

Feature

- ※ High gain
- ※ Omani-directional
- ※ Wide bandwidth

Application

※GSM850/900/DCS/PCS/WCDMA B1/B2/B4/B5/B8

LTE B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28/B38/B40/B41/B42/B66

NR Mode N1/N3/N5/N7/N8/N12/N20/N28/N38/N40/N41/N66/N77/N78/N71

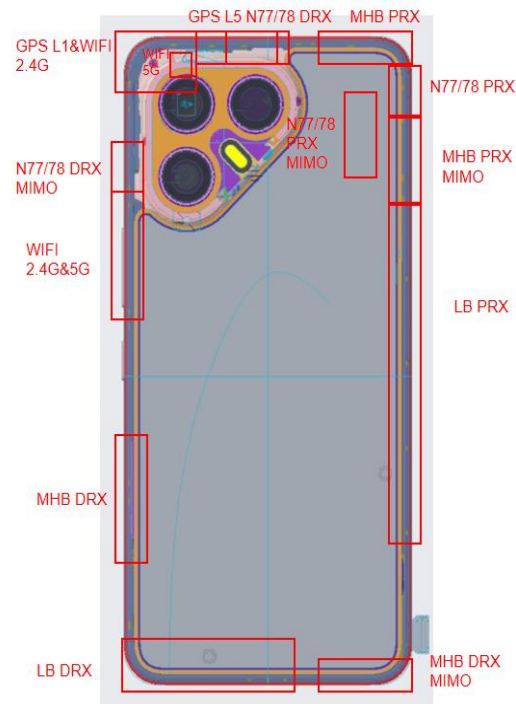
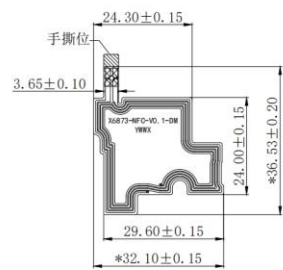
Name and address of the antenna manufacturer	Model number of the antenna
Welletronics Communication Technology Co.Ltd 502,Block A,Jingneng Menggu,Jinghai Road6,Yizhuang Economic and Technological Development Zone,Beijing Xi'an Yanta Street Yunshui all the way Xi'an Software New City Phase II A11	LJ9-ANT13-RD-XX-XX (XX:Version-Date)

TYPE	
Transmitter Frequency	GSM 850/WCDMA B5/LTE B5 NR n5: 824 – 849 MHz
	GSM 900/WCDMA B8/LTE B8 NR n8: 880 – 915 MHz
	DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66: 1710 – 1785 MHz

		PCS/WCDMA B2/LTE B2:1850-1910MHz
		WCDMA B1/LTE B1 NR n1: 1920 – 1980MHz
		LTE B7 NR n7:2496-2565MHz
		LTE B40 NR n40:2300-2400MHz
		LTE B38/B41 NR n38/n41:2565-2645MHz
		LTE B20 NR n20:832-862MHz
		LTE B12/B17/B28 NR n12/n28:710-755MHz
		LTE B42/NR n77/n78:3300-4200MHz
		NR n71:663-697MHz
Receiver Frequency		GSM 850/WCDMA B5/LTE B5 NR n5: 869 – 894 MHz
		GSM 900/WCDMA B8/LTE B8 NR n8: 925 – 960 MHz
		DCS/LTE B3/B66 NR n3/n66: 1805 – 1880 MHz
		WCDMA 4/LTE B4 NR n4: 2110-2155 MHz
		PCS/WCDMA B2/LTE B2:1930-1990MHz
		WCDMA B1/LTE B1 NR n1: 2110 – 2170MHz
		LTE B7 NR n7:2620-2690MHz
		LTE B40 NR n40:2300-2400MHz
		LTE B38/41 NR n38/n41:2565-2645MHz
		LTE B20 NR n20:791-821MHz
		LTE B12/B17/B28 NR n12/n28:758-803MHz
		LTE B42/NR n77/n78:3300-4200MHz
		NR n71:617-651MHz
RF-Output Power (E.I.R.P)		GSM850/900: 32+/-2dBm
		DCS/PCS: 30+/-2dBm
		LTE B1/B2/B3/ B4/B5 /B7/B8/B17/B20/B28/B38/B40/B41/B66: 23+/-2dBm
		WCDMA B1/B2/B4/B5/ B8: 23+/-2dBm
		NR N1/N3/ N5 /N7/N8/N12/N20/N28/N38/N40/N41/N66/N71: 23+/-2dBm
		NR N77/N78:24+/-2dBm
	ANT0(N77/78 DRX MIMO)	LTE B42, NR77/78:0.42dbi
	ANT1(MHB DRX)	WCDMA B1 , LTE B1, NR n1:-2.4dbi
		DCS, LTE B3/4/66, NR n3/66:-4dbi
		PCS/WCDMA B2/LTE B2 :-4.9dbi

Antenna Gain	ANT2 (LB DRX)	LTE B12/B17/B28 NR n12/n28:-6.3dbi
		GSM 850, WCDMA B5, LTE B5 NR n5: -5.2dbi
		GSM900, WCDMA B8, LTE B8 NR n8:-5.8dbi
	ANT3(MHB DRX MIMO)	WCDMA B1 , LTE B1, NR n1:-4.8dbi
		DCS, LTE B3/4/66, NR n3/66:-4.2dbi
		PCS/WCDMA B2/LTE B2 :-5.6dbi
	ANT4 (LB PRX)	LTE B12/B17/B28 NR n12/n28:-6.3dbi
		GSM 850, WCDMA B5, LTE B5 B20 NR n5 N20:-6.9dbi
		GSM900, WCDMA B8, LTE B8 NR n8:-6.5dbi
	ANT5 (MHB PRX MIMO)	DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66: 1.7 dBi
		PCS/WCDMA B2/LTE B2: -7 dBi
	ANT6(N77/78 PRX2)	LTE B42, NR77/78:-4.6dbi
	ANT7(N77/78 PRX)	LTE B42, NR77/78:-1.3dbi
	ANT8(MHB PRX)	PCS/WCDMA B1/B2/LTE B1/B2/N1/N2:-2.7dbi
		DCS /LTE B3/B4/B66/ N3/N4N66:-2.3dbi
		LTE B7/B38/B40/B41/N7N38/N40/N41:-0.8dbi
	ANT9(N77/78 DRX)	LTE B42, NR77/78:-1dbi
	ANT12	GPS L1:-2.7dbi
		WIFI 2.4G MIMO1/BT:-3.1dbi
Antenna type	ANT13	WIFI 5G MIMO1:-1.7dbi
	ANT14	WIFI 2.4G MIMO2:-1.4dbi WIFI 5G MIMO2:-0.6dbi
	ANT15	GPS L5:-7.9dbi
	RF	Internal Antenna
	NFC	Internal Antenna
	WPT	Coil Antenna

NFC Dimensions



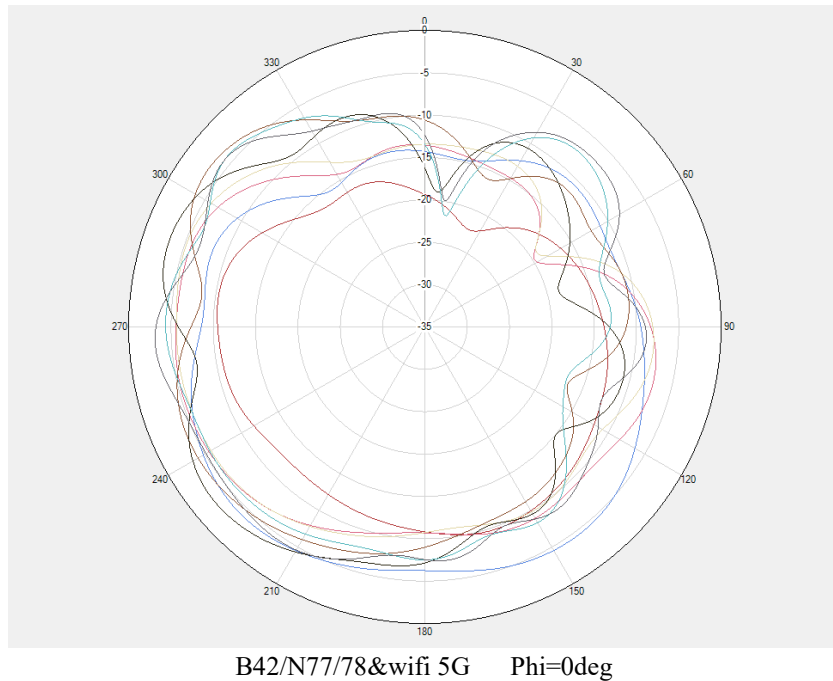
Antenna	Support Band
Ant 0	4G-B42 RX 5G-SA-N77/78 RX
Ant 1	2G-GSM1800/1900 RX 3G-WCDMA1/2/4 RX 4G-B1/2/3/4/7/38/40/41/66 RX 5G-SA-N1/3/7/38/40/41/66 RX
Ant 2	2G-GSM850/900 RX 3G-WCDMA5/8 RX 4G-B5/9/20/28/12/17 RX 5G-SA-N5/8/20/28/12/71 RX
Ant 3	4G-B1/2/3/4/7/38/40/41/66 RX 5G-SA-N1/3/7/38/40/41/66 RX
Ant 4	2G-GSM850/900 TX 3G-WCDMA5/8 TX 4G-B5/9/20/28/12/17 TX 5G-SA-N5/8/20/28/12/71 TX
Ant 5	4G-B1/3/4/7/38/40/41/66 RX 5G-SA-N1/3/7/38/40/41/66 RX 4G-NSA-B1/3/7/38/40/41/66 TX
Ant 6	4G-B42 RX 5G-SA-N77/78 RX
Ant 7	4G-B42 TX 5G-SA-N77/78 TX
Ant 8	2G-GSM1800/1900 TX 3G-WCDMA1/2/4 TX 4G-B1/2/3/4/7/38/40/41/66 TX 5G-SA-N1/3/7/38/40/41/66 TX
Ant 9	4G-B42 RX 5G-SA-N77/78 RX
Ant 12	GPS L1 +WIFI 2.4G(chain1)
Ant 13	WIFI 5G(chain0)
Ant 14	WIFI 2.4G(chain0)+WIFI 5G(chain1)
Ant 15	GPS L5

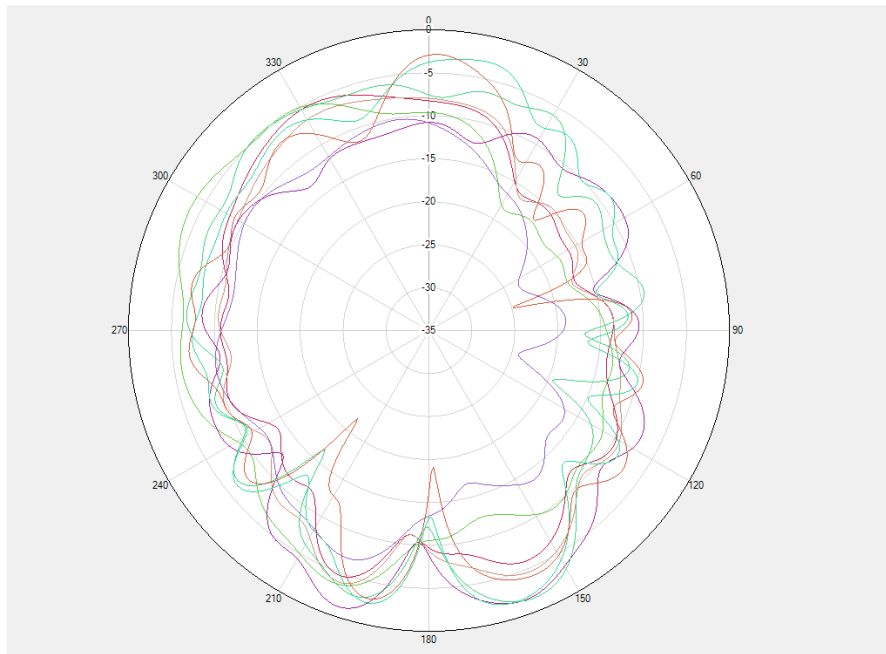
Wireless reverse charging test data

1. Operating frequency: 115K-148K
 2. Coil model: 88.72mm*53.8mm*0.28mm
 3. Maximum working current of the coil: 1A
 4. Maximum transmission power: 5W
 5. Charging communication interaction mode: ASK&FSK
 6. Usage scenario: Turn on the reverse charging switch to charge another device (support wireless charging function)
 7. The entire product CAD model and size;
 8. Main material parameters of the product model (such as dielectric constant and magnetic permeability of ferrite, shell, main plate, etc.)
- Nanocrystalline: magnetic permeability 2500 ± 150
 FPC: copper thickness 35um
 Coil: outer diameter 43mm, inner diameter 21mm, wire thickness 0.16mm

