

Pulse Chip Antenna Measurement For Gemtek WSMK-161ACN Project

Wireless Components

LTCC R&D

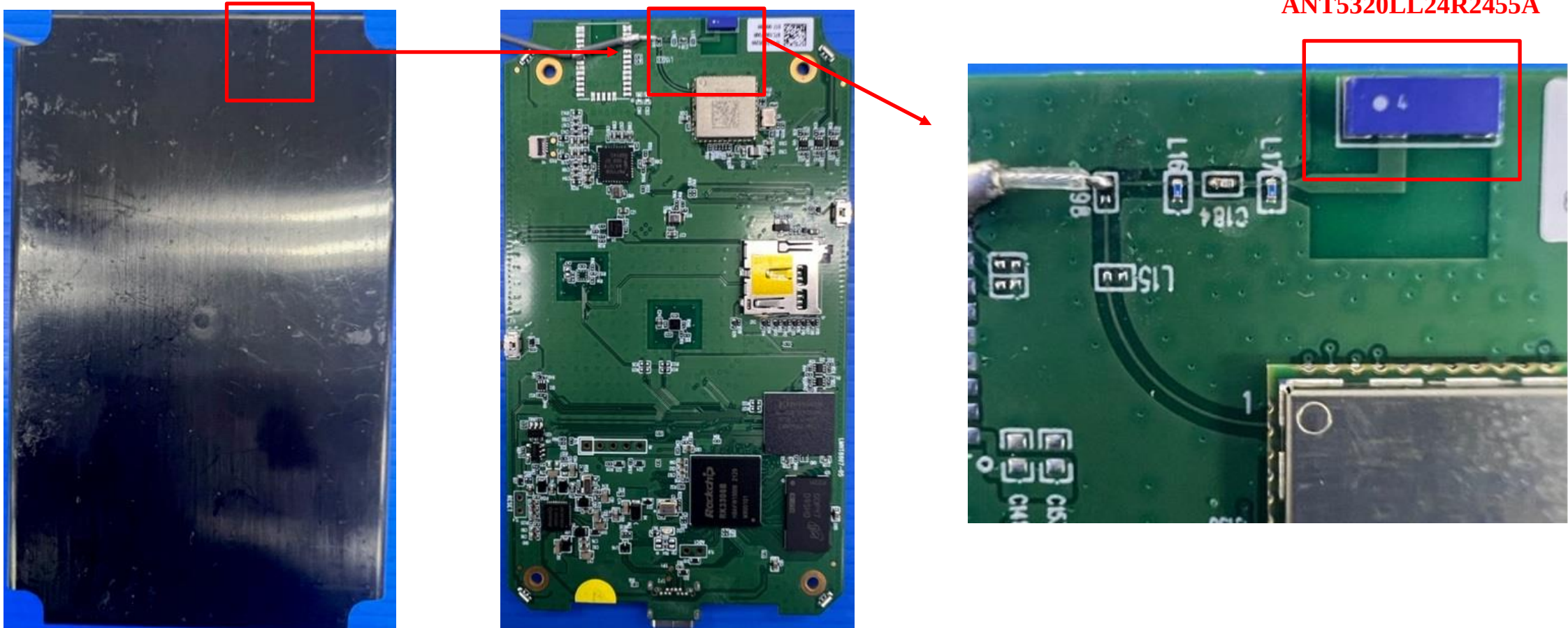
June 10, 2022



- **Customer : Gemtek**
- **Project Name : WSMK-161ACN**
- **Product : Tracker**
- **Antenna size :**
5.30x2.00x1.15(mm) 2.4 & 5 GHz chip antenna([ANT5320LL24R2455A](#))
- **Report date : 2022/06/10**
- **Version : 1**

