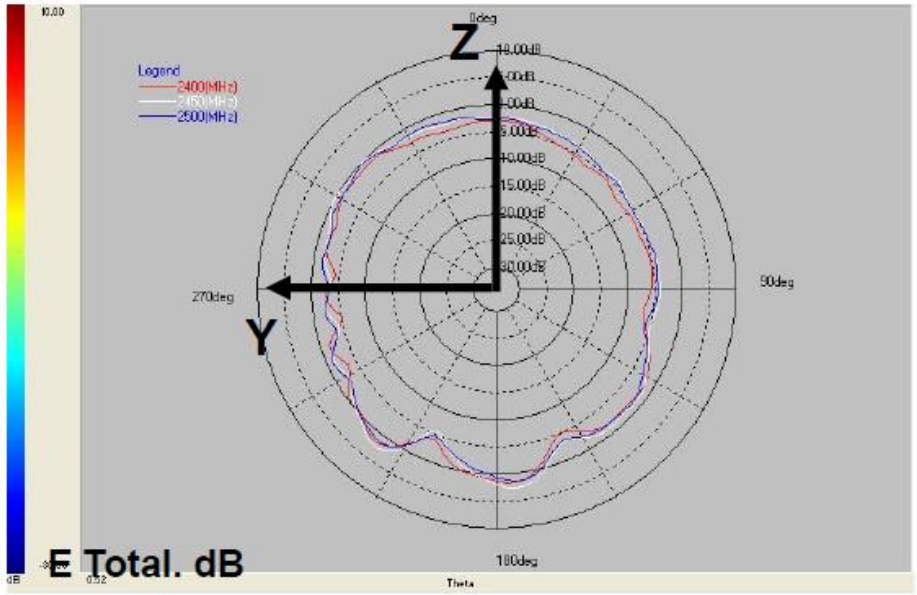


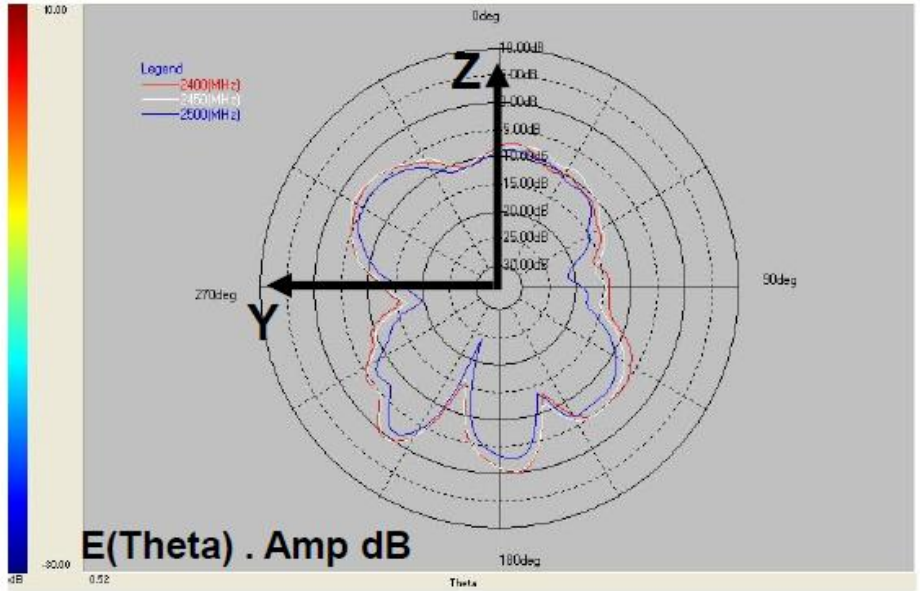


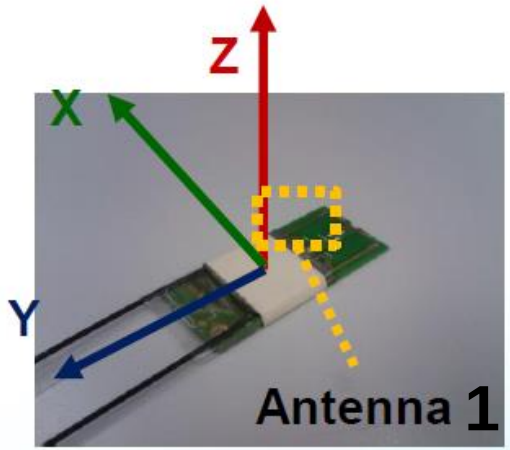


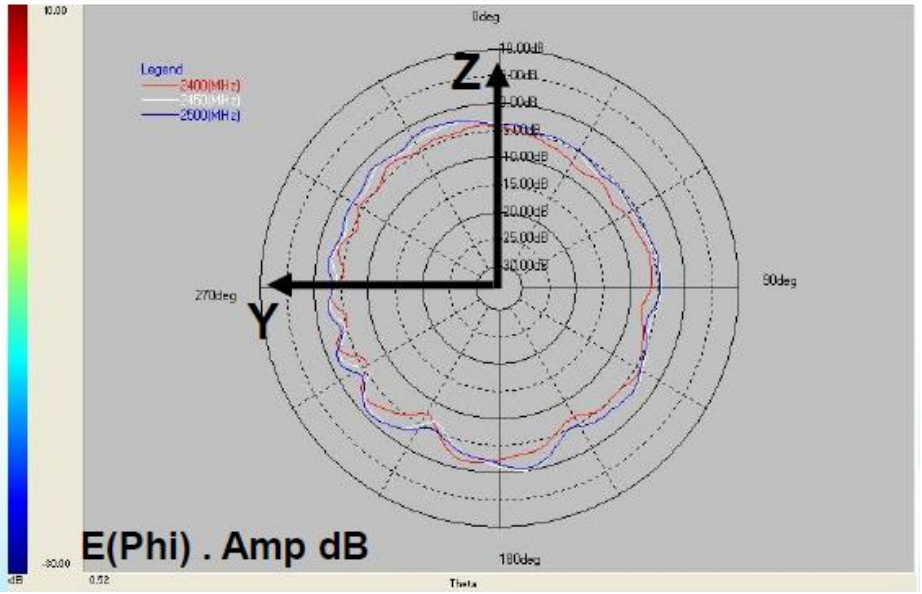


Antenna Performance (Radiation Pattern)

