

APPLICATION CERTIFICATION
On Behalf of
Kintech Co. Ltd

Tablet PC

Model No.:PC7021, PC7021ME, PC7023ME, KW-PC7005C, KW-PC7021C, KW-PC7022C,
PC7023, KW-PC7023C, KW-PC7024C, KW-PC7025C, KW-PC7026C, KW-PC7027C, KW
-PC7028C, KW-PC7029C, KW-PC7030C, KW-PC7031C, KW-PC7032C, KW-PC7033C, K
W-PC7034C, KW-PC7035C

FCC ID: BRCPC7023ME

Prepared for : Kintech Co. Ltd
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Report Number : ATE20130026
Date of Test : Jan 6- Jan 16, 2013
Date of Report : Jan 16, 2013

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Test Report Certification

Applicant : Kintech Co. Ltd

Manufacturer : Kintech Co. Ltd

EUT Description : Tablet PC

(A) MODEL NO.: PC7021, PC7023, PC7021ME, PC7023ME, KW-PC7005C, KW-PC7021C, KW-PC7022C, KW-PC7023C, KW-PC7024C, KW-PC7025C, KW-PC7026C, KW-PC7027C, KW-PC7028C, KW-PC7029C, KW-PC7030C, KW-PC7031C, KW-PC7032C, KW-PC7033C, KW-PC7034C, KW-PC7035C

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 3.7V (Li-polymer battery) & AC 120V/60Hz (Adapter input)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.4: 2009

ANSI C63.10: 2009

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Jan 6- Jan 16, 2013

Prepared by :

Terry. Yang

(Engineer)

Approved & Authorized Signer :

Seamless

(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	Tablet PC
Model Number	:	PC7021,PC7023,PC7021ME, PC7023ME, KW-PC7005C, KW-PC7021C, KW-PC7022C, KW-PC7023C, KW-PC7024C, KW-PC7025C, KW-PC7026C, KW-PC7027C, KW-PC7028C, KW-PC7029C, KW-PC7030C, KW-PC7031C, KW-PC7032C, KW-PC7033C, KW-PC7034C, KW-PC7035C
		Note: These models are identical in interior structure, electrical circuits and components, and just model names, the plastics appearances such as color, shape are different for the marketing requirement. So we prepare PC7023ME for test only
Frequency Band	:	2402MHz-2480MHz (Bluetooth) 2412MHz-2462MHz (WIFI)
Number of Channels	:	79(Bluetooth) 11 (WIFI)
Antenna Gain	:	0dBi
Power Supply	:	DC 3.7V (Li-polymer battery) & AC 120V/60Hz (Adapter input)
Adapter	:	Model number: JKY0212-0502000UL Input: 100-240VAC ~ 50/60Hz 0.3A MAX Output: 5.0V 2000mA
Applicant	:	Kintech Co. Ltd
Address	:	1F-5F, Bldg 22, Chen Tian Industrial Zone, Xi Xiang Bao An District, Shenzhen, Guang Dong, China
Manufacturer	:	Kintech Co. Ltd
Address	:	1F-5F, Bldg 22, Chen Tian Industrial Zone, Xi Xiang Bao An District, Shenzhen, Guang Dong, China
Date of sample received	:	Jan 6, 2013
Date of Test	:	Jan 6- Jan 16, 2013

1.2. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee
for Laboratories
The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

1.3. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2
(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated date	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 12, 2013	Jan. 12, 2014
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 12, 2013	Jan. 12, 2014
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 12, 2013	Jan. 12, 2014
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 12, 2013	Jan. 12, 2014
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 12, 2013	Jan. 12, 2014
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 12, 2013	Jan. 12, 2014
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 12, 2013	Jan. 12, 2014
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 12, 2013	Jan. 12, 2014
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 12, 2013	Jan. 12, 2014
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 12, 2013	Jan. 12, 2014

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: Transmitting mode

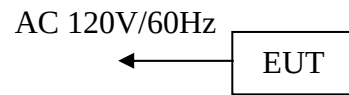
Low Channel: 2402MHz

Middle Channel: 2441MHz

High Channel: 2480MHz

Hopping

3.2.Configuration and peripherals



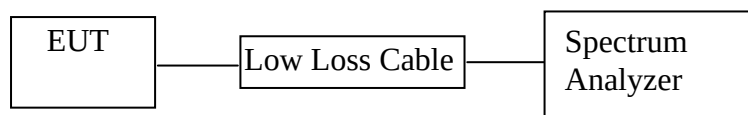
(EUT: Tablet PC)

