

FCC RADIO TEST REPORT

Report Reference No. : PT1201191090E

Compiled by (+ signature) : Jones song



Approved by (+ signature) : Jacky Ou



Applicant's name : GLOBAL CIRCUIT (SHENZHEN) CO.,LTD

Address : Floor#2-3, Baoyunda Building#2, Qianjin Road#2, Bao'an, Shenzhen, China

Manufacture's Name : GLOBAL CIRCUIT (SHENZHEN) CO.,LTD

Address : Floor#2-3, Baoyunda Building#2, Qianjin Road#2, Bao'an, Shenzhen, China

Test specification:

Standard : FCC Part15.247

Test procedure : ANSI C63.4-2003, KDB 558074(DTS)

Test item description

Product name : 4.3inch Tablet PC

FCC ID : P7U-LT4304

Trademark : N/A

Model and/or type reference : LT4304, HM-405Q, HM-406Q, HM-4XY, R43C-XY (X,Y= A-Z/0-9)

Rating(s) : DC 3.7V by battery

Testing Laboratory information:

Testing Laboratory Name : DongGuan Precise Testing Service Co.,Ltd.

Address : F616A Room, 6th Floor, Meixin Business Center, Dongcheng Middle Road, Dongguan, Guangdong, China

This device described above has been tested by DongGuan Precise Testing Service Co.,Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Testing :

Date of receipt of test item : 10 Sep. 2012

Date (s) of performance of tests : 10 Sep. 2012 ~18 Sep. 2012

Date of Issue : 18 Sep. 2012

Test Result : **Pass**

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 1.38\text{dB}$
2	Radiated Emission Test	$\pm 3.17\text{dB}$
3	RF power,conducted	$\pm 0.16\text{dB}$
4	Spurious emissions,conducted	$\pm 0.21\text{dB}$
5	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
6	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	4.3inch Tablet PC	
Trade Name	N/A	
Model Name	LT4304, HM-405Q, HM-406Q, HM-4XY, R43C-XY (X,Y= A-Z/0-9)	
OEM Brand/Model Name	N/A	
Model Difference	The motherboards are the same, only models ,color, software are different.	
Product Description	The EUT is a 4.3inch Tablet PC	
	Operation Frequency:	802.11b/g: 2412~2462 MHz
	Modulation Type:	OFDM/CCK
	Bit Rate of Transmitter	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps
	Number Of Channel	11 CH, Please see Note 2.
	Antenna Designation:	internal antenna
	Antenna Gain(Peak)	2dBi
	Output Power(EIRP):	802.11b: 10.84 dBm (Max.) 802.11g: 7.85 dBm (Max.)
	Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.	
Channel List	Please refer to the Note 2.	
Power Source	DC 3.7V by battery	
Adapter	Input:100-240ac, 50/60Hz Output:5Vdc, 2A	
Connecting I/O Port(s)	Please refer to the User's Manual	
Products Covered	N/A	

Note
:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

Channel List for 802.11b/g							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	Charging

For Conducted Emission	
Final Test Mode	Description
Mode 3	Charging

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

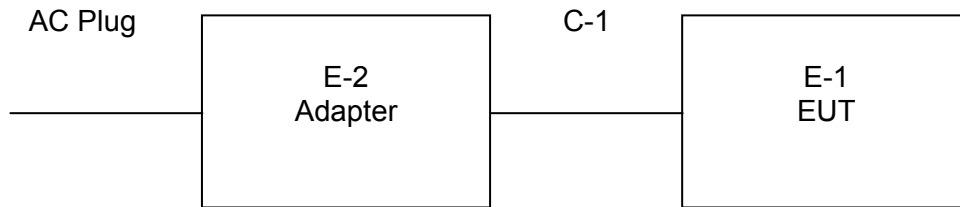
2.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

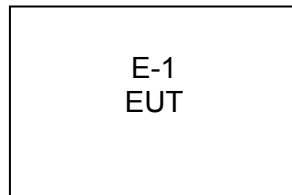
Test software Version	Test program: N/A		
802.11b	2412 MHz	2437 MHz	2462 MHz
802.11g	2412 MHz	2437 MHz	2462 MHz

2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

CE



RE



2.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	4.3inch Tablet PC	N/A	LT4304	N/A	EUT
E-2	Adapter	N/A	CPS012A050200U	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	120cm	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	E4407B	160400005	Jul. 06. 2013
2	Test Receiver	R&S	ESPI	101318	Jul. 06. 2013
3	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06. 2013
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	Jul. 06. 2013
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	Jul. 06. 2013
6	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06. 2013
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	Jul. 06. 2013
8	Amplifier	EM	EM-30180	060538	Jul. 06. 2013
9	Loop Antenna	ARA	PLA-1030/B	1029	Jul. 06. 2013
10	Power Meter	R&S	NRVS	100696	Jul. 06. 2013

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Test Receiver	R&S	ESCI	101160	Jul. 06. 2013
2	LISN	R&S	ENV216	101313	Jul. 06. 2013
3	LISN	EMCO	3816/2	00042990	Jul. 06. 2013
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	Jul. 06. 2013
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	Jul. 06. 2013
6	Absorbing clamp	R&S	MOS-21	100423	Jul. 06. 2013

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

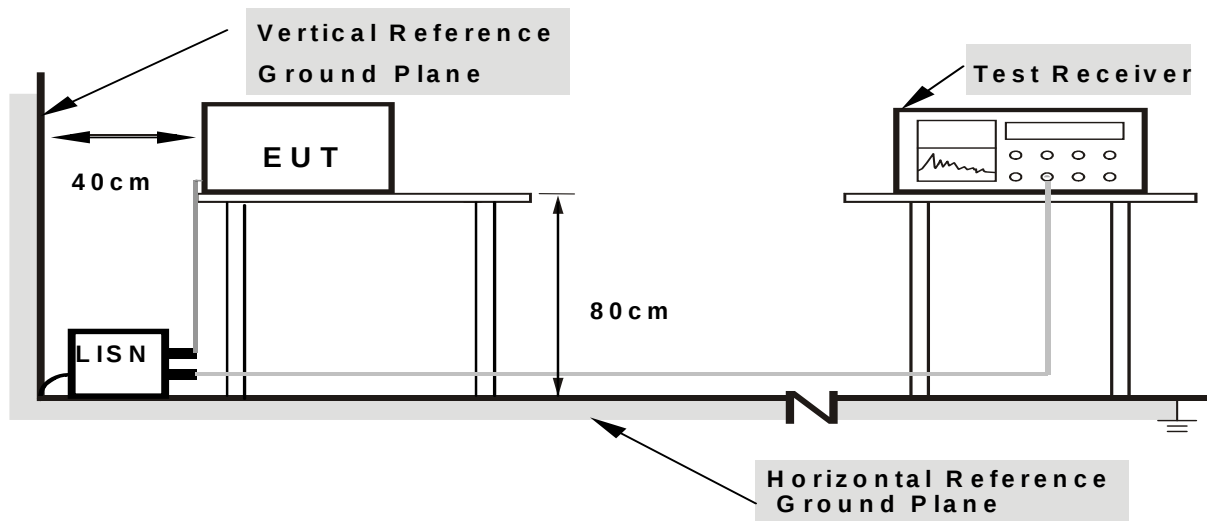
3.1.2 TEST PROCEDURE

- The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

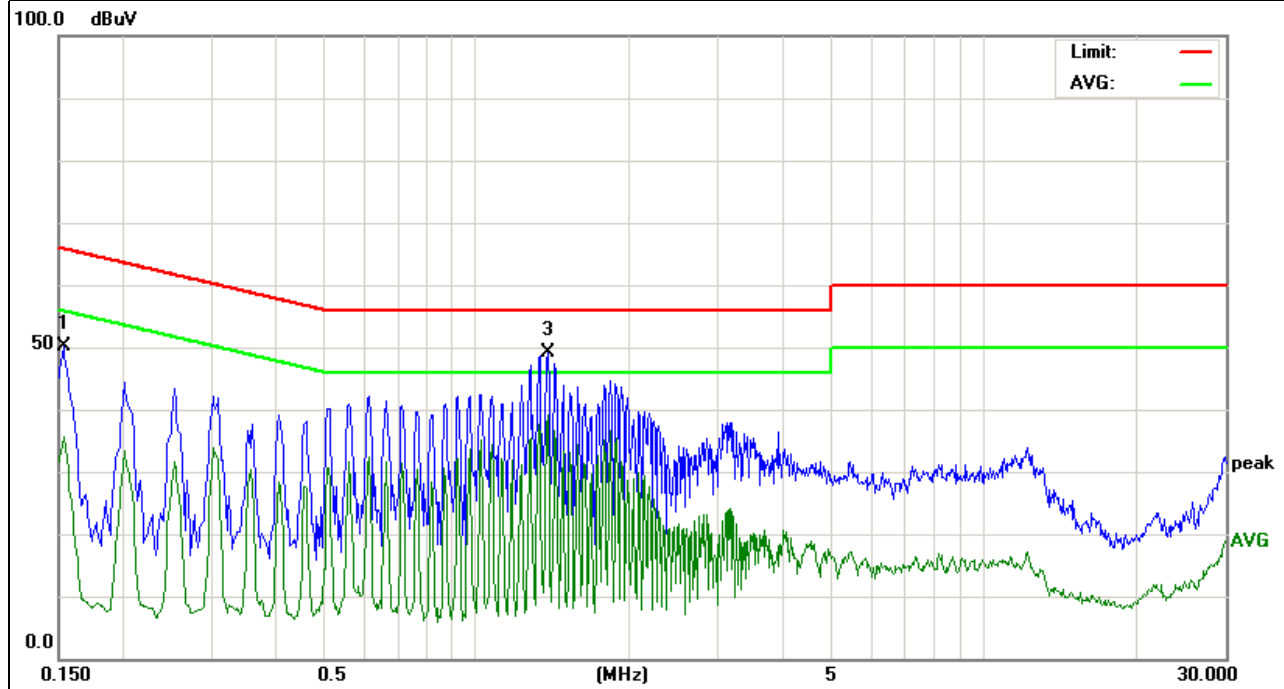
3.1.6 TEST RESULTS

EUT :	4.3inch Tablet PC	Model Name. :	LT4304
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2012-9-12
Test Mode :	Charging	Phase :	L
Test Voltage :	DC 5V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.1539	39.03	11.17	50.2	65.78	-15.58	peak
0.1539	24.53	11.17	35.7	55.78	-20.08	AVG
1.382	38.7	10.41	49.11	56	-6.89	peak
1.382	28.81	10.41	39.22	46	-6.78	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

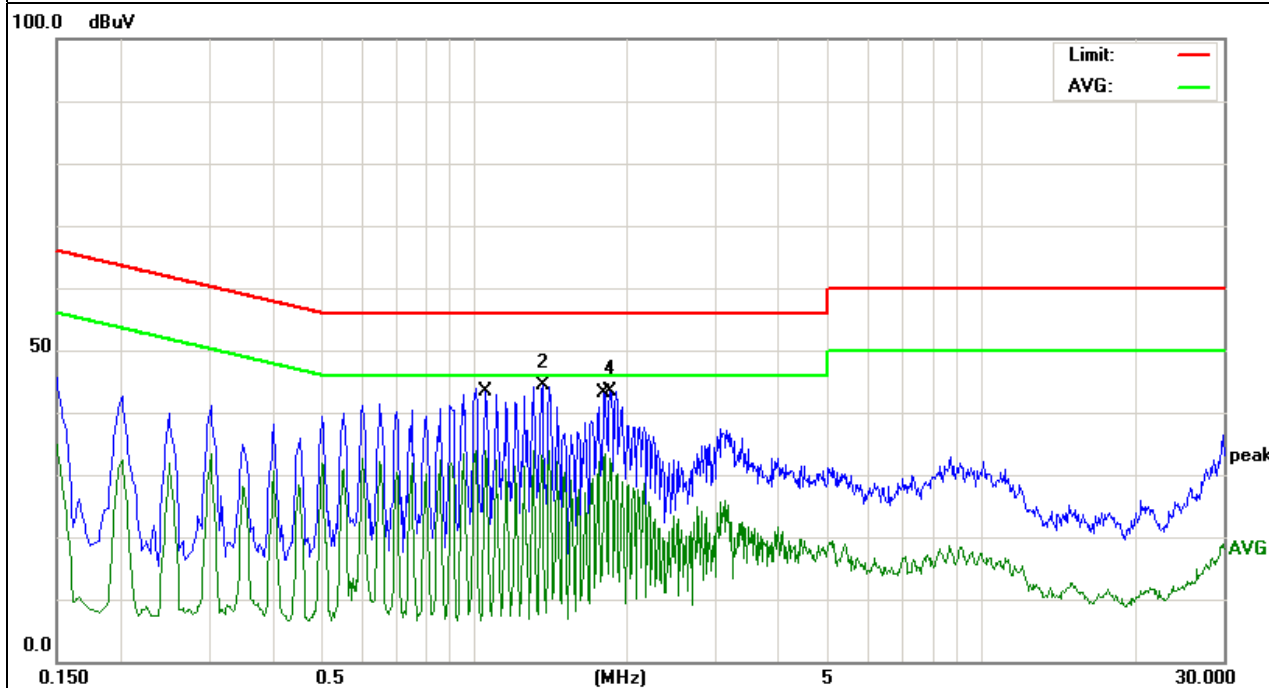


EUT :	4.3inch Tablet PC	Model Name. :	LT4304
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1010hPa	Test Date :	2012-9-12
Test Mode :	Charging	Phase :	N
Test Voltage :	DC 5V from adapter AC 120V/60Hz		

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
1.054	23.44	10.45	33.89	46	-12.11	AVG
1.3619	33.98	10.45	44.43	56	-11.57	peak
1.81	23.05	10.44	33.49	46	-12.51	AVG
1.854	33.03	10.44	43.47	56	-12.53	peak

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. '*' means the worst case



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

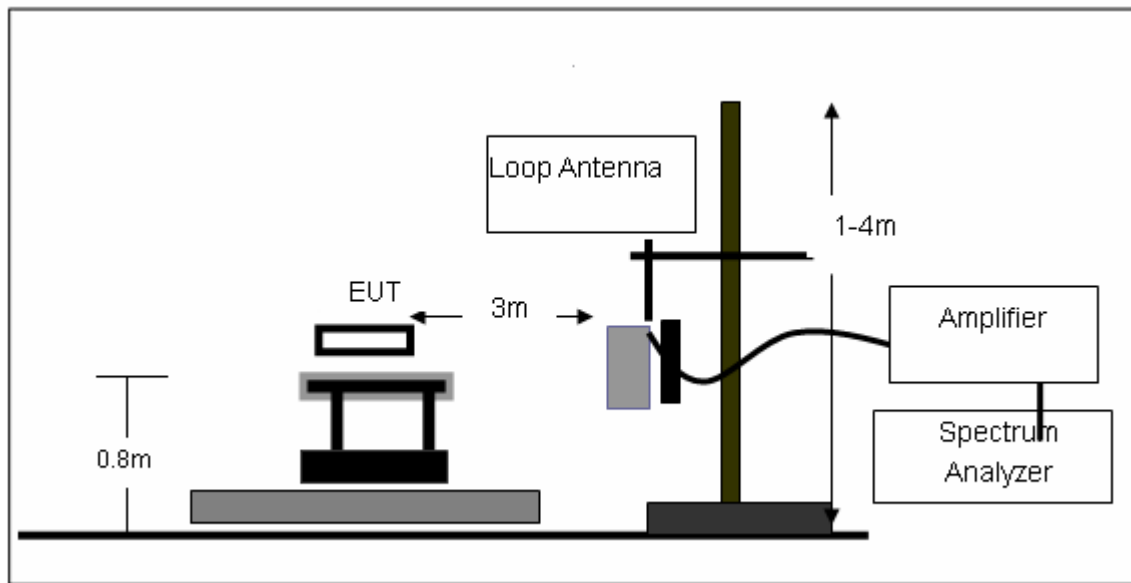
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

