WWAN Antenna Information
Y302-02
[Anjie antenna]

Platform	Tablet	
Platform owner		
Platform name	Y302-02	
Regulatory Model name (Compliance ID)	NA	
OEM	Trimble Inc.	
ODM	**DT Research, Inc.**	
Target Launch Date		
Tx Antenna		
Brand name	Anjie	
Parts Number	Main Antenna:	AJLF1J-Q0002
	Auxiliary Antenna:	AJLF1J-Q0002
Transmitter Module		
WWAN Module	Model: **LN920A12-WW**	FCC ID: IC:

Revision history

Revision number	Date	Description
1	2023/ 06/01	Initial release

Section 1. Antenna Assembly Specifications

Green =EM05G & L860-GL-16 & FM350GL
Yellow = EM05G
Blue = FM350GL
Gray = No Support Plan

Main Antenna

Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Frequency (MHz)		Cable Loss (dB)	Peak Gain (including cable loss)	
							Horizontal (dBi)	Vertical (dBi)
81-228-302010	Anjie	PIFA	1. Cable P/N:113L 2. Diameter:1.13mm 50 ohm coaxial cable 3.Cable length: 100 mm 4. Connector P/N: 20565-001R-13 or equivalent	**EU/ANZ/CN/Japan** UMTS/HSPA (**UMTS 2100, Band 1**) (**UE-UTRA, Band 1, n1**)	1920.00	0.21	-1.17	-1.12
					1950.00	0.21	-0.34	-0.01
					1980.00	0.21	-0.23	0.56
				FCC Part 24 GSM/GPRS/EDGE (**GSM 1900**) UMTS/HSPA/EVDO (**UMTS1900, Band 2**) (**UE-UTRA, Band 2, n2**)	1850.00	0.20	-4.03	-1.89
					1880.00	0.20	-3.64	-3.64
					1910.00	0.20	-1.90	-1.80
				EU/ANZ/CN/Japan GSM/GPRS/EDGE (**GSM 1800, Band 3**) (**UE-UTRA, Band 3, n3**)	1710.00	0.20	-3.38	-2.17
					1747.50	0.20	-1.97	-1.32
					1785.00	0.20	-1.81	-0.44
				FCC Part 27 UMTS(AWS) / HSPA (**UMTS, Band 4**) (**UE-UTRA , Band 4**)	1710.00	0.20	-3.38	-2.17
					1732.50	0.20	-2.43	-1.49
					1755.00	0.20	-1.89	-1.01
				FCC Part 22 GSM/GPRS/EDGE (**GSM 850**) **ANZ** (**UMTS850, Band 5**) (**UE-UTRA, Band 5, n5**)	824.00	0.15	-5.80	-1.74
					836.50	0.15	-6.06	-2.00
					849.00	0.15	-6.06	-1.93
				Japan (**UMTS, Band 6**)	830.00	0.15	-5.84	-1.83
					835.00	0.15	-6.04	-1.96
					840.00	0.15	-6.01	-2.01
				FCC Part 27 CA/EU/ANZ (**UE-UTRA, Band 7, n7**)	2500.00	0.24	-4.36	-0.95
					2535.00	0.24	-5.05	-0.55
					2570.00	0.24	-4.58	-0.24
				EU/ANZ/Japan UMTS/HSPA (**UMTS 900, Band 8**) (**UE-UTRA, Band 8, n8**)	880.00	0.15	-6.82	-2.05
					897.50	0.15	-6.84	-2.49
					915.00	0.15	-7.07	-3.01
				Japan (**WCDMA, Band 9**)	1844.9	0.20	-3.61	-1.68
					1862.5	0.20	-4.33	-2.54
					1879.9	0.20	-3.77	-3.56
				FCC Part 27 (**UE-UTRA , Band 12, n12**)	699.00	0.15	-4.72	-4.96
					707.50	0.15	-5.03	-4.72
					716.00	0.15	-4.85	-4.48
				FCC Part 27 (**UE-UTRA, Band 13**)	777.00	0.15	-2.81	-2.76
					782.00	0.15	-2.81	-2.57
					787.00	0.15	-3.13	-2.30
				FCC Part 90 (**UE-UTRA, Band 14**)	788.00	0.15	-3.27	-2.28
					793.00	0.15	-3.80	-1.81
					798.00	0.15	-4.31	-1.43
				FCC Part 27 (**UE-UTRA, Band 17**)	704.00	0.15	-5.08	-4.90
					710.00	0.15	-4.94	-4.63
					716.00	0.15	-4.85	-4.48
				Japan (**UE-UTRA, Band 18**)	815.00	0.15	-5.37	-1.68
					822.50	0.15	-5.74	-1.71
					830.00	0.15	-5.84	-1.83
				Japan (**UMTS, Band 19**) (**UE-UTRA, Band 19**)	830.00	0.15	-5.84	-1.83
					837.50	0.15	-6.01	-2.00
					845.00	0.15	-6.10	-1.97

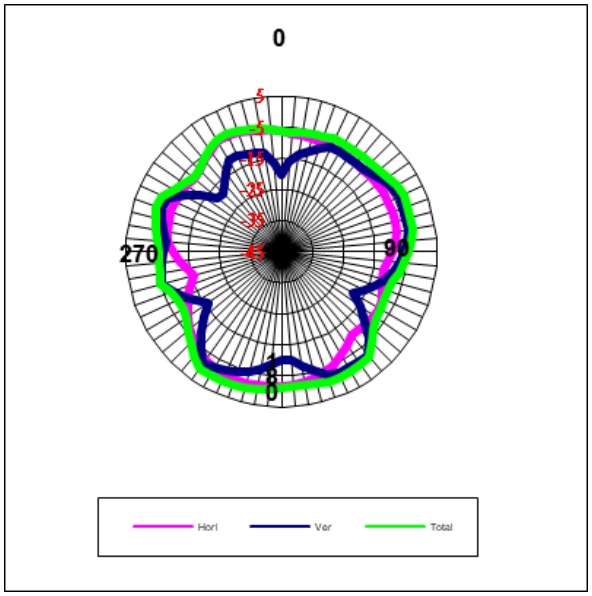
Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Frequency (MHz)		Cable Loss (dB)	Peak Gain (including cable loss)	
							Horizontal (dBi)	Vertical (dBi)
				EU (UE-UTRA, Band 20, n20)	832.00	0.15	-5.92	-1.91
					847.00	0.15	-6.04	-1.93
					862.00	0.15	-6.40	-1.90
				FCC Part 24 (UE-UTRA, Band 25)	1850.00	0.20	-4.03	-1.89
					1882.50	0.20	-3.44	-3.76
					1915.00	0.20	-1.47	-1.47
				FCC Part 90, 22H (UE-UTRA, Band 26)	814.00	0.15	-5.43	-1.68
					831.50	0.15	-5.86	-1.88
					849.00	0.15	-6.06	-1.93
				EU/ANZ/Japan (UE-UTRA, Band 28, n28)	703.00	0.15	-5.12	-4.91
					725.50	0.15	-5.00	-4.21
					748.00	0.15	-3.77	-4.00
				FCC Part 27 CA (UE-UTRA, Band 29) * Down link only	717.00	0.15	-4.99	-4.48
					722.50	0.15	-5.02	-4.27
					728.00	0.15	-4.75	-4.21
				FCC Part 27 (UE-UTRA, Band 30)	2305.00	0.23	-2.59	-0.30
					2310.00	0.23	-2.96	-0.28
					2315.00	0.23	-2.81	-0.38
				EU (LTE, Band 32) * Down link only	1452.00			
					1474.00			
					1496.00			
				EU (LTE Band 34)	2010.00	0.22	-0.65	1.10
					2017.50	0.22	-0.88	1.11
					2025.00	0.22	-1.06	1.10
				EU/CN (UE-UTRA, Band 38, n38)	2570.00	0.24	-4.58	-0.24
					2595.00	0.24	-4.03	-0.29
					2620.00	0.24	-3.49	-0.37
				CN (TD-SCDMA, Band 39)	1880.00	0.20	-3.64	-3.64
					1900.00	0.20	-2.58	-2.57
					1920.00	0.20	-1.17	-1.12
				EU/ANZ/CN (UE-UTRA, Band 40)	2300.00	0.23	-1.38	-0.25
					2350.00	0.23	-2.60	-0.21
					2400.00	0.23	-3.11	0.05
				FCC Part 27 US/CN/Japan (UE-UTRA, Band 41, n41)	2496.00	0.24	-4.37	-1.02
					2593.00	0.24	-4.51	-0.14
					2690.00	0.24	-2.66	-0.64
				FCC Part 96 CA/EU/Japan (LTE Band 42)	3400.00	0.28	-7.93	-5.42
					3500.00	0.28	-11.60	-13.84
					3600.00	0.28	-9.08	-13.68
				LTE Band 43	3600.00	0.28	-9.08	-13.68
					3700.00	0.28	-3.34	-9.39
					3800.00	0.28	-2.48	-8.91
				FCC Part 15, 90, 95 (LTE Band 46) TD Unlicensed, LAA RCV only	5150.00			
					5537.00			
					5925.00			
				FCC Part 96 (LTE Band 48)	3550.00	0.28	-13.03	-16.44
					3625.00	0.28	-7.18	-12.17
					3700.00	0.28	-3.34	-9.39
				FCC Part 27 (LTE, Band 66, n66)	1710.00	0.20	-3.38	-2.17
					1745.00	0.20	-2.03	-1.36
					1780.00	0.20	-1.86	-0.47
				FCC Part 24, 27 (LTE Band 71, n71)	663.00	0.15	-8.74	-6.82
					680.50	0.15	-6.64	-5.65
					698.00	0.15	-4.88	-5.02
				FCC/EU/CN/JP	3300.00	0.28	-3.48	-5.80

Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Frequency (MHz)		Cable Loss (dB)	Peak Gain (including cable loss)	
							Horizontal (dBi)	Vertical (dBi)
				(5G NR Band 77)	3750.00	0.28	-2.90	-8.52
					4200.00	0.28	-12.38	-15.91
				EU/CN/JP (5G NR Band 78)	3300.00	0.28	-3.48	-5.80
					3550.00	0.28	-13.03	-16.44
					3800.00	0.29	-2.48	-8.91
				CN/JP (5G NR Band 79)	4400.00			
					4700.00			
					5000.00			
				Japan (UE-UTRA, Band 21) Japan J-CDMA	1447.90			
					1455.40			
					1462.90			
					815.00	0.15	-5.37	-1.68
					824.70	0.15	-5.80	-1.75
					836.52	0.15	-5.97	-1.99
					848.31	0.15	-6.01	-1.94
					870.00	0.15	-6.62	-1.90
					880.20	0.15	-7.01	-2.10
					897.60	0.15	-6.92	-2.48
					914.80	0.15	-6.97	-2.99
					925.00	0.16	-6.82	-3.31
					940.00	0.16	-6.42	-3.57
				Japan J-CDMA	1922.40	0.21	-1.09	-1.02
					1950.00	0.21	-0.34	-0.01
					1977.60	0.21	-0.34	0.53

Radiation characteristic in 1920MHz ~ 1980MHz (EU/ANZ/CN/JP: UMTS/HSDPA, Band 1, n1)

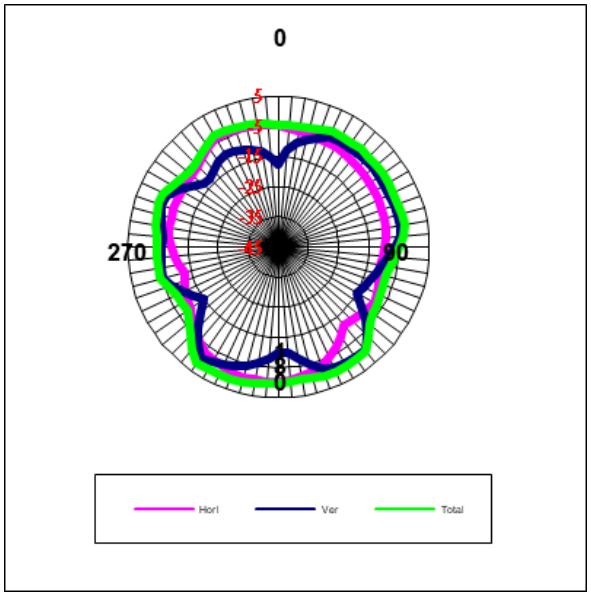
Main antenna: 1920.00 MHz

1920.00 MHz		
Horizontal Peak (dBi)	-1.17	195deg
Vertical Peak(dBi)	-1.12	215deg



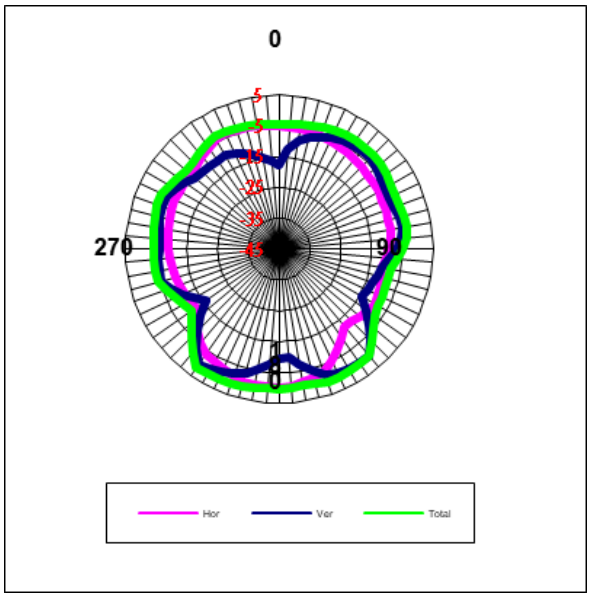
Main antenna: 1950.00 MHz

1950.00 MHz		
Horizontal Peak (dBi)	-0.34	195deg
Vertical Peak(dBi)	-0.01	215deg



Main antenna: 1980.00 MHz

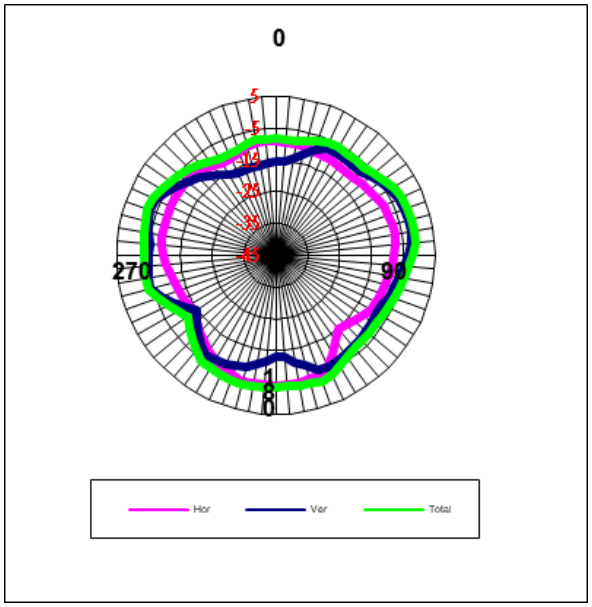
1980.00 MHz		
Horizontal Peak (dBi)	-0.23	180deg
Vertical Peak(dBi)	0.56	215deg



Radiation characteristic in 1850MHz ~ 1910MHz (FCC Part 24 PCS, Band 2, n2)

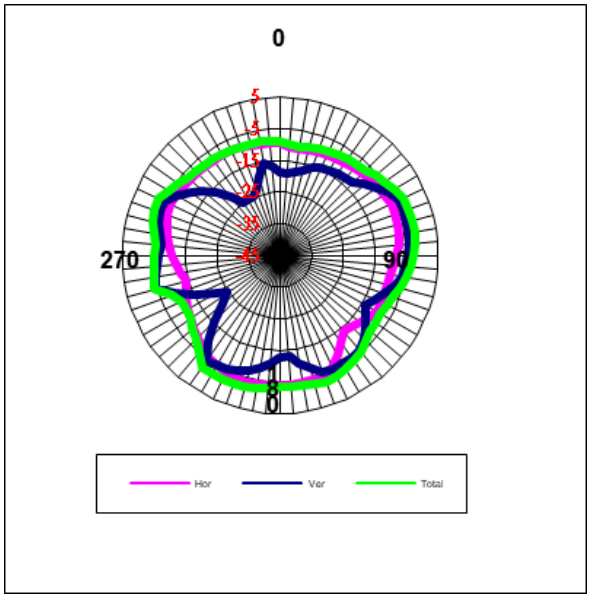
Main antenna: 1850.00 MHz

1850.00 MHz		
Horizontal Peak (dBi)	-4.03	180deg
Vertical Peak(dBi)	-1.89	80deg



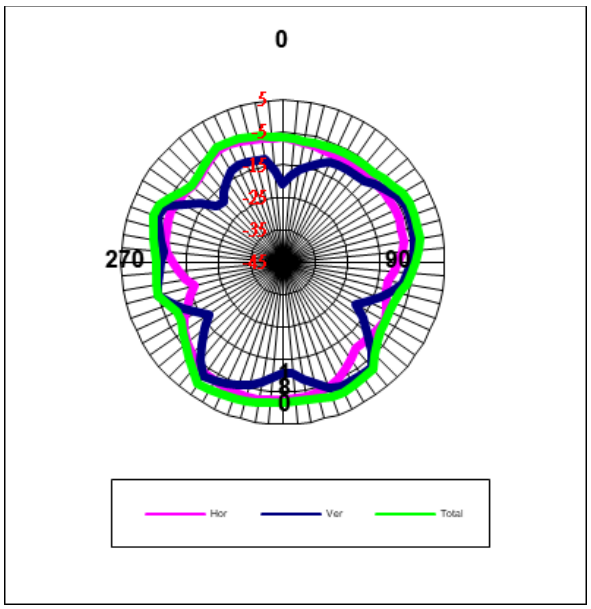
Main antenna: 1880.00 MHz

1880.00 MHz		
Horizontal Peak (dBi)	-3.64	195deg
Vertical Peak(dBi)	-3.64	80deg



Main antenna: 1910.00 MHz

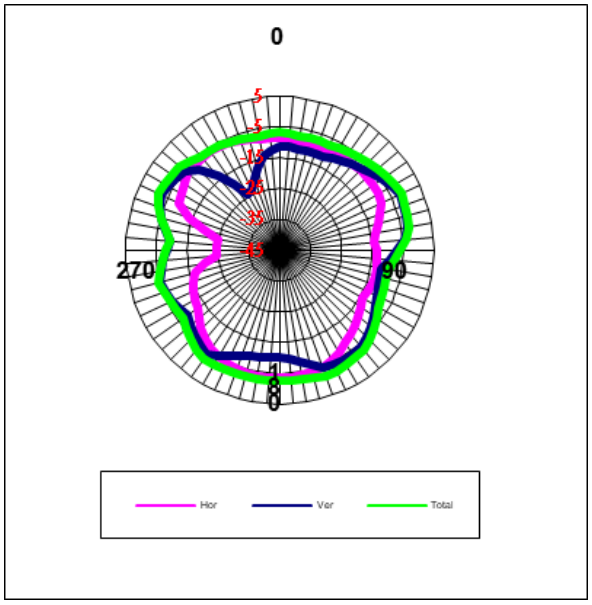
1910.00 MHz		
Horizontal Peak (dBi)	-1.9	195deg
Vertical Peak(dBi)	-1.8	215deg



Radiation characteristic in 1710MHz ~ 1785MHz (EU/ANZ/CN/JP: UE-UTRA, Band 3, n3)

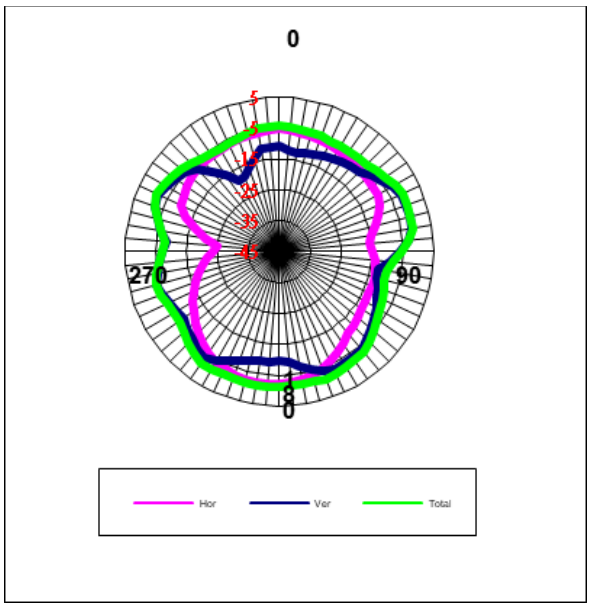
Main antenna: 1710.00 MHz

1710.00 MHz		
Horizontal Peak (dBi)	-3.38	195deg
Vertical Peak(dBi)	-2.17	65deg



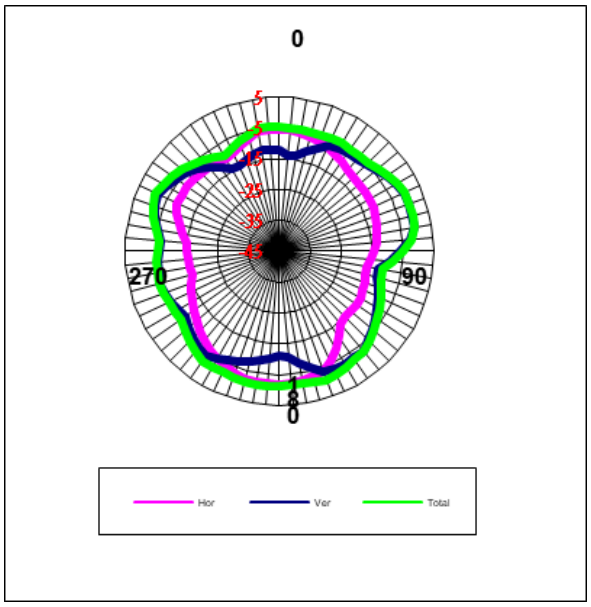
Main antenna: 1747.50 MHz

1747.50 MHz		
Horizontal Peak (dBi)	-1.97	195deg
Vertical Peak(dBi)	-1.32	65deg



Main antenna: 1785.00 MHz

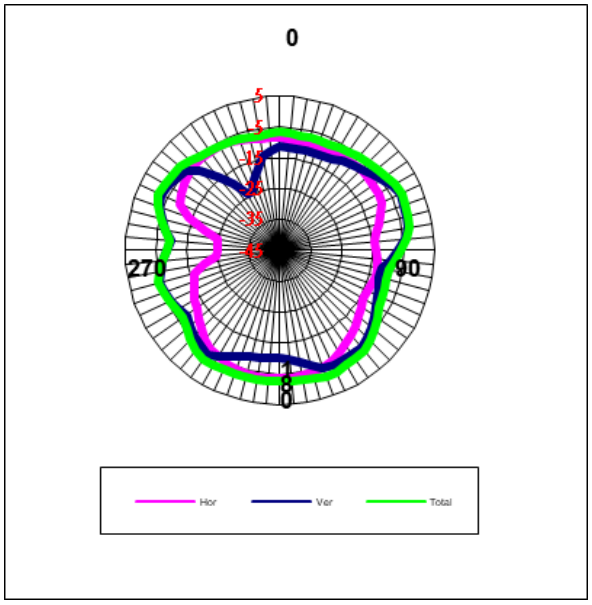
1785.00 MHz		
Horizontal Peak (dBi)	-1.81	180deg
Vertical Peak(dBi)	-0.44	65deg



