



S21WFI0071A

G54 ANTENNA SPEC FOR CERTIFICATION

Date: March-30-2023

Outline

- 1. Antenna Vendor \ Part Number**
- 2. Measurement Description**
- 3. Antenna Peak Gain**
- 4. Antenna 2D Radiation Pattern**
- 5. Vendor Profile**



Antenna Vendor \ Part Number	
Vendor	Part Number
Wanshih	S21WFI0071A

	Part Number
Ant. 1	WPB866
Ant. 2	WPB867
Ant. 3	WPB868
Ant. 4	WPB869
Ant. 5	WPB870
Ant. 6	WPB871
Ant. 7	WPB872
Ant. 8	WPB873



Test Method Reference Basis (Measurement setup info. & Test method , Test Procedure)

- 1、 Measured according to the method defined by CTIA ◦

Test site information(like Chamber) 、 Measuring instrument 、 Instrument Calibration Data

- 1、 OTA Chamber: OTA 800;8m(L)x4m(W)x4m(H) ◦
- 2、 Network Analyzer : Agilent E5071C



Peak Calculation formula & Process

- 1、 peak Gain The value is actually measured in the OTA chamber , non-calculated ◦


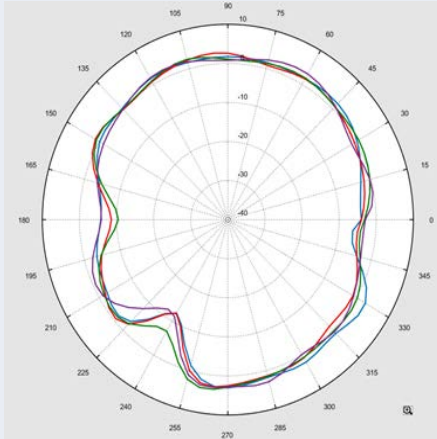
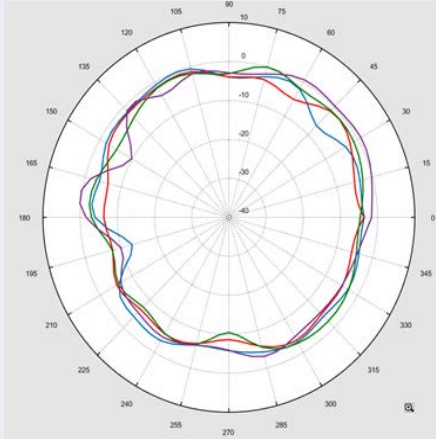
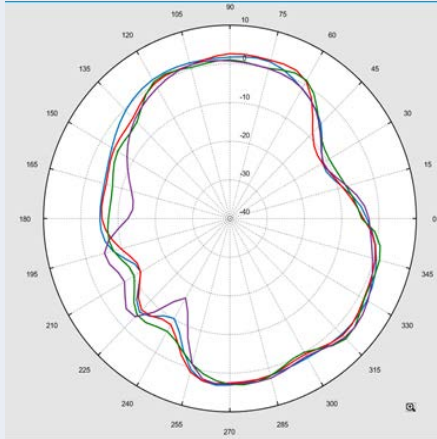
Antenna Peak Gain

	2400 - 2500 MHz		5150 - 5850 MHz		5925 - 7125 MHz	
	Value	Angle	Value	Angle	Value	Angle
Ant. 1			4.92 dBi	Theta : 45 Phi : 300		
Ant. 2	4.14 dBi	Theta : 90 Phi : 165	4.75 dBi	Theta : 120 Phi : 195		
Ant. 3			4.78 dBi	Theta : 105 Phi : 195		
Ant. 4	2.64 dBi	Theta : 90 Phi : 30	4.60 dBi	Theta : 120 Phi : 30		
Ant. 5					4.94 dBi	Theta : 90 Phi : 285
Ant. 6					5.86 dBi	Theta : 90 Phi : 120
Ant. 7					4.77 dBi	Theta : 135 Phi : 330
Ant. 8					5.83 dBi	Theta : 90 Phi : 270




