

Feature

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

Application

※GSM850/PCS/WCDMA B1/B2/B4/B5

LTE B2/B4/B5/B7/B8/B12/B17 /B38 /B41/B42/B66

NR Mode N5/N7 /N12/N38 /N41/N66/N77/N78

Name and address of the antenna manufacturer	Model number of the antenna
Etheta Communication Technology (ShenZhen) Co.Ltd Zone B and Zone D, 3/F, Building 1, Baisha Science and Technology Industrial Park, No. 3011, Shahe West Road, Nanshan District, Shenzhen	AE10-A-ANT15-XX AE10-NFC-XX-XX

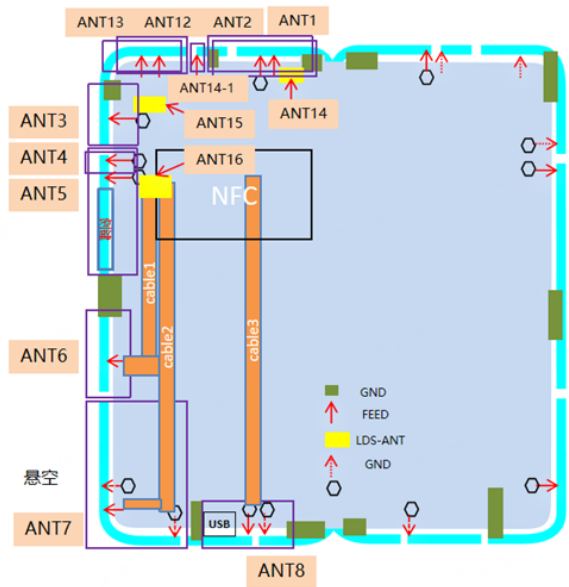
TYPE	
Transmitter Frequency	GSM 850/WCDMA B5/LTE B5 NR n5: 824 – 849 MHz
	DCS /WCDMA B4/LTE B4/B66 NR n66: 1710 – 1785 MHz
	PCS/WCDMA B2/LTE B2:1850-1910MHz
	WCDMA B1/LTE B1 NR n1: 1920 – 1980MHz
	LTE B7 NR n7:2496-2565MHz
	LTE B40 NR n40:2300-2400MHz
	LTE B38/B41 NR n38/n41:2565-2645MHz
	LTE B20 NR n20:832-862MHz
	LTE B12/B17/B28 NR n12/n28:710-755MHz
	LTE B42 NR n77/n78:3300-4200MHz
Receiver Frequency	GSM 850/WCDMA B5/LTE B5 NR n5: 869 – 894 MHz
	DCS/LTE B66 NR n66: 1805 – 1880 MHz
	WCDMA 4/LTE B4 NR n4: 2110-2155 MHz
	PCS/WCDMA B2/LTE B2:1930-1990MHz
	LTE B7 NR n7:2620-2690MHz
	LTE B38/41 NR n38/n41:2565-2645MHz

		LTE B12/B17/B28 NR n12/n28:758-803MHz
		LTE B42 NR n77/n78:3300-4200MHz
RF-Output Power (E.I.R.P)		GSM850: 32+/-2dBm
		PCS: 30+/-2dBm
		LTEB2/B4/B5/B7/B12/B17/B38/B40/B41/B66: 23+/-2dBm
		WCDMA BB2/B4/B5/ B8: 23+/-2dBm
Antenna Average Gain (UNFOL D)	ANT1 78_PRX)	LTE B42,NR77/78: -2.0 dbi
	ANT3 _DRX)	PCS/WCDMA B1/B2/LTE B1/B2/N1/N2: -7.62 dbi
		DCS /WCDMA B4/LTE B3/B4/B66/ N3/N4/N66: -4.69 dbi
		LTE B7/B38//B41/N7/N38/N41: -1.55 dbi
		LTE B40,NR N40: -2.75 dbi
	ANT4(LB_D RX)	LTE B12/B17/B28 NR n12/n28:-9.23 dbi
		GSM 850, WCDMA B5, LTE B5,NR n5:-10.63 dbi
		GSM900, WCDMA B8, LTE B8 ,NR n8: -9.65 dbi
		LTE B20/N20: -13.4 dbi
	ANT5(N77/78 _DRX2)	LTE B42, NR77/78: -3.25 dbi
	ANT6(WIFI_ 2.4G+N77/78 _DRX)	LTE B42, NR77/78: -4.75 dbi WIFI 2.4G MIMO2: -4.01 dbi
	ANT7(LB_PR X)	LTE B12/B17/B28 NR n12/n28: -6.31 dbi
		GSM 850, WCDMA B5, LTE B5 B20,NR n5,n20 ÷ 5.33 dbi
		GSM900, WCDMA B8, LTE B8,NR n8: -4.61 dbi
	ANT8 _TRX+N77/7 8_PRX2)	WCDMA B1/LTE B1/B34,NR N1: -5.26 dbi
		PCS/WCDMA B2/LTE B2/B39: -4.32 dbi
		DCS /WCDMA B4/LTE B3/B4/B66/ N3/N4/N66: -3.83 dbi
		LTE B7/B38/B41/N7N38/N41: -1.63 dbi
		LTE B40,NR N40: -3.13 dbi
		LTE B42, NR77/78: -1.5 dbi
	ANT12:(GPS_ L1)	GPS L1: -3 dbi
	ANT13 _L5+WIFI2.4 G)	GPS L5: -4.85 dbi WIFI 2.4G MIMO1: -5.12 dbi
	ANT15 (	WIFI 5G MIMO1: -4.06 dbi

Antenna Average Gain (D)	I5G/6E_MIMO1)	WIFI 6E MIMO1: -0.9 dbi
	ANT16 (WIFI) I5G/6E_MIMO2)	WIFI 5G MIMO2:-1.83 dbi WIFI 6E MIMO2: 0.4 dbi
	ANT1 (I5G/6E) 78_PRX)	LTE B42,NR77/78: -3.3 dbi
	ANT3 (I5G/6E) _DRX)	PCS/WCDMA B1/B2/LTE B1/B2/N1/N2: -9.83 dbi
		DCS /WCDMA B4/LTE B3/B4/B66/ N3/N4/N66: -7.65 dbi
		LTE B7/B38//B41/N7/N38/N41: -3.34 dbi
		LTE B40,NR N40: -3.42 dbi
	ANT4(LB_D RX)	LTE B12/B17/B28 NR n12/n28: -9 dbi
		GSM 850, WCDMA B5, LTE B5,NR n5: -9.64 dbi
		GSM900, WCDMA B8, LTE B8 ,NR n8: -9.57 dbi
		LTE B20/N20:-11.23 dbi
	ANT5(N77/78 _DRX2)	LTE B42, NR77/78: -6.48 dbi
	ANT6(WIFI_2.4G+N77/78 _DRX)	LTE B42, NR77/78: -6.98 dbi WIFI 2.4G MIMO2: -4.32 dbi
	ANT7(LB_PR X)	LTE B12/B17/B28 NR n12/n28: -8.71 dbi
		GSM 850, WCDMA B5, LTE B5 B20,NR n5,n20 : -8.85 dbi
		GSM900, WCDMA B8, LTE B8,NR n8: -8.79 dbi
	ANT8 (I5G/6E) _TRX+N77/78_PRX2)	WCDMA B1/LTE B1/B34 : -4.52 dbi
		PCS/WCDMA B2/LTE B2/B39: -6.28 dbi
		DCS /WCDMA B4/LTE B3/B4/B66/ N3/N4/N66:-5.15 dbi
		LTE B7/B38/B41/N7N38/N41: -1.86 dbi
		LTE B40,NR N40: -3.9 dbi
		LTE B42, NR77/78: -3.6 dbi
	ANT12:(GPS_L1)	GPS L1: -5.6 dbi

RF NFC, WPT	ANT13 (_L5+WIFI2.4G)	GPS L5: -8.9 dbi WIFI 2.4G MIMO1: -7.35 dbi
	ANT15 (I5G/6E_MIMO1)	WIFI 5G MIMO1:-3.51 dbi WIFI 6E MIMO1: -0.81 dbi
	ANT16 (I5G/6E_MIMO2)	WIFI 5G MIMO2: -2.52 dbi WIFI 6E MIMO2: -1.19 dbi
	Antenna type	PIFA
	Antenna type	Coil

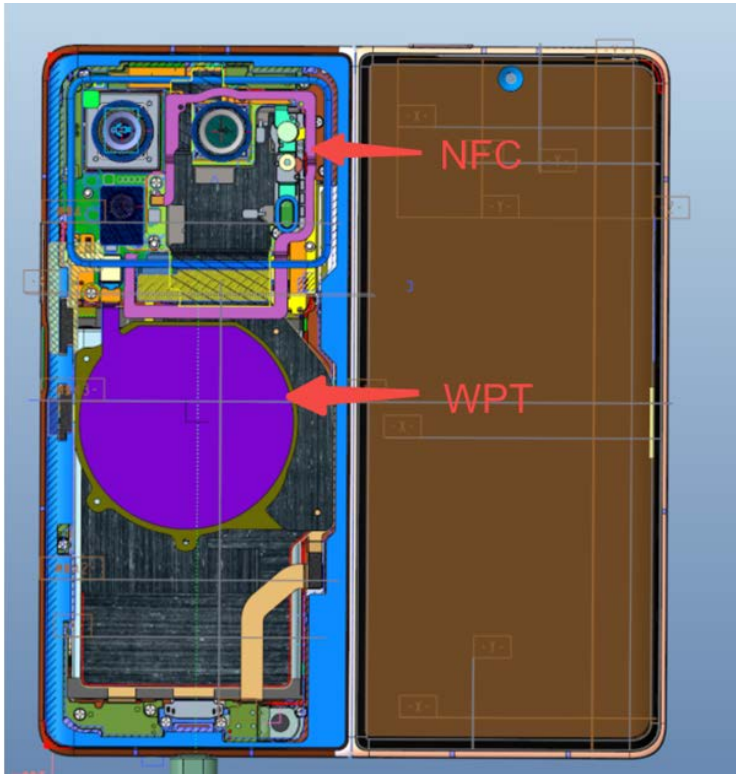
Antenna profile



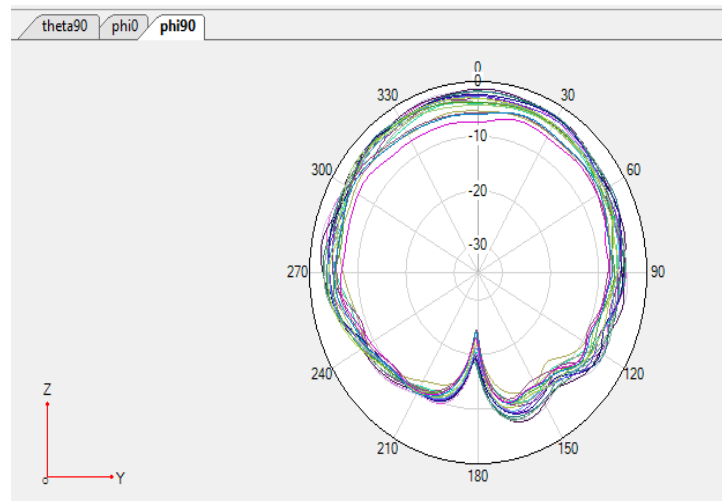
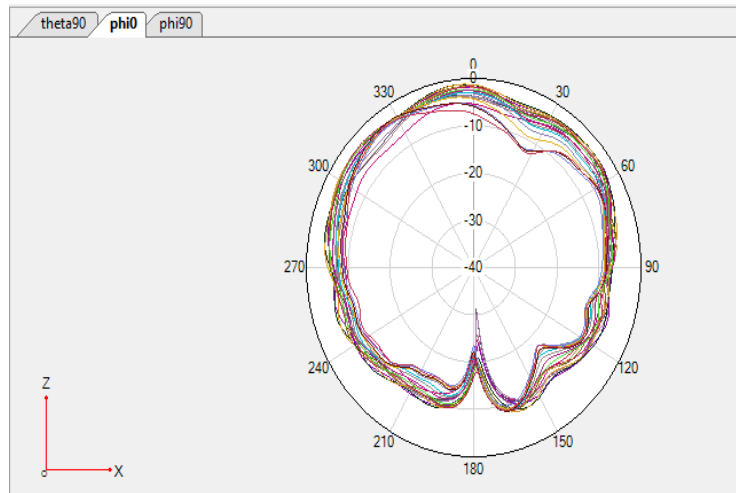
ANT1	5G-TX: N77/78-TX
ANT2	4G-RX: B1/3/40 (RX) 5G-RX: 1/3/40 (RX)
ANT3	2G-RX: GSM1800 (RX) 3G-RX: W1 (RX) 4G-RX: B1/3/40 (RX) 5G-RX: 1/3/40 (RX)
ANT4	2G-RX: GSM900 (RX) 3G-RX: W8 (RX) 4G-RX: B5/8 (RX) 5G-RX: 5/8 (RX)
ANT5	5G-TX: N77/78-RX
ANT6	5G-TX: N77/78-RX
ANT7	2G-TX: GSM900 (TX) 3G-TX: W8 (TX) 4G-TX: B5/8 (TX) 5G-TX: 5/8 (TX) 4G-RX: B1/3/40 (RX) 5G-RX: 1/3/40 (RX)
ANT8	2G-TX: GSM1800 (TX) 3G-TX: W1/ (TX) 4G-TX: LTEB1/3/40 (TX) 5G-RX: 1/3/40 (TX) 5G-TX: N77/78-RX

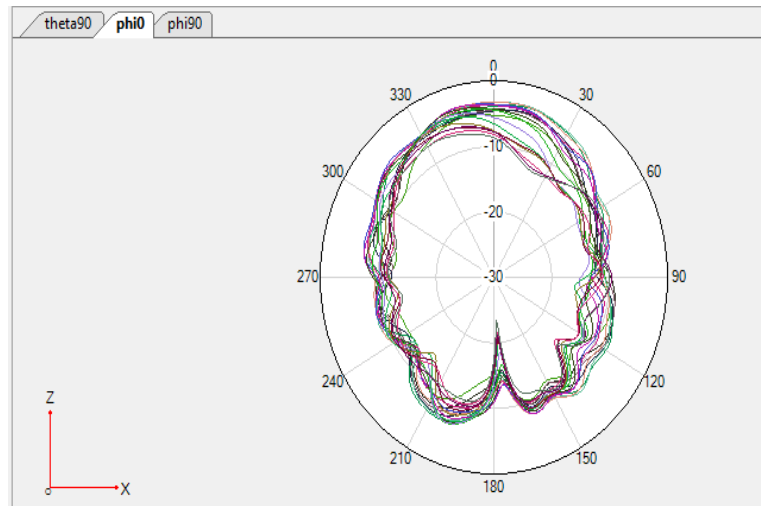
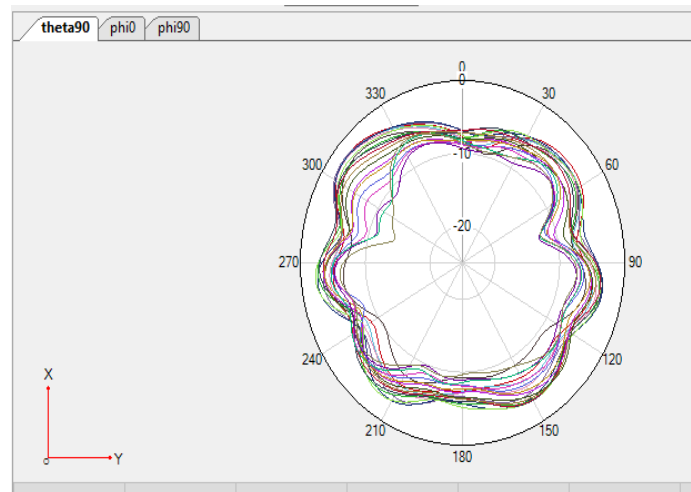
Assembly	4G TX	5G TX	Remarks (need to mark cut to ANT _X)
B3-N1	ANT2	ANT8	N need to cut ANT3
B8-N1	ANT7	ANT8	
B40-N1	ANT2	ANT8	
B1-N3	ANT2	ANT8	
B8-N3	ANT7	ANT8	
B1-N5	ANT8	ANT7	
B3-N5	ANT8	ANT7	
B1-N8	ANT8	ANT7	
B3-N8	ANT8	ANT7	
B1-N40	ANT2	ANT8	
B3-N40	ANT2	ANT8	
B5-N40	ANT7	ANT8	
B8-N40	ANT7	ANT8	

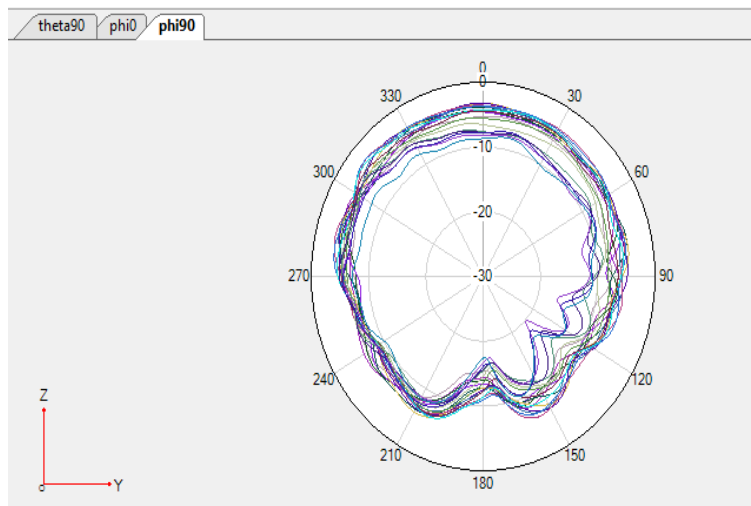
Note: The ANT value in the table indicates the serial number of the antenna



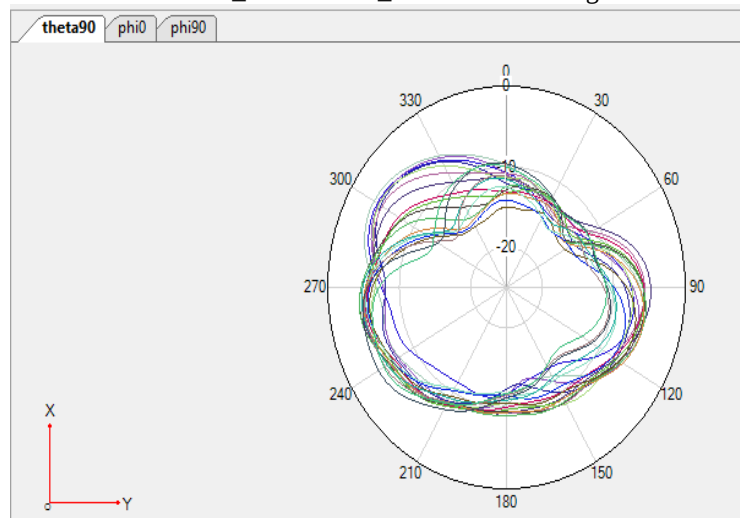
※ Antenna Gain
ANT1







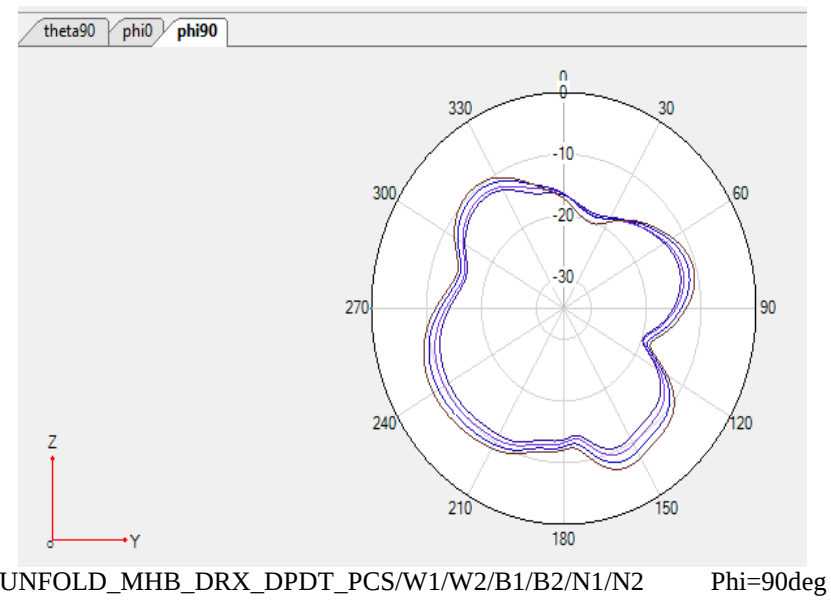
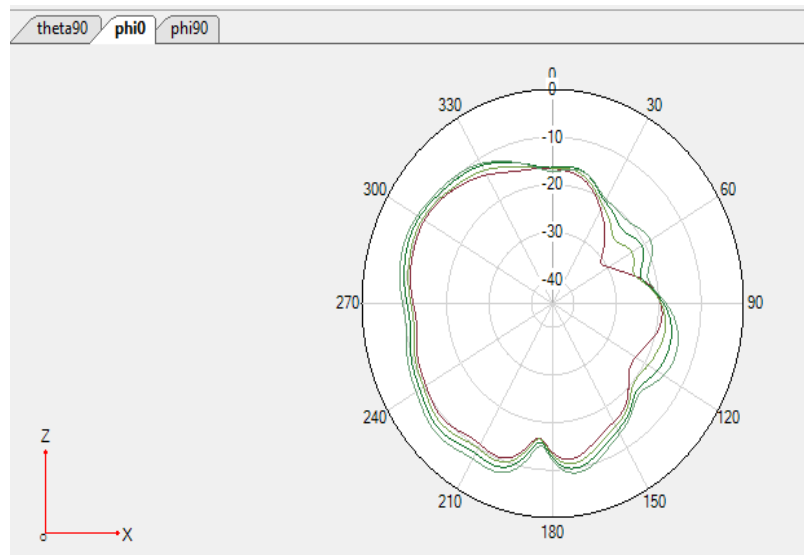
FOLD_N77/78/B42_PRX $\Phi = 90^\circ$

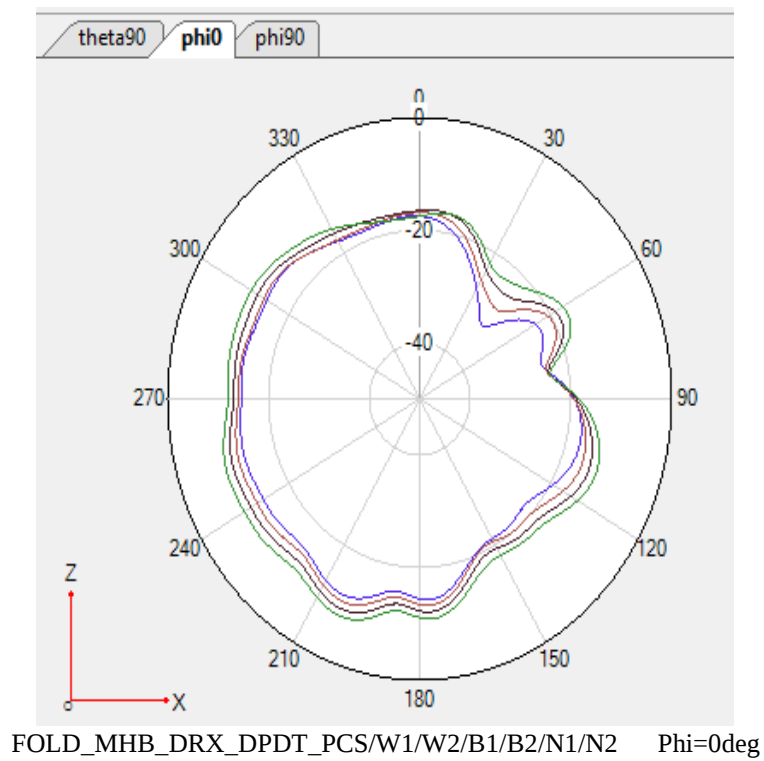
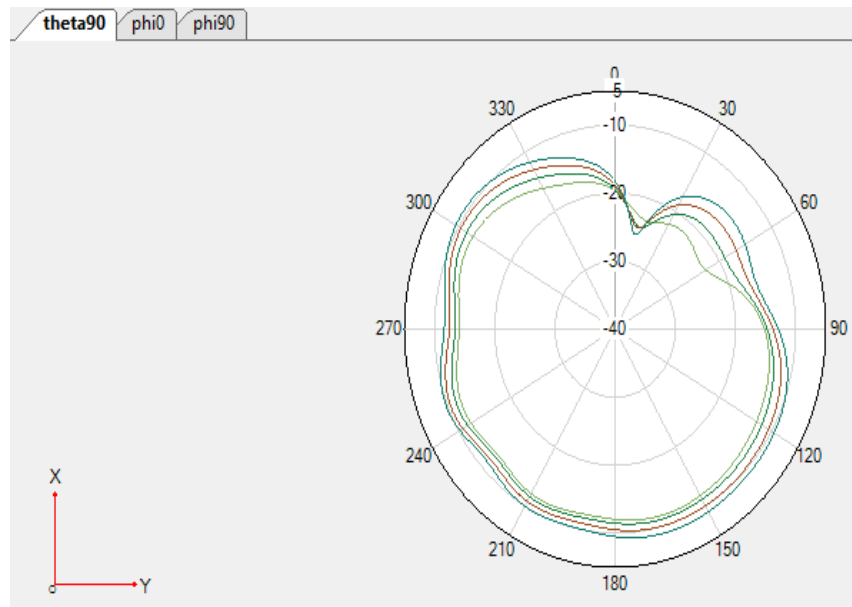


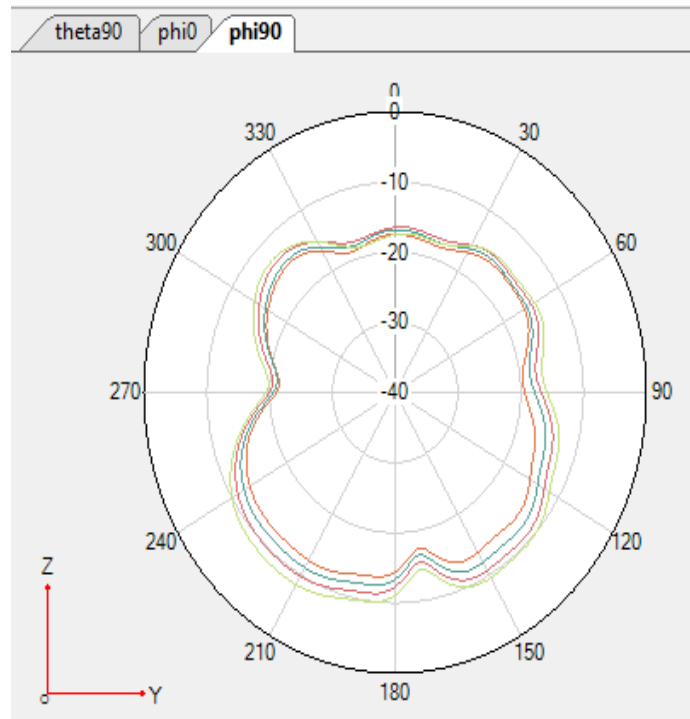
FOLD_N77/78/B42_PRX $\Theta = 90^\circ$

※ Antenna Gain

ANT3

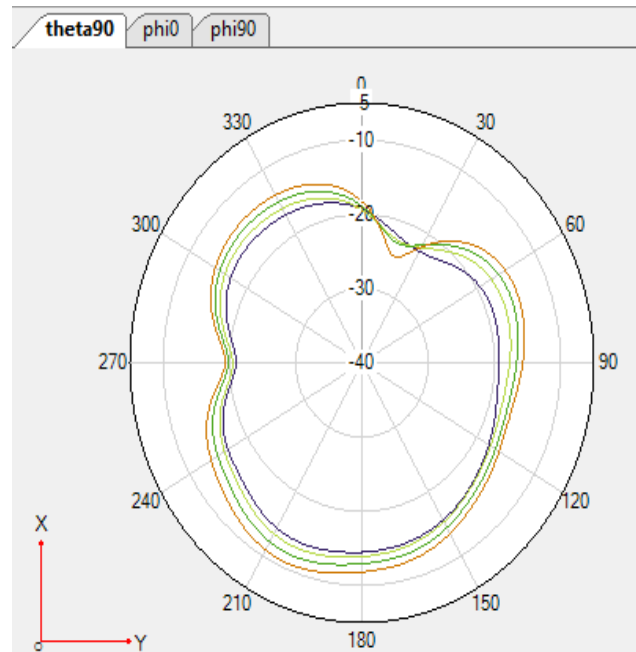






FOLD_MHB_DRX_DPDT_PCS/W1/W2/B1/B2/N1/N2

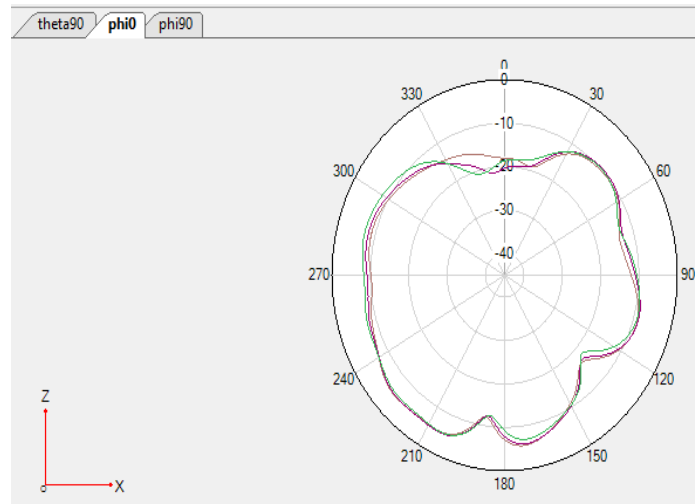
Phi=90deg



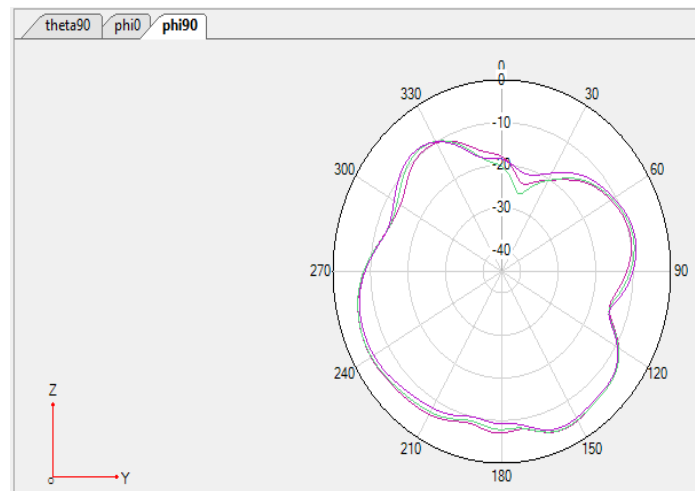
FOLD_MHB_DRX_DPDT_PCS/W1/W2/B1/B2/N1/N2

Theta=90deg

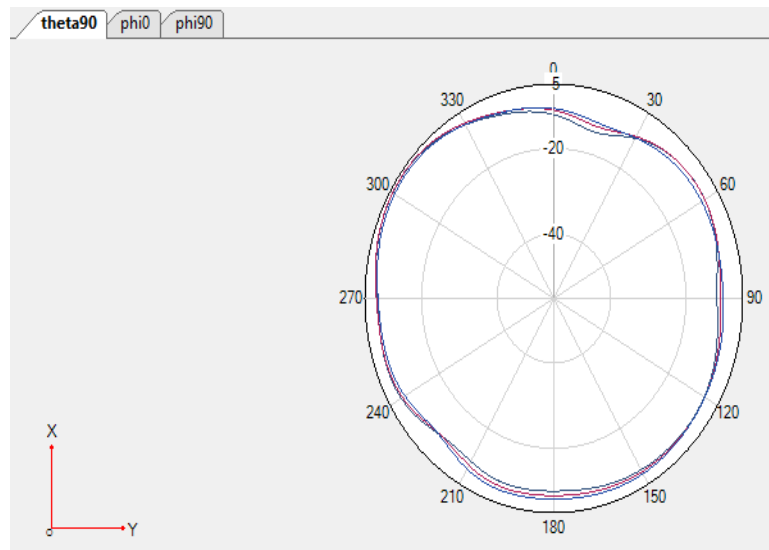
ANT3



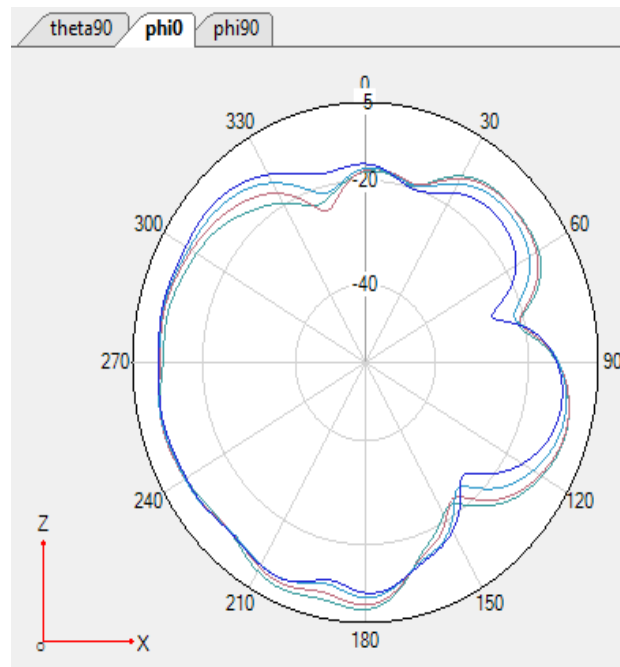
UNFOLD_MHB_DRX_DPDT_DCS/W4/B3/B4/B66/N3/N4/N66 $\Phi = 0^\circ$