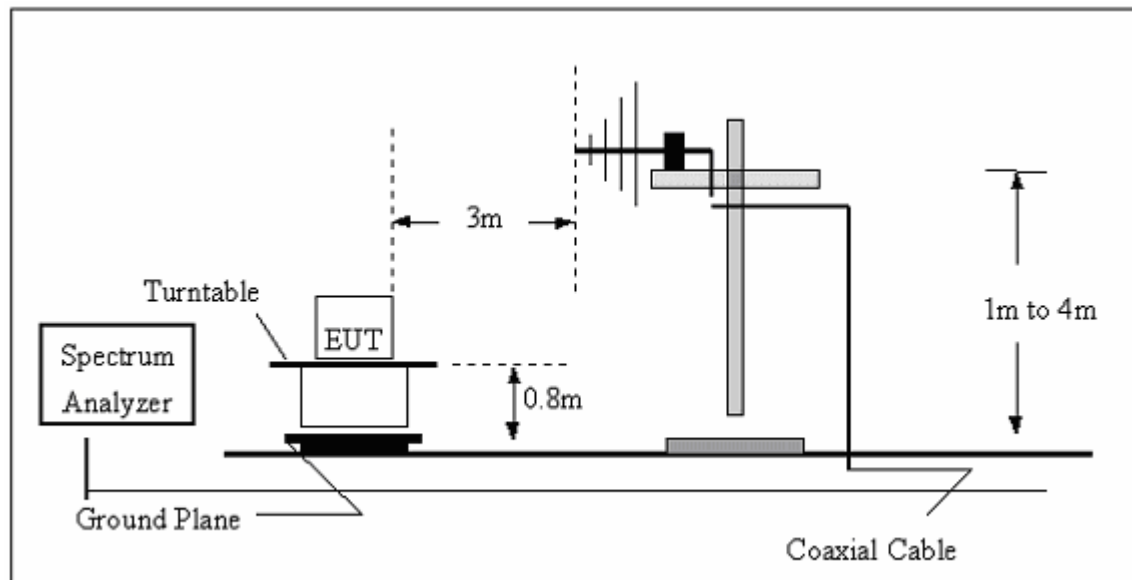
No deviation

3.2.4 TEST SETUP

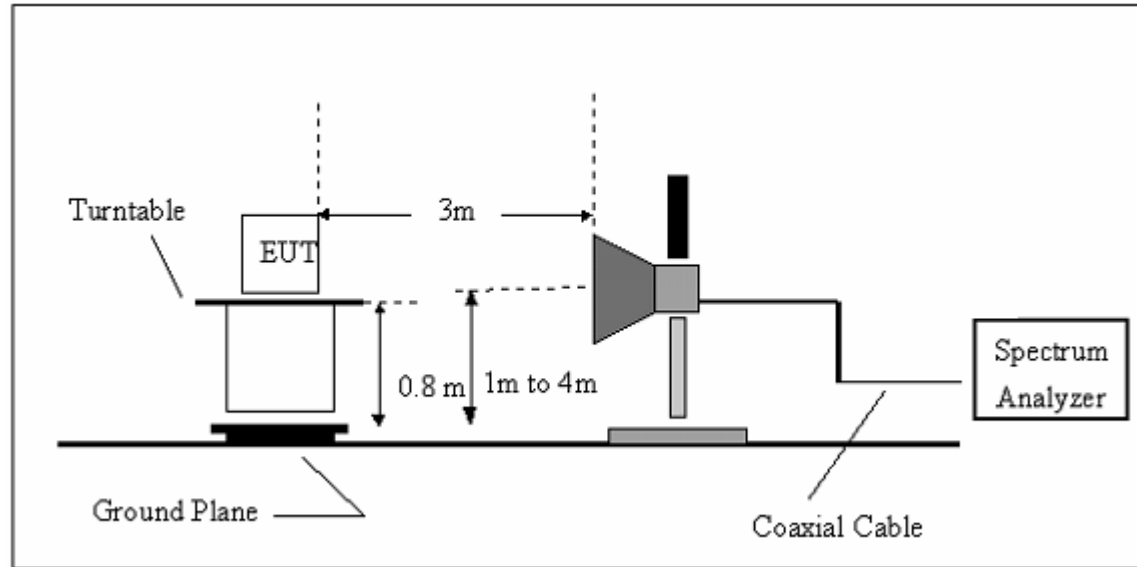
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

EUT :	4.3inch Tablet PC	Model Name. :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

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

Distance extrapolation factor = $20 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

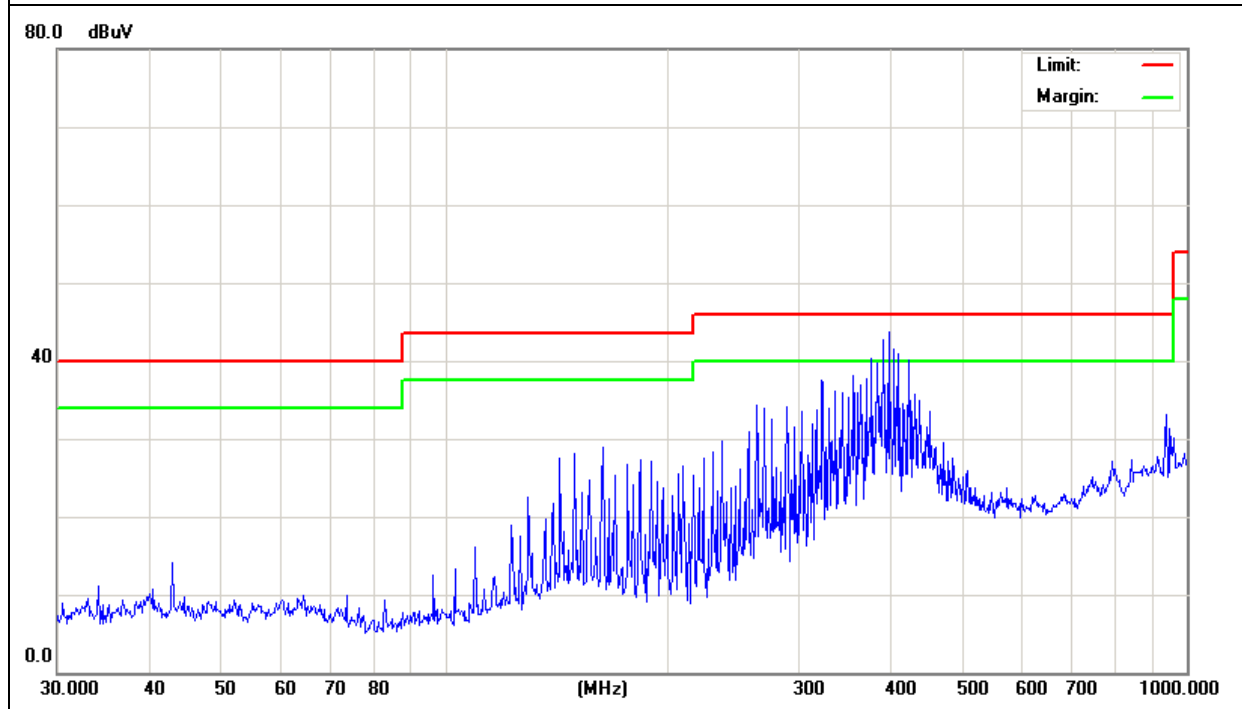
3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
142.8242	38.94	-11.44	27.50	43.50	-16.00	Quasi-Peak
163.1818	39.81	-11.01	28.80	43.50	-14.70	Quasi-Peak
262.8955	45.78	-11.55	34.23	46.00	-11.77	Quasi-Peak
322.1886	47.13	-9.64	37.49	46.00	-8.51	Quasi-Peak
396.2412	50.15	-7.47	42.68	46.00	-3.32	Quasi-Peak
422.0577	46.86	-6.83	40.03	46.00	-5.97	Quasi-Peak

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.

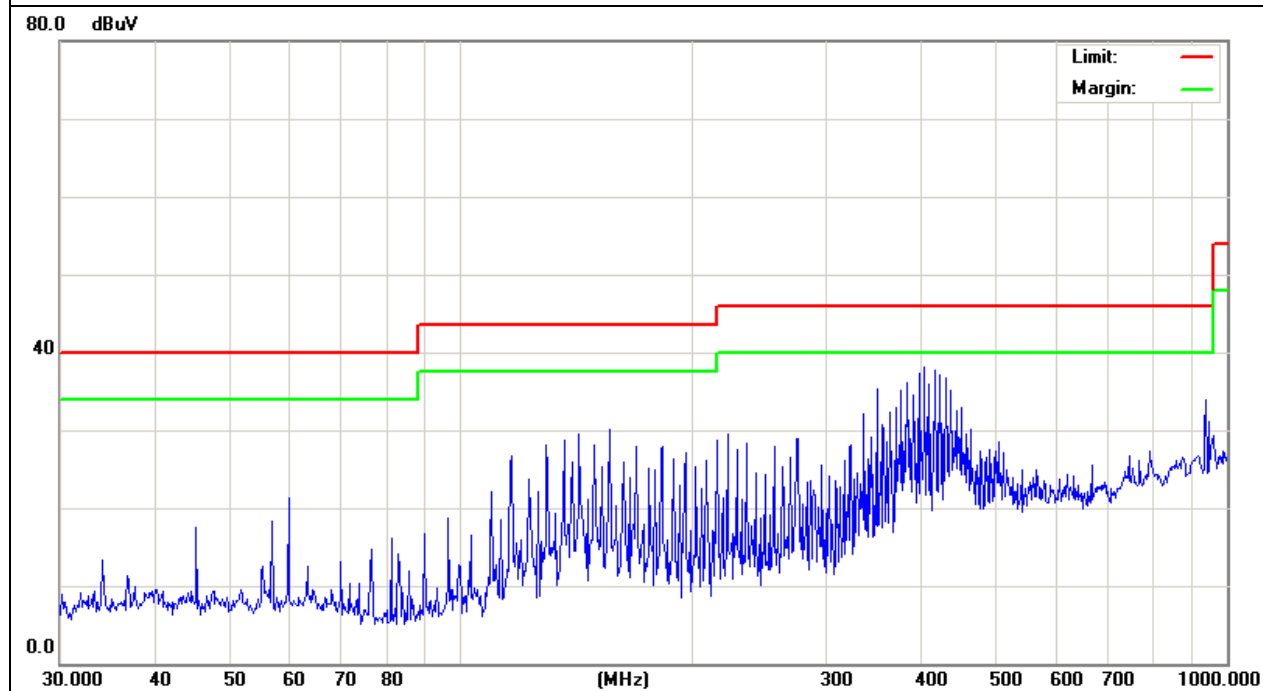


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
129.4677	40.61	-12.50	28.11	43.50	-15.39	Quasi-Peak
156.4576	41.03	-10.88	30.15	43.50	-13.35	Quasi-Peak
183.2005	40.40	-12.60	27.80	43.50	-15.70	Quasi-Peak
349.2500	44.26	-8.93	35.33	46.00	-10.67	Quasi-Peak
403.2500	45.44	-7.28	38.16	46.00	-7.84	Quasi-Peak
416.1791	44.62	-6.97	37.65	46.00	-8.35	Quasi-Peak

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.



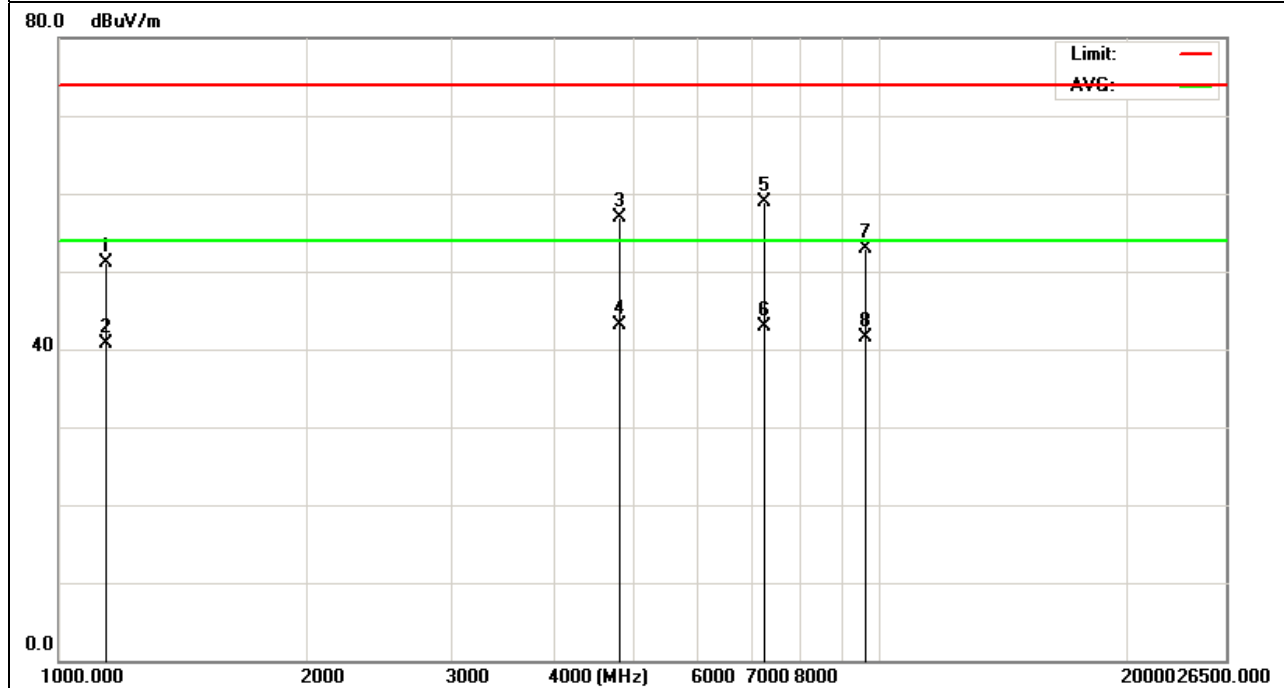
3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1 (802.11b Mode)/2412	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1143.2	55.85	-4.69	51.16	74	-22.84	peak
1143.2	45.33	-4.69	40.64	54	-13.36	AVG
4824.62	46.52	10.41	56.93	74	-17.07	peak
4824.62	32.74	10.41	43.15	54	-10.85	AVG
7235.94	46.52	12.39	58.91	74	-15.09	peak
7235.94	30.48	12.39	42.87	54	-11.13	AVG
9633.14	36.88	16.06	52.94	74	-21.06	peak
9633.14	25.45	16.06	41.51	54	-12.49	AVG

Remark:

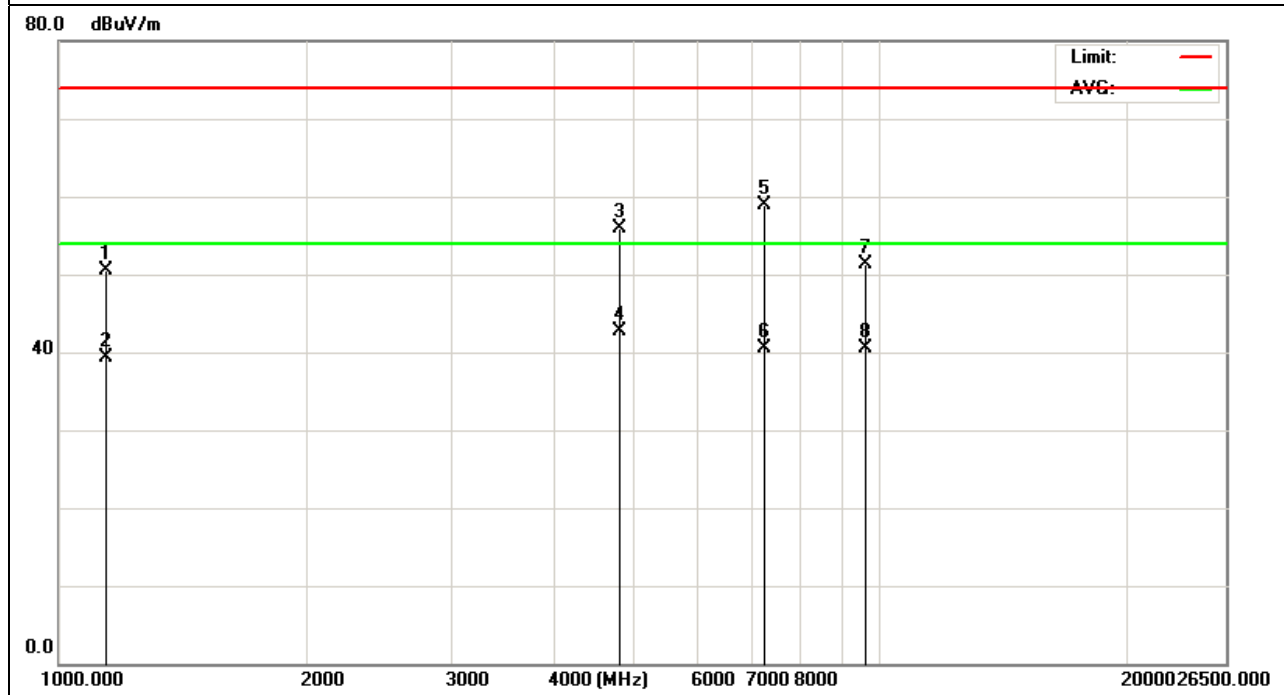
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1 (802.11b Mode)/2412	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1143.2	55.1	-4.69	50.41	74	-23.59	peak
1143.2	44.03	-4.69	39.34	54	-14.66	AVG
4824.62	45.53	10.41	55.94	74	-18.06	peak
4824.62	32.23	10.41	42.64	54	-11.36	AVG
7235.94	46.52	12.39	58.91	74	-15.09	peak
7235.94	28.09	12.39	40.48	54	-13.52	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

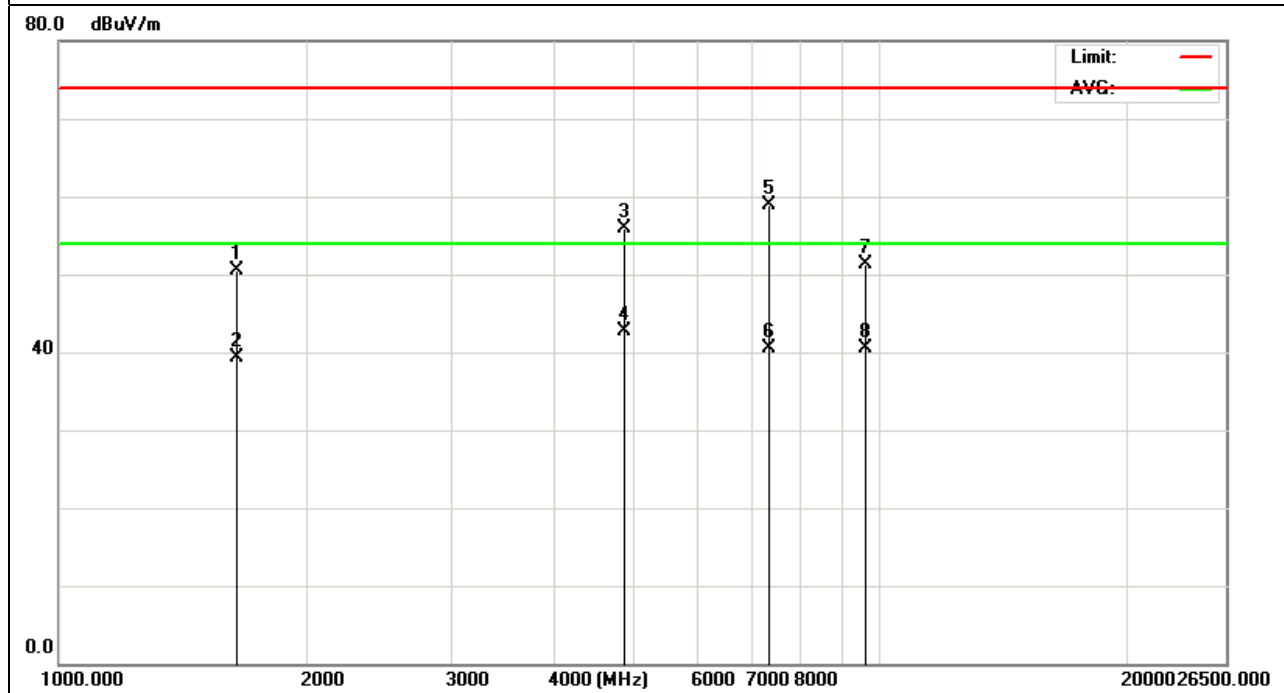


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH6 (802.11b Mode)/2437	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1645.32	53.46	-3.05	50.41	74	-23.59	peak
1645.32	42.39	-3.05	39.34	54	-14.66	AVG
4874.16	45.58	10.36	55.94	74	-18.06	peak
4874.16	32.28	10.36	42.64	54	-11.36	AVG
7311.45	46.14	12.77	58.91	74	-15.09	peak
7311.45	27.71	12.77	40.48	54	-13.52	AVG

Remark:

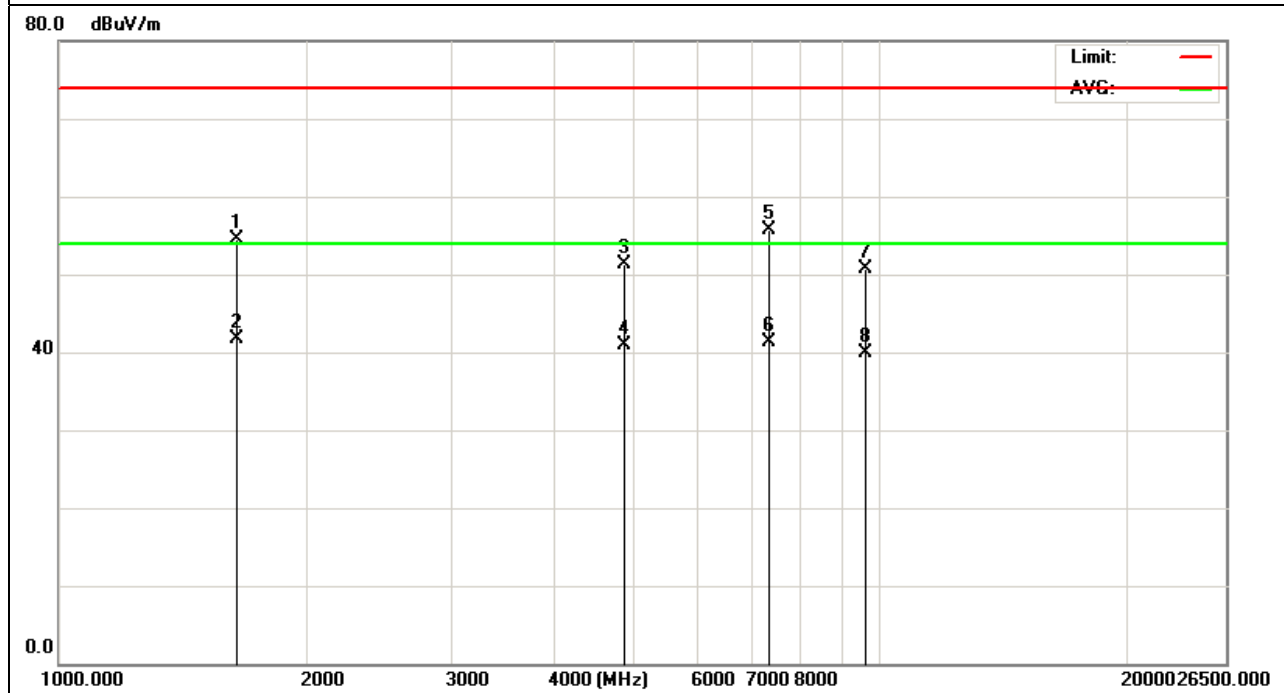
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH6 (802.11b Mode)/2437	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1645.32	57.61	-3.05	54.56	74	-19.44	peak
1645.32	44.83	-3.05	41.78	54	-12.22	AVG
4874.16	40.88	10.36	51.24	74	-22.76	peak
4874.16	30.61	10.36	40.97	54	-13.03	AVG
7311.45	42.97	12.77	55.74	74	-18.26	peak
7311.45	28.51	12.77	41.28	54	-12.72	AVG
9748.14	34.58	16.06	50.64	74	-23.36	peak
9748.14	23.81	16.06	39.87	54	-14.13	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

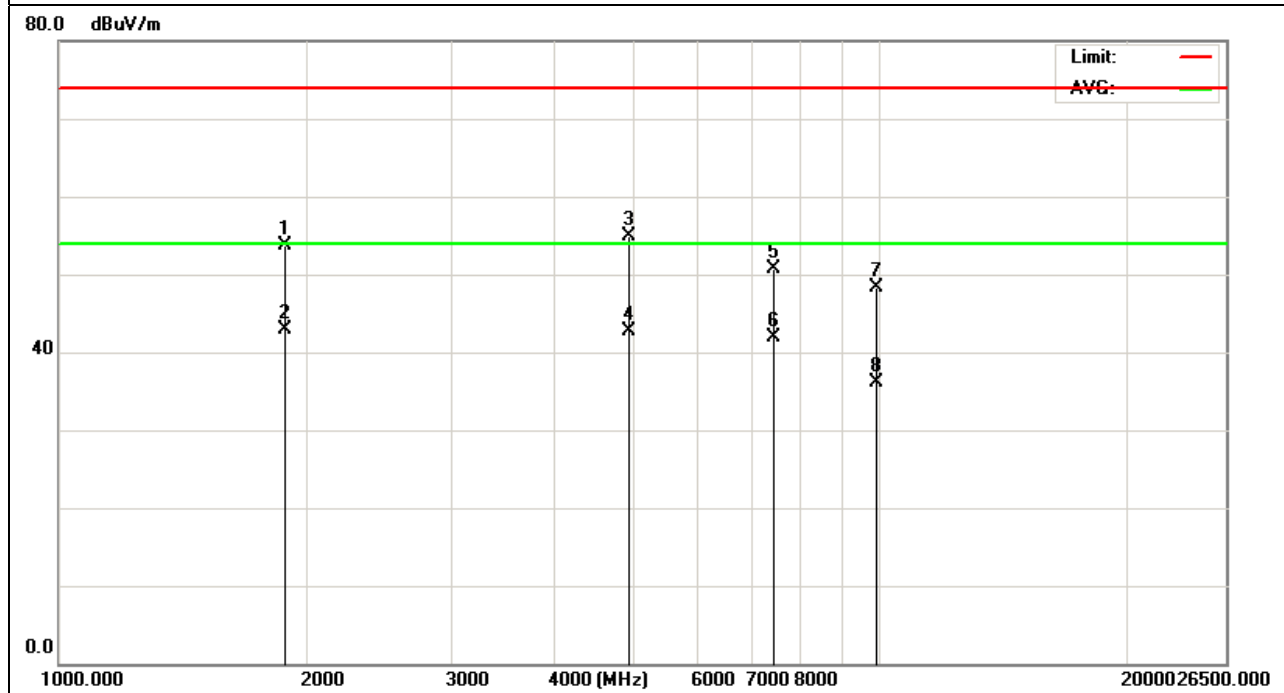


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11 (802.11b Mode)/2462	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1884.32	55.55	-1.89	53.66	74	-20.34	peak
1884.32	44.86	-1.89	42.97	54	-11.03	AVG
4924.81	44.48	10.49	54.97	74	-19.03	peak
4924.81	32.26	10.49	42.75	54	-11.25	AVG
7386.66	37.63	13.03	50.66	74	-23.34	peak
7386.66	28.88	13.03	41.91	54	-12.09	AVG
9848.54	32.08	16.2	48.28	74	-25.72	peak
9848.54	19.91	16.2	36.11	54	-17.89	AVG

Remark:

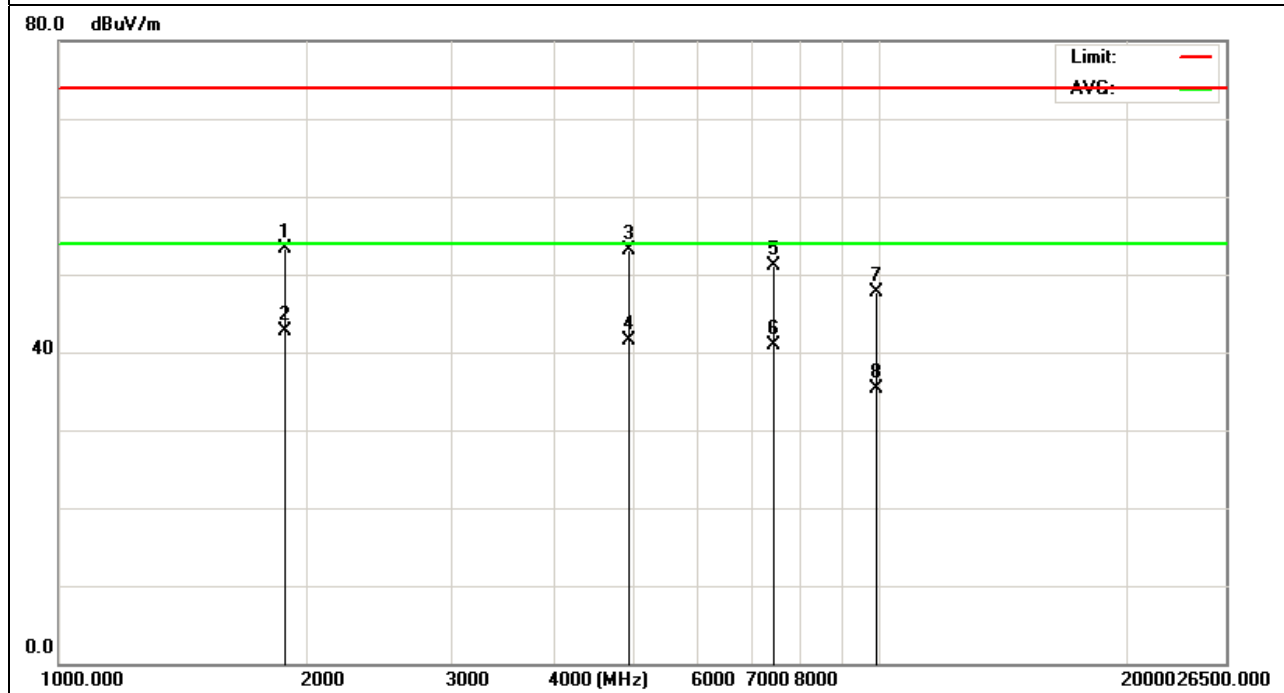
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11 (802.11b Mode)/2462	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1884.32	55.17	-1.89	53.28	74	-20.72	peak
1884.32	44.5	-1.89	42.61	54	-11.39	AVG
4924.81	42.67	10.49	53.16	74	-20.84	peak
4924.81	30.92	10.49	41.41	54	-12.59	AVG
7386.66	37.99	13.03	51.02	74	-22.98	peak
7386.66	27.94	13.03	40.97	54	-13.03	AVG
9848.54	31.44	16.2	47.64	74	-26.36	peak
9848.54	19.14	16.2	35.34	54	-18.66	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

