



ShenZhen Huaxinwei communication technology
Co.,Ltd.

Antenna test report

Customer Name: XunRui

Project Name: M9902A

Designer: Li Jun xian

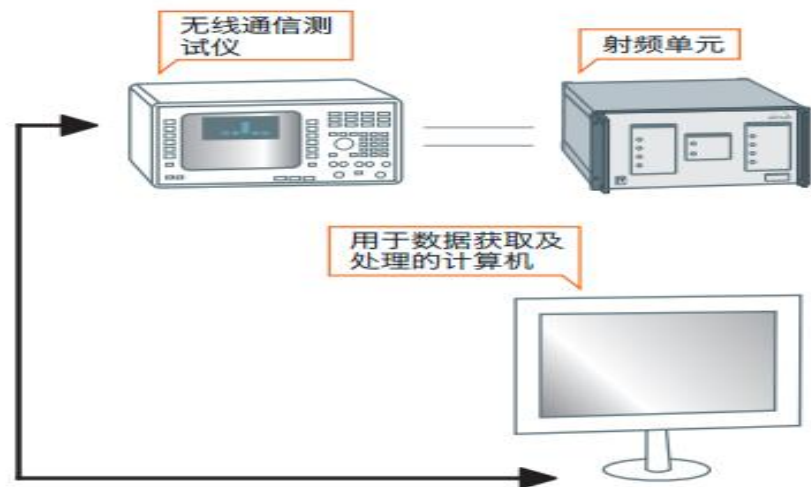
Date: 2023/11/08



The customer name		XunRui	Project Name	M9902A
NO.	project	Detailed above		
1	spectrum	GSM850/900/1800/1900+BC0/BC1/BC10 +WCDMA-B1/2/4/5/8+LTE-B1/2/3/4/5/7/8/12/17/18/19/20/25/26/28/66/38/40/41+GPS/WIFI/BT		
2	Project type	The mobile phone		
3	Antenna space area			
4	Feed point type			
5	The sensitivity			
6	Type of antenna			
7	The length of the PCB board			
8	note	Debugging prototype		
RF		Li Jun xian	1820807601	

1、Test system and test equipment

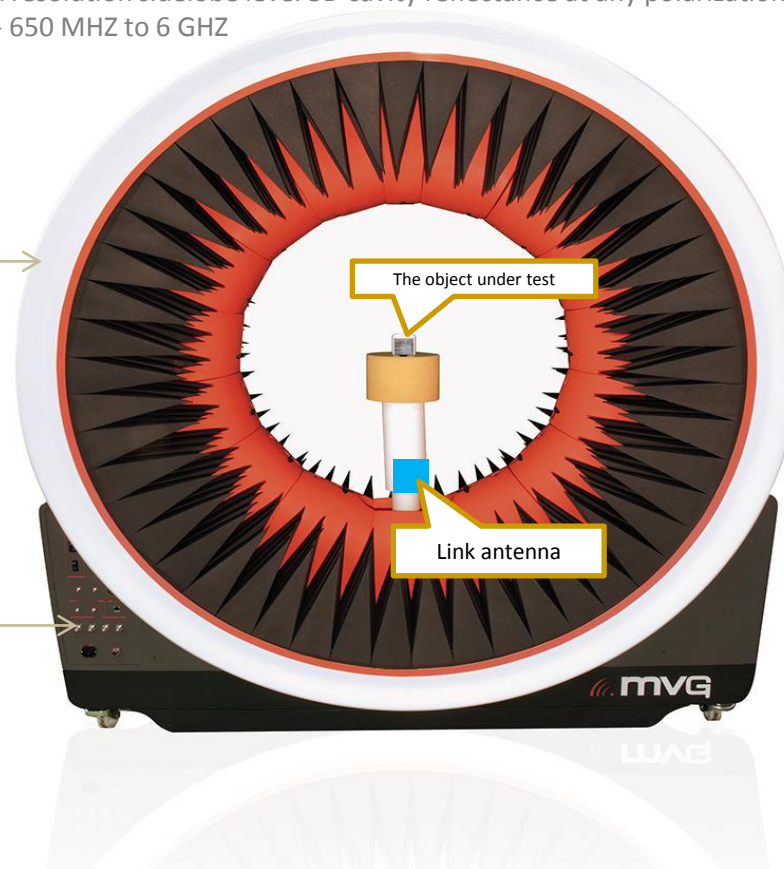
System Brand: MVG(SATIMO) measurement features: gain • pattern beamwidth cross polarization resolution sidelobe level 3D cavity reflectance at any polarization cavity reflectance (line or arc) antenna efficiency TRP, TIS, EIRP and EIS. Frequency band: StarLab 6 GHZ - 650 MHZ to 6 GHZ



TIS预计测量时间 (一个信道每隔30° 取样)

灵敏度算法 \ 标准	GSM GPRS EDGE	CDMA 1 x RTT 1 x EvDO	WCDMA HSDPA LTE FDD/TDD	Wi-Fi 802.11 a/b/g/n	CTIA 批准方法
RSSI模式+线性化+TIS补偿	8 min		10 min		是
EIS模式+TIS补偿		5 min		5 min	是 ²
快速CDMA		8 min			No
EIRP模式+TIS补偿				10 min	No

1、根据RTC
2、根据协议

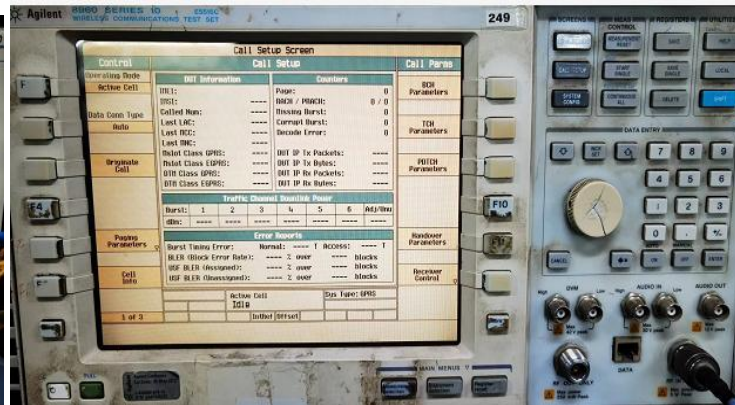


TIS 3D方位切割强度图



TRP 3D方位切割强度图

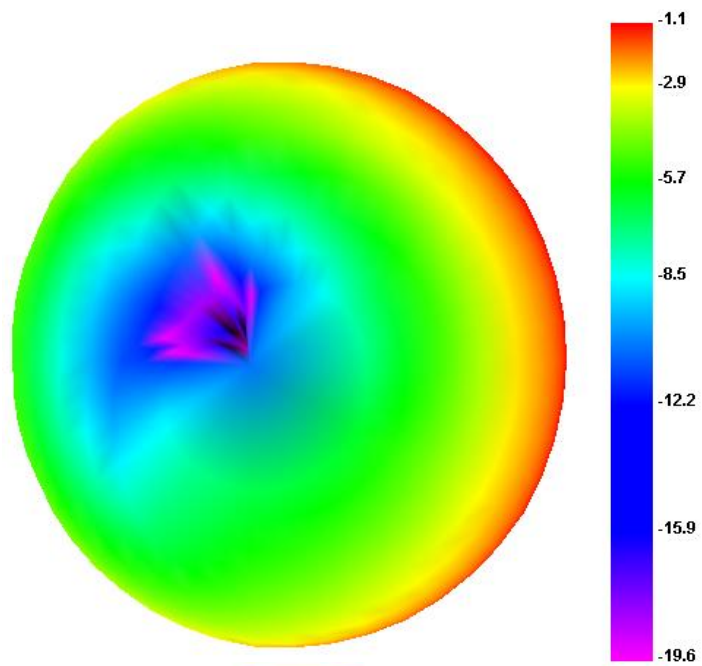
Test Equipment



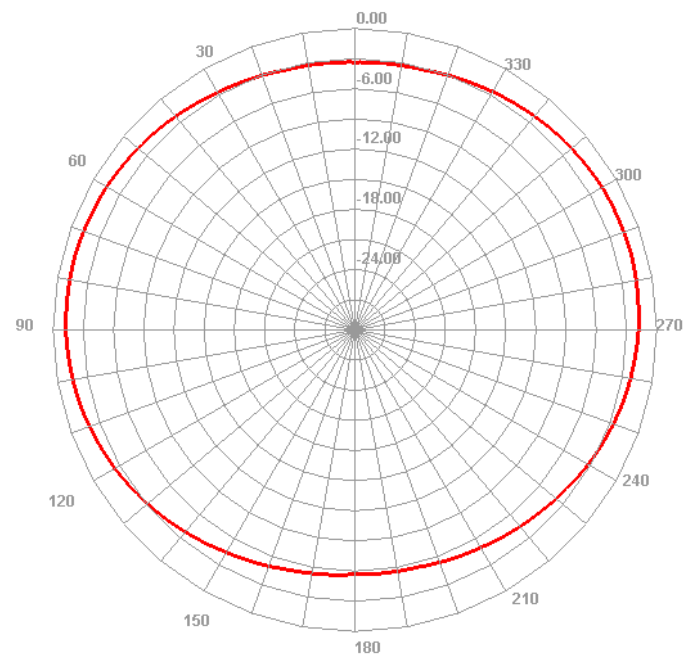
Efficient (2G+3G+4G+2. 4G-WiFi /BT)

PEAK GAIN			
2G:	Frequency range	Effi %	Gaim dBi
GSM850	824~894Mhz	21. 80	-1. 29
GSM900	880~960Mhz	20. 84	-1. 1
DCS1800	1710~1880Mhz	32. 62	1. 58
PCS1900	1850~1990Mhz	34. 81	1. 83
CDMA:			
BC0	815~894Mhz	21. 80	-1. 29
BC1	1850~1990Mhz	34. 81	1. 83
BC10	806~940Mhz	21. 80	-1. 29
3G:			
W1	1920~2170Mhz	32. 85	1. 55
W2	1850~1990Mhz	34. 81	1. 83
W4	1710~2155Mhz	32. 37	1. 58
W5	824~894Mhz	21. 80	-1. 29
W8	880~960Mhz	20. 84	-1. 1
4G:			
LTE-B1	1920~2170Mhz	32. 85	1. 55
LTE-B2	1850~1990Mhz	34. 81	1. 83
LTE-B3	1710~1880Mhz	32. 62	1. 58
LTE-B4	1710~2155Mhz	32. 07	1. 58
LTE-B5	824~894Mhz	21. 80	-1. 29
LTE-B7	2500~2690Mhz	26. 01	0. 94
LTE-B8	880~960Mhz	20. 84	-1. 1
LTE-B12	698~746Mhz	19. 03	-1. 58
LTE-B17	704~746Mhz	19. 04	-1. 58
LTE-B13	777~787Mhz	21. 80	-1. 29
LTE-B19	830~890Mhz	21. 80	-1. 29
LTE-B20	791~862Mhz	21. 84	-1. 29
LTE-B25	1850~1995Mhz	34. 81	-1. 58
LTE-B26	814~894Mhz	21. 8	1. 58
LTE-B28	708~798Mhz	19. 05	-1. 58
LTE-B66	1710~2170Mhz	32. 62	1. 58
LTE-B38	2570~2620Mhz	28. 02	0. 94
LTE-B40	2300~2400Mhz	27. 21	1. 38
LTE-B41	2500~2690Mhz	26. 03	0. 94
2. 4G-WIFI	2400~2500Mhz	35. 52	1. 02
5G WIFI	5000~5800Mhz	28. 88	-1. 19
BT	2400~2500Mhz	36. 51	1. 02
GPS	1575Mhz	36. 73	1. 23

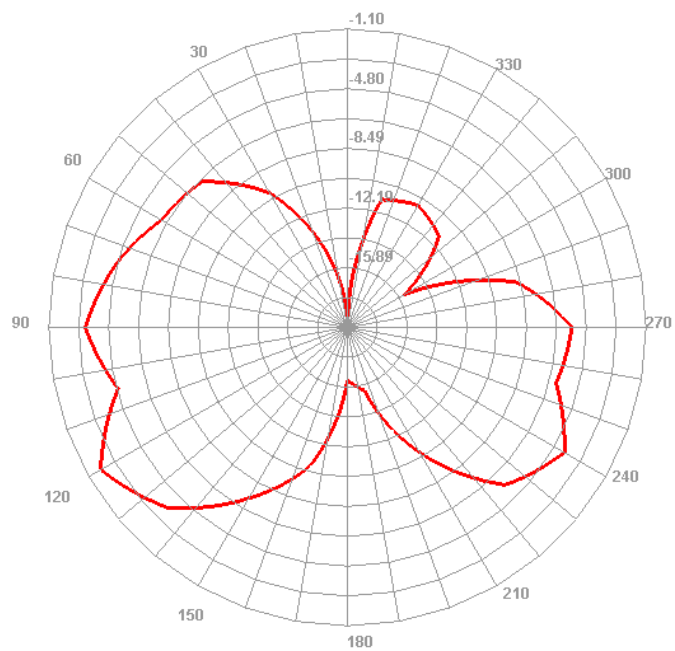
GSM 900



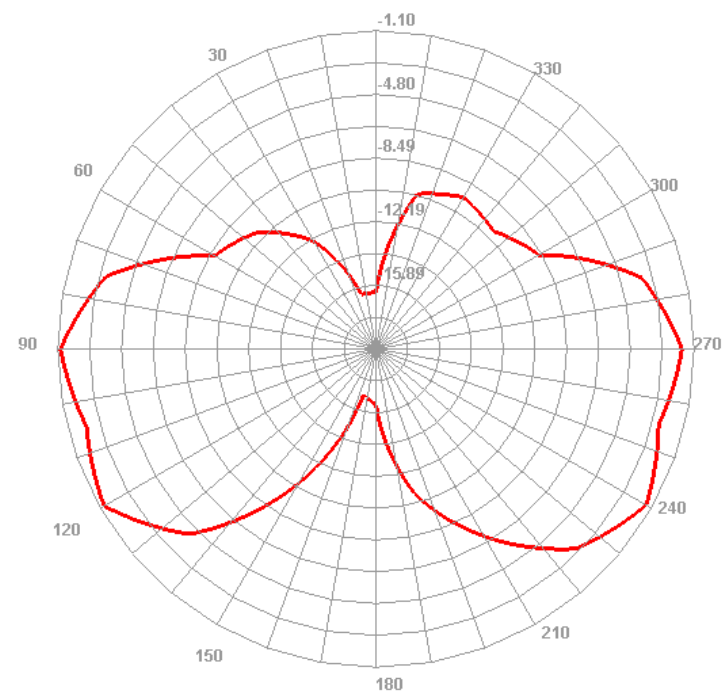
H



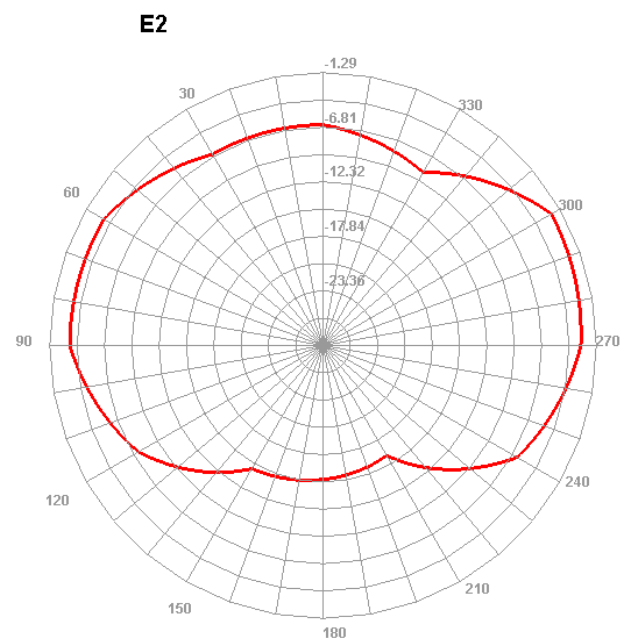
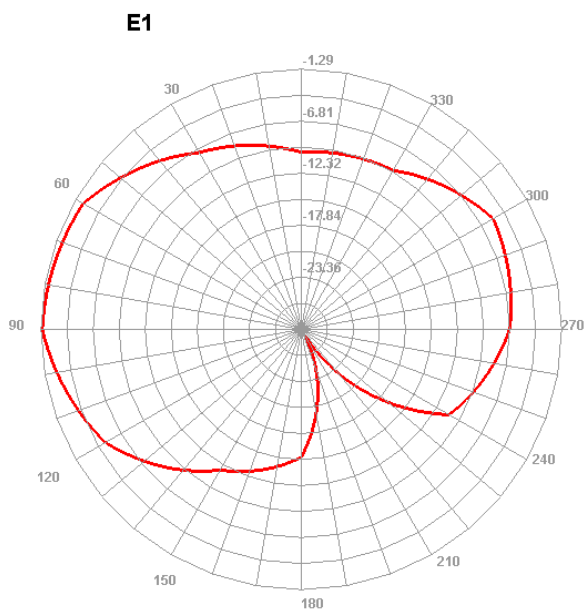
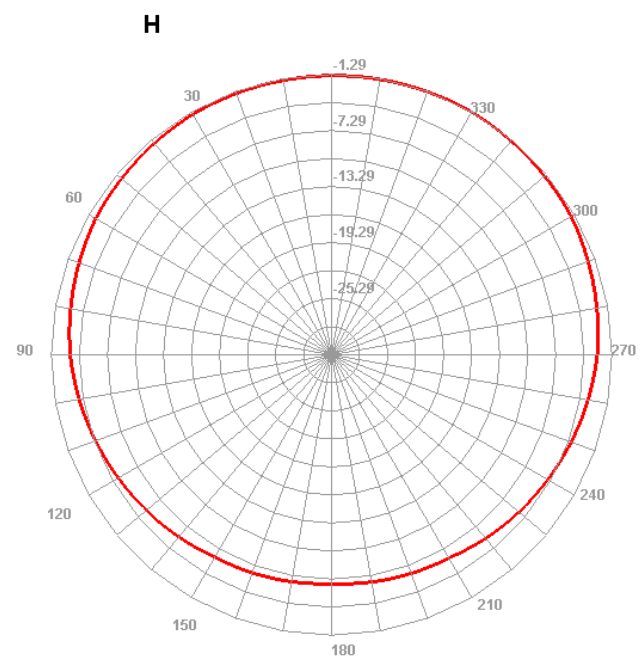
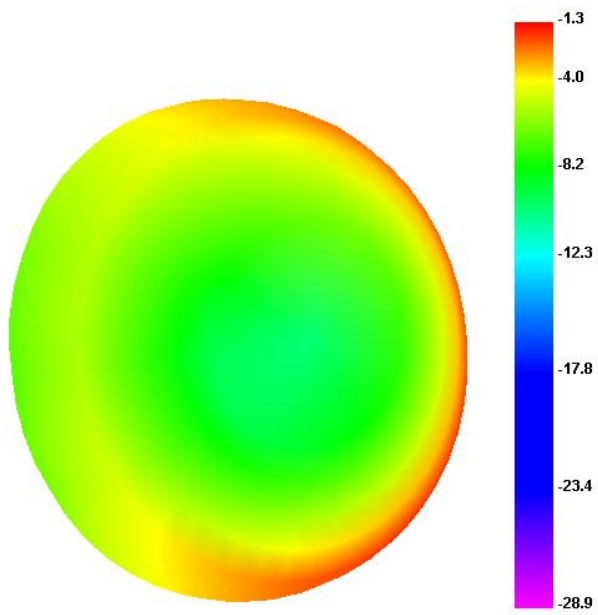
E1



