

JET Topaz Project

Regulatory WLAN Antenna Information

Quanta NB3

Antenna Sample / Antenna Data Requirements for worldwide regulatory approval

Section	Description of Required OEM / ODM Antenna Information	US / IC	EU	Japan	Taiwan	Korea
1A	Part Number for Antenna only	Required	Required	Required	Required	Required
1B	Antenna Manufacturer Name	Required	Required	Required	Required	Required
1C	Description of Antenna Type	Required	N/A	N/A	N/A	N/A
1D	Part number of Antenna Assembly / cable impedance, length & diameter.	Required	Desired	Desired	Desired	Desired
1E	Main & Aux antenna (Peak Gain W/ cable loss)	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Main & Aux antenna (Peak Gain only)	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Main & Aux antenna (Cable loss W/ connector)	Required	Required	Required	Required	Required
2	Dimensioned Photographs or Drawings of main & auxiliary antennas	Required	Required	Required	Required	Required
3	Radiation patterns of antennas loaded in the host platform.	Required	Desired	Required	N/A	Required
4	Platform model name / number - correlated to antenna manufacturer and antenna part number	Required	Required	Desired	Required	Desired
5	Photograph(s) or Drawings showing location of antennas in platform.	Required	Required	Desired	Required	Desired
6	Mech. drawings / photos with dimensions of antenna locations and distance from end-user (For evaluation of SAR testing requirement).	Required	N/A	N/A	N/A	N/A
7	Photograph(s) or Drawings showing the location of all antennas (WLAN, BT, other) and distance between those transmitting antennas. Information will be used to evaluate whether co-location testing is required.	Required	N/A	N/A	N/A	N/A

Antenna Information Example

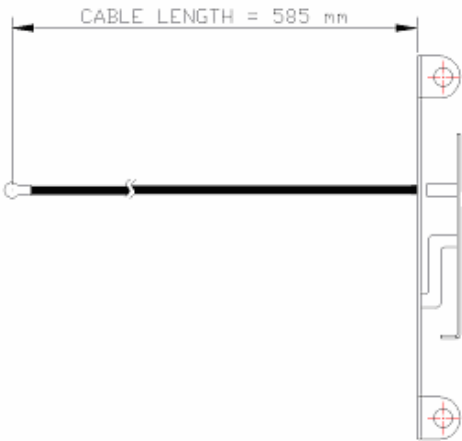
Section 1. Antenna Assembly Specifications

Antenna Assembly Summary:

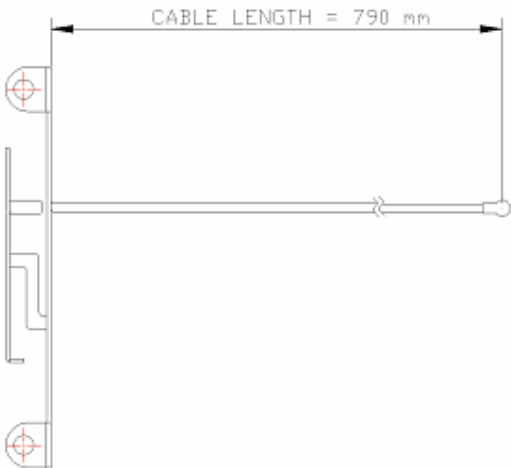
1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	1E Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
Quanta P/N: DQ652003007 Main antenna	Whayu P/N: C680-520030-A	PIFA	(P/N:FWS5030) 50 ohm Coaxial. length: 58.5cm diameter: 1.13mm Connector: U.F.L-LP-066	2400-2500MHz 1.65dBi (peak)	2400-2500MHz 3.538dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz 1.888dBi (peak)
				5150-5350MHz 0.79dBi (peak)	5150-5350MHz 3.622dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz 2.832dBi (peak)
				5470-5725MHz 0.86dBi (peak)	5470-5725MHz 3.810dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz 2.950dBi (peak)
				5725-5850MHz 0.98dBi (peak)	5725-5850MHz 4.107dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz 3.127dBi (peak)
Quanta P/N: DQ652003007 Auxiliary antenna	Whayu P/N: C680-520030-A	PIFA	(P/N:FWS5030) 50 ohm Coaxial. length: 79cm diameter: 1.13mm Connector: U.F.L-LP-066	2400-2500MHz 1.30dBi (peak)	2400-2500MHz 3.844dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz 2.544dBi (peak)
				5150-5350MHz -0.19dBi (peak)	5150-5350MHz 3.626dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz 3.816dBi (peak)
				5470-5725MHz 0.87dBi (peak)	5470-5725MHz 4.845dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz 3.975dBi (peak)
				5725-5850MHz 0.72dBi (peak)	5725-5850MHz 4.934dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz 4.214dBi (peak)

Section 2. Dimensioned Photos or Drawings of Antennas

The dimensioned drawing of main antenna here.



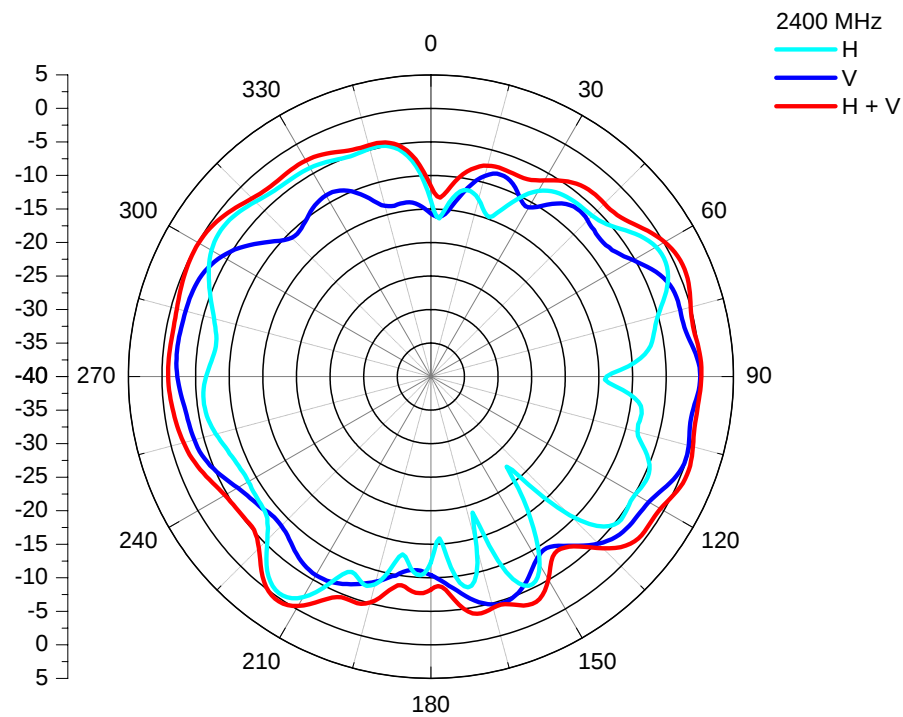
The dimensioned drawing of aux antenna here.



