

Regulatory Wireless 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)**

Platform	ChiefRiver
Platform Owner	Fujitsu
Brand Name	LIFEBOOK
Model Name	Tercel
ODM	
Target Launch Date	(2012/ 07/B)
Antenna	
Manufacturer	NISSEI ELECTRIC CO.,LTD.
Part Number	■ Tx1 Antenna: CP583689-01
	■ Tx/ Rx2 Antenna: CP583689-01
	□ Tx/ Rx3 Antenna:
Module	
With WLAN Module	□ 112BNHMMW
(Check Box)	□ 112BNMMW
	□ 622ANHMMW
	□ 633ANHMMW
	□ 622ANXHMMW
	□ 612BNXHMMW (Kelsey Peak)
	■ 62205ANHMMW (Taylor Peak)
	□ 11230BNHMMW (Rainbow Peak 1)
	□ 62230ANHMMW (Rainbow Peak 2)
	□ 100BNHMMW (Crane Peak 1)
	□ 130BNHMMW (Crane Peak 2)
	■ 2200BNHMMW (Marble Peak)
	■ 2230BNHMMW (Jackson Peak 1)
	□ 6235ANHMMW (Jackson Peak 2)
	□ 105BNHMMW (Canyon Peak)
	□ 135BNHMMW (Canyon Peak + BT)

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	Required	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. <u>(S. Korea requires photographs of antennas for approval submission).</u> <u>Taiwan requires pictures of each antenna type shown in the system.</u>	Required	Required	Desired	<u>Required (Photos)</u>	<u>Required (Photos)</u>
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

Antenna Information

Section 1. Antenna Assembly Specifications

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)
(P/N:CP583689-01) Tx1/ Rx1 Antenna [Cable color :Gray]	NISSEI ELECTRIC CO.,LTD.	PIFA	(P/N: CP583689-01) 50 ohm Coaxial length: 32.5cm diameter: 1.09mm	2300-2400MHz -2.85dBi (peak)	2300-2400MHz dBi (peak)	2300-2400MHz max	2300-2400MHz dBi (peak)
				2400-2500MHz -2.00dBi (peak)	2400-2500MHz dBi (peak)	2400-2500MHz max	2400-2500MHz dBi (peak)
				2500-2700MHz -0.76dBi (peak)	2500-2700MHz dBi (peak)	2500-2700MHz max	2500-2700MHz dBi (peak)
				3200-3400MHz dBi (peak)	3200-3400MHz dBi (peak)	3200-3400MHz max	3200-3400MHz dBi (peak)
				3400-3600MHz dBi (peak)	3400-3600MHz dBi (peak)	3400-3600MHz max	3400-3600MHz dBi (peak)
				3600-3800MHz dBi (peak)	3600-3800MHz dBi (peak)	3600-3800MHz max	3600-3800MHz dBi (peak)
				5150-5350MHz -0.26dBi (peak)	5150-5350MHz dBi (peak)	5150-5350MHz max	5150-5350MHz dBi (peak)
				5470-5725MHz 0.95dBi (peak)	5470-5725MHz dBi (peak)	5470-5725MHz max	5470-5725MHz dBi (peak)
				5725-5850MHz 0.88dBi (peak)	5725-5850MHz dBi (peak)	5725-5850MHz max	5725-5850MHz dBi (peak)
(P/N:CP583689-01) Tx2/ Rx2 Antenna [Cable color :Black]	NISSEI ELECTRIC CO.,LTD.	PIFA	(P/N: CP583689-01) 50 ohm Coaxial length: 56.5cm diameter: 1.09mm	2300-2400MHz -0.07dBi (peak)	2300-2400MHz dBi (peak)	2300-2400MHz max	2300-2400MHz dBi (peak)
				2400-2500MHz 0.63dBi (peak)	2400-2500MHz dBi (peak)	2400-2500MHz max	2400-2500MHz dBi (peak)
				2500-2700MHz 0.45dBi (peak)	2500-2700MHz dBi (peak)	2500-2700MHz max	2500-2700MHz dBi (peak)
				3200-3400MHz dBi (peak)	3200-3400MHz dBi (peak)	3200-3400MHz max	3200-3400MHz dBi (peak)
				3400-3600MHz dBi (peak)	3400-3600MHz dBi (peak)	3400-3600MHz max	3400-3600MHz dBi (peak)
				3600-3800MHz dBi (peak)	3600-3800MHz dBi (peak)	3600-3800MHz max	3600-3800MHz dBi (peak)
				5150-5350MHz 1.81dBi (peak)	5150-5350MHz dBi (peak)	5150-5350MHz max	5150-5350MHz dBi (peak)
				5470-5725MHz 1.41dBi (peak)	5470-5725MHz dBi (peak)	5470-5725MHz max	5470-5725MHz dBi (peak)
				5725-5850MHz 0.84dBi (peak)	5725-5850MHz dBi (peak)	5725-5850MHz max	5725-5850MHz dBi (peak)
				2300-2400MHz dBi (peak)	2300-2400MHz dBi (peak)	2300-2400MHz max	2300-2400MHz dBi (peak)
				2400-2500MHz dBi (peak)	2400-2500MHz dBi (peak)	2400-2500MHz max	2400-2500MHz dBi (peak)
				2500-2700MHz dBi (peak)	2500-2700MHz dBi (peak)	2500-2700MHz max	2500-2700MHz dBi (peak)
				3200-3400MHz dBi (peak)	3200-3400MHz dBi (peak)	3200-3400MHz max	3200-3400MHz dBi (peak)
				3400-3600MHz dBi (peak)	3400-3600MHz dBi (peak)	3400-3600MHz max	3400-3600MHz dBi (peak)
				3600-3800MHz dBi (peak)	3600-3800MHz dBi (peak)	3600-3800MHz max	3600-3800MHz dBi (peak)
				5150-5350MHz dBi (peak)	5150-5350MHz dBi (peak)	5150-5350MHz max	5150-5350MHz dBi (peak)
				5470-5725MHz dBi (peak)	5470-5725MHz dBi (peak)	5470-5725MHz max	5470-5725MHz dBi (peak)
				5725-5850MHz dBi (peak)	5725-5850MHz dBi (peak)	5725-5850MHz max	5725-5850MHz dBi (peak)

