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# Model Name:

# AI2201

Antenna Type	Antenna Supplier1	Antenna Supplier2	Antenna Supplier3
PIFA	INPAQ	ASAP	AAC

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# ANT0 And ANT1

Confidential

# GSM

Mobile				
GSM Band(s)	GSM 850	ANT0	Antenna Gain (dBi)	-2.58
	P-GSM 900		Antenna Gain (dBi)	-2.17
	E-GSM 900		Antenna Gain (dBi)	-2.17
	DCS 1800	ANT1	Antenna Gain (dBi)	1.37
	PCS 1900		Antenna Gain (dBi)	-0.35
Mobile				
GSM Band(s)	DCS 1800	ANT2	Antenna Gain (dBi)	-6.5
	PCS 1900		Antenna Gain (dBi)	-5.45

# UMTS

Mobile				
UMTS Band(s)	FDD 1	ANT1	Antenna Gain (dBi)	0.12
	FDD 2		Antenna Gain (dBi)	-0.35
	FDD 4		Antenna Gain (dBi)	1.37
	FDD 5	ANT0	Antenna Gain (dBi)	-2.58
	FDD 6		Antenna Gain (dBi)	-2.58
	FDD 8		Antenna Gain (dBi)	-2.17
	FDD 19		Antenna Gain (dBi)	-2.58
Mobile				
UMTS Band(s)	FDD 1	ANT2	Antenna Gain (dBi)	-5.38
	FDD 2		Antenna Gain (dBi)	-5.45
	FDD 4		Antenna Gain (dBi)	-6.5
	FDD 5		Antenna Gain (dBi)	-5.54
	FDD 6		Antenna Gain (dBi)	-5.54
	FDD 8		Antenna Gain (dBi)	-6.2
	FDD 19		Antenna Gain (dBi)	-5.54

# WWAN UE -ANT0

ANT0	Antenna0 Gain (dBi)
FDD 1: EU, JP, Korea	
FDD 2: US	
FDD 3: EU, TW, JP	
FDD 4: US	
FDD 5: US	-2.58
FDD 6: JP	
FDD 7: EU	
FDD 8: EU, JP	-2.17
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	-1.88
FDD 13: US	-3.89
FDD 14: US	
FDD 17: US	-1.88
FDD 18: JP	-2.58
FDD 19: JP	-2.58
FDD 20: EU	-2.58
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	
FDD 26: US	-2.58
FDD 27:	
FDD 28: TW, JP	-1.88
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	
FDD 71: US	-2.91
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	
TDD 42: EU	
TDD 43: US, EU	
TDD 44:	
TDD 46:	
TDD 48: US	

Frequency Bands

# WWAN UE -ANT1

ANT1	Antenna1 Gain (dBi)
FDD 1: EU, JP, Korea	0.12
FDD 2: US	-0.35
FDD 3: EU, TW, JP	1.37
FDD 4: US	1.37
FDD 5: US	
FDD 6: JP	
FDD 7: EU	0.39
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	-0.35
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	-1.85
FDD 32:	
FDD 66:	1.37
FDD 71: US	
TDD 33:	
TDD 34:	-1.51
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	0.39
TDD 39:	-0.6
TDD 40: US, EU, China	-0.6
TDD 41: US, JP	0.39
TDD 42: EU	
TDD 43: US, EU	
TDD 44:	
TDD 46:	
TDD 48: US	

Frequency Bands

# 5G NR UE –ANT0

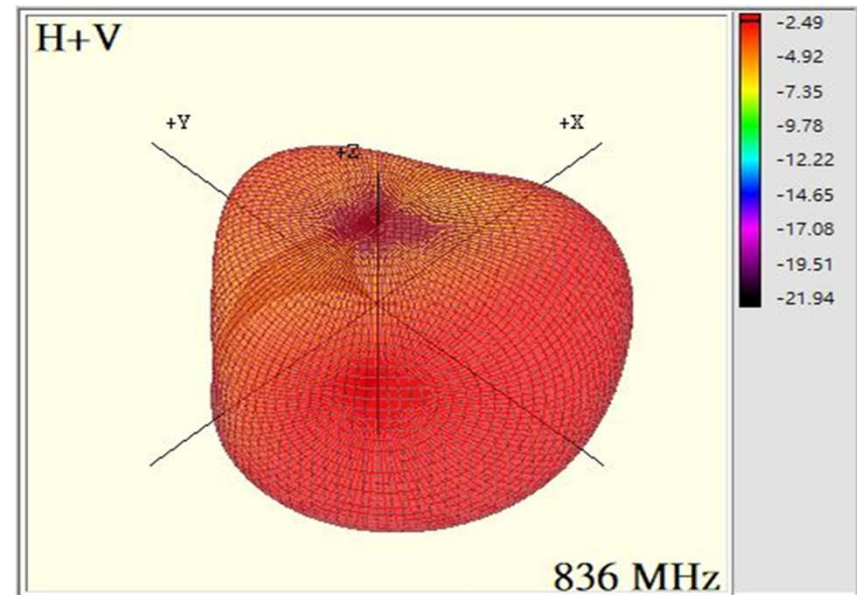
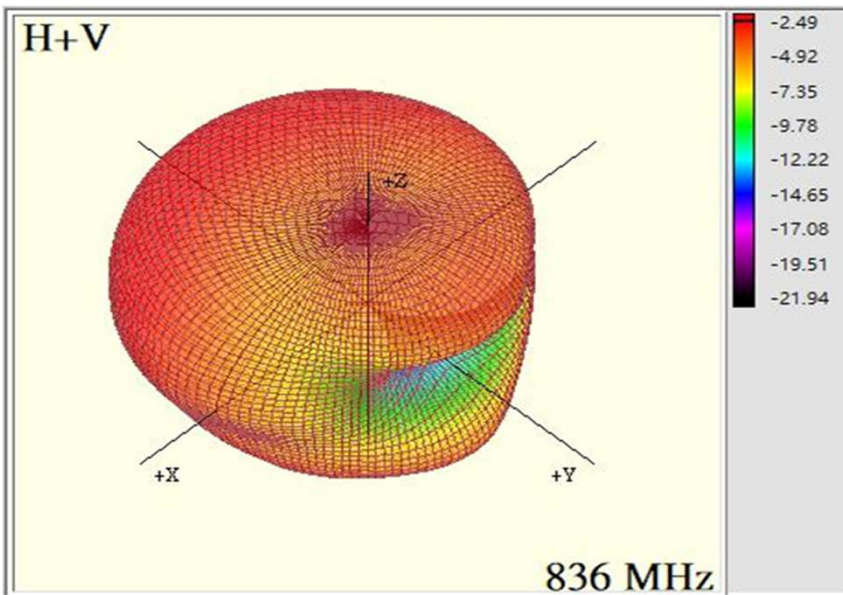
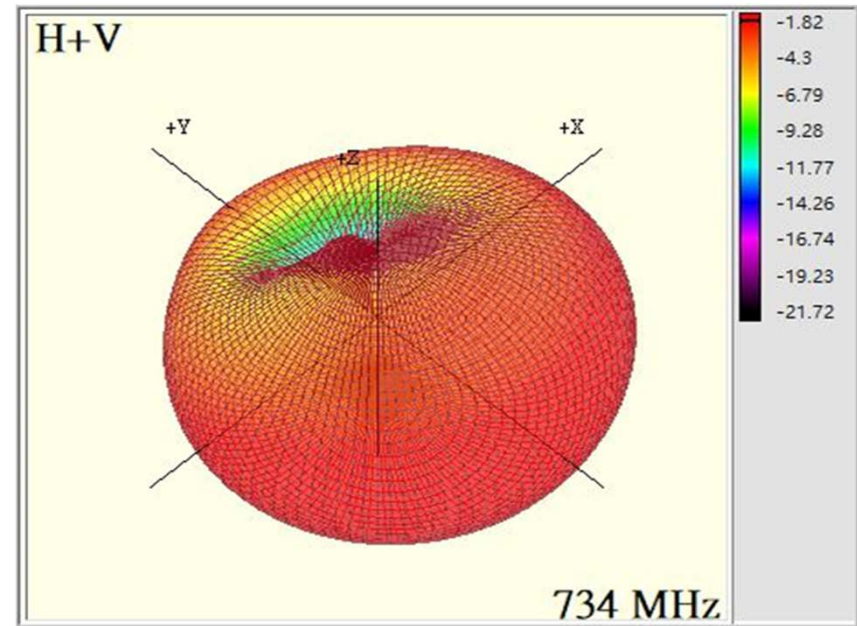
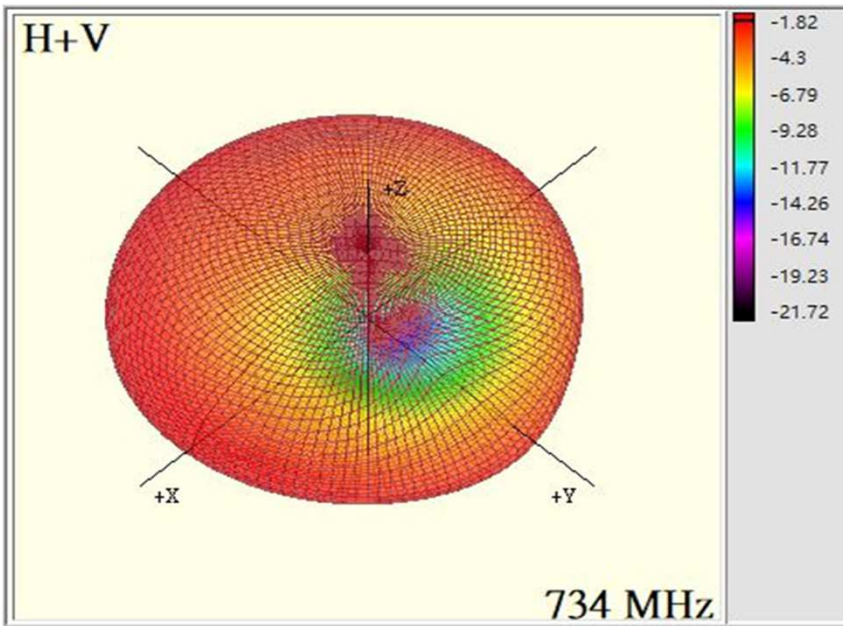
	ANT0	Antenna Gain0 (dBi)
Frequency Bands	n1: EU, JP, Korea	
	n2: US	
	n3: EU	
	n5: US	-2.58
	n7: EU	
	n8: EU	-2.17
	n12: US	-1.88
	n13: US	-3.89
	n18	-2.58
	n20: EU	-2.58
	n25: US	
	n26:	-2.58
	n28:	-1.88
	n66: US	
	n70: US	
	n71: US	-2.91
	n34:	
	n38: US, EU, China	
	n39: China	
	n40: US, EU, China	
	n41: US	
	n51: EU	
	n75	
	n76	
	n77	
	n78	
	n79	
	n80	
	n81	
	n82	
n83		
n84		
n86		

# 5G NR UE –ANT1

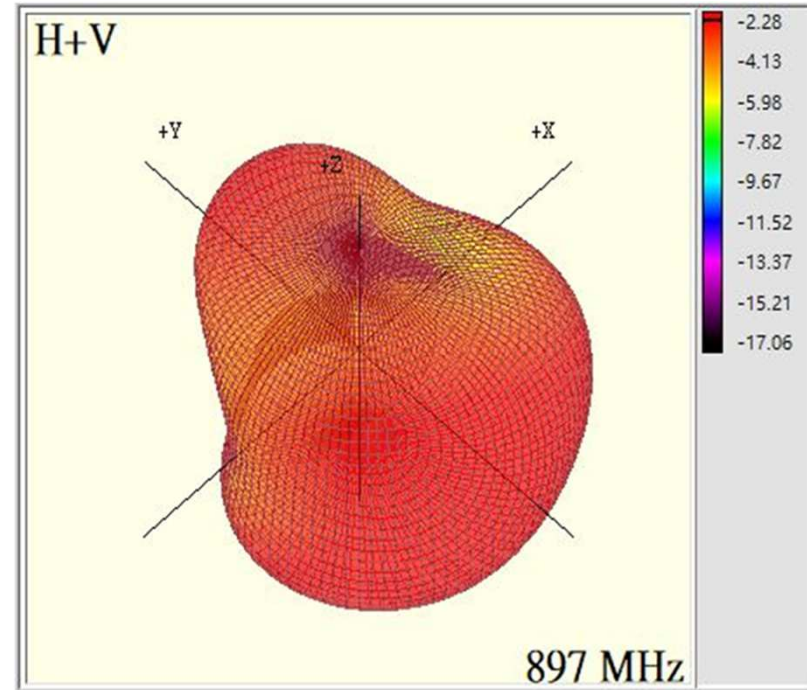
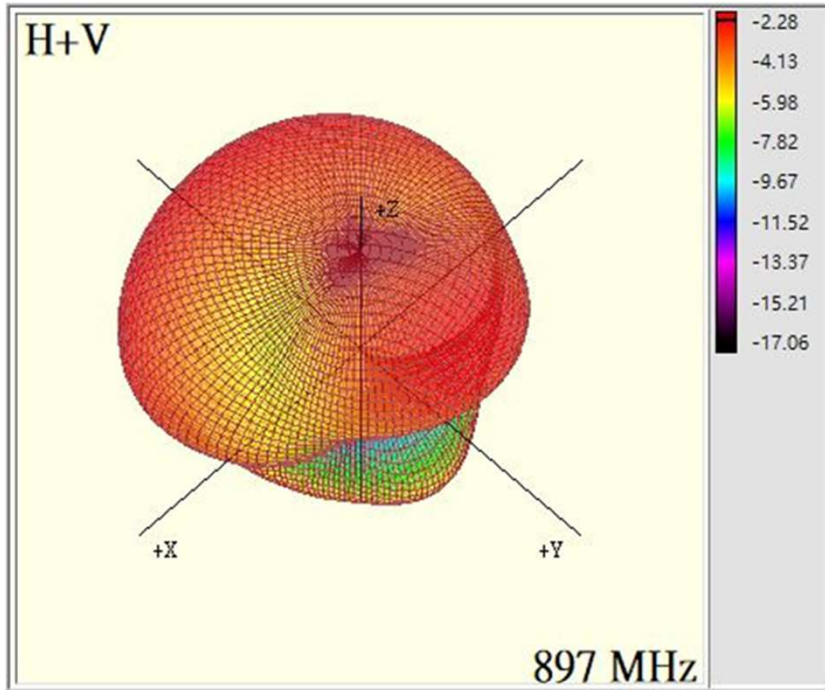
	ANT1	Antenna Gain1 (dBi)
Frequency Bands	n1: EU, JP, Korea	0.12
	n2: US	-0.35
	n3: EU	1.37
	n5: US	
	n7: EU	0.39
	n8: EU	
	n12: US	
	n13: US	
	n18	
	n20: EU	
	n25: US	-0.35
	n26:	
	n28:	
	n66: US	1.37
	n70: US	
	n71: US	
	n34:	
	n38: US, EU, China	0.39
	n39: China	
	n40: US, EU, China	-0.6
	n41: US	0.39
	n51: EU	
	n75	
	n76	
	n77	
	n78	
	n79	
	n80	
n81		
n82		
n83		
n84		
n86		