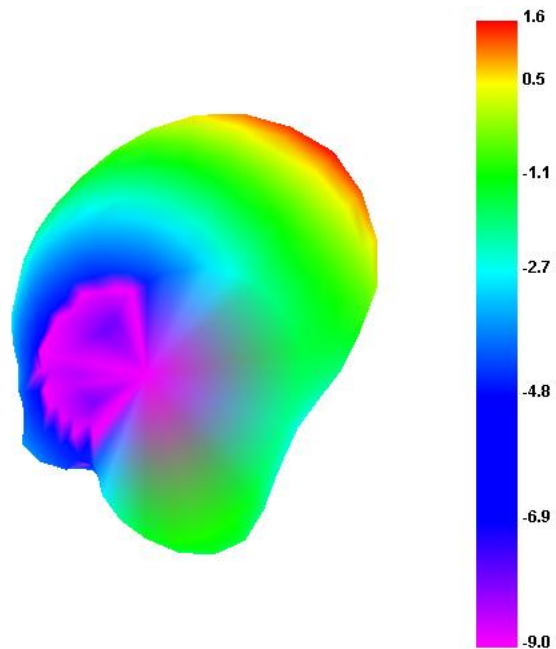
E2



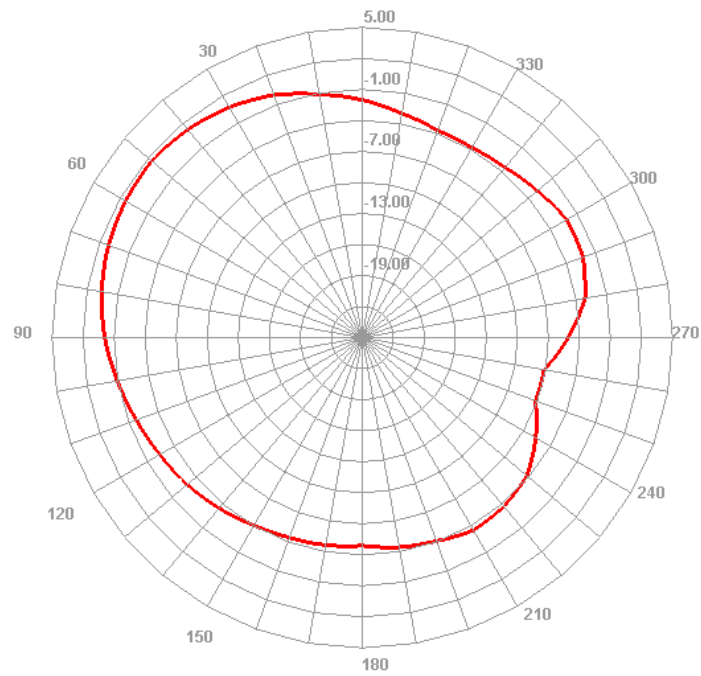
GSM 850



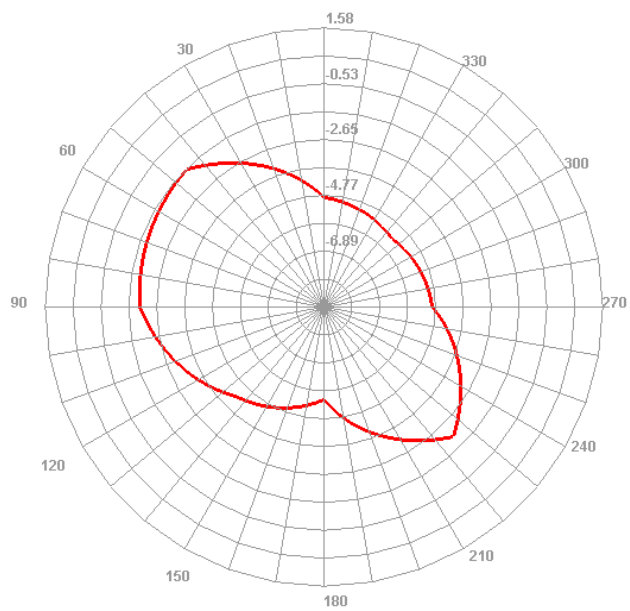
DCS1800



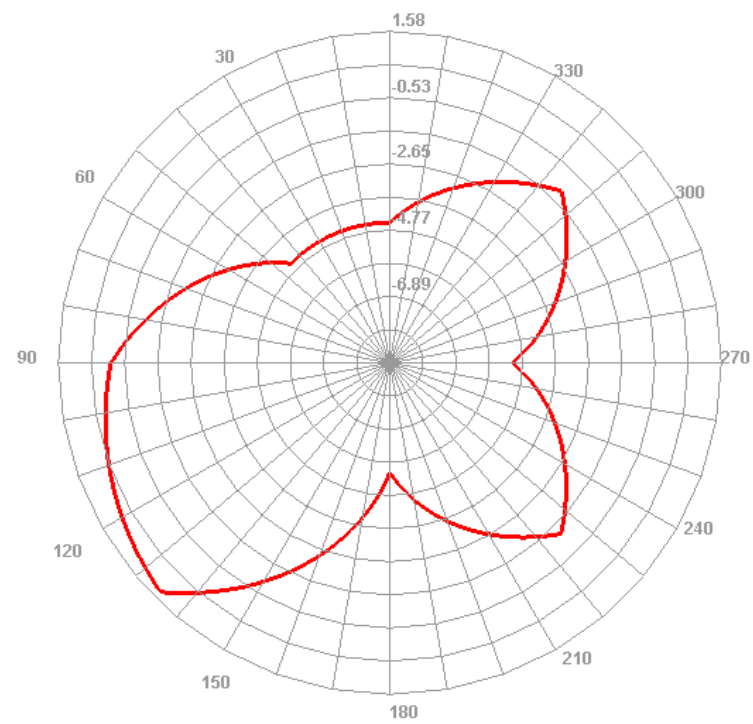
H



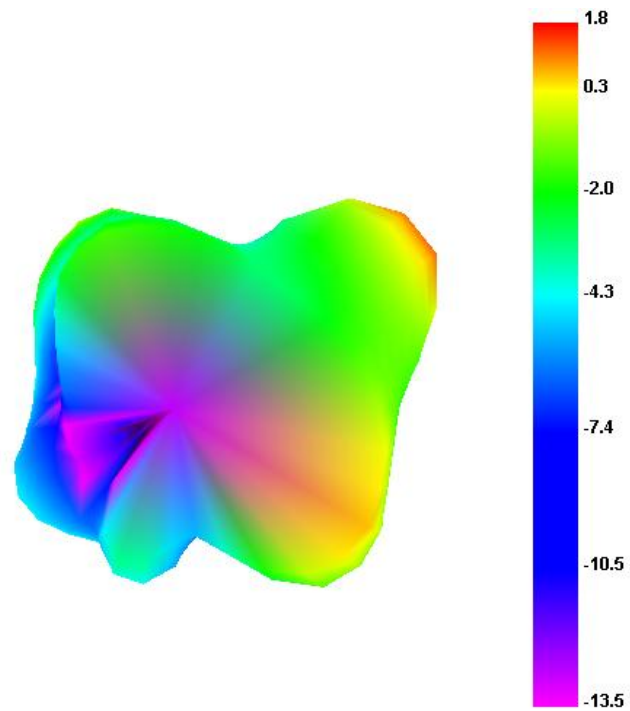
E1



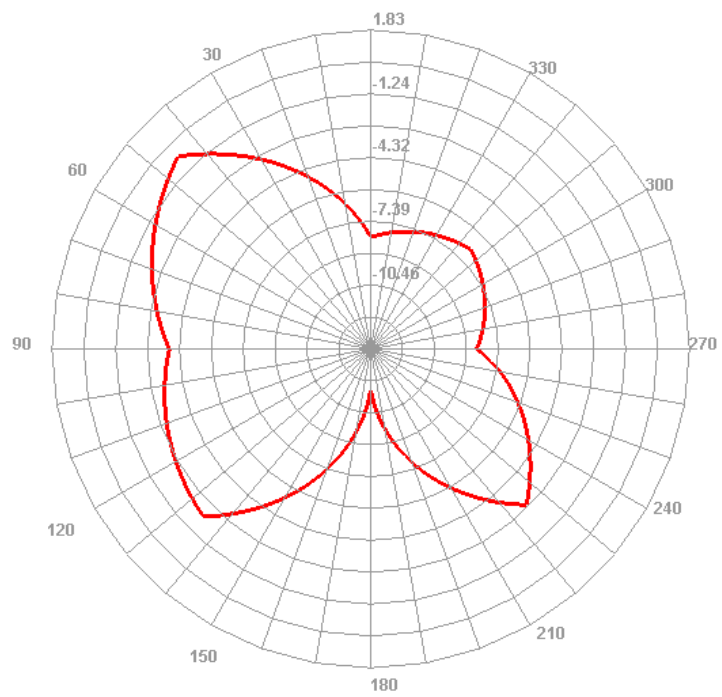
E2



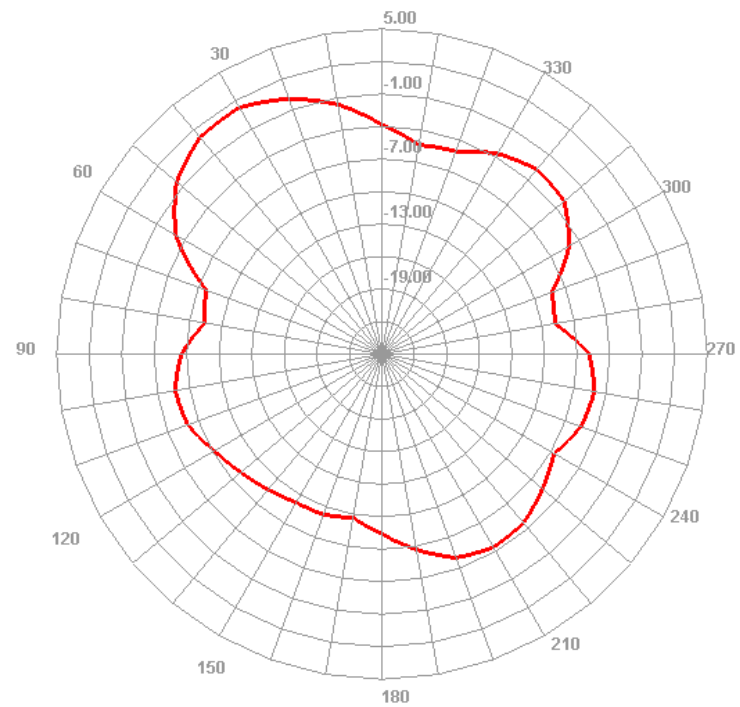
PCS1900



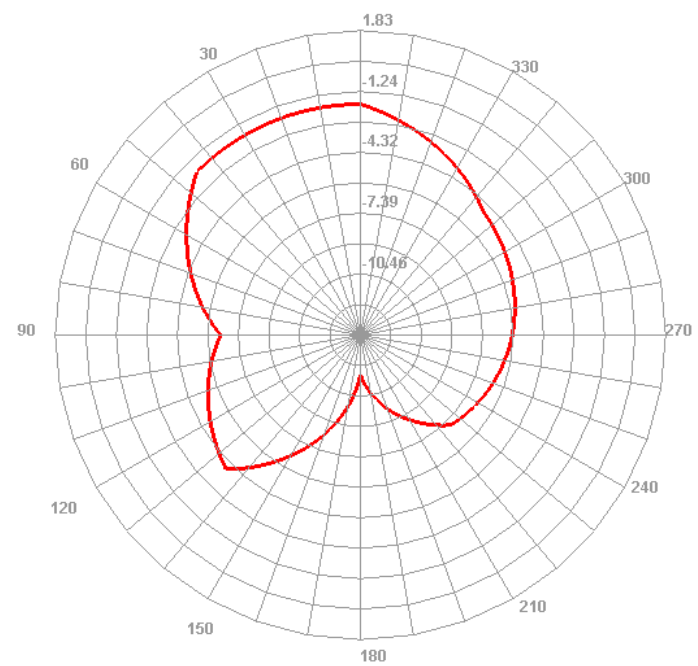
E1



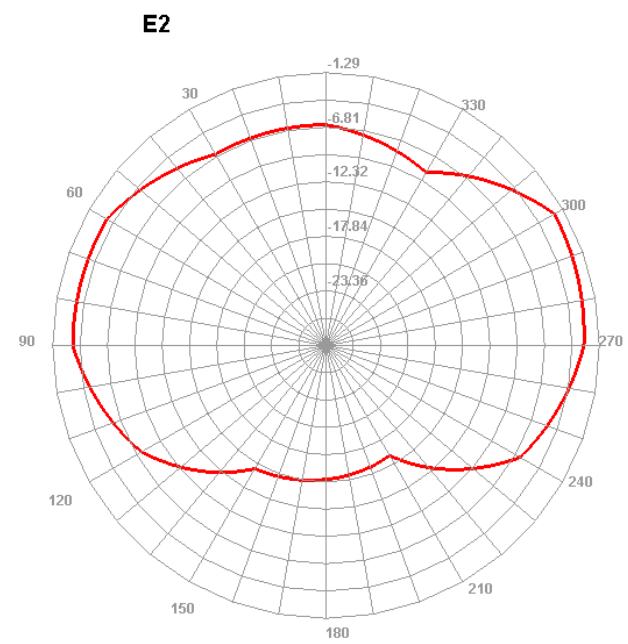
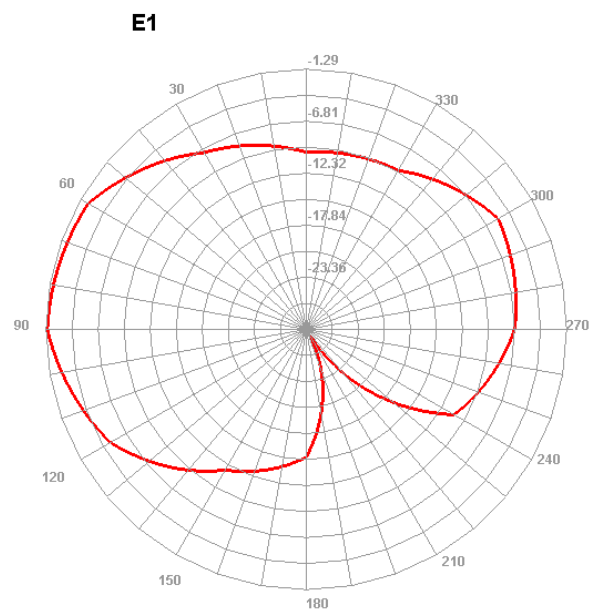
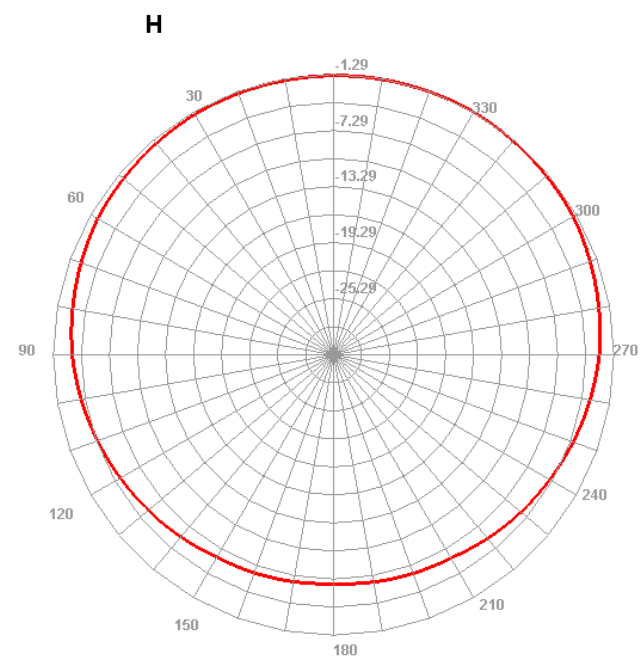
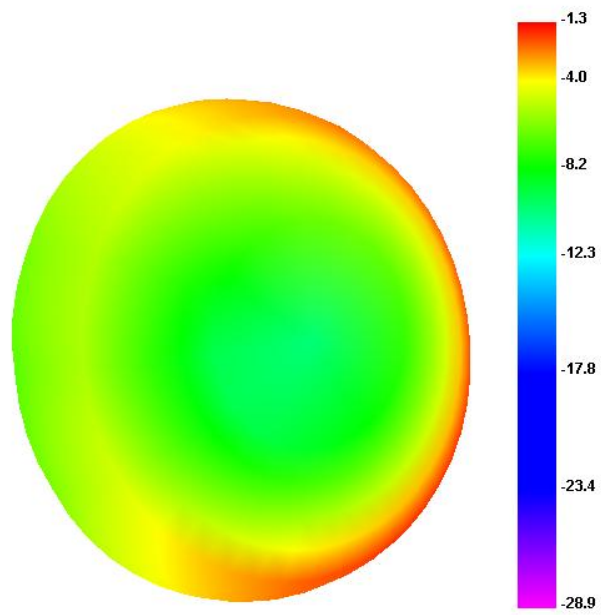
H



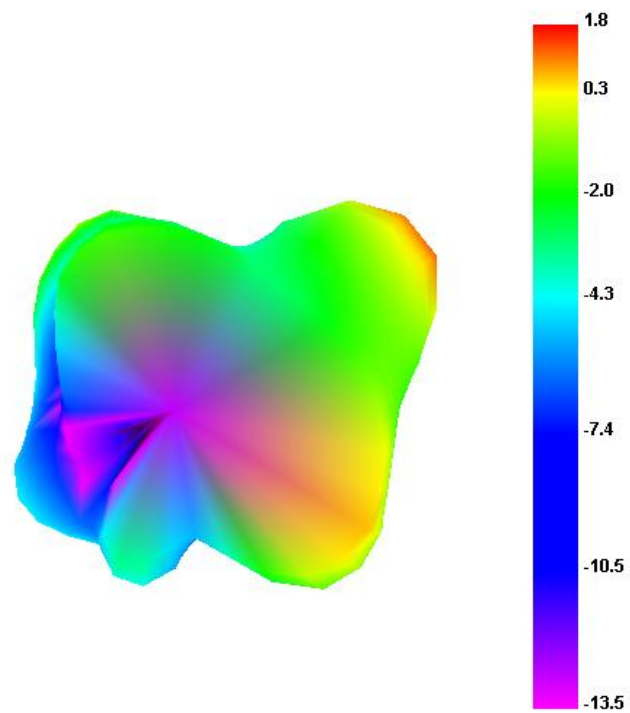
E2



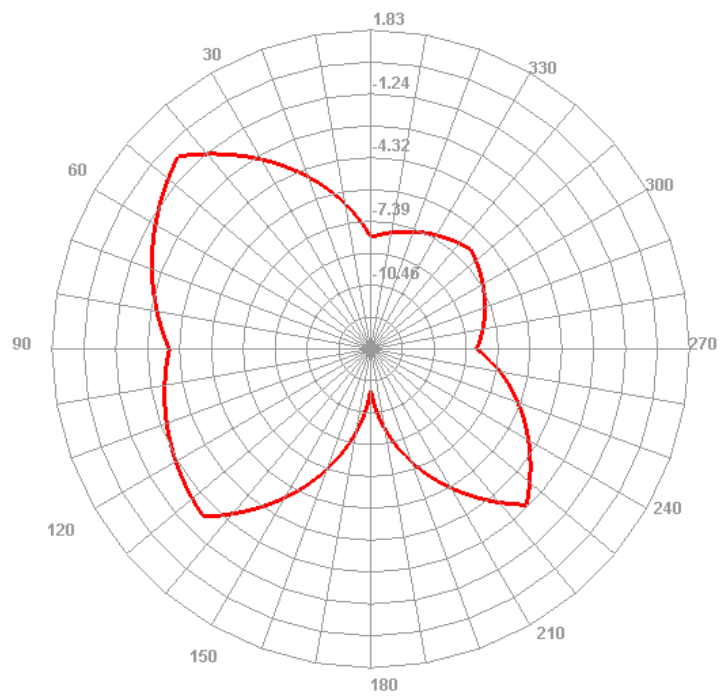
BC0



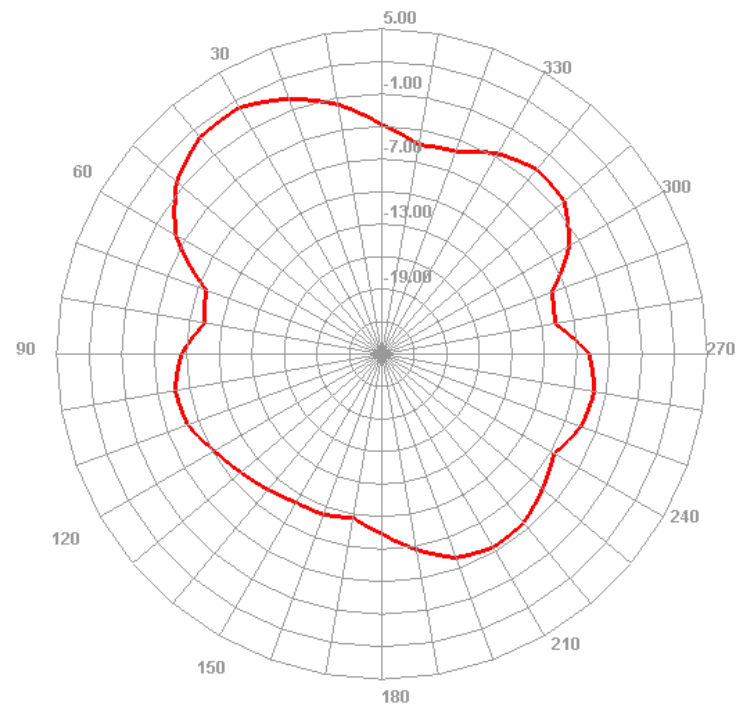
BC1



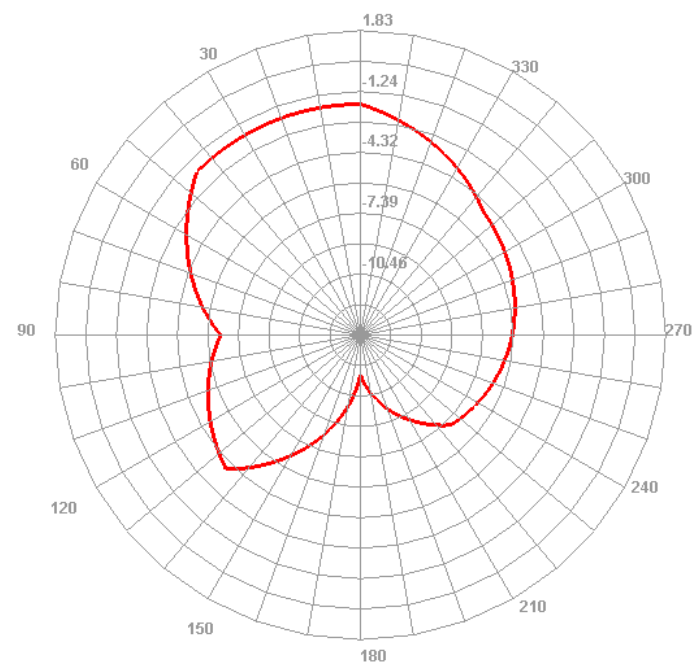
E1



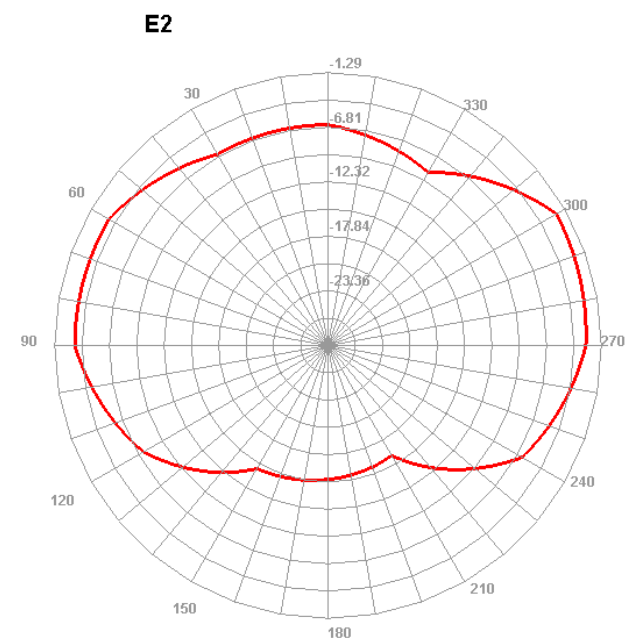
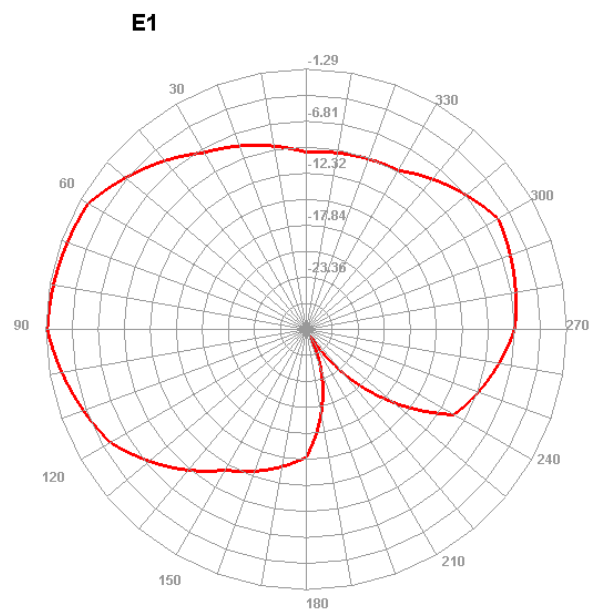
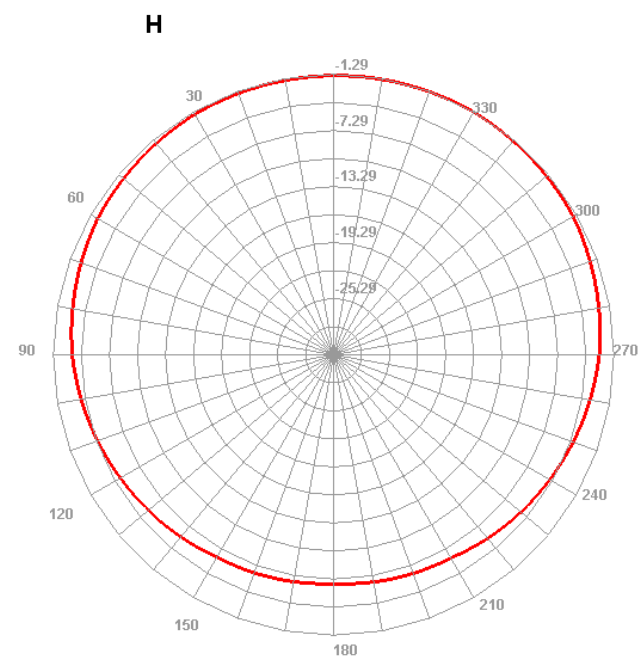
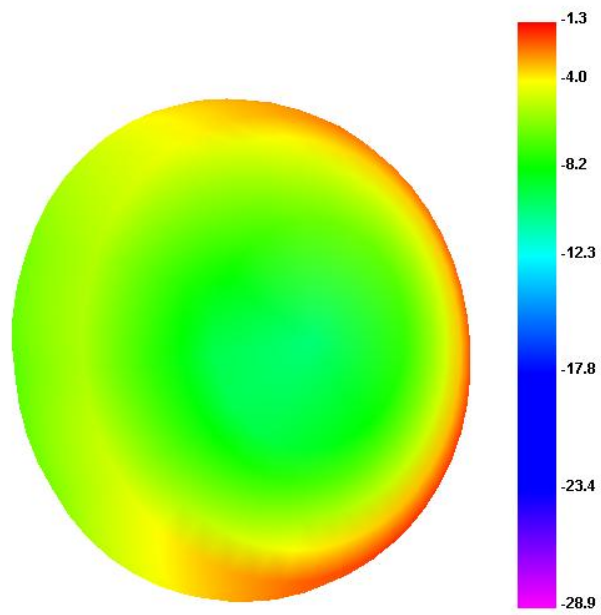
H



