

Regulatory WLAN Antenna Information HTL008

Toshiba Corporation

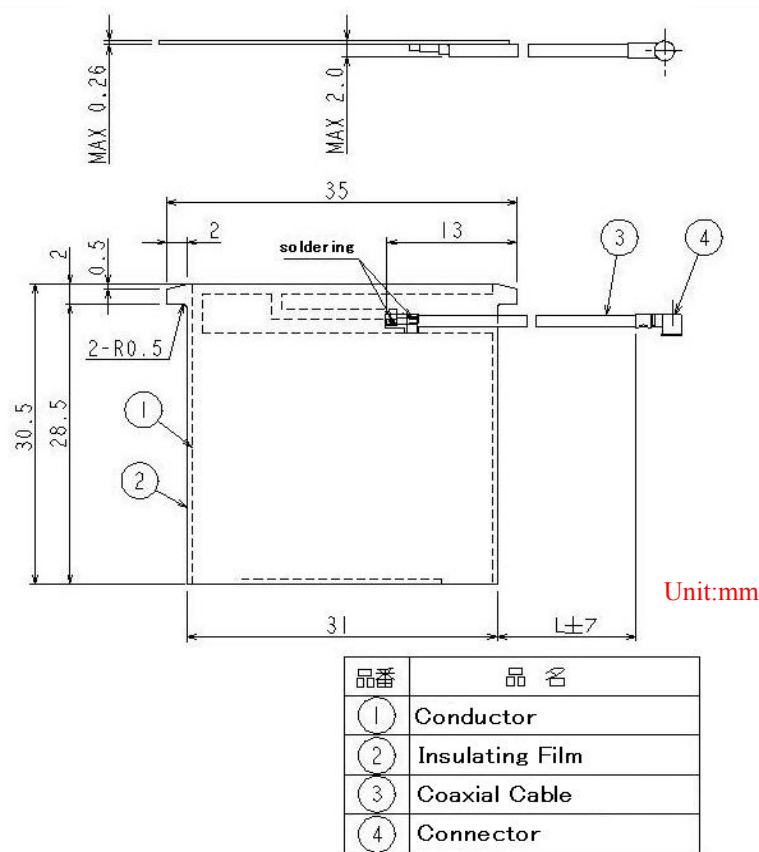
Section 1. Antenna Assembly Specifications

Antenna Assembly Summary:

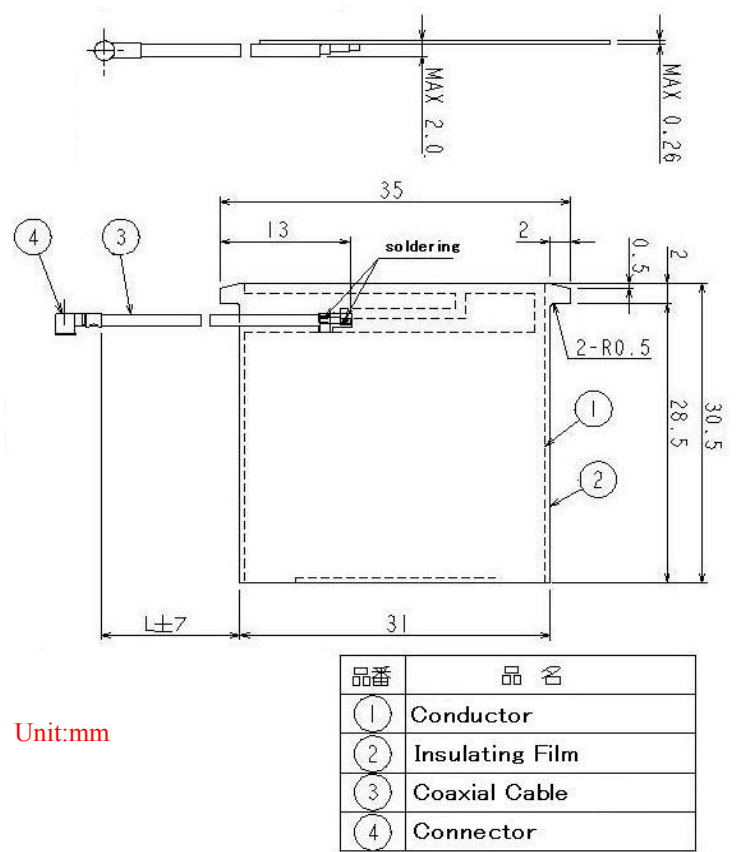
1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	1E Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
P/N:HTL008	Hitachi Cable ,Ltd.	2.4GHz:PIFA 5GHz:Loop	P/N: HTL008-C334 50 ohm Coaxial. length: 715mm diameter: 1.0mm Connector: U.FL	2400-2500MHz 0.2 dBi (peak)	2400-2500MHz 2.24 dBi (peak)	2400-2500MHz 1.41 max	2400-2500MHz 2.04 dBi (peak)
				5150-5350MHz 0.8 dBi (peak)	5150-5350MHz 3.77 dBi (peak)	5150-5350MHz 1.41 max	5150-5350MHz 2.97 dBi (peak)
				5470-5725MHz 1.2 dBi (peak)	5470-5725MHz 4.26 dBi (peak)	5470-5725MHz 1.86 max	5470-5725MHz 3.06 dBi (peak)
				5725-5850MHz -2.4 dBi (peak)	5725-5850MHz 0.72 dBi (peak)	5725-5850MHz 1.98 max	5725-5850MHz 3.12 dBi (peak)
P/N: HTL008	Hitachi Cable ,Ltd.	2.4GHz:PIFA 5GHz:Loop	P/N: HTL008-C334 50 ohm Coaxial. length: 838mm diameter: 1.0mm Connector: U.FL	2400-2500MHz 0.5 dBi (peak)	2400-2500MHz 2.89 dBi (peak)	2400-2500MHz 1.43 max	2400-2500MHz 2.39 dBi (peak)
				5150-5350MHz -0.4 dBi (peak)	5150-5350MHz 3.08 dBi (peak)	5150-5350MHz 1.24 max	5150-5350MHz 3.48 dBi (peak)
				5470-5725MHz -1.4 dBi (peak)	5470-5725MHz 2.19 dBi (peak)	5470-5725MHz 1.67 max	5470-5725MHz 3.59 dBi (peak)
				5725-5850MHz -3.2 dBi (peak)	5725-5850MHz 0.45 dBi (peak)	5725-5850MHz 1.78 max	5725-5850MHz 3.65 dBi (peak)

Section 2. Dimensioned Photos or Drawings of Antennas

Include a dimensioned photo or dimensioned drawing of main antenna here.



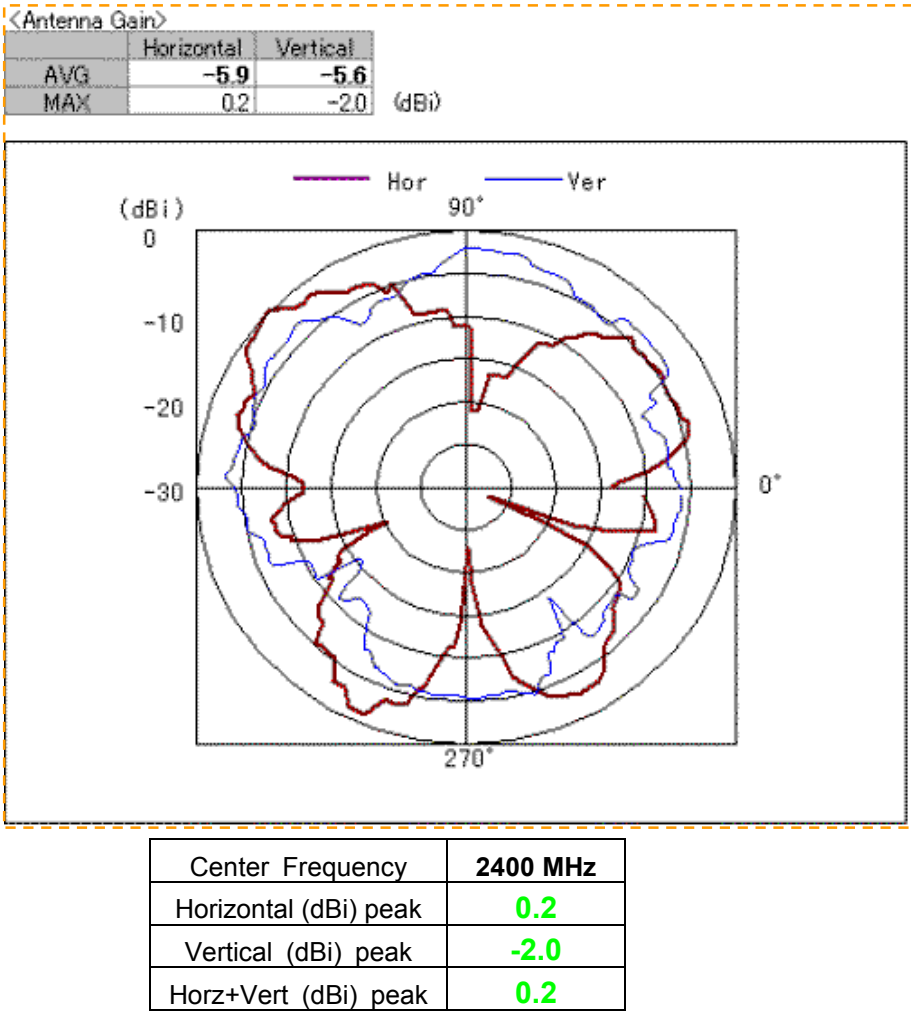
Include a dimensioned photo or dimensioned drawing of aux antenna here.



