

Regulatory WWAN + WLAN, Main + Aux Antenna Information

Platform	
Platform Owner	Acer Incorporated
Brand Name	Acer Incorporated
Model Name	JM40_HR (P4LJ0)
ODM	Compal Electronics, Inc.
Target Launch Date	2011/03/15
Antenna	
Brand Name	Wistron Neweb Corp.
Part Number	<input checked="" type="checkbox"/> WWAN + WLAN Main Antenna: DC33000TT00 (81.EJT15.GRG)
	<input checked="" type="checkbox"/> WWAN + WLAN Aux Antenna: DC33000TT10 (81.EJT15.GRH)
Module	
With WLAN Module	<input type="checkbox"/> 533ANX Family
(Check Box)	<input type="checkbox"/> 533AN Family
	<input type="checkbox"/> 512AN Family
	<input type="checkbox"/> 512ANX Family
	<input type="checkbox"/> RTL8192E
	<input type="checkbox"/> AR5BXB92
	<input type="checkbox"/> AR5BHB92

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	Tx1, Tx2 & Tx3 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Tx1, Tx2 & Tx3 antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Tx1, Tx2 & Tx3 antenna (Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs and Drawings of Tx1, Tx2, and Tx3 (or Rx3) 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, 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

NOTE:

(*) if 3rd antenna is Rx only (e.g. receive only for 4965AGN) then peak gain and cable loss not required

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 Antenna P/N : 81.EJT15.GRG	Wistron Neweb Corporation	PIFA	Cable Assembly P/N : 60.EJT02.174 50 ohm Coaxial length: 444 mm diameter: 1.37 mm Connector: IPEX	824 - 869 MHz -0.97 dBi (peak)	824 - 869 MHz -0.16 dBi (peak)	824 - 869 MHz 3.0 max	824 - 869 MHz 0.81 dBi (peak)
				869 - 894 MHz -1.46 dBi (peak)	869 - 894 MHz -0.64 dBi (peak)	869 - 894 MHz 3.0 max	869 - 894 MHz 0.83 dBi (peak)
				900 - 925 MHz -1.45 dBi (peak)	900 - 925 MHz -0.61 dBi (peak)	900 - 925 MHz 3.0 max	900 - 925 MHz 0.84 dBi (peak)
				940 - 960 MHz -2.24 dBi (peak)	940 - 960 MHz -1.40 dBi (peak)	940 - 960 MHz 3.0 max	940 - 960 MHz 0.85 dBi (peak)
				1710 - 1805 MHz -0.05 dBi (peak)	1710 - 1805 MHz 1.09 dBi (peak)	1710 - 1805 MHz 3.0 max	1710 - 1805 MHz 1.14 dBi (peak)
				1840 - 1910 MHz -0.28 dBi (peak)	1840 - 1910 MHz 0.89 dBi (peak)	1840 - 1910 MHz 3.0 max	1840 - 1910 MHz 1.17 dBi (peak)
				1920 - 1950 MHz 1.09 dBi (peak)	1920 - 1950 MHz 2.27 dBi (peak)	1920 - 1950 MHz 3.0 max	1920 - 1950 MHz 1.18 dBi (peak)
				1960 - 1990 MHz 0.94 dBi (peak)	1960 - 1990 MHz 2.13 dBi (peak)	1960 - 1990 MHz 3.0 max	1960 - 1990 MHz 1.19 dBi (peak)
				2110 - 2170 MHz 0.47 dBi (peak)	2110 - 2170 MHz 1.70 dBi (peak)	2110 - 2170 MHz 3.0 max	2110 - 2170 MHz 1.23 dBi (peak)
				Aux Antenna Antenna P/N : 81.EJT15.GRH	Wistron Neweb Corporation	PIFA	Cable Assembly P/N : 60.EJT02.177 50 ohm Coaxial length: 594 mm diameter: 1.13 mm Connector: IPEX
900 - 925 MHz -2.12 dBi (peak)	900 - 925 MHz -1.07 dBi (peak)	900 - 925 MHz 4.0 max	900 - 925 MHz 1.06 dBi (peak)				
940 - 960 MHz -2.15 dBi (peak)	940 - 960 MHz -1.08 dBi (peak)	940 - 960 MHz 4.0 max	940 - 960 MHz 1.07 dBi (peak)				
1575 MHz -2.32 dBi (peak)	1575 MHz -1.06 dBi (peak)	1575 MHz 4.0 max	1575 MHz 1.26 dBi (peak)				
1920 - 1950 MHz -1.30 dBi (peak)	1920 - 1950 MHz 0.21 dBi (peak)	1920 - 1950 MHz 4.0 max	1920 - 1950 MHz 1.51 dBi (peak)				
1960 - 1990 MHz -1.51 dBi (peak)	1960 - 1990 MHz 0.02 dBi (peak)	1960 - 1990 MHz 4.0 max	1960 - 1990 MHz 1.53 dBi (peak)				
2110 - 2170 MHz -1.13 dBi (peak)	2110 - 2170 MHz 0.46 dBi (peak)	2110 - 2170 MHz 4.0 max	2110 - 2170 MHz 1.58 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)
Main Antenna Antenna P/N : 81.EJT15.GRG	Wistron Neweb Corporation	PIFA	Cable Assembly P/N : 60.EJT02.175 50 ohm Coaxial. length: 803 mm diameter: 1.37 mm Connector: IPEX	2400 - 2500 MHz -0.02 dBi (peak)	2400 - 2500 MHz 2.22 dBi (peak)	2400 - 2500 MHz 2.0 max	2400 - 2500 MHz 2.24 dBi (peak)
				5150 - 5350 MHz -0.46 dBi (peak)	5150 - 5350 MHz 2.59 dBi (peak)	5150 - 5350 MHz 2.0 max	5150 - 5350 MHz 3.04 dBi (peak)
				5470 - 5725 MHz -1.27 dBi (peak)	5470 - 5725 MHz 1.95 dBi (peak)	5470 - 5725 MHz 2.0 max	5470 - 5725 MHz 3.22 dBi (peak)
				5725 - 5850 MHz -0.81 dBi (peak)	5725 - 5850 MHz 2.46 dBi (peak)	5725 - 5850 MHz 2.0 max	5725 - 5850 MHz 3.27 dBi (peak)
Aux Antenna Antenna P/N : 81.EJT15.GRH	Wistron Neweb Corporation	PIFA	Cable Assembly P/N : 60.EJT02.176 50 ohm Coaxial. length: 743 mm diameter: 1.13 mm Connector: IPEX	2400 - 2500 MHz -1.12 dBi (peak)	2400 - 2500 MHz 1.44 dBi (peak)	2400 - 2500 MHz 2.0 max	2400 - 2500 MHz 2.56 dBi (peak)
				5150 - 5350 MHz -0.41 dBi (peak)	5150 - 5350 MHz 3.44 dBi (peak)	5150 - 5350 MHz 2.0 max	5150 - 5350 MHz 3.85 dBi (peak)
				5470 - 5725 MHz -0.45 dBi (peak)	5470 - 5725 MHz 3.49 dBi (peak)	5470 - 5725 MHz 2.0 max	5470 - 5725 MHz 3.94 dBi (peak)
				5725 - 5850 MHz -1.50 dBi (peak)	5725 - 5850 MHz 2.56 dBi (peak)	5725 - 5850 MHz 2.0 max	5725 - 5850 MHz 4.07 dBi (peak)

