

APPROVAL SPECIFICATION

Product : Internal Antenna

Model Name : 24CY (LTE MAIN, LTE MIMO, GNSS, WIFI Antenna)

Date : 2023. 01. 03.



LS Mtron Co. Ltd.

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1. Manufacturer

- LS Mtron Co. Ltd.
- LS Mtron Part Number: LS01-I-22009-A1

2. Model Name

- Basic Model: 24CY
- Variation Model: -

3. Antenna Type

- PIFA : Planar Inverted F Antenna

4. Electric Performance Data

4.1 Specification Sheet

4.1.1 LTE Antenna (LB+MB+HB)

Electronic Specification

Frequency Range (MHz)	LTE B5/8/12/14/17/18/19/20/26/28/71 WCDMA B5/8 GSM900							LTE B1/2/3/4/9/25/34/38/39/40/66 WCDMA B1/3 GSM1800					
	617	698	803	824	880	894	960	1710	1880	1920	2170	2300	2400
Peak Gain(dBi)	-1.81	-0.2	-0.94	-0.84	-2.62	-0.17	-1.31	1.63	3.36	2.33	0.51	1.39	1.73
Average Gain(dBi)	-4.52	-4.08	-3.43	-3.29	-3.11	-3.75	-4.5	-3.52	-2.12	-3.07	-3.46	-2.89	-3.22

Frequency Range (MHz)	LTE B7/41		SUB6 n77/78/79 MIMO				
	2500	2690	3300	3800	4200	4400	5000
Peak Gain(dBi)	2.77	2.81	3.23	2.68	3.26	3.08	2.69
Average Gain(dBi)	-3.73	-2.78	-3.86	-2.24	-3.1	-2.54	-3.71

4.1.2 GNSS Antenna (L1, L5)

Frequency Range	GNSS(L1, L5)			
	1166MHz	1189MHz	1559MHz	1607MHz
Peak Gain(dBi)	1.56	1.66	1.77	2.14
Average Gain(dBi)	-3.07	-2.89	-2.9	-2.78

4.1.3 LTE Antenna (LB+MB+HB MIMO)

Electronic Specification

Frequency Range (MHz)	LTE B5/8/12/14/17/18/19/20/26/28/71 MIMO WCDMA B5/8 MIMO GSM900 MIMO							LTE B1/2/3/4/9/25/34/38/39/40/66 MIMO WCDMA B1/3 MIMO GSM1800 MIMO					
	617	698	803	824	880	894	960	1710	1880	1920	2170	2300	2400
Peak Gain(dBi)	-1.9	-0.35	0.57	1.11	0.78	0.7	-1.62	1.06	1.86	0.26	-1.17	-1.49	-0.72
Average Gain(dBi)	-5.02	-4.01	-3.83	-4.01	-4.86	-5.09	-5.81	-4.25	-3.4	-3.71	-2.42	-3.3	-4.56

Frequency Range (MHz)	LTE B7/41 MIMO		SUB6 n77/78/79				
	2500	2690	3300	3800	4200	4400	5000
Peak Gain(dBi)	-0.48	0.21	1.88	0.74	1.35	1.87	1.87
Average Gain(dBi)	-4.38	-3.67	-3.09	-2.56	-2.5	-2.81	-3.14