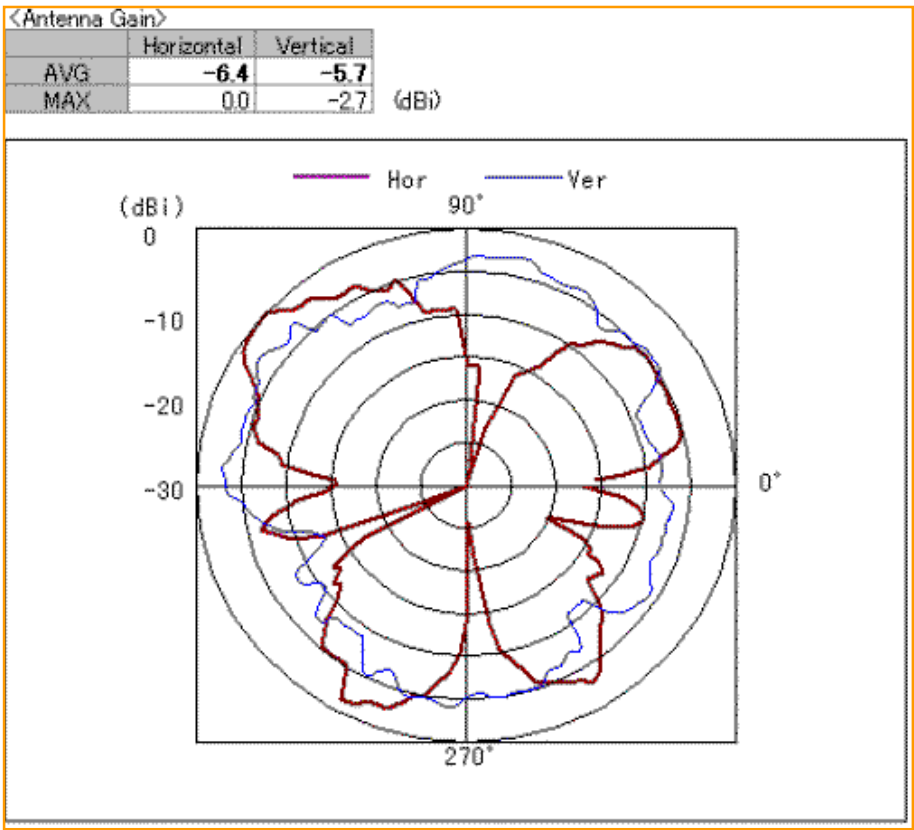
Section 3. Radiation characteristics of antennae Loaded in Host Platform

2400-2500MHz radiation characteristic

Main antenna: 2400 MHz

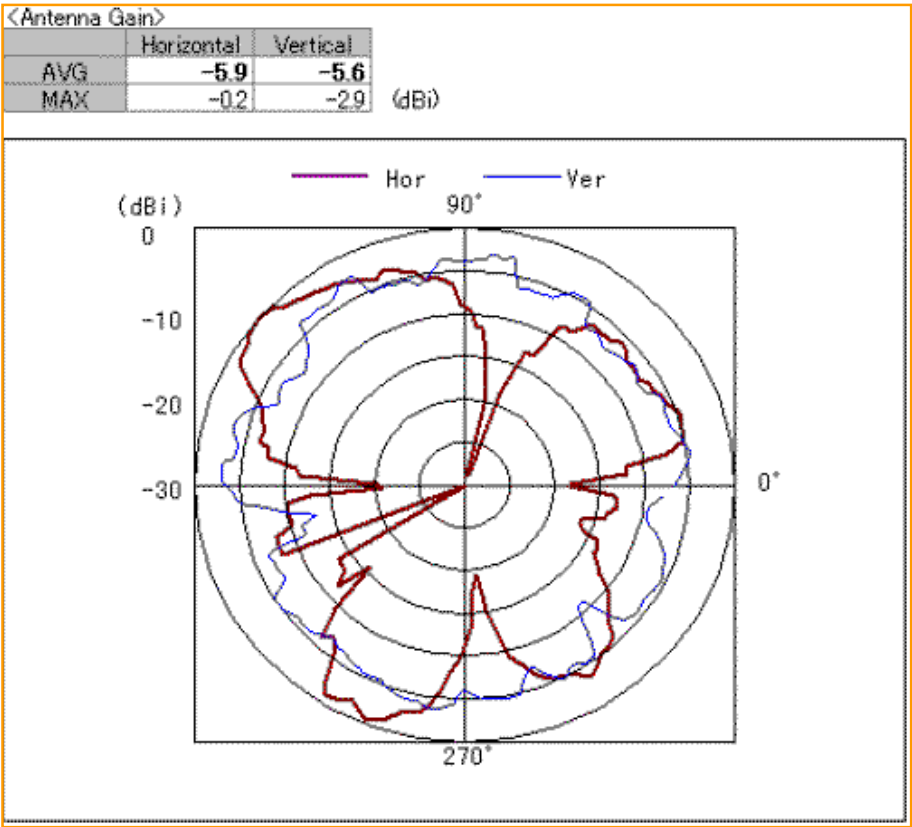


Main antenna: 2450 MHz



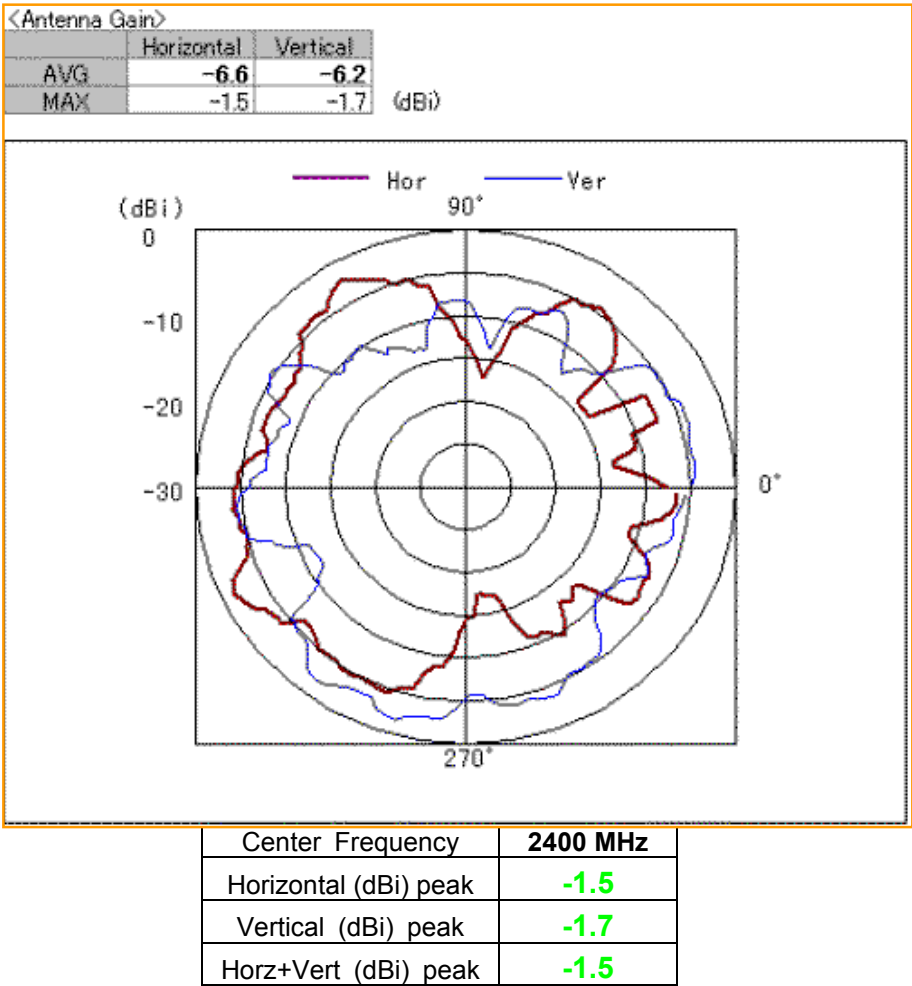
Center Frequency	2450 MHz
Horizontal (dBi) peak	0.0
Vertical (dBi) peak	-2.7
Horz+Vert (dBi) peak	0.0