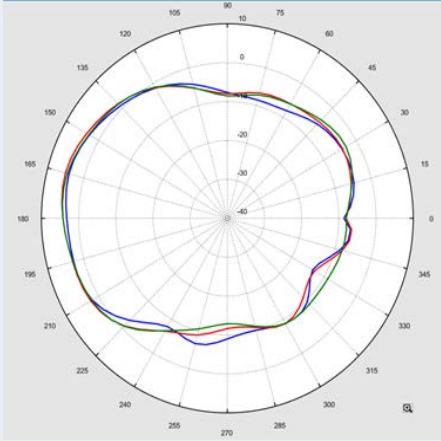
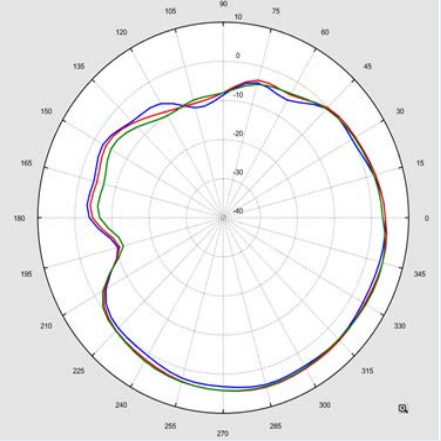
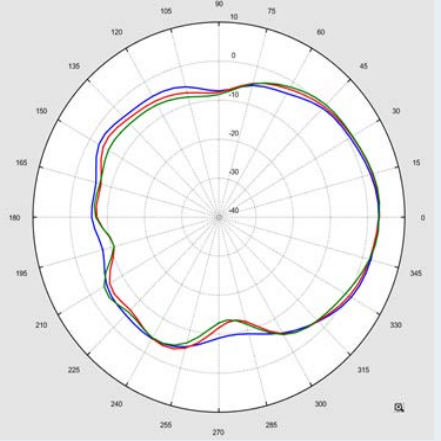
Ant. 1

Antenna 2D Radiation Pattern

Frequency	5150 - 5850 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 758 741 801">Radiation Pattern</p>			


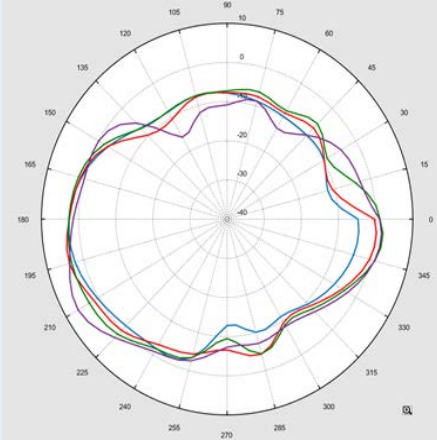
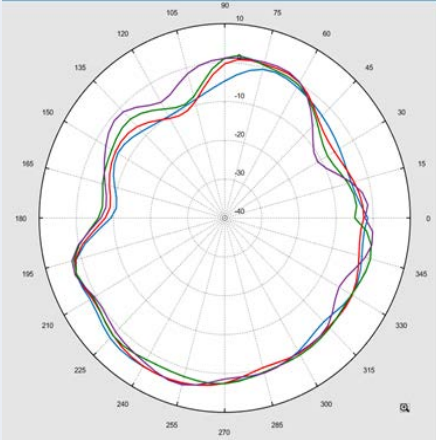
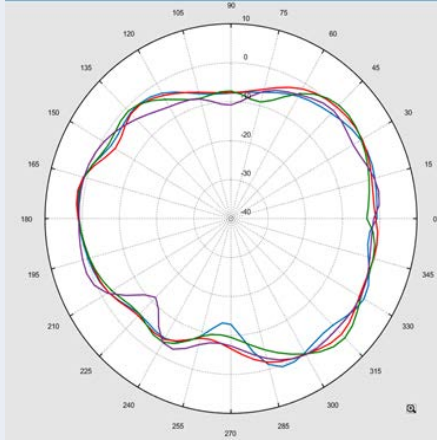
Ant. 2