Section 3. Radiation characteristics of antennae Loaded in Host Platform

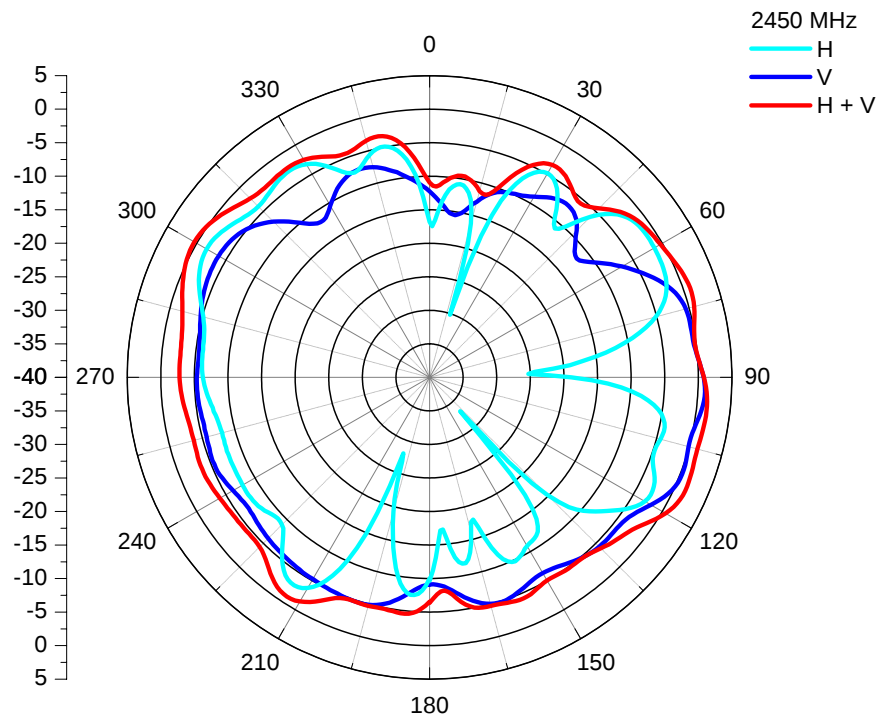
2400-2500MHz radiation characteristic

Main antenna: 2400 MHz



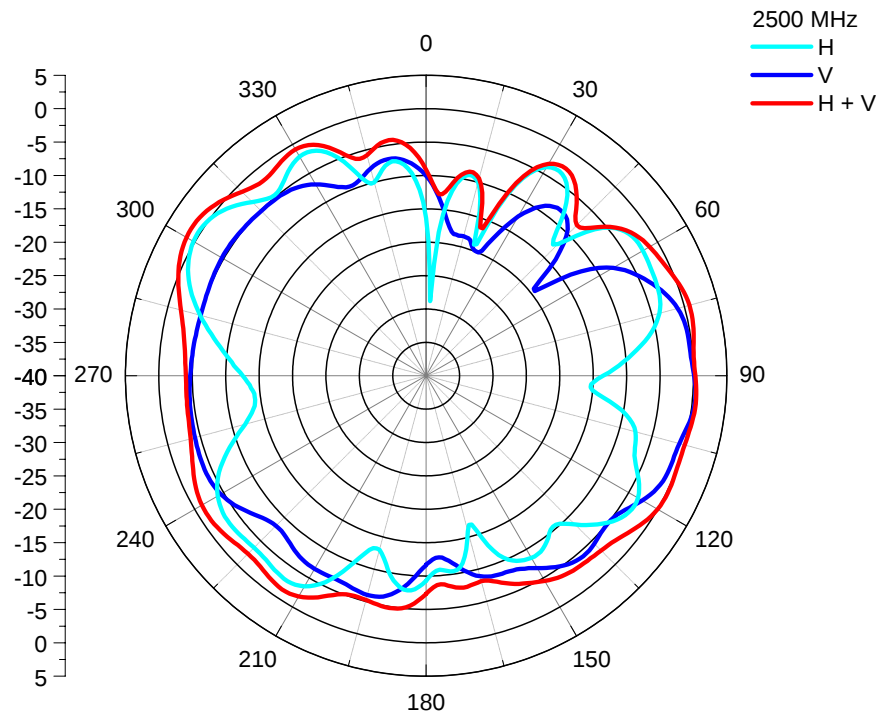
Center Frequency	2400 MHz	Center Frequency	2400 MHz
Horizontal (dBi) peak	-0.60	Horizontal (dBi) average	-5.86
Vertical (dBi) peak	0.06	Vertical (dBi) average	-4.87
Horz+Vert (dBi) peak	1.00	Horz+Vert (dBi) average	-2.33

Main antenna: 2450 MHz



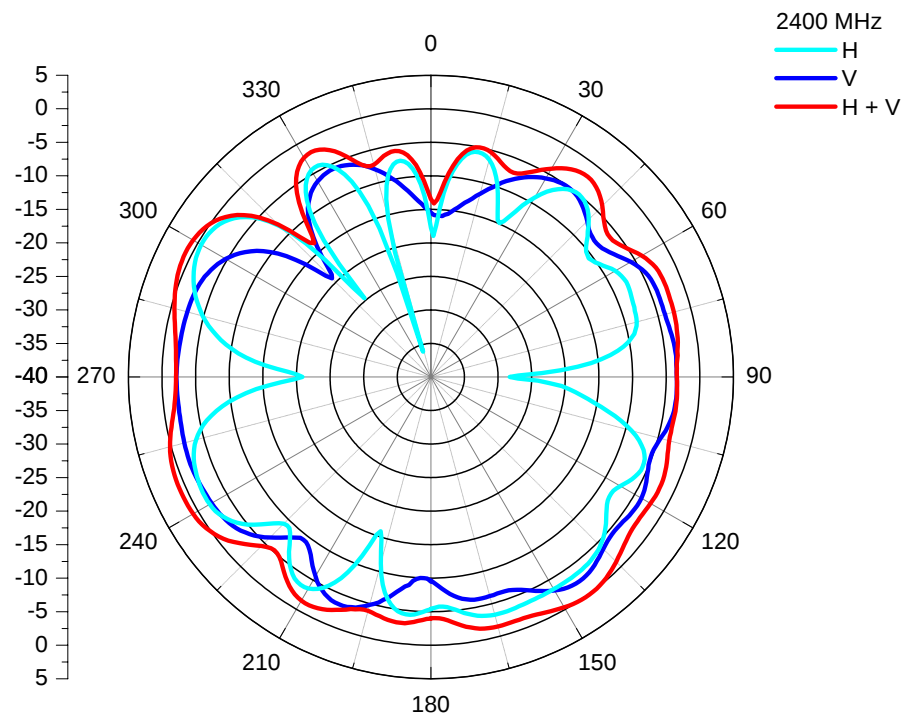
Center Frequency	2450 MHz	Center Frequency	2450 MHz
Horizontal (dBi) peak	-1.33	Horizontal (dBi) average	-6.04
Vertical (dBi) peak	1.06	Vertical (dBi) average	-4.67
Horz+Vert (dBi) peak	1.65	Horz+Vert (dBi) average	-2.29

Main antenna: 2500 MHz



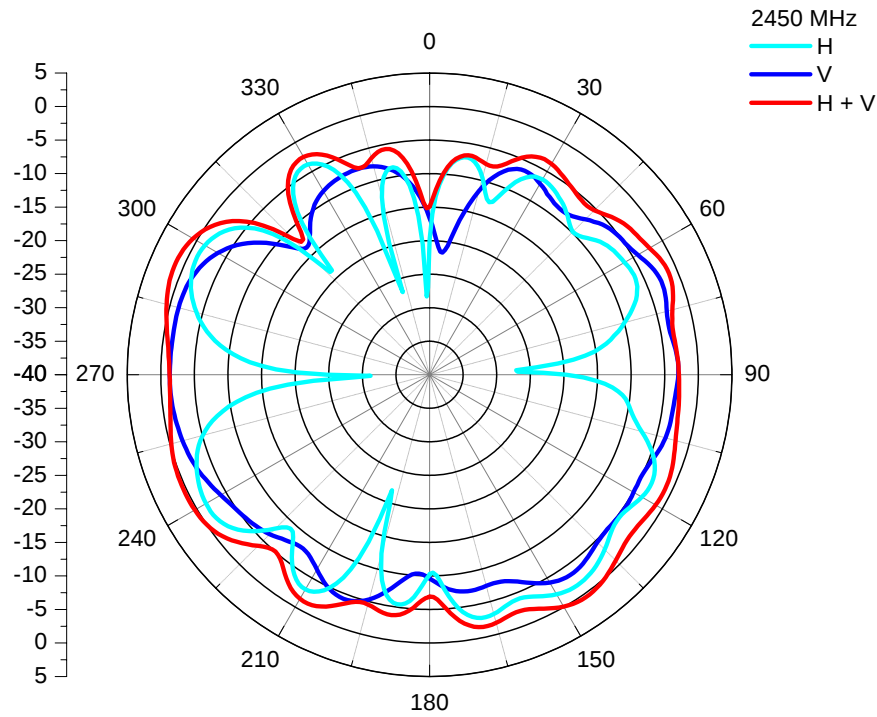
Center Frequency	2500 MHz	Center Frequency	2500 MHz
Horizontal (dBi) peak	0.30	Horizontal (dBi) average	-5.61
Vertical (dBi) peak	0.42	Vertical (dBi) average	-5.11
Horz+Vert (dBi) peak	1.49	Horz+Vert (dBi) average	-2.34