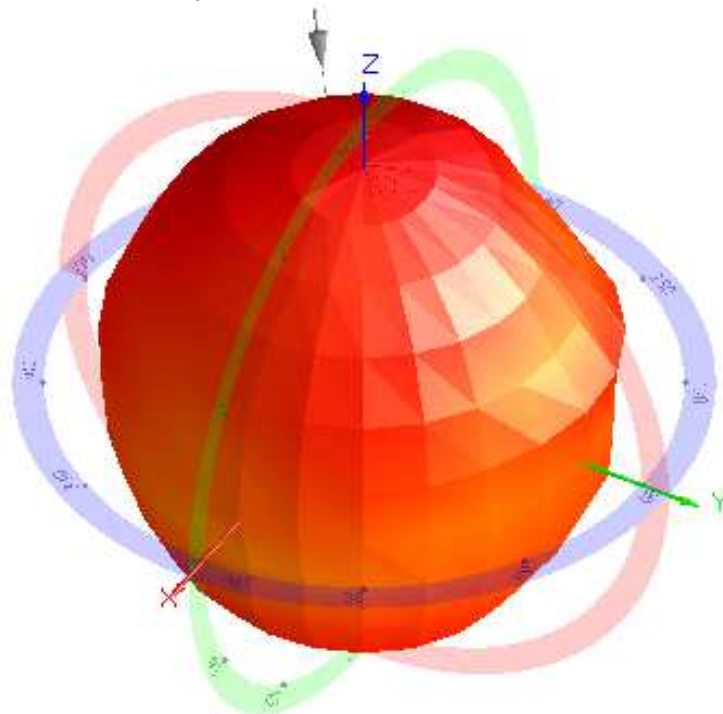
4.1.4 WIFI Antenna (WIFI)

Frequency Range	BT/WiFi 2.4GHz		WiFi 5GHz			
	2400MHz	2500MHz	5150MHz	5300MHz	5500MHz	5825MHz
Peak Gain(dBi)	0.21	1.71	3.25	2.17	3.02	3.21
Average Gain(dBi)	-3.48	-1.98	-2.65	-2.59	-2.24	-3.47