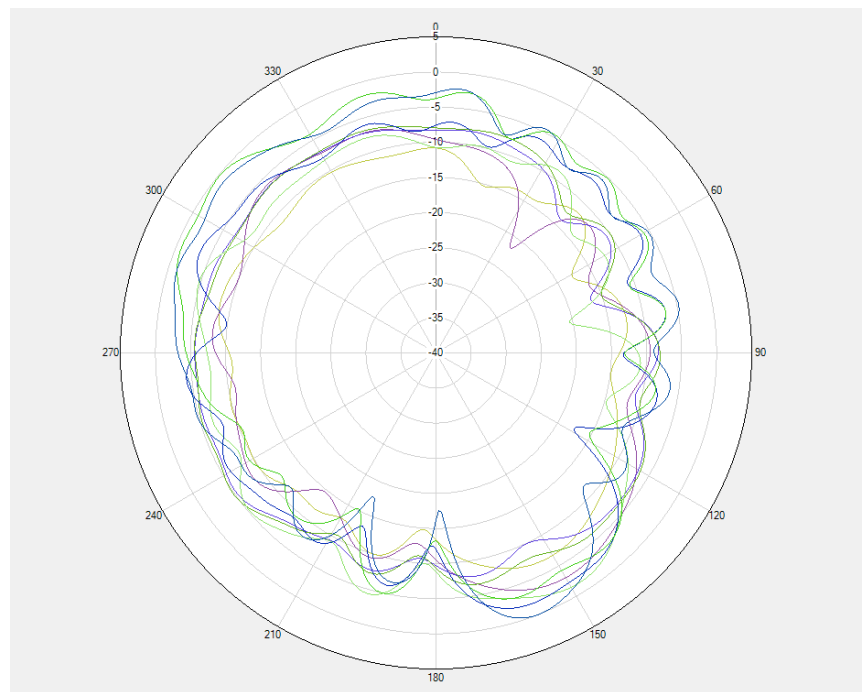
※ Antenna Gain

ANT0





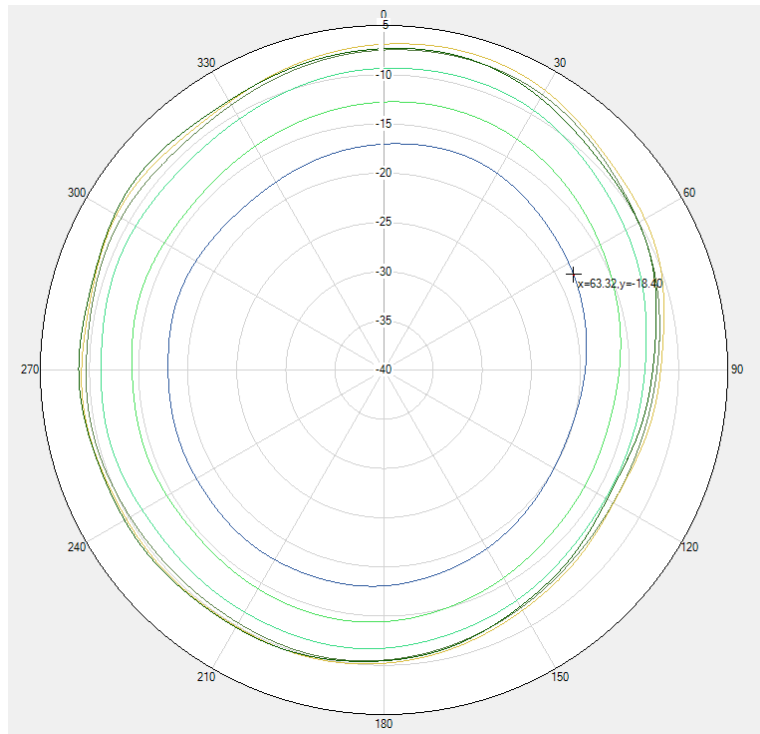
B42/N77/78&wifi 5G Phi=90deg



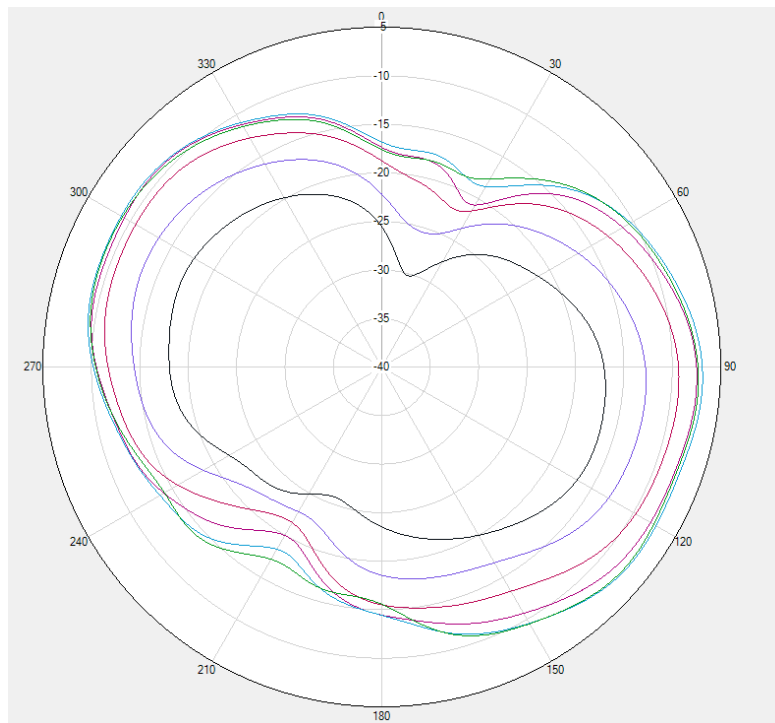
B42/N77/78&wifi 5G Theta=90deg

※ Antenna Gain

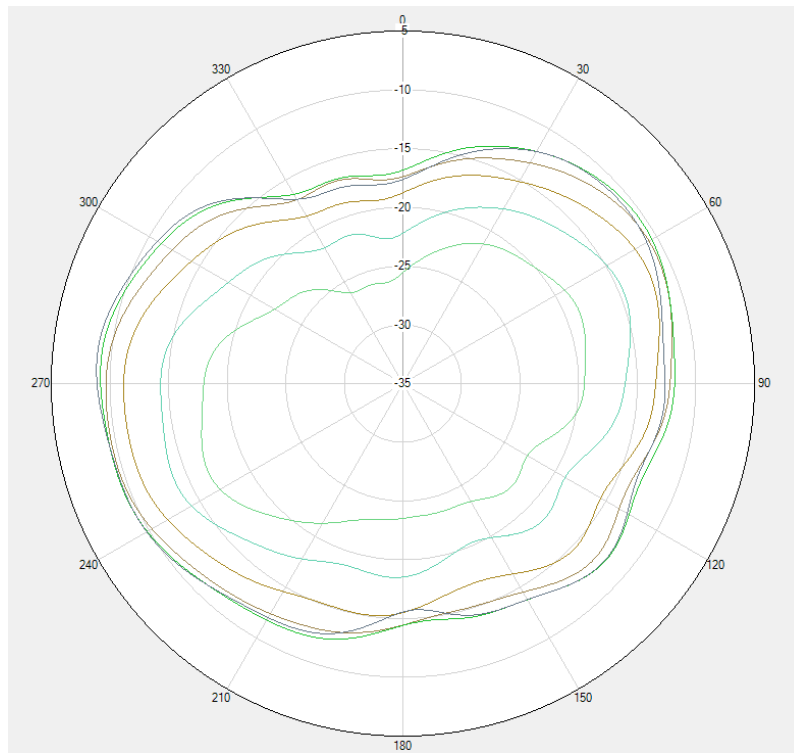
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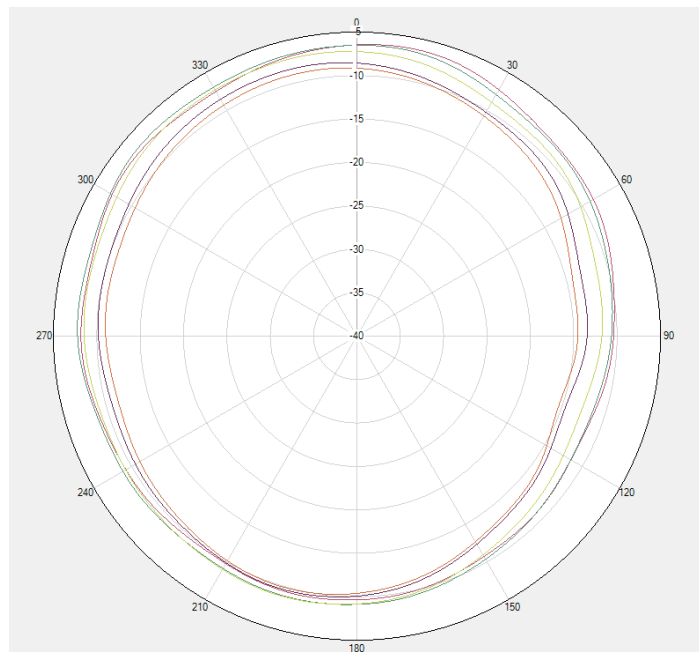
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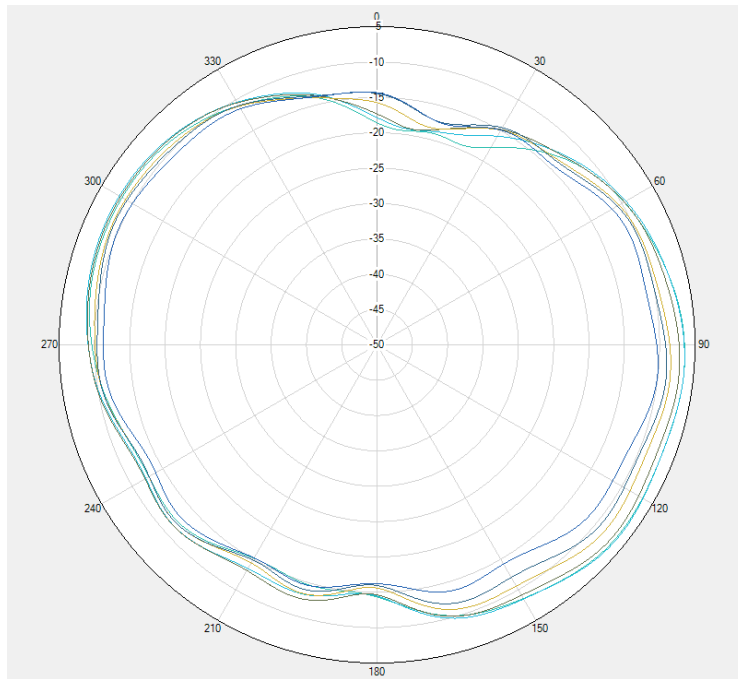
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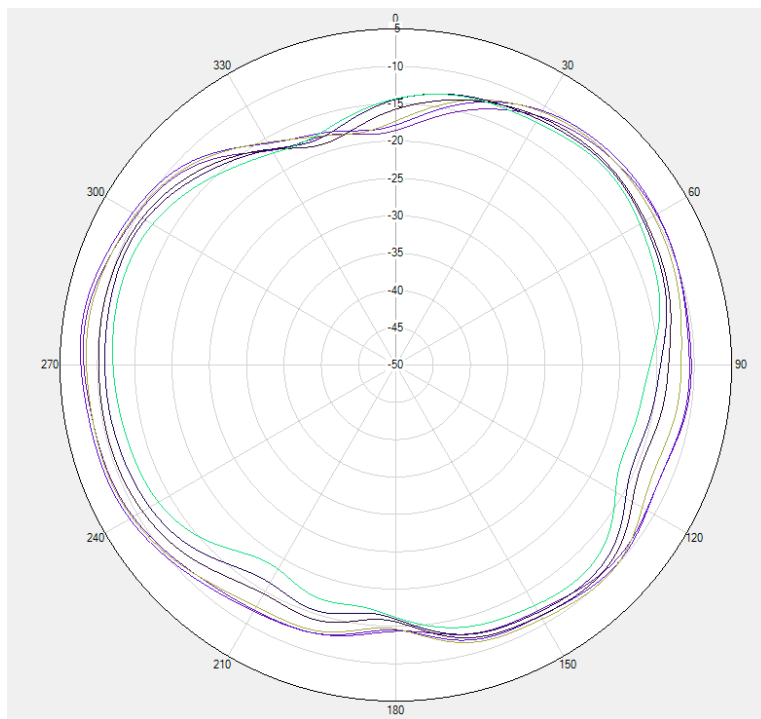
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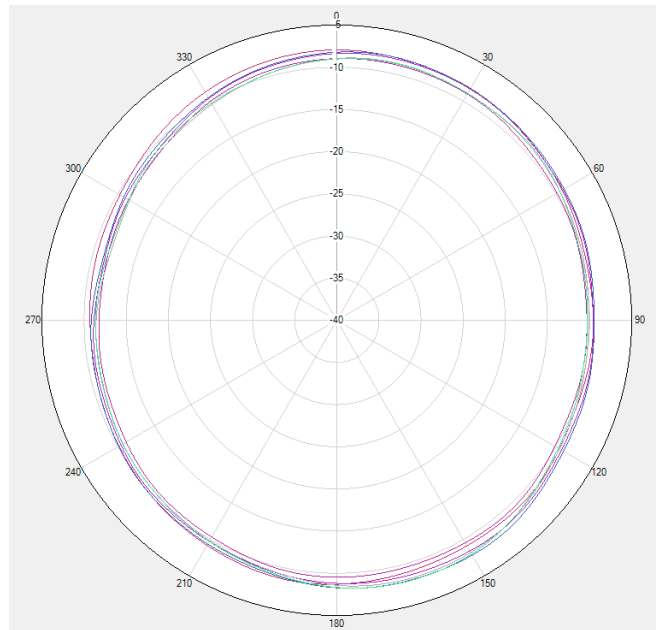
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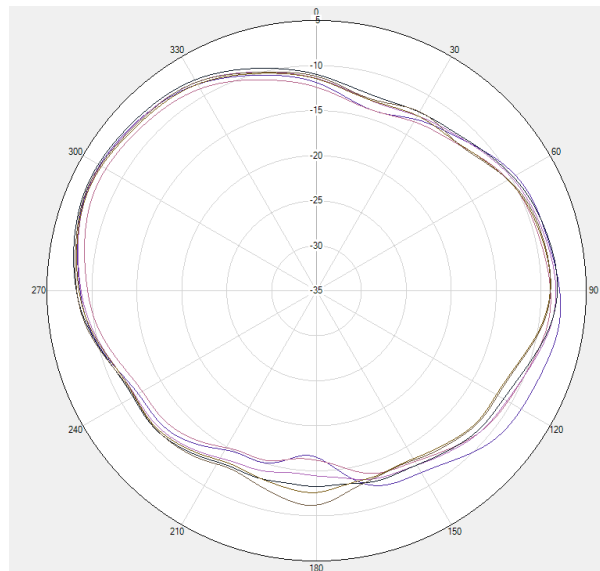
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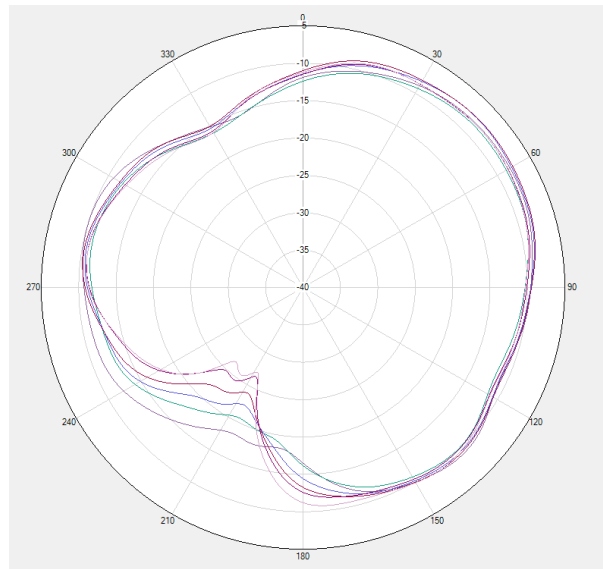
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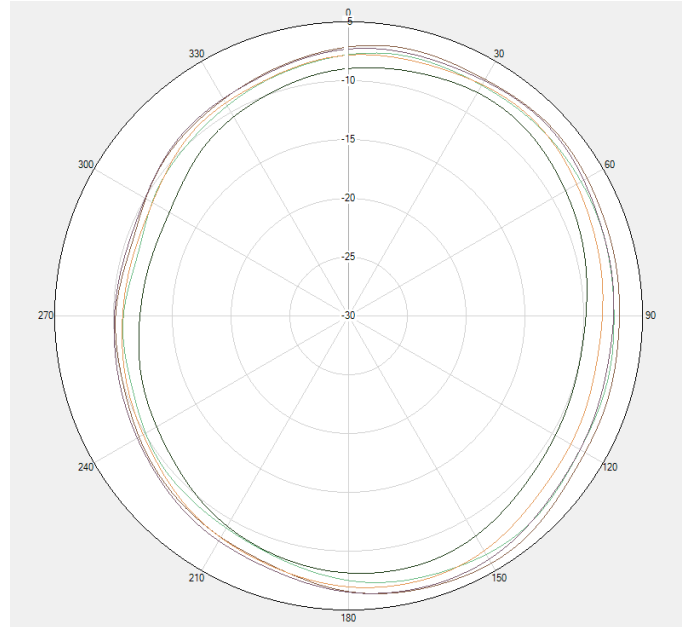
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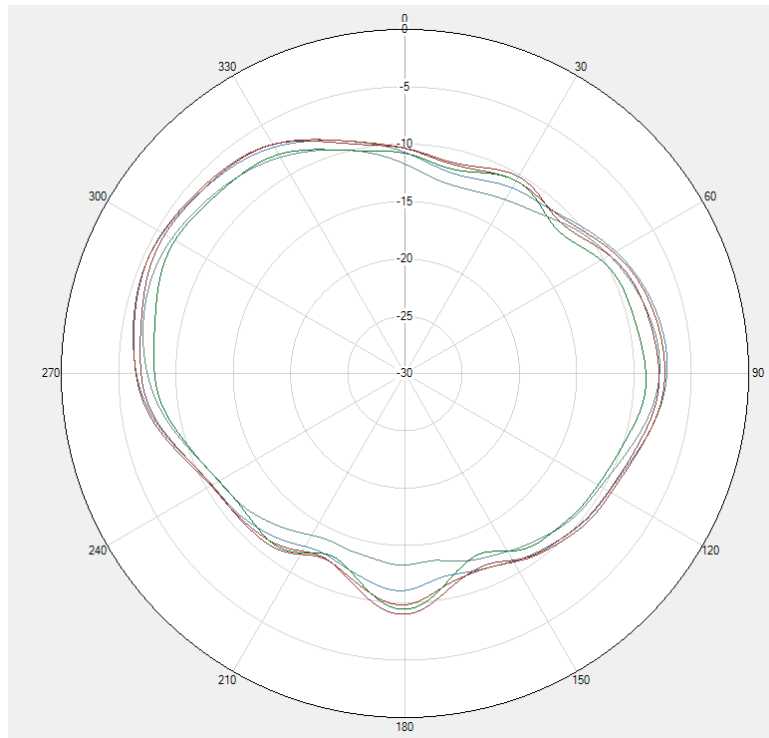
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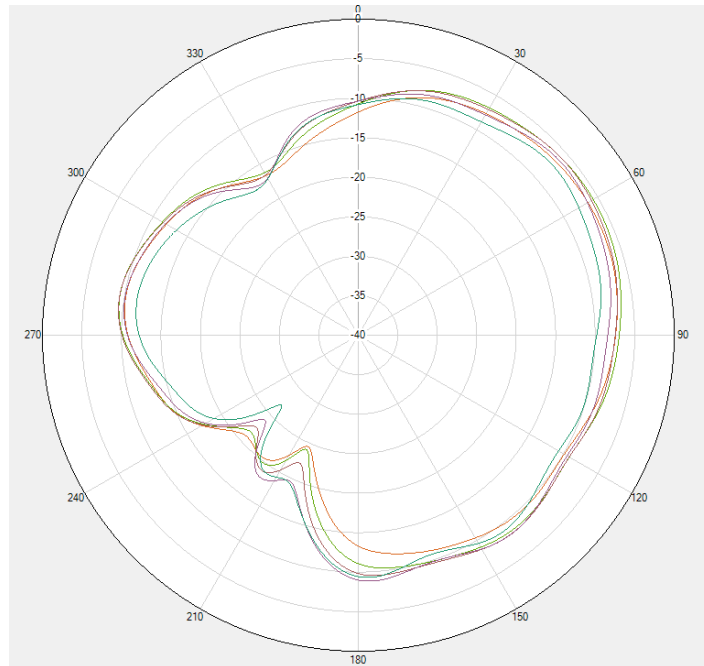
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DCS /WCDMA B4/LTE B3/B4/B66 NR n3/n66 Phi=0deg