Antenna Gain Table:**WWAN**

Main Antenna Gain				
Frequency (MHz)	Max value		Average	
	H-pol	V pol	H-pol	V pol
824	-0.73	-3.47	-6.20	-6.40
836	-0.28	-3.18	-5.88	-6.31
849	-0.36	-2.97	-5.70	-6.01
869	-1.29	-3.70	-5.88	-6.46
880	-1.21	-3.61	-5.97	-6.65
894	-1.31	-4.08	-6.09	-7.21
900	-1.89	-4.70	-6.43	-7.67
915	-2.10	-5.44	-6.81	-8.31
925	-2.40	-5.76	-7.16	-8.80
940	-3.32	-7.26	-8.16	-9.69
960	-4.23	-8.13	-9.11	-11.10
1710	2.43	-0.89	-5.72	-6.48
1750	3.10	0.05	-5.41	-5.25
1785	3.34	0.49	-5.16	-4.57
1805	3.51	1.07	-4.85	-4.14
1840	3.14	0.98	-4.86	-4.14
1850	3.12	0.81	-4.87	-4.47
1880	3.22	0.41	-4.59	-3.66
1910	3.32	0.57	-4.59	-3.78
1920	3.47	0.51	-4.27	-3.93
1930	3.25	0.76	-4.33	-3.80
1950	3.08	0.38	-4.23	-4.15
1960	2.75	-0.18	-4.57	-4.32
1980	2.12	-1.12	-5.45	-5.10
1990	1.91	-1.19	-6.26	-5.71
2110	-1.69	-3.42	-7.64	-7.60
2140	-2.61	-4.72	-7.59	-8.81
2170	-0.06	-5.75	-6.52	-9.36

Aux Antenna Gain				
Frequency (MHz)	Max value		Average	
	H-pol	V pol	H-pol	V pol
869	-4.41	-6.24	-8.97	-9.08
880	-4.23	-5.69	-8.74	-8.77
894	-4.03	-5.19	-8.51	-8.84
900	-4.10	-5.34	-8.63	-9.03
915	-3.88	-5.14	-8.50	-9.08
925	-3.95	-5.17	-8.64	-9.35
940	-4.44	-5.59	-8.80	-9.85
960	-4.33	-7.70	-9.23	-10.75
1575	-2.04	-2.91	-8.08	-7.07
1930	-0.08	-3.29	-5.42	-7.07
1950	0.13	-4.01	-5.61	-7.24
1960	0.28	-3.55	-5.90	-7.17
1980	0.80	-2.76	-6.14	-7.30
1990	0.63	-2.80	-6.34	-7.57
2110	0.53	-2.41	-7.73	-8.00
2140	1.22	-1.79	-7.00	-7.05
2170	0.62	-2.01	-7.17	-7.48

WLAN

Main Antenna Gain				
Frequency (MHz)	Max value		Average	
	H-pol	V pol	H-pol	V pol
2400	-2.75	-4.37	-8.70	-6.72
2450	-2.50	-3.84	-7.70	-6.32
2500	-2.61	-3.44	-7.58	-6.40
5150	-1.36	-3.33	-8.58	-8.89
5250	-2.10	-4.56	-8.22	-9.02
5350	-2.17	-3.92	-8.04	-9.14
5470	-1.13	-4.62	-7.84	-9.11
5600	-1.27	-3.97	-7.88	-8.99
5725	-2.69	-5.22	-9.01	-10.57
5850	-0.51	-3.47	-7.46	-8.81

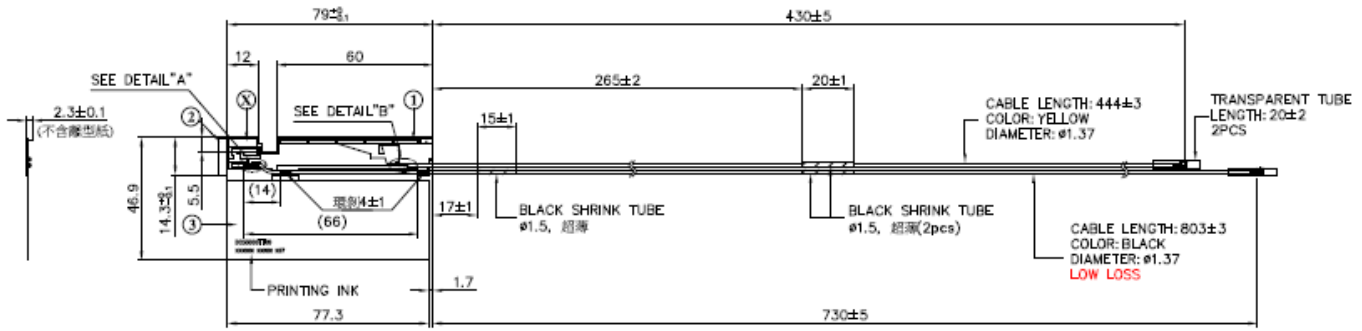
Aux Antenna Gain				
Frequency (MHz)	Max value		Average	
	H-pol	V pol	H-pol	V pol
2400	-2.06	-4.05	-8.01	-8.43
2450	-2.09	-4.50	-8.19	-8.16
2500	-2.70	-3.82	-7.84	-8.17
5150	-2.88	-2.70	-7.82	-8.95
5250	-1.78	-3.75	-7.92	-8.94
5350	-1.60	-4.19	-1.60	-8.76
5470	-0.04	-2.48	-7.20	-8.91
5600	-1.19	-1.34	-7.94	-9.15
5725	-1.53	-3.53	-8.38	-9.89
5850	-0.34	-2.27	-7.12	-9.26