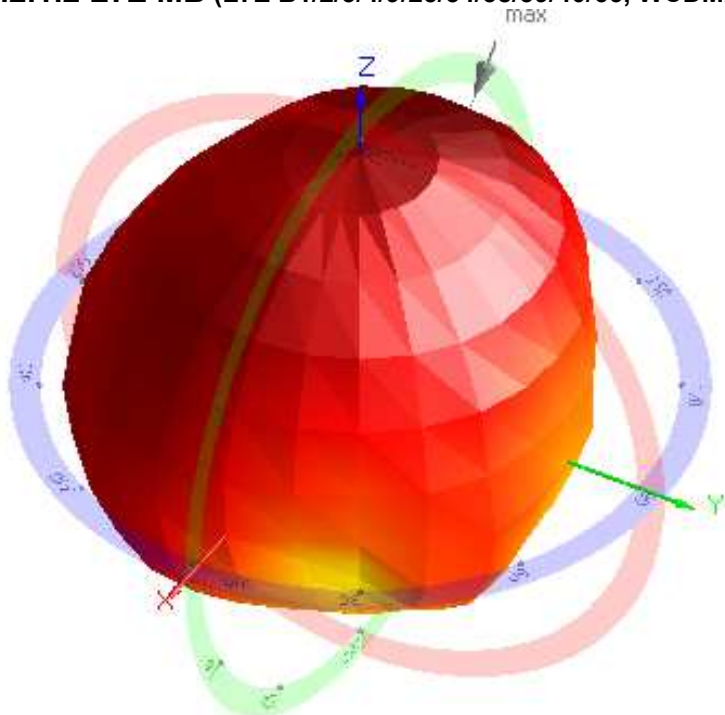
4.2 3D Radiation Pattern

4.2.1 LTE Antenna (LB+MB+HB)

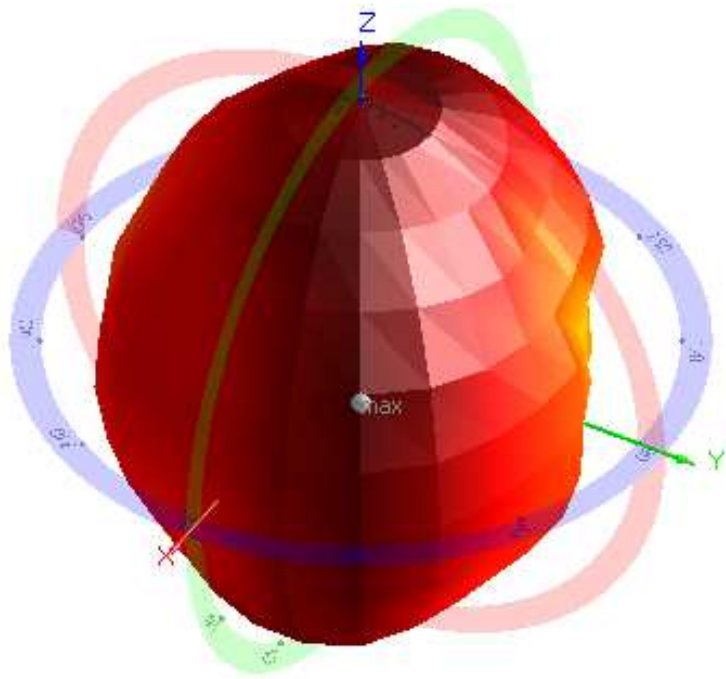
4.2.1.1 LTE LB (LTE B5/8/12/14/17/18/19/20/26/28/71, WCDMA B5/8, GSM900)



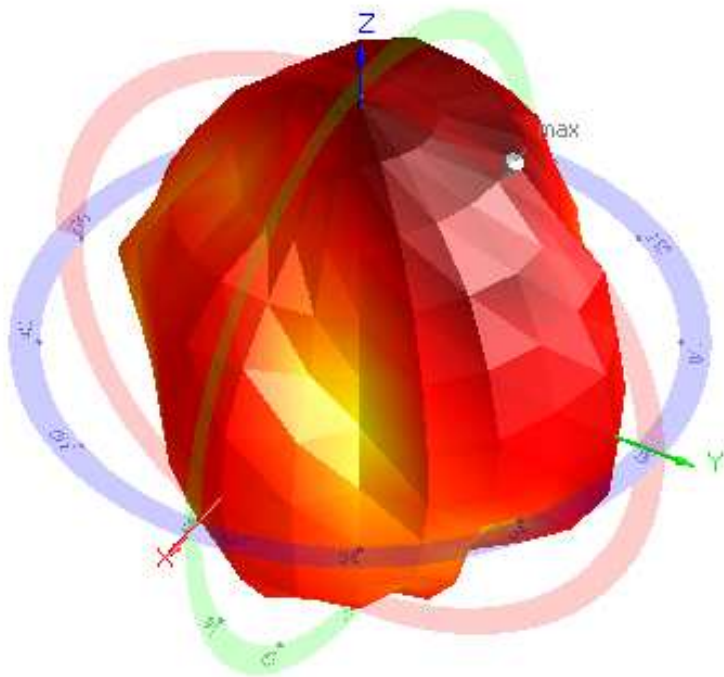
4.2.1.2 LTE MB (LTE B1/2/3/4/9/25/34/38/39/40/66, WCDMA B1/3, GSM1800)