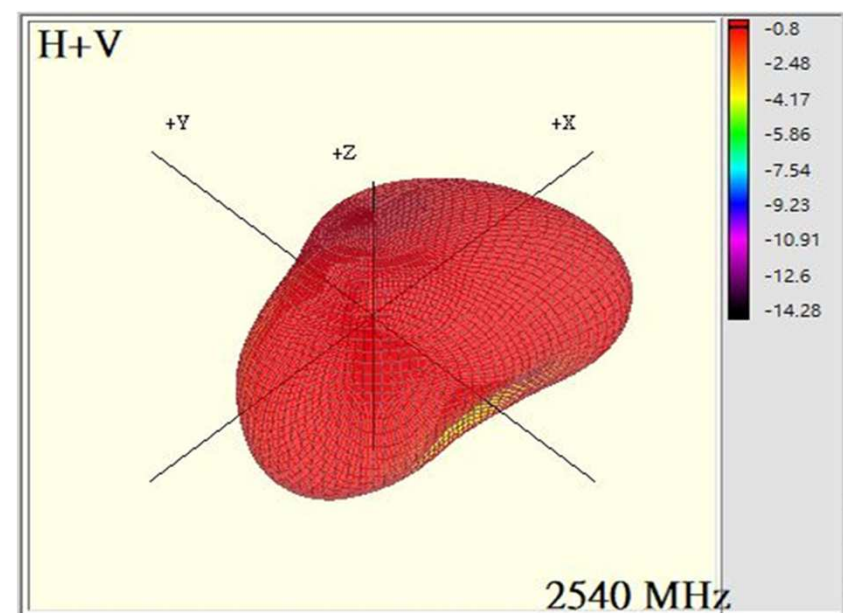
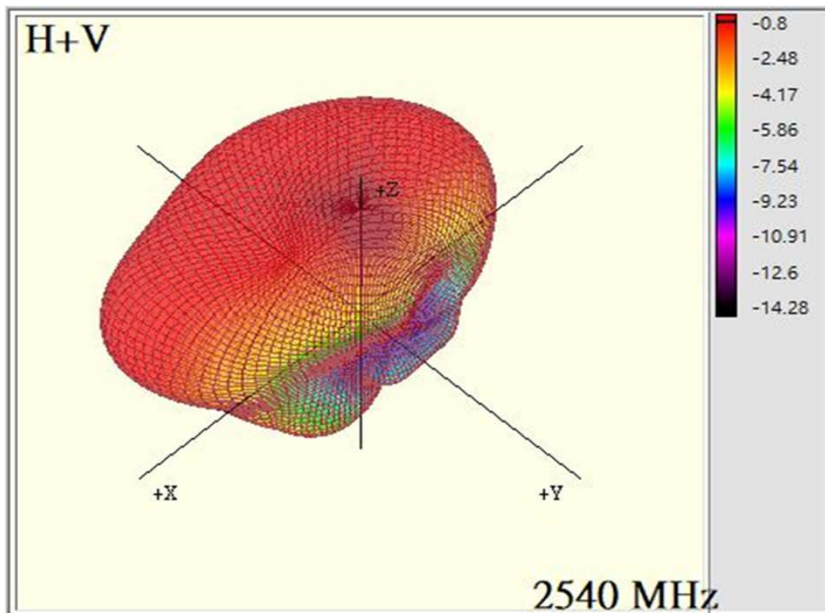
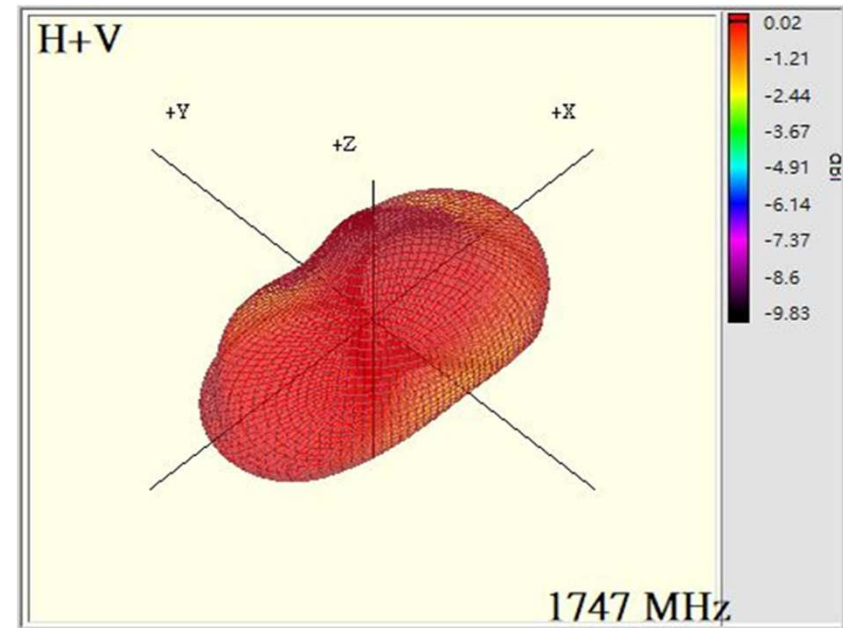
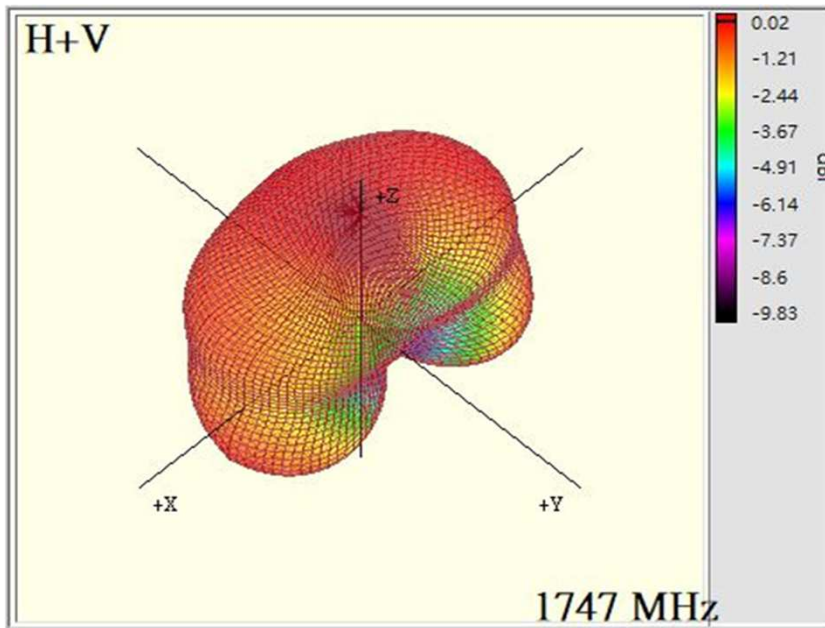
# ANT0 Pattern



# ANT0 Pattern



# ANT1 Pattern



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# ANT2

Confidential

# WWAN UE –ANT2

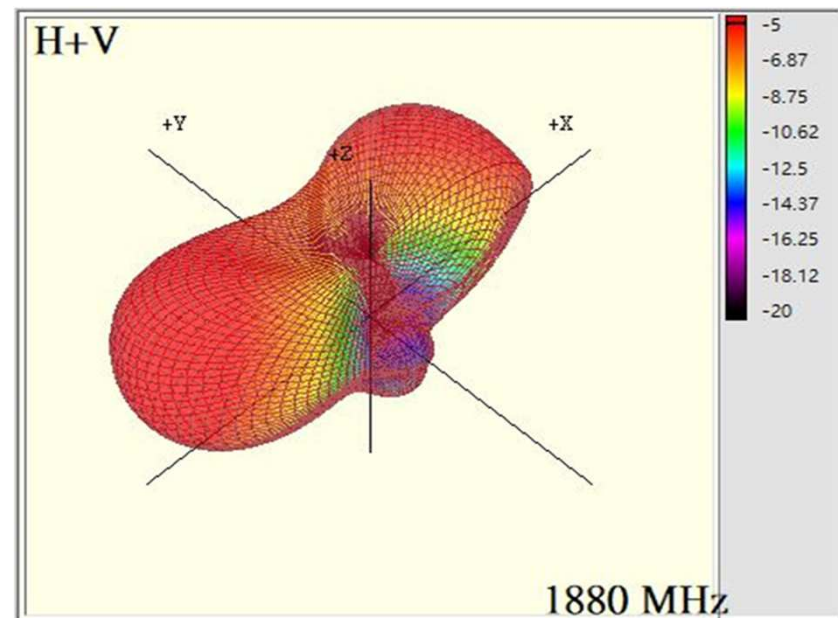
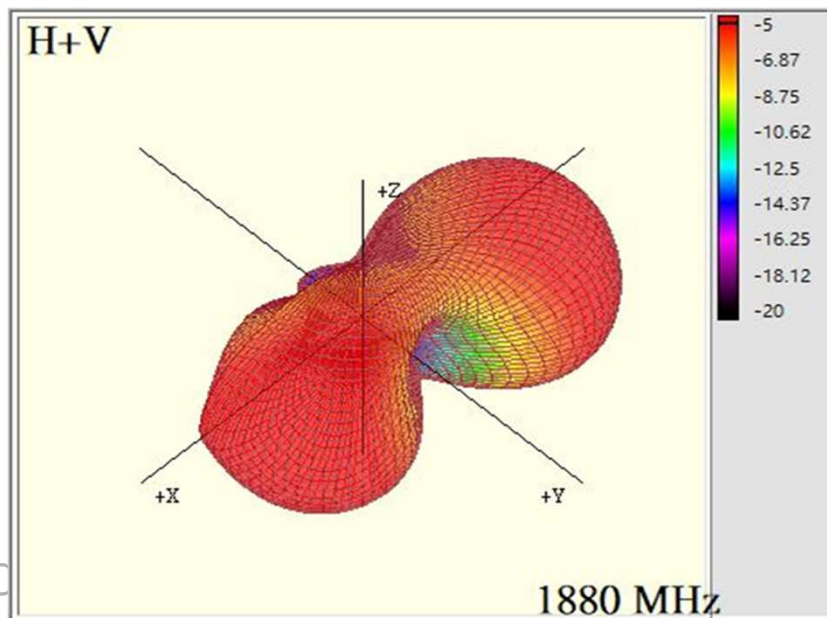
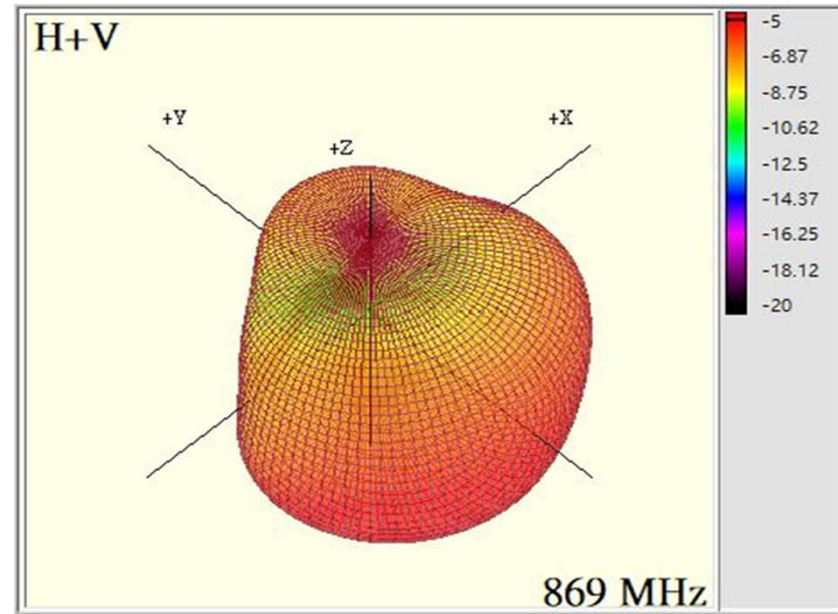
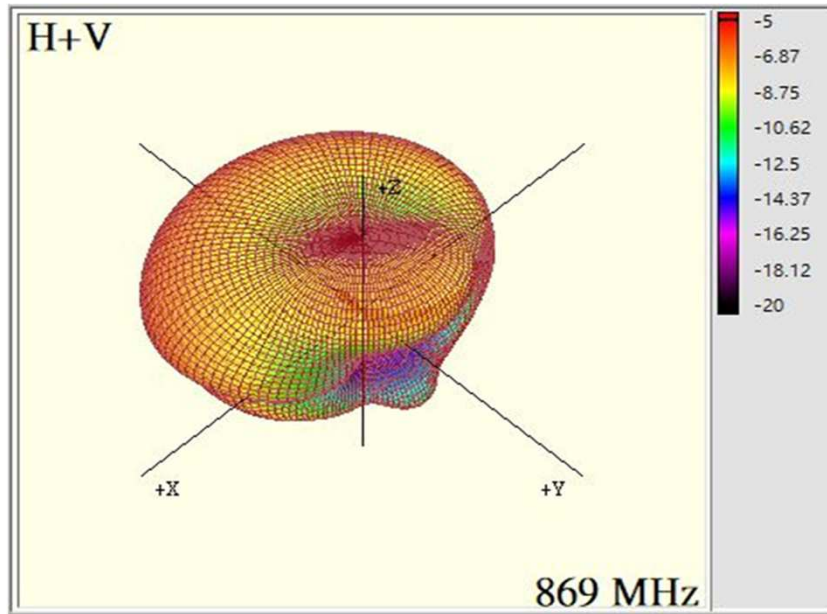
ANT2	Antenna2 Gain (dBi)
FDD 1: EU, JP, Korea	-5.38
FDD 2: US	-5.45
FDD 3: EU, TW, JP	-6.5
FDD 4: US	-6.5
FDD 5: US	-5.54
FDD 6: JP	
FDD 7: EU	-3.8
FDD 8: EU, JP	-6.2
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	-5.36
FDD 13: US	-5.36
FDD 14: US	
FDD 17: US	-5.36
FDD 18: JP	-5.54
FDD 19: JP	-5.54
FDD 20: EU	-5.54
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	-5.45
FDD 26: US	-5.54
FDD 27:	
FDD 28: TW, JP	-5.36
FDD 29:	
FDD 30:	-1.9
FDD 32:	
FDD 66:	-6.5
FDD 71: US	-8.7
TDD 33:	
TDD 34:	-5.05
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	-3.8
TDD 39:	-5.45
TDD 40: US, EU, China	-3.96
TDD 41: US, JP	-3.8
TDD 42: EU	
TDD 43: US, EU	
TDD 44:	
TDD 46:	
TDD 48: US	

Frequency Bands

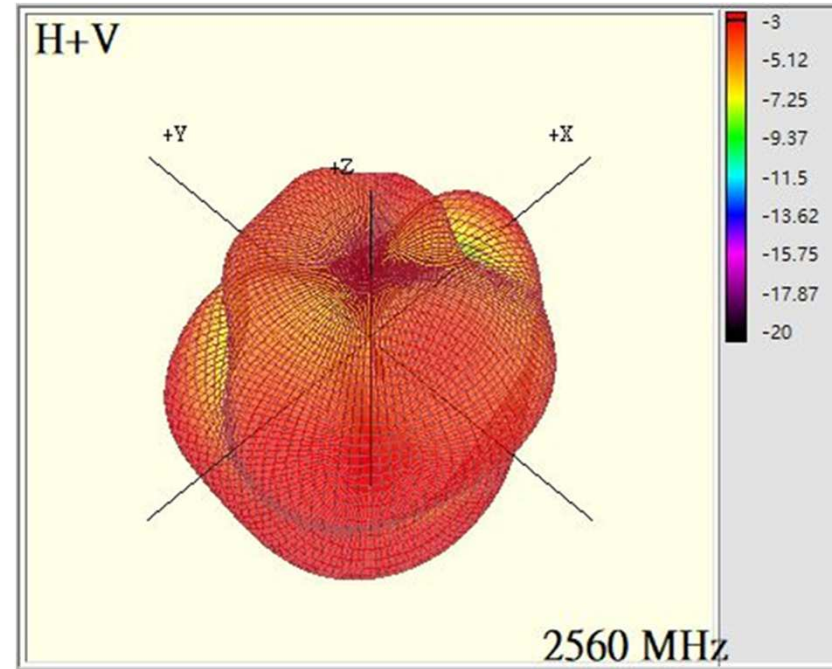
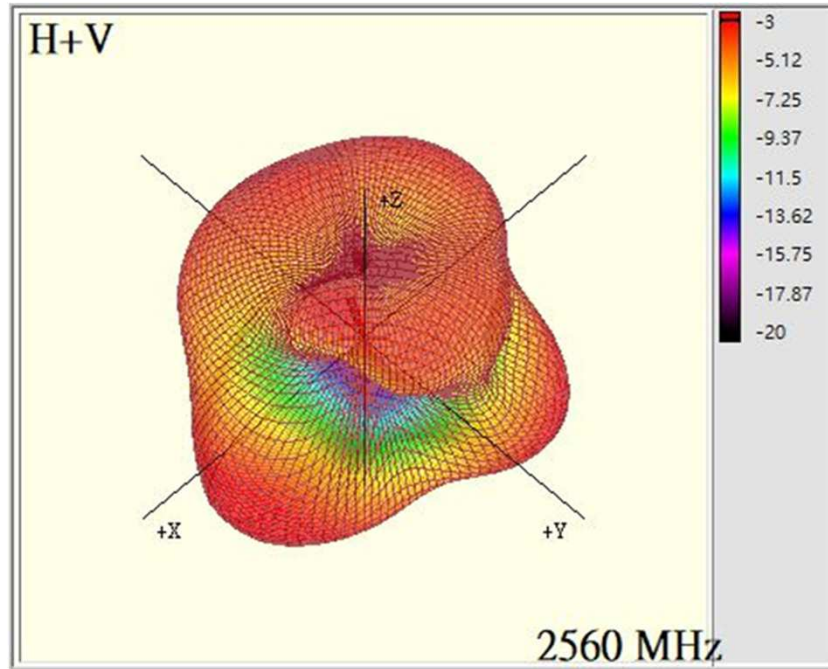
# 5G NR UE – ANT2

	ANT2	Antenna Gain2 (dBi)
Frequency Bands	n1: EU, JP, Korea	-5.38
	n2: US	-5.45
	n3: EU	-6.5
	n5: US	-5.54
	n7: EU	-3.8
	n8: EU	-6.2
	n12: US	-5.36
	n13: US	-5.36
	n18	-5.54
	n20: EU	-5.54
	n25: US	-5.45
	n26:	-5.54
	n28:	-5.36
	n66: US	-6.5
	n70: US	
	n71: US	-8.7
	n34:	
	n38: US, EU, China	-3.8
	n39: China	
	n40: US, EU, China	-3.96
	n41: US	-3.8
	n51: EU	
	n75	
	n76	
	n77	
	n78	
	n79	
	n80	
	n81	
	n82	
n83		
n84		
n86		

