

Cheetah3 (EE6) C1-build WiFi SKU Antenna Test report

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Reviewed by: Derek Tseng

Date: 2013/09/02



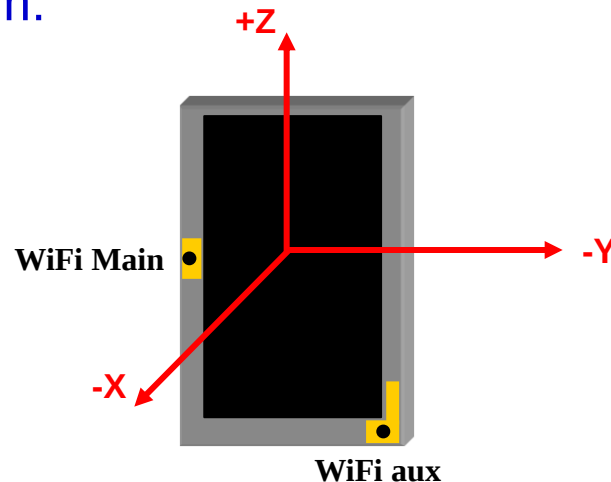
OUTLINE

1. Experimental Setup
2. Configuration
3. Antenna outline drawing
4. Antenna placement and picture
5. Antenna Performance
6. Antenna 2D Radiation Pattern



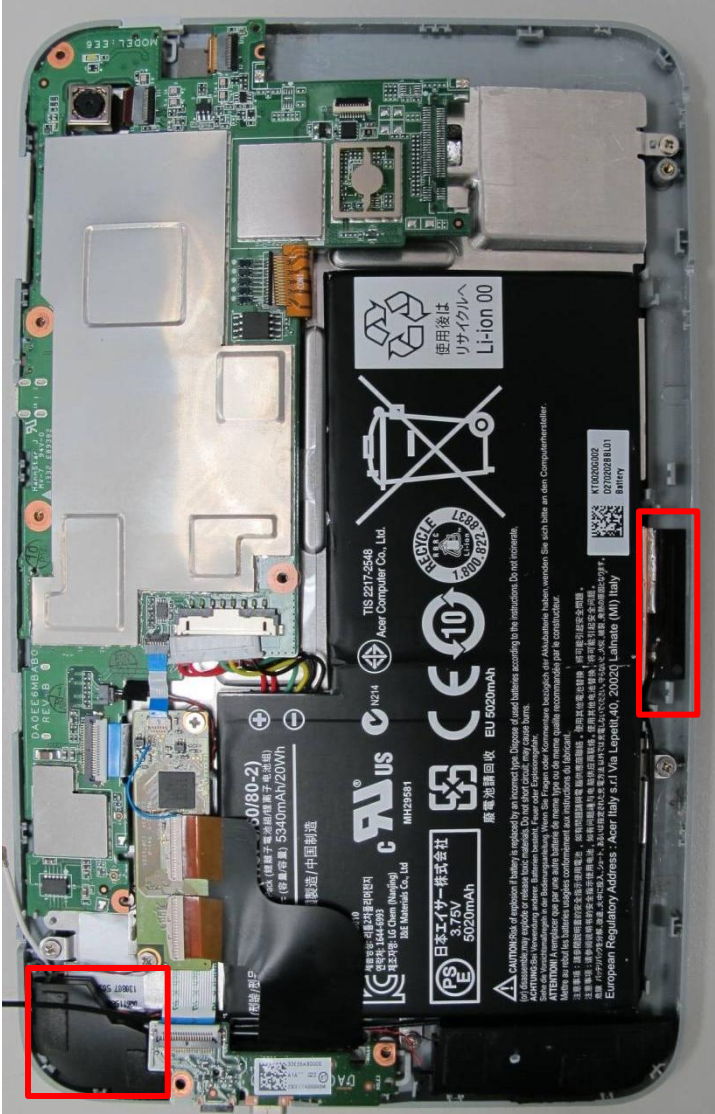
Experimental Setup

- Measurement Item: a. VSWR
b. Radiation Pattern
- VSWR: a. Instrument: vector network analyzer
b. Calibration method: open/short/load
- Radiation Pattern:
Instrument: WNC In-house 3D Antenna Measurement System
- Chamber : WNC SG64
- Coordinate system:



Configuration

Bottom View

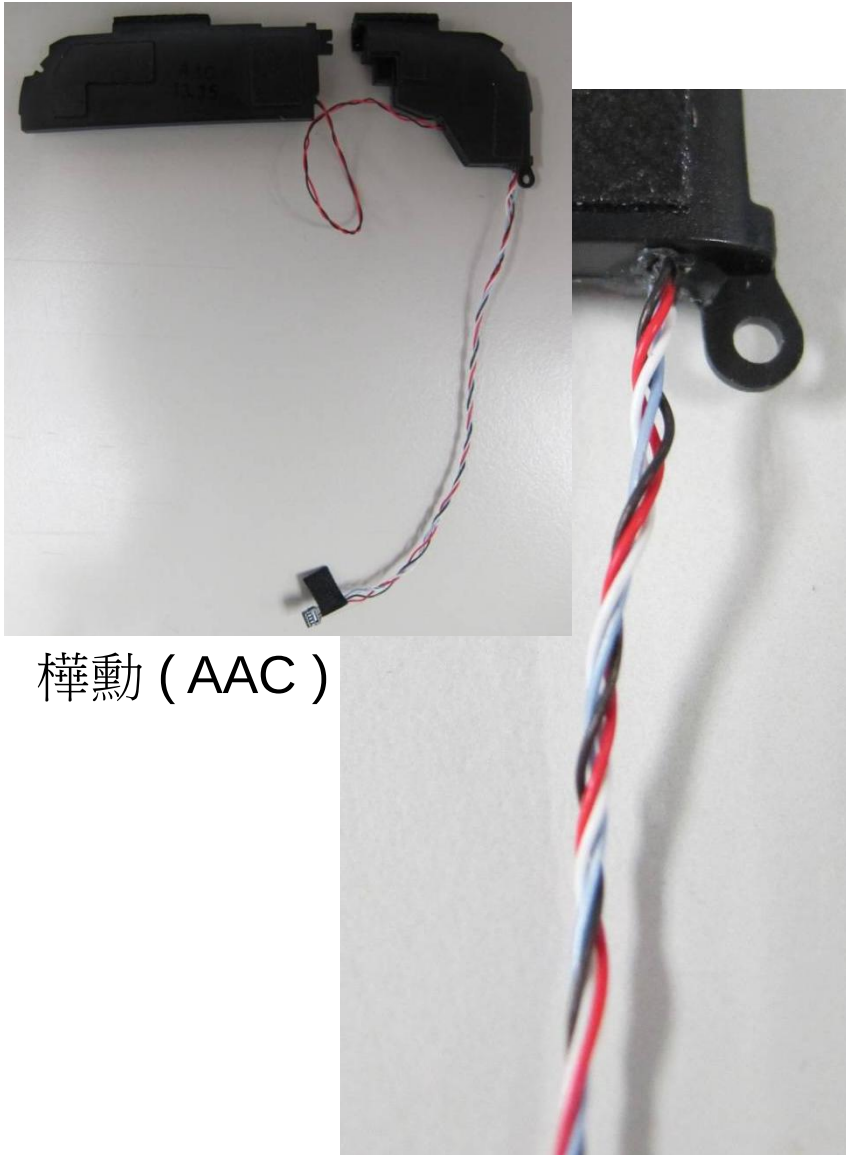


WiFi Aux

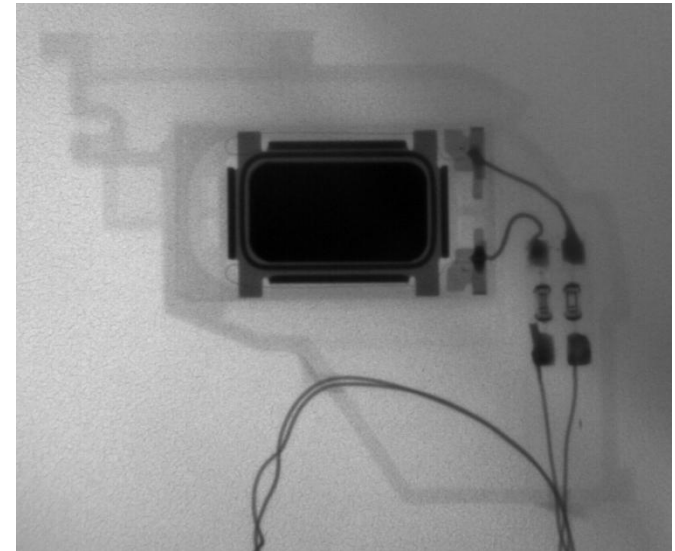
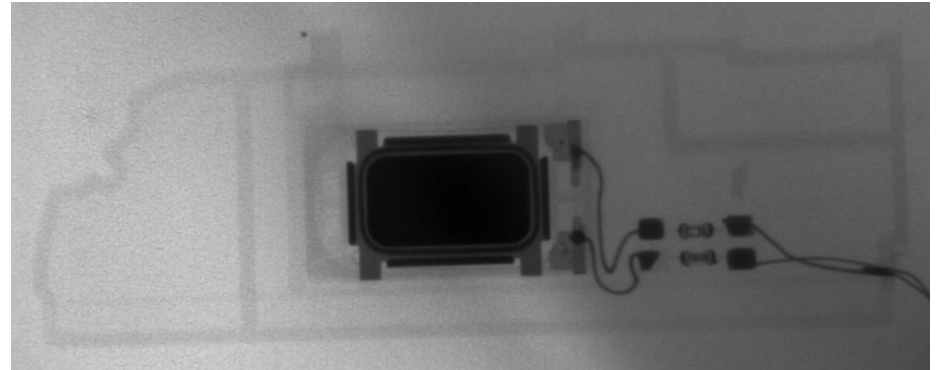
WiFi Main