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission Test	Compliant
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	Maximum Peak Output Power Test	Compliant
Section 15.247(d) Section 15.209	Radiated Emission Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 20DB BANDWIDTH TEST

5.1. Block Diagram of Test Setup



(EUT: Tablet PC)

5.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

5.3. EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

5.5. Test Procedure

5.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

5.5.2. Set RBW of spectrum analyzer to 30 kHz and VBW to 100 kHz.

5.5.3. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

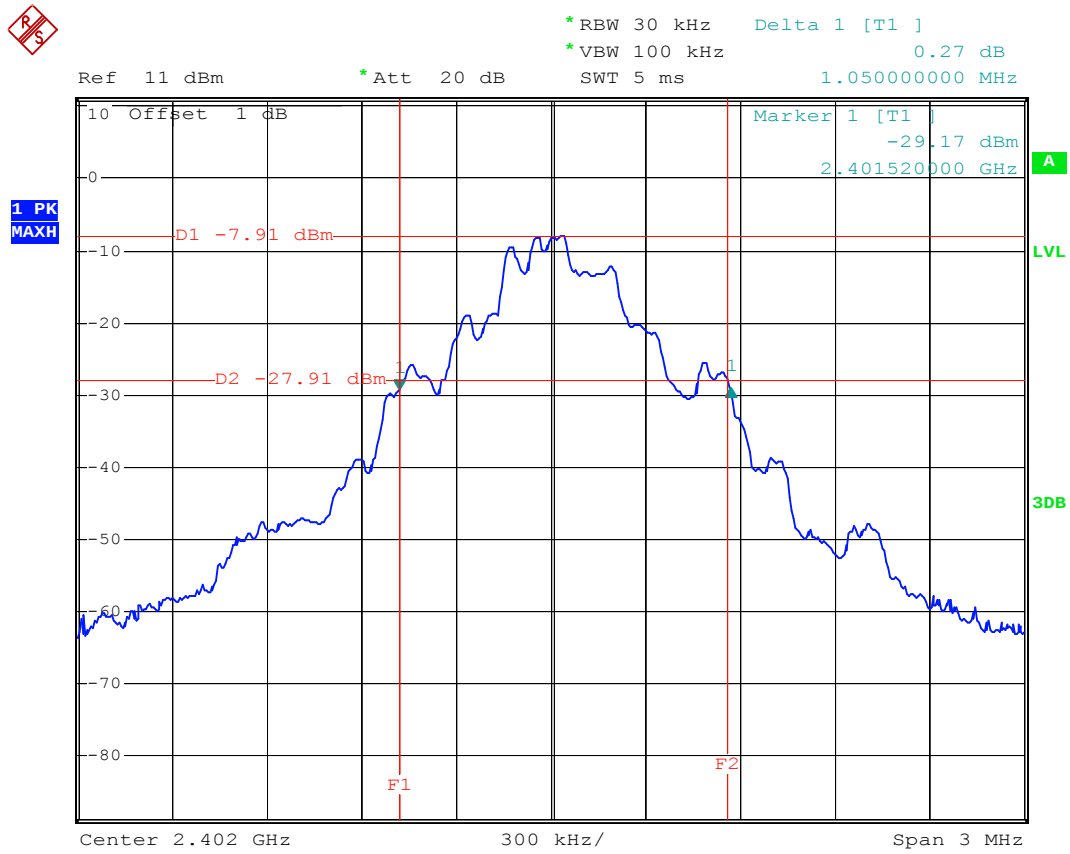
5.6. Test Result

PASS.