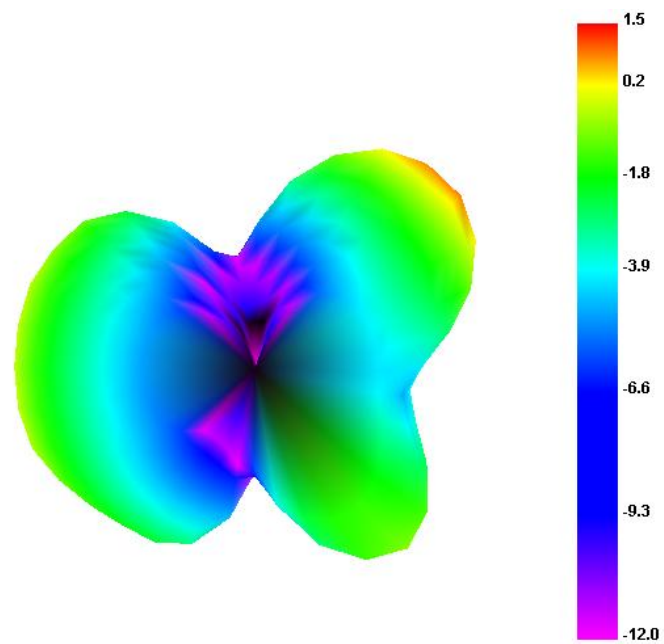
E2



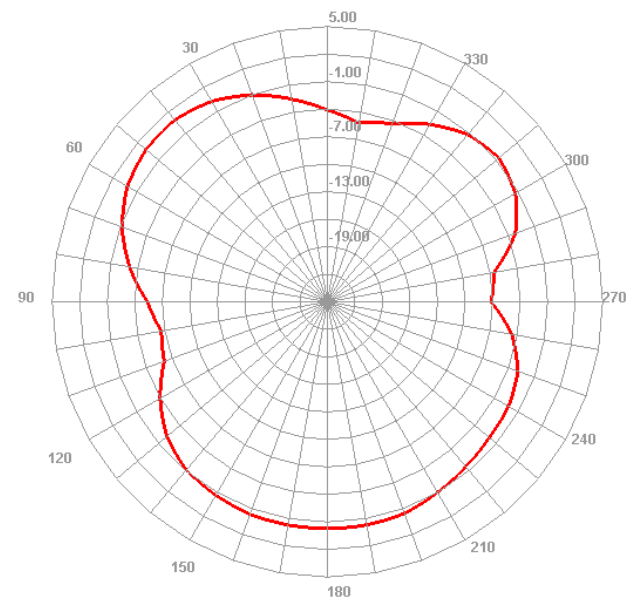
BC10



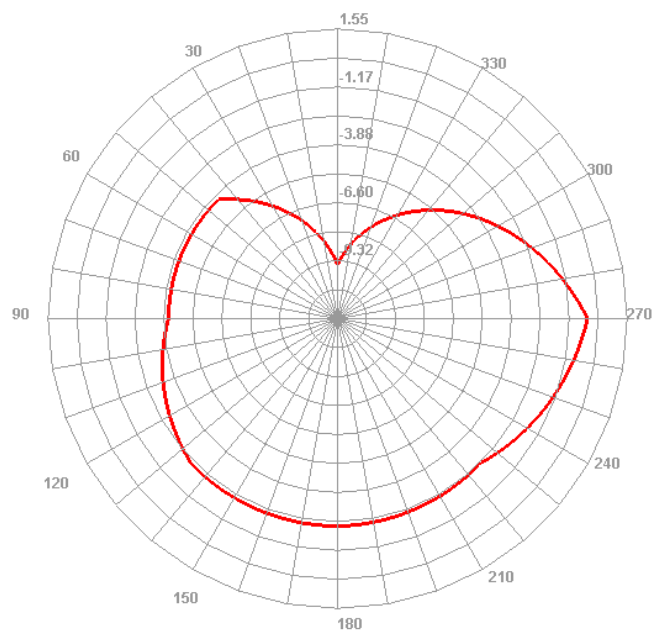
W2100



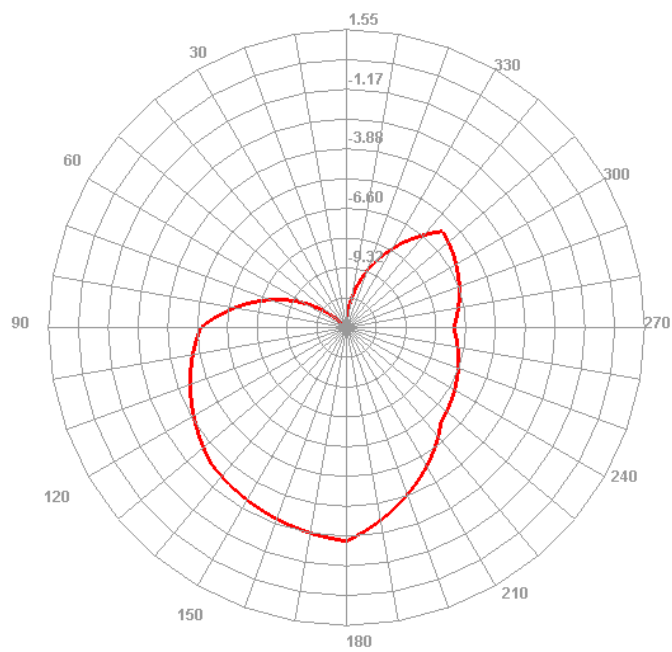
H



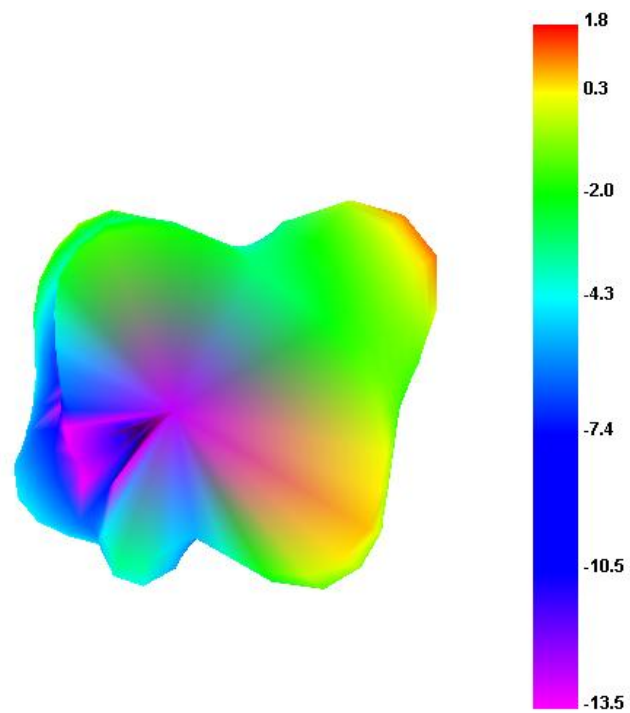
E1



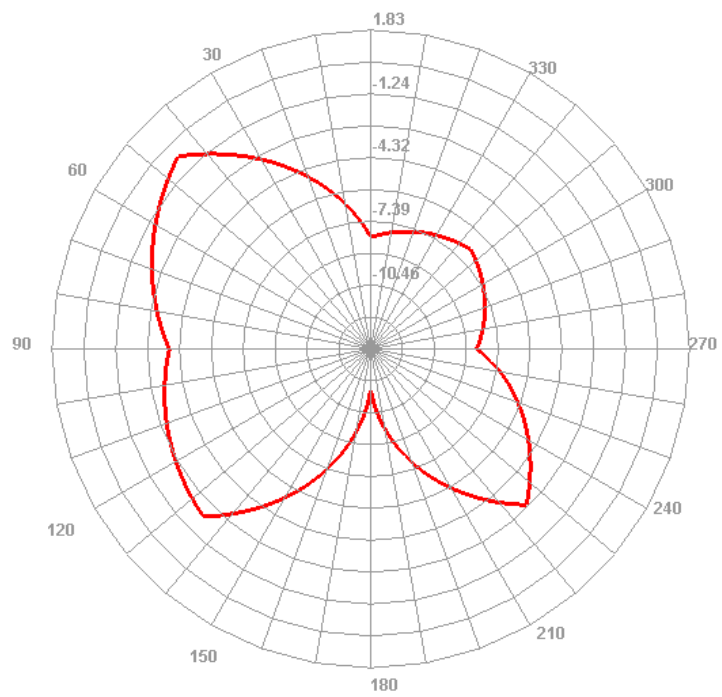
E2



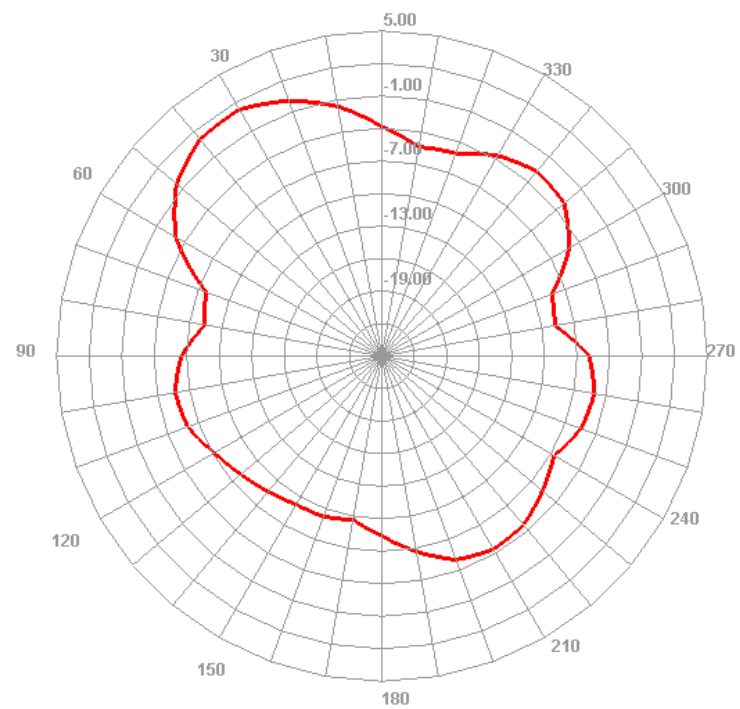
W1900



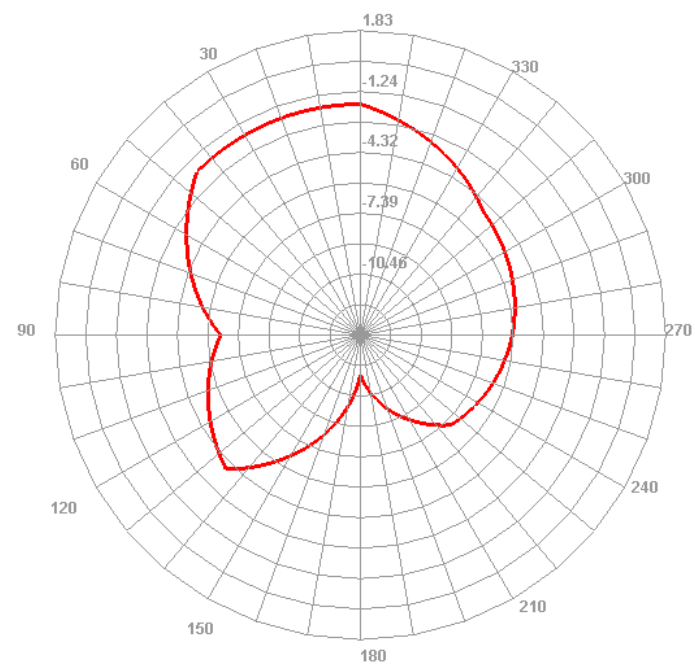
E1



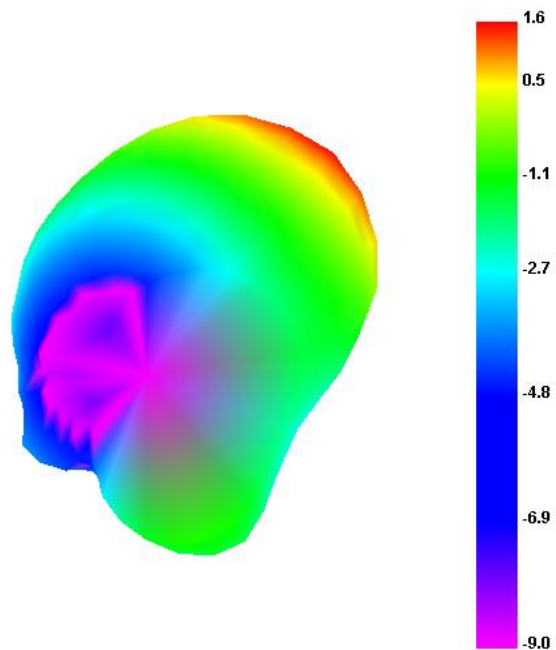
H



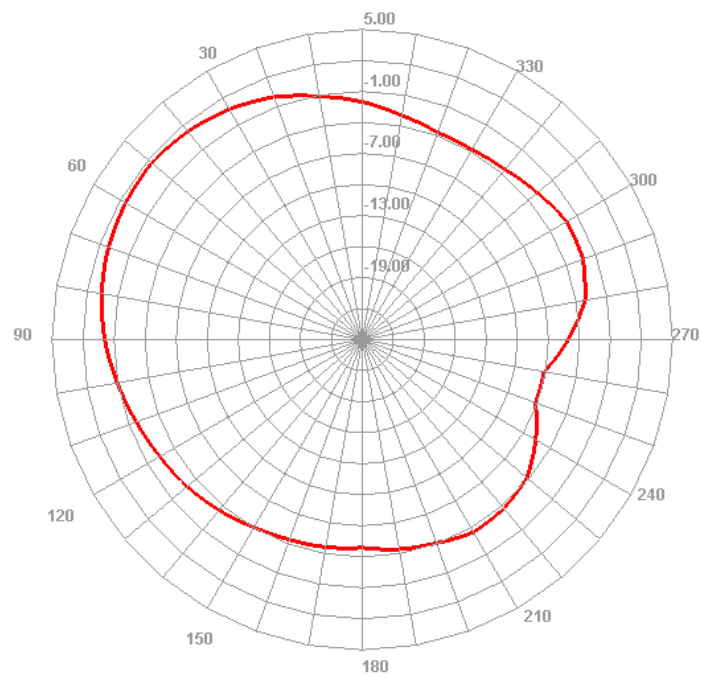
E2



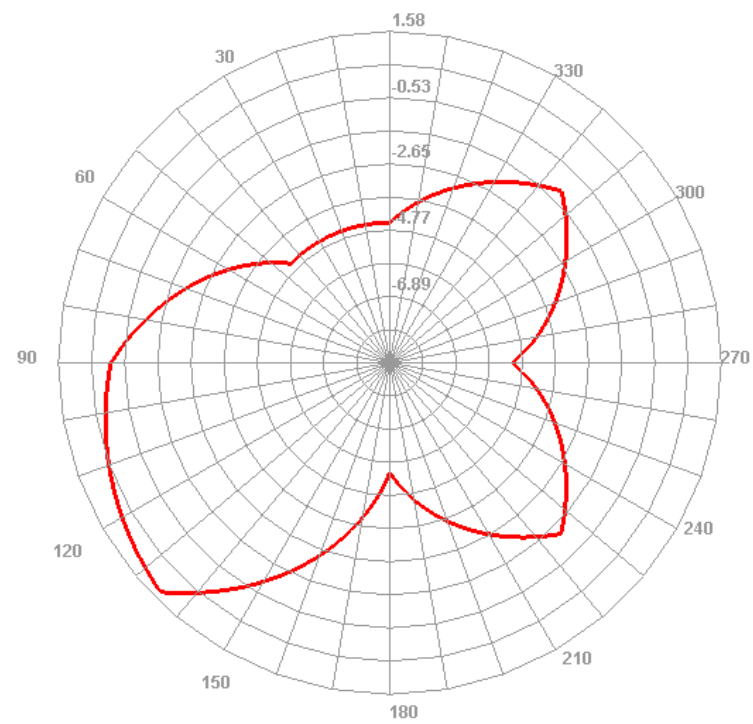
W1700



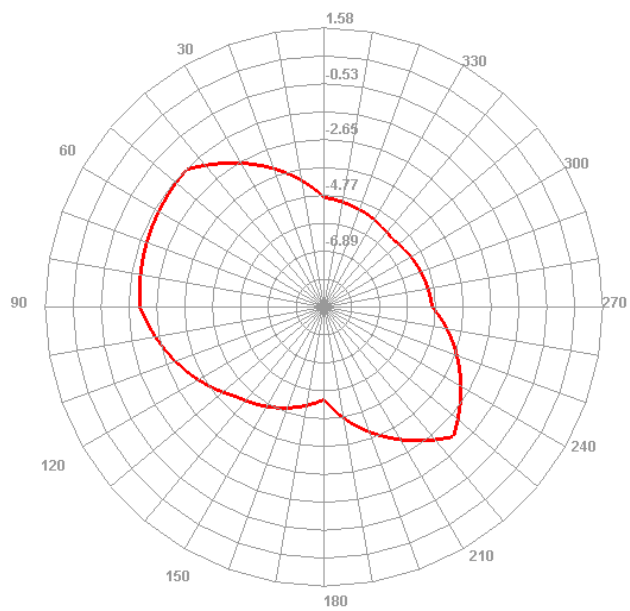