Radiation characteristic in 1710MHz ~ 1755MHz (FCC Part 27 UMTS(AWS), Band 4)

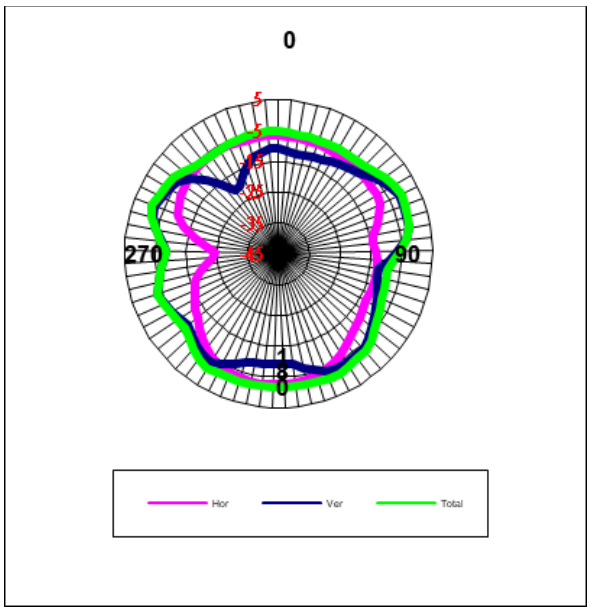
Main antenna: 1710.00 MHz

1710.00 MHz		
Horizontal Peak (dBi)	-3.38	195deg
Vertical Peak(dBi)	-2.17	65deg



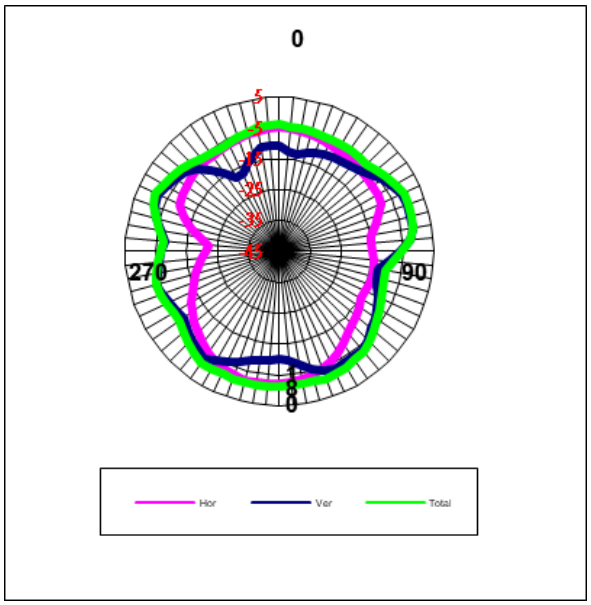
Main antenna: 1732.50 MHz

1732.50 MHz		
Horizontal Peak (dBi)	-2.43	180deg
Vertical Peak(dBi)	-1.49	65deg



Main antenna: 1755.00 MHz

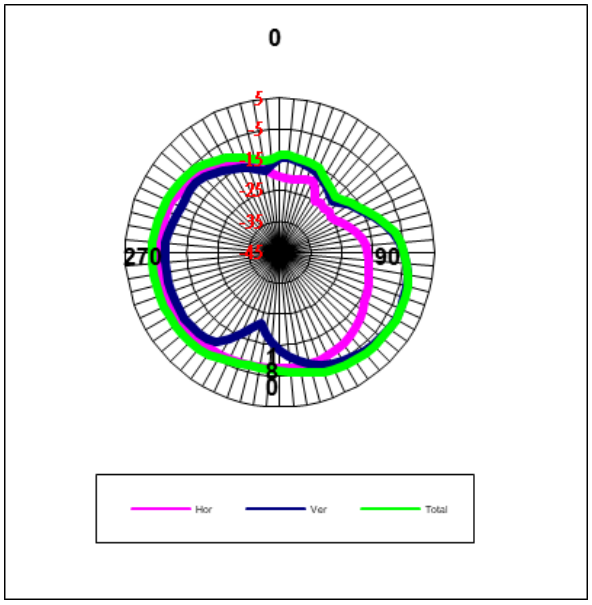
1755.00 MHz		
Horizontal Peak (dBi)	-1.89	195deg
Vertical Peak(dBi)	-1.01	80deg



Radiation characteristic in 824MHz ~ 849MHz (FCC Part 22 Cellular, Band 5, n5)

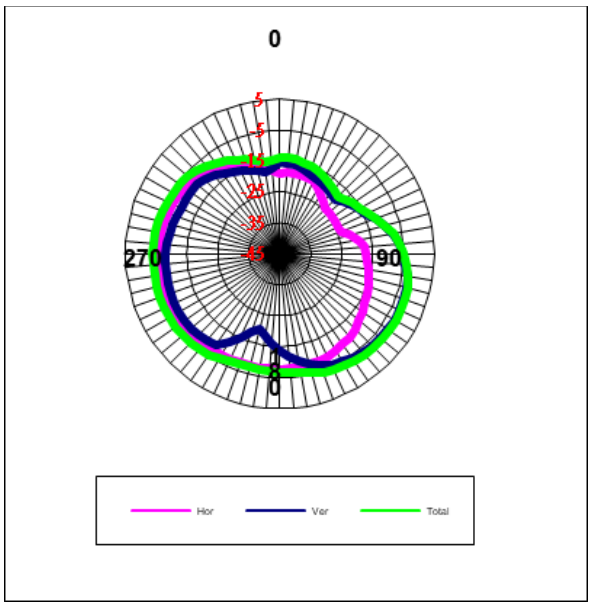
Main antenna: 824.00 MHz

824.00 MHz		
Horizontal Peak (dBi)	-5.8	255deg
Vertical Peak(dBi)	-1.74	120deg



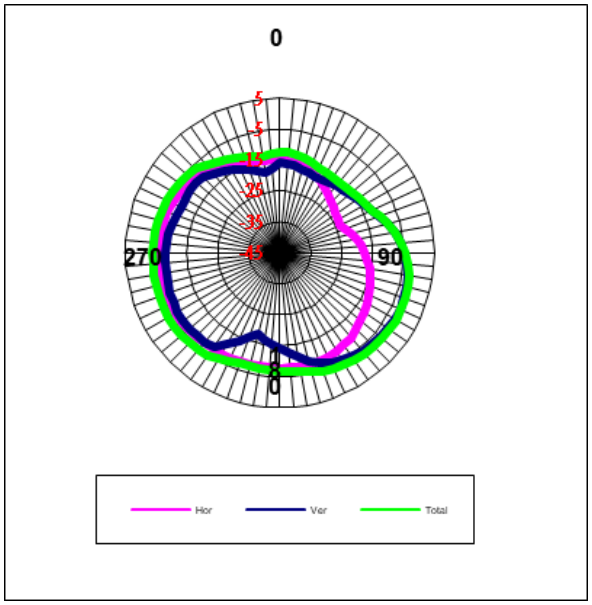
Main antenna: 836.50 MHz

836.50 MHz		
Horizontal Peak (dBi)	-6.06	255deg
Vertical Peak(dBi)	-2	120deg



Main antenna: 849.0 MHz

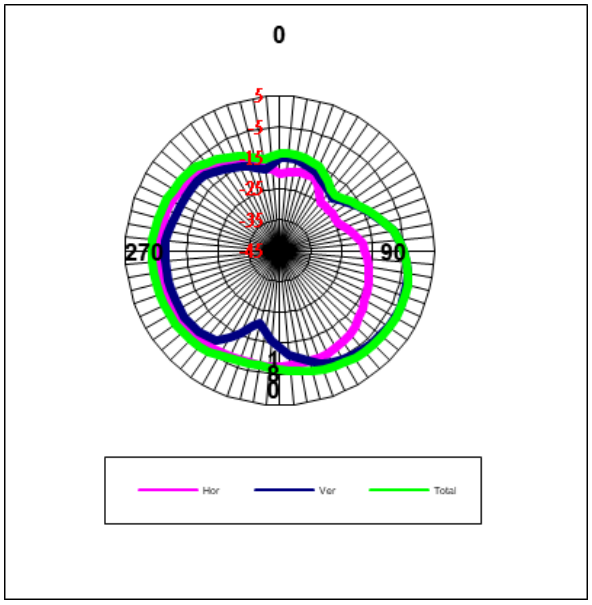
849.0 MHz		
Horizontal Peak (dBi)	-6.06	275deg
Vertical Peak(dBi)	-1.93	120deg



Radiation characteristic in 830MHz ~ 840MHz (Japan, Band 6)

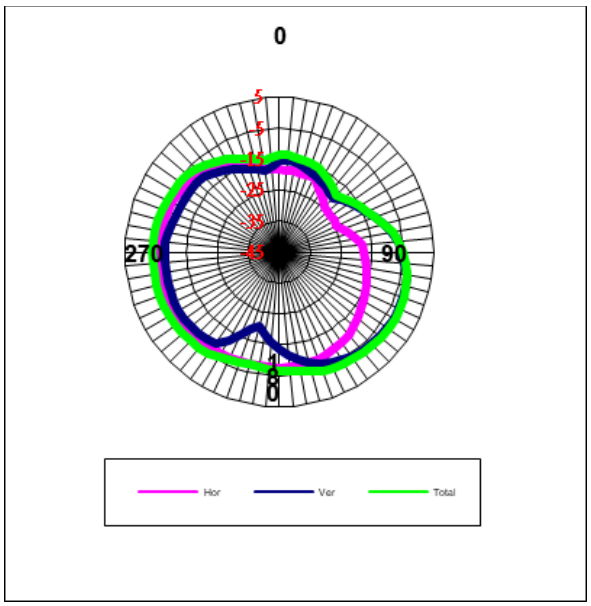
Main antenna: 830.00 MHz

830.00 MHz		
Horizontal Peak (dBi)	-5.84	275deg
Vertical Peak(dBi)	-1.83	120deg



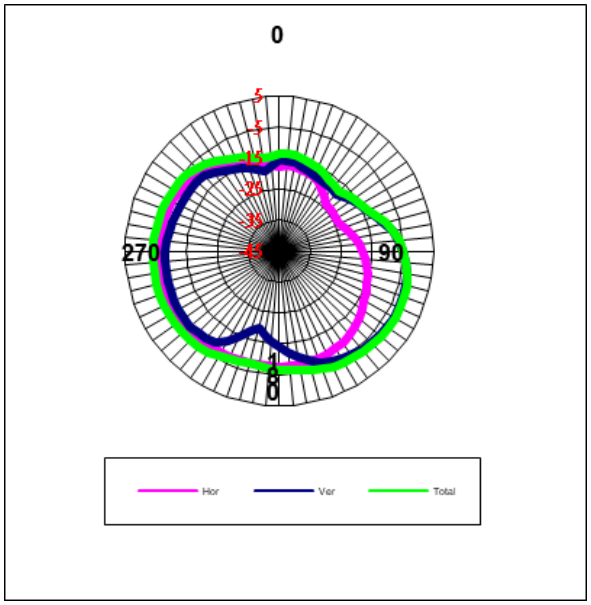
Main antenna: 835.00 MHz

835.00 MHz		
Horizontal Peak (dBi)	-6.04	255deg
Vertical Peak(dBi)	-1.96	120deg



Main antenna: 840.00 MHz

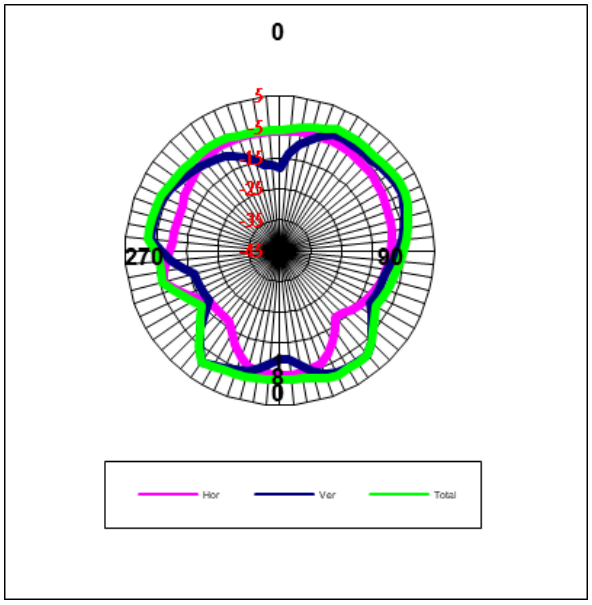
840.00 MHz		
Horizontal Peak (dBi)	-6.01	255deg
Vertical Peak(dBi)	-2.01	120deg



Radiation characteristic in 2500MHz ~ 2570MHz (CA/EU/ANZ UE-UTRA, Band 7, n7)

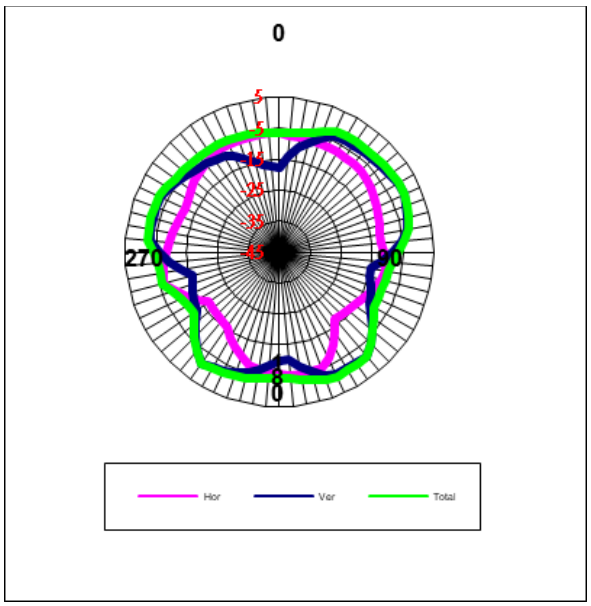
Main antenna: 2500.00 MHz

2500.00 MHz		
Horizontal Peak (dBi)	-4.36	175deg
Vertical Peak(dBi)	-0.95	140deg



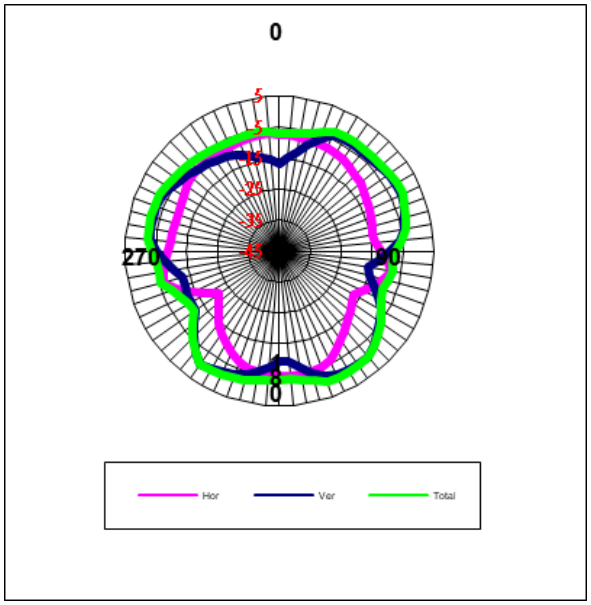
Main antenna: 2535.00 MHz

2535.00 MHz		
Horizontal Peak (dBi)	-5.05	175deg
Vertical Peak(dBi)	-0.55	65deg



Main antenna: 2570.00 MHz

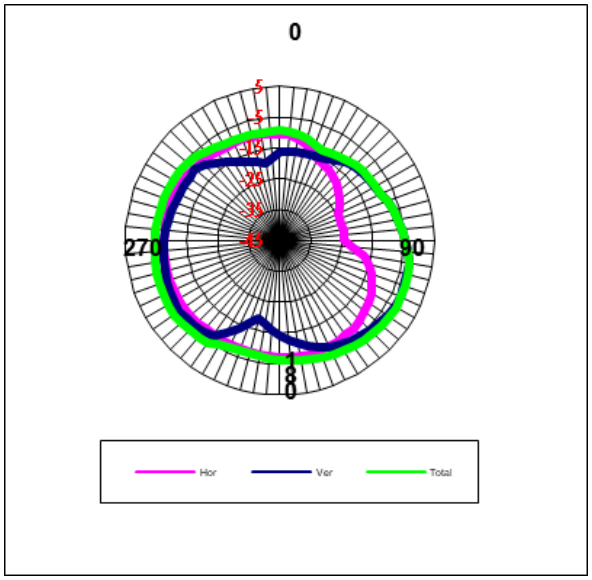
2570.00 MHz		
Horizontal Peak (dBi)	-4.58	175deg
Vertical Peak(dBi)	-0.24	65deg



Radiation characteristic in 880MHz ~ 915MHz (EU/ANZ/JP: Band 8, n8)

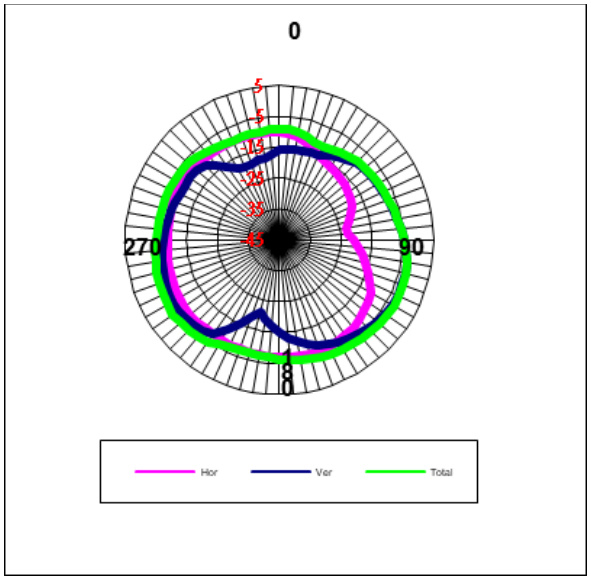
Main antenna: 880.00 MHz

880.00 MHz		
Horizontal Peak (dBi)	-6.82	175deg
Vertical Peak(dBi)	-2.05	120deg



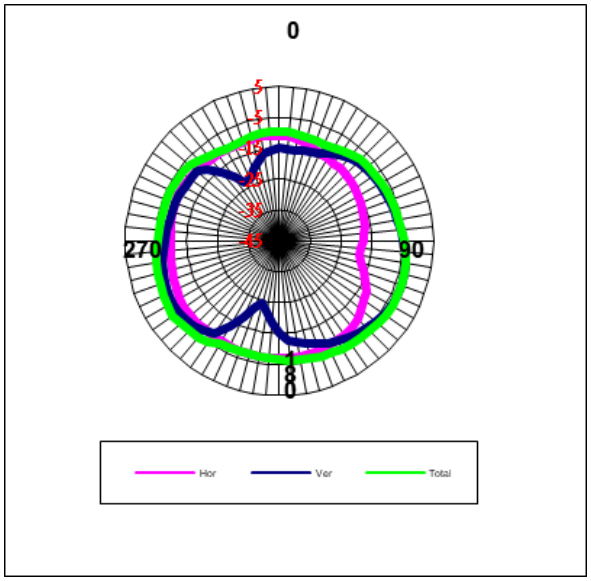
Main antenna: 897.50 MHz

897.50 MHz		
Horizontal Peak (dBi)	-6.84	160deg
Vertical Peak(dBi)	-2.49	120deg



Main antenna: 915.00 MHz

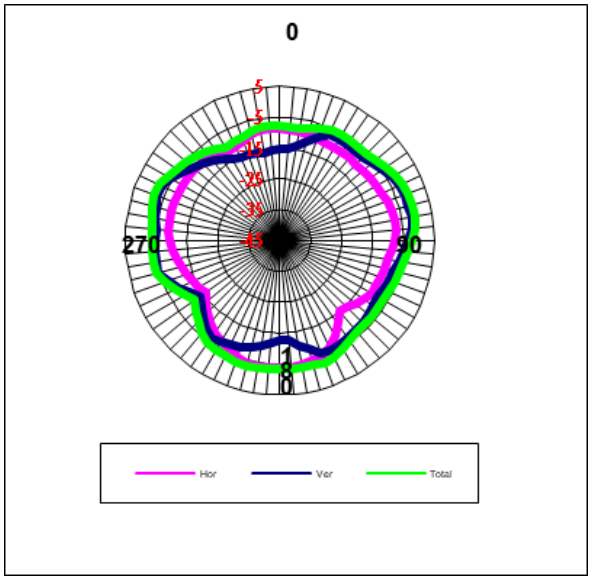
915.00 MHz		
Horizontal Peak (dBi)	-7.07	175deg
Vertical Peak(dBi)	-3.01	120deg