Main antenna: 2500 MHz

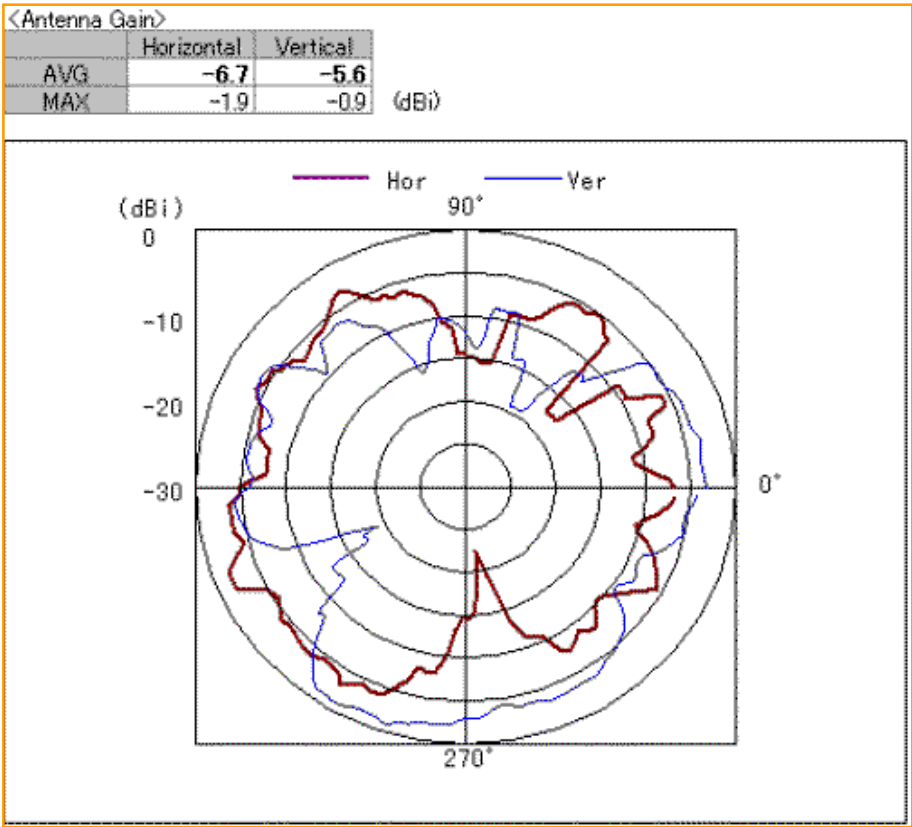


Center Frequency	2500 MHz
Horizontal (dBi) peak	-0.2
Vertical (dBi) peak	-2.9
Horz+Vert (dBi) peak	-0.2

Auxiliary antenna: 2400 MHz

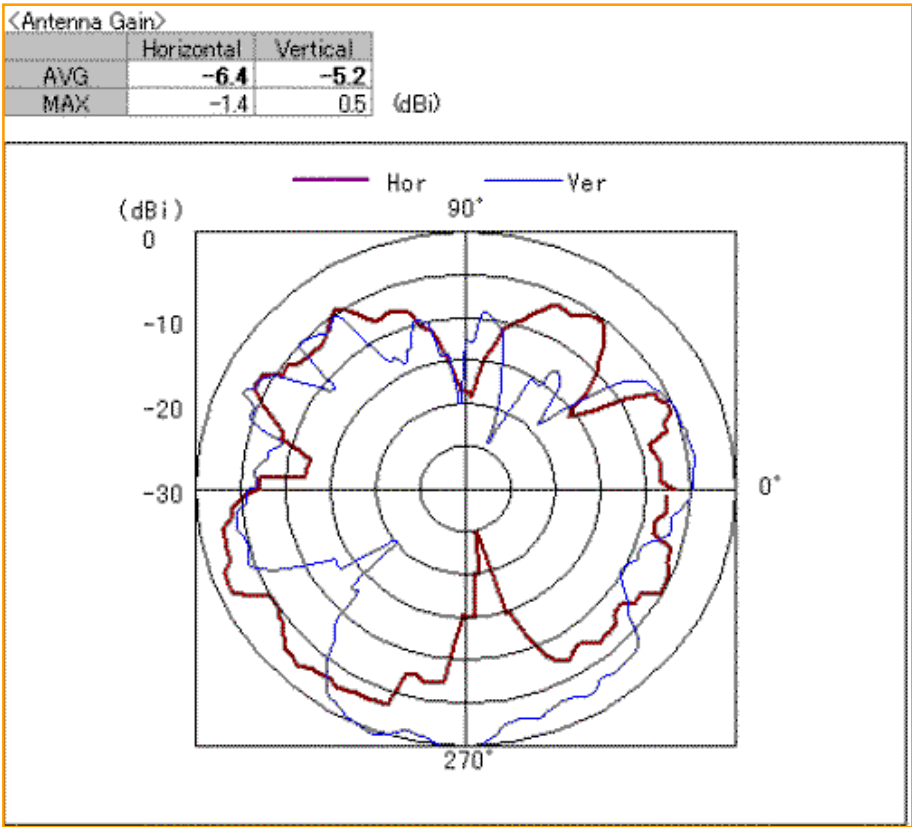


Auxiliary antenna: 2450 MHz



Center Frequency	2450 MHz
Horizontal (dBi) peak	-1.9
Vertical (dBi) peak	-0.9
Horz+Vert (dBi) peak	-0.9