# ANT2 Pattern



# ANT2 Pattern





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# ANT7

Confidential

# WWAN UE –ANT7

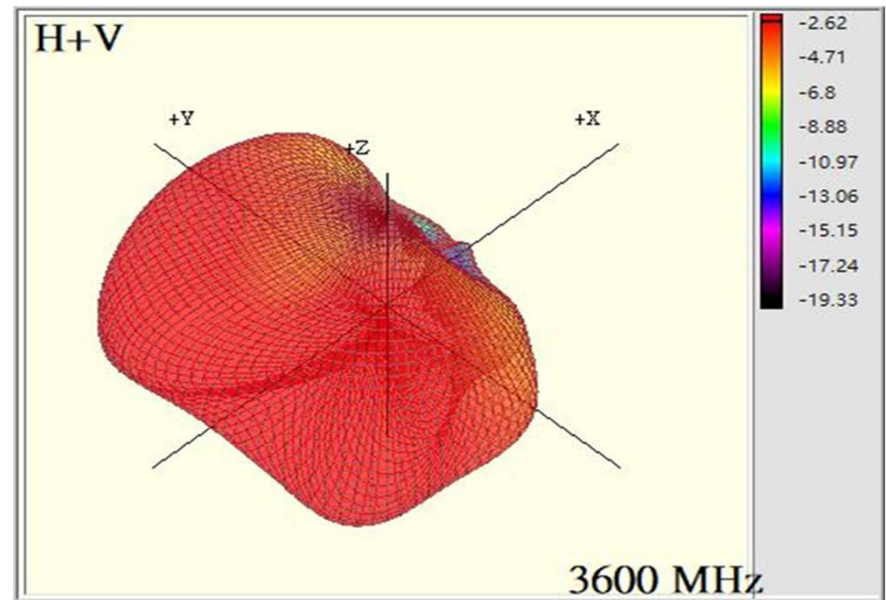
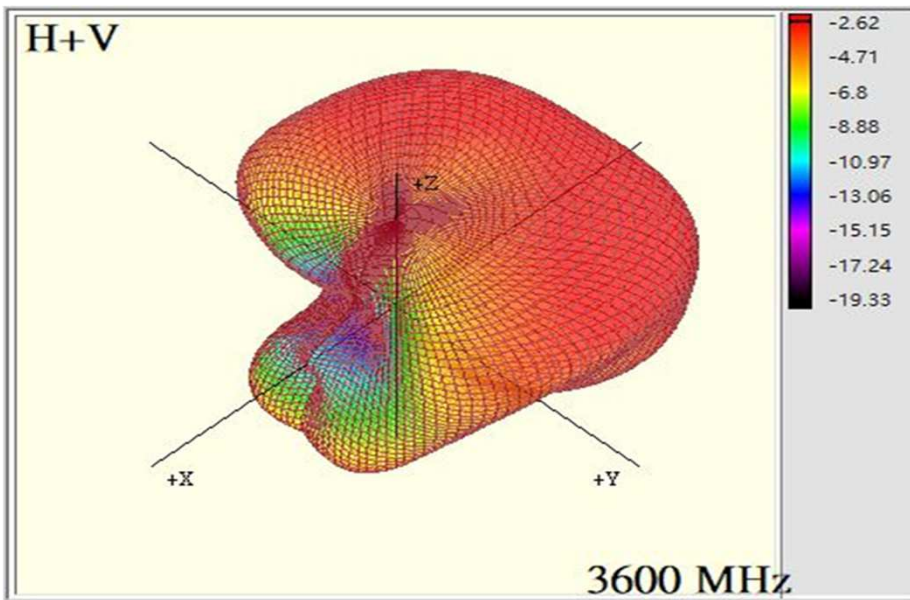
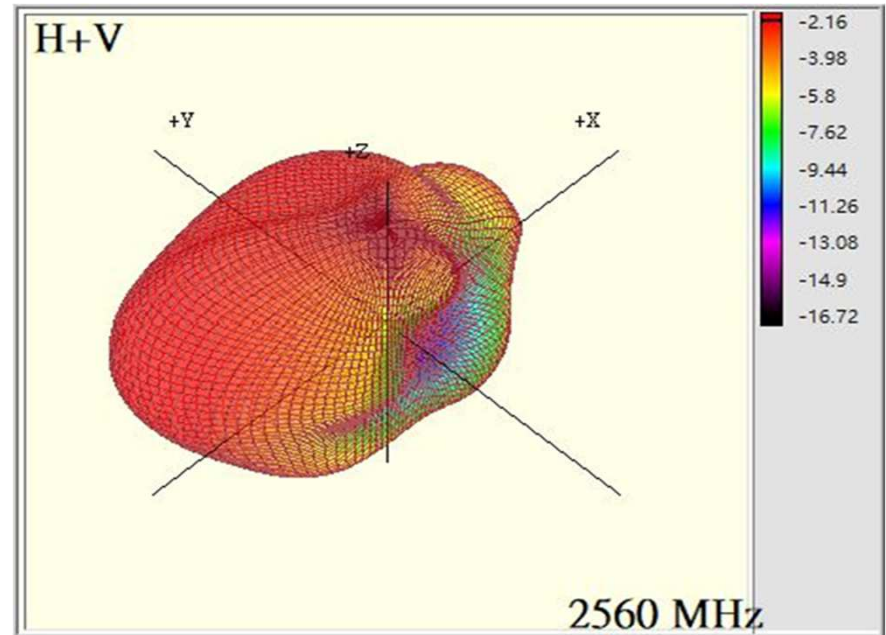
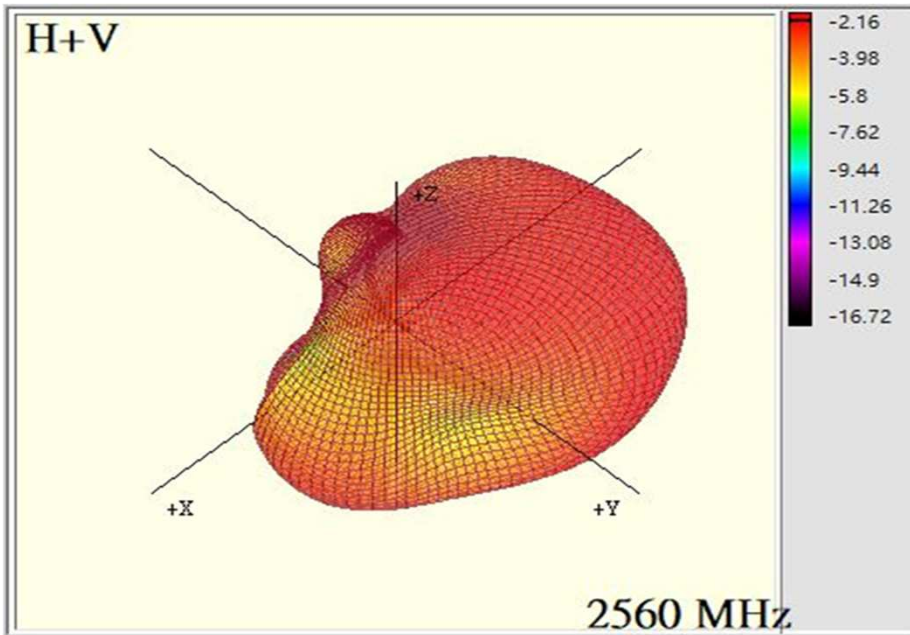
ANT7	Antenna7 Gain (dBi)
FDD 1: EU, JP, Korea	
FDD 2: US	
FDD 3: EU, TW, JP	
FDD 4: US	
FDD 5: US	
FDD 6: JP	
FDD 7: EU	
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	
FDD 71: US	
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	-3.6
TDD 42: EU	-3.6
TDD 43: US, EU	-3.6
TDD 44:	
TDD 46:	
TDD 48: US	-3.6

Frequency Bands

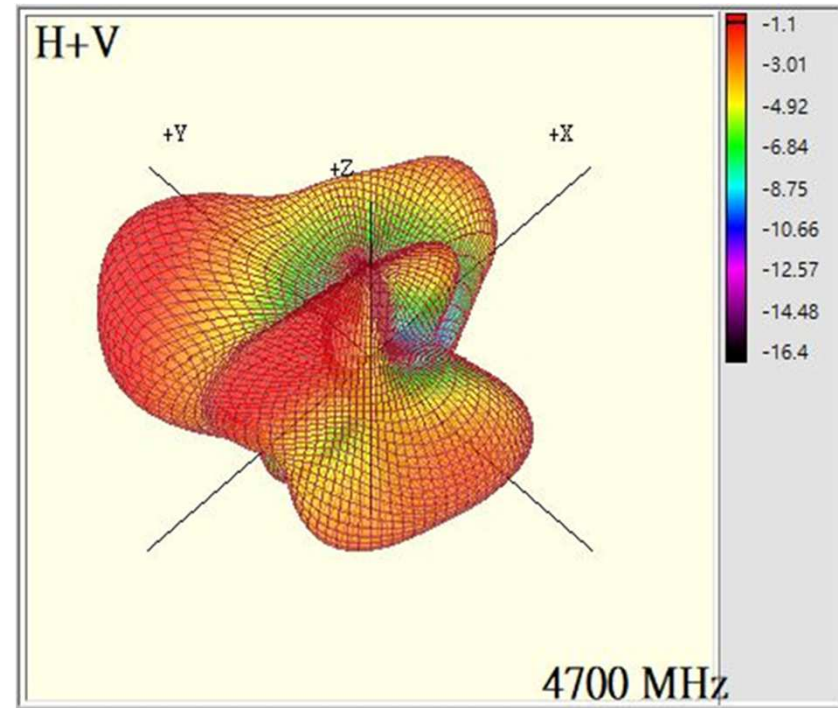
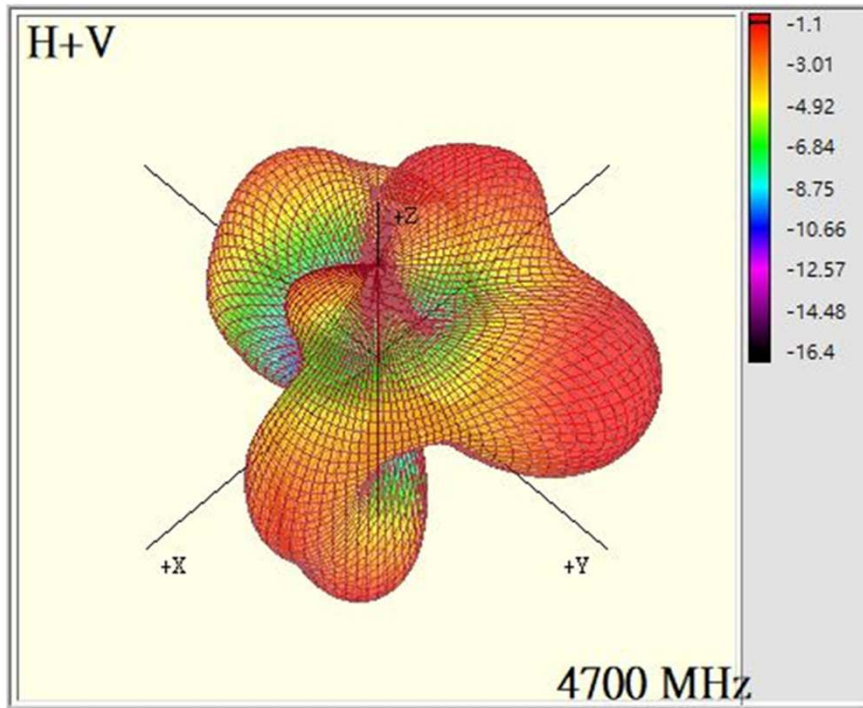
# 5G NR UE – ANT7

	ANT7	Antenna Gain7 (dBi)
Frequency Bands	n1: EU, JP, Korea	
	n2: US	
	n3: EU	
	n5: US	
	n7: EU	
	n8: EU	
	n12: US	
	n13: US	
	n18	
	n20: EU	
	n25: US	
	n26:	
	n28:	
	n66: US	
	n70: US	
	n71: US	
	n34:	
	n38: US, EU, China	
	n39: China	
	n40: US, EU, China	
	n41: US	-2.52
	n48	-3.6
	n75	
	n76	
	n77	-3.6
	n78	-3.6
	n79	-2.65
	n80	
	n81	
	n82	
n83		
n84		
n86		

# ANT7 Pattern



# ANT7 Pattern



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# ANT8

Confidential

# WWAN UE –ANT8

ANT8	Antenna8 Gain (dBi)
FDD 1: EU, JP, Korea	
FDD 2: US	
FDD 3: EU, TW, JP	
FDD 4: US	
FDD 5: US	
FDD 6: JP	
FDD 7: EU	
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	
FDD 71: US	
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	-1.93
TDD 42: EU	-2.1
TDD 43: US, EU	-2.1
TDD 44:	
TDD 46:	
TDD 48: US	-2.1

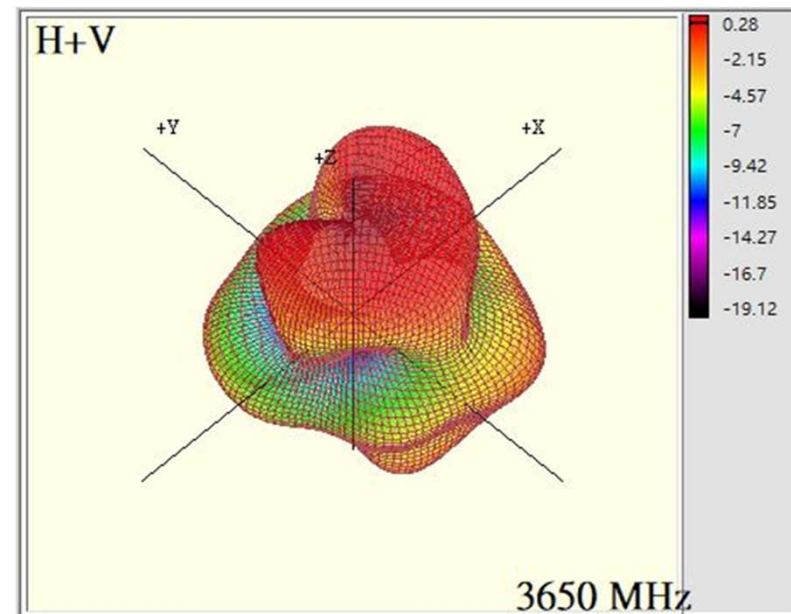
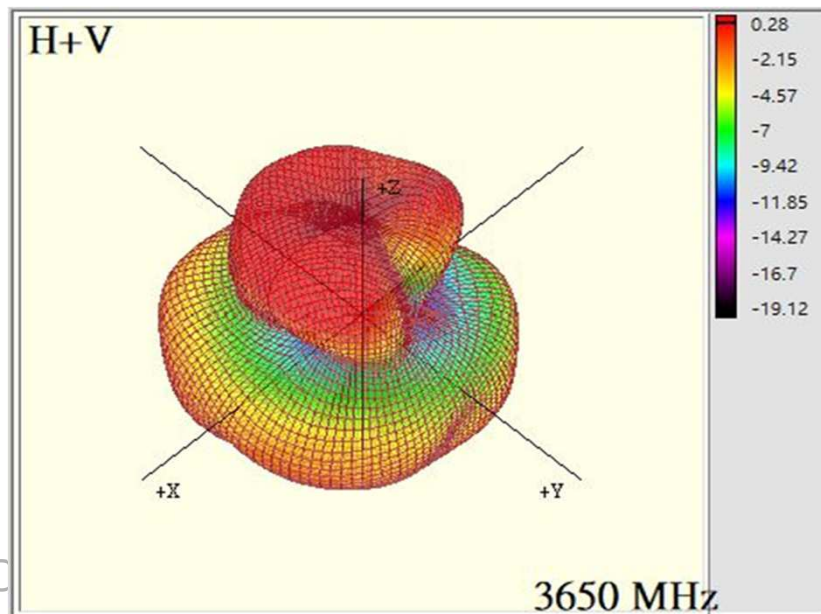
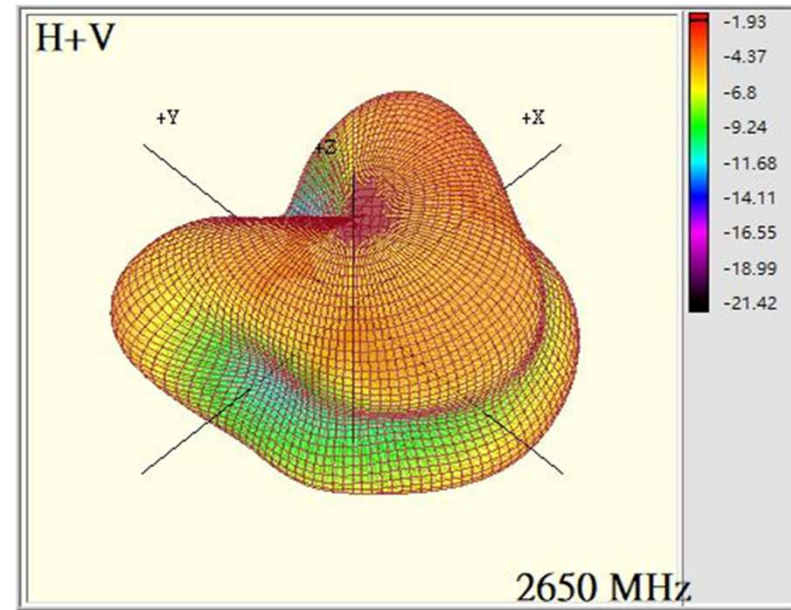
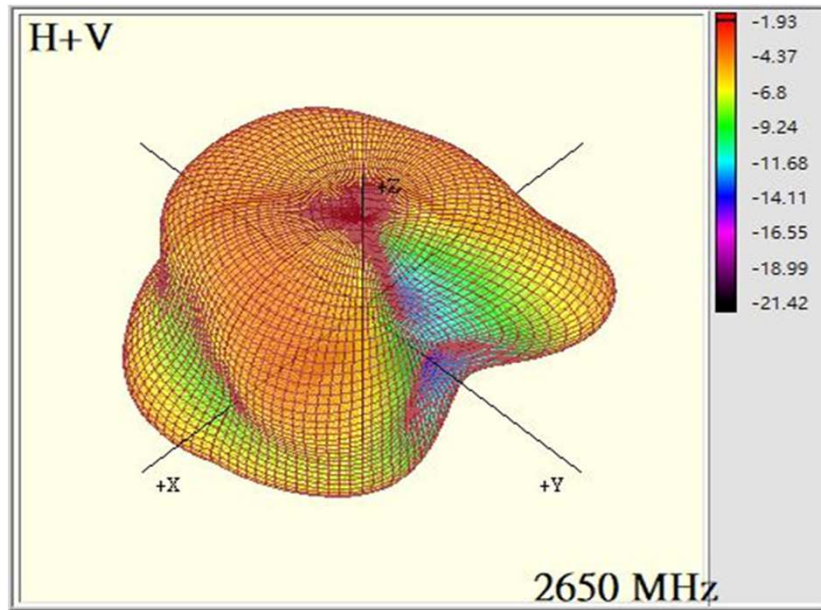
Frequency Bands