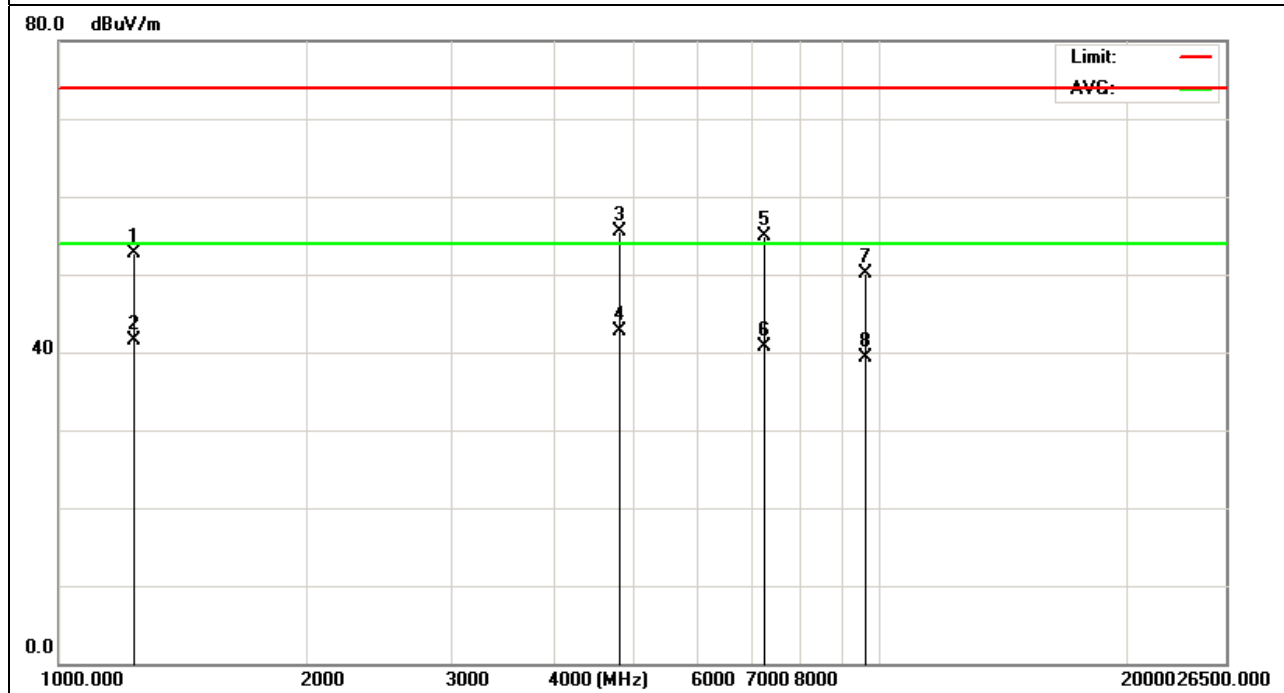


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1 (802.11g Mode)/2412	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1231.15	56.52	-3.88	52.64	74	-21.36	peak
1231.15	45.37	-3.88	41.49	54	-12.51	AVG
4824.62	45.13	10.41	55.54	74	-18.46	peak
4824.62	32.23	10.41	42.64	54	-11.36	AVG
7236.94	42.59	12.39	54.98	74	-19.02	peak
7236.94	28.28	12.39	40.67	54	-13.33	AVG
9648.14	34.05	16.06	50.11	74	-23.89	peak
9648.14	23.29	16.06	39.35	54	-14.65	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

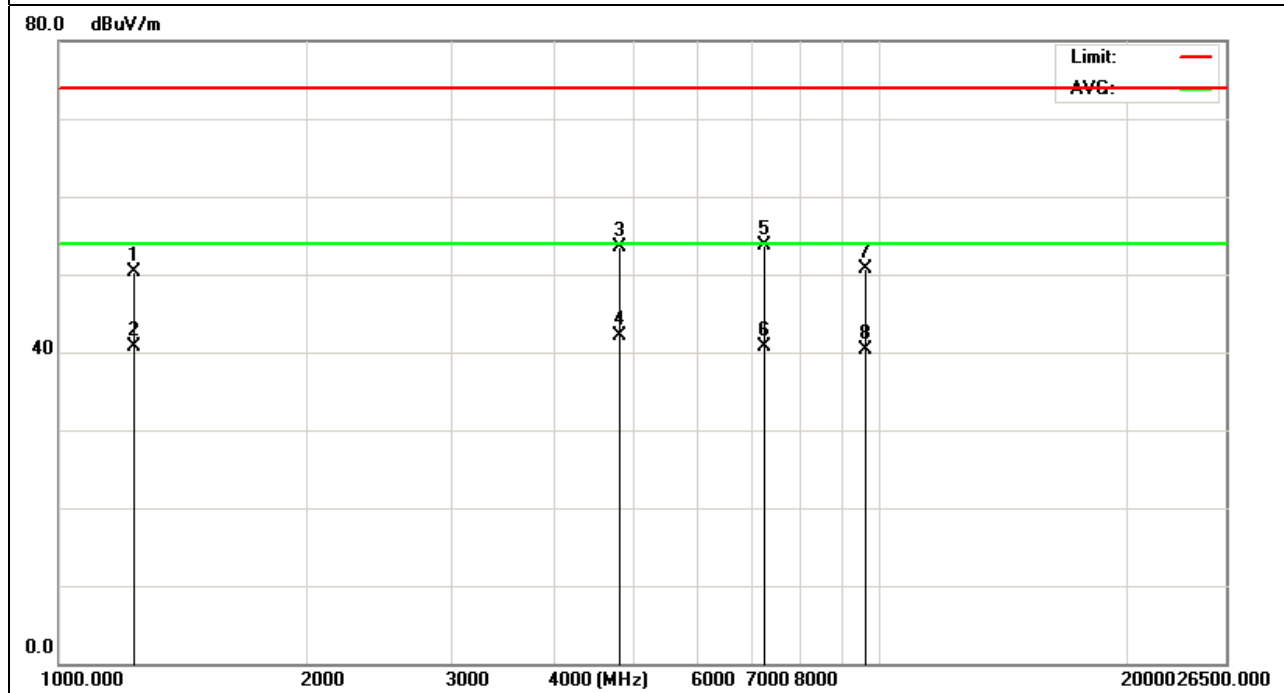


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1 (802.11g Mode)/2412	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1231.64	54.23	-3.88	50.35	74	-23.65	peak
1231.64	44.54	-3.88	40.66	54	-13.34	AVG
4824.62	43.12	10.41	53.53	74	-20.47	peak
4824.62	31.7	10.41	42.11	54	-11.89	AVG
7236.94	41.27	12.39	53.66	74	-20.34	peak
7236.94	28.29	12.39	40.68	54	-13.32	AVG
9648.14	34.72	16.06	50.78	74	-23.22	peak
9648.14	24.17	16.06	40.23	54	-13.77	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

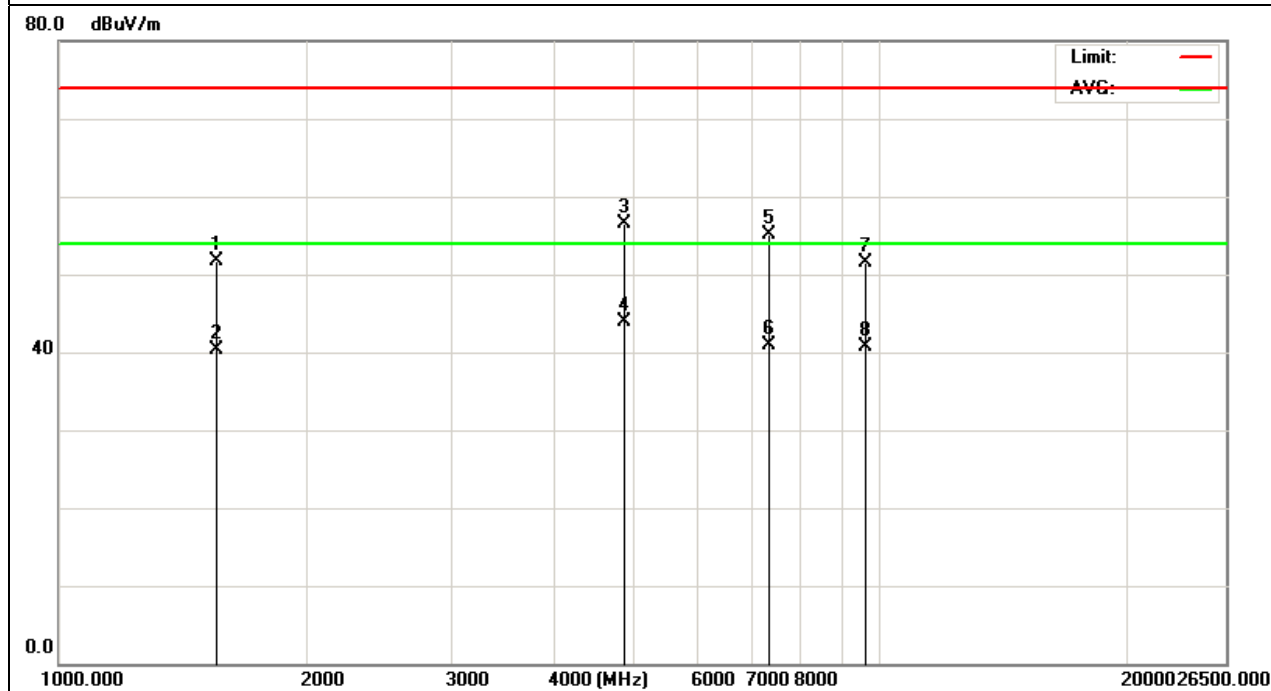


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH6 (802.11g Mode)/2437	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1556.24	55.32	-3.68	51.64	74	-22.36	peak
1556.24	44.01	-3.68	40.33	54	-13.67	AVG
4874.16	46.2	10.36	56.56	74	-17.44	peak
4874.16	33.45	10.36	43.81	54	-10.19	AVG
7311.45	42.4	12.77	55.17	74	-18.83	peak
7311.45	28.2	12.77	40.97	54	-13.03	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

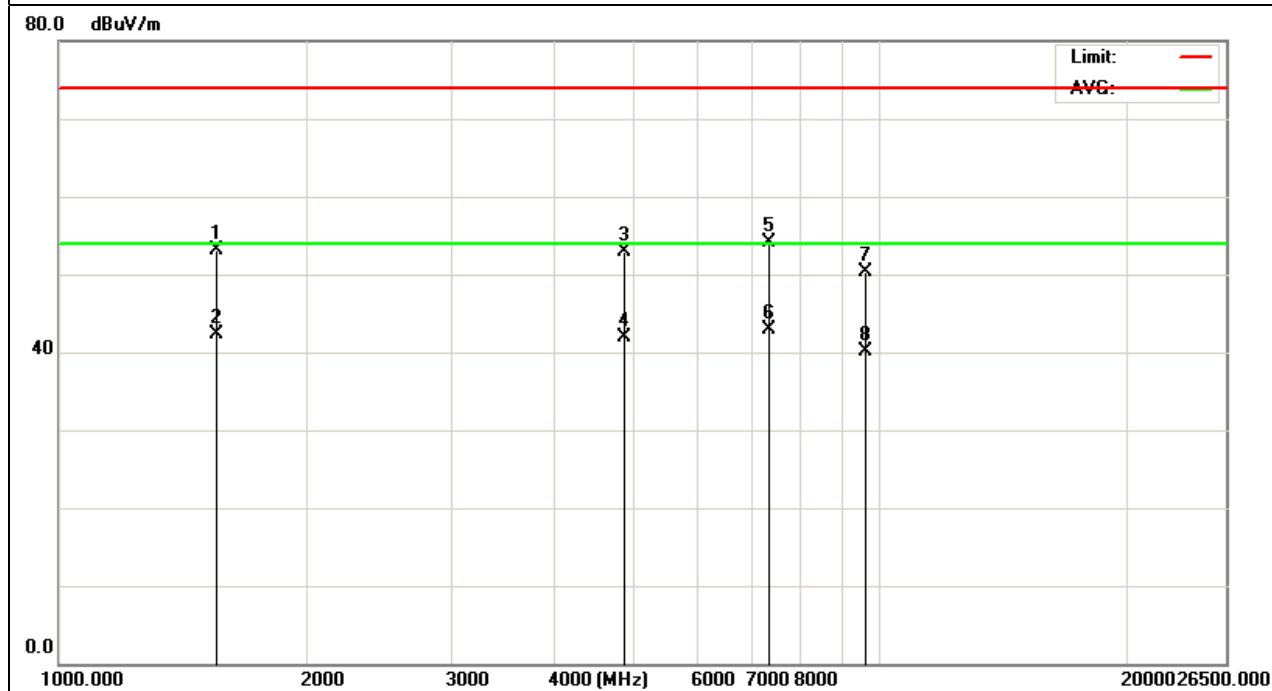


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH6 (802.11g Mode)/2437	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1556.24	56.87	-3.68	53.19	74	-20.81	peak
1556.24	46.02	-3.68	42.34	54	-11.66	AVG
4874.16	42.61	10.36	52.97	74	-21.03	peak
4874.16	31.48	10.36	41.84	54	-12.16	AVG
7311.45	41.42	12.77	54.19	74	-19.81	peak
7311.45	30.07	12.77	42.84	54	-11.16	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

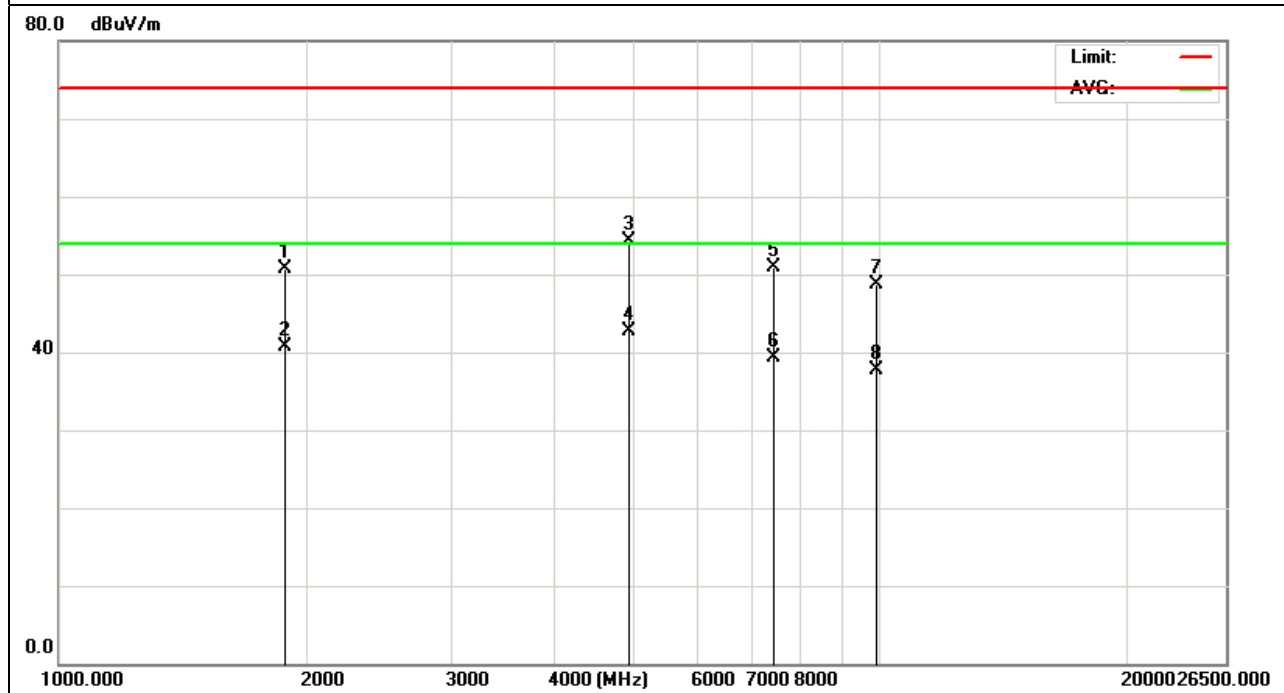


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11 (802.11g Mode)/2462	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1884.32	52.55	-1.89	50.66	74	-23.34	peak
1884.32	42.68	-1.89	40.79	54	-13.21	AVG
4924.81	43.82	10.49	54.31	74	-19.69	peak
4924.81	32.3	10.49	42.79	54	-11.21	AVG
7386.66	37.96	13.03	50.99	74	-23.01	peak
7386.66	26.33	13.03	39.36	54	-14.64	AVG
9848.54	32.49	16.2	48.69	74	-25.31	peak
9848.54	21.44	16.2	37.64	54	-16.36	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