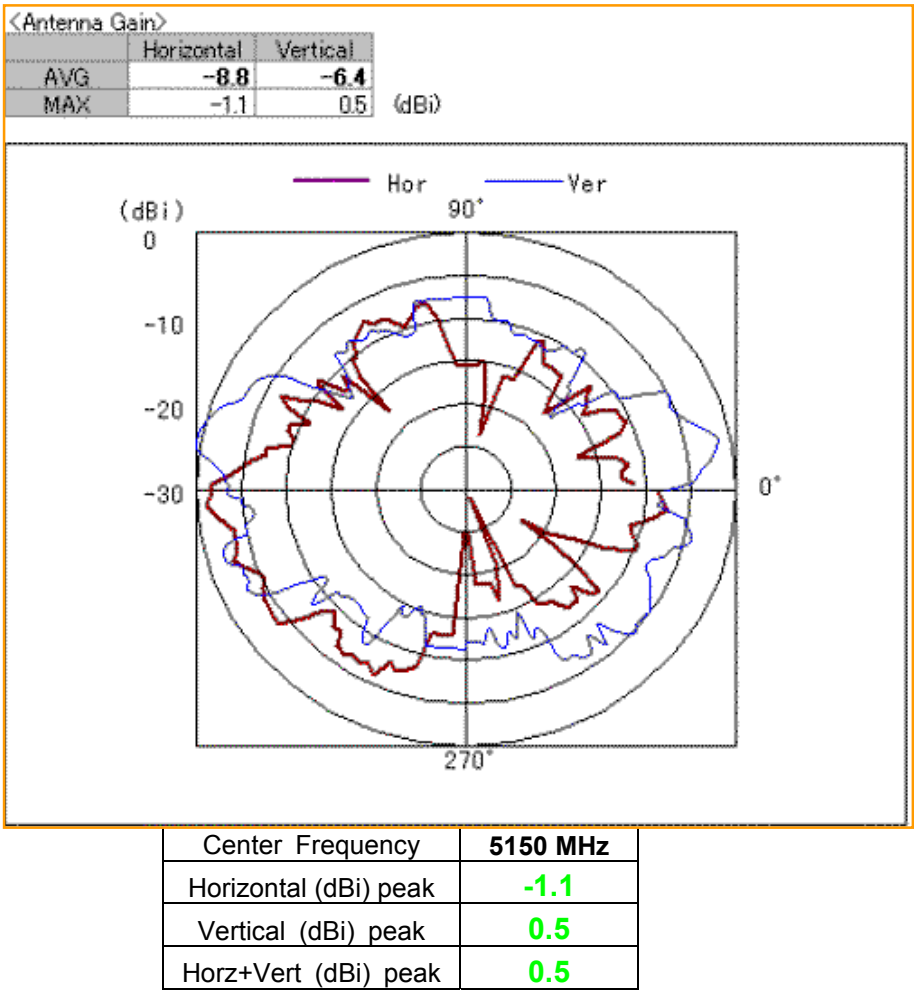
Auxiliary antenna: 2500 MHz



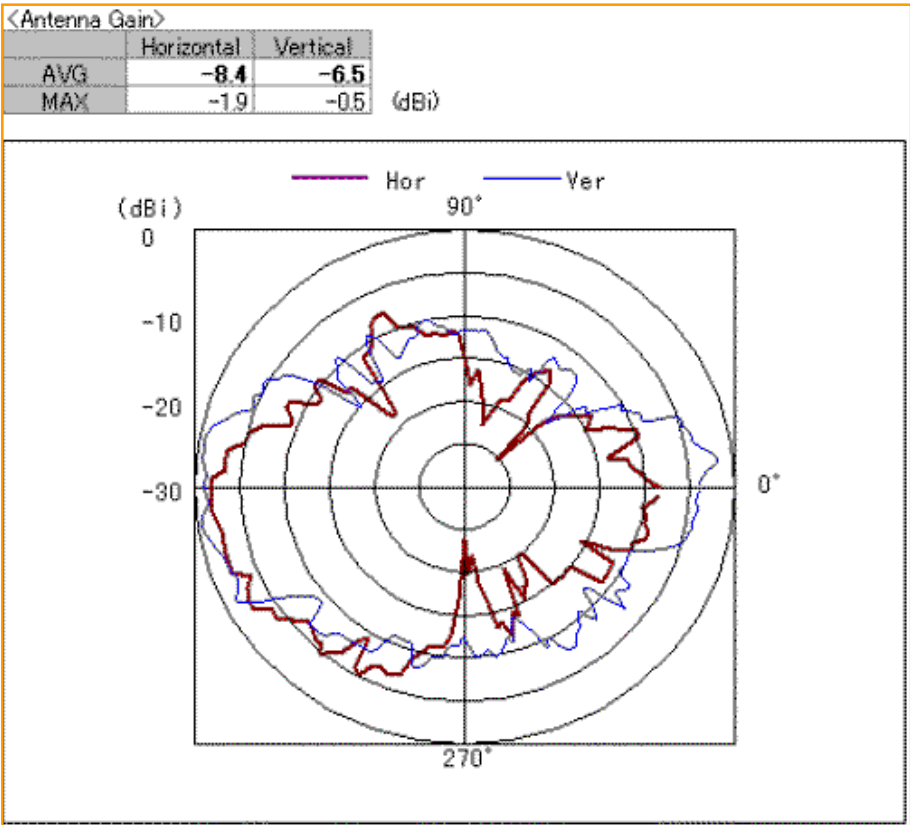
Center Frequency	2500 MHz
Horizontal (dBi) peak	-1.4
Vertical (dBi) peak	0.5
Horz+Vert (dBi) peak	0.5

5150-5350 MHz radiation characteristic

Main antenna: 5150 MHz

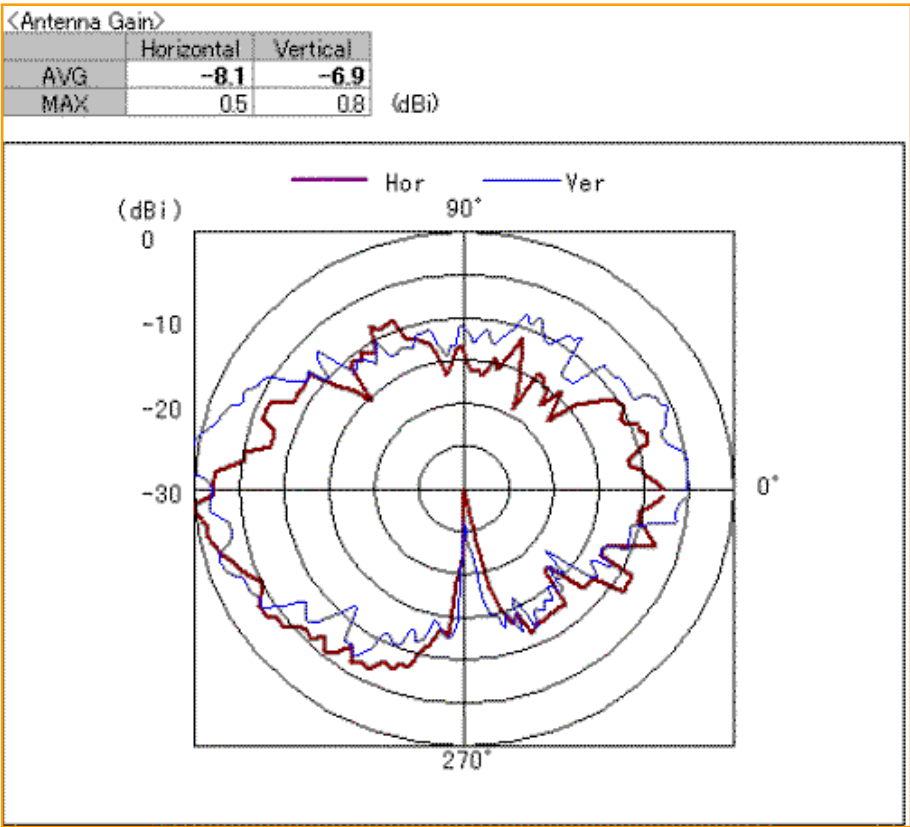


Main antenna: 5250 MHz



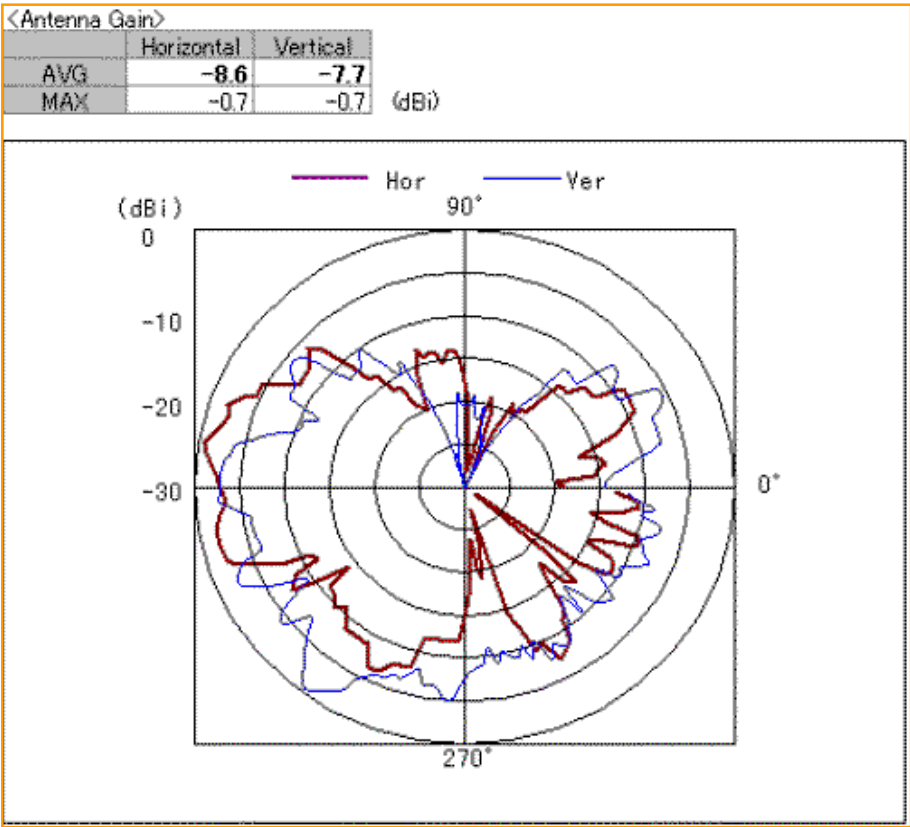
Center Frequency	5250 MHz
Horizontal (dBi) peak	-1.9
Vertical (dBi) peak	-0.5
Horz+Vert (dBi) peak	-0.5

Main antenna: 5350 MHz



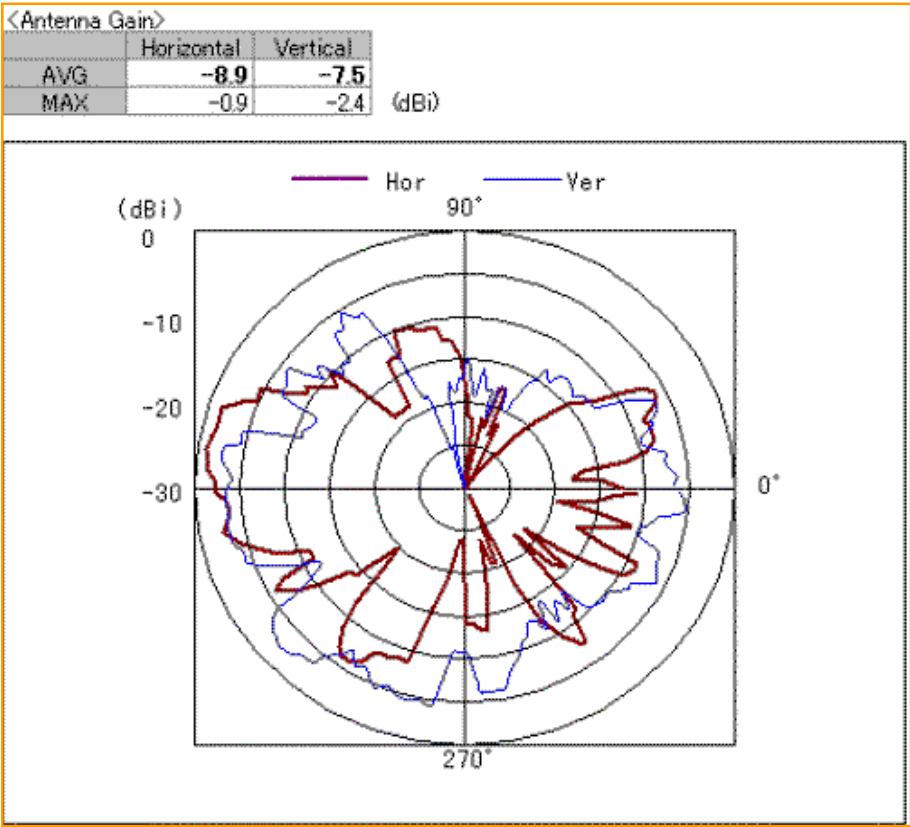
Center Frequency	5350 MHz
Horizontal (dBi) peak	0.5
Vertical (dBi) peak	0.8
Horz+Vert (dBi) peak	0.8