# 5G NR UE – ANT8

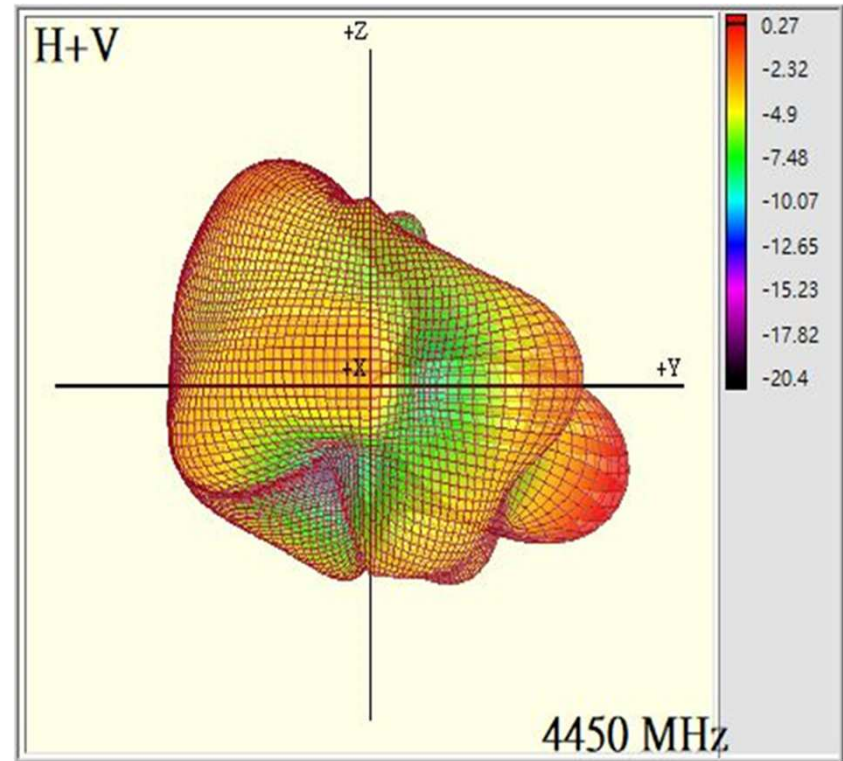
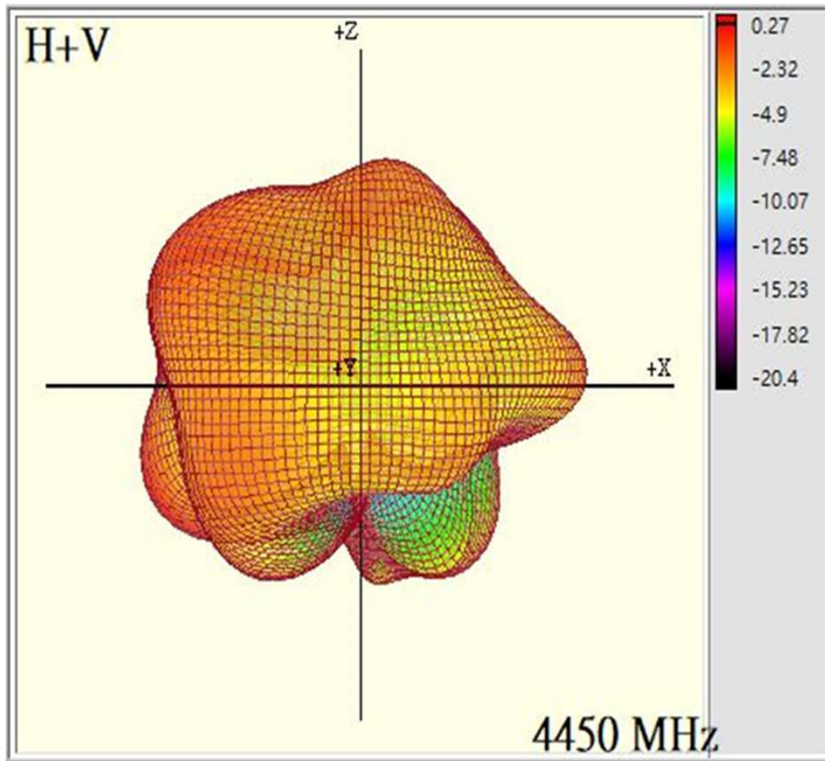
	ANT8	Antenna Gain8 (dBi)
Frequency Bands	n1: EU, JP, Korea	
	n2: US	
	n3: EU	
	n5: US	
	n7: EU	
	n8: EU	
	n12: US	
	n13: US	
	n18	
	n20: EU	
	n25: US	
	n26:	
	n28:	
	n66: US	
	n70: US	
	n71: US	
	n34:	
	n38: US, EU, China	
	n39: China	
	n40: US, EU, China	
	n41: US	-1.93
	n48	-2.1
	n75	
	n76	
	n77	-2.1
	n78	-2.1
	n79	-1.4
	n80	
n81		
n82		
n83		
n84		
n86		



# ANT8 Pattern



# ANT8 Pattern



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# ANT9

Confidential



# WWAN UE –ANT9

ANT9	Antenna9 Gain (dBi)
FDD 1: EU, JP, Korea	
FDD 2: US	
FDD 3: EU, TW, JP	
FDD 4: US	
FDD 5: US	
FDD 6: JP	
FDD 7: EU	
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	
FDD 71: US	
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	
TDD 42: EU	-2.03
TDD 43: US, EU	-2.03
TDD 44:	
TDD 46:	
TDD 48: US	-2.03

Frequency Bands

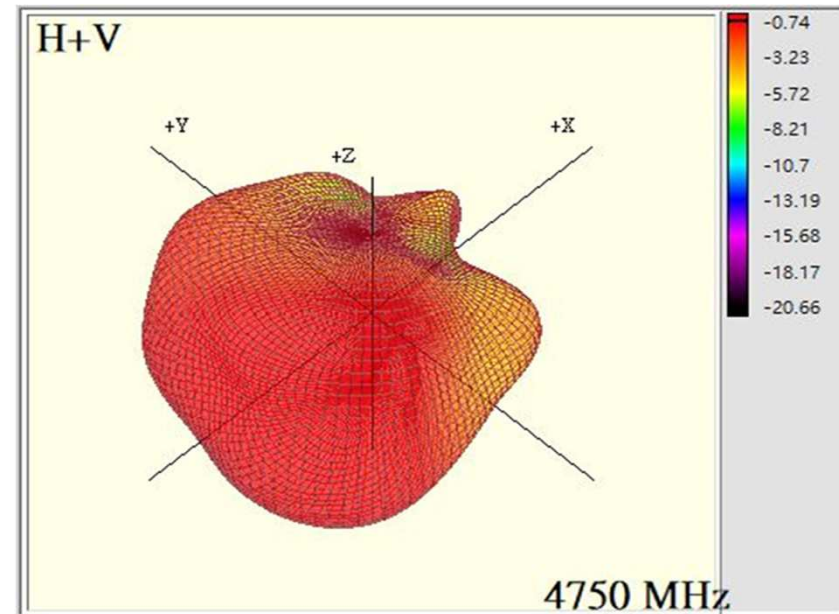
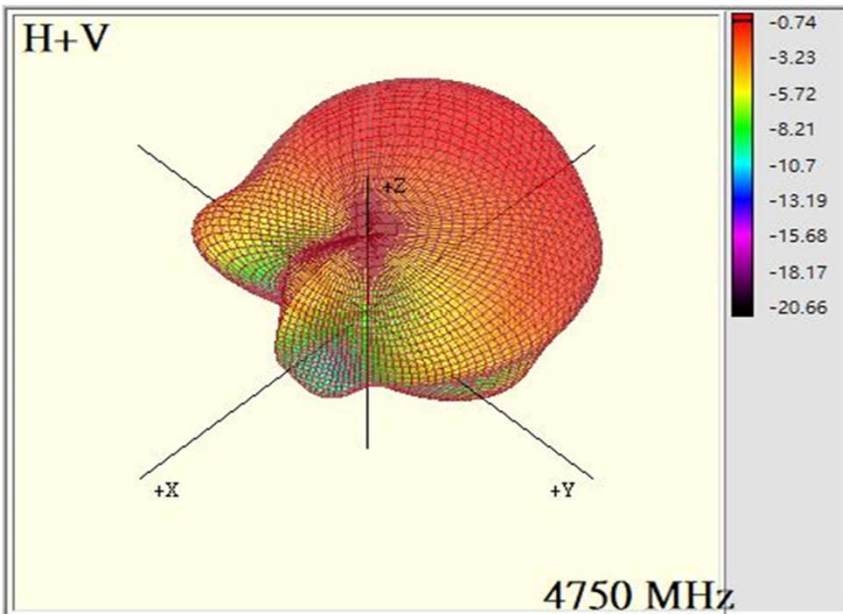
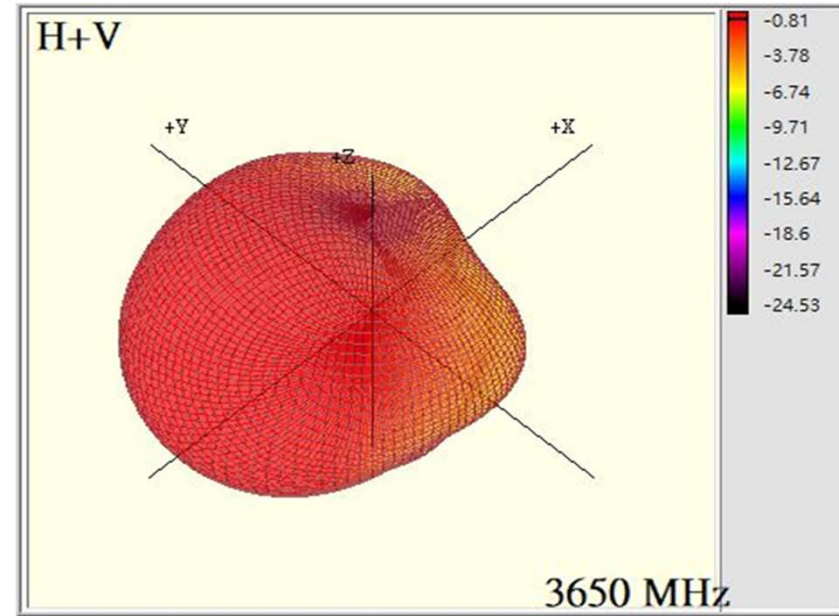
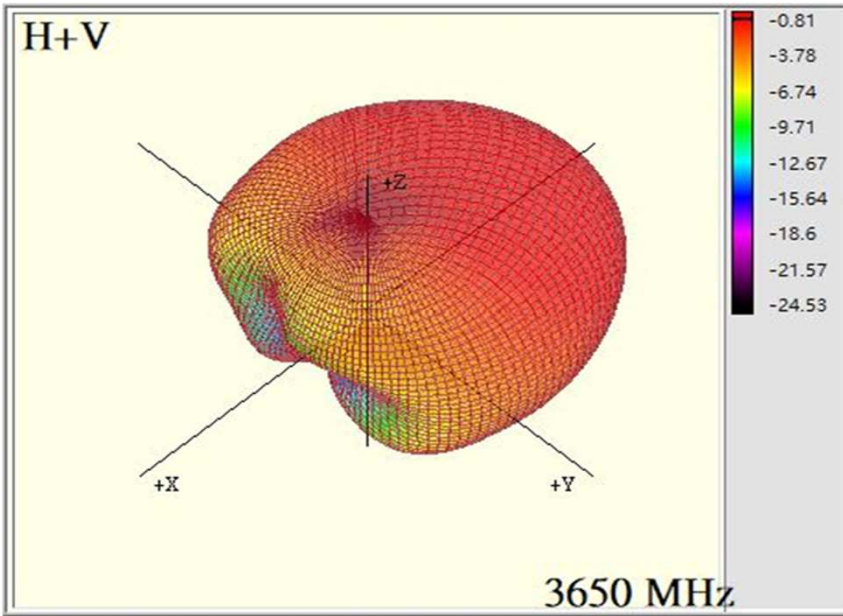
# 5G NR UE – ANT9

	ANT9	Antenna Gain9 (dBi)
Frequency Bands	n1: EU, JP, Korea	
	n2: US	
	n3: EU	
	n5: US	
	n7: EU	
	n8: EU	
	n12: US	
	n13: US	
	n18	
	n20: EU	
	n25: US	
	n26:	
	n28:	
	n66: US	
	n70: US	
	n71: US	
	n34:	
	n38: US, EU, China	
	n39: China	
	n40: US, EU, China	
	n41: US	
	n48	-2.03
	n75	
	n76	
	n77	-2.03
	n78	-2.03
	n79	-1.78
	n80	
n81		
n82		
n83		
n84		
n86		

Confidential



# ANT9 Pattern



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# ANT10

Confidential



# WWAN UE –ANT10

ANT10	Antenna10 Gain (dBi)
FDD 1: EU, JP, Korea	
FDD 2: US	
FDD 3: EU, TW, JP	
FDD 4: US	
FDD 5: US	
FDD 6: JP	
FDD 7: EU	
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	
FDD 71: US	
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	
TDD 42: EU	-2.03
TDD 43: US, EU	-2.03
TDD 44:	
TDD 46:	
TDD 48: US	-2.03

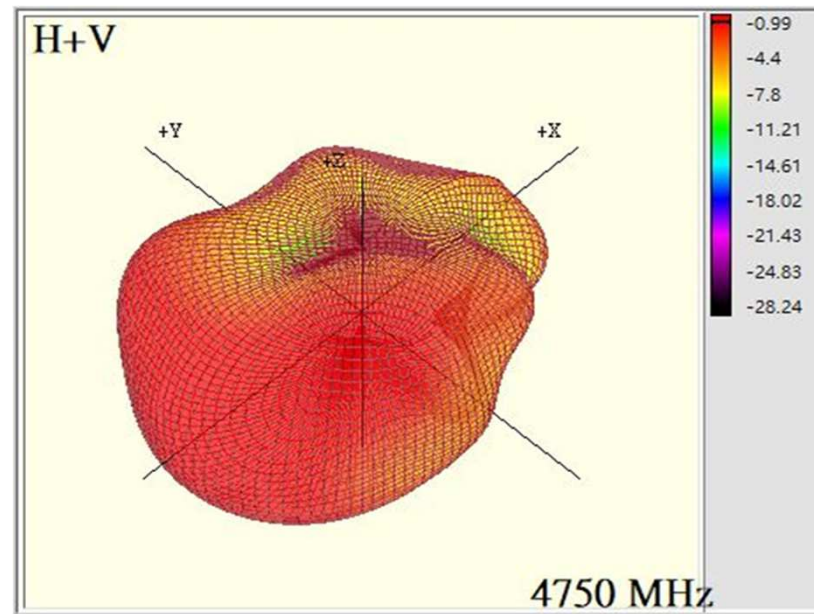
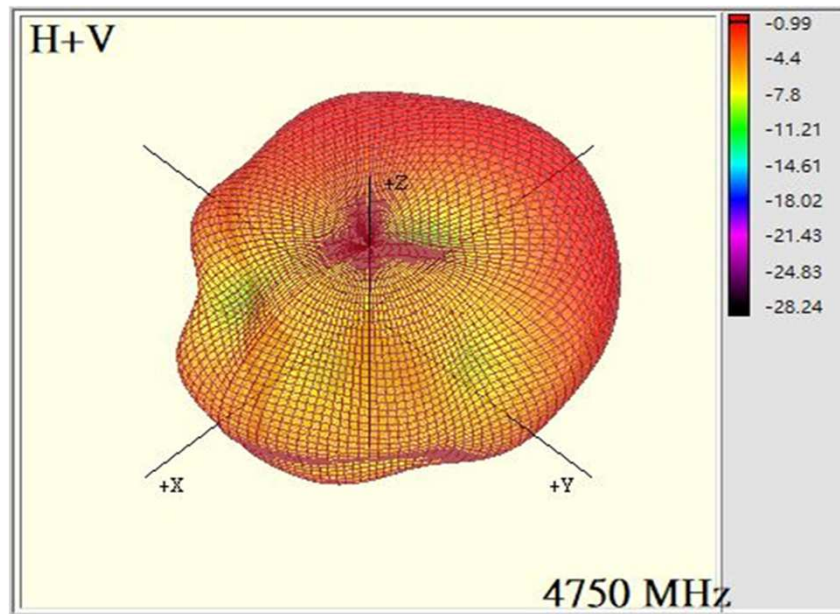
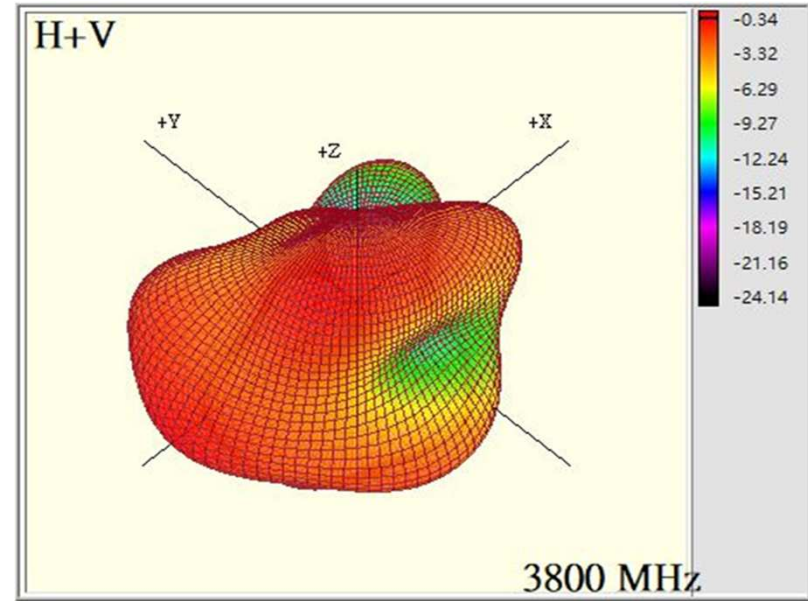
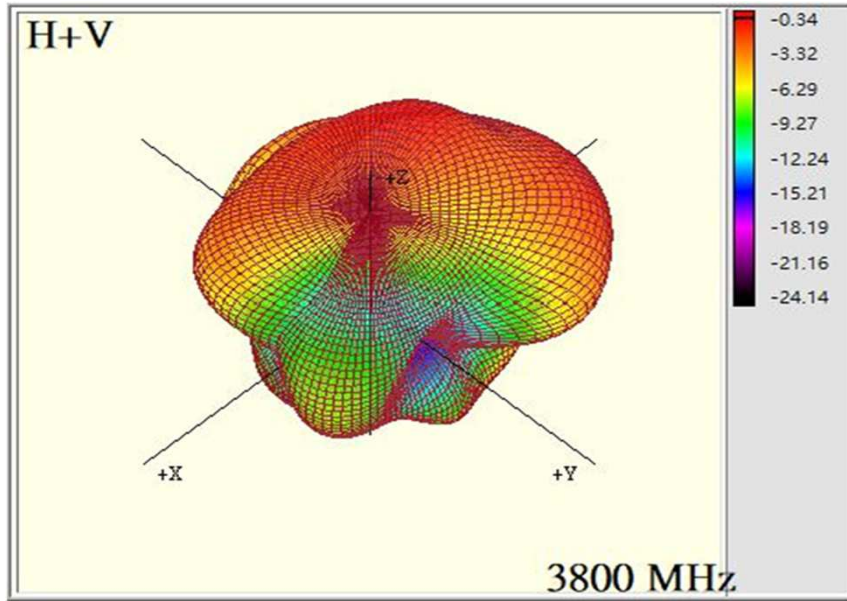
Frequency Bands



# 5G NR UE – ANT10

	ANT10	Antenna Gain10 (dBi)
Frequency Bands	n1: EU, JP, Korea	
	n2: US	
	n3: EU	
	n5: US	
	n7: EU	
	n8: EU	
	n12: US	
	n13: US	
	n18	
	n20: EU	
	n25: US	
	n26:	
	n28:	
	n66: US	
	n70: US	
	n71: US	
	n34:	
	n38: US, EU, China	
	n39: China	
	n40: US, EU, China	
	n41: US	
	n48	-2.03
	n75	
	n76	
	n77	-2.03
	n78	-2.03
	n79	0.42
	n80	
n81		
n82		
n83		
n84		
n86		