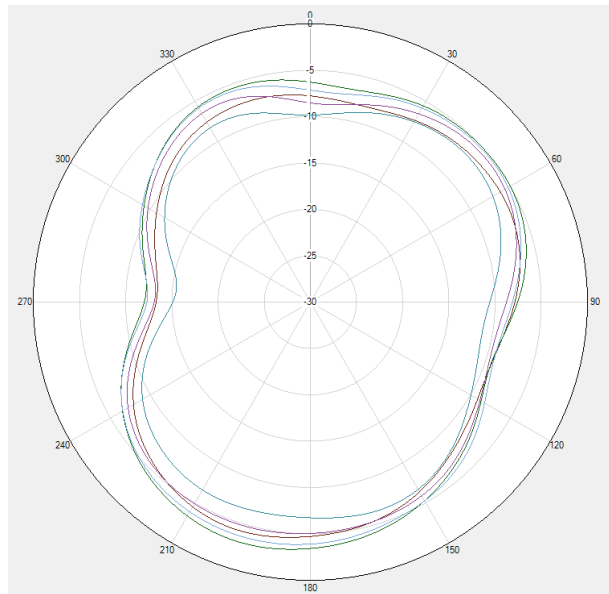


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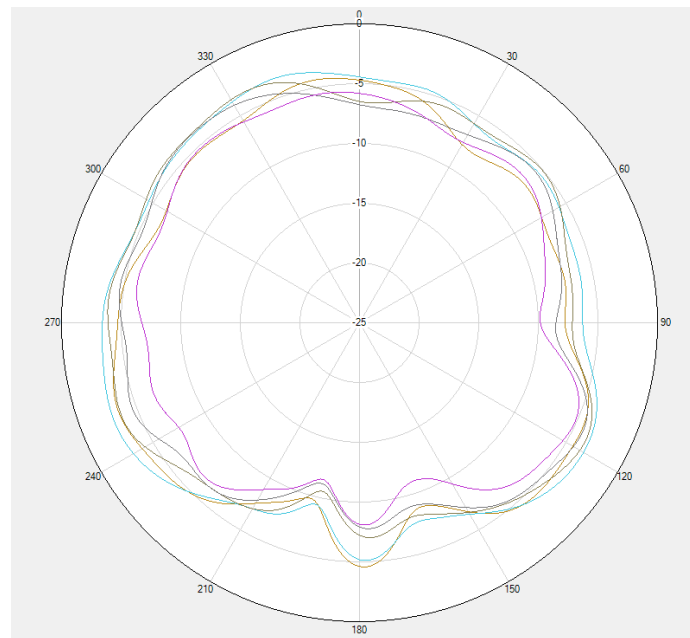


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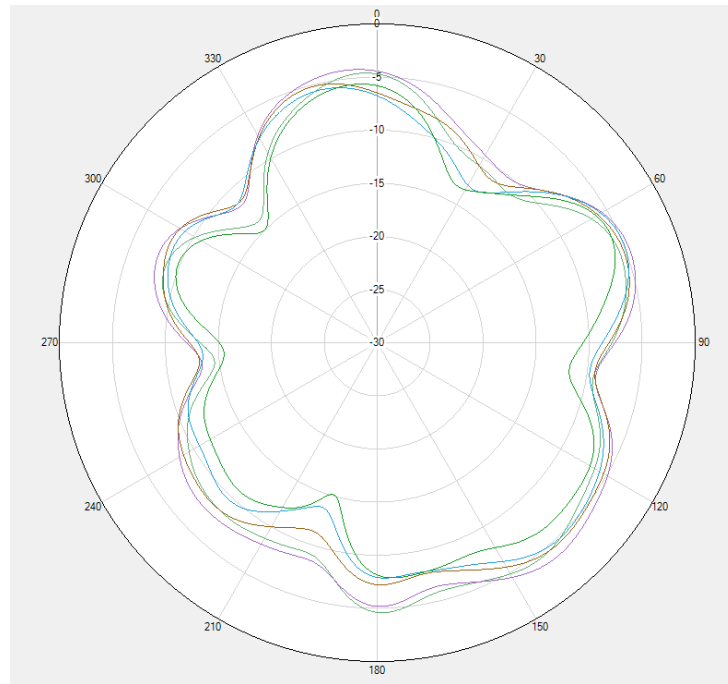
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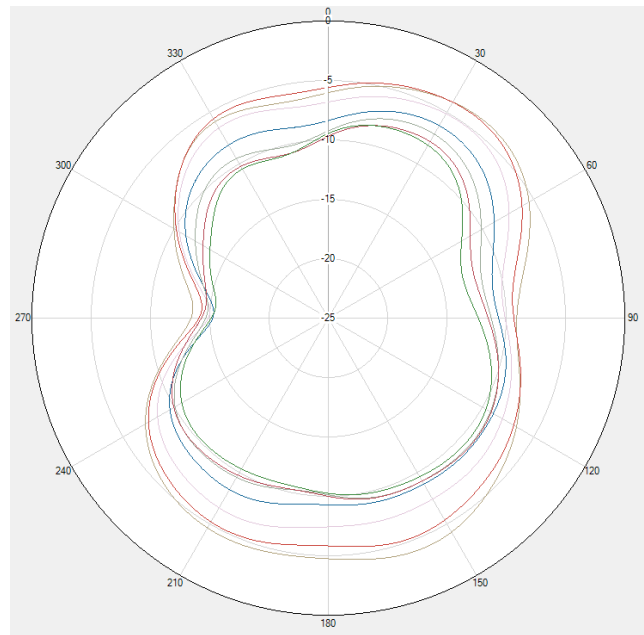
GSM900,B8,N8,WB8 $\Phi=0^\circ$