Radiation characteristic in 1844.9MHz ~ 1879.9MHz (Japan, Band 9)

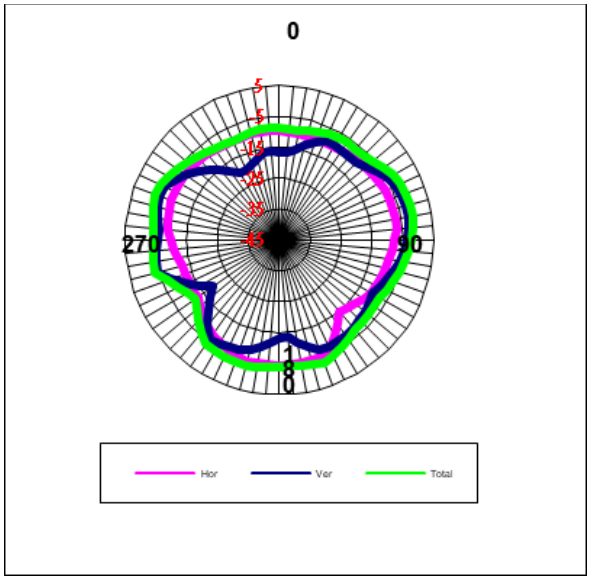
Main antenna: 1844.90 MHz

1844.90 MHz		
Horizontal Peak (dBi)	-3.61	180deg
Vertical Peak(dBi)	-1.68	80deg



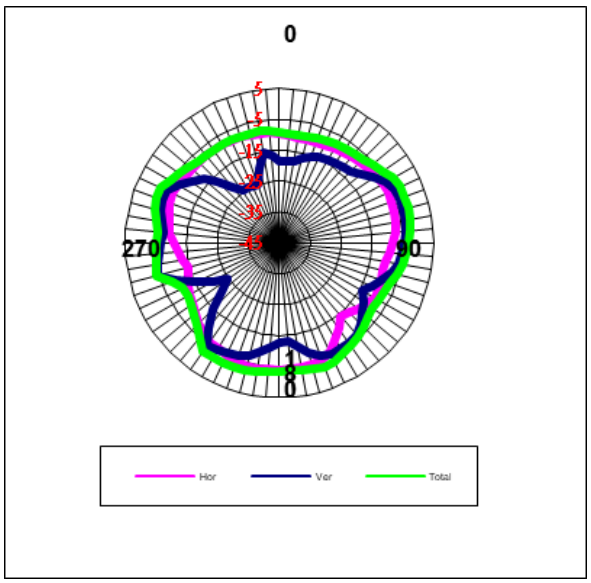
Main antenna: 1862.50 MHz

1862.50 MHz		
Horizontal Peak (dBi)	-4.33	195deg
Vertical Peak(dBi)	-2.54	80deg



Main antenna: 1879.90 MHz

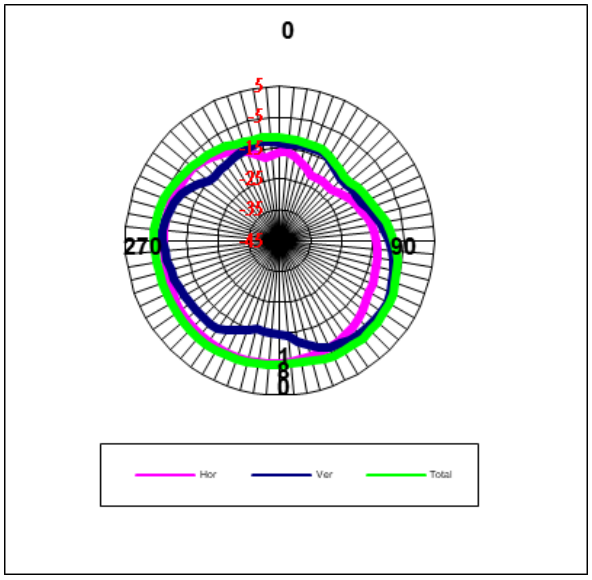
1879.90 MHz		
Horizontal Peak (dBi)	-3.77	195deg
Vertical Peak(dBi)	-3.56	80deg



Radiation characteristic in 699MHz ~ 716MHz (FCC Part 27 UE-UTRA, Band 12, n12)

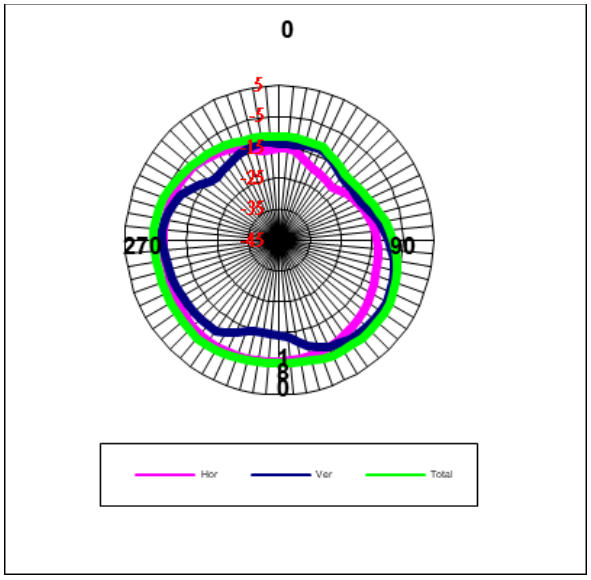
Main antenna: 699.00 MHz

699.00 MHz		
Horizontal Peak (dBi)	-4.72	200deg
Vertical Peak(dBi)	-4.96	120deg



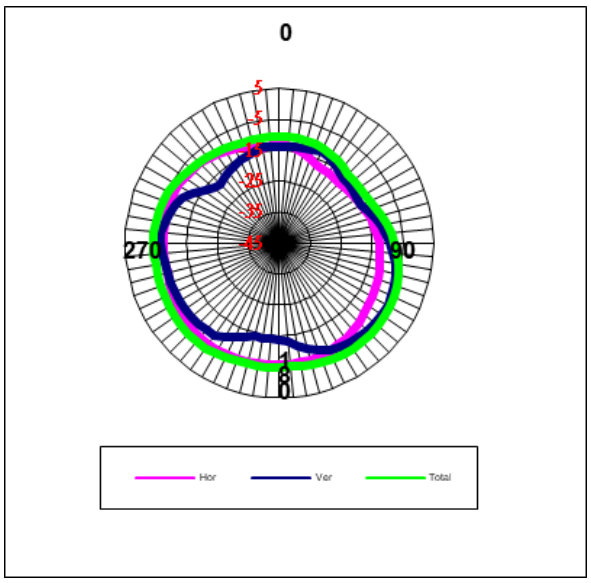
Main antenna: 707.50 MHz

707.50 MHz		
Horizontal Peak (dBi)	-5.03	215deg
Vertical Peak(dBi)	-4.72	120deg



Main antenna: 716.00 MHz

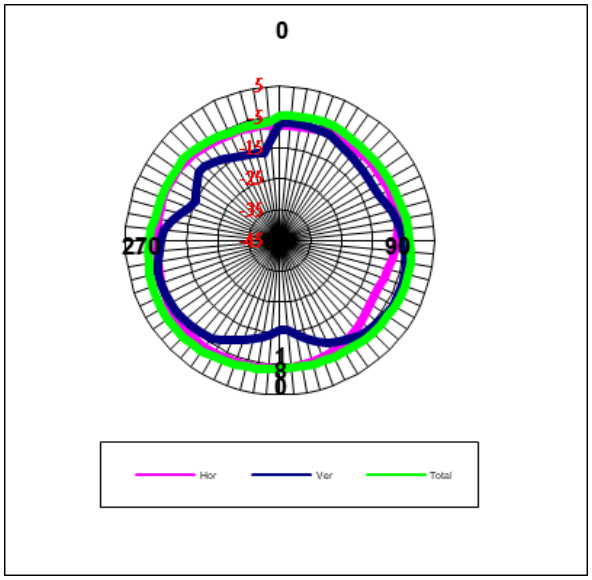
716.00 MHz		
Horizontal Peak (dBi)	-4.85	215deg
Vertical Peak(dBi)	-4.48	120deg



Radiation characteristic in 776MHz ~ 787MHz (FCC Part 27 UE-UTRA, Band 13)

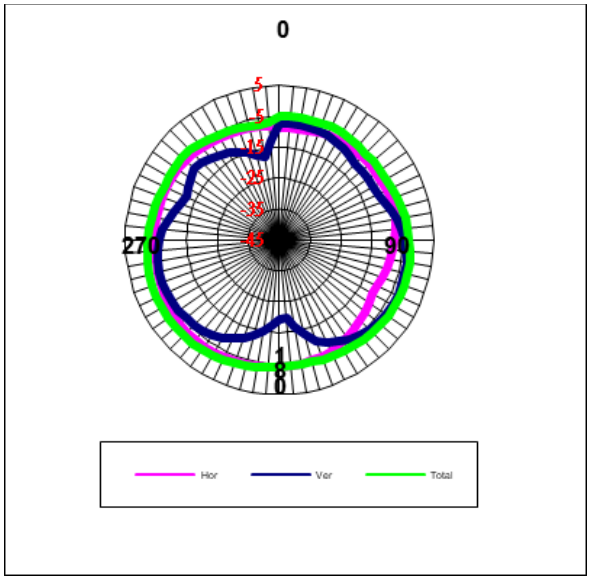
Main antenna: 777.00 MHz

777.00 MHz		
Horizontal Peak (dBi)	-2.81	215deg
Vertical Peak(dBi)	-2.76	120deg



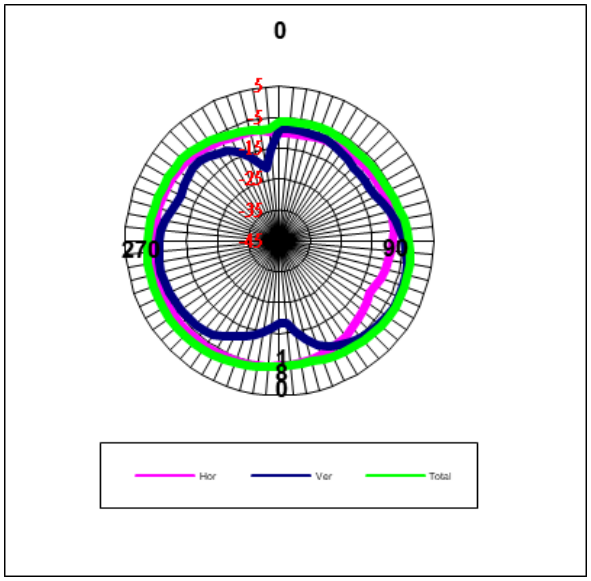
Main antenna: 782.00 MHz

782.00 MHz		
Horizontal Peak (dBi)	-2.81	215deg
Vertical Peak(dBi)	-2.57	120deg



Main antenna: 787.00 MHz

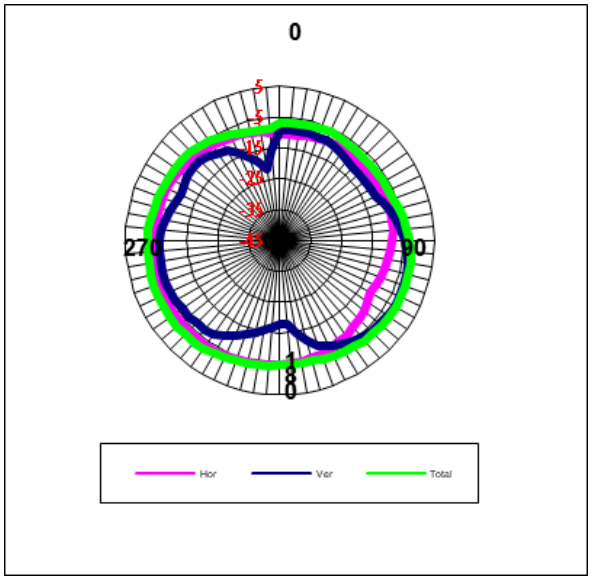
787.00 MHz		
Horizontal Peak (dBi)	-3.13	235deg
Vertical Peak(dBi)	-2.3	120deg



Radiation characteristic in 788MHz ~ 798MHz (FCC Part 90 UE-UTRA, Band 14)

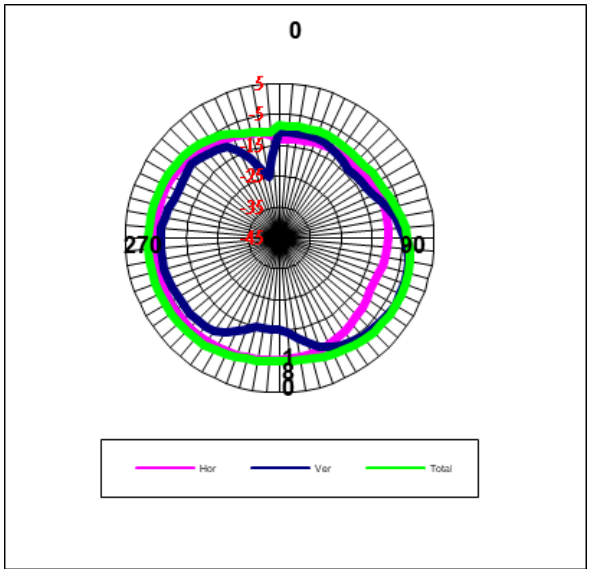
Main antenna: 788.00 MHz

788.00 MHz		
Horizontal Peak (dBi)	-3.27	235deg
Vertical Peak(dBi)	-2.28	120deg



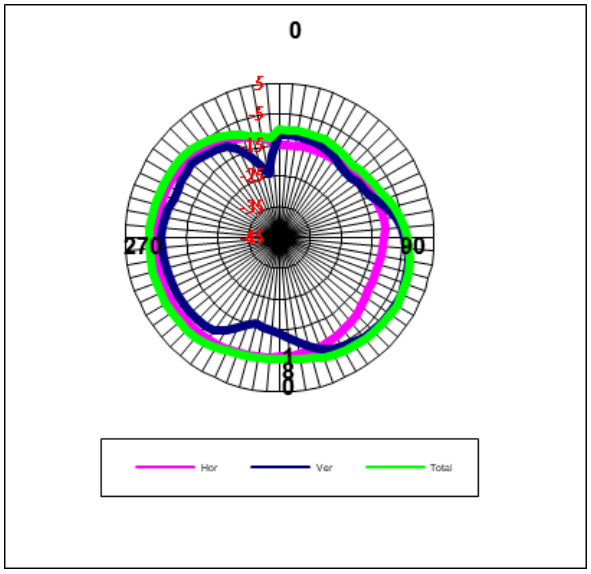
Main antenna: 793.00 MHz

793.00 MHz		
Horizontal Peak (dBi)	-3.8	235deg
Vertical Peak(dBi)	-1.81	120deg



Main antenna: 798.00 MHz

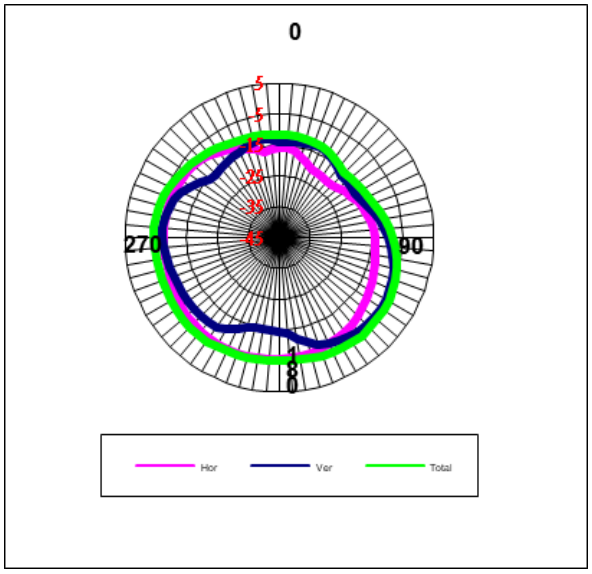
798.00 MHz		
Horizontal Peak (dBi)	-4.31	235deg
Vertical Peak(dBi)	-1.43	120deg



Radiation characteristic in 704MHz ~ 716MHz (FCC Part 27H UE-UTRA, Band 17)

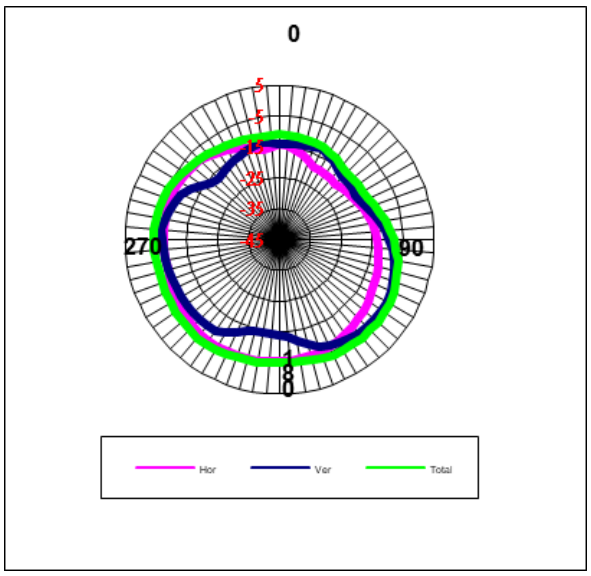
Main antenna: 704.00 MHz

704.00 MHz		
Horizontal Peak (dBi)	-5.08	200deg
Vertical Peak(dBi)	-4.9	120deg



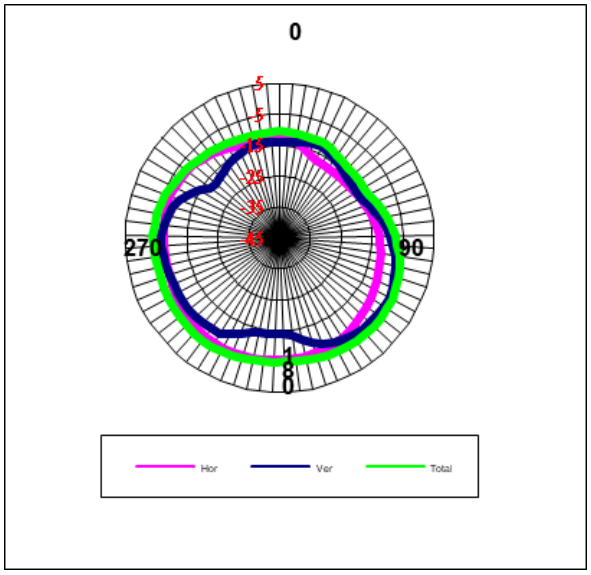
Main antenna: 710.00 MHz

710.00 MHz		
Horizontal Peak (dBi)	-4.94	215deg
Vertical Peak(dBi)	-4.63	120deg



Main antenna: 716.00 MHz

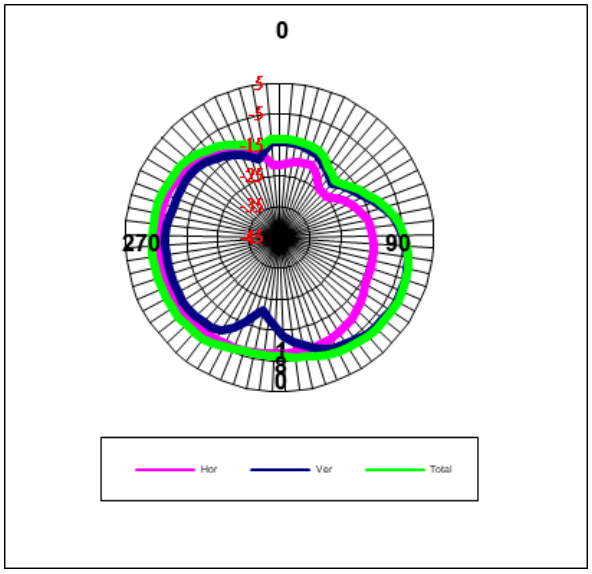
716.00 MHz		
Horizontal Peak (dBi)	-4.85	215deg
Vertical Peak(dBi)	-4.48	120deg



Radiation characteristic in 815MHz ~ 830MHz (Japan, Band 18)