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

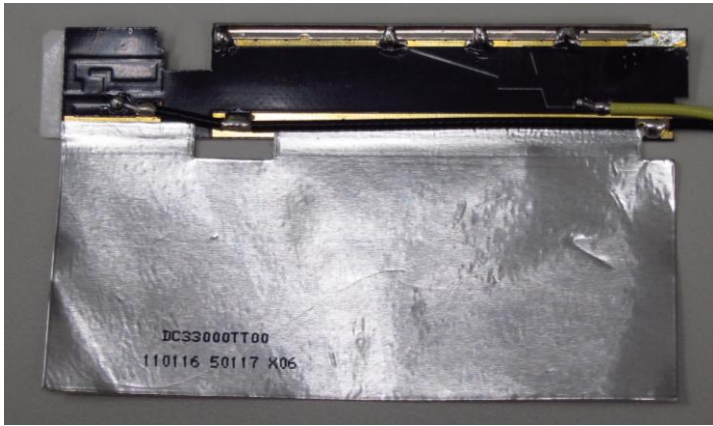
Section 2. Dimensioned Photos or Drawings of Antennas

Include a dimensioned photo and dimensioned drawing of antenna here.

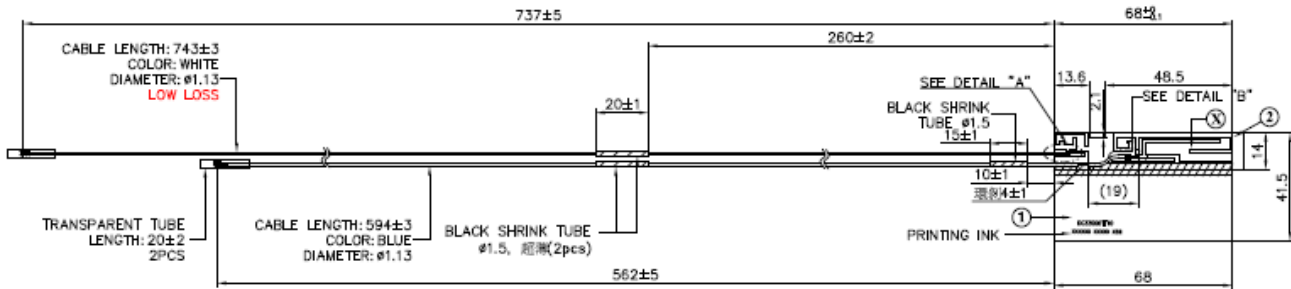
WWAN MAIN+WLAN MAIN Antenna Dimensioned Drawing:



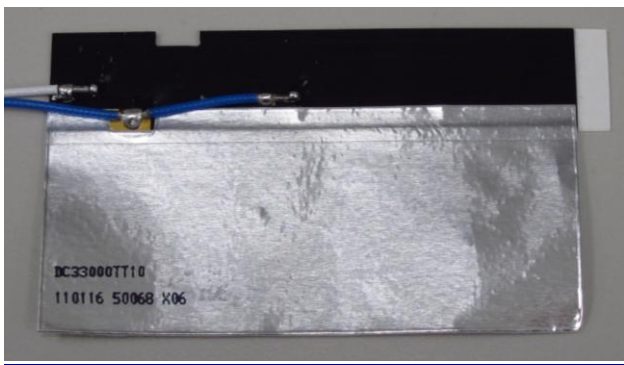
WWAN MAIN+WLAN MAIN Antenna Photo:



WWAN AUX+WLAN AUX Antenna Dimensioned Drawing:

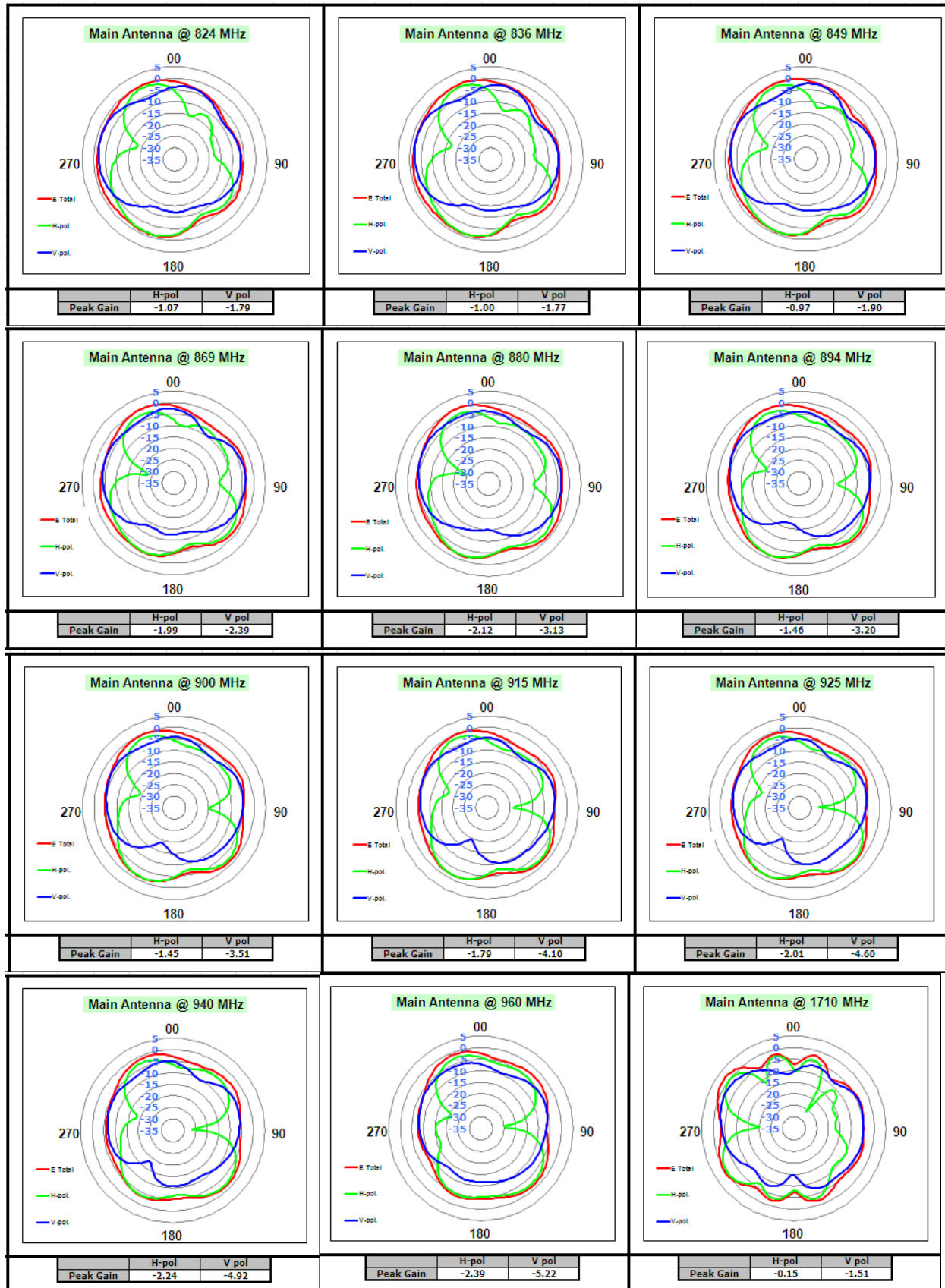


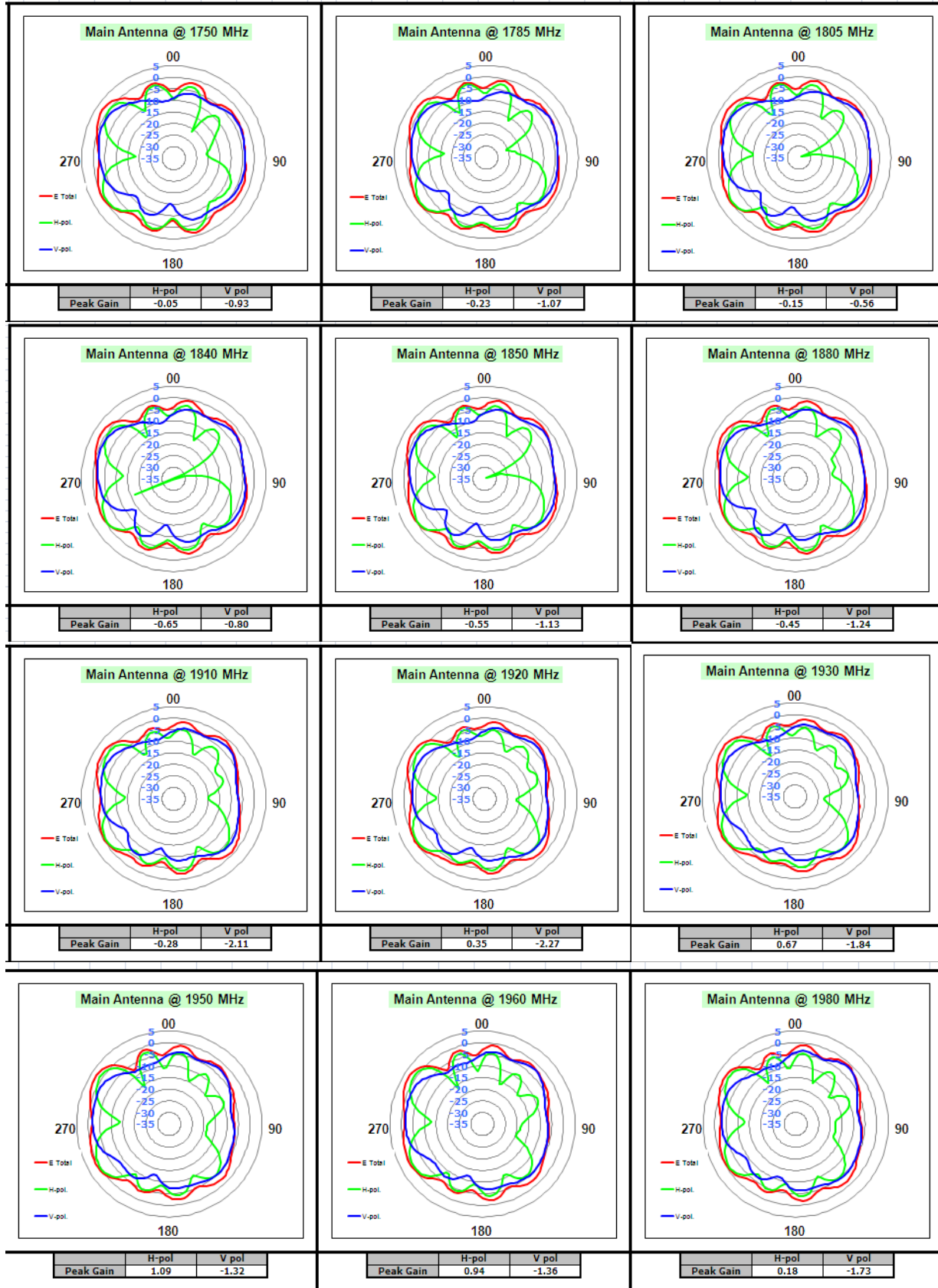
WWAN AUX+WLAN AUX Antenna Photo:

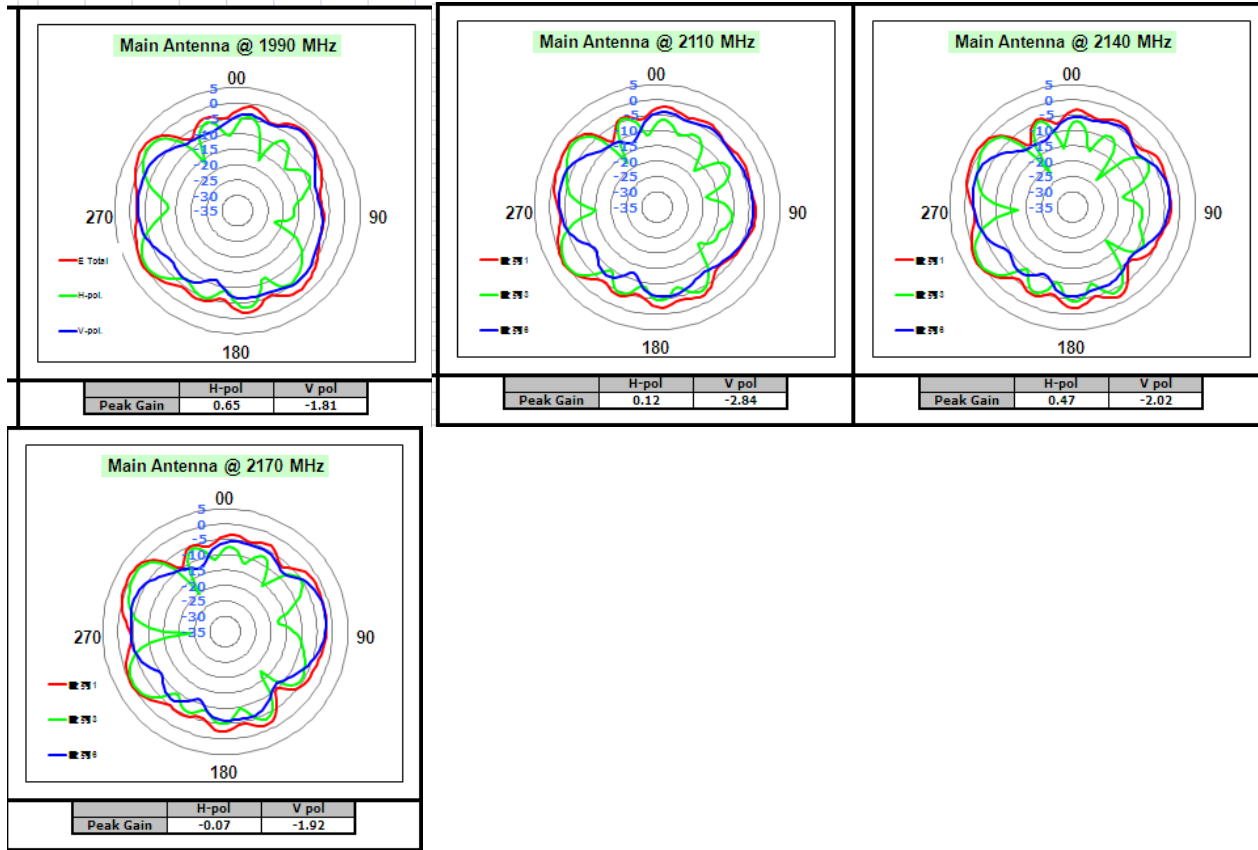


Section 3. Radiation characteristics of antennae Loaded in Host Platform

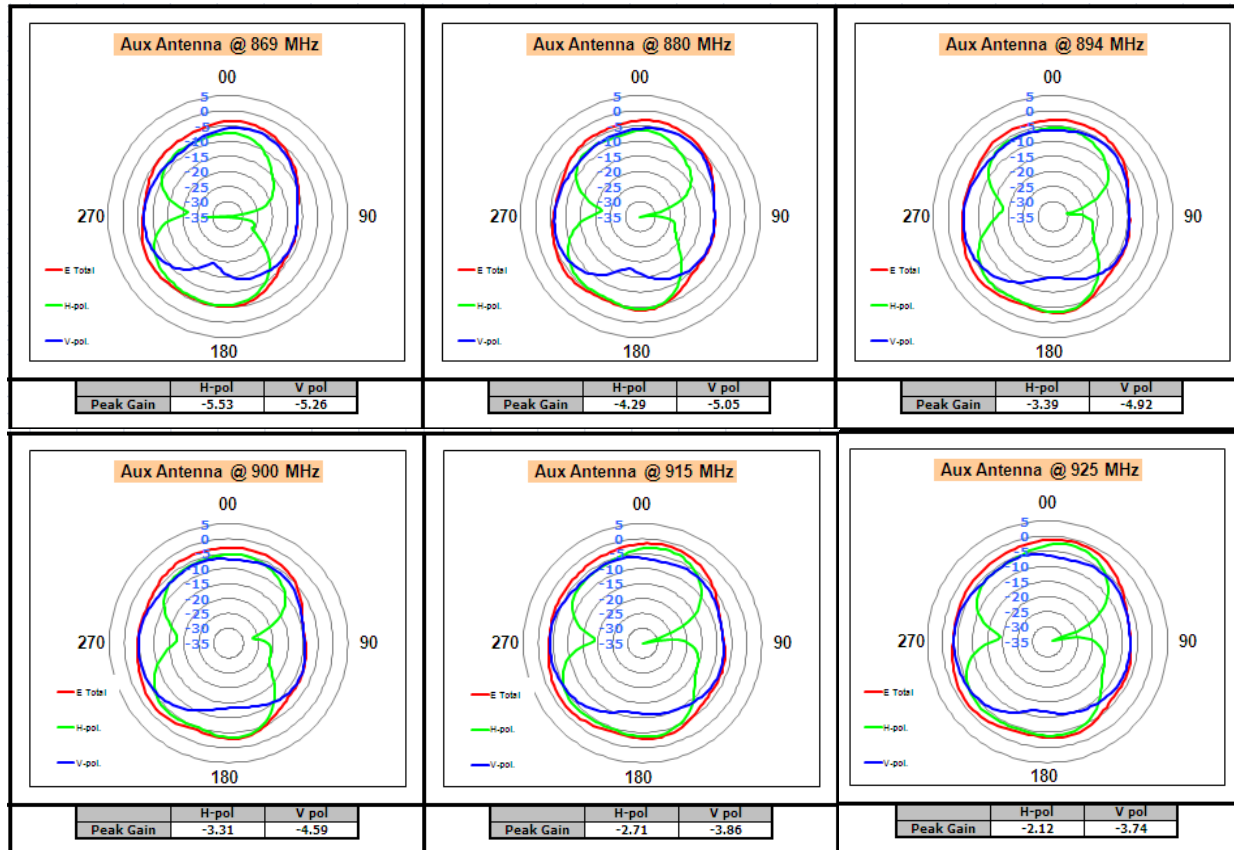
WWAN Main

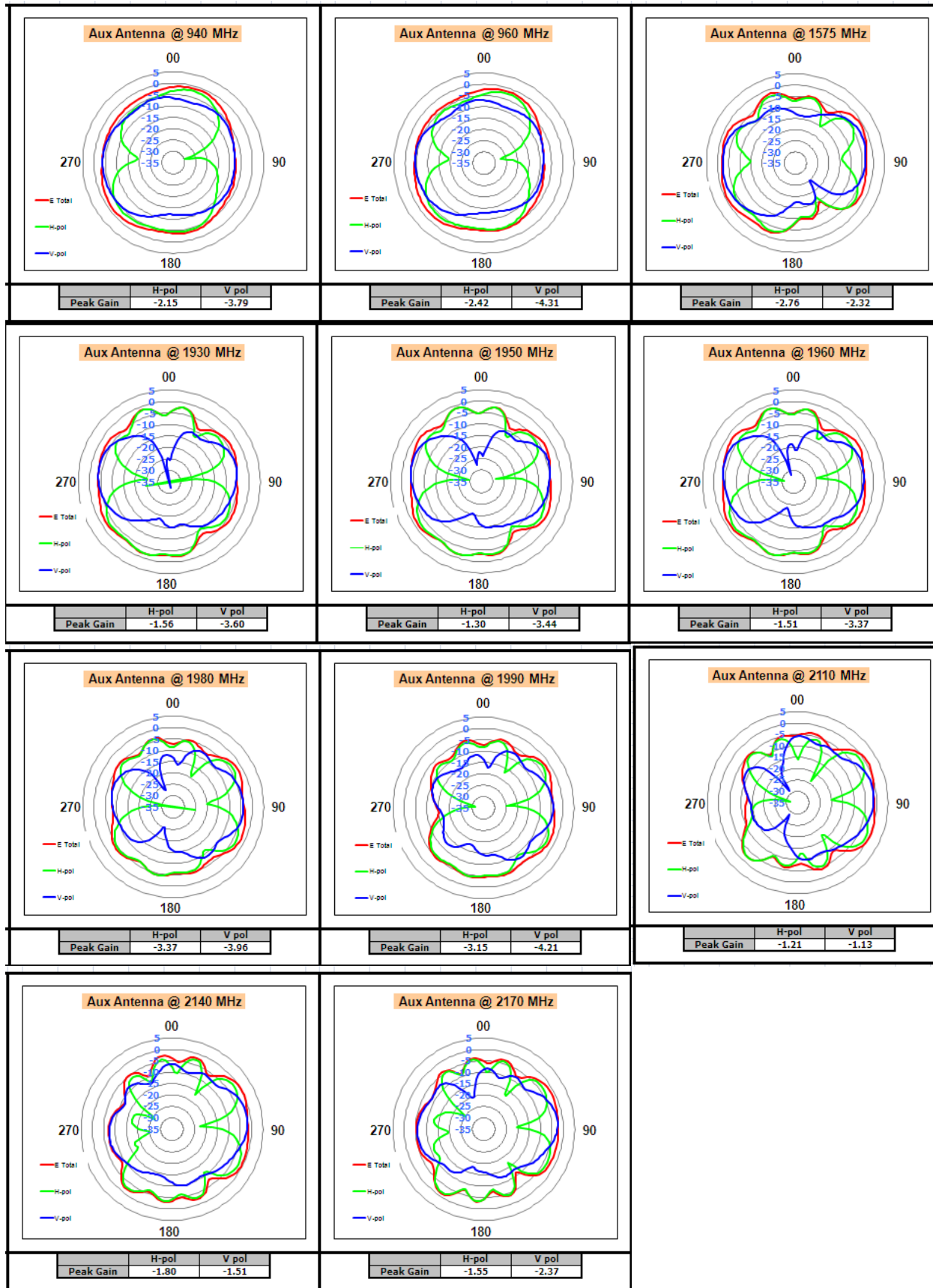