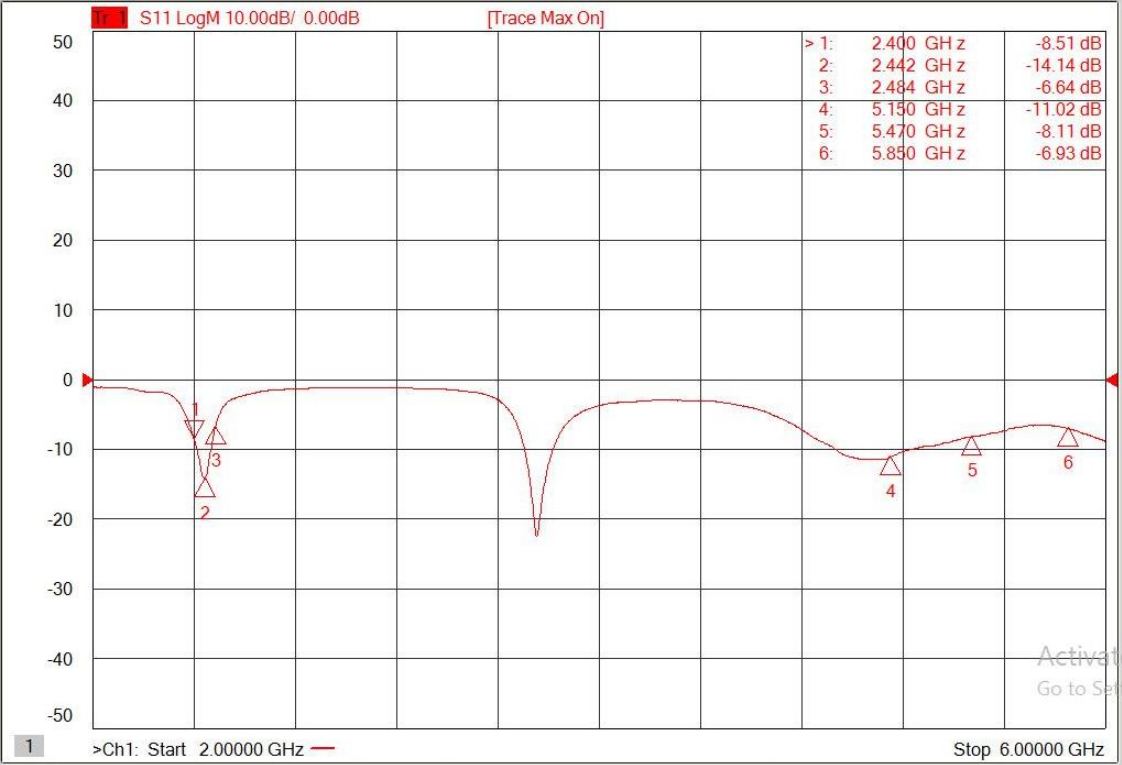
Pulse Chip Antenna_5320 2.4 & 5 GHz Chip Antenna

