

# Regulatory WWAN Antenna Information

(English Language Required for Intel Regulatory Review / Approval)

<b>Platform</b>	
Platform Owner	Hewlett-Packard International Pte. Ltd.
Brand Name	Hewlett-Packard International Pte. Ltd.
Model Name	Tecate
ODM	Inventec Corporation
Target Launch Date	(2007/ 02/ 26)
<b>Antenna</b>	
Brand Name	Wistron NeWeb Corp.
Part Number	<input checked="" type="checkbox"/> Main Antenna: 6036B0010901
	<input checked="" type="checkbox"/> AUX Antenna: 6036B0011001
<b>Module</b>	
With WWAN Module	<input checked="" type="checkbox"/> MC5720
(Check Box)	<input checked="" type="checkbox"/> MC8775
	<input type="checkbox"/> MC8765

## 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 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Main and AUX antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Main antenna (Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs <b>and</b> Drawings of Main and AUX 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 (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 (WWAN, 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)
<b>Main Antenna</b> (P/N:6036B001090 1)	Wistron Neweb Corporation	IFA	P/N: 60.EET01.006_B_01  50 ohm Coaxial. length: 610 mm diameter: 1.37 mm Connector: IPEX	824-849MHz <b>-2.77</b> dBi (peak)	824-849MHz <b>-1.96</b> dBi (peak)	824-849MHz <b>3.0</b> max	824-849MHz <b>0.81</b> dBi (peak)
				1850-1910MHz <b>2.28</b> dBi (peak)	1850-1910MHz <b>3.48</b> dBi (peak)	1850-1910MHz <b>2.0</b> max	1850-1910MHz <b>1.20</b> dBi (peak)
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)
<b>AUX Antenna</b> (P/N:6036B001100 1)	Wistron Neweb Corporation	IFA	P/N: 50.EET01.002_B_01  50 ohm Coaxial. length: 800 mm diameter: 1.37 mm Connector: IPEX	824-849MHz <b>-3.47</b> dBi (peak)	824-849MHz <b>-2.39</b> dBi (peak)	824-849MHz <b>3.0</b> max	824-849MHz <b>1.08</b> dBi (peak)
				1850-1910MHz <b>1.02</b> dBi (peak)	1850-1910MHz <b>2.75</b> dBi (peak)	1850-1910MHz <b>2.0</b> max	1850-1910MHz <b>1.73</b> dBi (peak)

