

# 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
<b>ODM</b>	Inventec Corporation
Target Launch Date	(2007/ 02/ 26)
<b>Antenna</b>	
Brand Name	<b>Wistron NeWeb Corp.</b>
Part Number	<input checked="" type="checkbox"/> Main Antenna: <b>6036B0010901</b>
	<input checked="" type="checkbox"/> AUX Antenna: <b>6036B0011001</b>
<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 and 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. (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 (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 Newweb 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 Newweb 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:

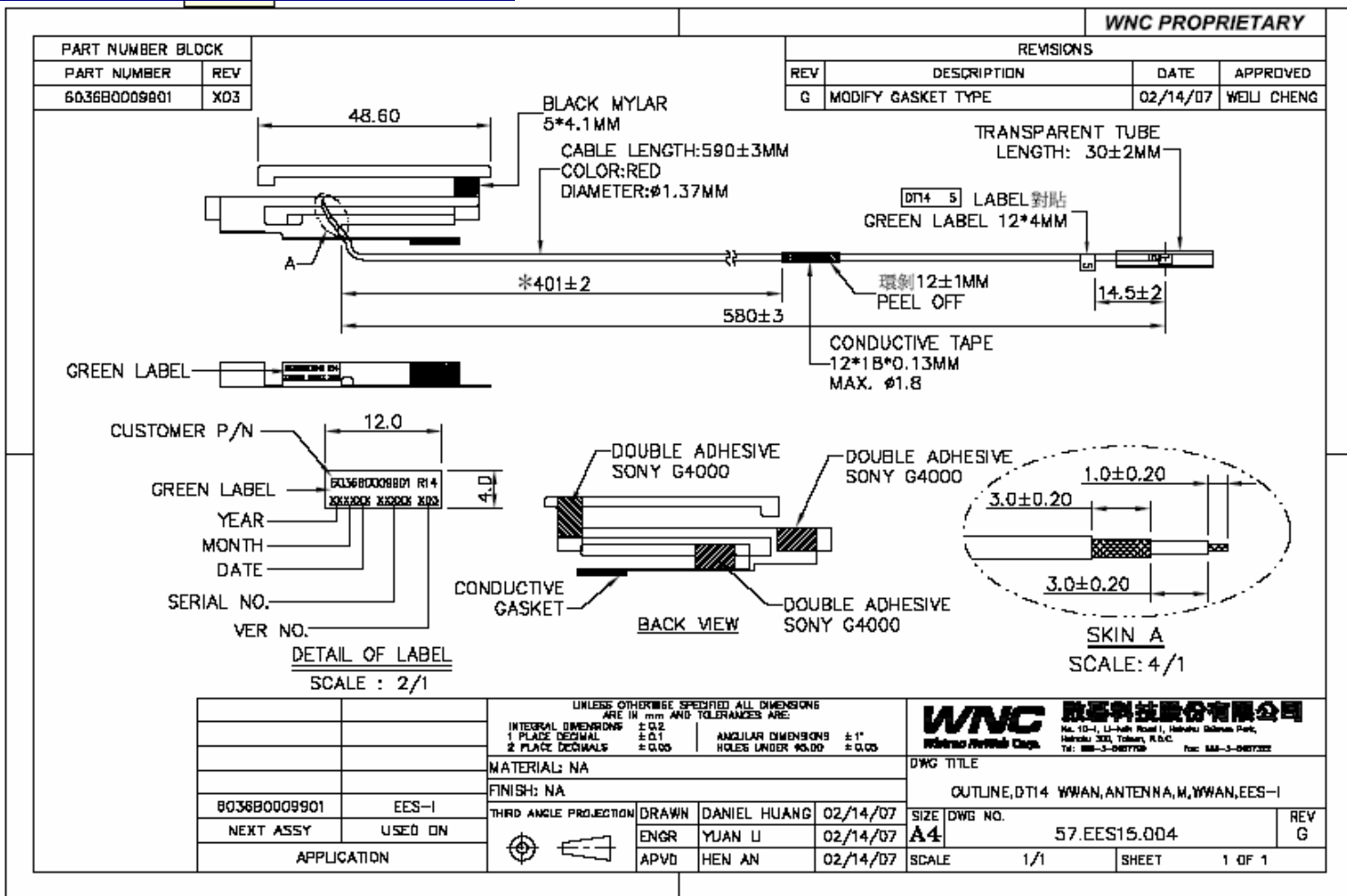
Frequency (MHz)	Main antenna	
	Horizontal (dBi)	Vertical (dBi)
824.2	<b>-4.76</b>	<b>-2.77</b>
836.6	<b>-3.96</b>	<b>-3.18</b>
848.8	<b>-3.64</b>	<b>-2.94</b>
1850.2	<b>-1.25</b>	<b>-3.99</b>
1880	<b>-0.98</b>	<b>-5.41</b>
1909.	<b>1.44</b>	<b>-3.62</b>