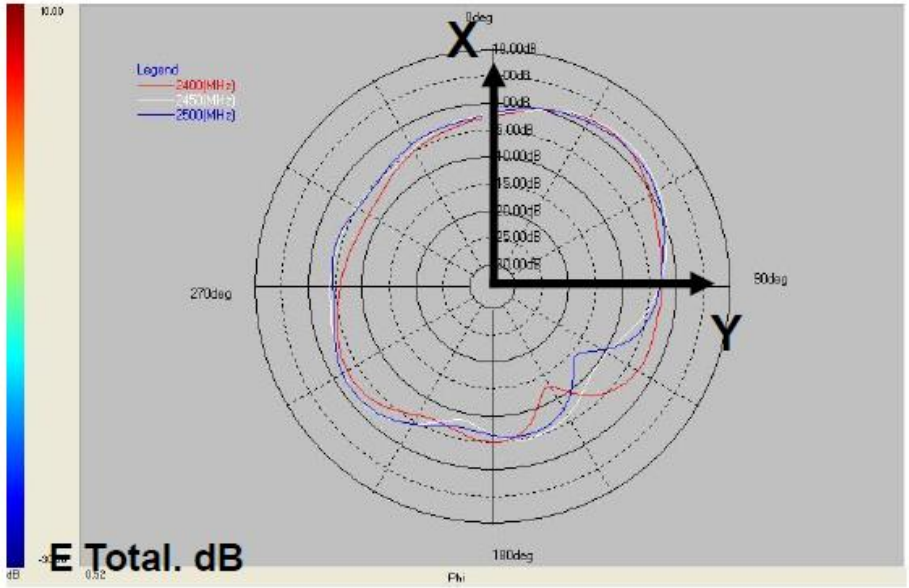


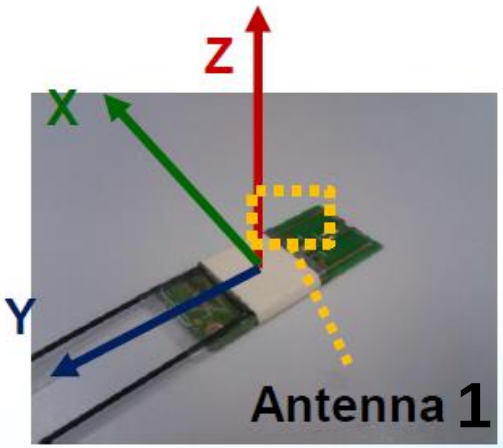


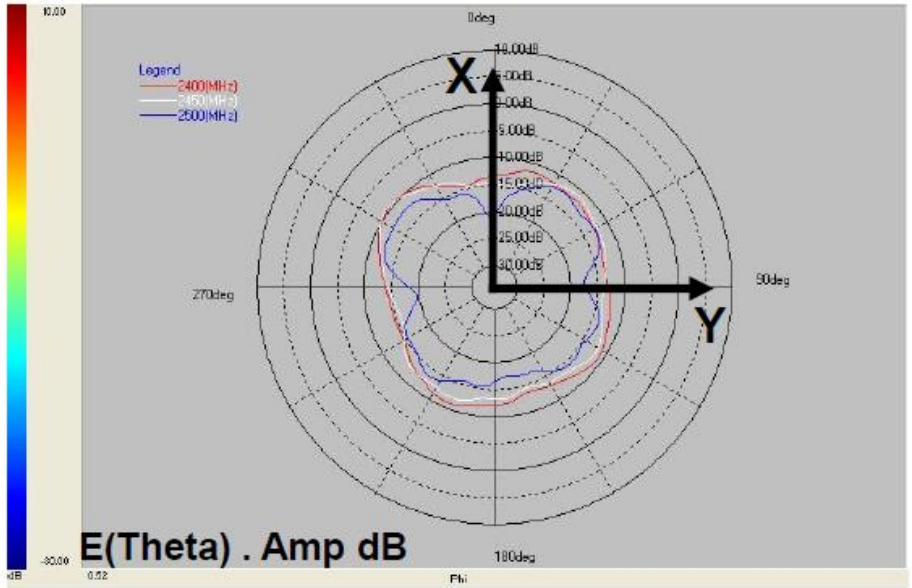


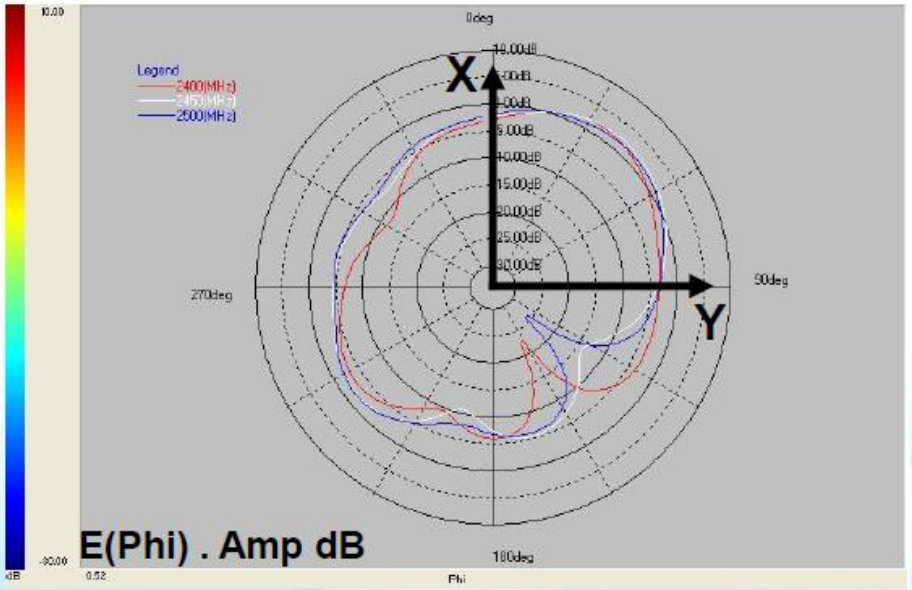


