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TEST REPORT For FCC

Test Report No.	:	CTK-2013-01879
Date of Issue	:	2013-12-23
FCC ID	:	RTQLPT100SB
Model/Type No.	:	LPT-100SB
Kind of Product	:	Tablet
Applicant	:	LG CNS CO., LTD.
Applicant Address	:	Prime Tower, #10-1, Hoehyun-dong, 2-ga, Jung-gu, Seoul, South Korea
Manufacturer	:	ARTVIEW
Manufacturer Address	:	1027-8, Hogye-dong, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea
Contact Person	:	TAE YOUNG JEONG / Manager
Telephone	:	+82-2-6363-5797
Received Date	:	2013-12-02
Test period	:	Start : 2013-12-02 End : 2013-12-20

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

Tested by

Won-Jae, Hwang
Test Engineer
Date: 2013-12-23

Reviewed by

Young-Joon, Park
Technical Manager
Date: 2013-12-23

REPORT REVISION HISTORY

Date	Revision	Page No
2013-12-23	Issued (CTK-2013-01879)	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 : 5745 MHz - 5825 MHz 802.11n_HT40 : 5755 MHz - 5795 MHz 802.11b/g/n_HT20 : 2412 MHz - 2462 MHz 802.11n_HT40 : 2422 MHz – 2452 MHz
RF output power	802.11a : 11.76 dBm 802.11b : 16.78 dBm 802.11g : 18.95 dBm 802.11n_HT20(2.4GHz) : 20.42 dBm 802.11n_HT20(5 GHz) : 11.77 dBm 802.11n_HT40(2.4GHz) : 19.01 dBm 802.11n_HT40(5 GHz) : 11.68 dBm
Number of channels	802.11a/n_HT20(5GHz) : 5 802.11b/g/n_HT20(2.4GHz) : 11 802.11n_HT40(5GHz) : 3 802.11n_HT40(2.4GHz) : 9
Transfer Rate	802.11b : 11 / 5.5 / 2 / 1 Mbps 802.11a/g : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n : up to 300 Mbps
Type of Modulation	802.11b : DSSS 802.11a/g/n : OFDM
Duty cycle TX power	1.0
Power Source	DC 5 V (Power from USB)
Antenna Type	Dipole antenna_1 Gain : 4.969 dBi(2.4 GHz), 3.928 dBi(5GHz) Dipole antenna_2 Gain : 1.911 dBi(2.4 GHz), 5.231 dBi(5GHz)

1.1 Tested Frequency

802.11b, 802.11g, 802.11n_HT20

	LOW	MID	HIGH
Frequency (MHz)	2412	2437	2462

802.11n_HT40

	LOW	MID	HIGH
Frequency (MHz)	2422	2437	2452

802.11a, 802.11n_HT20

	LOW	MID	HIGH
Frequency (MHz)	5745	5785	5825

802.11n_HT40

	LOW	MID	HIGH
Frequency (MHz)	5755	-	5795

1.2 Device Modifications

The following modifications were necessary for compliance:

Not applicable

1.3 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Note Computer	DELL INC.	Inspiron 6400	-
Switching Adapter2	DDongguang Lite Power 2nd Plant	LA65NS0-00	-

1.4 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.

1.5 Test Facility

The measurement facility is located at 386-1, Ho-dong, 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.

1.6 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	

2 Summary of tests

FCC Part Section(s)	Parameter	Limit	Test Condition	Status (note 1)
15.247(a)	6 dB Bandwidth	> 500 kHz	Conducted	NT
15.247(b)	Maximum Output Power	< 1 Watt		NT
15.247(d)	Conducted Spurious emission	> 20 dBc		NT
15.247(d)	Band Edge	> 20 dBc		NT
15.247(e)	Transmitter Power Spectral Density	< 8 dBm @ 3 kHz		NT
				NT
15.209	Field Strength of Harmonics	15.209(a)	Radiated	C
15.207	AC Conducted Emissions	15.207(a)	Line Conducted	C

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. FR0O1817AC and FR0O1817AI 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.558074

2.1 Technical Characteristic Test

2.1.1 6dB Bandwidth

Procedure:

The bandwidth at 6dB below the highest in-band spectral density was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate frequencies.

