

# Regulatory WLAN Antenna Information

(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	DT15
Model Name	EET-I
Antenna Vendor	Wistron NeWeb Corp.
Antenna Part Number	<input type="checkbox"/> Main Antenna: 6036B0010701
	<input type="checkbox"/> Aux Antenna: 6036B0010801
	<input type="checkbox"/> MIMO Antenna: 6036B0010601
With WLAN Module	WM3B2100
(Check Box)	WM3B2200BG
	WM3B2915ABG
	WM3945ABG

## 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 <b>and</b> 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. <b>(S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.</b>	Required	Required	Desired	Required <b>(Photos)</b>	Required <b>(Photos)</b>
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.EBC15.055) (customer P/N:6036B0010701)	Wistron Neweb Corporation	PIFA	P/N: 1371650B(221)  50 ohm Coaxial. length: 650 mm diameter: 1.37 mm Connector: IPEX	2400-2500MHz <b>-0.14</b> dBi (peak)	2400-2500MHz <b>1.45</b> dBi (peak)	2400-2500MHz <b>2.0</b> max	2400-2500MHz <b>1.59</b> dBi (peak)
				5150-5350MHz <b>1.33</b> dBi (peak)	5150-5350MHz <b>3.84</b> dBi (peak)	5150-5350MHz <b>2.5</b> max	5150-5350MHz <b>2.51</b> dBi (peak)
				5470-5725MHz <b>1.83</b> dBi (peak)	5470-5725MHz <b>4.49</b> dBi (peak)	5470-5725MHz <b>2.5</b> max	5470-5725MHz <b>2.66</b> dBi (peak)
				5725-5825MHz <b>1.02</b> dBi (peak)	5725-5825MHz <b>3.72</b> dBi (peak)	5725-5825MHz <b>2.5</b> max	5725-5825MHz <b>2.69</b> dBi (peak)
AUX Antenna (WNC P/N: 81.EBC15.056) (customer P/N:6036B0010801)	Wistron Neweb Corporation	PIFA	P/N: 1371835W(221)  50 ohm Coaxial. length: 835 mm diameter: 1.37 mm Connector: IPEX	2400-2500MHz <b>0.43</b> dBi (peak)	2400-2500MHz <b>2.42</b> dBi (peak)	2400-2500MHz <b>2.0</b> max	2400-2500MHz <b>1.99</b> dBi (peak)
				5150-5350MHz <b>-0.58</b> dBi (peak)	5150-5350MHz <b>2.58</b> dBi (peak)	5150-5350MHz <b>2.5</b> max	5150-5350MHz <b>3.15</b> dBi (peak)
				5470-5725MHz <b>-0.31</b> dBi (peak)	5470-5725MHz <b>3.03</b> dBi (peak)	5470-5725MHz <b>2.5</b> max	5470-5725MHz <b>3.34</b> dBi (peak)
				5725-5825MHz <b>0.01</b> dBi (peak)	5725-5825MHz <b>3.40</b> dBi (peak)	5725-5825MHz <b>2.5</b> max	5725-5825MHz <b>3.39</b> dBi (peak)
MIMO Antenna (WNC P/N:81.EDG15.026) (customer P/N:6036B0010601)	Wistron Neweb Corporation	PIFA	P/N: 1371790Y(221)  50 ohm Coaxial. length: 790 mm diameter: 1.37 mm Connector: IPEX	2400-2500MHz <b>0.00</b> dBi (peak)	2400-2500MHz <b>1.89</b> dBi (peak)	2400-2500MHz <b>2.0</b> max	2400-2500MHz <b>1.89</b> dBi (peak)
				5150-5350MHz <b>0.25</b> dBi (peak)	5150-5350MHz <b>3.24</b> dBi (peak)	5150-5350MHz <b>2.5</b> max	5150-5350MHz <b>3.00</b> dBi (peak)
				5470-5725MHz <b>0.76</b> dBi (peak)	5470-5725MHz <b>3.93</b> dBi (peak)	5470-5725MHz <b>2.5</b> max	5470-5725MHz <b>3.17</b> dBi (peak)
				5725-5825MHz <b>0.62</b> dBi (peak)	5725-5825MHz <b>3.84</b> dBi (peak)	5725-5825MHz <b>2.5</b> max	5725-5825MHz <b>3.22</b> dBi (peak)

### Antenna Peak Gain Table:

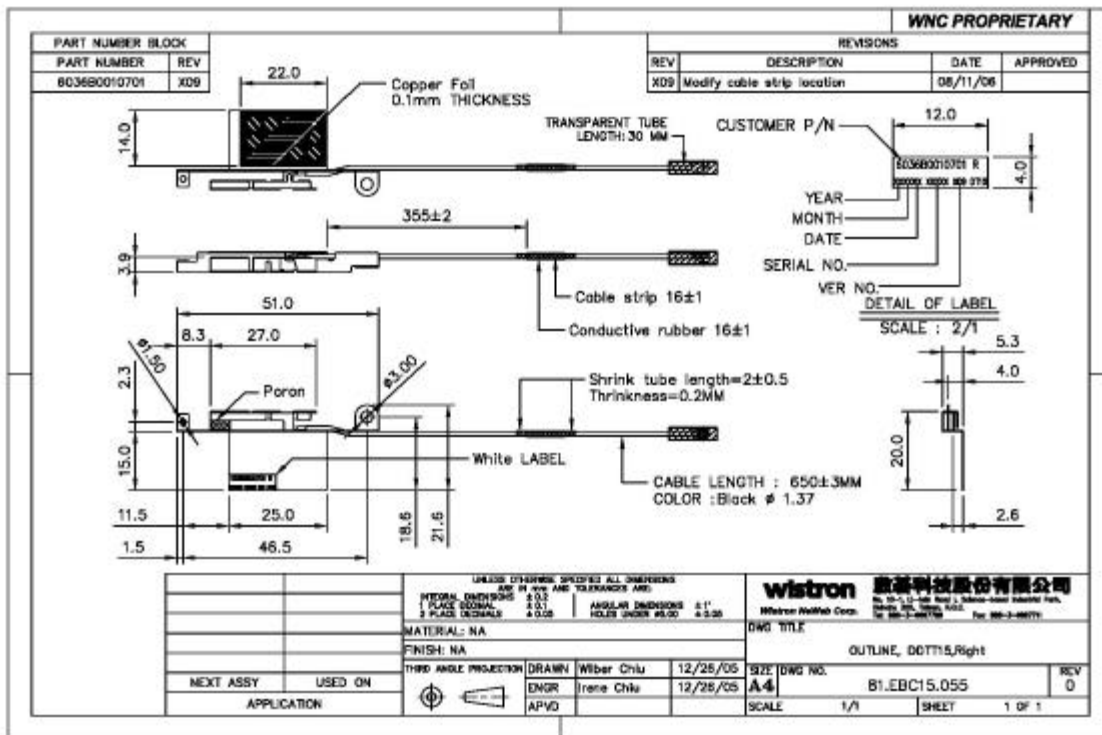
Frequency (MHz)	Main antenna			Aux Antenna			MIMO Antenna		
	Horizontal (dBi)	Vertical (dBi)	Hori+Ver (dBi)	Horizontal (dBi)	Vertical (dBi)	Hori+Ver (dBi)	Horizontal (dBi)	Vertical (dBi)	Hori+Ver (dBi)
2400	-0.72	-2.00	0.04	-1.32	-0.18	0.73	0.00	-1.87	0.68
2450	-0.14	-2.99	0.84	0.43	0.33	1.81	-0.75	-3.75	0.15
2500	-0.53	-2.69	0.21	-0.61	0.30	1.16	-0.99	-2.20	-0.09
5150	0.25	-0.44	1.06	-0.85	-1.47	0.46	-2.54	-0.52	1.30
5250	-0.04	-0.63	0.49	-0.58	-0.68	1.25	-1.78	0.08	1.29
5350	-0.03	-1.58	1.33	-0.58	-0.86	1.76	-0.67	0.25	1.51
5470	-0.17	-0.47	1.83	-0.83	-0.59	2.02	-2.68	0.76	1.61
5647.5	1.25	0.13	1.56	-0.77	-0.31	1.21	-3.19	0.48	1.10
5825	-0.90	0.28	1.02	-1.10	0.01	1.59	-3.71	0.62	1.54