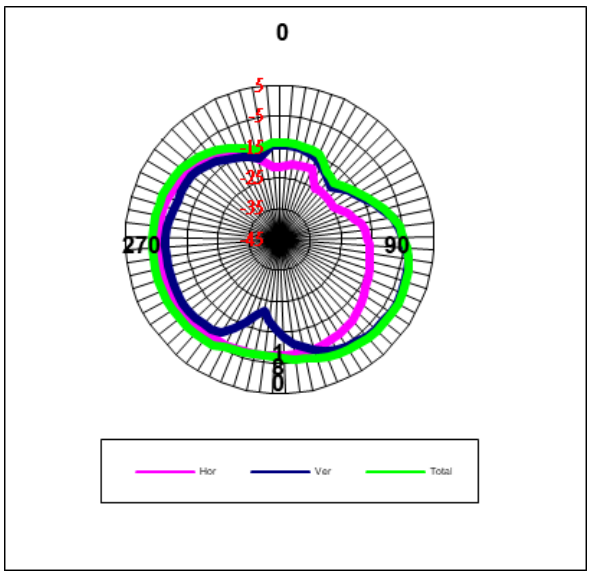
Main antenna: 815.00 MHz

815.00 MHz		
Horizontal Peak (dBi)	-5.37	255deg
Vertical Peak(dBi)	-1.68	120deg



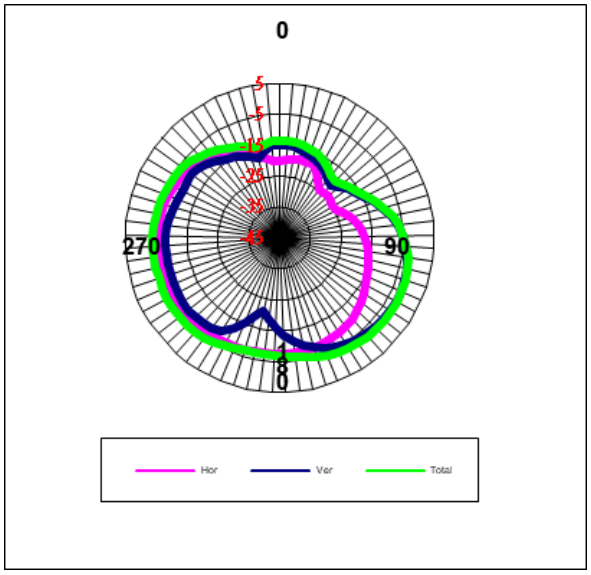
Main antenna: 822.50 MHz

822.50 MHz		
Horizontal Peak (dBi)	-5.74	255deg
Vertical Peak(dBi)	-1.71	120deg



Main antenna: 830.00 MHz

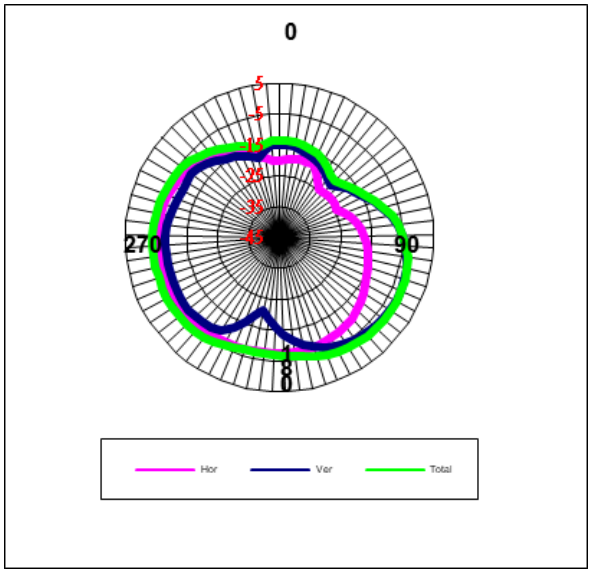
830.00 MHz		
Horizontal Peak (dBi)	-5.84	275deg
Vertical Peak(dBi)	-1.83	120deg



Radiation characteristic in 830MHz ~ 845MHz (Japan, Band 19)

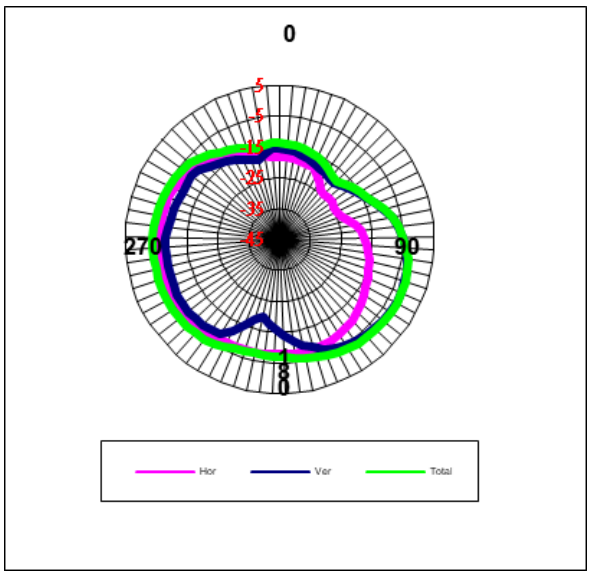
Main antenna: 830.00 MHz

830.00 MHz		
Horizontal Peak (dBi)	-5.84	275deg
Vertical Peak(dBi)	-1.83	120deg



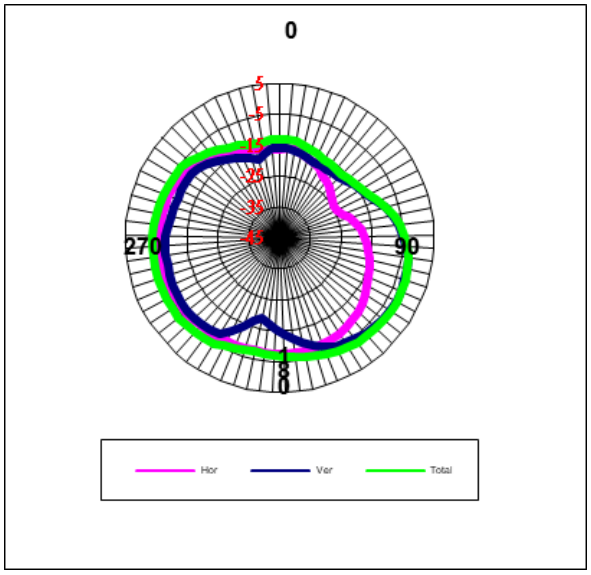
Main antenna: 837.50 MHz

837.50 MHz		
Horizontal Peak (dBi)	-6.01	255deg
Vertical Peak(dBi)	-2	120deg



Main antenna: 845.00 MHz

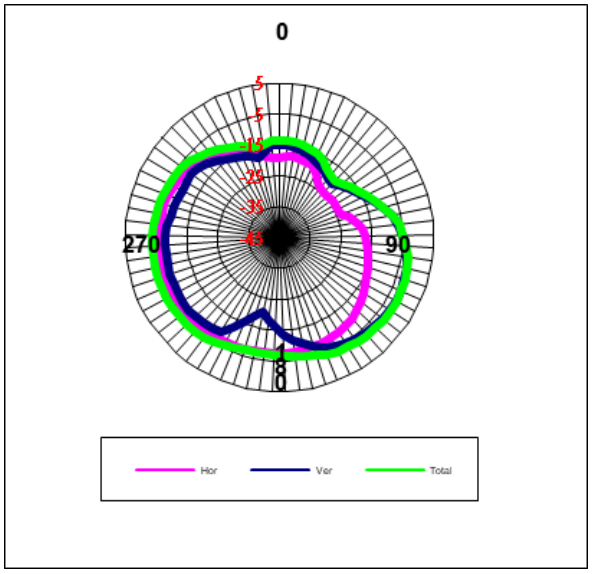
845.00 MHz		
Horizontal Peak (dBi)	-6.1	255deg
Vertical Peak(dBi)	-1.97	120deg



Radiation characteristic in 832MHz ~ 862MHz (EU UE-UTRA, Band 20, n20)

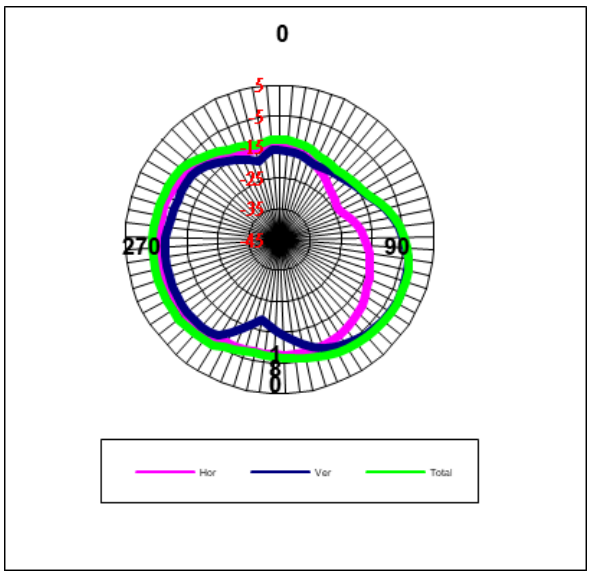
Main antenna: 832.00 MHz

832.00 MHz		
Horizontal Peak (dBi)	-5.92	255deg
Vertical Peak(dBi)	-1.91	120deg



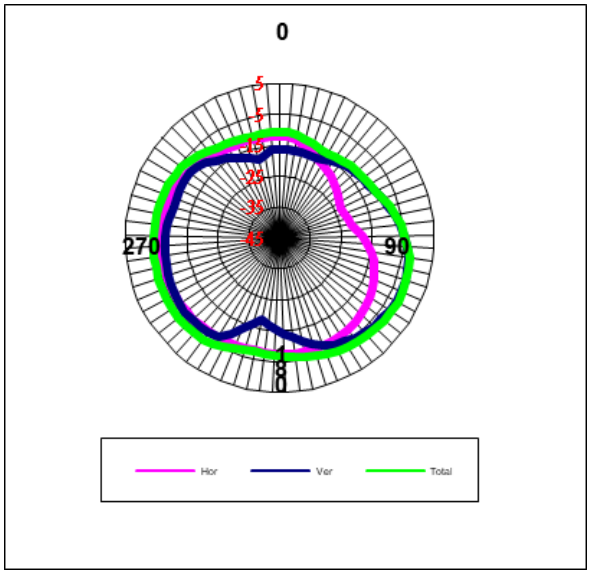
Main antenna: 847.00 MHz

847.00 MHz		
Horizontal Peak (dBi)	-6.04	275deg
Vertical Peak(dBi)	-1.93	120deg



Main antenna: 862.00 MHz

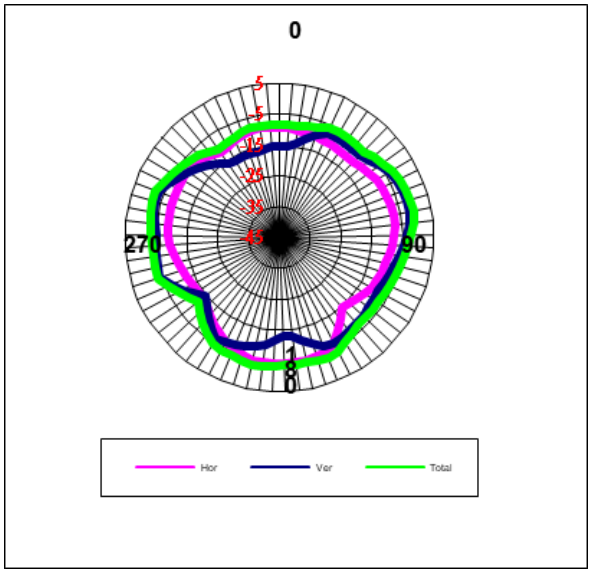
862.00 MHz		
Horizontal Peak (dBi)	-6.4	265deg
Vertical Peak(dBi)	-1.9	120deg



Radiation characteristic in 1850MHz ~ 1915MHz (FCC Part 24 UE-UTRA, Band 25)

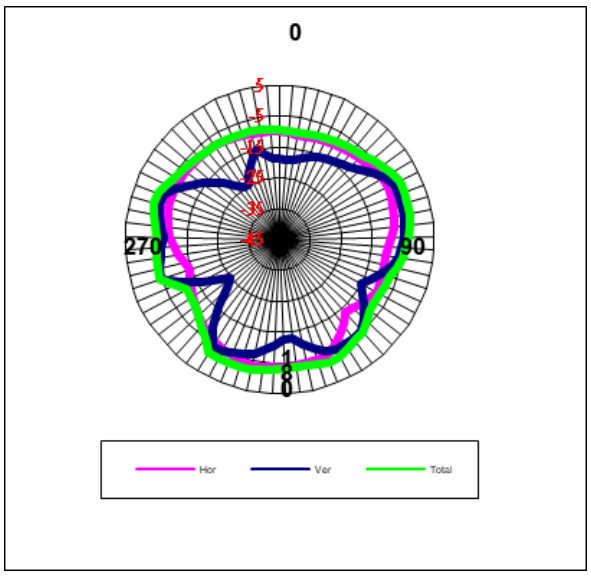
Main antenna: 1850.00 MHz

1850.00 MHz		
Horizontal Peak (dBi)	-4.03	180deg
Vertical Peak(dBi)	-1.89	80deg



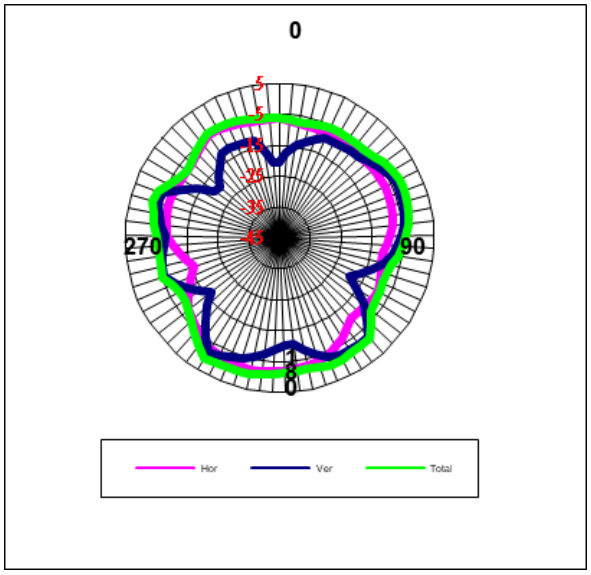
Main antenna: 1882.50 MHz

1882.50 MHz		
Horizontal Peak (dBi)	-3.44	195deg
Vertical Peak(dBi)	-3.76	65deg



Main antenna: 1915.00 MHz

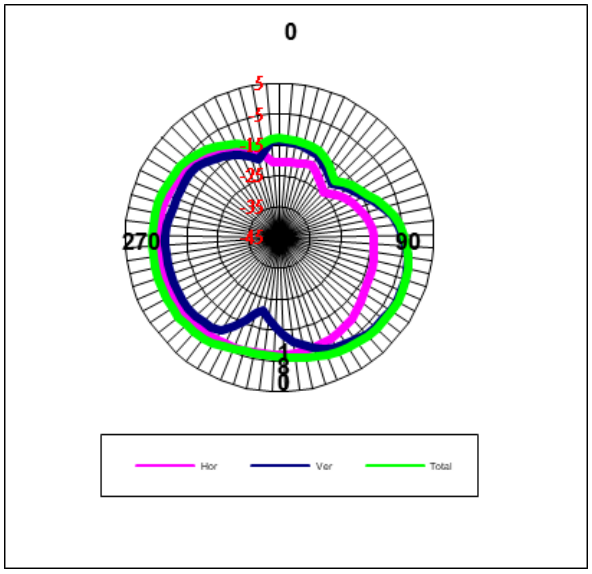
1915.00 MHz		
Horizontal Peak (dBi)	-1.47	195deg
Vertical Peak(dBi)	-1.47	215deg



Radiation characteristic in 814MHz ~ 849MHz (FCC Part 90, 22H UE-UTRA, Band 26)

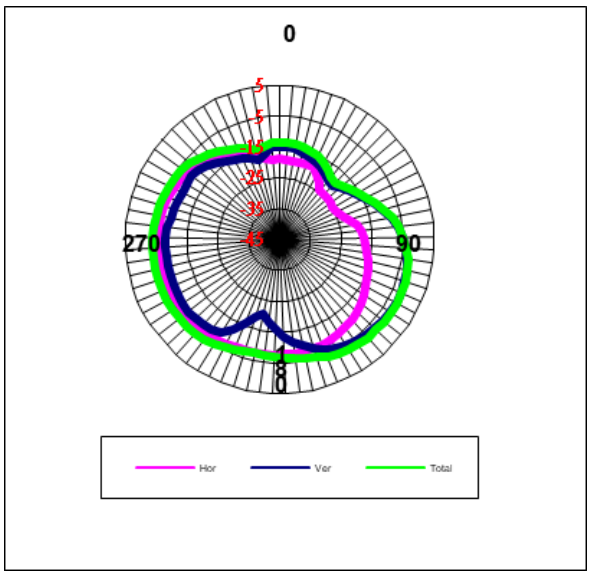
Main antenna: 814.00 MHz

814.00 MHz		
Horizontal Peak (dBi)	-5.43	235deg
Vertical Peak(dBi)	-1.68	120deg



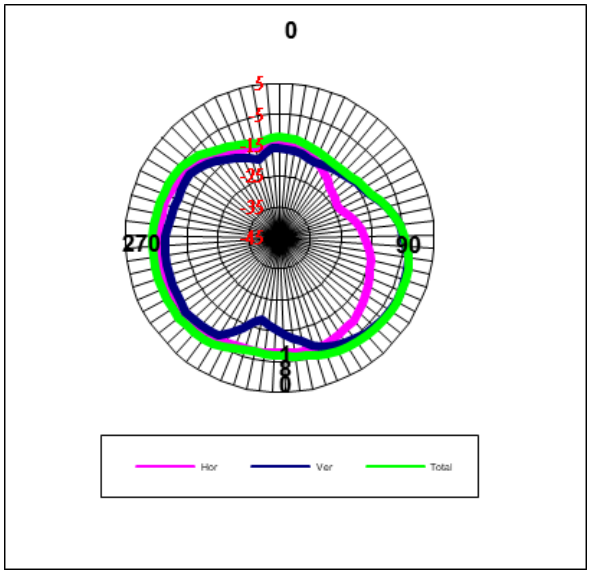
Main antenna: 831.50 MHz

831.50 MHz		
Horizontal Peak (dBi)	-5.86	275deg
Vertical Peak(dBi)	-1.88	120deg



Main antenna: 849.00 MHz

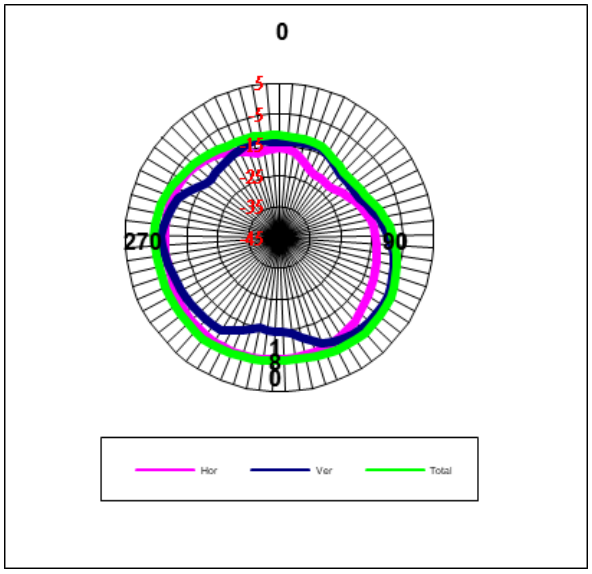
849.00 MHz		
Horizontal Peak (dBi)	-6.06	275deg
Vertical Peak(dBi)	-1.93	120deg



Radiation characteristic in 703MHz ~ 748MHz (EU/ANZ/Japan UE-UTRA, Band 28, 28)

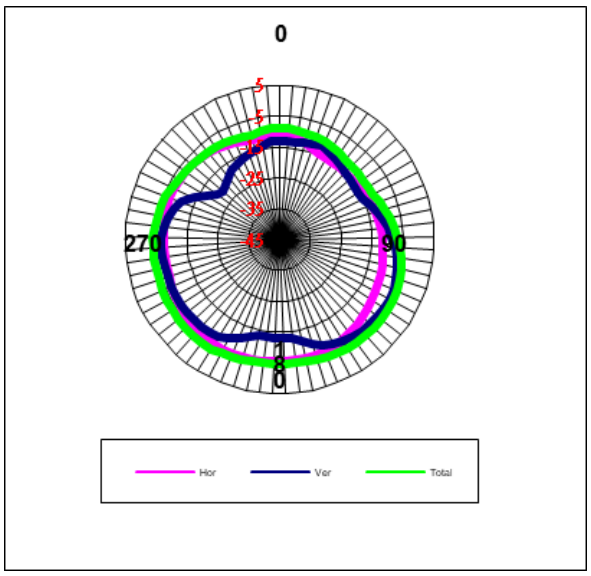
Main antenna: 703.00 MHz

703.00 MHz		
Horizontal Peak (dBi)	-5.12	200deg
Vertical Peak(dBi)	-4.91	120deg



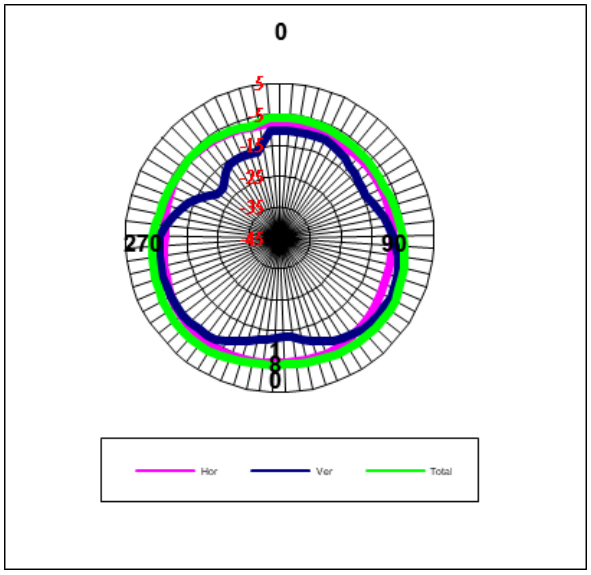
Main antenna: 725.50 MHz

725.50 MHz		
Horizontal Peak (dBi)	-5	215deg
Vertical Peak(dBi)	-4.21	120deg



Main antenna: 748.00 MHz

747.90 MHz		
Horizontal Peak (dBi)	-3.77	215deg
Vertical Peak(dBi)	-4	120deg

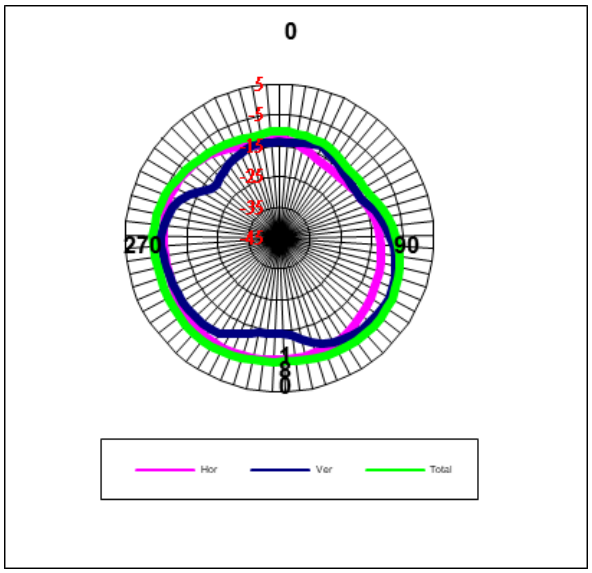


Radiation characteristic in 717MHz ~ 728MHz (FCC Part 27 UE-UTRA, Band 29)