Antenna Performance (Radiation Pattern)









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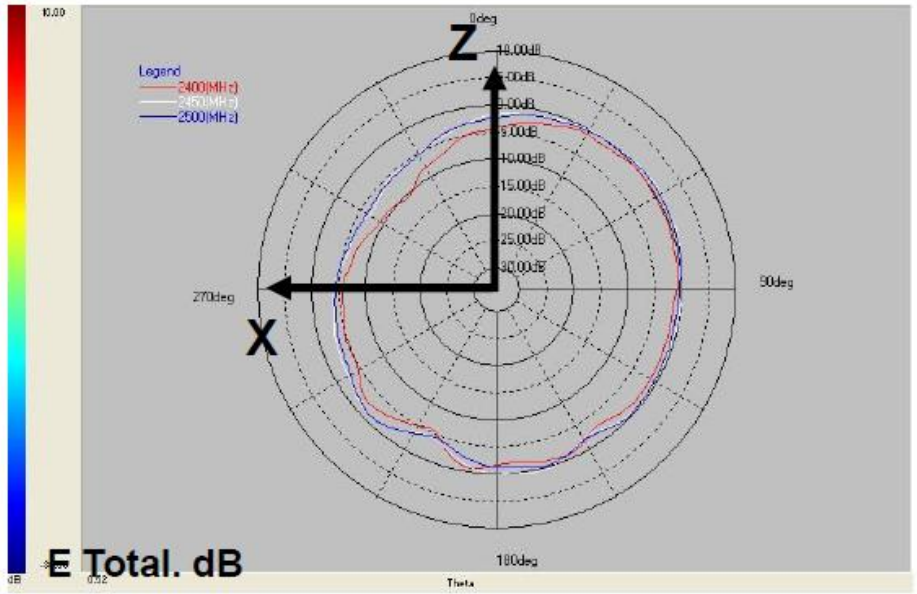