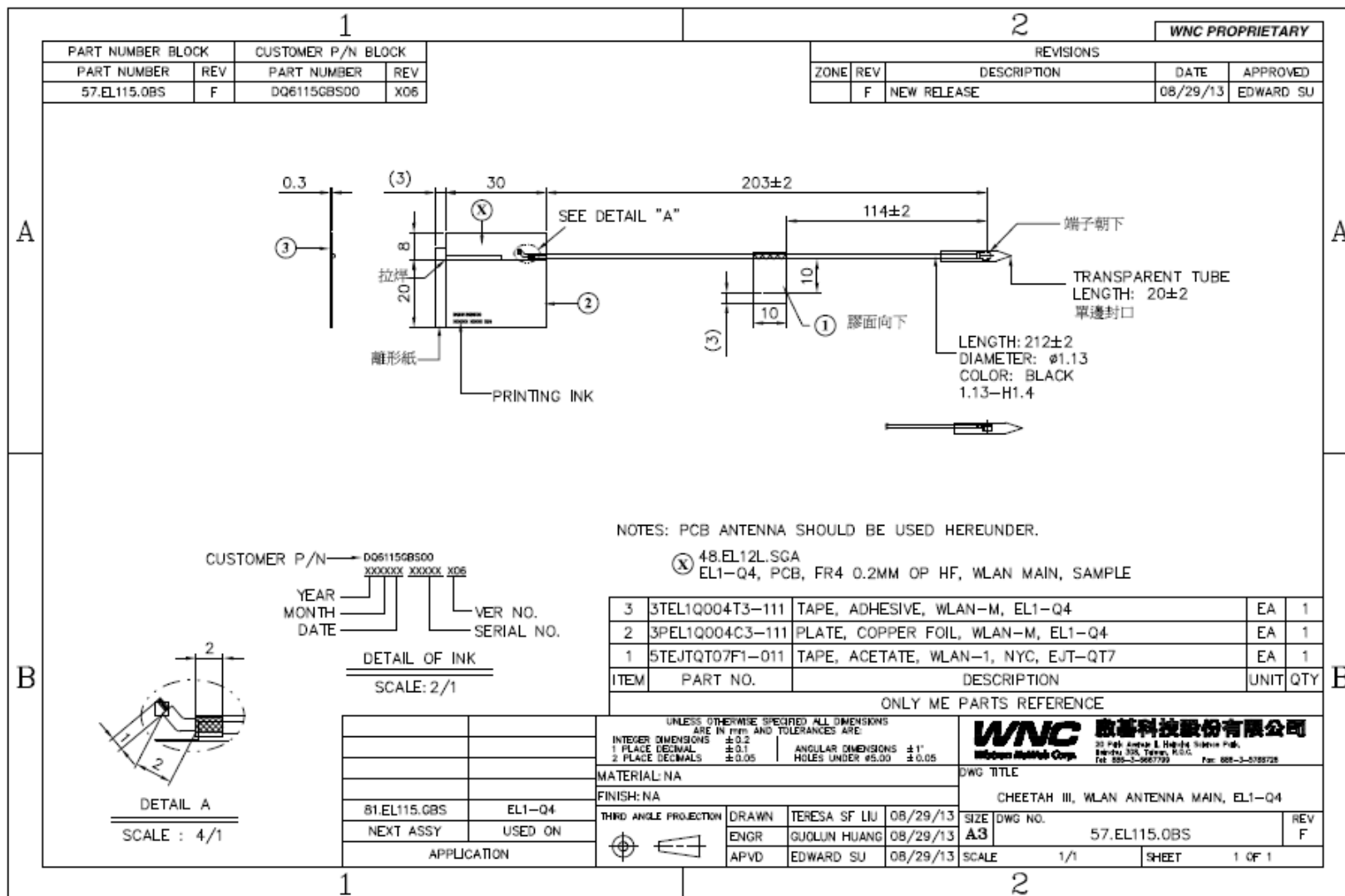
Speaker type