Auxiliary antenna: 2400 MHz



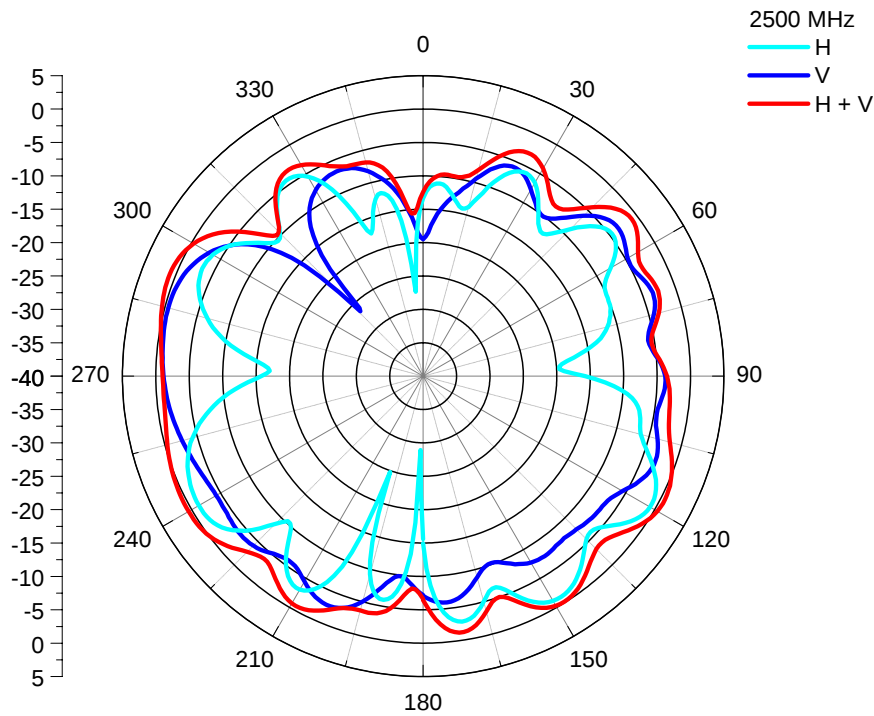
Center Frequency	2400 MHz	Center Frequency	2400 MHz
Horizontal (dBi) peak	-0.55	Horizontal (dBi) average	-5.87
Vertical (dBi) peak	-1.94	Vertical (dBi) average	-4.95
Horz+Vert (dBi) peak	0.95	Horz+Vert (dBi) average	-2.37

Auxiliary antenna: 2450 MHz



Center Frequency	2450 MHz	Center Frequency	2450 MHz
Horizontal (dBi) peak	-1.19	Horizontal (dBi) average	-5.65
Vertical (dBi) peak	-1.32	Vertical (dBi) average	-4.97
Horz+Vert (dBi) peak	1.30	Horz+Vert (dBi) average	-2.29

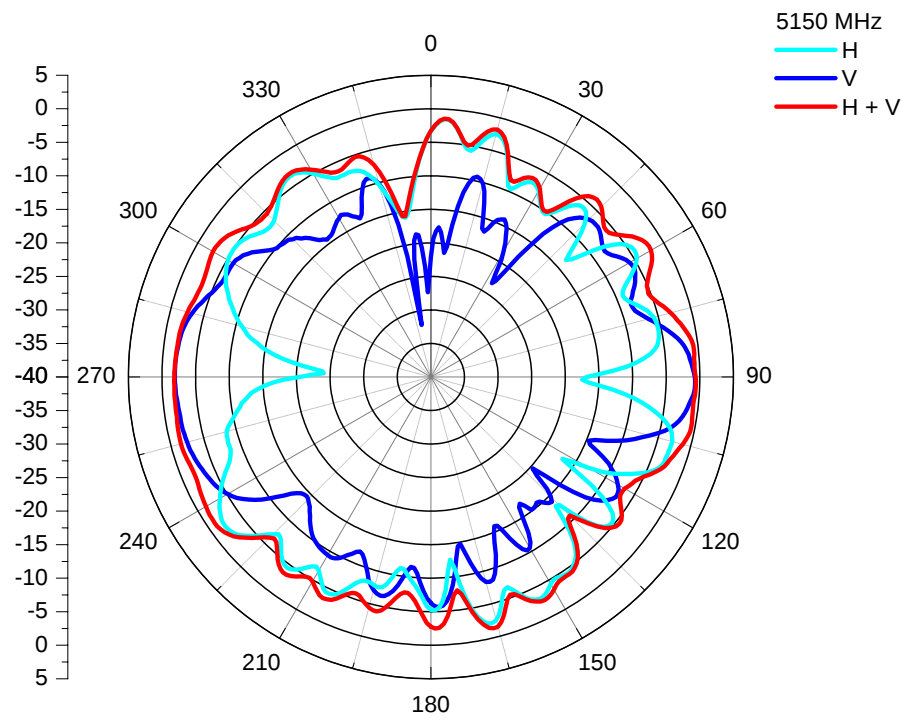
Auxiliary antenna: 2500 MHz



Center Frequency	2500 MHz	Center Frequency	2500 MHz
Horizontal (dBi) peak	-0.79	Horizontal (dBi) average	-5.85
Vertical (dBi) peak	-0.51	Vertical (dBi) average	-5.02
Horz+Vert (dBi) peak	0.87	Horz+Vert (dBi) average	-2.40

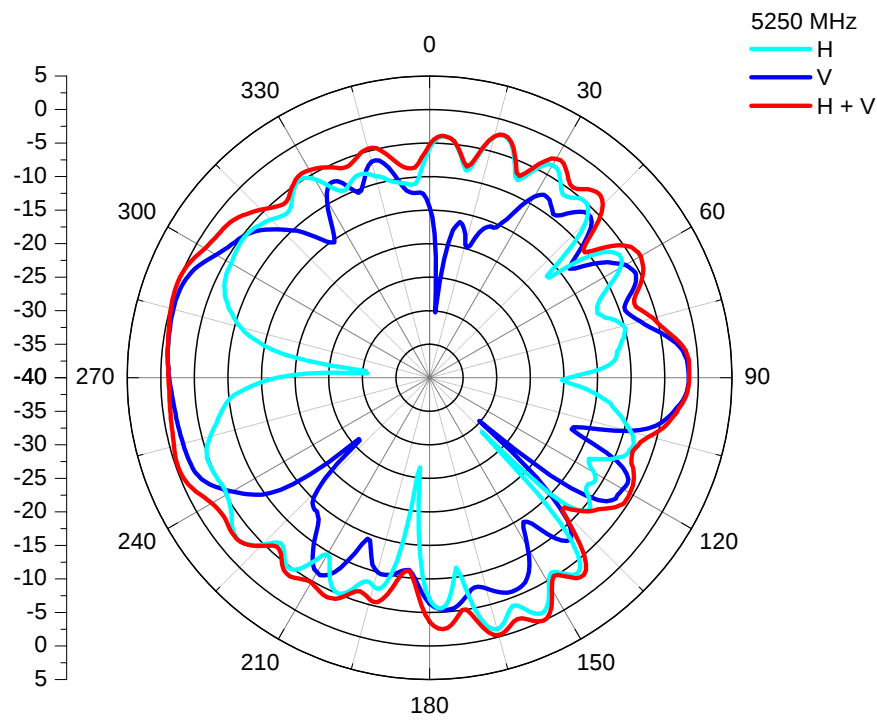
5150-5350 MHz radiation characteristic

Main antenna: 5150 MHz



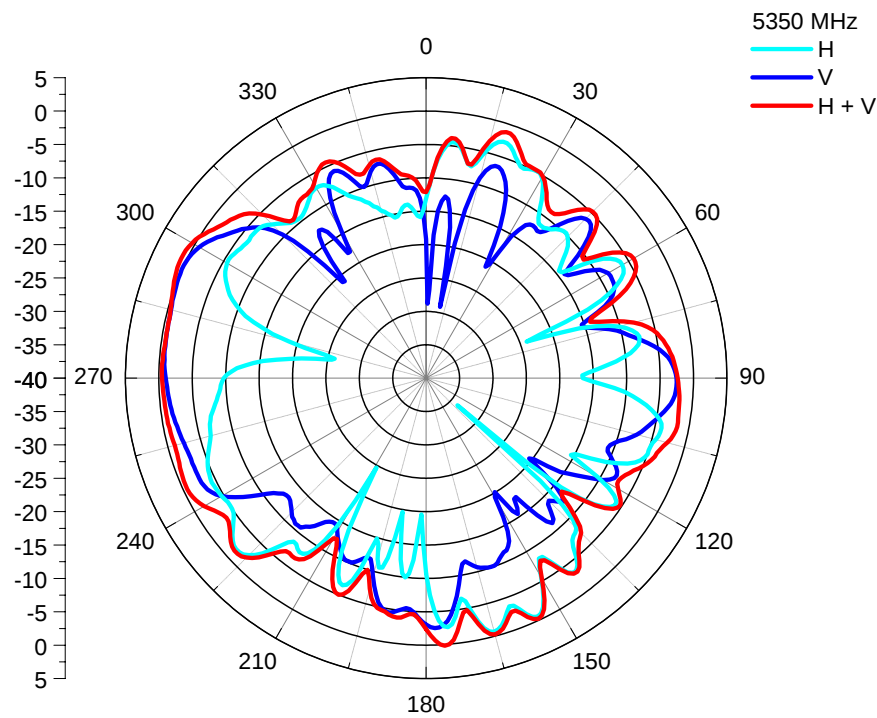
Center Frequency	5150 MHz	Center Frequency	5150 MHz
Horizontal (dBi) peak	-1.51	Horizontal (dBi) average	-6.25
Vertical (dBi) peak	-0.68	Vertical (dBi) average	-6.88
Horz+Vert (dBi) peak	-0.57	Horz+Vert (dBi) average	-3.54