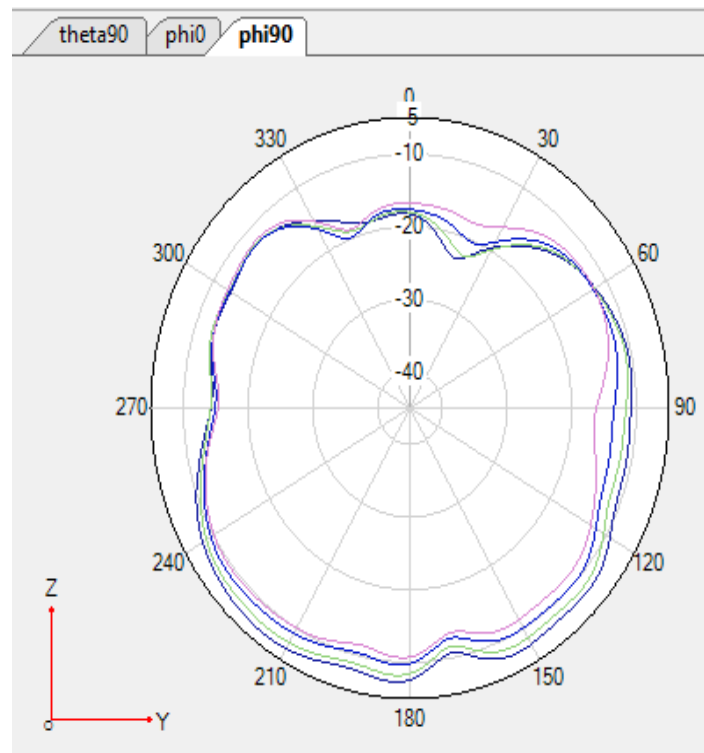
UNFOLD_MHB_DRX_DPDT_DCS/W4/B3/B4/B66/N3/N4/N66 $\Phi = 90^\circ$



Theta=90deg

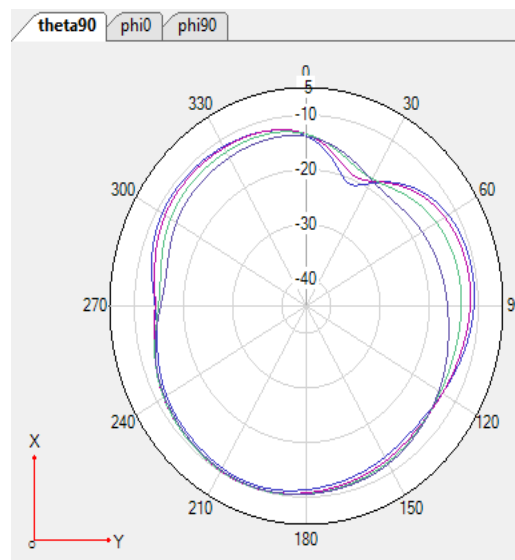


Phi=0deg



FOLD_MHB_DRX_DPD.../W4/B3/B4/B66/N3/N4/N66

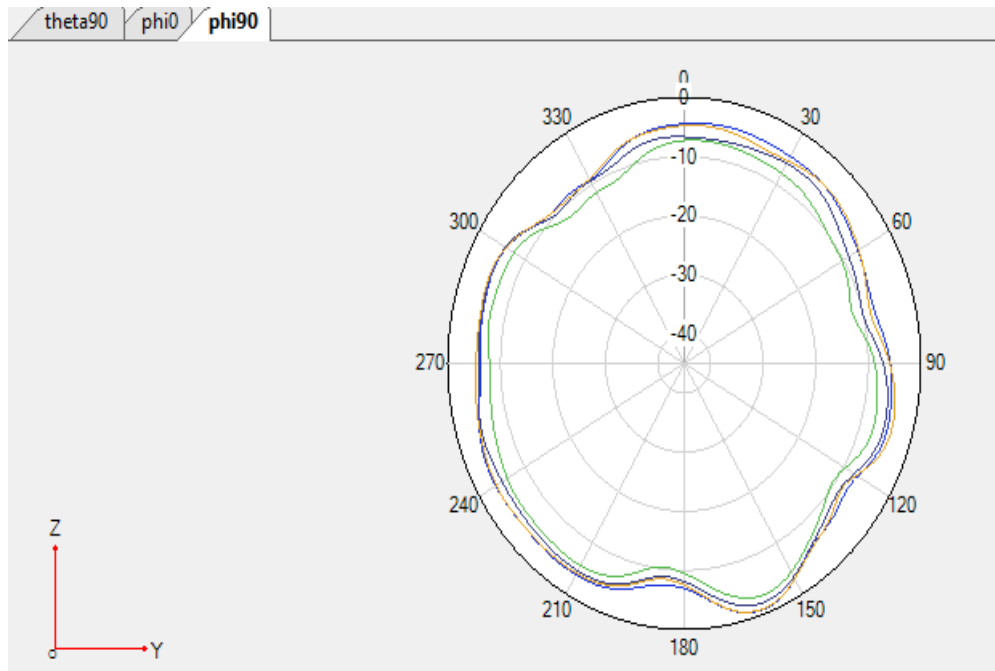
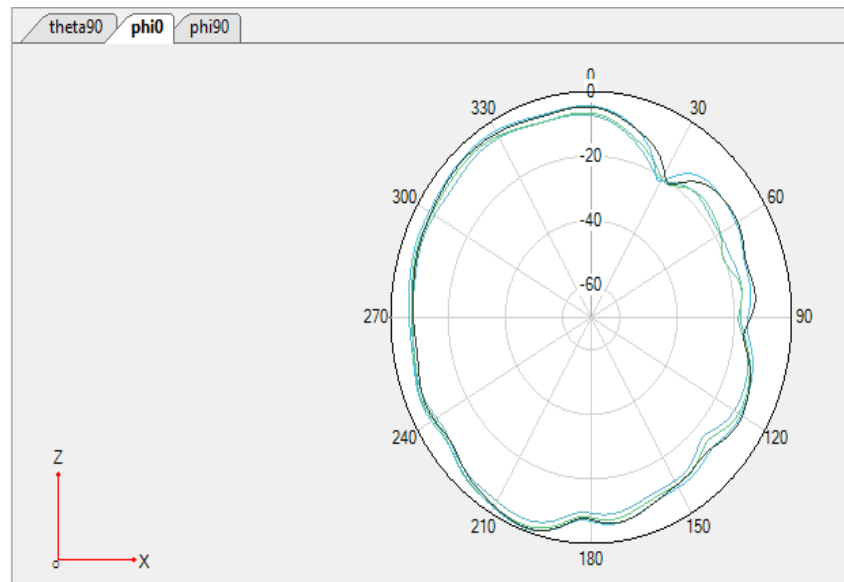
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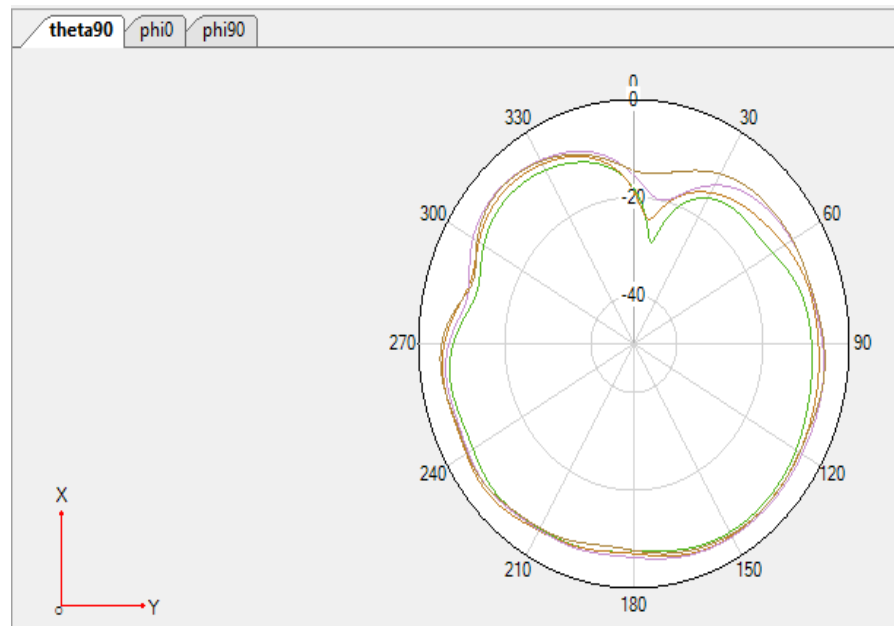


FOLD_MHB_DRX_DPD.../W4/B3/B4/B66/N3/N4/N66

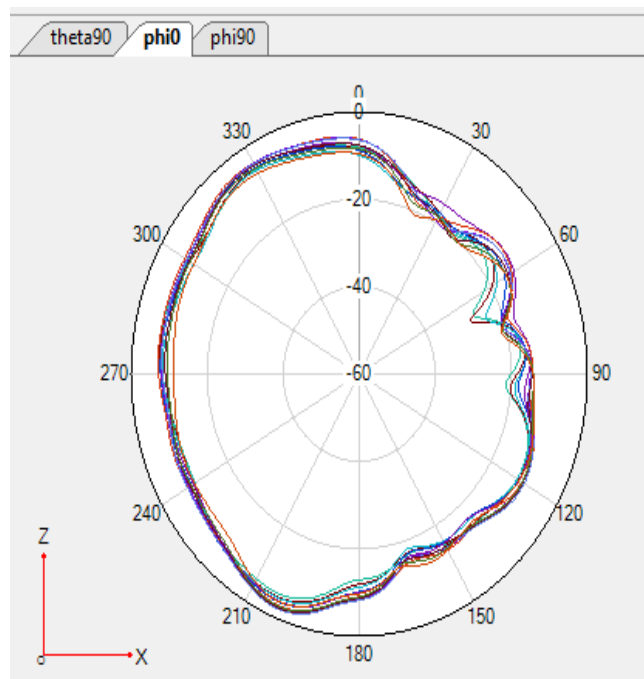
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ANT3

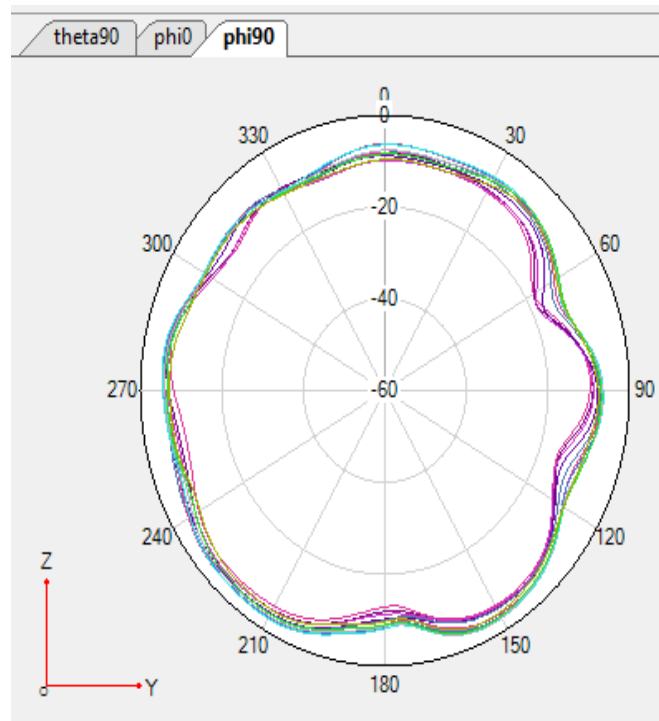




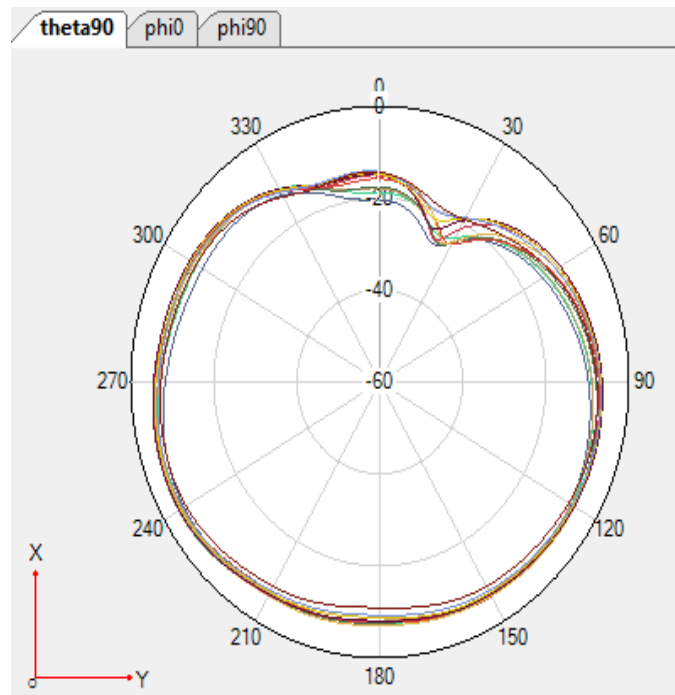
Theta=90deg



Phi=0deg

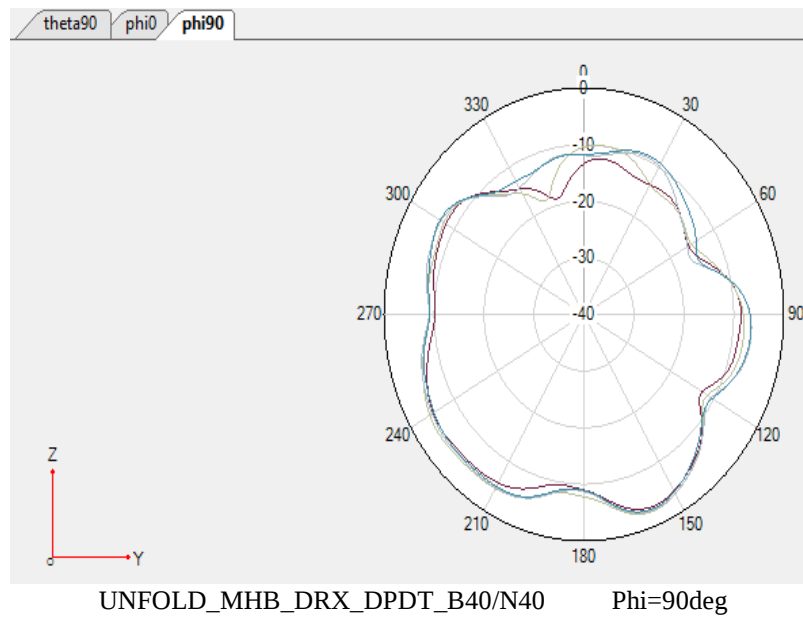
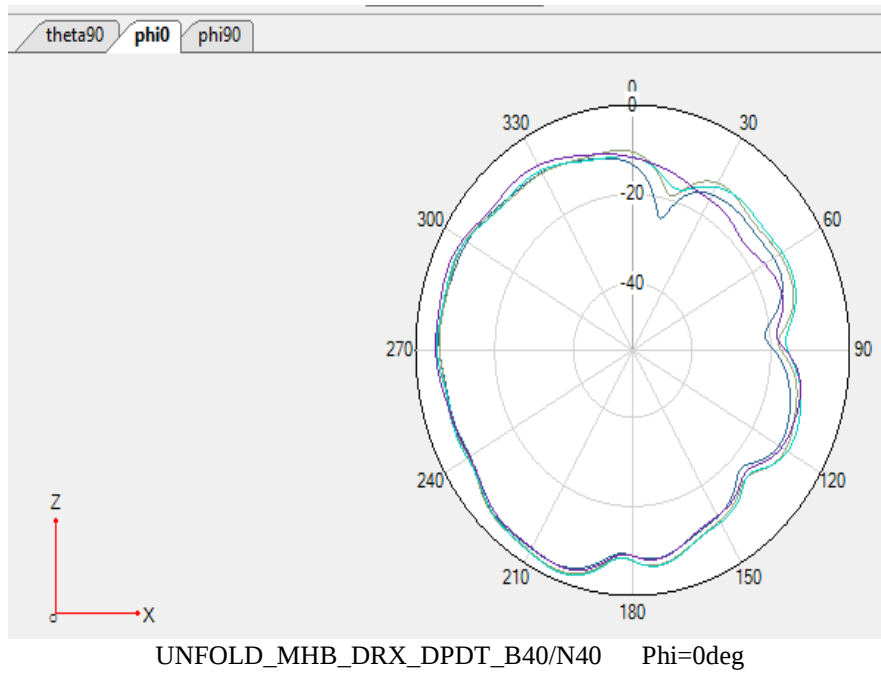


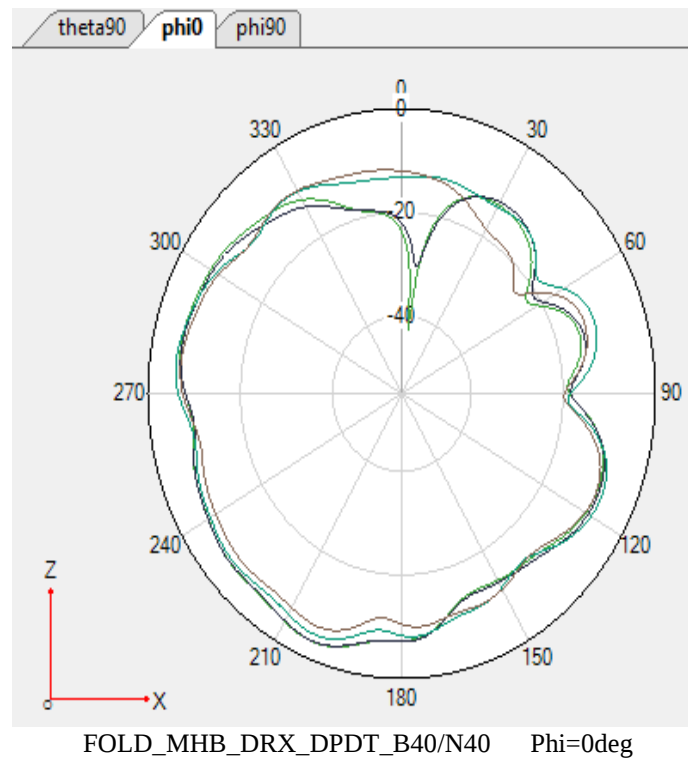
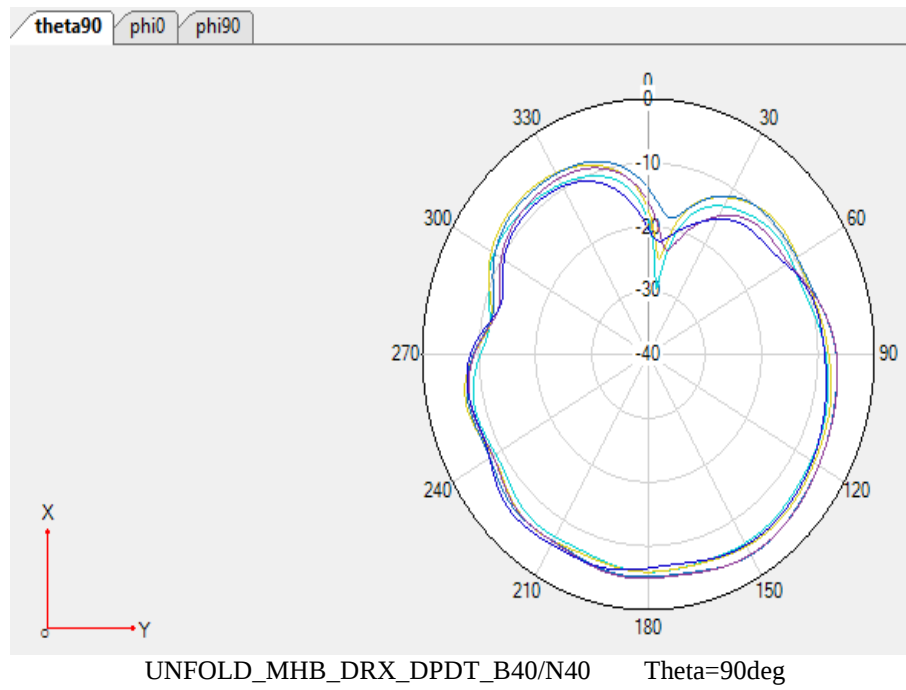
FOLD_MHB_DRX_DPDT_B7/B38/B41/N7/N83/N41 Phi=90deg

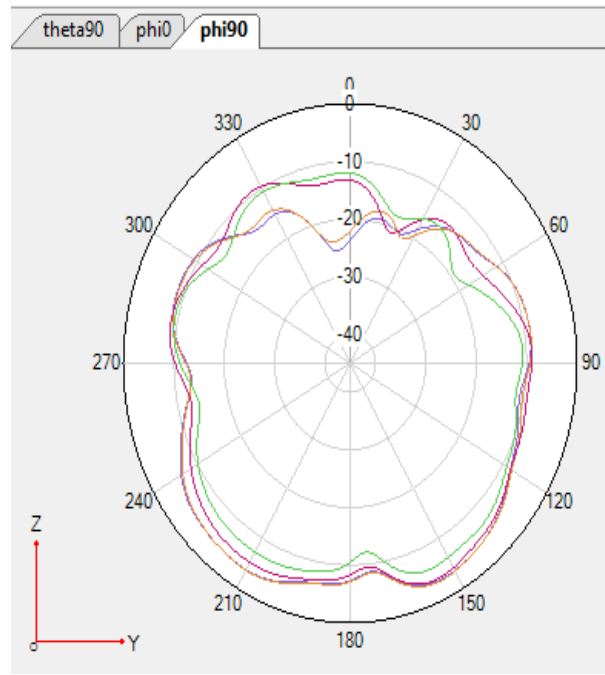


FOLD_MHB_DRX_DPDT_B7/B38/B41/N7/N83/N41 Theta=90deg

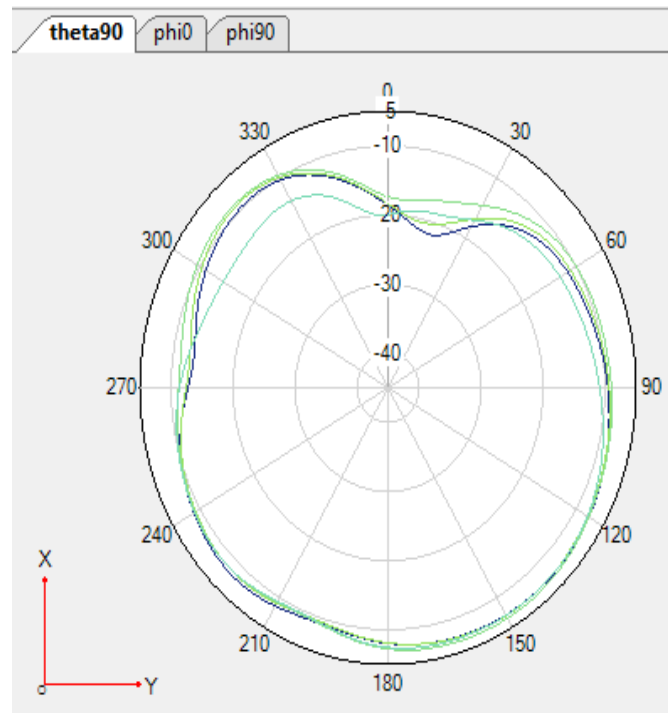
ANT3





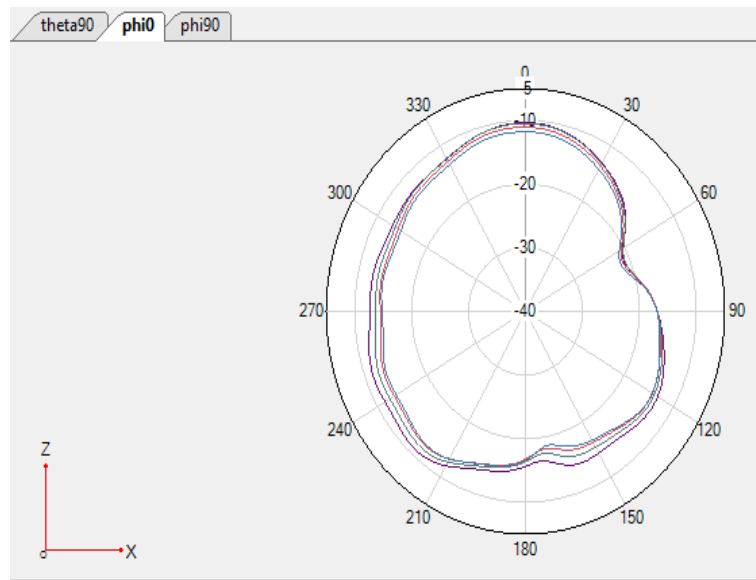


FOLD_MHB_DRX_DPDT_B40/N40 Phi=90deg

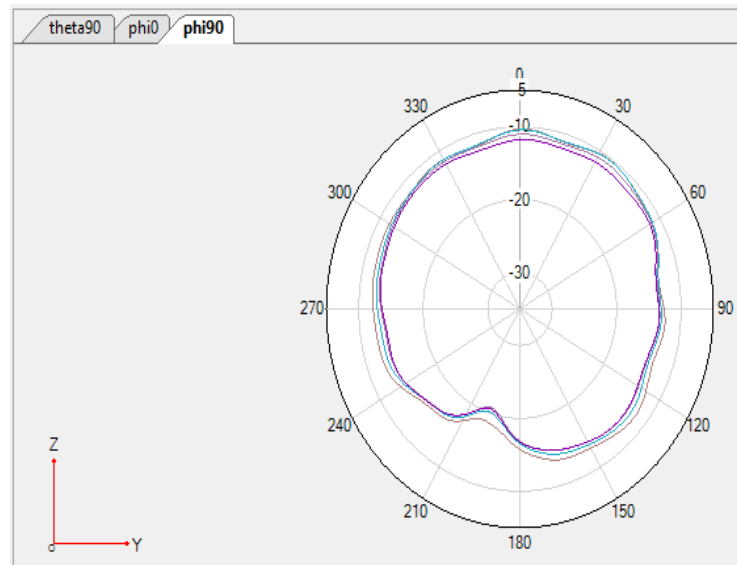


FOLD_MHB_DRX_DPDT_B40/N40 Theta=90deg

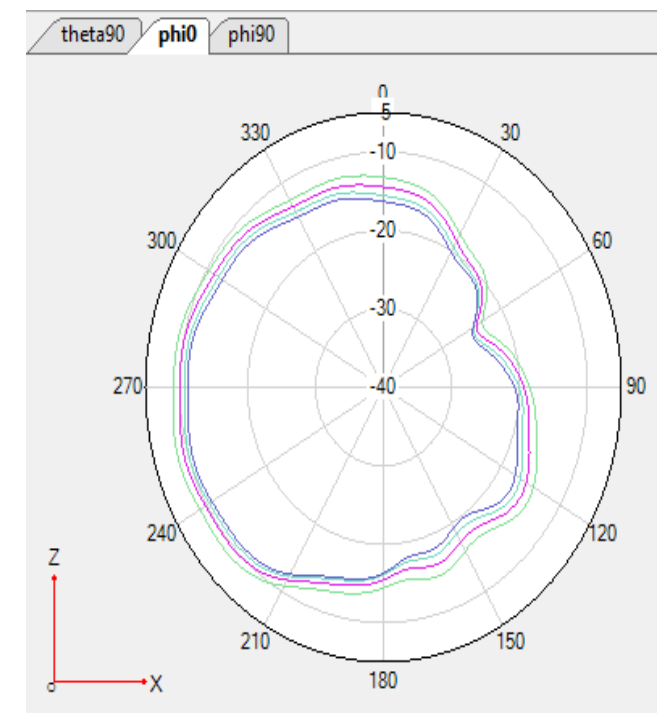
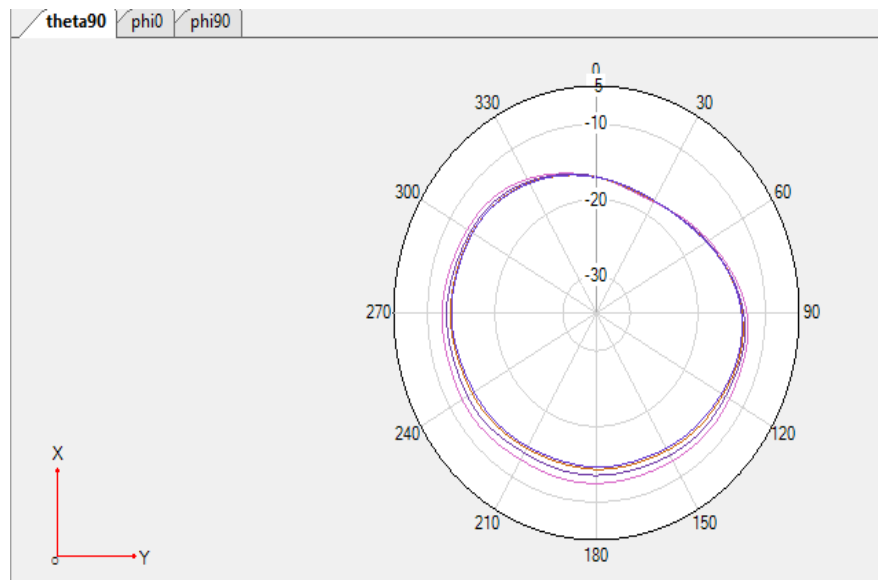
ANT4