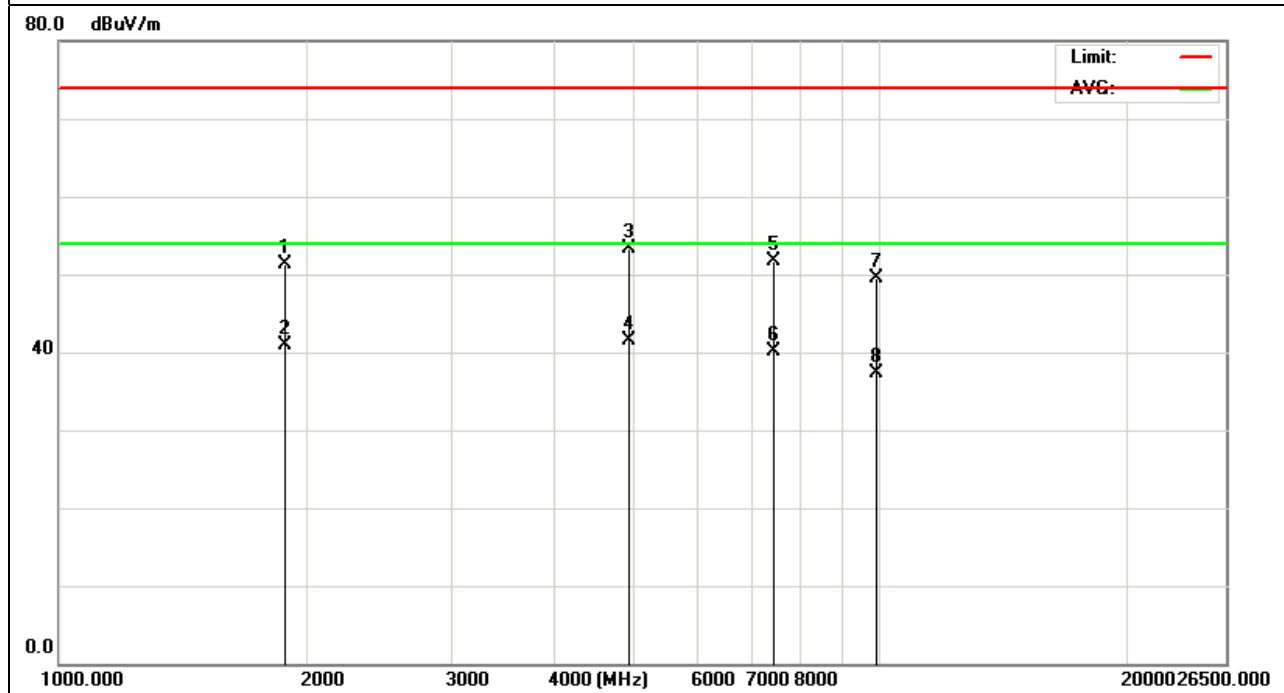


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11(802.11g Mode)/2462	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
1884.32	53.15	-1.89	51.26	74	-22.74	peak
1884.32	42.77	-1.89	40.88	54	-13.12	AVG
4924.81	42.8	10.49	53.29	74	-20.71	peak
4924.81	31.1	10.49	41.59	54	-12.41	AVG
7386.66	38.63	13.03	51.66	74	-22.34	peak
7386.66	27.15	13.03	40.18	54	-13.82	AVG
9848.54	33.27	16.2	49.47	74	-24.53	peak
9848.54	21.09	16.2	37.29	54	-16.71	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



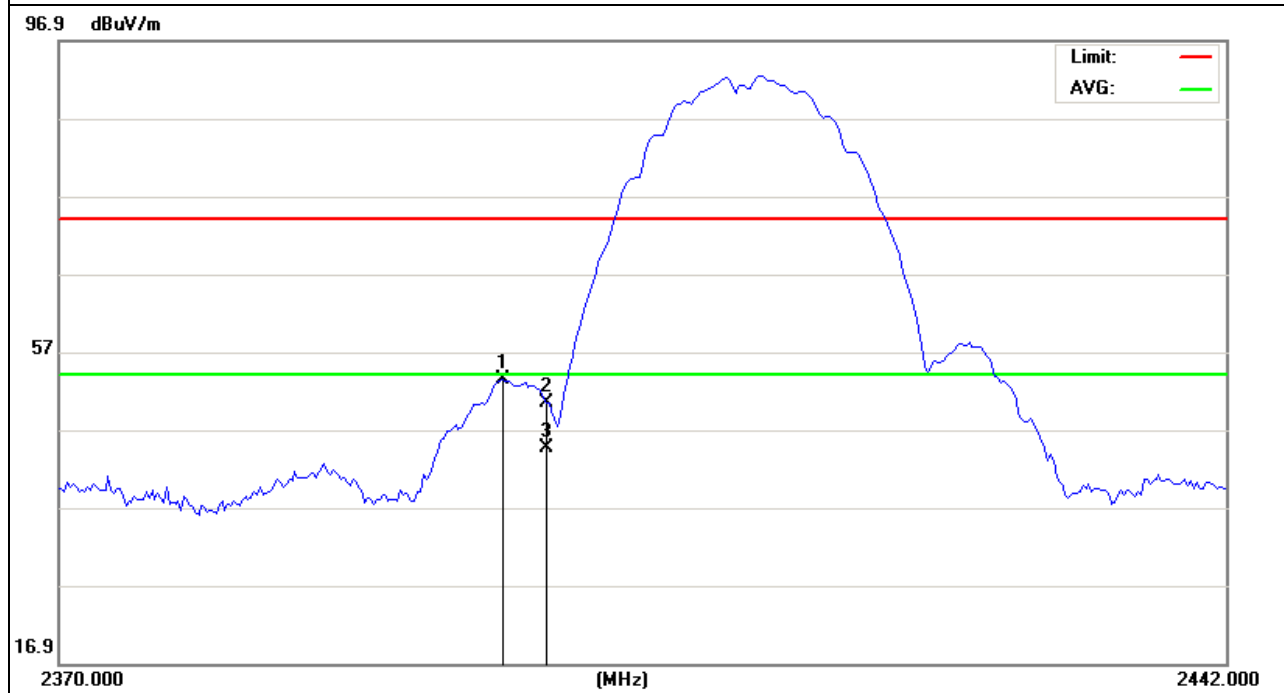
4.BAND EDGE EMISSION

EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1(802.11b Mode)	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400	41.18	-0.69	40.49	74	-33.51	peak
2400	37.94	-0.69	37.25	54	-16.75	AVG

Remark:

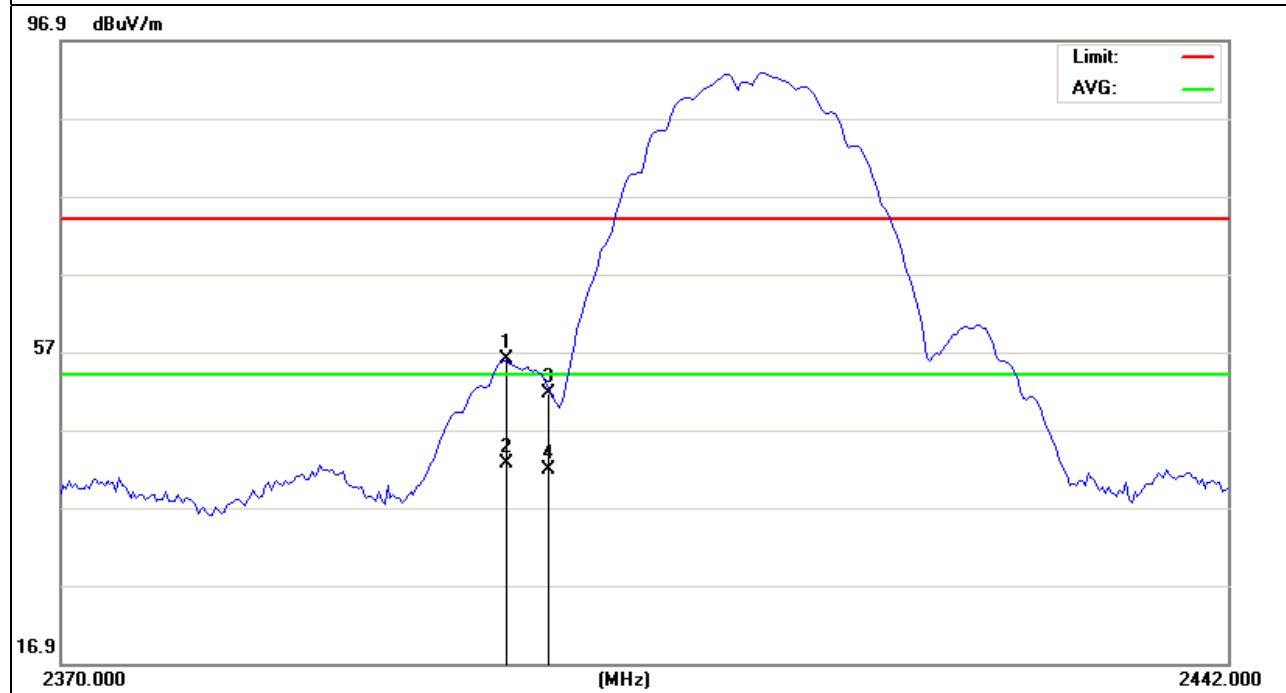
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1(802.11b Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400.00	56.19	-0.69	55.5	74	-18.5	peak
2400.00	40.97	-0.69	40.28	54	-13.72	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

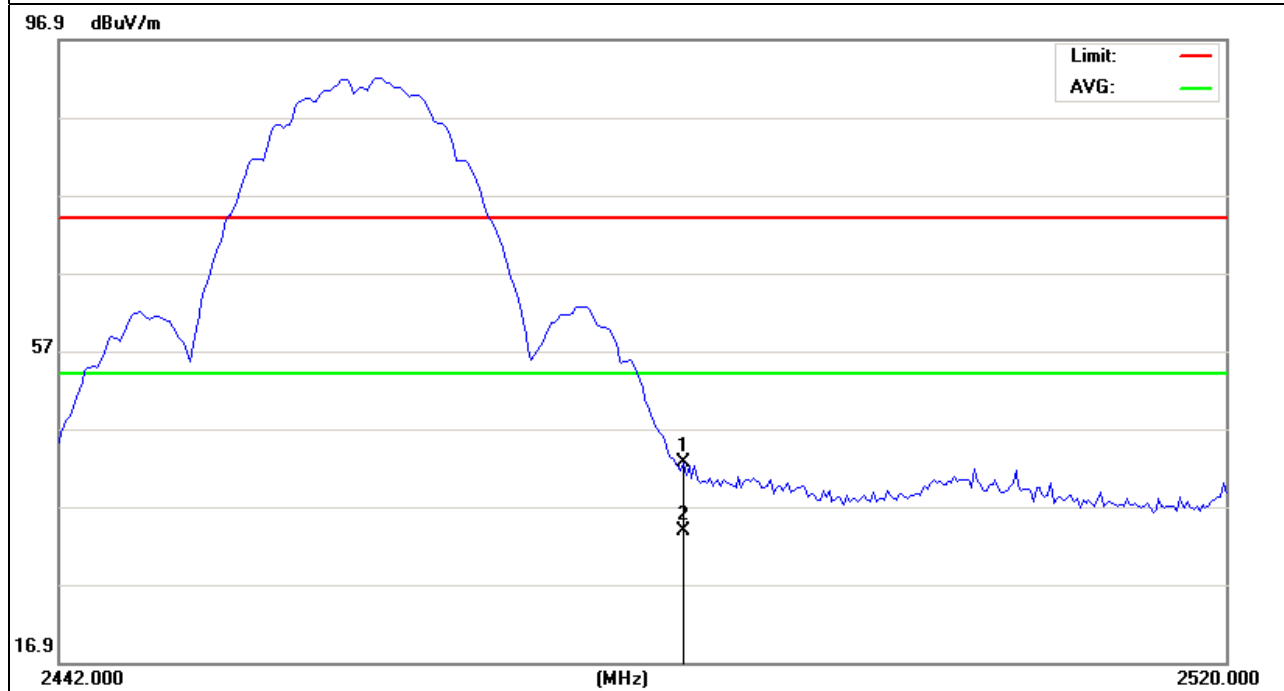


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11(802.11b Mode)	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.5	41.16	-0.47	40.69	74	-33.31	peak
2483.5	34.11	-0.47	33.64	54	-20.36	AVG

Remark:

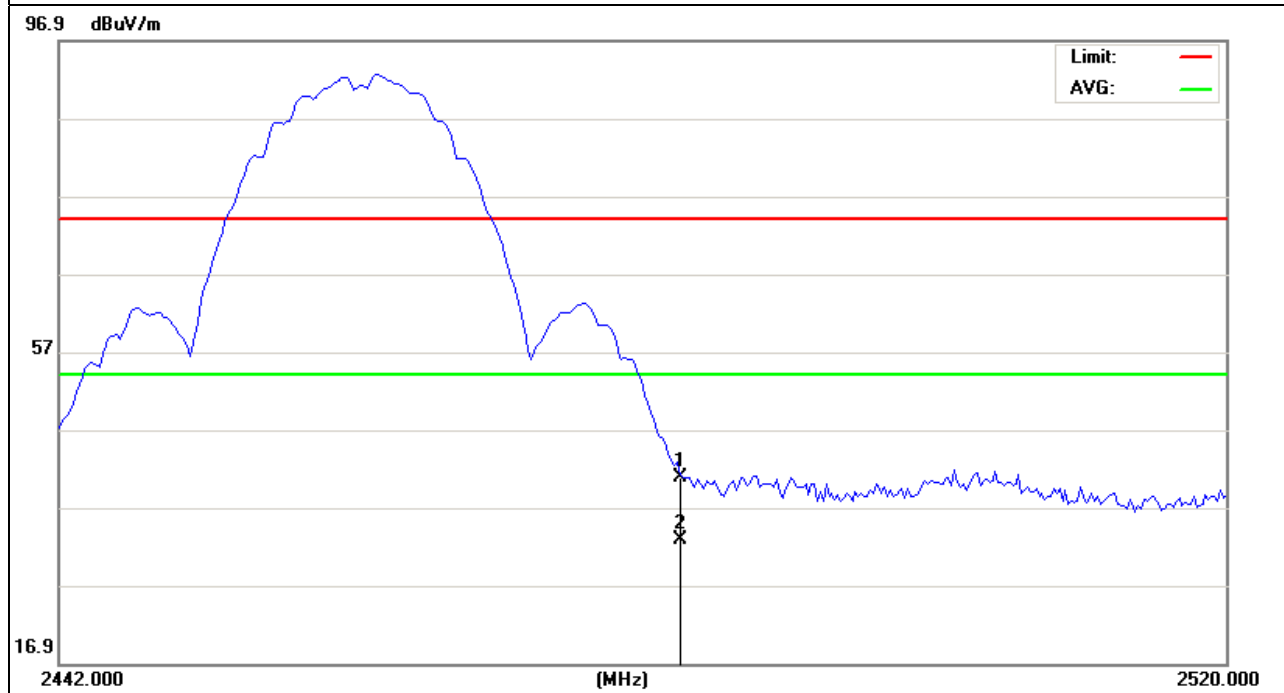
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11(802.11b Mode)	Polarization :	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	40.16	-0.47	39.69	74	-34.31	peak
2483.5	33.11	-0.47	32.64	54	-21.36	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