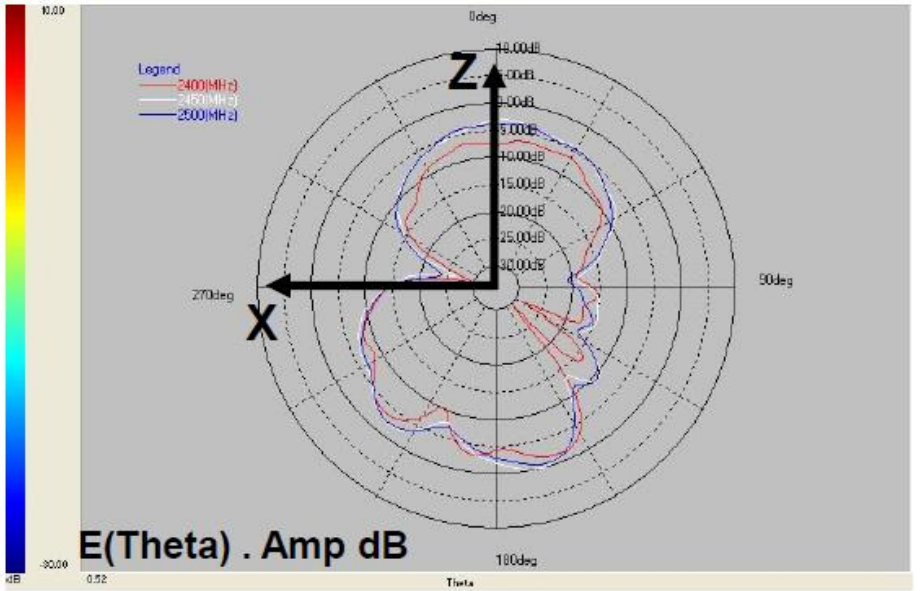

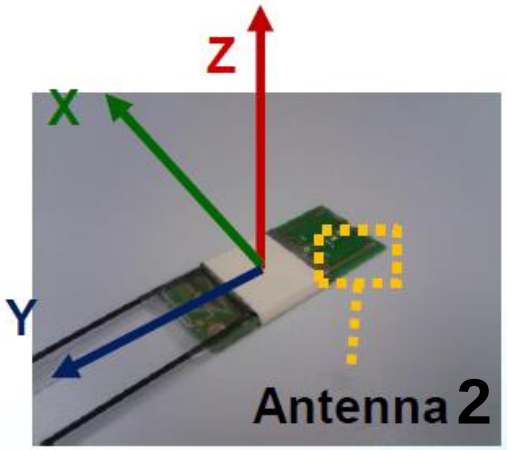

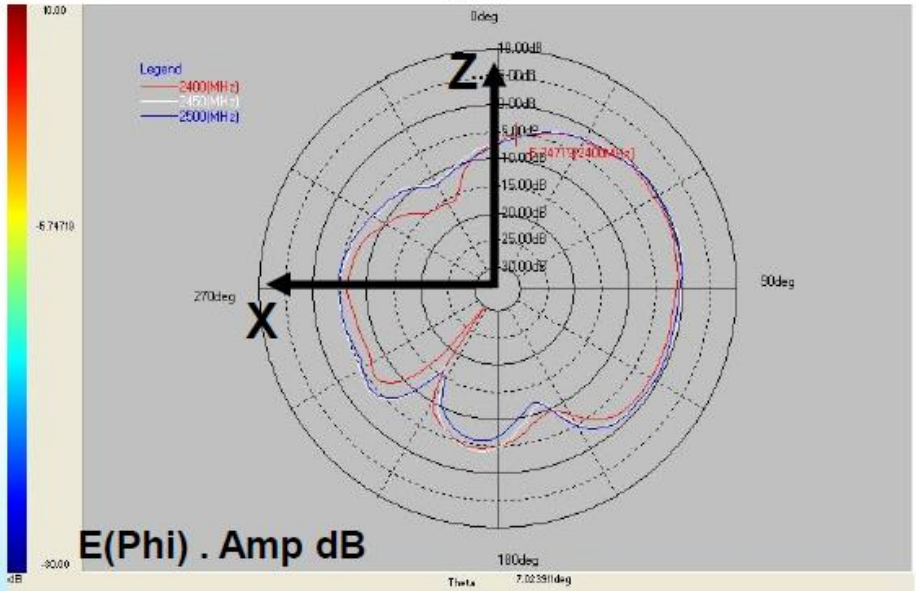

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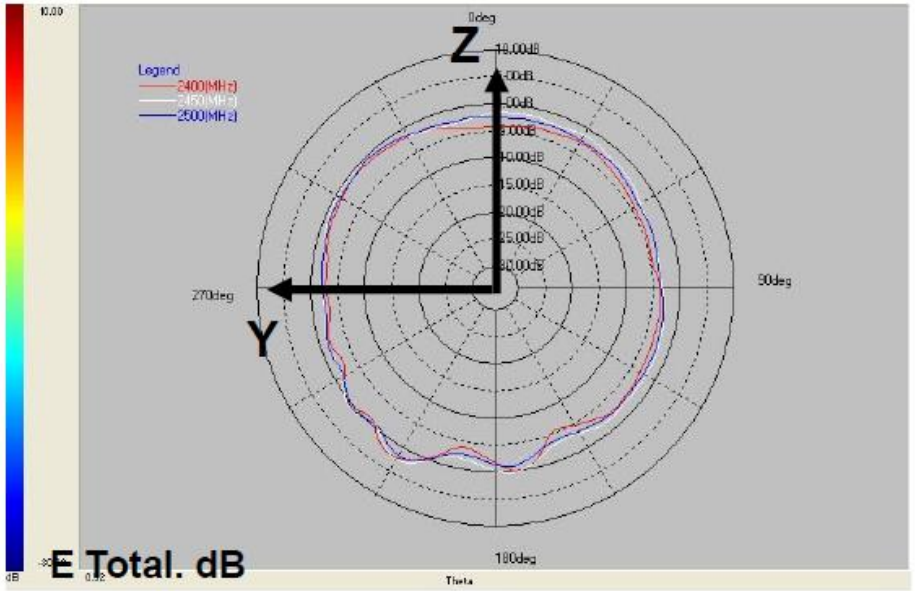