# ANT10 Pattern



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# ANT11

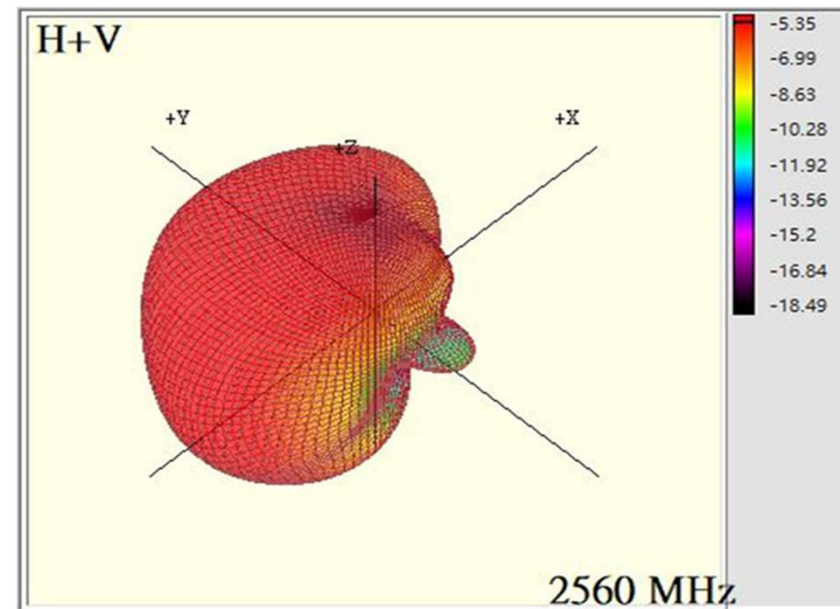
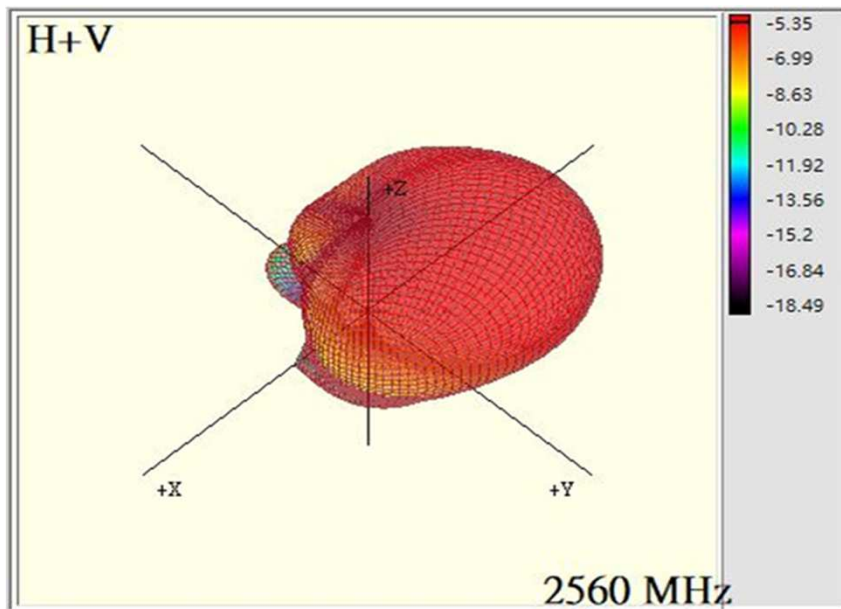
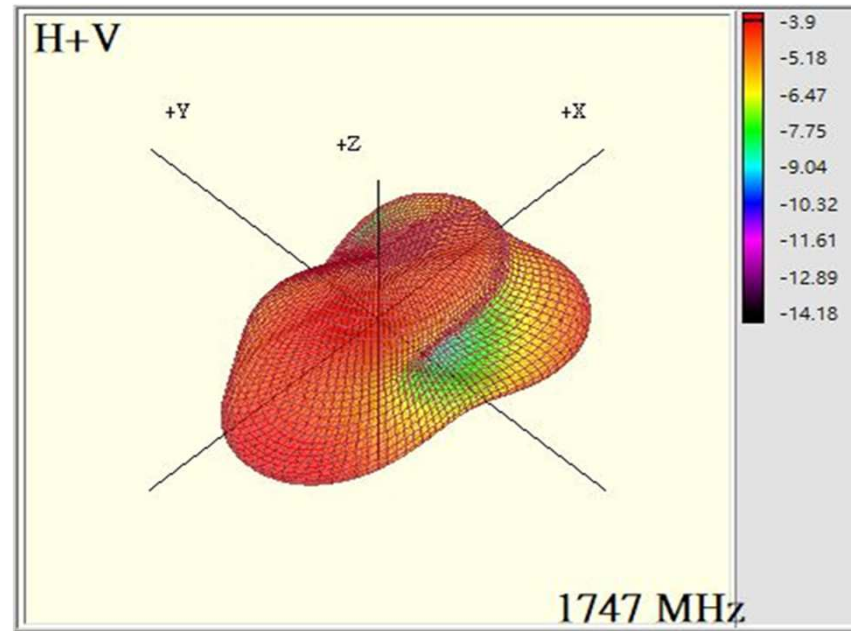
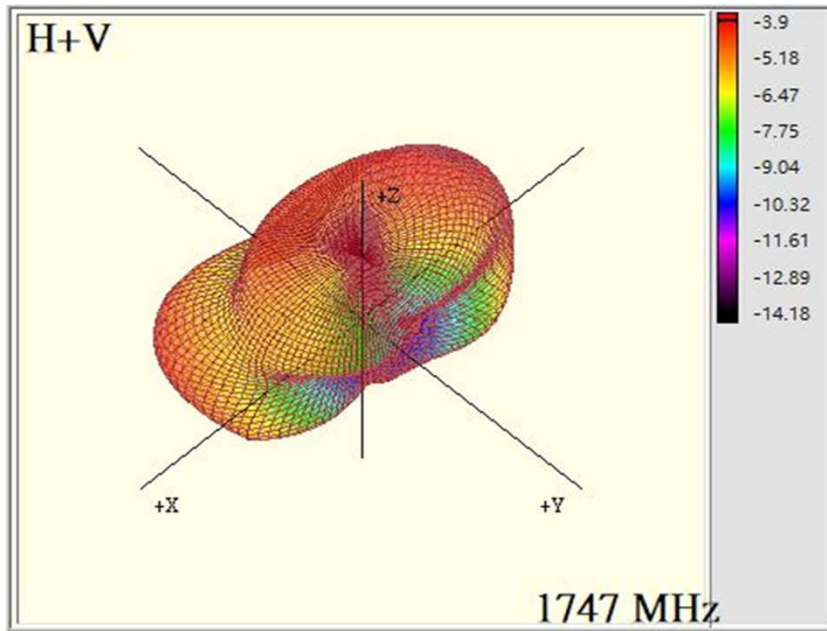
Confidential

# WWAN UE –ANT11

ANT11	Antenna11 Gain (dBi)
FDD 1: EU, JP, Korea	-7.3
FDD 2: US	-9
FDD 3: EU, TW, JP	-3.9
FDD 4: US	-3.9
FDD 5: US	
FDD 6: JP	
FDD 7: EU	-5.49
FDD 8: EU, JP	
FDD 9: JP	
FDD 10:	
FDD 11: JP	
FDD 12: US	
FDD 13: US	
FDD 14: US	
FDD 17: US	
FDD 18: JP	
FDD 19: JP	
FDD 20: EU	
FDD 21: JP	
FDD 22:	
FDD 23:	
FDD 24:	
FDD 25: US	-9
FDD 26: US	
FDD 27:	
FDD 28: TW, JP	
FDD 29:	
FDD 30:	
FDD 32:	
FDD 66:	-3.9
FDD 71: US	
TDD 33:	
TDD 34:	
TDD 35:	
TDD 36:	
TDD 37:	
TDD 38: US, EU, China	
TDD 39:	
TDD 40: US, EU, China	
TDD 41: US, JP	
TDD 42: EU	
TDD 43: US, EU	
TDD 44:	
TDD 46:	
TDD 48: US	

Frequency Bands

# ANT11 Pattern



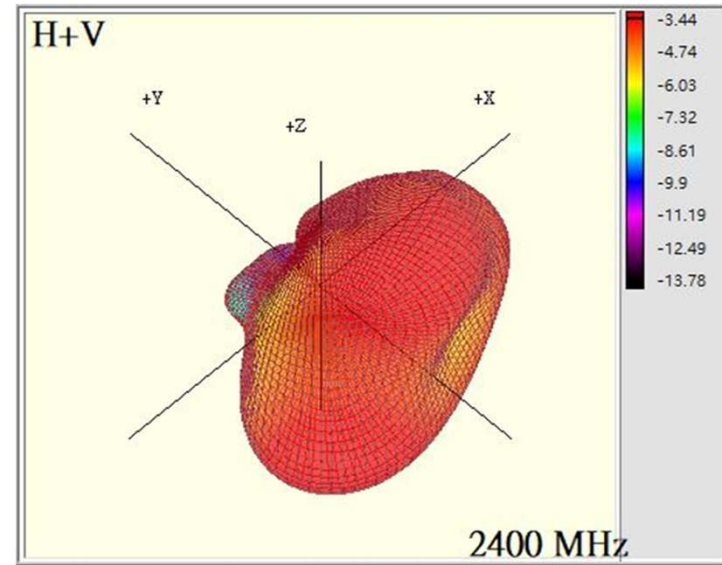
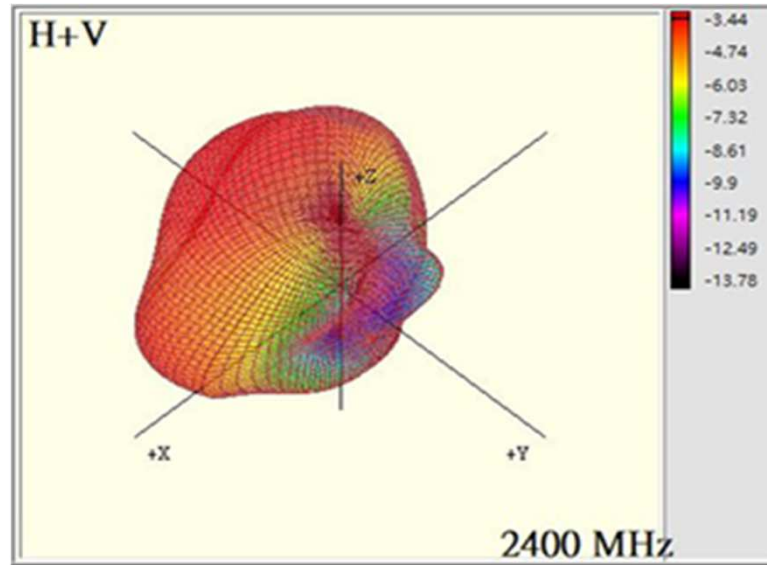
# Bluetooth Antenna

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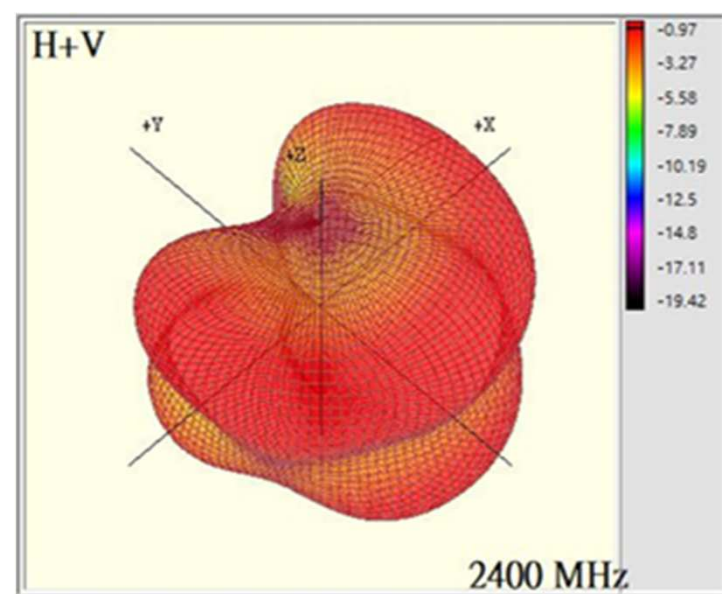
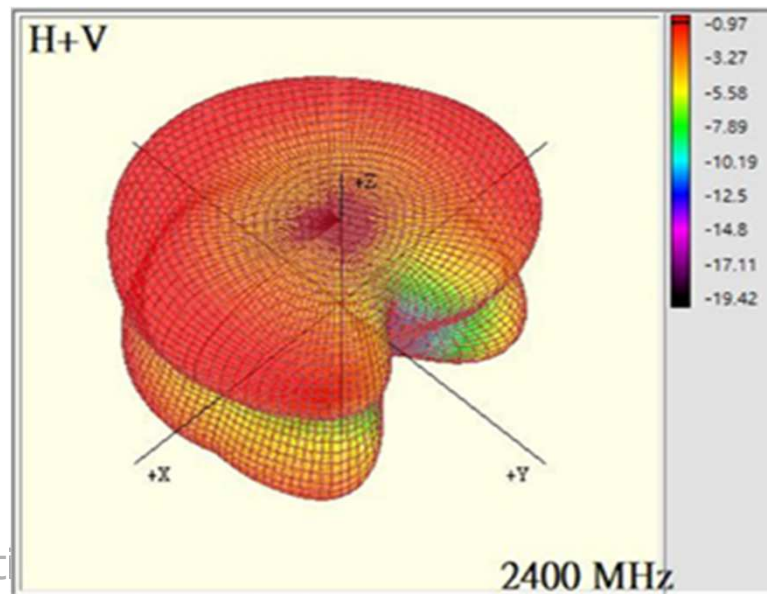
Antenna Information									
1	Ant. Type	PIFA	Peak Gain	-1.67	2	Ant. Type	<b>PIFA</b>	Peak Gain	<b>-3.44</b>
	connector		Model No.	Antenna5		connector		Model No.	Antenna4
3	Ant. Type	<b>PIFA</b>	Peak Gain	<b>-3.9</b>	4	Ant. Type		Peak Gain	
	connector		Model No.	Antenna6		connector		Model No.	

# Bluetooth Pattern

ANT4

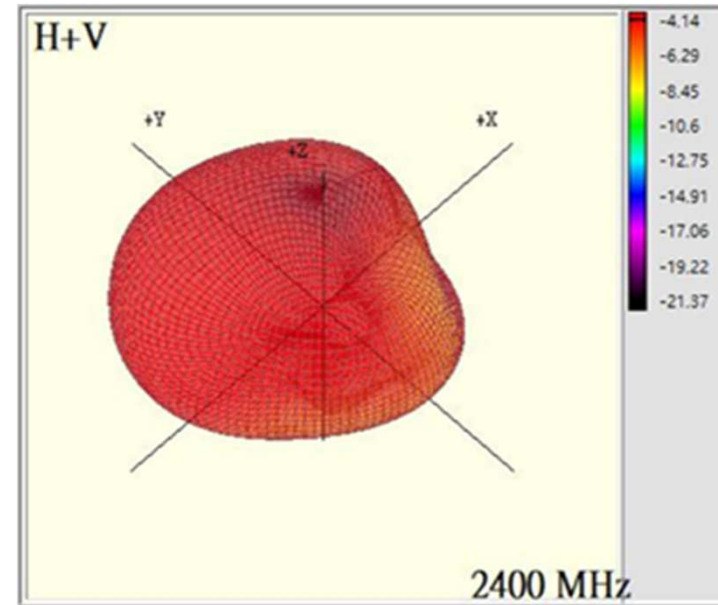
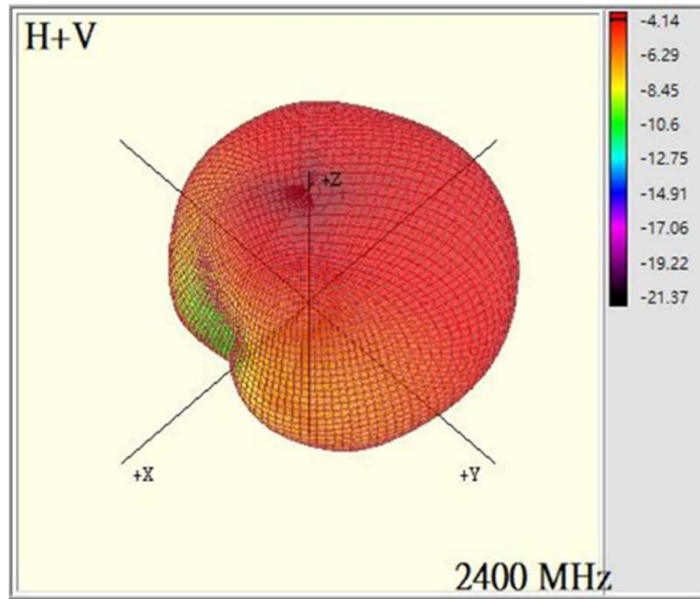