Main antenna: 5250 MHz



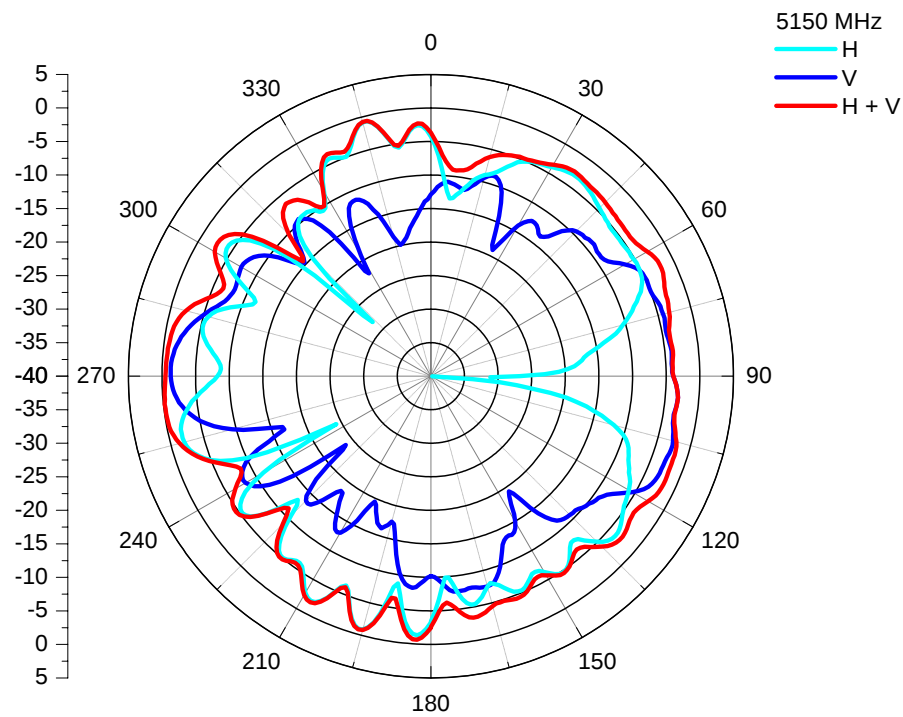
Center Frequency	5250 MHz	Center Frequency	5250 MHz
Horizontal (dBi) peak	-1.14	Horizontal (dBi) average	-6.78
Vertical (dBi) peak	-0.49	Vertical (dBi) average	-6.02
Horz+Vert (dBi) peak	0.09	Horz+Vert (dBi) average	-3.37

Main antenna: 5350 MHz



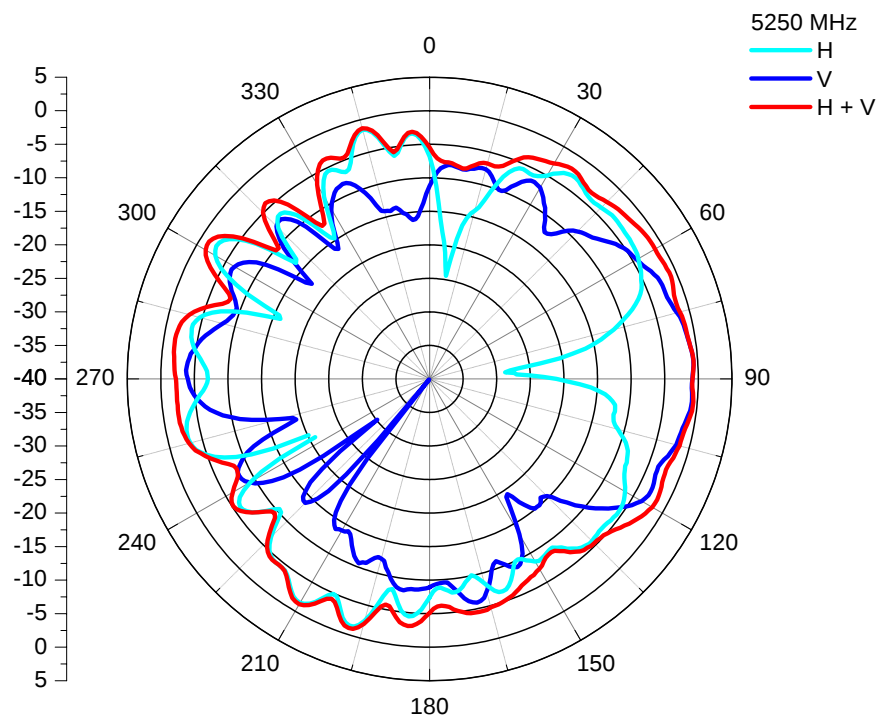
Center Frequency	5350 MHz	Center Frequency	5350 MHz
Horizontal (dBi) peak	-0.57	Horizontal (dBi) average	-6.89
Vertical (dBi) peak	0.03	Vertical (dBi) average	-6.01
Horz+Vert (dBi) peak	0.79	Horz+Vert (dBi) average	-3.41

Auxiliary antenna: 5150 MHz



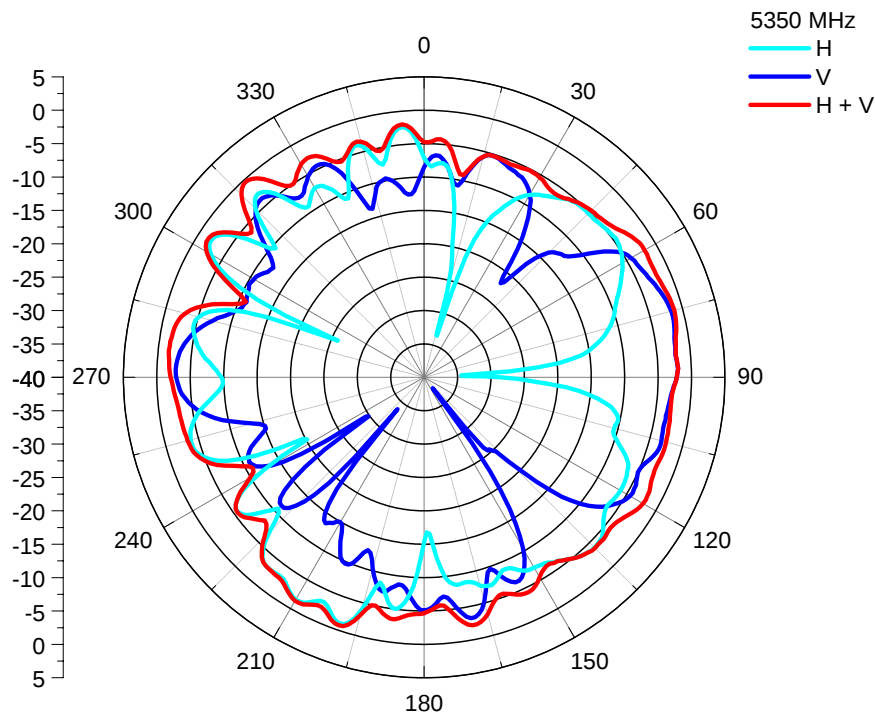
Center Frequency	5150 MHz	Center Frequency	5150 MHz
Horizontal (dBi) peak	-0.81	Horizontal (dBi) average	-5.79
Vertical (dBi) peak	-1.28	Vertical (dBi) average	-7.60
Horz+Vert (dBi) peak	-0.19	Horz+Vert (dBi) average	-3.59

Auxiliary antenna: 5250 MHz



Center Frequency	5250 MHz	Center Frequency	5250 MHz
Horizontal (dBi) peak	-1.34	Horizontal (dBi) average	-6.11
Vertical (dBi) peak	-0.64	Vertical (dBi) average	-6.79
Horz+Vert (dBi) peak	-0.60	Horz+Vert (dBi) average	-3.43