Auxiliary antenna: 5150 MHz



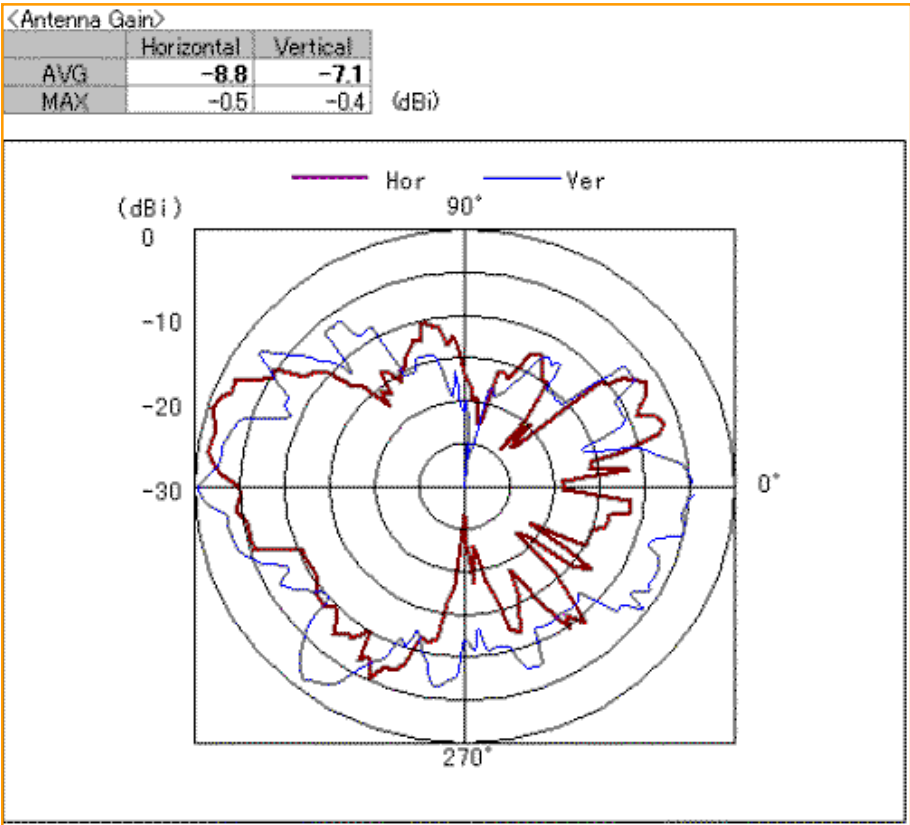
Center Frequency	5150 MHz
Horizontal (dBi) peak	-0.7
Vertical (dBi) peak	-0.7
Horz+Vert (dBi) peak	-0.7

Auxiliary antenna: 5250 MHz



Center Frequency	5250 MHz
Horizontal (dBi) peak	-0.9
Vertical (dBi) peak	-2.4
Horz+Vert (dBi) peak	-0.9

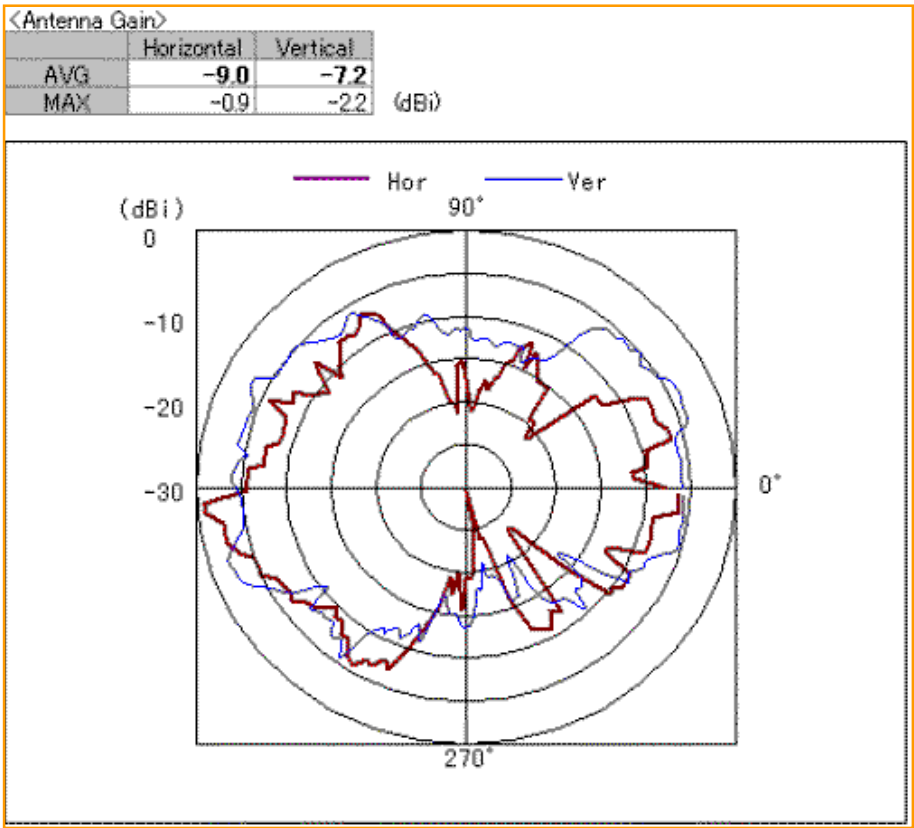
Auxiliary antenna: 5350 MHz



Center Frequency	5350 MHz
Horizontal (dBi) peak	-0.5
Vertical (dBi) peak	-0.4
Horz+Vert (dBi) peak	-0.4