ANT5



# Bluetooth Pattern

ANT6

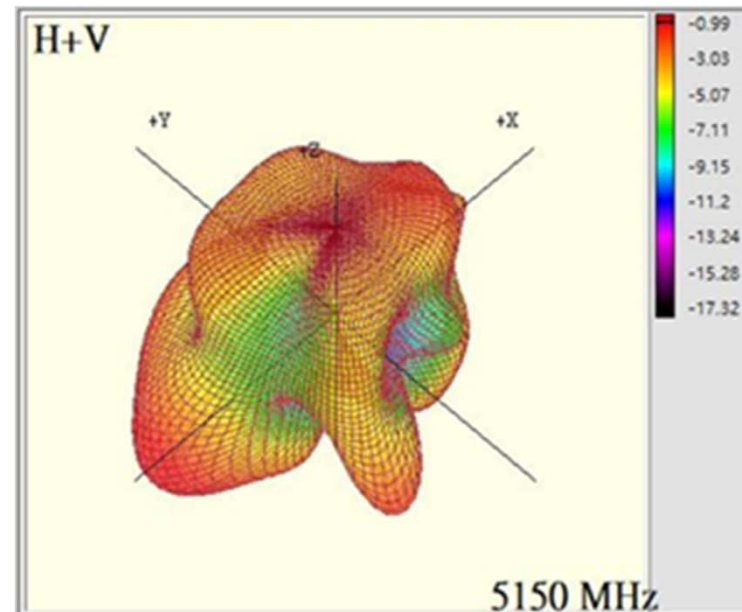
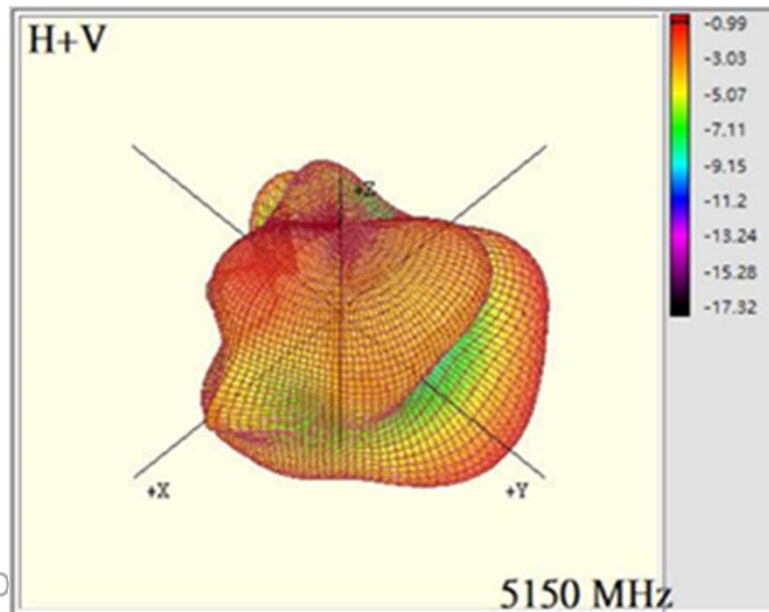
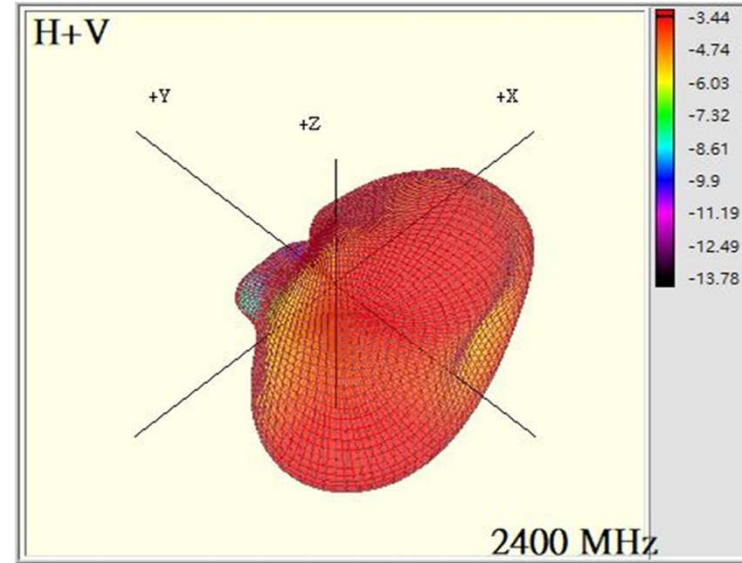
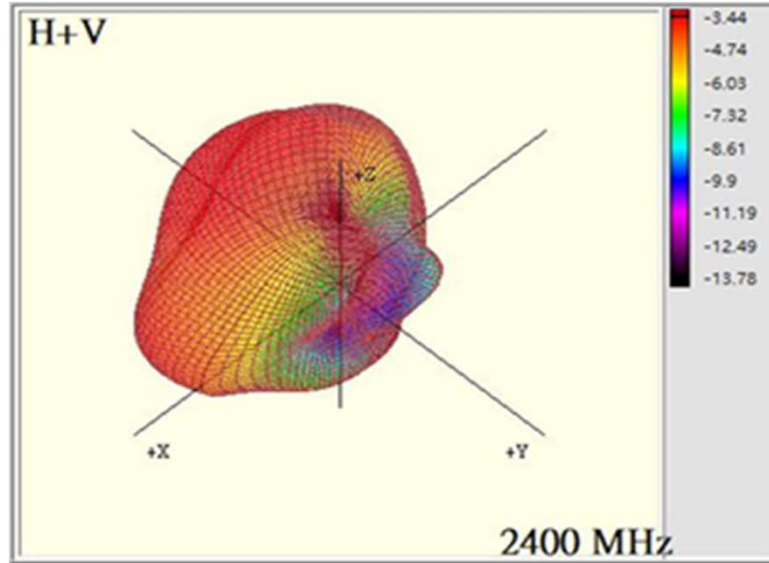




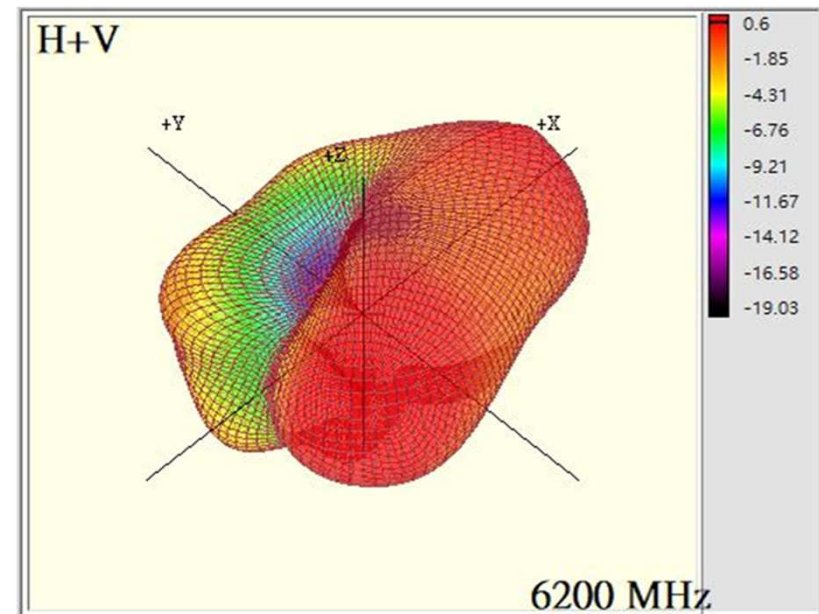
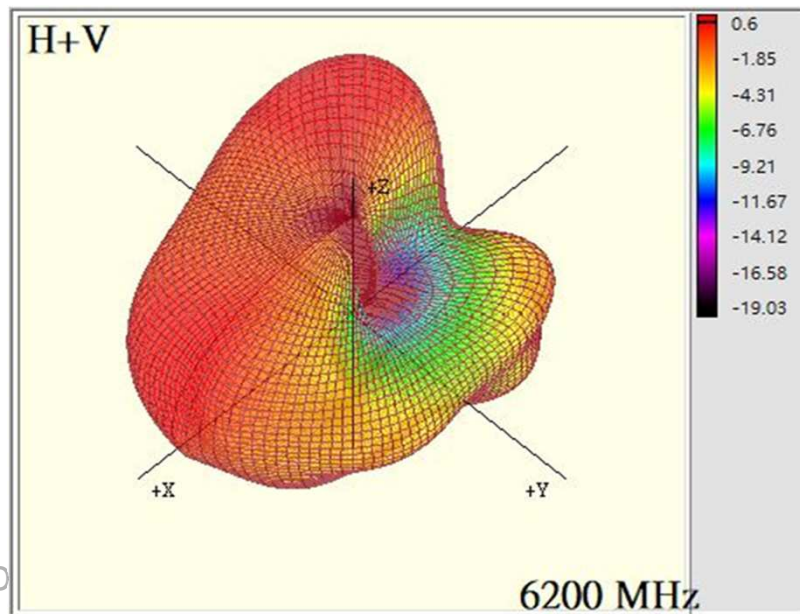
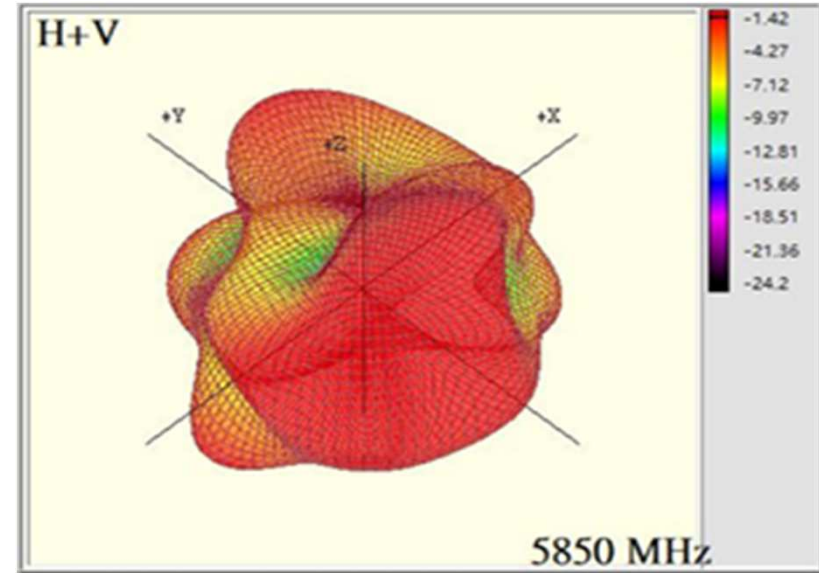
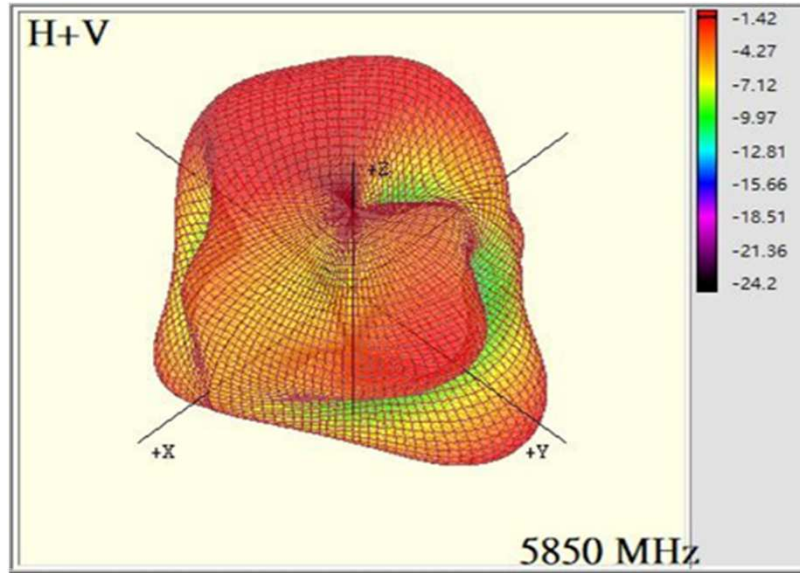
# WLAN Antenna

1	Ant. Type	PIFA	connector	
	Model No.	Antenna4		
	Peak Gain (dBi)			
	2400~2483.5MHz	-3.44	5925~6425M Hz	0.507
	5150~5250MHz	-2.55	6425~6525M Hz	-0.2
	5250~5350MHz	-2.97	6525~6875M Hz	-3
	5470~5725MHz	-0.1	6875~7125M Hz	-2.7
	5725~5850MHz	-0.85		
2	Ant. Type	PIFA	connector	
	Model No.	Antenna5		
	Peak Gain (dBi)			
	2400~2483.5MHz	-1.67	5925~6425M Hz	1.57
	5150~5250MHz	-0.42	6425~6525M Hz	0.48
	5250~5350MHz	-0.91	6525~6875M Hz	-0.83
	5470~5725MHz	1.19	6875~7125M Hz	-2.75
	5725~5850MHz	1.14		
3	Ant. Type	PIFA	connector	
	Model No.	Antenna6		
	Peak Gain (dBi)			
	2400~2483.5MHz	-3.9	5925~6425M Hz	0.68
	5150~5250MHz	1.54	6425~6525M Hz	-1.2
	5250~5350MHz	1.34	6525~6875M Hz	-2.9
	5470~5725MHz	0.35	6875~7125M Hz	-1.49
	5725~5850MHz	-0.39		

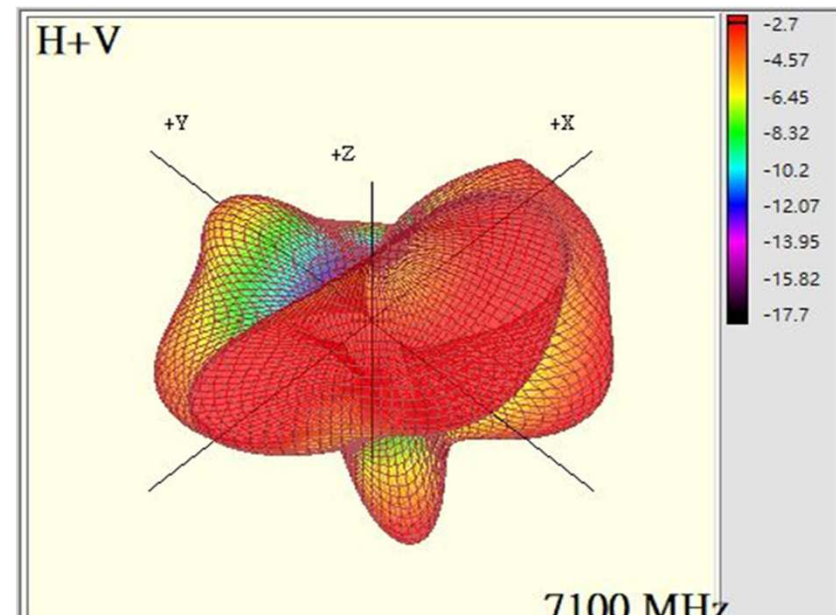
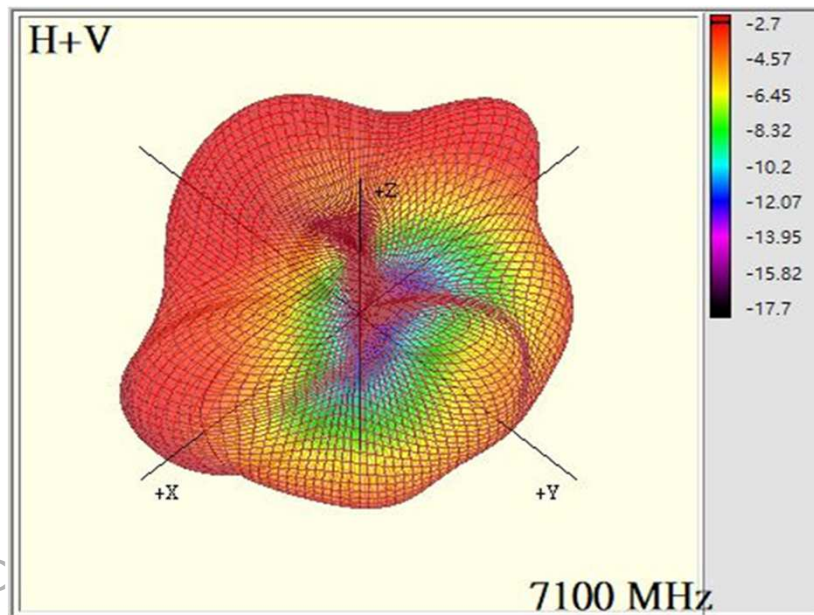
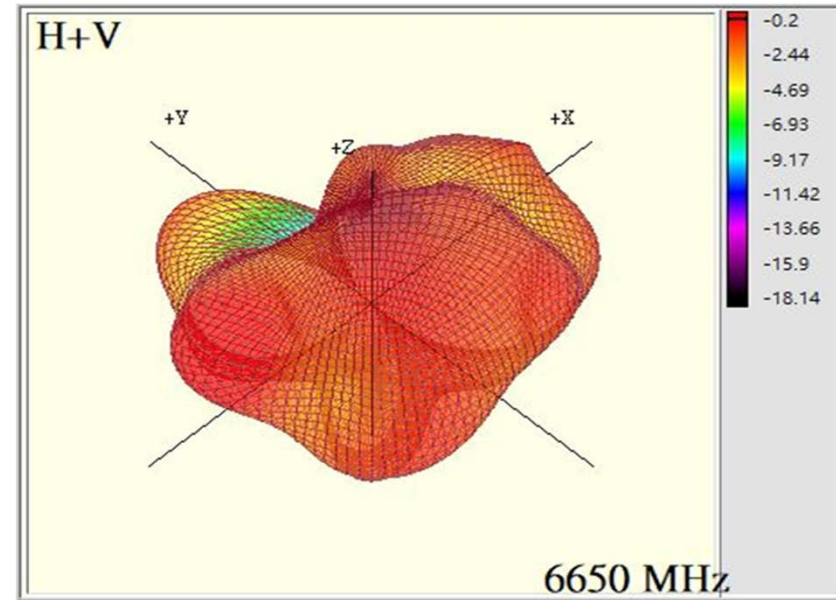
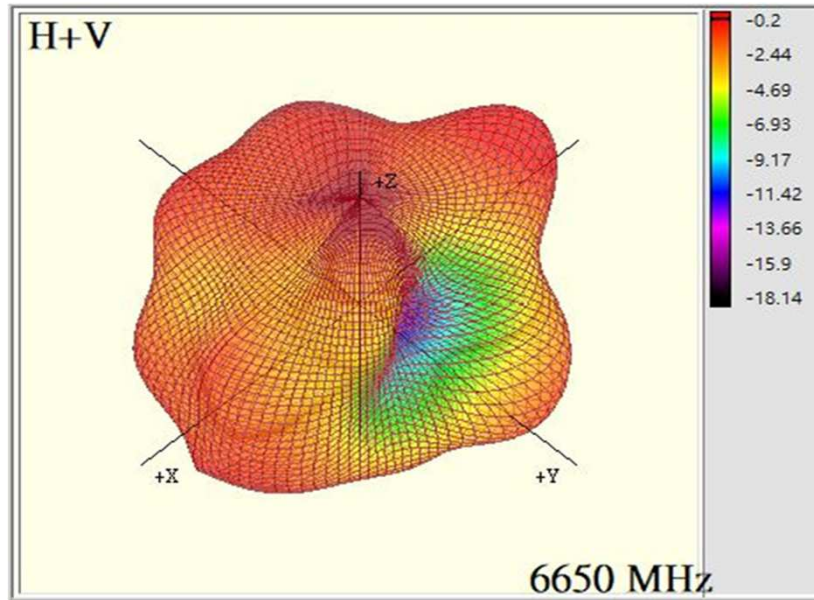
# WIFI ANT4 Pattern



