

Andy V5.2 EPR1

Antenna Measurement results

2025/03/05

WNC

Antenna Efficiency

		2400	2450	2500	Avg.	5150	5350	5550	5725	5785	5850	Avg.
WiFi1	Eff.	62%	64%	65%	64%	65%	67%	65%	67%	65%	67%	66%
	Avg. Gain	-2.09	-1.92	-1.86		-1.86	-1.72	-1.84	-1.74	-1.87	-1.74	
	Peak Gain	2.20	3.15	3.90		3.14	5.55	5.24	5.85	5.95	5.58	
WiFi2	Eff.	68%	71%	66%	68%	64%	65%	66%	67%	70%	70%	67%
	Avg. Gain	-1.68	-1.49	-1.77		-1.93	-1.84	-1.80	-1.76	-1.53	-1.57	
	Peak Gain	3.98	4.65	5.06		5.58	5.20	5.43	5.48	5.42	5.92	

		1920	1925	1930	Avg.
DECT1	Eff.	64%	65%	63%	64%
	Avg. Gain	-1.96	-1.88	-1.98	
	Peak Gain	4.29	4.16	4.06	
DECT2	Eff.	66%	65%	64%	65%
	Avg. Gain	-1.82	-1.85	-1.91	
	Peak Gain	3.51	3.54	3.49	

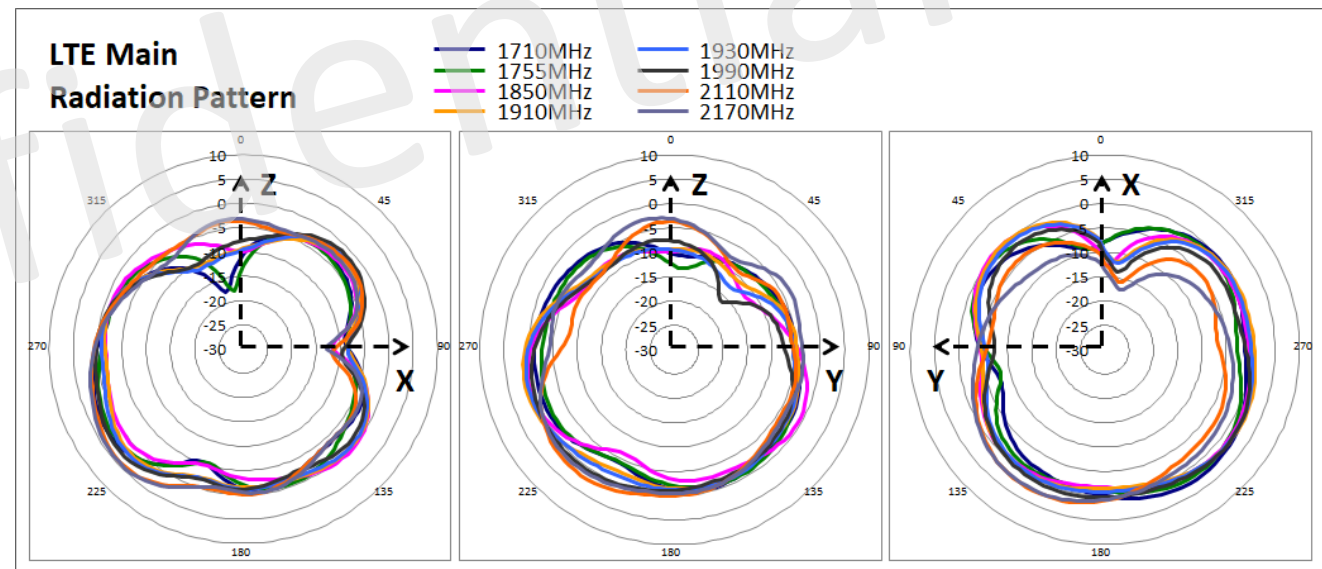
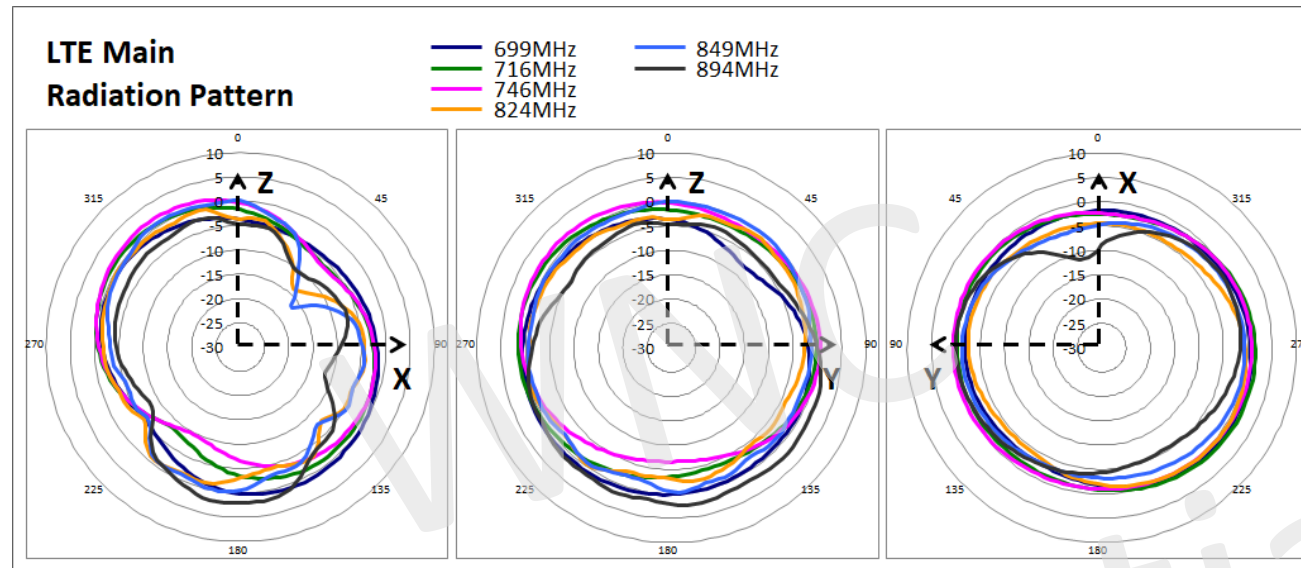
		908	912	916	Avg.
ZWAVE	Eff.	62%	63%	63%	63%
	Avg. Gain	-2.04	-2.00	-2.03	
	Peak Gain	2.31	2.53	2.82	