4.2.1.3 LTE HB (B7/41)

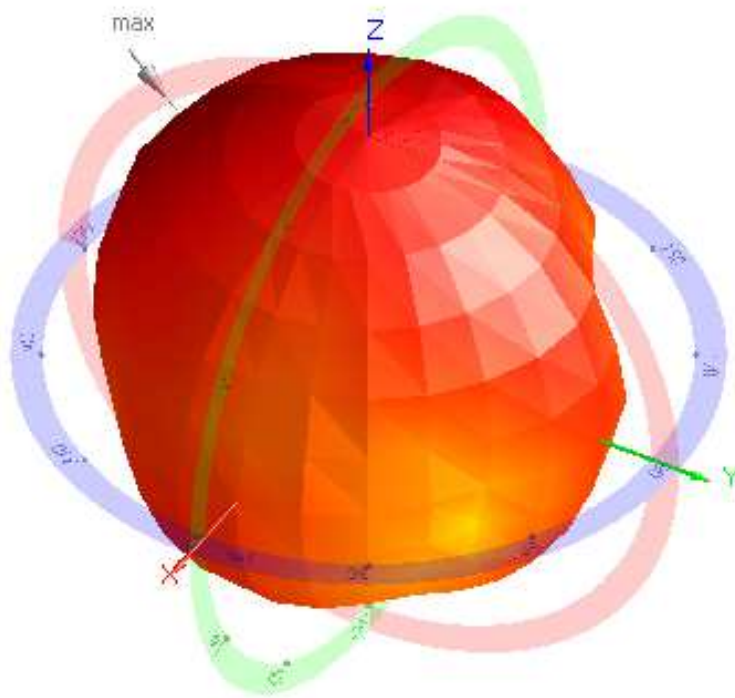


4.2.1.4 LTE SUB6 (n77/78/79) MIMO

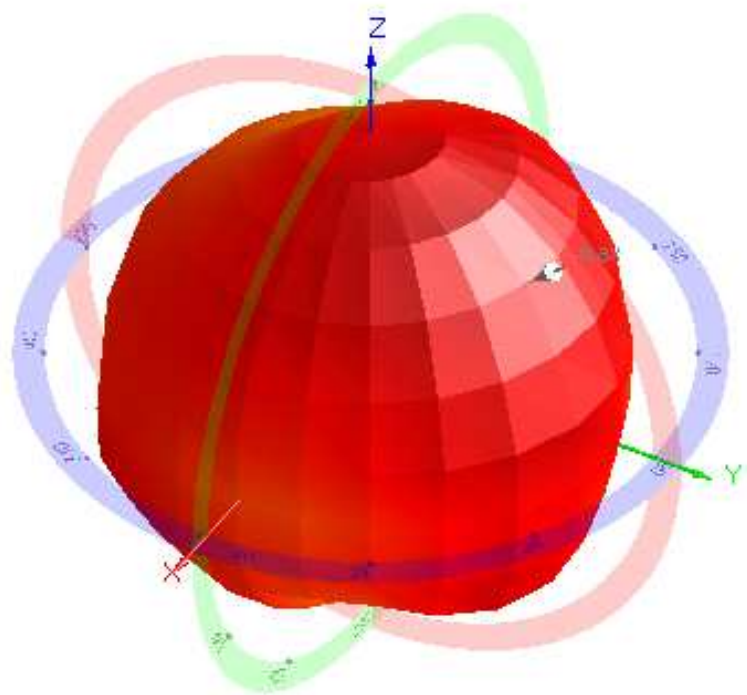


4.2.2 GNSS Antenna (L1, L5)

4.2.2.1 GPS Antenna (L5)

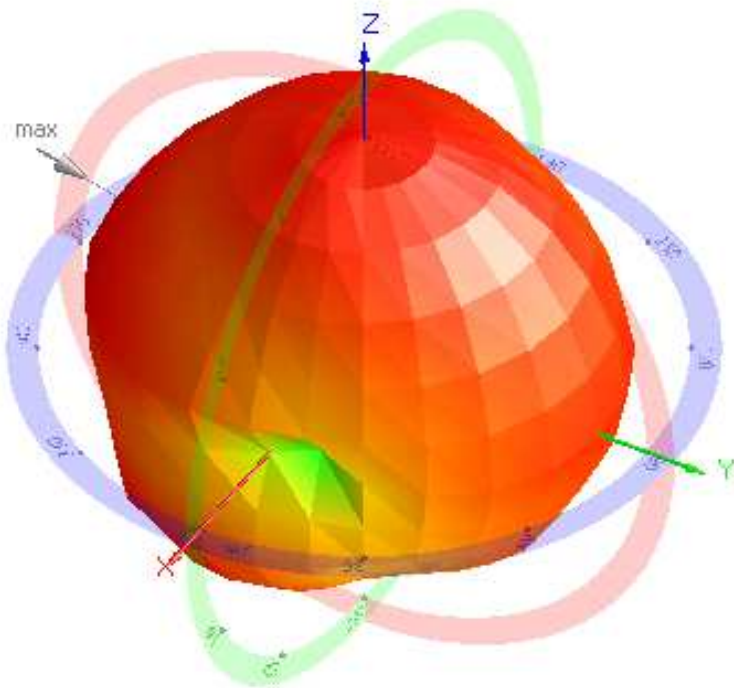


