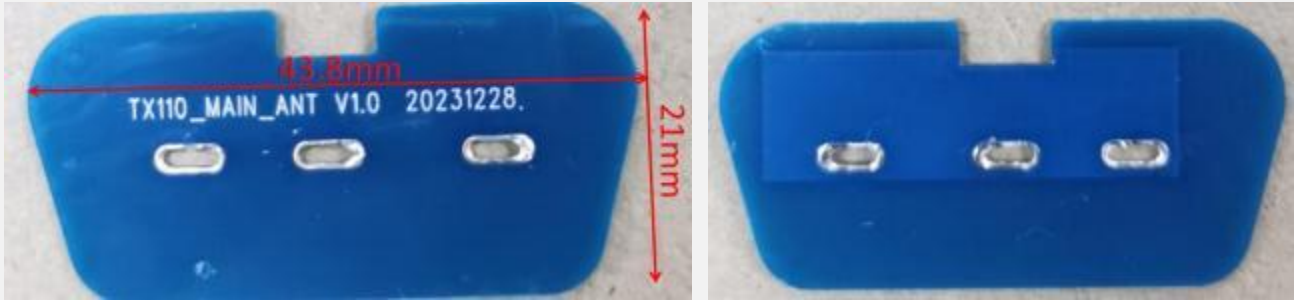
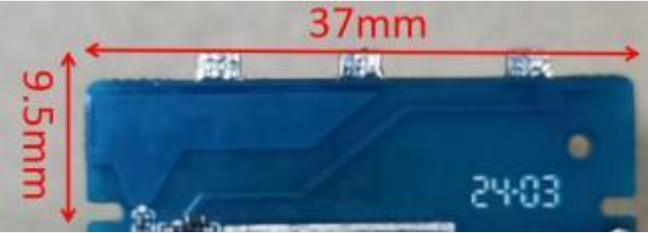


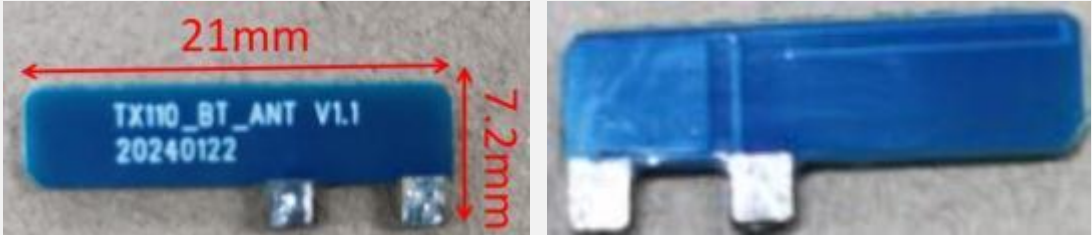
TorchX 110 Antenna Report

Antenna Name	LTE Antenna-part 1
Antenna Model	TX110_MAIN_ANT_V1.0
Antenna Type	PCB Antenna Board
Antenna Size	43.8x21x0.8mm
Antenna Manufacturer	Shenzhen TOPFLYTech Co.,Limited
Manufacturer Address	4th-5th floor,Scientific Research Building,Tsinghua Info Hub,Nanshan Hi-Tech Park,Shenzhen,Guangdong,China
Band & Frequency	GSM 850/GSM1900 LTE B2/B4/B5/B7/B12/B13/B17/B25/B26/B38/B40/B41/B66
Antenna Photo	

LTE Antenna Information

Antenna Name	LTE Antenna-part 2
Antenna Model	/
Antenna Type	PCB Printed Antenna
Antenna Size	37x9.5mm
Antenna Manufacturer	Shenzhen TOPFLYTech Co.,Limited
Manufacturer Address	4th-5th floor,Scientific Research Building,Tsinghua Info Hub,Nanshan Hi-Tech Park,Shenzhen,Guangdong,China
Band & Frequency	GSM 850/GSM1900 LTE B2/B4/B5/B7/B12/B13/B17/B25/B26/B38/B40/B41/B66
Antenna Photo	

BT Antenna Information

Antenna Name	BT Antenna
Antenna Model	TX110_BT_ANT_V1.1
Antenna Type	PCB Printed Antenna
Antenna Size	21x7.2x0.8mm
Antenna Manufacturer	Shenzhen TOPFLYTech Co.,Limited
Manufacturer Address	4th-5th floor,Scientific Research Building,Tsinghua Info Hub,Nanshan Hi-Tech Park,Shenzhen,Guangdong,China
Band & Frequency	2402~2480MHz
Antenna Photo	

GPS Antenna Information

Antenna Name	GPS Antenna
Antenna Model	SZ22661IA54
Antenna Type	Ceramic Antenna
Antenna Size	25x25x4.0mm
Antenna Manufacturer	Sunnyway Technology Co.,Limited
Manufacturer Address	1F, Building 4, No.215-99, GaoGuang Road, QingPu District, Shanghai, China
Band & Frequency	1559~1610MHz
Antenna Photo	