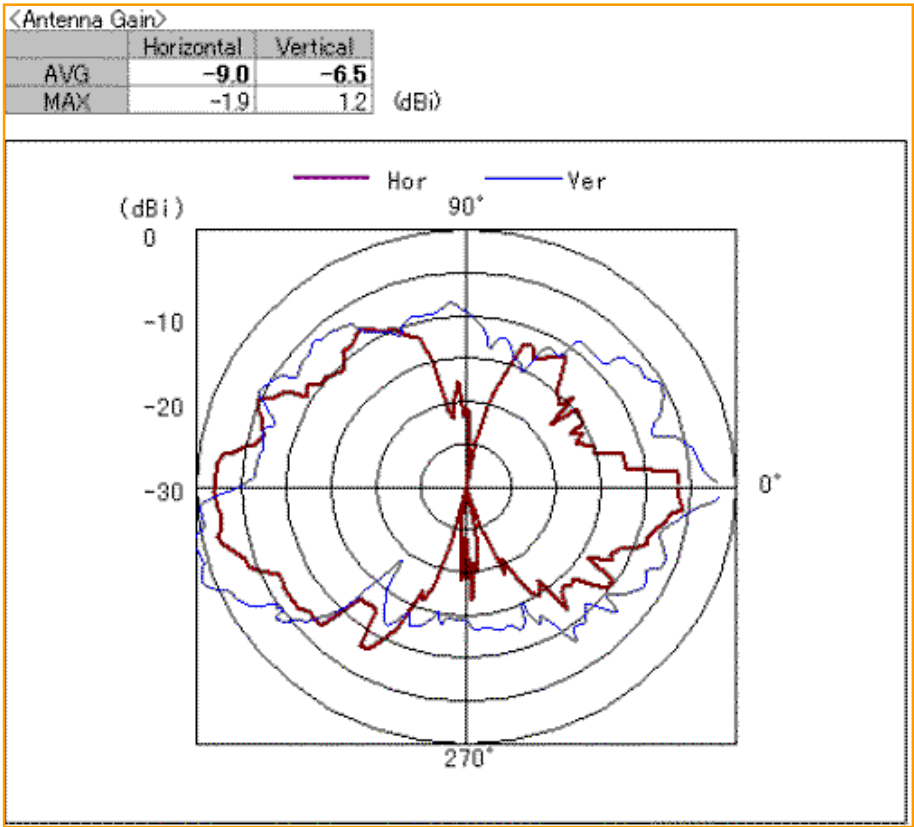
5470-5725MHz radiation characteristic

Main antenna: 5470 MHz



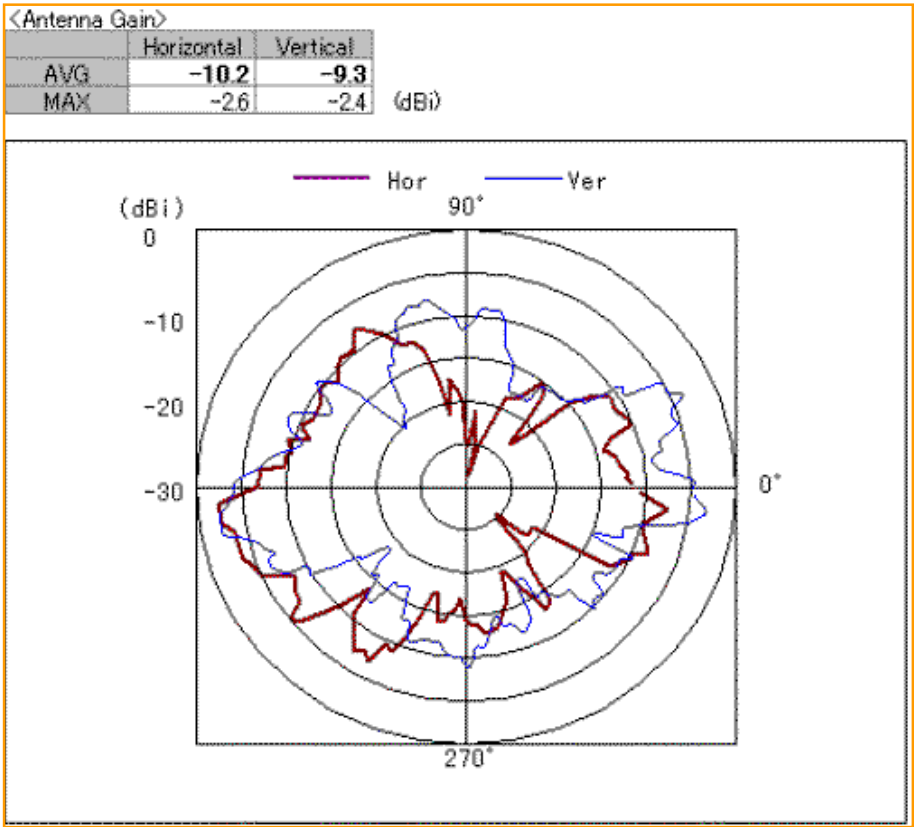
Center Frequency	5470 MHz
Horizontal (dBi) peak	-0.9
Vertical (dBi) peak	-2.2
Horz+Vert (dBi) peak	-0.9

Main antenna: 5597.5 MHz



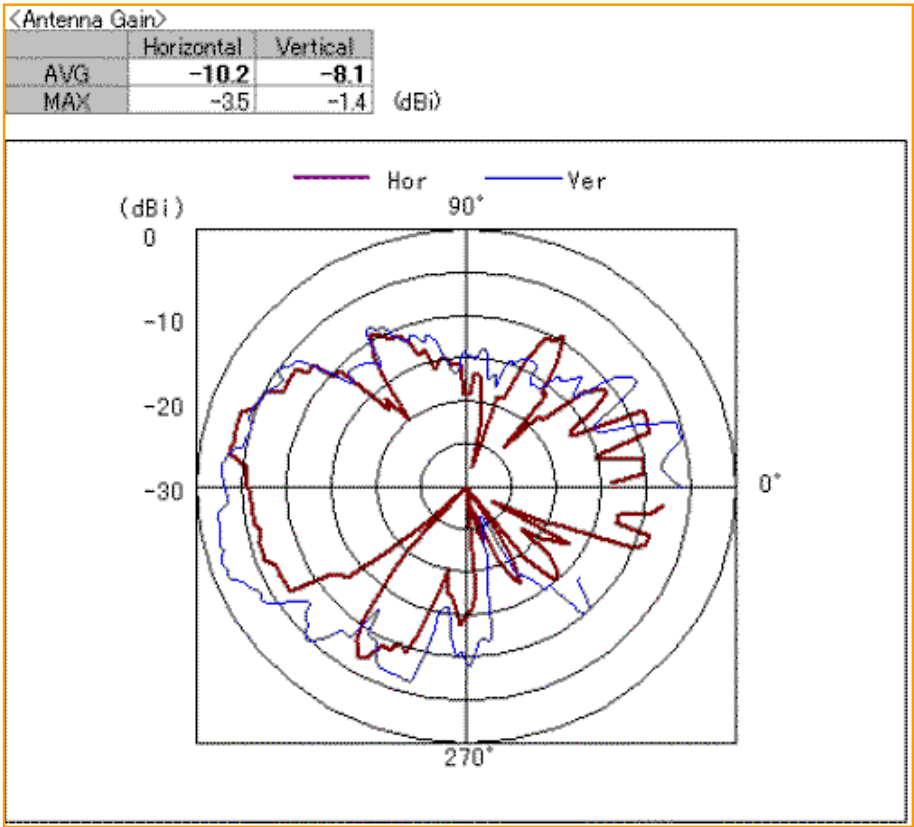
Center Frequency	5597.5 MHz
Horizontal (dBi) peak	-1.9
Vertical (dBi) peak	1.2
Horz+Vert (dBi) peak	1.2

Main antenna: 5725 MHz



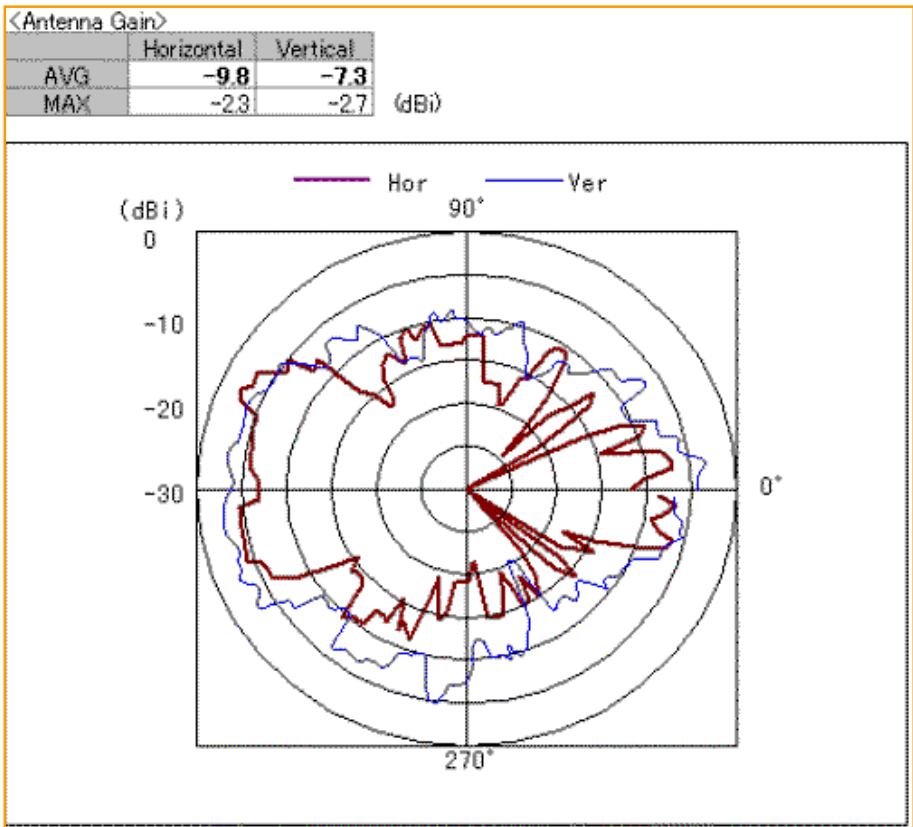
Center Frequency	5725 MHz
Horizontal (dBi) peak	-2.6
Vertical (dBi) peak	-2.4
Horz+Vert (dBi) peak	-2.4

