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CTK Co., Ltd.

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TEST REPORT

FCC Standards : FCC 47CFR part 15 subpart E

Test Report No. : CTK-2014-00927
Date of Issue : 2014-08-04
FCC ID : RTQLPT100SB02
Model/Type No. : LPT-100SB
Kind of Product : Tablet
Applicant : LG CNS CO., LTD.
Applicant Address : 21F, FKI Tower, 24, Yeoui-daero, Yeongdeungpo-gu, Seoul, 150-881, Korea
Manufacturer : ARTVIEW CO., LTD.
Manufacturer Address : 1027-8, Hoggie-dong, Dongan-gu, Anyang-si, Gyeonggi-do, Korea
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Telephone : +82-2-2099-0167
Received Date : 2014-06-09
Test period : Start : 2014-07-01 End : 2014-07-17

The test results presented in this report relate only to the object tested.

Tested by

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Test Engineer
Date: 2014-08-04

Reviewed by

Young-Joon, Park
Technical Manager
Date: 2014-08-04



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REPORT REVISION HISTORY

Date	Revision	Page No
2014-08-04	Issued (CTK-2014-00927)	All

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1.0 General Product Description

Equipment model name	LPT-100SB
Serial number	Prototype
EUT condition	Pre-production, not damaged
Frequency Range	802.11a/n_HT20/40 : 5150 MHz - 5250 MHz (Band 1) 5250 MHz - 5350 MHz (Band 2) 5470 MHz - 5725 MHz (Band 3)
RF output power	802.11a : 12.11 dBm (Band 1) 11.67 dBm (Band 2) 11.75 dBm (Band 3) 802.11n_HT20 : 11.61 dBm (Band 1) 11.26 dBm (Band 2) 11.43 dBm (Band 3) 802.11n_HT40 : 11.38 dBm (Band 1) 11.51 dBm (Band 2) 11.61 dBm (Band 3)
Number of channels	802.11a/n_HT20 : 4 (Band 1, 2) 8 (Band 3) 802.11n_HT40 : 2 (Band 1, 2) 3 (Band 3)
Transfer Rate	802.11a : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n : up to 300 Mbps
Type of Modulation	802.11a/n : OFDM
Duty cycle TX power	1.0
Power Source	DC 5 V (Power from USB)
Antenna Type	Dipole antenna_1 Gain : 2.23 dBi(2.4 GHz), 1.40 dBi(5GHz) Dipole antenna_2 Gain : 2.16 dBi(2.4 GHz), 2.63 dBi(5GHz)



1.1 Tested Frequency

802.11a, 802.11n_20MHz (Band 1)

	LOW	MID	HIGH
Frequency (MHz)	5180	5200	5240

802.11a, 802.11n_20MHz (Band 2)

	LOW	MID	HIGH
Frequency (MHz)	5260	5280	5320

802.11a, 802.11n_20MHz (Band 3)

	LOW	MID	HIGH
Frequency (MHz)	5500	5580	5700

802.11a, 802.11n_40MHz (Band 1)

	LOW	MID	HIGH
Frequency (MHz)	5190	-	5230

802.11a, 802.11n_40MHz (Band 2)

	LOW	MID	HIGH
Frequency (MHz)	5270	-	5310

802.11a, 802.11n_40MHz (Band 3)

	LOW	MID	HIGH
Frequency (MHz)	5510	5550	5670

1.2 Tested Mode

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

Test Items	Mode	Data Rate	Channel	Antenna
AC Conducted Emissions	Normal	Auto	-	-
Field Strength of Harmonics	11a/OFDM	6 Mbps	36/40/48 /52/56/64 /100/116/140	A
	11n/MCS8 (20MHz)	13 Mbps	36/40/48 /52/56/64 /100/116/140	A+B
	11n/MCS8 (40MHz)	27 Mbps	38/46 /54/62 /102/110/134	A+B



1.3 Device Modifications

The following modifications was applied by the applicant:

Not applicable

1.4 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Notebook Computer	SAMSUNG ELECTRONICS.	NT-R60Y	Z9GJ93GS302109B
Notebook Computer	LG ELECTRONICS.	LGR58	004QTGD019759
AC/DC Adaptor	SAUSUNG ELECTRO-MECHANICS.	AD-6019	BA44-00046A
AC/DC Adaptor	Dongguang Lite Power 2nd Plant	PA-1900-08	0303092406

1.5 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

1.6 Test Facility

The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, 449-100, Korea. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.