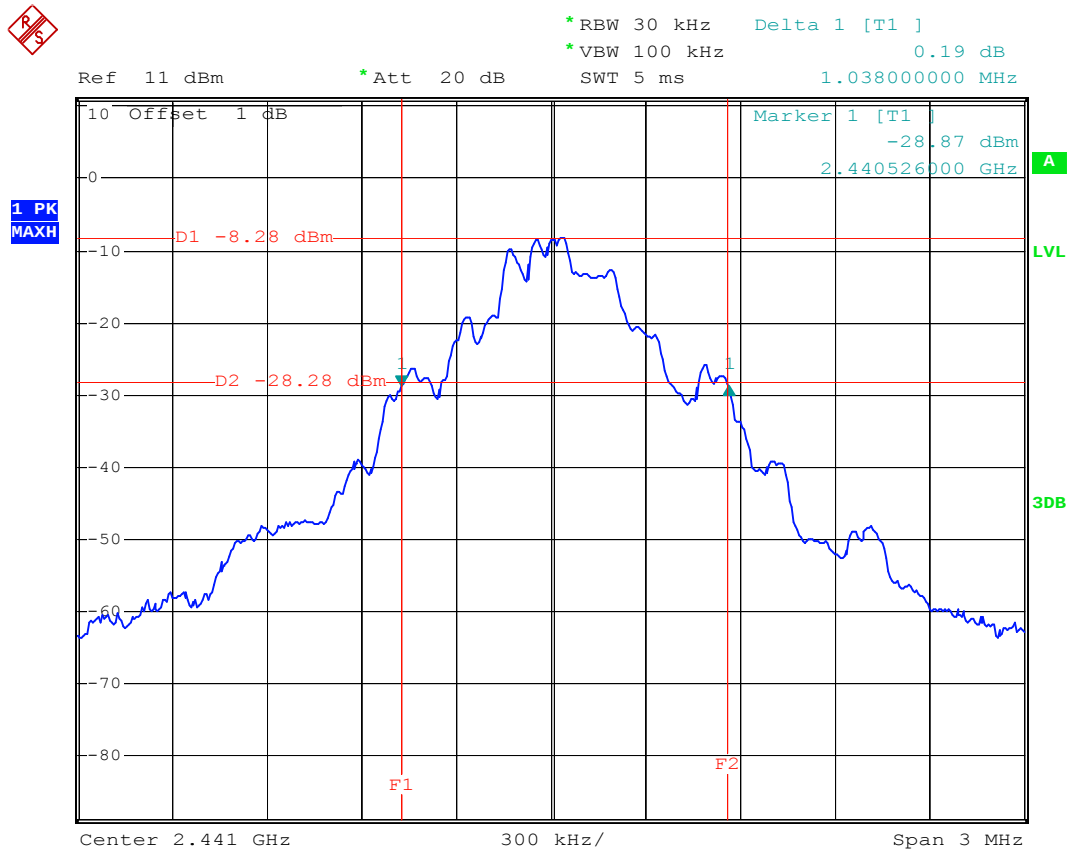
Date of Test:	Jan 9, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX	Test Engineer:	Ricky

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
Low	2402	1.050	---
Middle	2441	1.038	---
High	2480	1.038	---

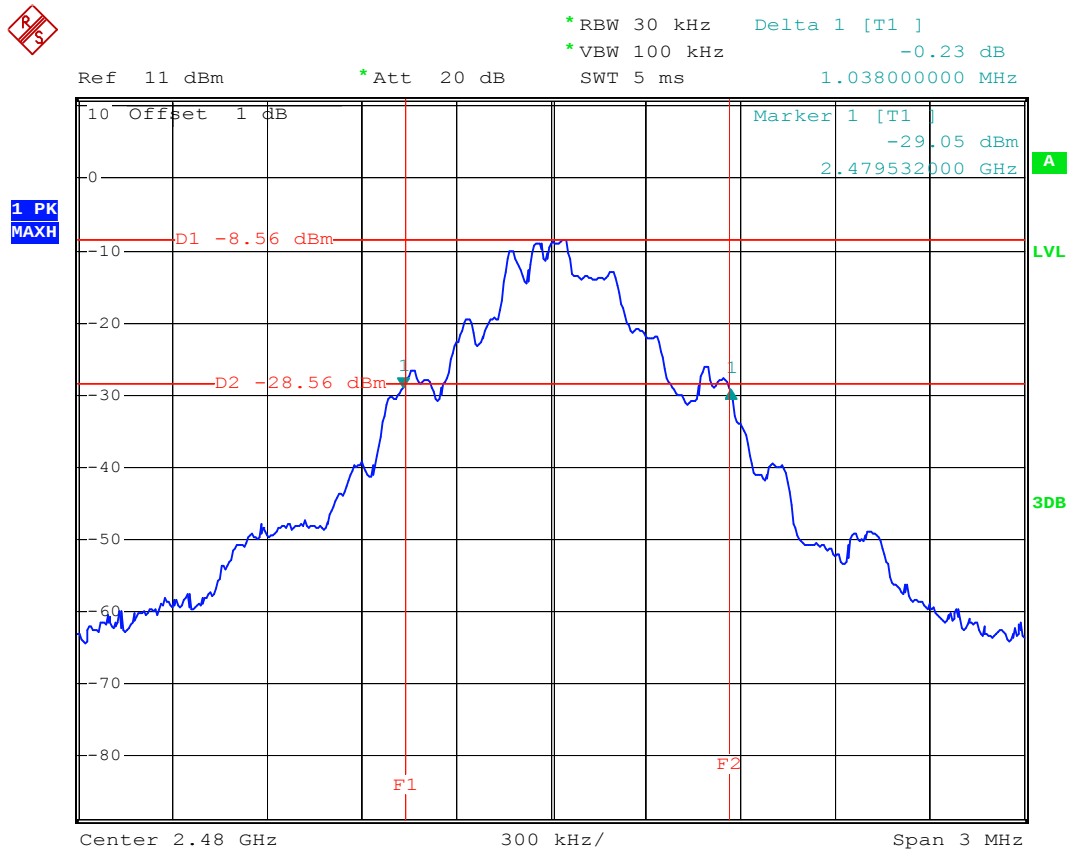
The spectrum analyzer plots are attached as below.