### Antenna Peak Gain Table:

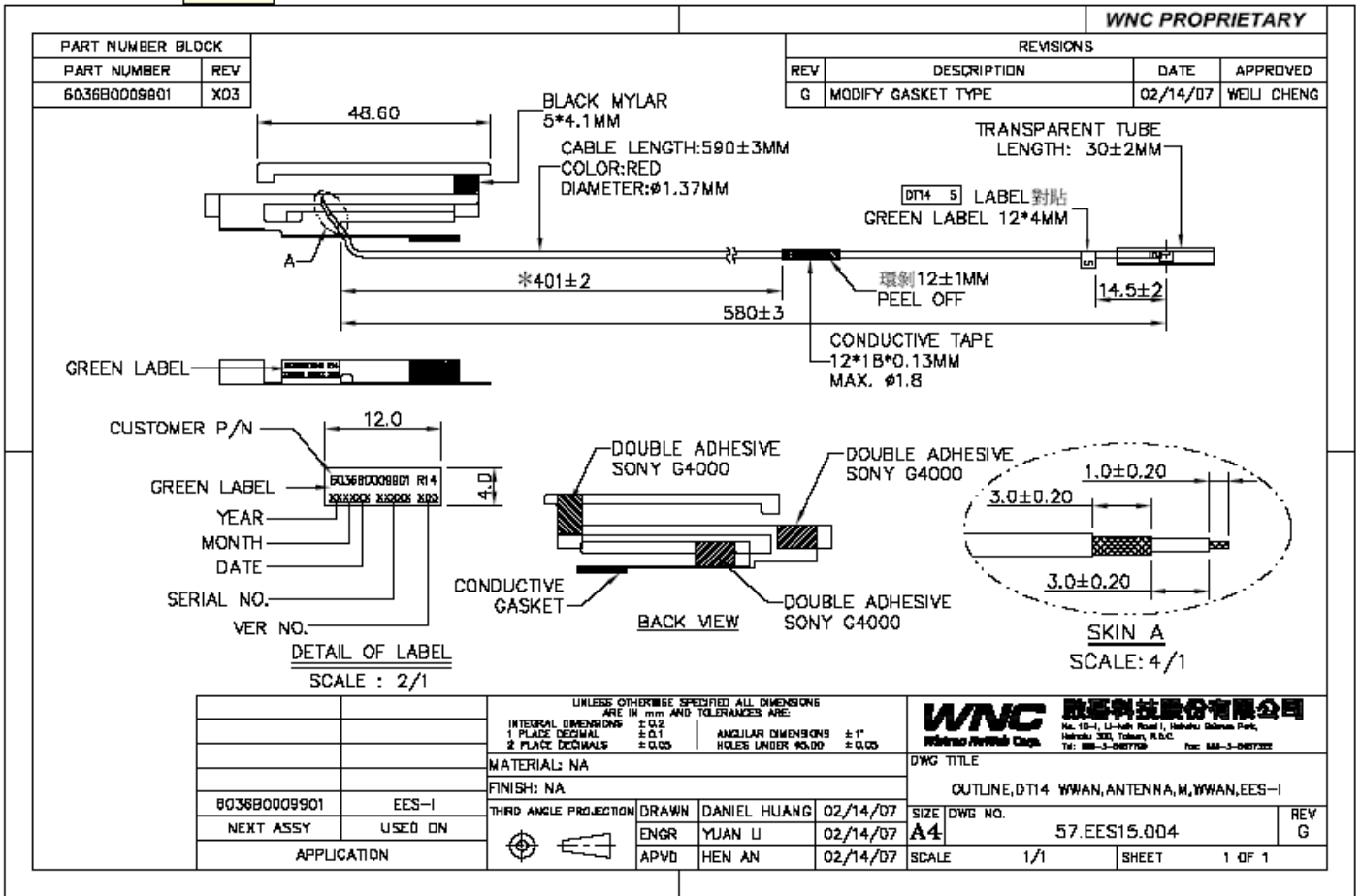
Frequency (MHz)	Main antenna	
	Horizontal (dBi)	Vertical (dBi)
<b>824.2</b>	<b>-4.76</b>	<b>-2.77</b>
<b>836.6</b>	<b>-3.96</b>	<b>-3.18</b>
<b>848.8</b>	<b>-3.64</b>	<b>-2.94</b>
<b>1850.2</b>	<b>-1.25</b>	<b>-3.99</b>
<b>1880</b>	<b>-0.98</b>	<b>-5.41</b>
<b>1909.</b>	<b>1.44</b>	<b>-3.62</b>

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

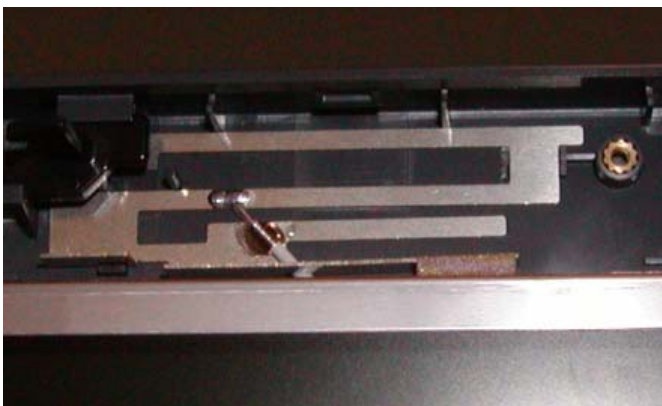
## Section 2. Dimensioned Photos or Drawings of Antennas