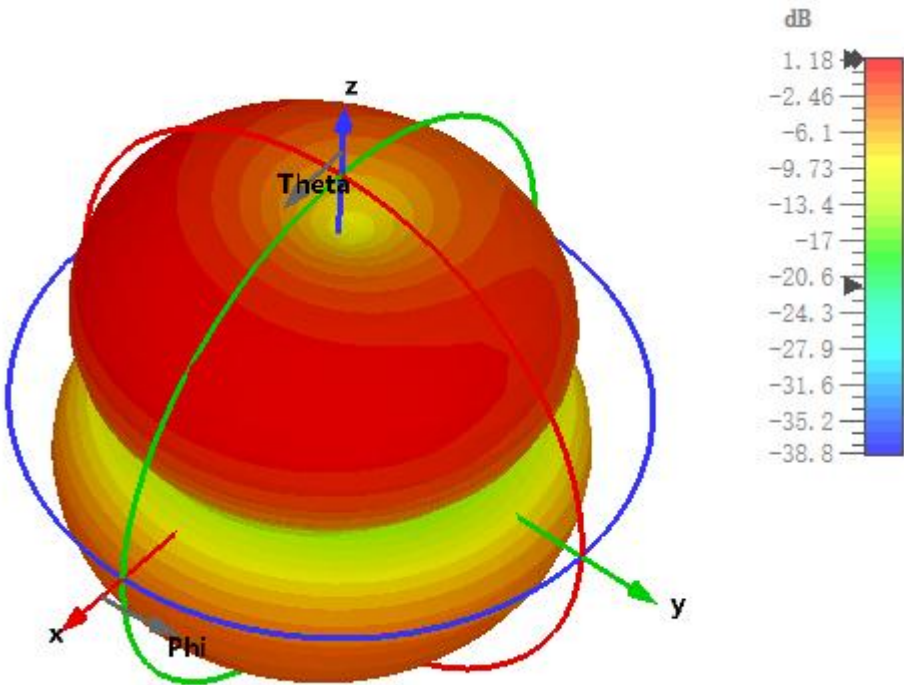
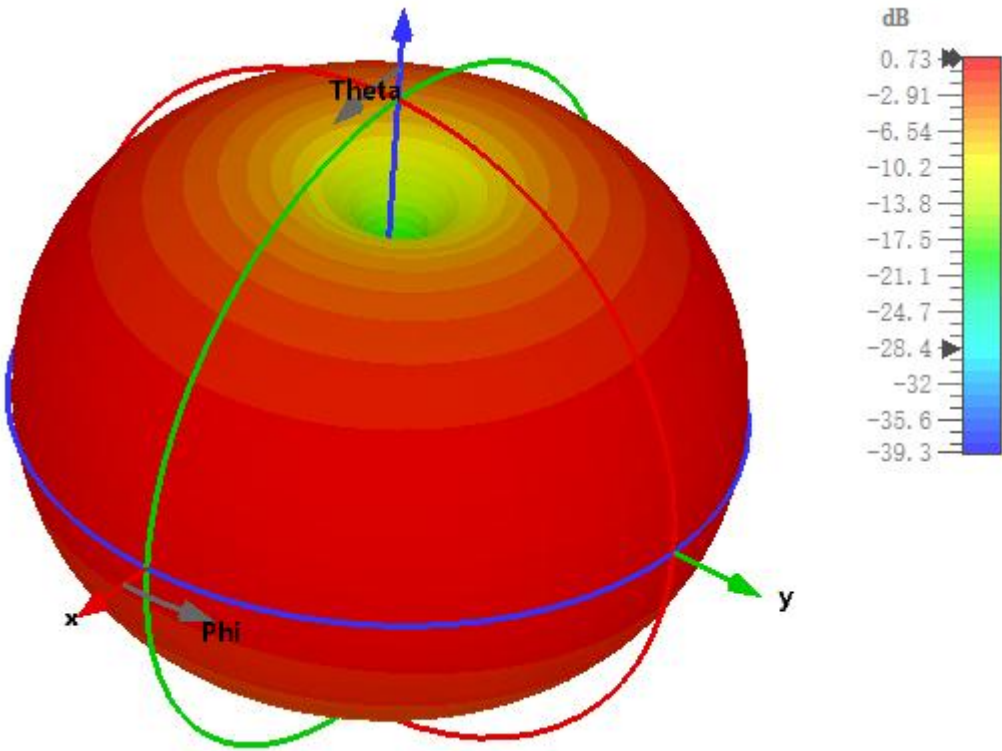
Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Gain (dBi)
1559	-4.02	39.63%	3.09
1560	-3.8	41.69%	3.26
1562	-3.56	44.06%	3.4
1564	-3.34	46.34%	3.52
1572	-2.65	54.33%	3.8
1574	-2.55	55.59%	3.68
1576	-2.46	56.75%	3.56
1578	-2.41	57.41%	3.61
1596	-2.61	54.83%	3.76
1598	-2.58	55.21%	3.97
1600	-2.53	55.85%	4.12
1602	-2.54	55.72%	4.14
1604	-2.57	55.34%	4.16
1606	-2.54	55.72%	4.24
1608	-2.51	56.10%	4.32
1610	-2.59	55.08%	4.3