Antenna position

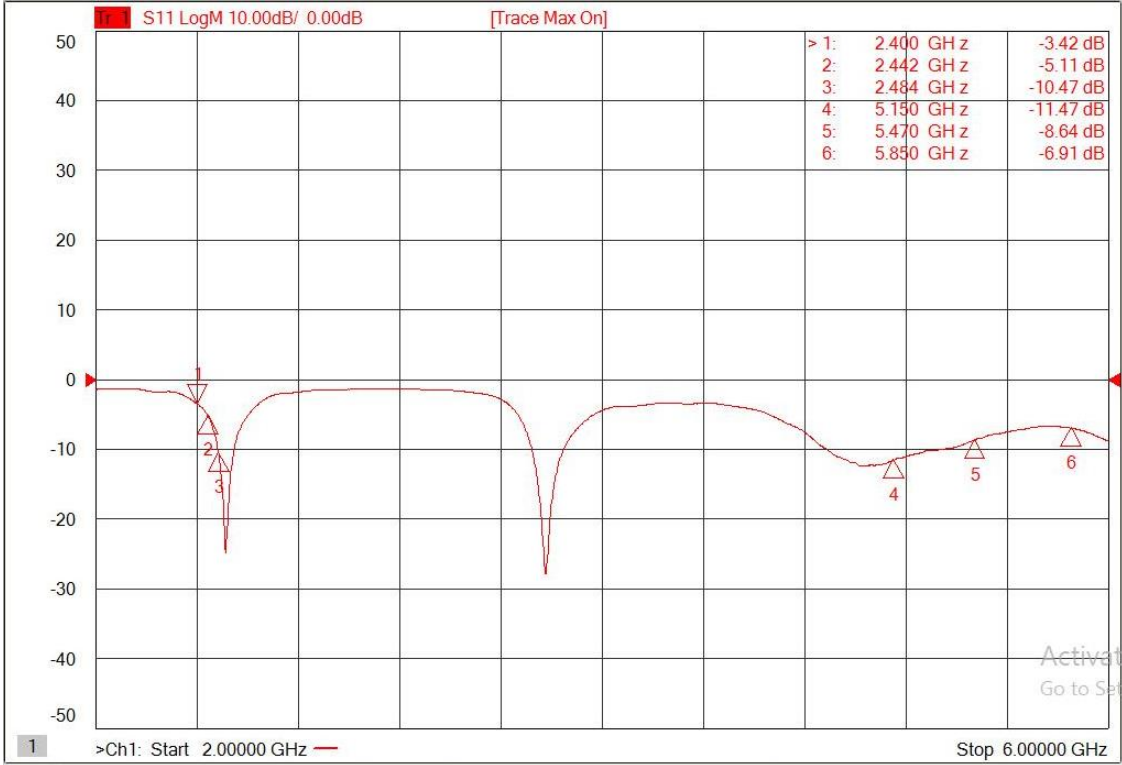


Measurement Data

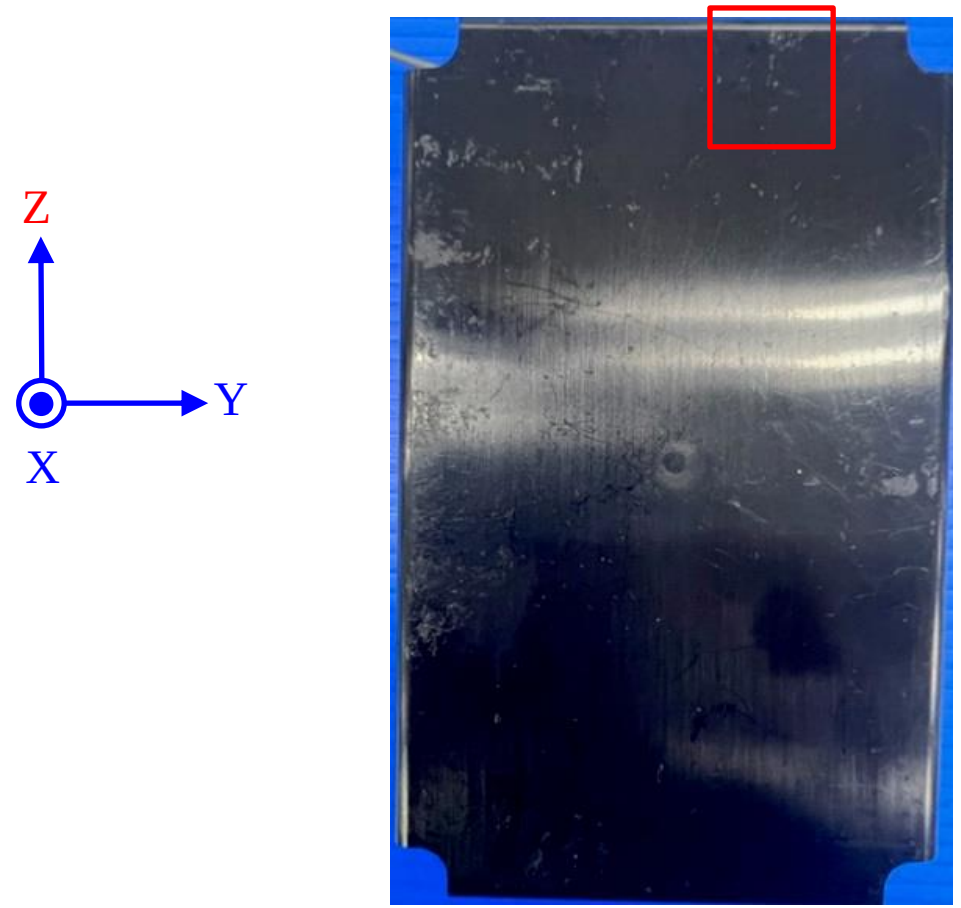
Condition	Initial matching					
Antenna	Pulse 5320 2.4 & 5 GHz (ANT5320LL24R2455A)					
Frequency (MHz)	2400	2442	2484	5150	5470	5850
R.L. (dB)	-8.5	-14.1	-6.6	-11.0	-8.1	-6.9
Max. Gain (dBi)	0.6	1.7	0.1	2.7	0.8	0.2
Avg. Gain (dB)	-4.1	-2.9	-4.3	-1.3	-2.4	-3.8
Efficiency (%)	39.0	51.0	37.2	74.0	58.2	41.9