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

### Main Antenna Dimensioned Drawing:

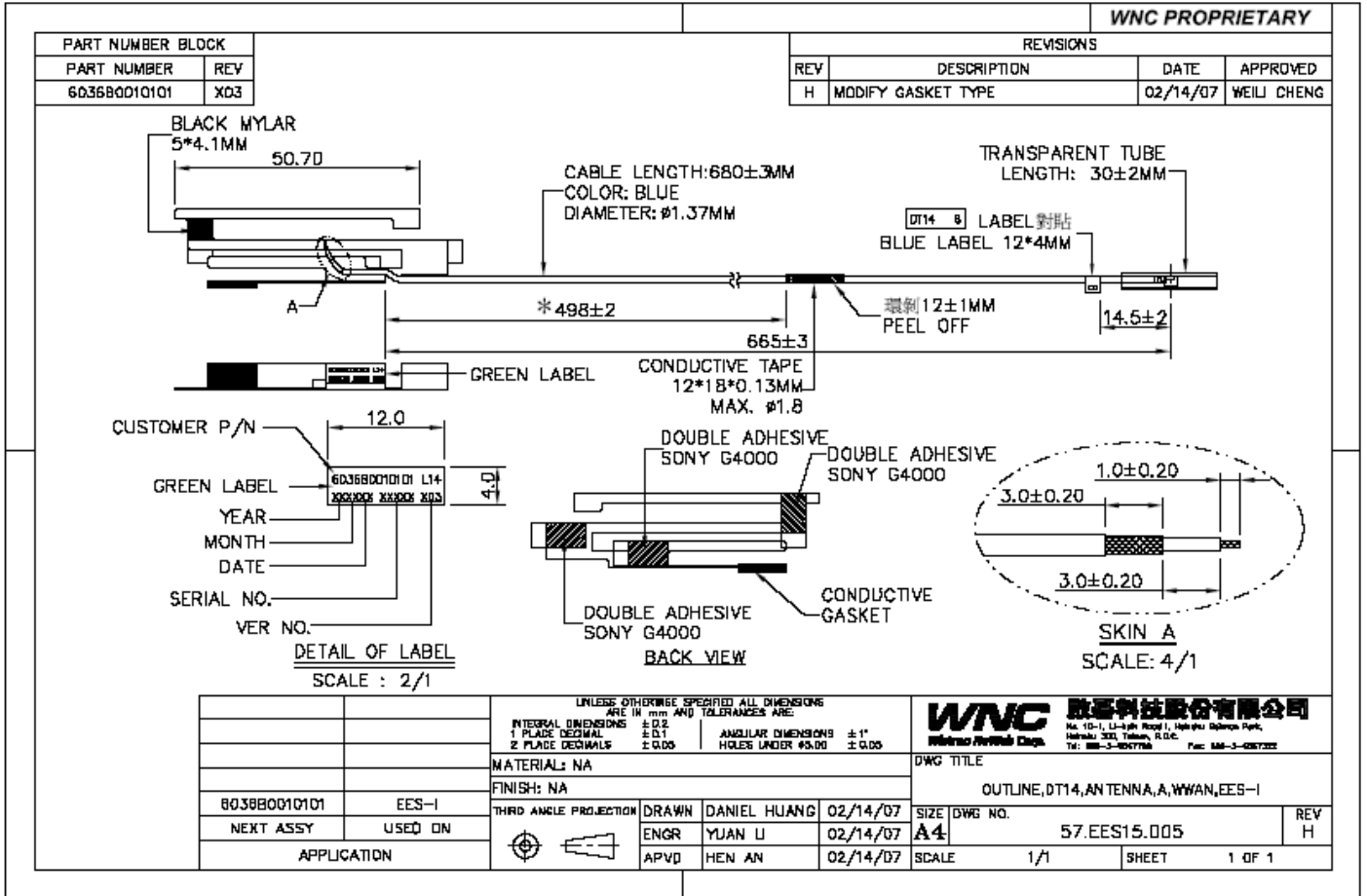


### Main Antenna Photo:

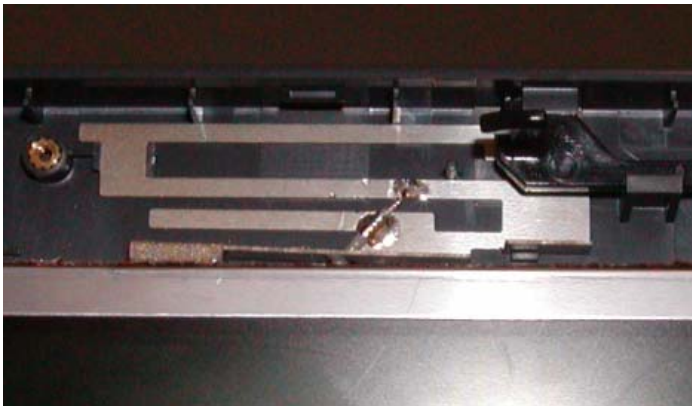


Include a dimensioned photo and dimensioned drawing of AUX antenna here.