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

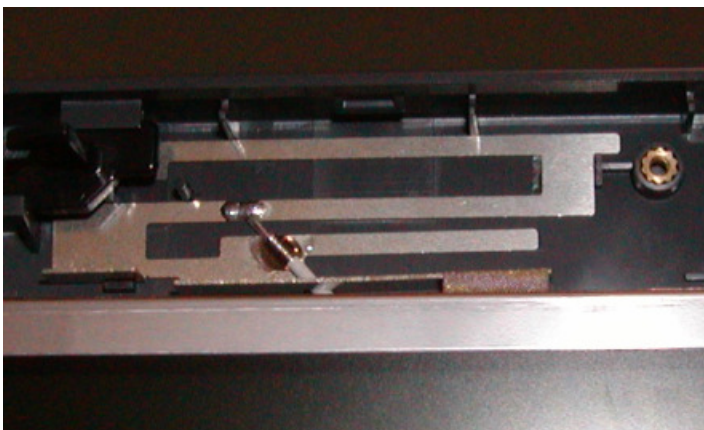
## Section 2. Dimensioned Photos or Drawings of Antennas

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

### Main Antenna Dimensioned Drawing:

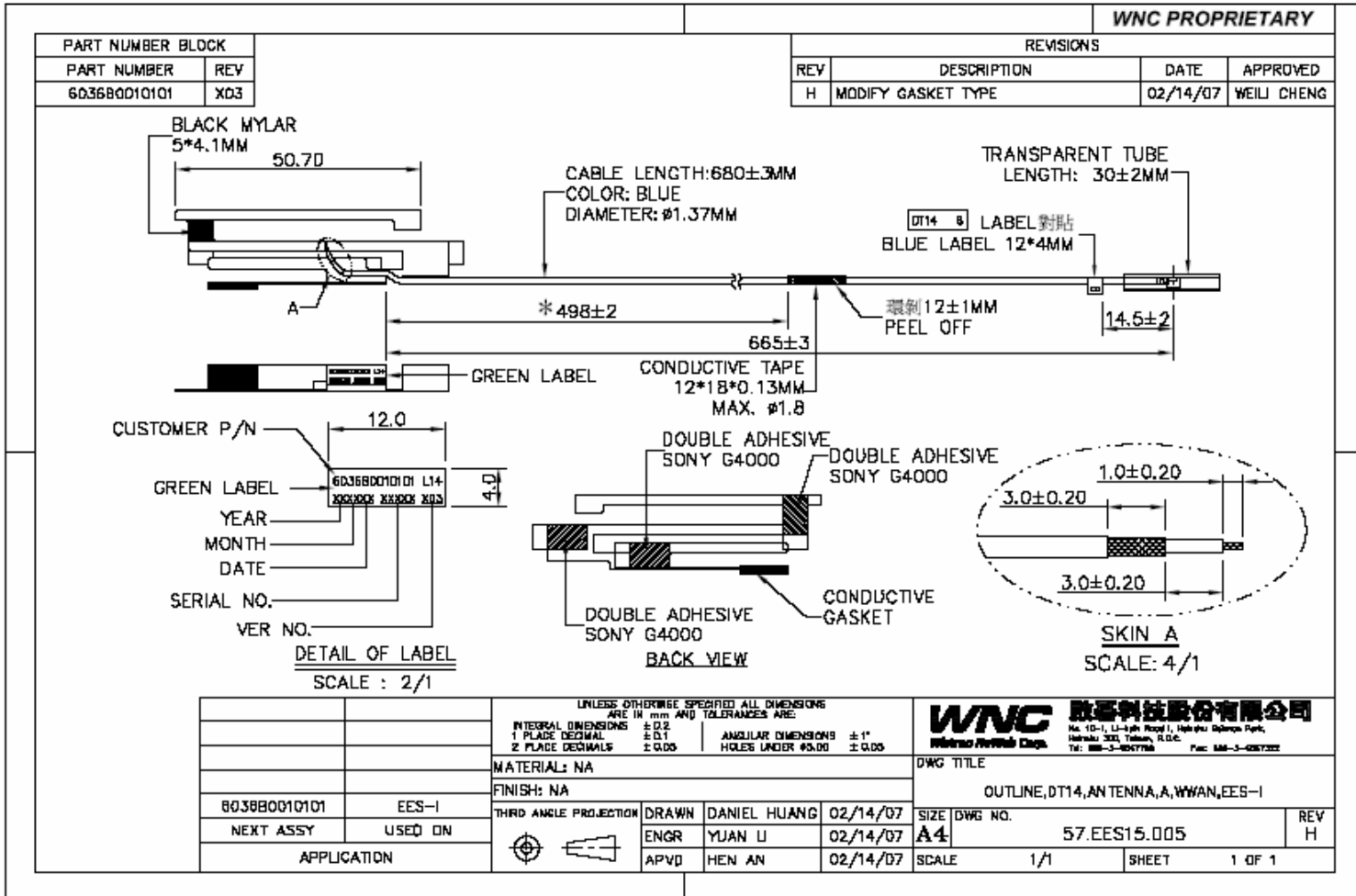


### Main Antenna Photo:

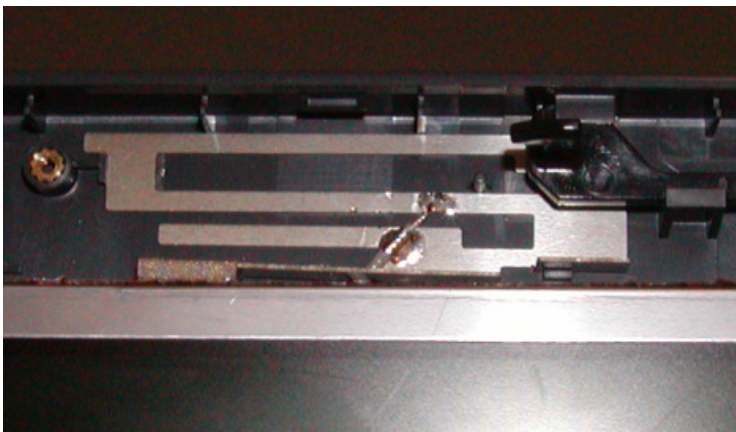