*** Down link only**

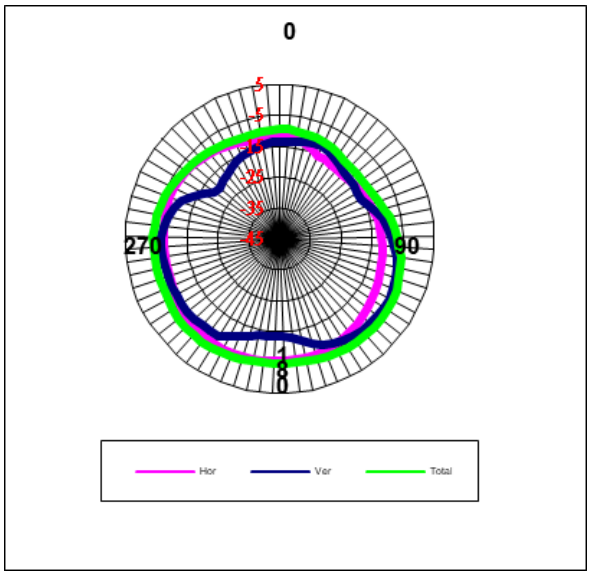
Main antenna: 717.00 MHz

717.00 MHz		
Horizontal Peak (dBi)	-4.99	215deg
Vertical Peak(dBi)	-4.48	120deg



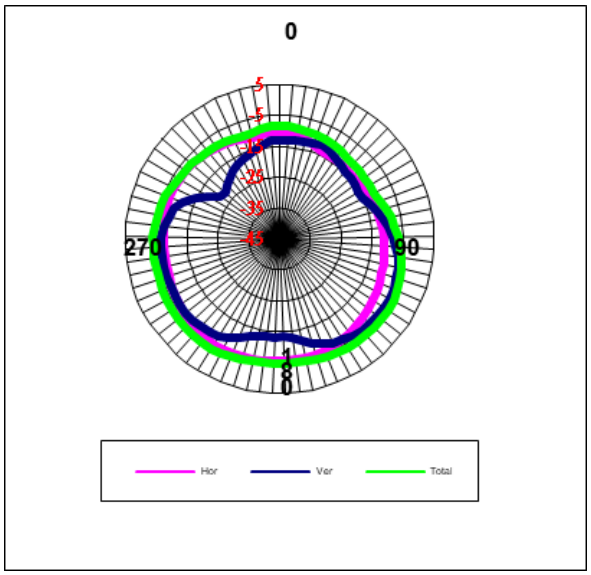
Main antenna: 722.50 MHz

722.50 MHz		
Horizontal Peak (dBi)	-5.02	215deg
Vertical Peak(dBi)	-4.27	120deg



Main antenna: 728.00 MHz

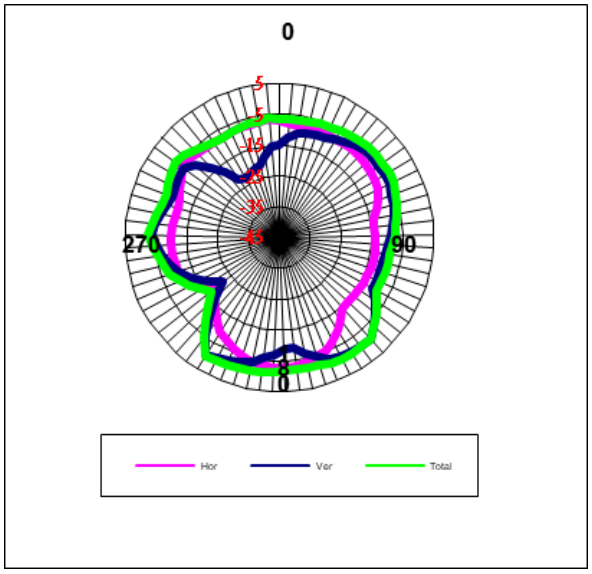
728.00 MHz		
Horizontal Peak (dBi)	-4.75	215deg
Vertical Peak(dBi)	-4.21	120deg



Radiation characteristic in 2305MHz ~ 2315MHz (FCC Part 27 UE-UTRA, Band 30)

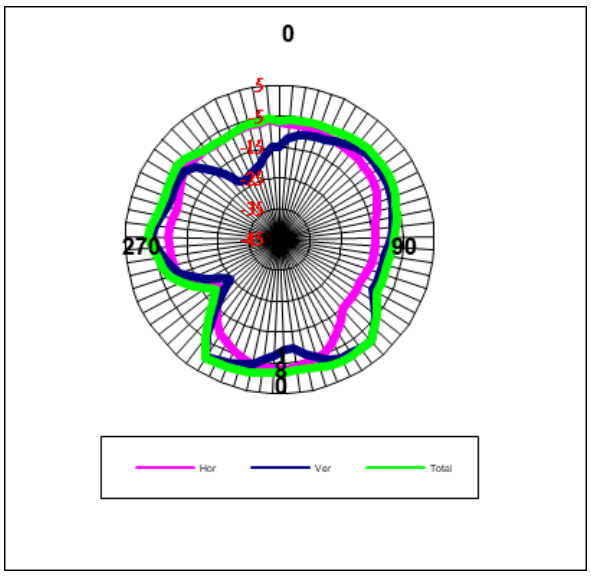
Main antenna: 2305.00 MHz

2305.00 MHz		
Horizontal Peak (dBi)	-2.59	180deg
Vertical Peak(dBi)	-0.3	215deg



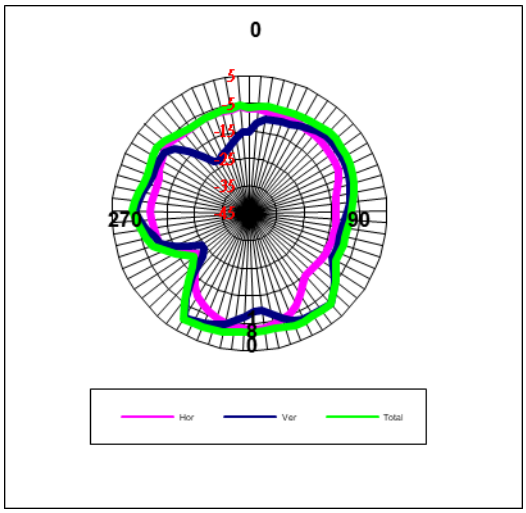
Main antenna: 2310.00 MHz

2310.00 MHz		
Horizontal Peak (dBi)	-2.96	180deg
Vertical Peak(dBi)	-0.28	215deg



Main antenna: 2315.00 MHz

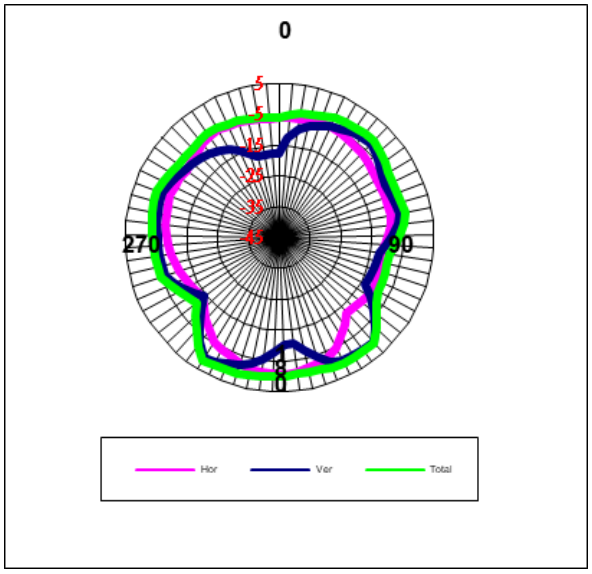
2315.00 MHz		
Horizontal Peak (dBi)	-2.81	180deg
Vertical Peak(dBi)	-0.38	215deg



Radiation characteristic in 2010MHz ~ 2025MHz (EU LTE, Band 34)

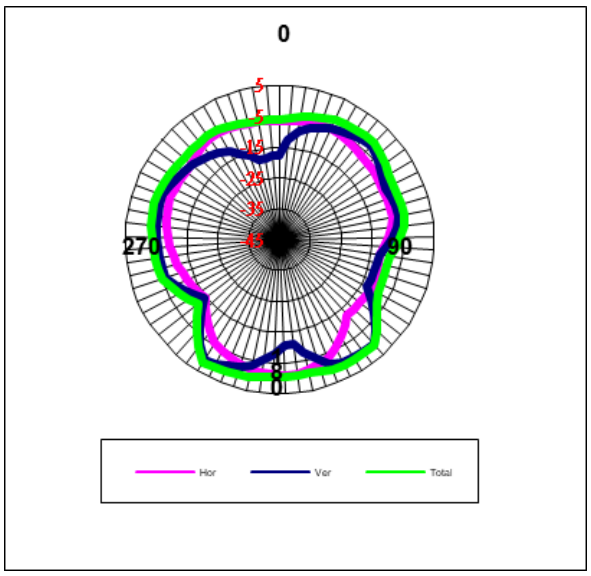
Main antenna: 2010.00 MHz

2010.00 MHz		
Horizontal Peak (dBi)	-0.65	180deg
Vertical Peak(dBi)	1.1	215deg



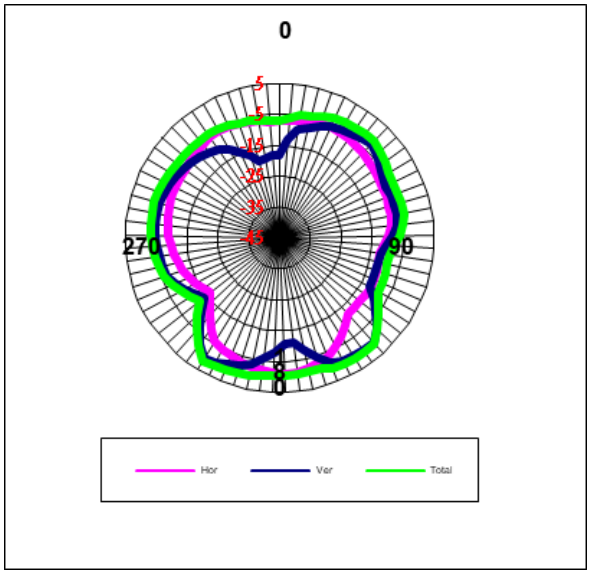
Main antenna: 2017.50 MHz

2017.50 MHz		
Horizontal Peak (dBi)	-0.88	180deg
Vertical Peak(dBi)	1.11	215deg



Main antenna: 2025.00 MHz

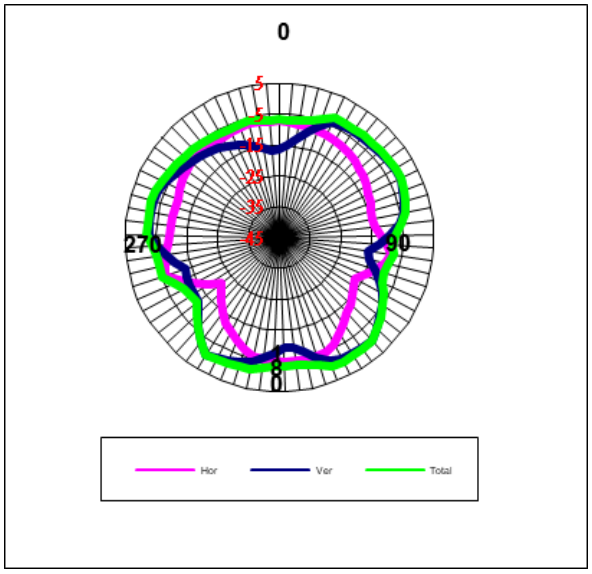
2025.00 MHz		
Horizontal Peak (dBi)	-1.06	180deg
Vertical Peak(dBi)	1.1	215deg



Radiation characteristic in 2570MHz ~ 2620MHz (EU/CN UE-UTRA, Band 38, n38)

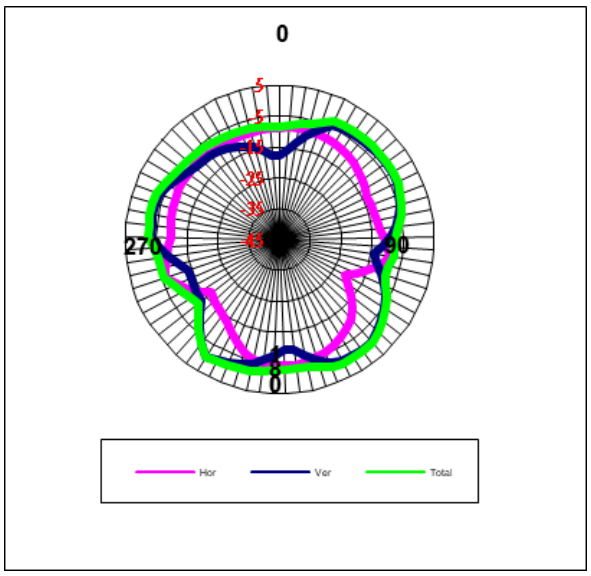
Main antenna: 2570.00 MHz

2570.00 MHz		
Horizontal Peak (dBi)	-4.58	175deg
Vertical Peak(dBi)	-0.24	140deg



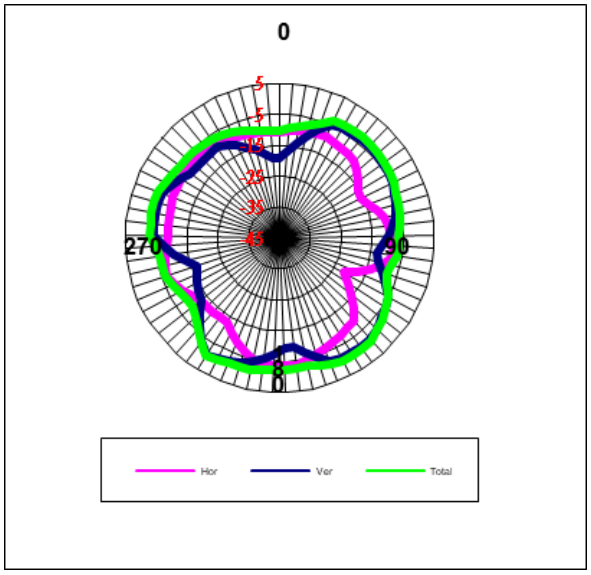
Main antenna: 2595.00 MHz

2595.00 MHz		
Horizontal Peak (dBi)	-4.03	180deg
Vertical Peak(dBi)	-0.29	215deg



Main antenna: 2620.00 MHz

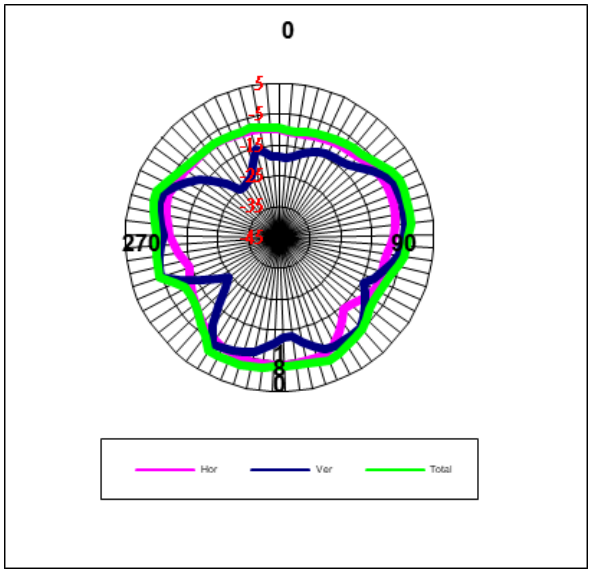
2620.00 MHz		
Horizontal Peak (dBi)	-3.49	180deg
Vertical Peak(dBi)	-0.37	215deg



Radiation characteristic in 1880MHz ~ 1920MHz (CN TD-SCDMA, Band 39)

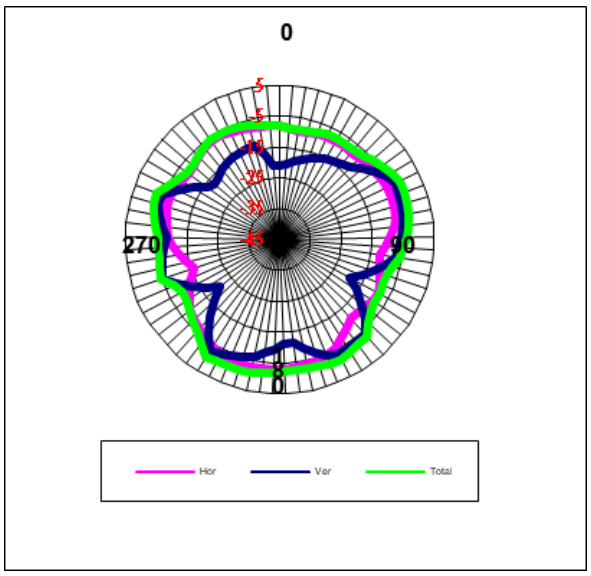
Main antenna: 1880.00 MHz

1880.00 MHz		
Horizontal Peak (dBi)	-3.64	195deg
Vertical Peak(dBi)	-3.64	80deg



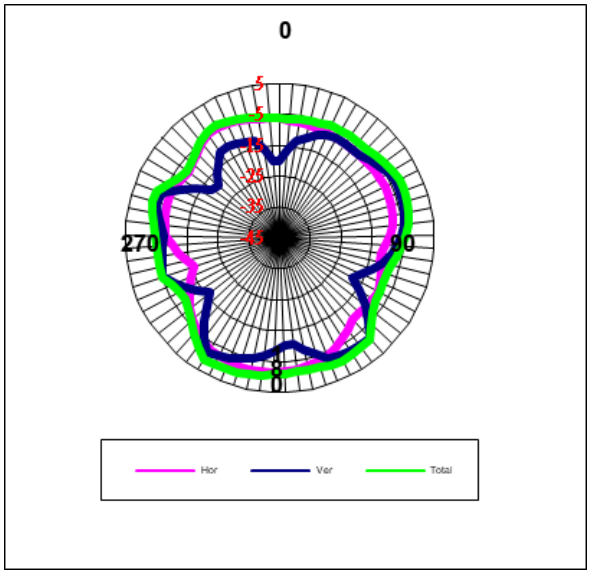
Main antenna: 1900.00 MHz

1900.00 MHz		
Horizontal Peak (dBi)	-2.58	195deg
Vertical Peak(dBi)	-2.57	215deg



Main antenna: 1920.00 MHz

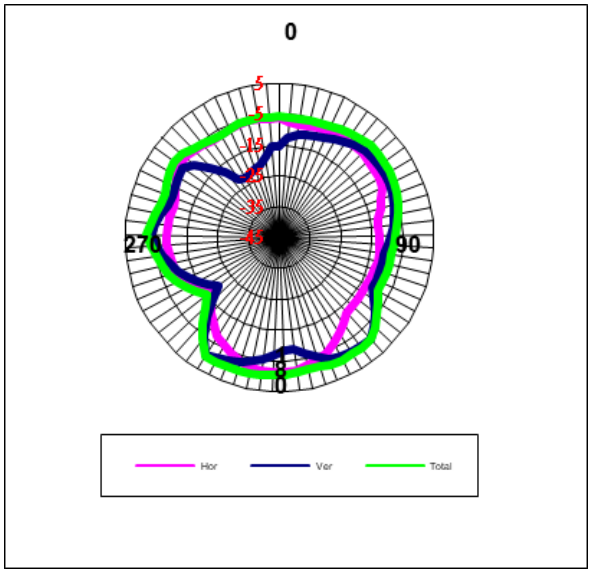
1920.00 MHz		
Horizontal Peak (dBi)	-1.17	195deg
Vertical Peak(dBi)	-1.12	215deg