**AUX Antenna Dimensioned Drawing:**



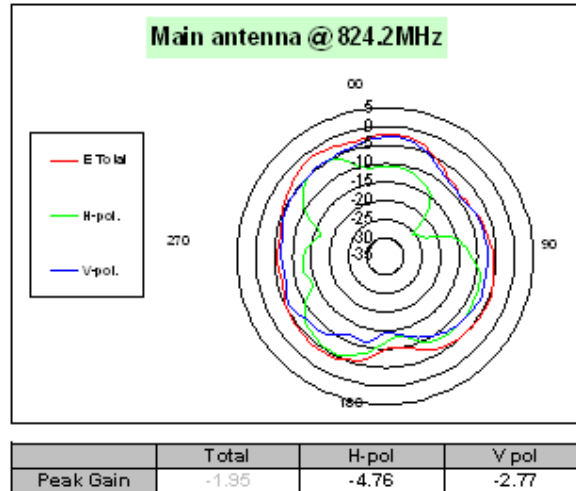
**AUX Antenna Photo:**



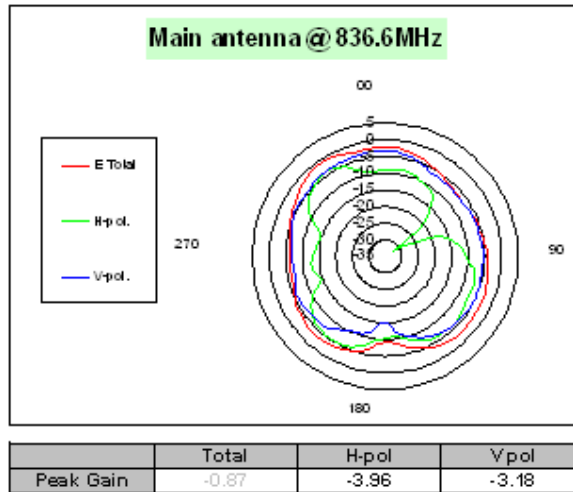
## Section 3. Radiation characteristics of antennae Loaded in Host Platform