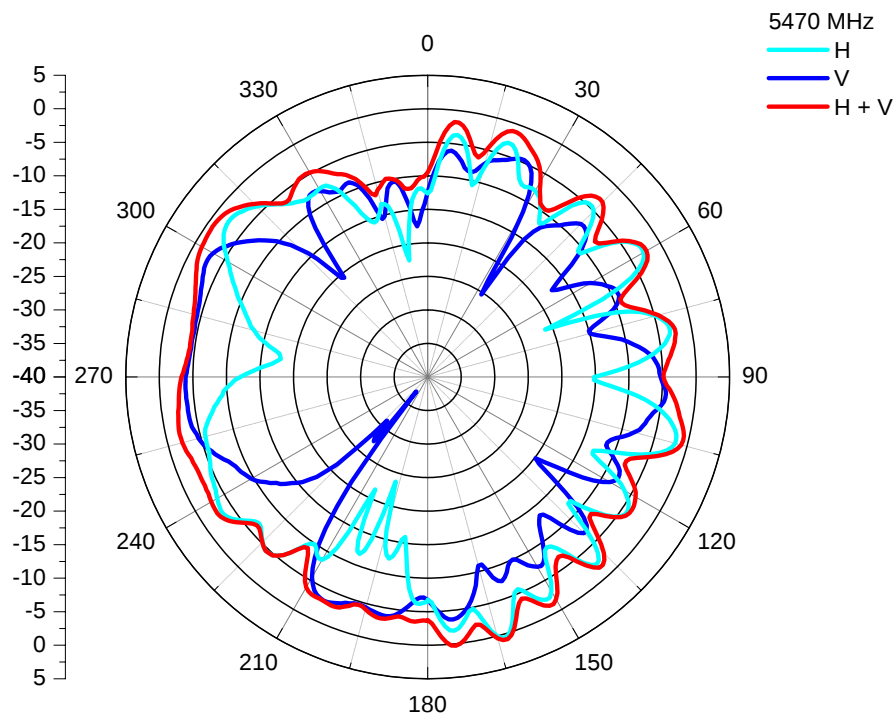
Auxiliary antenna: 5350 MHz



Center Frequency	5350 MHz	Center Frequency	5350 MHz
Horizontal (dBi) peak	-1.04	Horizontal (dBi) average	-6.44
Vertical (dBi) peak	-1.69	Vertical (dBi) average	-6.65
Horz+Vert (dBi) peak	-0.37	Horz+Vert (dBi) average	-3.54

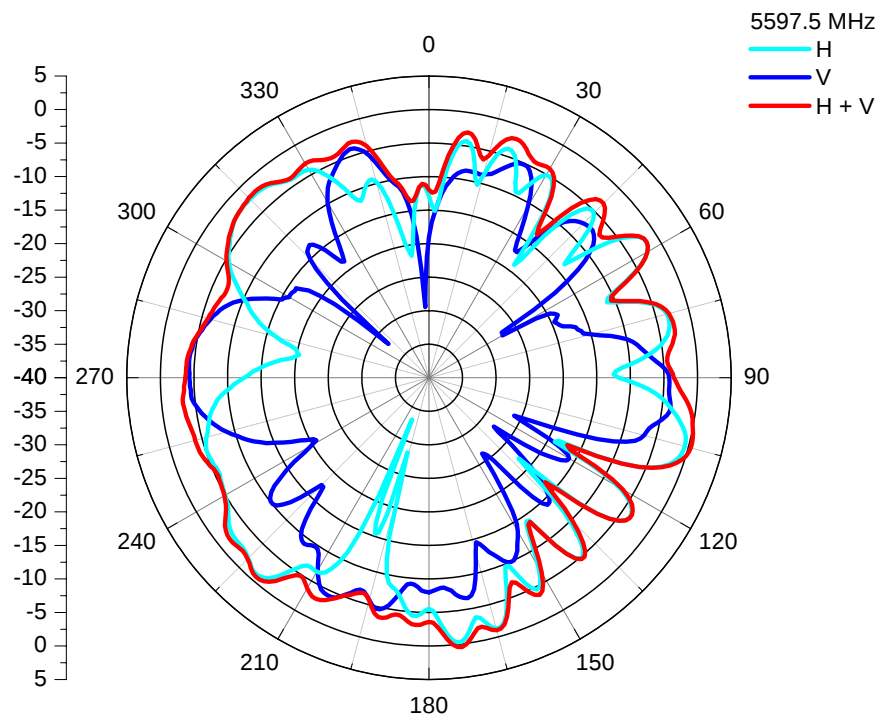
5470-5725MHz radiation characteristic

Main antenna: 5470 MHz



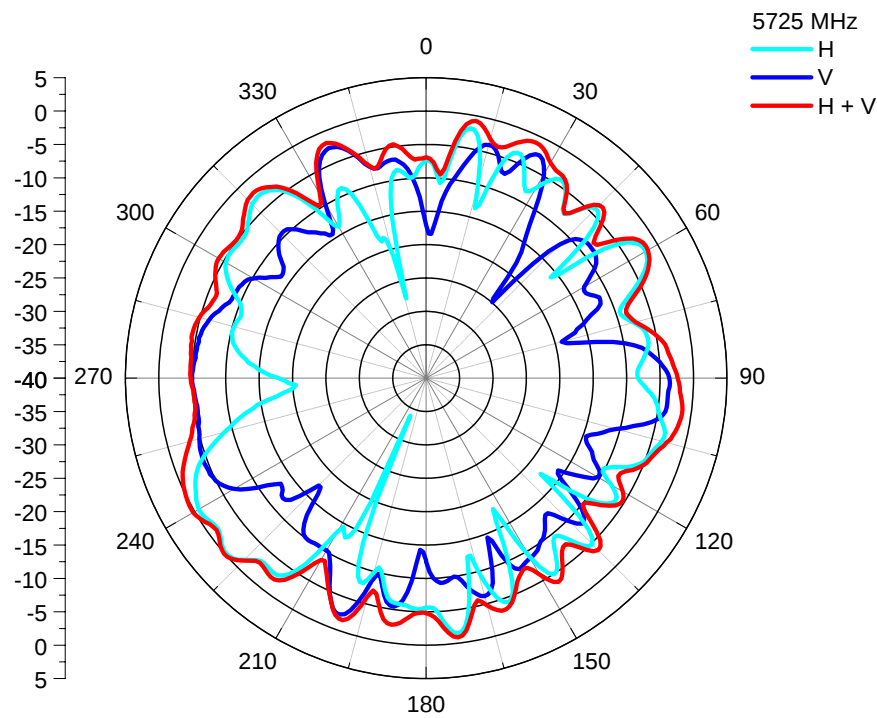
Center Frequency	5470 MHz	Center Frequency	5470 MHz
Horizontal (dBi) peak	0.52	Horizontal (dBi) average	-6.16
Vertical (dBi) peak	-2.82	Vertical (dBi) average	-7.23
Horz+Vert (dBi) peak	0.86	Horz+Vert (dBi) average	-3.65

Main antenna: 5597.5 MHz



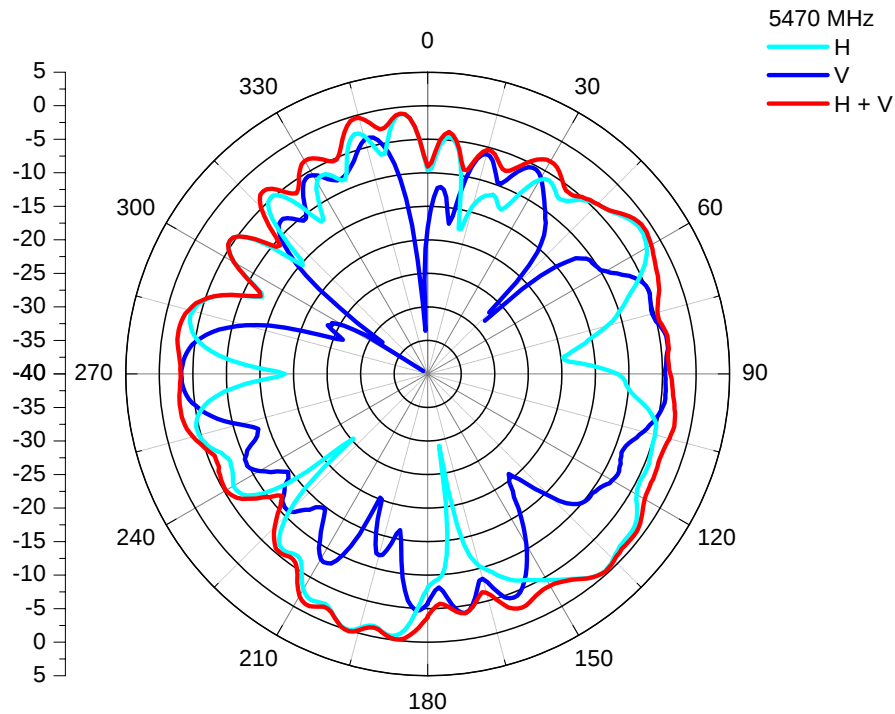
Center Frequency	5597.5 MHz	Center Frequency	5597.5 MHz
Horizontal (dBi) peak	-0.32	Horizontal (dBi) average	-5.56
Vertical (dBi) peak	-3.74	Vertical (dBi) average	-8.78
Horz+Vert (dBi) peak	0.45	Horz+Vert (dBi) average	-3.87