**Include a dimensioned photo and dimensioned drawing of AUX antenna here.**

**AUX Antenna Dimensioned Drawing:**



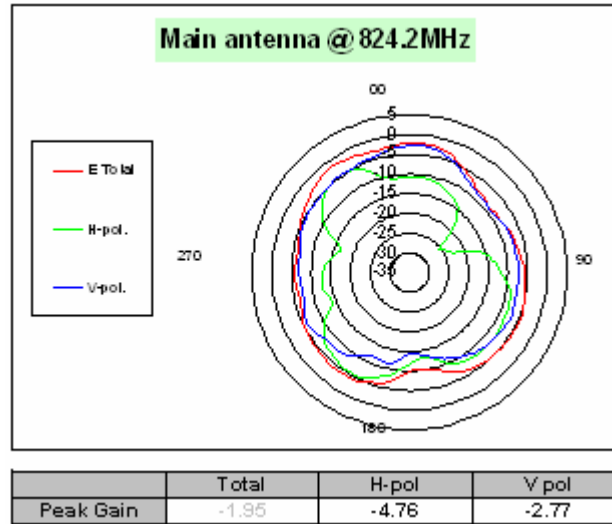
**AUX Antenna Photo:**



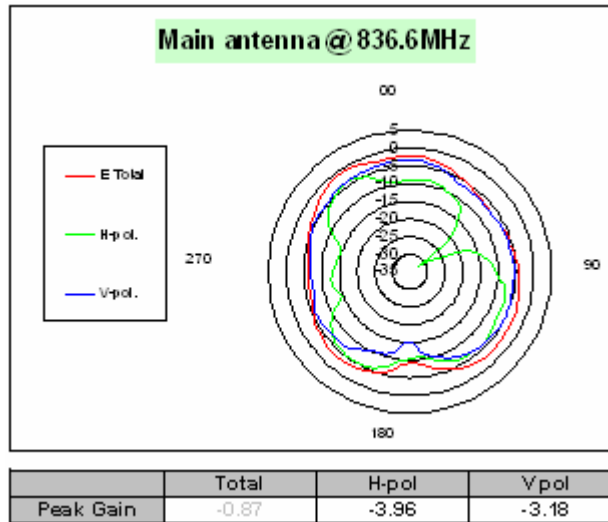
## Section 3. Radiation characteristics of antennae Loaded in Host Platform