Radiation characteristic in 2300MHz ~ 2400MHz (EU/ANZ/CN UE-UTRA, Band 40)

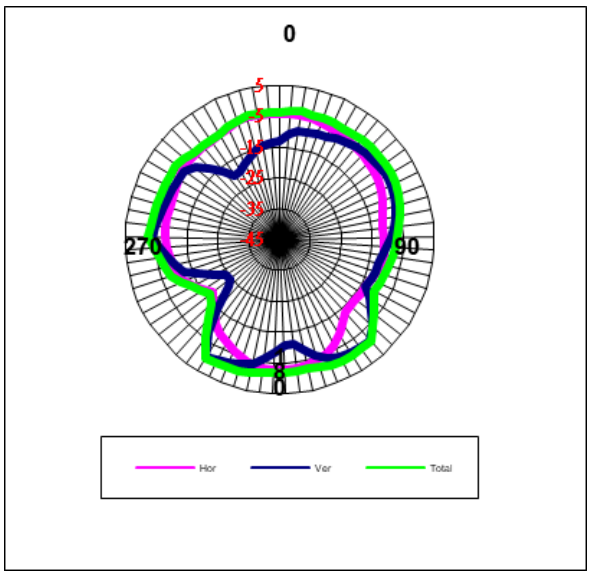
Main antenna: 2300.00 MHz

2300.00 MHz		
Horizontal Peak (dBi)	-1.38	180deg
Vertical Peak(dBi)	-0.25	215deg



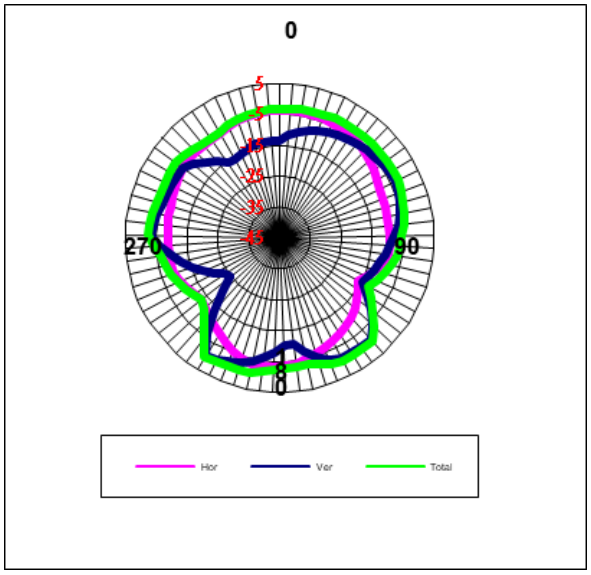
Main antenna: 2350.00 MHz

2350.00 MHz		
Horizontal Peak (dBi)	-2.6	180deg
Vertical Peak(dBi)	-0.21	215deg



Main antenna: 2400.00 MHz

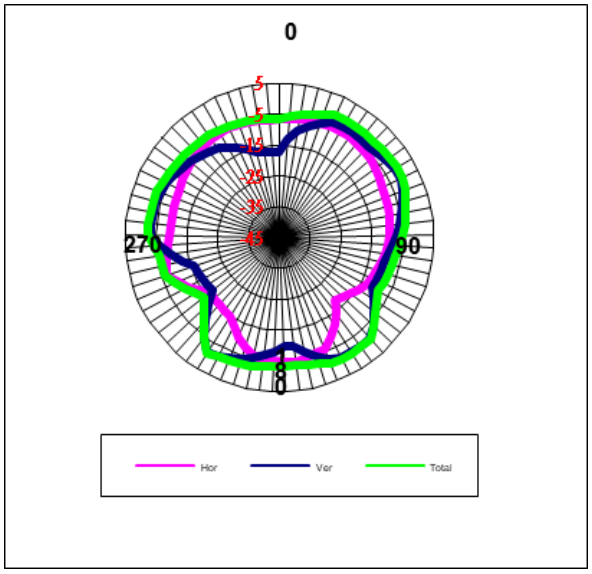
2400.00 MHz		
Horizontal Peak (dBi)	-3.11	195deg
Vertical Peak(dBi)	0.05	215deg



Radiation characteristic in 2496MHz ~ 2690MHz (FCC Part 27 UE-UTRA, Band 41, n41)

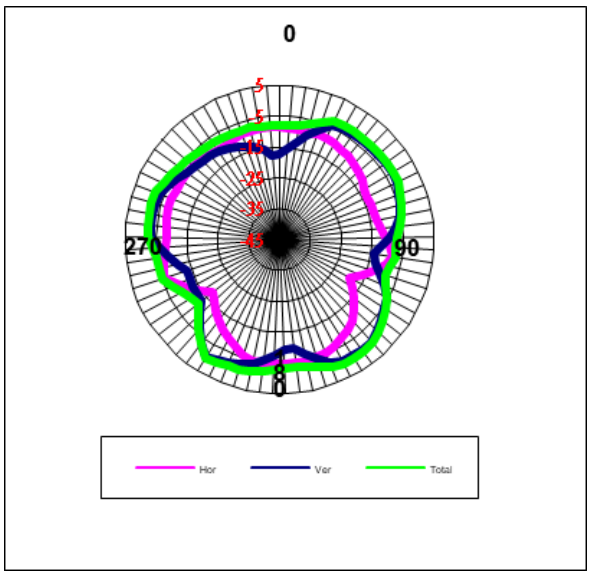
Main antenna: 2496.00 MHz

2496.00 MHz		
Horizontal Peak (dBi)	-4.37	175deg
Vertical Peak(dBi)	-1.02	215deg



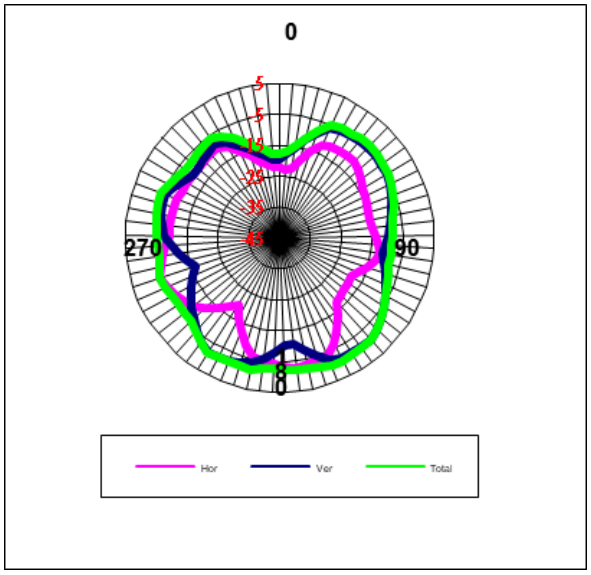
Main antenna: 2593.00 MHz

2593.00 MHz		
Horizontal Peak (dBi)	-4.51	195deg
Vertical Peak(dBi)	-0.14	215deg



Main antenna: 2690.00 MHz

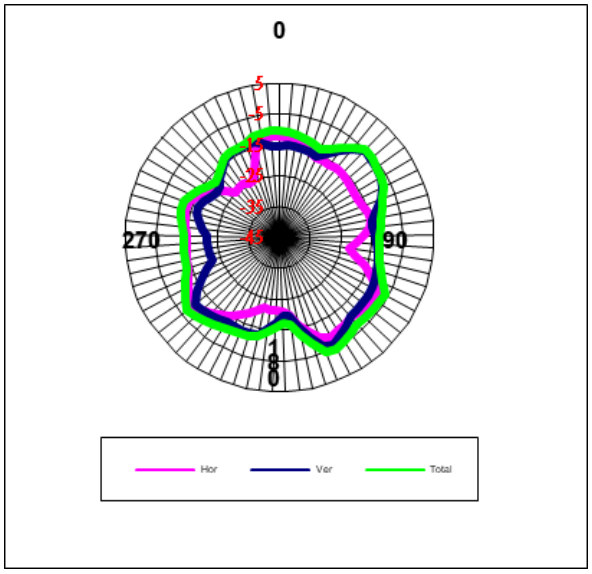
2690.00 MHz		
Horizontal Peak (dBi)	-2.66	175deg
Vertical Peak(dBi)	-0.64	140deg



Radiation characteristic in 3400MHz ~ 3600MHz (FCC Part 96 LTE Band 42)

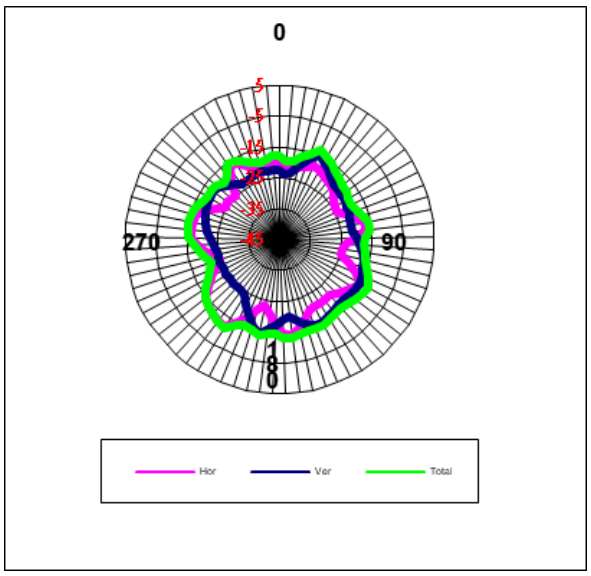
Main antenna: 3400.00 MHz

3400.00 MHz		
Horizontal Peak (dBi)	-7.93	120deg
Vertical Peak(dBi)	-5.42	45deg



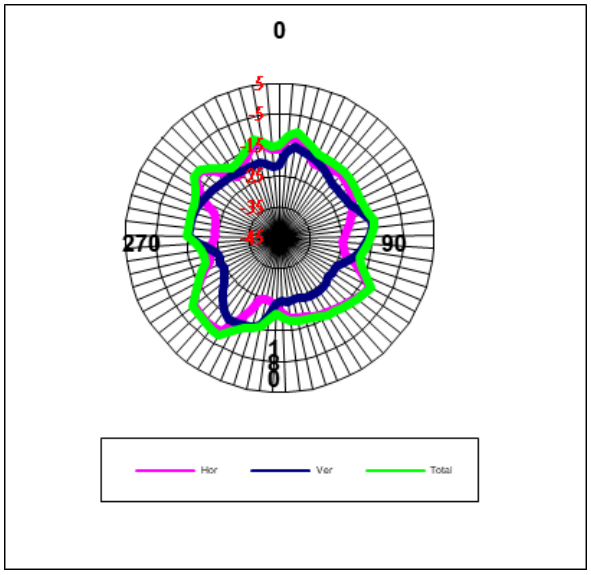
Main antenna: 3500.00 MHz

3500.00 MHz		
Horizontal Peak (dBi)	-11.6	215deg
Vertical Peak(dBi)	-13.84	195deg



Main antenna: 3600.00 MHz

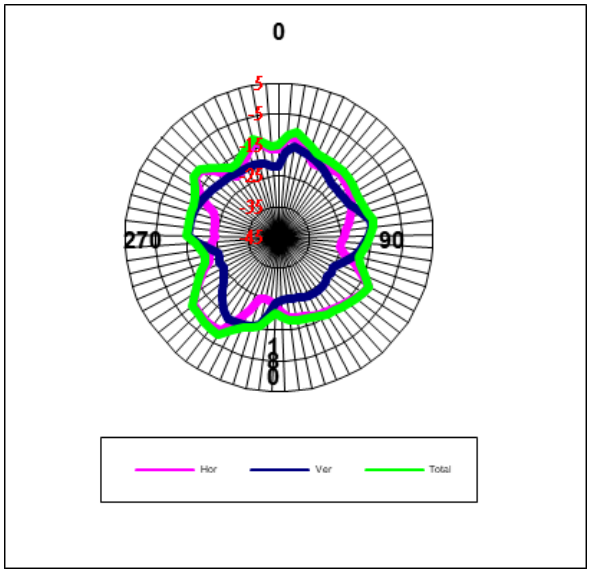
3600.00 MHz		
Horizontal Peak (dBi)	-9.08	220deg
Vertical Peak(dBi)	-13.68	215deg



Radiation characteristic in 3600MHz ~ 3800MHz (LTE Band 43)

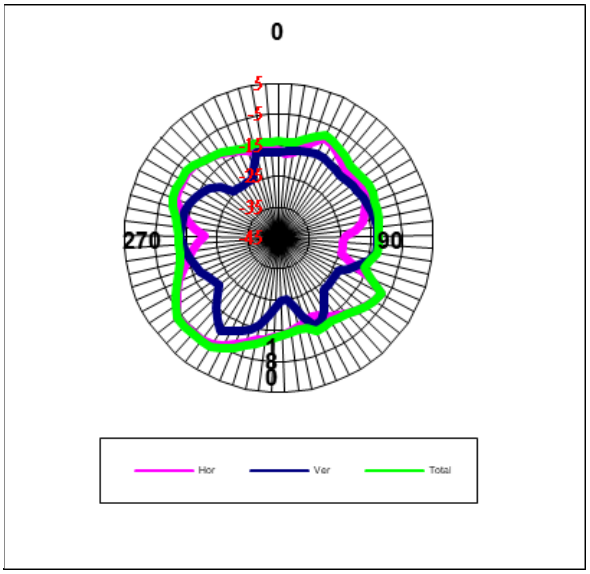
Main antenna: 3600.00 MHz

3600.00 MHz		
Horizontal Peak (dBi)	-9.08	220deg
Vertical Peak(dBi)	-13.68	215deg



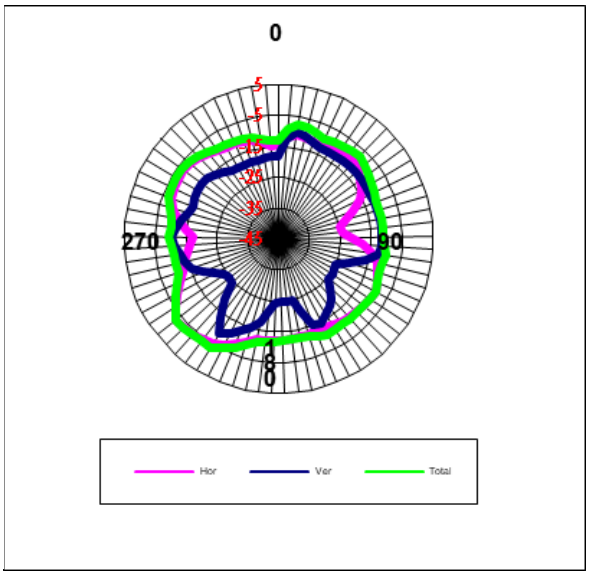
Main antenna: 3700.00 MHz

3700.00 MHz		
Horizontal Peak (dBi)	-3.34	235deg
Vertical Peak(dBi)	-9.39	215deg



Main antenna: 3800.00 MHz

3800.00 MHz		
Horizontal Peak (dBi)	-2.48	235deg
Vertical Peak(dBi)	-8.91	215deg

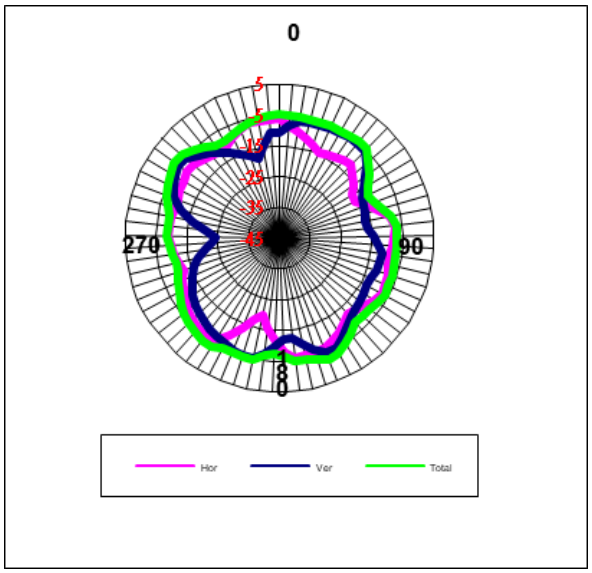


Radiation characteristic in 5150MHz ~ 5925MHz (FCC Part 15, 90, 95 LTE Band 46)

*** TD Unlicensed, LAA RCV only**

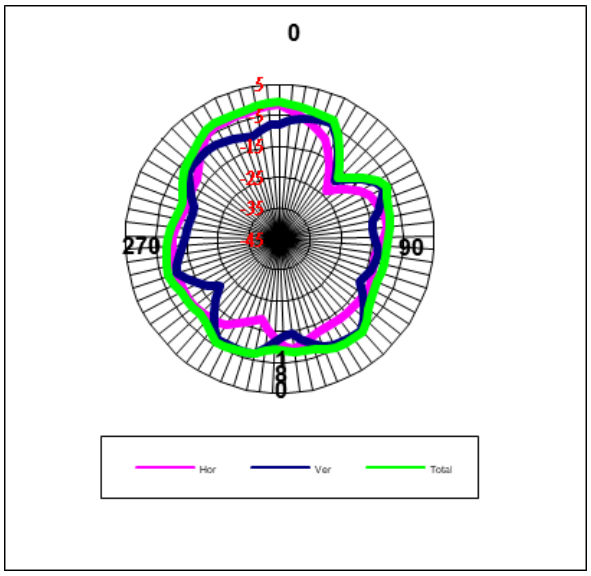
Main antenna: 5150.00 MHz

5150.00 MHz		
Horizontal Peak (dBi)	-5.48	215deg
Vertical Peak(dBi)	-4.45	310deg



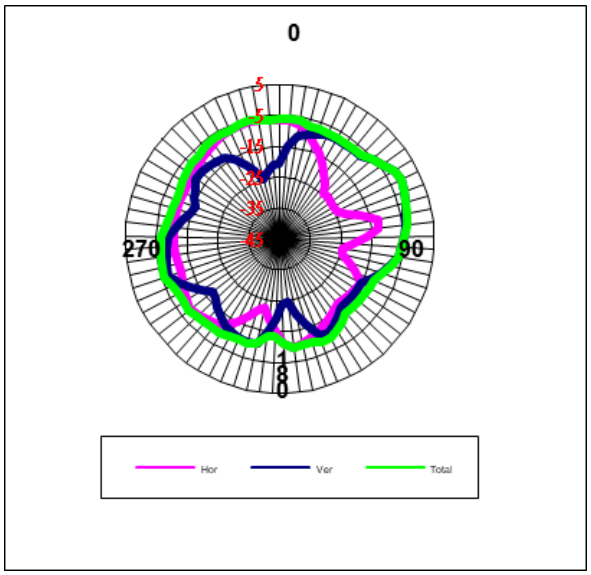
Main antenna: 5537.00 MHz

5537.00 MHz		
Horizontal Peak (dBi)	-1.66	0deg
Vertical Peak(dBi)	-3.73	25deg



Main antenna: 5925.00 MHz

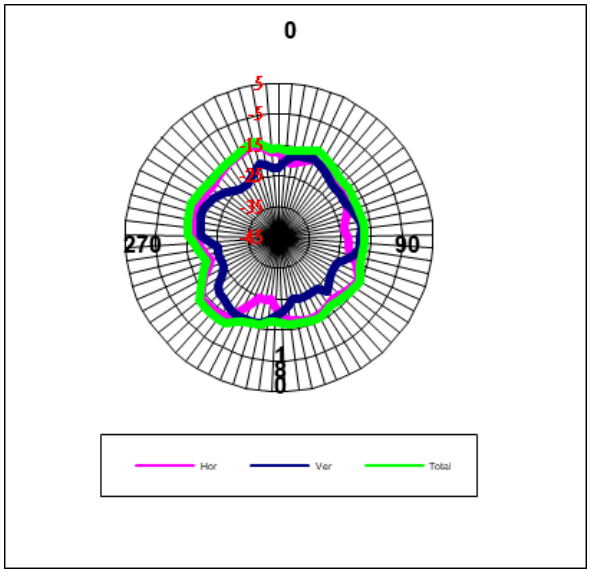
5925.00 MHz		
Horizontal Peak (dBi)	-5.53	350deg
Vertical Peak(dBi)	-1.02	65deg



Radiation characteristic in 5150MHz ~ 5925MHz (FCC Part 96, LTE Band 48)