LTE&BT Antenna Performance —— Band with Peak Gain

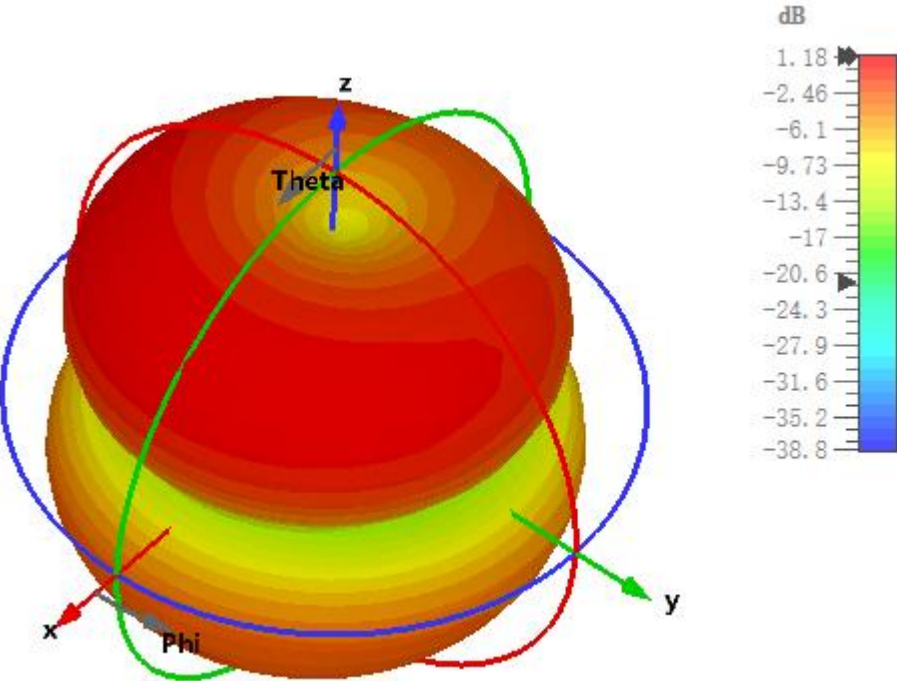
Mode	Frequency(MHz)	Peak Gain (dBi)	Antenna Type
BT-LE	2402 ~ 2480	1.20	PCB Antenna
GSM850	824 ~ 849	0.73	PCB Antenna
GSM1900	1850 ~ 1910	1.18	PCB Antenna
LTE B2	1850 ~ 1910	1.18	PCB Antenna
LTE B4	1710 ~ 1755	1.40	PCB Antenna
LTE B5	824 ~ 849	0.73	PCB Antenna
LTE B7	2500 ~ 2570	1.34	PCB Antenna
LTE B12	699 ~ 716	0.65	PCB Antenna
LTE B13	777 ~ 787	0.48	PCB Antenna
LTE B17	704 ~ 716	0.65	PCB Antenna
LTE B25	1850 ~ 1915	1.18	PCB Antenna
LTE B26	814~ 849	0.73	PCB Antenna
LTE B38	2570 ~ 2620	1.44	PCB Antenna
LTE B40	2305 ~ 2315	1.34	PCB Antenna
	2350 ~ 2360	1.35	PCB Antenna
LTE B41	2496 ~ 2690	1.50	PCB Antenna
LTE B66	1710 ~ 1780	1.40	PCB Antenna