## Section 2. Dimensioned Photos or Drawings of Antennas

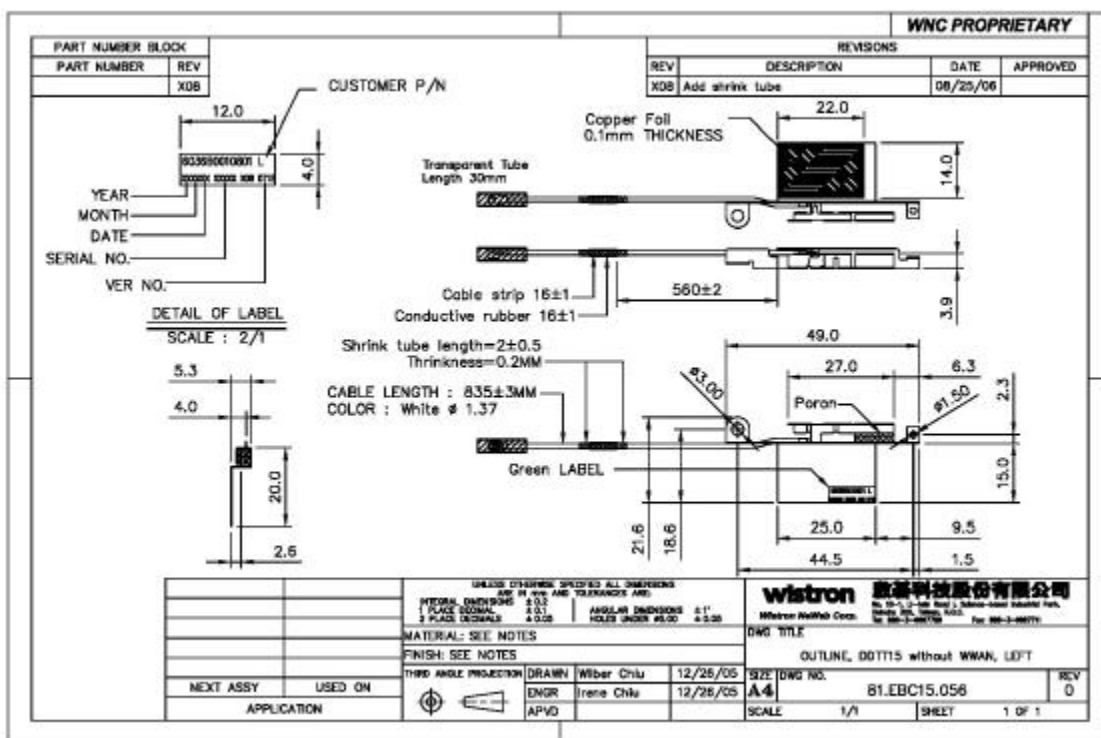
include a dimensioned photo and dimensioned drawing of main antenna here.