Unit, Avg. Gain [dBi], Peak Gain [dBi]

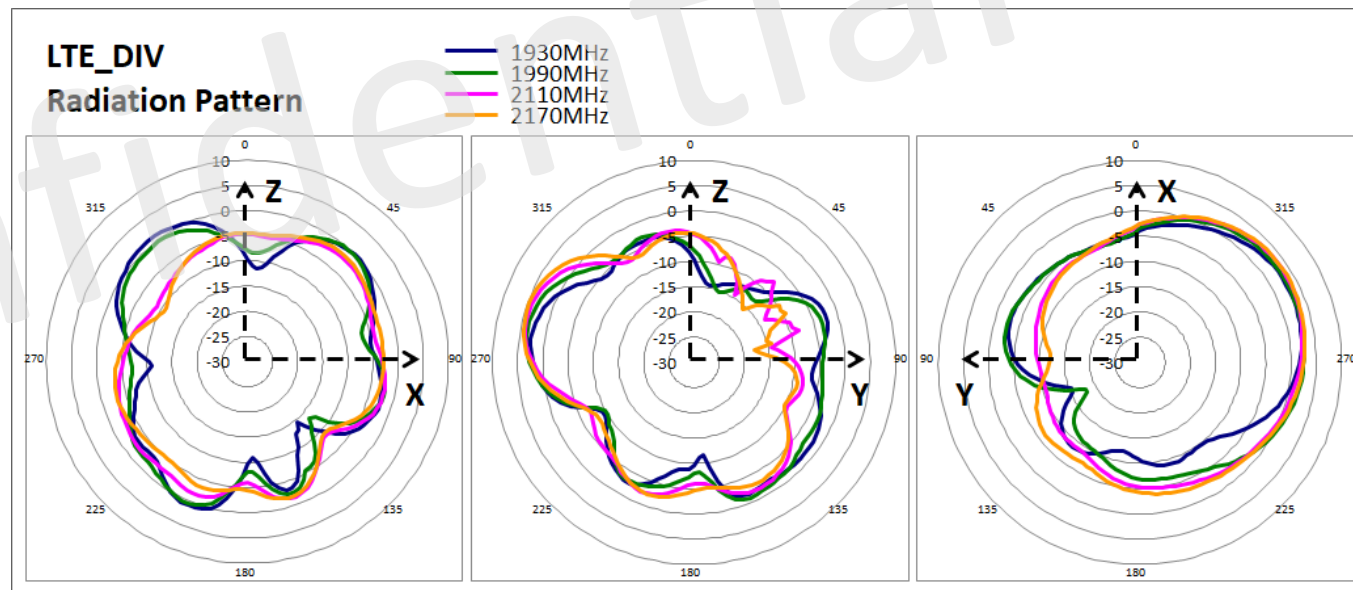
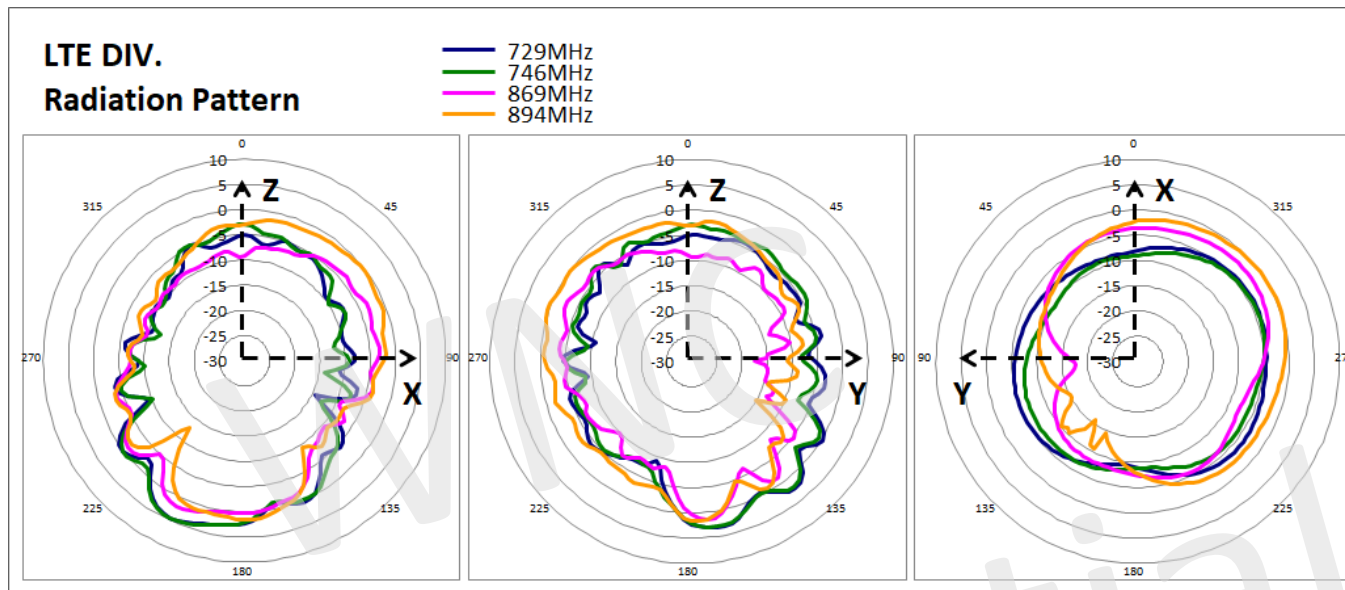
		729	746	869	894	Avg.	1710	1755	1850	1910	1930	1990	2110	2170	Avg.
LTE Div. (Rx only)	Eff.	51%	50%	50%	52%	51%	50%	51%	52%	53%	55%	55%	56%	57%	54%
	Avg. Gain	-2.95	-3.02	-3.01	-2.84		-3.01	-2.92	-2.84	-2.72	-2.56	-2.60	-2.49	-2.44	
	Peak Gain	1.29	1.38	1.26	1.18		2.62	2.82	2.43	3.11	3.19	3.30	3.47	3.33	

		699	716	746	824	849	894	Avg.	1710	1755	1850	1910	1930	1990	2110	2170	Avg.
LTE Main	Eff.	52%	53%	58%	56%	52%	51%	54%	62%	60%	63%	64%	64%	65%	64%	63%	63%
	Avg. Gain	-2.82	-2.73	-2.39	-2.53	-2.84	-2.92		-2.06	-2.20	-2.02	-1.92	-1.95	-1.88	-1.91	-1.98	
	Peak Gain	1.06	1.37	1.44	0.70	0.83	1.50		3.35	3.09	2.64	3.29	3.14	3.46	3.39	3.41	