After the trace being stable, Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 6dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 100 kHz

VBW = 100 kHz (VBW ≥ RBW)

Trace = max hold

Span = 40 MHz

Sweep = auto

Detector function = peak

Measurement Data

Not Tested

Test mode : 802.11b

Mode	Frequency (MHz)	Channel No.	Test Results		
			6dB Bandwidth (MHz)	Occupied Bandwidth (MHz)	Result
802.11b	2412	1			-
	2437	6			
	2462	11			

Test mode : 802.11g

Mode	Frequency (MHz)	Channel No.	Test Results		
			6dB Bandwidth (MHz)	Occupied Bandwidth (MHz)	Result
802.11g	2412	1			-
	2437	6			
	2462	11			

Test mode : 802.11n (20 MHz)

Mode	Frequency (MHz)	Channel No.	Test Results		
			6dB Bandwidth (MHz)	Occupied Bandwidth (MHz)	Result
802.11n (20 MHz)	2412	1			-
	2437	6			
	2462	11			

Test mode : 802.11n (40 MHz)

Mode	Frequency (MHz)	Channel No.	Test Results		
			6dB Bandwidth (MHz)	Occupied Bandwidth (MHz)	Result
802.11n (40 MHz)	2422	3			-
	2437	6			
	2452	9			

Minimum Standard:

6 dB Bandwidth > 500kHz

See next pages for actual measured spectrum plots.

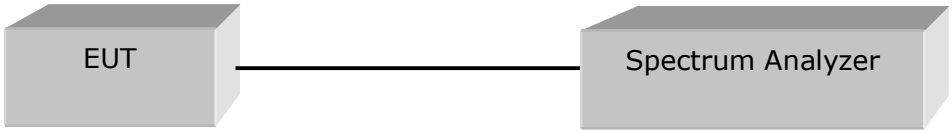
2.1.2 Maximum peak Conducted Output Power

Test Location

RF Test Room

Test Procedures

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99% bandwidth.



Limit

< 1 W

Test Results

Not Tested

Cable loss : 2.3 dB

Test mode : 802.11b - 1 Mbps

Frequency (MHz)	Channel No.	Mesurement data (dBm)	Total Power (dBm)	Limit	Result
2412	1			30dBm	-
2437	6				
2462	11				

Test mode : 802.11g - 6 Mbps

Frequency (MHz)	Channel No.	Mesurement data (dBm)	Total Power (dBm)	Limit	Result
2412	1			30dBm	-
2437	6				
2462	11				

Test mode : 802.11n (20 MHz) – MCS0

Frequency (MHz)	Channel No.	Mesurement data (dBm)	Total Power (dBm)	Limit	Result
2412	1			30dBm	-
2437	6				
2462	11				

Test mode : 802.11n (40 MHz) – MCS0

Frequency (MHz)	Channel No.	Mesurement data (dBm)	Total Power (dBm)	Limit	Result
2422	3			30dBm	-
2437	6				
2452	9				

2.1.3 Power Spectral Density

Procedure:

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

The spectrum analyzer is set to:

RBW = 3 kHz	VBW = (VBW ≥ RBW)
Sweep = 100 s (Span/3 kHz)	Span = 300 kHz
Detector function = peak	Trace = max hold

Test Results

Not Tested

Test mode : 802.11b

Mode	Frequency (MHz)	Ch.	Test Results	
			dBm	Result
802.11b	2412	1		-
	2437	6		
	2462	11		

Test mode : 802.11g

Mode	Frequency (MHz)	Ch.	Test Results	
			dBm	Result
802.11g	2412	1		-
	2437	6		
	2462	11		

Test mode : 802.11n(20 MHz)

Mode	Frequency (MHz)	Ch.	Test Results	
			dBm	Result
802.11n (20 MHz)	2412	1		-
	2437	6		
	2462	11		

Test mode : 802.11n(40 MHz)

Mode	Frequency (MHz)	Ch.	Test Results	
			dBm	Result
802.11n (40 MHz)	2422	3		-
	2437	6		
	2452	9		

Minimum Standard:

Power Spectral Density	< 8dBm @ 3 kHz BW

See next pages for actual measured spectrum plots.

2.1.4 Band - edge

Procedure:

The bandwidth at 20dB down from the highest inband spectral density is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate frequencies.

After the trace being stable, Use the marker-to-peak function to measure 20 dB down both sides of the intentional emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 100 kHz	VBW = 100 kHz
Span = 50 MHz	Detector function = peak
Trace = max hold	Sweep = auto

Measurement Data

Not Tested

- All conducted emission in any 100 kHz bandwidth outside of the spread spectrum band was at least 20dB lower than the highest inband spectral density. Therefore the applying equipment meets the requirement.