### Main Antenna Dimensioned Drawing:

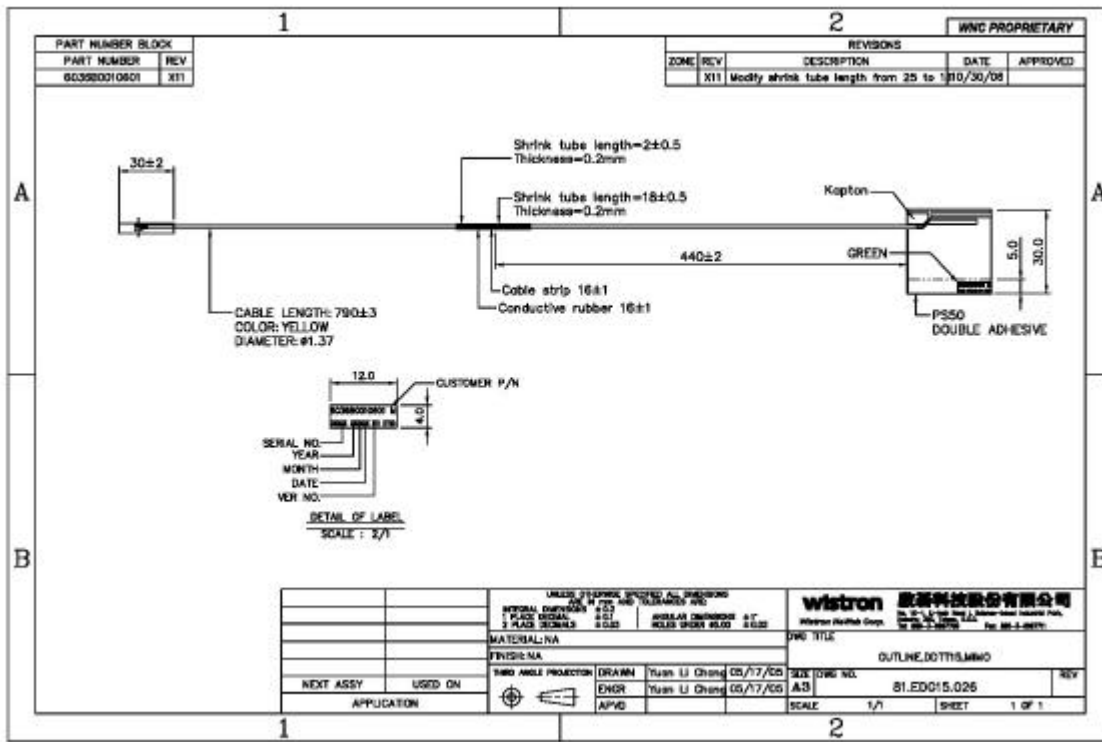
Main antenna



Aux antenna

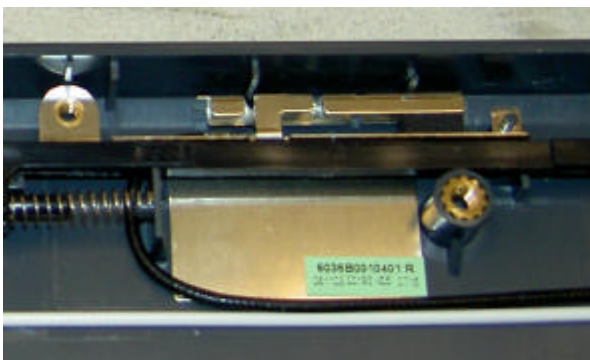


# MIMO antenna

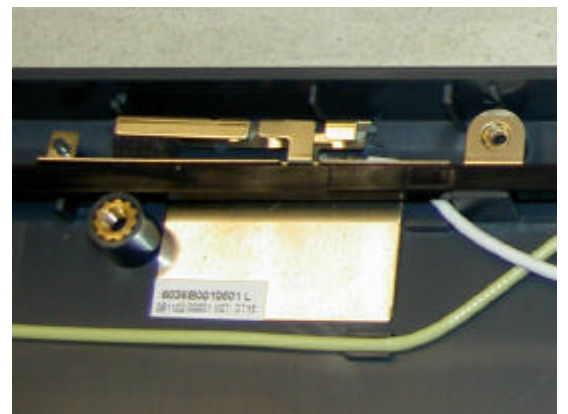


## Main and Aux Antenna Photo:

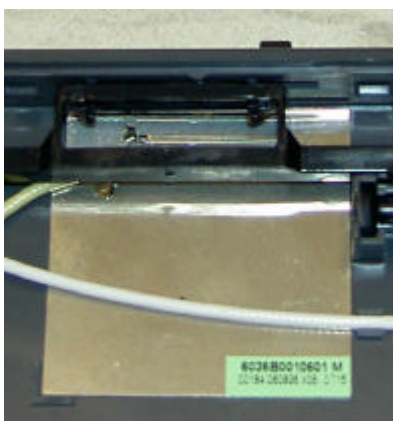
Main antenna



Aux antenna



MIMO antenna

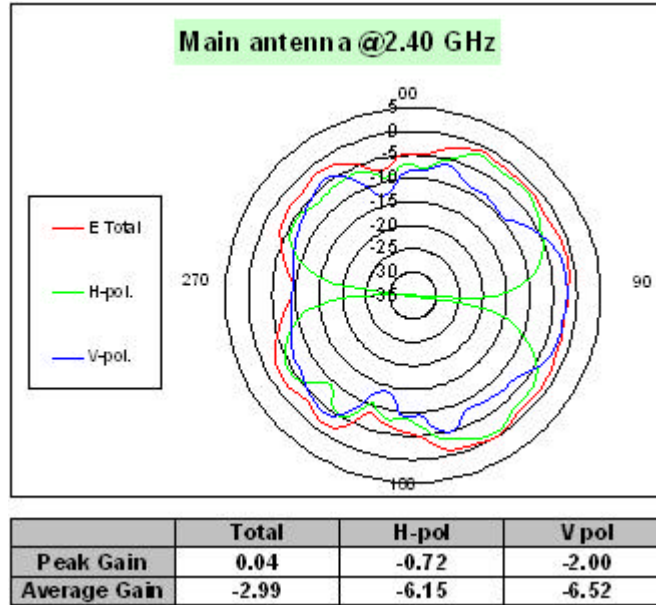




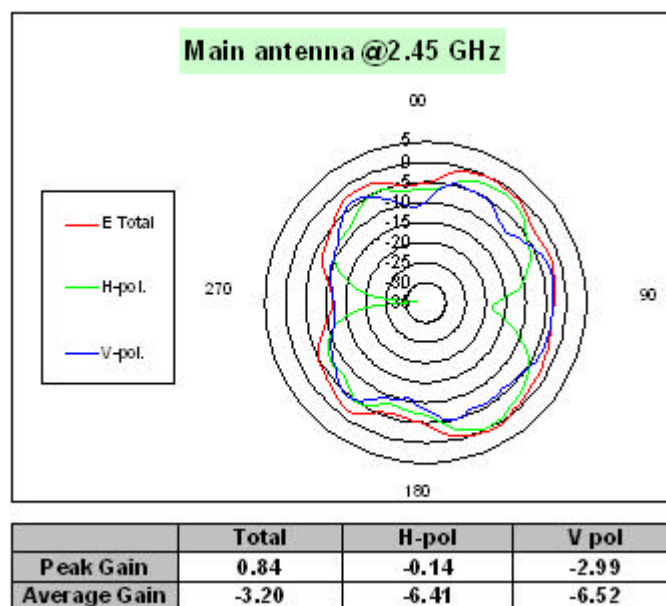
## Section 3. Radiation characteristics of antennae Loaded in Host Platform

### 400-2500MHz radiation characteristic

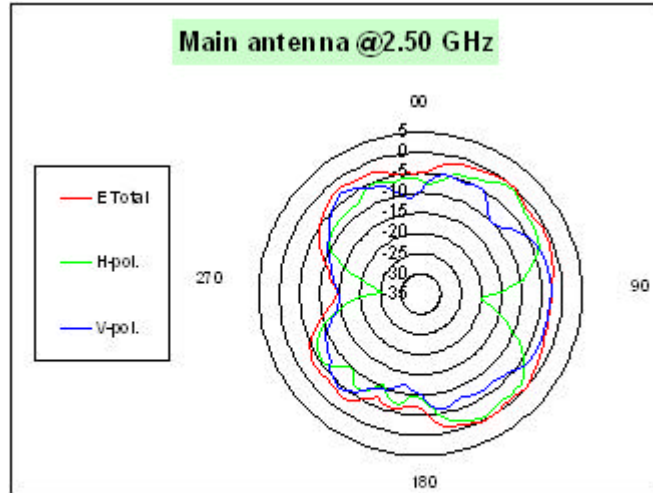
#### Main antenna: 2400 MHz



#### Main antenna: 2450 MHz

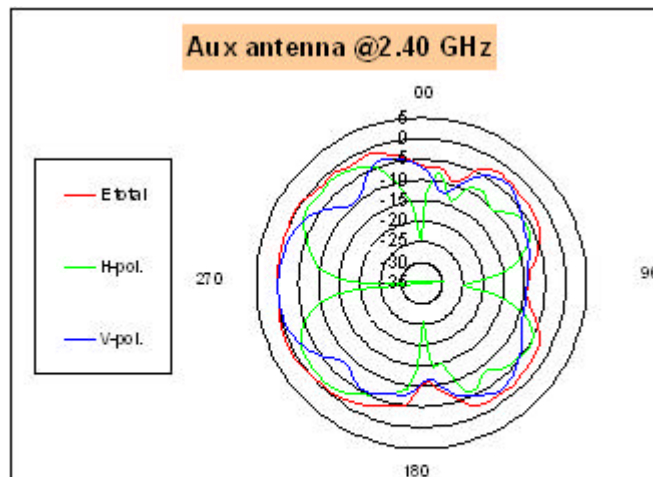


**Main antenna: 2500 MHz**



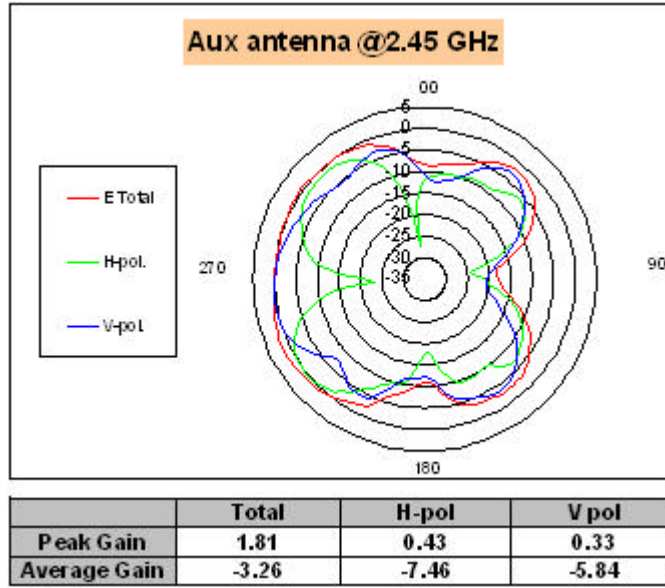
	Total	H-pol	V pol
<b>Peak Gain</b>	<b>0.21</b>	<b>-0.53</b>	<b>-2.69</b>
<b>Average Gain</b>	<b>-3.24</b>	<b>-6.43</b>	<b>-6.67</b>