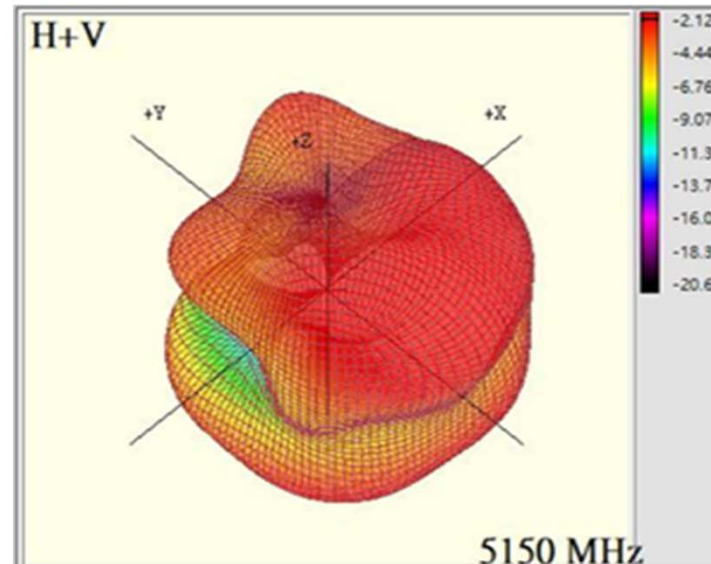
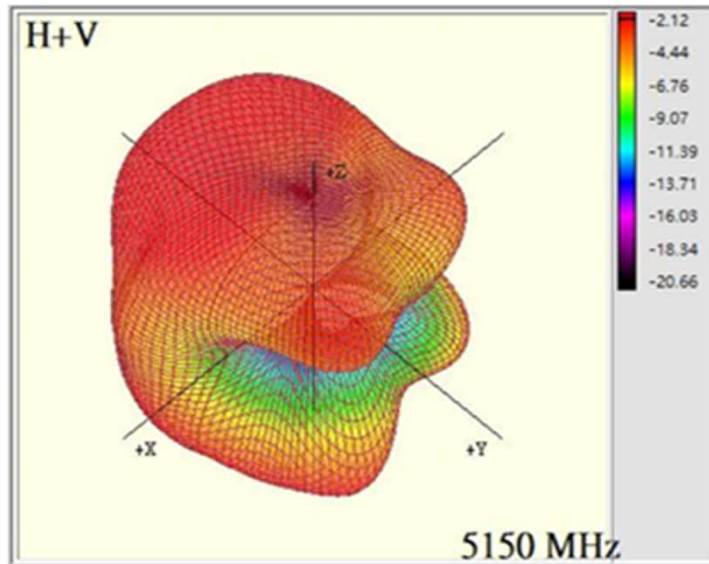
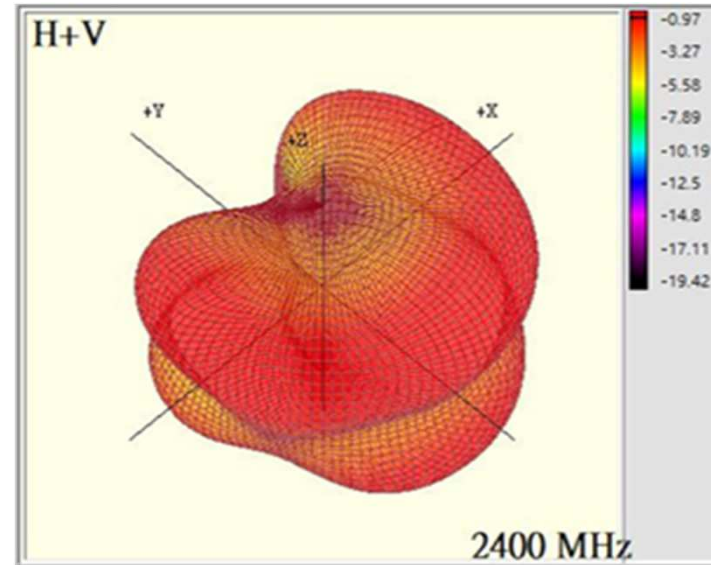
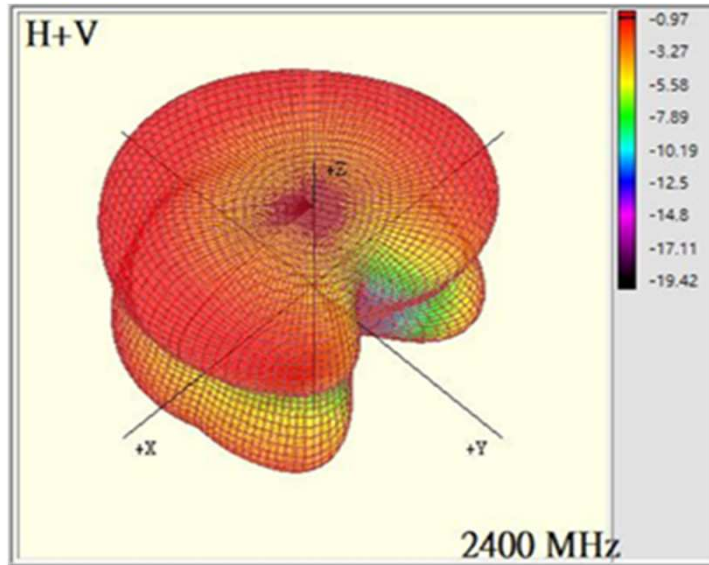
# WIFI ANT4 Pattern



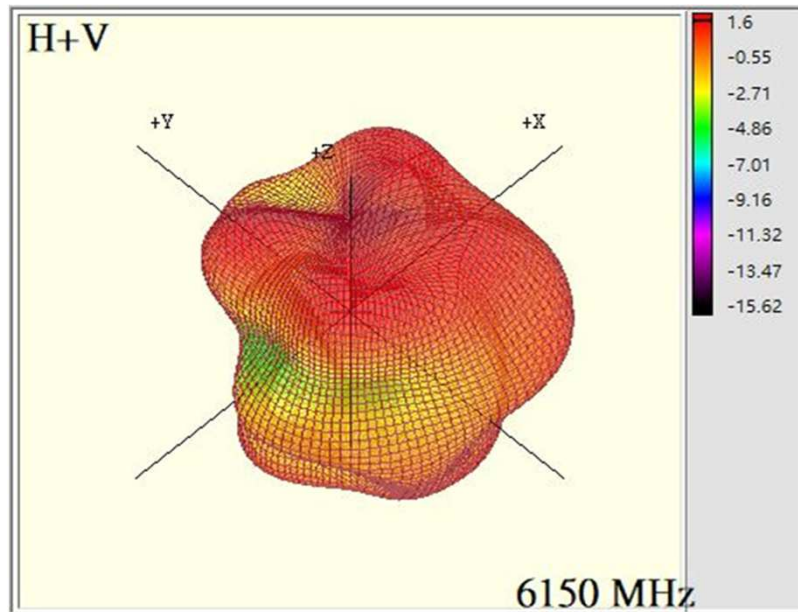
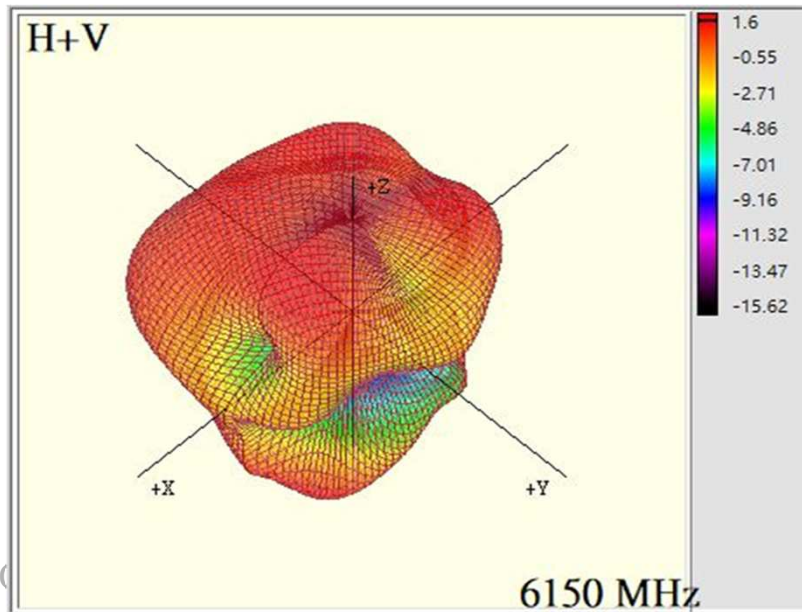
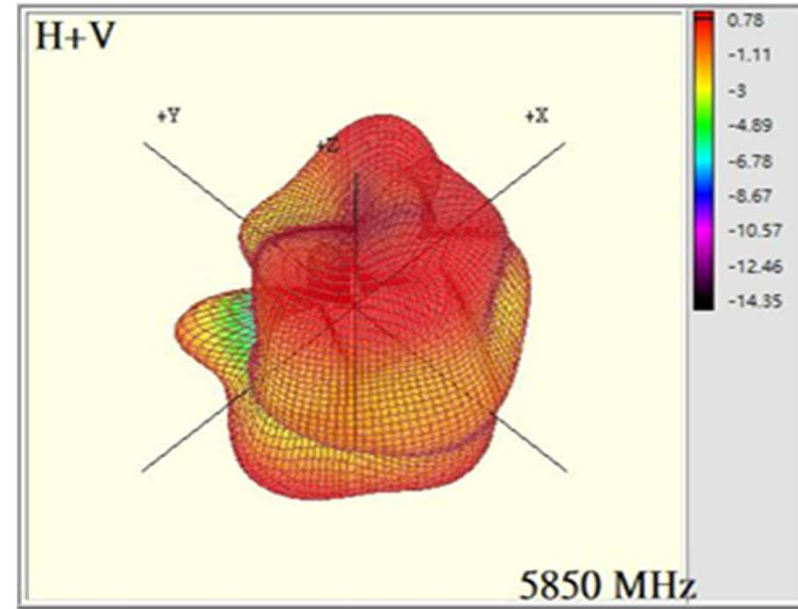
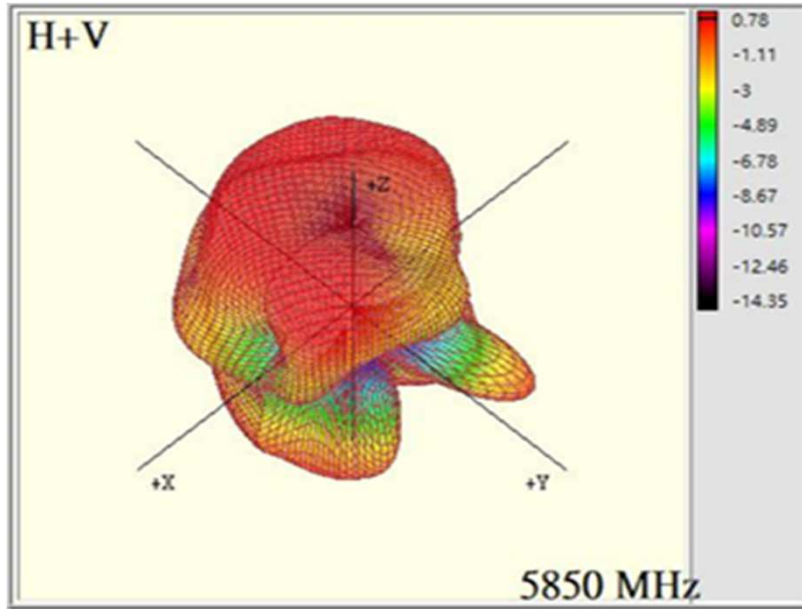
# WIFI ANT4 Pattern



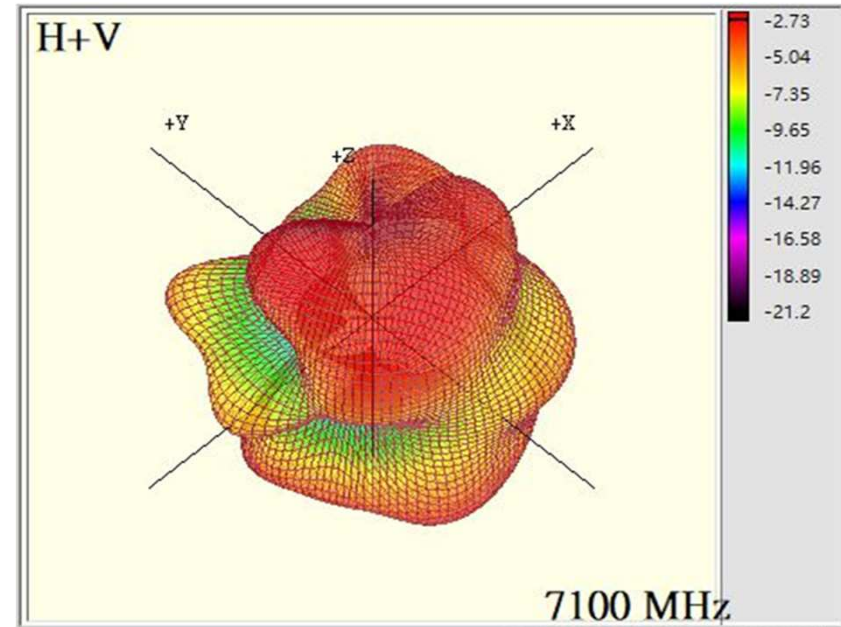
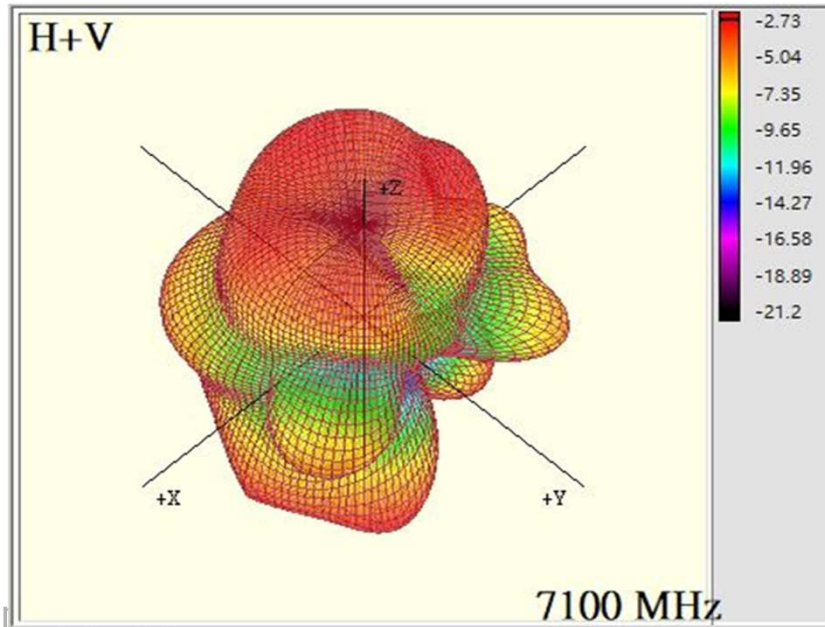
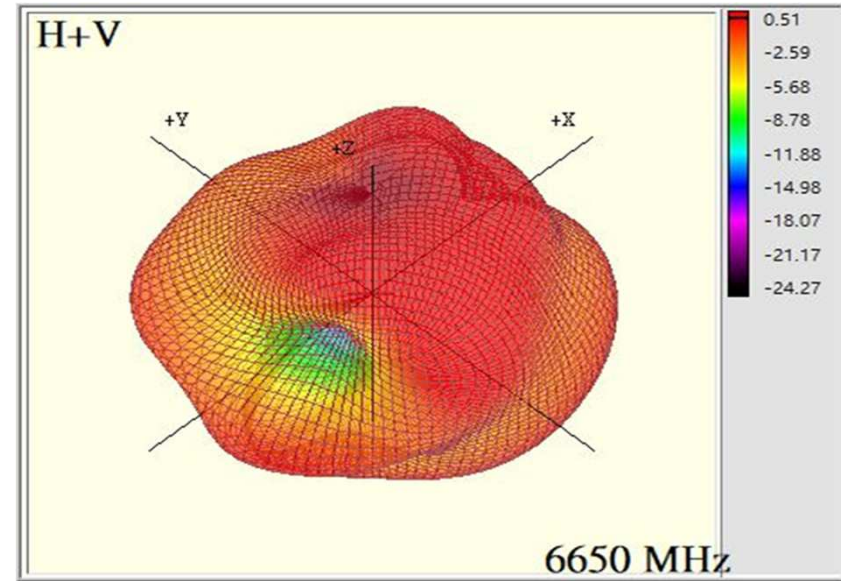
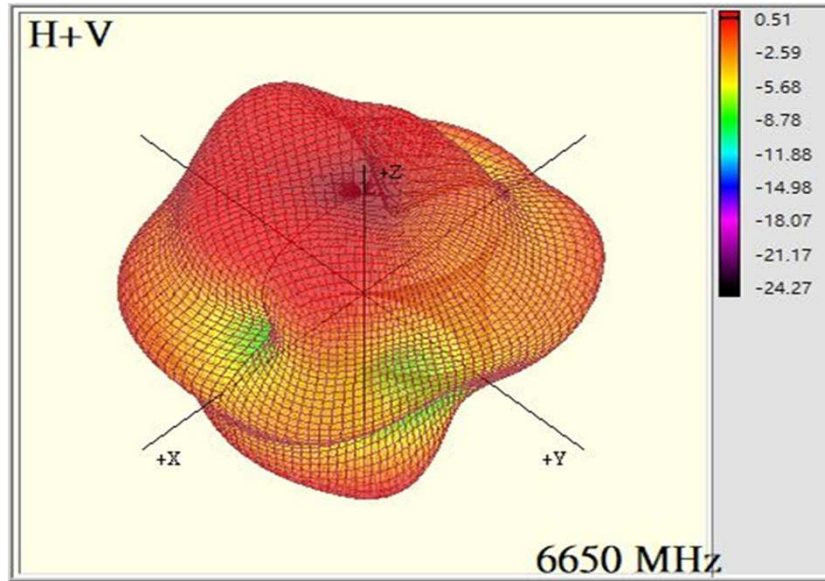
# WIFI ANT5 Pattern