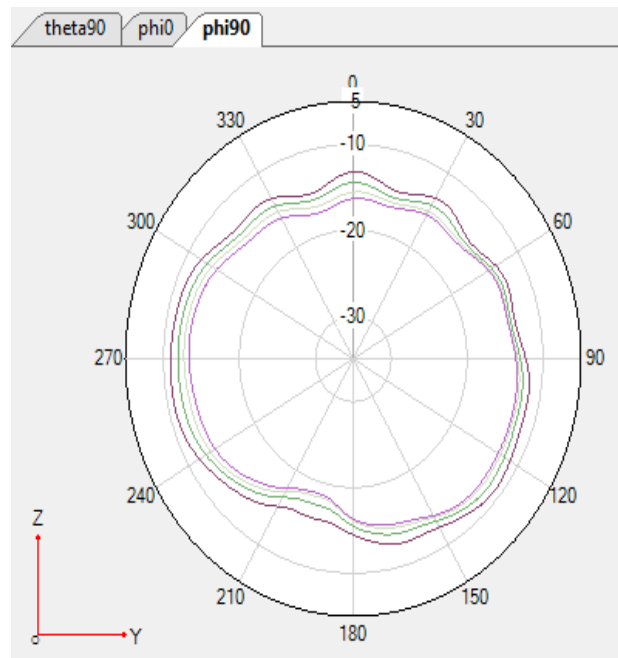


UNFOLD_MHB_DRX_DPDT_GSM850/W5/B5/N5 $\Phi = 0^\circ$

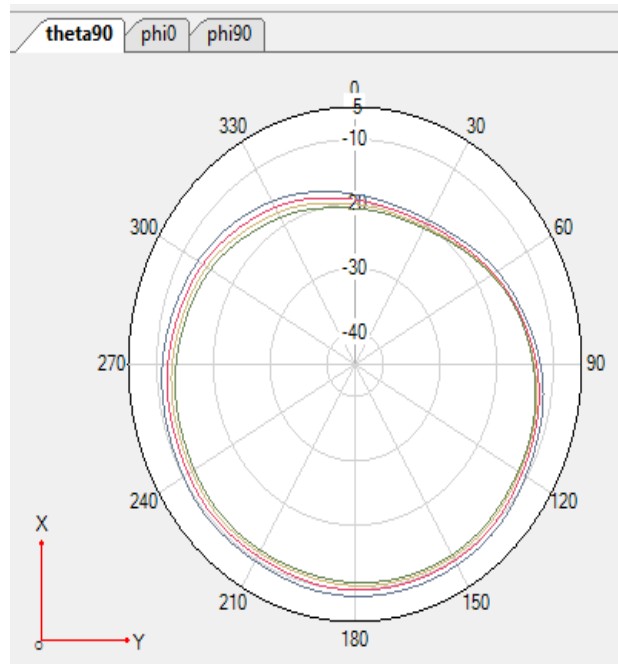


UNFOLD_MHB_DRX_DPDT_GSM850/W5/B5/N5 $\Phi = 90^\circ$



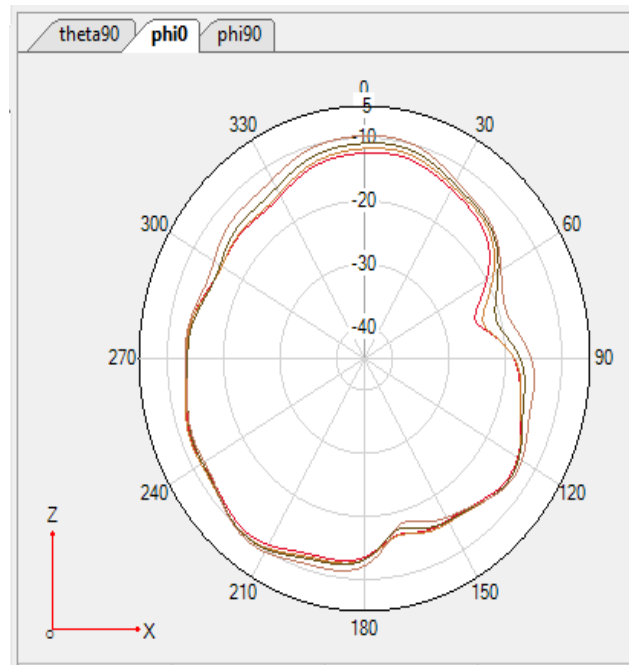


FOLD_MHB_DRX_DPDT_GSM850/W5/B5/N5 $\Phi = 90^\circ$

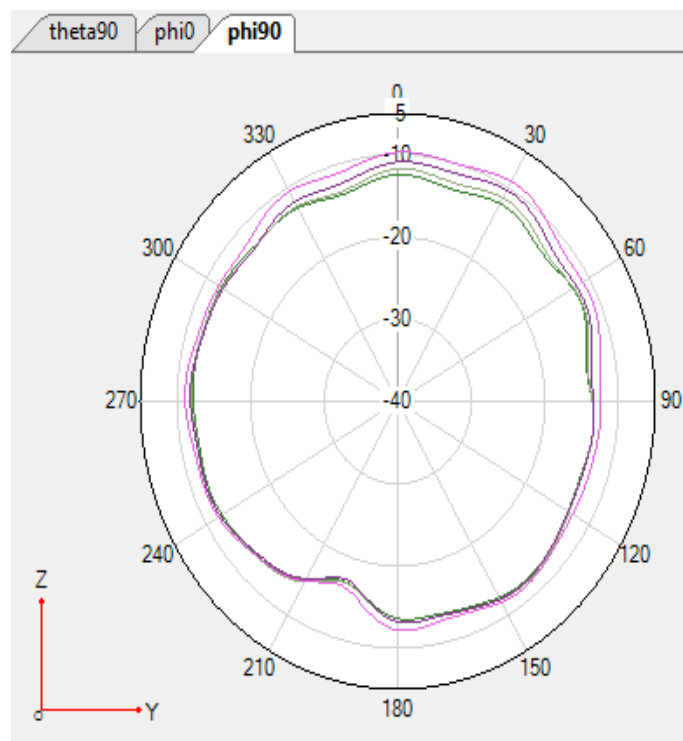


FOLD_MHB_DRX_DPDT_GSM850/W5/B5/N5 $\Theta = 90^\circ$

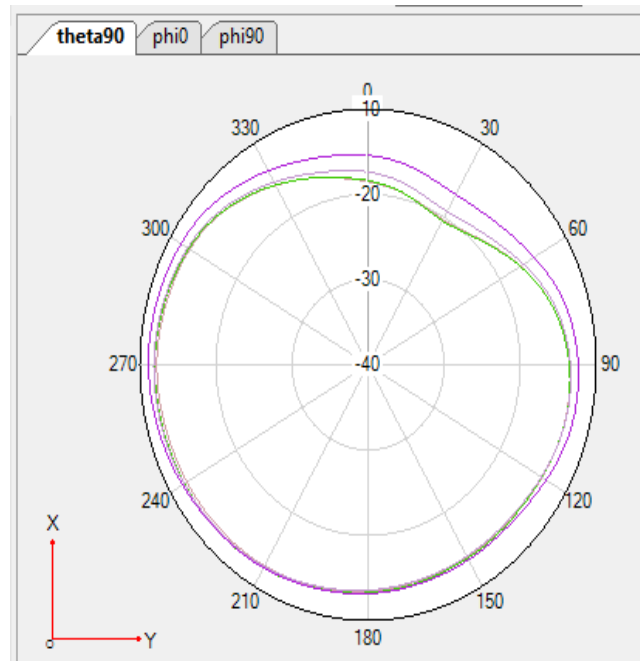
ANT4



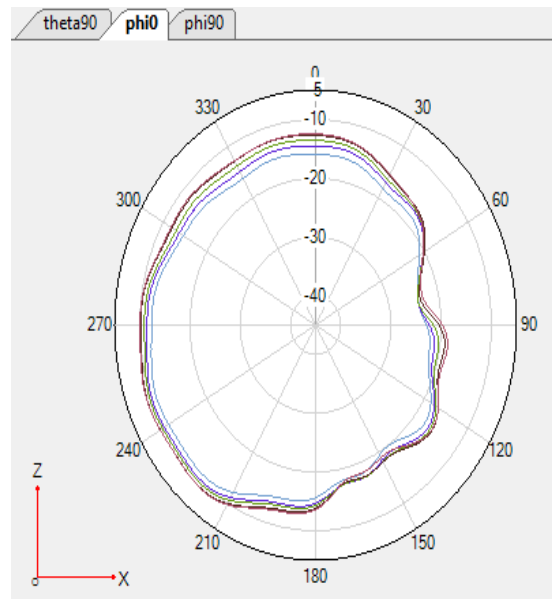
UNFOLD_MHB_DRX_DPDT_GSM900/W8/B8/N8 $\Phi = 0^\circ$



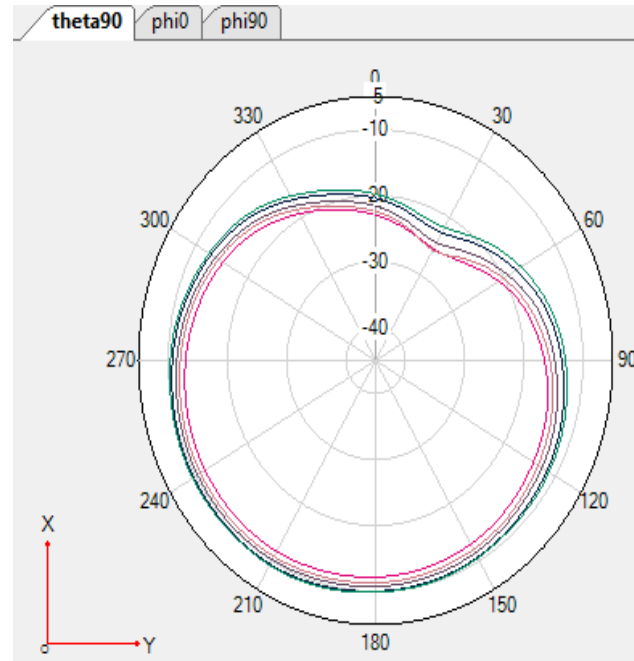
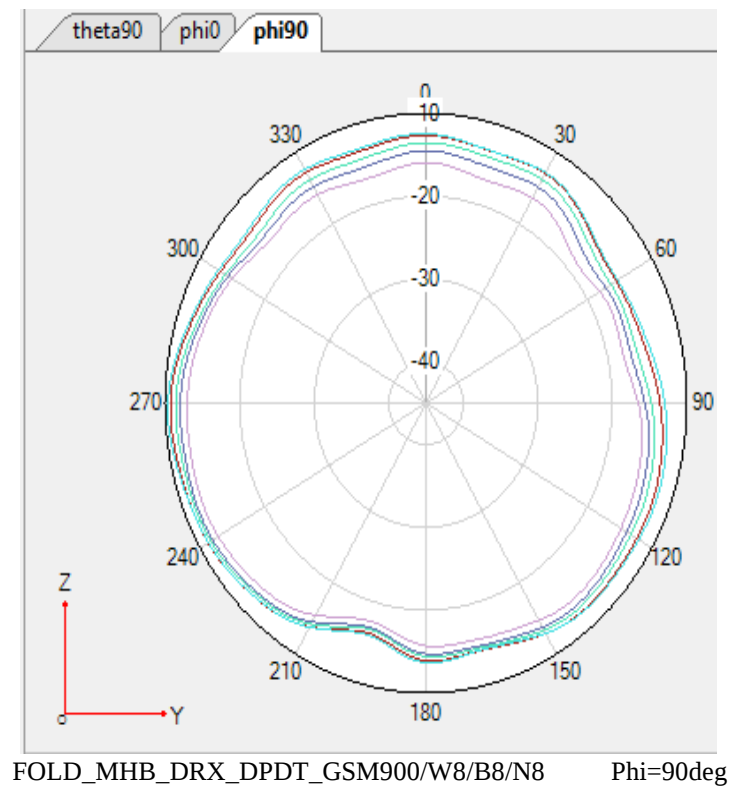
UNFOLD_MHB_DRX_DPDT_GSM900/W8/B8/N8 $\Phi = 90^\circ$

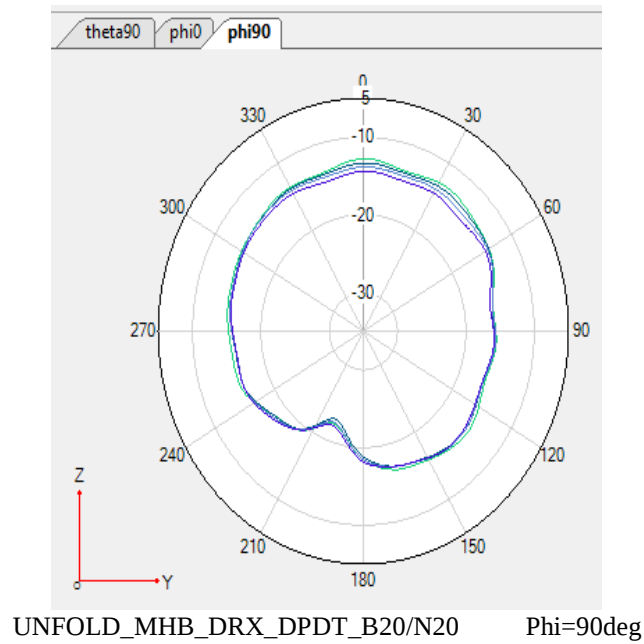
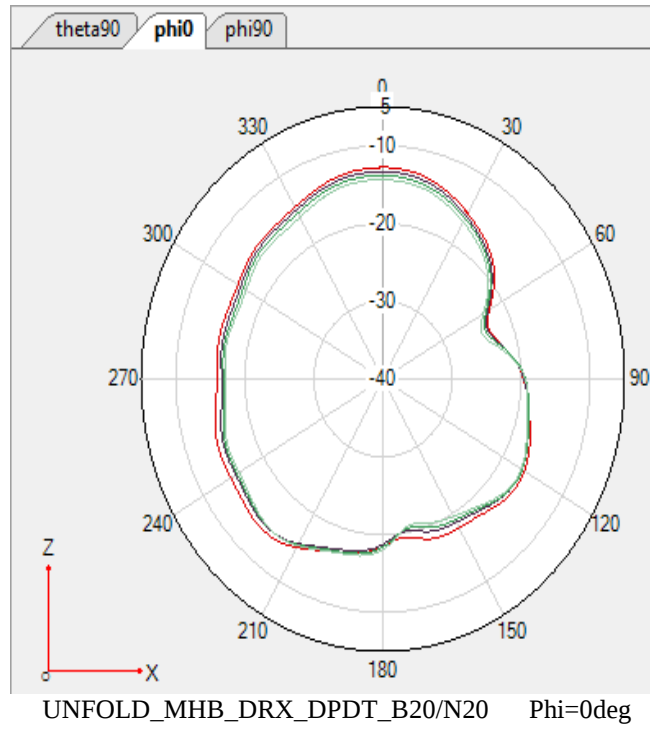


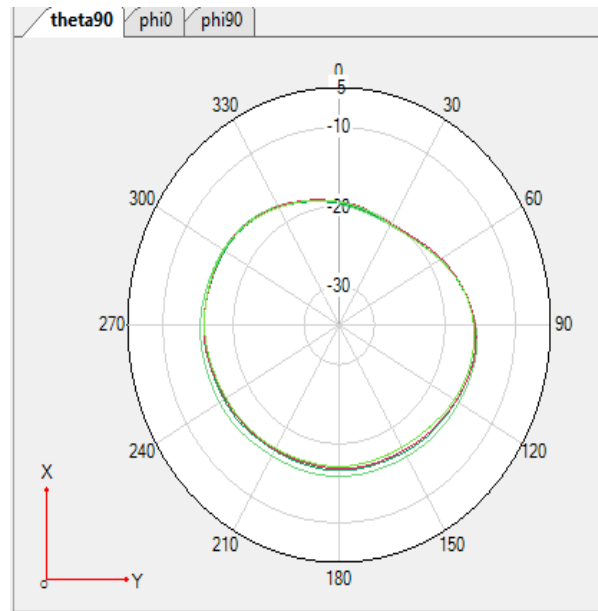
UNFOLD_MHB_DRX_DPDT_GSM900/W8/B8/N8 Theta=90deg



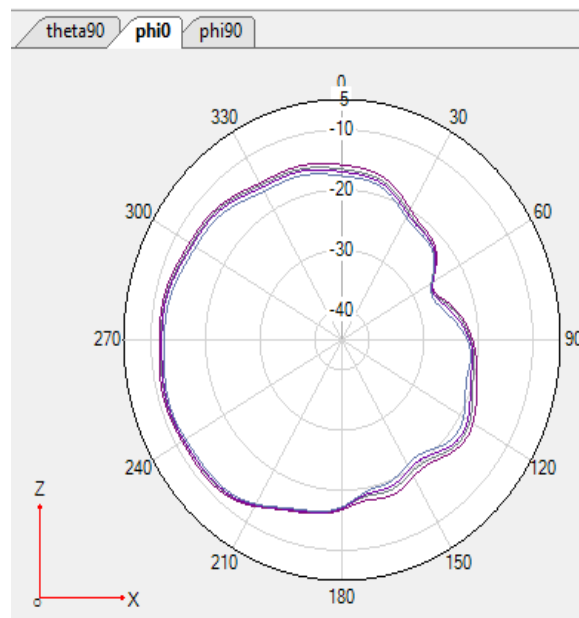
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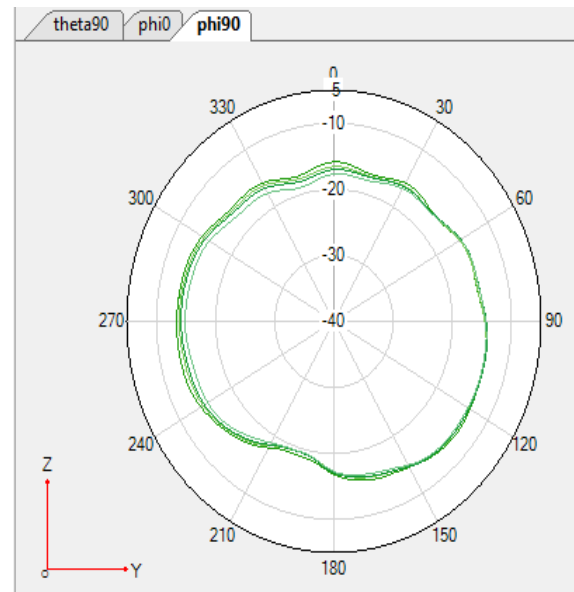




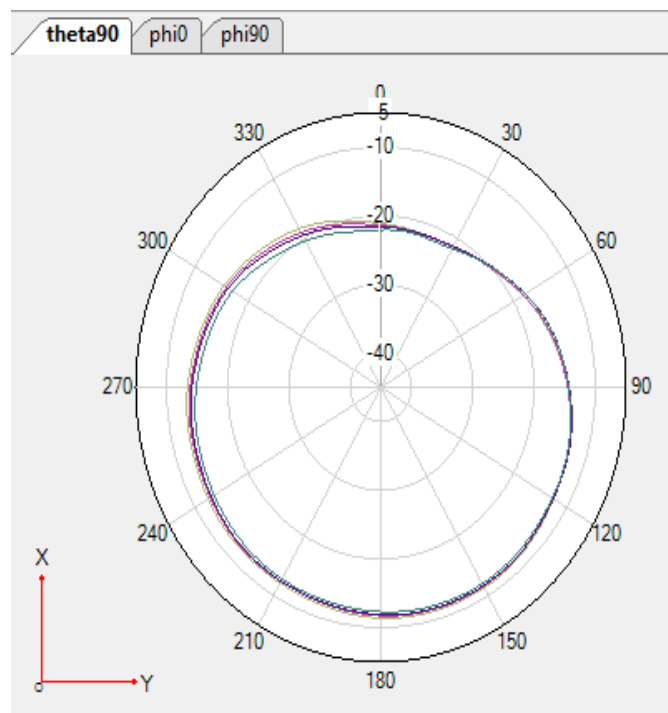
UNFOLD_MHB_DRX_DPDT_B20/N20 Theta=90deg



FOLD_MHB_DRX_DPDT_B20/N20 Phi=0deg

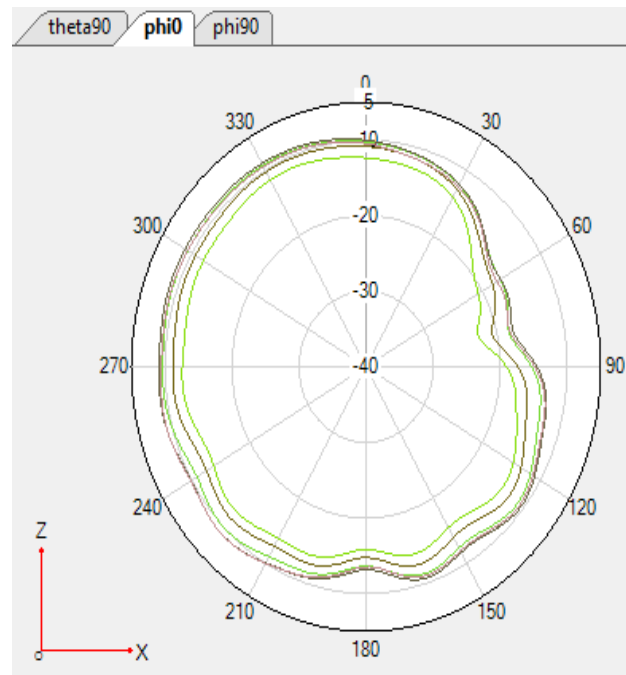


FOLD_MHB_DRX_DPDT_B20/N20 Phi=90deg

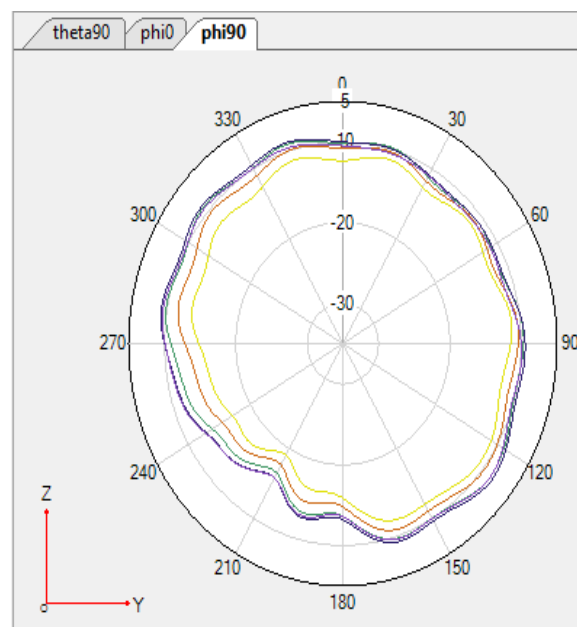


FOLD_MHB_DRX_DPDT_B20/N20 Theta=90deg

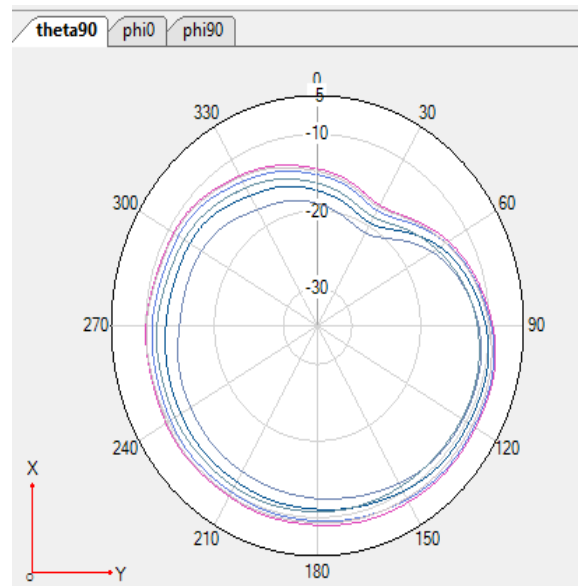
ANT4



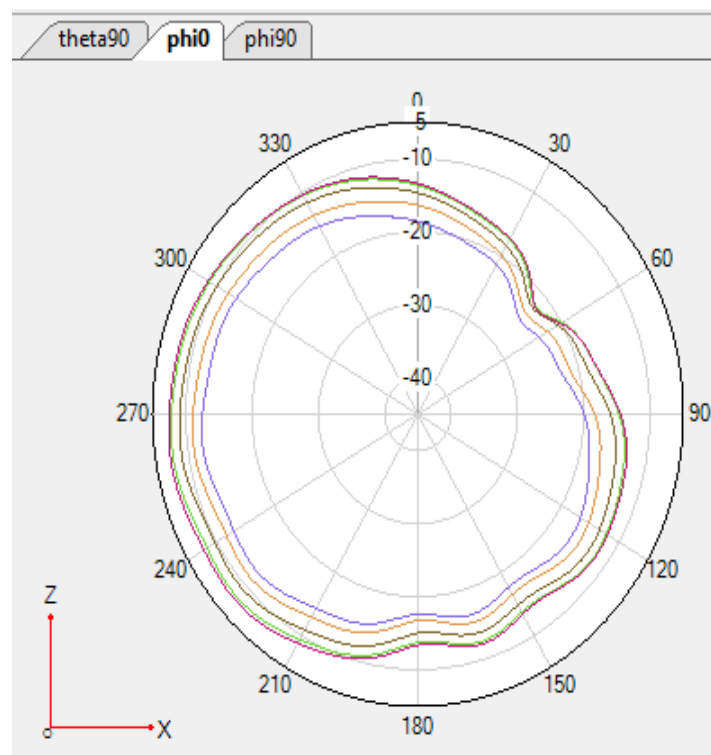
UNFOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 $\Phi = 0^\circ$



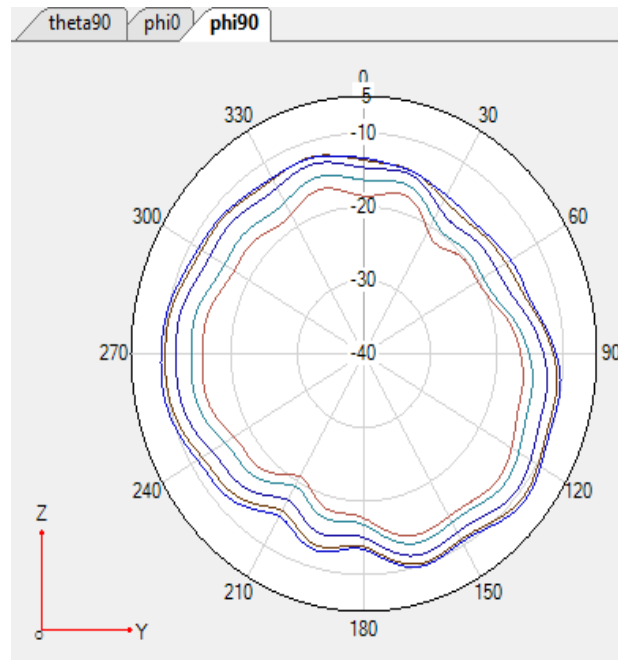
UNFOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 $\Phi = 90^\circ$



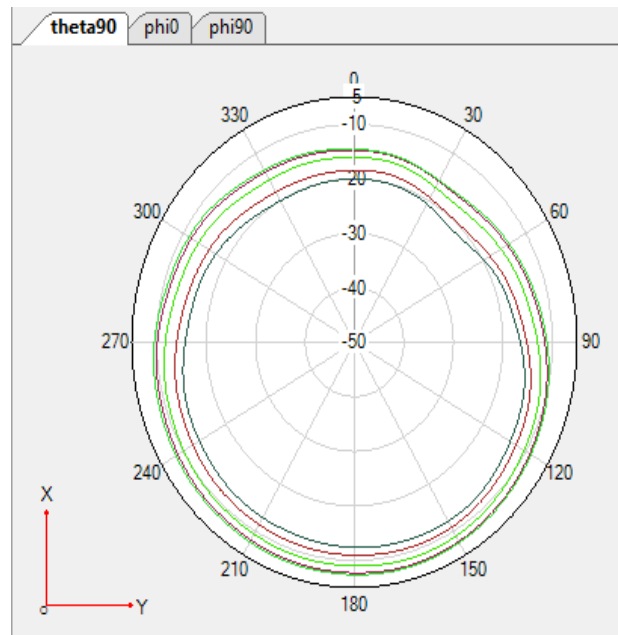
UNFOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 Theta=90deg



FOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 Phi=0deg

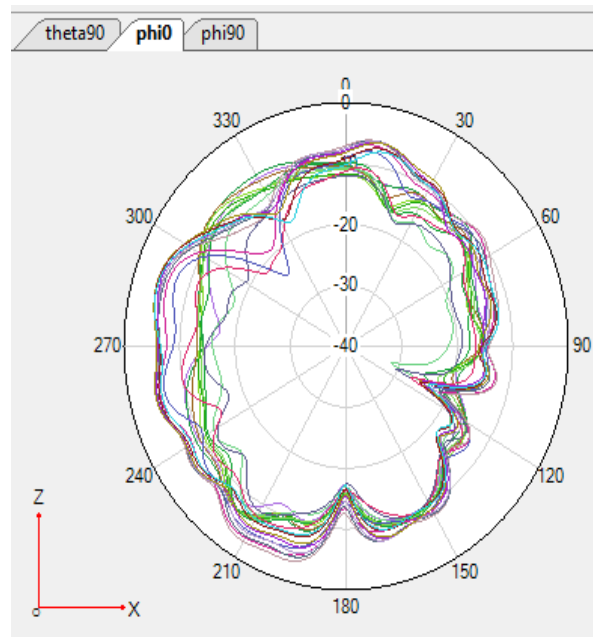


FOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 Phi=90deg

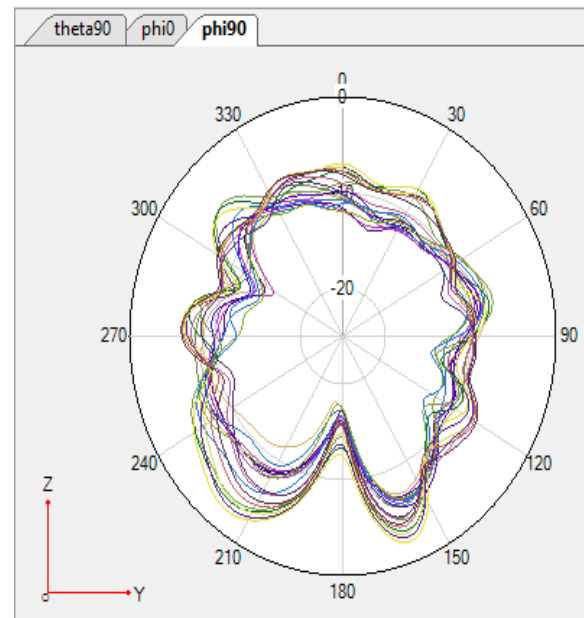


FOLD_MHB_DRX_DPDT_B28/B12/B17/N12/N28 Theta=90deg

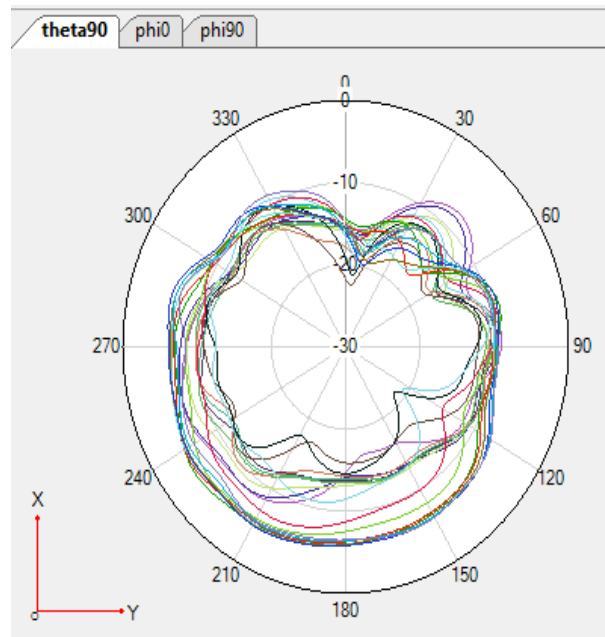
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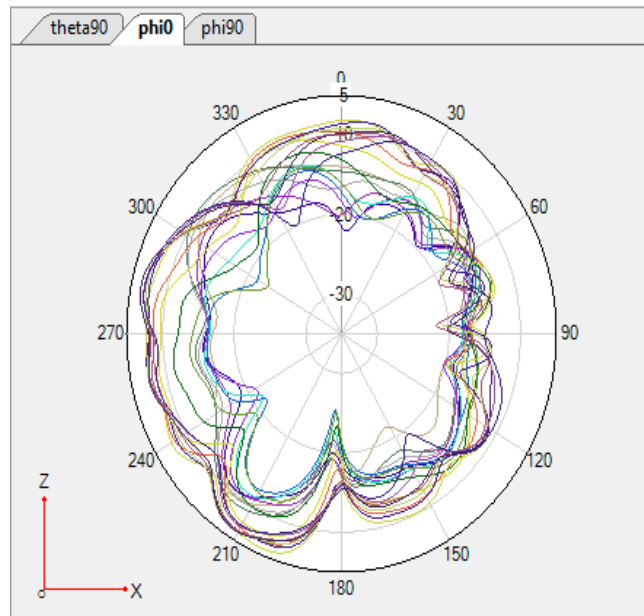
UNFOLD_N77/78/B42_DRX_MIMO $\Phi = 0^\circ$



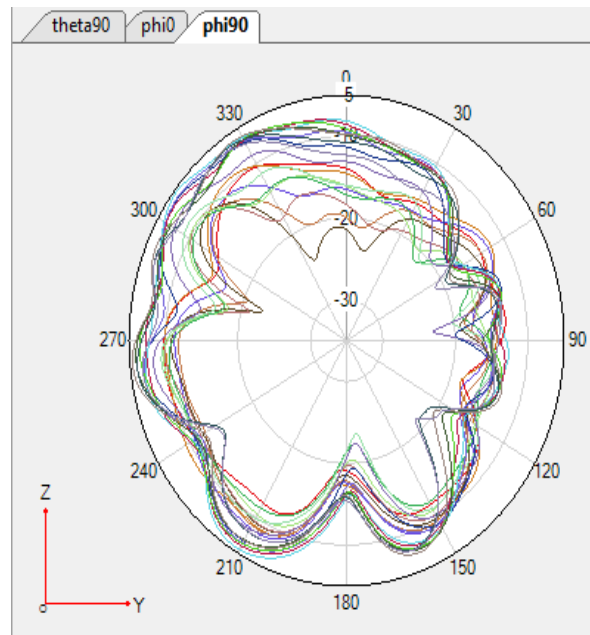
UNFOLD_N77/78/B42_DRX_MIMO $\Phi = 90^\circ$



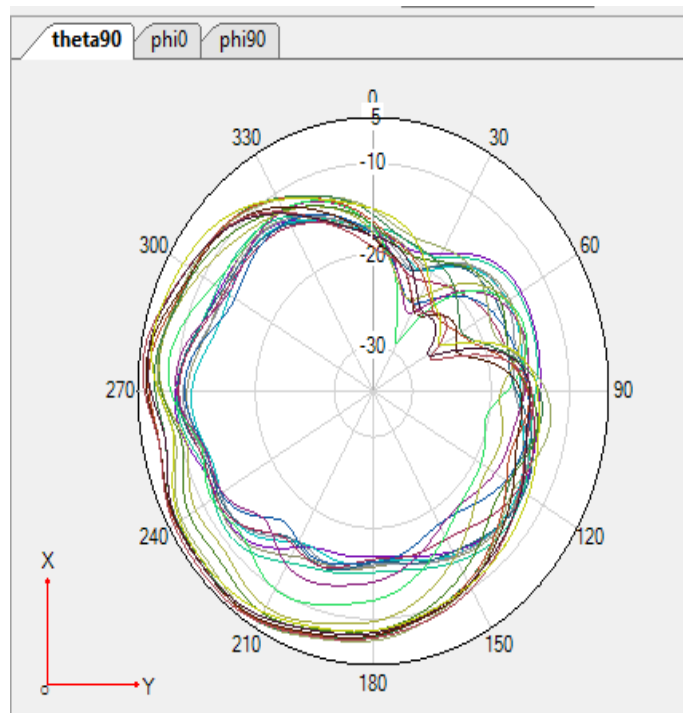
UNFOLD_N77/78/B42_DRX_MIMO Theta=90deg



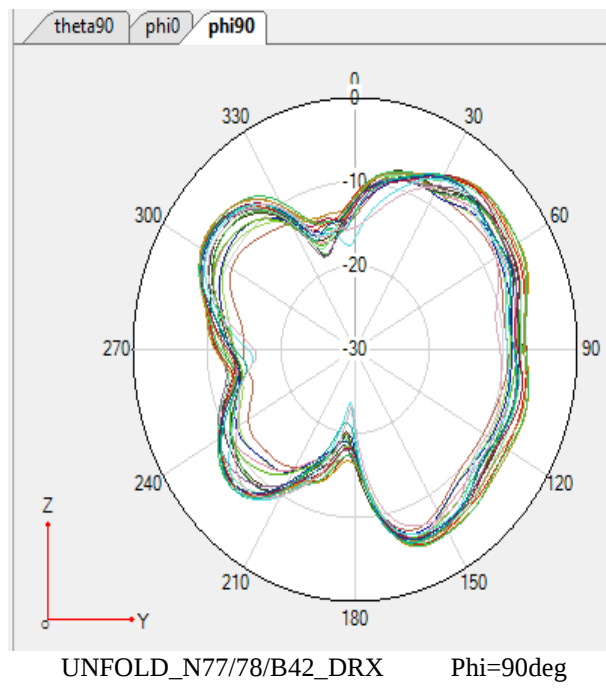
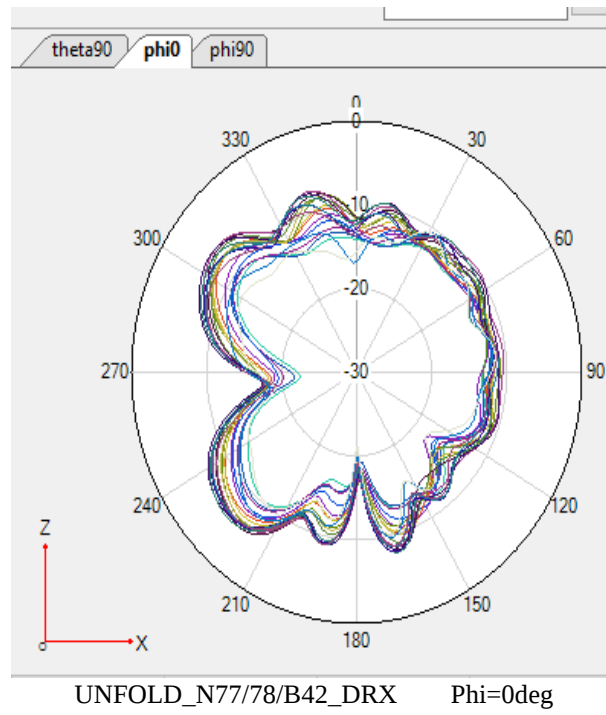
FOLD_N77/78/B42_DRX_MIMO Phi=0deg