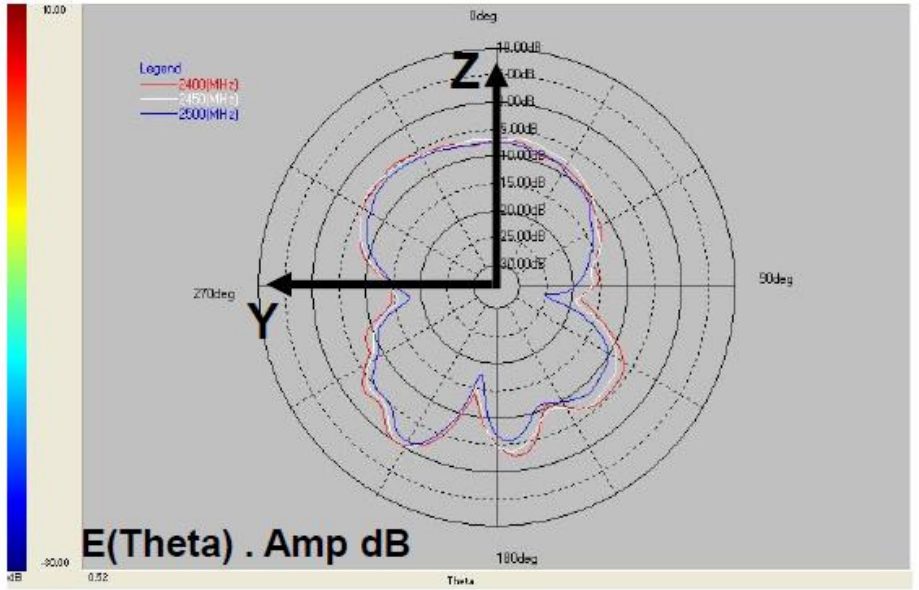

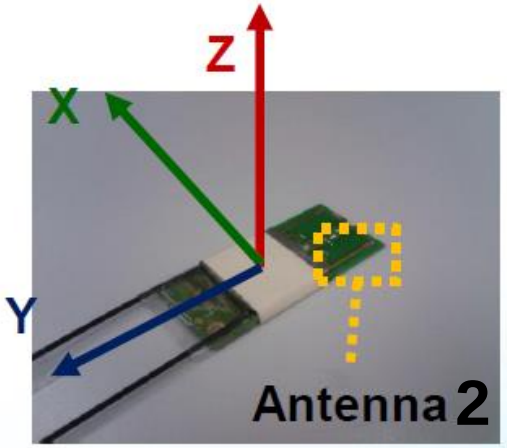

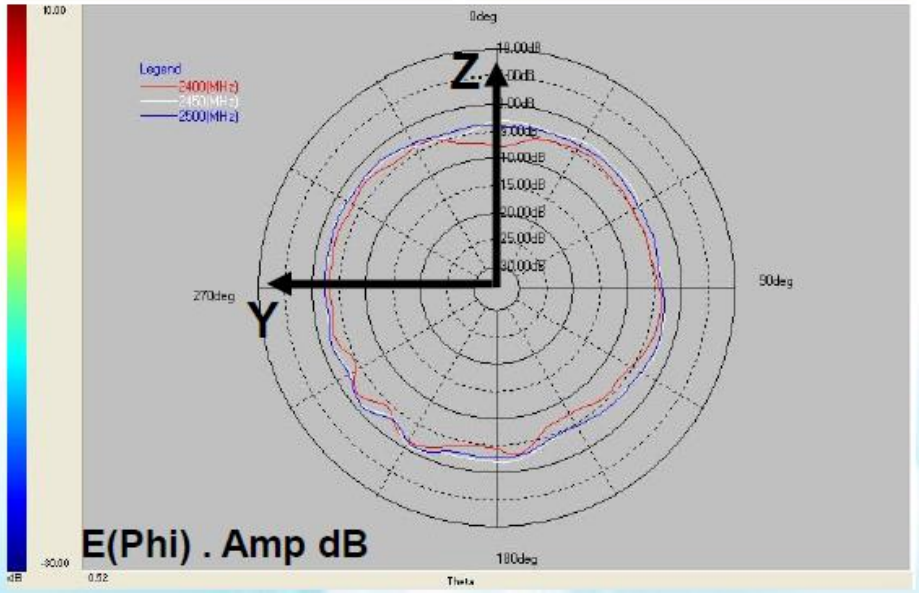