Antenna 2D Radiation Pattern

Frequency	2400 - 2500 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 756 741 799">Radiation Pattern</p>	 <p data-bbox="790 580 1229 1023">A polar plot showing the radiation pattern in the XY plane. The plot features a circular grid with radial lines every 10 degrees and concentric circles representing dB levels. The radiation pattern is plotted with multiple colored lines (red, green, blue, purple) showing a main lobe centered at 0 degrees and side lobes extending to approximately 180 degrees.</p>	 <p data-bbox="1283 580 1722 1023">A polar plot showing the radiation pattern in the XZ plane. The plot features a circular grid with radial lines every 10 degrees and concentric circles representing dB levels. The radiation pattern is plotted with multiple colored lines (red, green, blue, purple) showing a main lobe centered at 0 degrees and side lobes extending to approximately 180 degrees.</p>	 <p data-bbox="1760 580 2199 1023">A polar plot showing the radiation pattern in the YZ plane. The plot features a circular grid with radial lines every 10 degrees and concentric circles representing dB levels. The radiation pattern is plotted with multiple colored lines (red, green, blue, purple) showing a main lobe centered at 0 degrees and side lobes extending to approximately 180 degrees.</p>


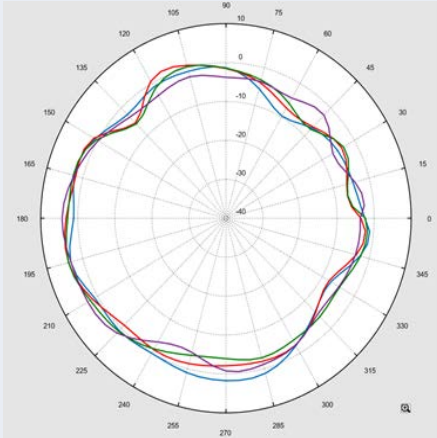
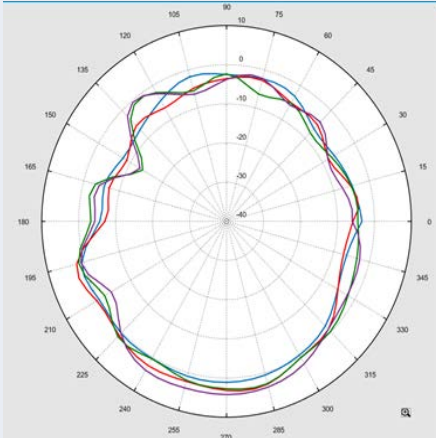
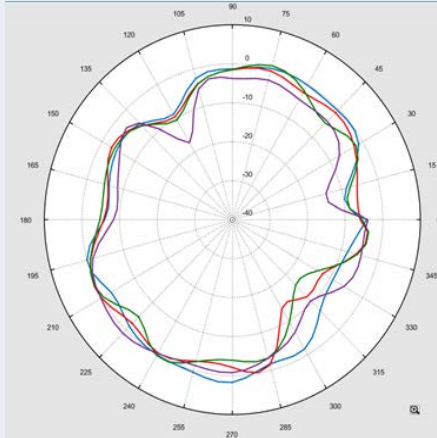
Ant. 2

Antenna 2D Radiation Pattern

Frequency	5150 - 5850 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 756 741 799">Radiation Pattern</p>			


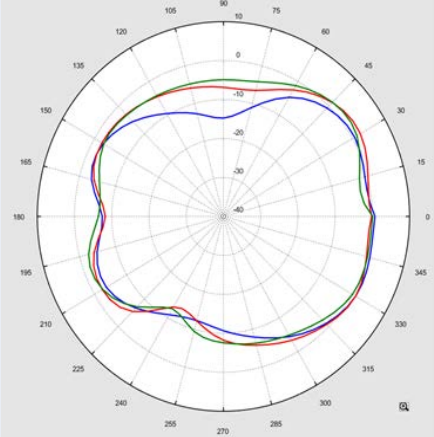
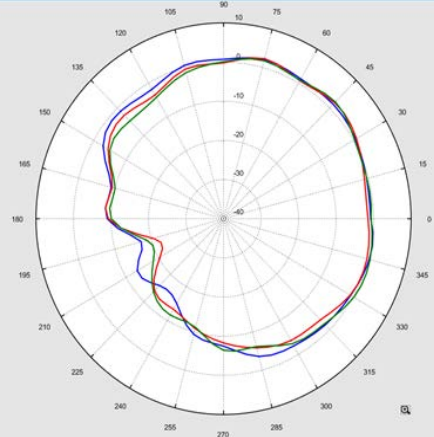
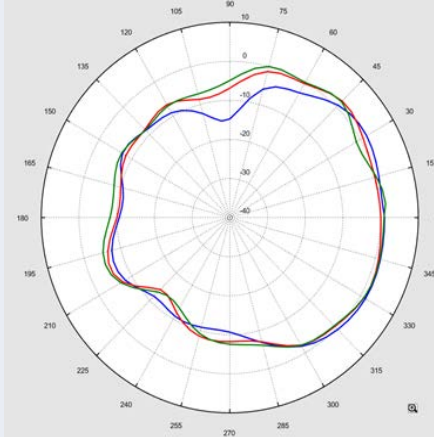
Ant. 3