H



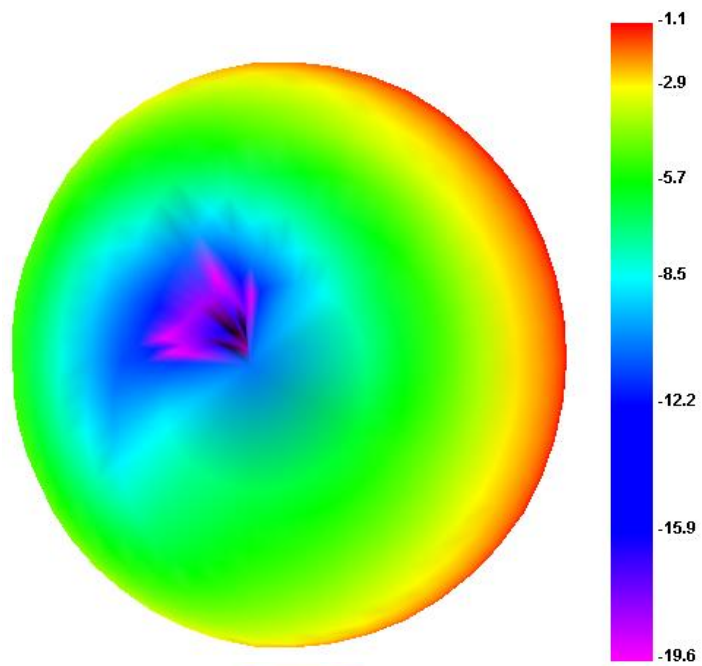
E2



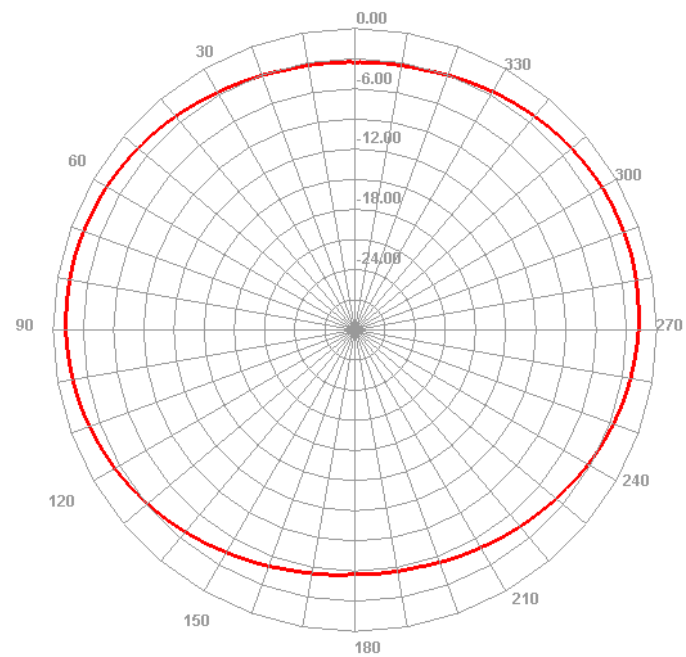
E1



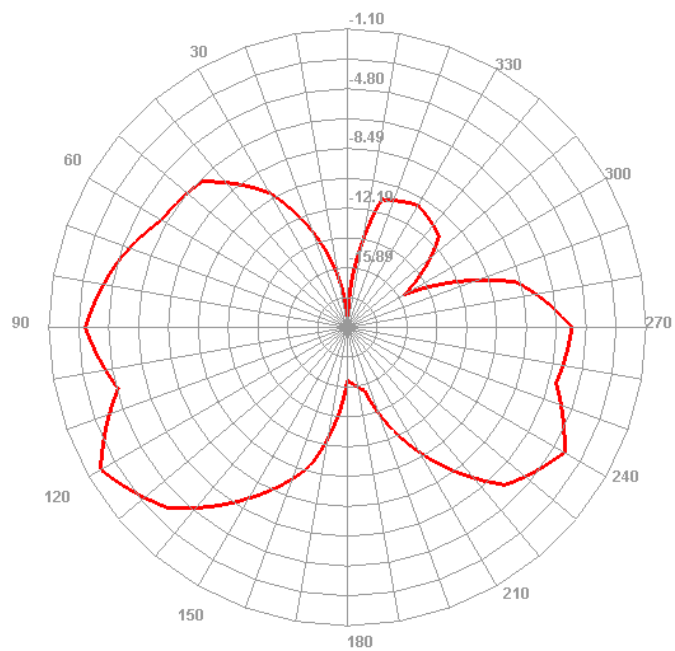
W900



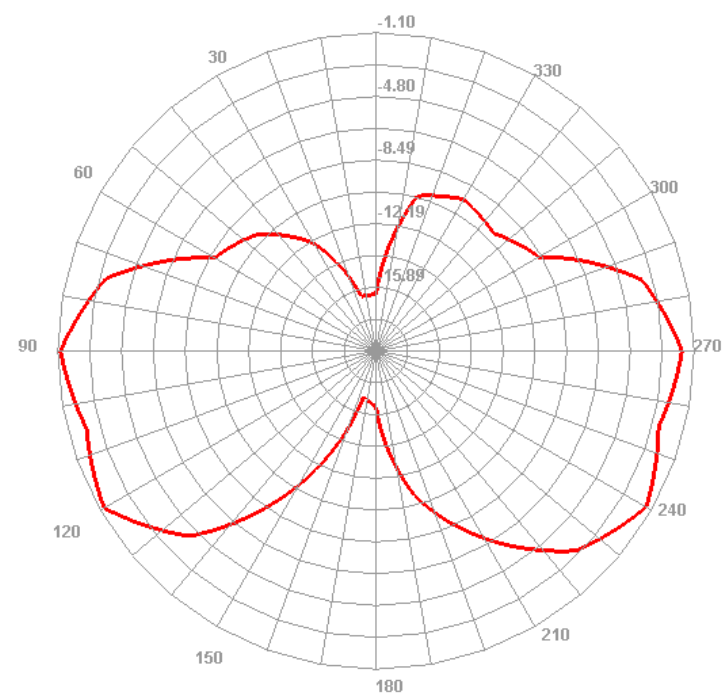
H



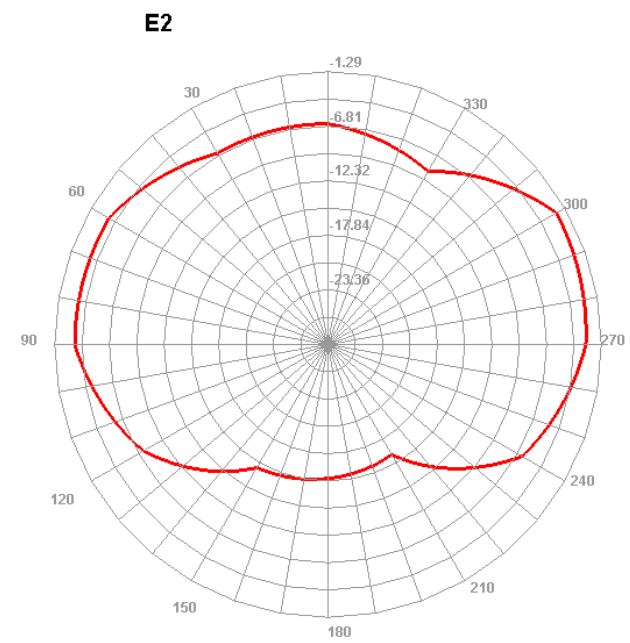
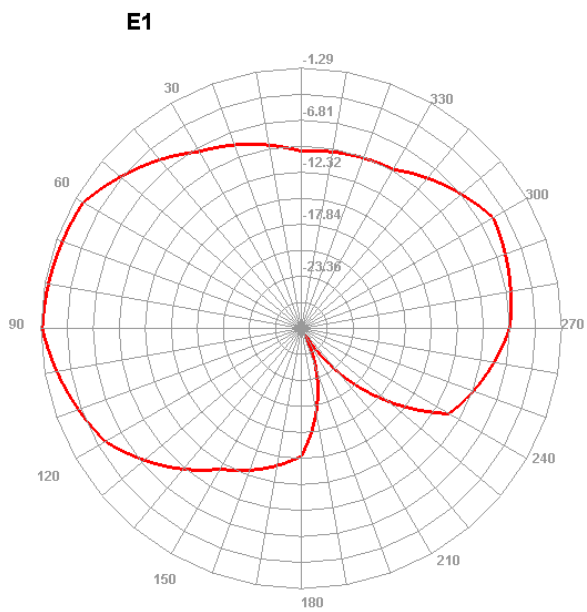
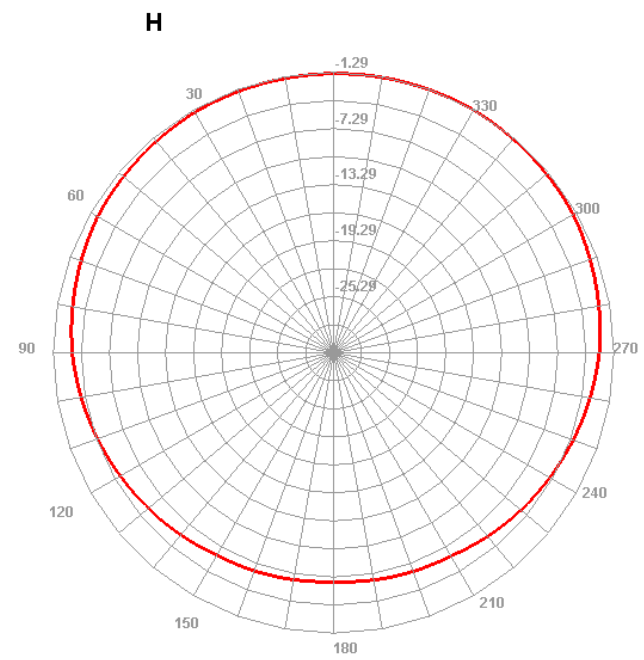
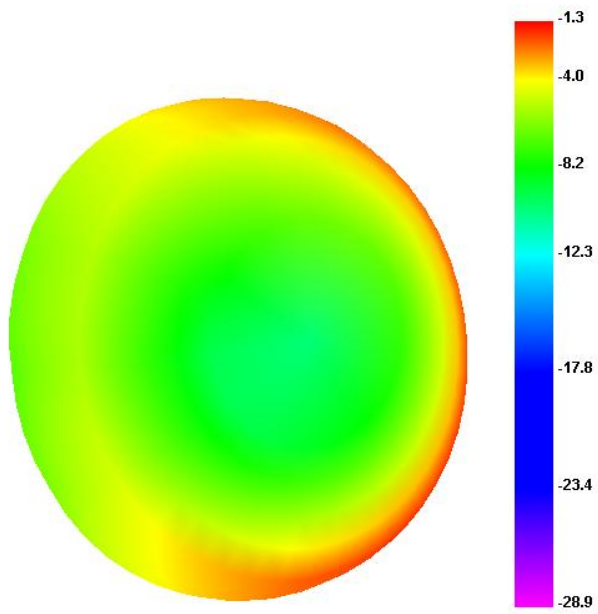
E1



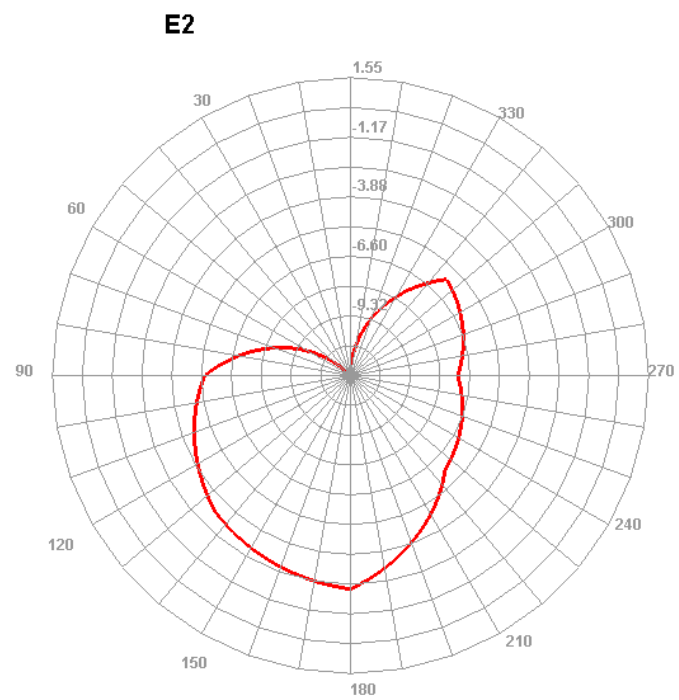
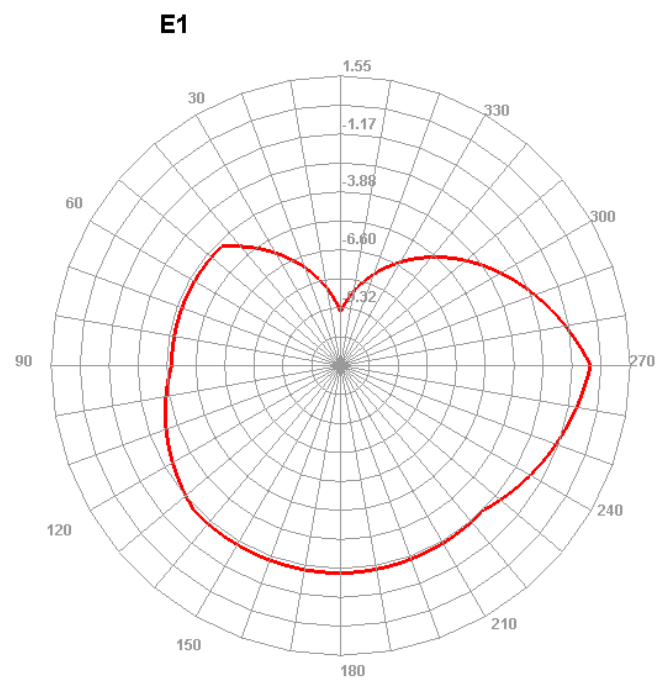
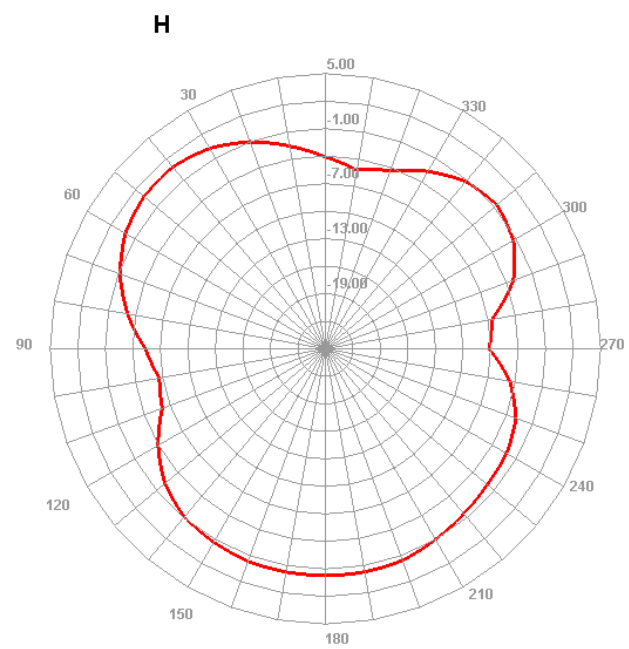
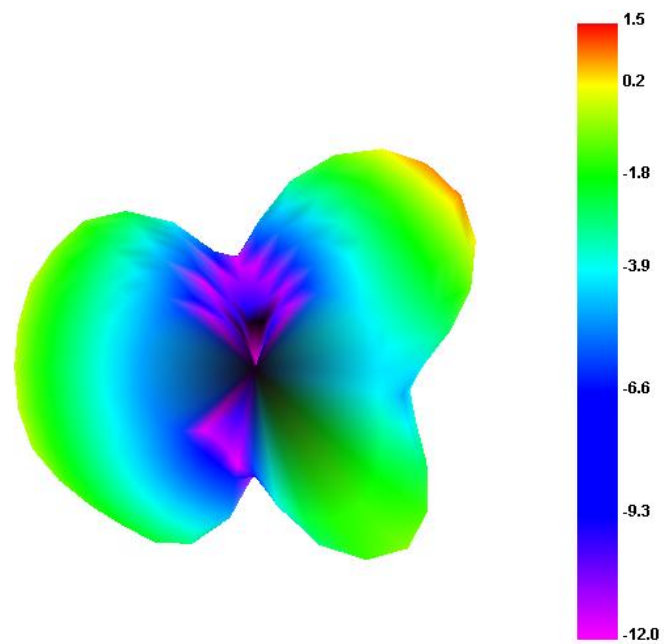
E2