### 850MHz radiation characteristic

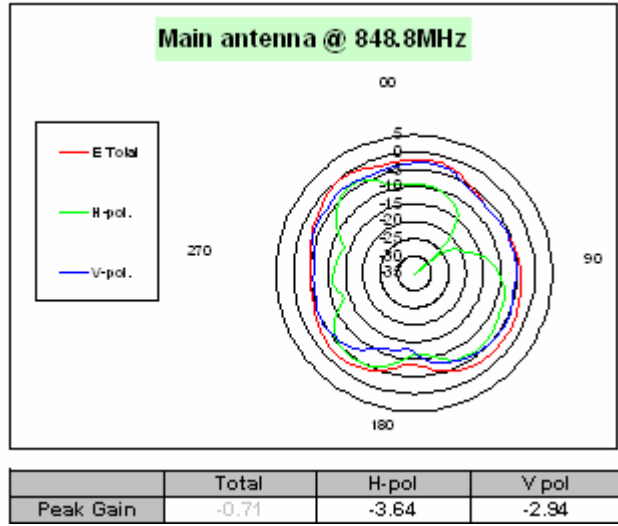
Main antenna: 824.2 MHz



## Main antenna: 836.6 MHz



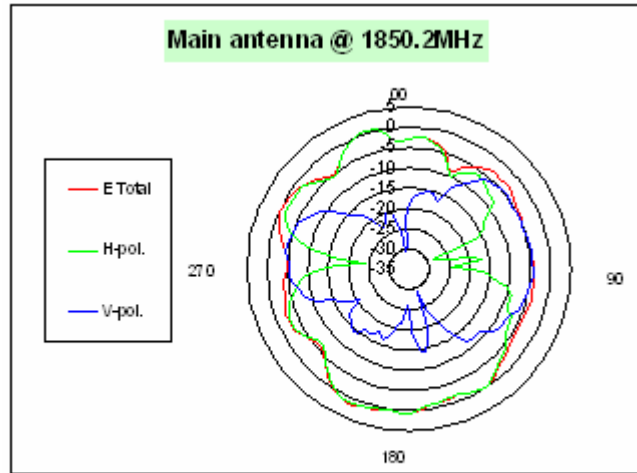
## Main antenna: 848.8 MHz





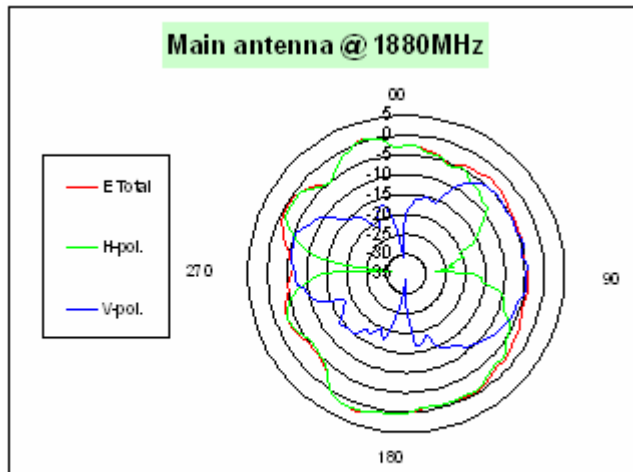
**1850 MHz radiation characteristic**

**Main antenna: 1850.2 MHz**



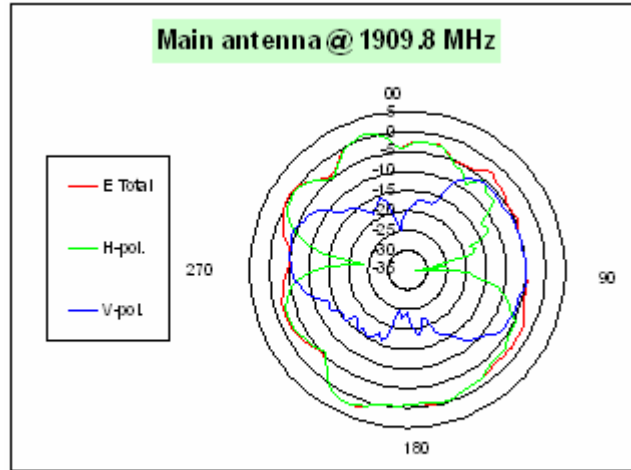
	Total	H-pol	V pol
<b>Peak Gain</b>	-1.20	-1.25	-3.99

