Regulatory WLAN Antenna Information
WNC001

(English Language Required for Intel Regulatory Review / Approval)

**(OEM/ODM or antenna vendor is required to complete this document with platform antenna information.
Remove Intel references and make this your own document)**

Brand Name	Toshiba Satellite J40
Model Name	EE2-C
Antenna Vendor	WNC
Antenna name	WNC001
Antenna Part Number	☐ Main Antenna: 81.EE215.002
	☐ Aux Antenna: 81.EE215.001

Antenna Sample / Antenna Data
Requirements for worldwide regulatory approval

Section	Description of Required OEM / ODM Antenna Information	US / IC	EU	Japan	Taiwan	S.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 and 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. (S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.	Required	Required	Desired	Required (Photos)	Required (Photos)
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
8	Local representative contact information for LMA/ PARS process.	Required	N/A	N/A	N/A	N/A

Antenna Information

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)
Main Antenna (WNC P/N: 81.EE215.002)	Wistron Neweb Corporation	PIFA	P/N: 50.EE201.001 50 ohm Coaxial. length: 306 mm diameter: 1.13 mm Connector: IPEX	2400-2500MHz -1.10 dBi (peak) 5150-5350MHz 0.76 dBi (peak) 5470-5875MHz 1.18 dBi (peak)	2400-2500MHz 0.07 dBi (peak) 5150-5350MHz 2.49 dBi (peak) 5470-5875MHz 2.95 dBi (peak)	2400-2500MHz 2.0 max 5150-5350MHz 2.5 max 5470-5875MHz 2.5 max	2400-2500MHz 1.17 dBi (peak) 5150-5350MHz 1.73 dBi (peak) 5470-5875MHz 1.77 dBi (peak)
AUX Antenna (WNC P/N: 81.EE215.001)	Wistron Neweb Corporation	PIFA	PN: 50.EE202.001 50 ohm Coaxial. length: 306 mm diameter: 1.13 mm Connector: IPEX	2400-2500MHz 1.76 dBi (peak) 5150-5350MHz 0.38 dBi (peak) 5470-5875MHz 0.46 dBi (peak)	2400-2500MHz 2.93 dBi (peak) 5150-5350MHz 2.11 dBi (peak) 5470-5875MHz 2.23 dBi (peak)	2400-2500MHz 2.0 max 5150-5350MHz 2.5 max 5470-5875MHz 2.5 max	2400-2500MHz 1.17 dBi (peak) 5150-5350MHz 1.73 dBi (peak) 5470-5875MHz 1.77 dBi (peak)

Antenna Peak Gain Table:

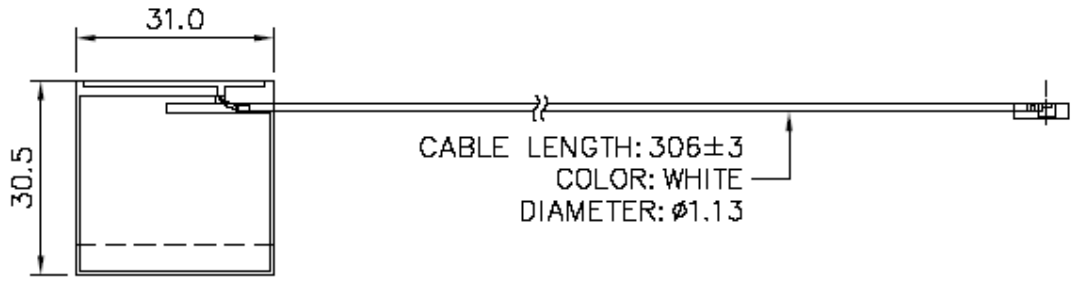
	Main antenna		Aux Antenna	
Frequency (MHz)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2400	-1.53	-3.44	0.16	-2.67
2450	-1.10	-2.33	1.31	-1.58
2500	-1.27	-2.92	1.76	-1.49
4900	-0.61	-3.29	-2.71	-4.23
5150	-0.42	-2.01	-0.67	-2.84
5350	0.76	-0.89	0.38	-2.10
5470	1.18	-0.52	-0.31	-2.47
5647.5	-0.41	-1.55	0.46	-3.36
5875	-0.42	0.03	-0.24	-1.69

- **Antenna Peak Gain required being test in system basis.**
- **1E frame contend absolutely peak antenna gain include H/ V/ H+V.**

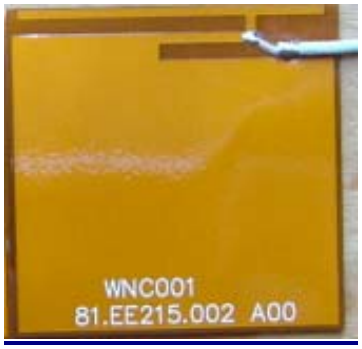
Section 2. Dimensioned Photos or Drawings of Antennas

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

Main Antenna Dimensioned Drawing:

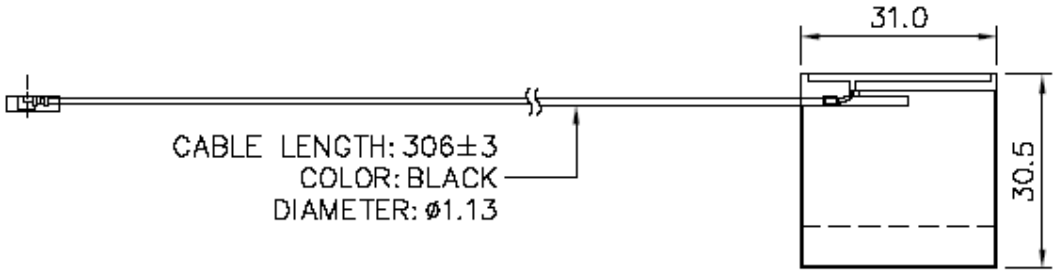


Main Antenna Photo:



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

Aux Antenna Dimensioned Drawing:

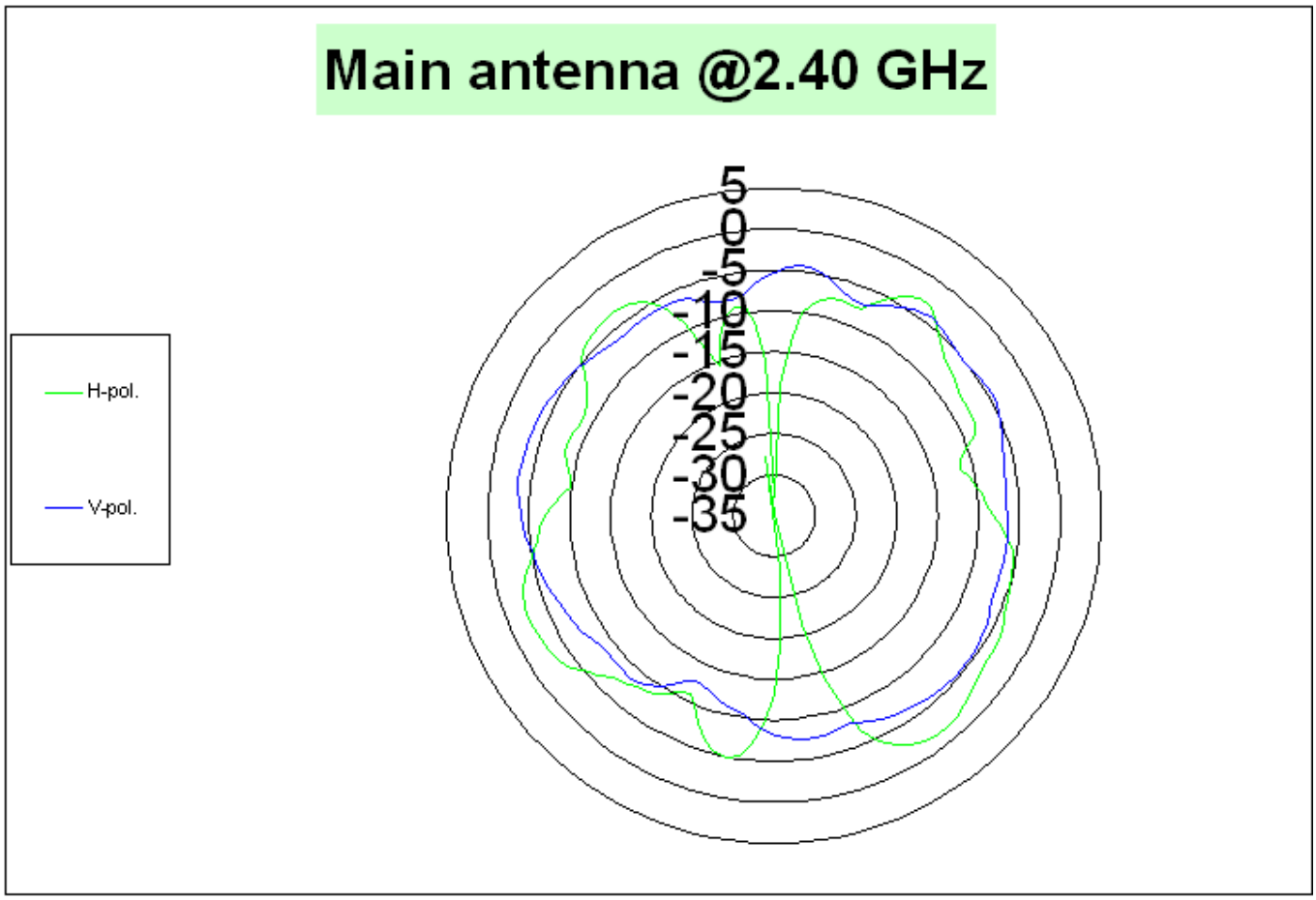


Aux Antenna Photo:

Section 3. Radiation characteristics of antennae Loaded in Host Platform

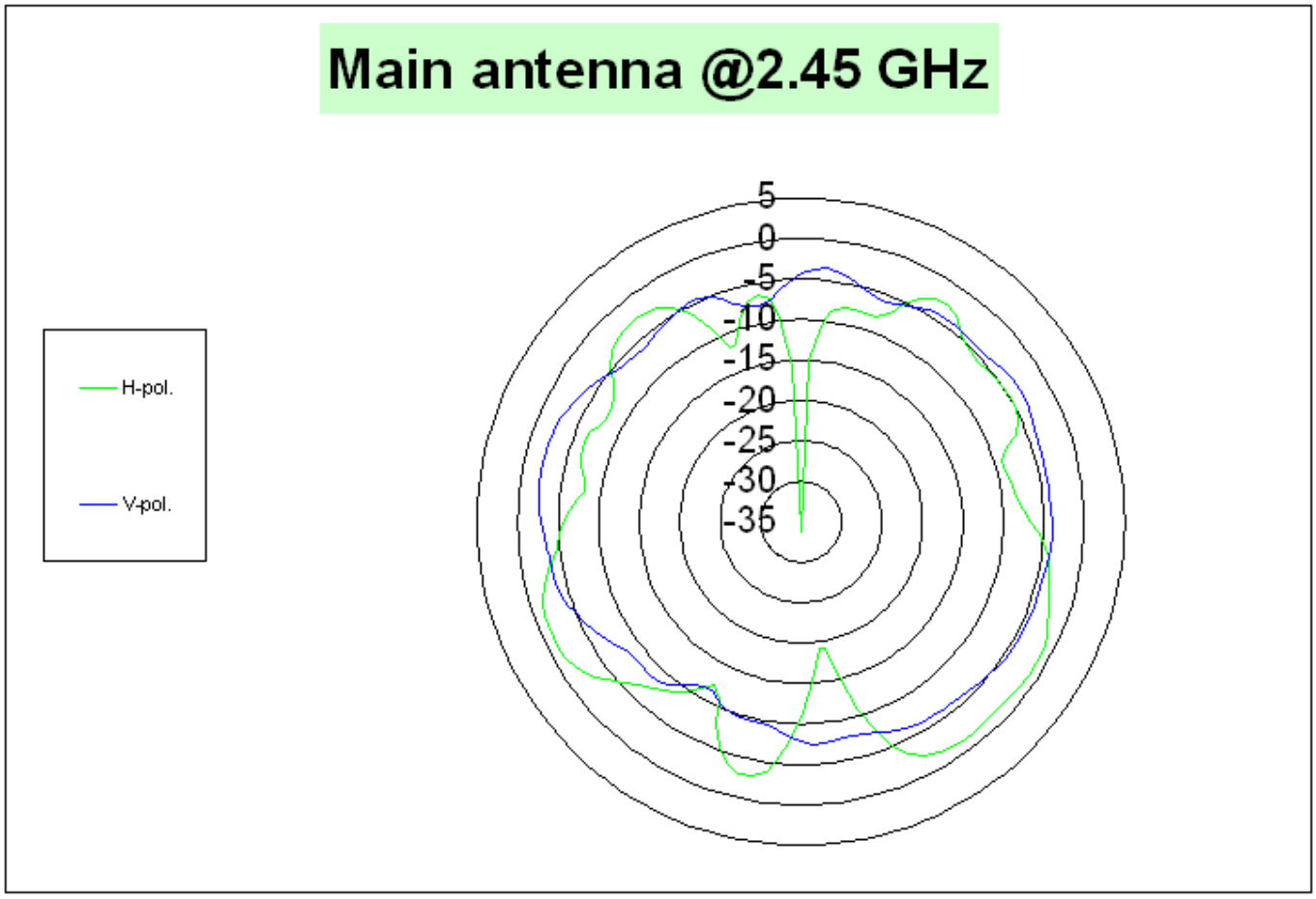
2400-2500MHz radiation characteristic

Main antenna: 2400 MHz



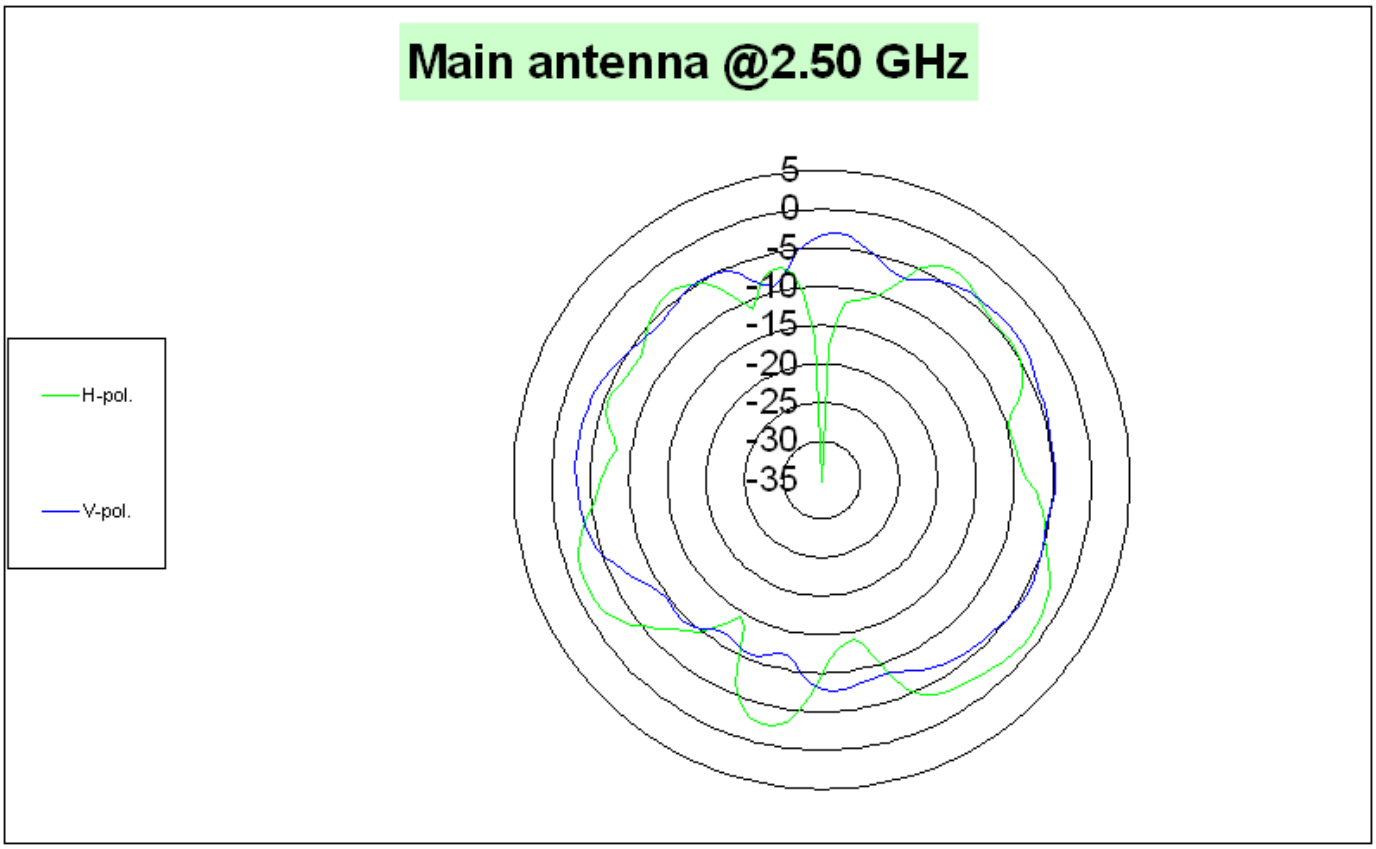
	H-pol	V pol
Peak Gain	-1.53	-3.44
Average Gain	-6.66	-6.26

Main antenna: 2450 MHz



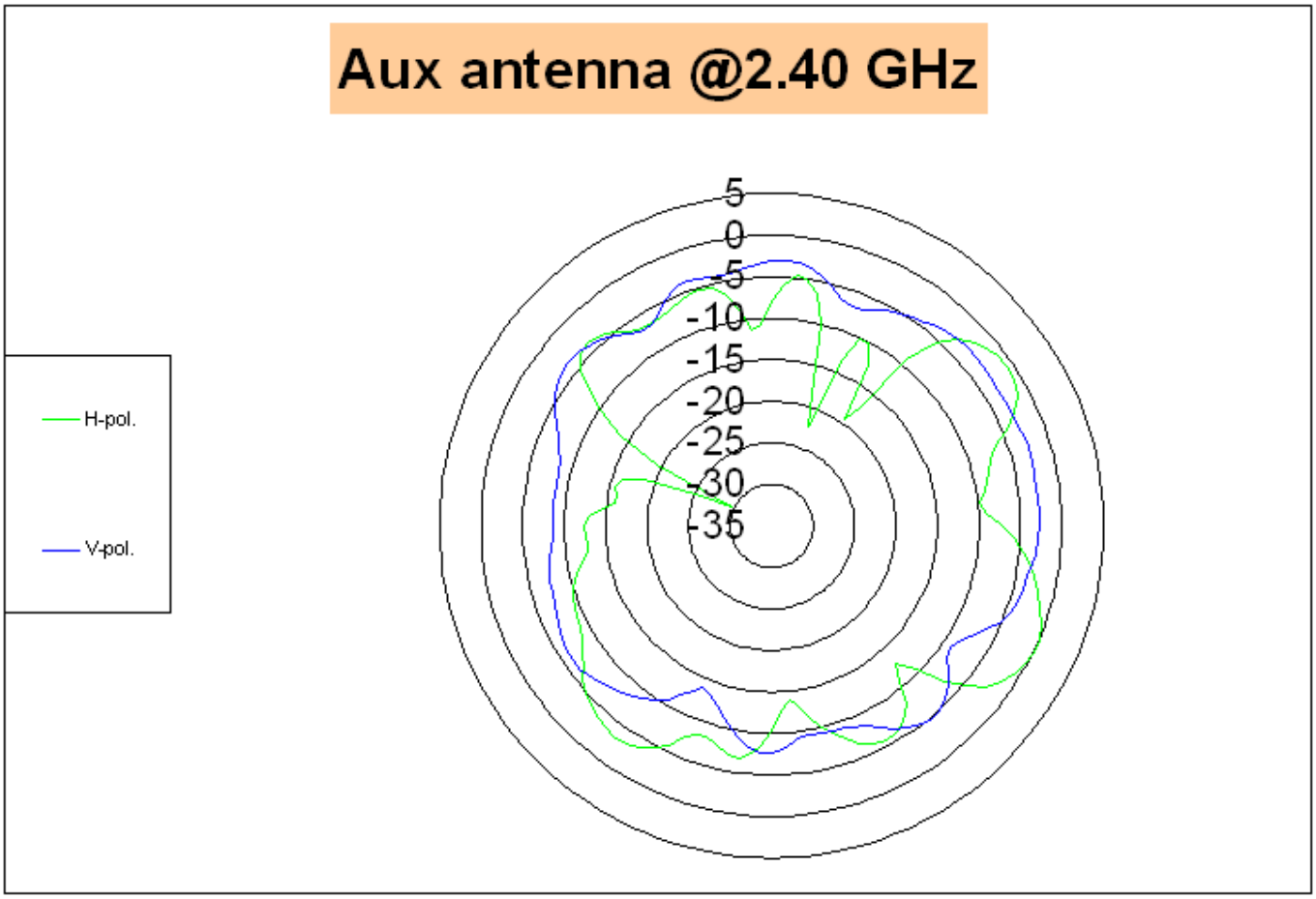
	H-pol	V pol
Peak Gain	-1.10	-2.33
Average Gain	-5.31	-5.30