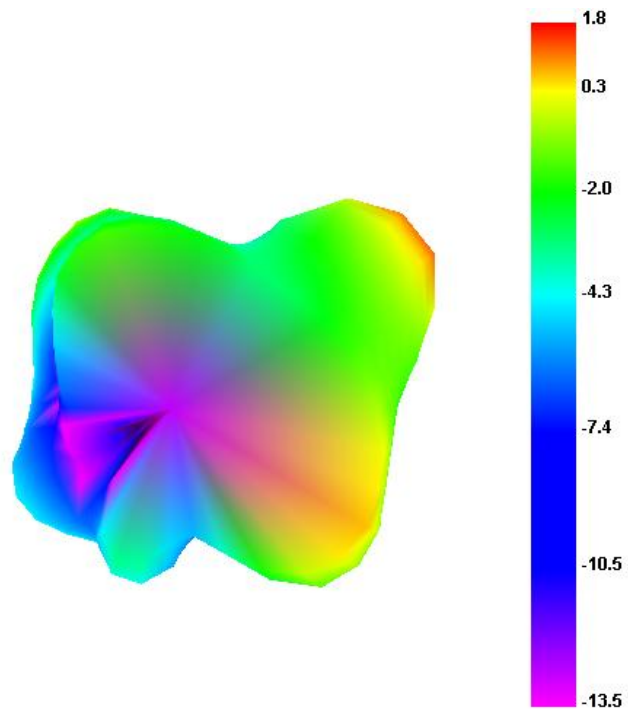
WCDMA B5



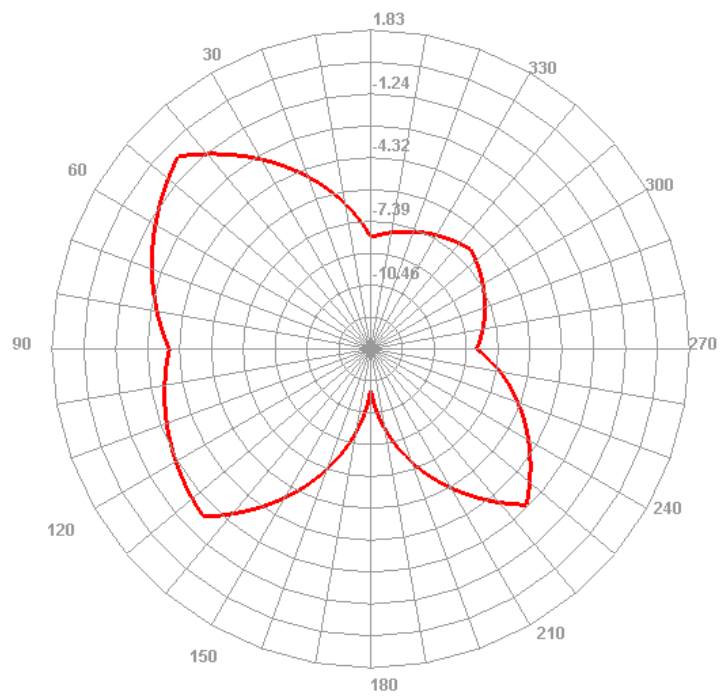
LTE-B1



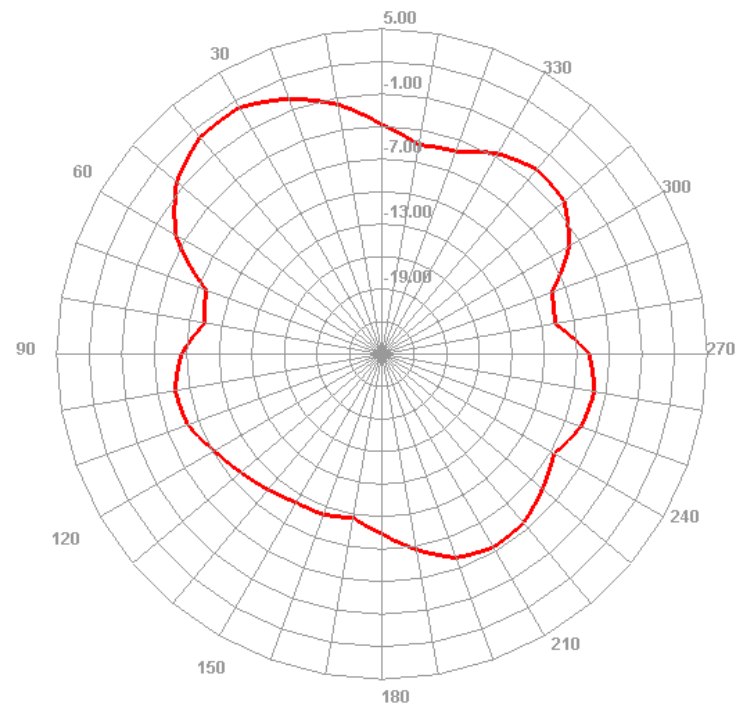
LTE-B2



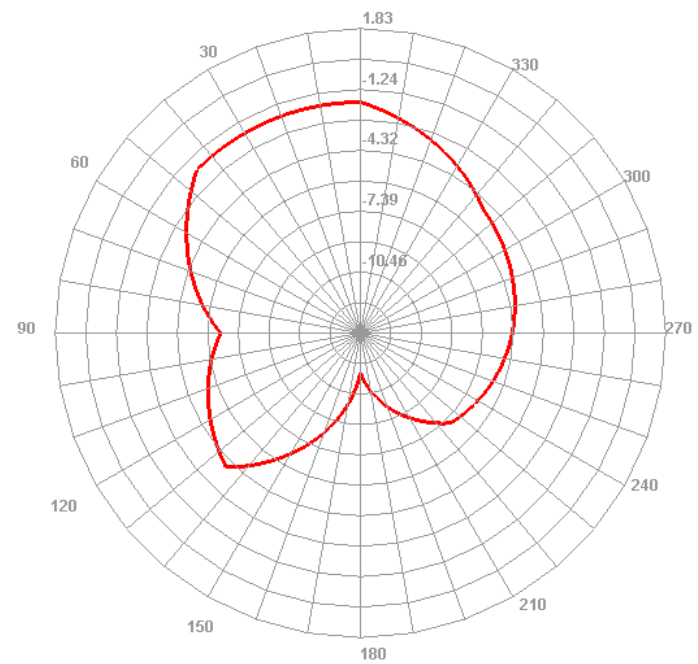
E1



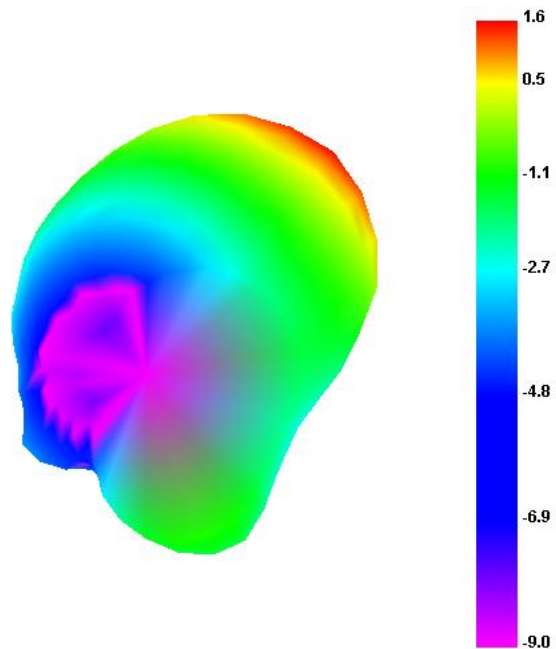
H



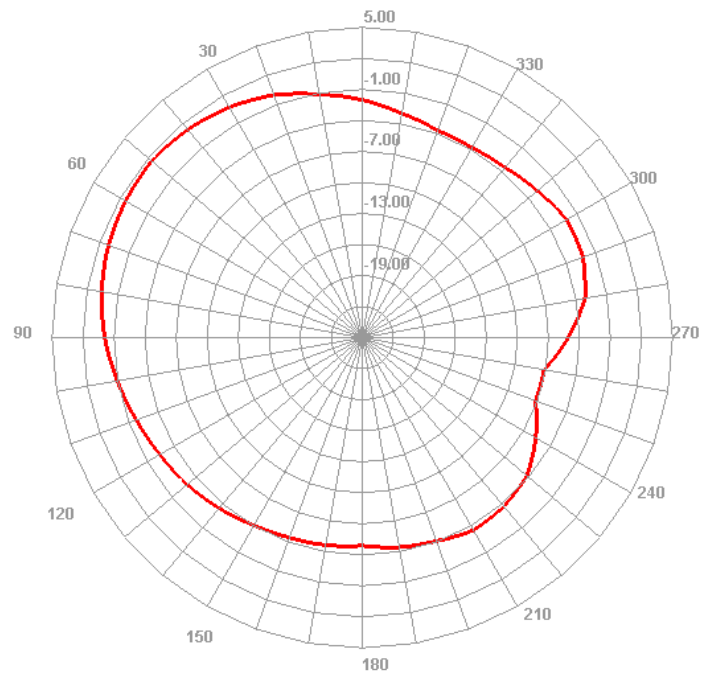
E2



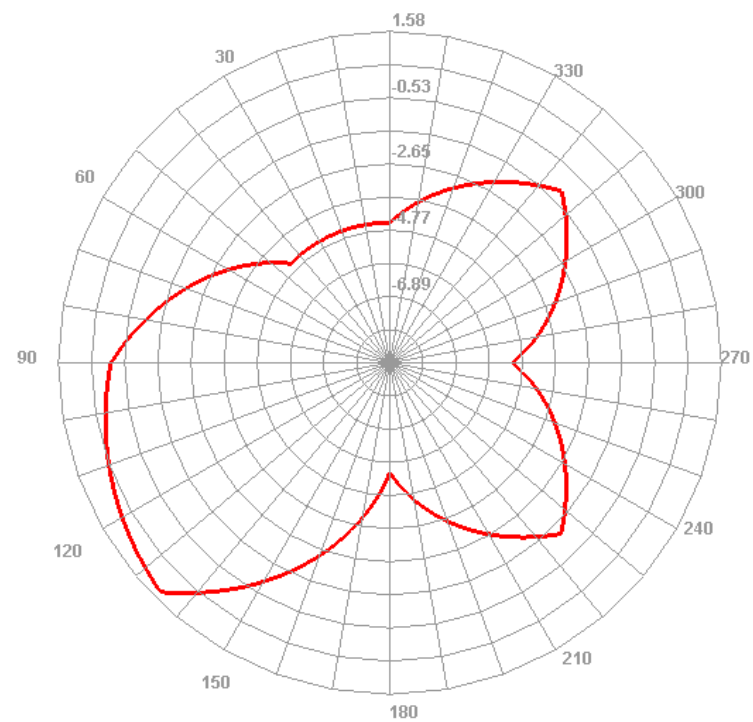
LTE-B3



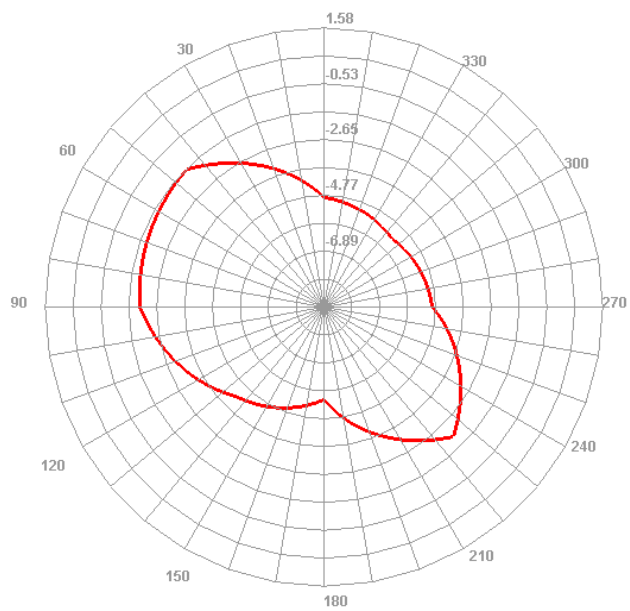
H



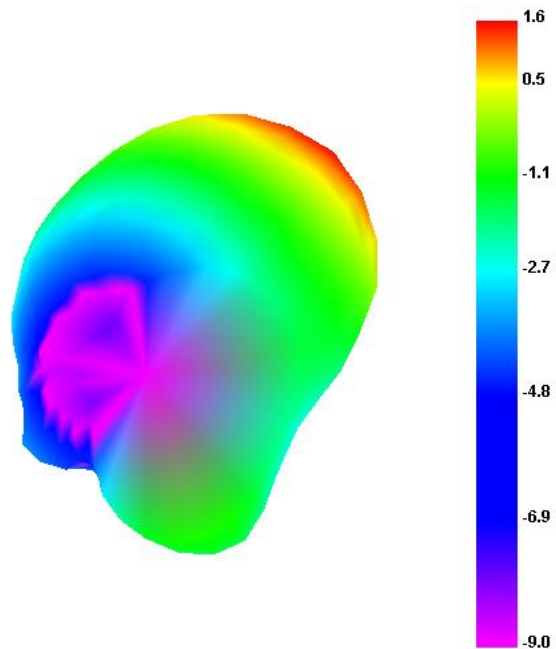
E2



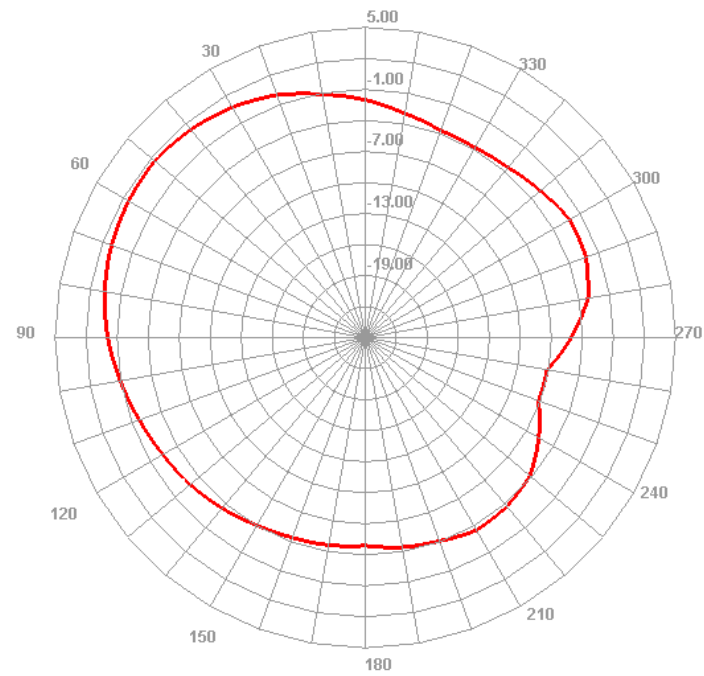
E1



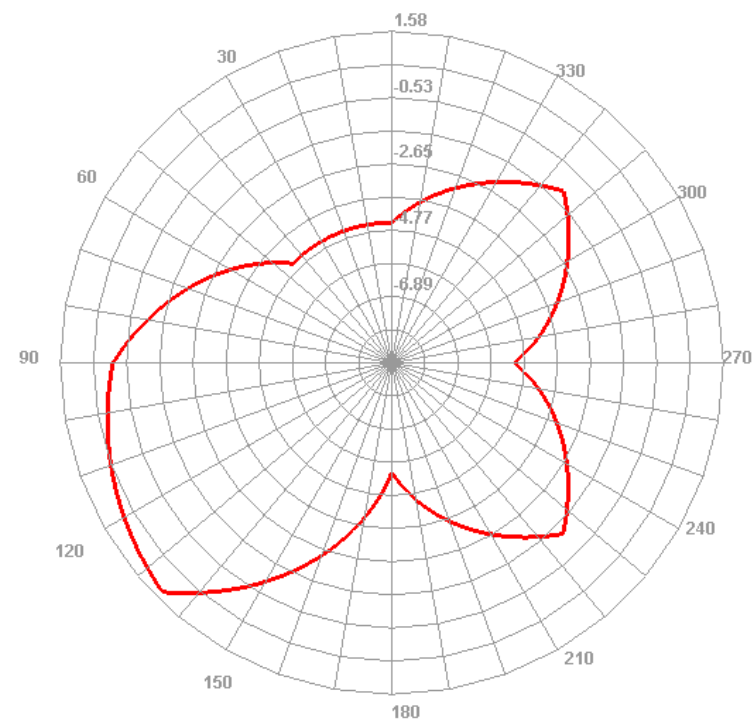
LTE-B4



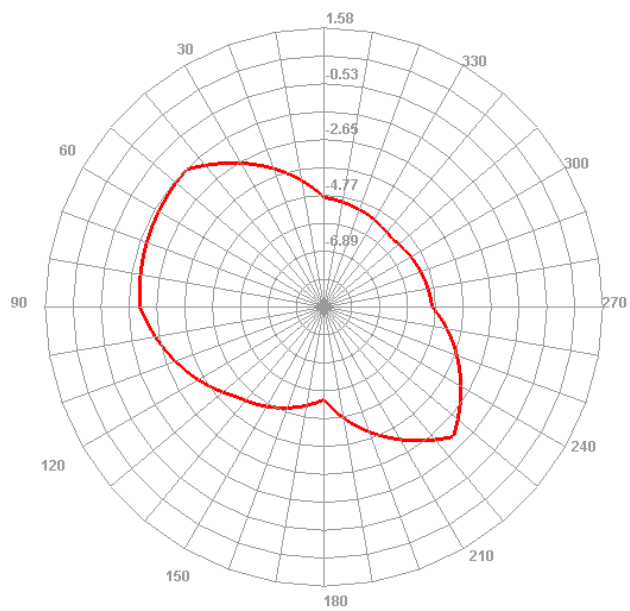
H



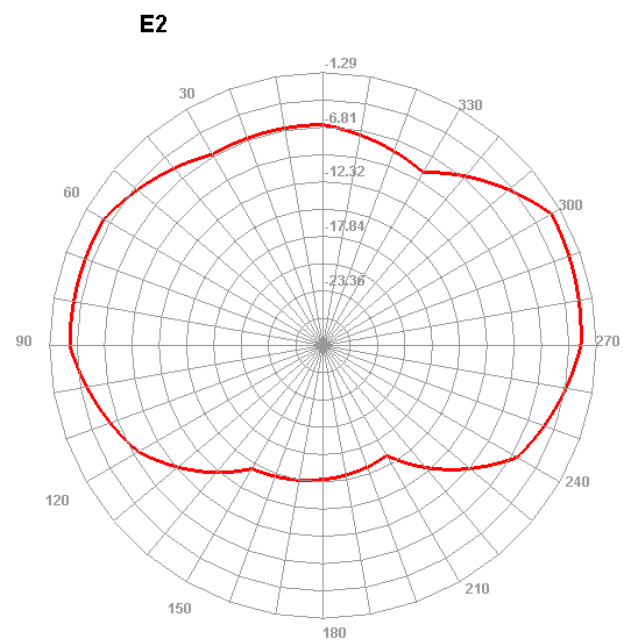
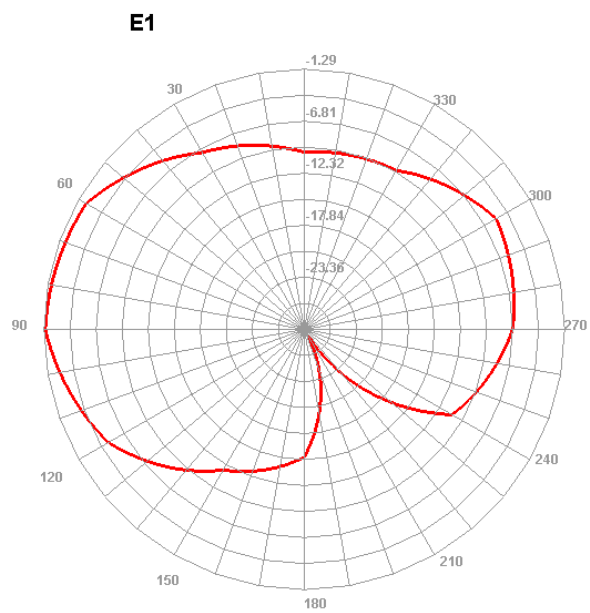
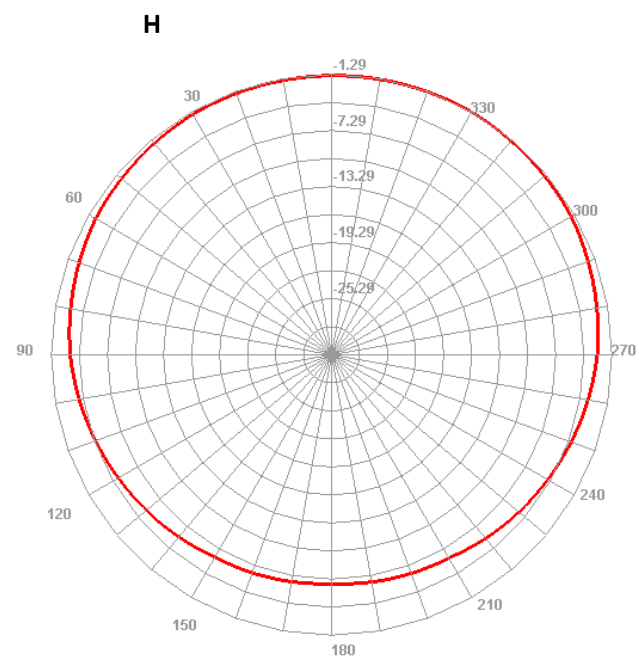
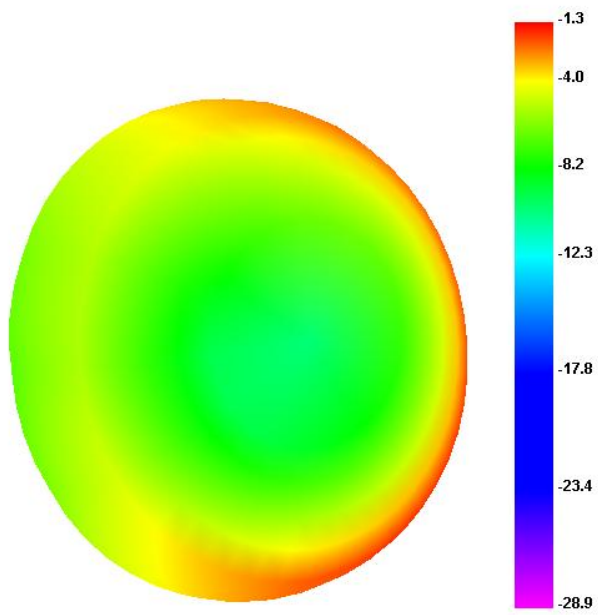
E2



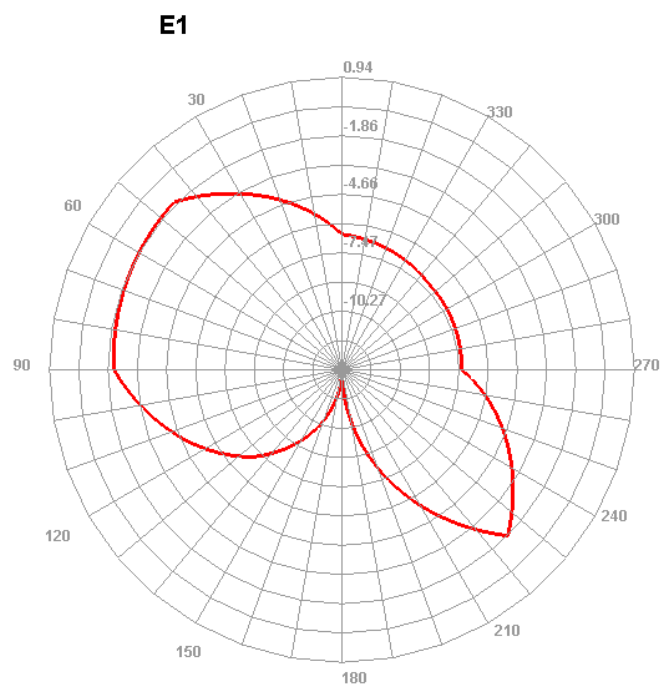
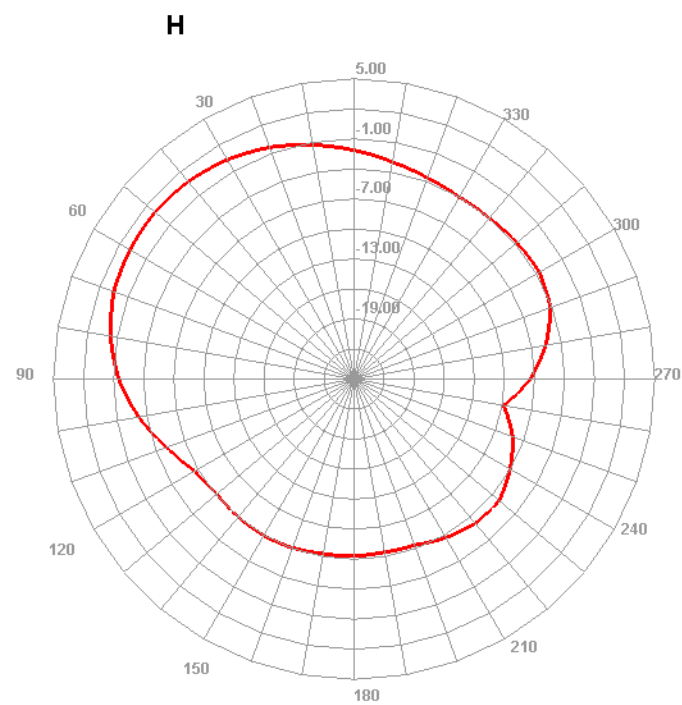
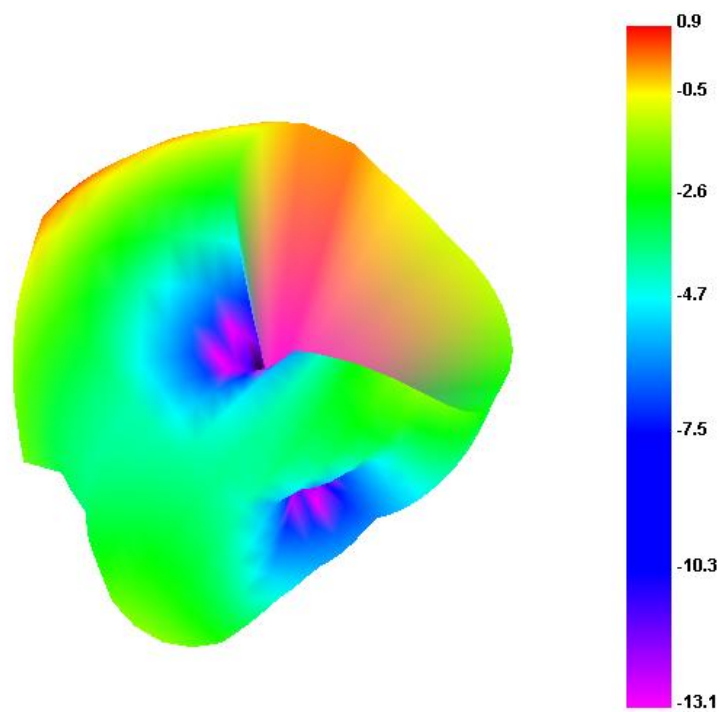
E1