GSM850@0.73dBi

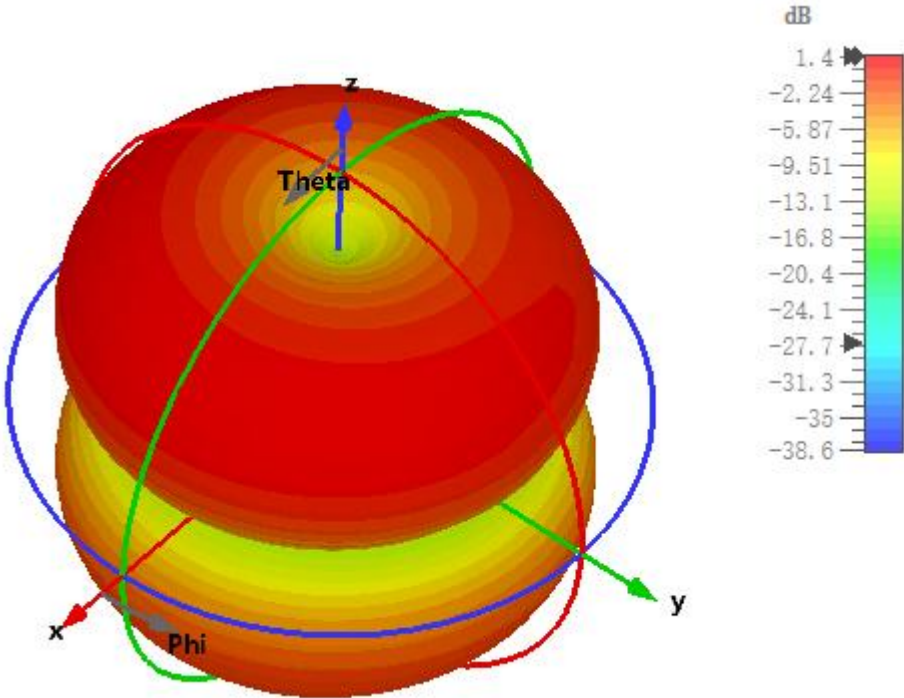
GSM1900@1.18dBi



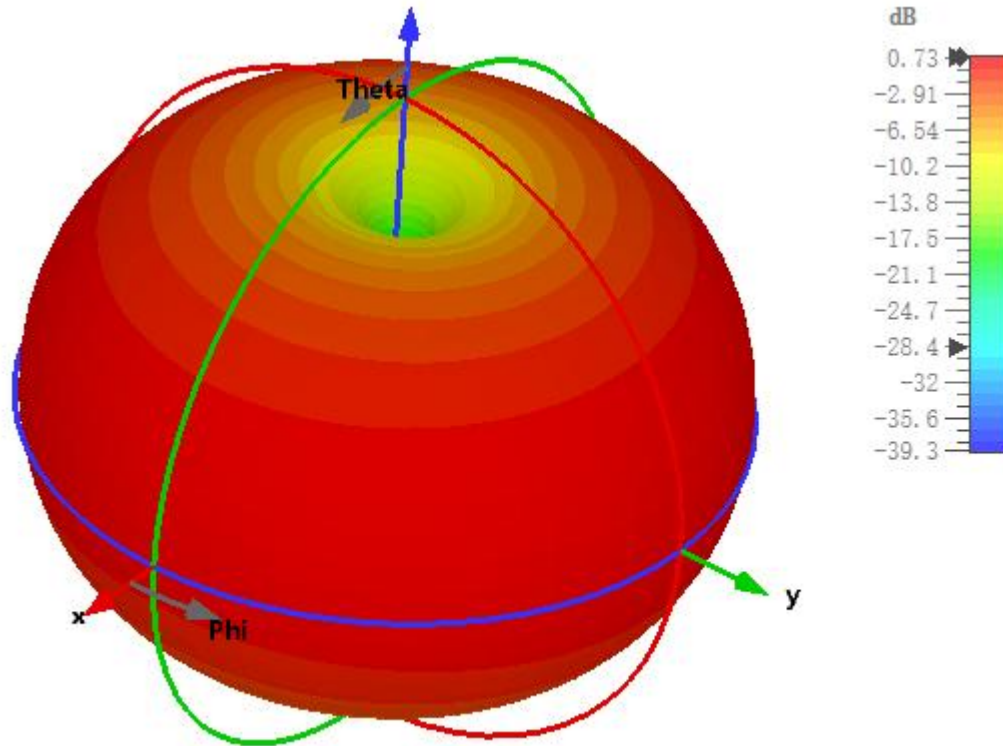
Band 2@1.18dBi



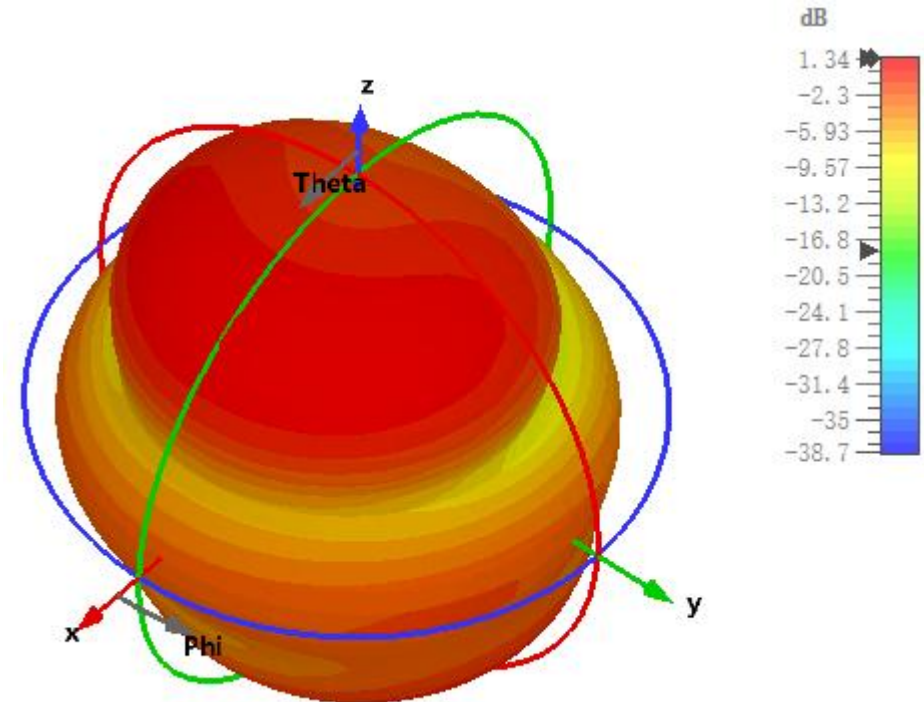