Main antenna: 5725 MHz



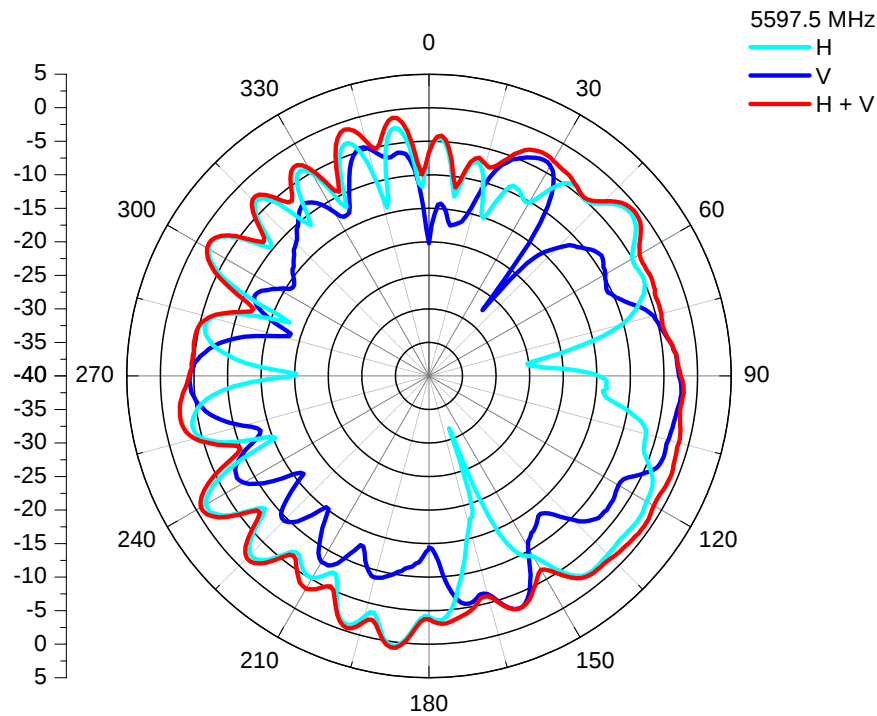
Center Frequency	5725 MHz	Center Frequency	5725 MHz
Horizontal (dBi) peak	-0.19	Horizontal (dBi) average	-5.92
Vertical (dBi) peak	-2.32	Vertical (dBi) average	-7.65
Horz+Vert (dBi) peak	0.25	Horz+Vert (dBi) average	-3.69

Auxiliary antenna: 5470 MHz



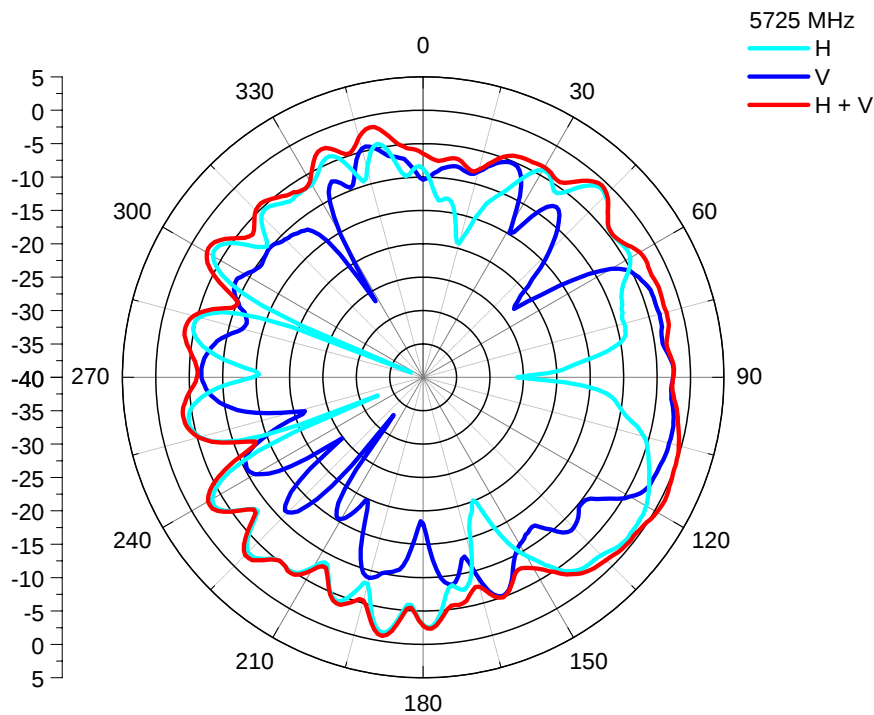
Center Frequency	5470 MHz	Center Frequency	5470 MHz
Horizontal (dBi) peak	-0.08	Horizontal (dBi) average	-5.27
Vertical (dBi) peak	-3.28	Vertical (dBi) average	-8.02
Horz+Vert (dBi) peak	0.12	Horz+Vert (dBi) average	-3.42

Auxiliary antenna: 5597.5 MHz



Center Frequency	5597.5 MHz	Center Frequency	5597.5 MHz
Horizontal (dBi) peak	0.57	Horizontal (dBi) average	-5.31
Vertical (dBi) peak	-2.29	Vertical (dBi) average	-7.55
Horz+Vert (dBi) peak	0.87	Horz+Vert (dBi) average	-3.28

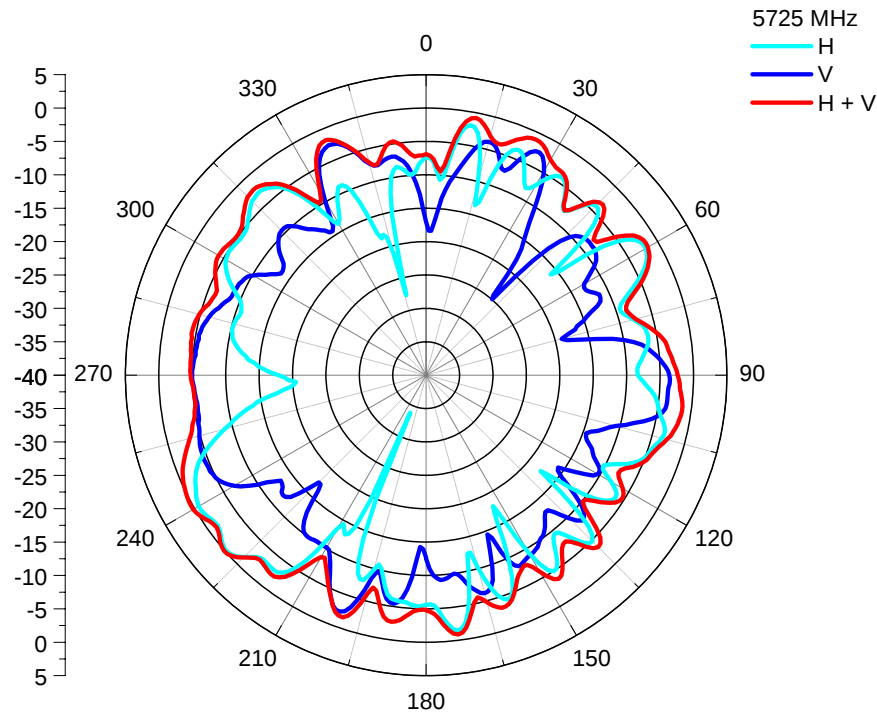
Auxiliary antenna: 5725 MHz



Center Frequency	5725 MHz	Center Frequency	5725 MHz
Horizontal (dBi) peak	-1.04	Horizontal (dBi) average	-5.71
Vertical (dBi) peak	-1.84	Vertical (dBi) average	-7.62
Horz+Vert (dBi) peak	0.58	Horz+Vert (dBi) average	-3.55