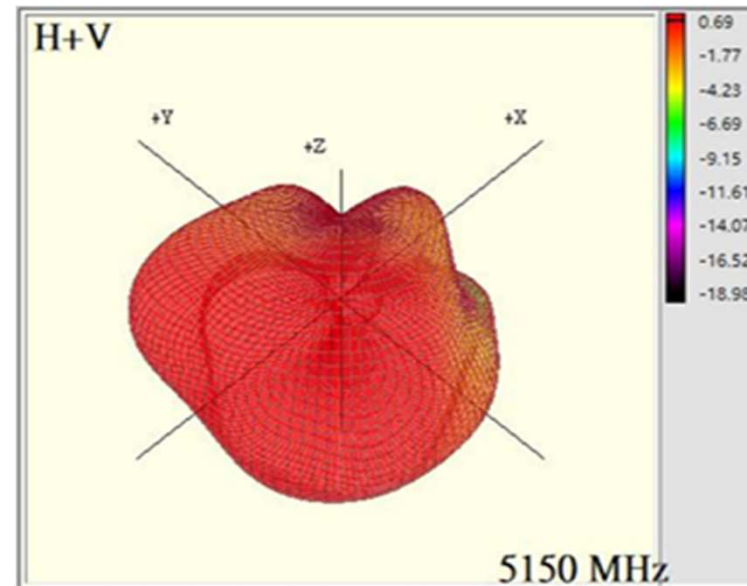
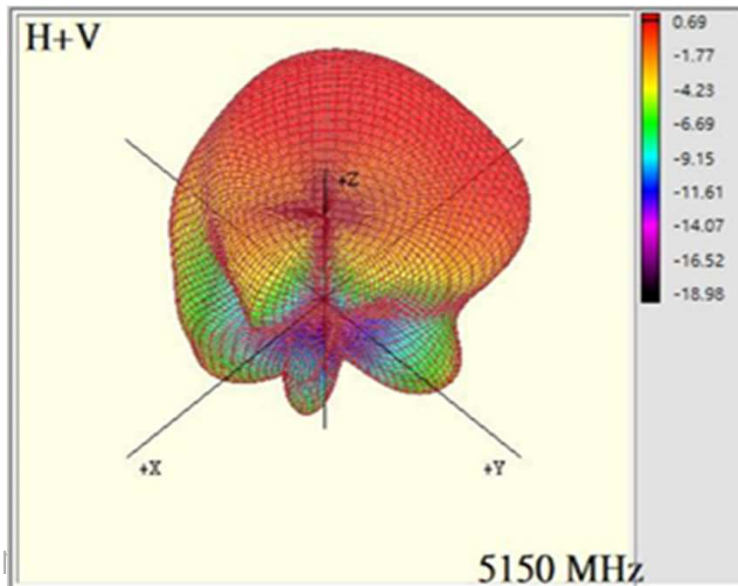
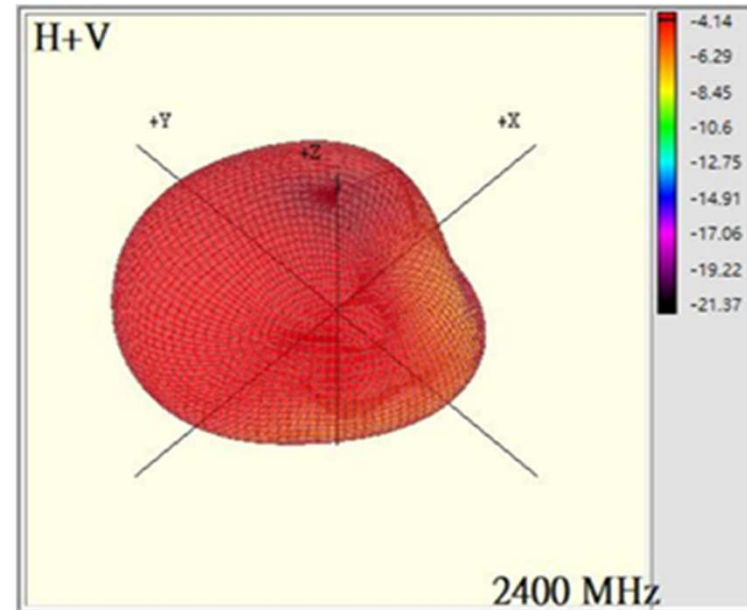
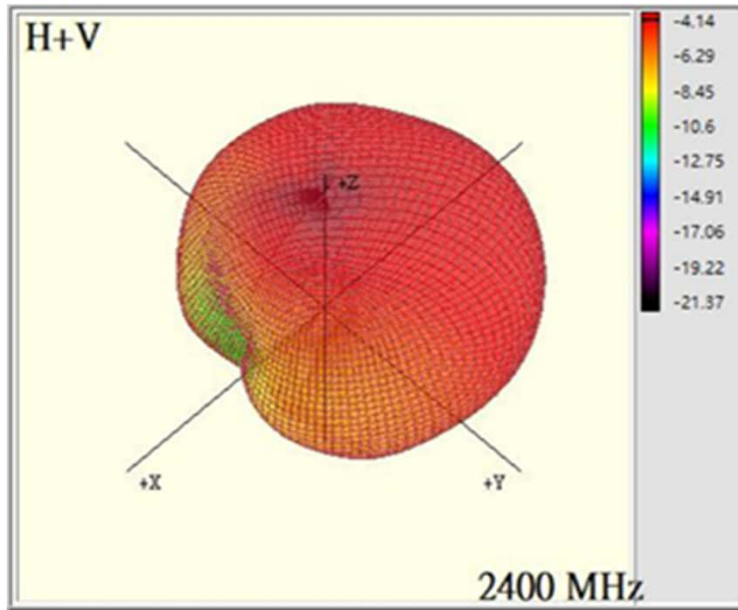
# WIFI ANT5 Pattern



# WIFI ANT5 Pattern



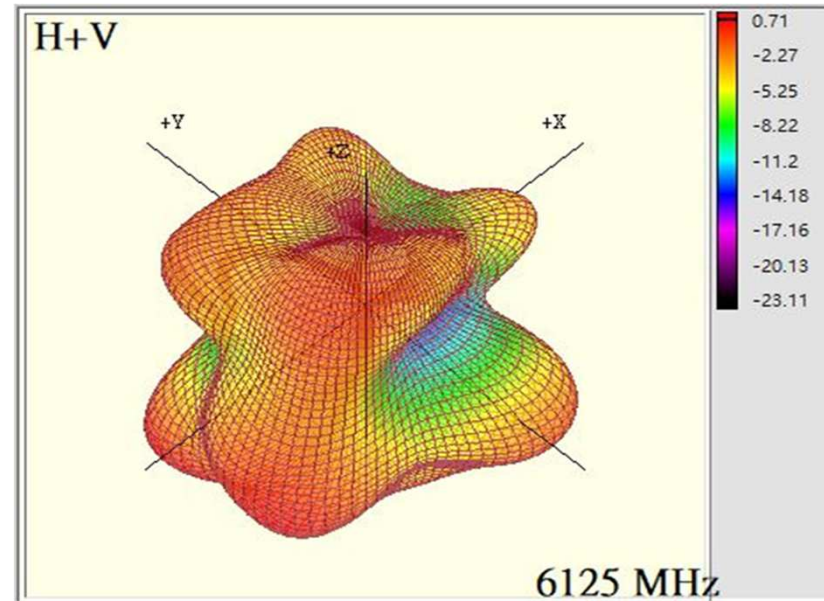
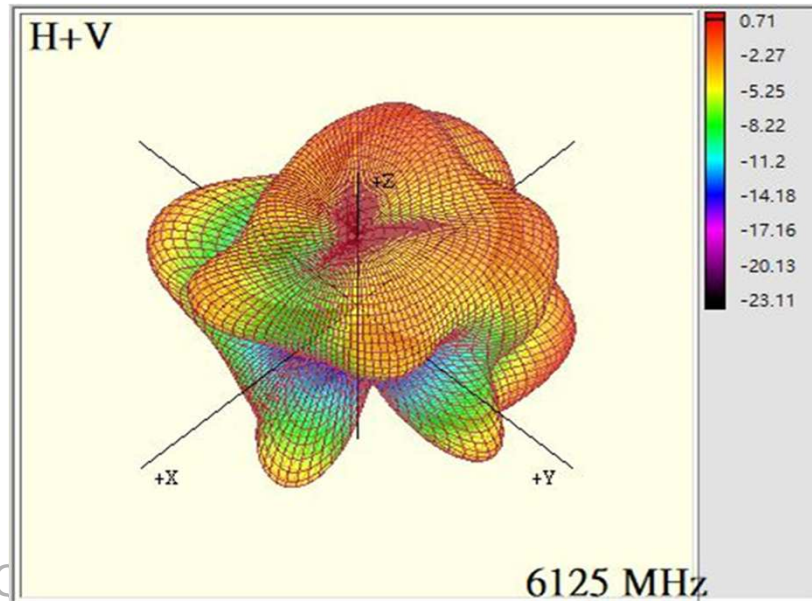
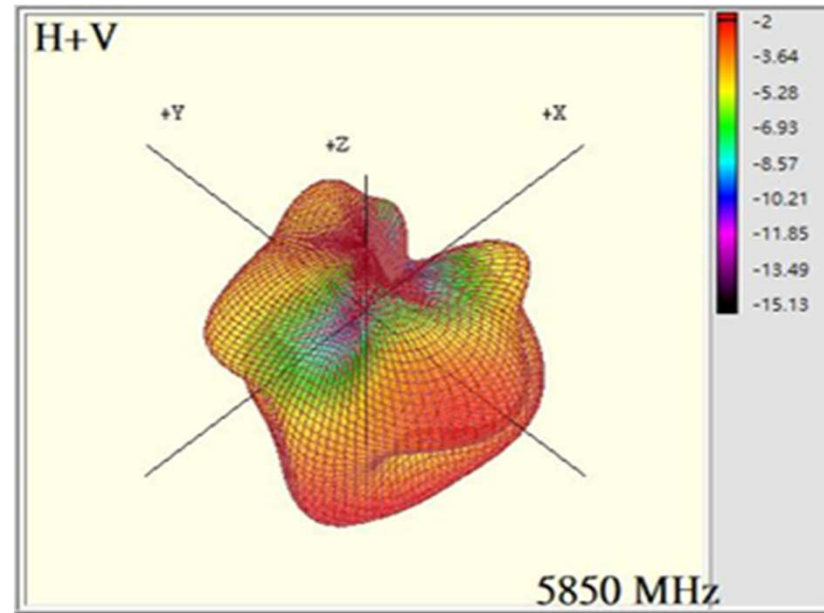
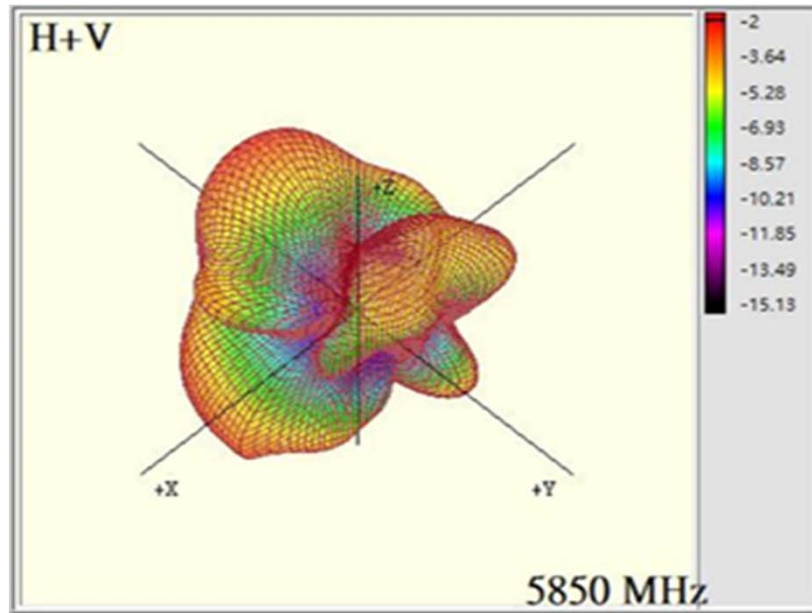
# WIFI ANT6 Pattern



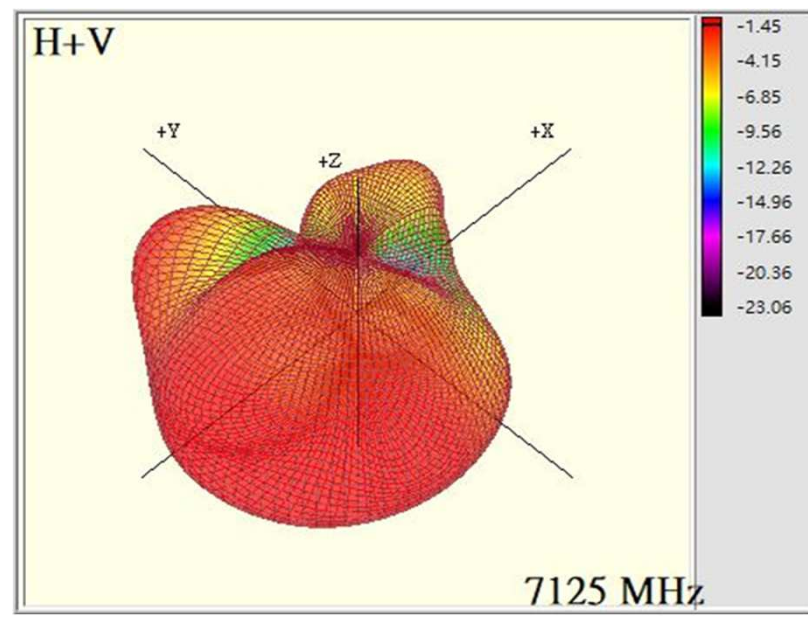
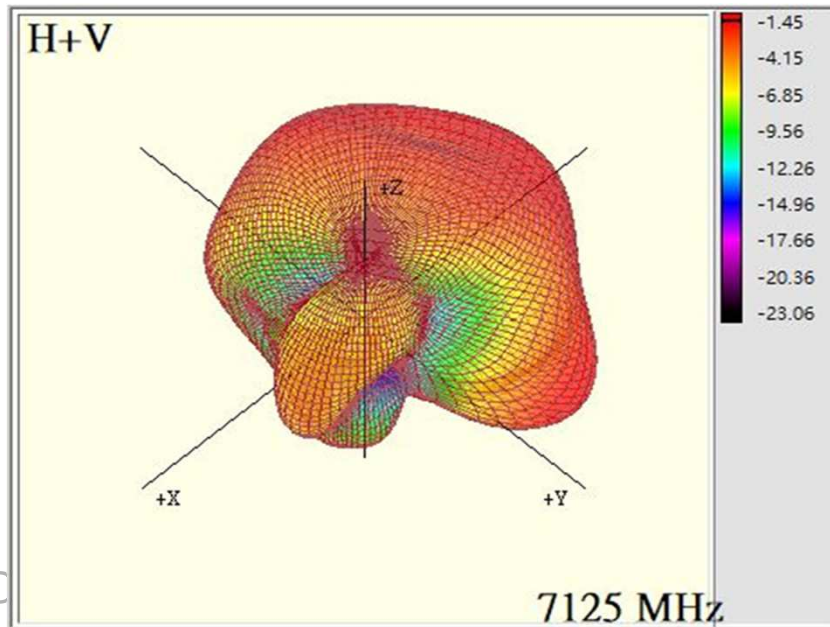
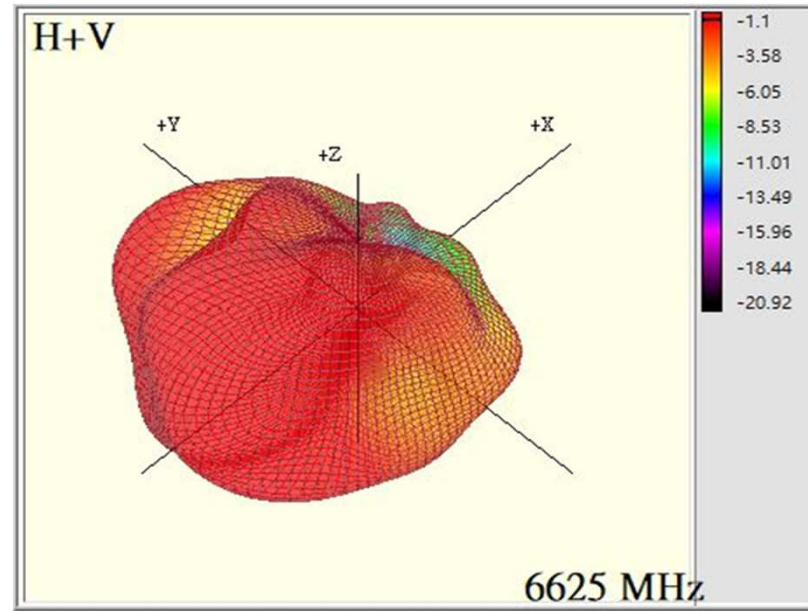
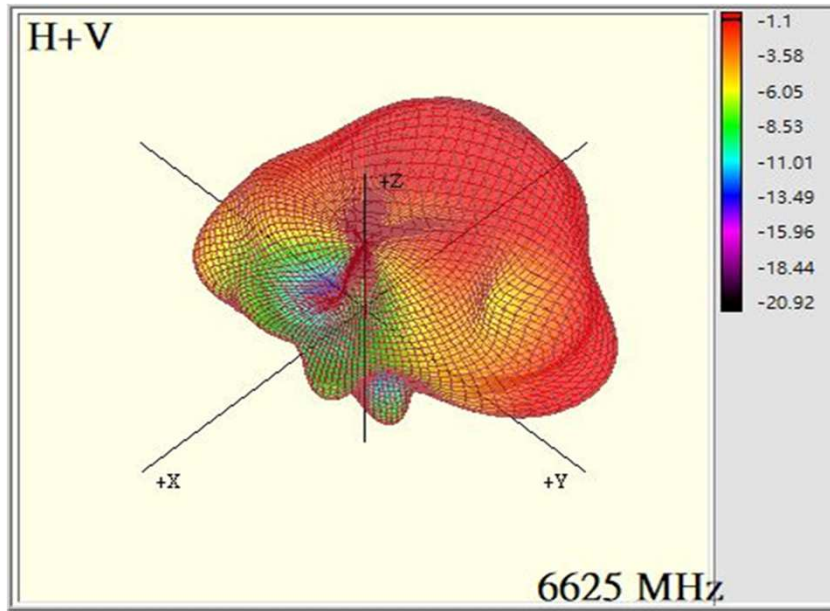
Col



# WIFI ANT6 Pattern



# WIFI ANT6 Pattern



# NFC Antenna

1. Antenna Type: Loop antenna
2. Antenna Dimension(mm): 50.44 x 39.80 x 0.26(L x W x H)
3. Manufacturer: LUXSHARE-ICT
4. Manufacturer P/N: LA9RF386-CS-H
5. Test equipment