Band 4@ 1.40dBi



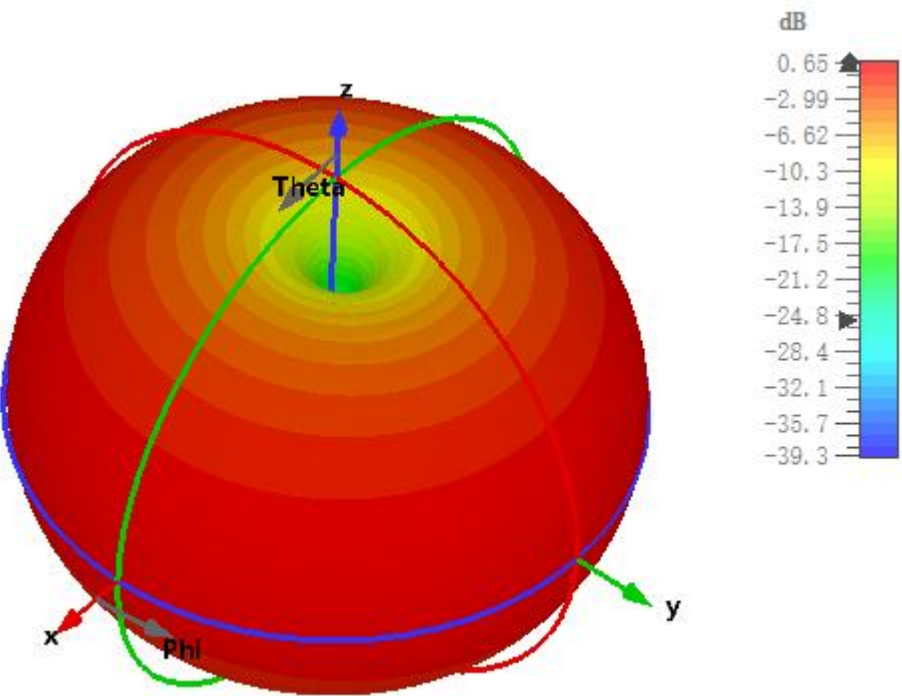
Band 5@0.73dBi



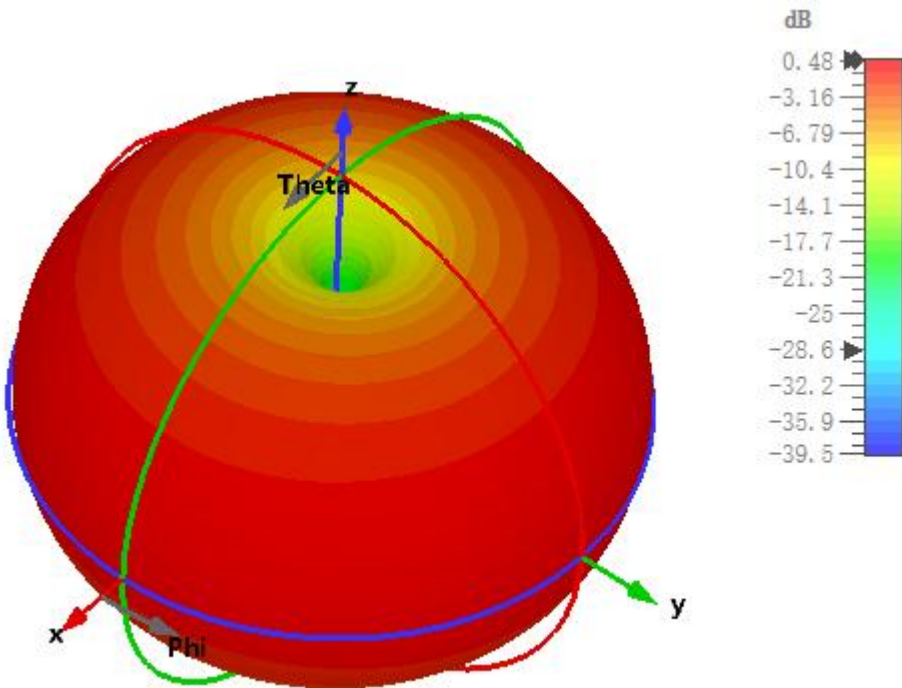
Band 7@1.34dBi



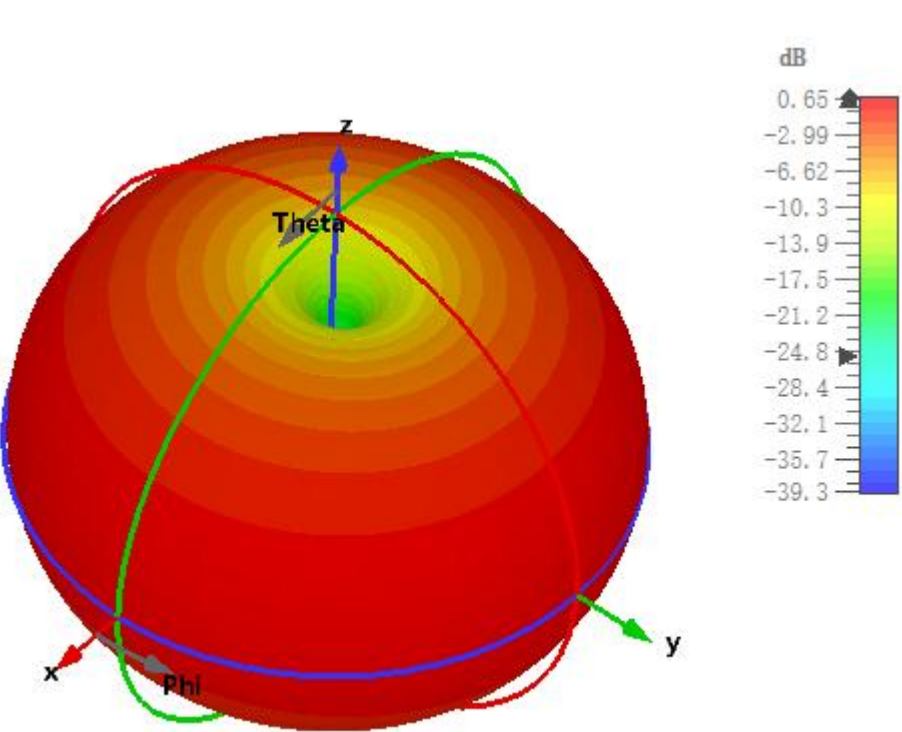