Main antenna: 2500 MHz



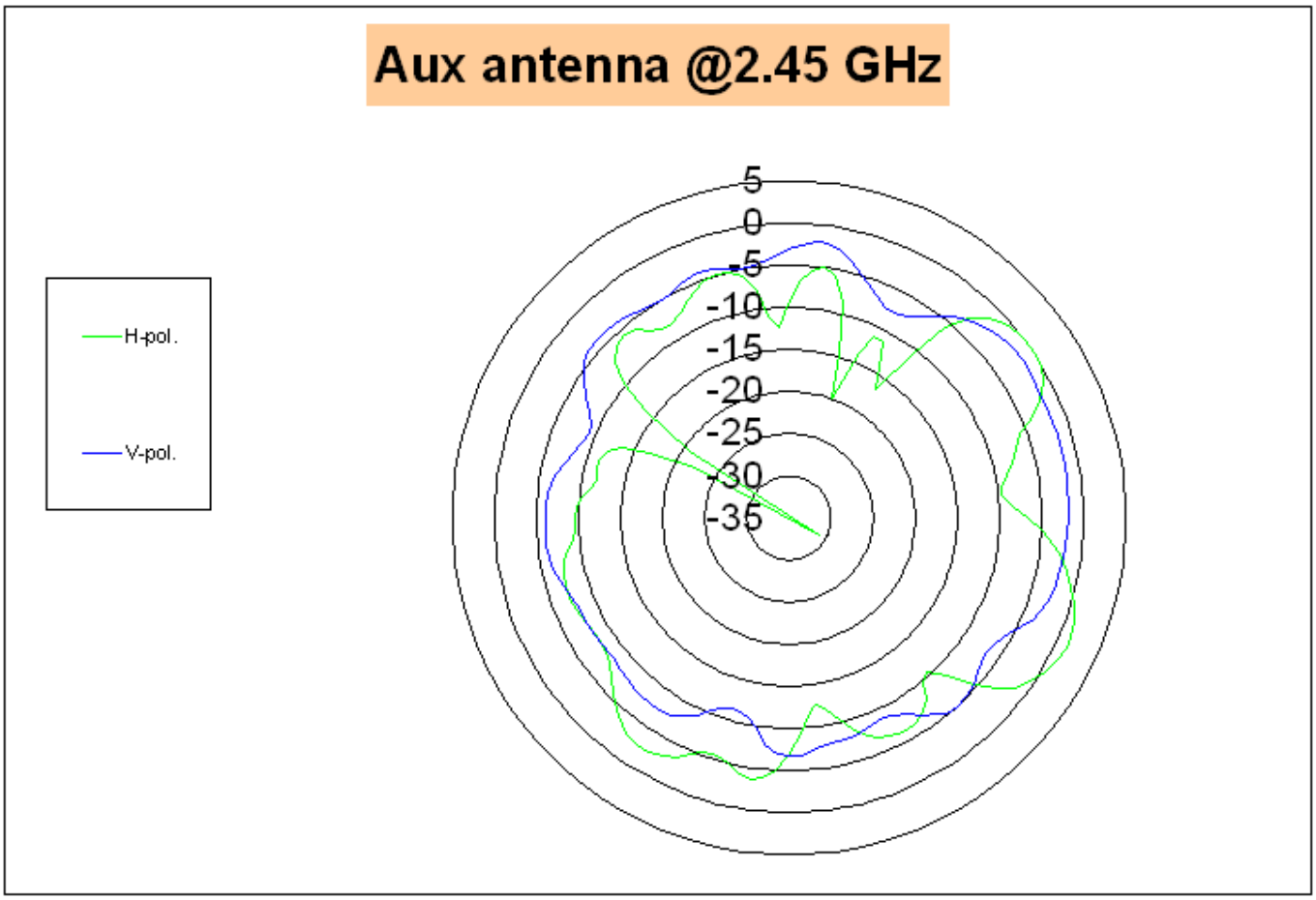
	H-pol	V pol
Peak Gain	-1.27	-2.92
Average Gain	-5.74	-5.73

Auxiliary antenna: 2400 MHz



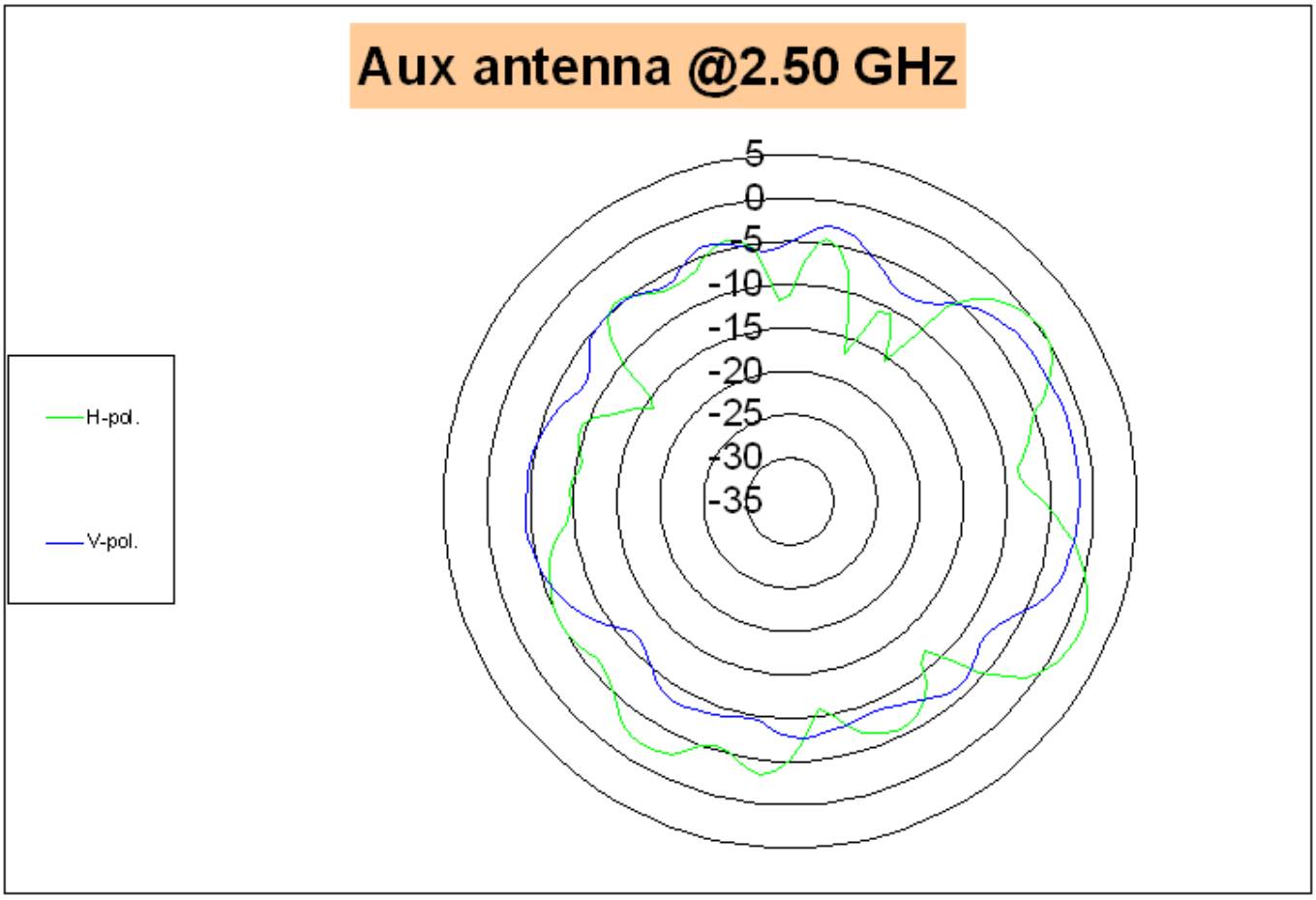
	H-pol	V pol
Peak Gain	0.16	-2.67
Average Gain	-6.81	-5.81