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1.7 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3 m & 10 m SAC and Conducted Test Site to perform FCC Part 15/18 measurements	 805871
JAPAN	VCCI	3 m & 10 m SAC and Conducted Test Site	 R-948, C-986, T-1843
KOREA	KCC	EMI (10 m SAC and Conducted Test Site) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and Interruptions)	 No. 51, KR0025
International	KOLAS	EMC	



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2.0 Summary of tests

FCC Part Section(s)	Parameter	Limit	Test Condition	Status (note 1)
15.407(a)	26 dB Spectrum Bandwidth	> 500 kHz	Conducted Radiated	NT
15.407(a)	Maximum Conducted Output Power	15.407(a)		NT
15.407(a)	Power Spectral Density	15.407(a)		NT
15.407(g)	Frequency Stability	15.407(a)		NT
15.407(a) 15.407(b)	Peak Excursion Radiated Emissions	> 13 dBc 15.209(a) 15.407(b)		NT C
15.207	AC Conducted Emissions	15.207(a)	Line Conducted	C
15.407(a)	26 dB Spectrum Bandwidth	> 500 kHz	Conducted	NT

Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable

Note 2: The data in this test report are traceable to the national or international standards.

** : Test was performed by modular transmitter (FCC ID: RYK-WUBR507N, Test Report No. FR001817AN issued on Nov. 10, 2010 by SPORTON International Inc.)

The sample was tested according to the following specification:

- FCC Part 15.247, ANSI C63.4-2003

The tests were performed according to the method of measurements prescribed in

KDB No.789033



2.1.1 Field Strength of Emissions

Test Location

- 10 m SAC (test distance : 10 m, 3 m)
 3 m SAC (test distance : 3 m)

Test Procedures

- 1) In the frequency range of 9 kHz to 30 MHz, magnetic field is measured with Loop Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- 2) In the frequency range above 30 MHz, Bi-Log Test Antenna(30 MHz to 1 GHz) and Horn Test Antenna(above 1 GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is carried from 1m to 4m above the ground to determine the maximum value of the field strength. The emissions levels at both horizontal and vertical polarizations should be tested.

The spectrum analyzer is set to:

Frequency Range = 9 kHz ~ 25 GHz (2.4 GHz 10th harmonic)

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz, 9 kHz for $f < 30$ MHz

VBW \geq RBW

Sweep = auto

Limit

- 15.209(a)

Frequency(MHz)	Field Strength uV/m@3m	Field Strength dBuV/m@3m	Deasurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705-30	30	-	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

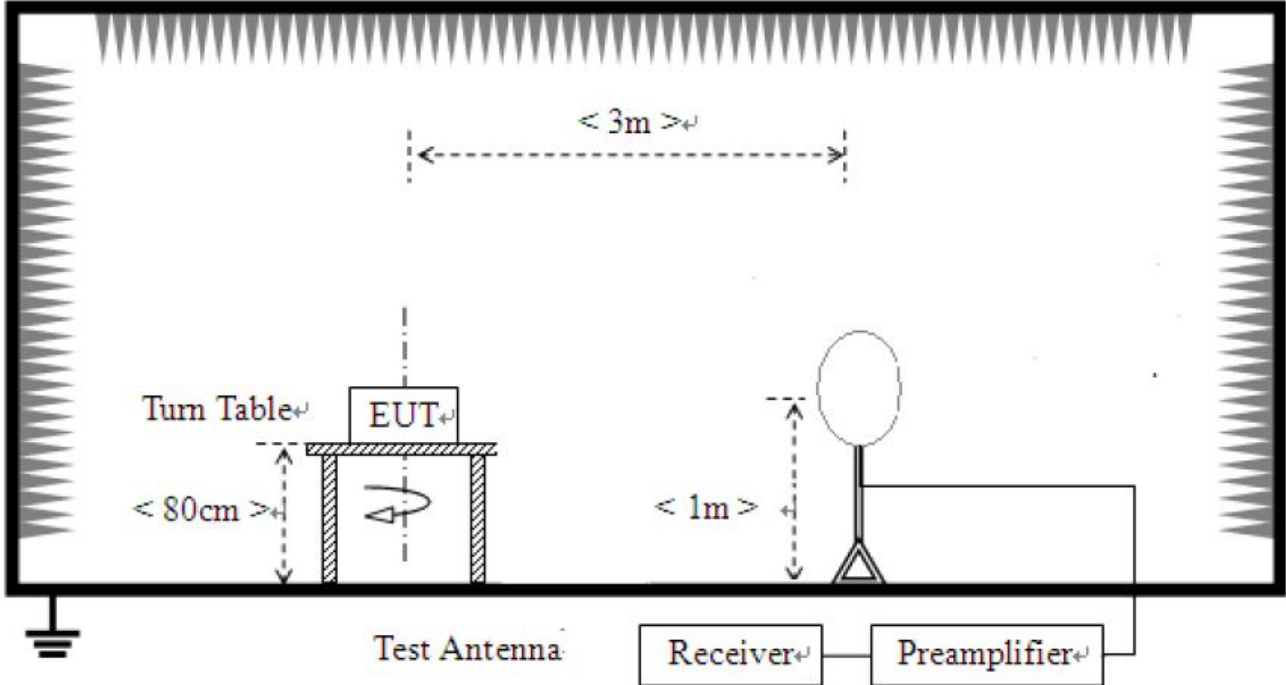
** Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