Band 12@0.65dBi



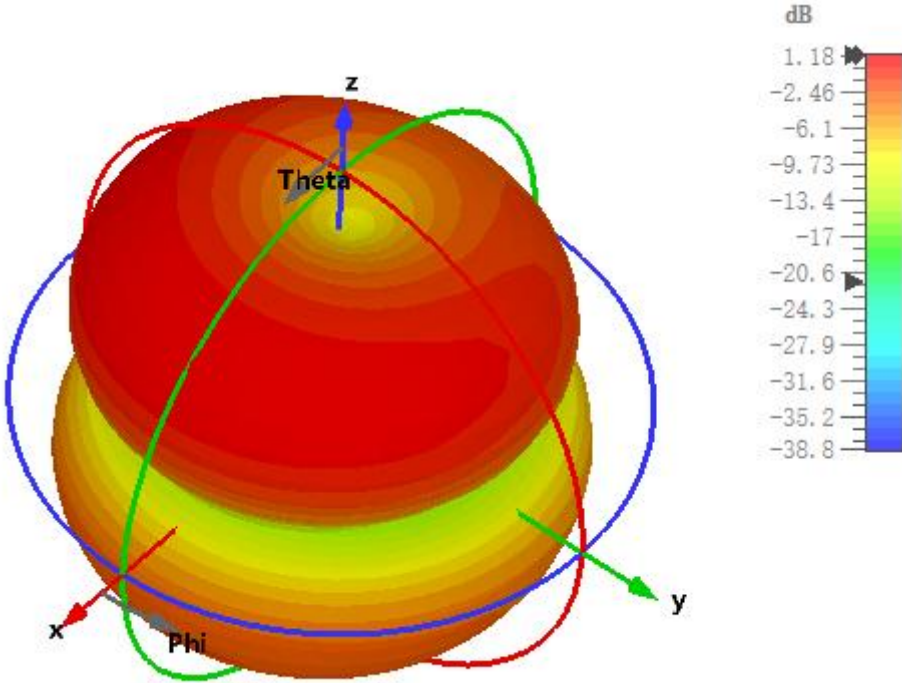
Band 13@0.48dBi



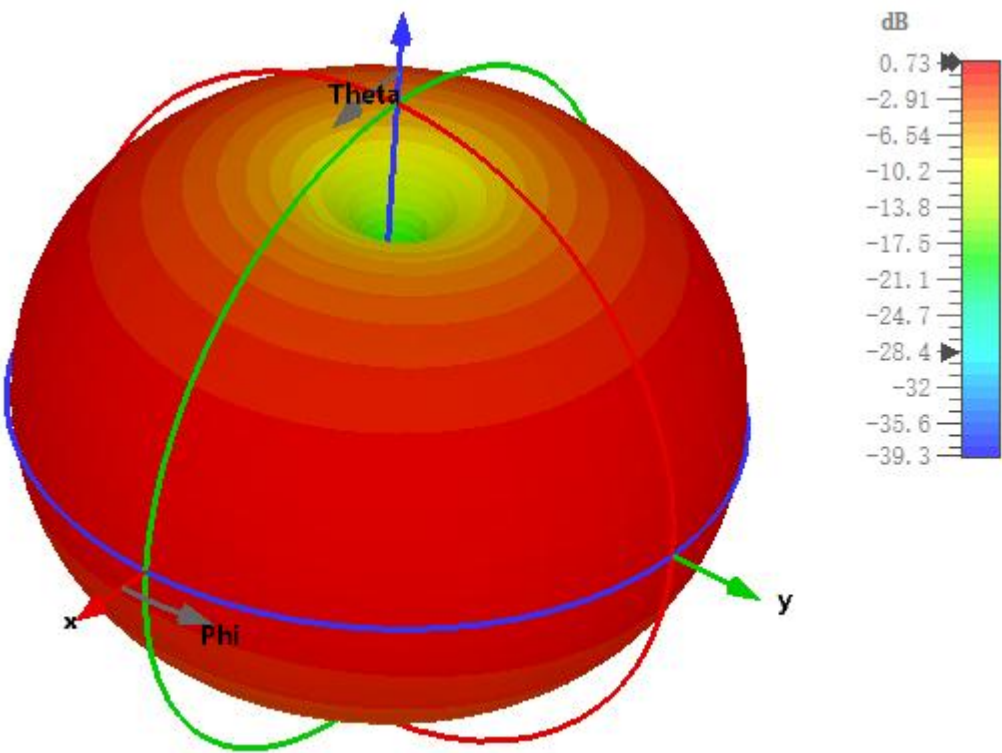
Band 17@0.65dBi