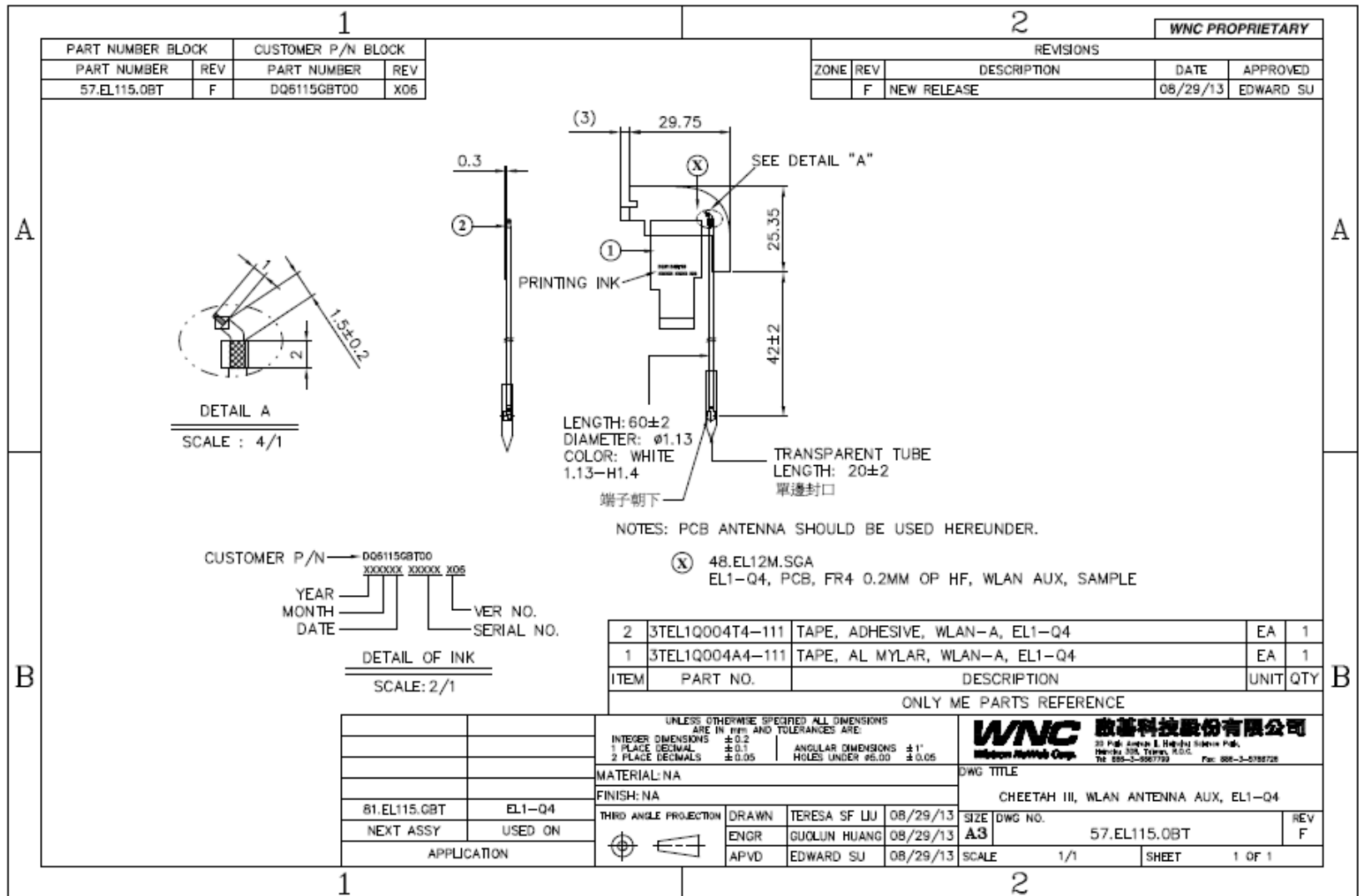
樺勳 (AAC)