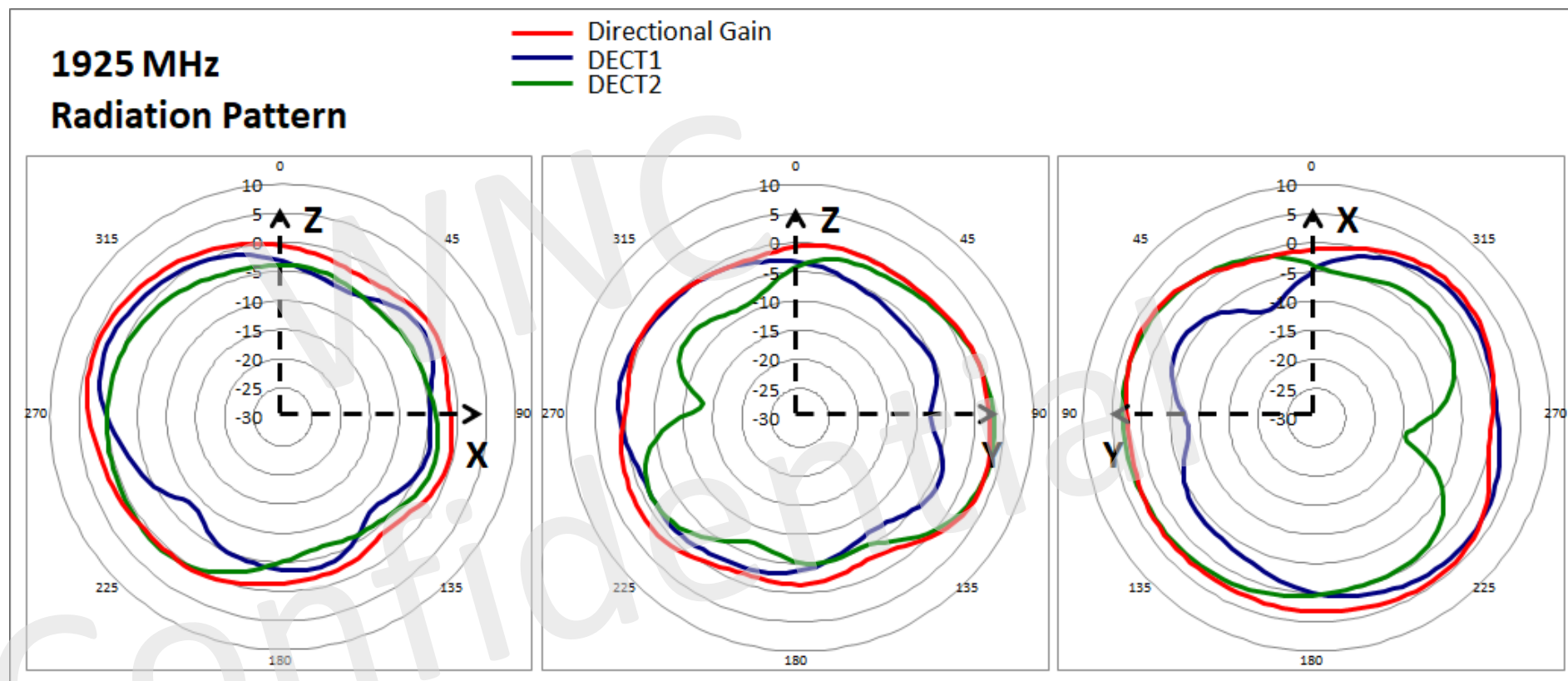
Radiation Pattern – LTE Main