**Auxiliary antenna: 2400 MHz**

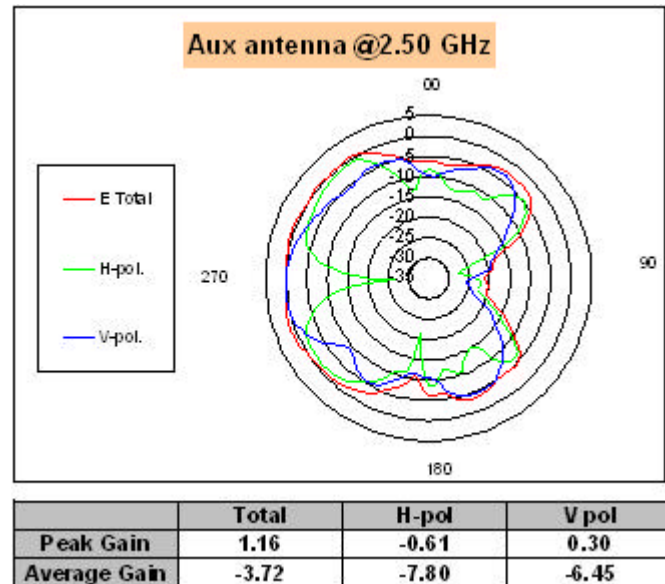


	Total	H-pol	V pol
<b>Peak Gain</b>	<b>0.73</b>	<b>-1.32</b>	<b>-0.18</b>
<b>Average Gain</b>	<b>-2.77</b>	<b>-7.09</b>	<b>-5.33</b>