Note :

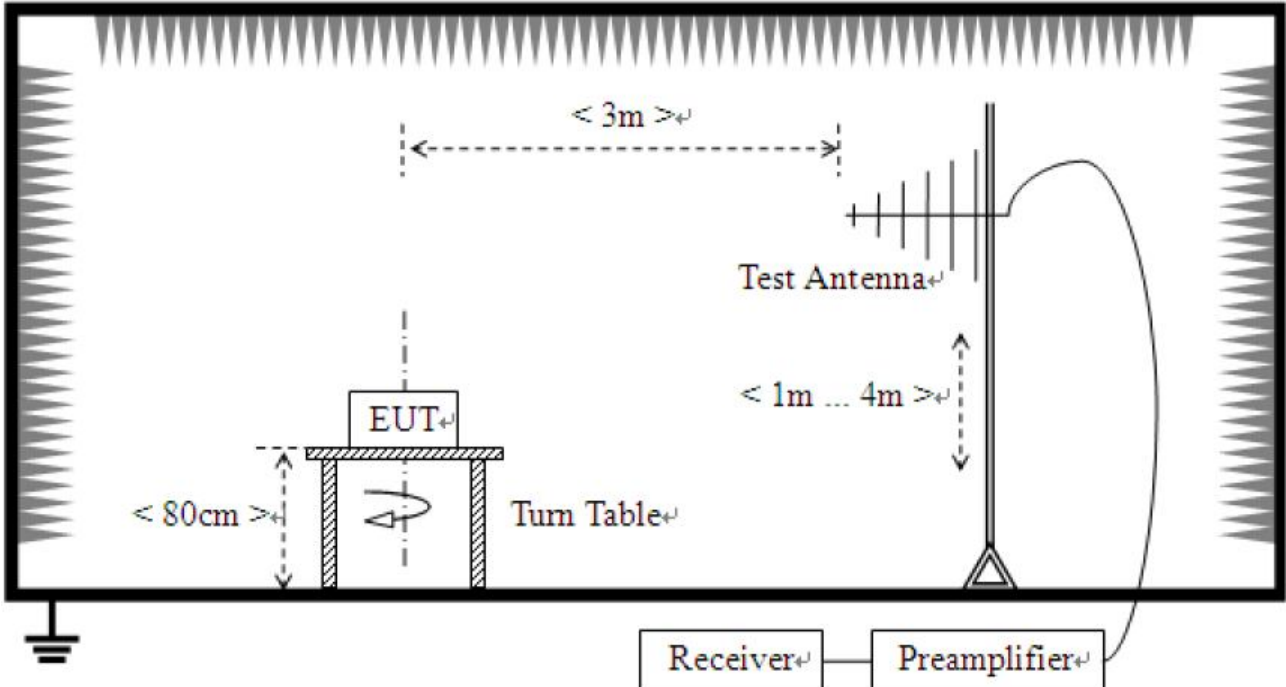
- 1) For above 1 GHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
- 2) For above 1 GHz, limit field strength of harmonics : 54 dBuV/m@3m (AV) and 74 dBuV/m@3m (PK)

Test Setup:

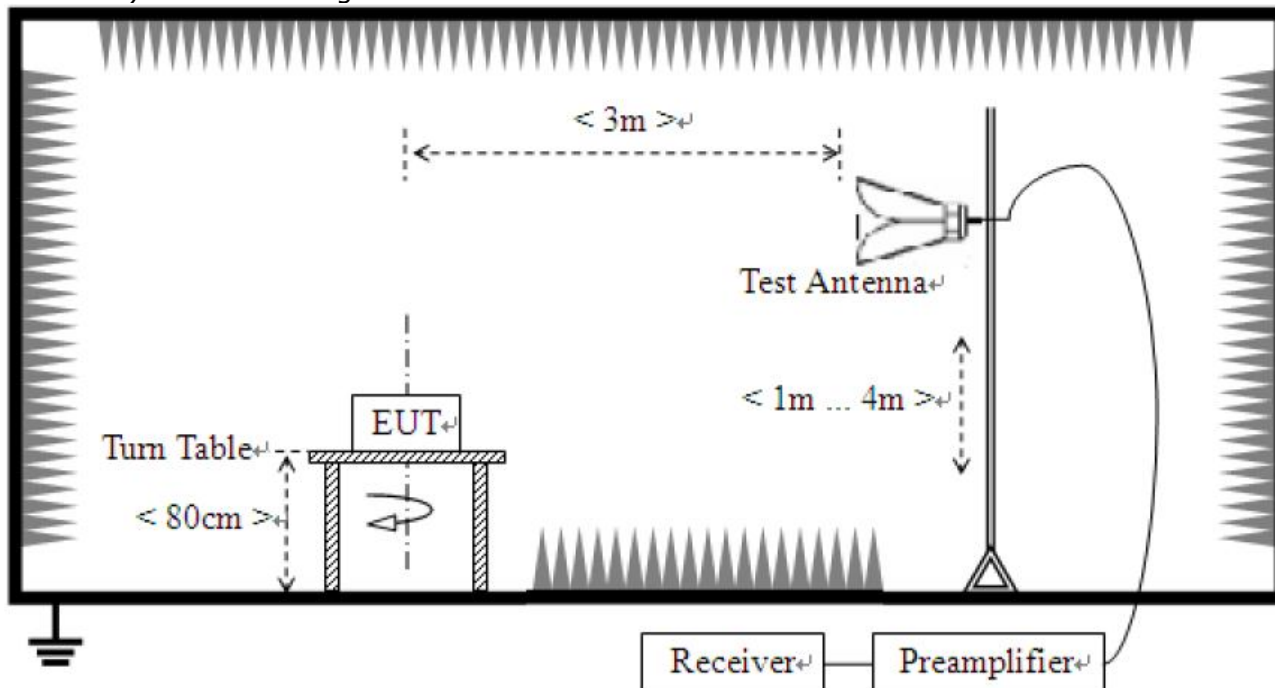
1) For field strength of emissions from 9 kHz to 30 MHz