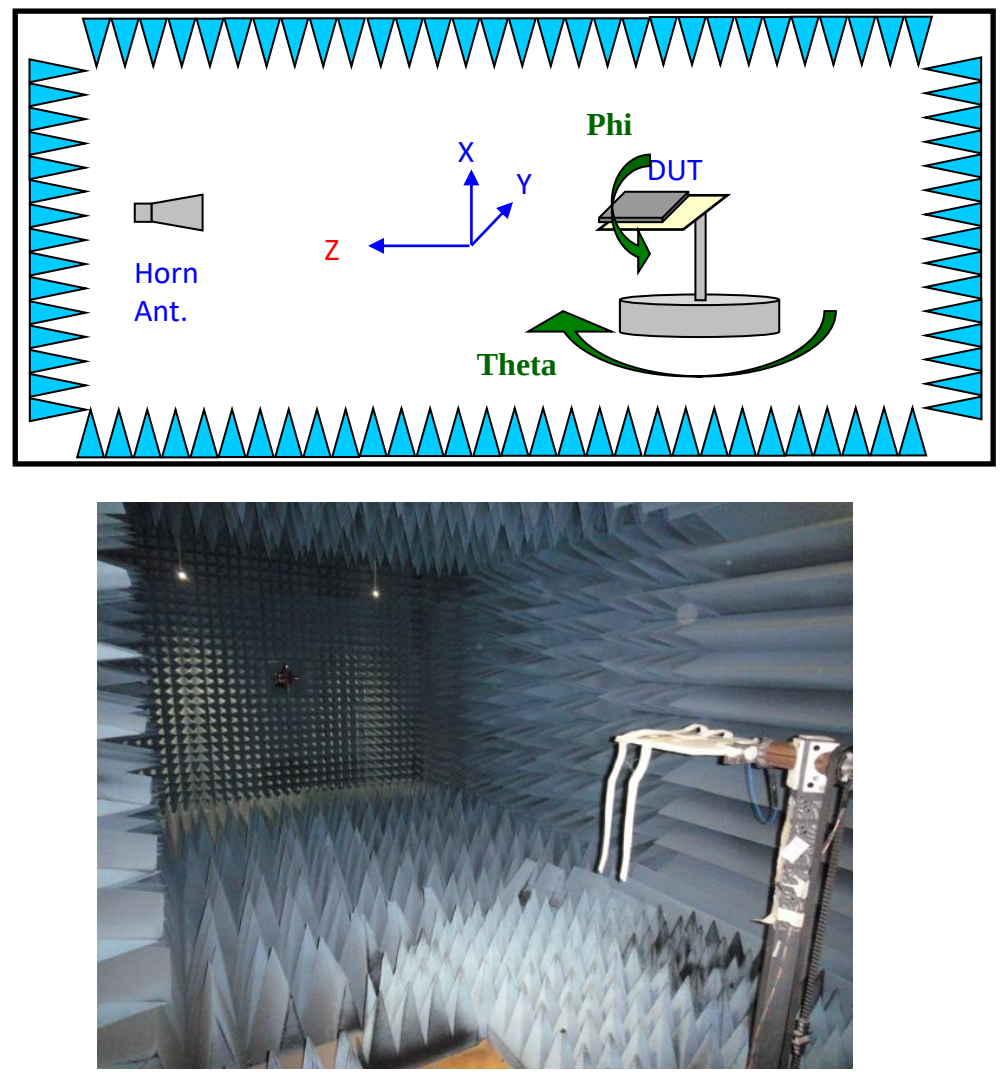
Condition	C184 = 1.2 pF					
Antenna	Pulse 5320 2.4 & 5 GHz (ANT5320LL24R2455A)					
Frequency (MHz)	2400	2442	2484	5150	5470	5850
R.L. (dB)	-3.4	-5.1	-10.5	-11.5	-8.6	-6.9
Max. Gain (dBi)	-2.8	-1.1	0.5	2.2	0.9	-0.3
Avg. Gain (dB)	-7.7	-5.9	-4.0	-1.4	-2.4	-3.8
Efficiency (%)	16.8	25.9	40.0	72.3	57.0	41.6