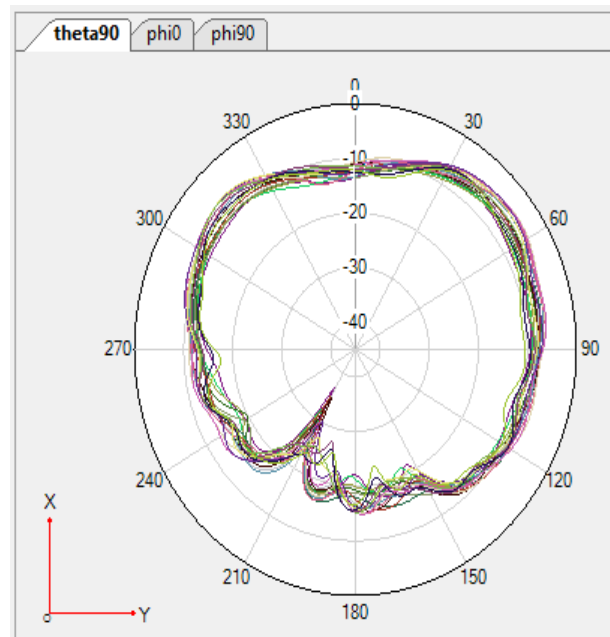


FOLD_N77/78/B42_DRX_MIMO $\Phi = 90^\circ$

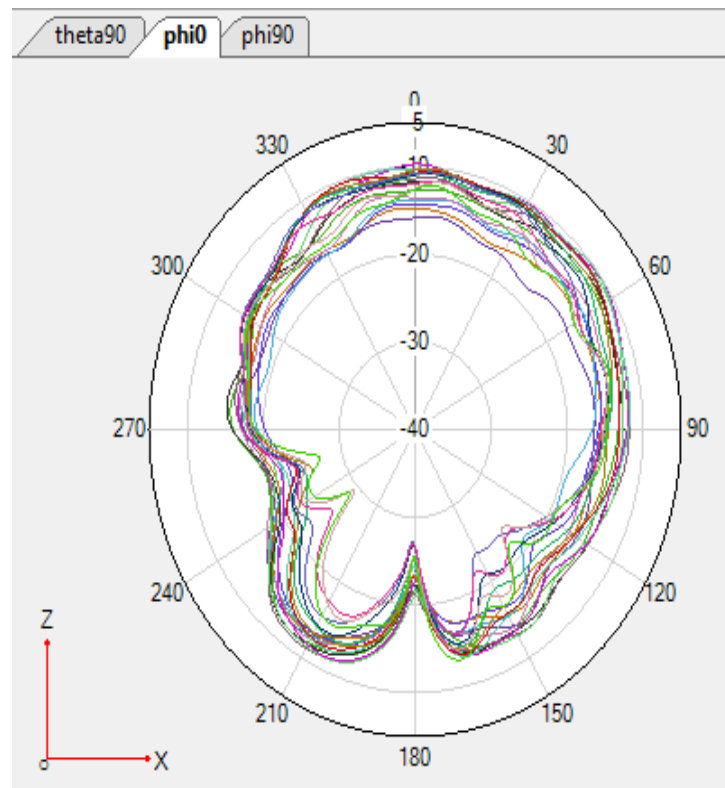


FOLD_N77/78/B42_DRX_MIMO $\Theta = 90^\circ$

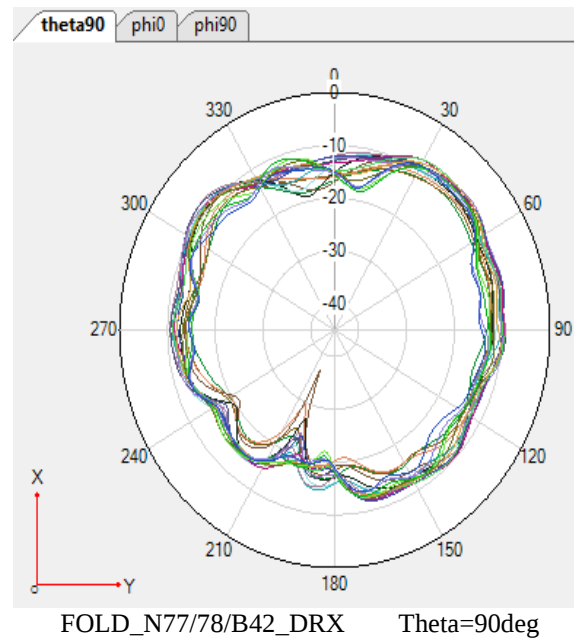
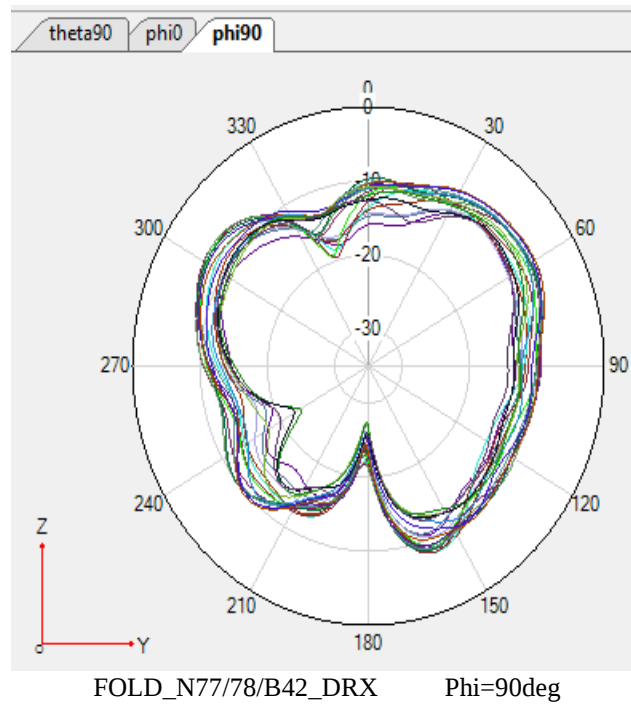




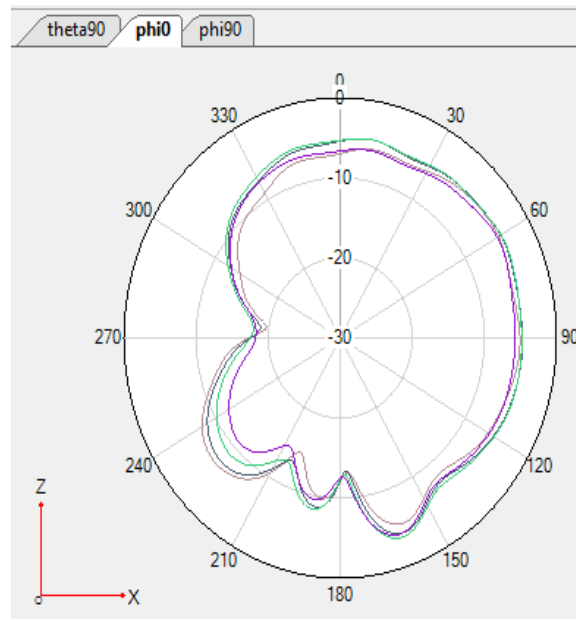
UNFOLD_N77/78/B42_DRX Theta=90deg



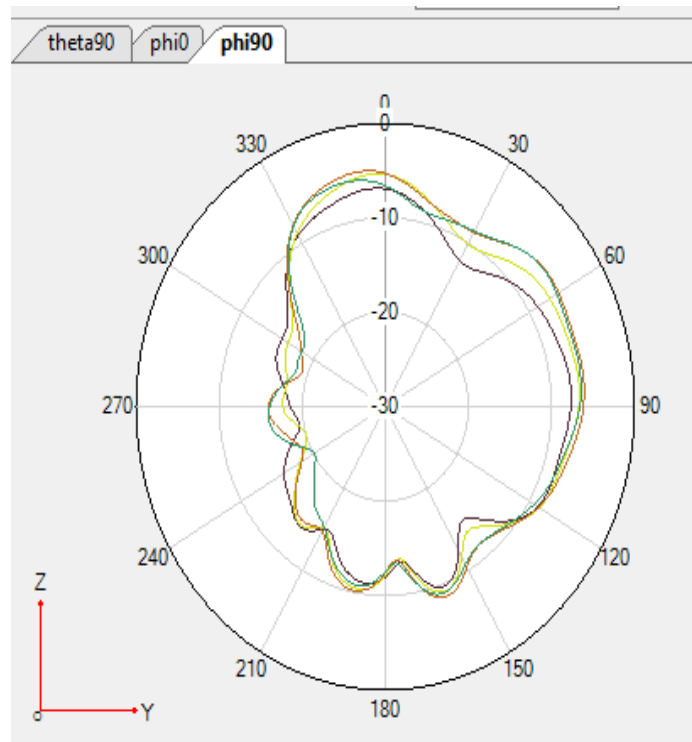
FOLD_N77/78/B42_DRX Phi=0deg



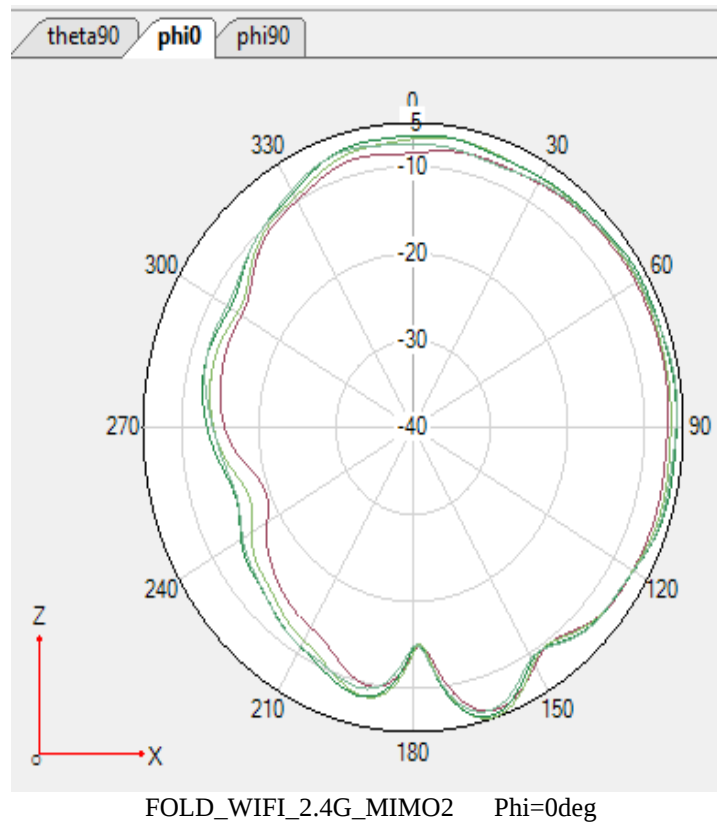
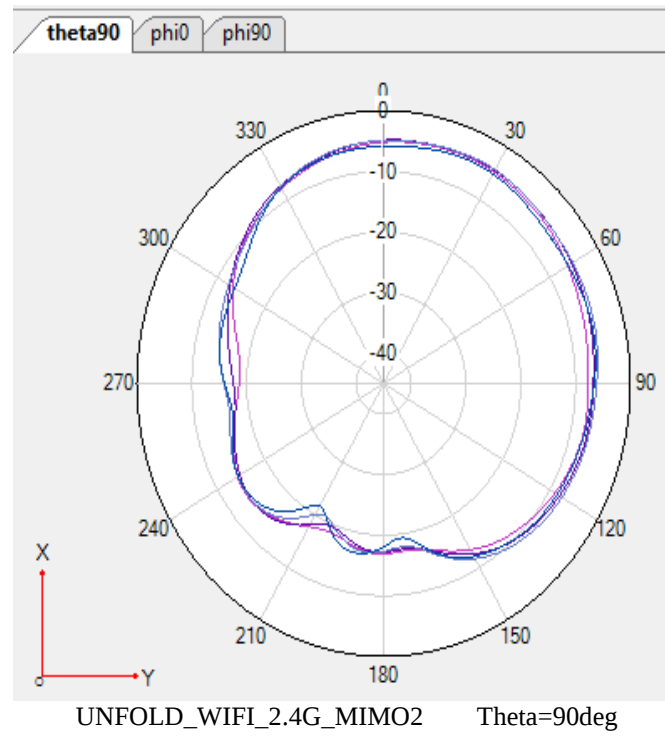
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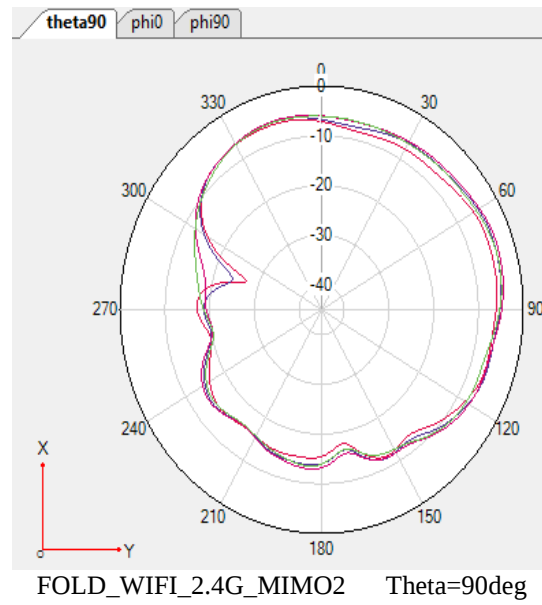
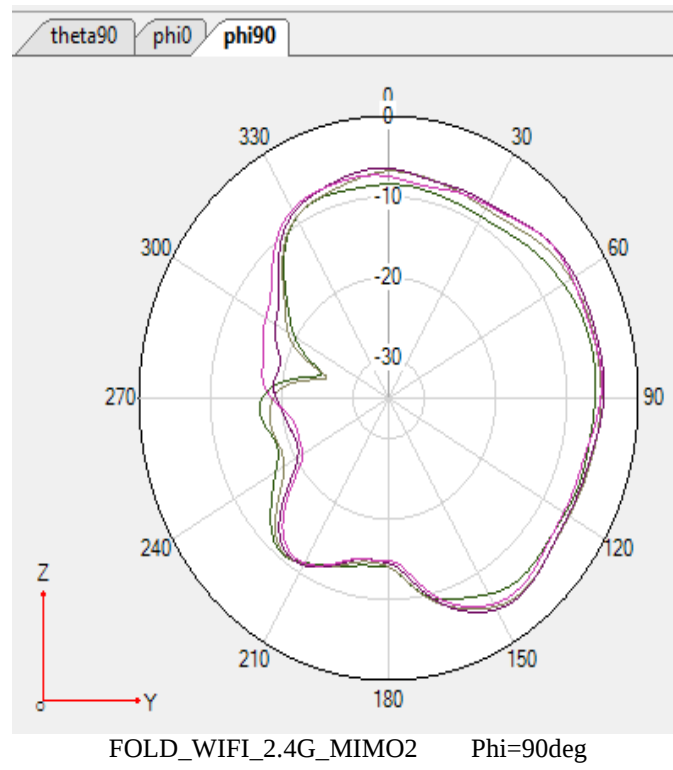


UNFOLD_WIFI_2.4G_MIMO2 $\Phi = 0^\circ$

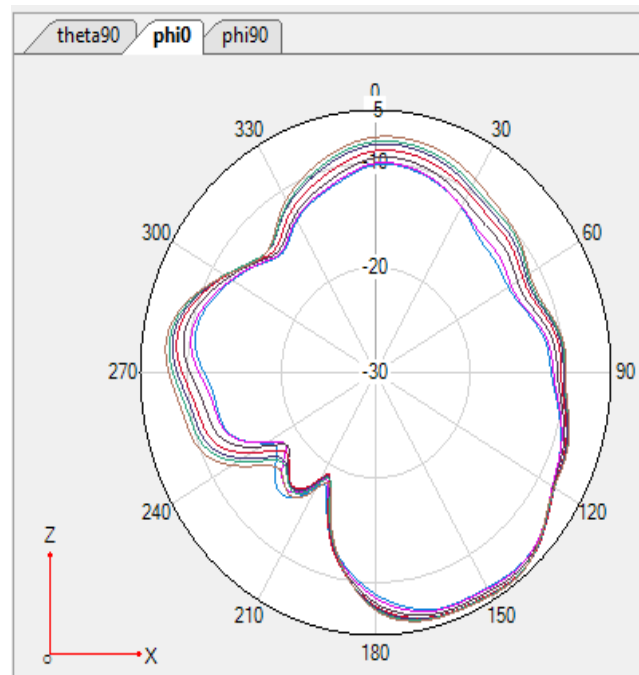


UNFOLD_WIFI_2.4G_MIMO2 $\Phi = 90^\circ$

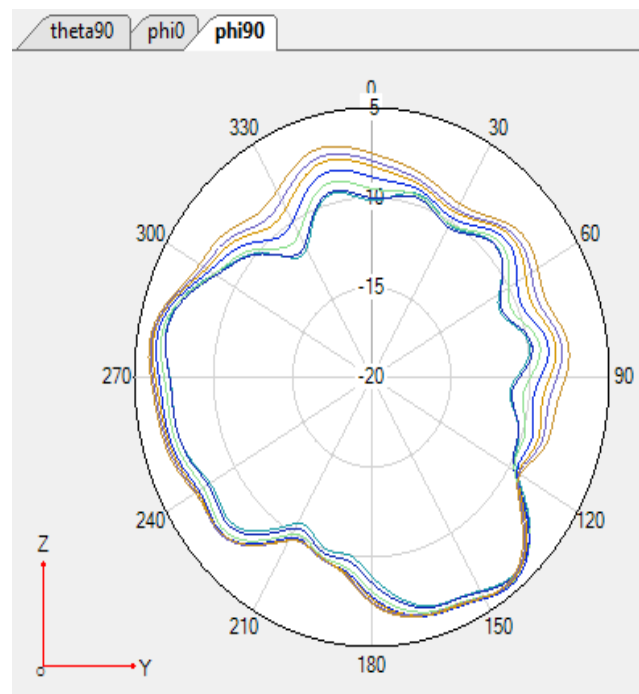




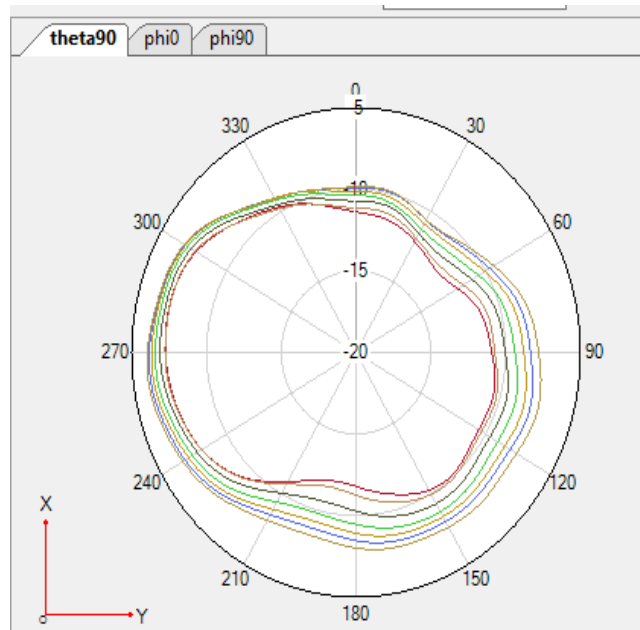
ANT7



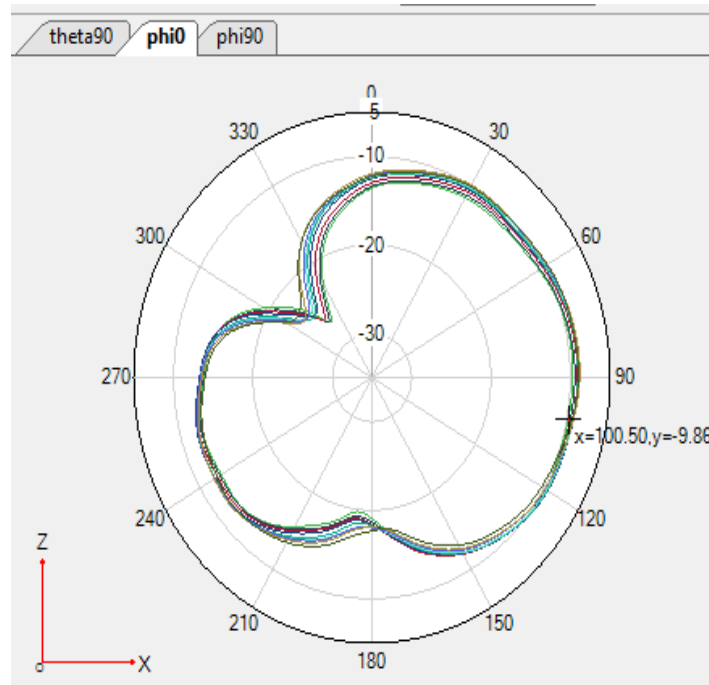
UNFOLD_LB_PRX_GSM850/W5/B5/B20/N5/N20 Phi=0deg



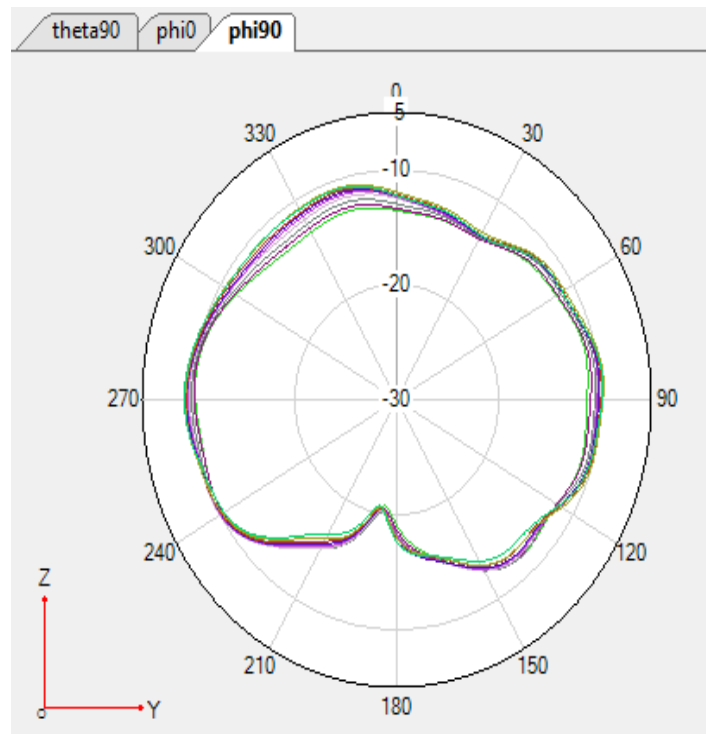
UNFOLD_LB_PRX_GSM850/W5/B5/B20/N5/N20 Phi=90deg



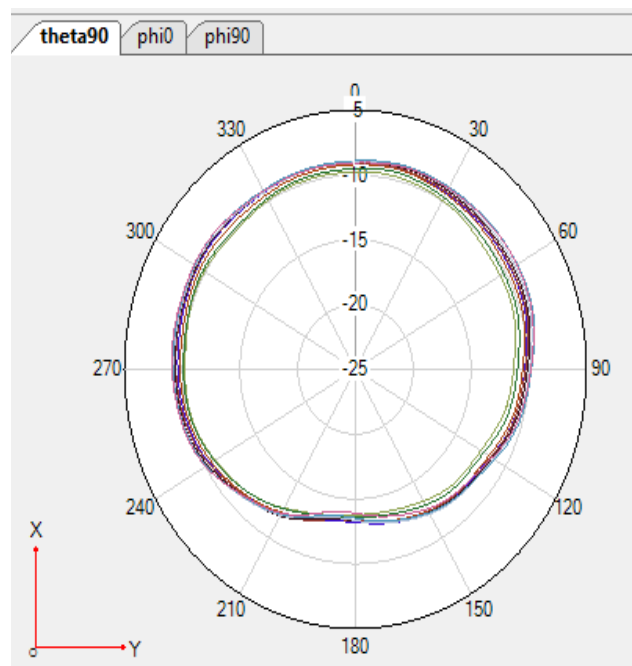
Theta=90deg



Phi=0deg

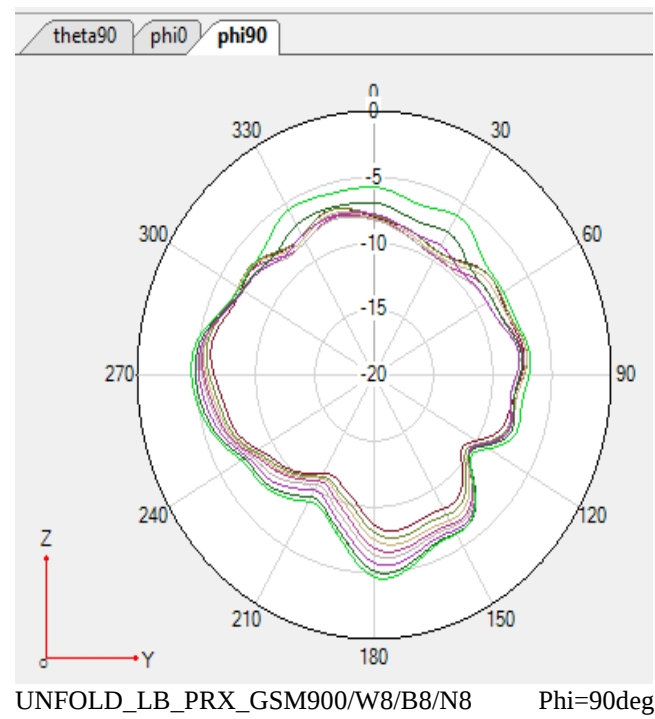
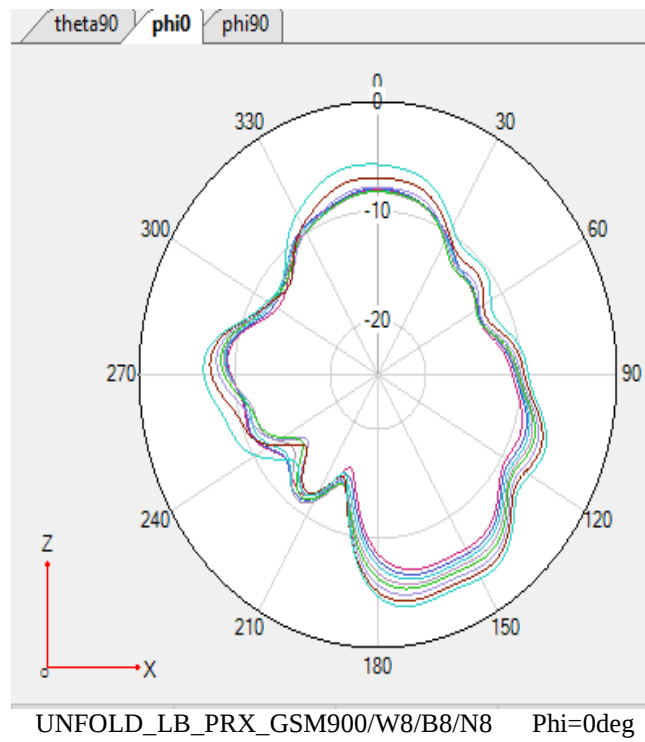


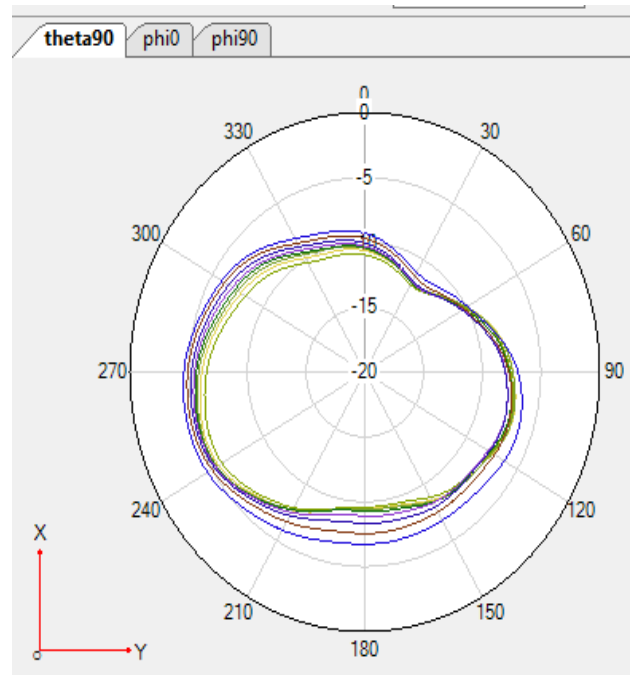
FOLD_LB_PRX_GSM850/W5/B5/B20/N5/N20 Phi=90deg



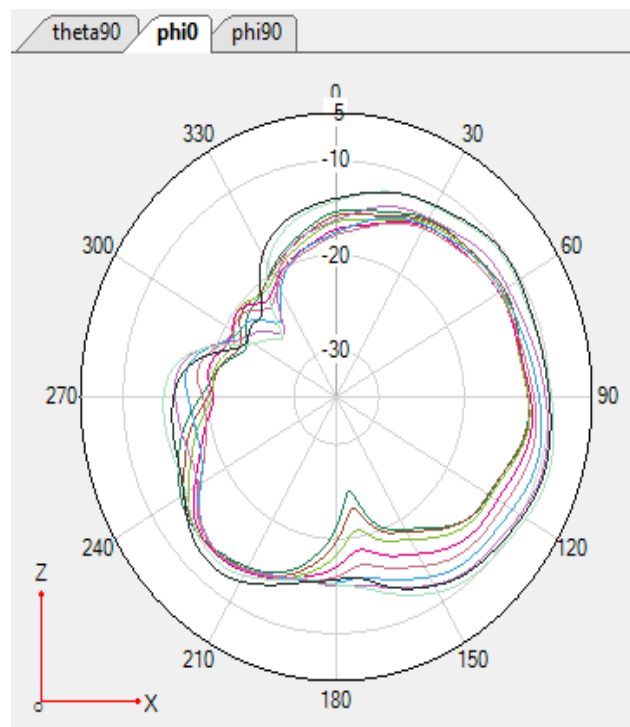
FOLD_LB_PRX_GSM850/W5/B5/B20/N5/N20 Theta=90deg

ANT7

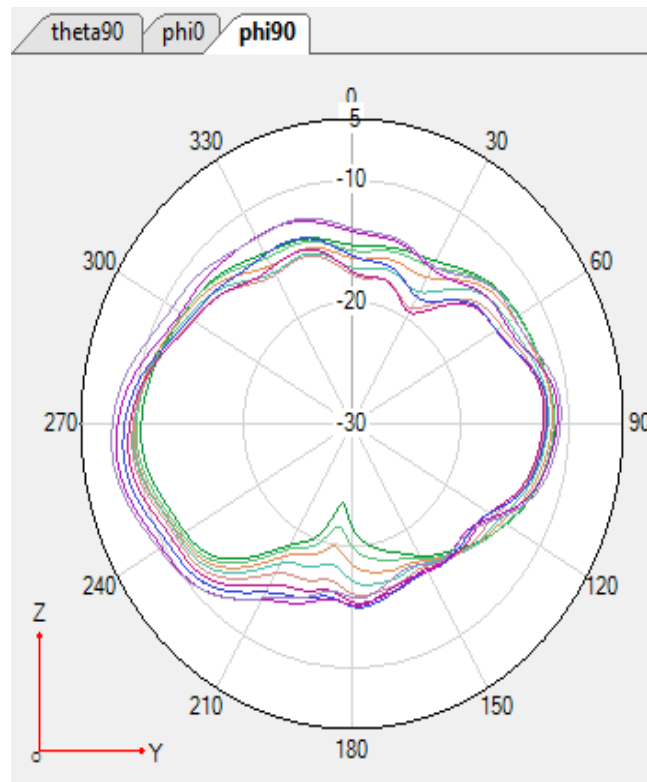




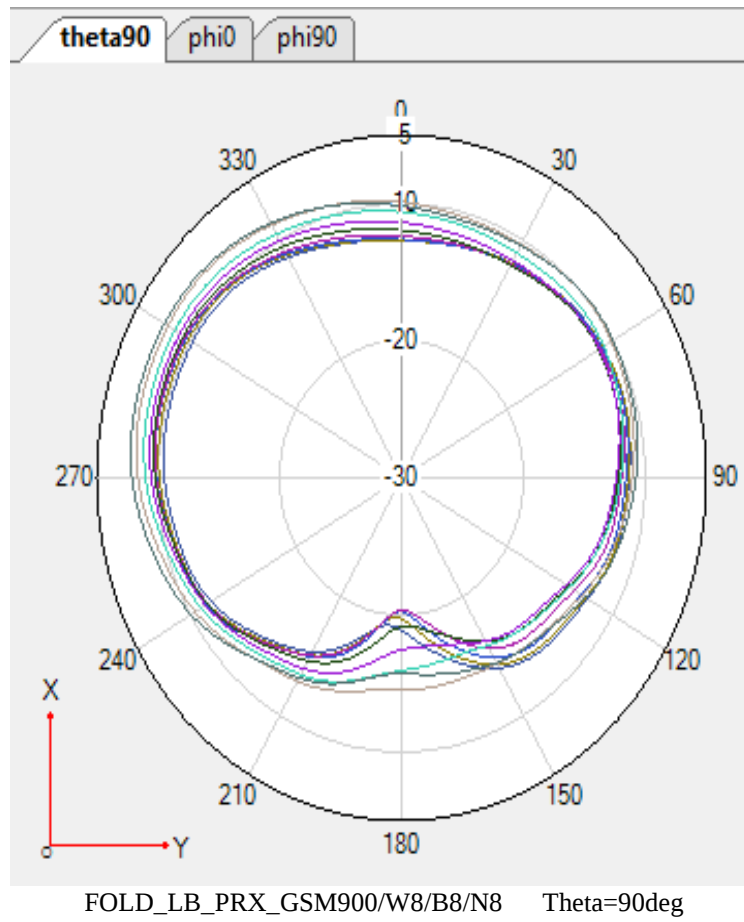
UNFOLD_LB_PRX_GSM900/W8/B8/N8 Theta=90deg