### Main antenna: 1880 MHz



	Total	H-pol	V pol
<b>Peak Gain</b>	-0.79	-0.98	-5.41

### Main antenna: 1909.8 MHz



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

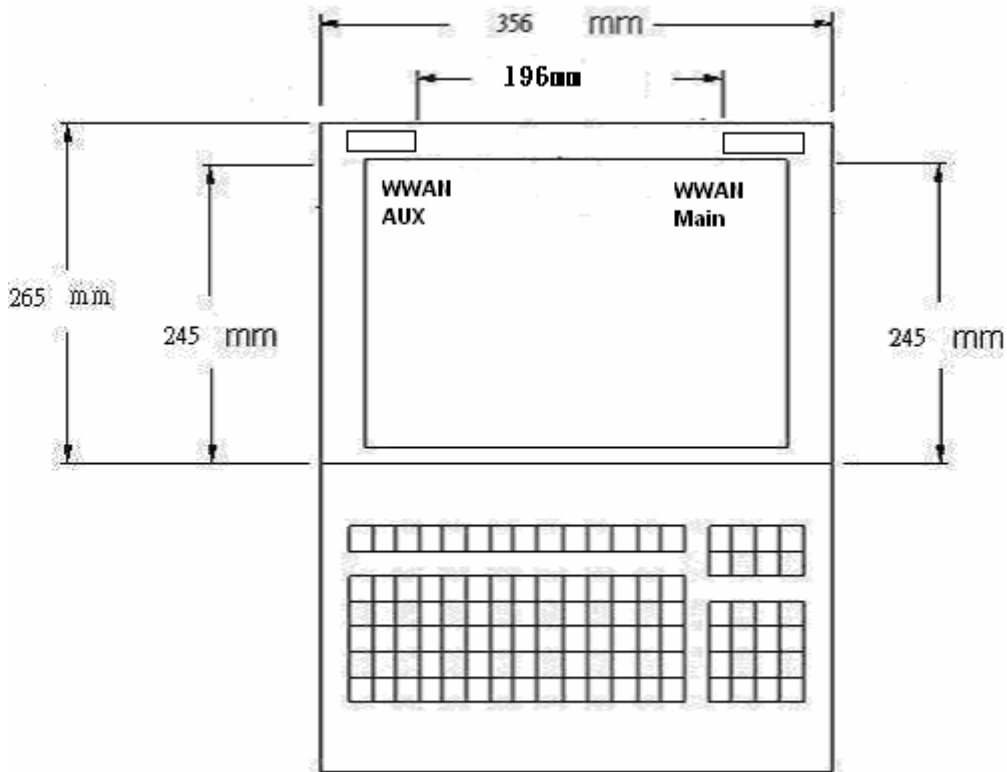
## Section 4. Host Platform Information

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

Rating Label Photo:

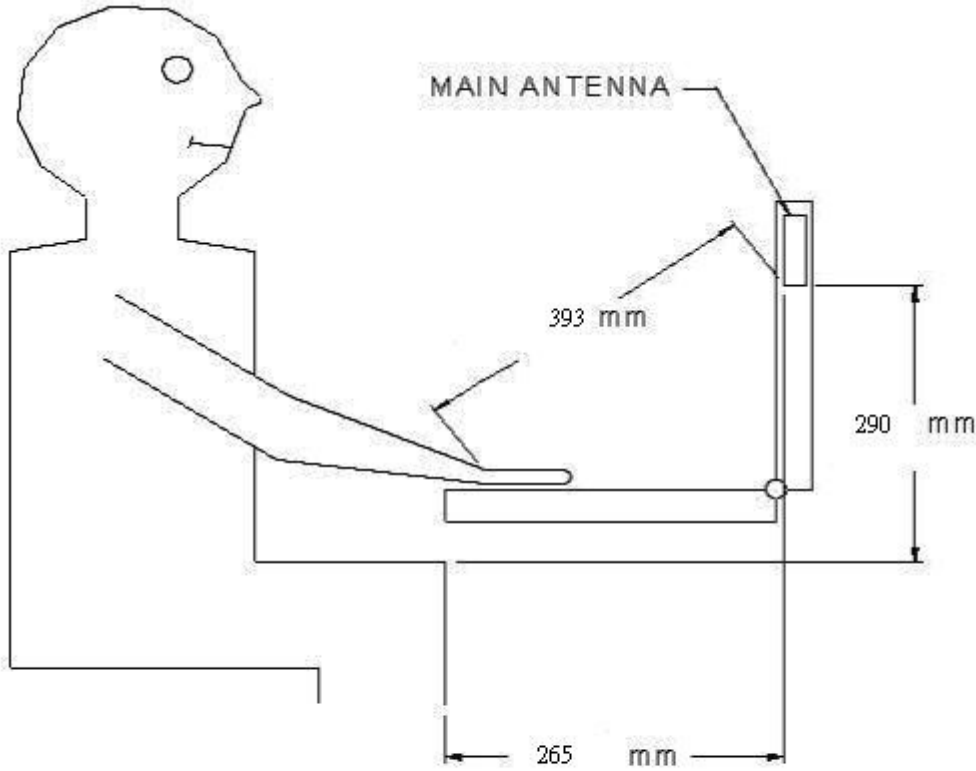
## Section 5. Antenna Host Platform Location Information