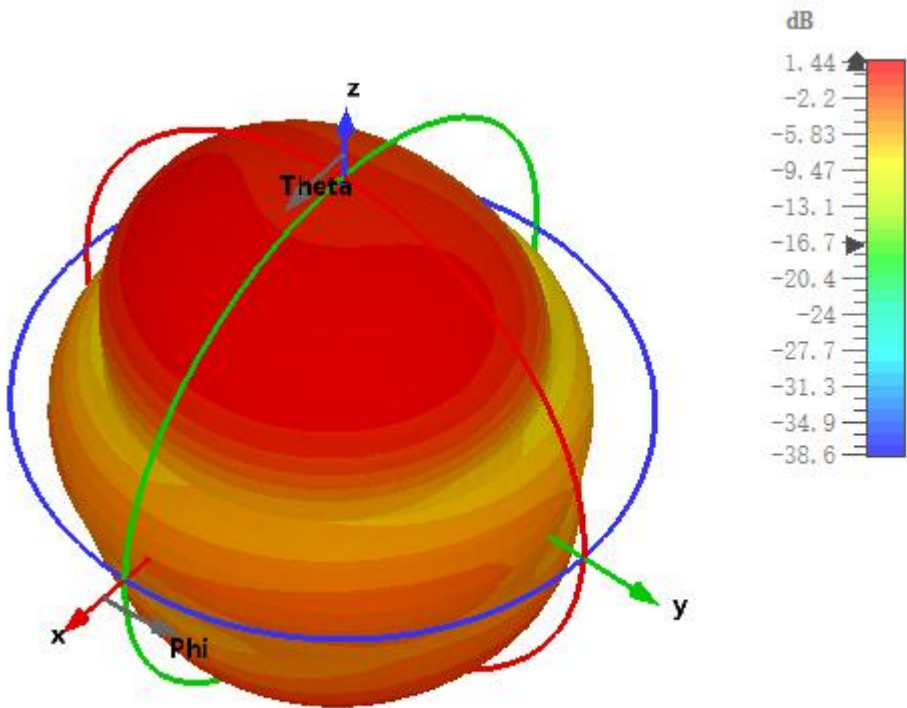
Band 25@1.18dBi



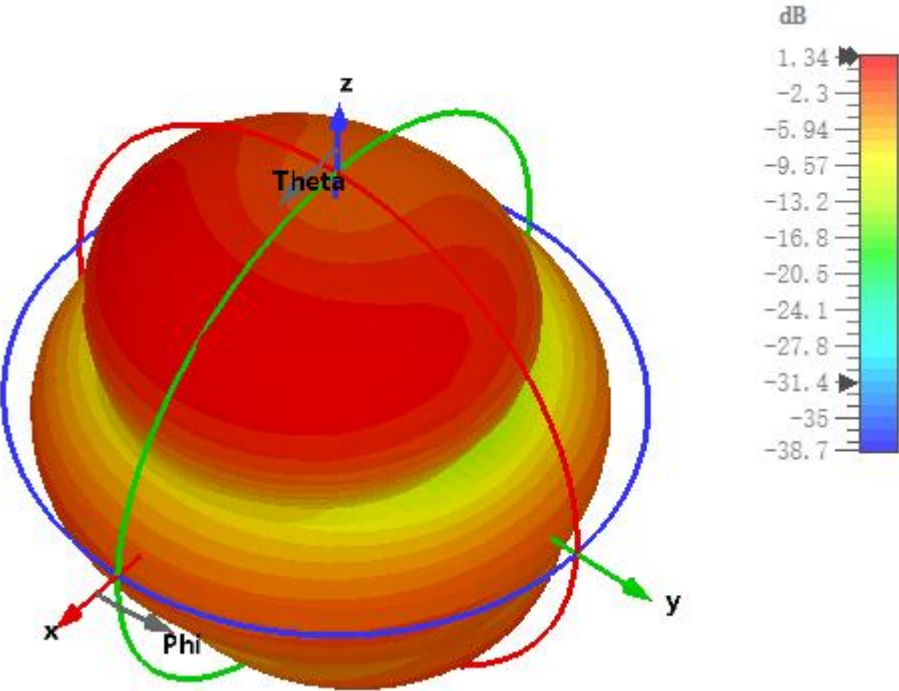
Band 26@0.73dBi



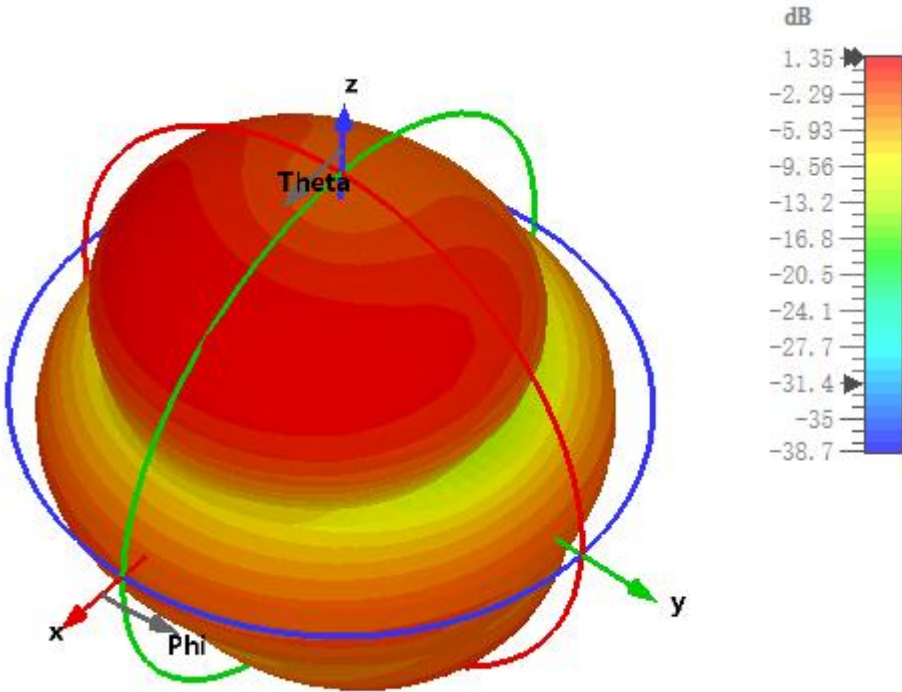
Band 38@1.44dBi