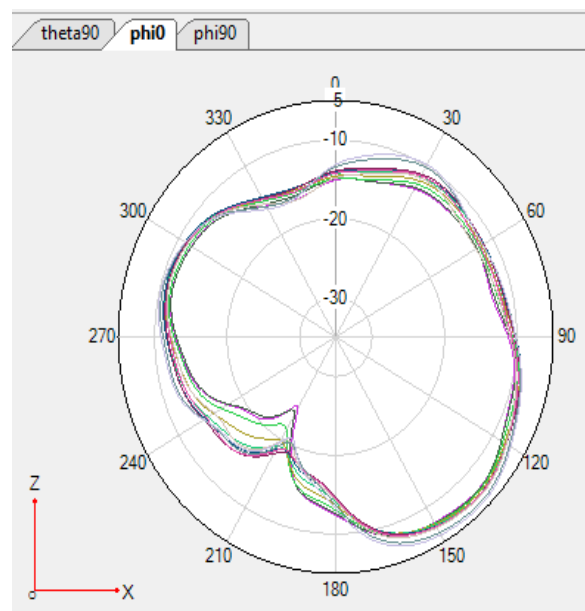
FOLD_LB_PRX_GSM900/W8/B8/N8 Phi=0deg



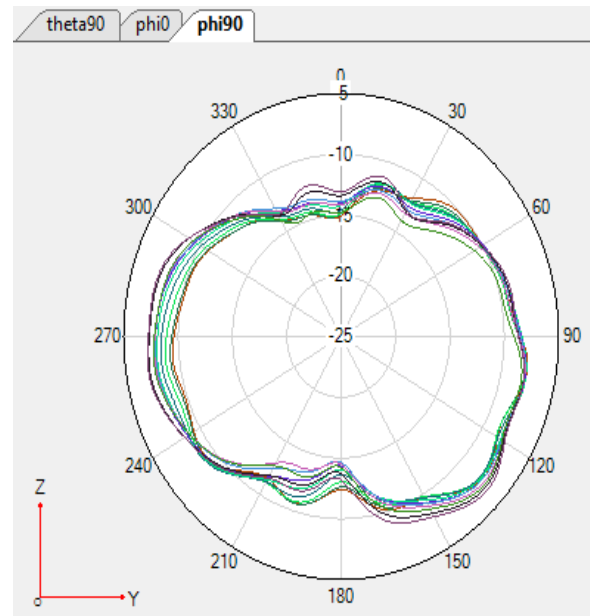
FOLD_LB_PRX_GSM900/W8/B8/N8 $\Phi = 90^\circ$



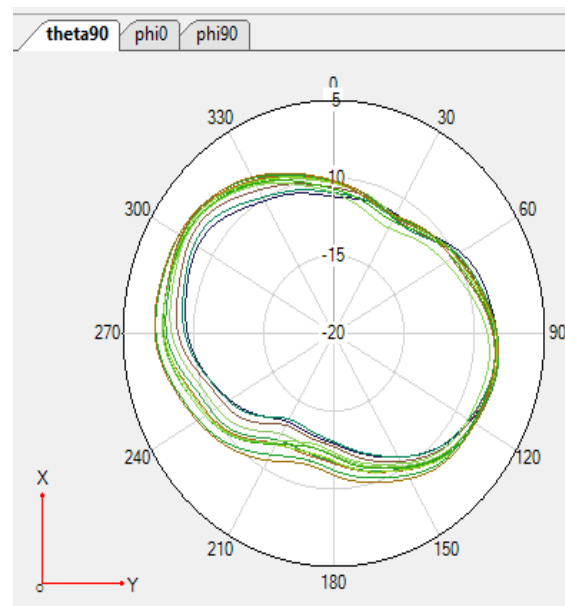
ANT7



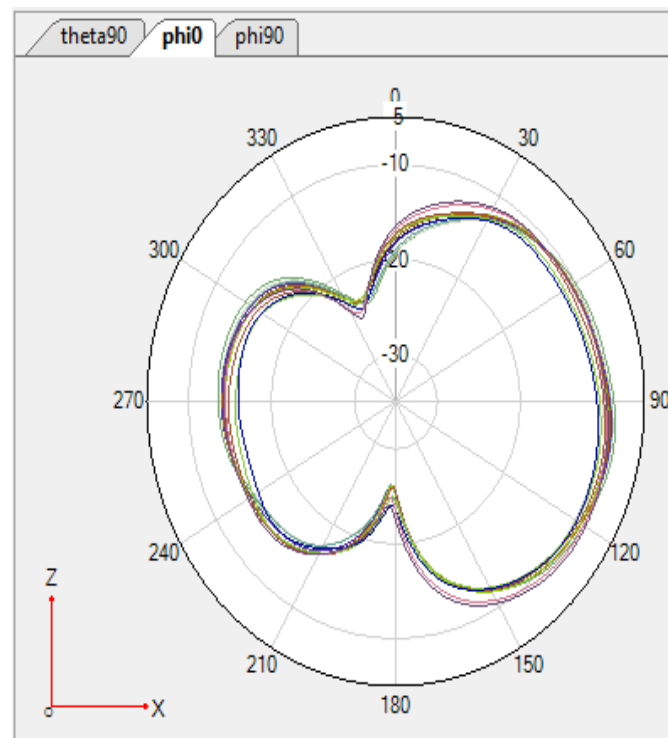
UNFOLD_LB_PRX_B12/B17/B28/N12/N28 $\Phi = 0^\circ$



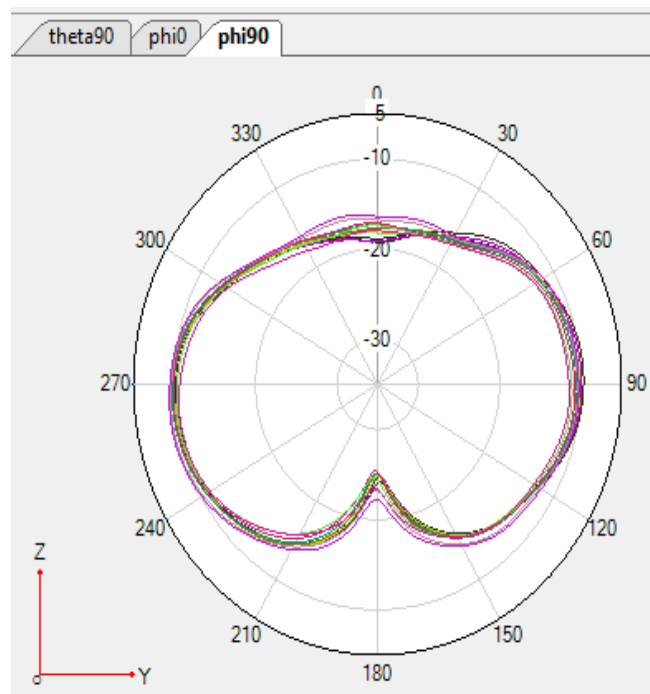
UNFOLD_LB_PRX_B12/B17/B28/N12/N28 $\Phi = 90^\circ$



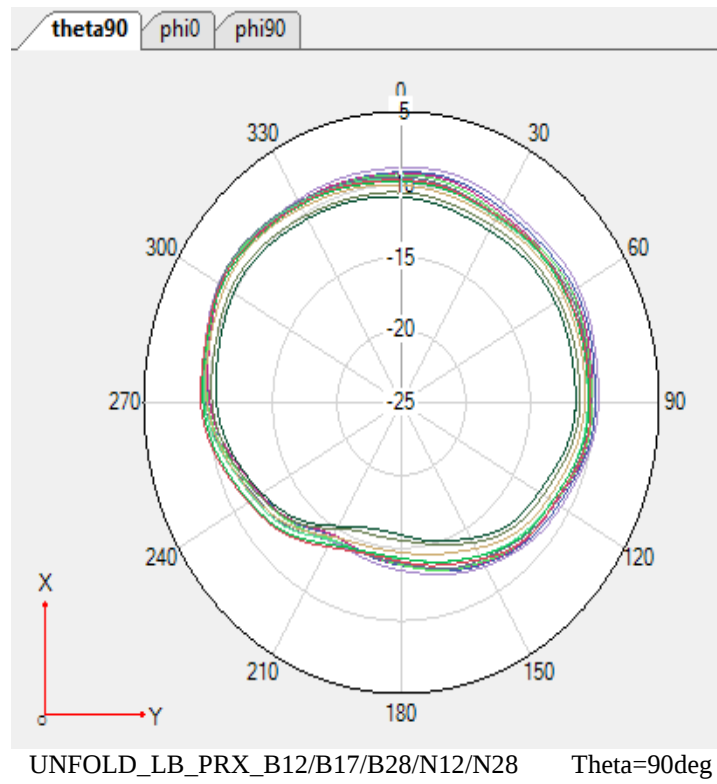
UNFOLD_LB_PRX_B12/B17/B28/N12/N28 $\Theta = 90^\circ$



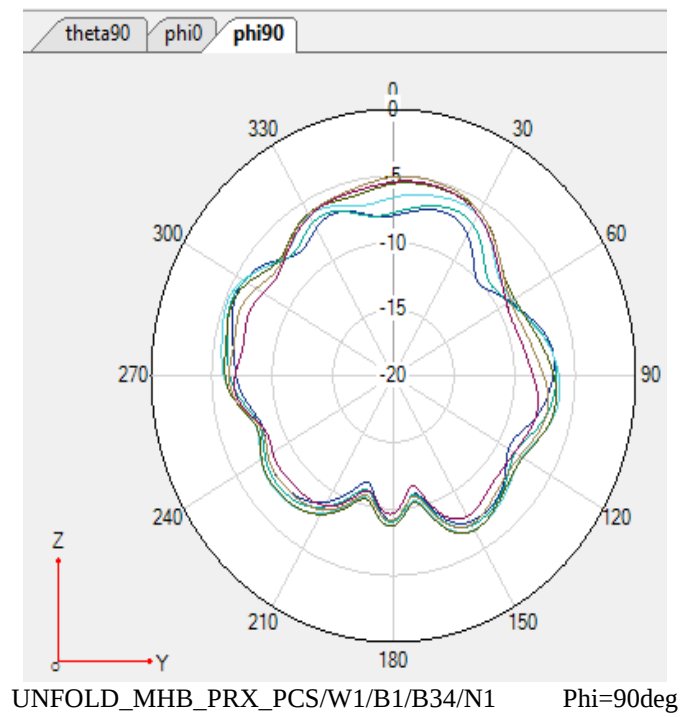
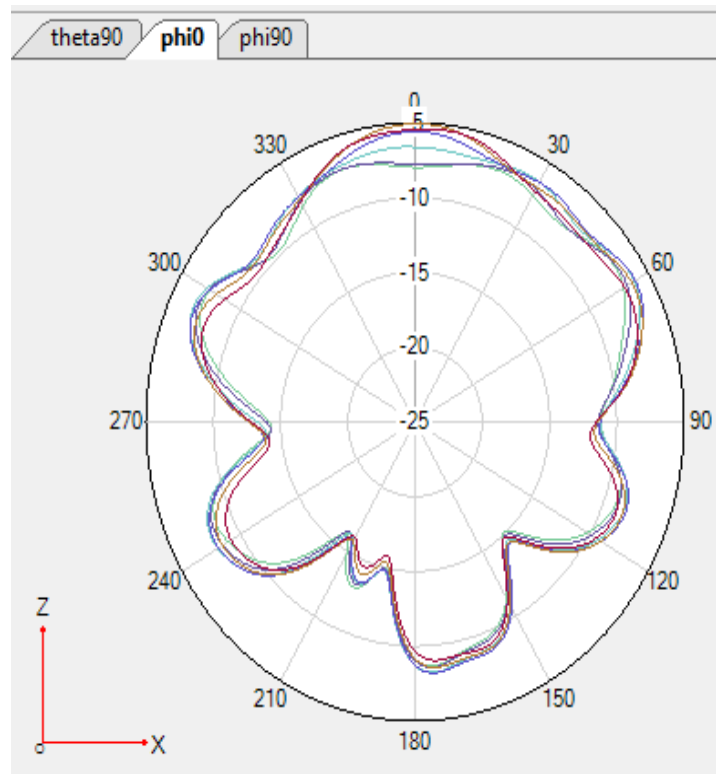
UNFOLD_LB_PRX_B12/B17/B28/N12/N28 $\Phi = 0^\circ$

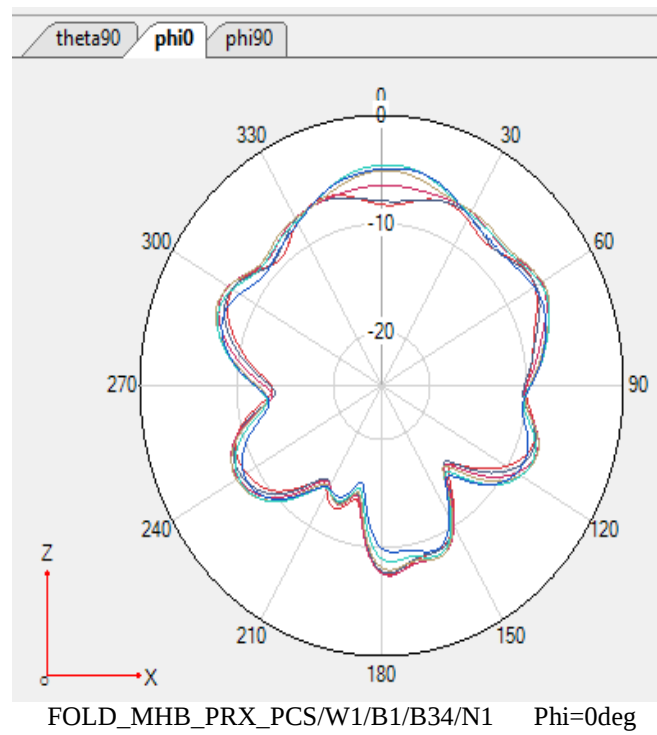
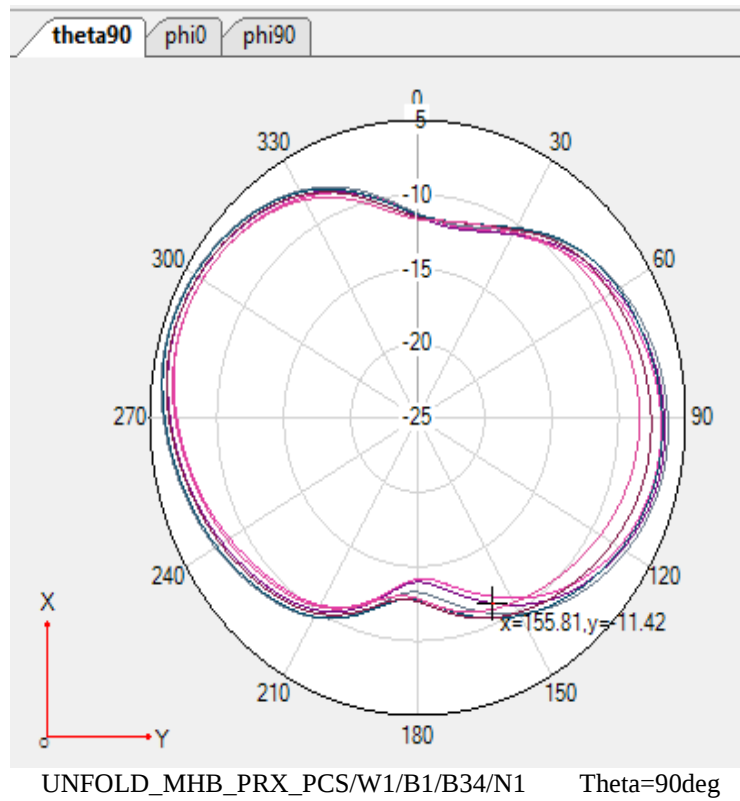


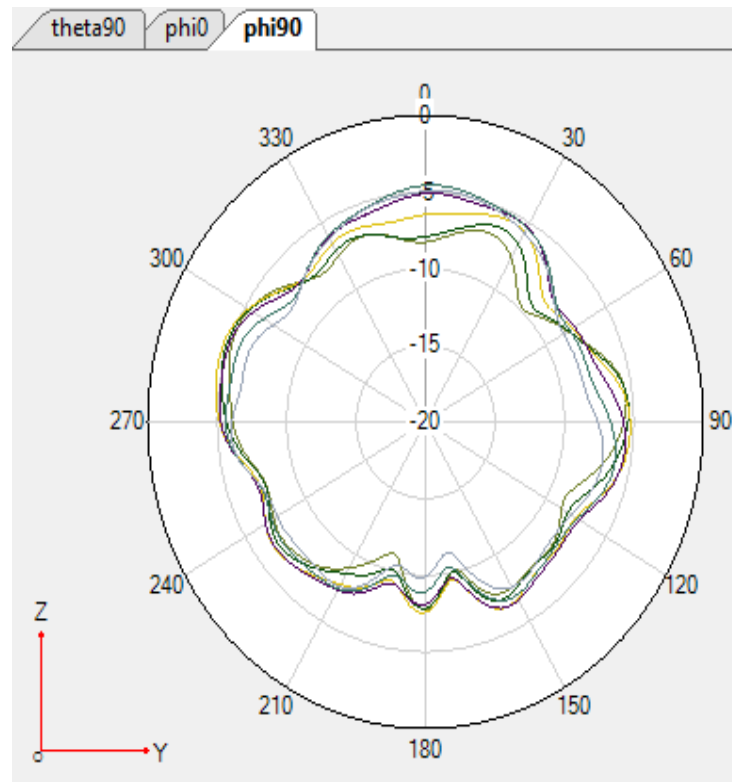
UNFOLD_LB_PRX_B12/B17/B28/N12/N28 $\Phi = 90^\circ$



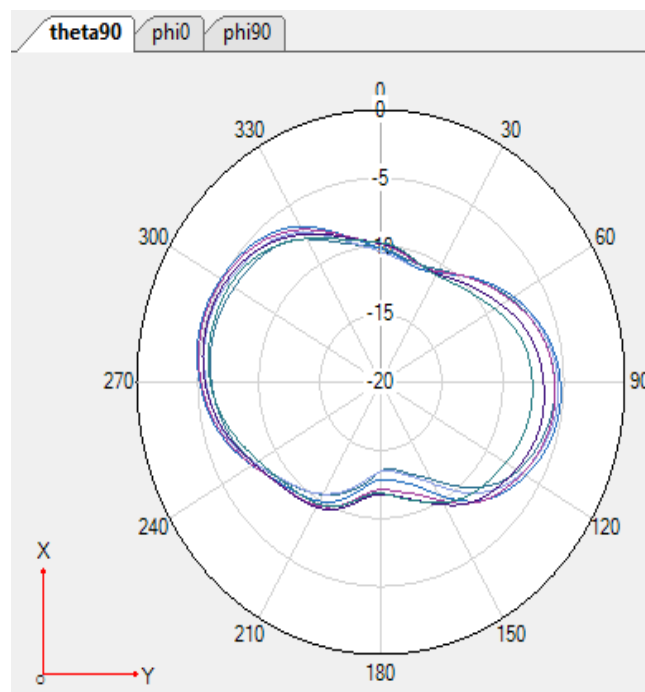
ANT8





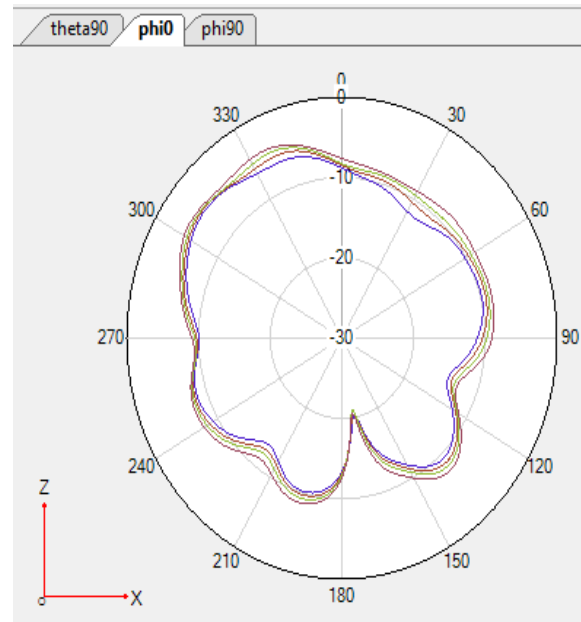


FOLD_MHB_PRX_PCS/W1/B1/B34/N1 Phi=90deg

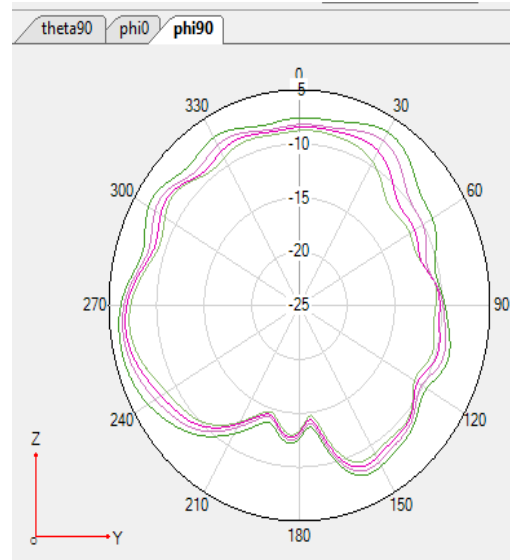


FOLD_MHB_PRX_PCS/W1/B1/B34/N1 Theta=90deg

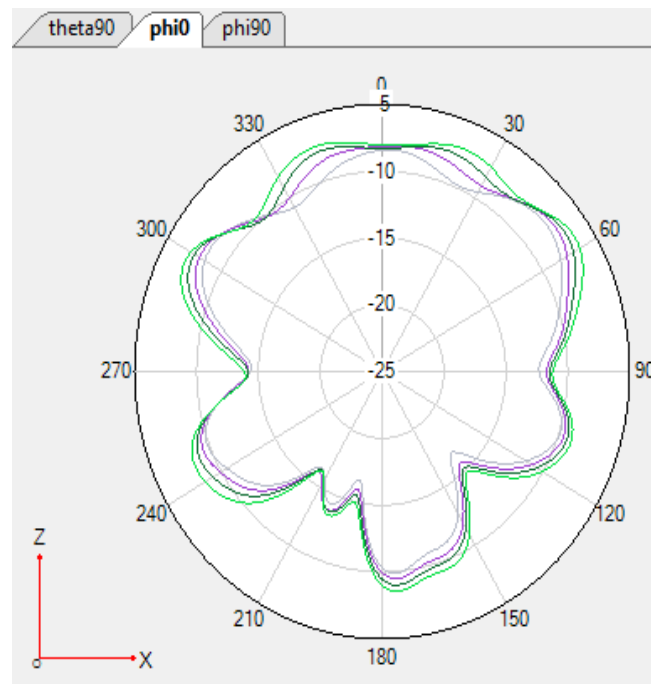
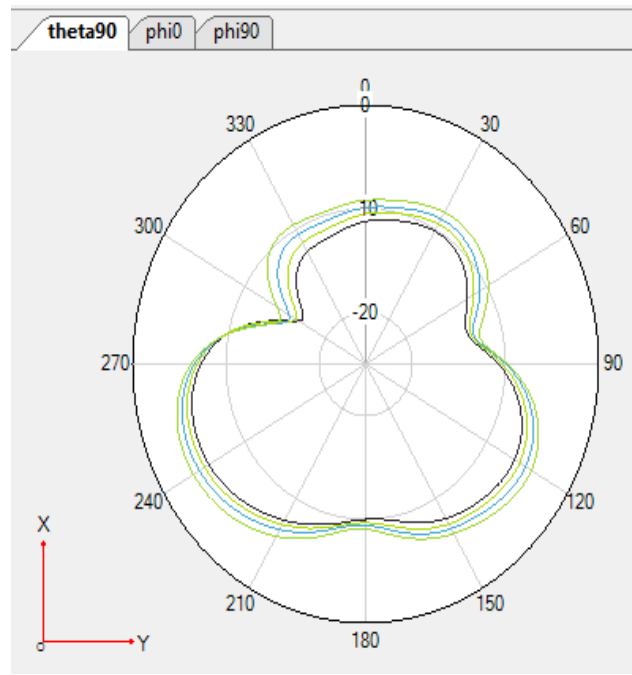
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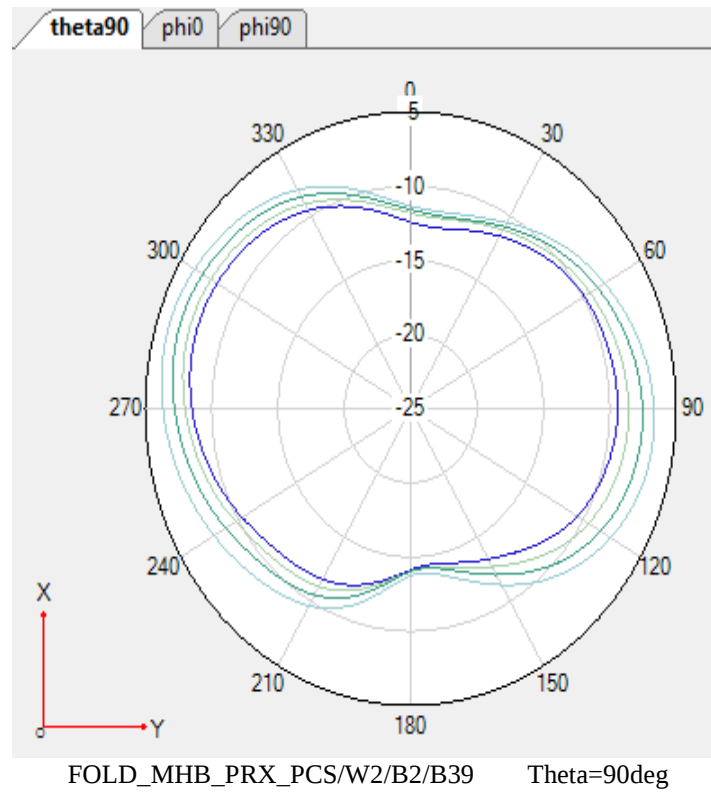
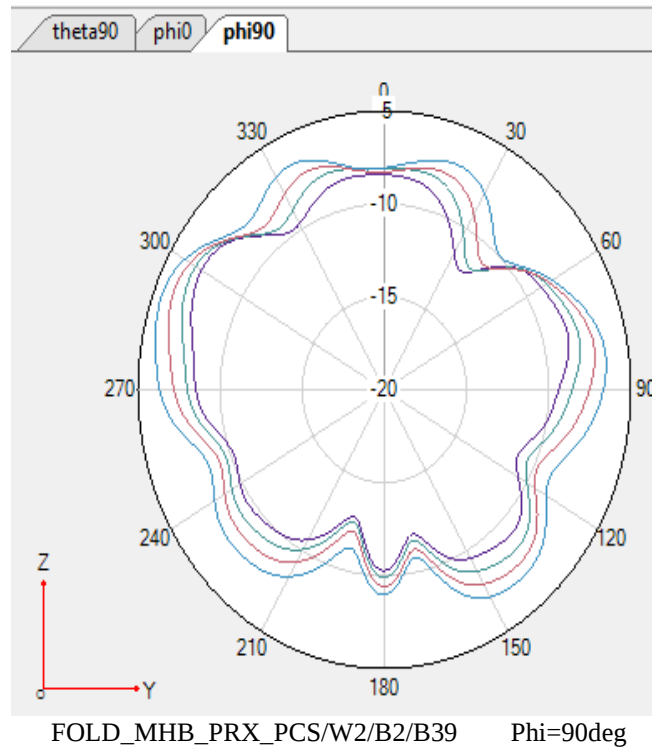


UNFOLD_MHB_PRX_PCS/W2/B2/B39 $\Phi = 0^\circ$

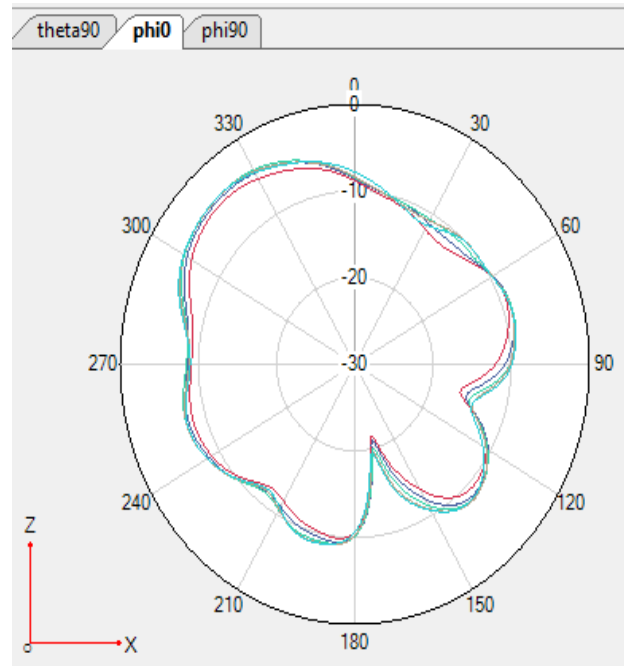


UNFOLD_MHB_PRX_PCS/W2/B2/B39 $\Phi = 90^\circ$

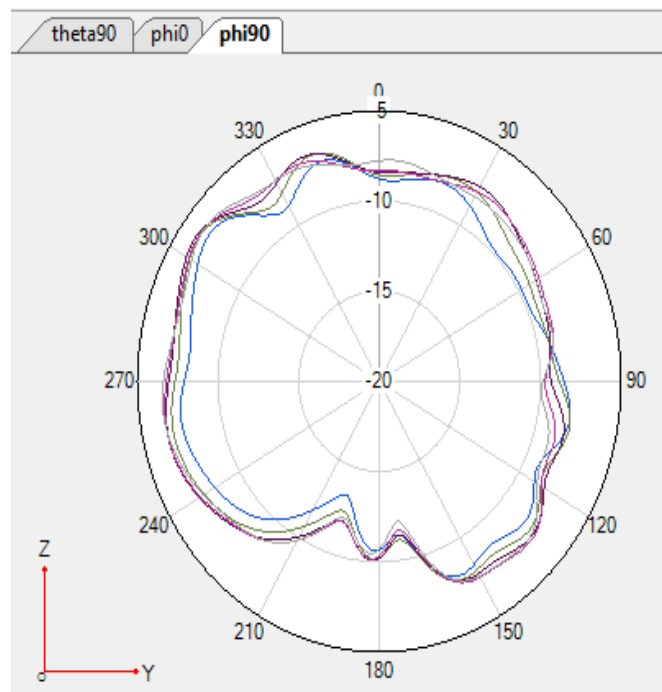




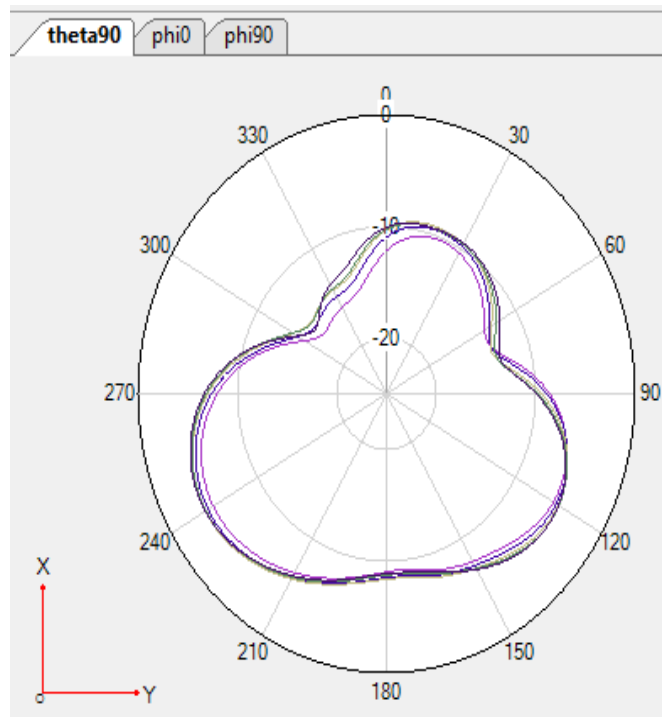
ANT8



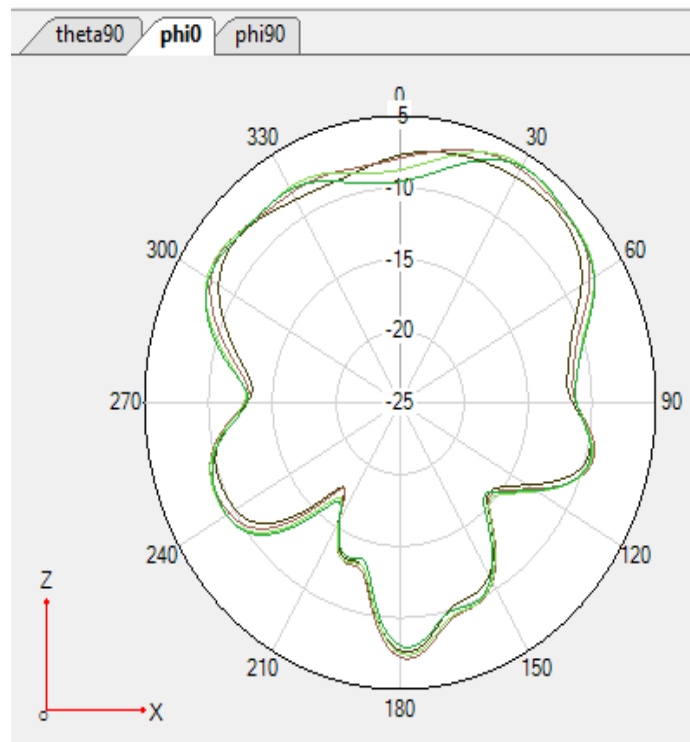
UNFOLD_MHB_PRX_DCS/W4/B3/B4/N3 $\Phi = 0^\circ$