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

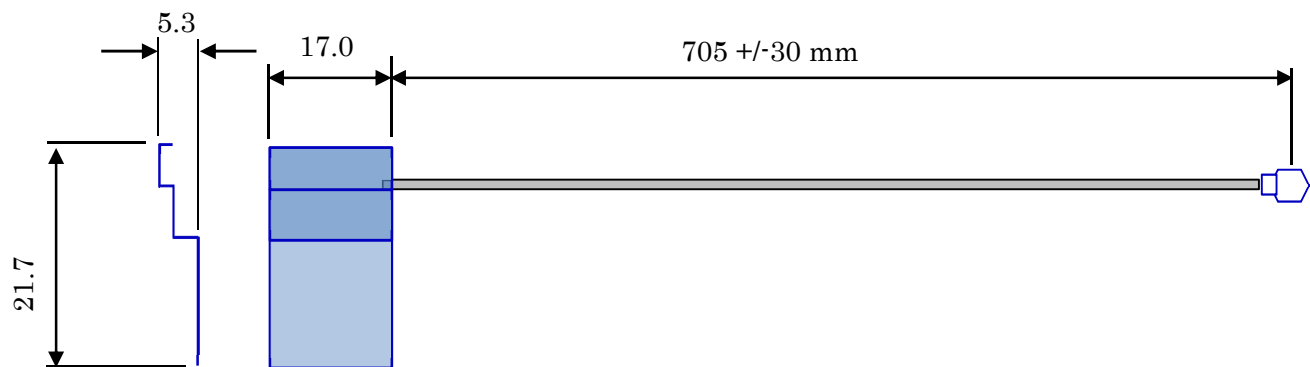
Antenna Peak Gain Table:

Frequency (MHz)	Tx1 antenna		Tx2 (or Rx2) Antenna		Tx3 (or Rx3) Antenna	
	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2300	-2.85	-6.11	-0.69	-2.02		
2350	-3.01	-4.53	-0.07	-1.74		
2400	-2.37	-3.40	0.37	-1.27		
2450	-2.00	-3.60	0.63	-1.33		
2500	-1.53	-3.87	0.45	-0.41		
2600	-0.77	-3.43	-0.12	-3.00		
2700	-0.76	-4.10	-0.57	-2.33		
3200						
3300						
3400						
3500						
3600						
3700						
3800						
5150	-0.44	-3.29	0.25	0.96		
5250	-0.89	-2.28	1.01	1.46		
5350	-0.26	-1.74	0.65	1.81		
5470	0.35	-0.63	1.09	1.34		
5600	0.95	-0.88	0.55	1.41		
5725	0.88	-1.22	0.73	0.84		
5785	0.00	-1.50	0.19	0.55		
5850	-0.02	-1.43	0.10	0.10		