Auxiliary antenna: 5470 MHz



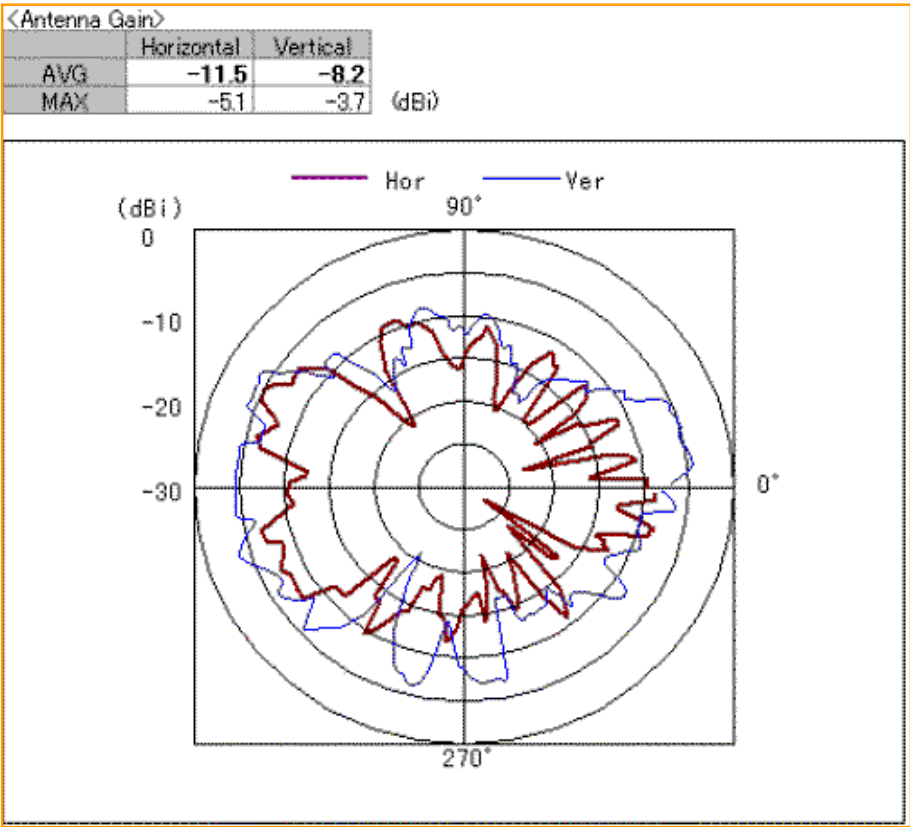
Center Frequency	5470 MHz
Horizontal (dBi) peak	-3.5
Vertical (dBi) peak	-1.4
Horz+Vert (dBi) peak	-1.4

Auxiliary antenna: 5597.5 MHz



Center Frequency	5597.5 MHz
Horizontal (dBi) peak	-2.3
Vertical (dBi) peak	-2.7
Horz+Vert (dBi) peak	-2.3

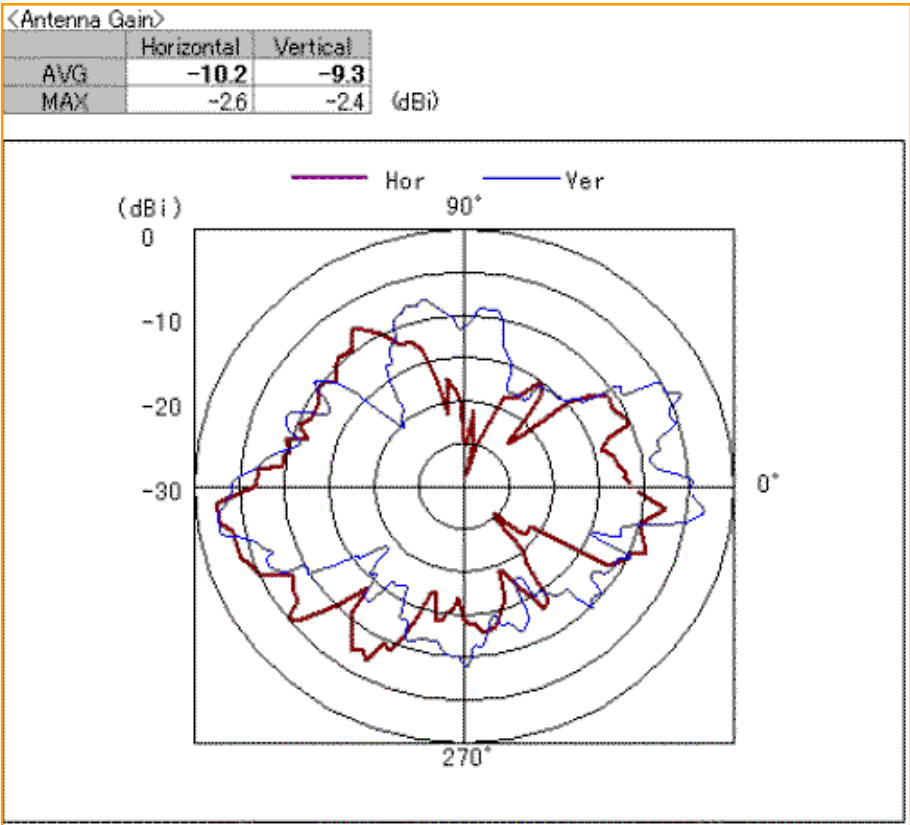
Auxiliary antenna: 5725 MHz



Center Frequency	5725 MHz
Horizontal (dBi) peak	-5.1
Vertical (dBi) peak	-3.7
Horz+Vert (dBi) peak	-3.7

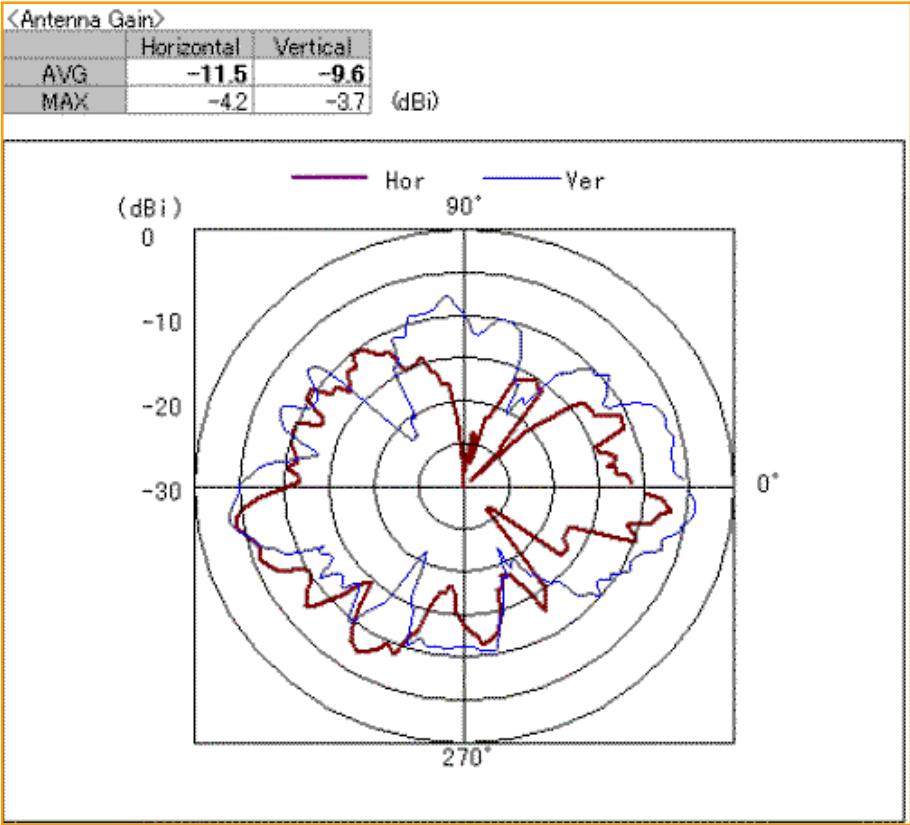
5725-5850 MHz radiation characteristic

Main antenna: 5725 MHz



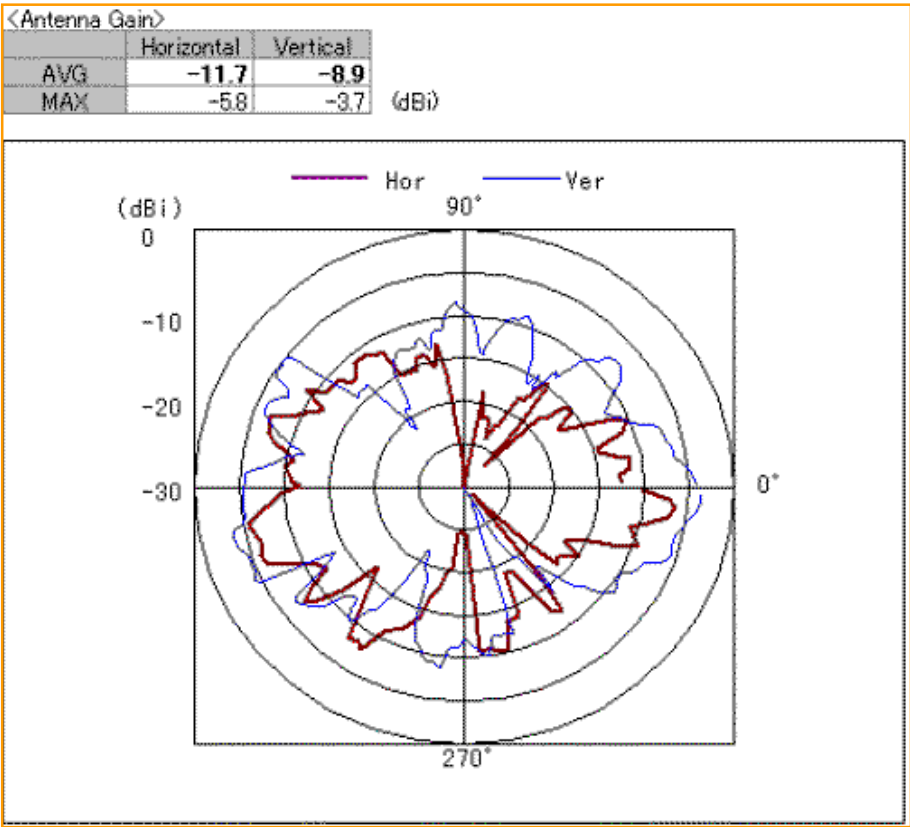
Center Frequency	5725 MHz
Horizontal (dBi) peak	-2.6
Vertical (dBi) peak	-2.4
Horz+Vert (dBi) peak	-2.4