4.2.2.2 GPS Antenna (L1)

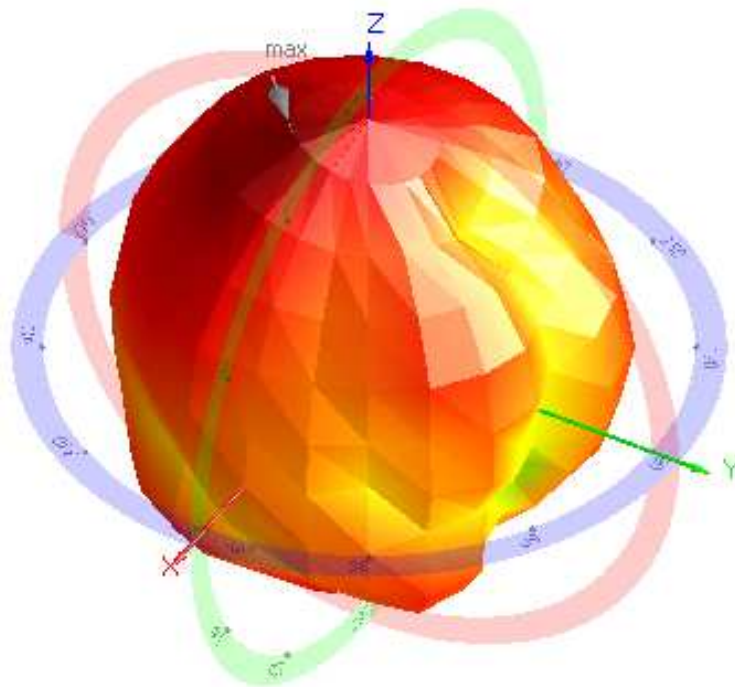


4.2.3 LTE Antenna (LB+MB+HB) MIMO

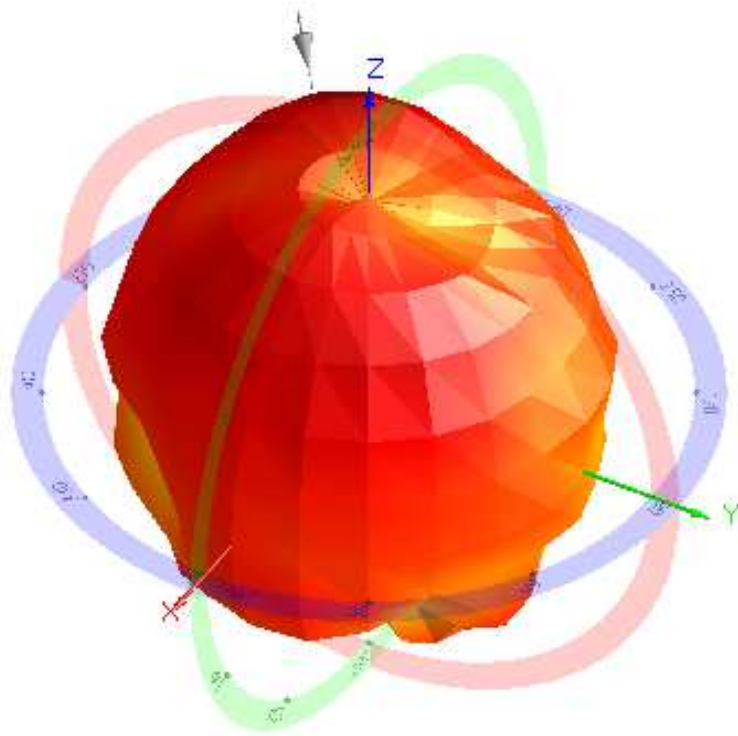
4.2.3.1 LTE LB (LTE B5/8/12/14/17/18/19/20/26/28/71, WCDMA B5/8, GSM900) MIMO