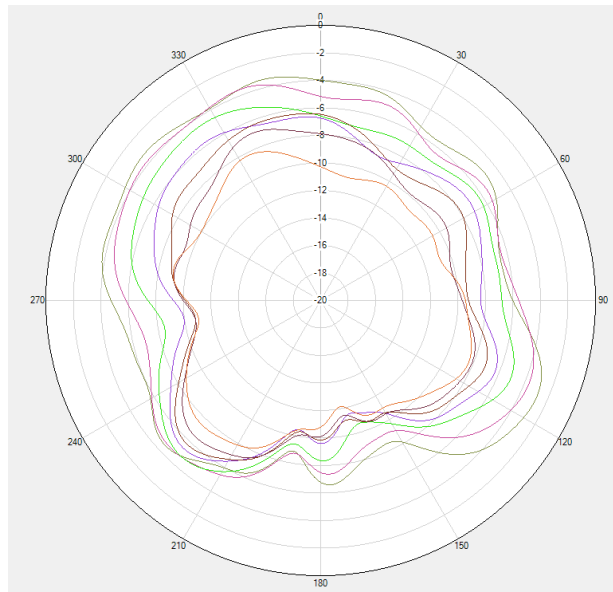
GSM900,B8,N8,WB8 $\Phi=90^\circ$



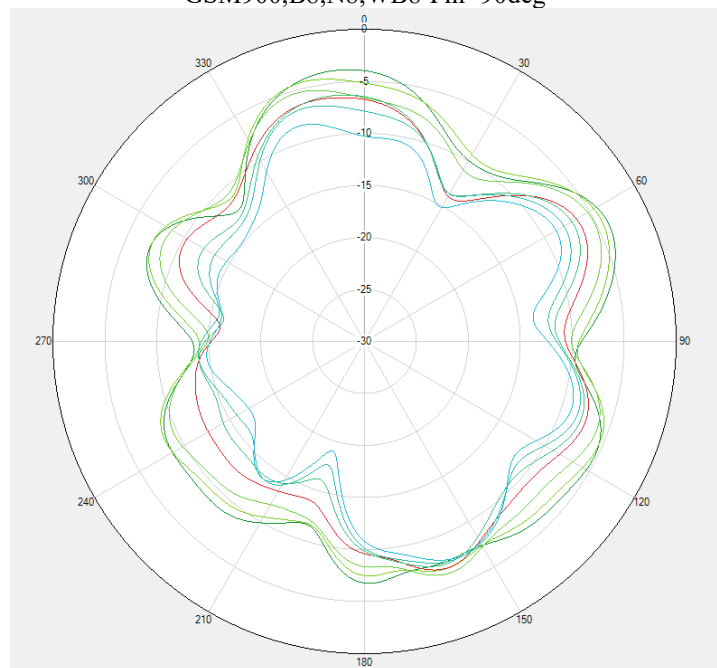
GSM900,B8,N8,WB8 Theta=90deg



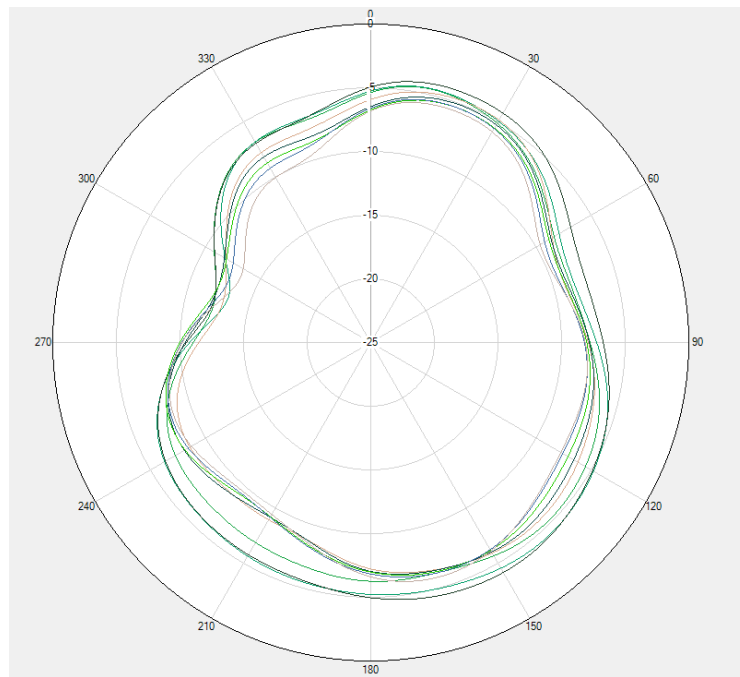
GSM900,B8,N8,WB8 Phi=0deg



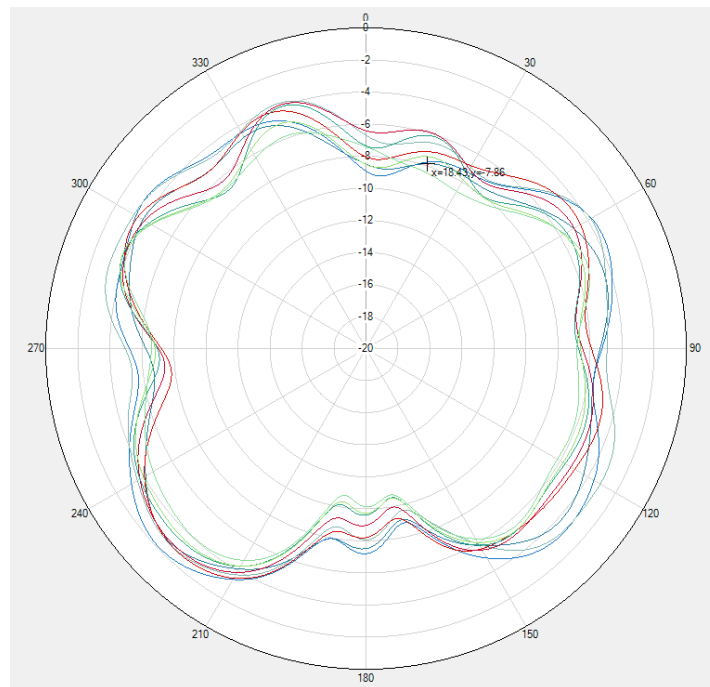
GSM900,B8,N8,WB8 $\Phi=90\text{deg}$



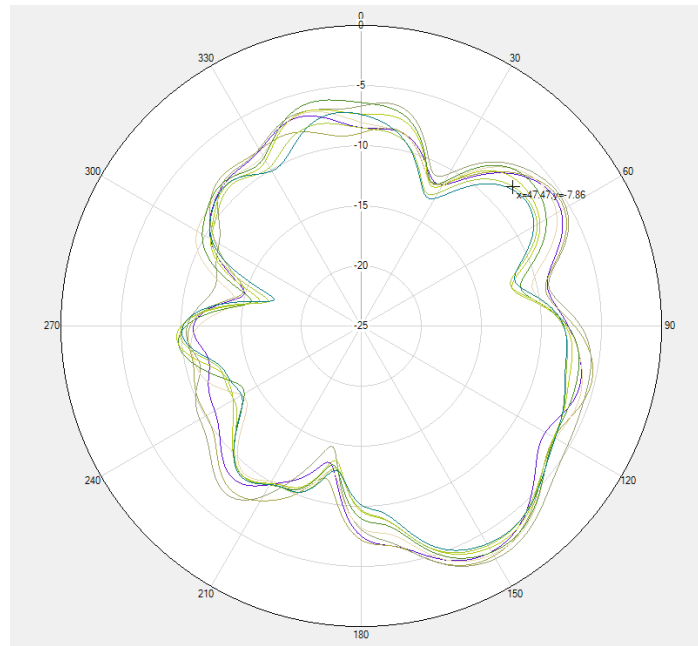
GSM900,B8,N8,WB8 $\Theta=90\text{deg}$



GSM900,B8,N8,WB8 $\Phi=0^\circ$

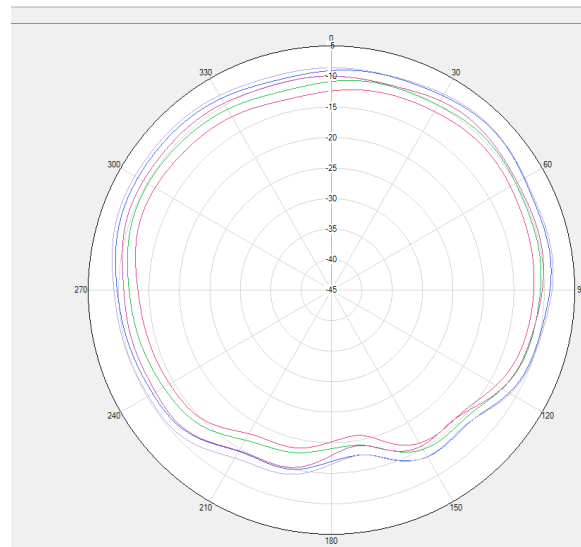


GSM900,B8,N8,WB8 $\Phi=90^\circ$

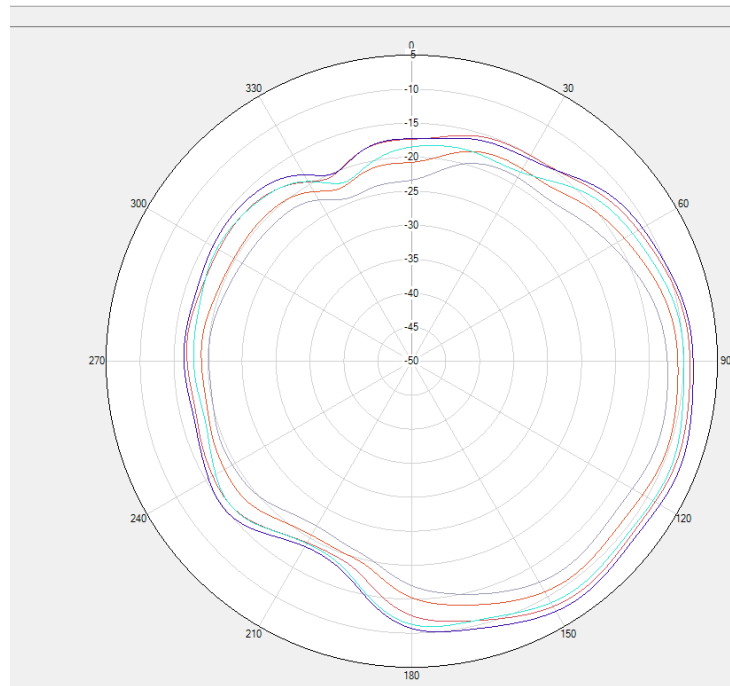


GSM900,B8,N8,WB8 Theta=90deg

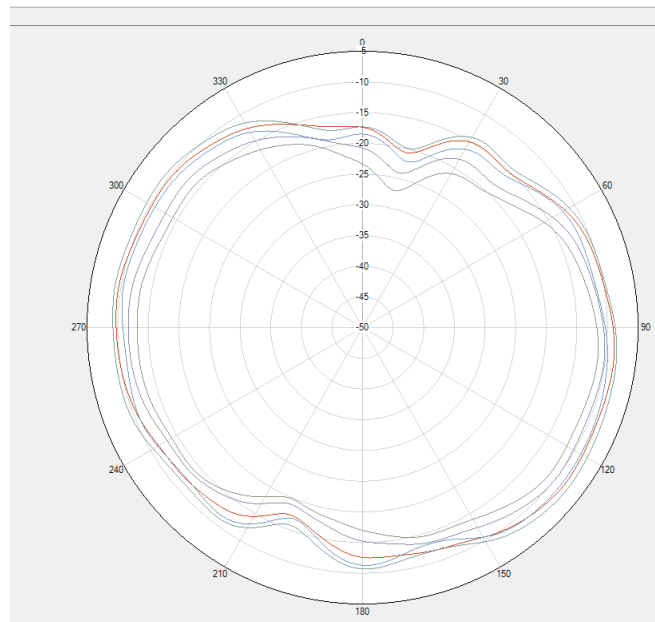
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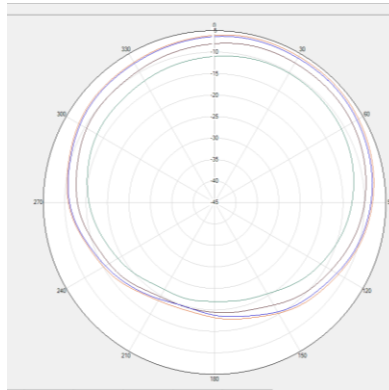
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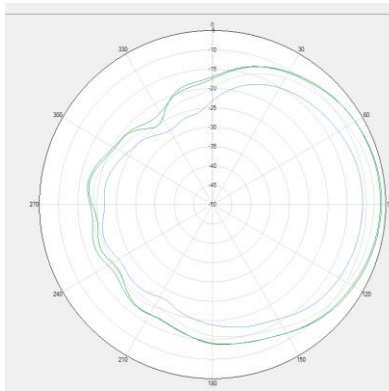
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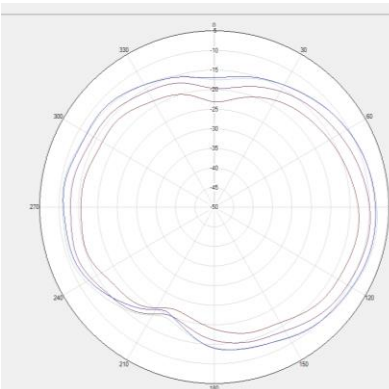
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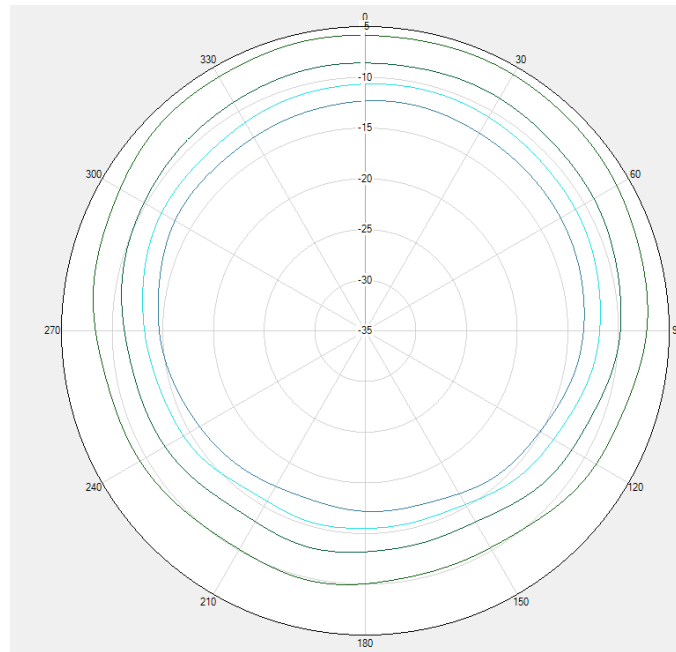
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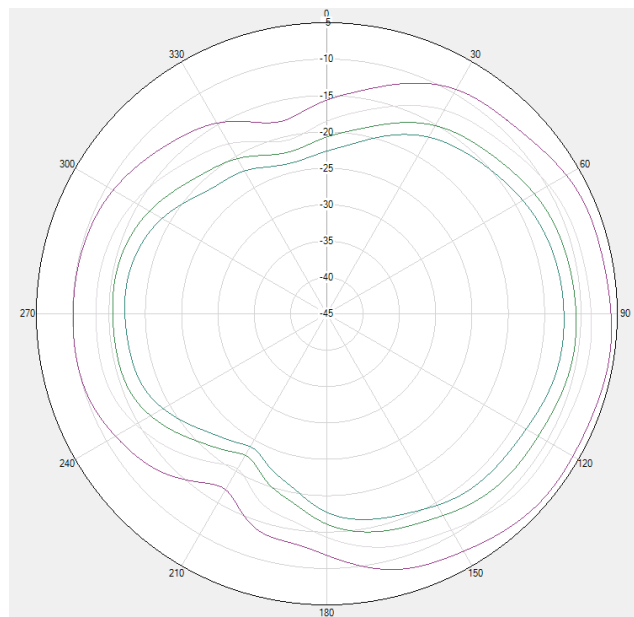
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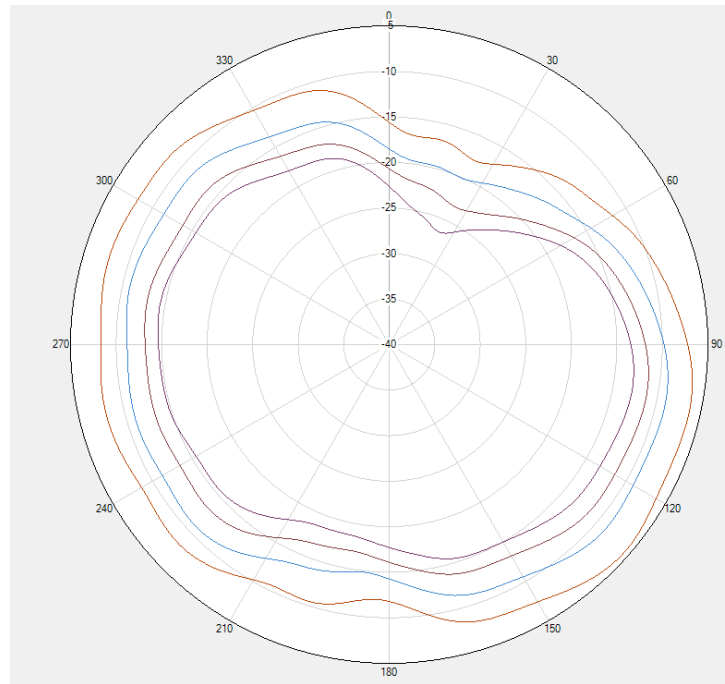
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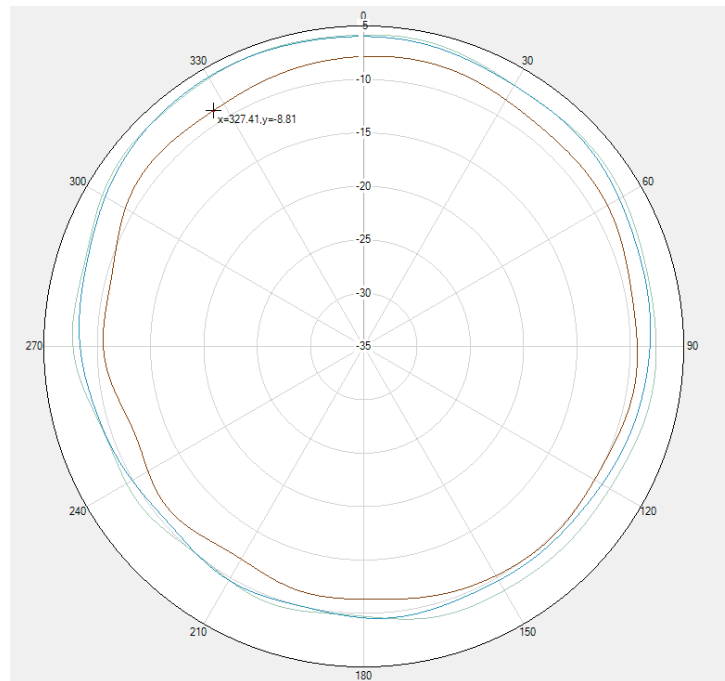
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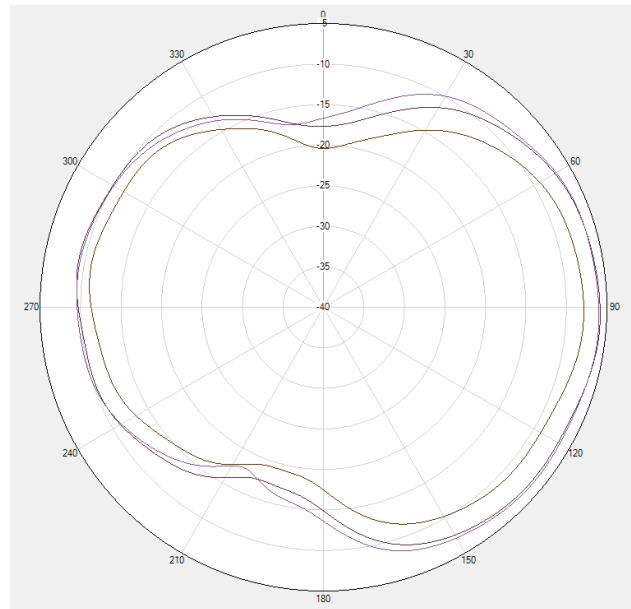
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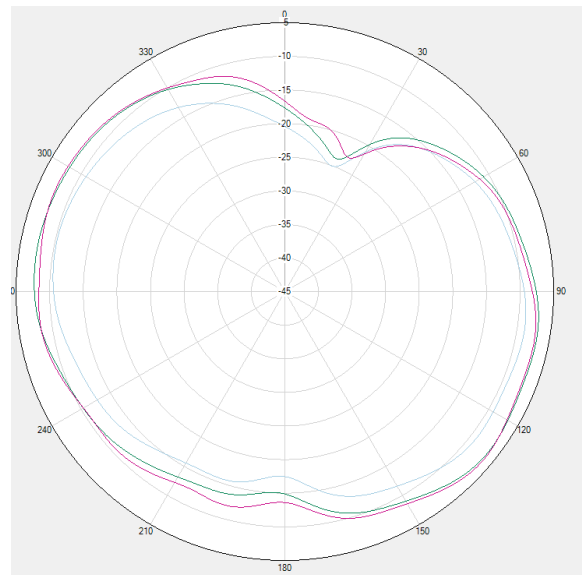
DCS /WCDMA B4/LTE B3/B4/B66 Theta=90deg