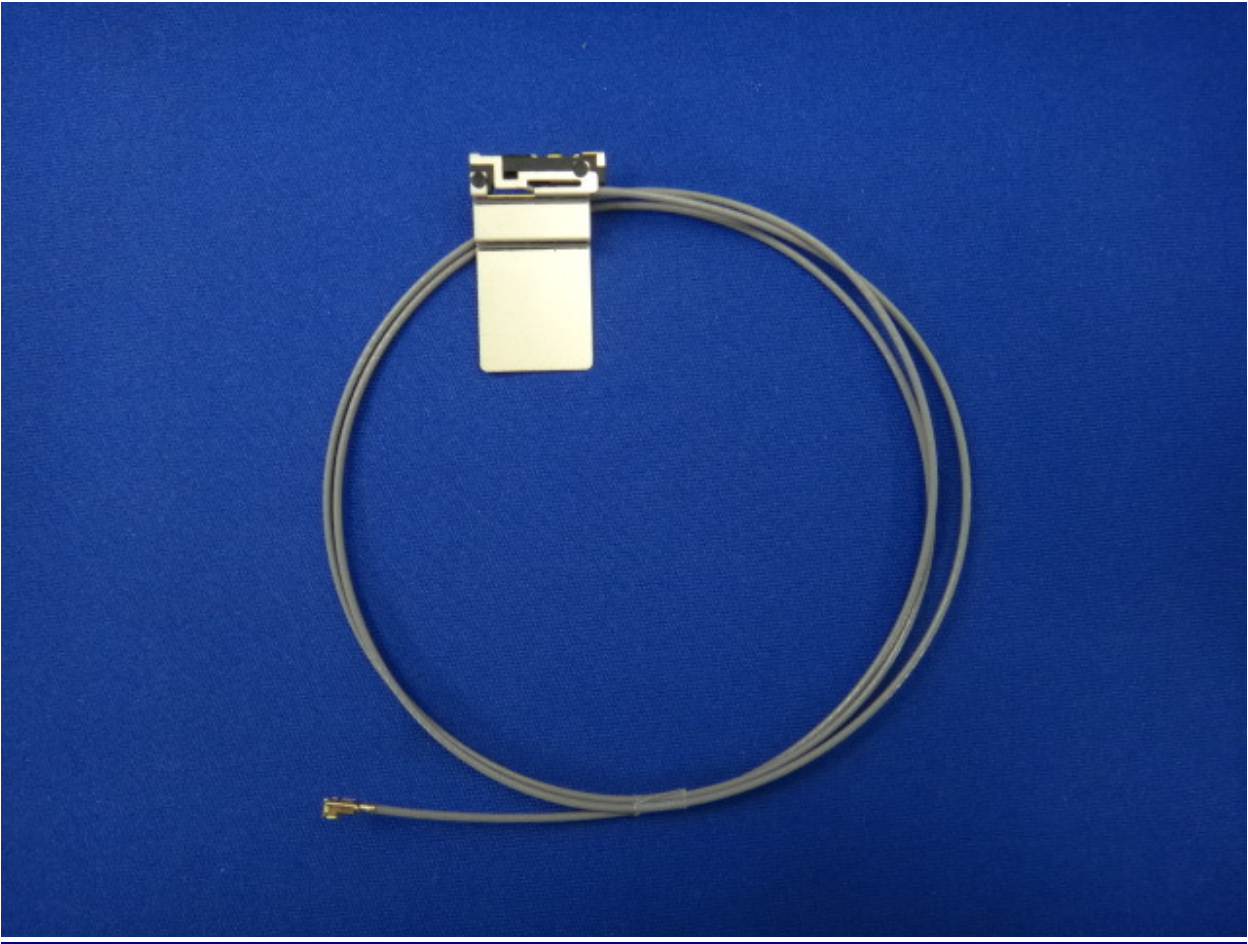
Section 2. Dimensioned Photos or Drawings of Antennas

Include a dimensioned photo and dimensioned drawing of Tx1 antenna here.

Tx1 Antenna Dimensioned Drawing:

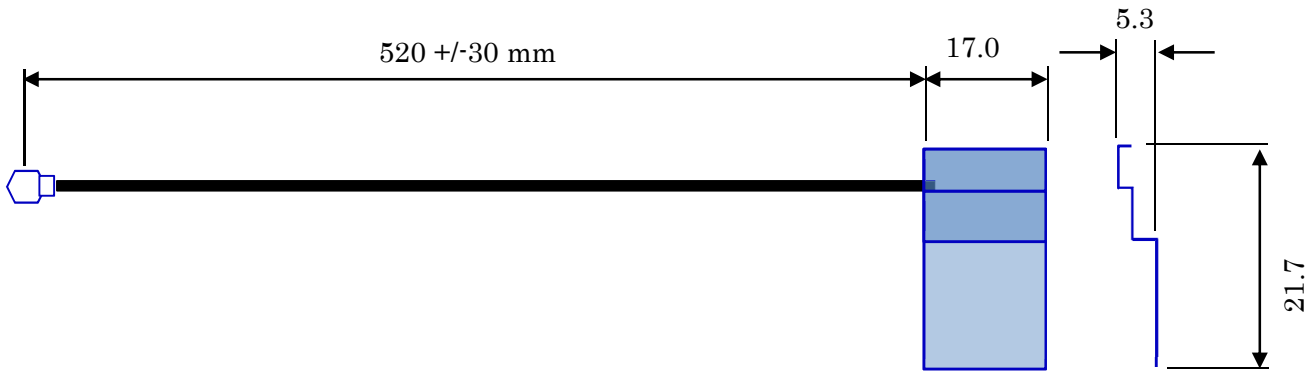


Tx1 Antenna Photo:



Include a dimensioned photo and dimensioned drawing of Tx2 (or Rx2) antenna here.

Tx2 (or Rx2) Antenna Dimensioned Drawing:



Tx2 (or Rx2) Antenna Photo:



Include front view photo of all 3 antennas here.

Antenna Manufacturer: NISSEI ELECTRIC CO.,LTD.
Antenna Part Number: CP583689 (Tx1/Rx1,Tx2 or Rx2)



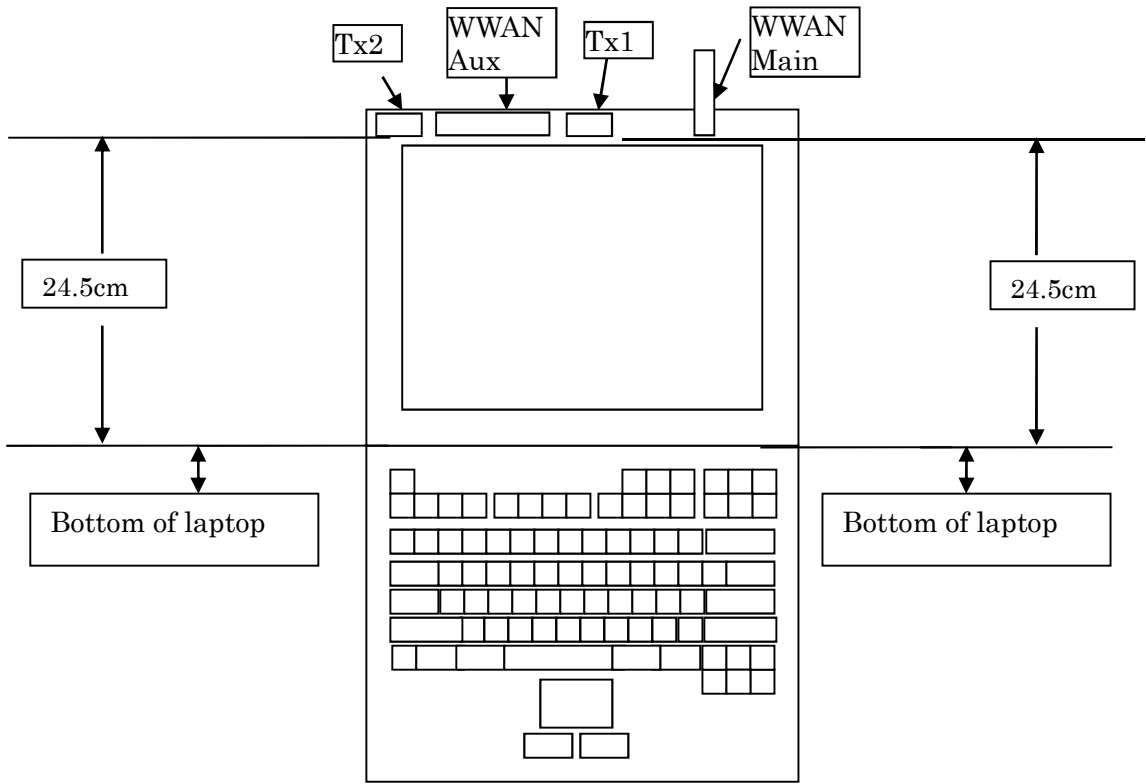
Section 3. Radiation characteristics of antennae Loaded in Host Platform