2) For field strength of emissions from 30 MHz to 1 GHz



3) For field strength of emissions above 1 GHz



Test Results

1) 9 kHz to 30 MHz

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	9 kHz – 30 MHz
Test mode	802.11b(Worst Case)	Detector function	Quasi-Peak

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
-	-	-	See note

Note :

The amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log(\text{specific distance} / \text{test distance})$ (dB)



2) 30 MHz to 1 GHz

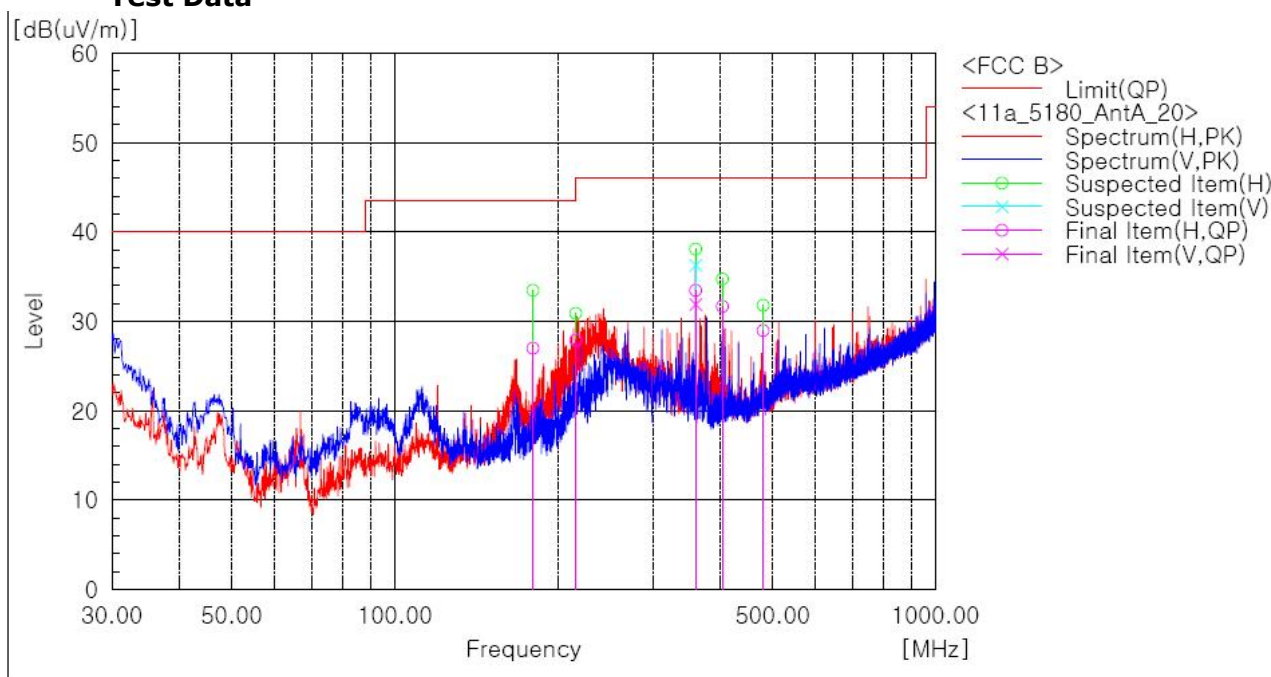
EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	Below 1000MHz
Mode	802.11a(Worst Case)	Detector function	Quasi-Peak