Minimum Standard:	> 20 dBc

See next pages for actual measured spectrum plots.

2.1.5 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 rage 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 10^{th} harmonic)
RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz, 9 kHz for f < 30 MHz
VBW ≥ RBW
Sweep = auto

Limit

- **15.209(a)**

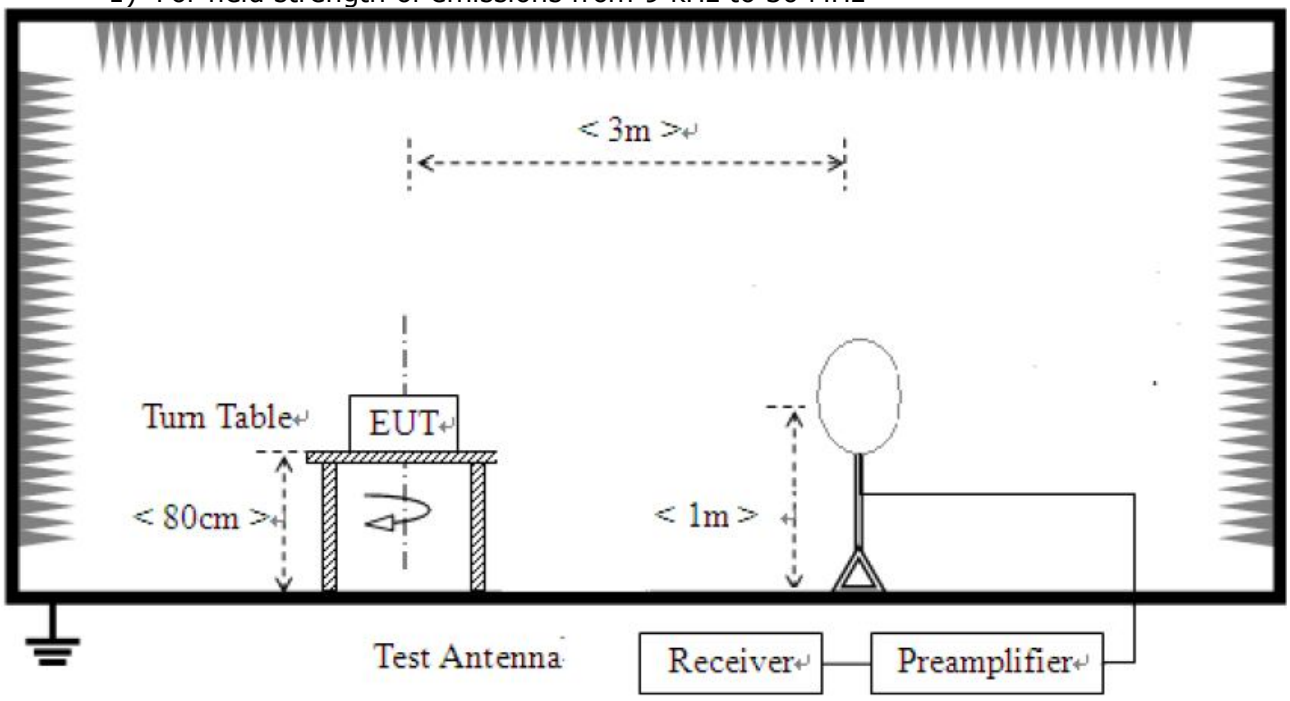
Frequency(MHz)	Field Strength uV/m@3m	Field Strength dBuV/m@3m	Deasurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	30
1.705-30	30	-	30
30-88	100**	40	3
88-216	150**	43.5	3
216-960	200**	46	3
Above 960	500	54	3