Antenna 2D Radiation Pattern

Frequency	5150 - 5850 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 758 741 799">Radiation Pattern</p>			


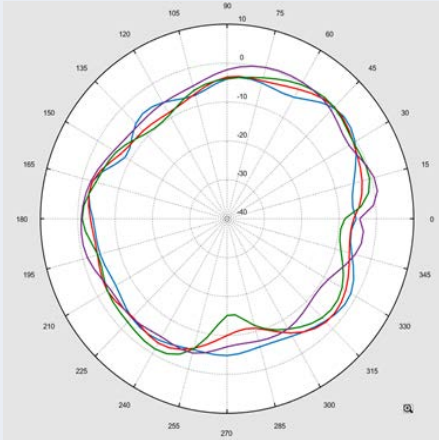
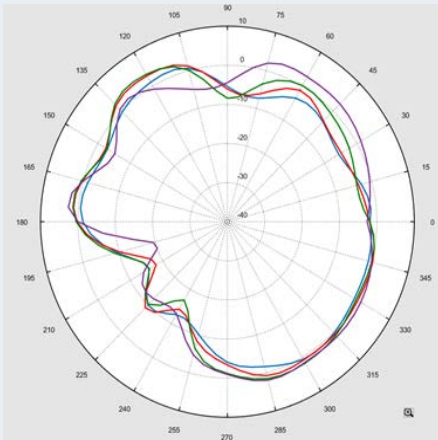
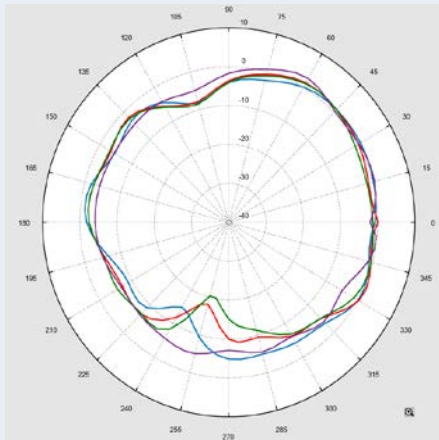
Ant. 4

Antenna 2D Radiation Pattern

Frequency	2400 - 2500 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 758 741 801">Radiation Pattern</p>			


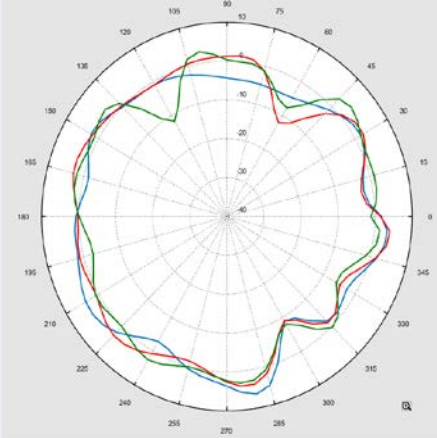
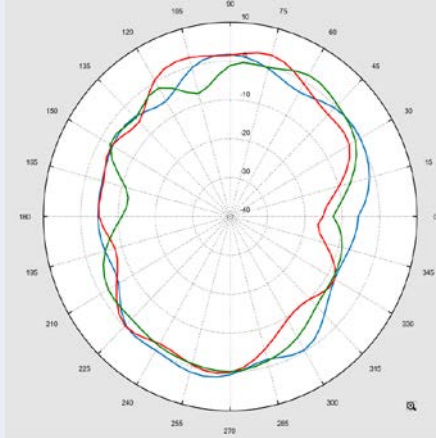
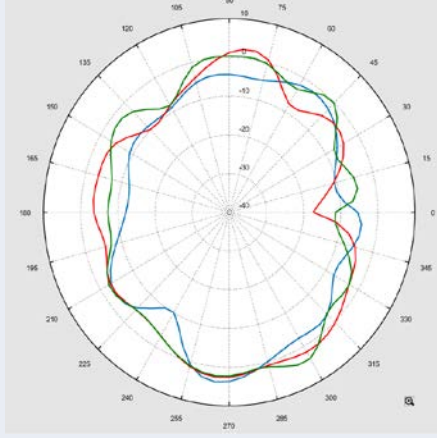
Ant. 4