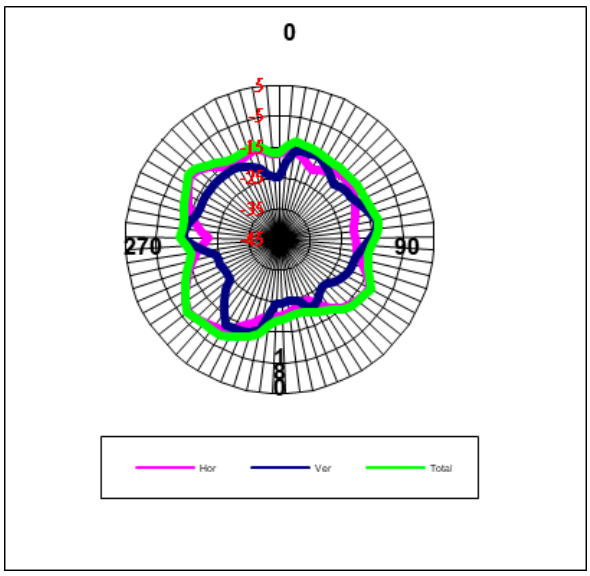
Main antenna: 3550.00 MHz

3550.00 MHz		
Horizontal Peak (dBi)	-13.03	235deg
Vertical Peak(dBi)	-16.44	200deg



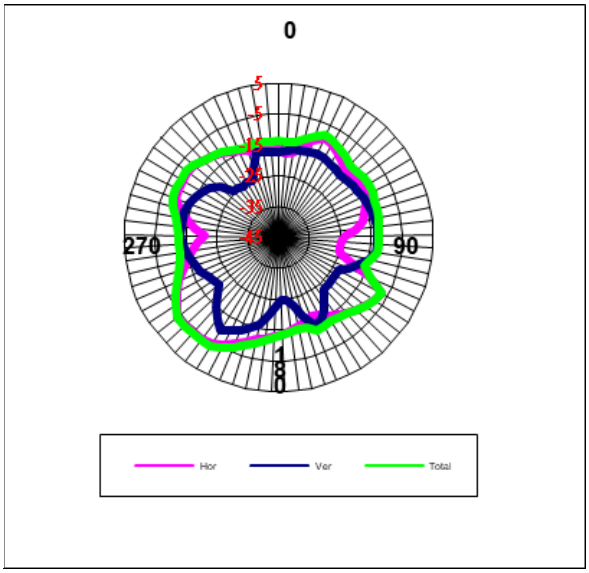
Main antenna: 3625.00 MHz

3625.00 MHz		
Horizontal Peak (dBi)	-7.18	235deg
Vertical Peak(dBi)	-12.17	215deg



Main antenna: 3700.00 MHz

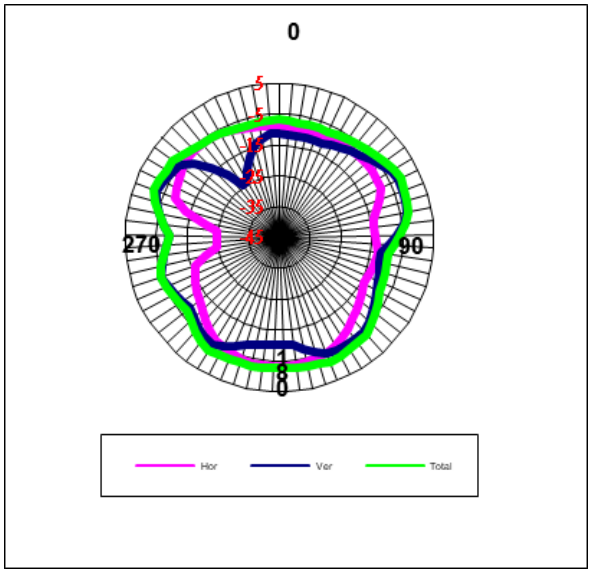
3700.00 MHz		
Horizontal Peak (dBi)	-3.34	235deg
Vertical Peak(dBi)	-9.39	215deg



Radiation characteristic in 1710MHz ~ 1780MHz (FCC Part 27 LTE, Band 66, n66)

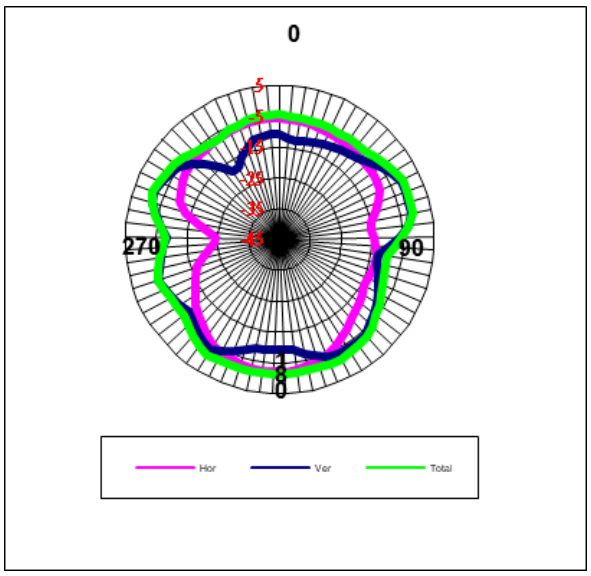
Main antenna: 1710.00 MHz

1710.00 MHz		
Horizontal Peak (dBi)	-3.38	195deg
Vertical Peak(dBi)	-2.17	65deg



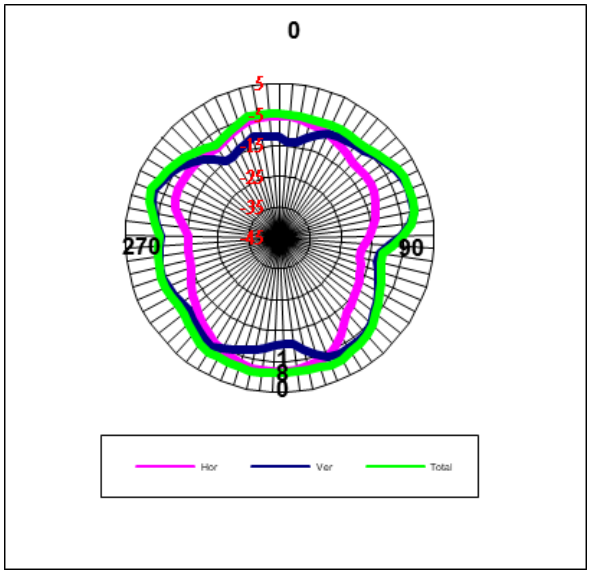
Main antenna: 1745.00 MHz

1745.00 MHz		
Horizontal Peak (dBi)	-2.03	180deg
Vertical Peak(dBi)	-1.36	80deg



Main antenna: 1780.00 MHz

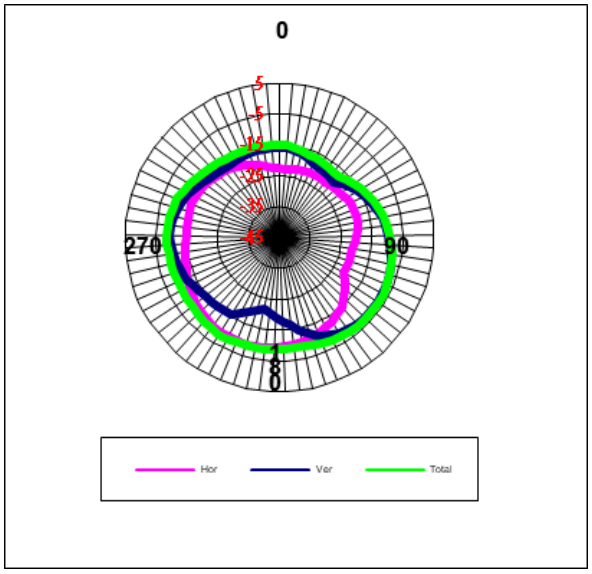
1780.00 MHz		
Horizontal Peak (dBi)	-1.86	180deg
Vertical Peak(dBi)	-0.47	65deg



Radiation characteristic in 663MHz ~ 698MHz (FCC Part 24, 27 LTE, Band 71, n71)

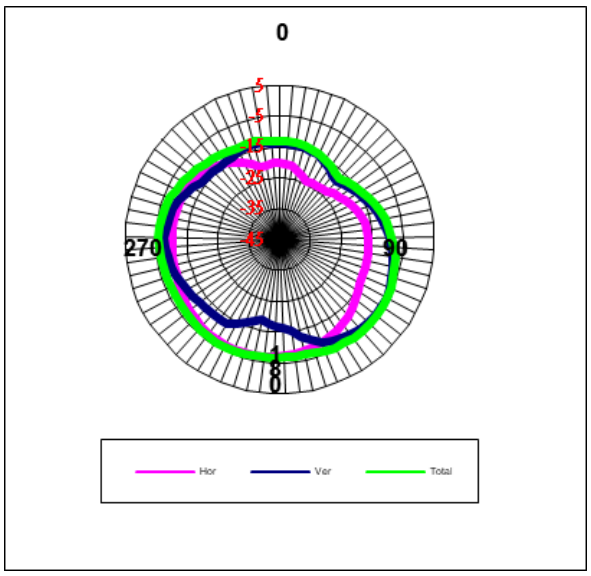
Main antenna: 663.00 MHz

663.00 MHz		
Horizontal Peak (dBi)	-8.74	200deg
Vertical Peak(dBi)	-6.82	120deg



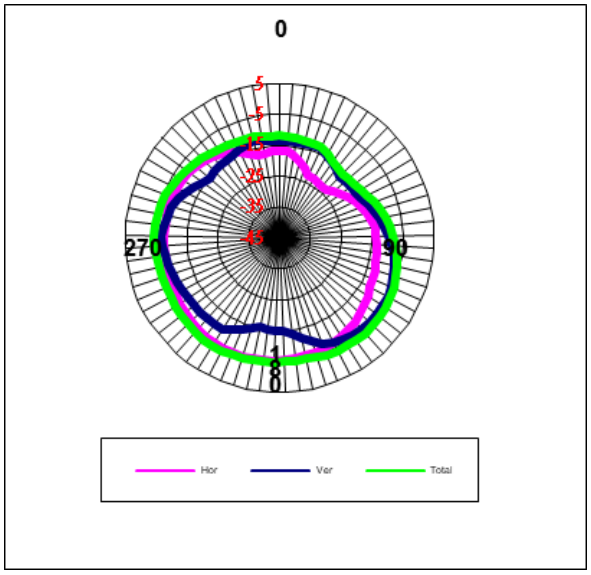
Main antenna: 680.50 MHz

680.50 MHz		
Horizontal Peak (dBi)	-6.64	200deg
Vertical Peak(dBi)	-5.65	120deg



Main antenna: 698.00 MHz

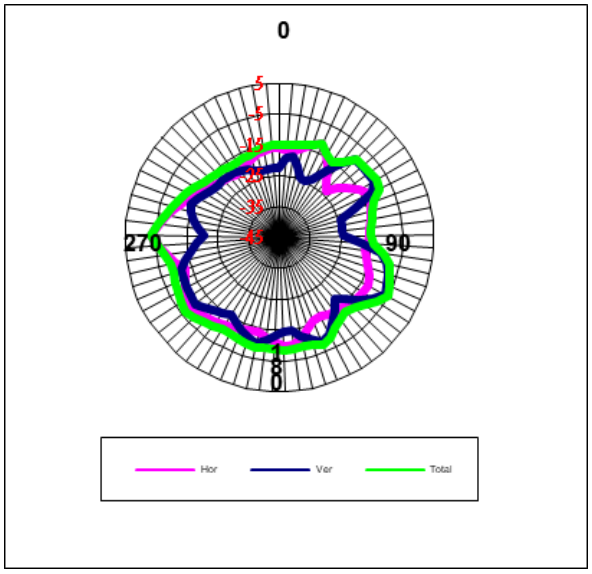
698.00 MHz		
Horizontal Peak (dBi)	-4.88	200deg
Vertical Peak(dBi)	-5.02	120deg



Radiation characteristic in 3300MHz ~ 4200MHz (FCC/EU/CN/JP 5G NR Band 77)

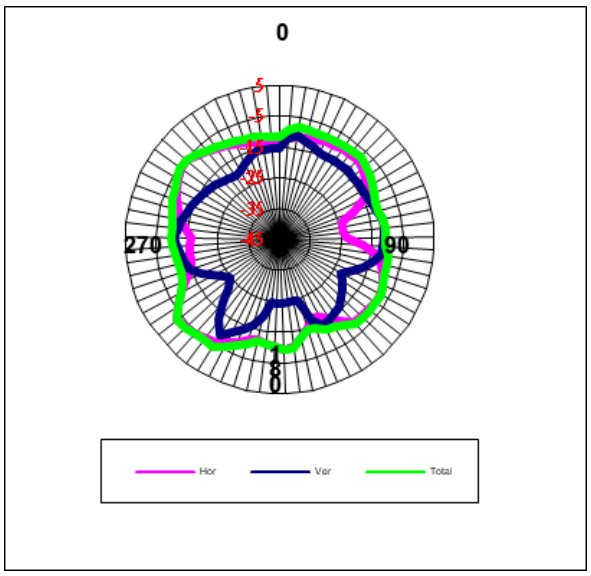
Main antenna: 3300.00 MHz

3300.00 MHz		
Horizontal Peak (dBi)	-3.48	275deg
Vertical Peak(dBi)	-5.8	120deg



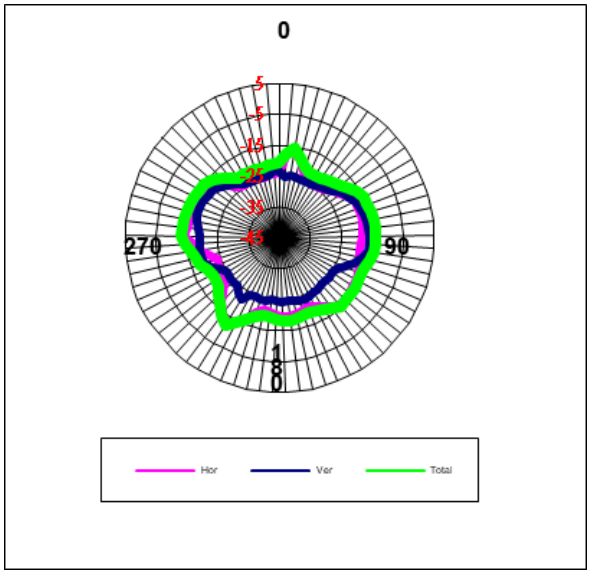
Main antenna: 3750.00 MHz

3750.00 MHz		
Horizontal Peak (dBi)	-2.9	235deg
Vertical Peak(dBi)	-8.52	215deg



Main antenna: 4200.00 MHz

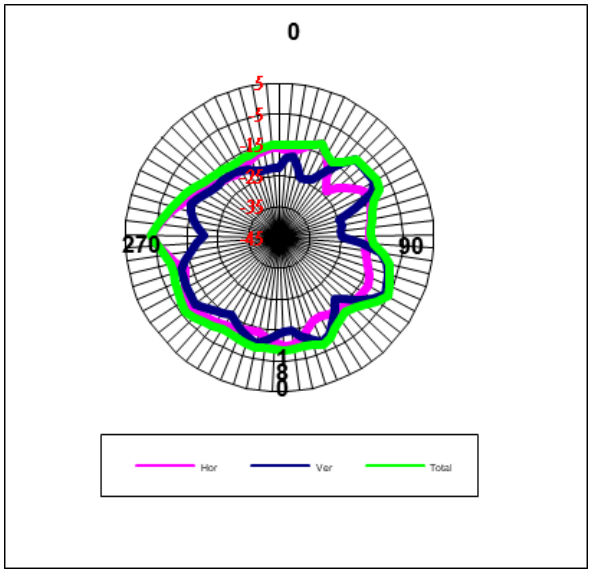
4200.00 MHz		
Horizontal Peak (dBi)	-12.38	215deg
Vertical Peak(dBi)	-15.91	95deg



Radiation characteristic in 3300MHz ~ 3800MHz (EU/CN/JP 5G NR Band 78)

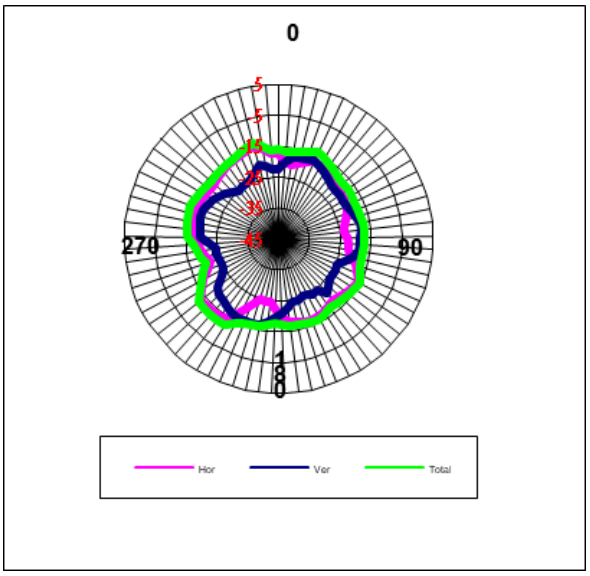
Main antenna: 3300.00 MHz

3300.00 MHz		
Horizontal Peak (dBi)	-3.48	275deg
Vertical Peak(dBi)	-5.8	120deg



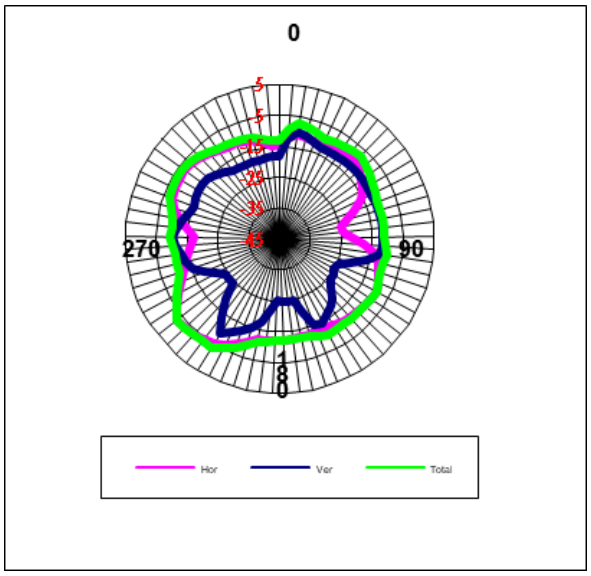
Main antenna: 3550.00 MHz

3550.00 MHz		
Horizontal Peak (dBi)	-13.03	235deg
Vertical Peak(dBi)	-16.44	200deg



Main antenna: 3800.00 MHz

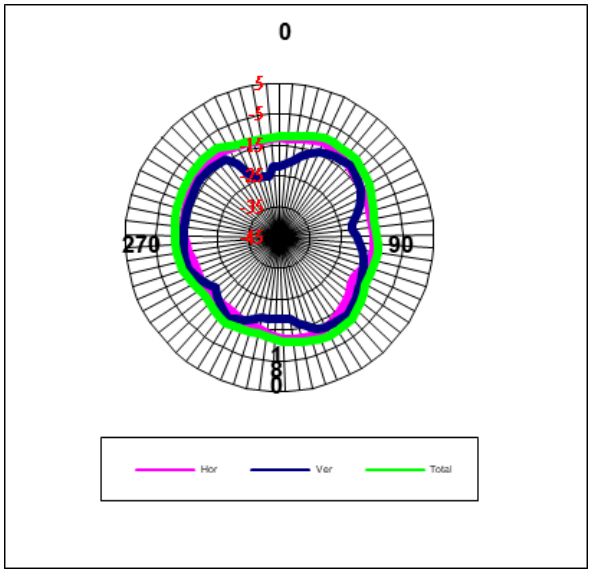
3800.00 MHz		
Horizontal Peak (dBi)	-2.48	235deg
Vertical Peak(dBi)	-8.91	215deg



Radiation characteristic in 1447.9MHz ~ 1462.9MHz (Japan, Band 21)

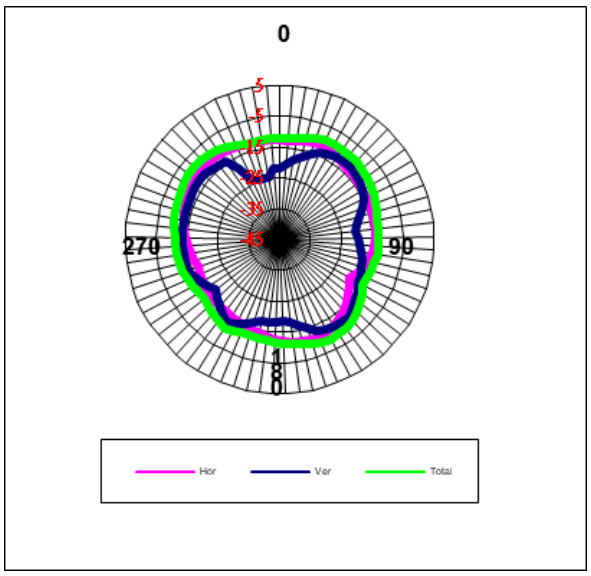
Main antenna: 1447.90 MHz

1447.90 MHz		
Horizontal Peak (dBi)	-11.14	25deg
Vertical Peak(dBi)	-11.58	140deg



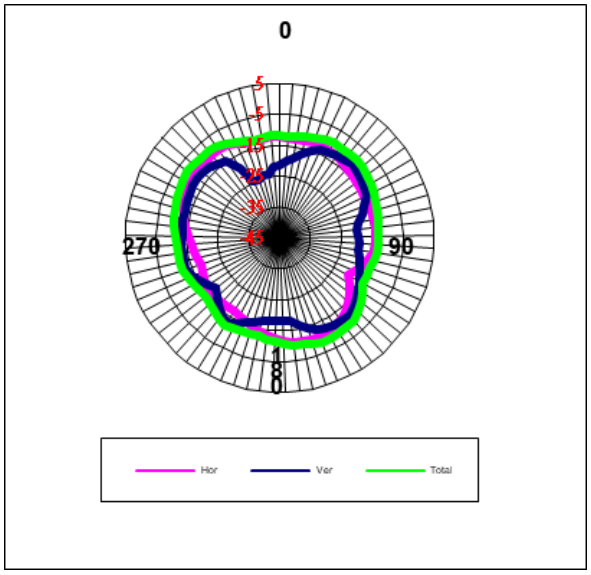
Main antenna: 1455.40 MHz

1455.40 MHz		
Horizontal Peak (dBi)	-11.05	160deg
Vertical Peak(dBi)	-11.36	140deg



Main antenna: 1462.90 MHz

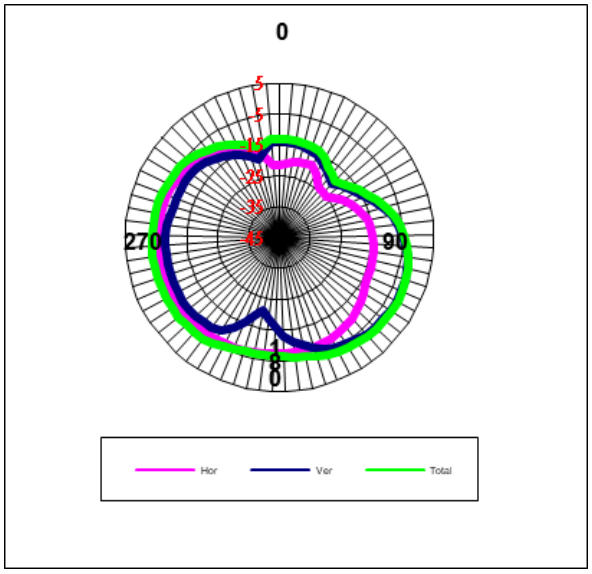
1462.90 MHz		
Horizontal Peak (dBi)	-10.25	330deg
Vertical Peak(dBi)	-11.33	140deg