### 850MHz radiation characteristic

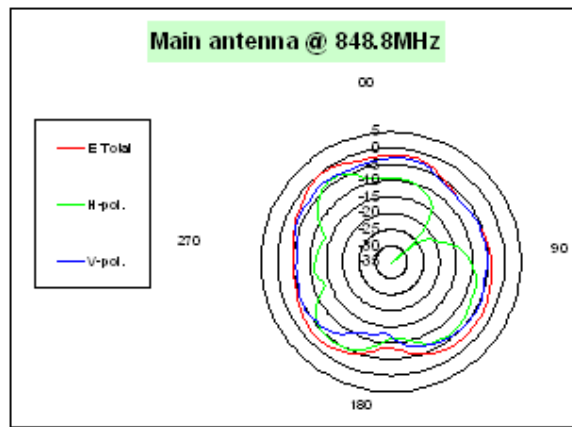
Main antenna: 824.2 MHz



### Main antenna: 836.6 MHz



### Main antenna: 848.8 MHz

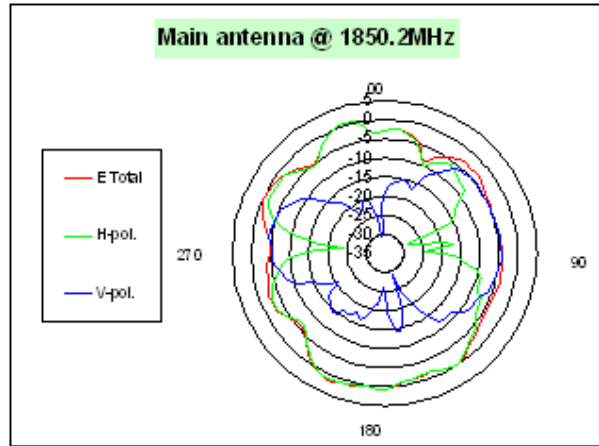


	Total	H-pol	V-pol
Peak Gain	-0.71	-3.64	-2.94



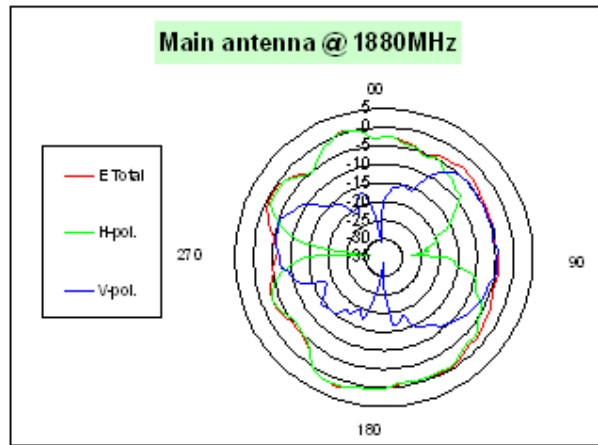
**1850 MHz radiation characteristic**

**Main antenna: 1850.2 MHz**



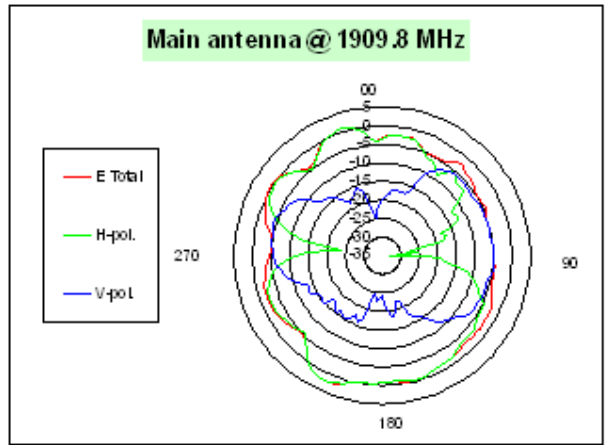
	Total	H-pol	V pol
Peak Gain	-1.20	-1.25	-3.99