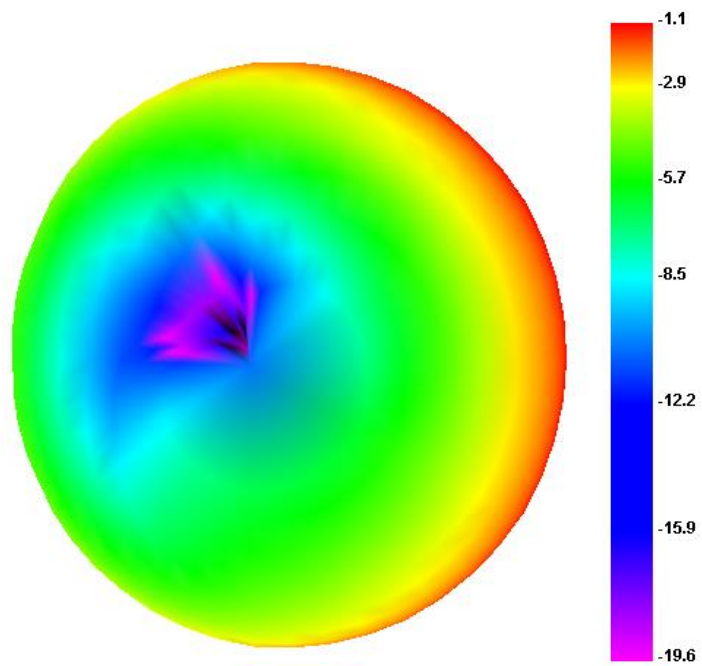


LTE-B5

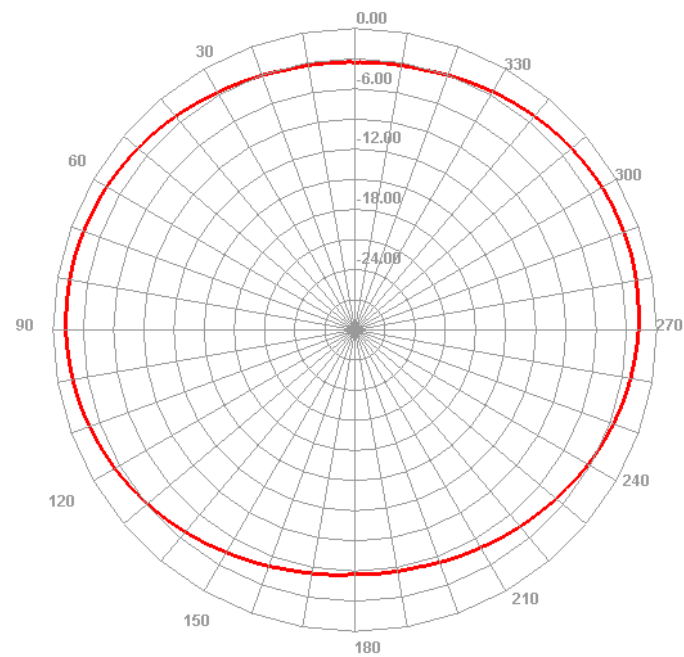


LTE-B7

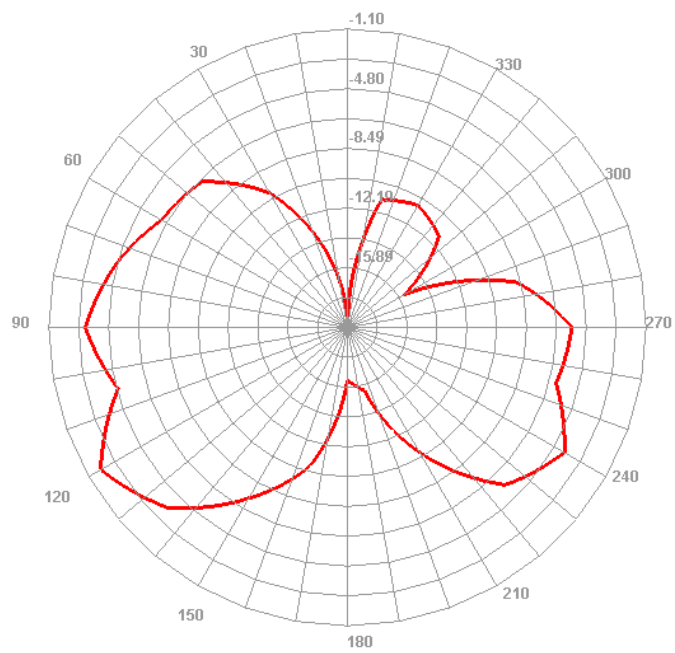




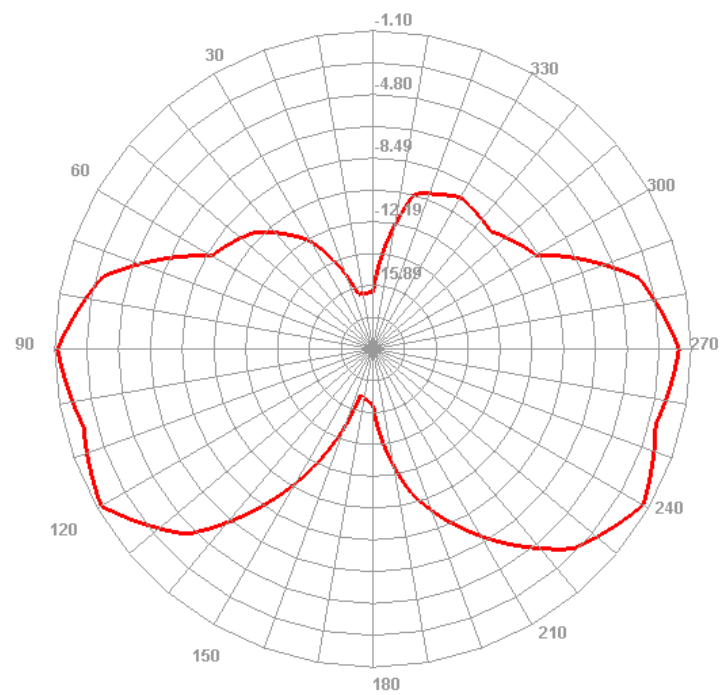
H



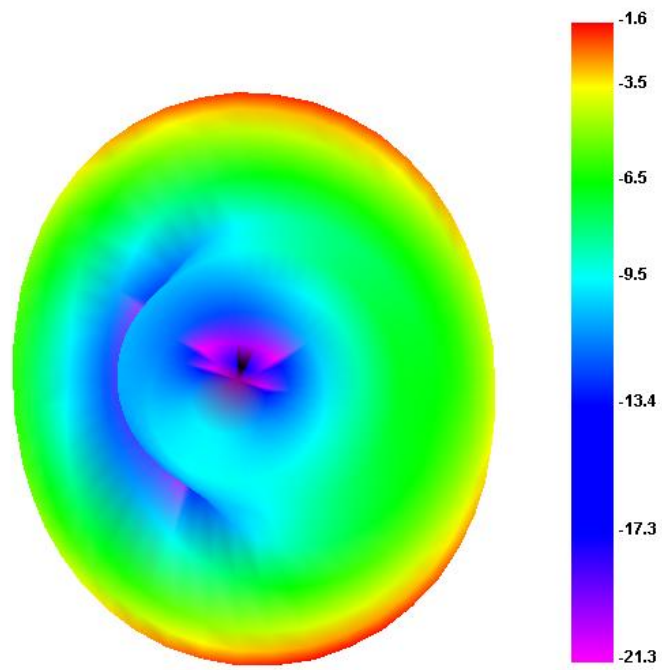
E1



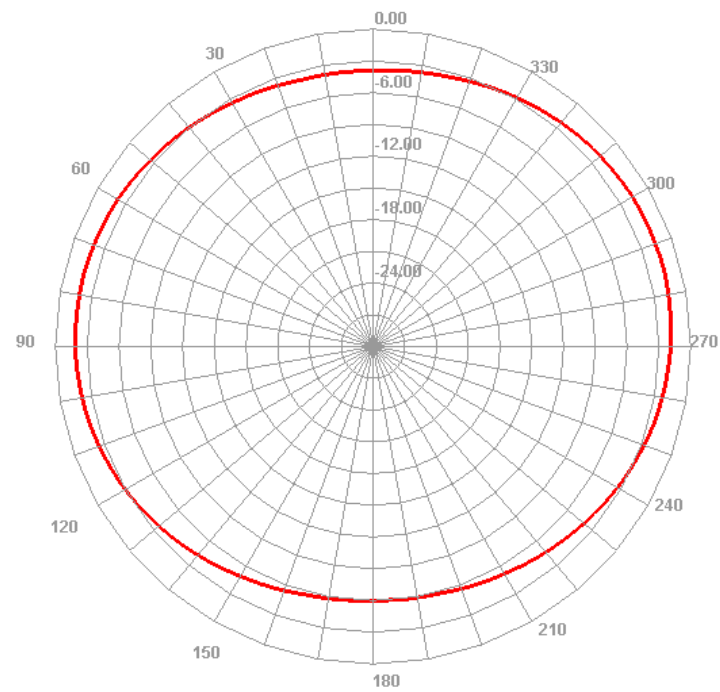
E2



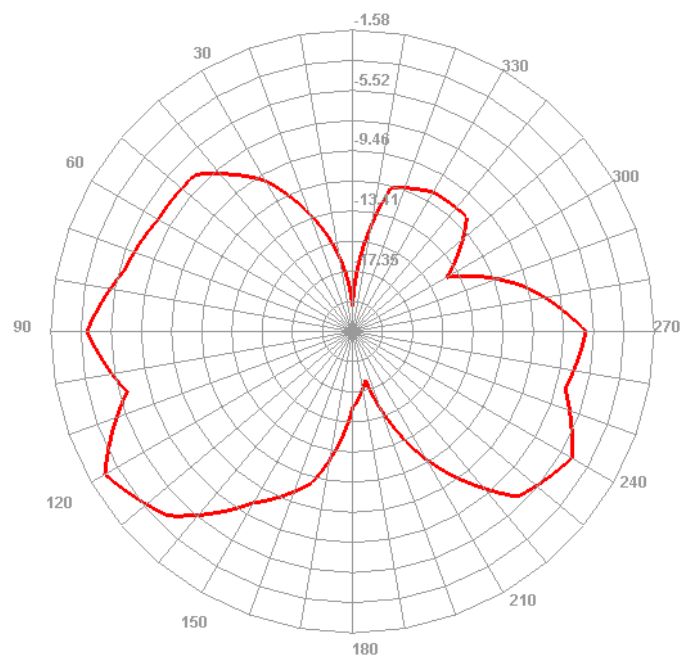
LTE-B12



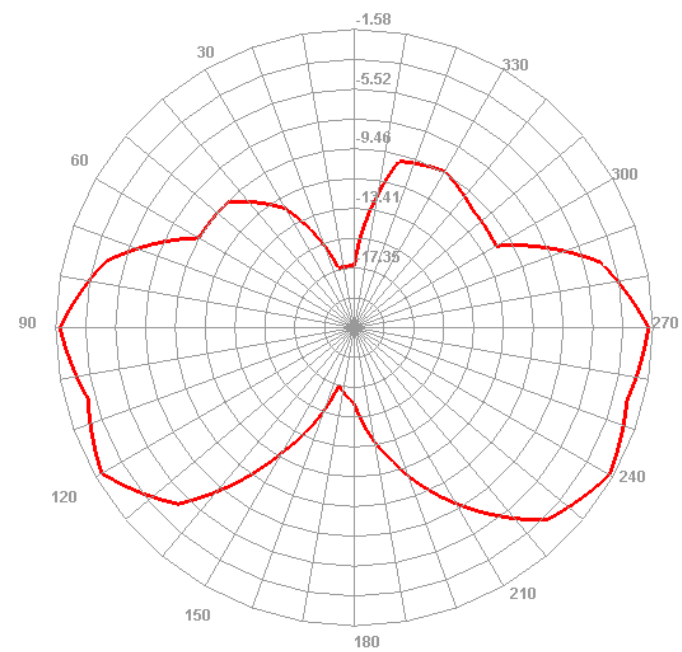
H



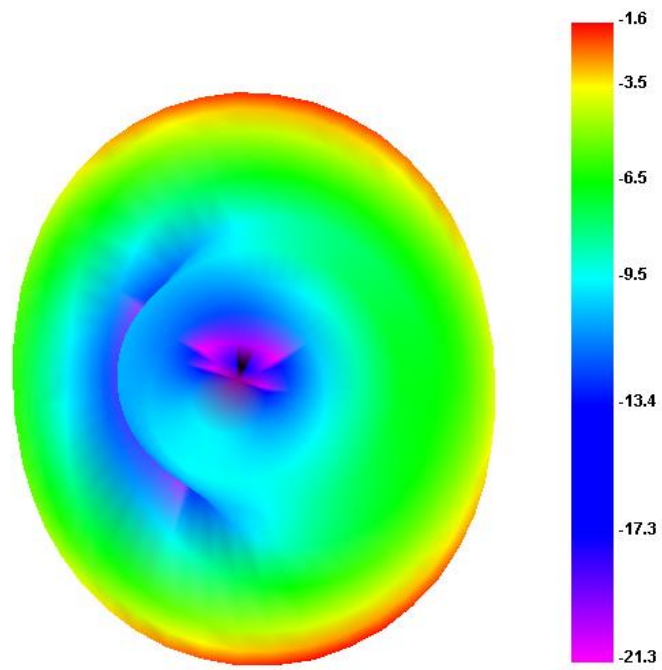
E1



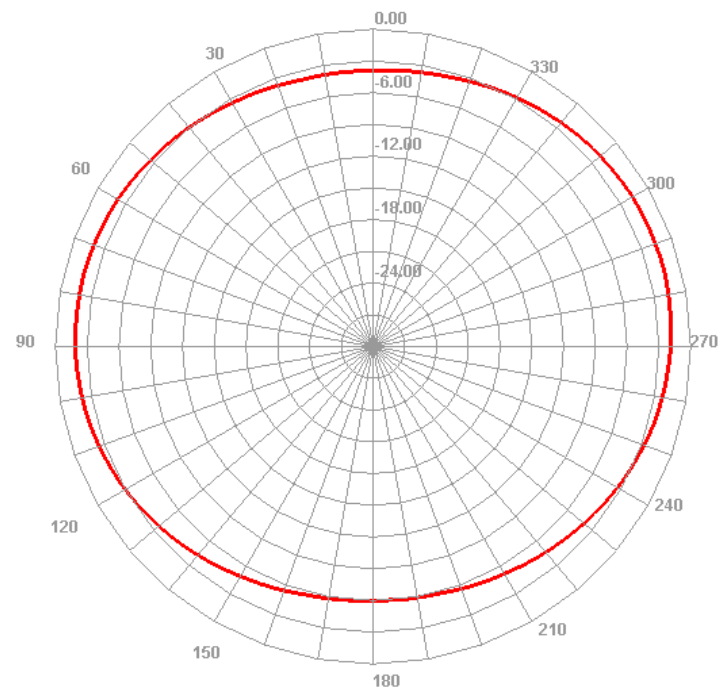
E2



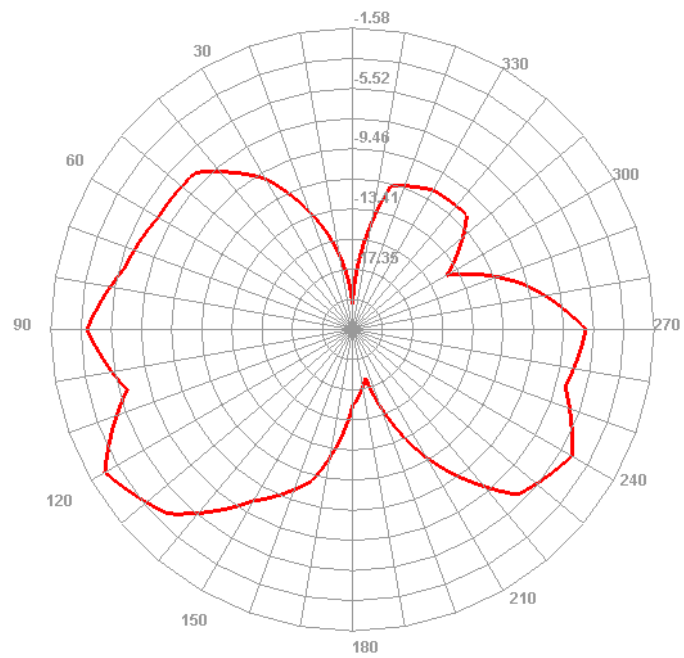
LTE-B17



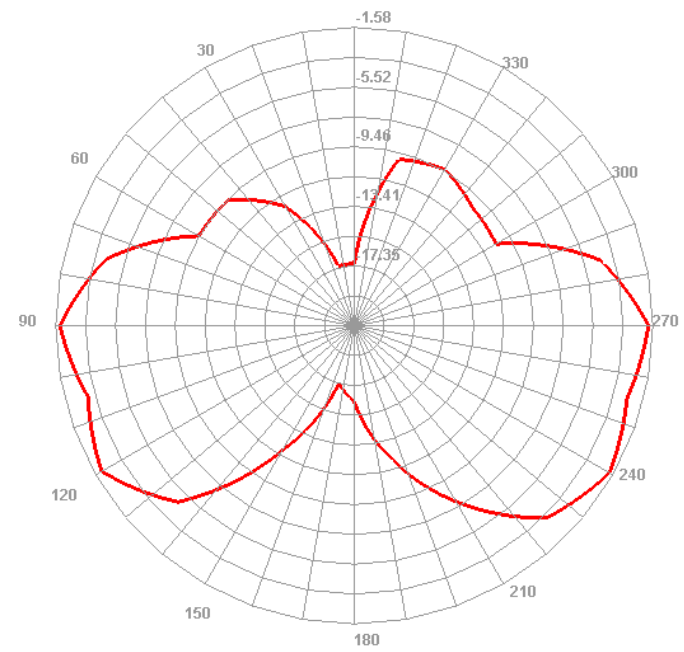
H



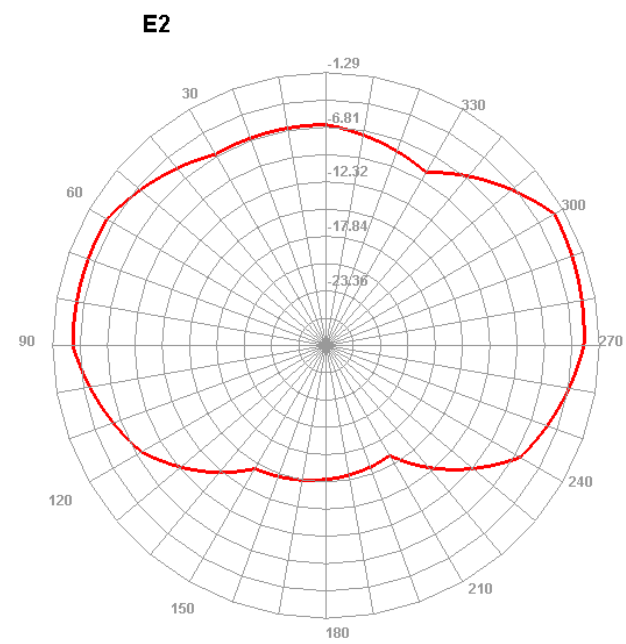
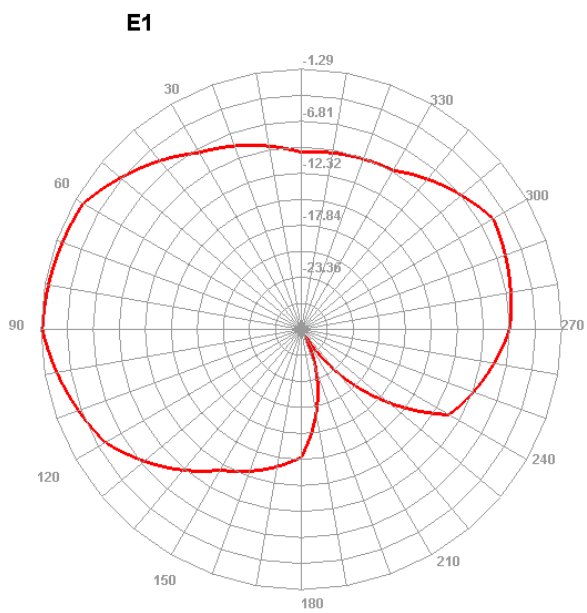
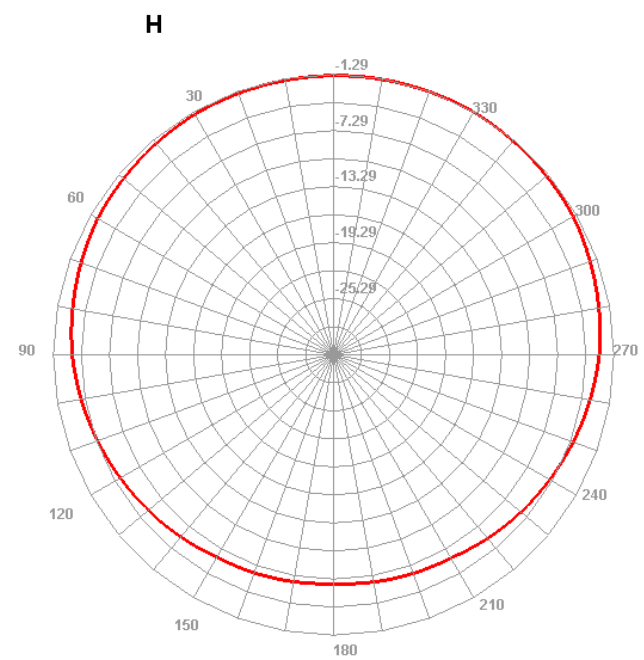
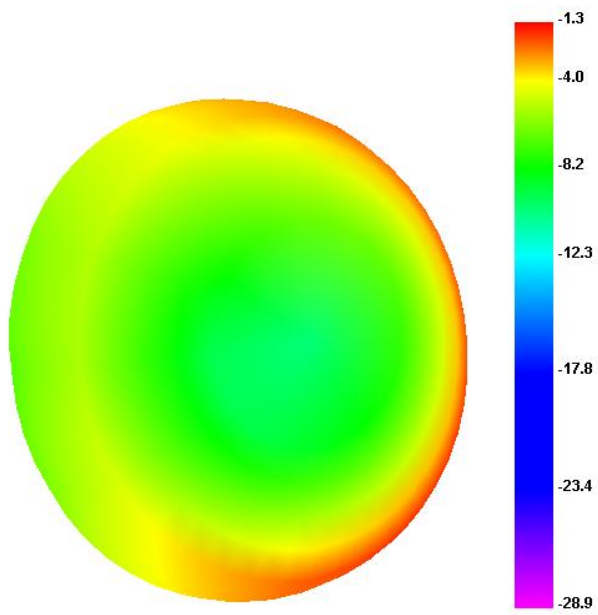
E1



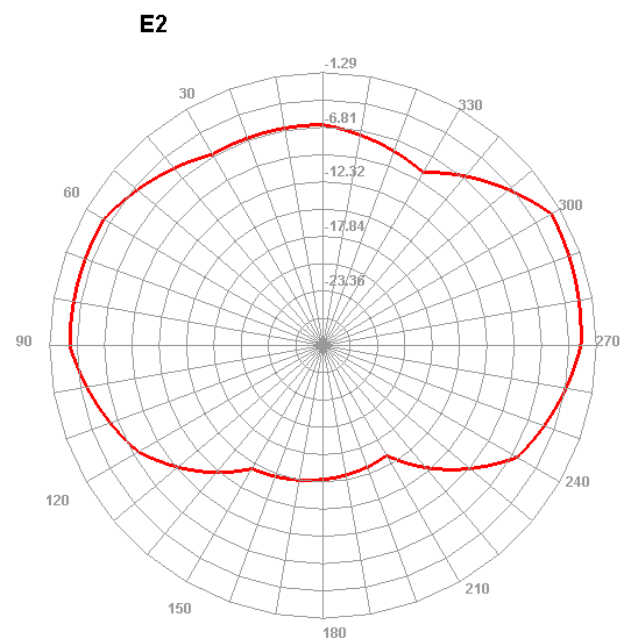
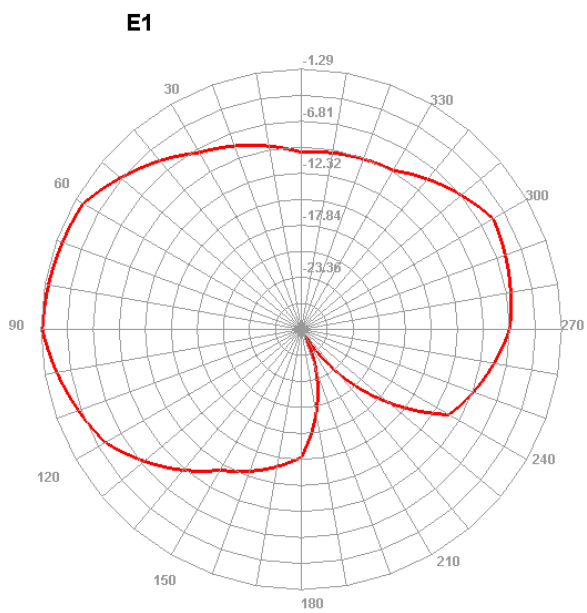
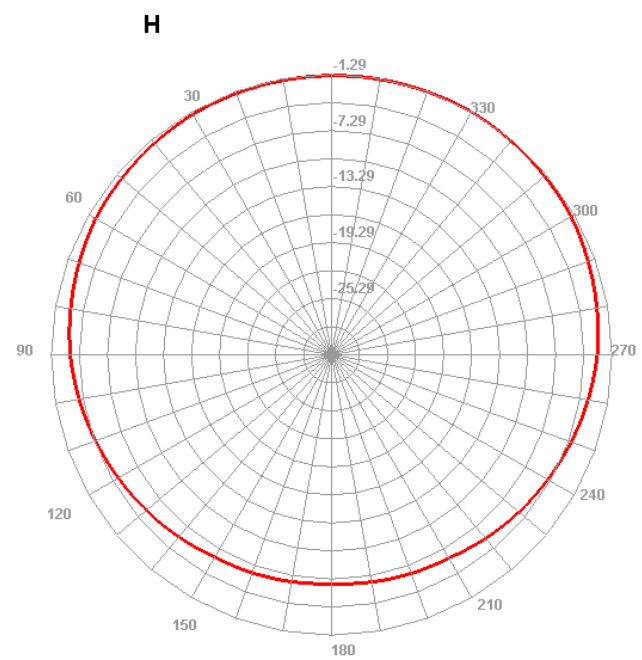
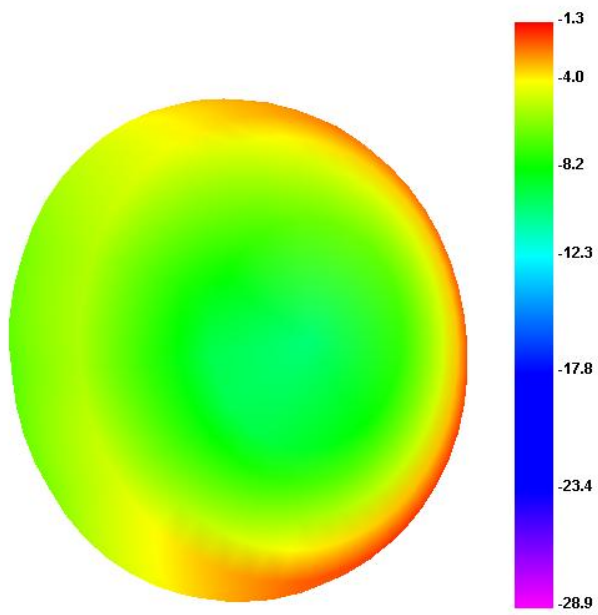
E2



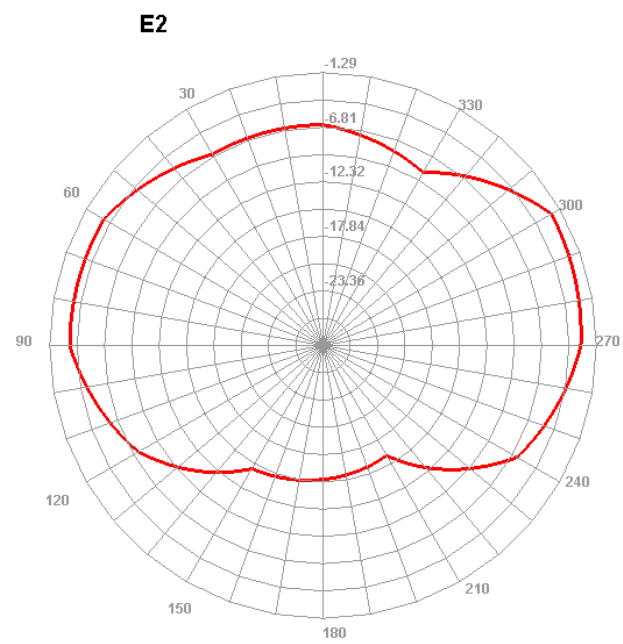
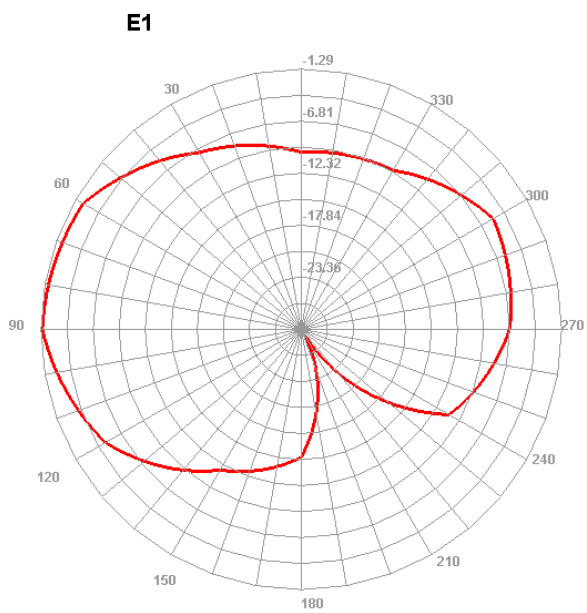
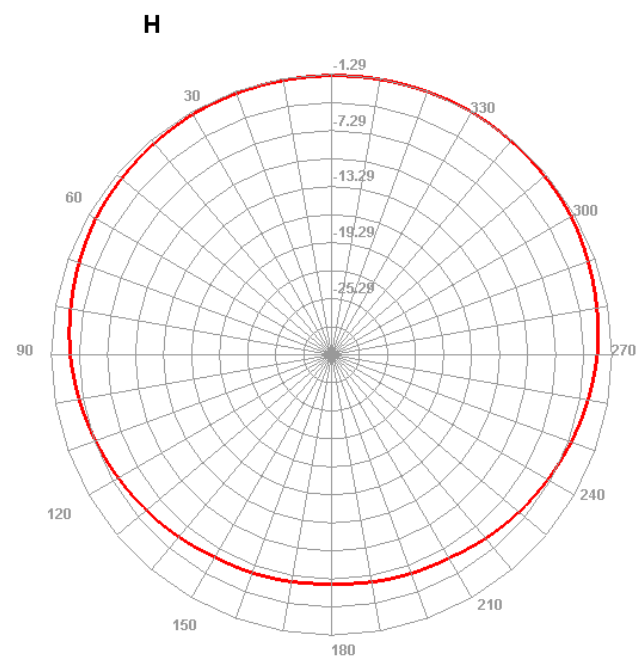
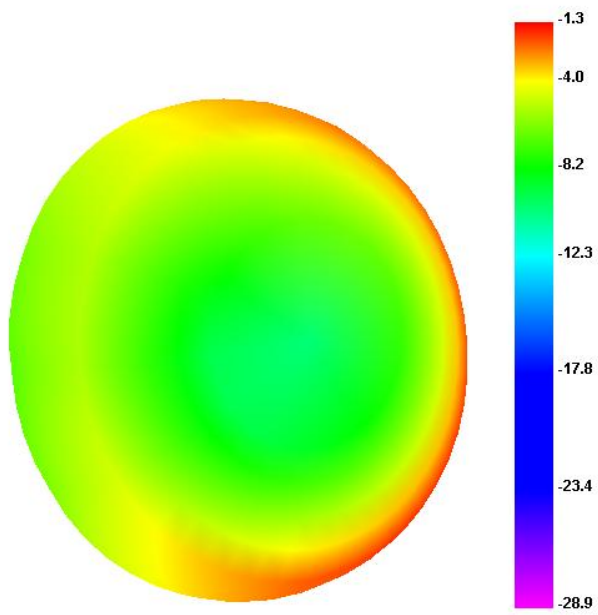
LTE-B18