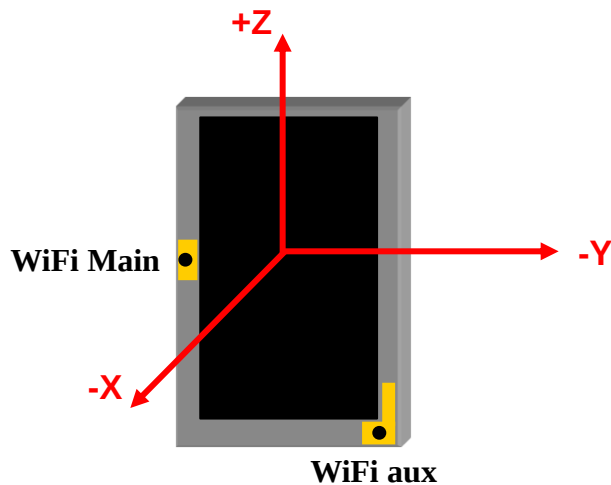
Antenna Outline drawing



Antenna Outline drawing



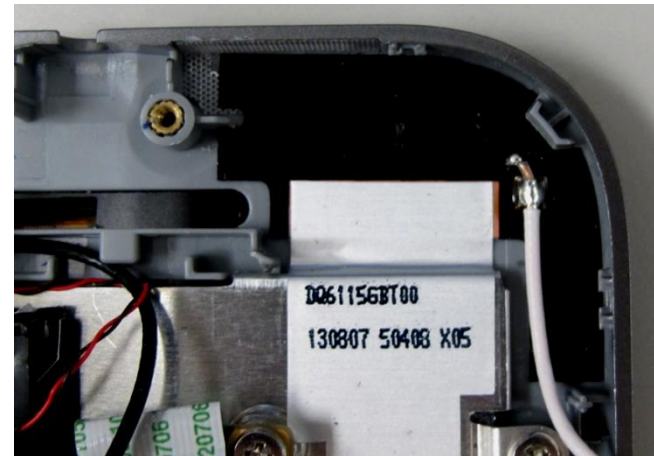
Antenna placement and picture



Antenna Cable: $\Phi 1.13$	
Color:	Length(mm)
WiFi (MAIN)	212 mm
WiFi (AUX)	60 mm



WiFi Main / Black
30x8 x0.3 mm³



WiFi Aux / White
29.7x25.3 x0.3 mm³



Freq. (MHz)	X-Y Plane Peak Gain (dBi)	X-Y Plane Average Gain (dBi)	Efficiency	
			(%)	dB
2300	-1.73	-7.00	38.93	-4.10
2350	-1.20	-6.10	44.16	-3.55
2400	-0.92	-5.62	48.85	-3.11
2437	-0.07	-5.22	48.73	-3.12
2442	0.13	-5.07	49.75	-3.03
2450	0.34	-4.84	52.48	-2.80
2484	0.20	-5.20	51.29	-2.90
2500	-0.16	-5.60	49.20	-3.08
2550	-2.21	-6.74	40.15	-3.96
2600	-5.53	-8.35	29.45	-5.31
2650	-7.22	-9.23	21.75	-6.63
2700	-7.48	-9.63	17.72	-7.51
4800	1.47	-4.11	40.11	-3.97
5150	1.40	-3.13	57.38	-2.41
5250	1.90	-2.72	54.41	-2.64
5350	1.46	-2.37	55.71	-2.54
5470	1.24	-1.89	56.58	-2.47
5600	0.99	-2.49	51.73	-2.86
5725	-0.64	-3.01	46.61	-3.32
5750	-0.35	-3.26	45.48	-3.42
5785	-1.33	-3.32	43.80	-3.58
5800	-0.81	-3.33	42.95	-3.67
5850	-0.49	-2.88	41.23	-3.85
5875	0.39	-2.18	46.13	-3.36