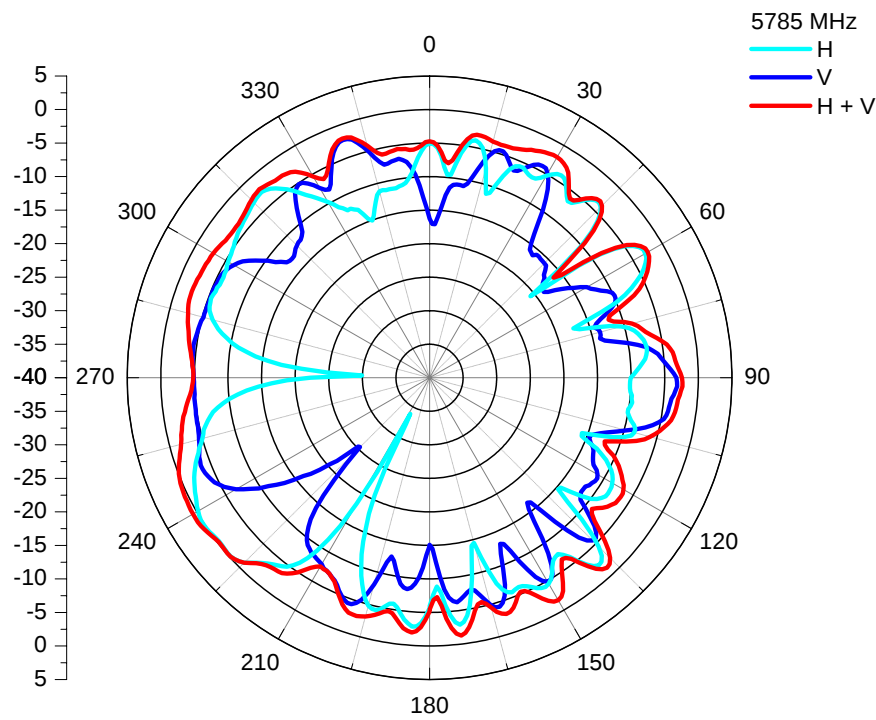
5725-5850 MHz radiation characteristic

Main antenna: 5725 MHz



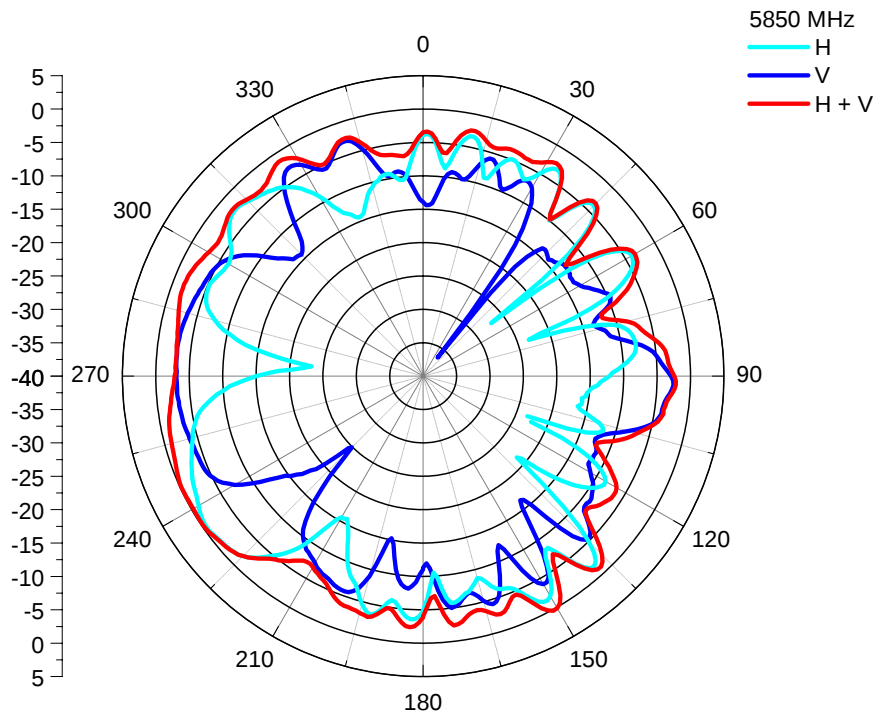
Center Frequency	5725 MHz	Center Frequency	5725 MHz
Horizontal (dBi) peak	-0.19	Horizontal (dBi) average	-5.92
Vertical (dBi) peak	-2.32	Vertical (dBi) average	-7.65
Horz+Vert (dBi) peak	0.25	Horz+Vert (dBi) average	-3.69

Main antenna: 5785 MHz



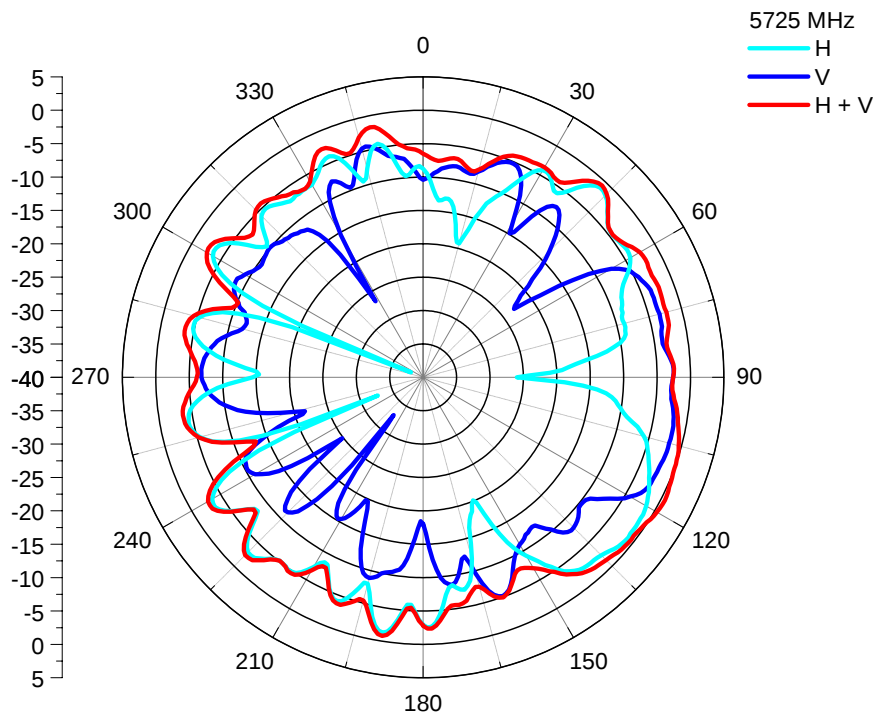
Center Frequency	5785 MHz	Center Frequency	5785 MHz
Horizontal (dBi) peak	0.30	Horizontal (dBi) average	-5.71
Vertical (dBi) peak	-2.14	Vertical (dBi) average	-7.32
Horz+Vert (dBi) peak	0.98	Horz+Vert (dBi) average	-3.43

Main antenna: 5850 MHz



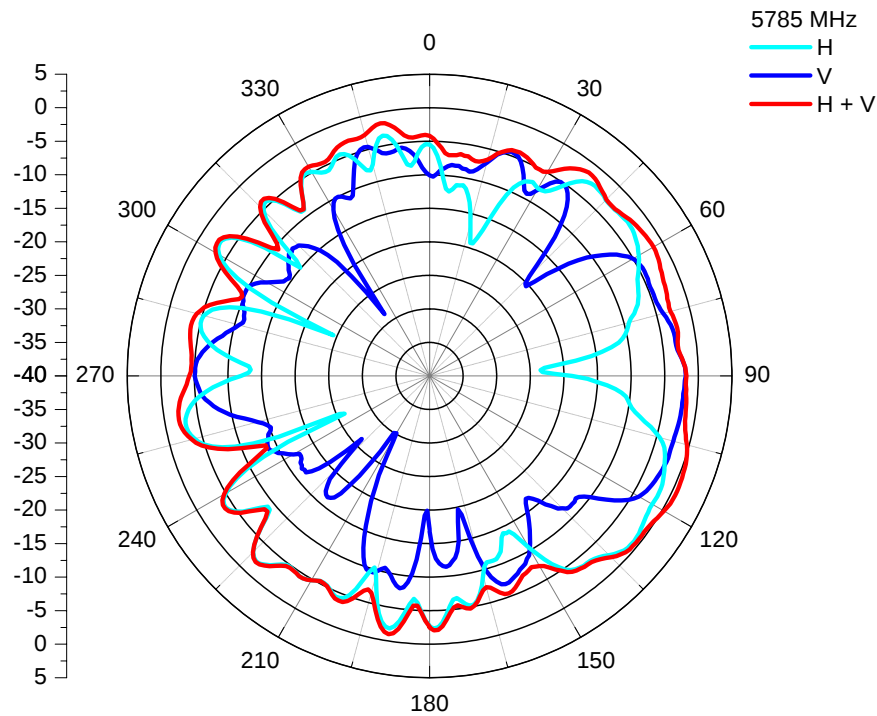
Center Frequency	5850 MHz	Center Frequency	5850 MHz
Horizontal (dBi) peak	-0.48	Horizontal (dBi) average	-5.99
Vertical (dBi) peak	-2.51	Vertical (dBi) average	-6.92
Horz+Vert (dBi) peak	0.18	Horz+Vert (dBi) average	-3.42