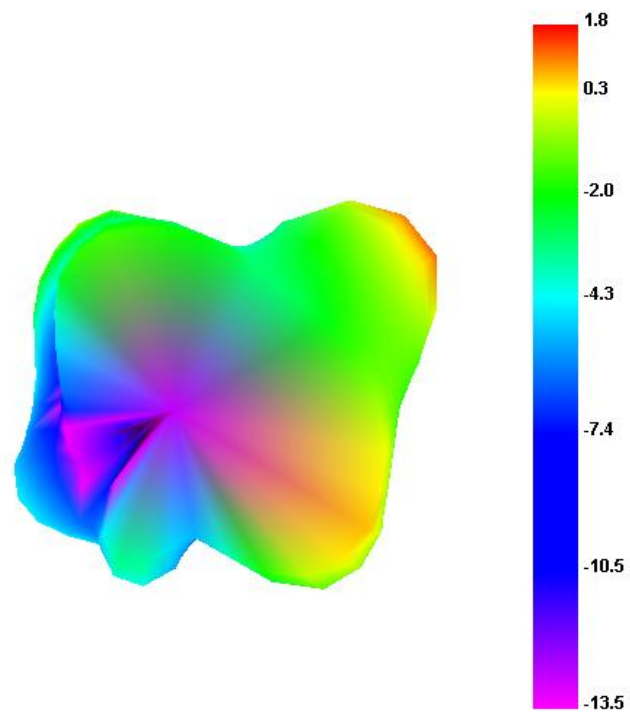
LTE-B19



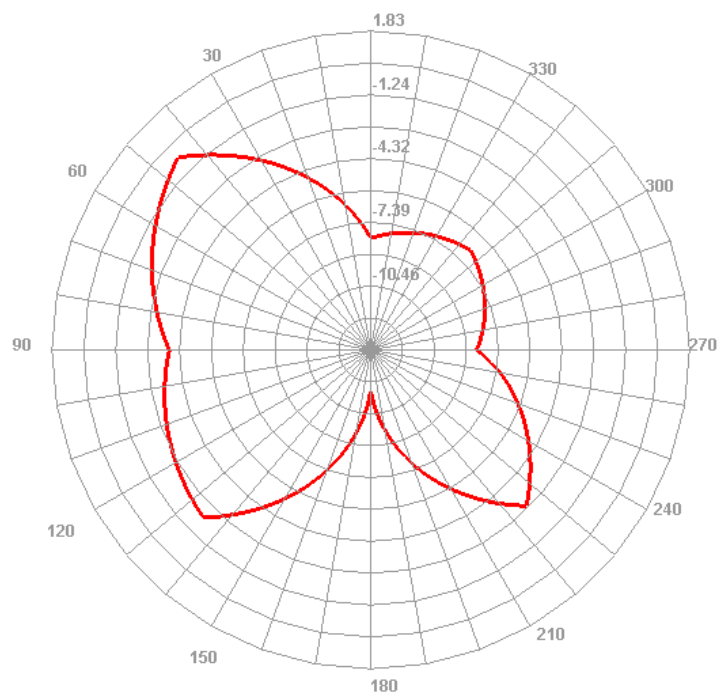
LTE-B20



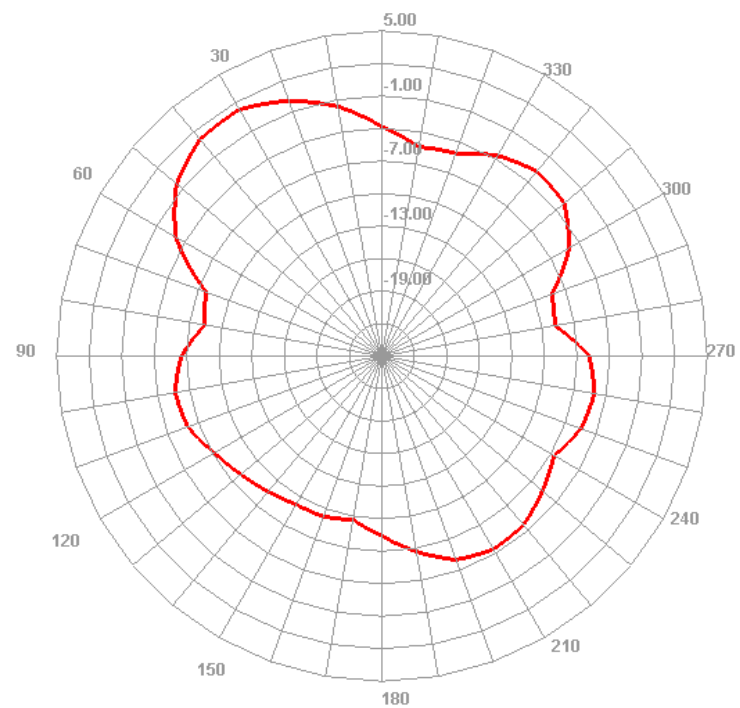
LTE-B25



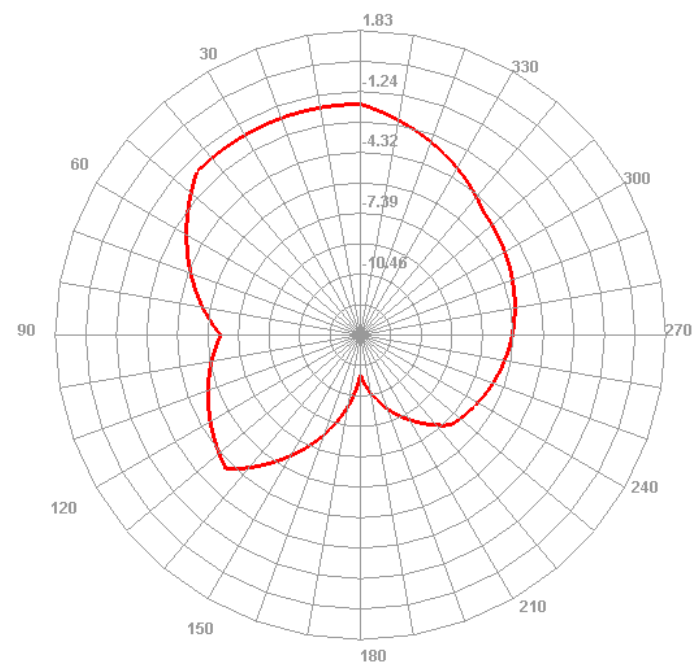
E1



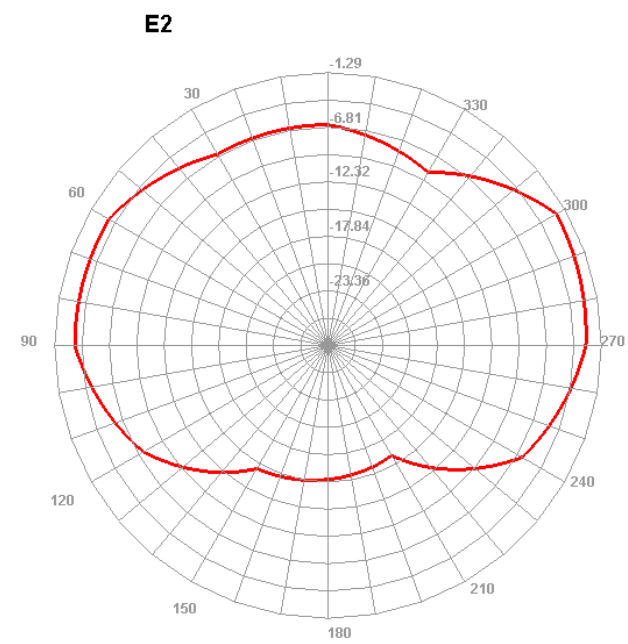
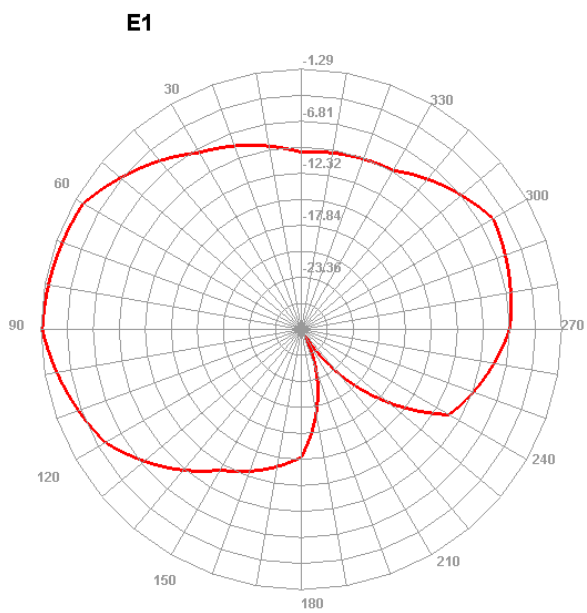
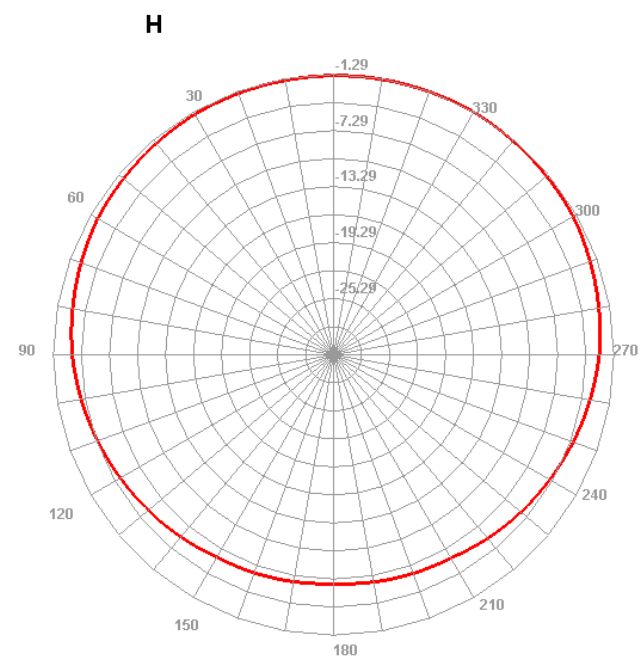
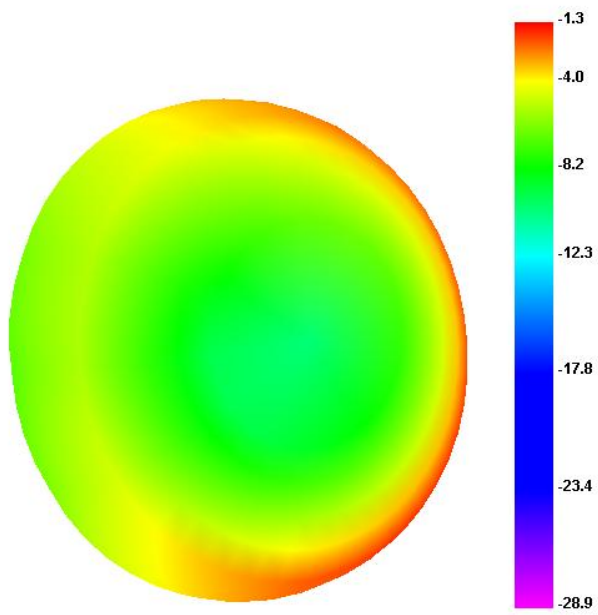
H



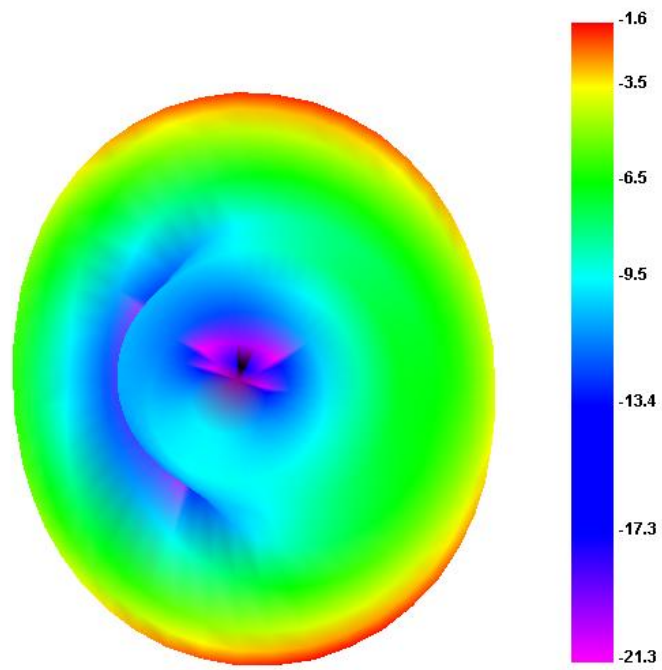
E2



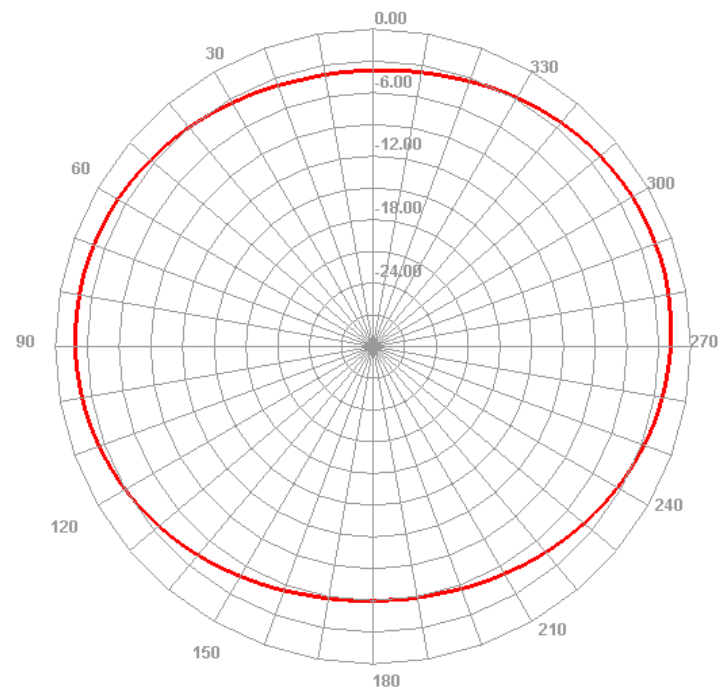
LTE-B26



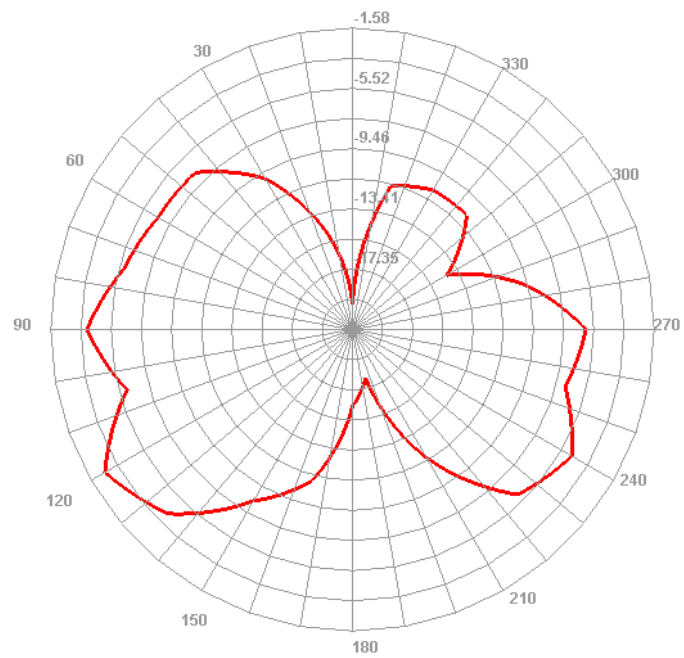
LTE-B28



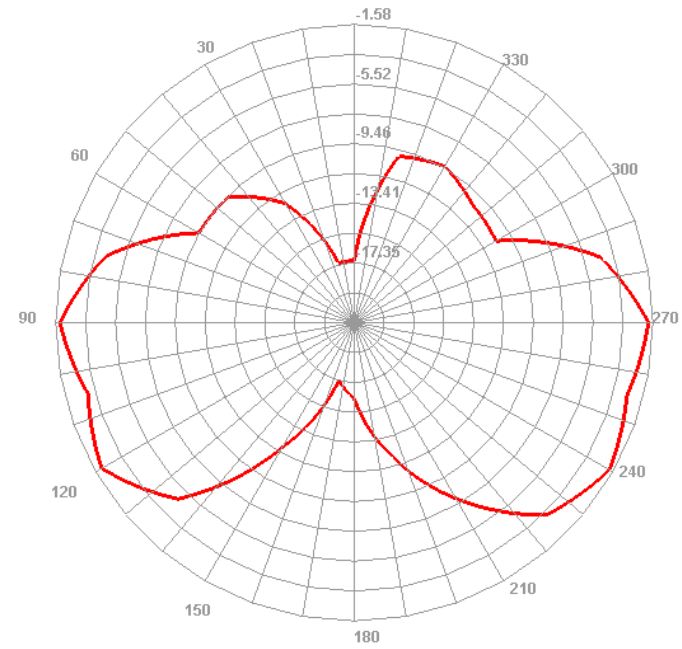
H



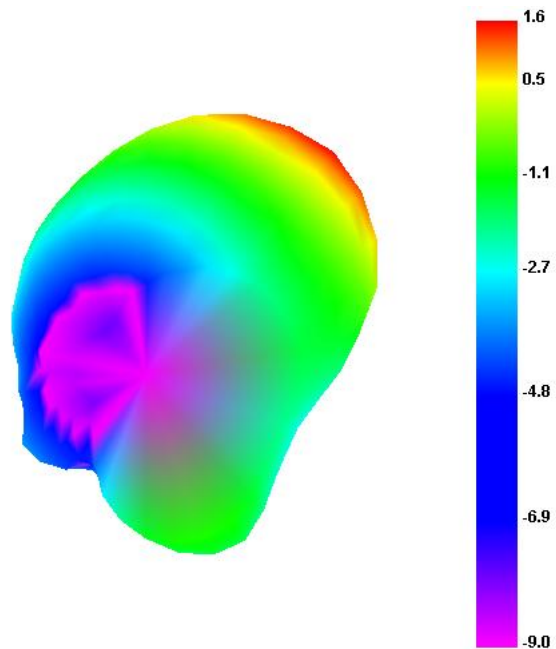
E1



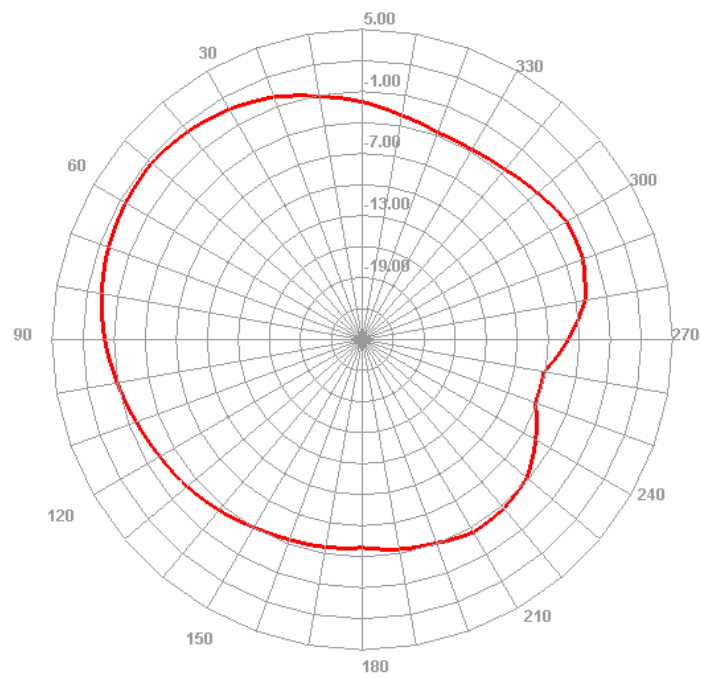
E2



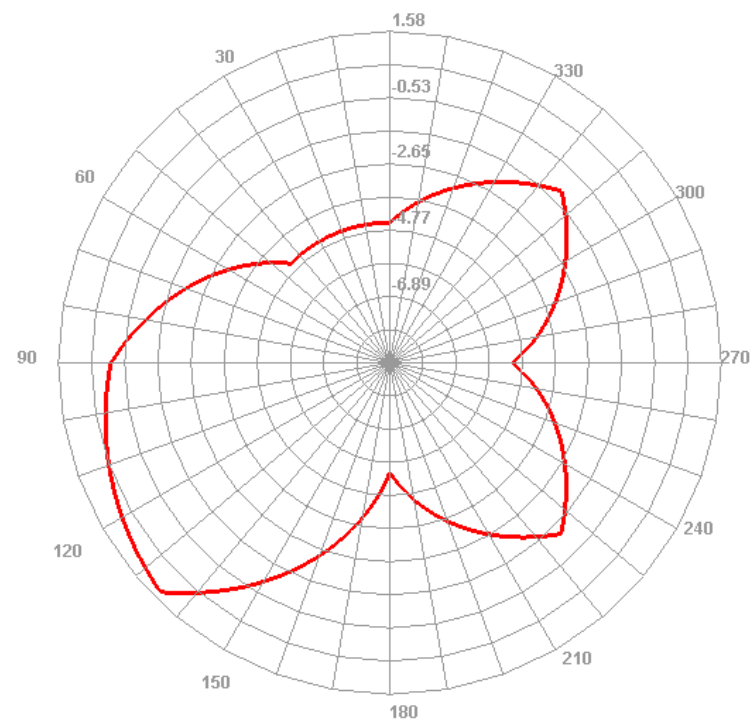
LTE-B66



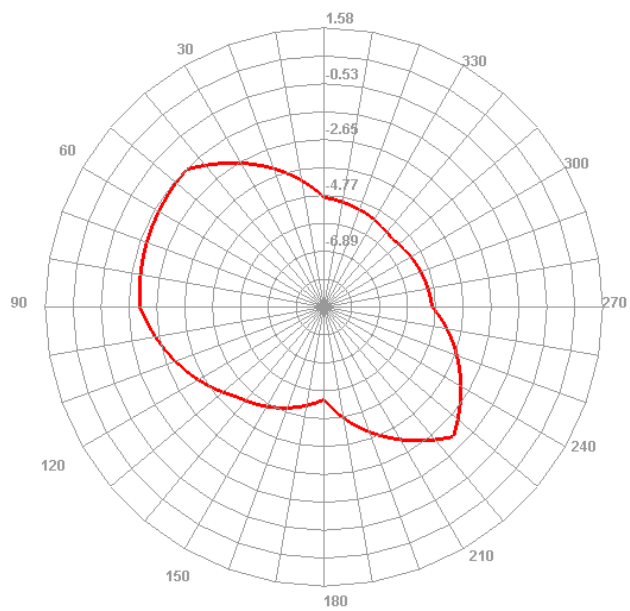
H



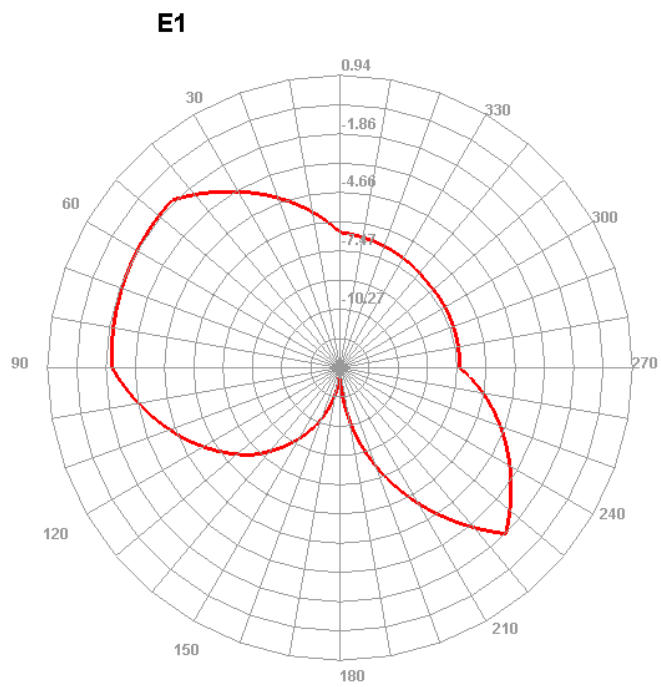
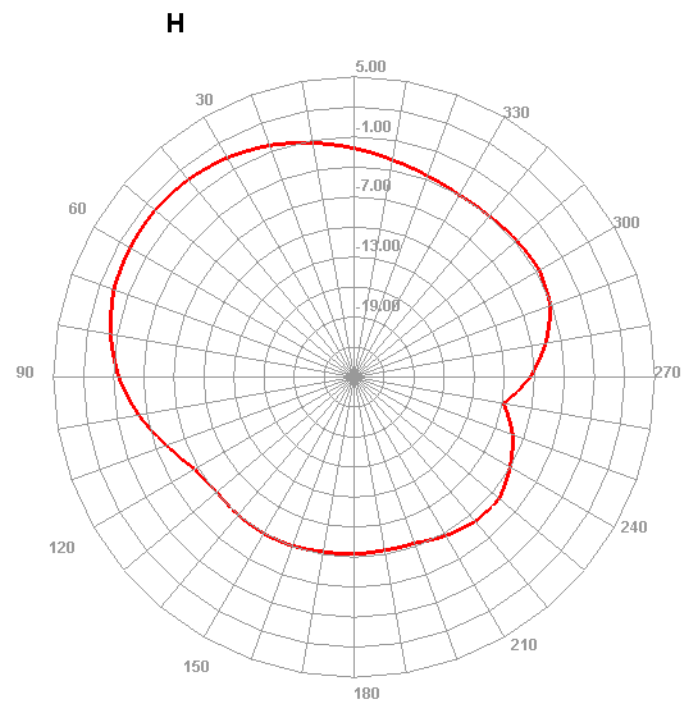
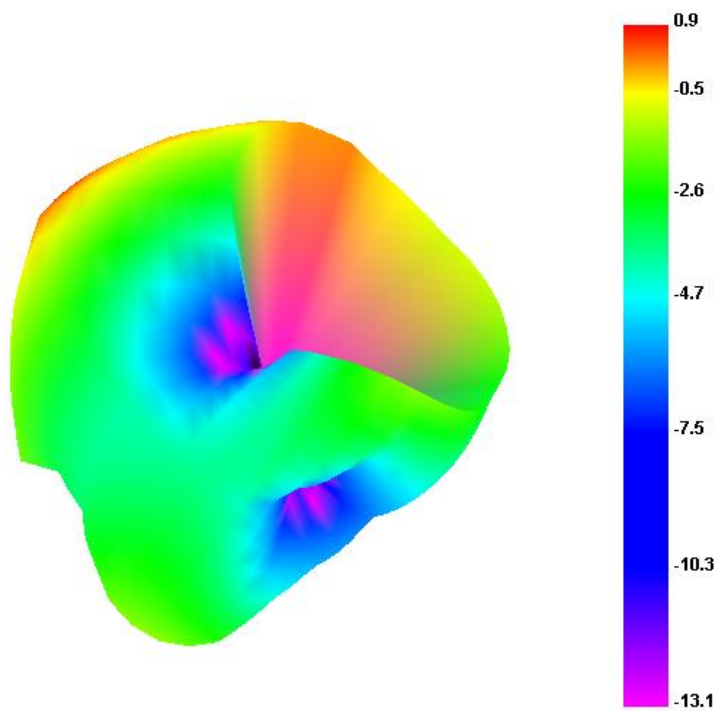
E2