Auxiliary antenna: 2450 MHz



	H-pol	V pol
Peak Gain	1.31	-1.58
Average Gain	-6.00	-5.25

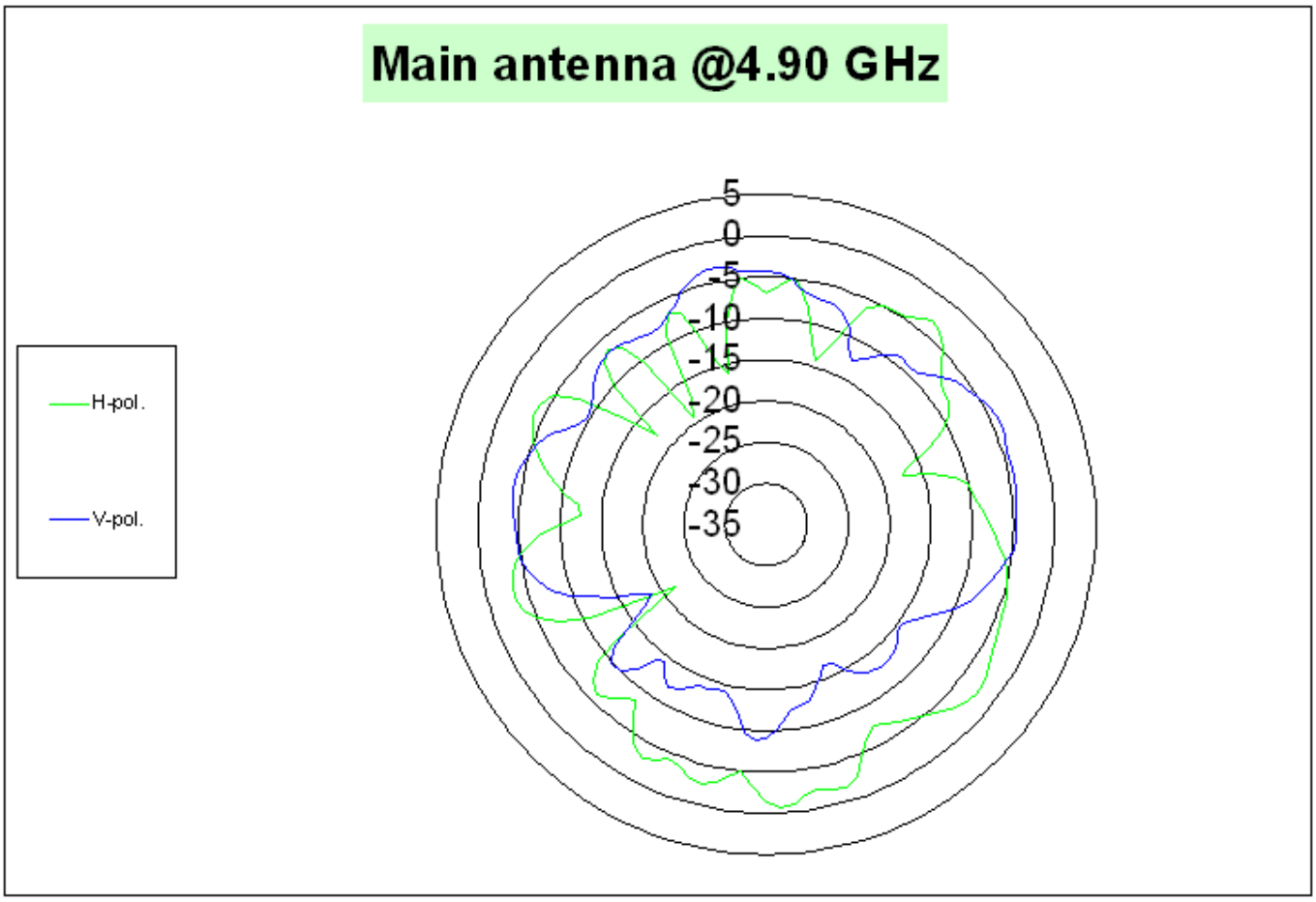
Auxiliary antenna: 2500 MHz



	H-pol	V pol
Peak Gain	1.76	-1.49
Average Gain	-5.35	-5.48

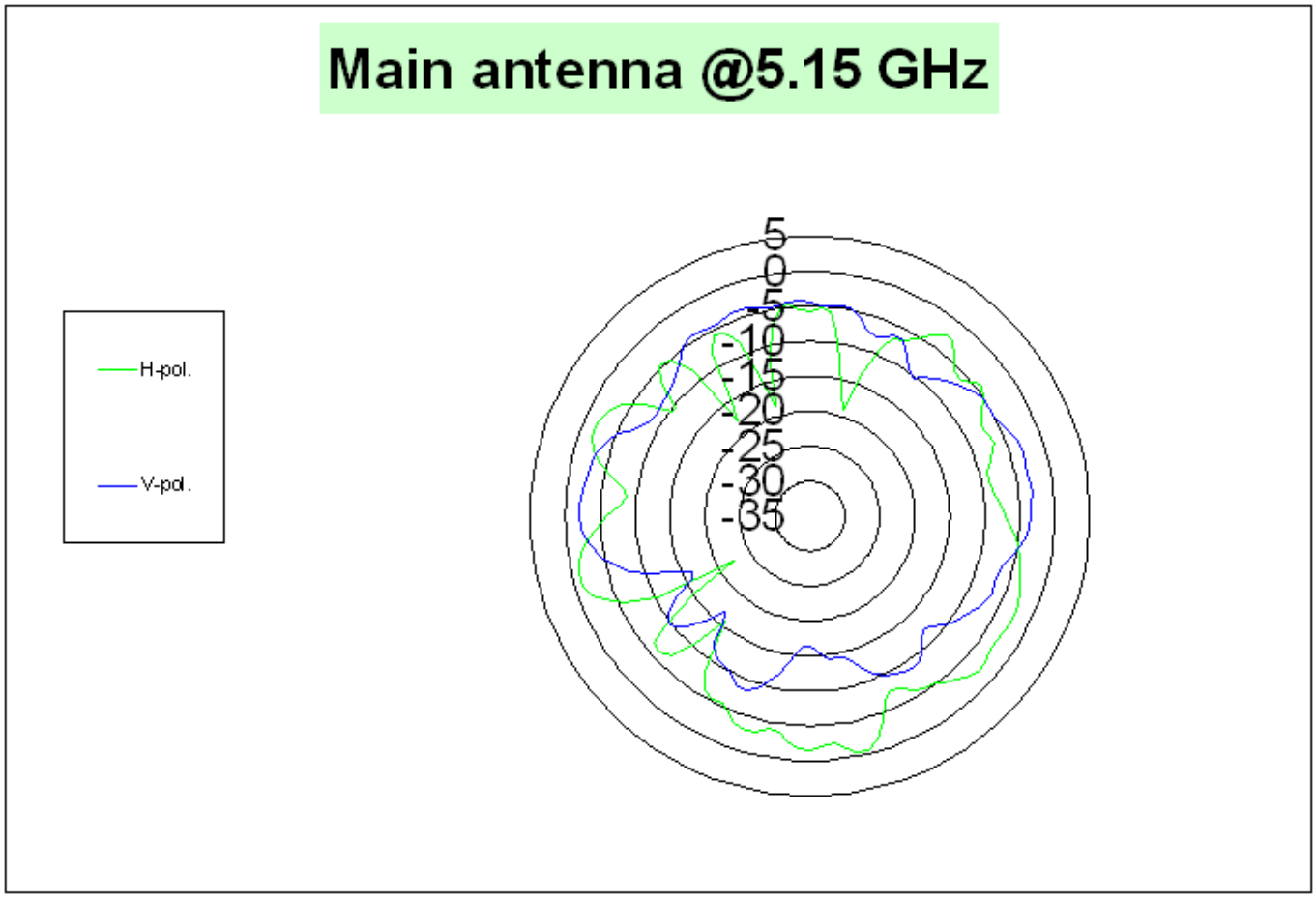
4900-5350 MHz radiation characteristic

Main antenna: 4900 MHz



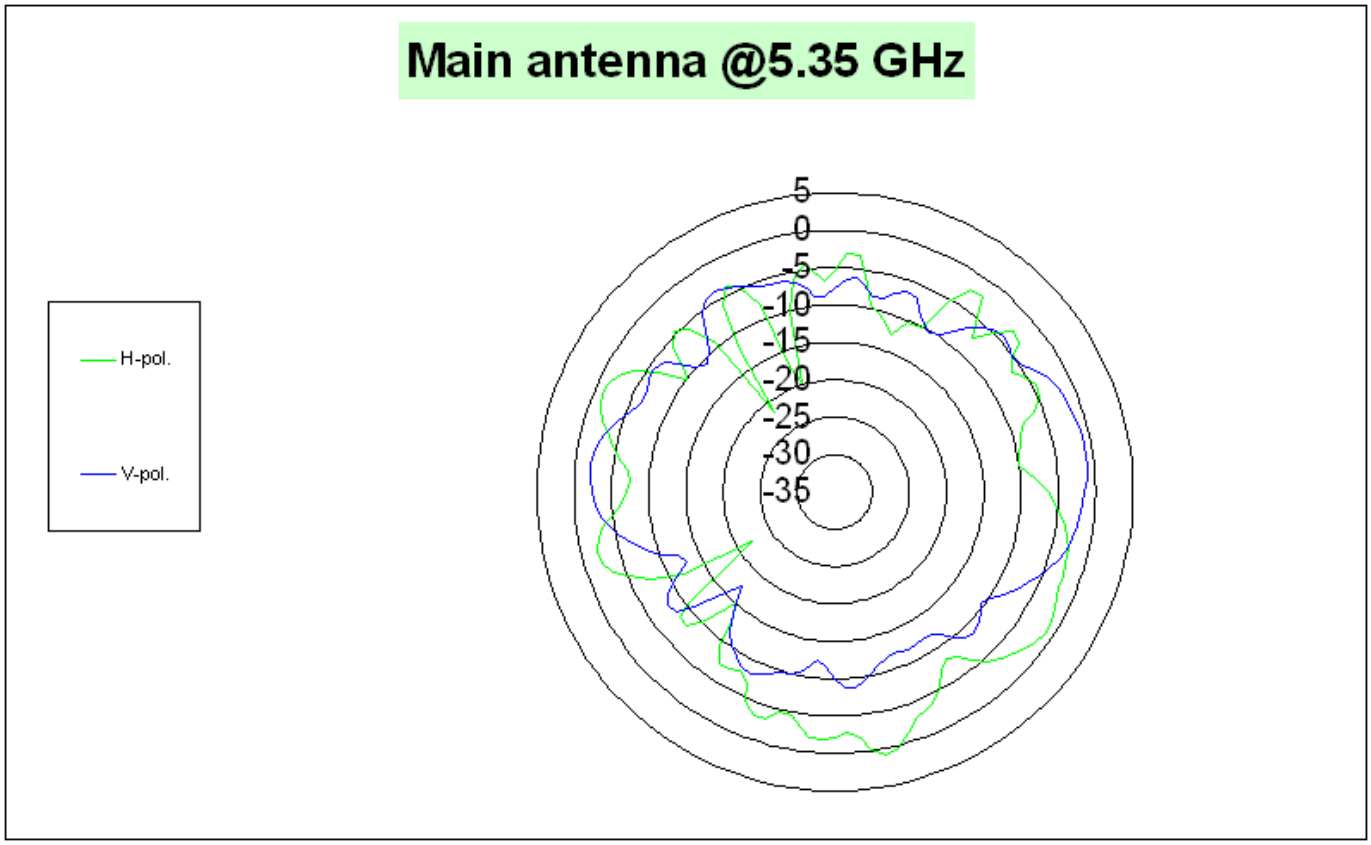
	H-pol	V pol
Peak Gain	-0.61	-3.29
Average Gain	-6.21	-8.10