### Main antenna: 1880 MHz



	Total	H-pol	V pol
Peak Gain	-0.79	-0.98	-5.41

Main antenna: 1909.8 MHz



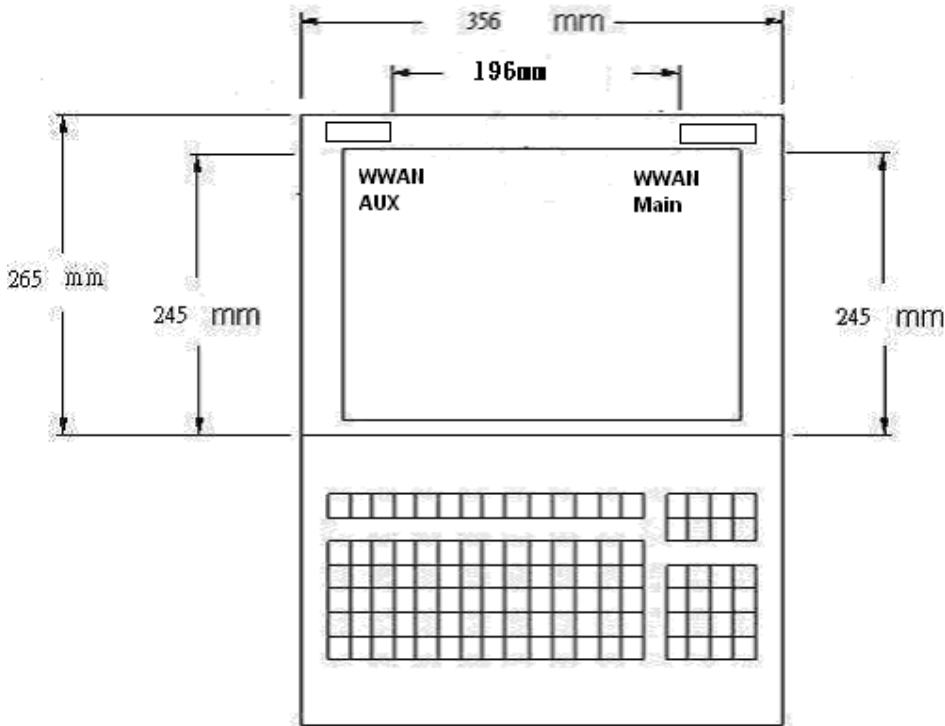
	Total	H-pol	V pol
Peak Gain	1.49	1.44	-3.62

## Section 4. Host Platform Information

OEM / ODM Host platform: (XXXXXXX) platform correlated to antenna data  
Rating Label Photo:

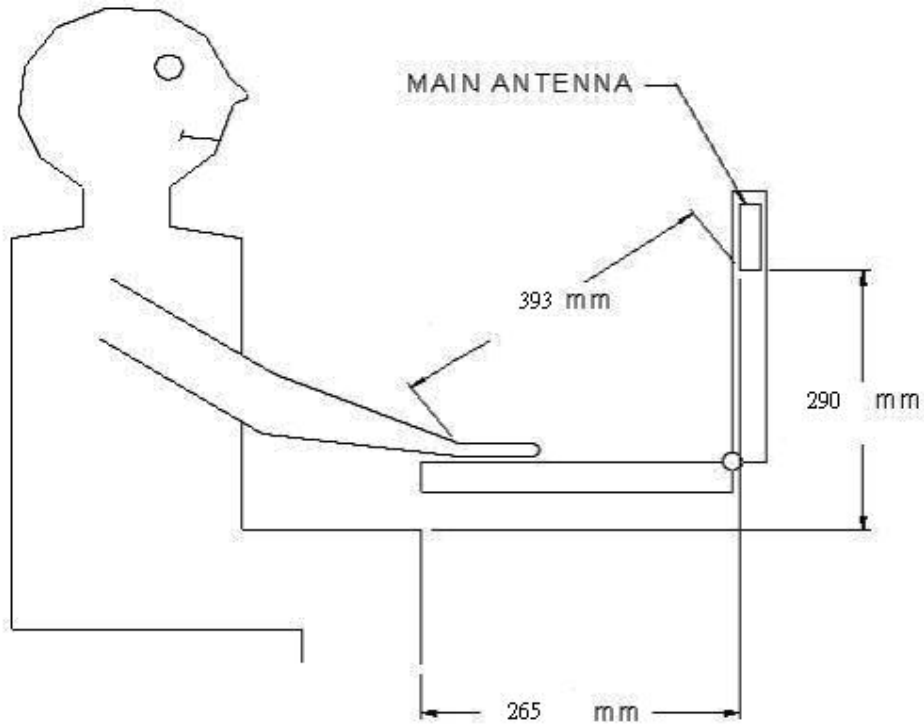
## Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of Main and AUX antenna placements. (Not applicable for receive-only antenna)