Band 40@1.34dBi

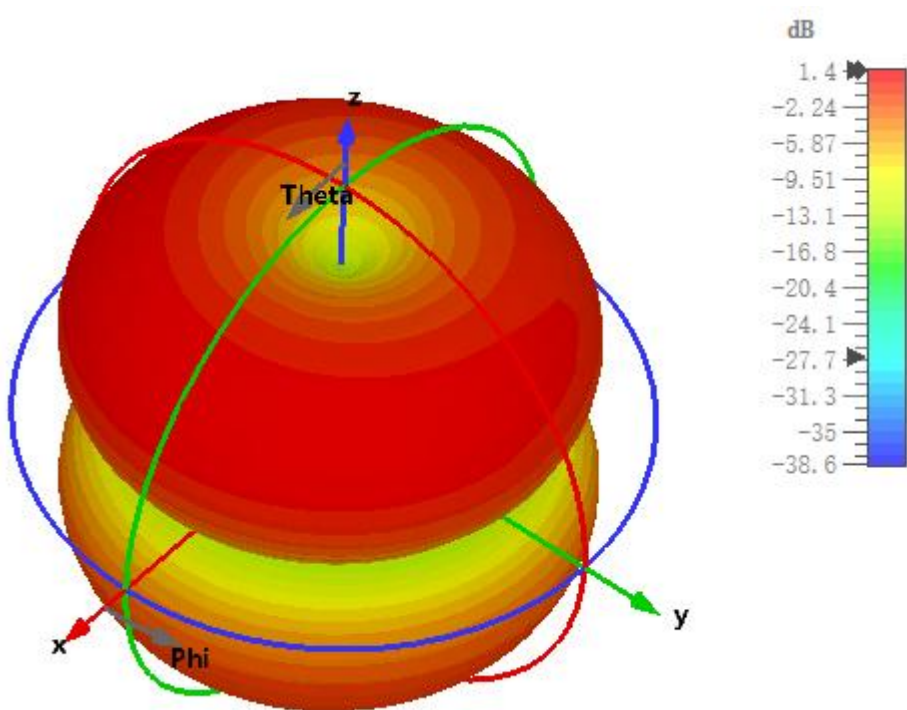
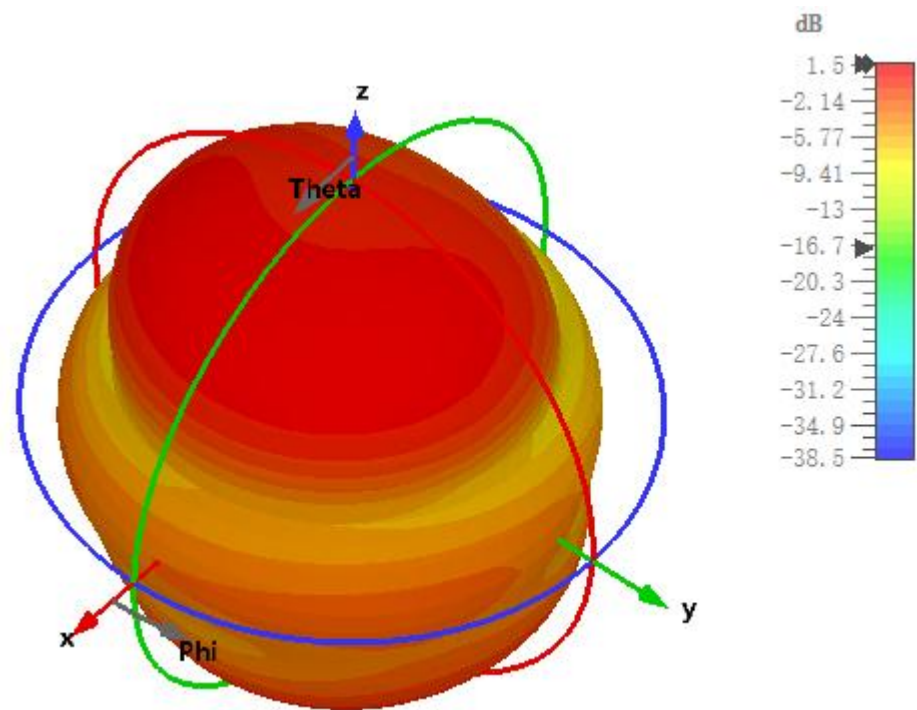


Band 40@1.35dBi



Band 41@1.50dBi

Band 66@1.40dBi



BT-LE@ 1.20dBi