Main antenna: 5150 MHz



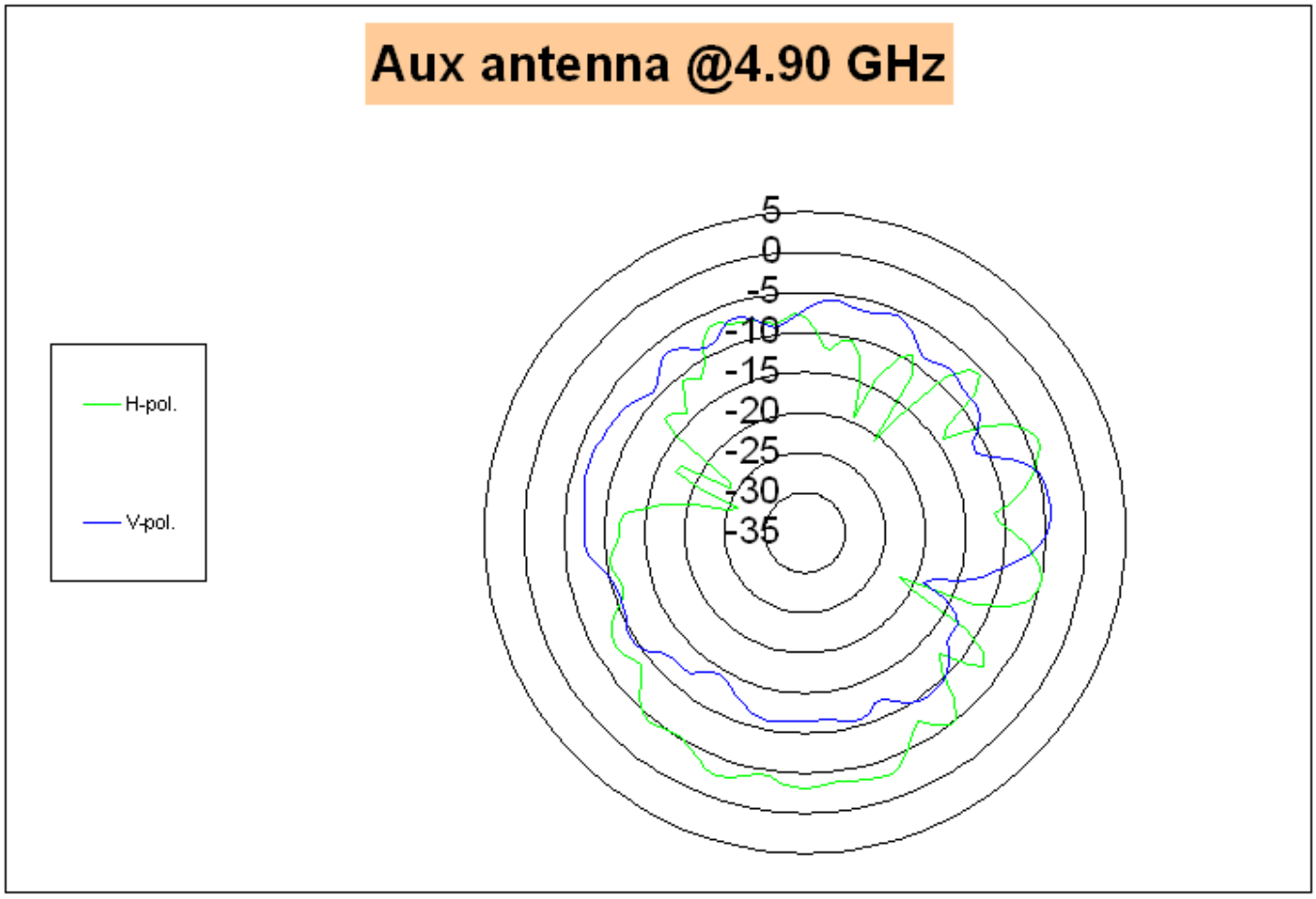
	H-pol	V pol
Peak Gain	-0.42	-2.01
Average Gain	-5.34	-6.94

Main antenna: 5350 MHz



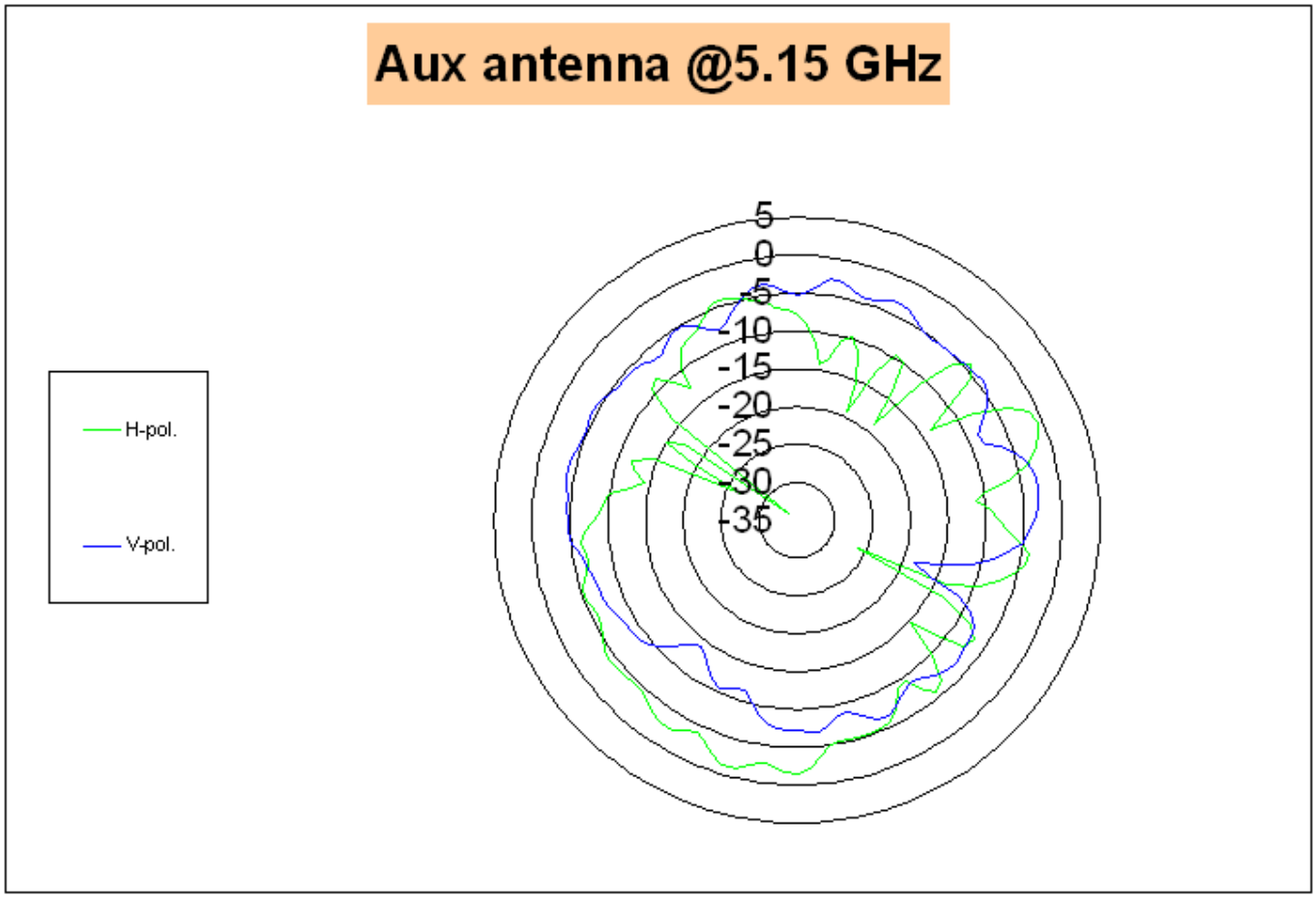
	H-pol	V pol
Peak Gain	0.76	-0.89
Average Gain	-5.21	-6.47

Auxiliary antenna: 4900 MHz



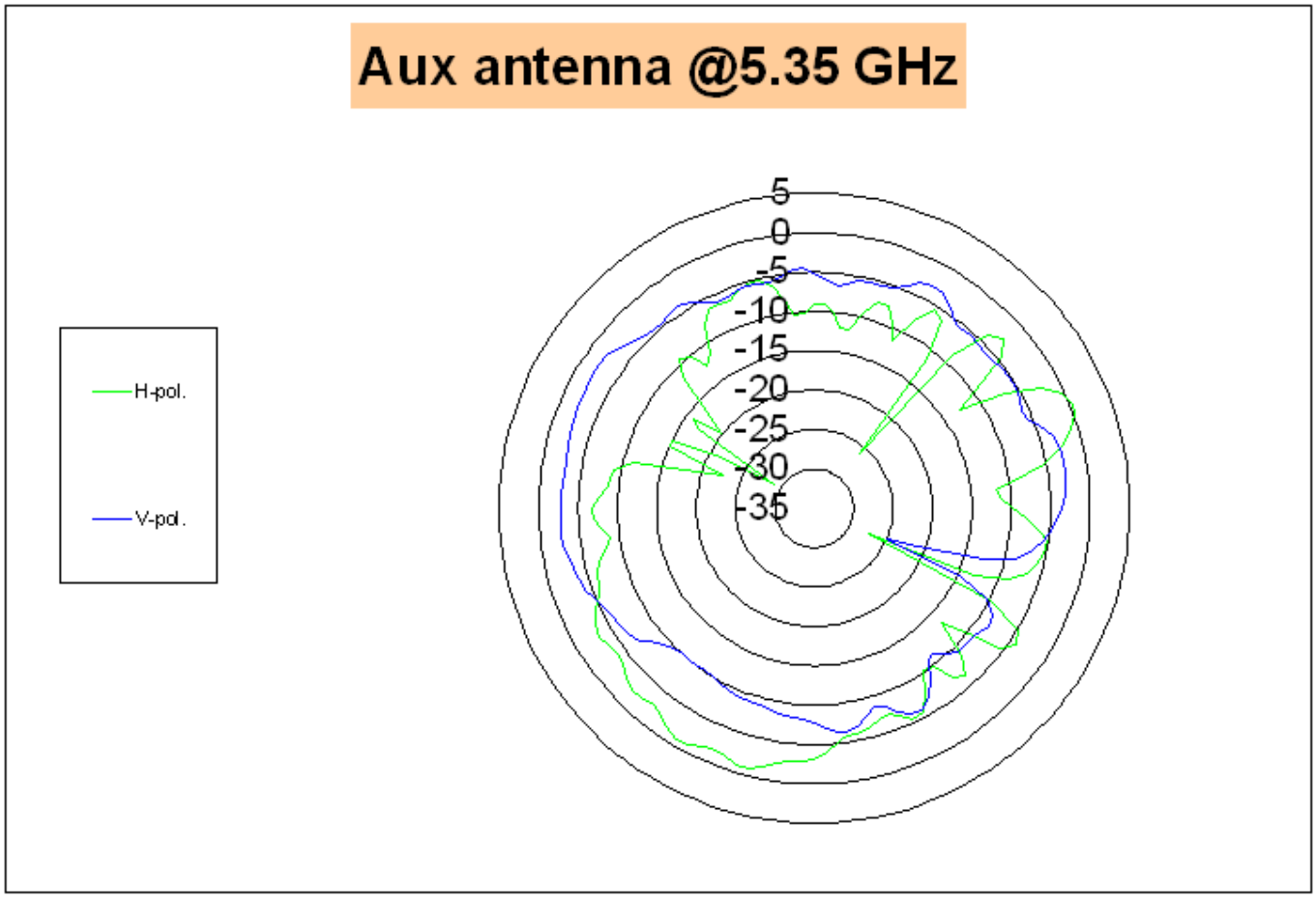
	H-pol	V pol
Peak Gain	-2.71	-4.23
Average Gain	-8.11	-8.93