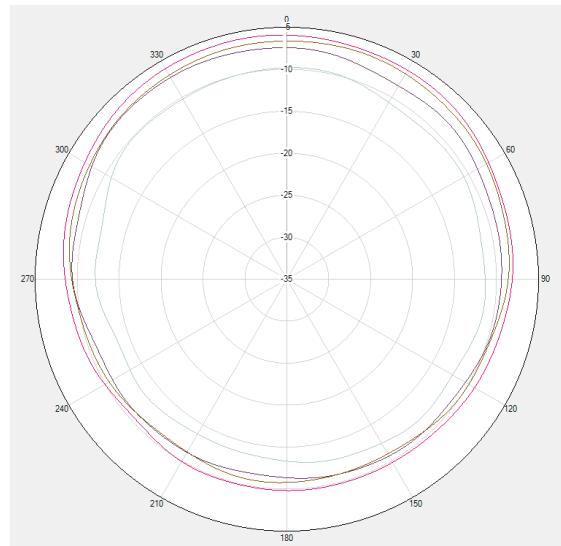
DCS /WCDMA B4/LTE B3/B4/B66 Phi=0deg



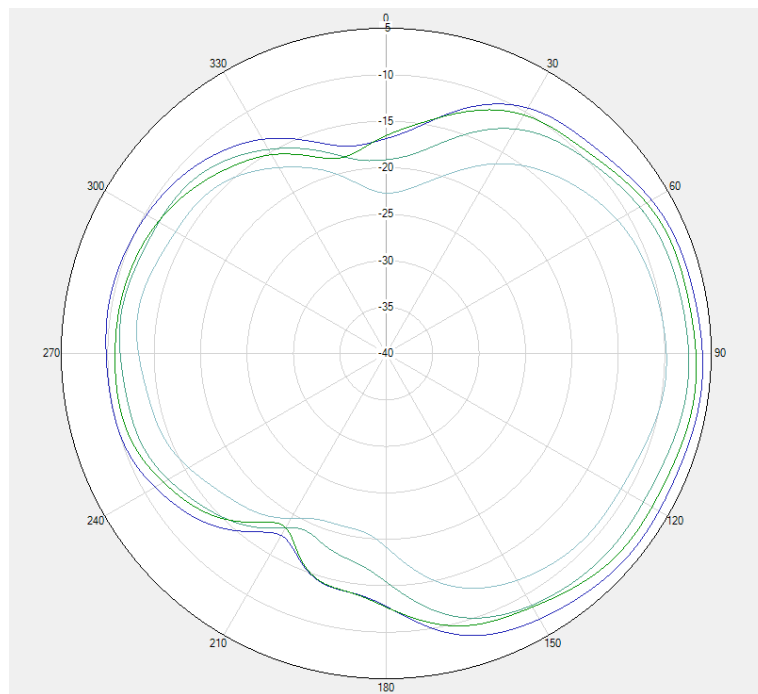
DCS /WCDMA B4/LTE B3/B4/B66 Phi=90deg



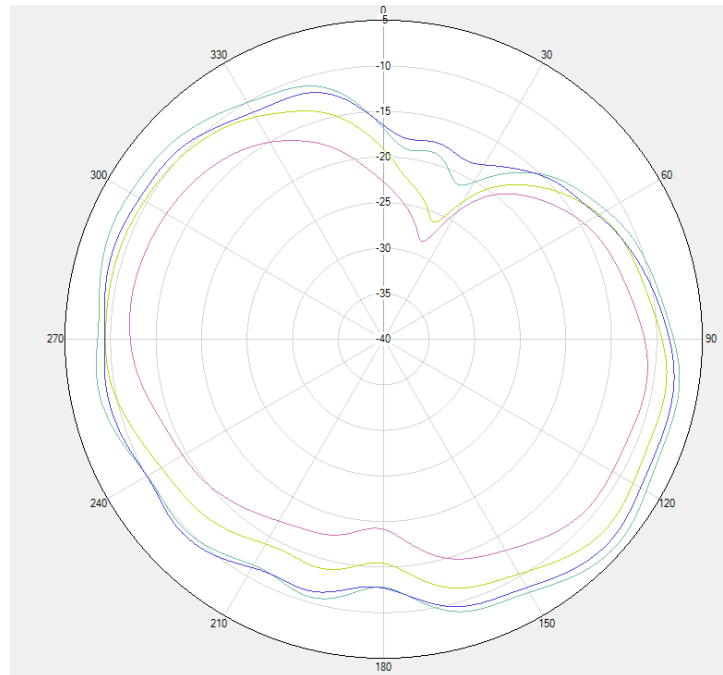
DCS /WCDMA B4/LTE B3/B4/B66 Theta=90deg



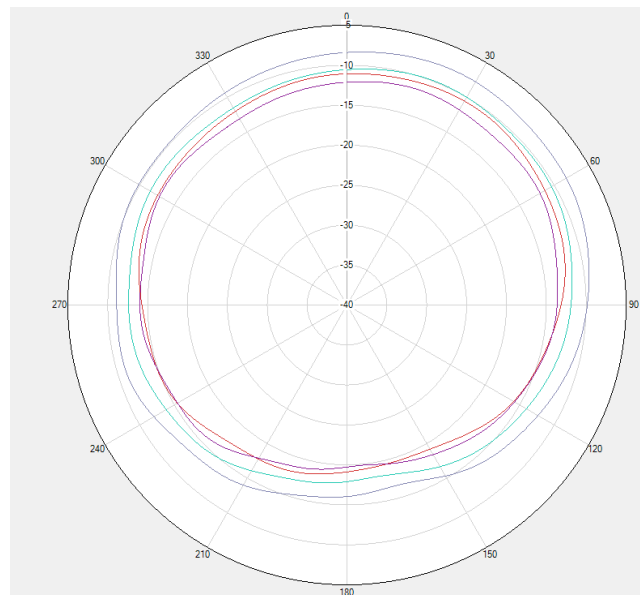
DCS /WCDMA B4/LTE B3/B4/B66 Phi=0deg



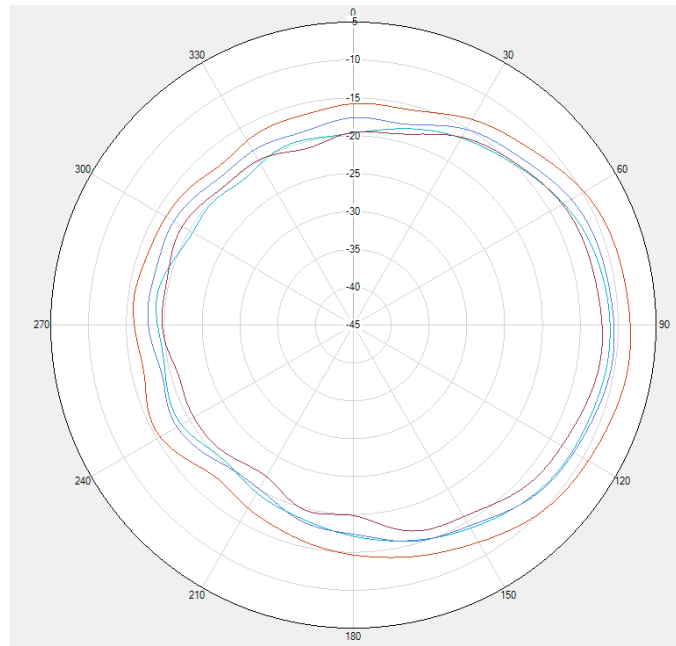
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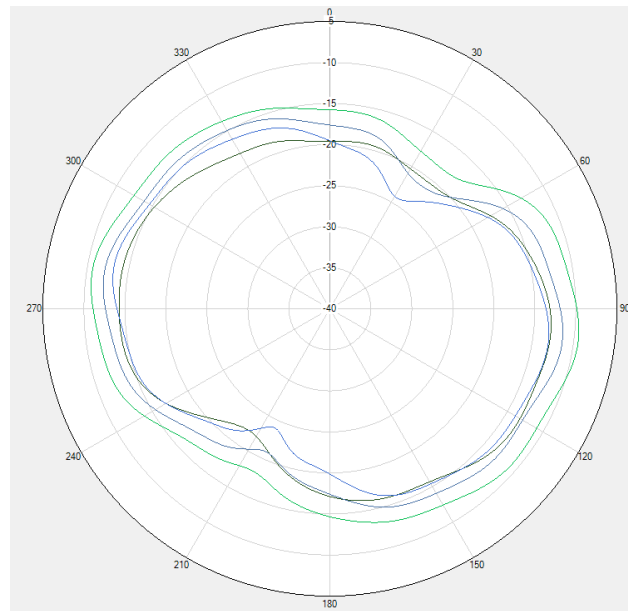
DCS /WCDMA B4/LTE B3/B4/B66 Theta=90deg



DCS /WCDMA B4/LTE B3/B4/B66 Phi=0deg

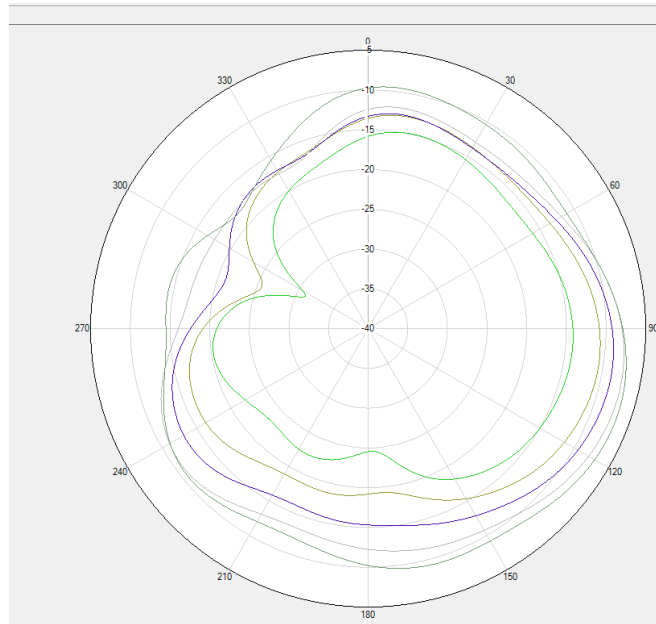


DCS /WCDMA B4/LTE B3/B4/B66 Phi=90deg

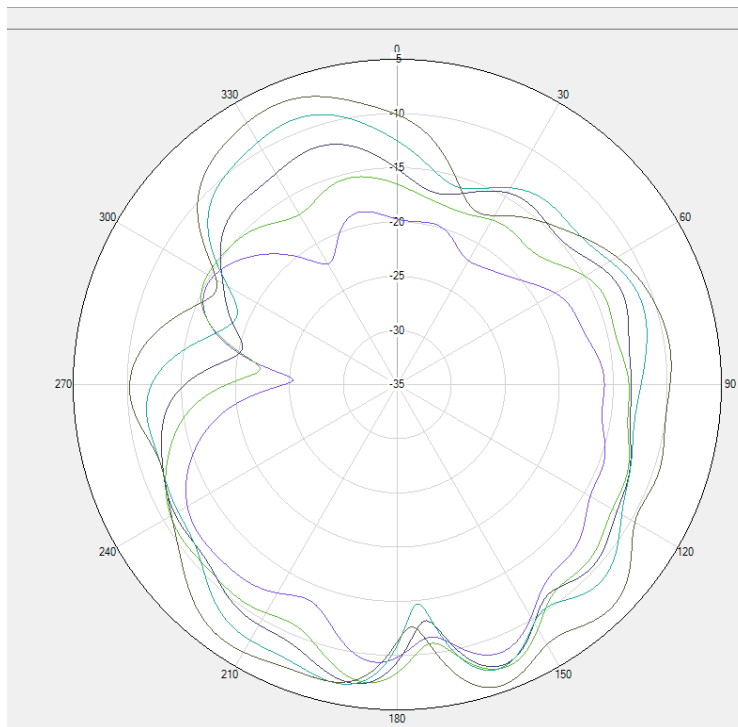


DCS /WCDMA B4/LTE B3/B4/B66 Theta=90deg

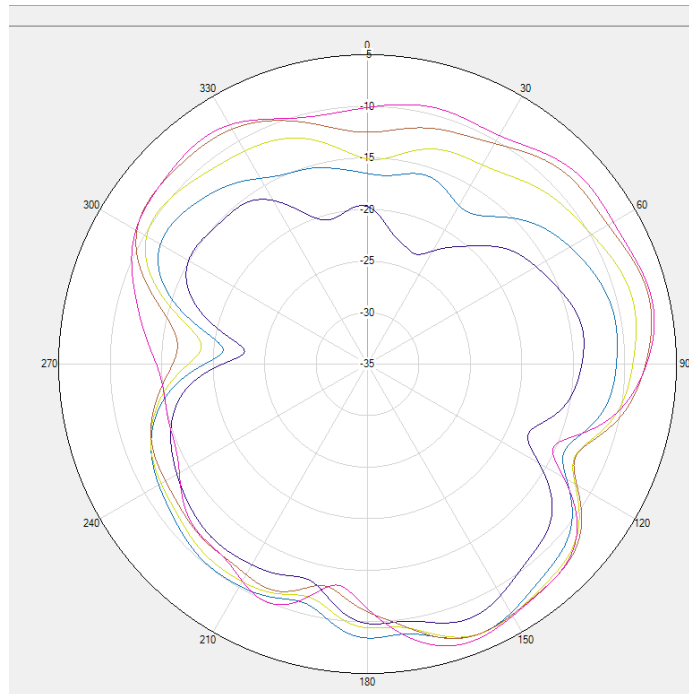
ANT5



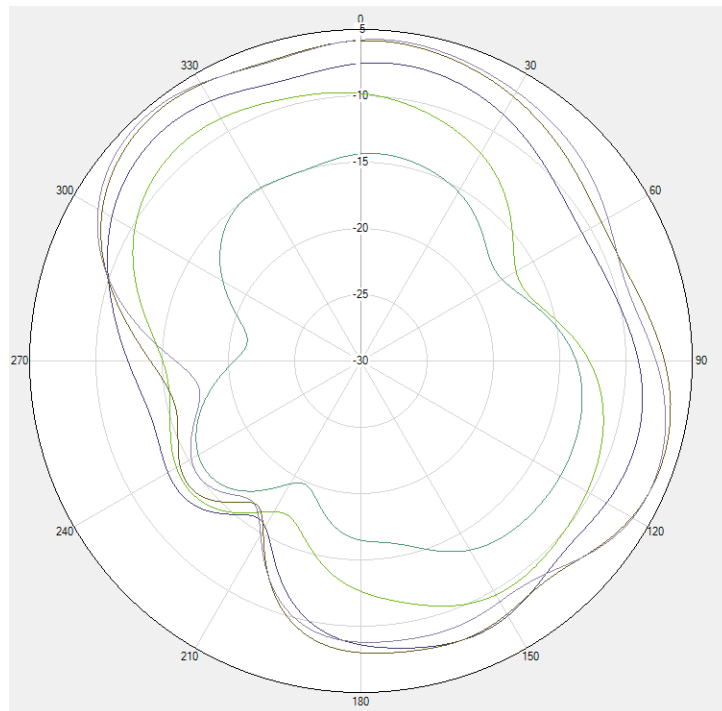
LTE DCS/PCS/WB2/B2/B3/B4/B66 NR n3/n66 Phi=0deg