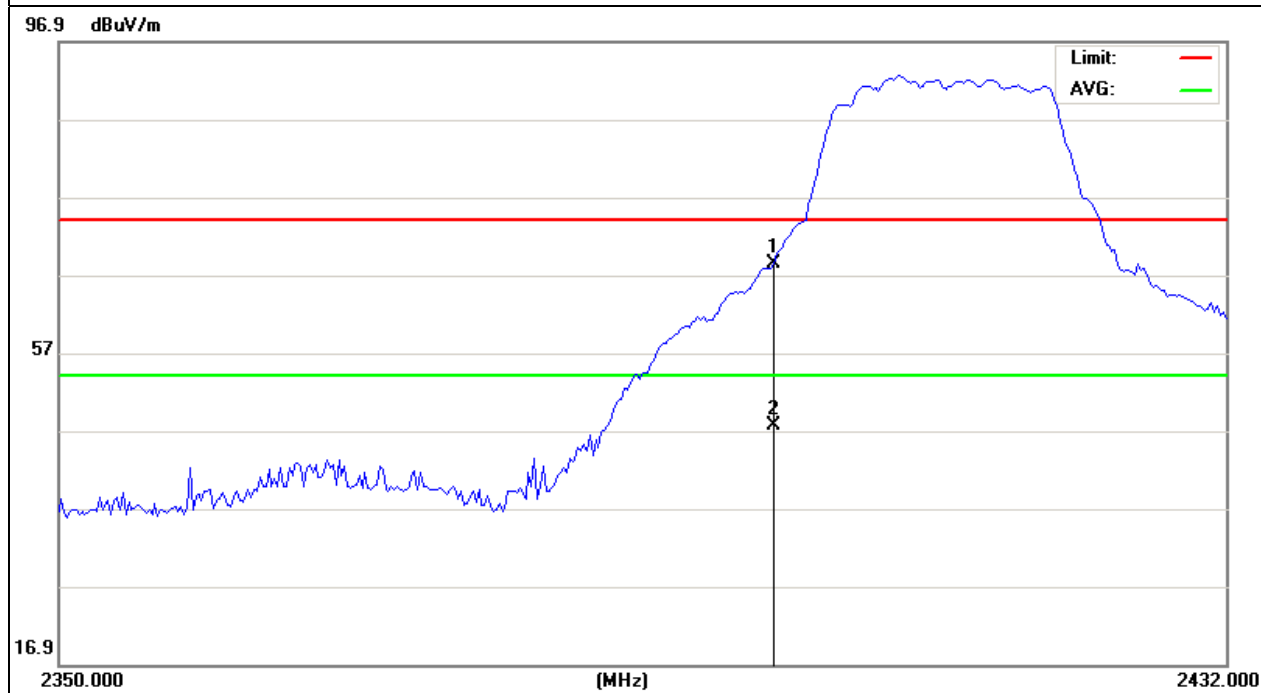


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1(802.11g Mode)	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400	66.94	-0.69	66.25	74	-7.75	peak
2400	48.19	-0.69	47.5	54	-6.5	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

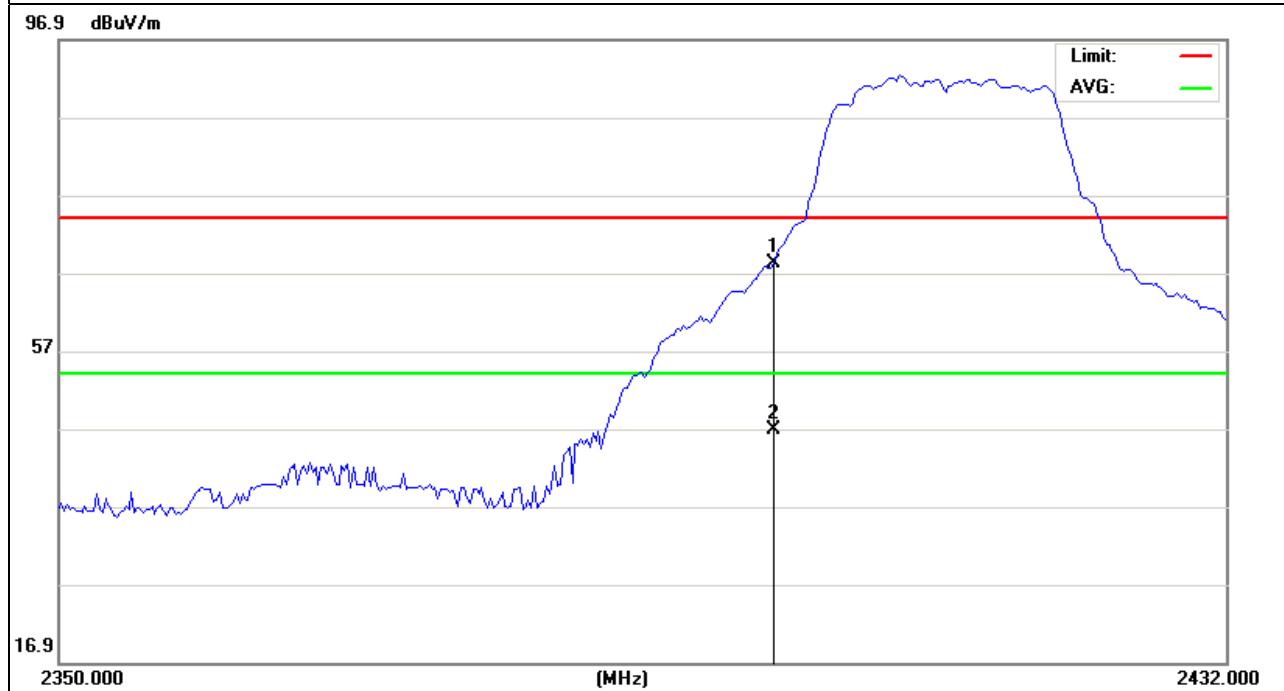


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH1(802.11gMode)	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400	68.54	-0.69	67.85	74	-6.15	peak
2400	46.68	-0.69	45.99	54	-8.01	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

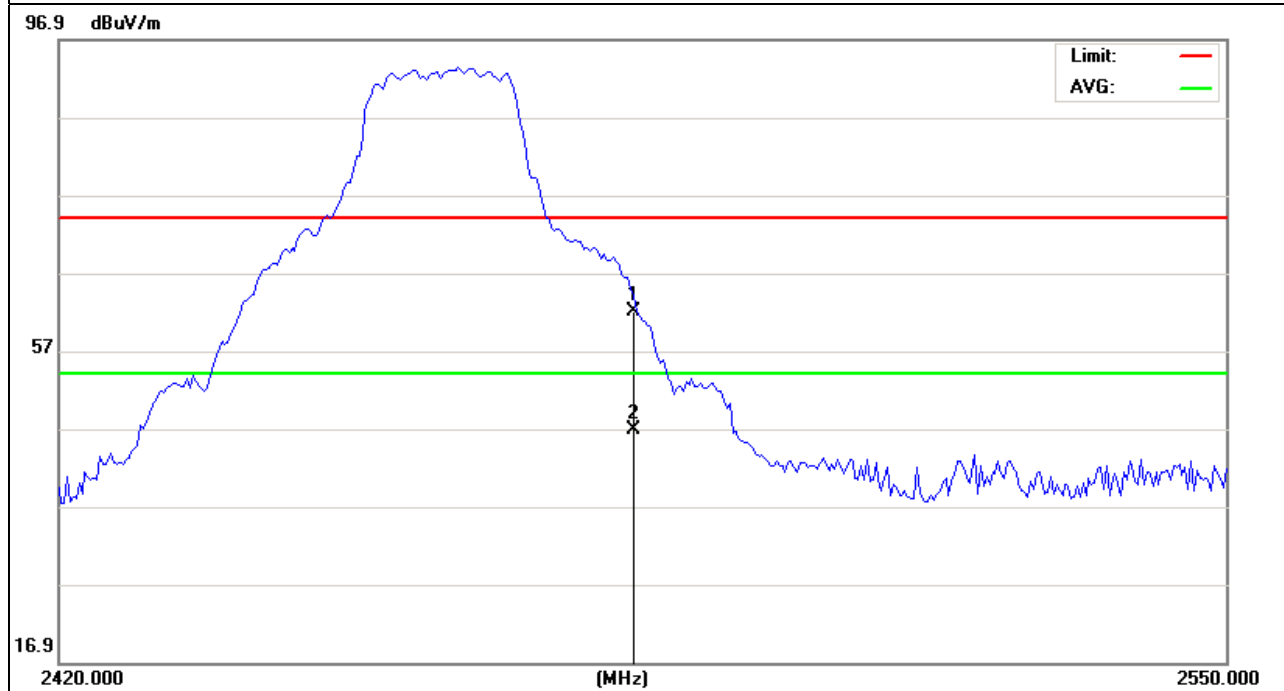


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11(802.11g Mode)	Polarization :	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.5	62.38	-0.47	61.91	74	-12.09	peak
2483.5	47.24	-0.47	46.77	54	-7.23	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.

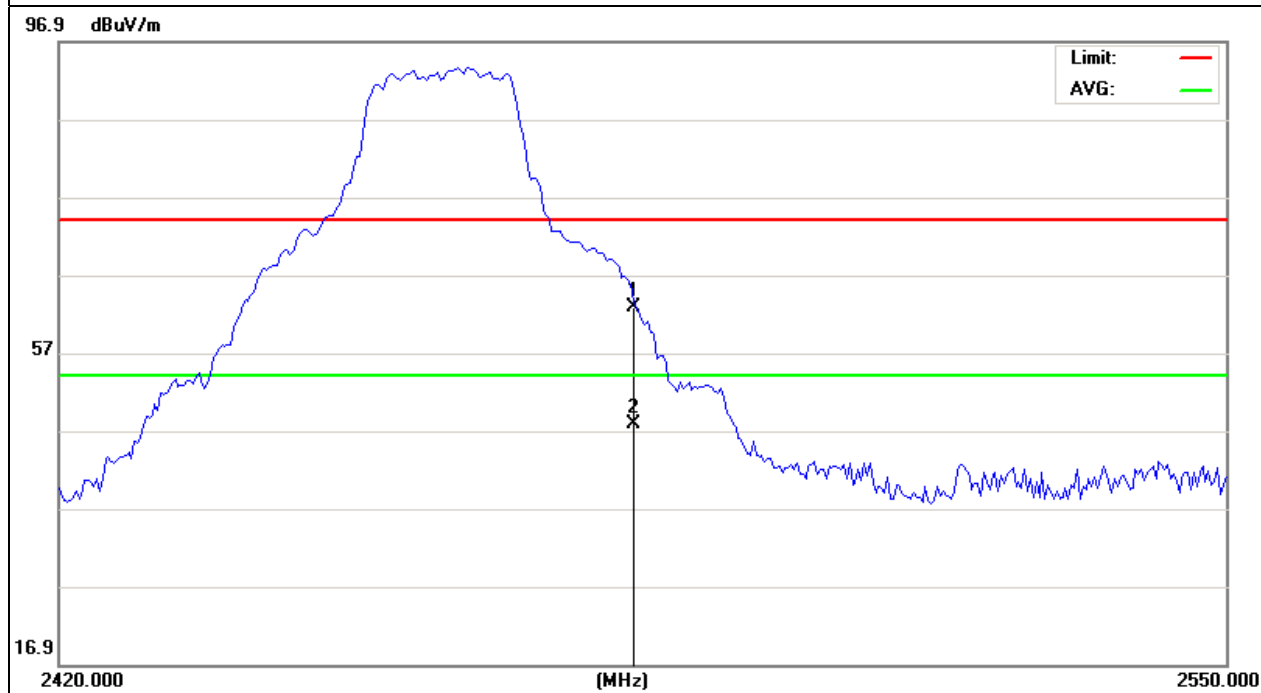


EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	CH11(802.11g Mode)	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.5	63.3	-0.47	62.83	74	-11.17	peak
2483.5	48.27	-0.47	47.8	54	-6.2	AVG

Remark:

Factor = Antenna Factor + Cable Loss – Pre-amplifier.



5. POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RB	100 kHz
VB	300 kHz
Span	5-30 % greater than the EBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- Spectrum Setting : RBW= 100KHz, VBW=300KHz, Sweep time = auto