Auxiliary antenna: 5150 MHz



	H-pol	V pol
Peak Gain	-0.67	-2.84
Average Gain	-6.77	-6.39

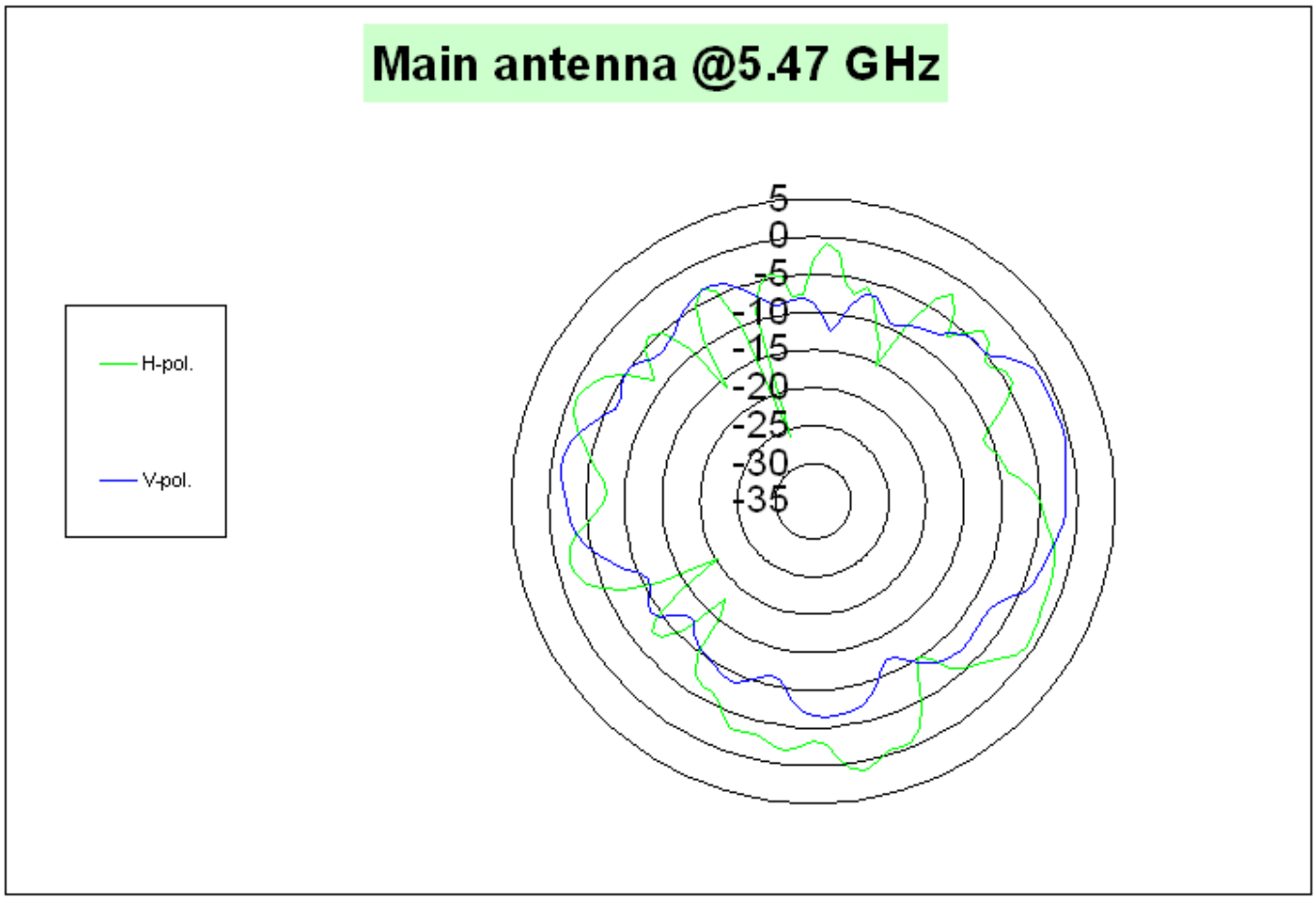
Auxiliary antenna: 5350 MHz



	H-pol	V pol
Peak Gain	0.38	-2.10
Average Gain	-6.47	-5.71

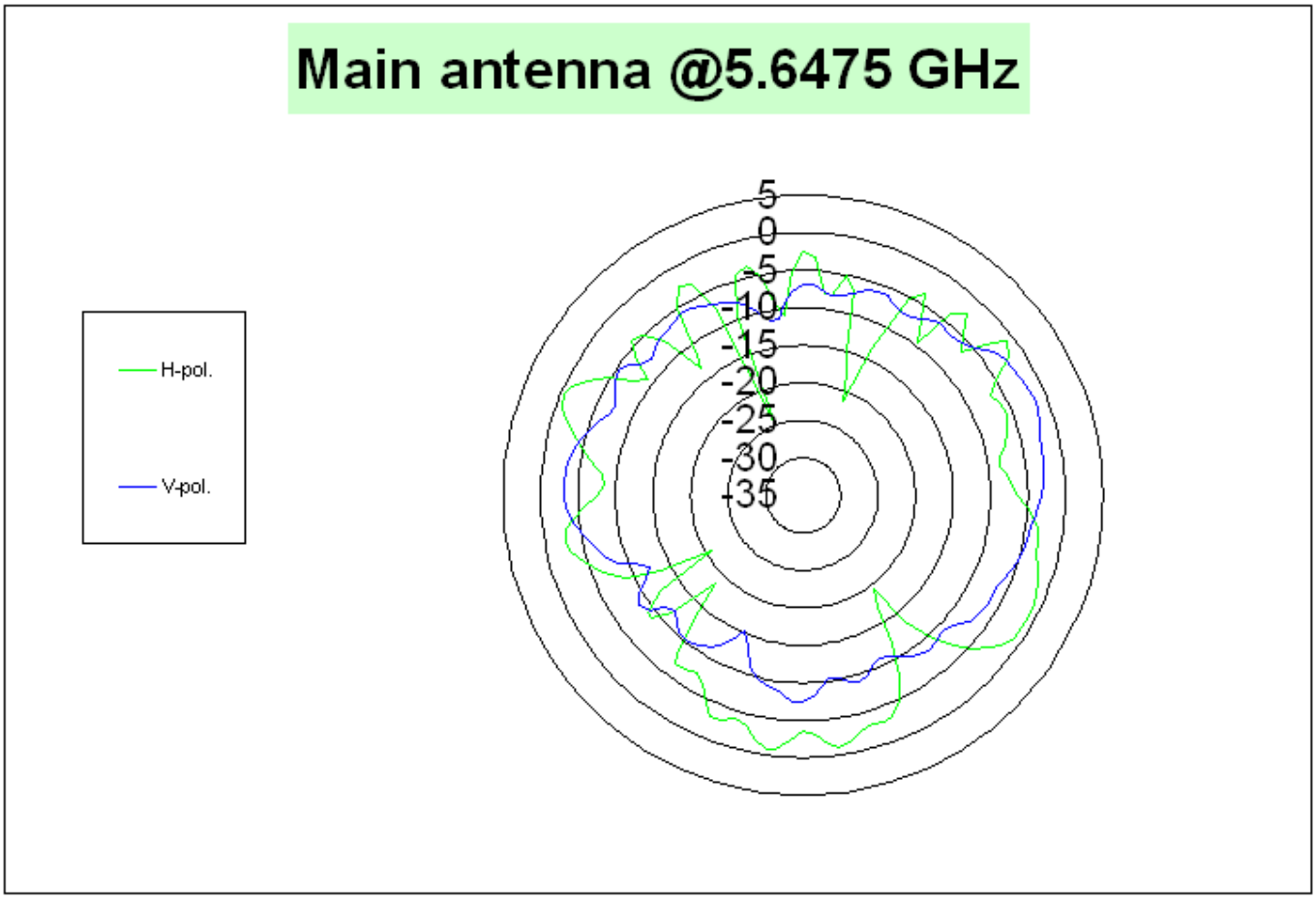
5470-5875MHz radiation characteristic

Main antenna: 5470 MHz



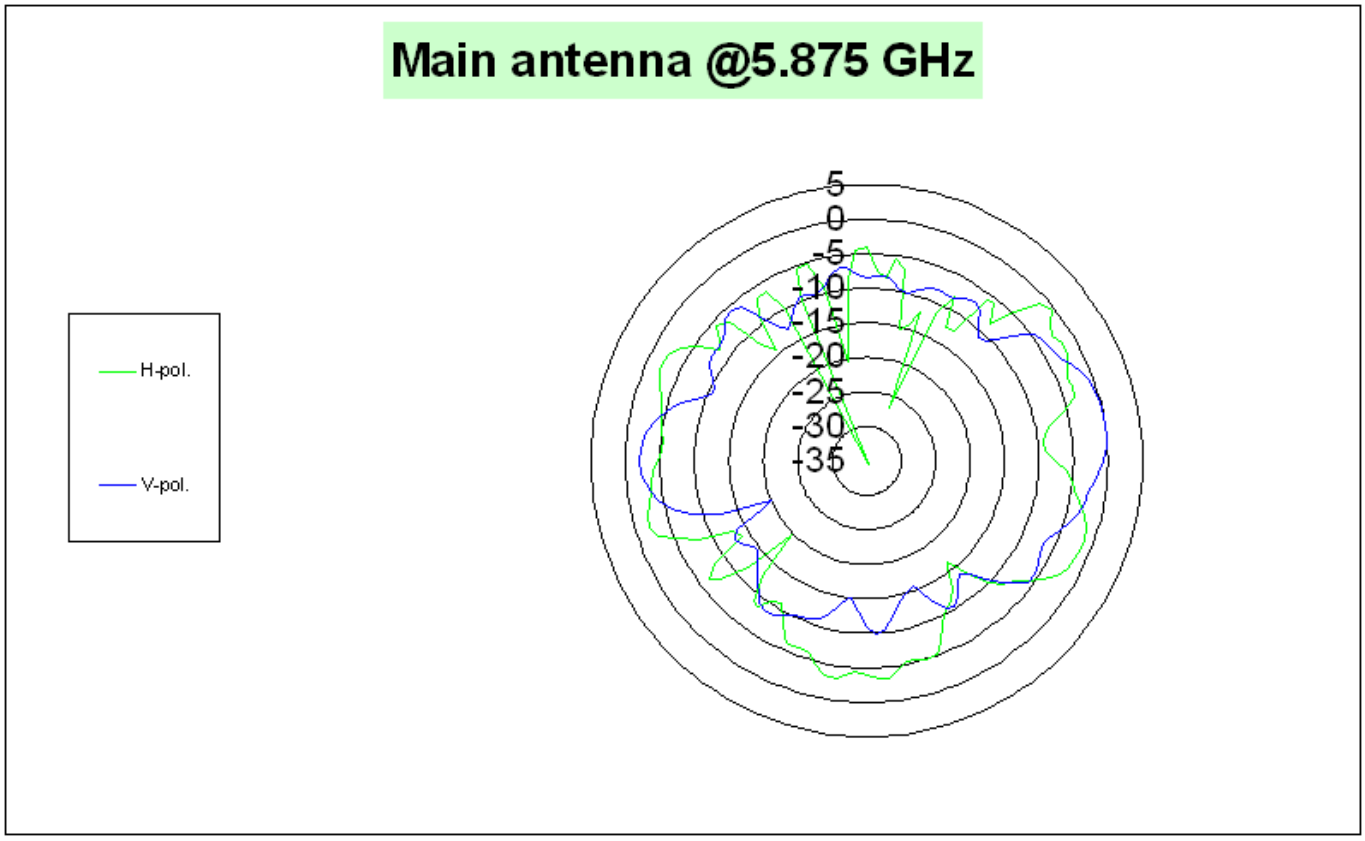
	H-pol	V pol
Peak Gain	1.18	-0.52
Average Gain	-4.76	-5.79