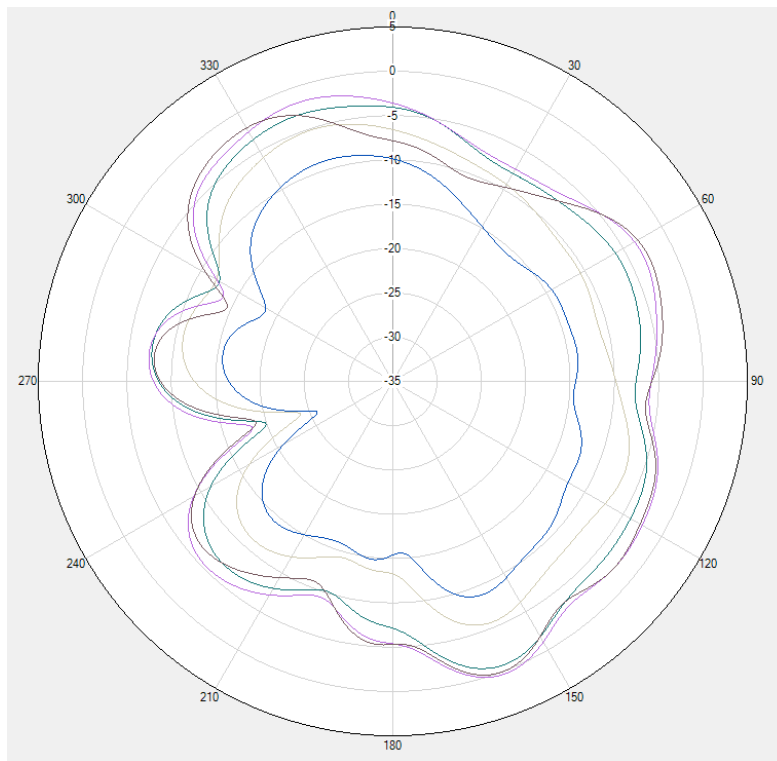
LTE DCS/PCS/WB2/B2/B3/B4/B66 NR n3/n66 Phi=90deg



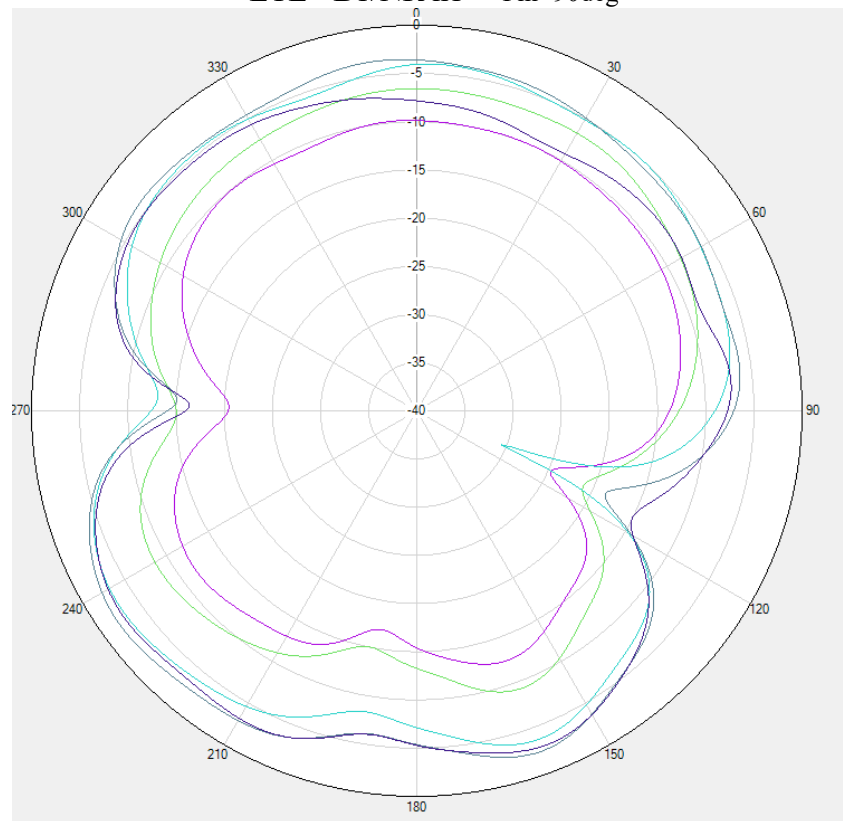
LTE DCS/PCS/WB2/B2/B3/B4/B66 NR n3/n66 Theta=90deg