Date: 9.JAN.2013 14:43:54



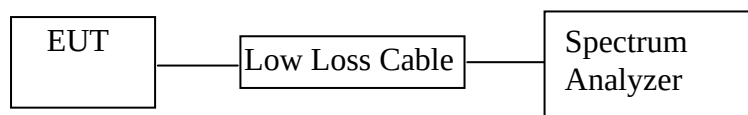
Date: 9.JAN.2013 15:11:19



Date: 9.JAN.2013 15:27:11

6. CARRIER FREQUENCY SEPARATION TEST

6.1. Block Diagram of Test Setup



(EUT: Tablet PC)

6.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

6.3. EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.3.1. Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

6.5. Test Procedure

6.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz. Adjust Span to 3 MHz.

6.5.3. Set the adjacent channel of the EUT maxhold another trace.

6.5.4. Measurement the channel separation

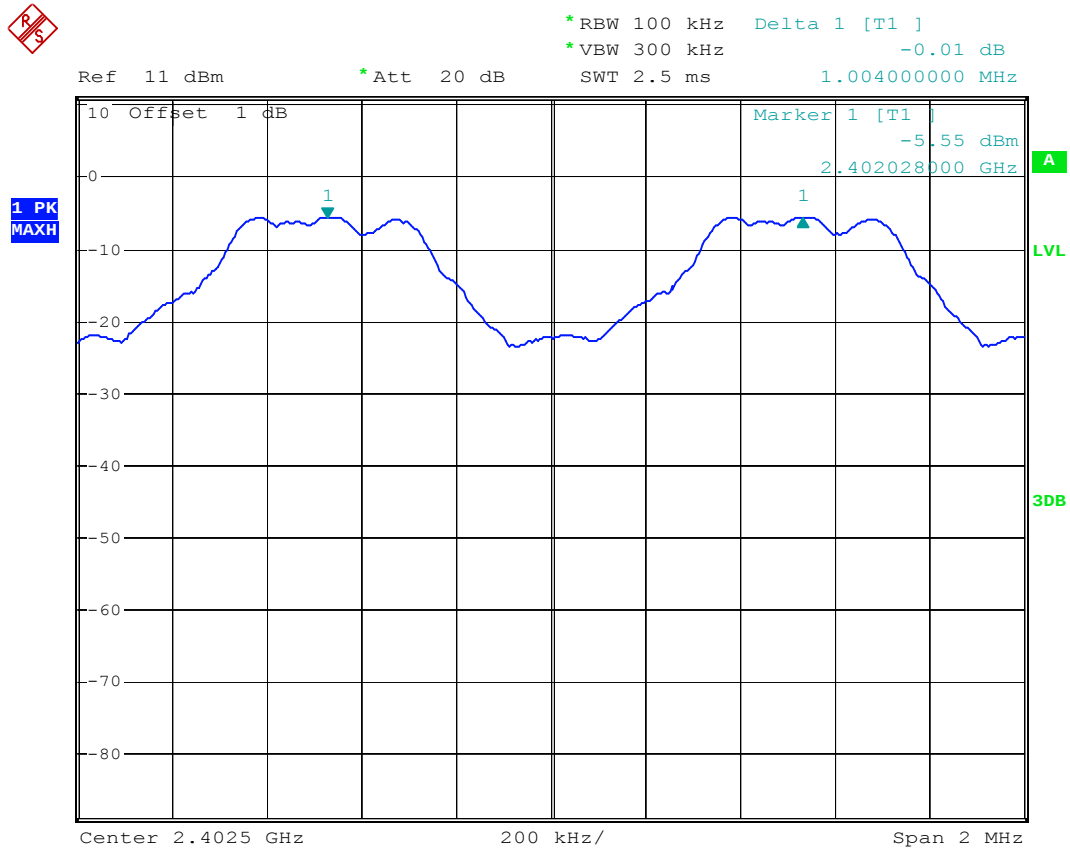
6.6. Test Result

PASS.

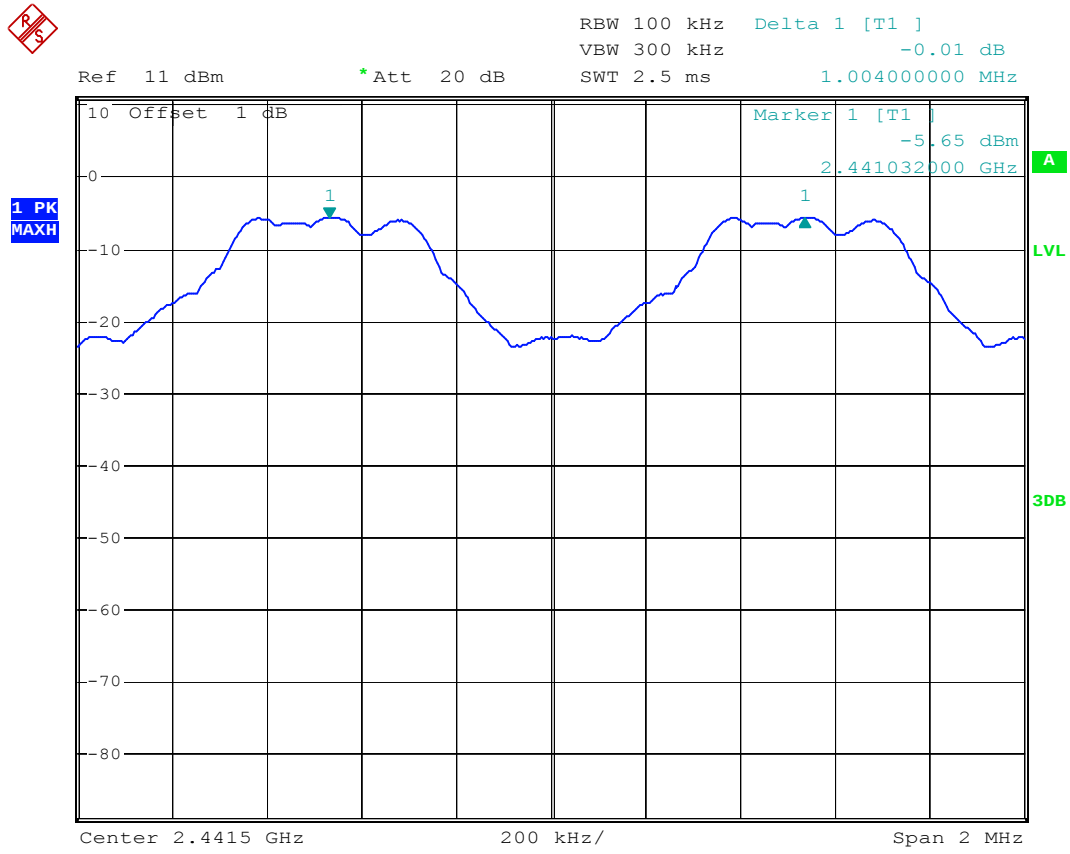
Date of Test:	Jan 9-Jan 10, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX	Test Engineer:	Ricky