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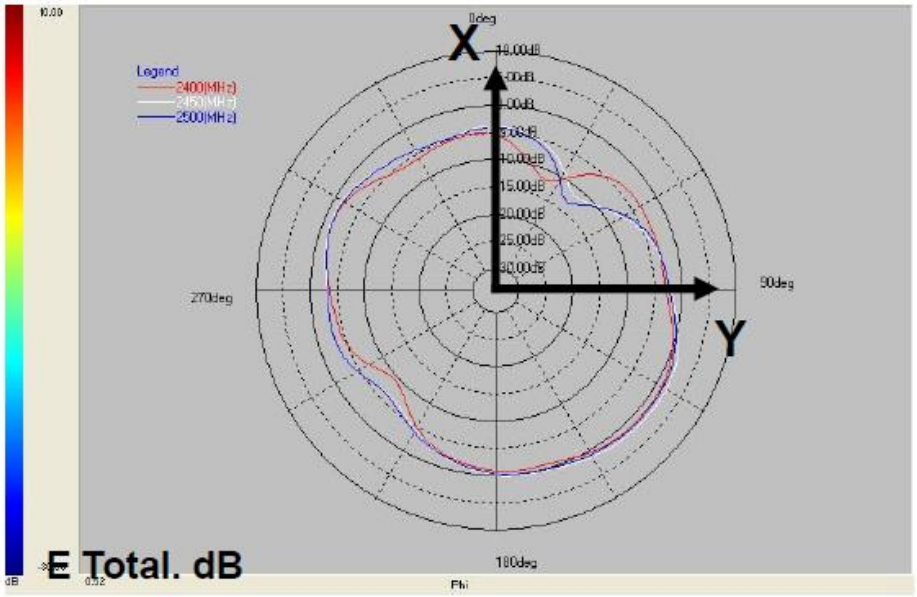
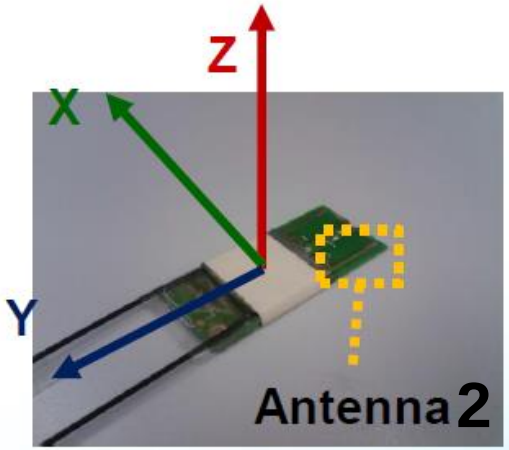