Antenna 2D Radiation Pattern

Frequency	5150 - 5850 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 756 741 799">Radiation Pattern</p>			


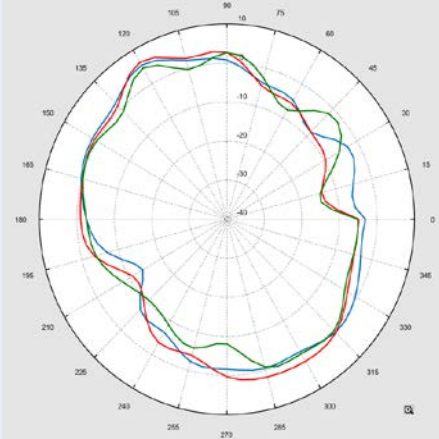
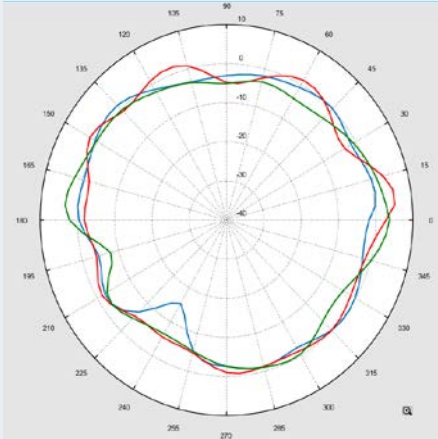
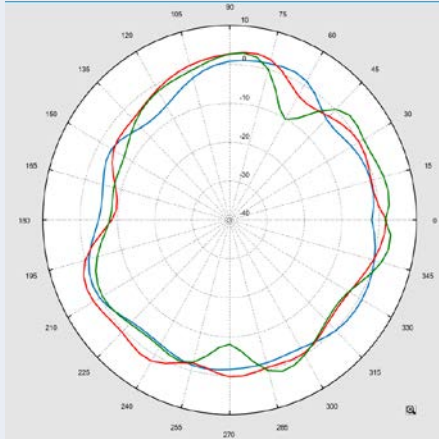
Ant. 5

Antenna 2D Radiation Pattern

Frequency	5925 - 7125 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 756 741 799">Radiation Pattern</p>			


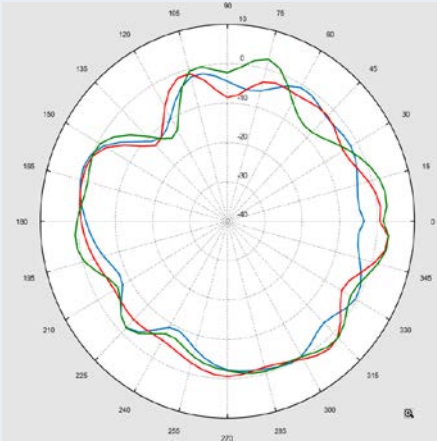
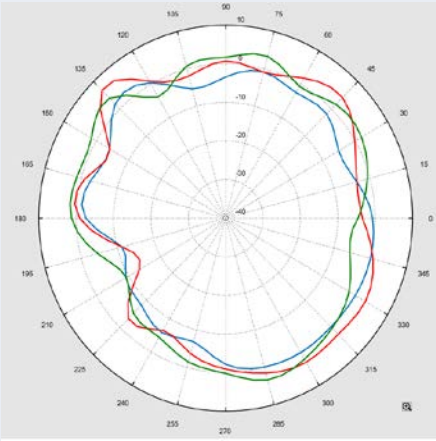
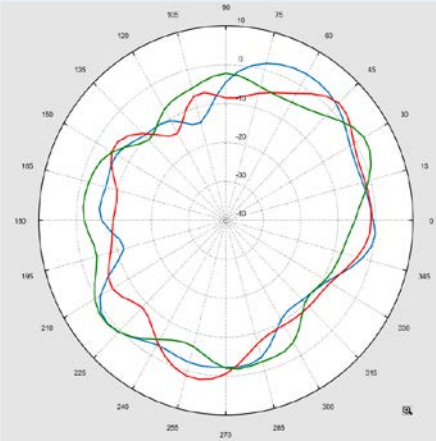
Ant. 6