Channel	Channel Frequency (MHz)	Channel separation (MHz)	Limit (MHz)
Low	2402	1.004	0.7573
Middle	2441	1.004	0.7547
High	2480	1.004	0.7547

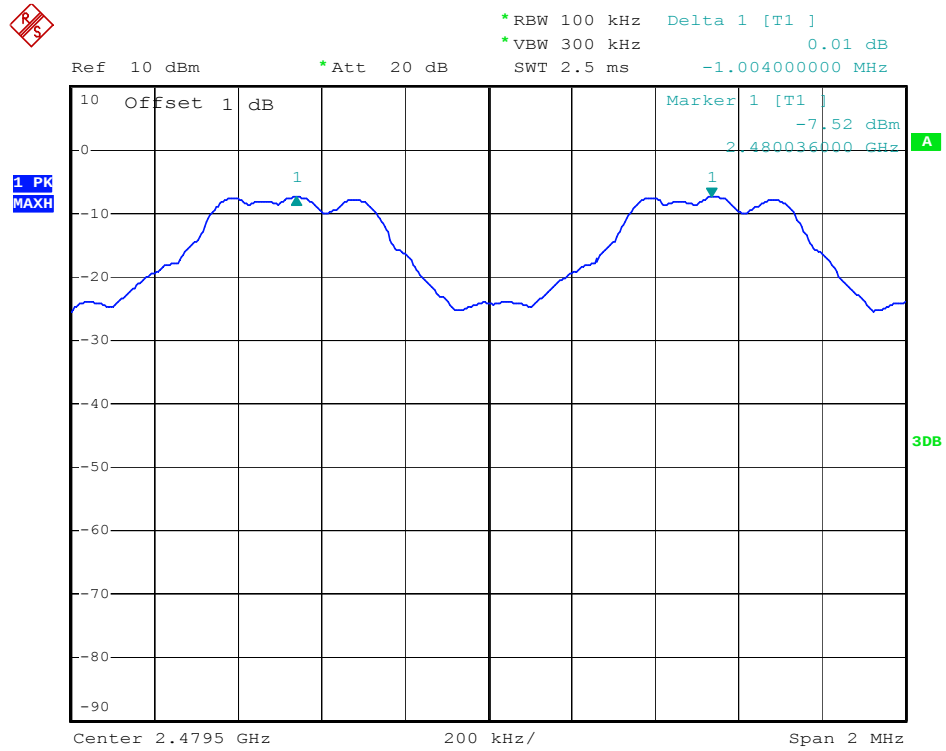
The spectrum analyzer plots are attached as below.



Date: 9.JAN.2013 14:55:42



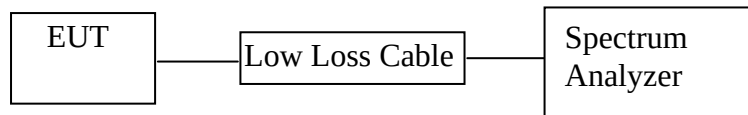
Date: 10.JAN.2013 14:38:05



Date: 9.JAN.2013 15:41:47

7. NUMBER OF HOPPING FREQUENCY TEST

7.1. Block Diagram of Test Setup



(EUT: Tablet PC)

7.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.3. EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1. Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX (Hopping on) modes measure it.

7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2. Set the spectrum analyzer as Span=83.5MHz, RBW=100 kHz, VBW=300 kHz.