Main antenna: 5647.5 MHz



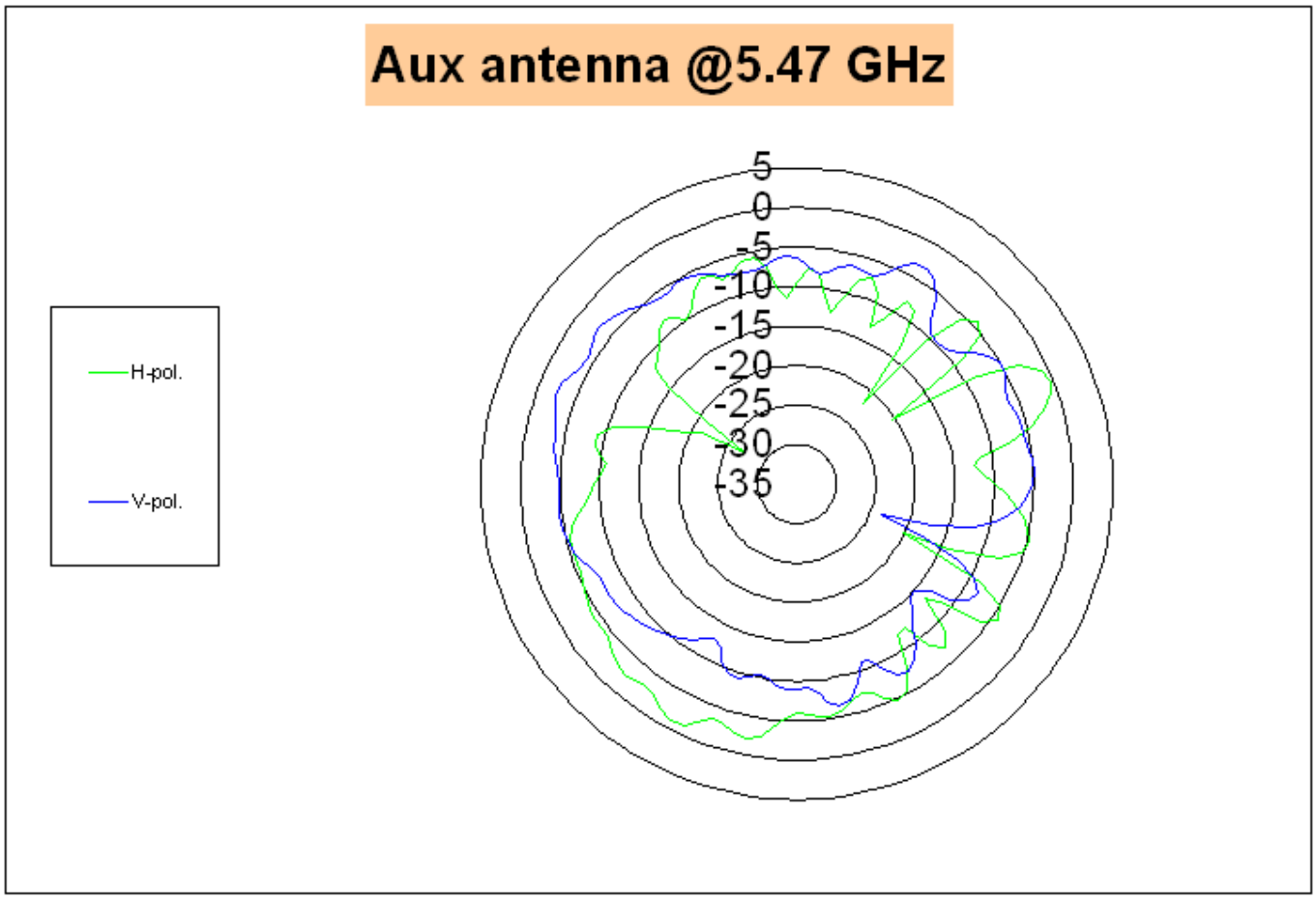
	H-pol	V pol
Peak Gain	-0.41	-1.55
Average Gain	-5.28	-6.66

Main antenna: 5875 MHz



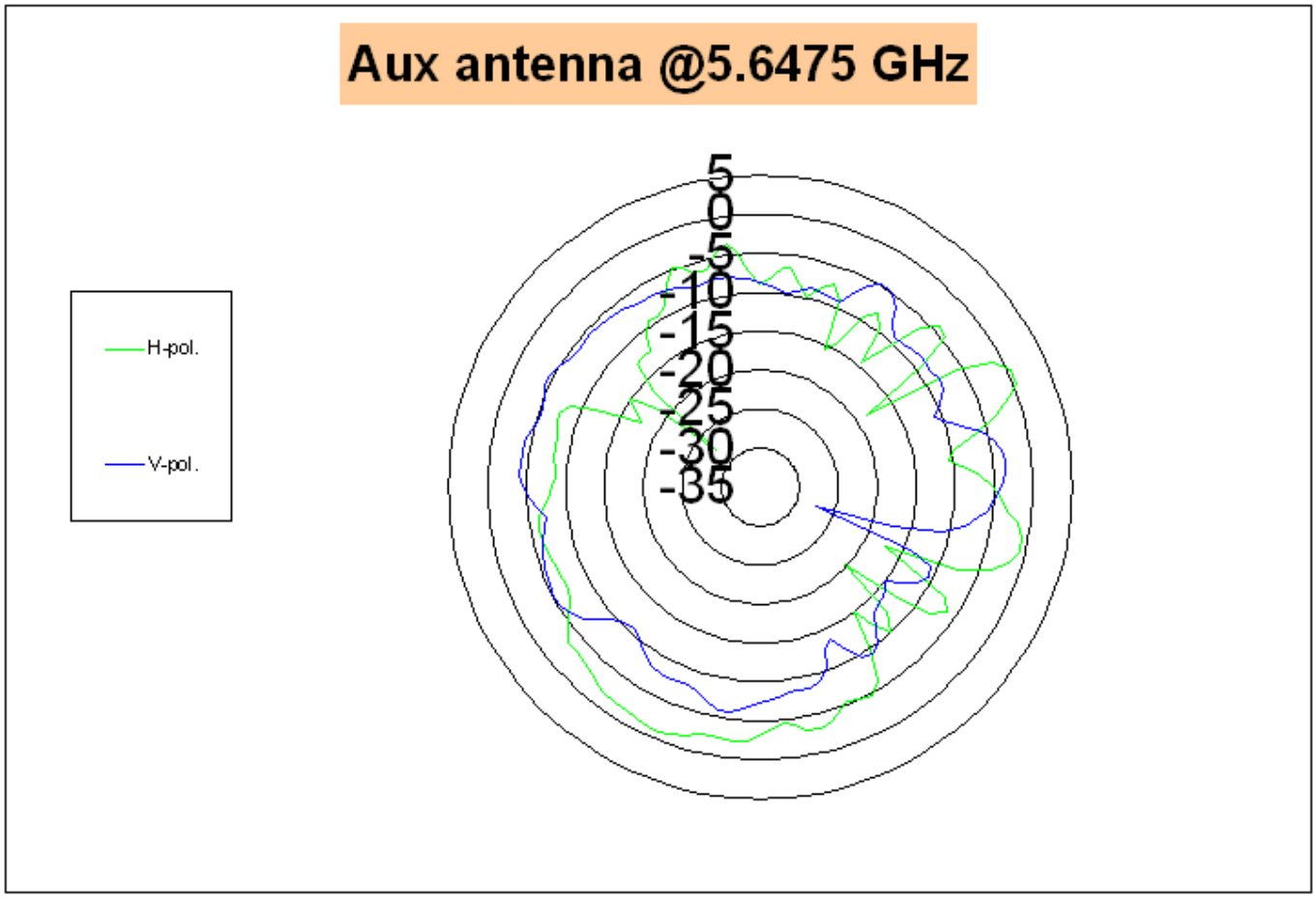
	H-pol	V pol
Peak Gain	-0.42	0.03
Average Gain	-6.07	-7.19