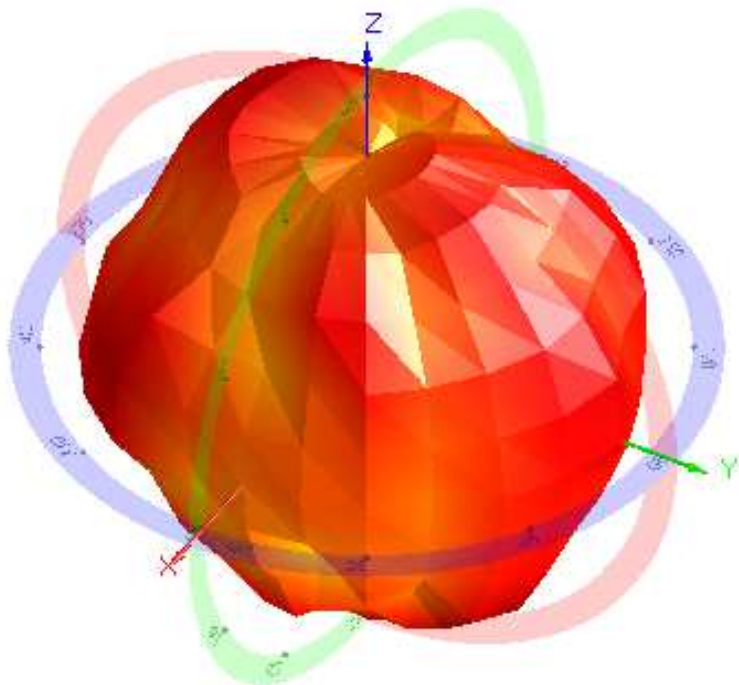
4.2.3.2 LTE MB (LTE B1/2/3/4/9/25/34/38/39/40/66, WCDMA B1/3, GSM1800) MIMO