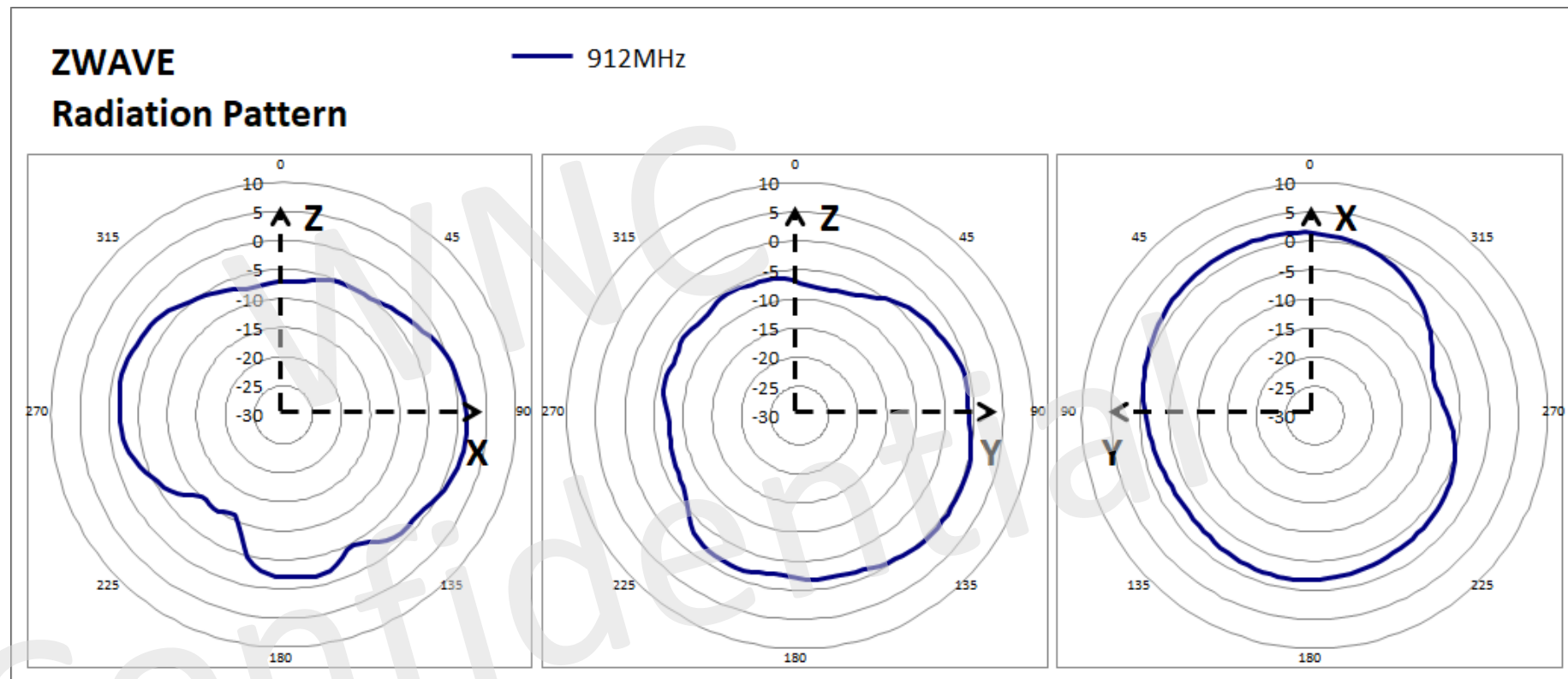
Radiation Pattern – LTE Diversity



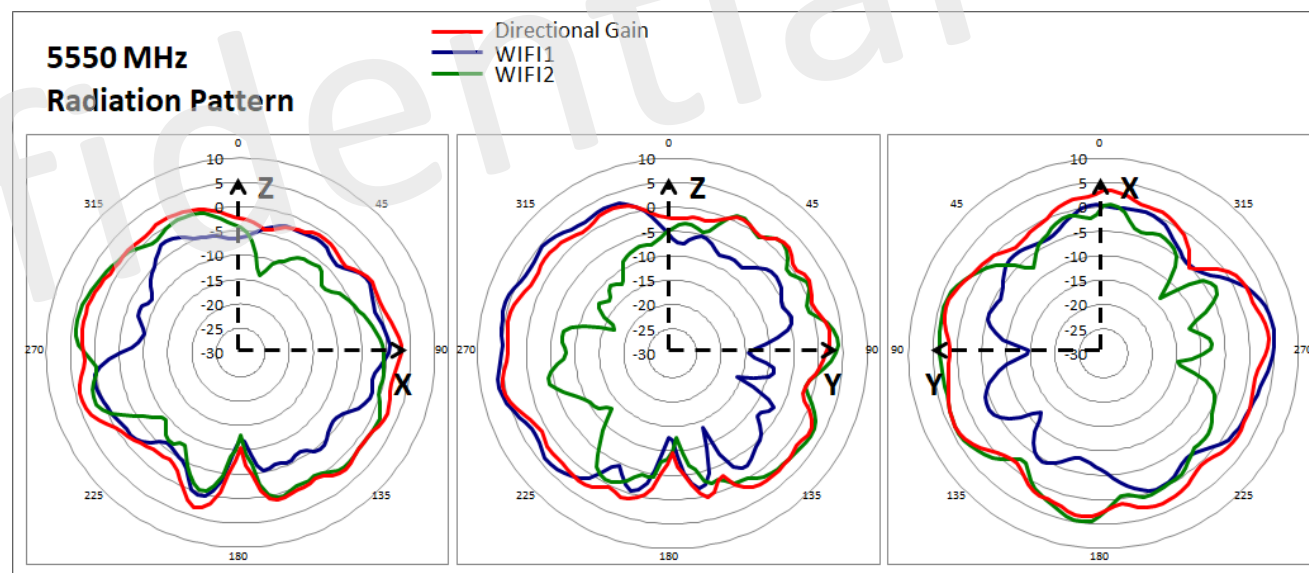