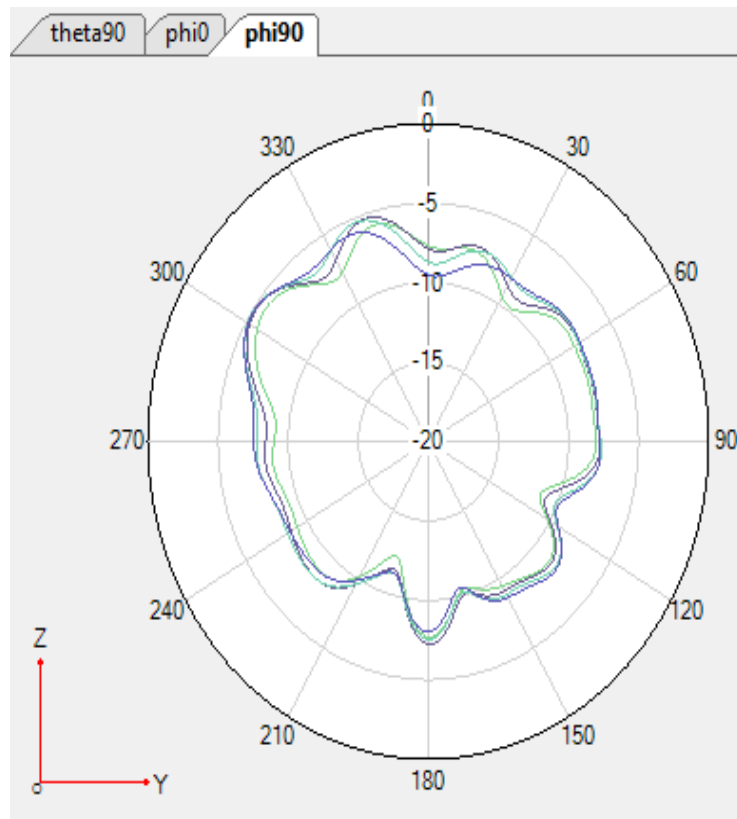
UNFOLD_MHB_PRX_DCS/W4/B3/B4/N3 $\Phi = 90^\circ$



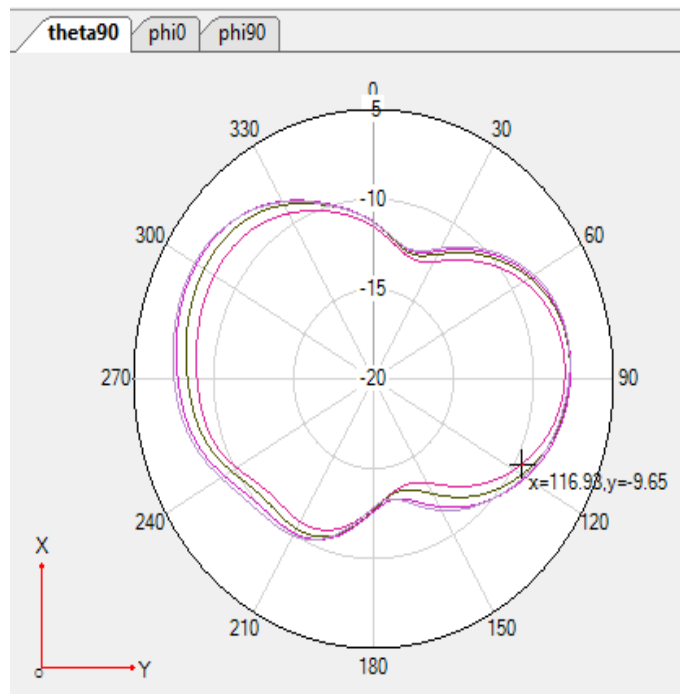
UNFOLD_MHB_PRX_DCS/W4/B3/B4/N3 Theta=90deg



FOLD_MHB_PRX_DCS/W4/B3/B4/N3 Phi=0deg

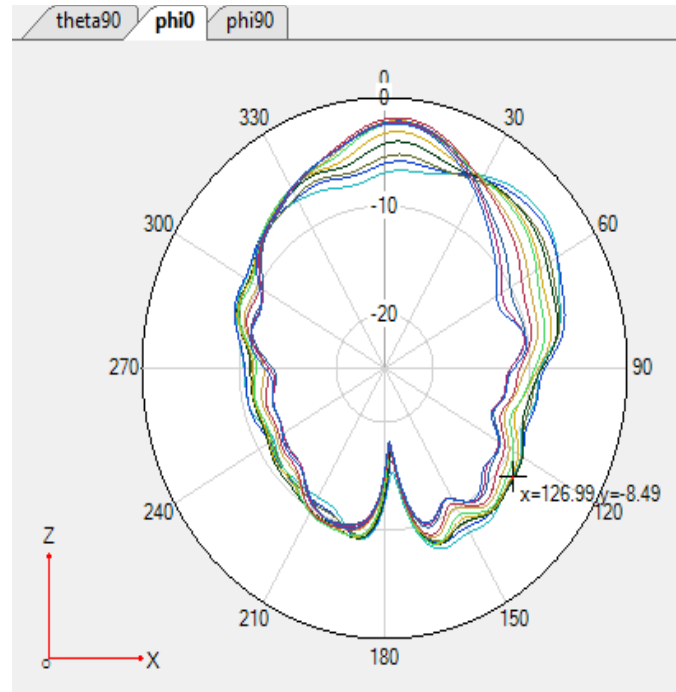


FOLD_MHB_PRX_DCS/W4/B3/B4/N3 Phi=90deg

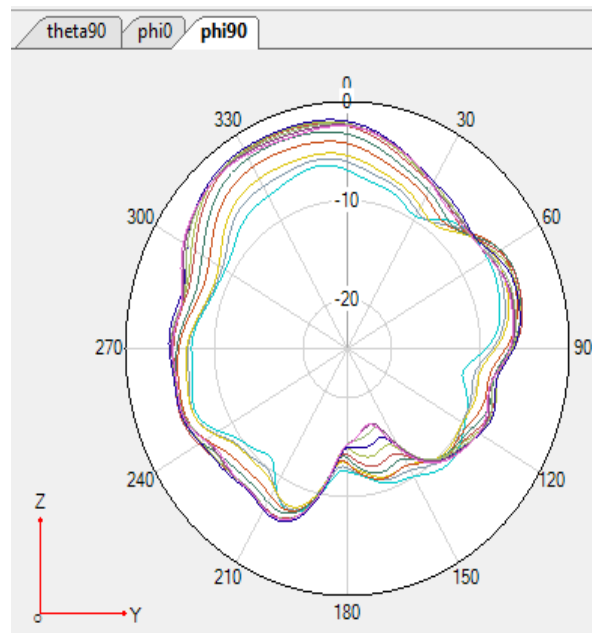


FOLD_MHB_PRX_DCS/W4/B3/B4/N3 Theta=90deg

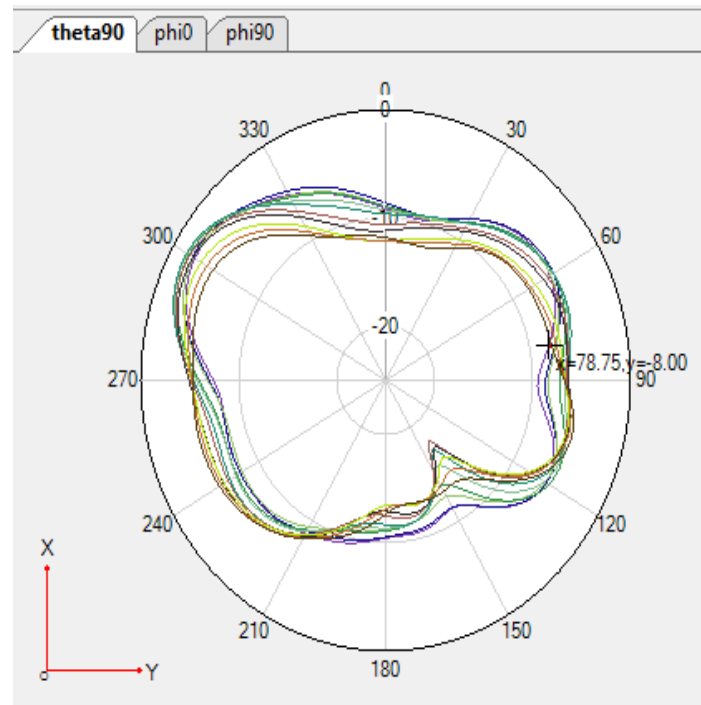
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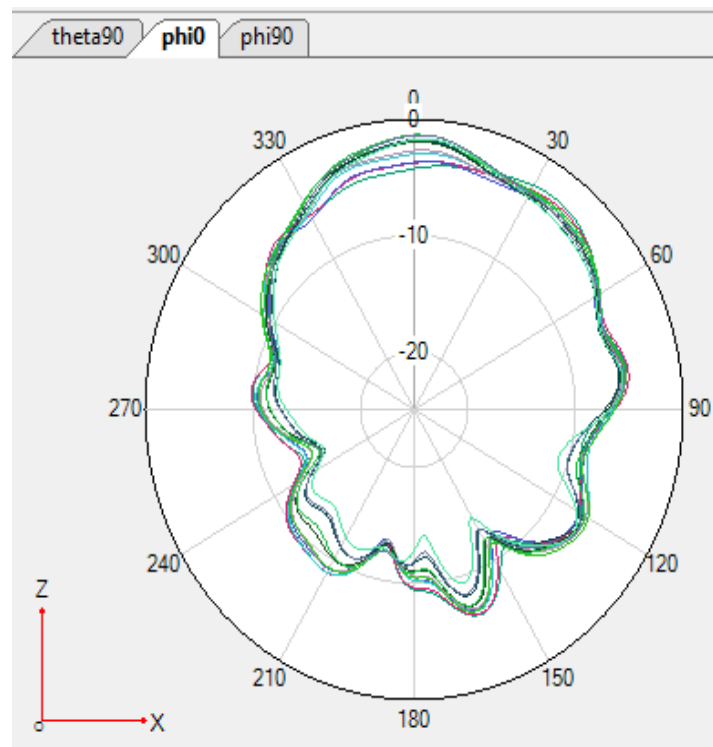
UNFOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 $\Phi = 0^\circ$



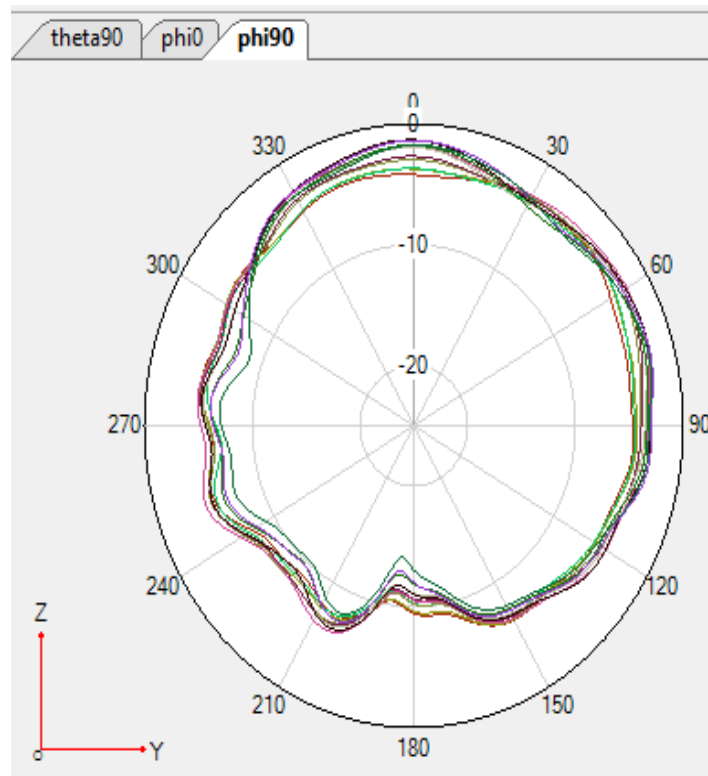
UNFOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 $\Phi = 90^\circ$



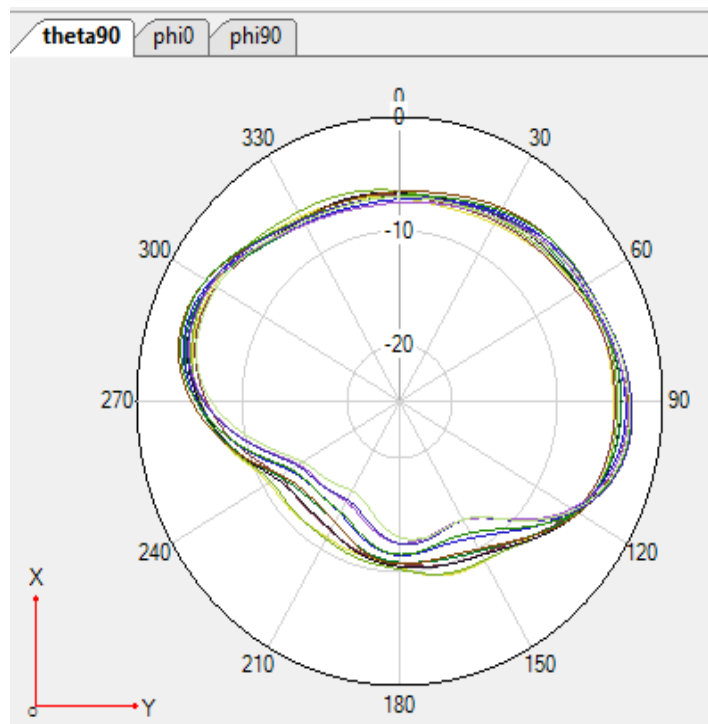
UNFOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 Theta=90deg



FOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 Phi=0deg

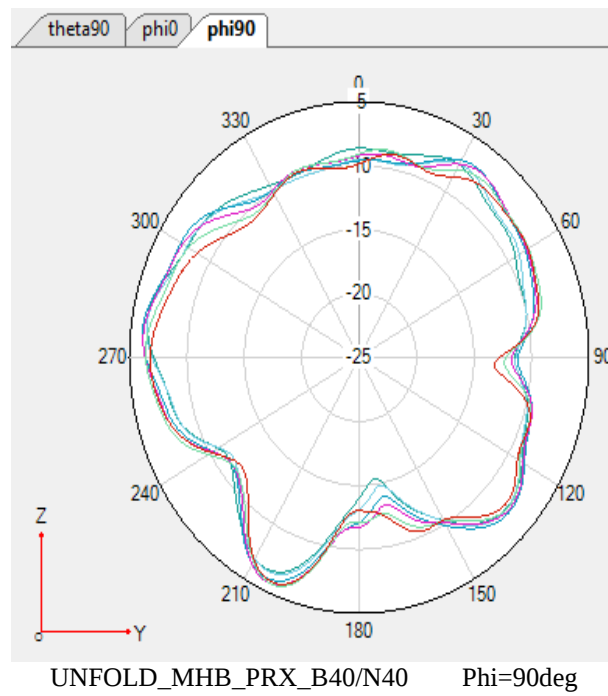
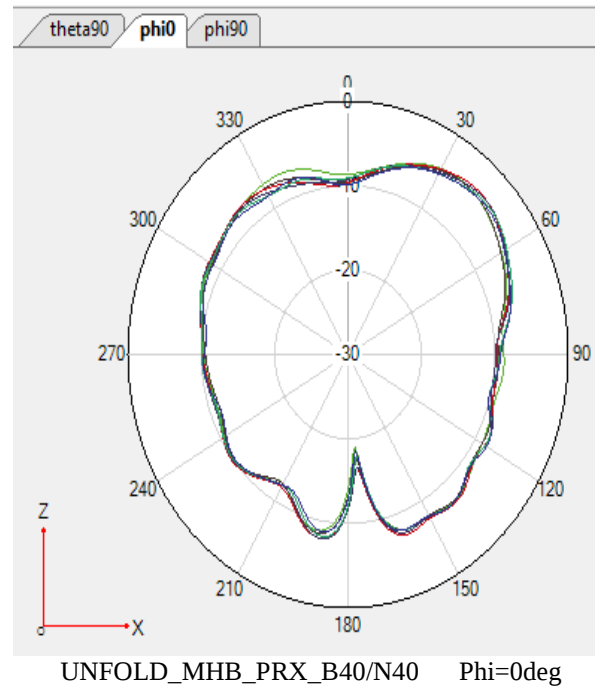


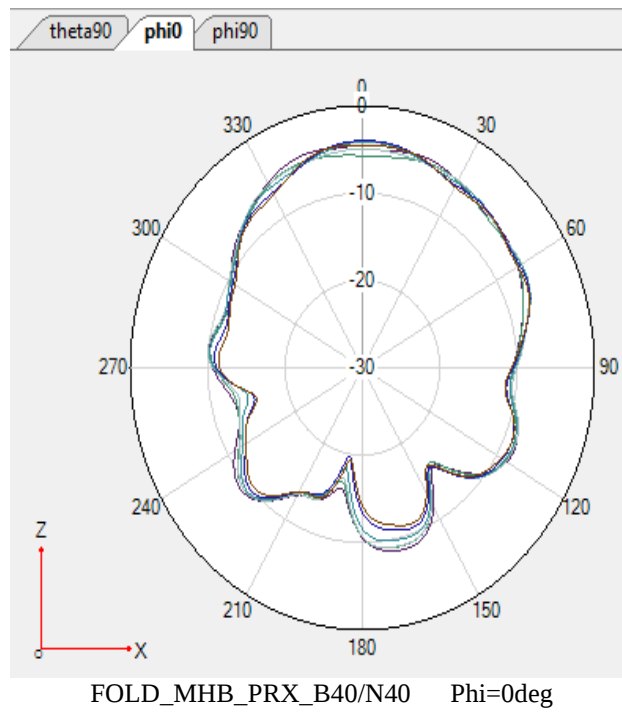
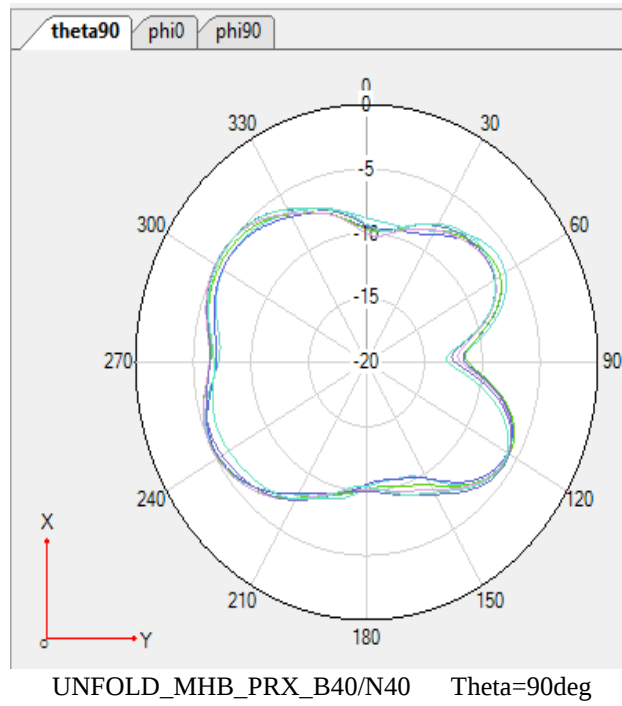
FOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 Phi=90deg

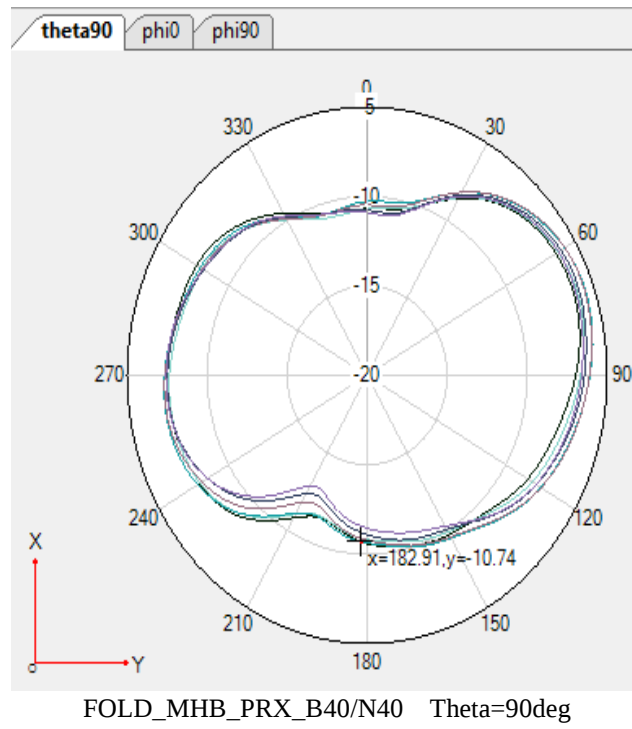
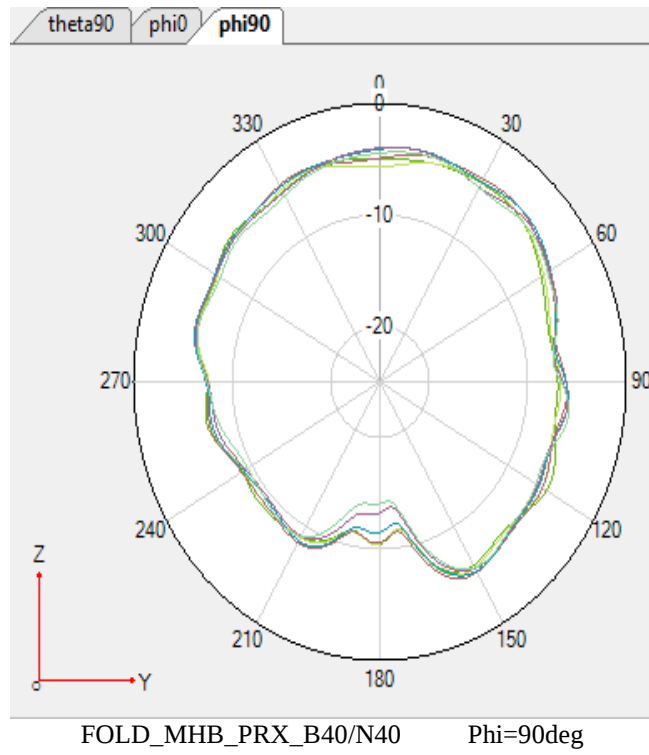


FOLD_MHB_PRX_B7/B38/B41/N7/N38/N41 Theta=90deg

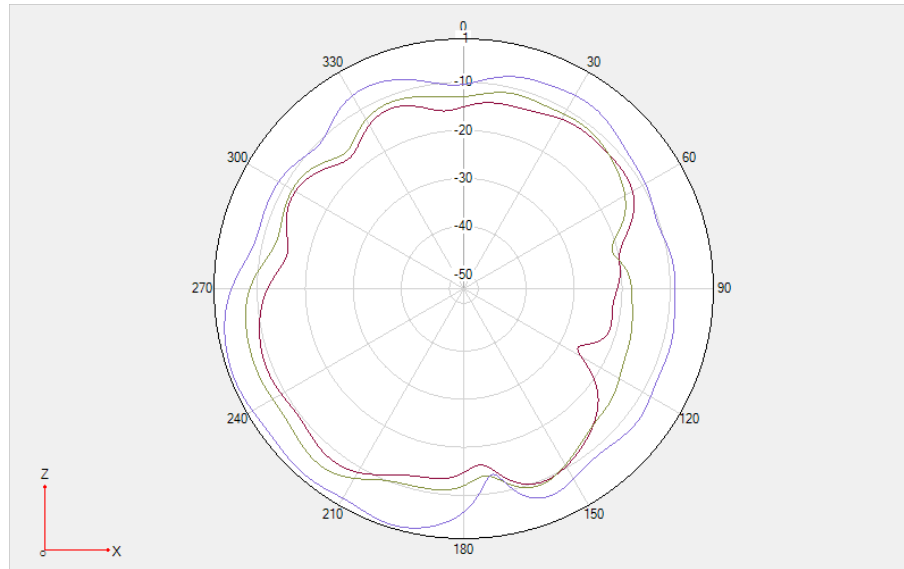
ANT8



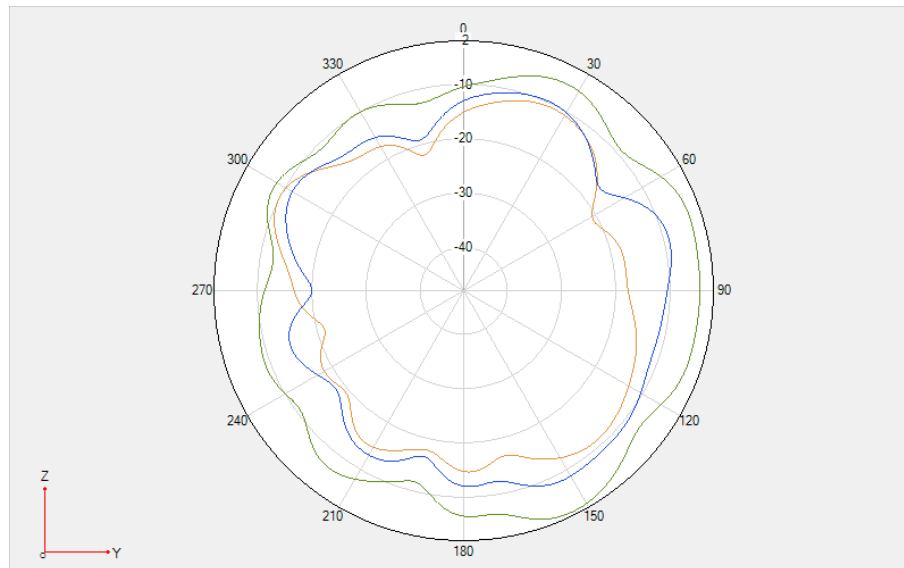




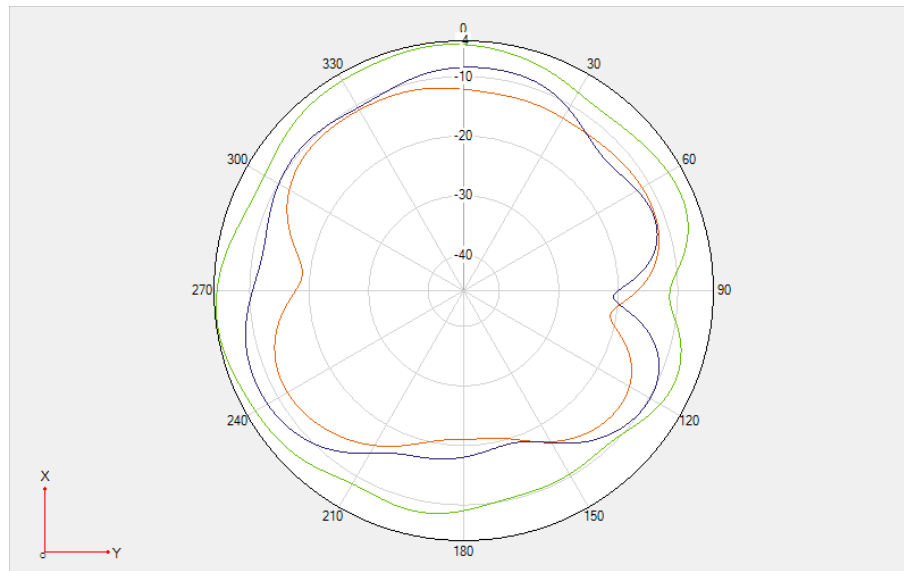
ANT8



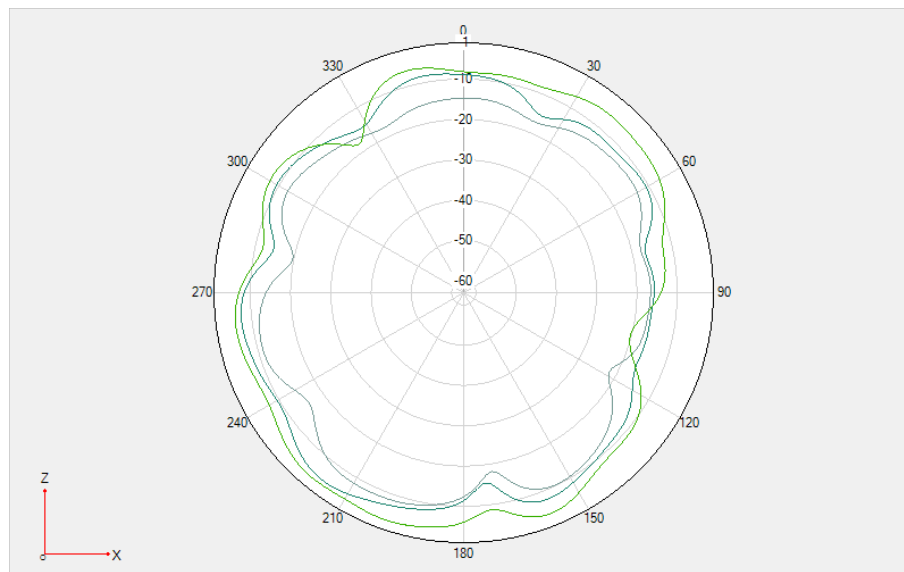
UNFOLD_N77/78/B42_PRX MIMO $\Phi = 0^\circ$



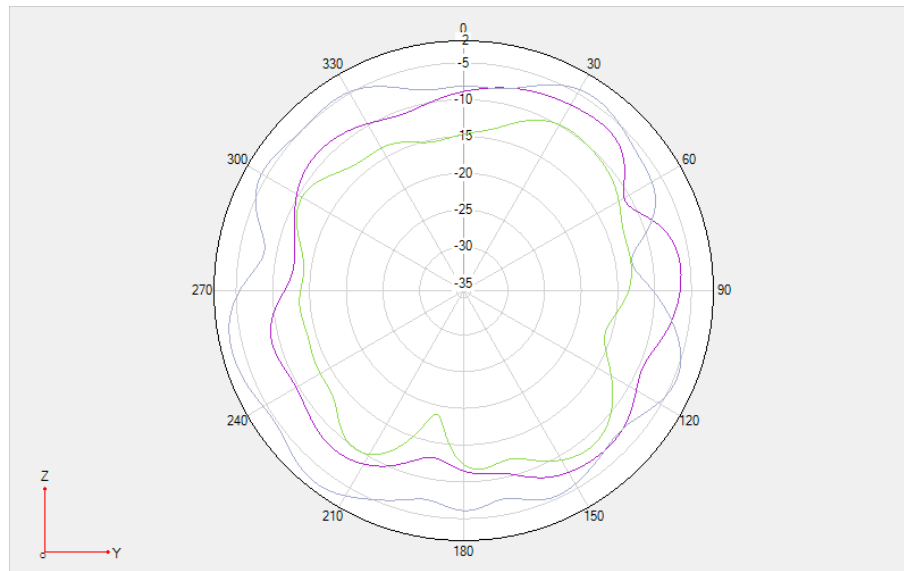
UNFOLD_N77/78/B42_PRX MIMO $\Phi = 90^\circ$