4.2.3.3 LTE HB (B7/41) MIMO

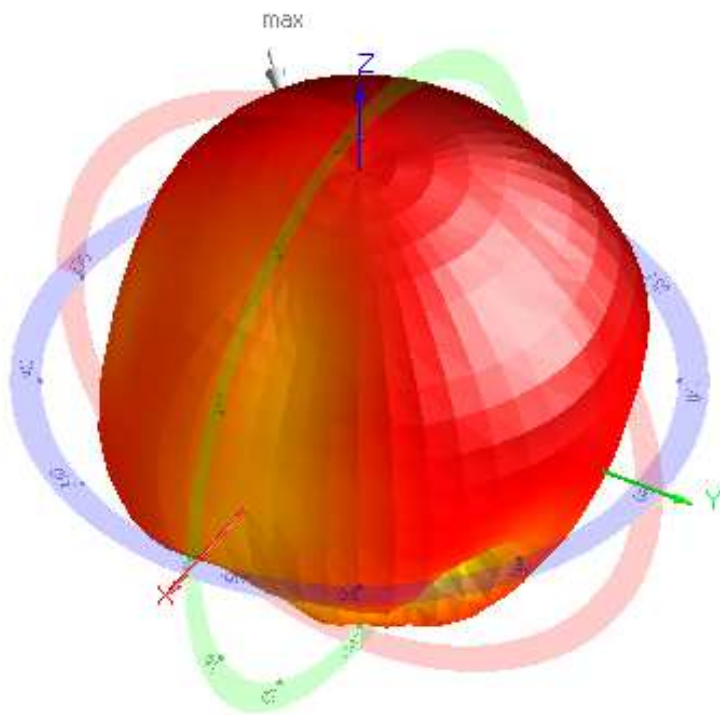


4.2.3.3 LTE SUB6 (n77/78/79)

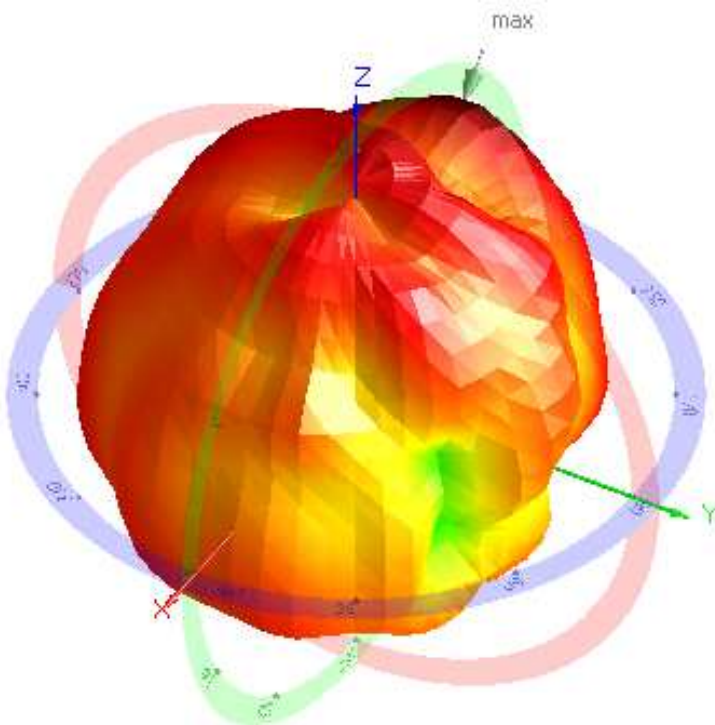


4.2.4 WIFI Antenna (BT/WiFi 2.4GHz/5GHz)

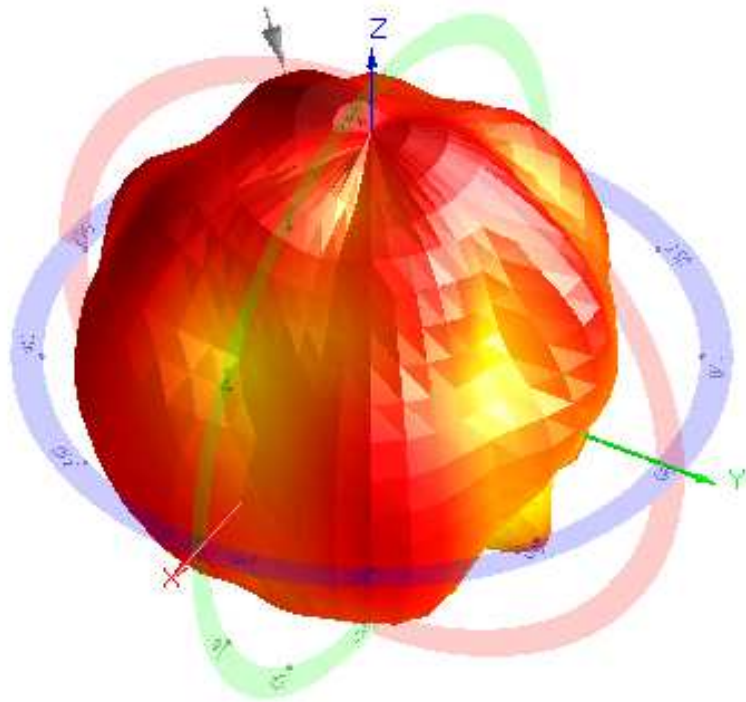
4.2.4.1 BT/WIFI 2.4G



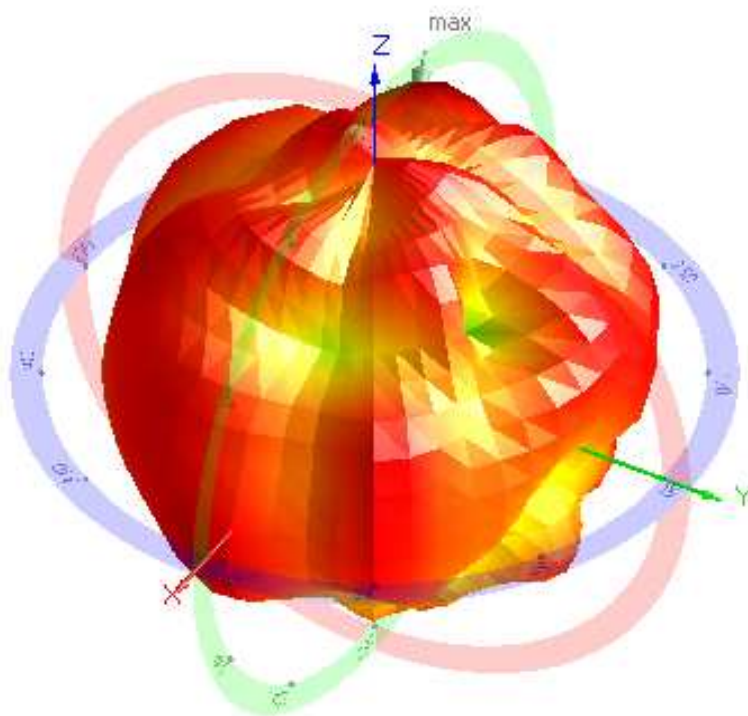
4.2.4.2 WIFI 5G (5150MHz)