**Auxiliary antenna: 2450 MHz**

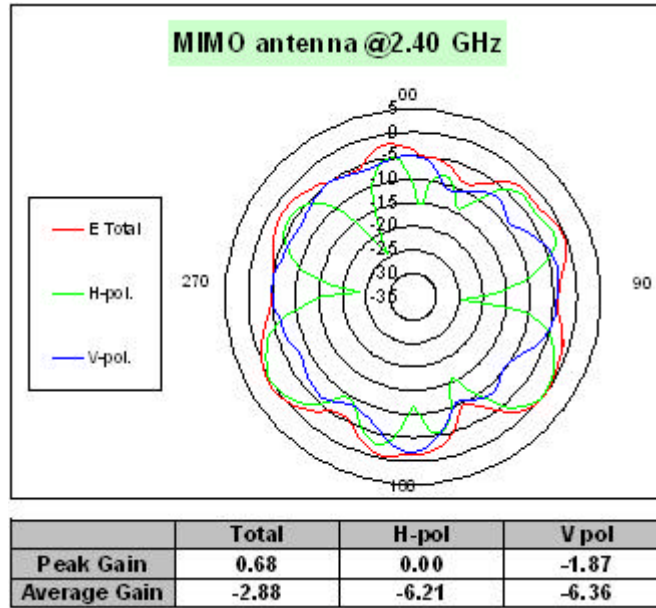


**Auxiliary antenna: 2500 MHz**

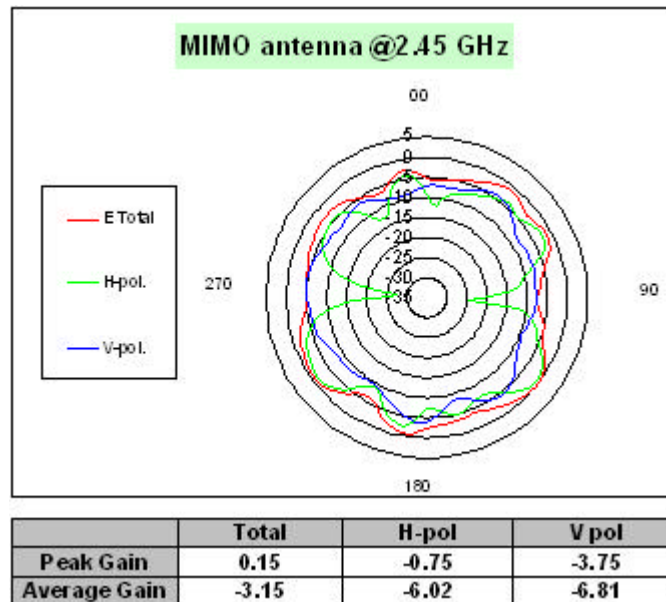




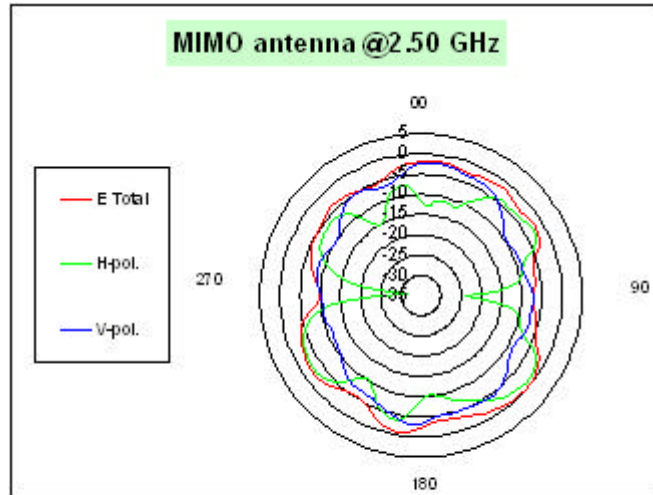
**MIMO antenna: 2400 MHz**



**MIMO antenna: 2450 MHz**



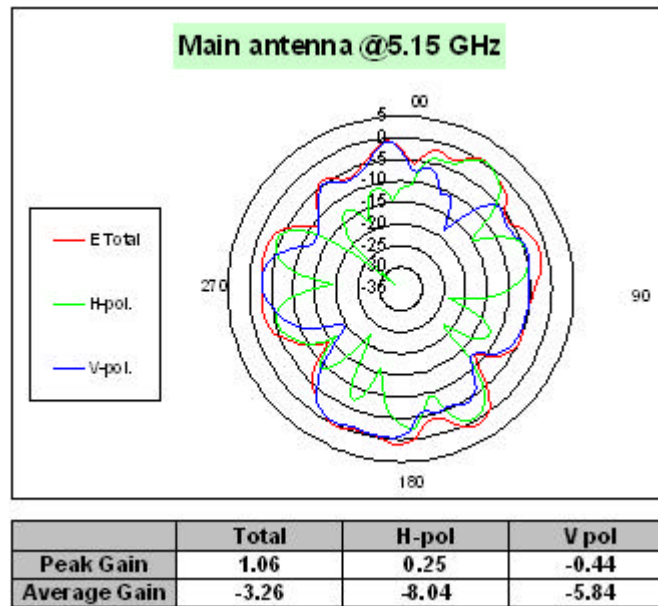
**MIMO antenna: 2500 MHz**



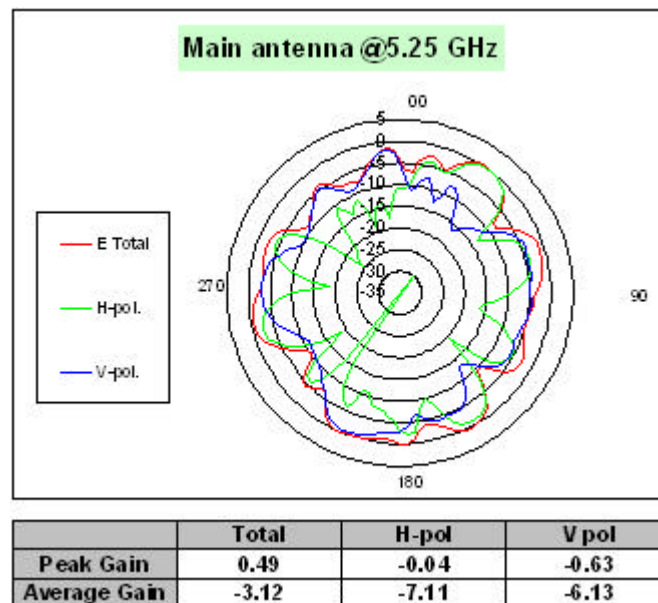
	Total	H-pol	V pol
<b>Peak Gain</b>	<b>-0.09</b>	<b>-0.99</b>	<b>-2.20</b>
<b>Average Gain</b>	<b>-3.46</b>	<b>-7.11</b>	<b>-6.54</b>

5150-5350 MHz radiation characteristic

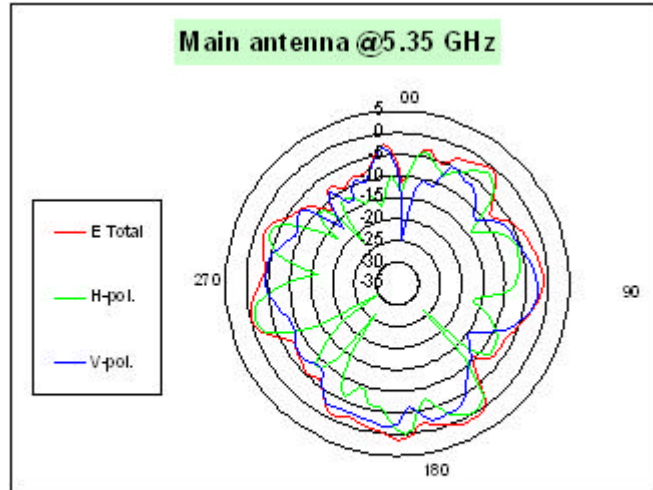
Main antenna: 5150 MHz



Main antenna: 5250 MHz

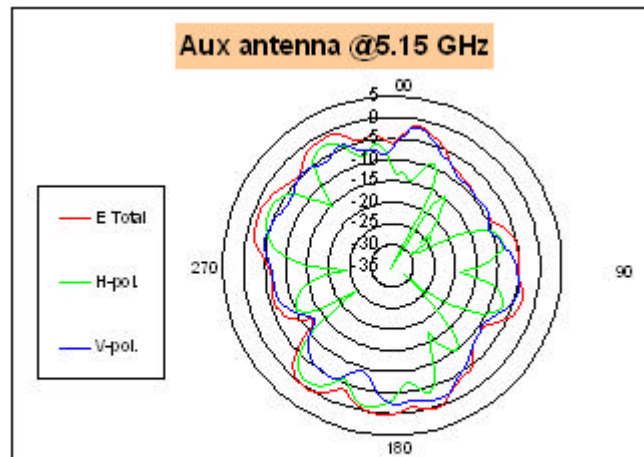


**Main antenna: 5350 MHz**



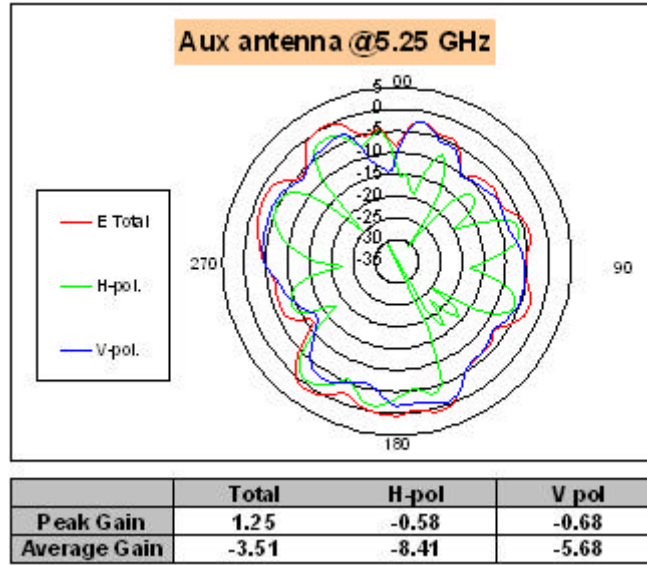
	Total	H-pol	V pol
<b>Peak Gain</b>	<b>1.33</b>	<b>-0.03</b>	<b>-1.58</b>
<b>Average Gain</b>	<b>-3.49</b>	<b>-7.39</b>	<b>-6.37</b>

**Auxiliary antenna: 5150 MHz**

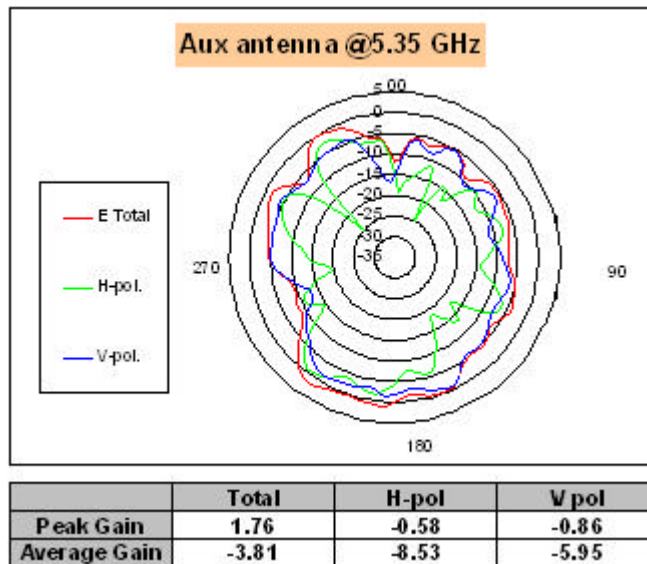


	Total	H-pol	V pol
<b>Peak Gain</b>	<b>0.46</b>	<b>-0.85</b>	<b>-1.47</b>
<b>Average Gain</b>	<b>-3.80</b>	<b>-8.53</b>	<b>-6.07</b>