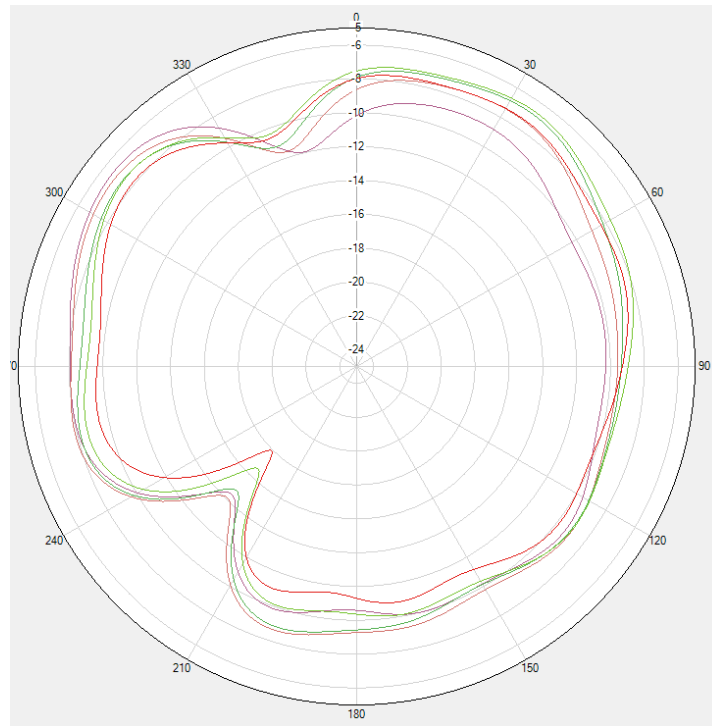
LTE B1/NR n1 Phi=0deg



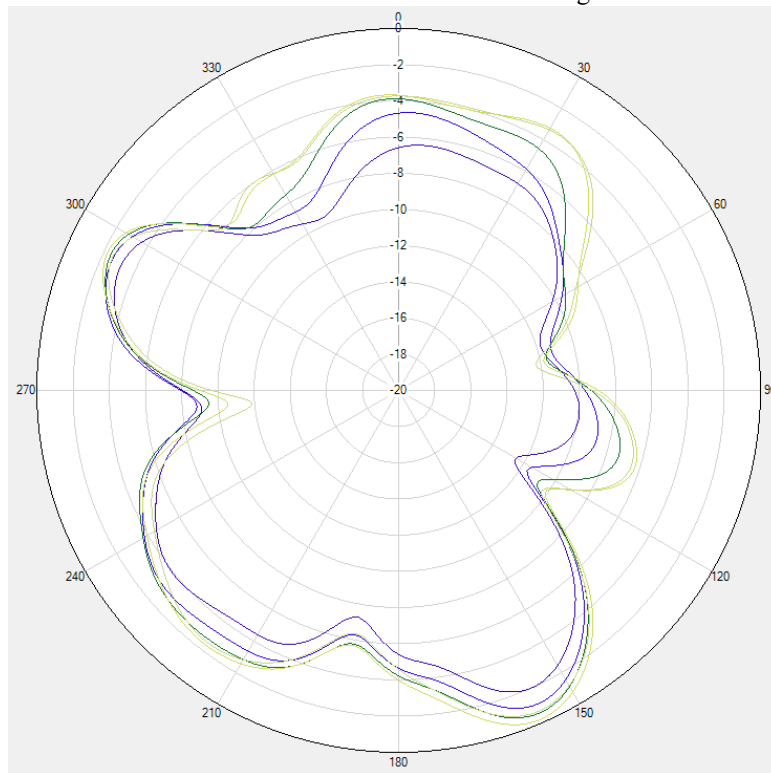
LTE B1/NR n1 Phi=90deg



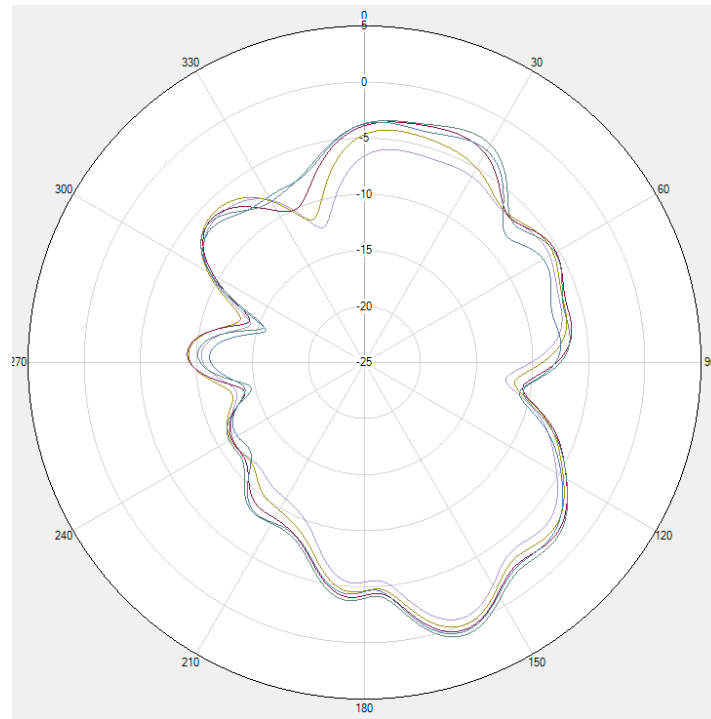
LTE B1/NR n1 Theta=90deg



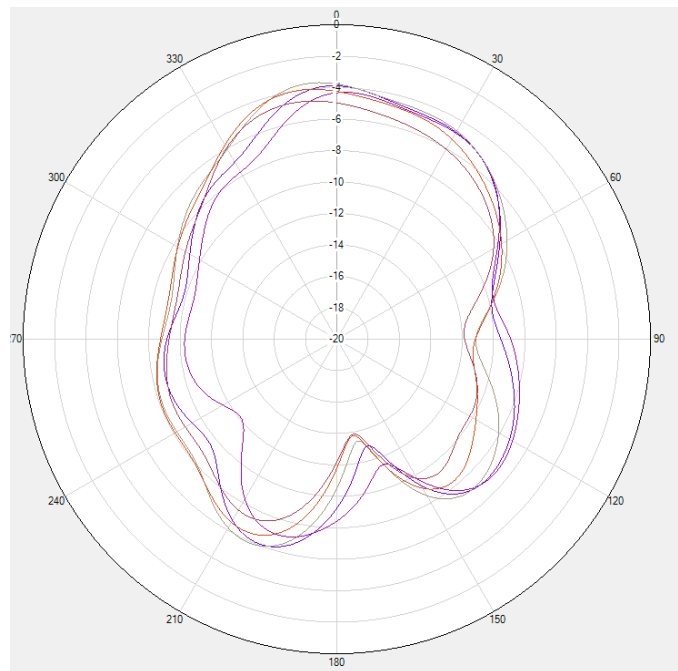
LTE B40/NR n40 $\Phi=0^\circ$



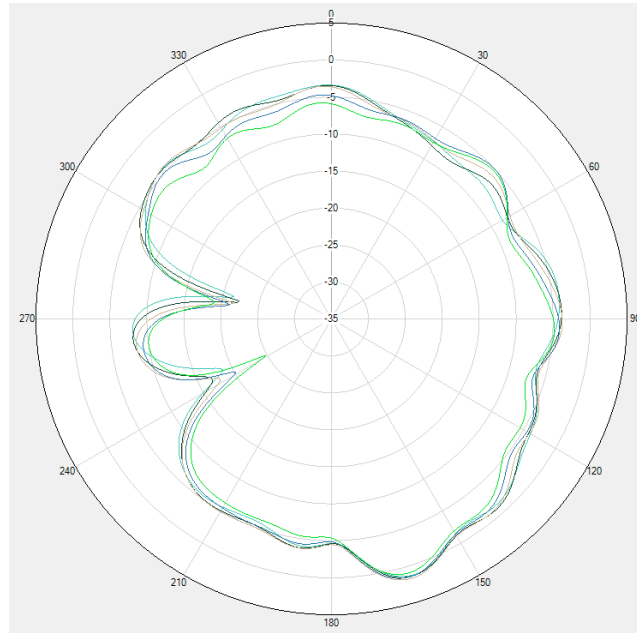
LTE B40/NR n40 $\Phi=90^\circ$



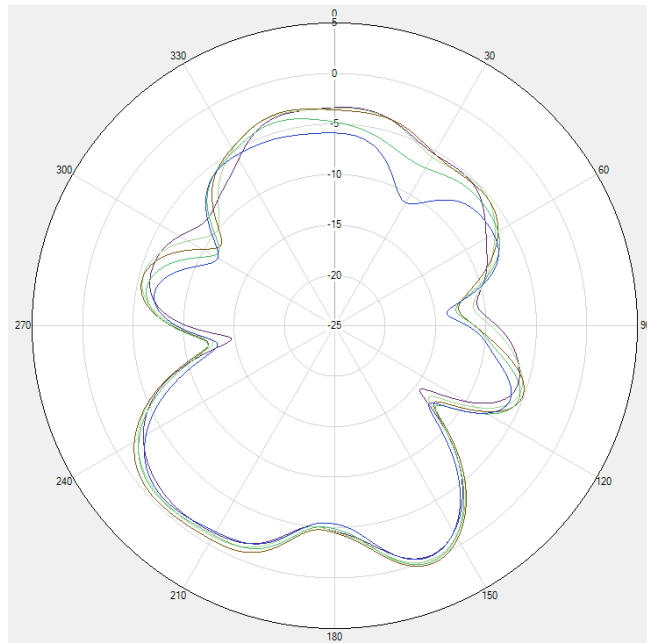
LTE B40/NR n40 Theta=90deg



LTE B7/B38/B40/41 NR n7/n38/n40/n41 Phi=0deg

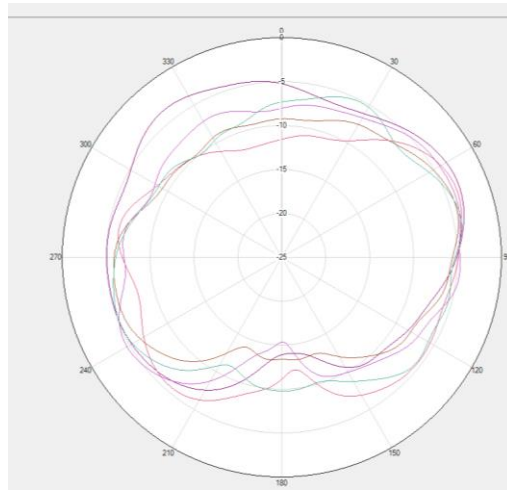


LTE B7/B38/B40/41 NR n7/n38/n40/n41 $\Phi=90^\circ$

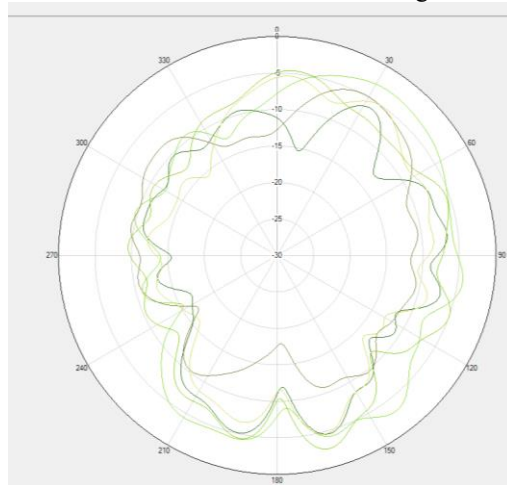


LTE B7/B38/B40/41 NR n7/n38/n40/n41 $\Theta=90^\circ$

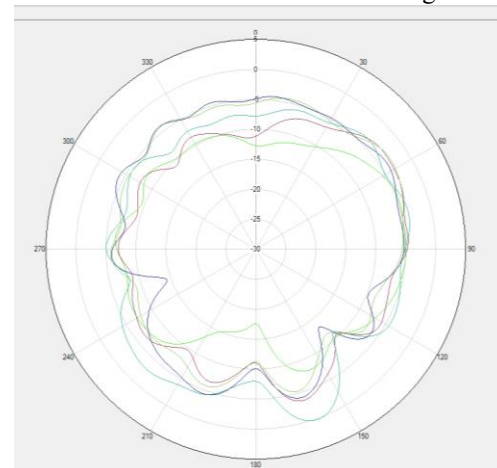
Ant6



B42/NR n77/78 $\Phi=0^\circ$

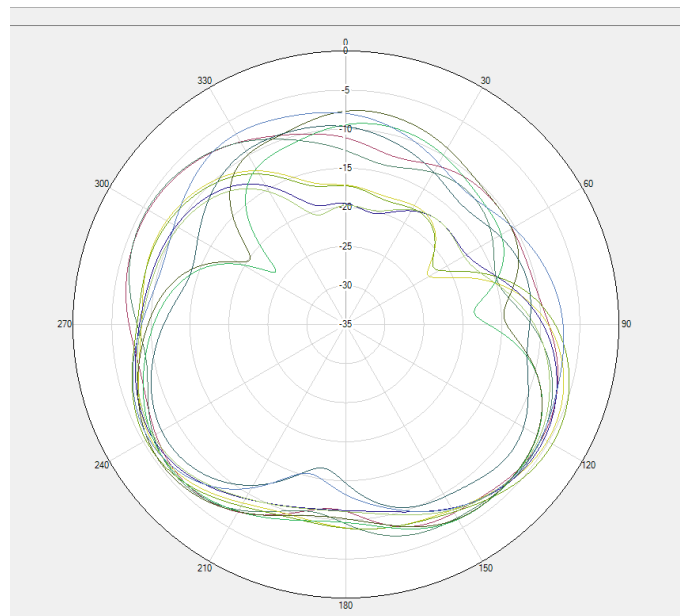


B42/NR n77/78 $\Phi=90^\circ$

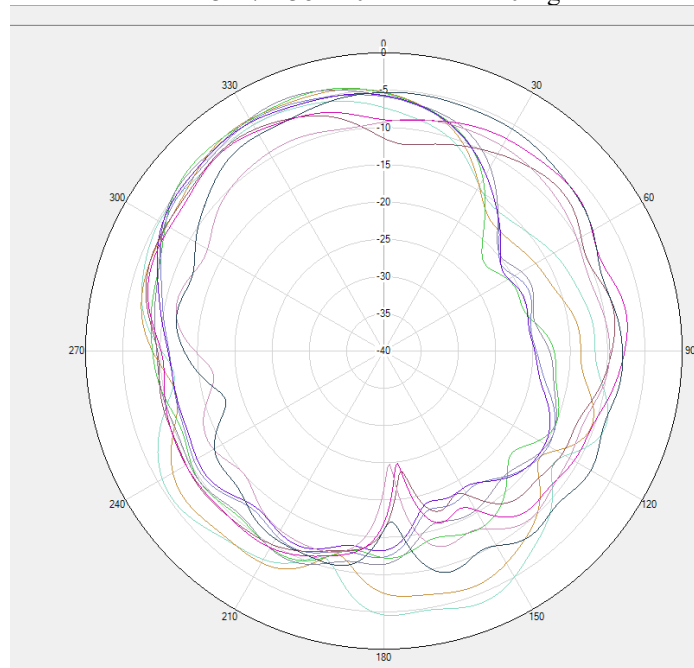


B42/NR n77/78 $\Theta=90^\circ$

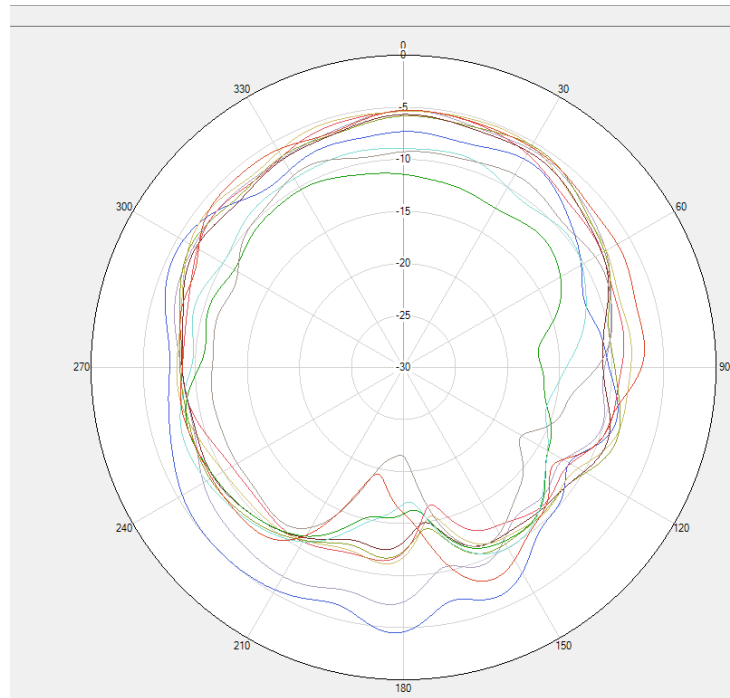
ANT8



B1/B3/B7/B38/B40/B41 $\Phi = 0^\circ$

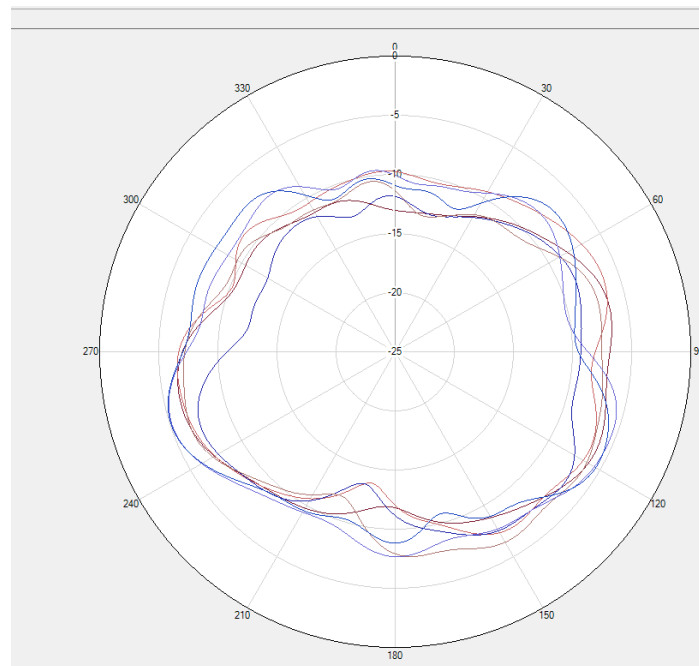


B1/B3/B7/B38/B40/B41 $\Phi = 90^\circ$

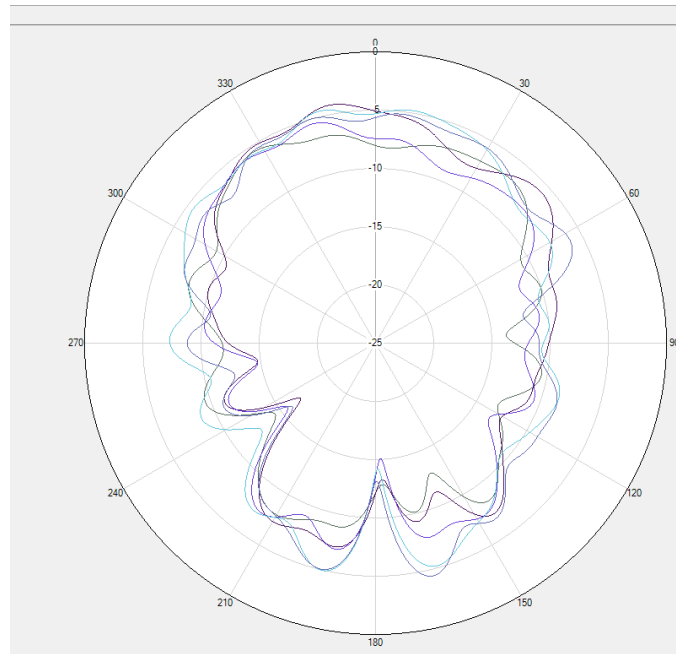


B1/B3/B7/B38/B40/B41 $\Theta=90\text{deg}$