Auxiliary antenna: 5725 MHz



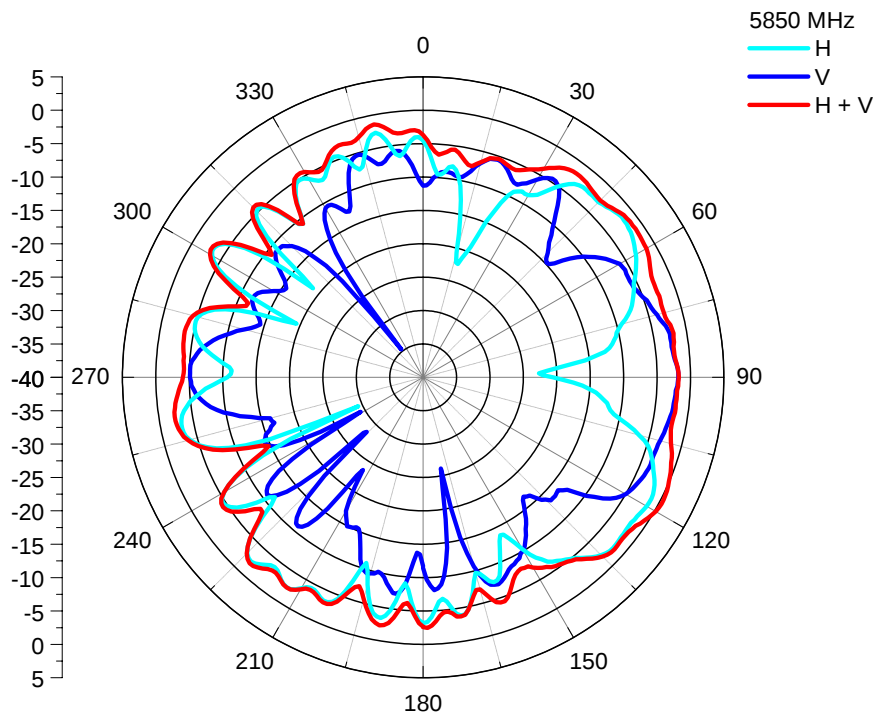
Center Frequency	5725 MHz	Center Frequency	5725 MHz
Horizontal (dBi) peak	-1.04	Horizontal (dBi) average	-5.71
Vertical (dBi) peak	-1.84	Vertical (dBi) average	-7.62
Horz+Vert (dBi) peak	0.58	Horz+Vert (dBi) average	-3.55

Auxiliary antenna: 5785 MHz



Center Frequency	5785 MHz	Center Frequency	5785 MHz
Horizontal (dBi) peak	-0.62	Horizontal (dBi) average	-5.66
Vertical (dBi) peak	-1.84	Vertical (dBi) average	-7.46
Horz+Vert (dBi) peak	0.72	Horz+Vert (dBi) average	-3.46

Auxiliary antenna: 5850 MHz



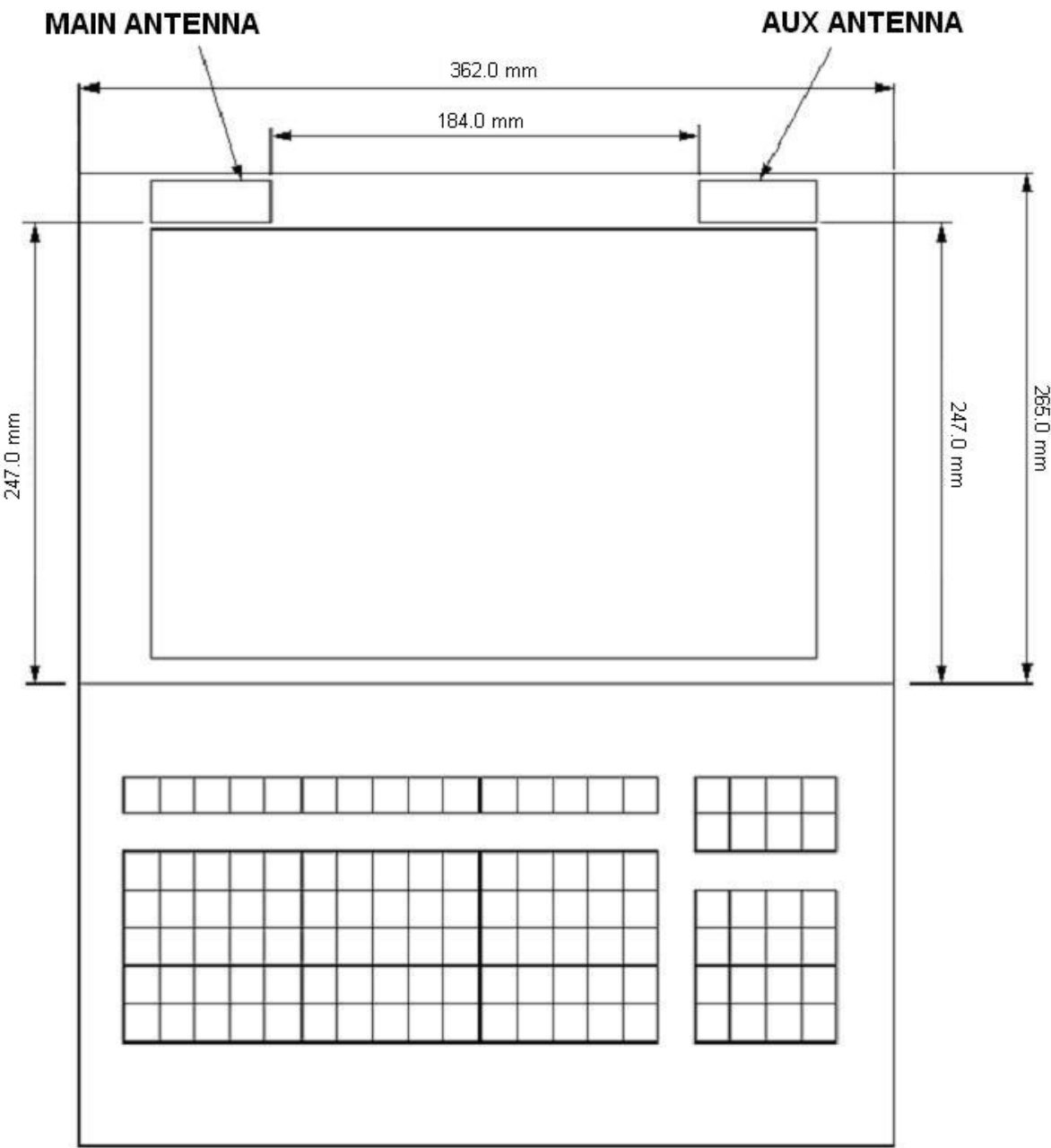
Center Frequency	5850 MHz	Center Frequency	5850 MHz
Horizontal (dBi) peak	-1.31	Horizontal (dBi) average	-5.49
Vertical (dBi) peak	-1.81	Vertical (dBi) average	-7.80
Horz+Vert (dBi) peak	0.39	Horz+Vert (dBi) average	-3.49

Section 4. Host Platform Information

OEM / ODM Host platform: JET Topaz platform correlated to antenna data

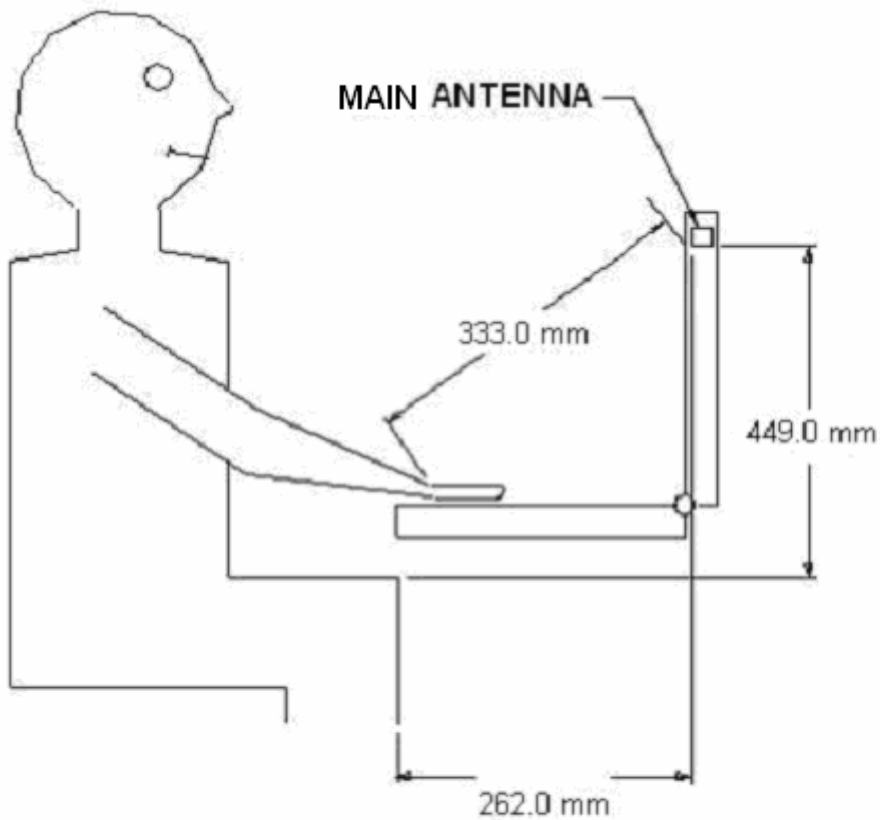
Section 5. Antenna Host Platform Location Information

The dimensioned drawings of main and auxiliary antenna placements.



Section 6. Antenna dimensional information for SAR evaluation

The dimensioned drawings showing the distance (mm) between the transmit (main) antenna and the user (excluding hands, wrist, feet, and ankle)



Section 7. Diagram Example of Co-Location Antenna Separation

Indicate distance between WLAN module antennas and Bluetooth/other radio antenna element.

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)