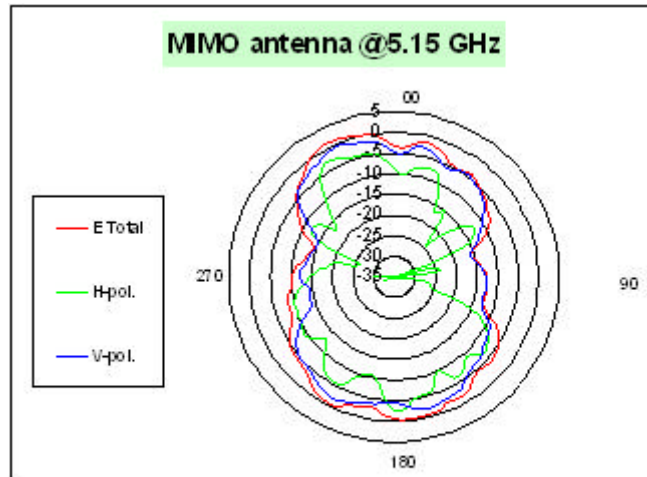
**Auxiliary antenna: 5250 MHz**



**Auxiliary antenna: 5350 MHz**

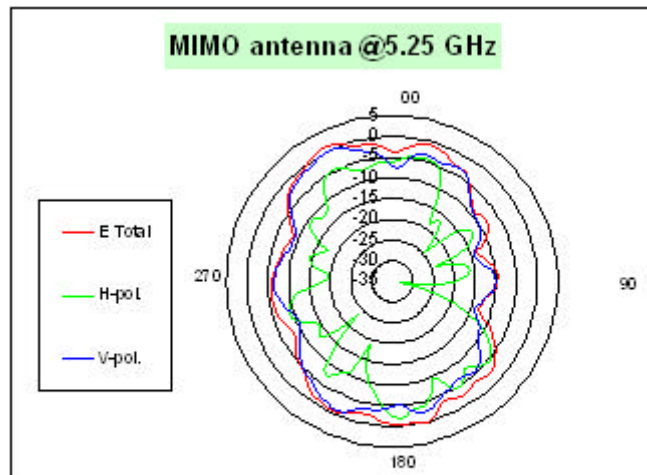


**MIMO antenna: 5150 MHz**



	Total	H-pol	V pol
<b>Peak Gain</b>	<b>1.30</b>	<b>-2.54</b>	<b>-0.52</b>
<b>Average Gain</b>	<b>-4.48</b>	<b>-10.02</b>	<b>-6.11</b>

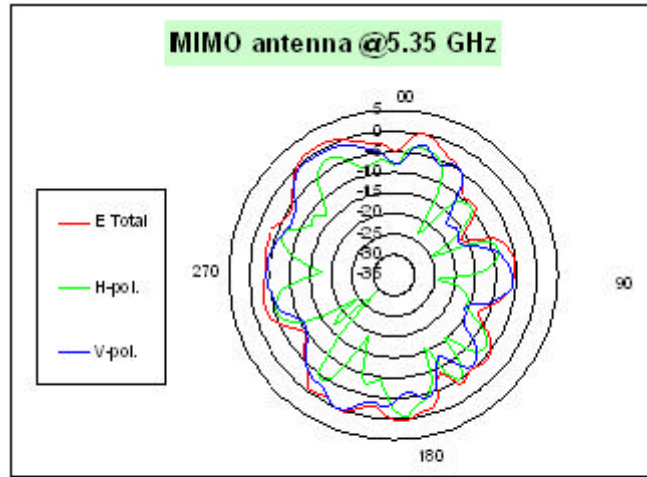
**MIMO antenna: 5250 MHz**



	Total	H-pol	V pol
<b>Peak Gain</b>	<b>1.29</b>	<b>-1.78</b>	<b>0.08</b>
<b>Average Gain</b>	<b>-4.05</b>	<b>-9.87</b>	<b>-5.67</b>



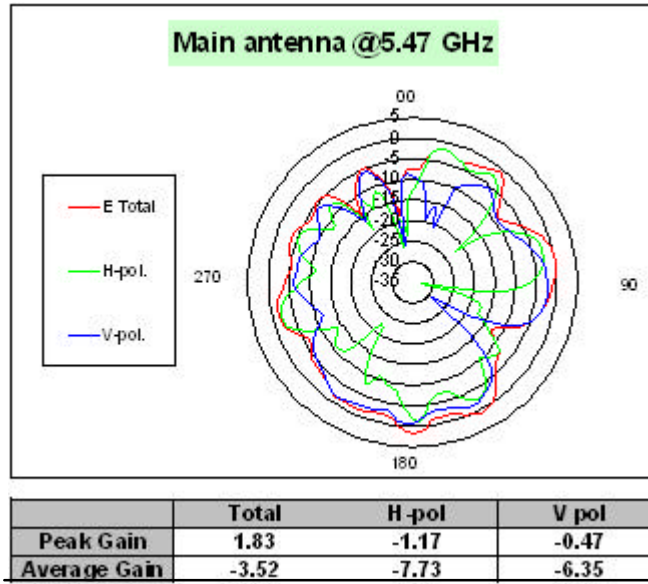
**MIMO antenna: 5350 MHz**



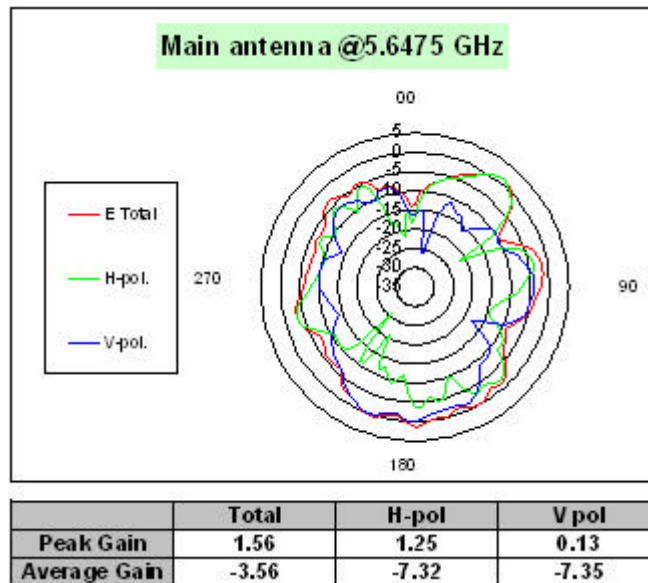
	Total	H-pol	V-pol
<b>Peak Gain</b>	<b>1.51</b>	<b>-0.67</b>	<b>0.25</b>
<b>Average Gain</b>	<b>-3.75</b>	<b>-8.83</b>	<b>-5.81</b>