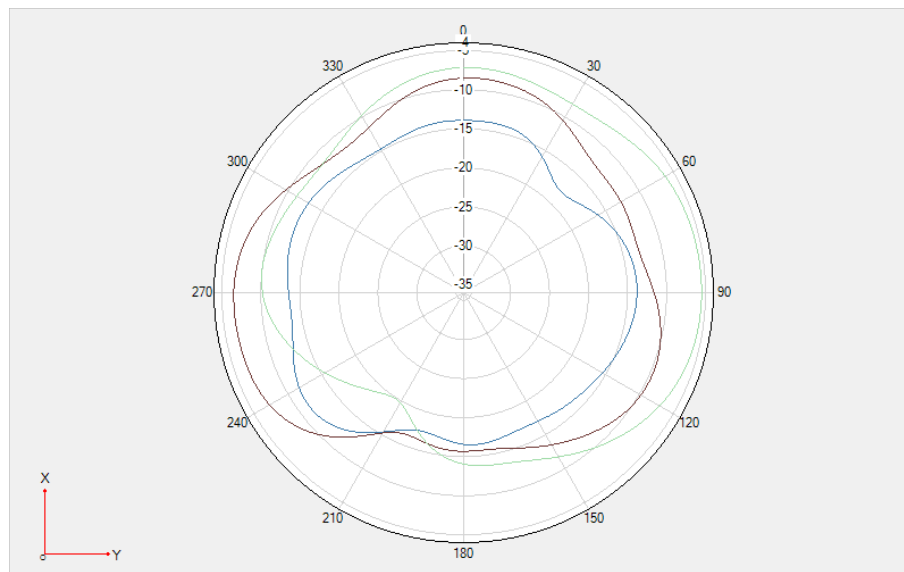
UNFOLD_N77/78/B42_PRX MIMO Theta=90deg



FOLD_N77/78/B42_PRX MIMO Phi=0deg

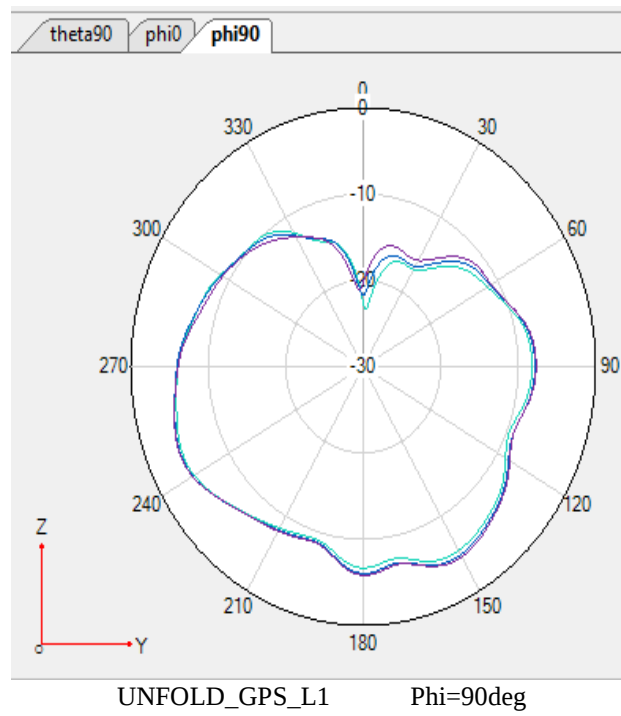
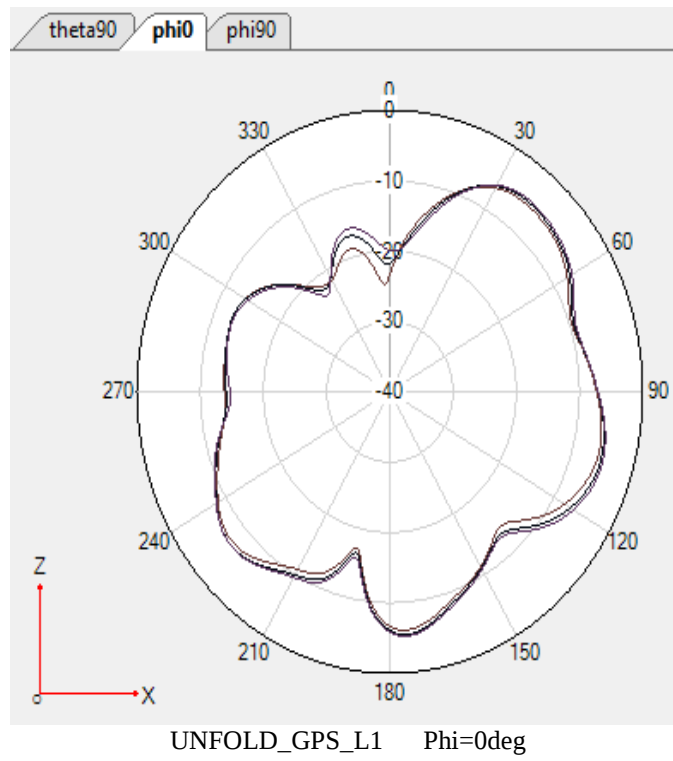


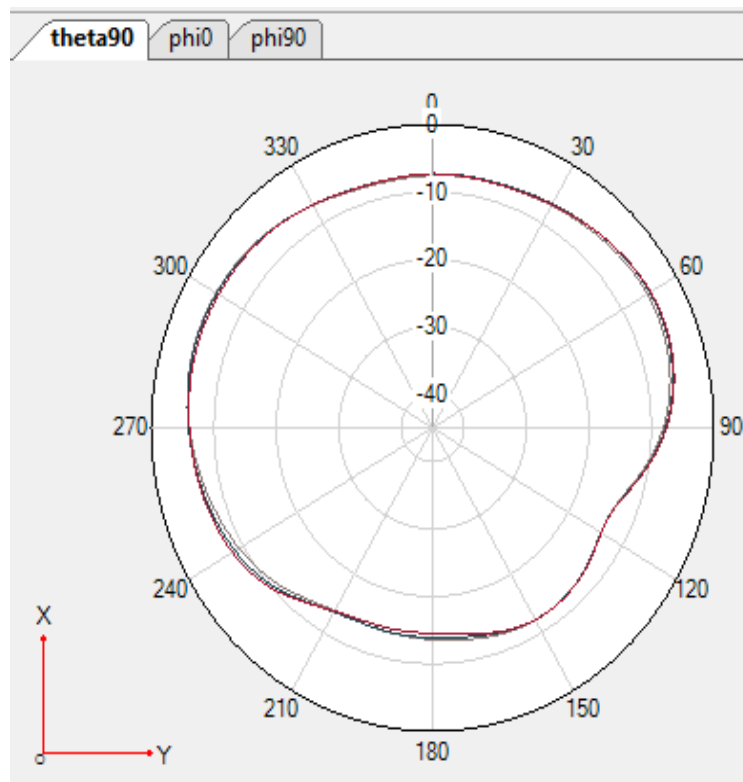
FOLD_N77/78/B42_PRX MIMO $\Phi=90^\circ$



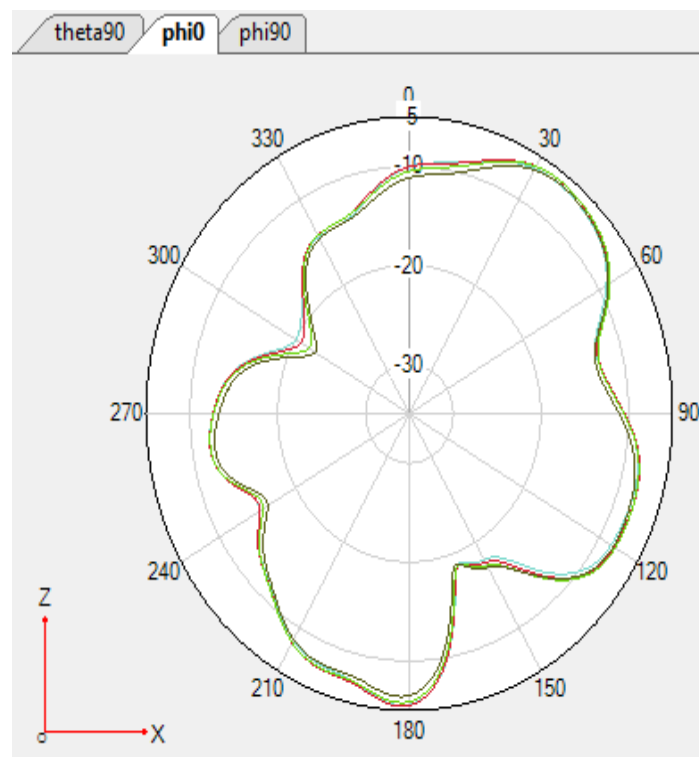
FOLD_N77/78/B42_PRX MIMO $\Theta=90^\circ$

ANT12

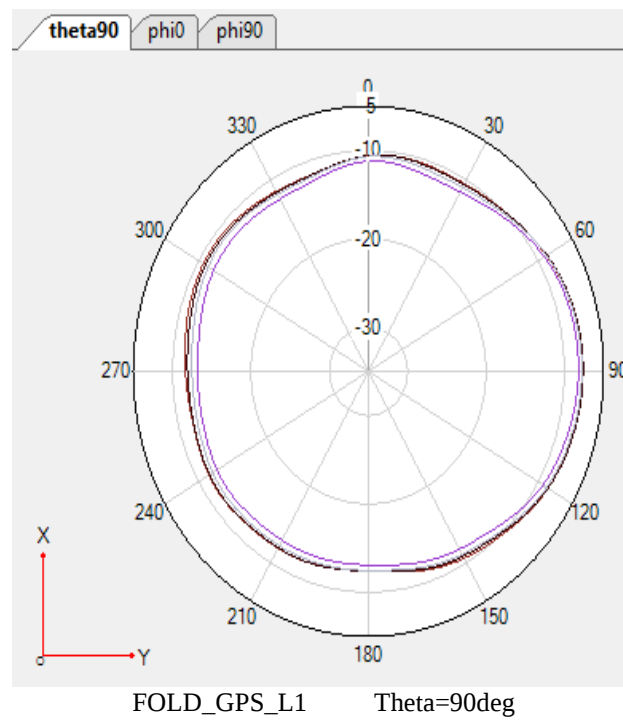
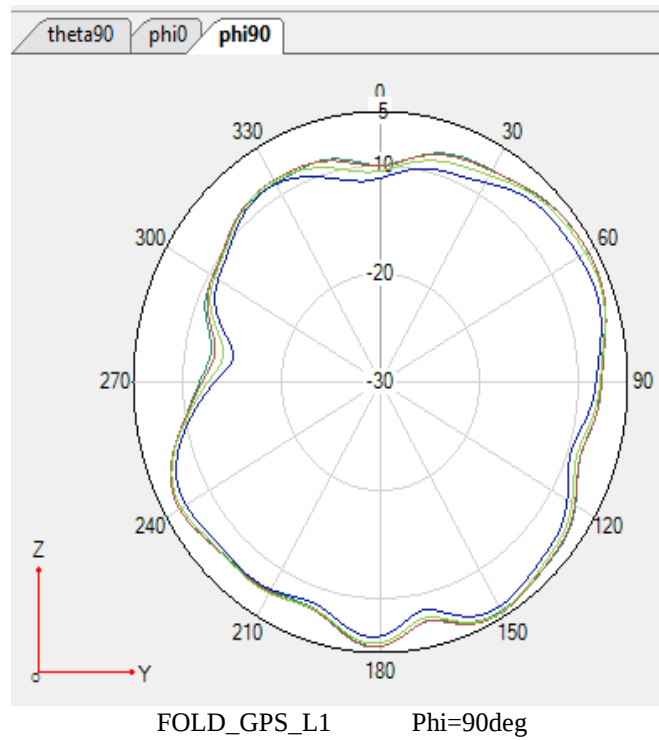




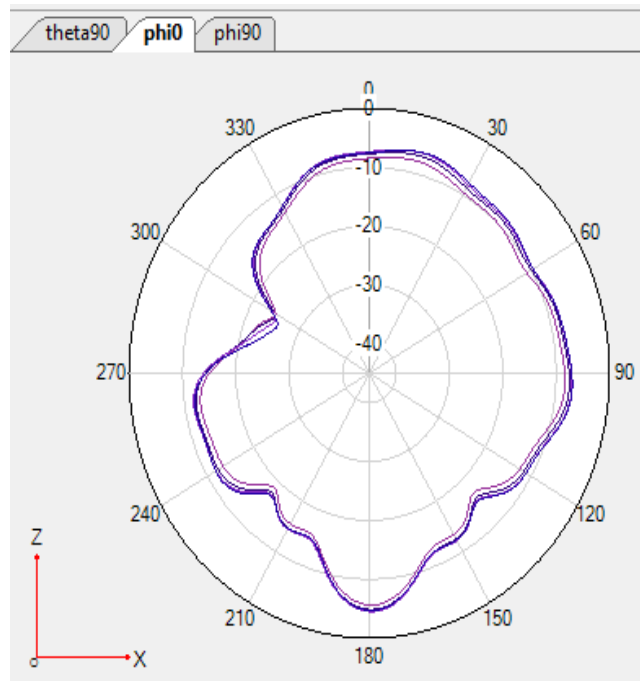
UNFOLD_GPS_L1 Theta=90deg



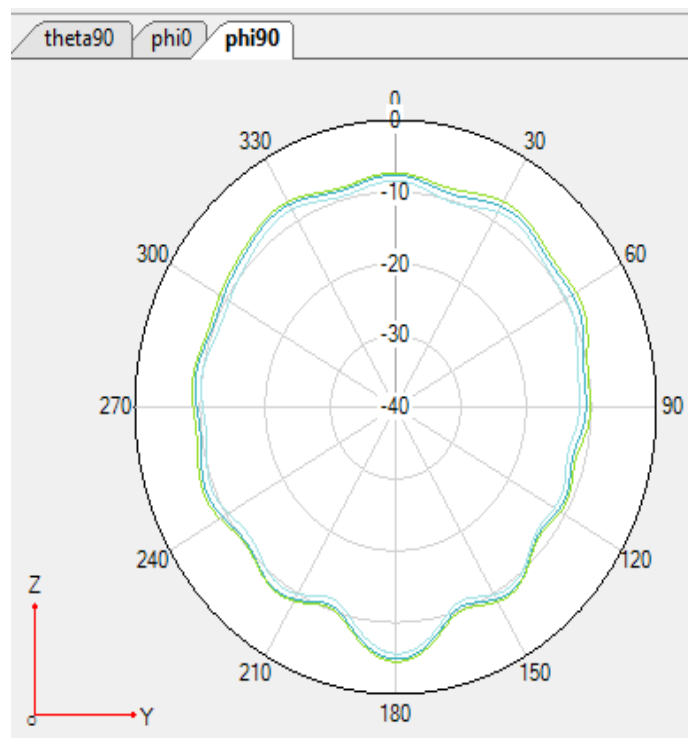
FOLD_GPS_L1 Phi=0deg



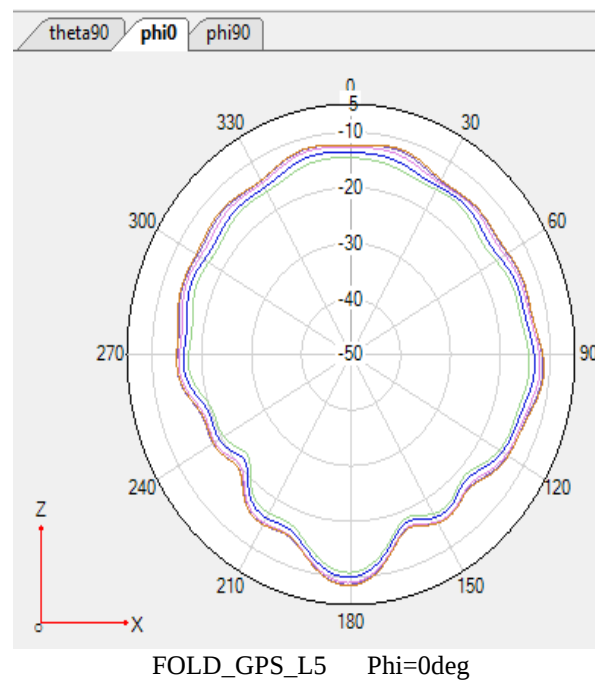
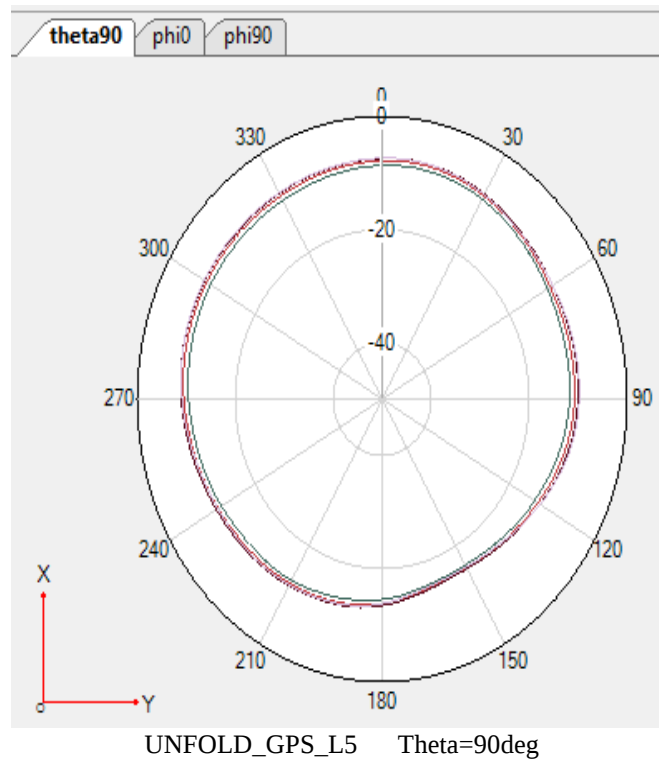
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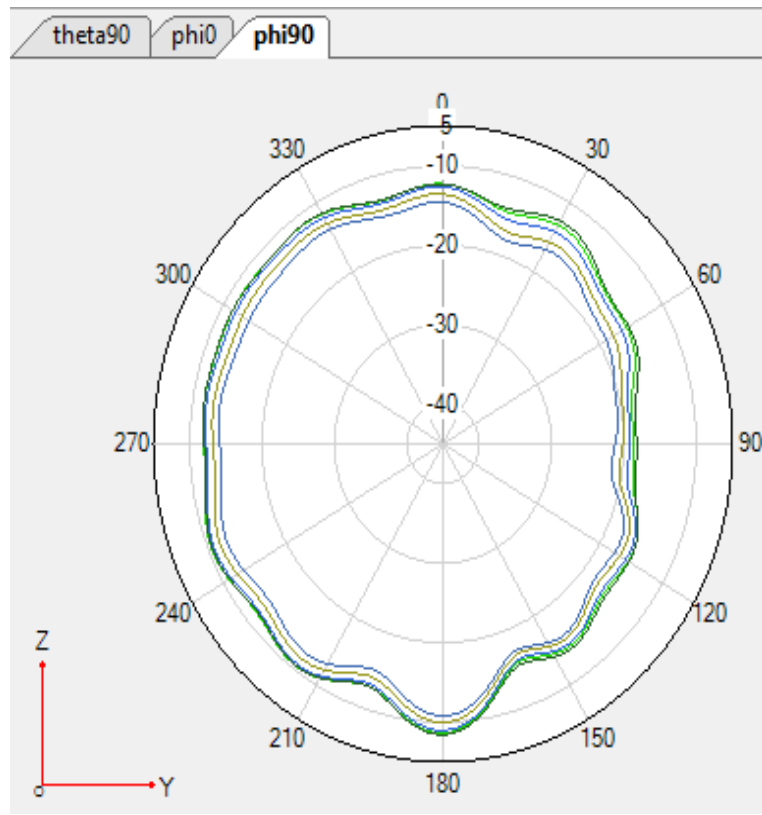


UNFOLD_GPS_L5 $\Phi = 0^\circ$

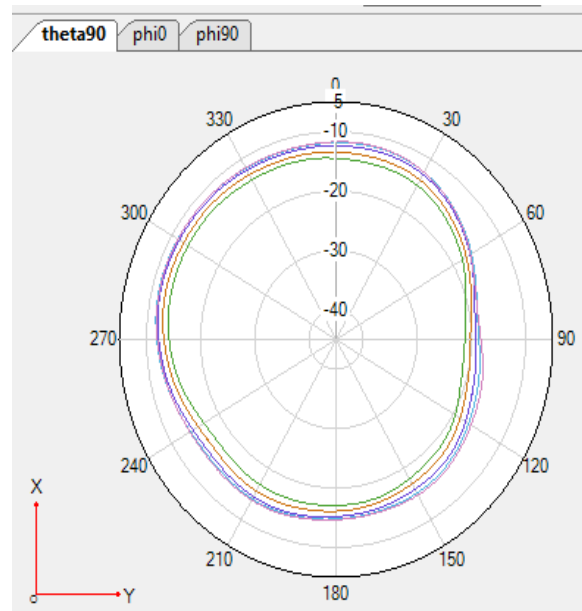


UNFOLD_GPS_L5 $\Phi = 90^\circ$



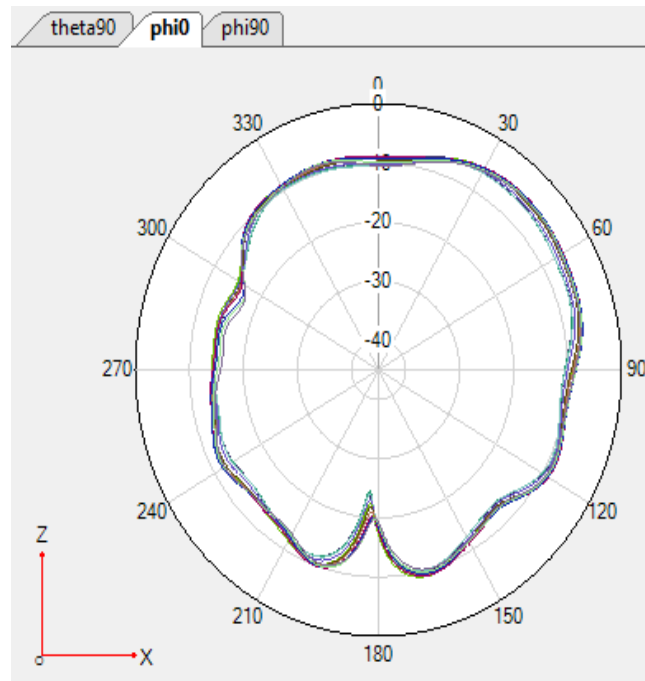


FOLD_GPS_L5 Phi=90deg

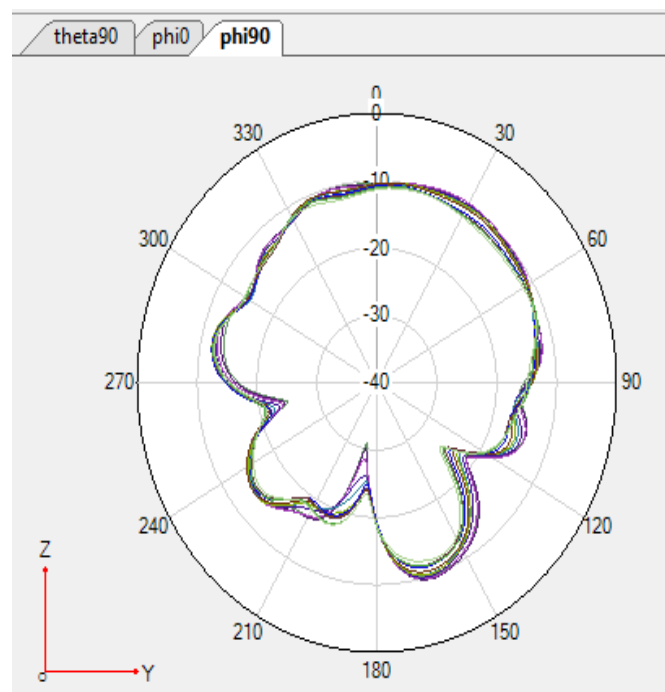


FOLD_GPS_L5 Theta=90deg

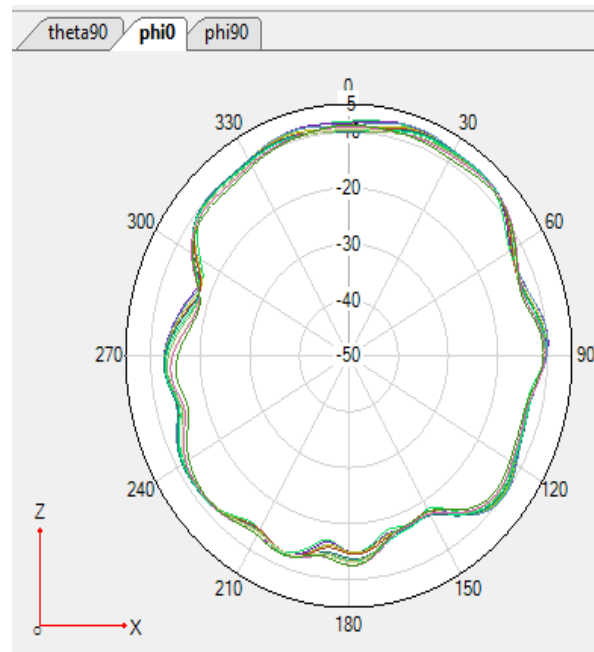
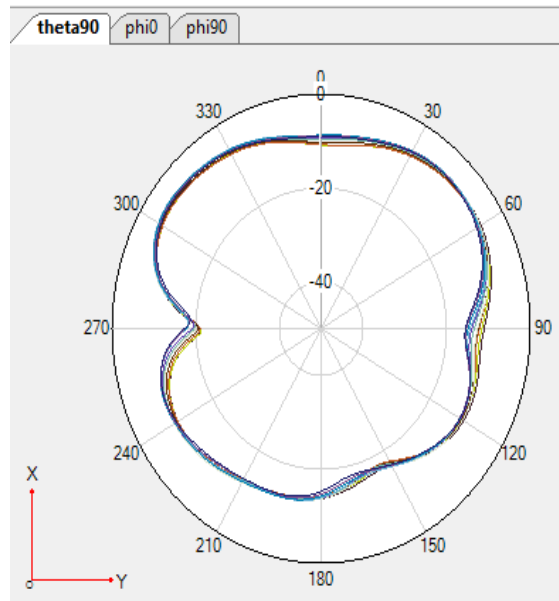
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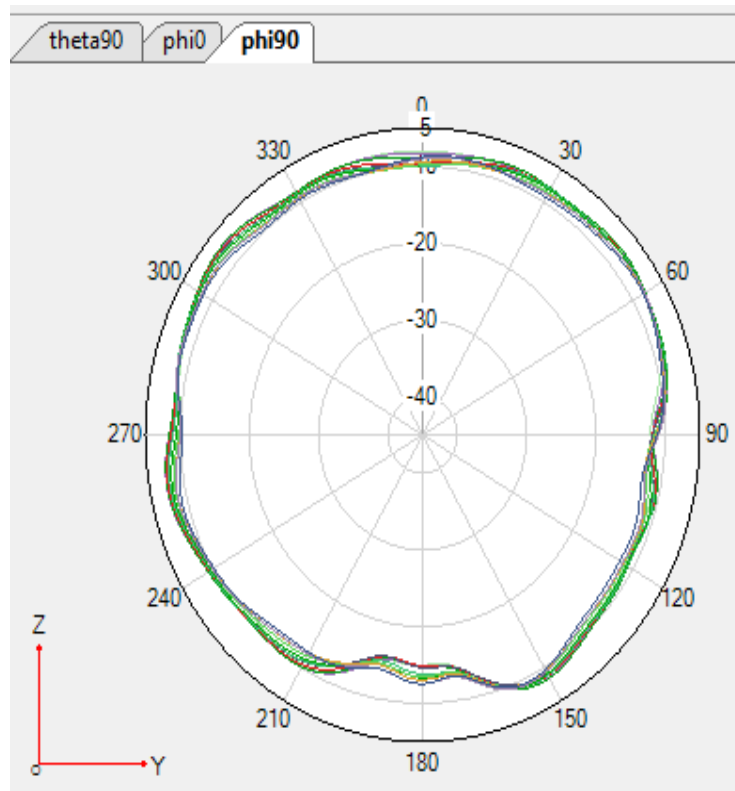


UNFOLD_WIFI_2.4G_MIMO1 $\Phi = 0^\circ$

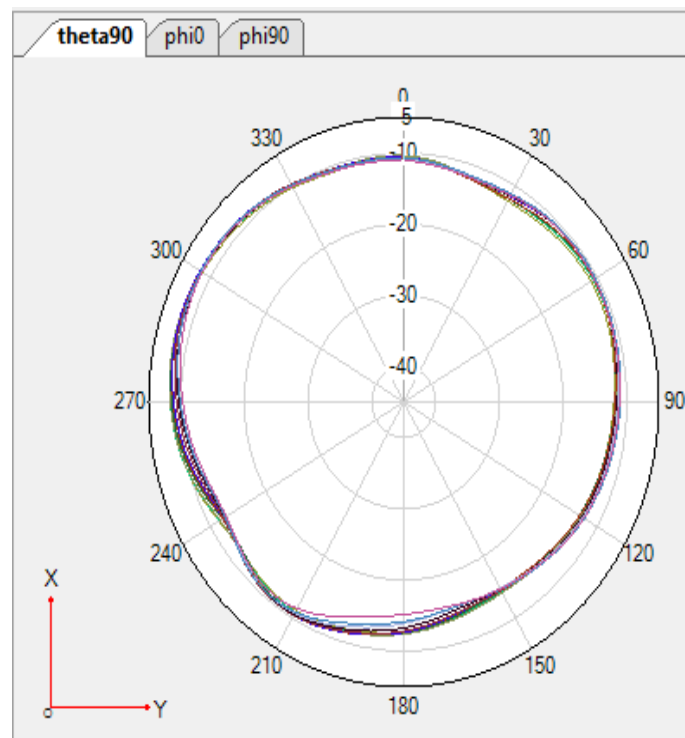


UNFOLD_WIFI_2.4G_MIMO1 $\Phi = 90^\circ$



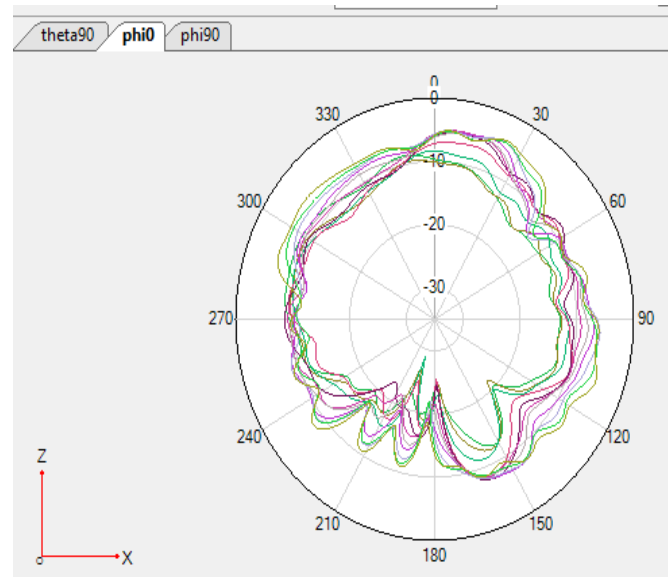


FOLD_WIFI_2.4G_MIMO1 $\Phi = 90^\circ$

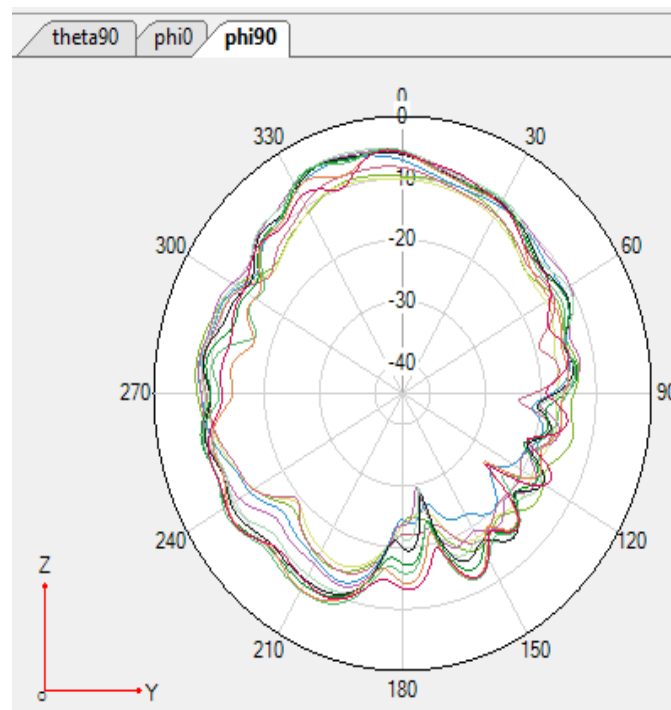


FOLD_WIFI_2.4G_MIMO1 $\Theta = 90^\circ$

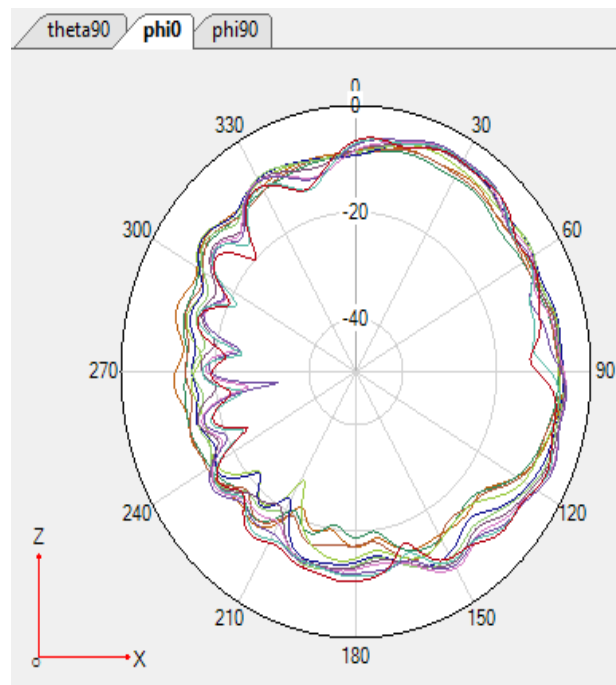
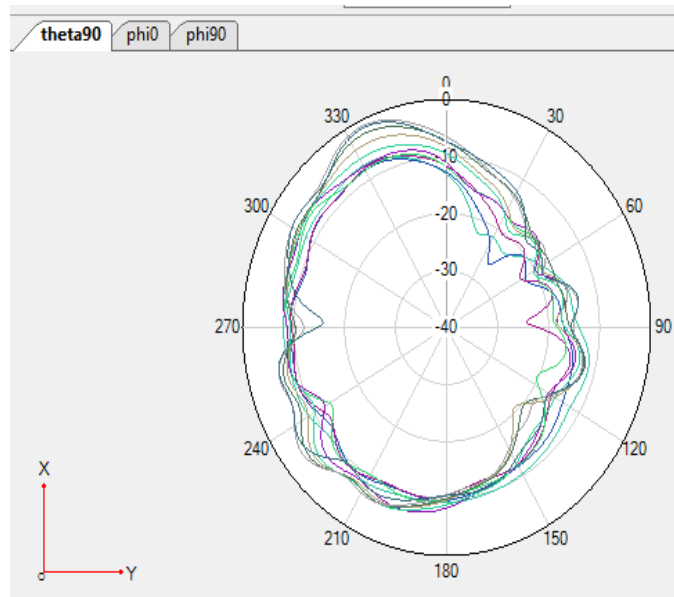
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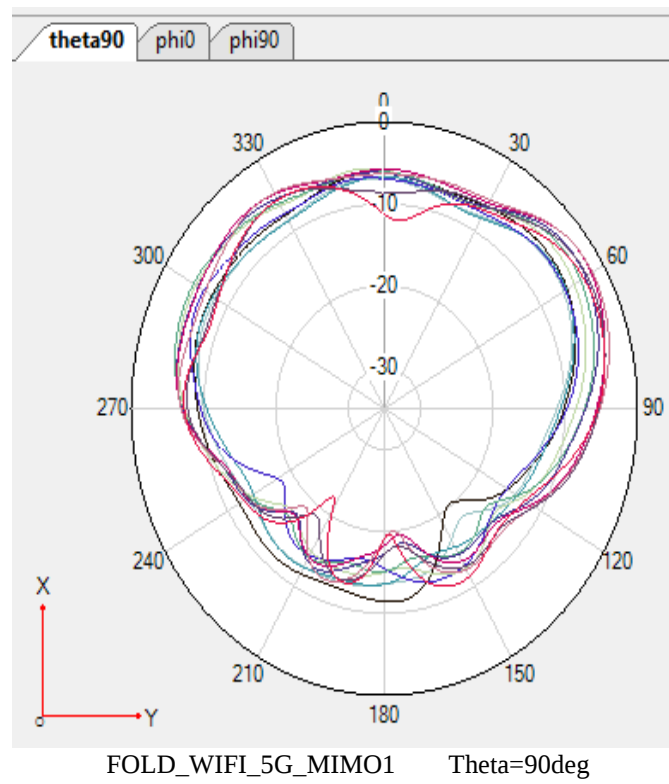
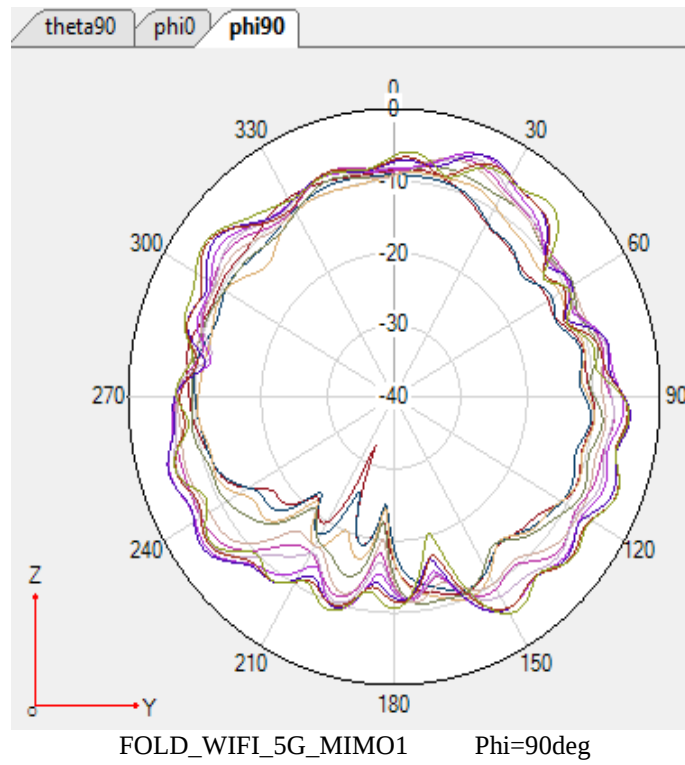