WiFi Main

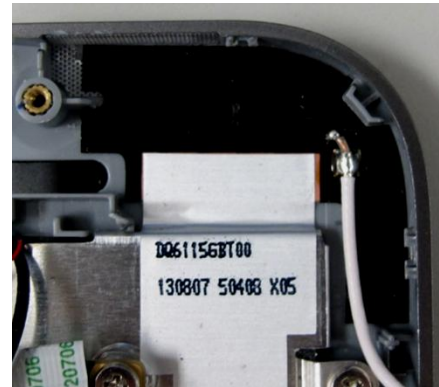


Trc1 S11 SWR: 1 U / Ref: 1 U Cal Offs



WiFi Aux

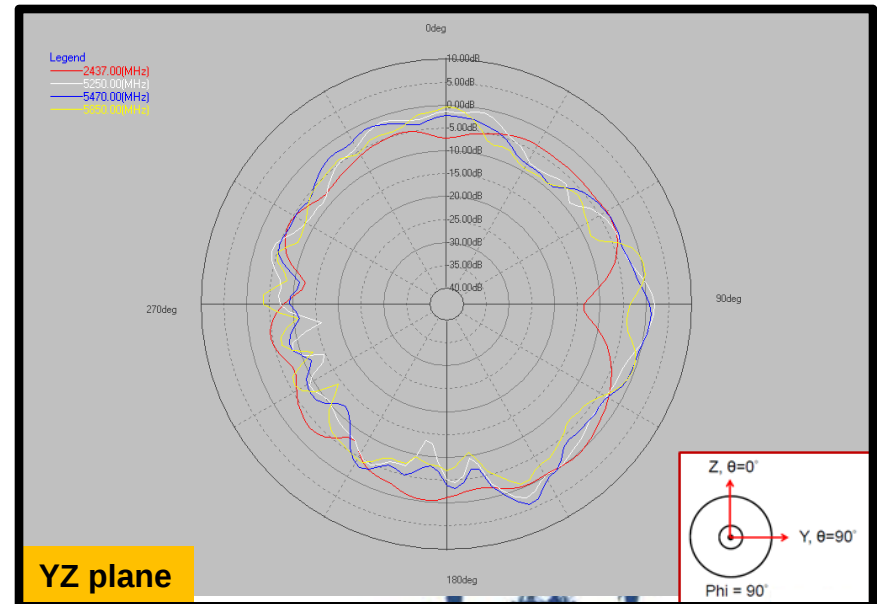
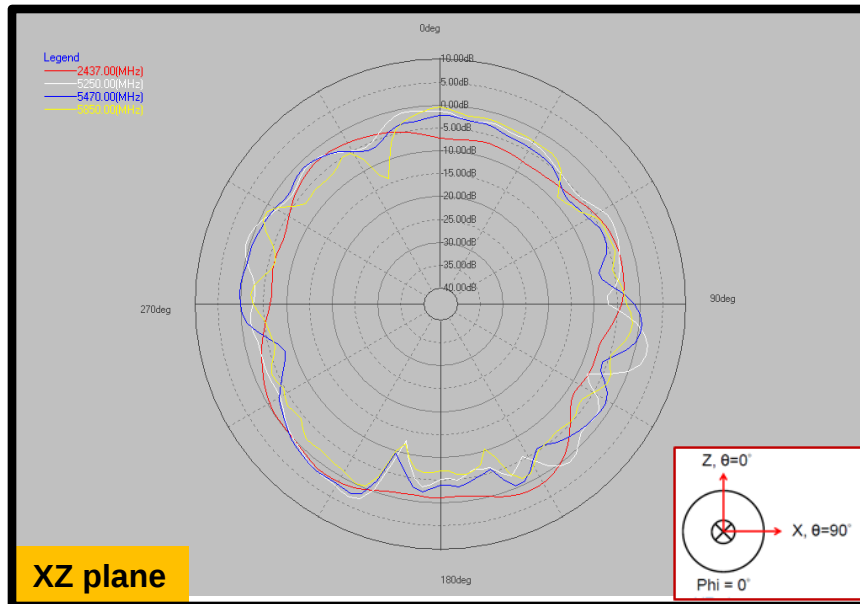
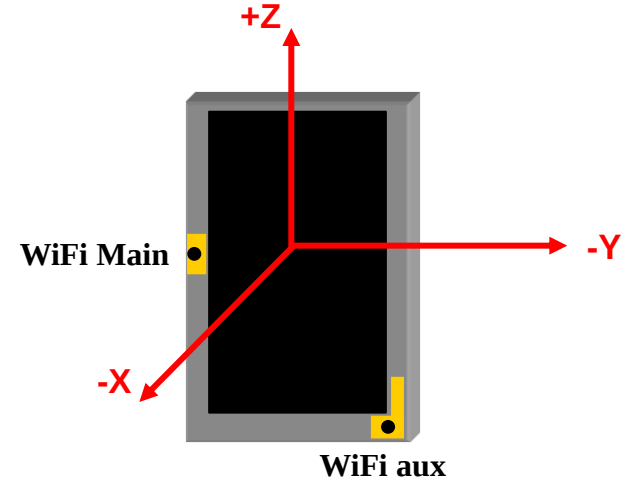
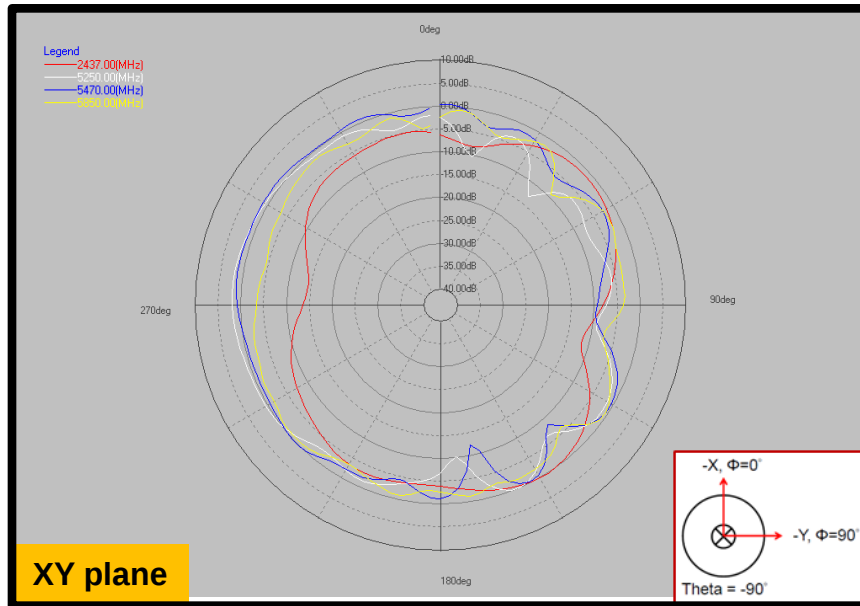
Freq. (MHz)	X-Y Plane Peak Gain (dBi)	X-Y Plane Average Gain (dBi)	Efficiency	
			(%)	dB
2300	-0.13	-3.57	47.63	-3.22
2350	-0.41	-3.91	47.46	-3.24
2400	-0.18	-3.80	46.52	-3.32
2437	-0.32	-3.89	42.52	-3.71
2442	-0.17	-3.66	44.21	-3.54
2450	-0.02	-3.49	45.91	-3.38
2484	-0.18	-3.71	43.32	-3.63
2500	0.35	-3.50	46.57	-3.32
2550	0.15	-3.67	48.64	-3.13
2600	-0.65	-3.95	44.29	-3.54
2650	-0.19	-3.97	41.92	-3.78
2700	-0.39	-4.76	38.70	-4.12
4800	-0.60	-6.56	23.42	-6.30
5150	-1.44	-5.33	34.40	-4.63
5250	-0.99	-5.24	40.46	-3.93
5350	-0.96	-5.74	41.71	-3.80
5470	-0.66	-5.61	45.18	-3.45
5600	0.62	-5.13	46.92	-3.29
5725	0.28	-4.61	47.76	-3.21
5750	0.94	-4.76	46.14	-3.36
5785	0.26	-4.54	48.32	-3.16
5800	1.03	-4.70	46.62	-3.31
5850	1.13	-4.40	48.43	-3.15
5875	1.53	-3.90	51.33	-2.90



Trc1 S11 SWR 1 U / Ref 1 U Cal Offs



Antenna 2D Radiation Pattern_MAIN



Antenna 2D Radiation Pattern_AUX