Antenna 2D Radiation Pattern

Frequency	5925 - 7125 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 758 741 801">Radiation Pattern</p>			


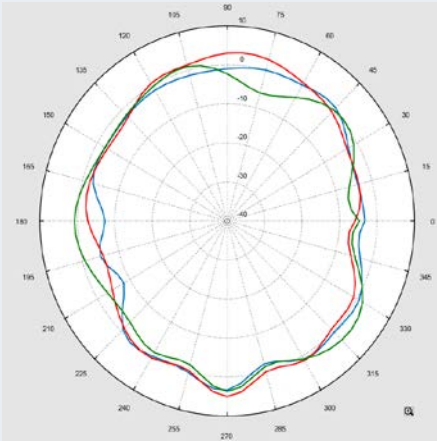
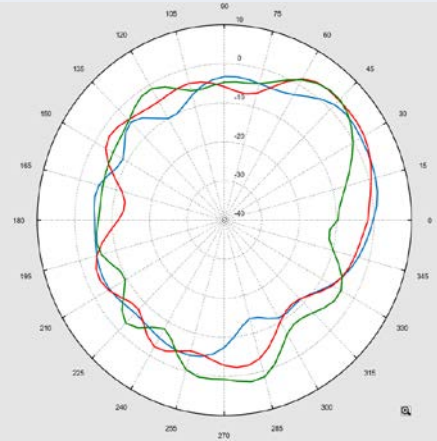
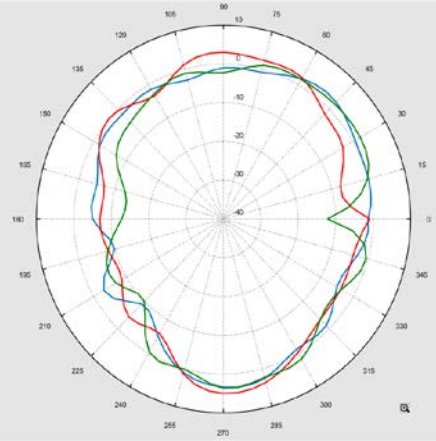
Ant. 7

Antenna 2D Radiation Pattern

Frequency	5925 - 7125 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 756 741 799">Radiation Pattern</p>			

Ant. 8

Antenna 2D Radiation Pattern

Frequency	5925 - 7125 MHz		
Plane	XY	XZ	YZ
 <p data-bbox="349 758 741 801">Radiation Pattern</p>	 <p data-bbox="792 564 1227 1007">A polar plot showing the radiation pattern in the XY plane. The plot features concentric circles representing gain levels (0, 10, 20, 30, 40) and radial lines for angles from 0 to 330 degrees in 15-degree increments. Three curves (red, green, blue) show a main lobe centered at 0 degrees and a secondary lobe at approximately 180 degrees.</p>	 <p data-bbox="1285 564 1720 1007">A polar plot showing the radiation pattern in the XZ plane. The plot features concentric circles representing gain levels (0, 20, 40) and radial lines for angles from 0 to 345 degrees in 15-degree increments. Three curves (red, green, blue) show a main lobe centered at 0 degrees and a secondary lobe at approximately 180 degrees.</p>	 <p data-bbox="1756 564 2190 1007">A polar plot showing the radiation pattern in the YZ plane. The plot features concentric circles representing gain levels (0, 20, 40) and radial lines for angles from 0 to 345 degrees in 15-degree increments. Three curves (red, green, blue) show a main lobe centered at 0 degrees and a secondary lobe at approximately 180 degrees.</p>

Antenna Vendor Profile

Vendor Name	Address
WANSHIH ELECTRONIC CO.,LTD.	3-5F 72 Wu Kong 6th Rd., WUGU DIST., NEW TAIPEI INDUSTRIAL PARK, NEW TAIPEI CITY 24891, TAIWAN (R.O.C.)