** 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.

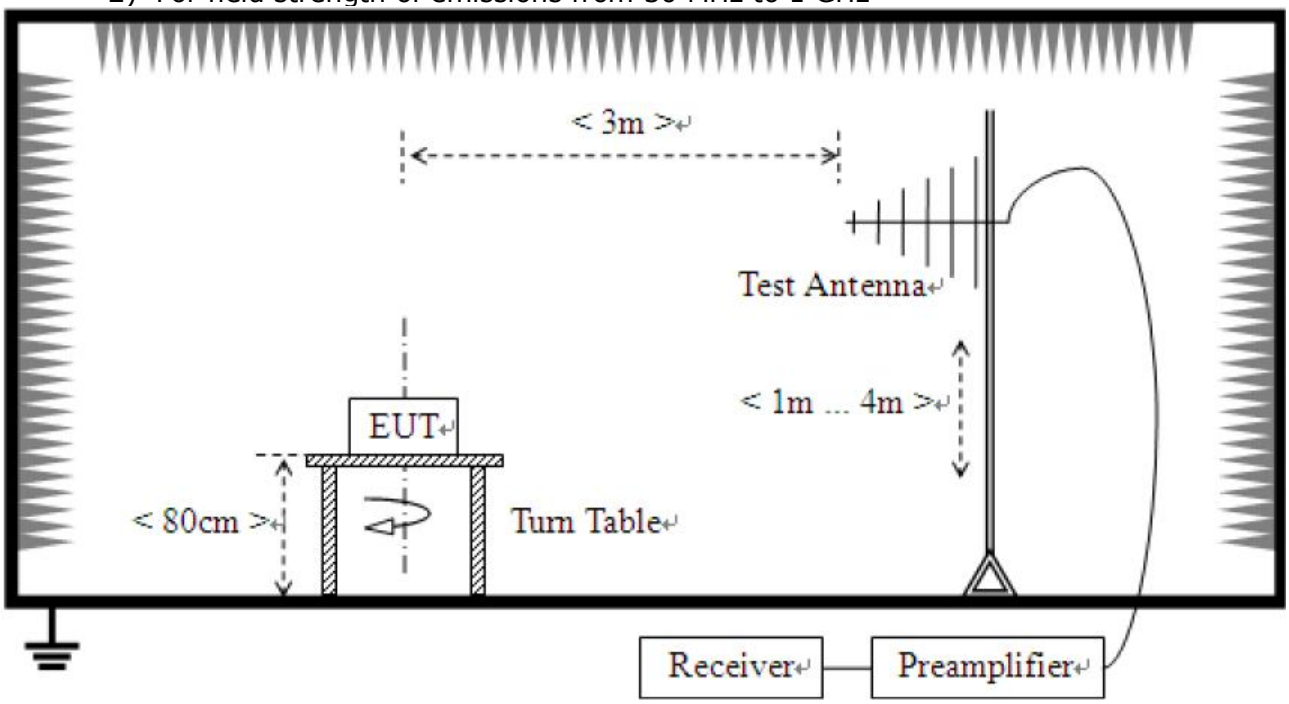
Note :
1) For above 1 GHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
2) For above 1 GHz, limit field strength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

Test Setup:

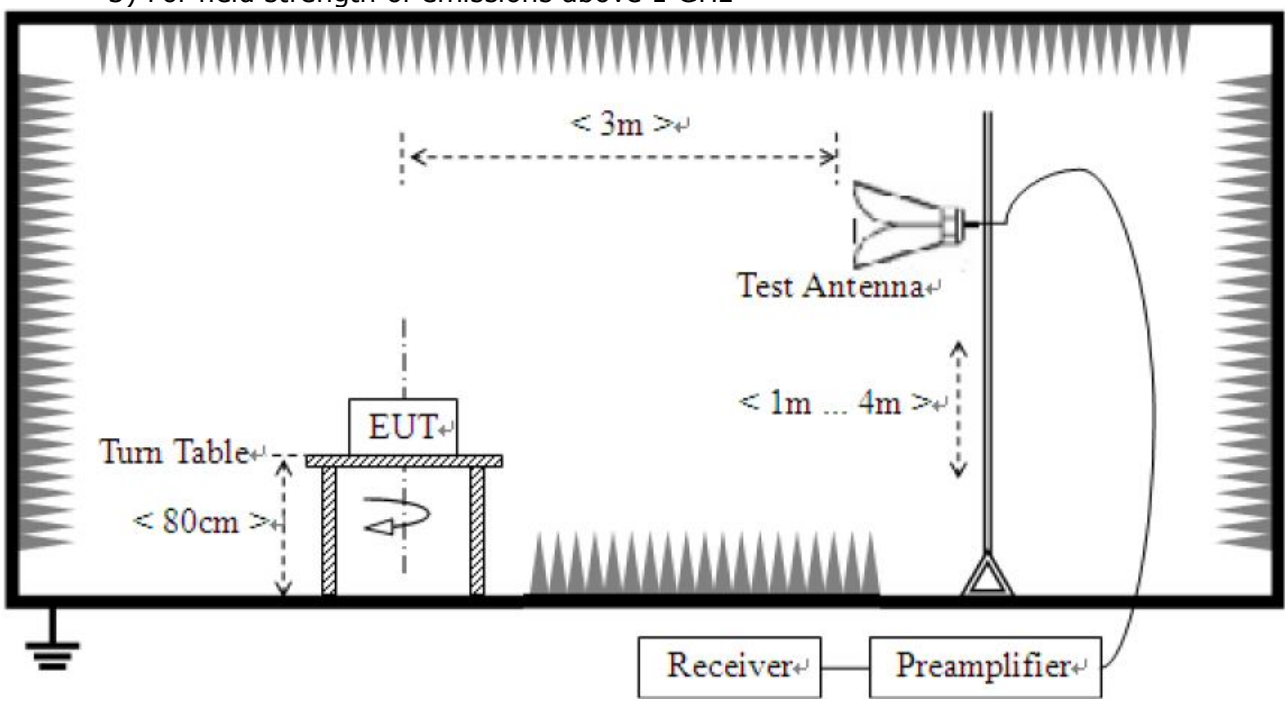
1) For field strength of emissions from 9 kHz to 30 MHz