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

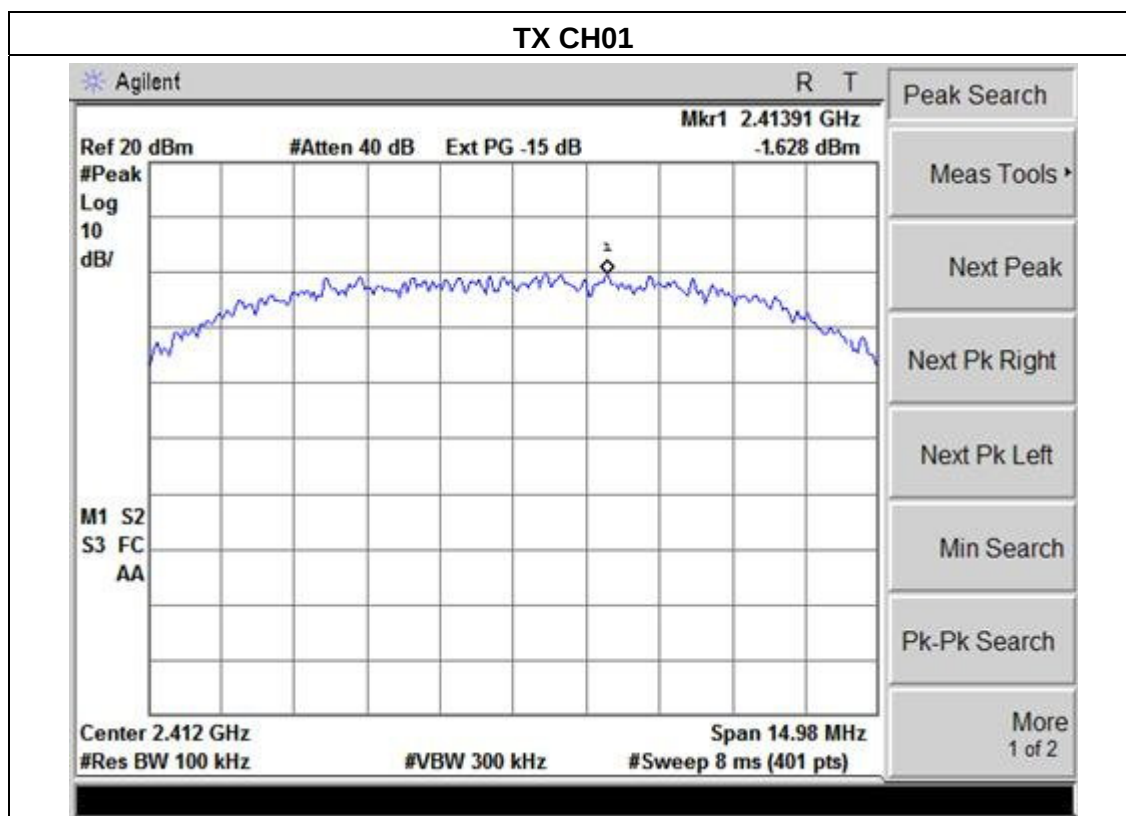
5.1.5 TEST RESULTS

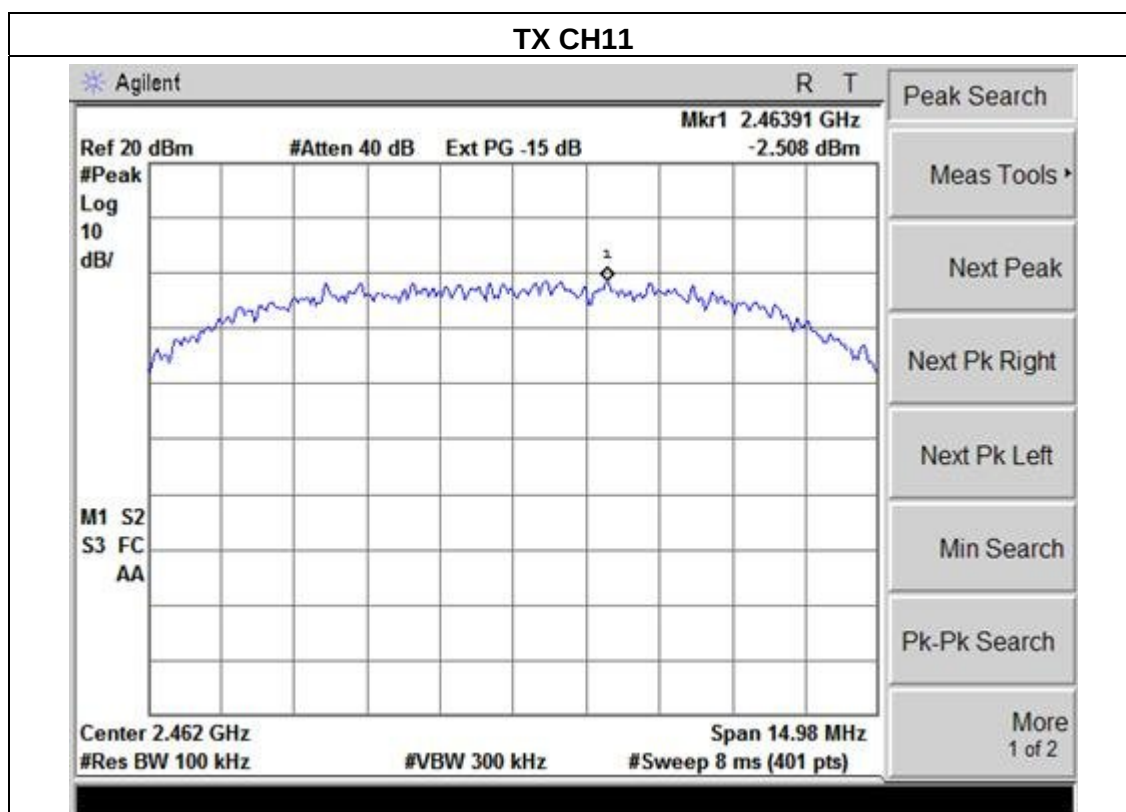
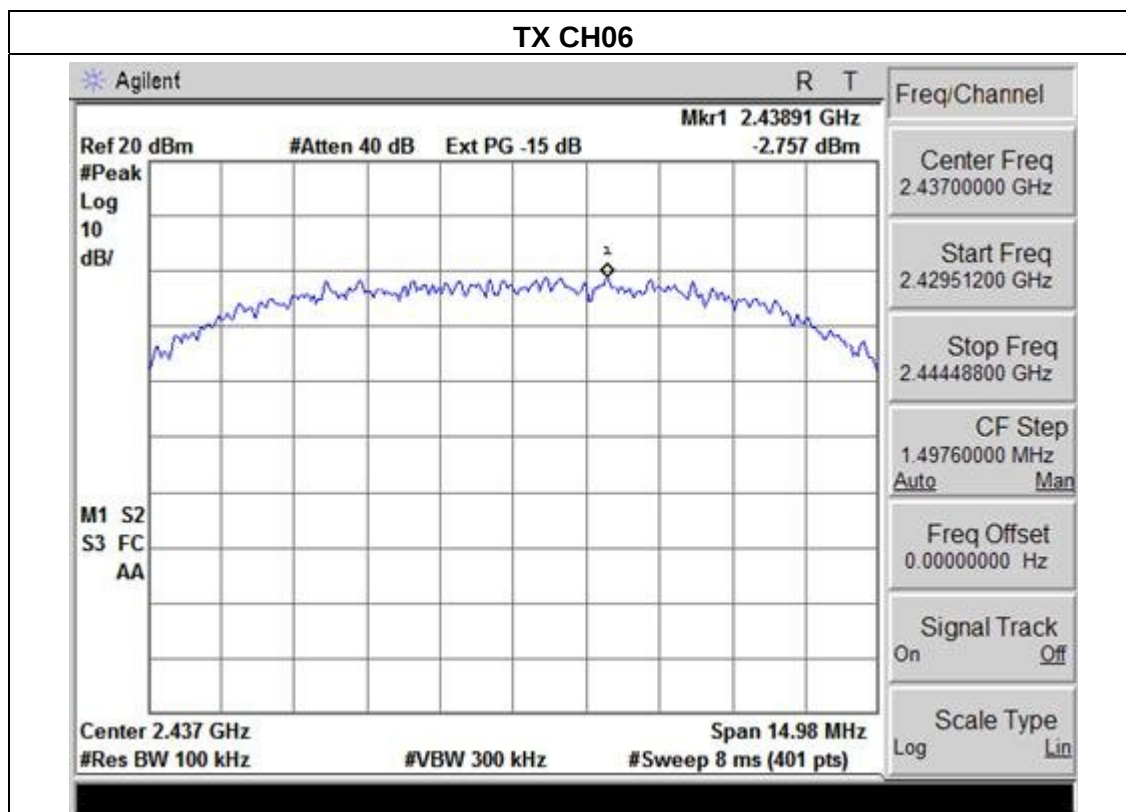
EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX B MODE /CH01, CH06, CH11		

Frequency	Power Density (dBm)	PSD/ 3KHz (dBm)	Limit (dBm)	Result
2412 MHz	-1.628	-16.828	8	PASS
2437 MHz	-2.757	-17.957	8	PASS
2462 MHz	-2.508	-17.708	8	PASS

Note:

BWCF = $10\log(3\text{ kHz}/100\text{ kHz} = -15.2\text{ dB})$.



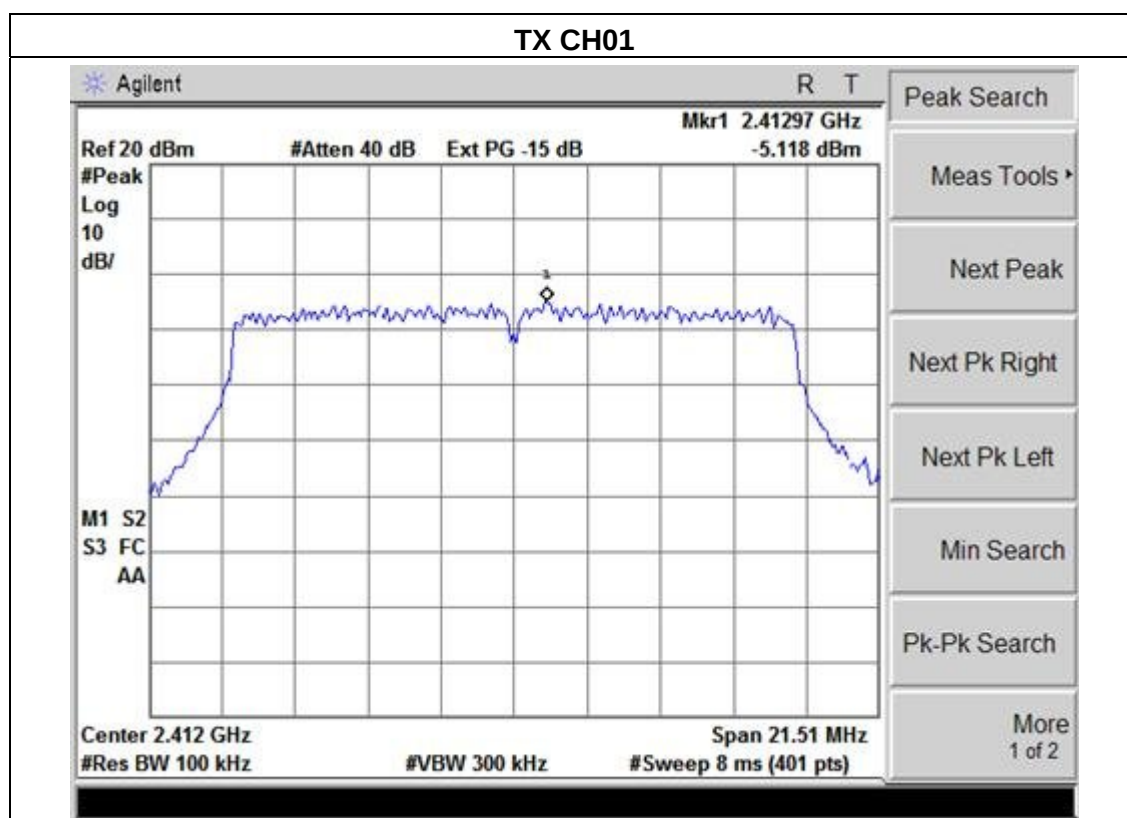


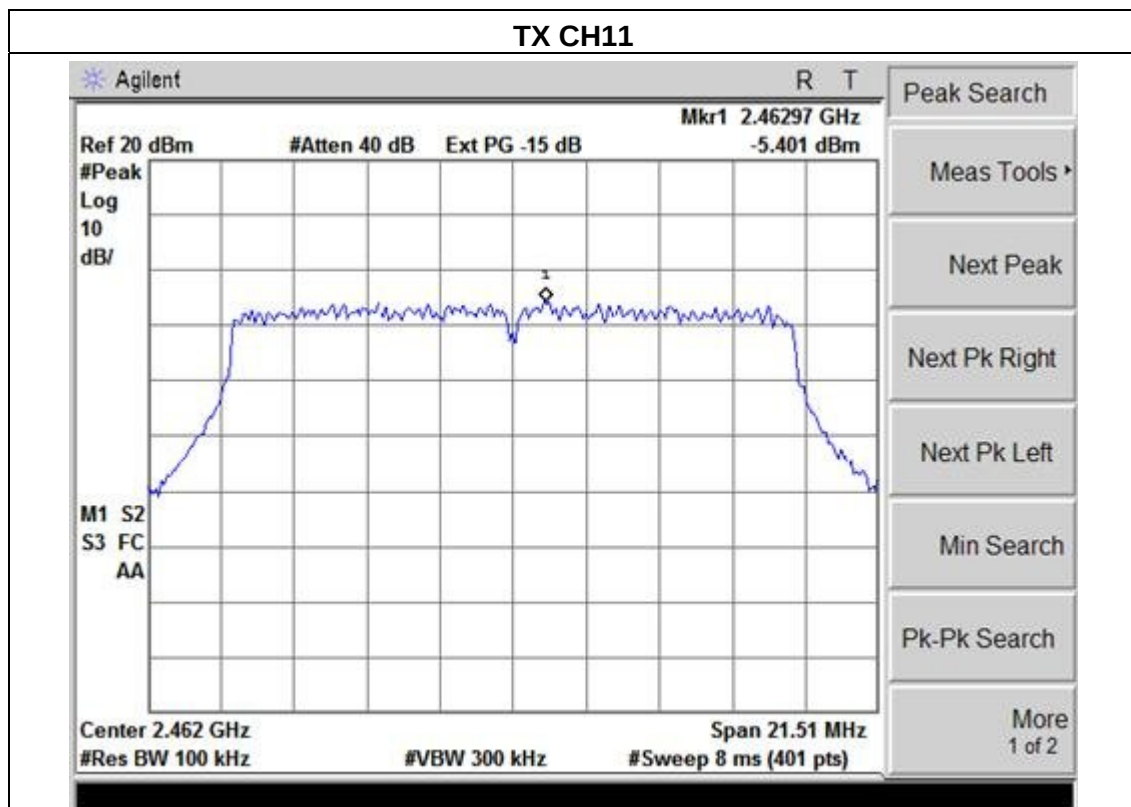
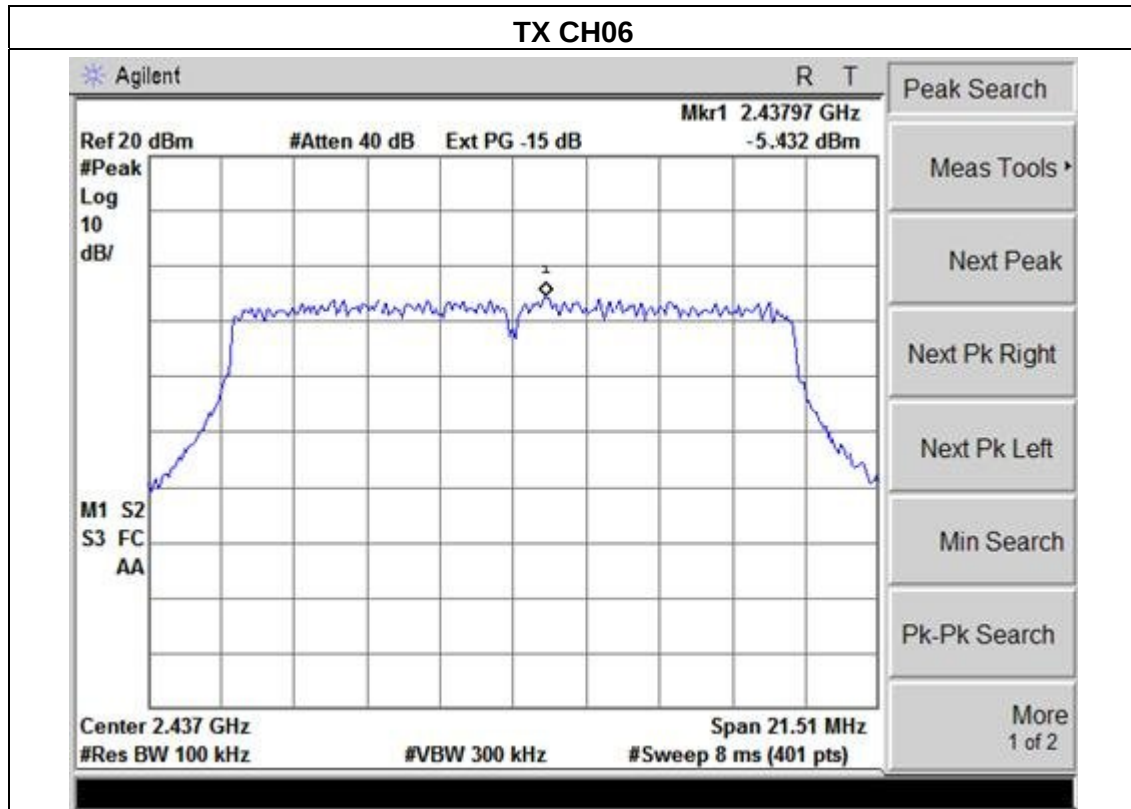
EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1015 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX G MODE /CH01, CH06, CH11		

Frequency	Power Density (dBm)	PSD/ 3KHz (dBm)	Limit (dBm)	Result
2412 MHz	-5.118	-20.318	8	PASS
2437 MHz	-5.432	-20.633	8	PASS
2462 MHz	-5.401	-20.601	8	PASS

Note:

BWCF = $10\log(3\text{ kHz}/100\text{ kHz}) = -15.2\text{ dB}$.





6. BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	1-5 % of the emission bandwidth (EBW)
VB	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

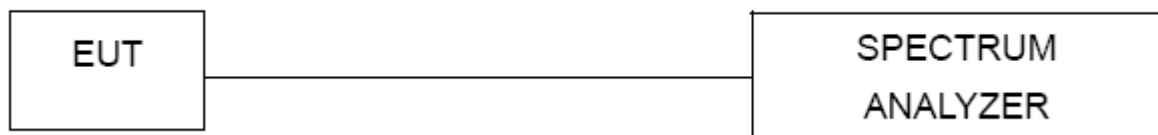
6.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



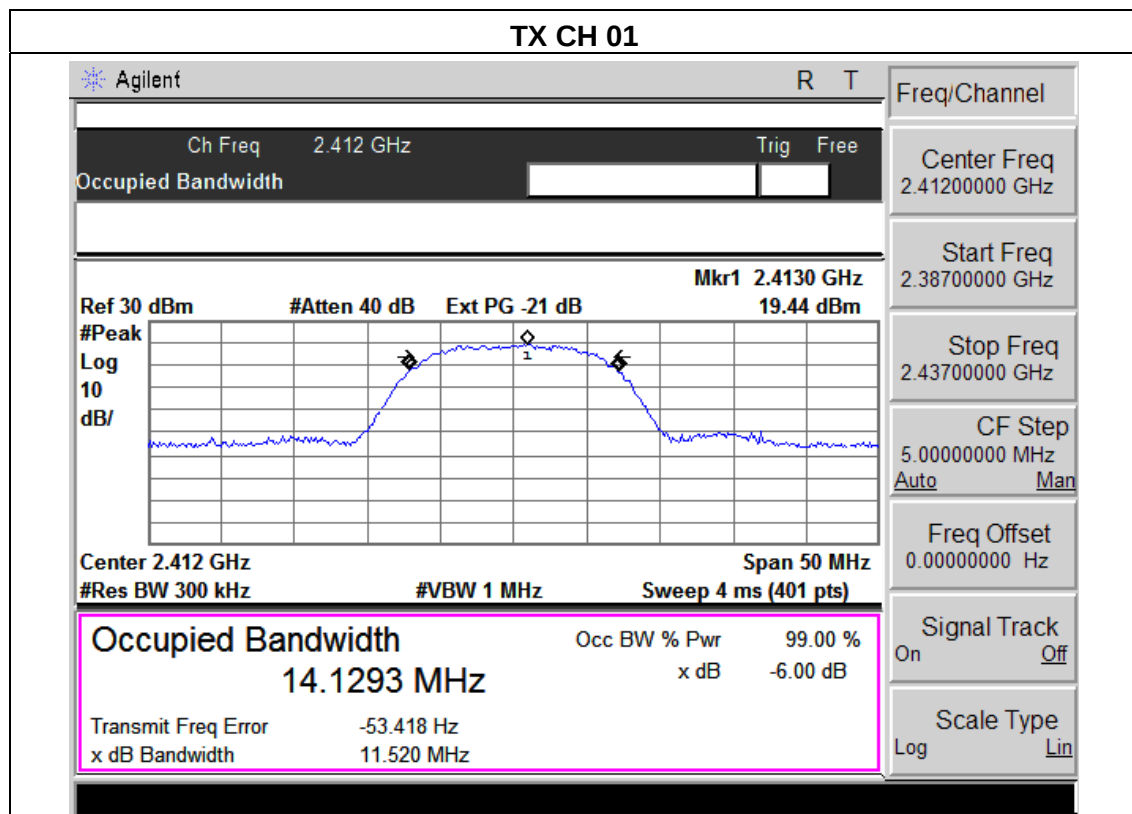
6.1.4 EUT OPERATION CONDITIONS

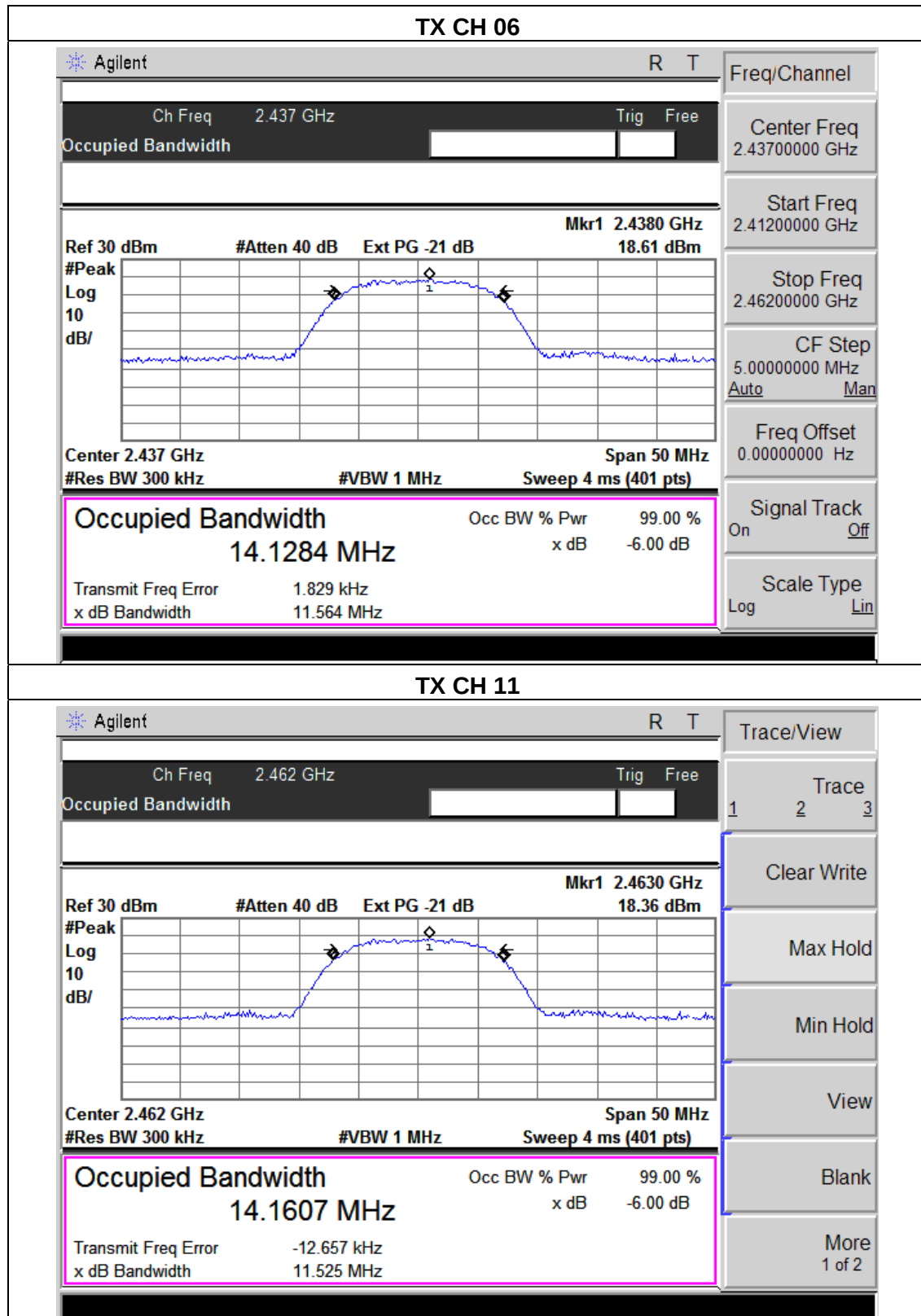
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX B MODE /CH01, CH06, CH11		

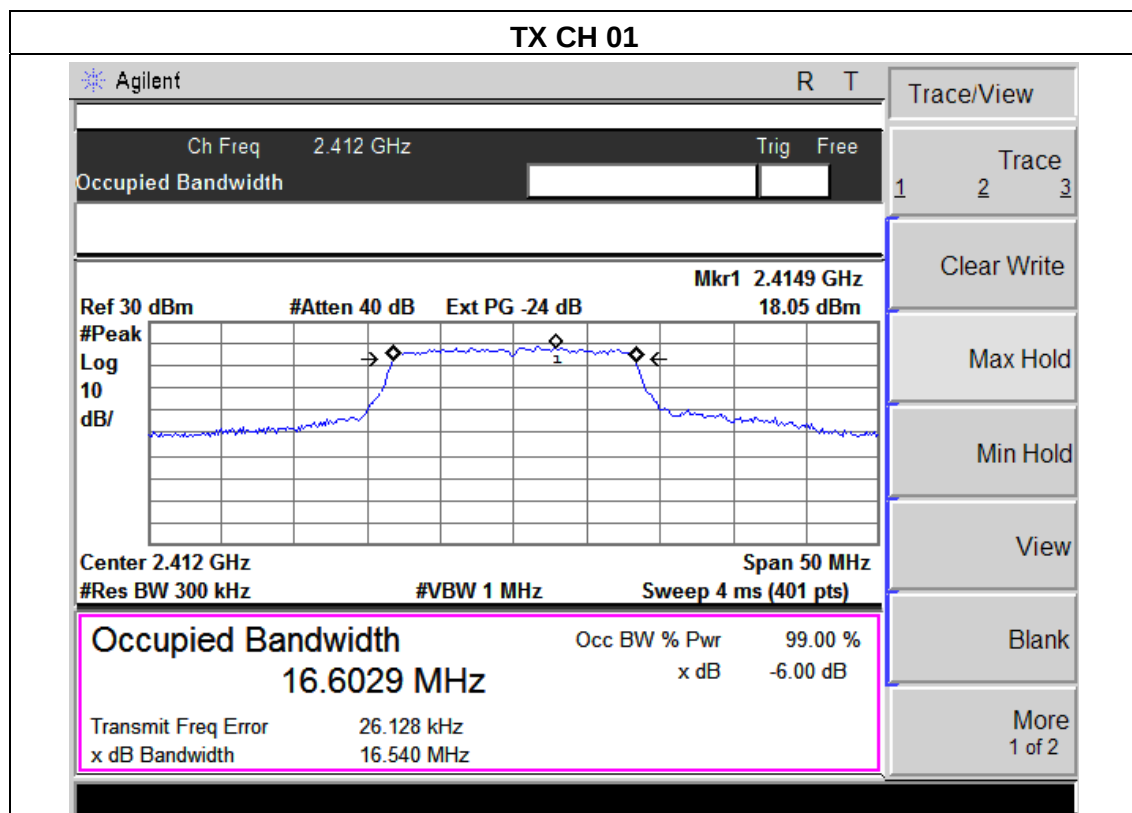
Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	11.52	>=500KHz	PASS
2437 MHz	11.564	>=500KHz	PASS
2462 MHz	11.525	>=500KHz	PASS

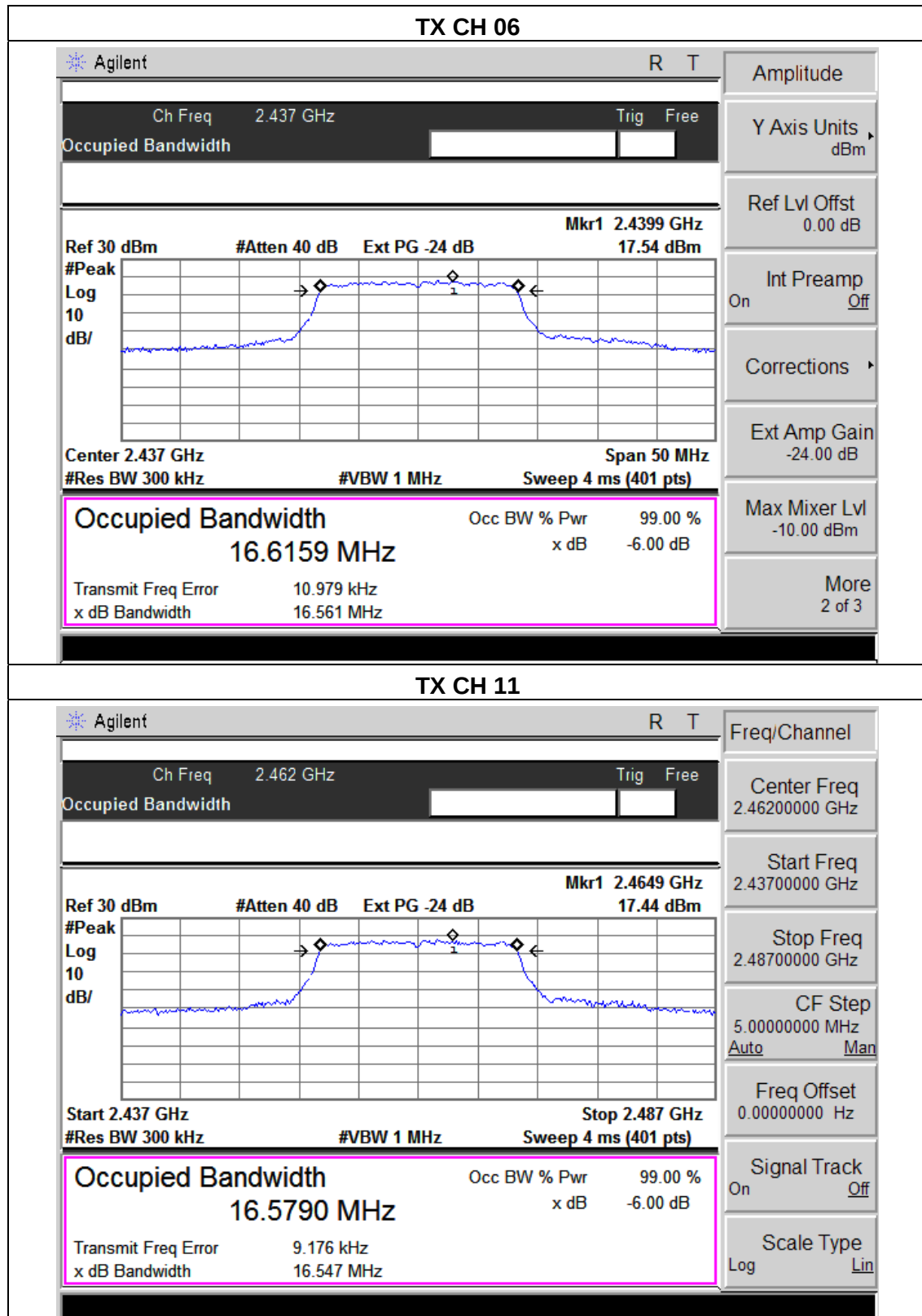




EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX G MODE /CH01, CH06, CH11		

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	16.54	>=500KHz	PASS
2437 MHz	16.561	>=500KHz	PASS
2462 MHz	16.547	>=500KHz	PASS





7. PEAK OUTPUT POWER TEST

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(1)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the Power meter

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

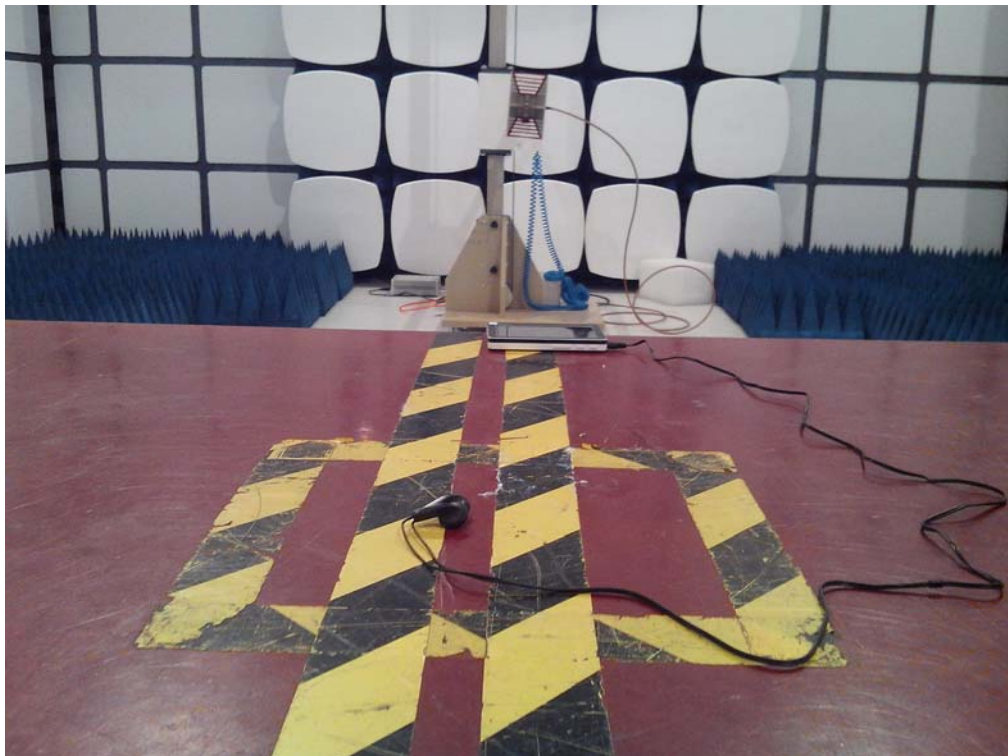
7.1.5 TEST RESULTS

EUT :	4.3inch Tablet PC	Model Name :	LT4304
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V by battery
Test Mode :	TX B/G MODE /CH01, CH06, CH11		

TX 802.11b Mode					
Test Channel	Frequency	Peak output power. Antenna	Antenna Gain	EIRP	LIMIT
	(MHz)	(dBm)	dBi	dBm	dBm
CH01	2412	10.84	2	12.84	30
CH06	2437	10.36	2	12.36	30
CH11	2462	10.18	2	12.18	30
TX 802.11g Mode					
CH01	2412	7.12	2	9.12	30
CH06	2437	7.62	2	9.62	30
CH11	2462	7.85	2	9.85	30

8. EUT TEST PHOTO

Radiated Measurement Photos



Conducted Measurement Photos