Main antenna: 5785 MHz



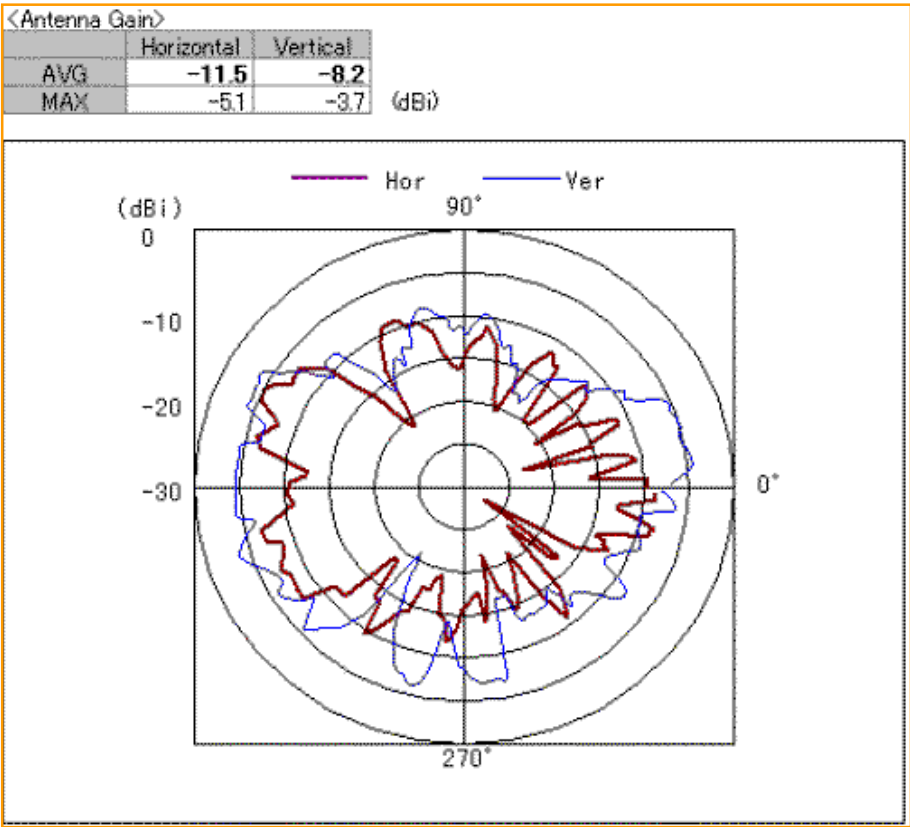
Center Frequency	5785 MHz
Horizontal (dBi) peak	-4.2
Vertical (dBi) peak	-3.7
Horz+Vert (dBi) peak	-3.7

Main antenna: 5850 MHz



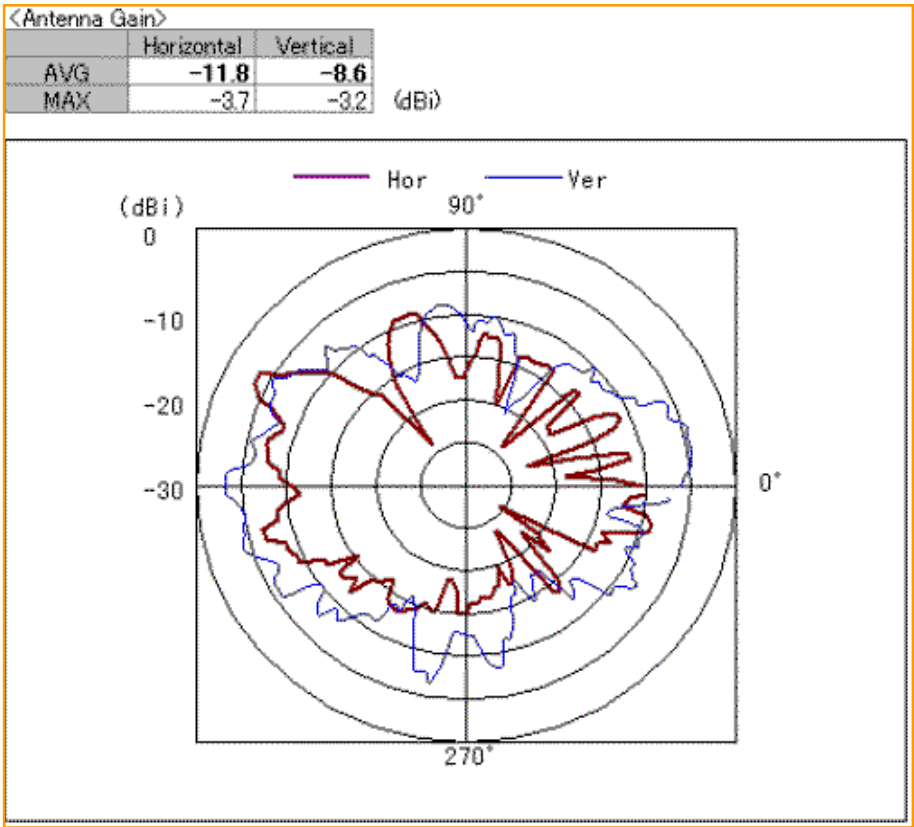
Center Frequency	5850 MHz
Horizontal (dBi) peak	-5.8
Vertical (dBi) peak	-3.7
Horz+Vert (dBi) peak	-3.7

Auxiliary antenna: 5725 MHz



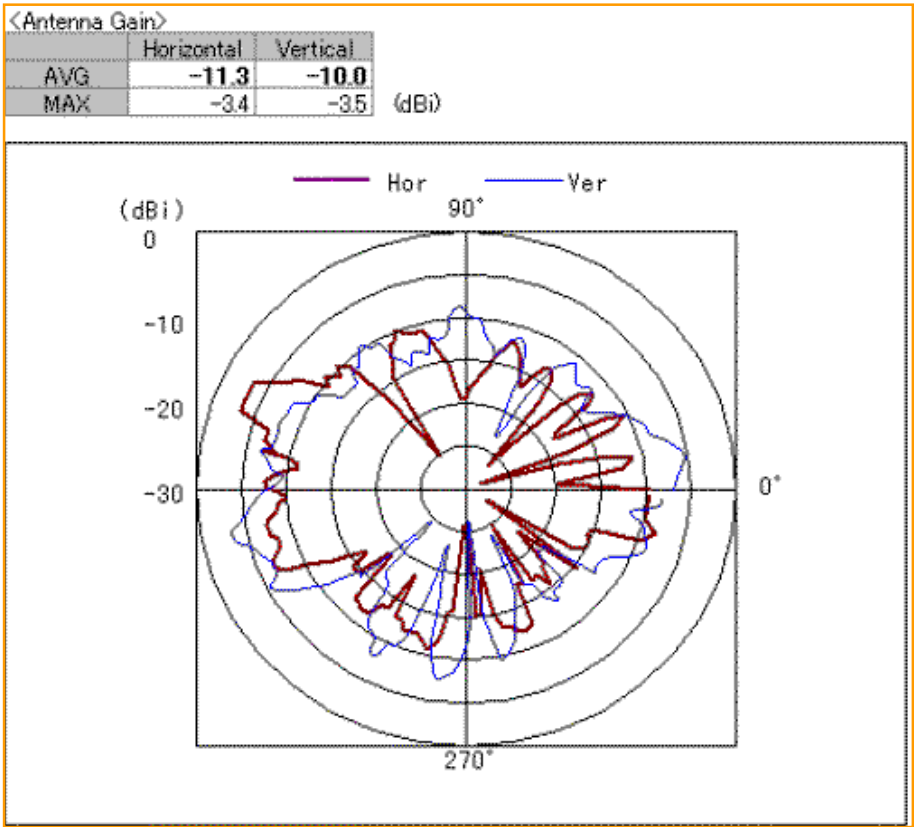
Center Frequency	5725 MHz
Horizontal (dBi) peak	-5.1
Vertical (dBi) peak	-3.7
Horz+Vert (dBi) peak	-3.7

Auxiliary antenna: 5785 MHz



Center Frequency	5785 MHz
Horizontal (dBi) peak	-3.7
Vertical (dBi) peak	-3.2
Horz+Vert (dBi) peak	-3.2

Auxiliary antenna: 5850 MHz



Center Frequency	5850 MHz
Horizontal (dBi) peak	-3.4
Vertical (dBi) peak	-3.5
Horz+Vert (dBi) peak	-3.4