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 (specific distance / test distance) (dB)

2) 30 MHz to 1 GHz

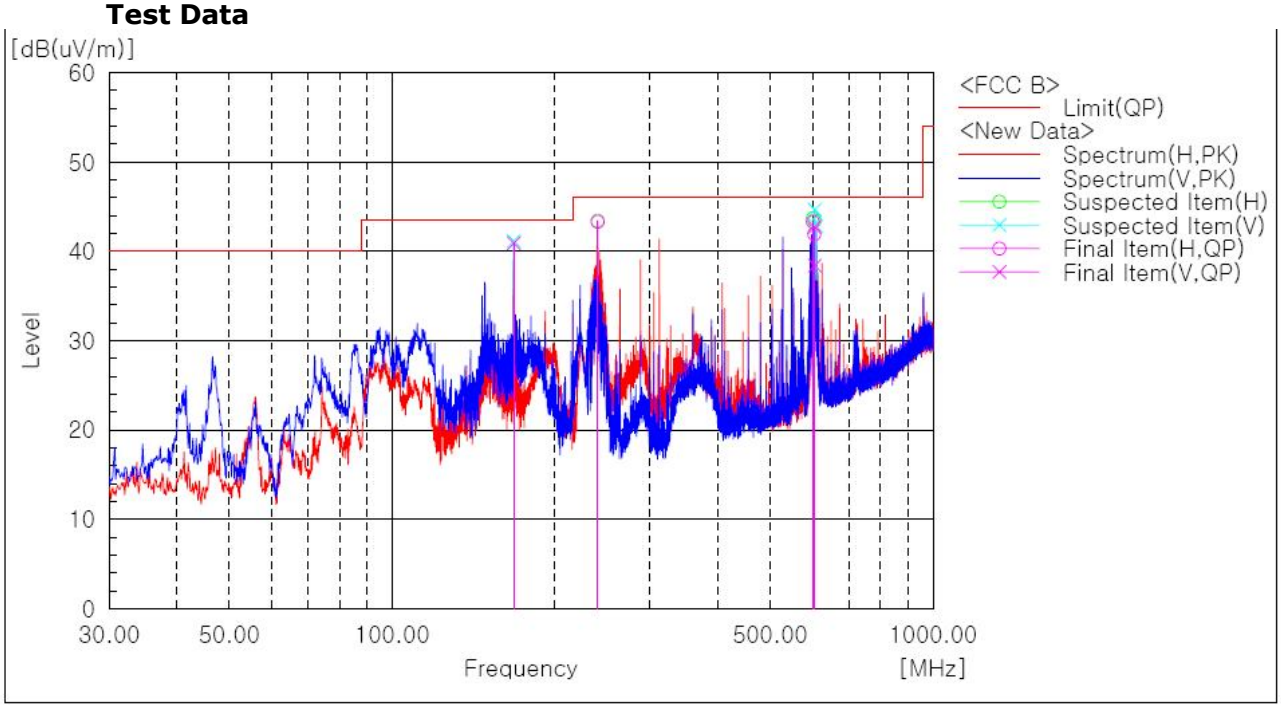
EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	Below 1000MHz
Mode	802.11b(Worst Case)	Detector function	Quasi-Peak

The requirements are:

☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
167.983	40.9	2.6	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	167.983	V	47.6	-6.7	40.9	43.5	2.6	100.0	215.0
2	240.005	H	55.1	-11.8	43.3	46.0	2.7	100.0	316.0
3	599.996	H	45.9	-2.6	43.3	46.0	2.7	100.0	241.0
4	603.513	H	44.5	-2.6	41.9	46.0	4.1	100.0	204.0
5	603.513	V	45.3	-2.6	42.7	46.0	3.3	100.0	215.0
6	604.725	V	40.9	-2.5	38.4	46.0	7.6	100.0	215.0

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.