Auxiliary antenna: 5470 MHz



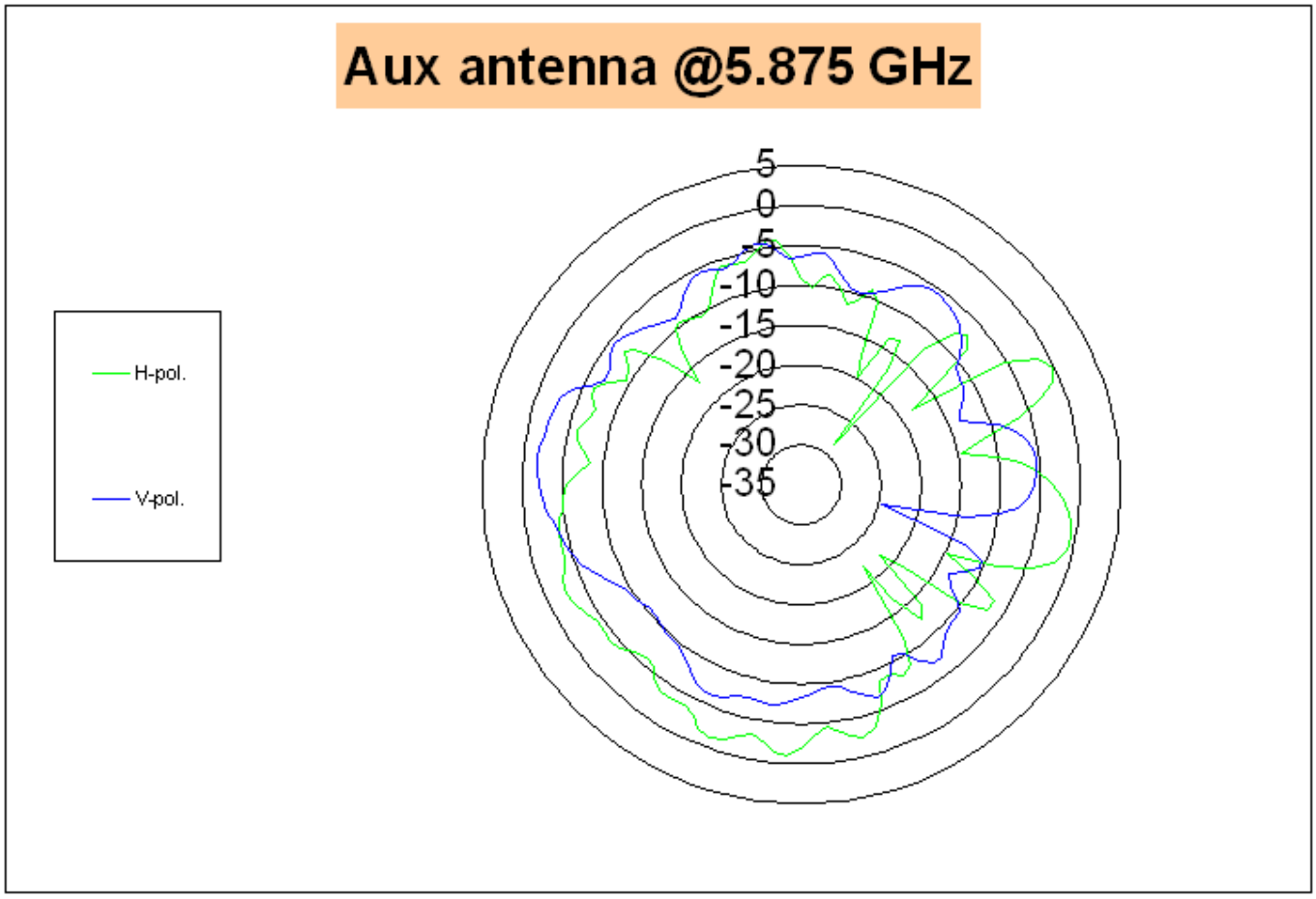
	H-pol	V pol
Peak Gain	-0.31	-2.47
Average Gain	-6.91	-6.98

Auxiliary antenna: 5647.5 MHz



	H-pol	V pol
Peak Gain	0.46	-3.36
Average Gain	-6.06	-7.53

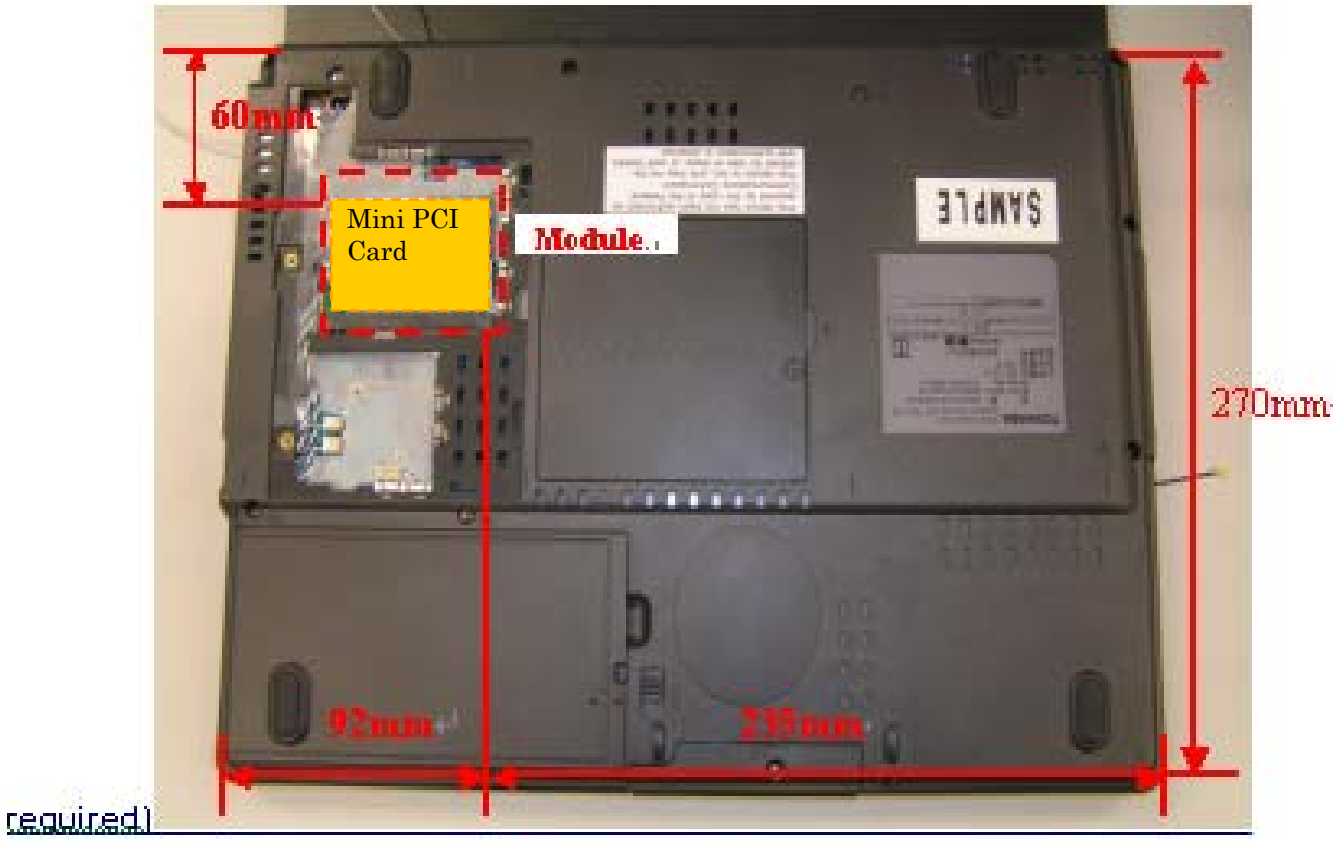
Auxiliary antenna: 5875 MHz



	H-pol	V pol
Peak Gain	-0.24	-1.69
Average Gain	-6.20	-7.21

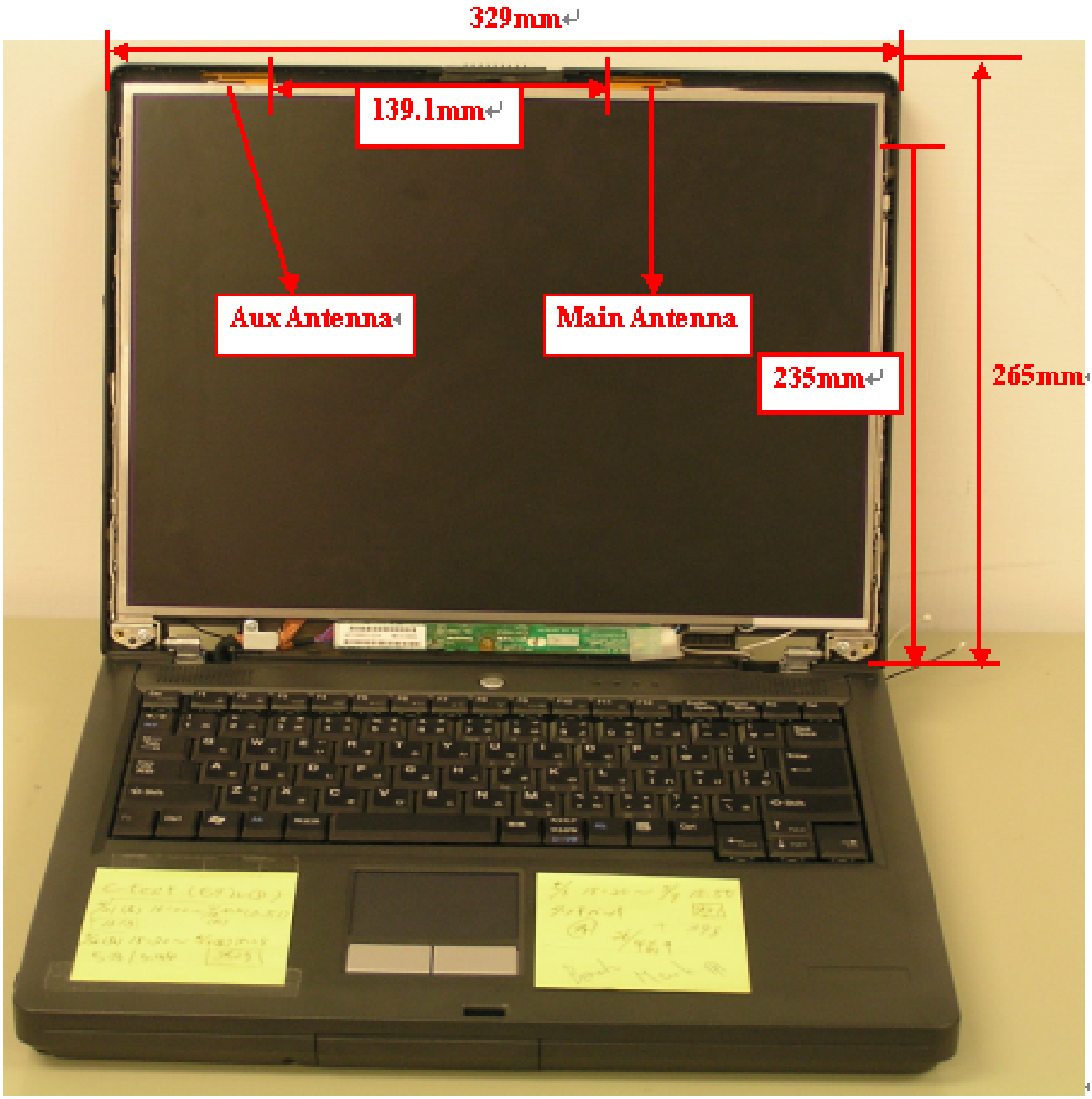
Section 4. Host Platform Information

Module Location Photo:



Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of main and auxiliary antenna placements.



Section 6. Antenna dimensional information for SAR evaluation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit (main) antenna and the user (excluding hands, wrist, feet, and ankle)