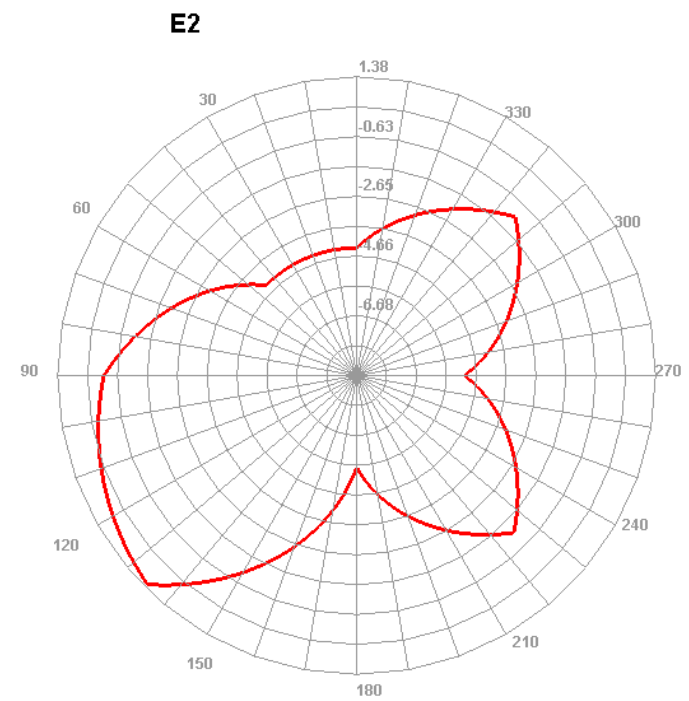
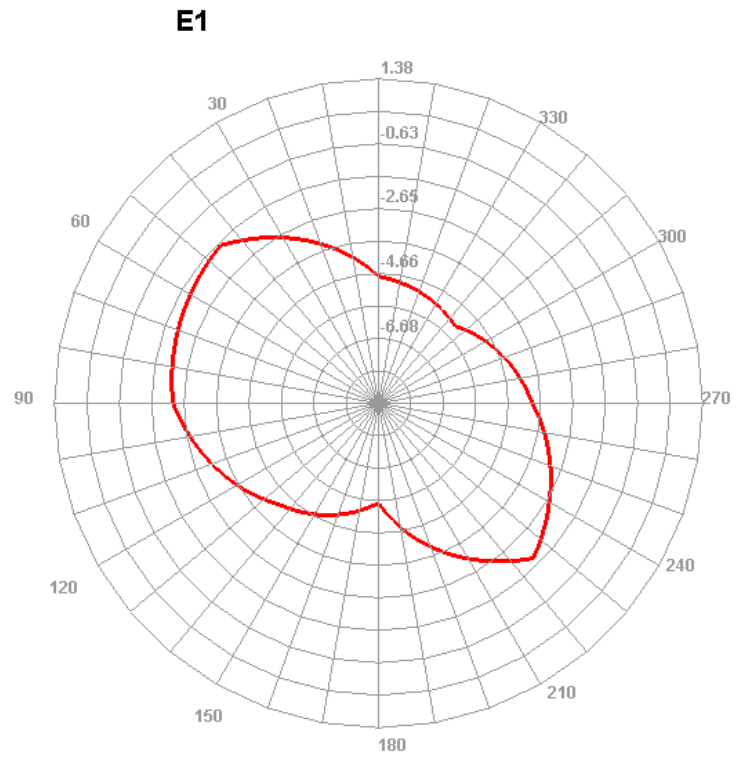
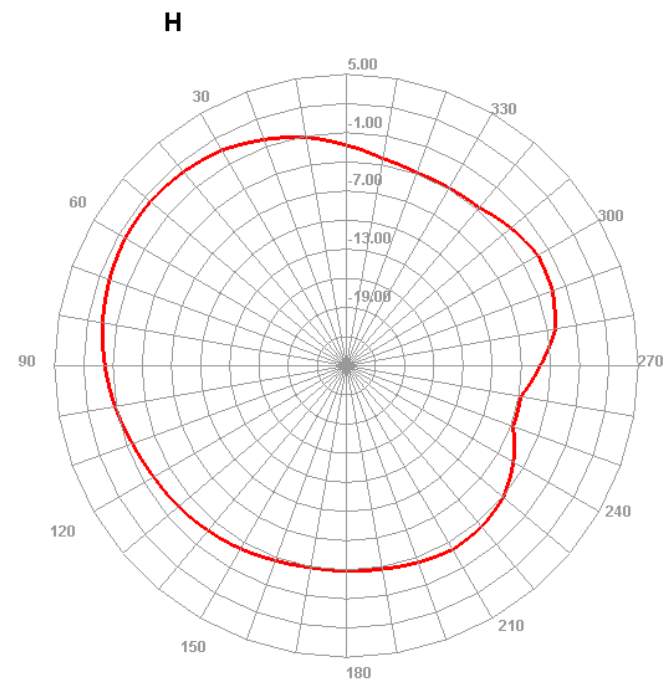
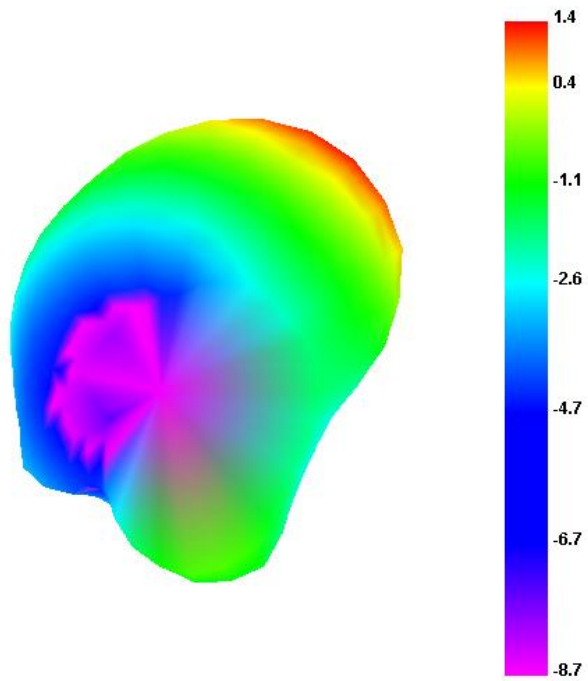
E1



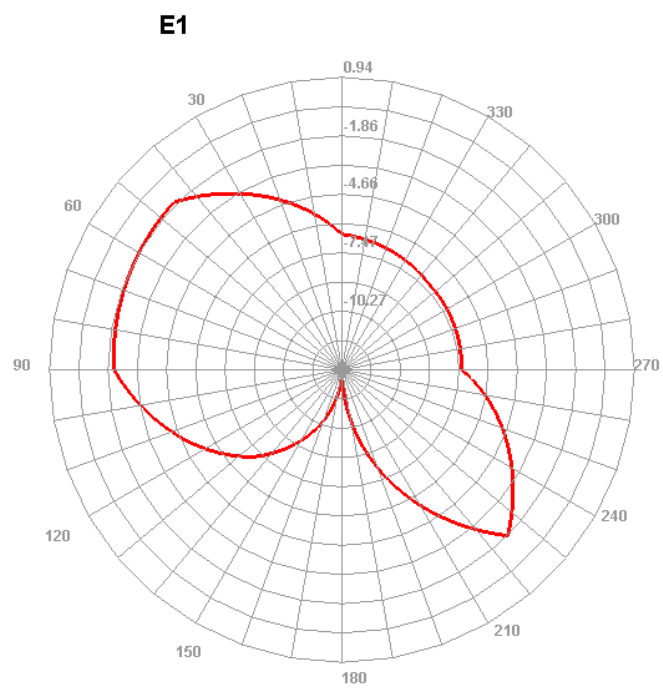
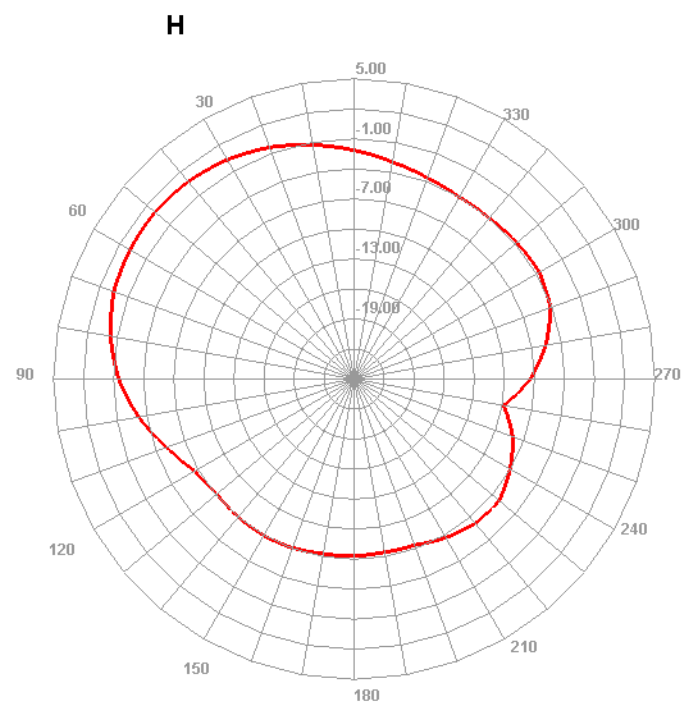
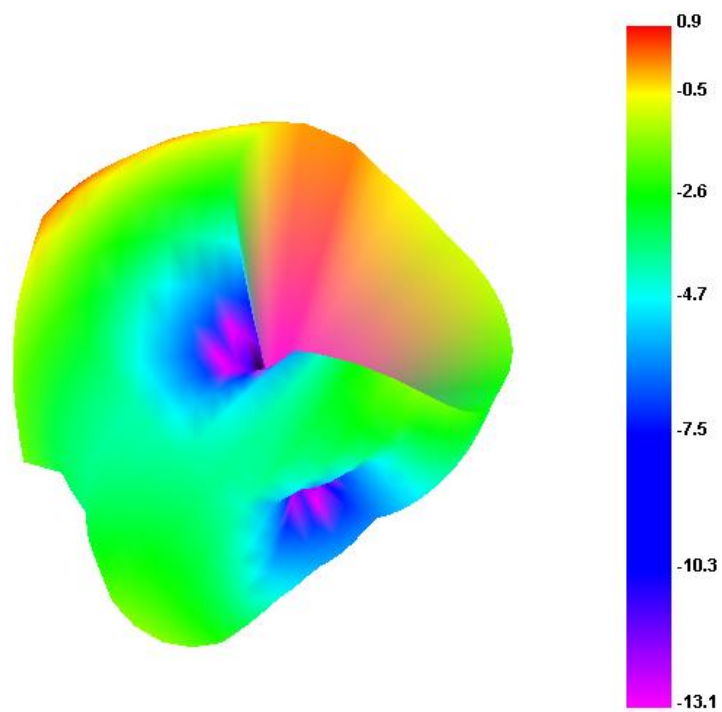
LTE-B38



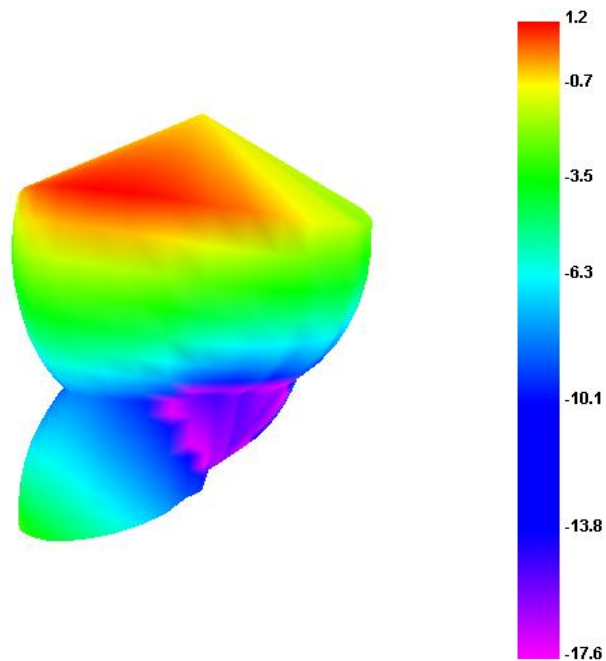
LTE-B40



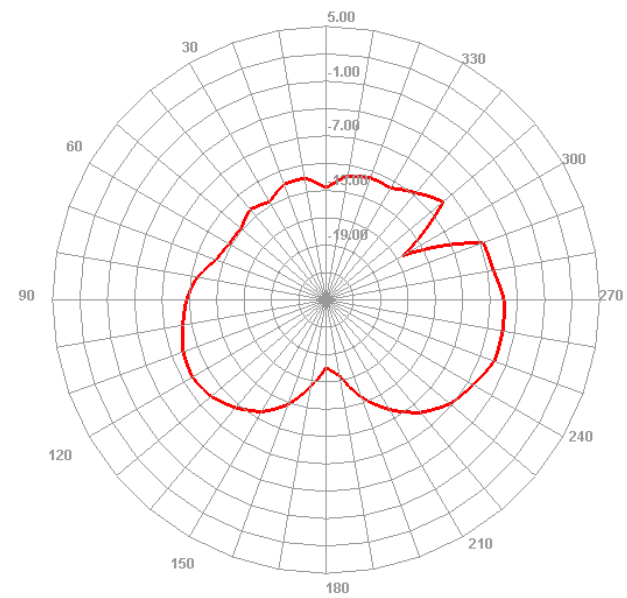
LTE-B41



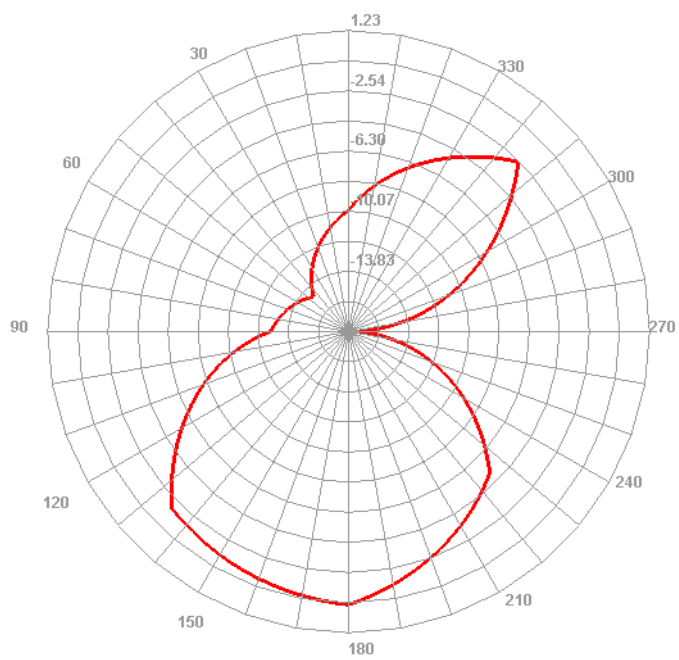
GPS



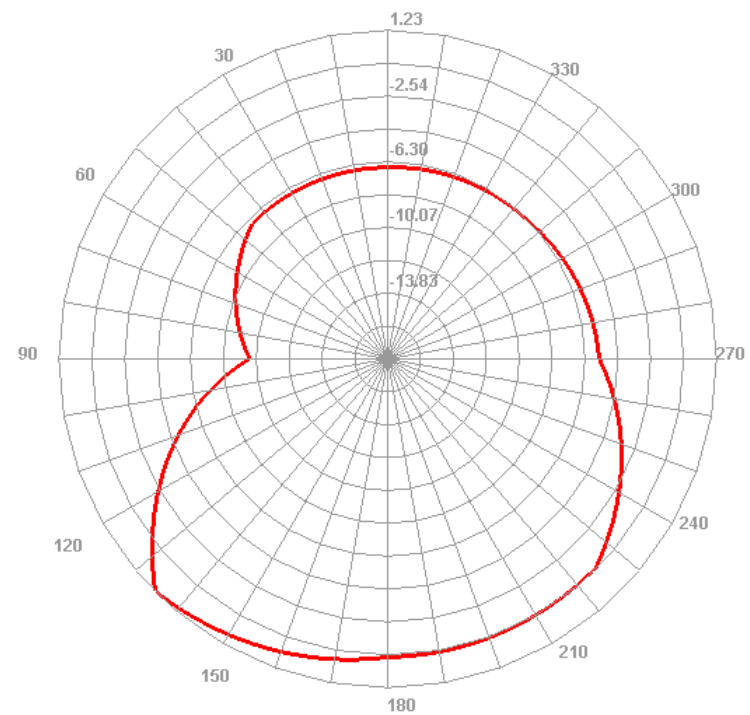
H



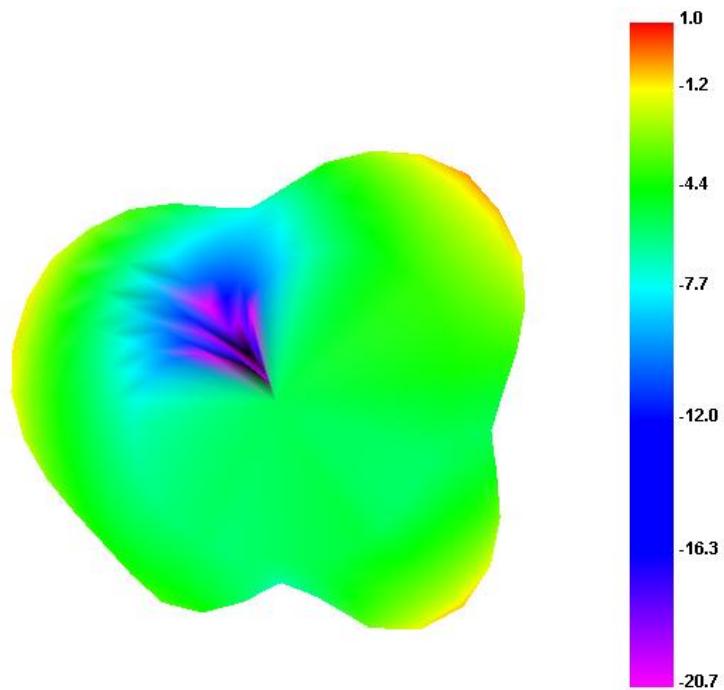
E1



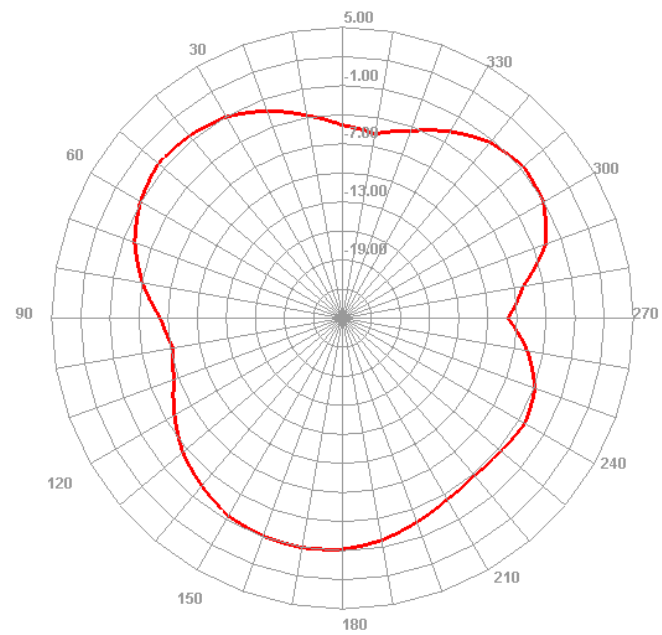
E2



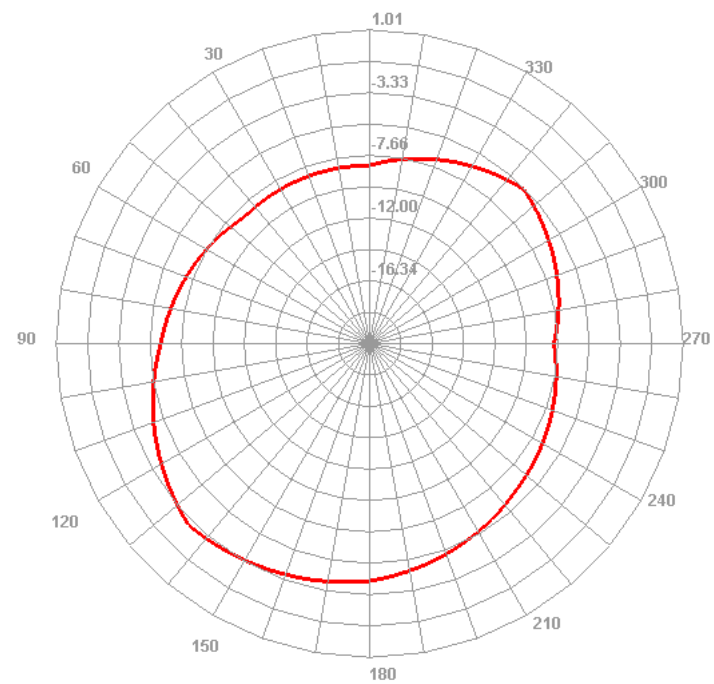
2.4G WiFi



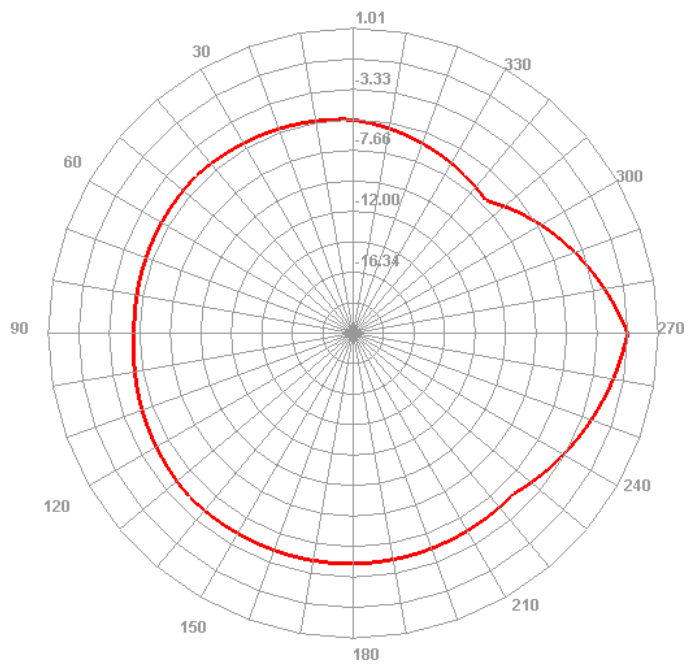
H



E2



E1



5 G WiFi