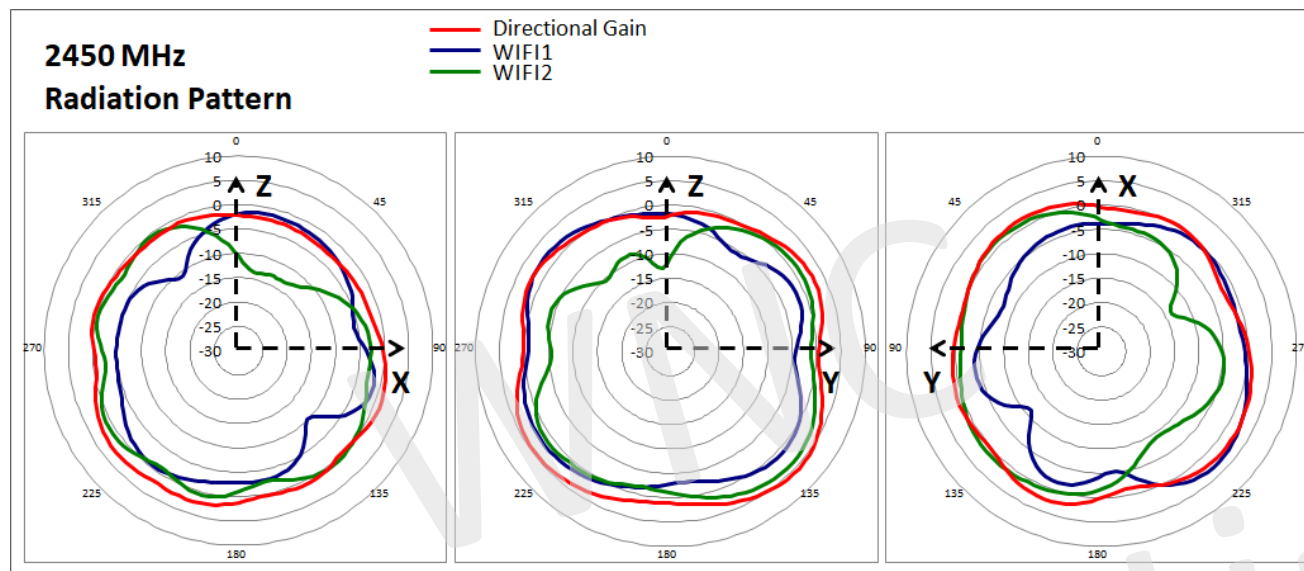
Radiation Pattern - DECT