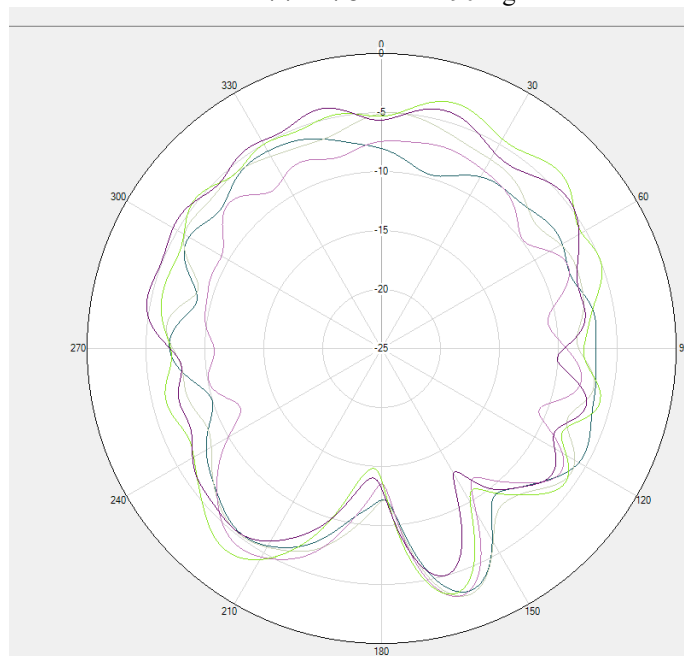
ANT7



B42/N77/N78 $\Phi=0\text{deg}$

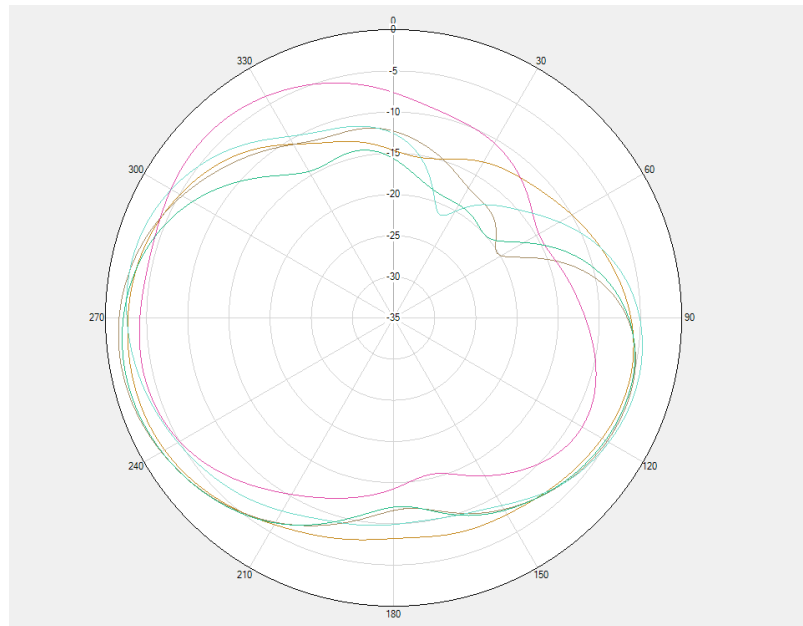


B42/N77/N78 $\Phi=90\text{deg}$

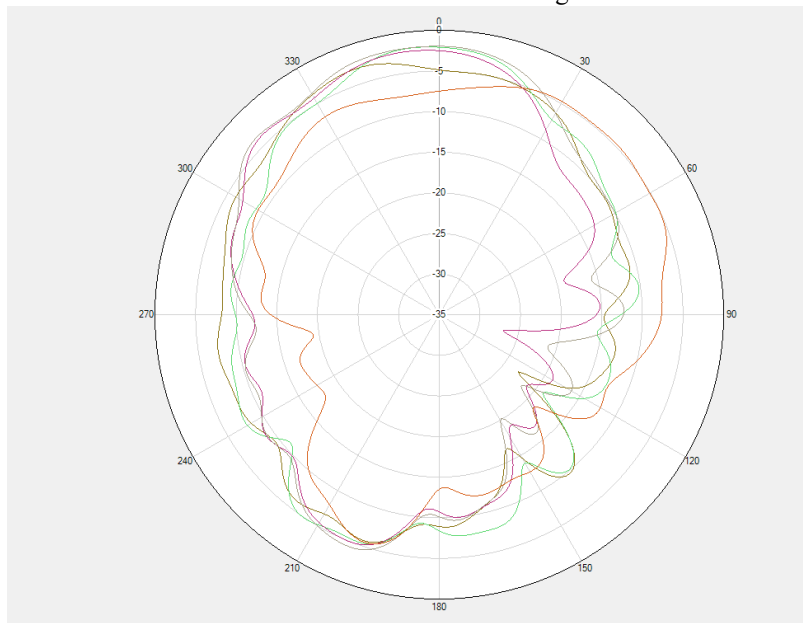


B42/N77/N78 $\Theta=90\text{deg}$

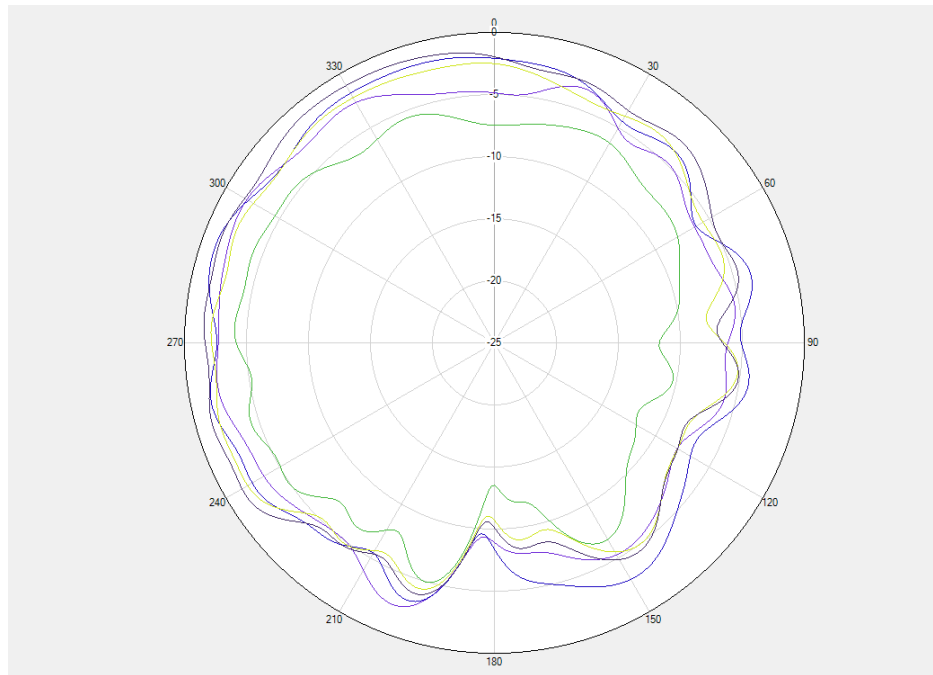
ANT9



B42/N77/N78 $\Phi = 0^\circ$

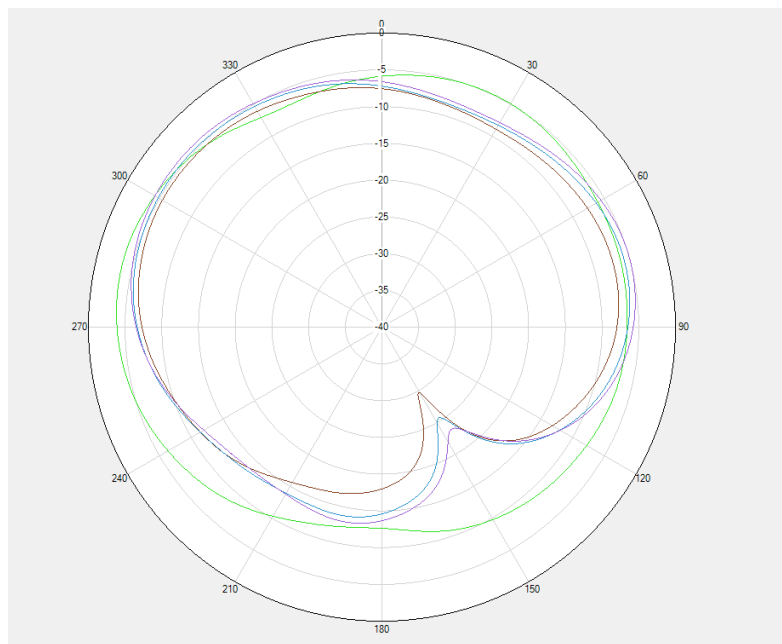


B42/N77/N78 $\Phi = 90^\circ$

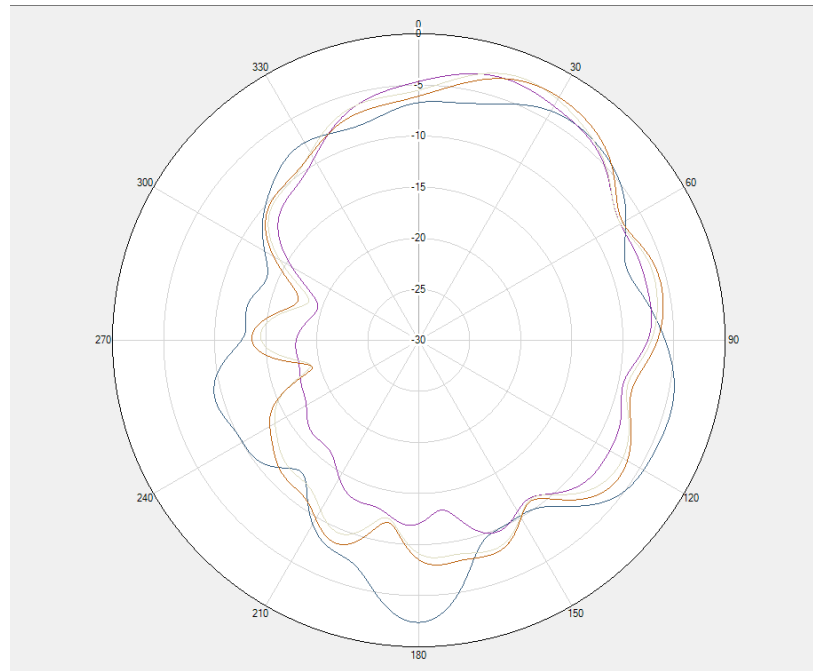


B42/N77/N78 $\Theta = 90^\circ$

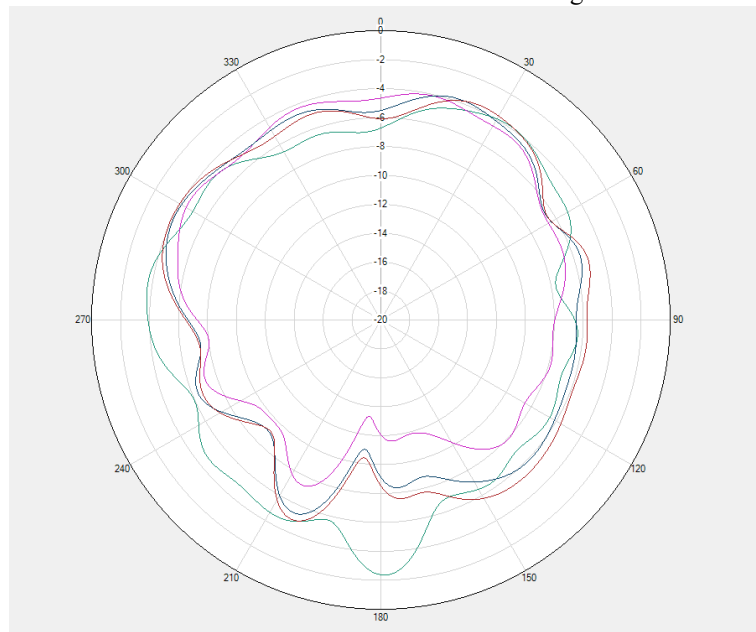
ANT12



GPS/BT/Wifi 2.4G $\Phi = 0^\circ$

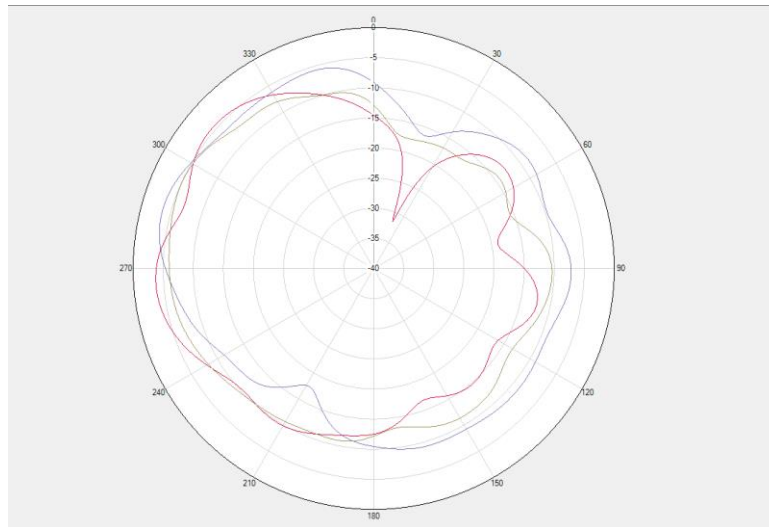


GPS/BT/Wifi 2.4G $\Phi=90\text{deg}$

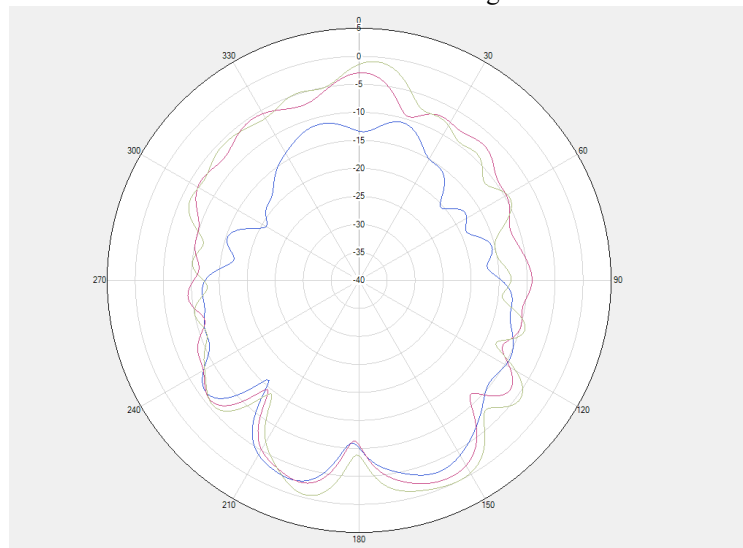


GPS/BT/Wifi 2.4G $\Theta=90\text{deg}$

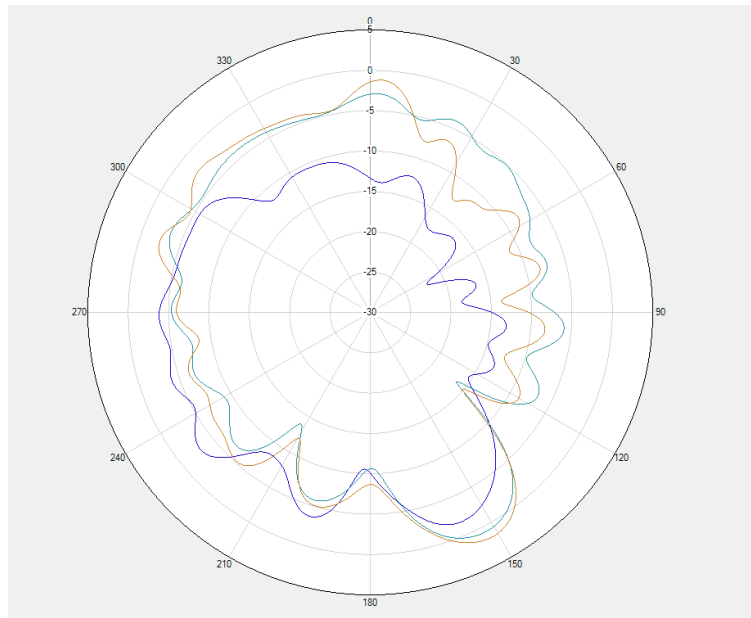
ANT13



Wifi 5G $\Phi=0^\circ$

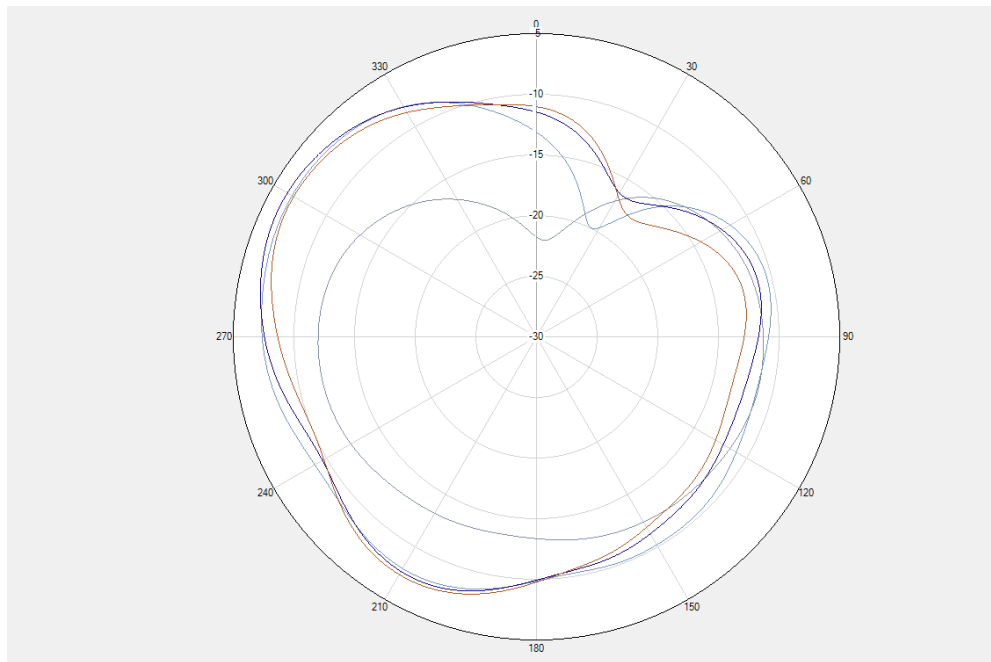


Wifi 5G $\Phi=90^\circ$

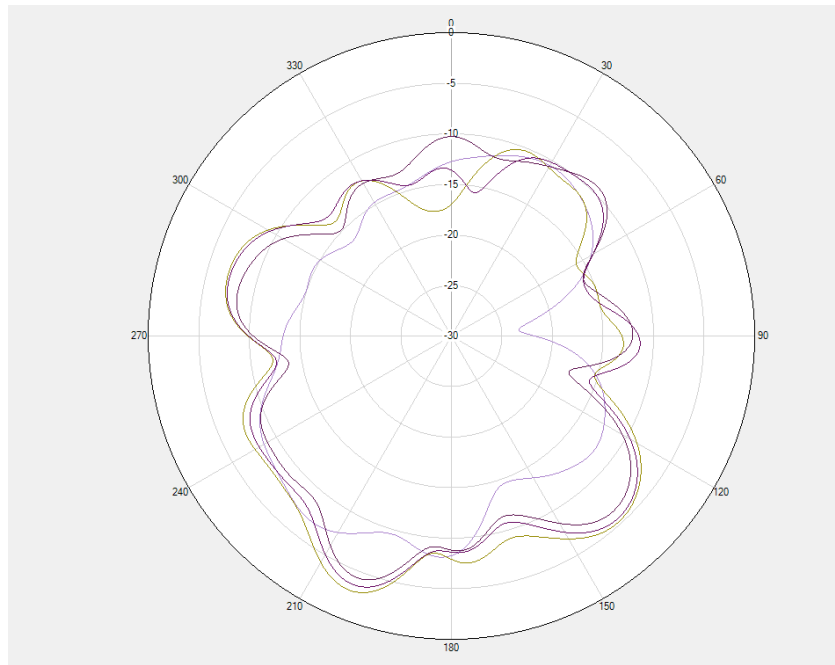


Wifi 5G Theta=90deg

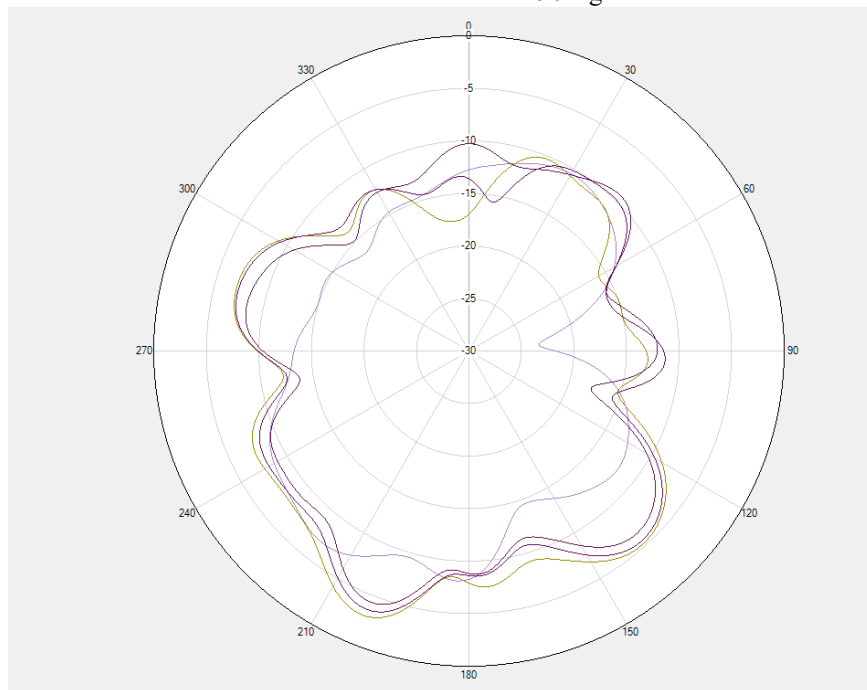
ANT14



BT/Wifi 2.4G Phi=0deg



BT/Wifi 2.4G $\Phi = 90^\circ$



BT/Wifi 2.4G $\Theta = 90^\circ$

PREPARED BY	CHECKEDBY	APPROVAL BY	S.R.NO	
			DATE:	2023/02/05