Section 4. Host Platform Information

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

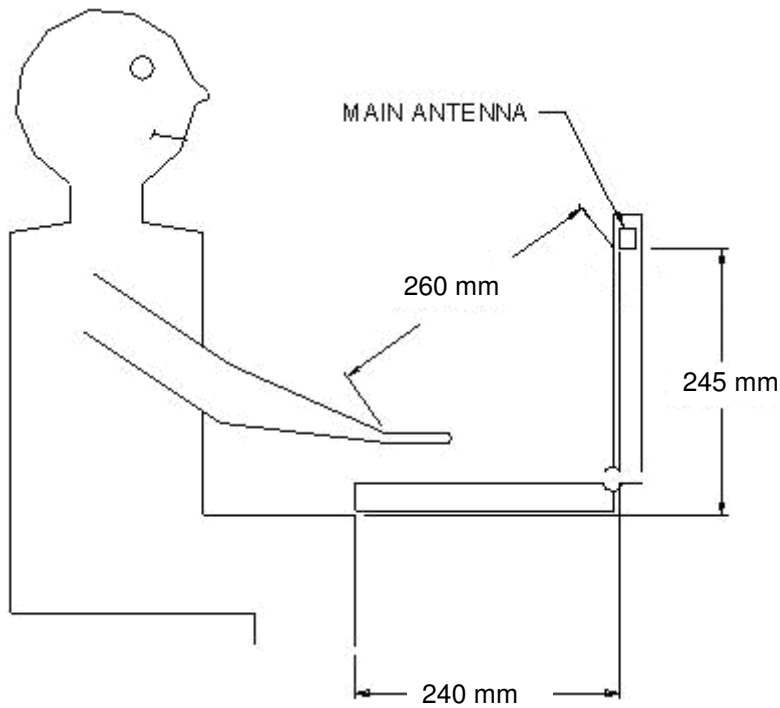
Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of Tx1, Tx2 and Tx3 antenna placements (measurements are not required for receive-only antenna). Any antenna that transmits must show dimensions to bottom of laptop.



Section 6. Antenna dimensional information for SAR evaluation

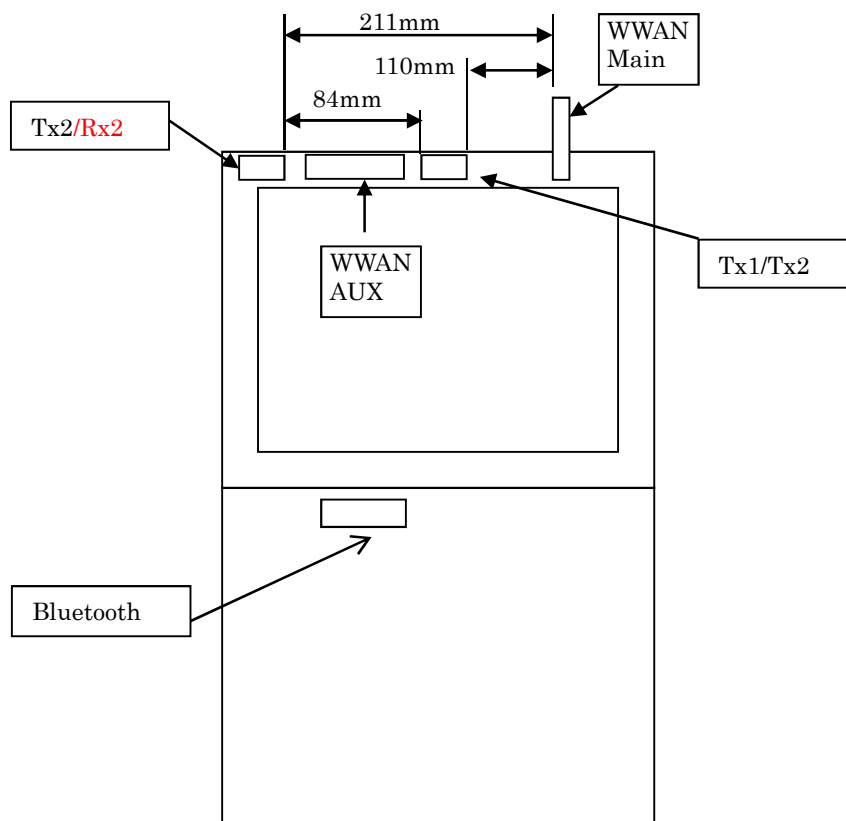
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, and ankle)



Section 7. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between all 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						
Azerbaijan						
Cambodia						
Canada						
Croatia						
Indonesia						
Israel						
Malaysia						
Moldova						
Philippines						
Singapore						Telecommunication Equipment Dealer License Required
South Africa						
Taiwan						
USA						
Vietnam						