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
360.043	33.5	12.5	Quasi-peak

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading [dB(uV)]	c.f [dB(1/m)]	Result [dB(uV/m)]	Limit [dB(uV/m)]	Margin [dB]	Height [cm]	Angle [deg]
1	179.865	H	41.2	-14.2	27.0	43.5	16.5	207.0	8.0
2	215.998	H	40.9	-13.0	27.9	43.5	15.6	100.0	51.0
3	360.043	H	40.5	-7.0	33.5	46.0	12.5	309.0	0.0
4	360.043	V	38.9	-7.0	31.9	46.0	14.1	100.0	273.0
5	403.935	H	37.1	-5.4	31.7	46.0	14.3	100.0	51.0
6	479.959	H	32.4	-3.4	29.0	46.0	17.0	100.0	163.0

Remark :

1. The field strength of spurious emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(X axis) and the worst case was recorded.



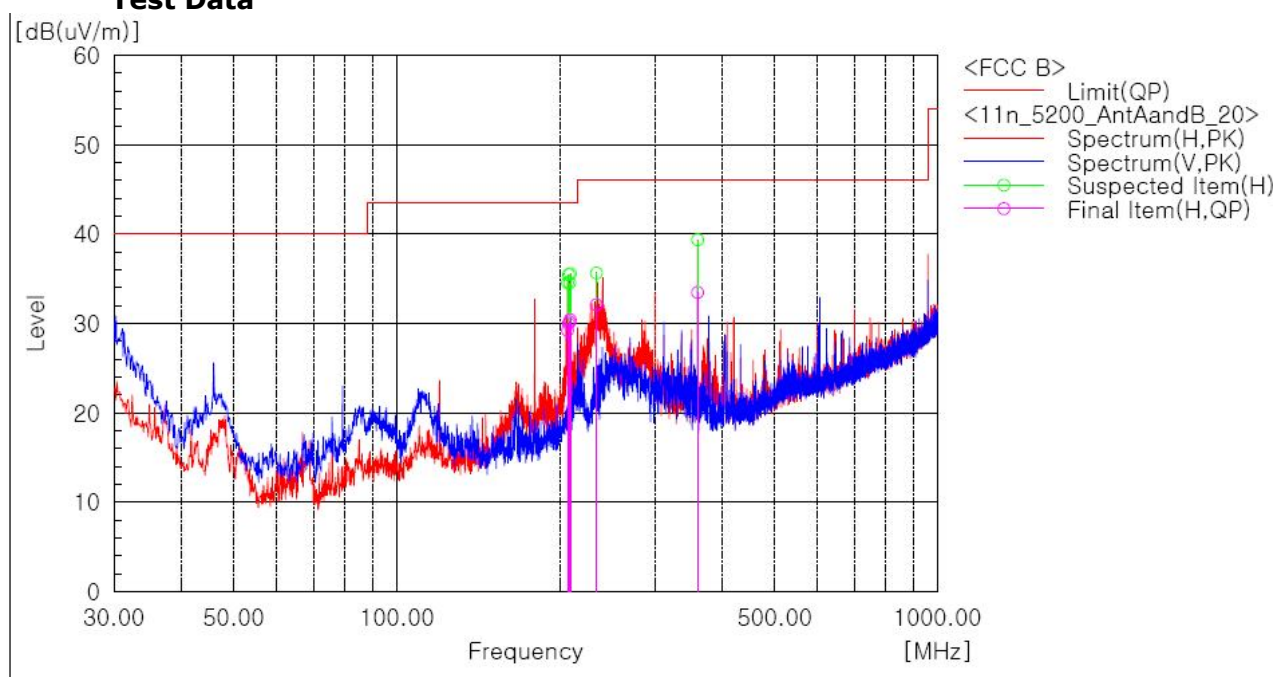
EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	Below 1000MHz
Mode	802.11n_20MHz(Worst Case)	Detector function	Quasi-Peak

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
360.043	33.5	12.5	Quasi-peak

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin [dB]	Height [cm]	Angle [deg]
1	207.025	H	43.2	-14.0	29.2	43.5	14.3	205.0	159.0
2	207.995	H	43.9	-13.9	30.0	43.5	13.5	205.0	159.0
3	208.723	H	44.1	-13.9	30.2	43.5	13.3	205.0	159.0
4	209.450	H	44.2	-13.8	30.4	43.5	13.1	205.0	159.0
5	234.185	H	42.9	-10.8	32.1	46.0	13.9	100.0	53.0
6	360.043	H	40.5	-7.0	33.5	46.0	12.5	205.0	310.0

Remark :

1. The field strength of spurious emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(X axis) and the worst case was recorded.