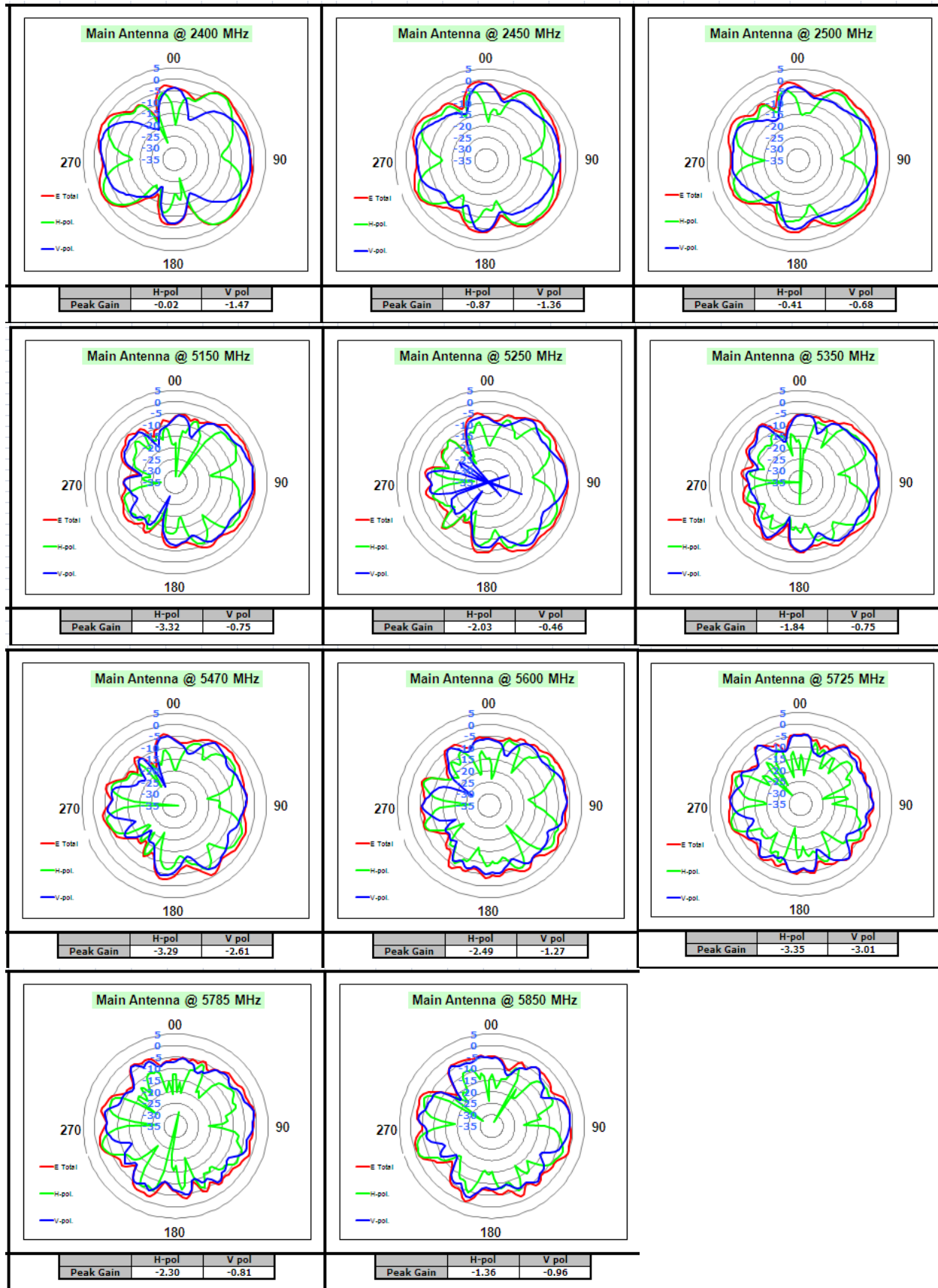


WWAN Aux

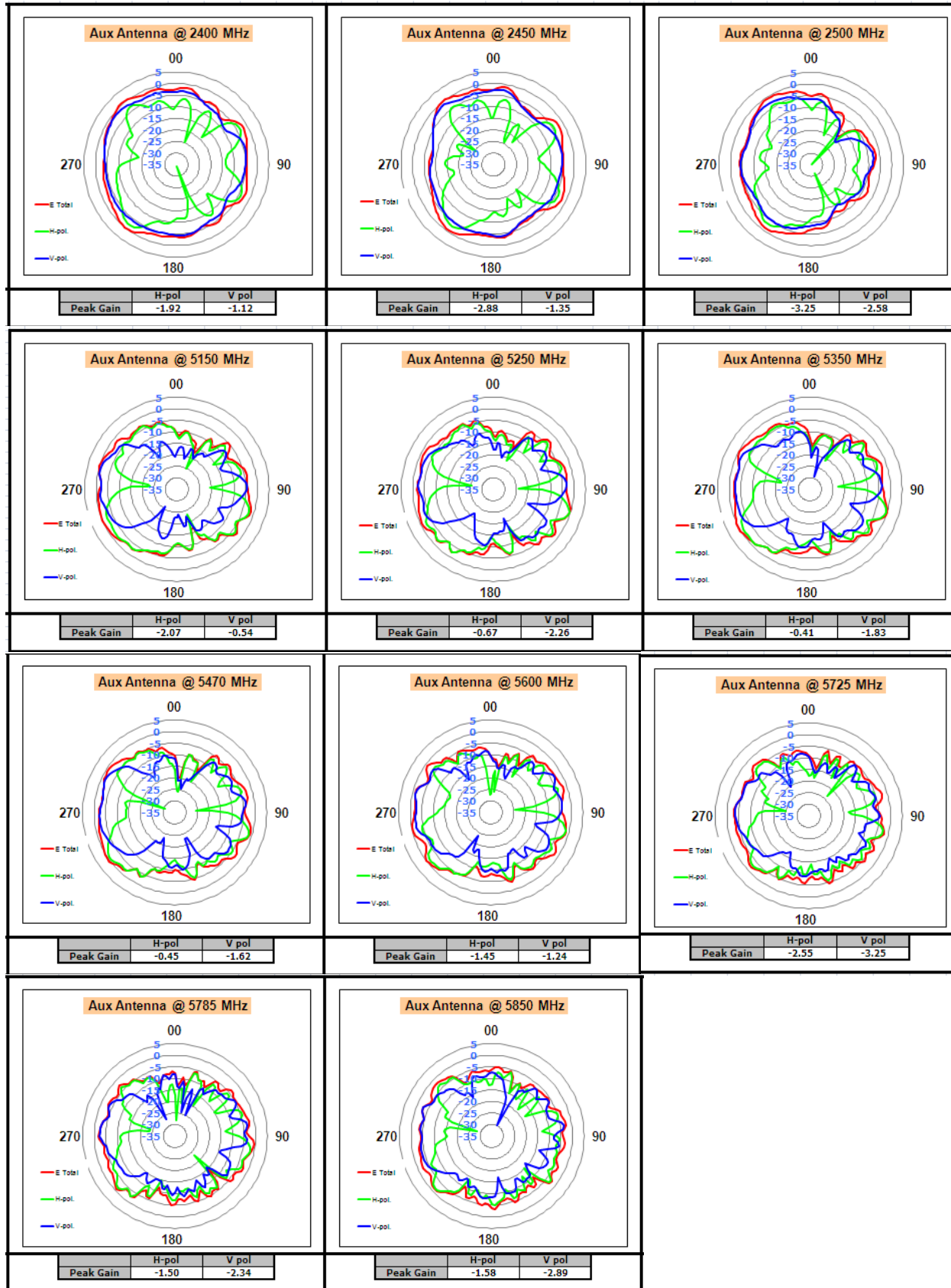




WLAN Main



WLAN Aux



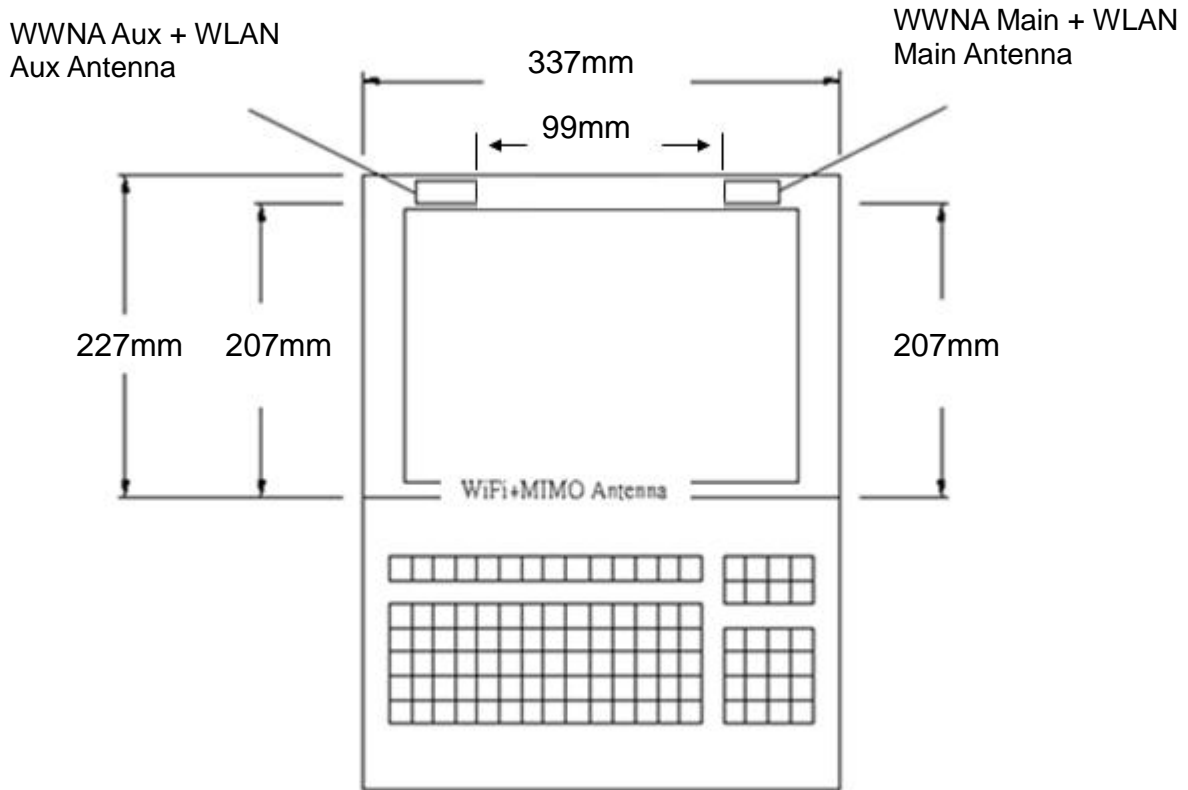
Section 4. Host Platform Information

OEM / ODM Host platform: Compal platform correlated to antenna data