470-5725MHz radiation characteristic

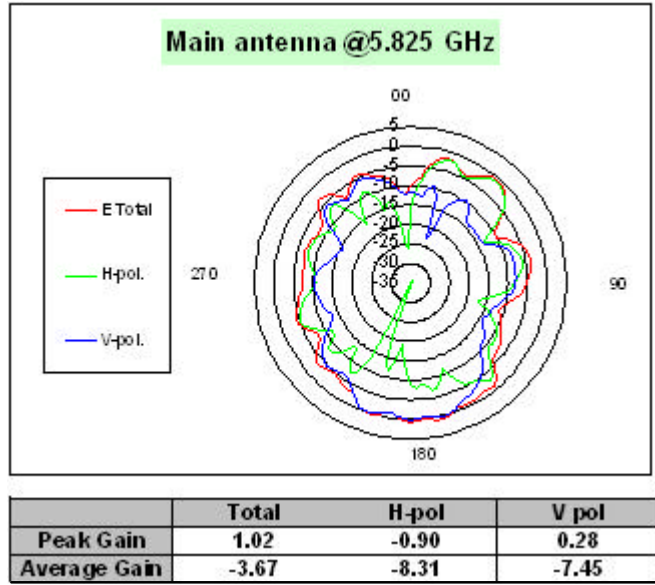
**Main antenna: 5470 MHz**



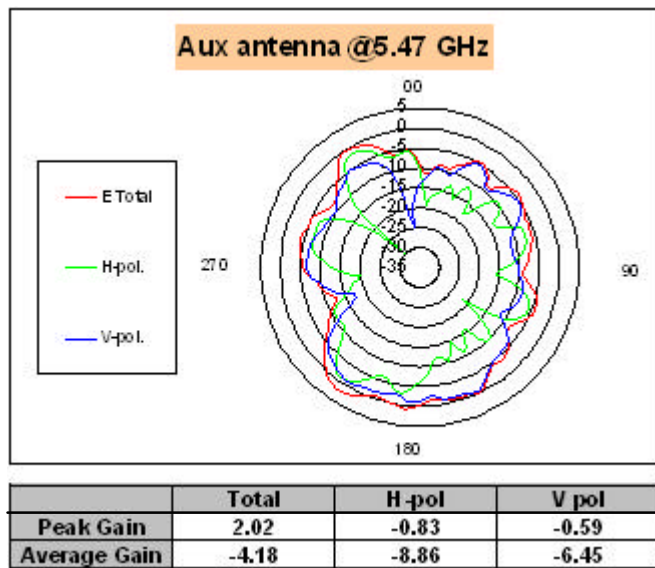
**Main antenna: 5647.5 MHz**



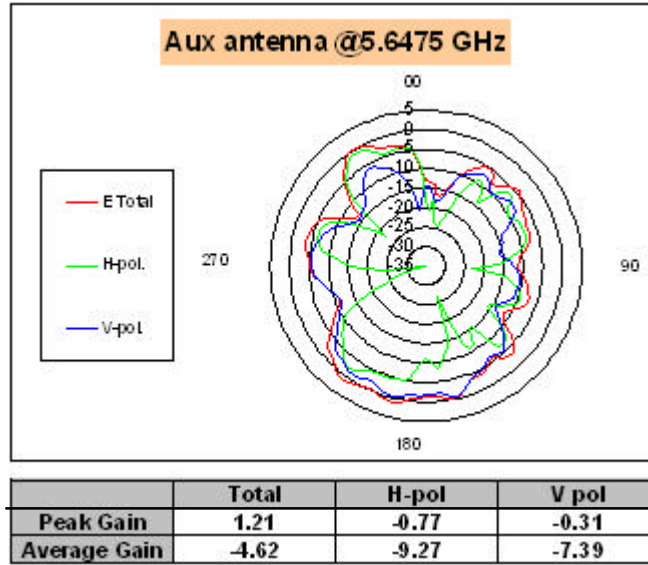
**Main antenna: 5825 MHz**



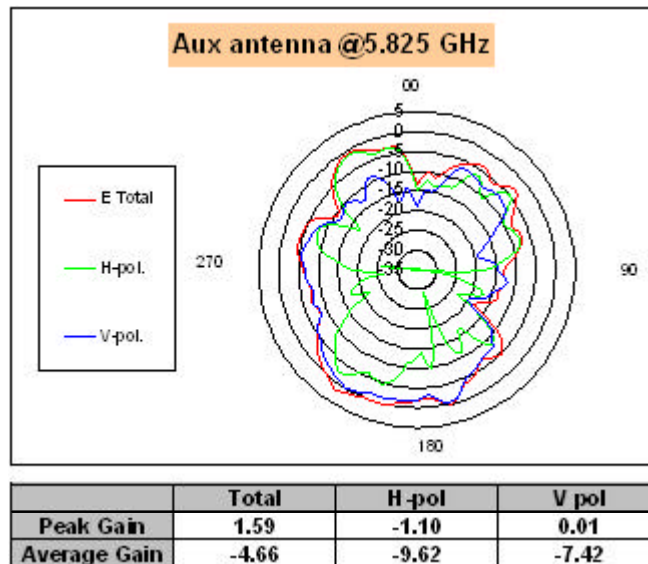
**Auxiliary antenna: 5470 MHz**



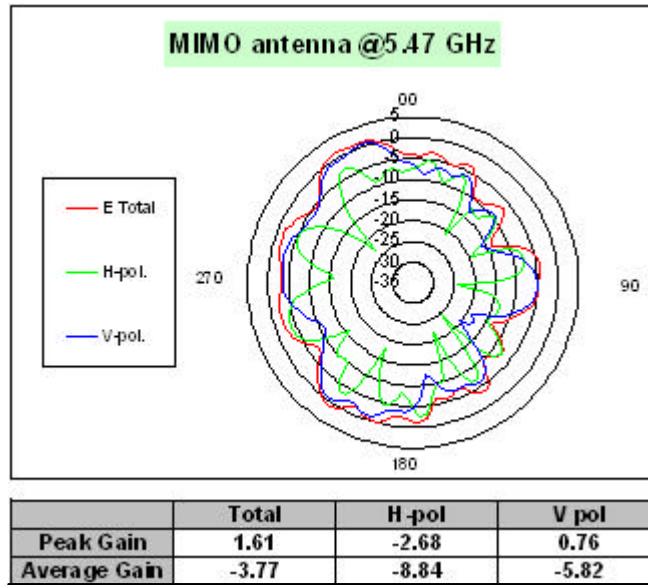
**Auxiliary antenna: 5647.5 MHz**



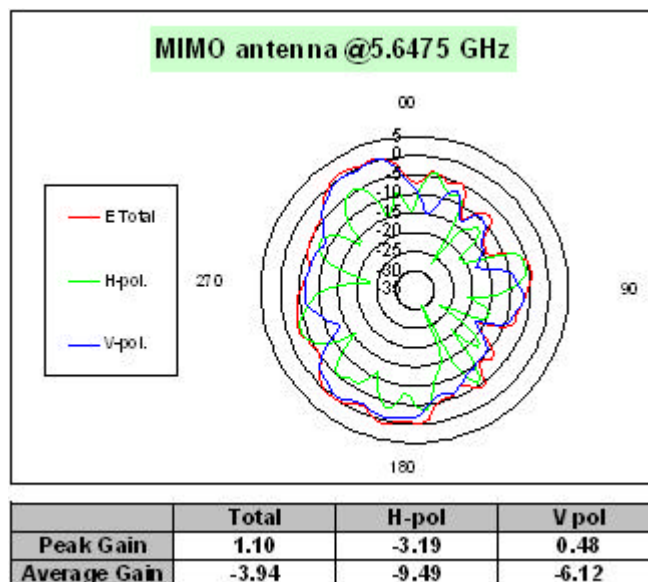
**Auxiliary antenna: 5825 MHz**



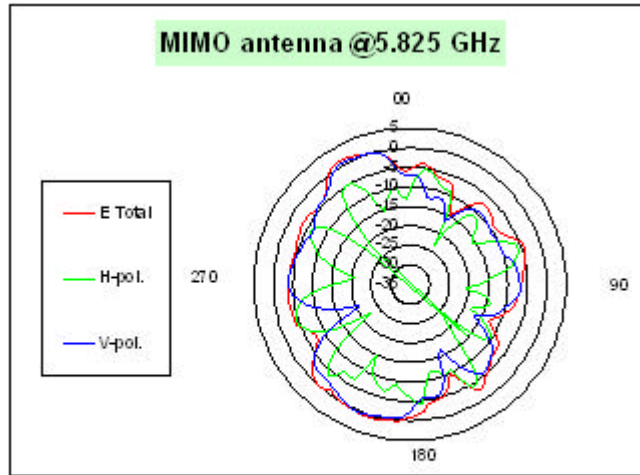
**MIMO antenna: 5470 MHz**



**MIMO antenna: 5647.5 MHz**



**MIMO antenna: 5825 MHz**



	Total	H-pol	V-pol
Peak Gain	1.54	-3.71	0.62
Average Gain	-3.36	-9.93	-5.73



## Section 4. Host Platform Information

DEM / ODM Host platform: (XXXXXXX) platform correlated to antenna data

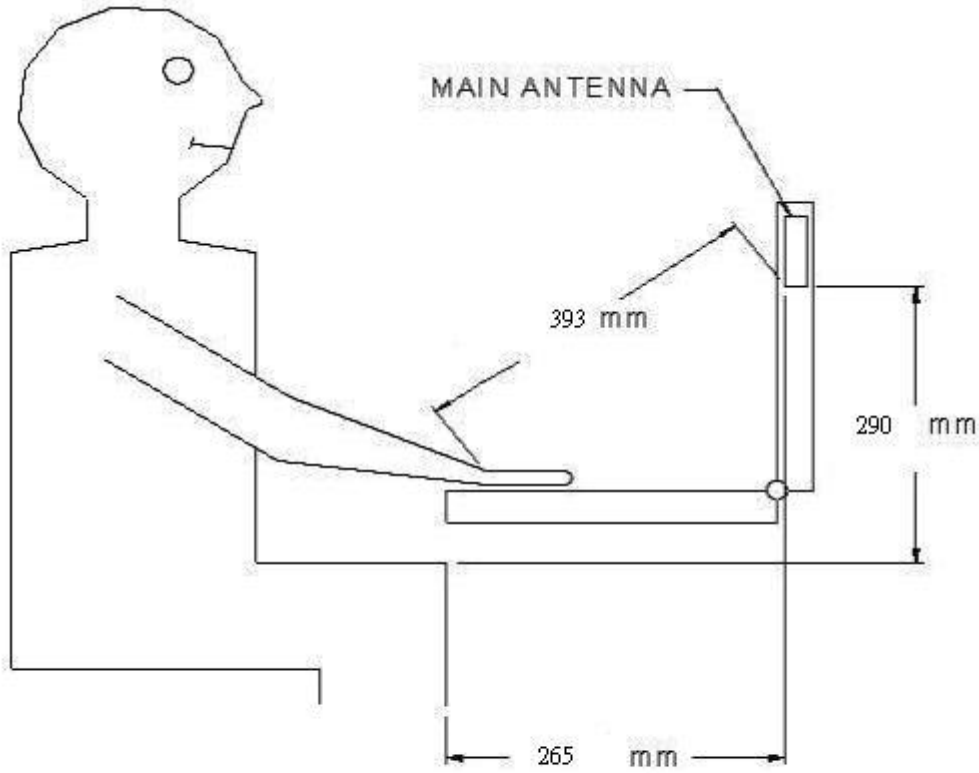
Rating Label Photo:

Module Location Photo: (if Singapore required)