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

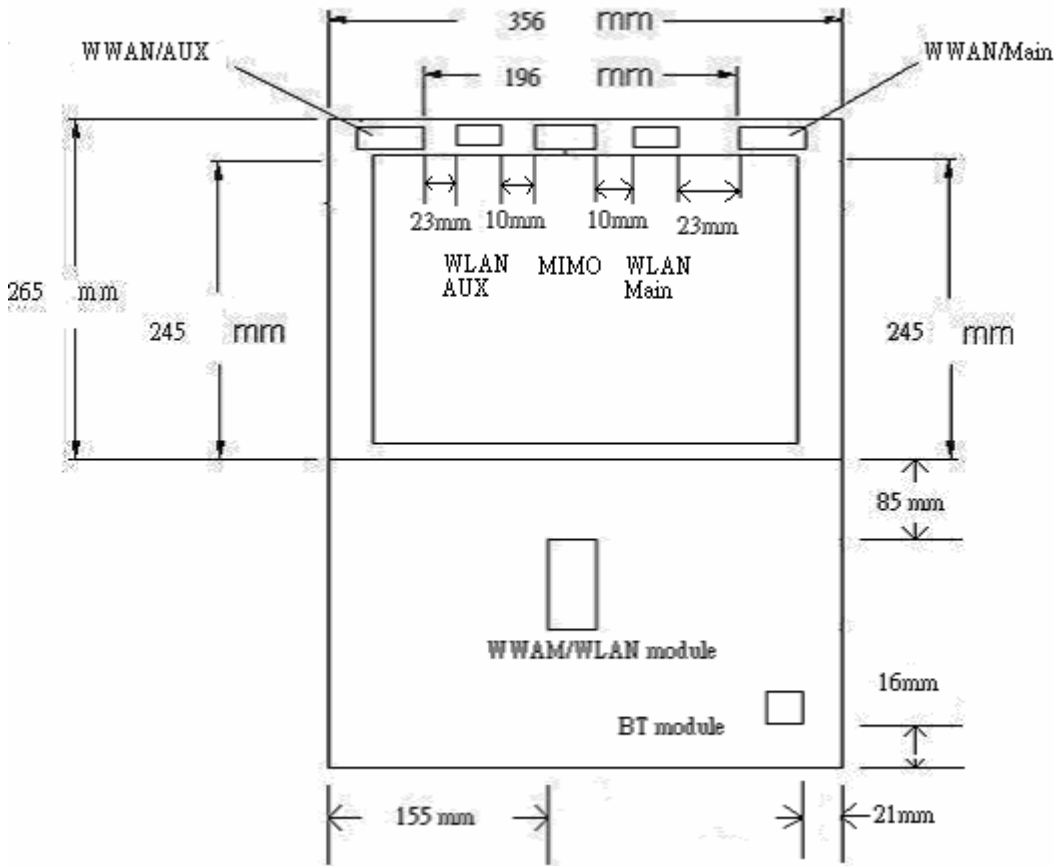
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, lap/ thigh, and ankle)



## 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
Argentina						
Brazil						
Indonesia						
Israel						
Malaysia						
Mexico						
Singapore						Telecommunication Equipment Dealer License Required
South Africa						
USA, Canada						