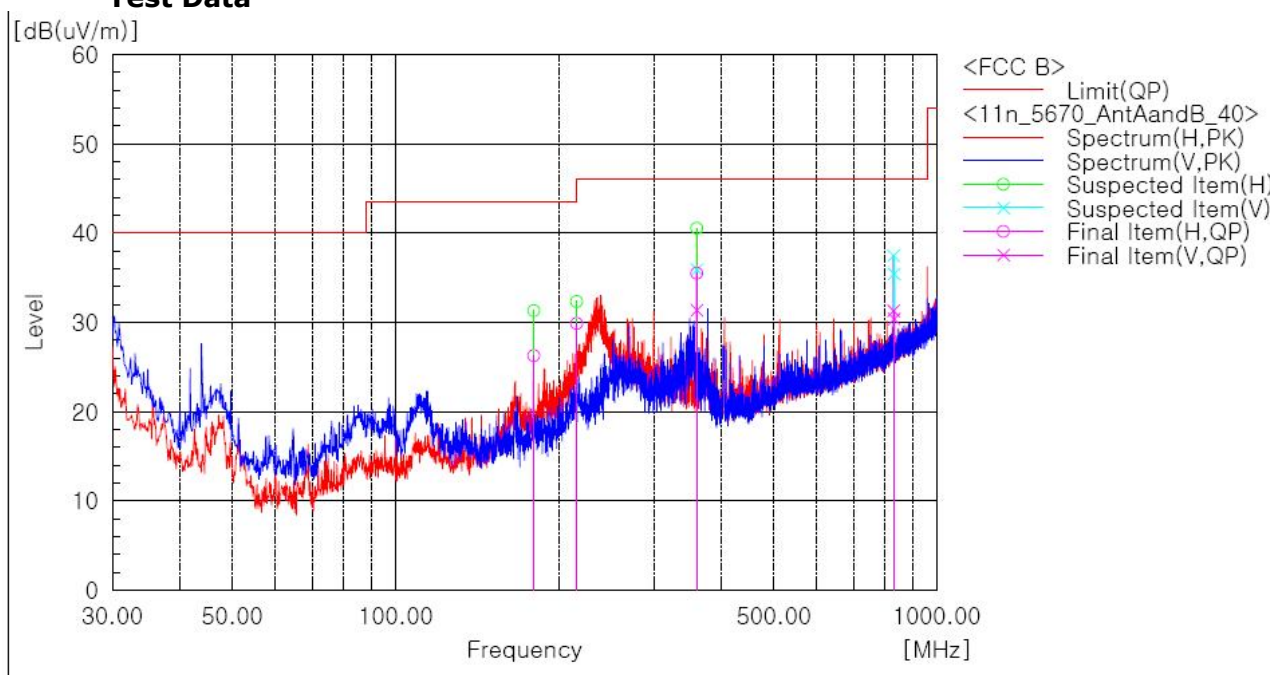
EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	Below 1000MHz
Mode	802.11n_40MHz(Worst Case)	Detector function	Quasi-Peak

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
359.921	35.5	10.5	Quasi-peak

Test Data



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	179.986	H	40.5	-14.2	26.3	43.5	17.2	100.0	314.0
2	215.998	H	42.9	-13.0	29.9	43.5	13.6	100.0	276.0
3	359.921	H	42.5	-7.0	35.5	46.0	10.5	207.0	0.0
4	360.043	V	38.4	-7.0	31.4	46.0	14.6	192.0	125.0
5	832.069	V	27.9	3.4	31.3	46.0	14.7	100.0	159.0
6	833.281	V	27.0	3.4	30.4	46.0	15.6	100.0	159.0

Remark :

1. The field strength of spurious emission was measured in the following position: EUT stand-up position(Z axis), lie-down position(X,Y axis). The worst emission was found in stand-up position(X axis) and the worst case was recorded.



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3) above 1 GHz

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	36 (5180 MHz), 38 (5190 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	40 (5200 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	48 (5240 MHz), 46 (5230 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	52 (5260 MHz), 54 (5270 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	56 (5280 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	64 (5320 MHz), 62 (5310 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	100 (5500 MHz), 102 (5510 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	116 (5580 MHz), 110 (5550 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



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EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	140 (5700 MHz), 134 (5670 MHz)	Detector function	Average / Peak

Remarks

We have tested three mode (X, Y, Z). The worst mode (X axis) for final test.

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
No emissions were detected at a level greater than 20dB below limit.			

Test Data (Mode: 802.11a)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT20)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							

Test Data (Mode: 802.11n_HT40)

Frequency [MHz]	Reading [dBuV/m] AV/Peak	Pol.	Correction Factor [dB]		Limits [dBuV/m] AV / Peak	Result [dBuV/m] AV / Peak	Margin [dB] AV / Peak
			Ant	CL+Amp			
No emissions were detected at a level greater than 20dB below limit.							