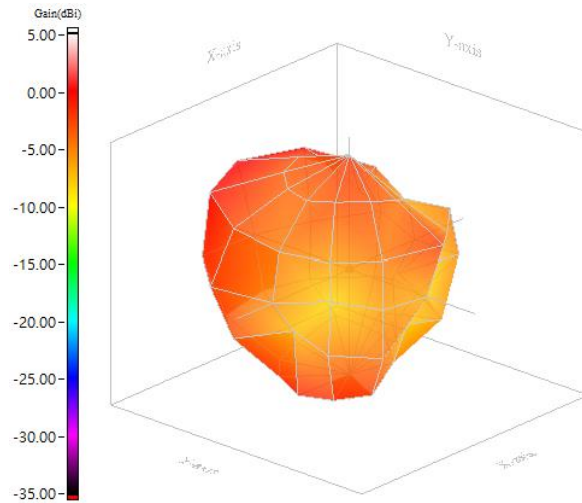
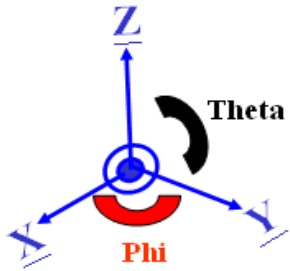
[Direction Definition]



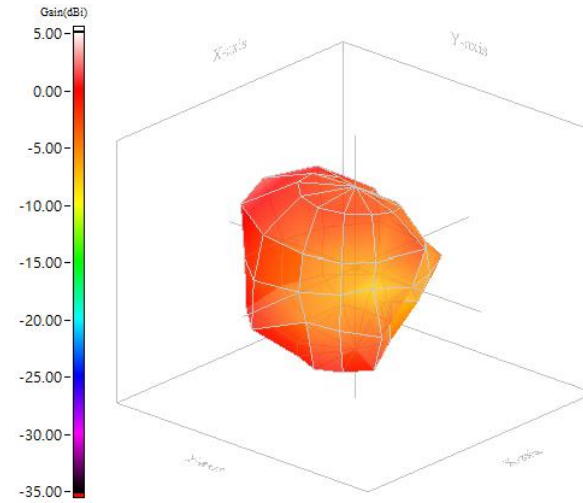
[Anechoic Chamber]