3) above 1 GHz

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	1 (2412 MHz), 3 (2422 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
4824.0	47.54	6.46	Average

Test Data (Mode: 802.11b)

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						
4824.00	34.90	48.20	V	32.60	-19.96	54.00	74.00	47.54	60.84	6.46	13.16

Test Data (Mode: 802.11g)

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.							

Restricted band edge test data

Measured frequency range : 2310-2390 MHz, 2483.5-2500 MHz

Test data - 802.11b

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						
2390.00	29.80	44.10	V	28.39	-23.70	54.00	74.00	34.49	48.79	19.51	25.21

Test Data – 802.11g

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						
2390.00	31.20	51.40	V	28.39	-23.70	54.00	74.00	35.89	56.09	18.11	17.91

Test Data – 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						
2390.00	28.40	47.50	V	28.39	-23.70	54.00	74.00	33.09	52.19	20.91	21.81

Test Data – 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						
2390.00	31.50	56.60	V	28.39	-23.70	54.00	74.00	36.19	61.29	17.81	12.71

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	6 (2437 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
4874.0	46.64	7.36	Average

Test Data (Mode: 802.11b)

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						
4874.00	34.00	49.30	V	32.60	-19.96	54.00	74.00	46.64	61.94	7.36	12.06

Test Data (Mode: 802.11g)

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.							

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-25GHz
Channel	11(2462 MHz), 9 (2452 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
4924.0	48.04	5.96	Average

Test Data (Mode: 802.11b)

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						
4924.00	35.10	49.90	V	32.76	-19.82	54.00	74.00	48.04	62.84	5.96	11.16

Test Data (Mode: 802.11g)

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.								

Restricted band edge test data

Measured frequency range : 2310-2390 MHz, 2483.5-2500 MHz

Test data - 802.11b

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						
2483.50	27.50	40.90	V	28.57	-23.49	54.00	74.00	32.58	45.98	21.42	28.02

Test Data – 802.11g

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						
2483.50	35.50	55.90	V	28.57	-23.49	54.00	74.00	40.58	60.98	13.42	13.02

Test Data – 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						
2483.50	31.20	49.60	V	28.57	-23.49	54.00	74.00	36.28	54.68	17.72	19.32

Test Data – 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						
2483.50	32.00	54.10	V	28.57	-23.49	54.00	74.00	37.08	59.18	16.92	14.82

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-40GHz
Channel	149(5745 MHz) 153(5765 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
-	-	-	-

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.							

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-40GHz
Channel	157 (5785 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
-	-	-	-

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.							

EUT	Tablet	Measurement Detail	
Model	LPT-100SB	Frequency Range	1-40GHz
Channel	165(5825 MHz) 161(5805MHz)	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
-	-	-	-

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.							

2.1.6 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.

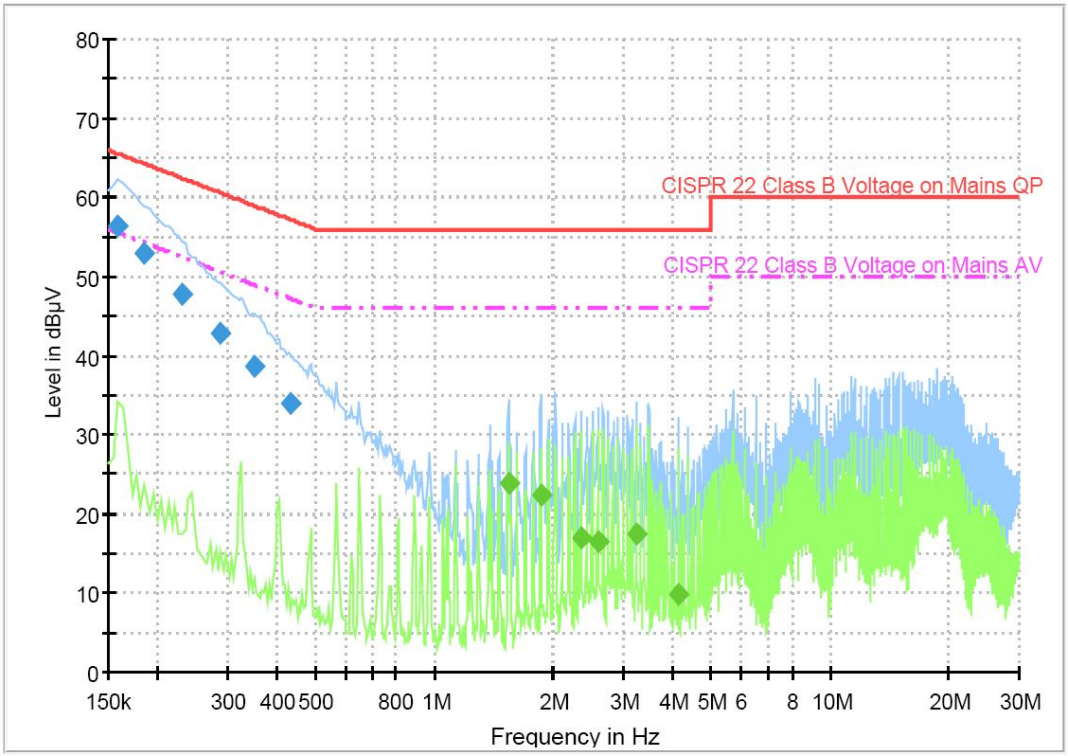
Test Results
The requirements are:

☒ Complies

Frequency (MHz)	Measured Data (dBuV/m)	Margin (dB)	Remark
0.159	56.4	9.1	Quasi-peak

Test Data

[HOT]



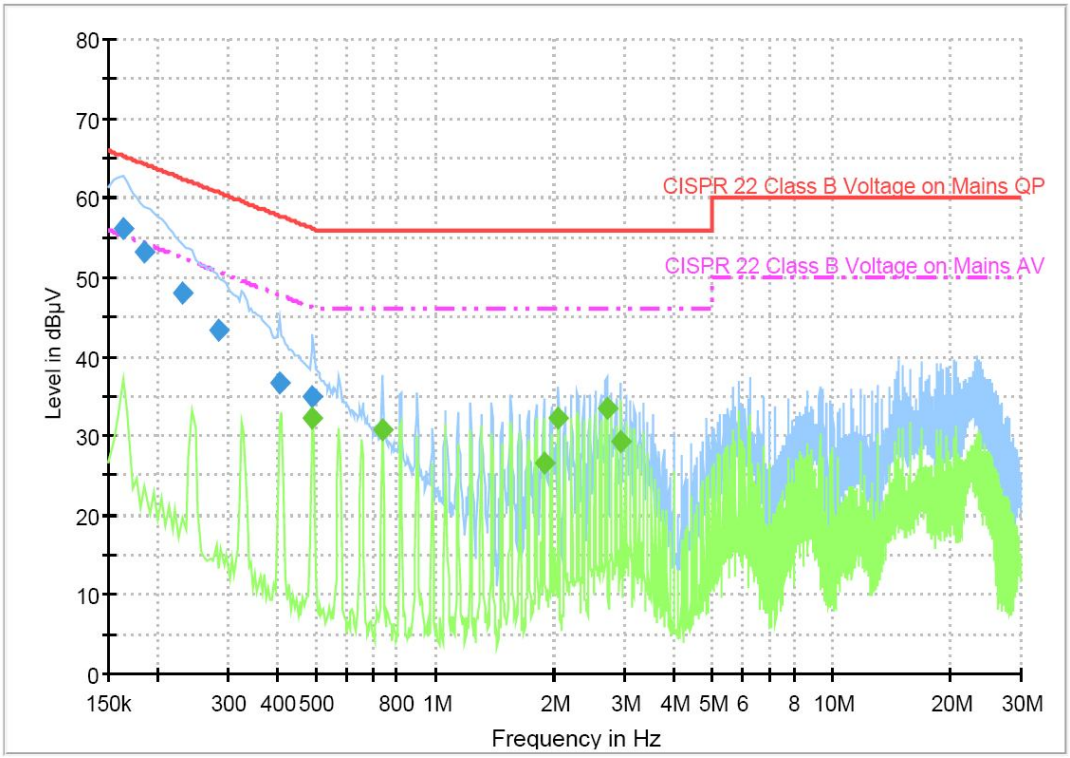
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.159000	56.4	1000.0	9.000	On	L1	9.9	9.1	65.5
0.186000	53.0	1000.0	9.000	On	L1	9.9	11.2	64.2
0.231000	47.8	1000.0	9.000	On	L1	9.8	14.6	62.4
0.289500	42.8	1000.0	9.000	On	L1	9.8	17.8	60.5
0.352500	38.6	1000.0	9.000	On	L1	9.9	20.3	58.9
0.433500	34.0	1000.0	9.000	On	L1	9.9	23.2	57.2