2.1.2 AC Conducted Emissions

Test Location

Shielded Room

Frequency Range of Measurement

150 kHz to 30 MHz

Instrument Settings

IF Band Width: 9 kHz

Test Procedures

The EUT was placed on a non-metallic table 0.8m above the metallic, grounded floor and 0.4m from the reference ground plane wall. The distance to other metallic surfaces was at least 0.8m.

Amplitude measurements were performed with a quasi-peak detector and an average detector.

Limit

- 15.207(a)

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency.

Test Results

The requirements are:

Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
13.4385	42.0	8.0	Average



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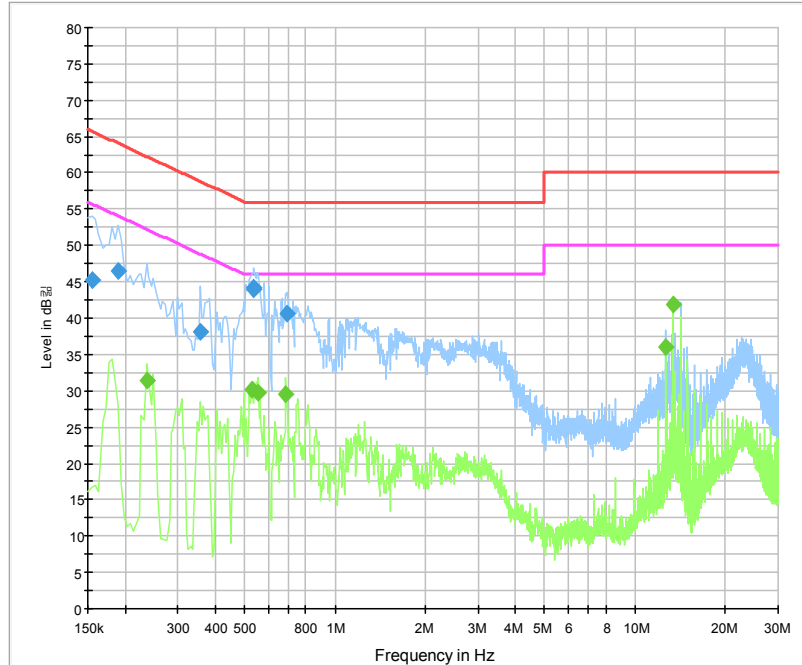
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Test Data

[HOT]

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Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154500	45.3	1000.0	9.000	On	L1	10.1	20.5	65.8
0.190500	46.4	1000.0	9.000	On	L1	10.0	17.6	64.0
0.357000	38.0	1000.0	9.000	On	L1	10.1	20.8	58.8
0.532500	44.2	1000.0	9.000	On	L1	10.2	11.8	56.0
0.537000	44.1	1000.0	9.000	On	L1	10.2	11.9	56.0
0.694500	40.7	1000.0	9.000	On	L1	10.1	15.3	56.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.235500	31.5	1000.0	9.000	On	L1	9.9	20.8	52.3
0.528000	30.1	1000.0	9.000	On	L1	10.2	15.9	46.0
0.555000	29.7	1000.0	9.000	On	L1	10.1	16.3	46.0
0.685500	29.5	1000.0	9.000	On	L1	10.1	16.5	46.0
12.673500	35.9	1000.0	9.000	On	L1	9.9	14.1	50.0
13.438500	42.0	1000.0	9.000	On	L1	9.9	8.0	50.0



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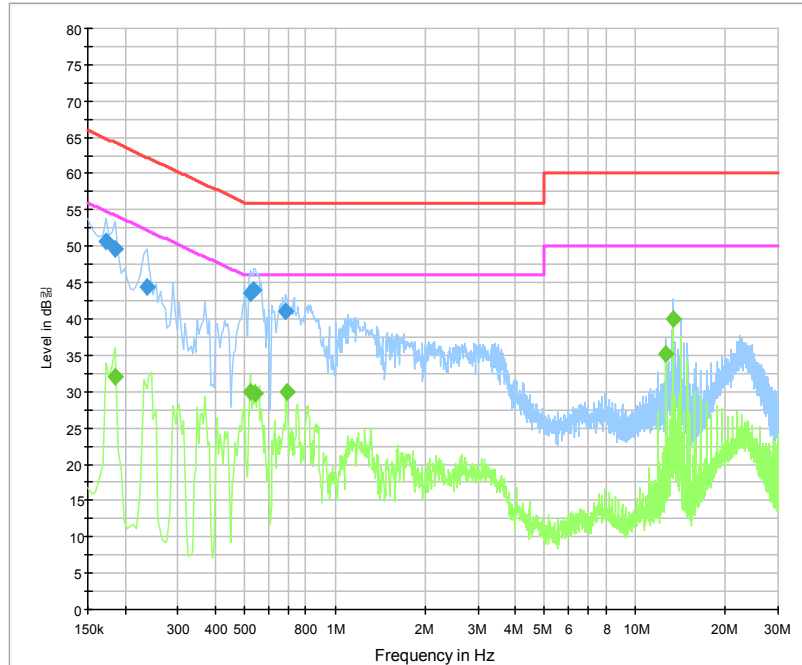
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[NEUTRAL]