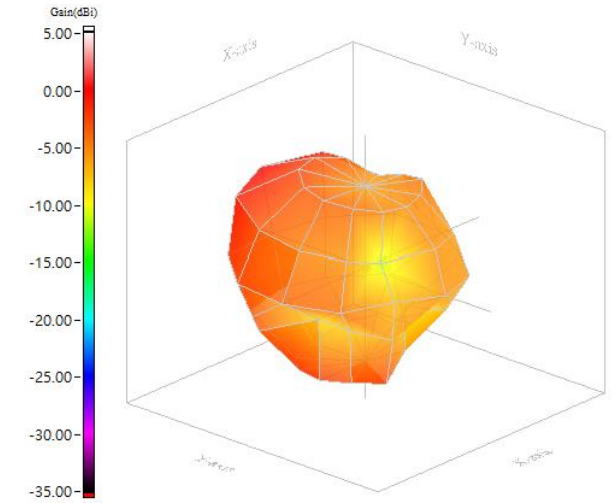
Radiation Pattern (3D)_Initial Matching



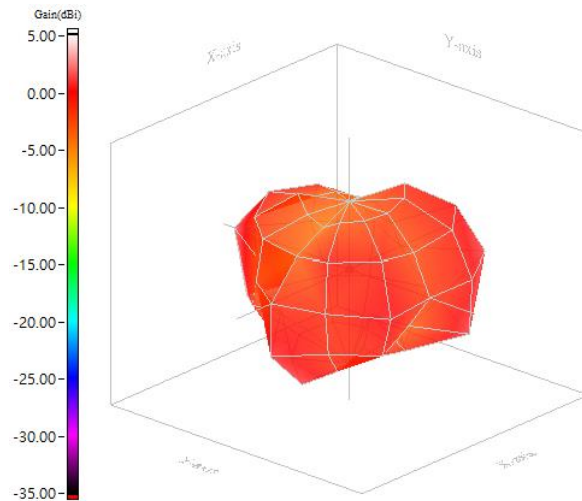
2400 MHz



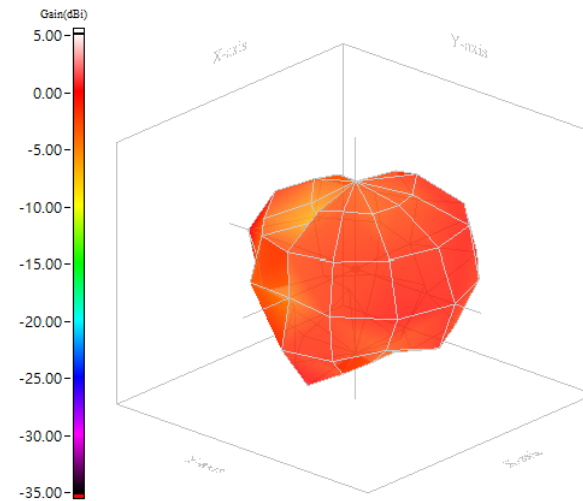
2442 MHz



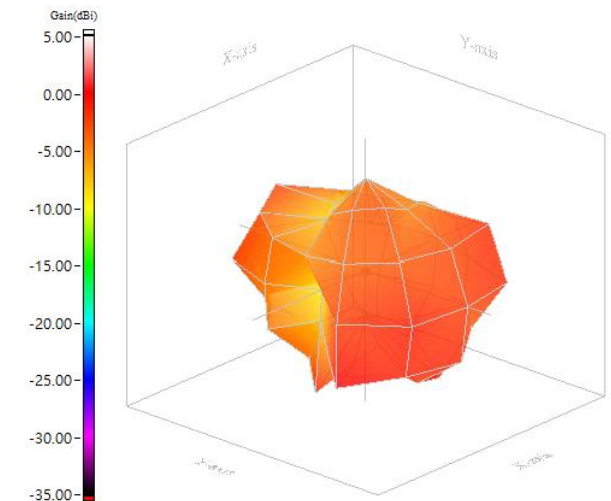
2484 MHz



5150 MHz

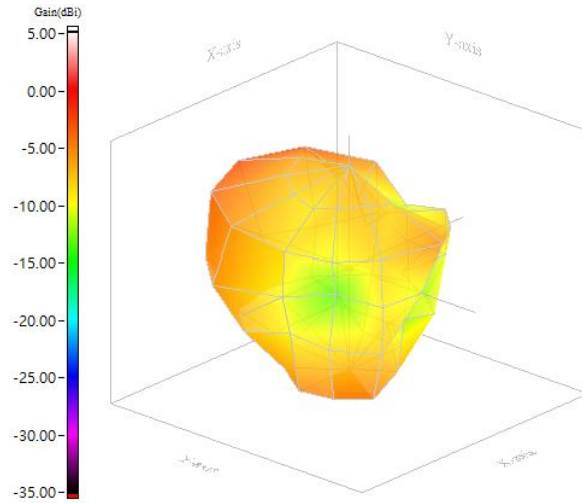
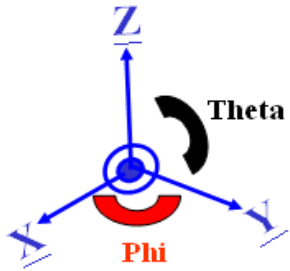