Radiation Pattern – Z-WAVE



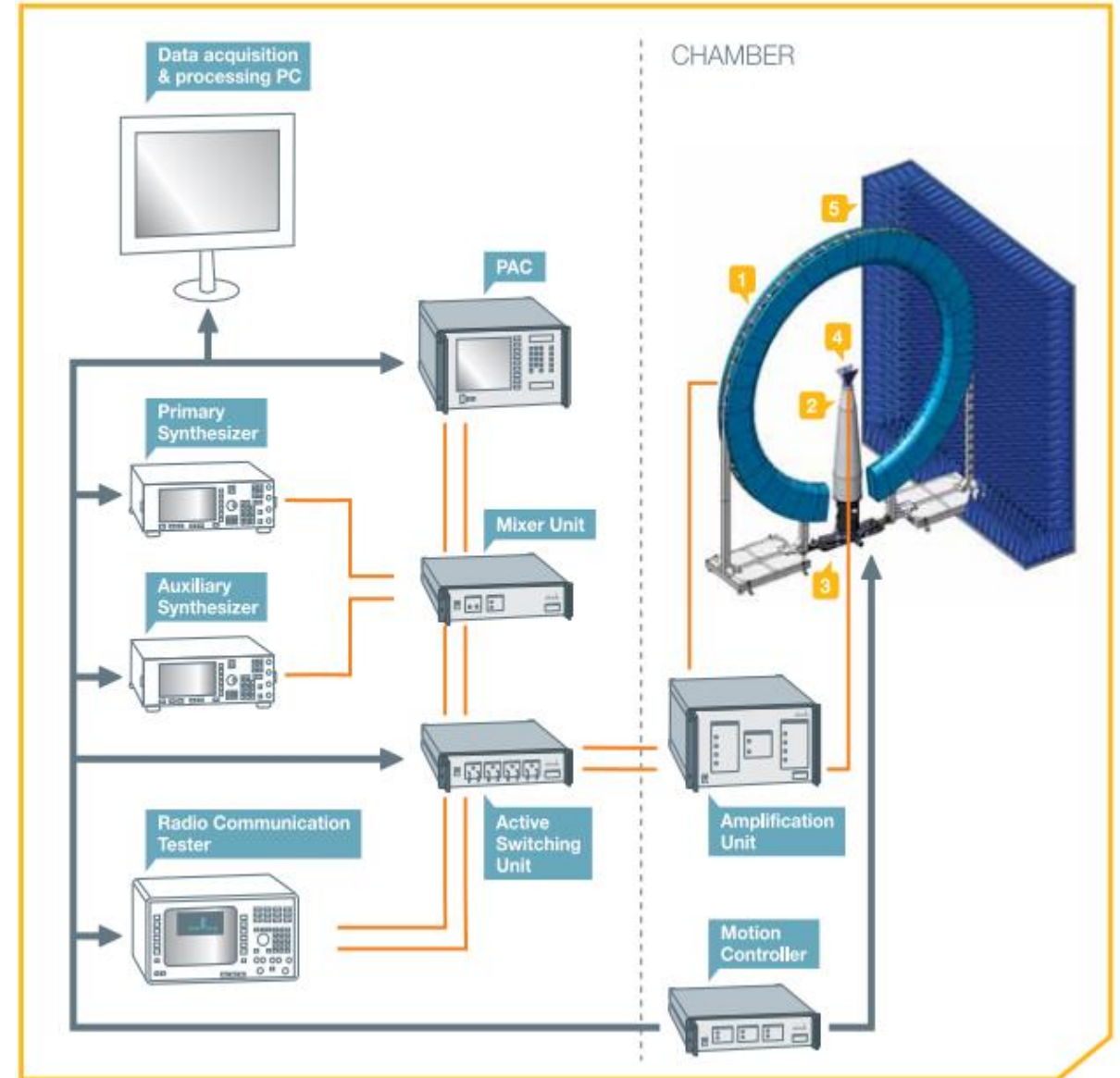