CISPR 22 Class B_N



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.172500	50.8	1000.0	9.000	On	N	10.2	14.1	64.8
0.186000	49.6	1000.0	9.000	On	N	10.1	14.6	64.2
0.235500	44.3	1000.0	9.000	On	N	10.0	17.9	62.3
0.523500	43.6	1000.0	9.000	On	N	10.2	12.4	56.0
0.537000	44.0	1000.0	9.000	On	N	10.2	12.0	56.0
0.685500	41.1	1000.0	9.000	On	N	10.1	14.9	56.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.186000	32.1	1000.0	9.000	On	N	10.1	22.1	54.2
0.523500	29.9	1000.0	9.000	On	N	10.2	16.1	46.0
0.541500	29.8	1000.0	9.000	On	N	10.1	16.2	46.0
0.690000	29.9	1000.0	9.000	On	N	10.1	16.1	46.0
12.673500	35.1	1000.0	9.000	On	N	10.0	14.9	50.0
13.443000	40.0	1000.0	9.000	On	N	10.0	10.0	50.0



APPENDIX A – Test Equipment Used For Tests

	Name of Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	Signal Analyzer	Agilent	N9020A	MY48011598	2013-11-08	2014-11-08
2	Spectrum Analyzer	Rohde & Schwarz	FSP-30	100994	2013-11-08	2014-11-08
3	EMI Test Receiver	Rohde & Schwarz	ESCI7	100814	2013-12-06	2014-12-06
4	EMI Test Receiver	Rohde & Schwarz	ESCI7	100816	2013-12-06	2014-12-06
5	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-126	2014-05-19	2016-05-19
6	Attenuator	HP	8498A	1801A06913	2013-11-12	2014-11-12
7	EPM Series Power Meter	HP	E4418A	GB38272734	2013-11-08	2014-11-08
8	Power Sensor	HP	8487A	3318A03524	2014-05-15	2015-05-15
9	Audio Analyzer	HP	8903B	2747A03432	2013-11-08	2014-11-08
10	ESG-D Series Signal Generator	Agilent	E4432B	US40054094	2013-11-08	2014-11-08
11	SYNTHESIZED SWEEPER	HP	8341B	2819A01563	2013-11-08	2014-11-08
12	Attenuator	HP	8494A	3308A33351	2013-11-12	2014-11-12
13	Temp&Humi Chamber	Kunpoong	JT-TH-556-1	9QE5-002	2014-01-16	2015-01-16
14	DC POWER SUPPLY	Agilent	E3632A	MY40011638	2013-11-08	2014-11-08
15	Horn Antenna	ETS-Lindgren	3115	00078895	2013-02-28	2015-02-28
16	Horn Antenna	ETS-Lindgren	3115	00078894	2013-05-13	2015-05-13
17	Horn Antenna	ETS-Lindgren	3116	00062916	2013-03-20	2015-03-20
18	Horn Antenna	ETS-Lindgren	3116	00062504	2013-05-27	2015-05-27
19	Horn Antenna	ETS-Lindgren	3117	00154525	2013-07-03	2015-07-03
20	OPT H64 AMPLIFIER	HP	8447F	3113A06814	2014-03-20	2015-03-20
21	PREAMPLIFIER	Agilent	8449B	3008A02307	2013-11-08	2014-11-08
22	Radio Communication Tester	Rohde & Schwarz	CMU200	106765	2014-02-06	2015-02-06
23	LISN	Rohde & Schwarz	ENV216	101235	2013-08-02	2014-08-02
24	LISN	Rohde & Schwarz	ENV216	101236	2013-08-02	2014-08-02
25	LISN	Rohde & Schwarz	ENV216	101151	2013-11-08	2014-11-08
26	DC POWER SUPPLY	Agilent	E3632A	MY40011638	2013-11-08	2014-11-08
27	EMI Test Receiver	Rohde & Schwarz	ESCI3	100032	2014-02-04	2015-02-04
28	6dB Attenuator	R&S	DNF	272.4110.50	2013-11-12	2014-11-12
29	AMPLIFIER	Sonoma Instrument Co.	310	291721	2014-02-06	2015-02-26
30	EMI Test Receiver	Rohde & Schwarz	ESU40	100336	2014-05-15	2015-05-15
31	Signal Generator	Rohde & Schwarz	SMBV100A	258008	2013-09-07	2014-09-07
32	Bilog Antenna	Schaffner	CBL6111C	2551	2014-05-08	2016-05-08