5470 MHz

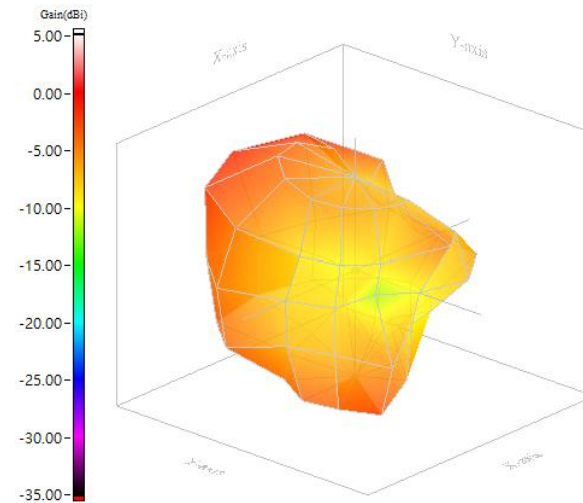


5850 MHz

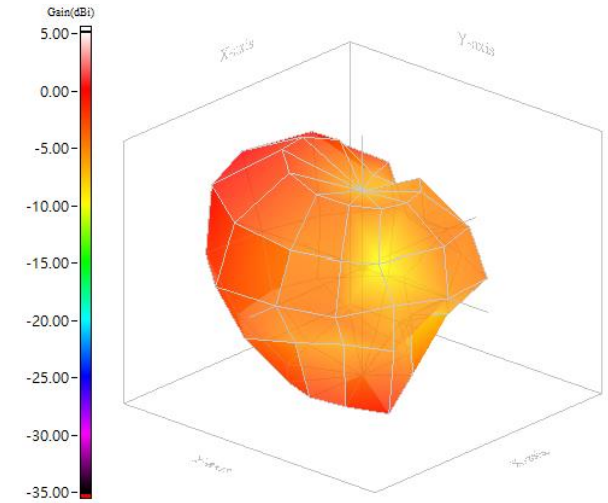
Radiation Pattern (3D)_C184 = 1.2 pF



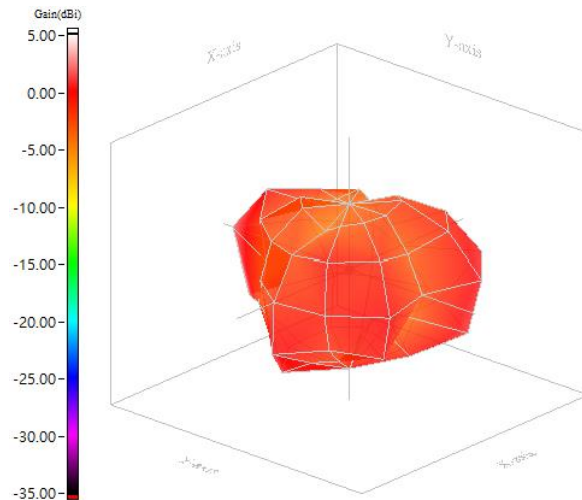
2400 MHz



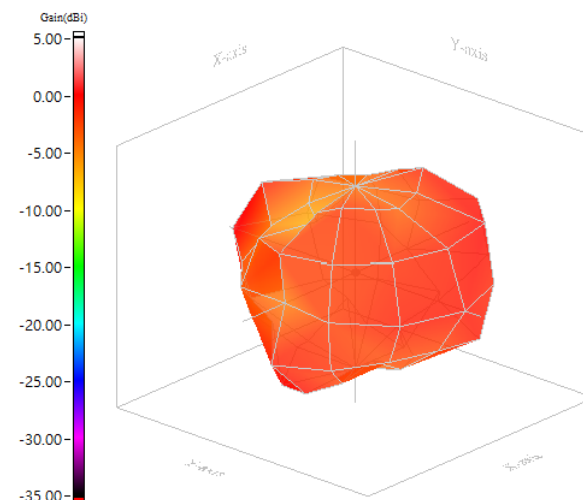
2442 MHz



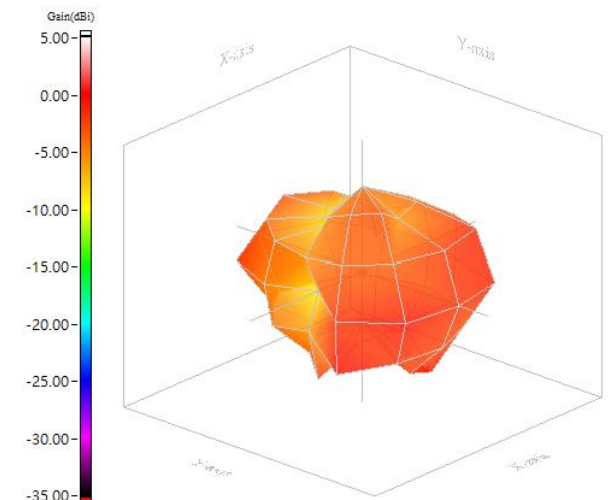
2484 MHz



5150 MHz



5470 MHz



5850 MHz

Thank You