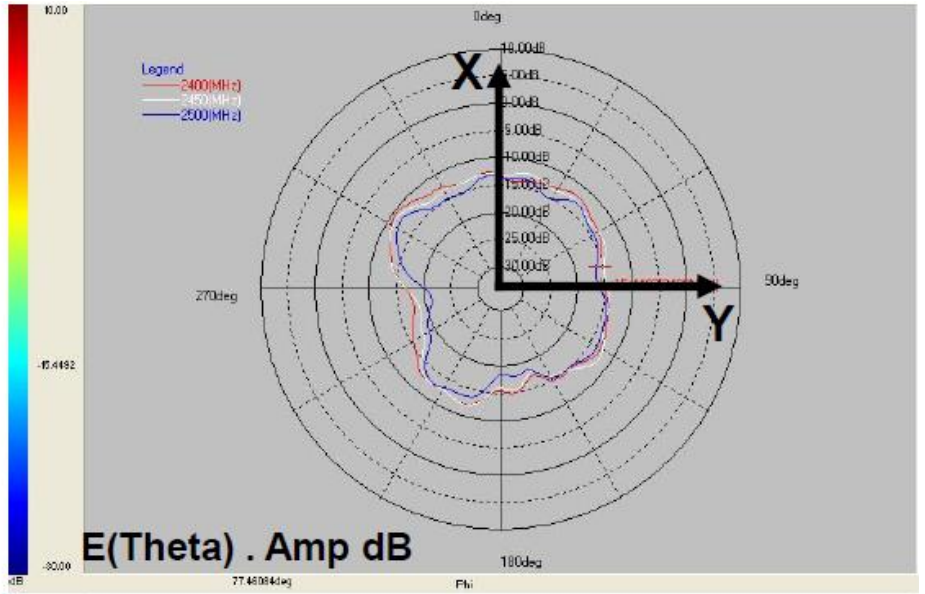
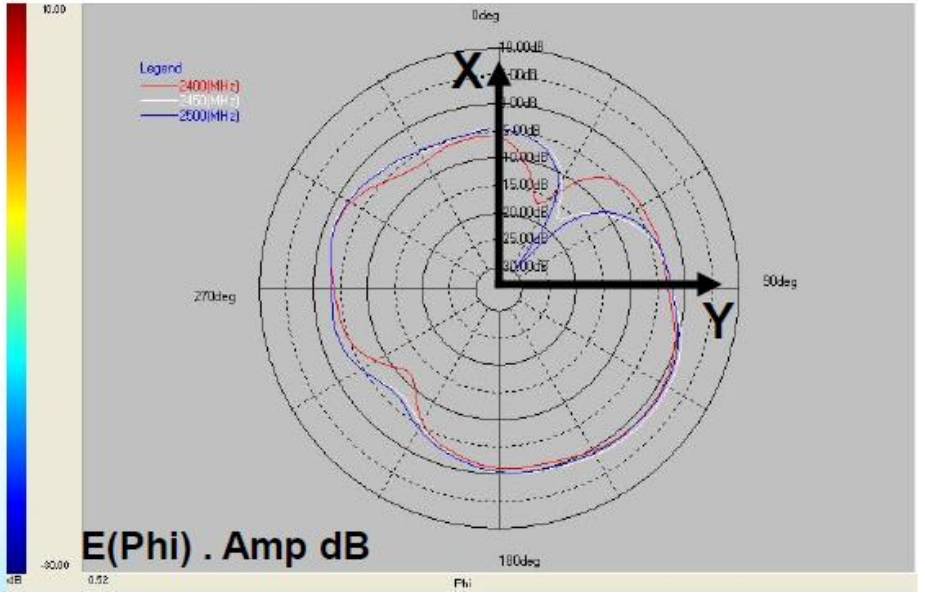
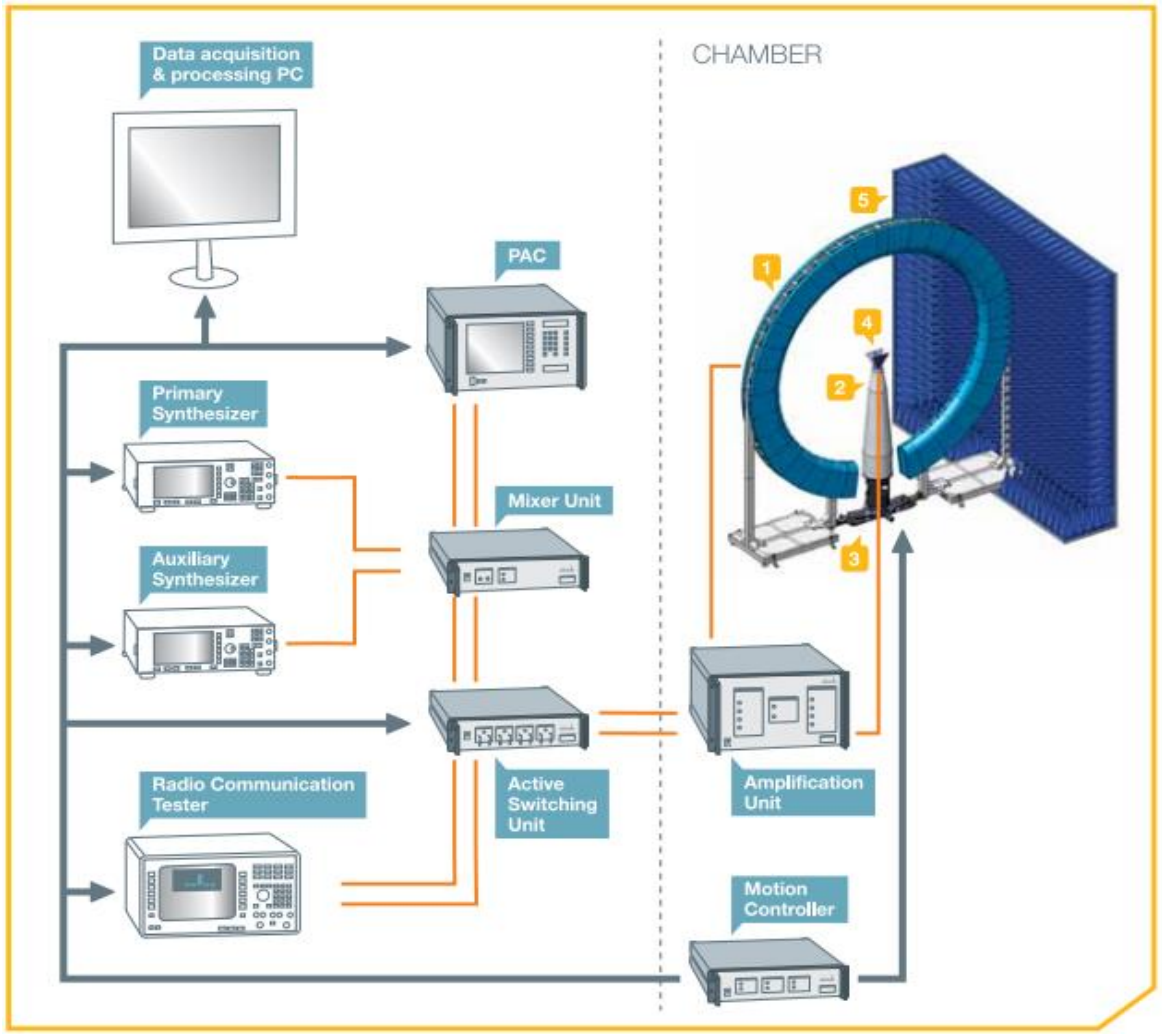