Rating Label Photo:

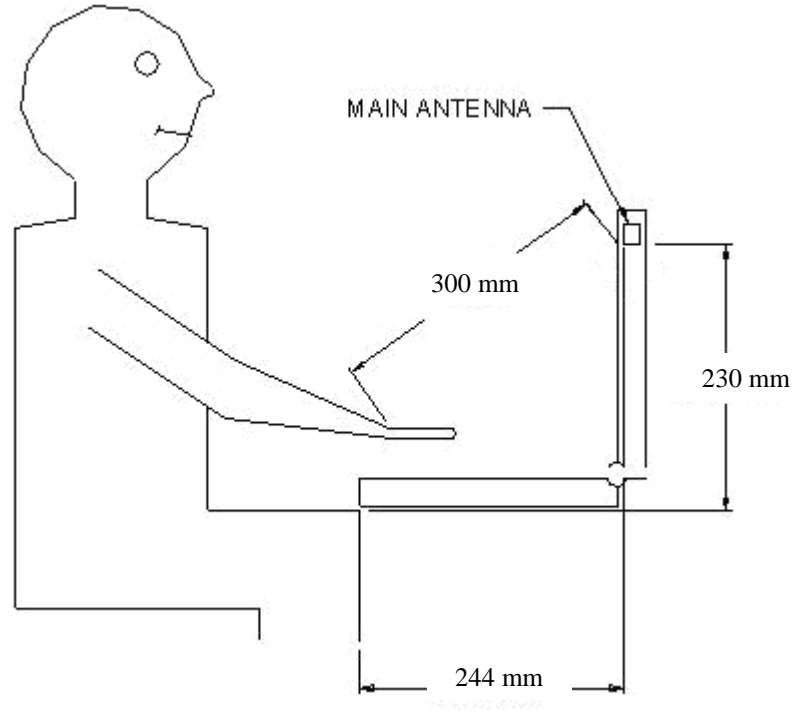
Section 5. Antenna Host Platform Location Information

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

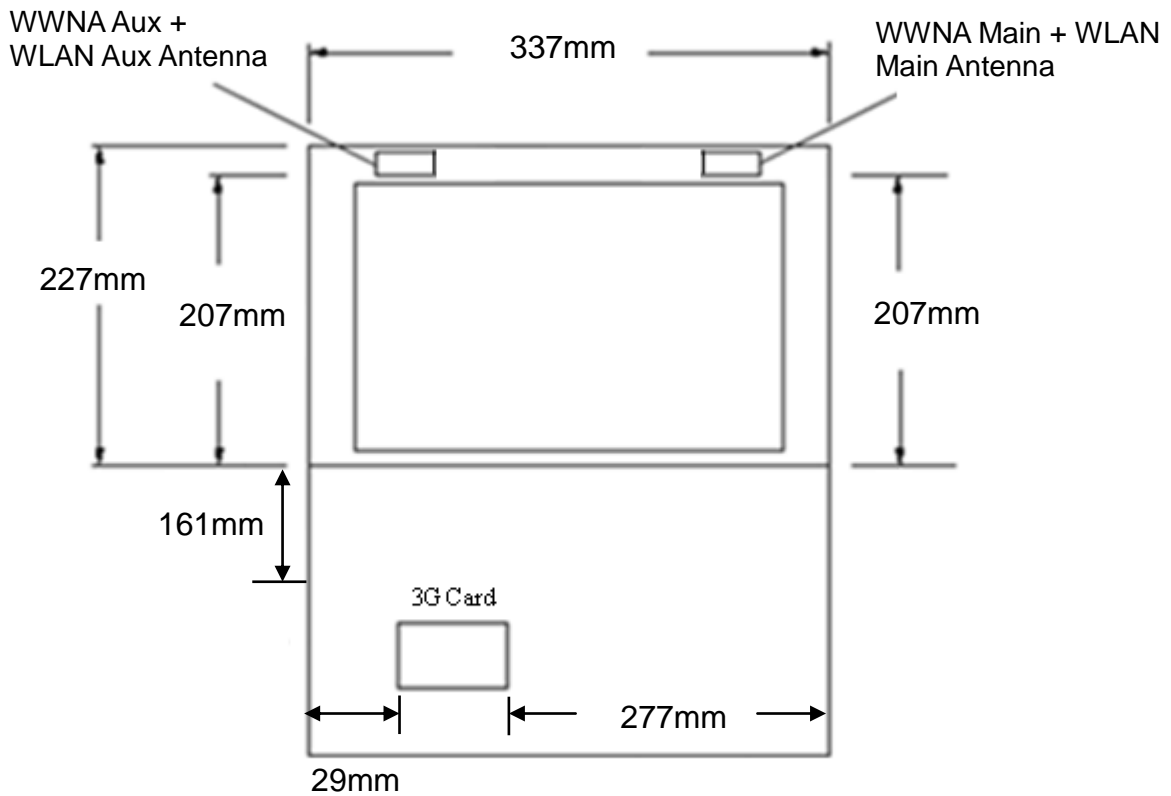
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, lap/ thigh, and ankle)



Section 7. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between **all WWAN+WLAN 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						