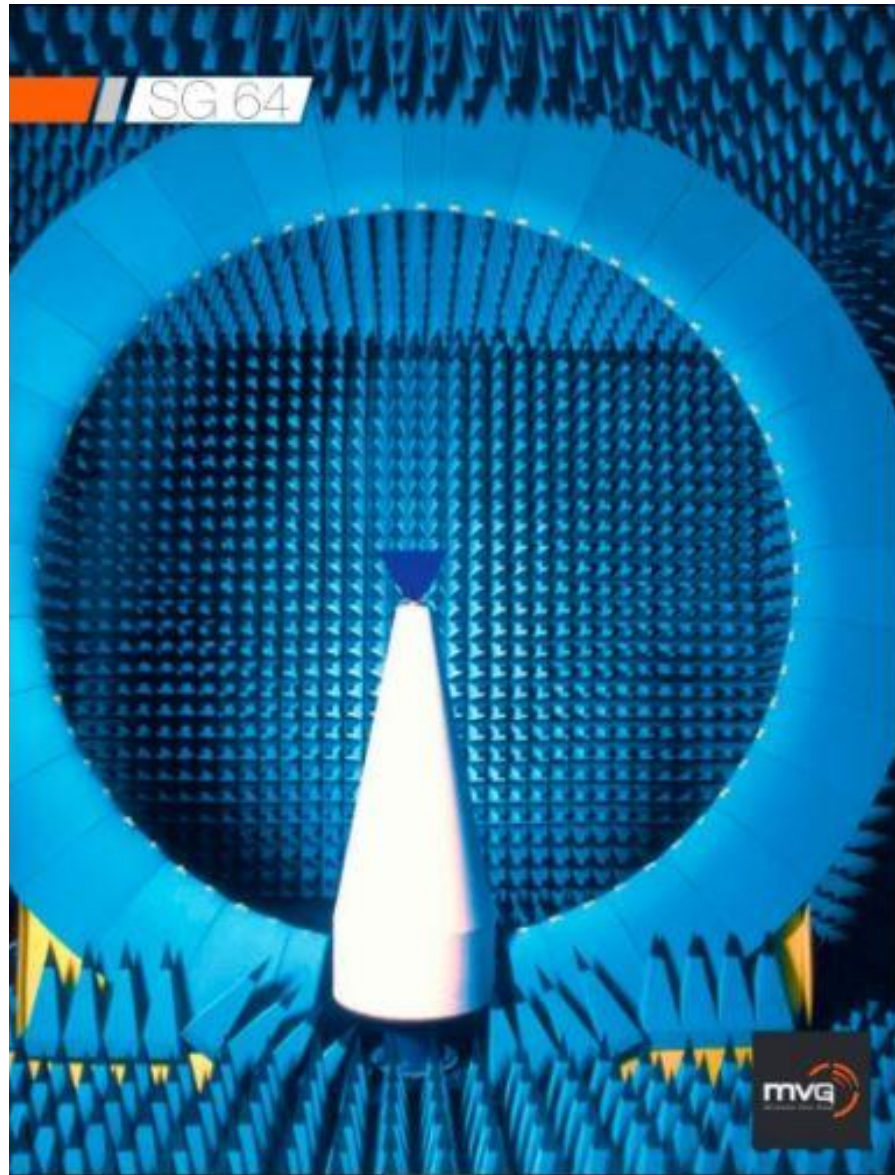
Radiation Pattern – WIFI