## Section 6. Antenna dimensional information for SAR evaluation

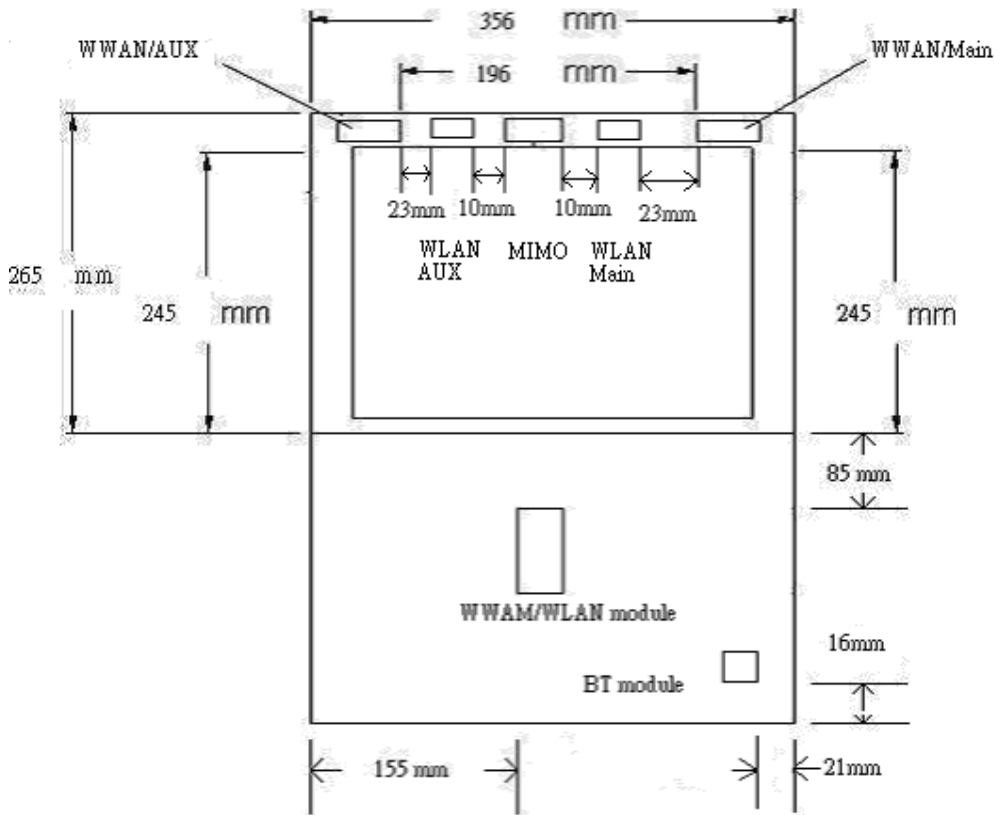
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, lap/ thigh, and ankle)



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

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between **all WWAN transmit antennas** and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(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
<b>Argentina</b>						
<b>Brazil</b>						
<b>Indonesia</b>						
<b>Israel</b>						
<b>Malaysia</b>						
<b>Mexico</b>						
<b>Singapore</b>						Telecommunication Equipment Dealer License Required
<b>South Africa</b>						
<b>USA, Canada</b>						