UNFOLD_WIFI_5G_MIMO1 $\Phi = 0^\circ$

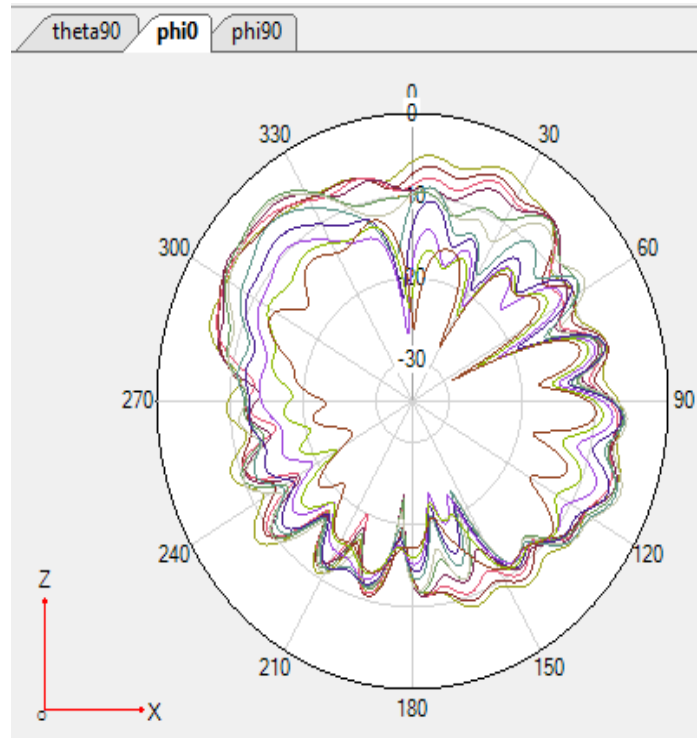


UNFOLD_WIFI_5G_MIMO1 $\Phi = 90^\circ$

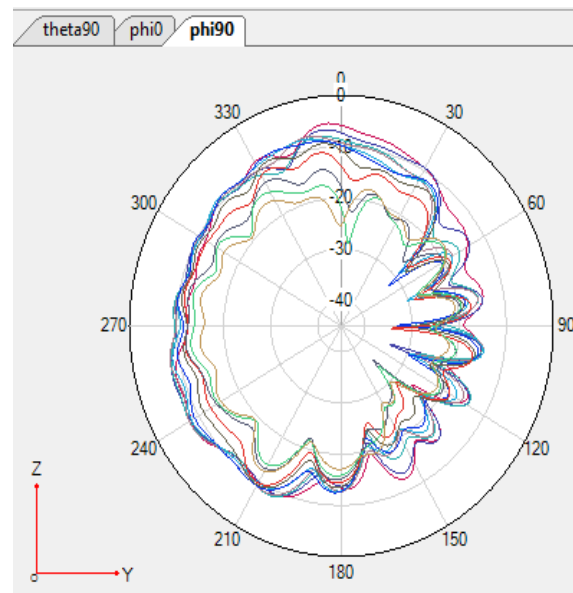




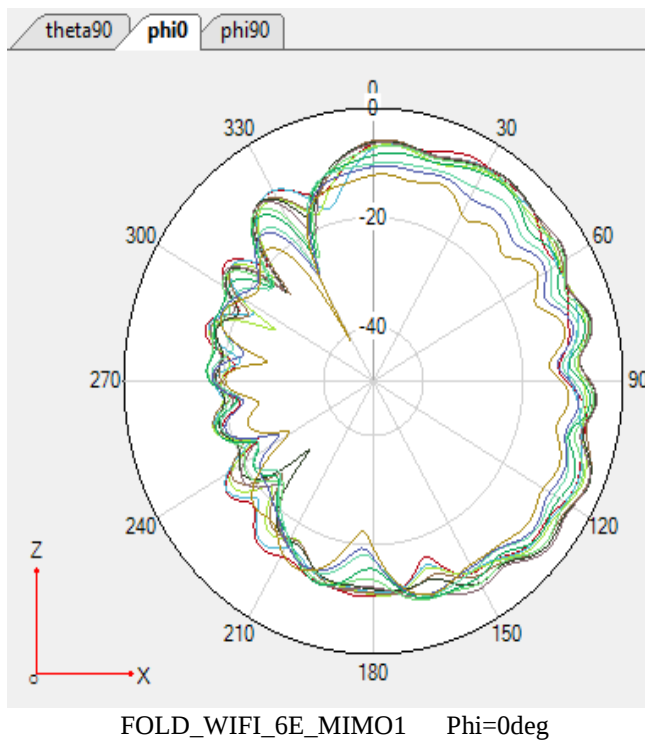
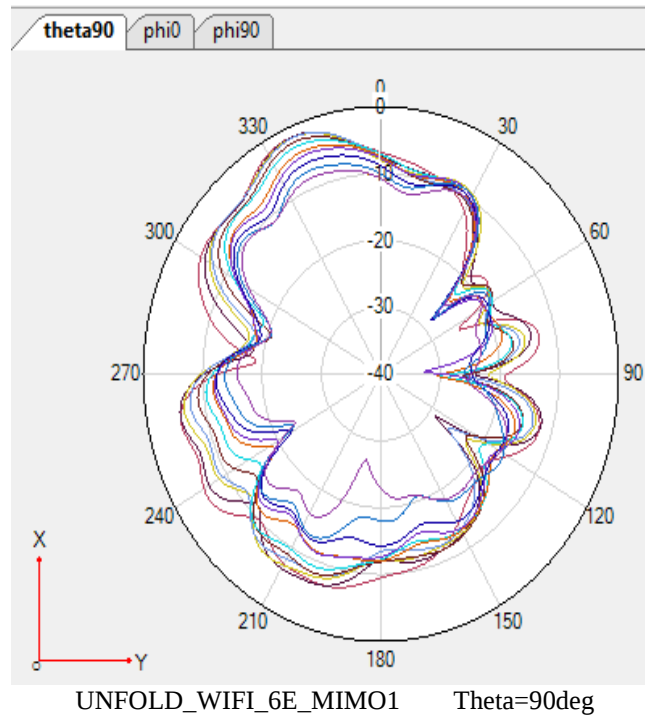
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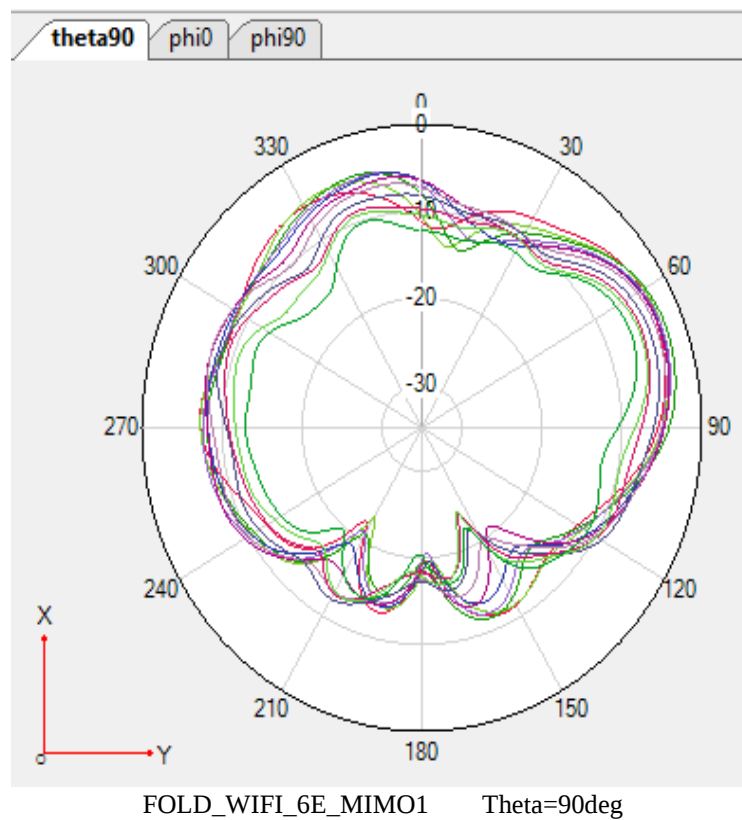
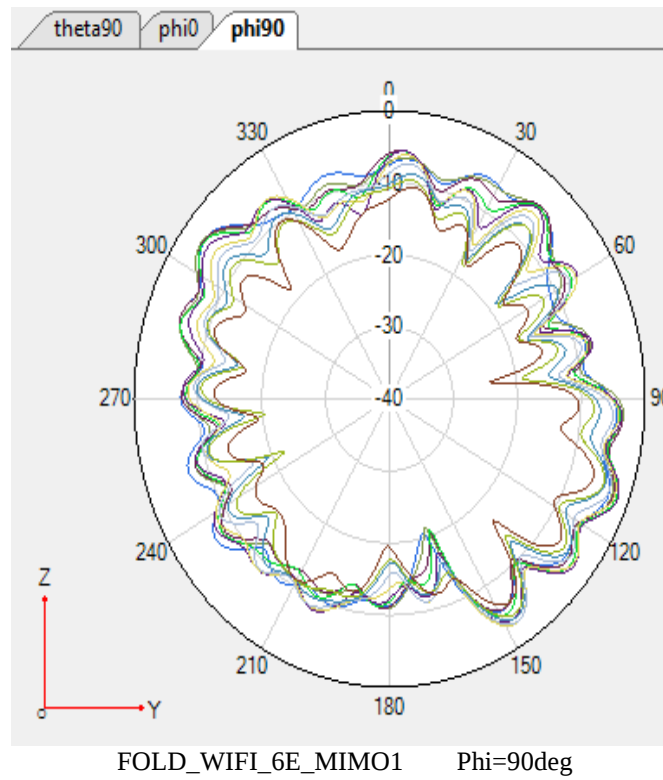


UNFOLD_WIFI_6E_MIMO1 $\Phi = 0^\circ$

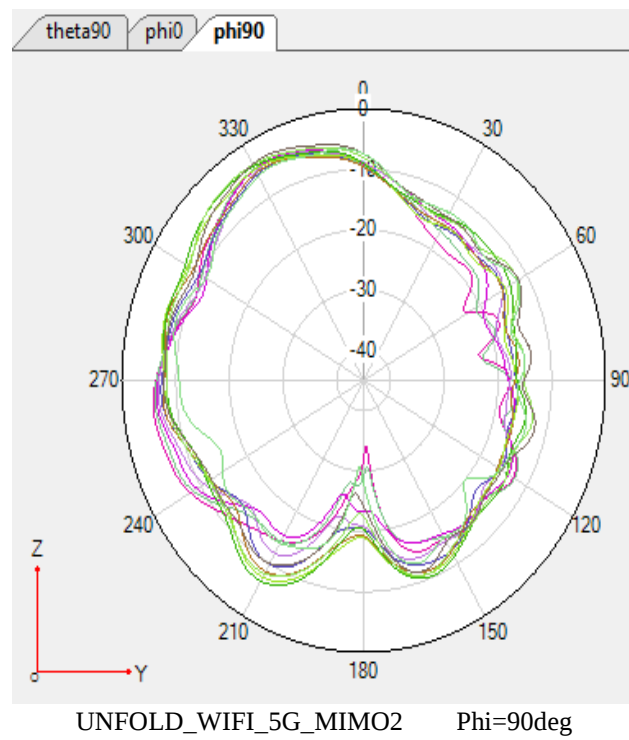
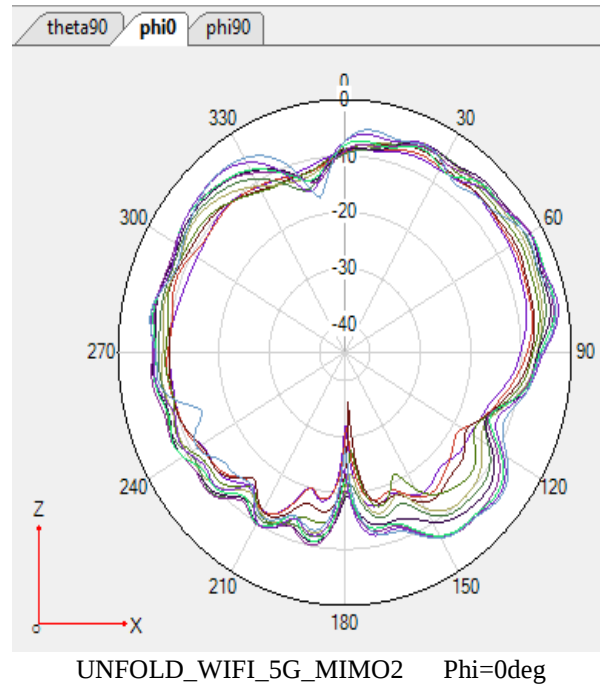


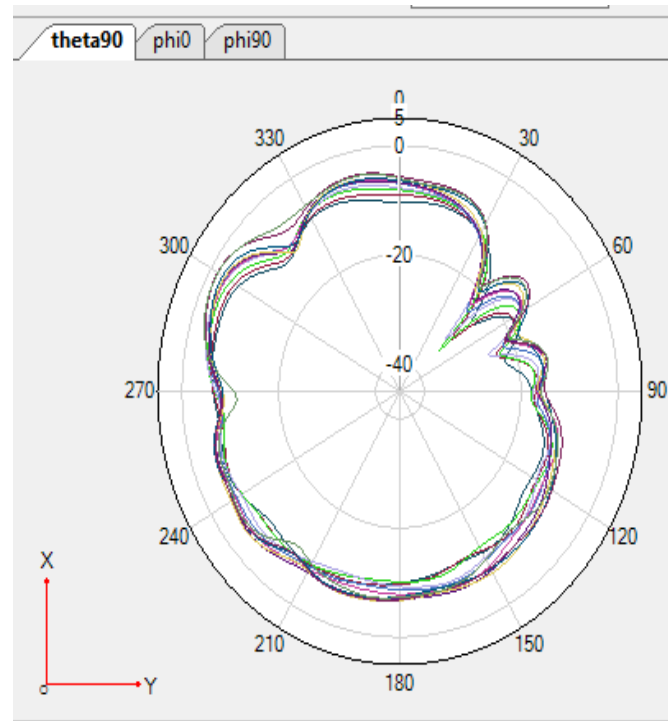
UNFOLD_WIFI_6E_MIMO1 $\Phi = 90^\circ$



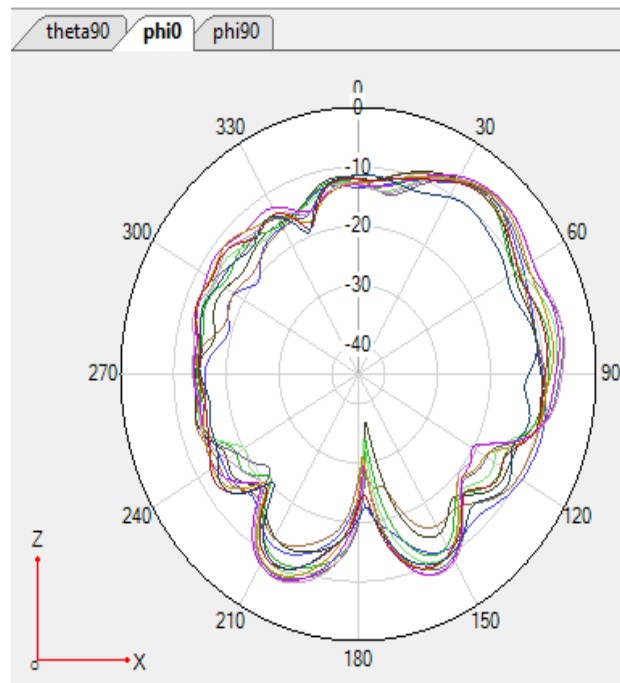


ANT16

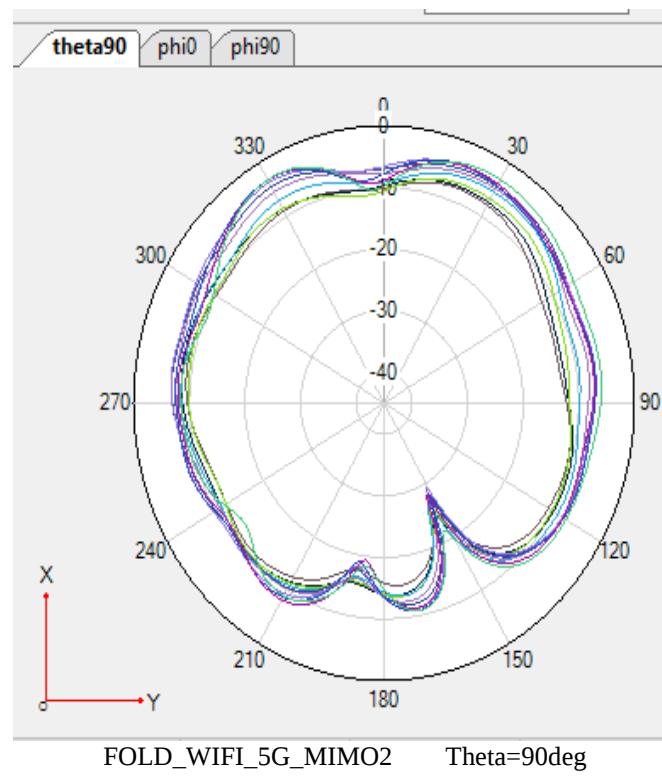
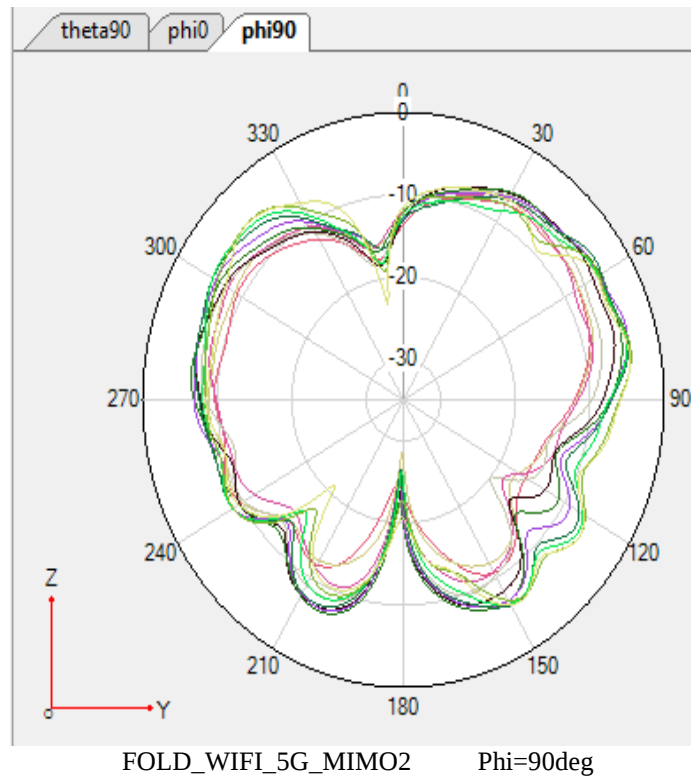




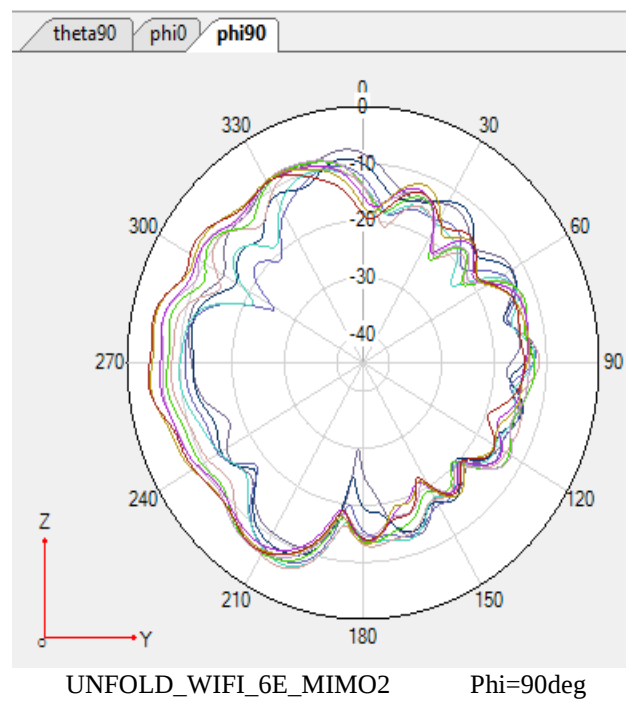
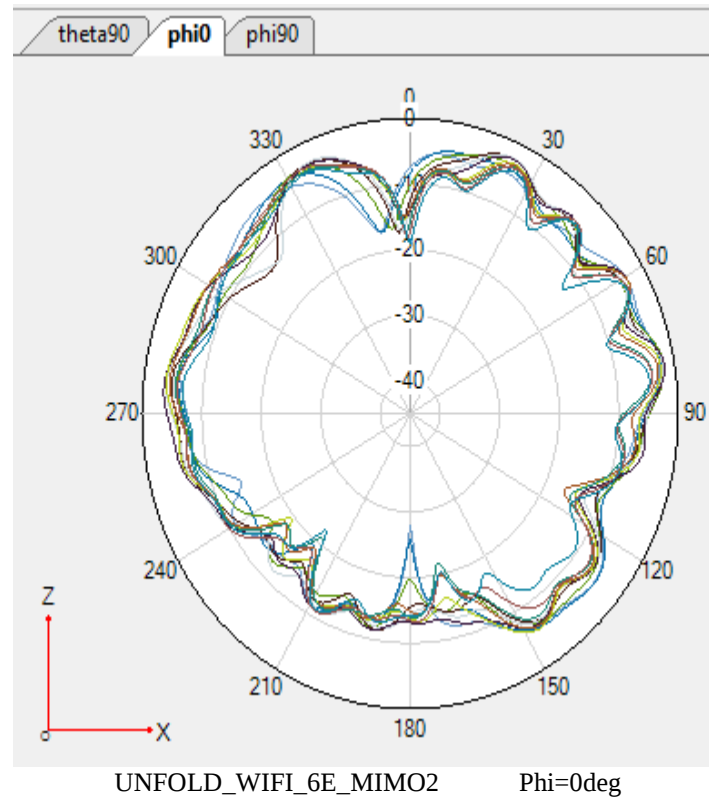
UNFOLD_WIFI_5G_MIMO2 Theta=90deg

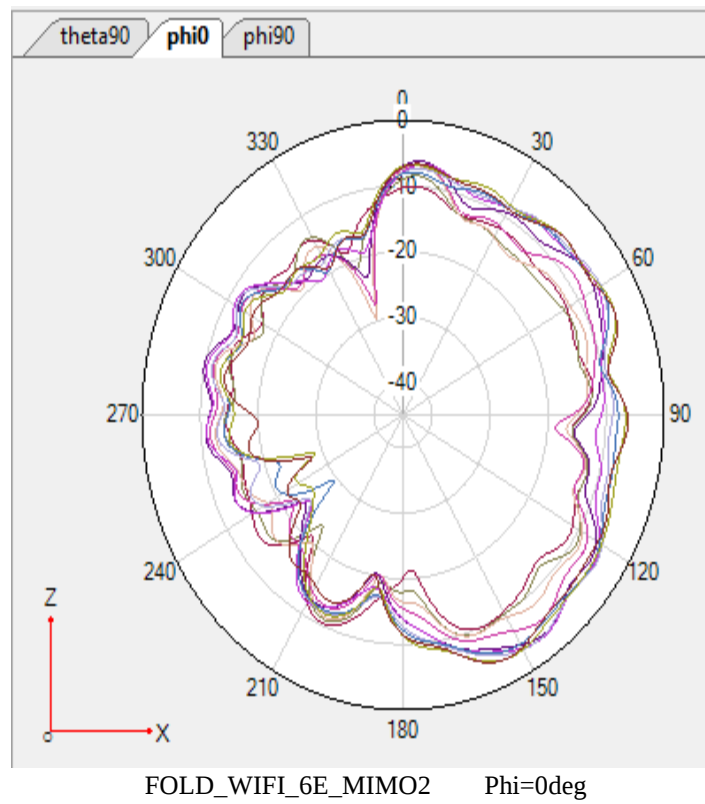
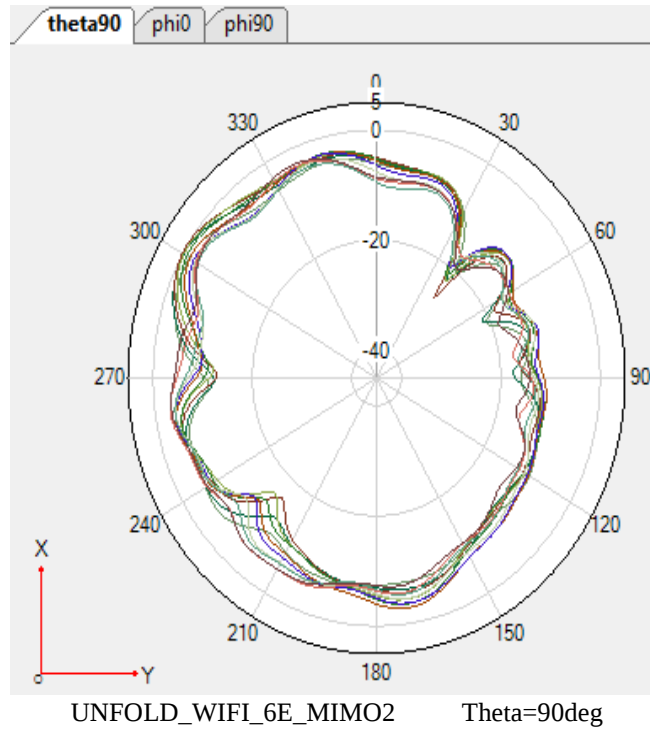


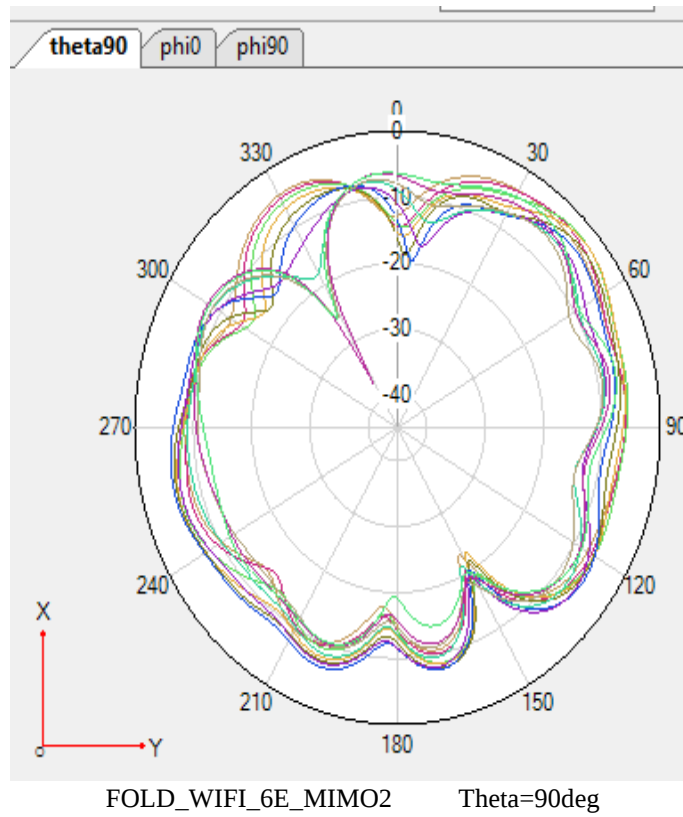
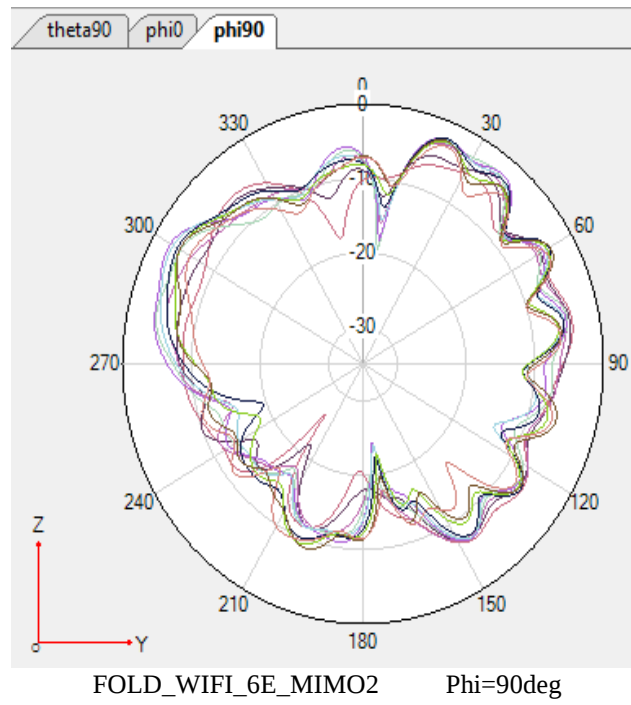
FOLD_WIFI_5G_MIMO2 Phi=0deg



ANT16







PREPARED BY	CHECKEDBY	APPROVAL BY	S.R.NO	
			DATE:	2024/02/21