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.540500	24.0	1000.0	9.000	On	L1	9.8	22.0	46.0
1.864500	22.4	1000.0	9.000	On	L1	9.8	23.6	46.0
2.350500	16.9	1000.0	9.000	On	L1	9.7	29.1	46.0
2.593500	16.4	1000.0	9.000	On	L1	9.7	29.6	46.0
3.246000	17.4	1000.0	9.000	On	L1	9.7	28.6	46.0
4.137000	9.8	1000.0	9.000	On	L1	9.7	36.2	46.0

[NEUTRAL]



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	56.1	1000.0	9.000	On	N	9.9	9.2	65.3
0.186000	53.1	1000.0	9.000	On	N	10.0	11.1	64.2
0.231000	48.1	1000.0	9.000	On	N	9.8	14.3	62.4
0.285000	43.4	1000.0	9.000	On	N	9.8	17.3	60.7
0.406500	36.6	1000.0	9.000	On	N	9.9	21.2	57.7
0.492000	34.9	1000.0	9.000	On	N	10.0	21.2	56.1

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.492000	32.3	1000.0	9.000	On	N	10.0	13.8	46.1
0.739500	30.8	1000.0	9.000	On	N	9.9	15.2	46.0
1.882500	26.5	1000.0	9.000	On	N	9.7	19.5	46.0
2.049000	32.3	1000.0	9.000	On	N	9.7	13.7	46.0
2.706000	33.5	1000.0	9.000	On	N	9.7	12.5	46.0
2.949000	29.3	1000.0	9.000	On	N	9.7	16.7	46.0

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	Trilog Broadband Antenna	SCHWARZBECK	VULB 9161 SE	9161-4133	2012-06-11	2014-06-11
6	Active Loop Antenna	SCHWARZBECK	FMZB 1513	1513-125	2012-06-06	2014-06-06
7	Attenuator	HP	8498A	1801A06913	2013-11-12	2014-11-12
8	EPM Series Power Meter	HP	E4418A	GB38272734	2013-11-08	2014-11-08
9	Power Sensor	HP	8487A	3318A03524	2013-07-06	2014-07-06
10	Audio Analyzer	HP	8903B	2747A03432	2013-11-08	2014-11-08
11	ESG-D Series Signal Generator	Agilent	E4432B	US40054094	2013-11-08	2014-11-08
12	SYNTHESIZED SWEEPER	HP	8341B	2819A01563	2013-11-08	2014-11-08
13	Attenuator	HP	8494A	3308A33351	2013-11-12	2014-11-12
14	Temp&Humi Chamber	Kunpoong	JT-TH-556-1	9QE5-002	2013-01-16	2014-01-16
15	DC POWER SUPPLY	Agilent	E3632A	MY40011638	2013-11-08	2014-11-08
16	Horn Antenna	ETS-Lindgren	3115	00078895	2013-02-28	2015-02-28
17	Horn Antenna	ETS-Lindgren	3116	00062916	2013-03-20	2015-03-20
18	OPT H64 AMPLIFIER	HP	8447F	3113A06814	2013-03-21	2014-03-21
19	PREAMPLIFIER	Agilent	8449B	3008A02307	2013-11-08	2014-11-08
20	Radio Communication Tester	Rohde & Schwarz	CMU200	106765	2013-02-04	2014-02-04
21	LISN	Rohde & Schwarz	ENV216	101235	2013-08-02	2014-08-02
22	LISN	Rohde & Schwarz	ENV216	101236	2013-08-02	2014-08-02
23	LISN	Rohde & Schwarz	ENV216	101151	2013-11-08	2014-11-08
24	DC POWER SUPPLY	Agilent	E3632A	MY40011638	2013-11-08	2014-11-08
25	EMI Test Receiver	Rohde & Schwarz	ESCI3	100032	2013-02-04	2014-02-04
26	6dB Attenuator	R&S	DNF	272.4110.50	2013-11-12	2014-11-12
27	AMPLIFIER	Sonoma Instrument Co.	310	291721	2013-03-21	2014-03-21
28	EMI Test Receiver	Rohde & Schwarz	ESU40	100336	2013-06-27	2014-06-27
29	Signal Generator	Rohde & Schwarz	SMBV100A	258008	2013-09-07	2014-09-07