Radiation characteristic in 815MHz ~ 940MHz (Japan: J-CDMA)

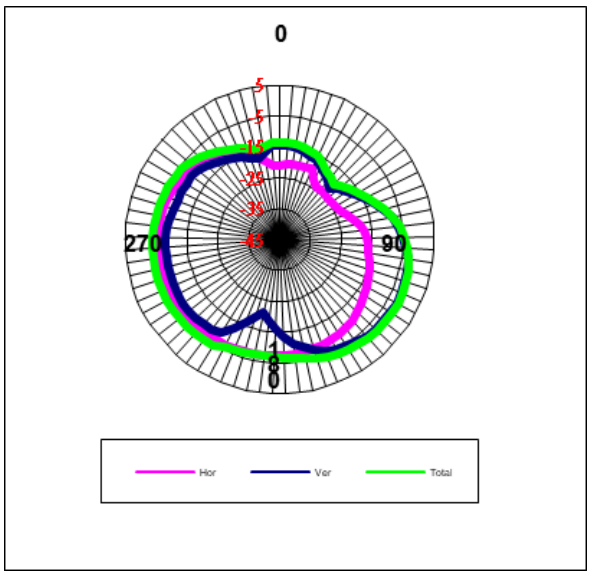
Main antenna: 815 MHz

815 MHz		
Horizontal Peak (dBi)	-5.37	255deg
Vertical Peak(dBi)	-1.68	120deg



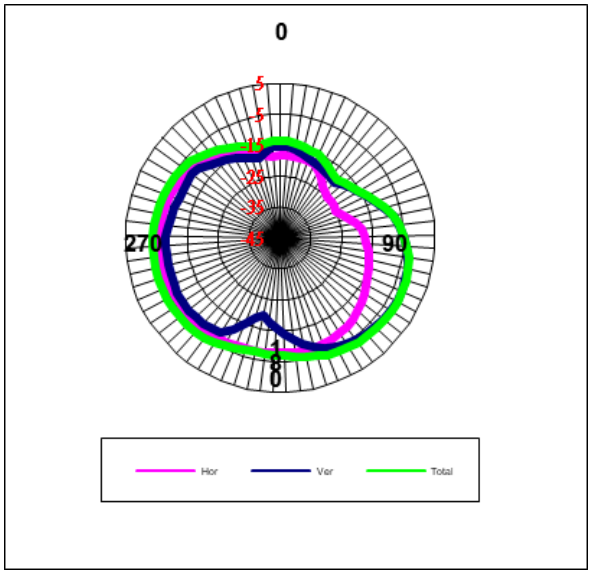
Main antenna: 824.70 MHz

824.70 MHz		
Horizontal Peak (dBi)	-5.8	255deg
Vertical Peak(dBi)	-1.75	120deg



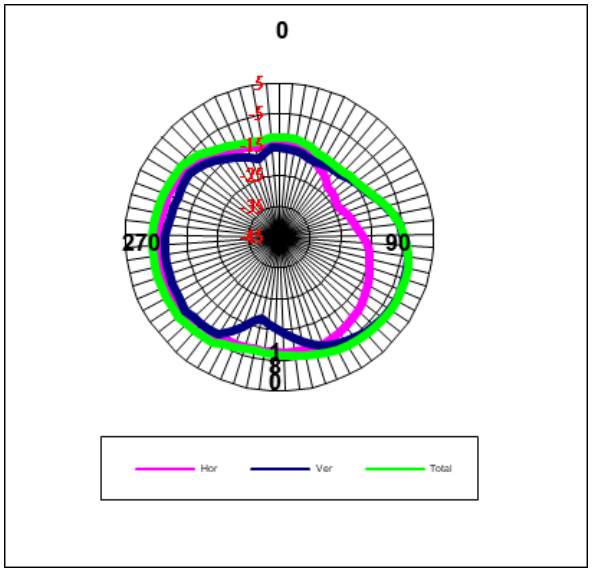
Main antenna: 836.52 MHz

836.52 MHz		
Horizontal Peak (dBi)	-5.97	255deg
Vertical Peak(dBi)	-1.99	120deg



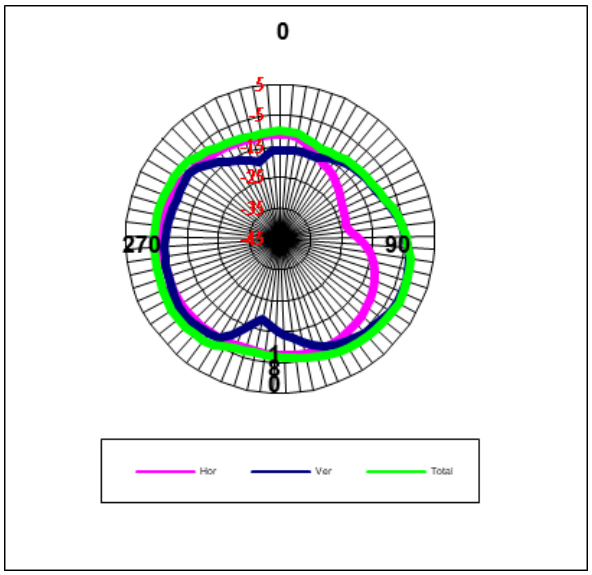
Main antenna: 848.31 MHz

848.31 MHz		
Horizontal Peak (dBi)	-6.01	275deg
Vertical Peak(dBi)	-1.94	120deg



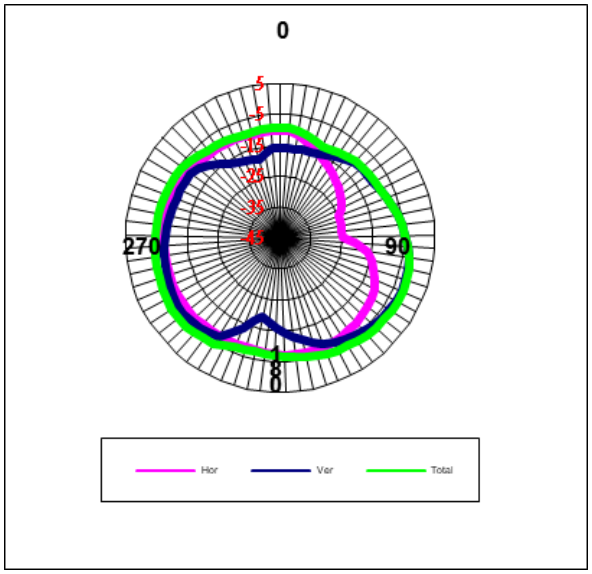
Main antenna: 870 MHz

870 MHz		
Horizontal Peak (dBi)	-6.62	235deg
Vertical Peak(dBi)	-1.9	120deg



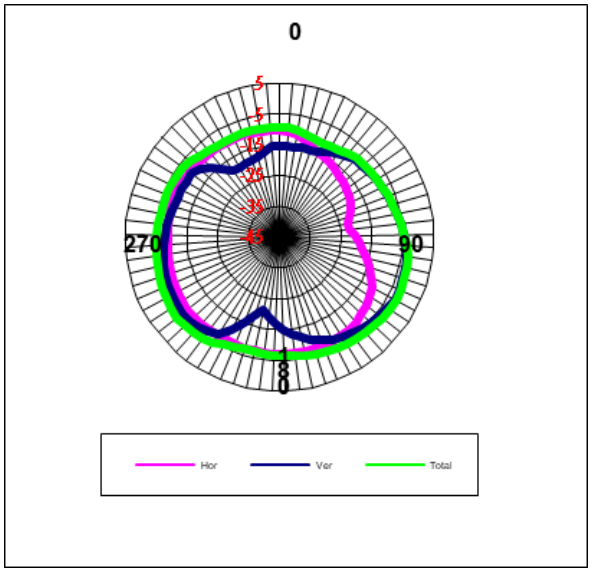
Main antenna: 880.2 MHz

880.2 MHz		
Horizontal Peak (dBi)	-7.01	160deg
Vertical Peak(dBi)	-2.1	120deg



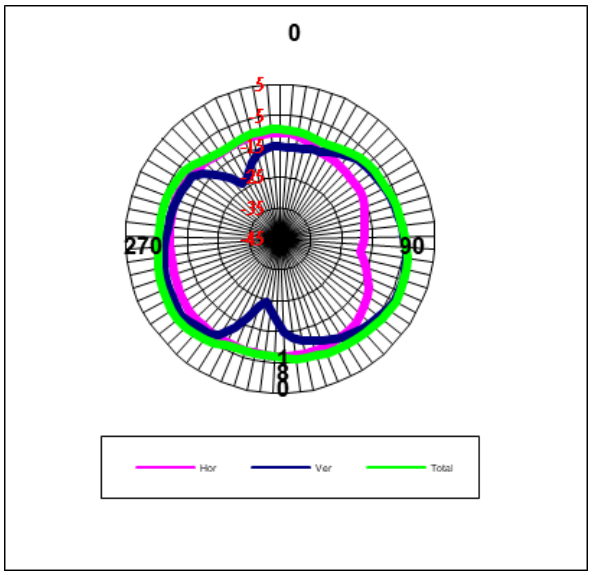
Main antenna: 897.6 MHz

897.6 MHz		
Horizontal Peak (dBi)	-6.92	160deg
Vertical Peak(dBi)	-2.48	120deg



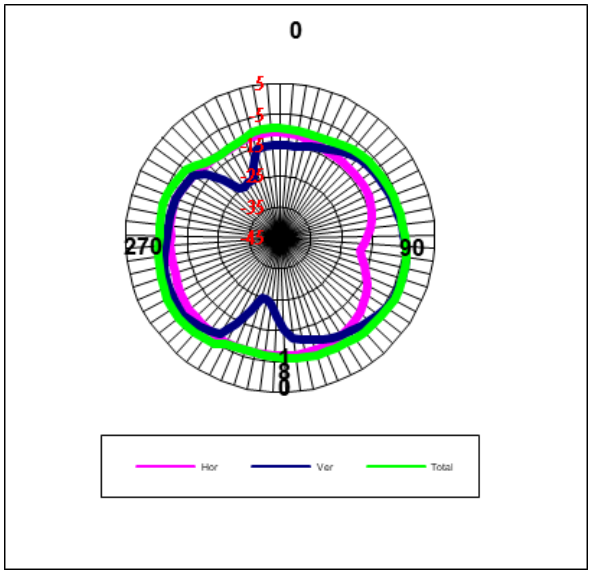
Main antenna: 914.8 MHz

914.8 MHz		
Horizontal Peak (dBi)	-6.97	175deg
Vertical Peak(dBi)	-2.99	120deg



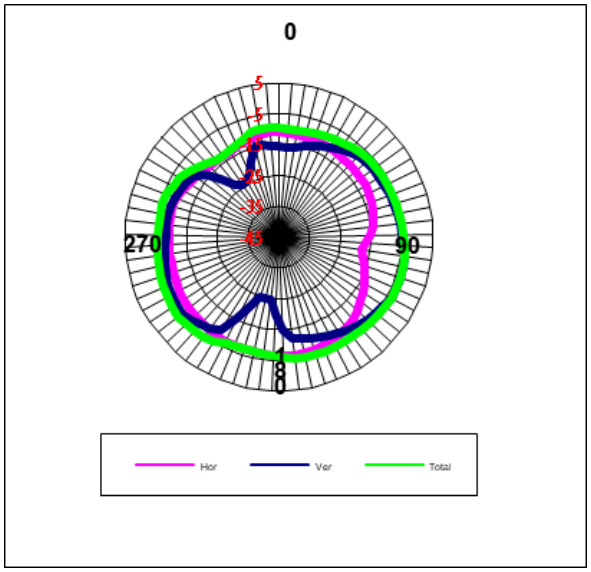
Main antenna: 925 MHz

925 MHz		
Horizontal Peak (dBi)	-6.82	180deg
Vertical Peak(dBi)	-3.31	120deg



Main antenna: 940 MHz

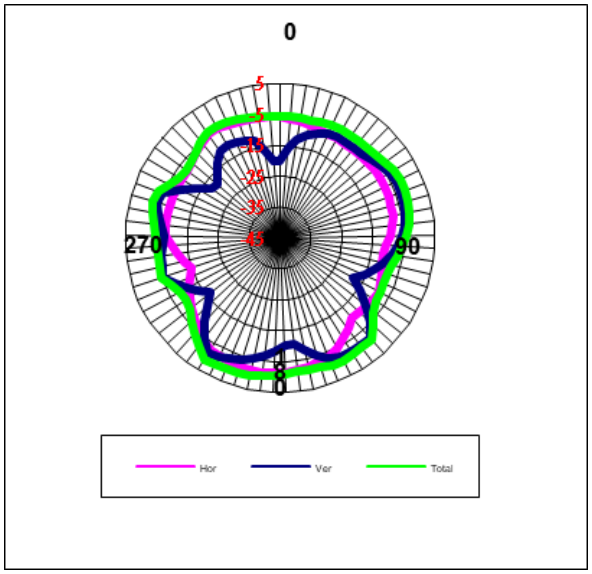
940 MHz		
Horizontal Peak (dBi)	-6.42	175deg
Vertical Peak(dBi)	-3.57	120deg



3.29 Radiation characteristic in 1922MHz ~ 1978MHz (Japan: J-WCDMA)

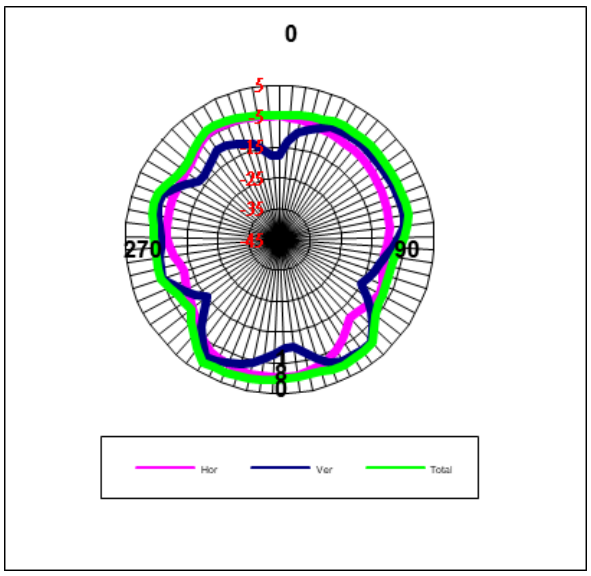
Main antenna: 1922.4 MHz

1922.4 MHz		
Horizontal Peak (dBi)	-1.09	195deg
Vertical Peak(dBi)	-1.02	215deg



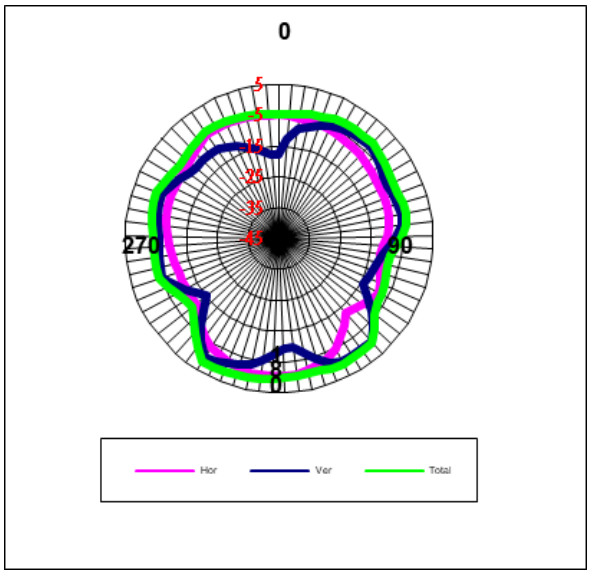
Main antenna: 1950 MHz

1950 MHz		
Horizontal Peak (dBi)	-0.34	195deg
Vertical Peak(dBi)	-0.01	215deg

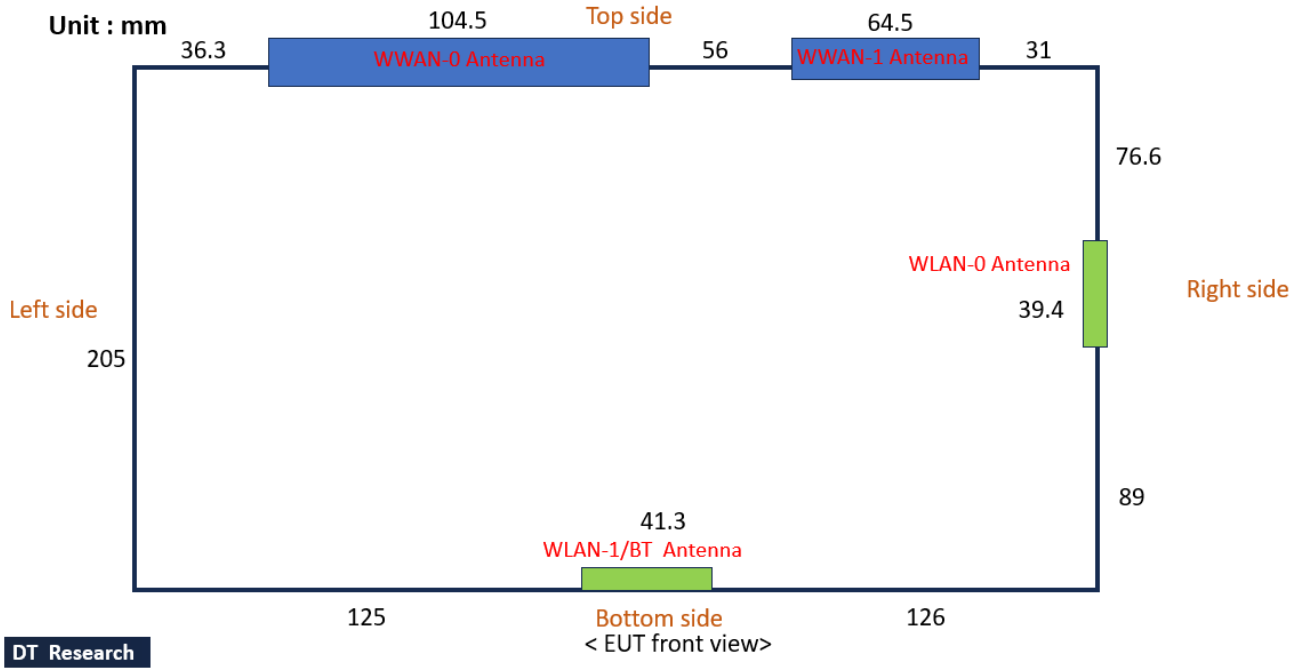


Main antenna: 1977.6 MHz

1977.6 MHz		
Horizontal Peak (dBi)	-0.34	180deg
Vertical Peak(dBi)	0.53	215deg



Section 4. Antenna Host Platform Location Information

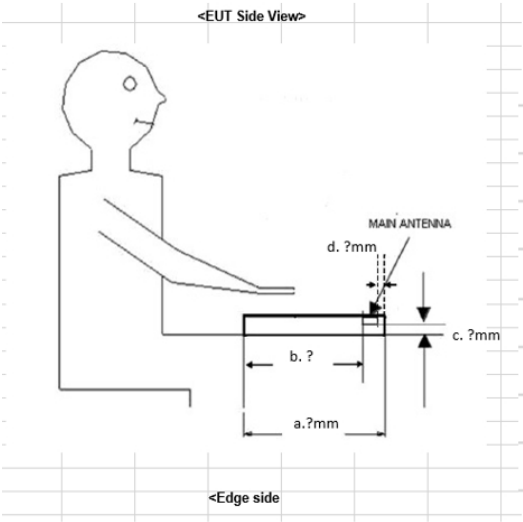


The separation distance for antenna to edge:

Antenna	To Top Side (mm)	To Bottom Side (mm)	To Left Side (mm)	To Right Side (mm)
4G main	1.98	202.60	56.1	162.3
4G aux	1.98	202.60	172.1	35.14
WIFI AUX/BT	201.09	3.31	147.63	124.37
WIFI MAIN	73.8	93.8	272	4

Section 5. Antenna dimensional information for SAR evaluation

The host platform (DTR DT302 V3) is subjected to SAR along with antenna separation distance from human's body with 11.0 mm. See Section 5.



The separation distance for antenna to edge:

Antenna	a (mm)	b (mm)	c (mm)	d (mm)
4G main	202.06	184.3	14.9	2
4G aux	202.06	193.95	14.4	2
WIFI AUX/BT	201.09	3.51	14.2	189.47
WIFI MAIN	130.8	93.8	13.6	73.8