Appendix – Measured site information

- Antenna Vendor: WNC
- Address: 20 Park Avenue II, Hsinchu Science Park, Hsinchu 300, Taiwan
- Measurement: Antenna passive measurement, Near Field to Far Field, by Satimo
- Engineer: Yun Chi <Yun.Chi@wnc.com.tw>
- Date: 2025/03/05

Appendix – Passive test chamber



Appendix - Measurement

■ **Measurement program : NPAC Spherical Measurement**

■ **Translation program : SatEnv**

■ **Measurement steps :**

1. **Setup the DUT**
2. **Turn on the measurement program - NPAC Spherical Measurement, select the frequency that would like to measure, press start to execute the testing**
3. **Turn on the translation program – SatEnv to add new file and move the cursor to the folder**
4. **Measurement done and output the message box, click export, the data will be exported to the folder of SatEnv**
5. **In SatEnv, right click to execute post processing of the files**
6. **Completed the translation, in NF to FF transform Efficiency to right click to export efficiency**

Appendix – Passive test chamber

MVG SG64 Measurement System						
Item	Device	Type/Model	Serial#	Manufacturer	Cal.Date	Cal.Due Date
1	SG64 Chamber	Standard	SG64	MVG	2024/8/15	2025/8/15
2	Turn Table	Customization	-	Machinery Dept.	N/A	N/A
3	New Probe Array Controller	N/A	1102341-4535	MVG	N/A	N/A
4	Power Supply Unit	N/A	1103211-13204	MVG	N/A	N/A
5	Active Switching Unit	N/A	1102347-7214	MVG	N/A	N/A
6	TX Amplification Unit	N/A	1102527-5909	MVG	N/A	N/A
7	RX Amplification Unit	N/A	1102536-3823	MVG	N/A	N/A
8	Transfer Switching Unit	N/A	1102183-3351	MVG	N/A	N/A
9	Mixer Unit	N/A	1102545-7208	MVG	N/A	N/A
10	Power And Control Unit	N/A	1102706-7209	MVG	N/A	N/A
11	Cable 13.7m - 400MHz to 18GHz	SS402	00100A1F5A1XXS	Woken	2024/6/15	2025/6/15
12	Temperature & Humidity Meter	HTC-01	-	Metravi	N/A	N/A

The logo consists of the letters 'WNC' in a bold, blue, italicized sans-serif font. The 'W' and 'N' are connected, and the 'C' is a simple curve.

WNC

Wistron NeWeb Corp.