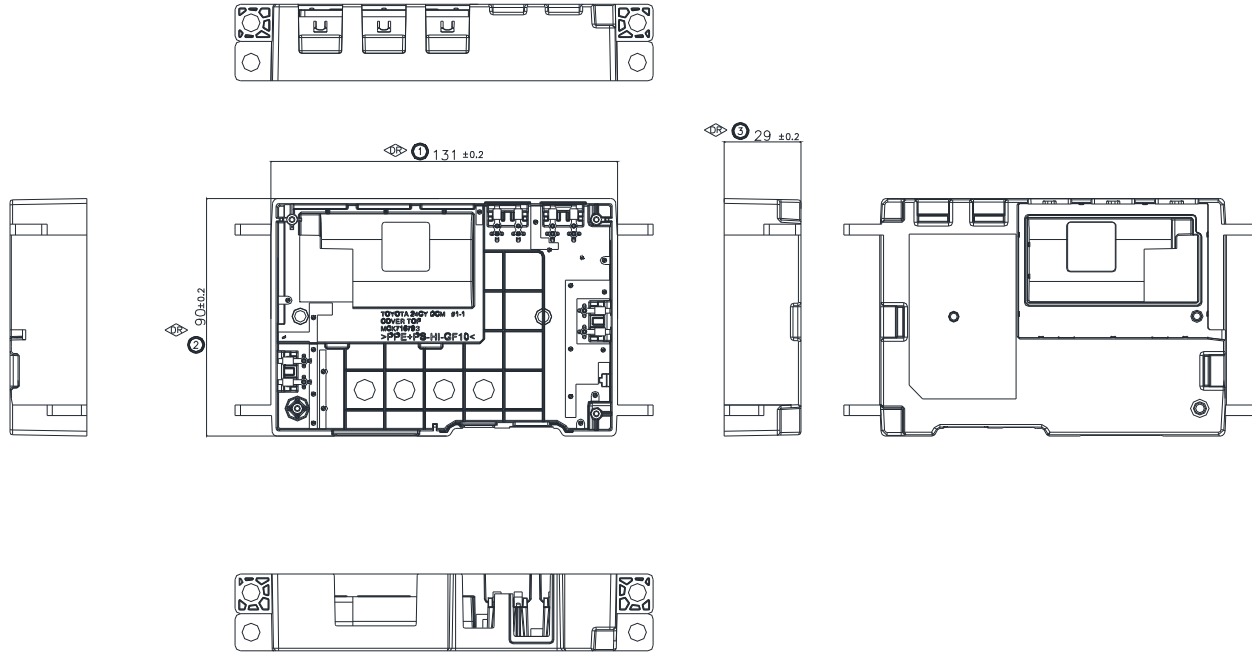
4.2.4.3 WIFI 5G (5300MHz)



4.2.4.4 WIFI 5G (5500MHz)



5. External Drawing



DESIGNED		CHECKED		APPROVAL
PJH		JSB		KSJ
2022.11.23		2022.11.23		2022.11.23
SI METRIC A3	1:1	mm	1/1	 THIRD ANGLE DIMENSION
	SCALE	UNIT	SHEET	