Measurement setup info. & test method:



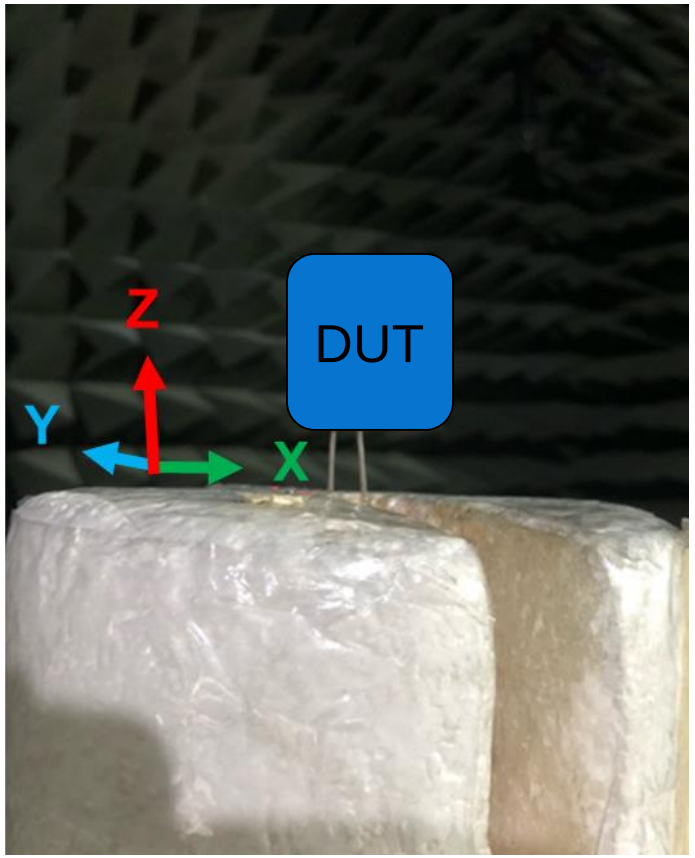
SG 64 uses analog RF signal generators to emit EM waves from the probe array to the antenna under test (AUT) or vice versa.

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 Satimotest SW (**NPAC Spherical Measurement, v1.5.4 (GIT-E6965664)) which is Satimo'sproprietary 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	2011/3/30	2012/3/30
Turn Table	Customization	-	Machinery Dept.	-	2011/3/30	2012/3/30
New Probe Array Controller	N/A	1102341-4535	MVG	400MHz~6GHz	2011/3/30	2012/3/30
Power Supply Unit	N/A	1103211-13204	MVG	-	2011/3/30	2012/3/30
Activve Switching Unit	N/A	1102347-7214	MVG	400MHz~6GHz	2011/3/30	2012/3/30
TX Amplification Unit	N/A	1102527-5909	MVG	400MHz~6GHz	2011/3/30	2012/3/30
RX Amplification Unit	N/A	1102536-3823	MVG	400MHz~6GHz	2011/3/30	2012/3/30
Transfer Swittching Unit	N/A	1102183-3351	MVG	400MHz~6GHz	2011/3/30	2012/3/30
Mixer Unit	N/A	1102545-7208	MVG	400MHz~6GHz	2011/3/30	2012/3/30
Power And Control Unit	N/A	1102706-7209	MVG	-	2011/3/30	2012/3/30
Antenna Probe	DP 400-6000	-	MVG	400MHz~6GHz	2011/3/30	2012/3/30
Cable 13.7m - 400MHz to 18GHz	SS402	00100A1F5A1XXS	Woken	-	2011/3/30	2012/3/30
Temperature & Humidity Meter	HTC-01	-	Metravi	-	2011/3/30	2012/3/30

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 Yuanchiu2nd Rd.), Hsinchu Science Park, Hsinchu 300, TaiwanTel: +886-3-666-7799

Wistron NeWeb Corp.

Thank You!