## Section 6. Antenna dimensional information for SAR evaluation

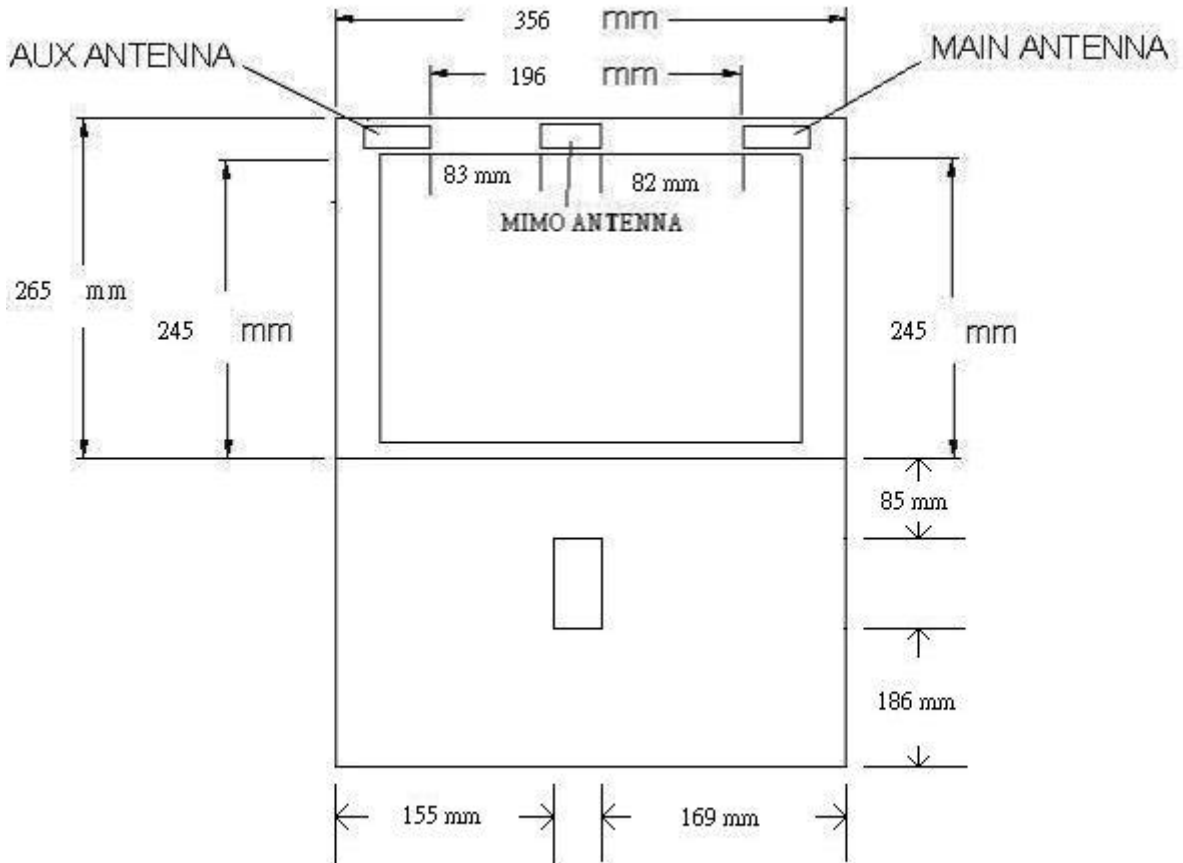
include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit (main) antenna and the user (excluding hands, wrist, feet, and ankle)



## Section 7. Diagram Example of Co-Location Antenna Separation

include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between WLAN antenna and 2<sup>nd</sup> radiator transmit antenna.

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



## Section 8. Local representative contact information

Local representative contact information is required for regulatory support for target countries below.

	Local company name	Contact name	Phone number	FAX Number	e-Mail Address	Notes
Argentina						
Brazil						
Indonesia						
Israel						
Malaysia						
Mexico						
Singapore						Telecommunication Equipment Dealer License Required
South Africa						
USA, Canada						