7.5.3. Max hold, view and count how many channel in the band.

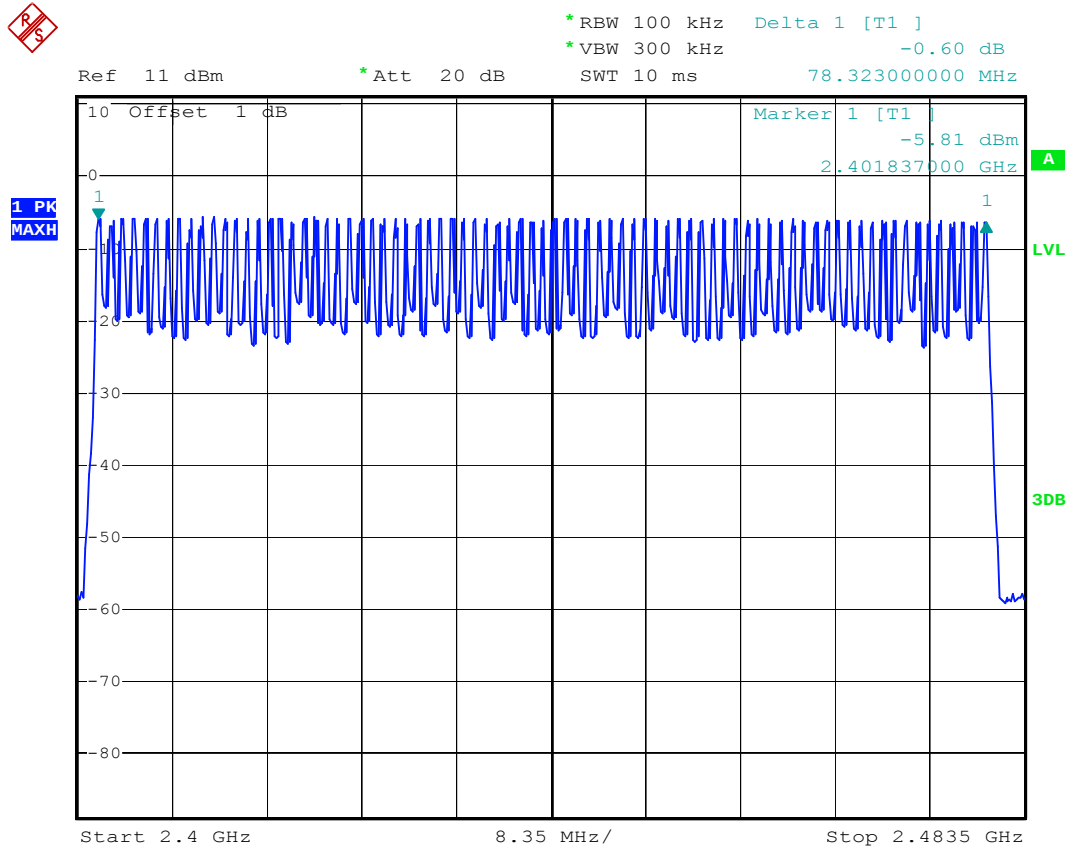
7.6. Test Result

PASS.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>Tablet PC</u>	Humidity:	<u>50%</u>
Model No.:	<u>PC7023ME</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>Hopping</u>	Test Engineer:	<u>Ricky</u>

Total number of hopping channel	Measurement result (CH)	Limit (CH)
	79	>15

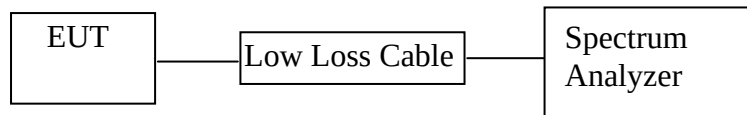
The spectrum analyzer plots are attached as below.



Date: 7.JAN.2013 14:16:39

8. DWELL TIME TEST

8.1. Block Diagram of Test Setup



(EUT: Tablet PC)

8.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

8.3. EUT Configuration on Measurement

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.3.1. Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

8.5. Test Procedure

- 8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 8.5.2. Set center frequency of spectrum analyzer = operating frequency.
- 8.5.3. Set the spectrum analyzer as RBW=100 kHz, VBW=300 kHz, Span=0Hz, Adjust Sweep=1s. Get the burst (in 1 sec.).
- 8.5.4. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=2ms. Get the pulse time.
- 8.5.5. Repeat above procedures until all frequency measured were complete.

8.6. Test Result

PASS.

Date of Test:	<u>Jan 9, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>Tablet PC</u>	Humidity:	<u>50%</u>
Model No.:	<u>PC7023ME</u>	Power Supply:	<u>AC 120V</u>
Test Mode:	<u>TX</u>	Test Engineer:	<u>Ricky</u>

DH1:

A period transmit time = $0.4 \times 79 = 31.6$

Dwell time = pulse time $\times (1600/(2 \times 79)) \times 31.6$

Channel	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
Low	2402	0.402	128.64	400
Middle	2441	0.402	128.64	400
High	2480	0.399	127.68	400

DH3:

A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(4 \times 79)) \times 31.6$

Channel	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
Low	2402	1.672	267.52	400
Middle	2441	1.672	267.52	400
High	2480	1.672	267.52	400

DH5:

A period transmit time = $0.4 \times 79 = 31.6$ Dwell time = pulse time $\times (1600/(6 \times 79)) \times 31.6$

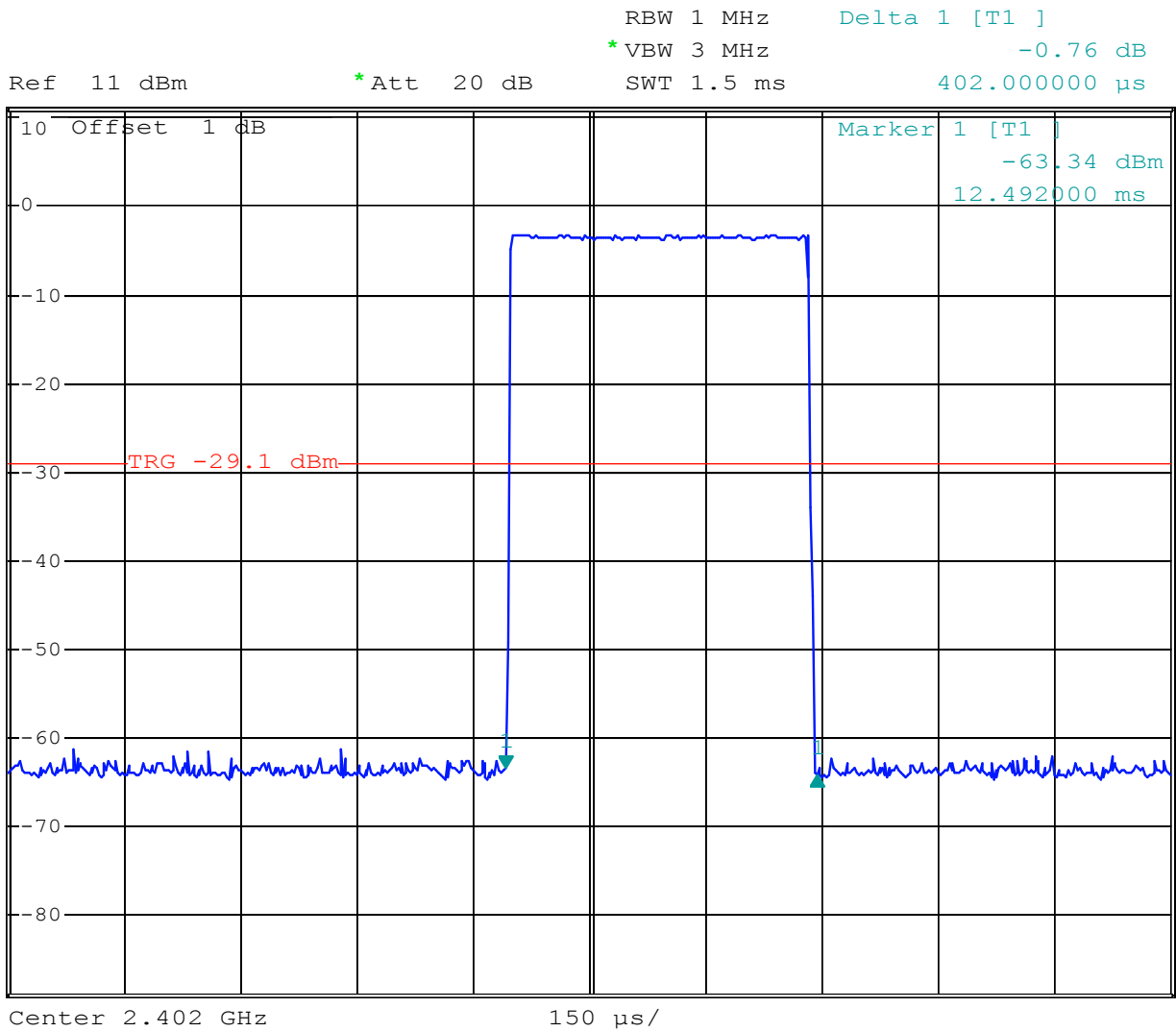
Channel	Channel Frequency (MHz)	Pulse Time (ms)	Dwell Time (ms)	Limit (ms)
Low	2402	2.920	311.467	400
Middle	2441	2.920	311.467	400
High	2480	2.920	311.467	400

The spectrum analyzer plots are attached as below.

DH1:

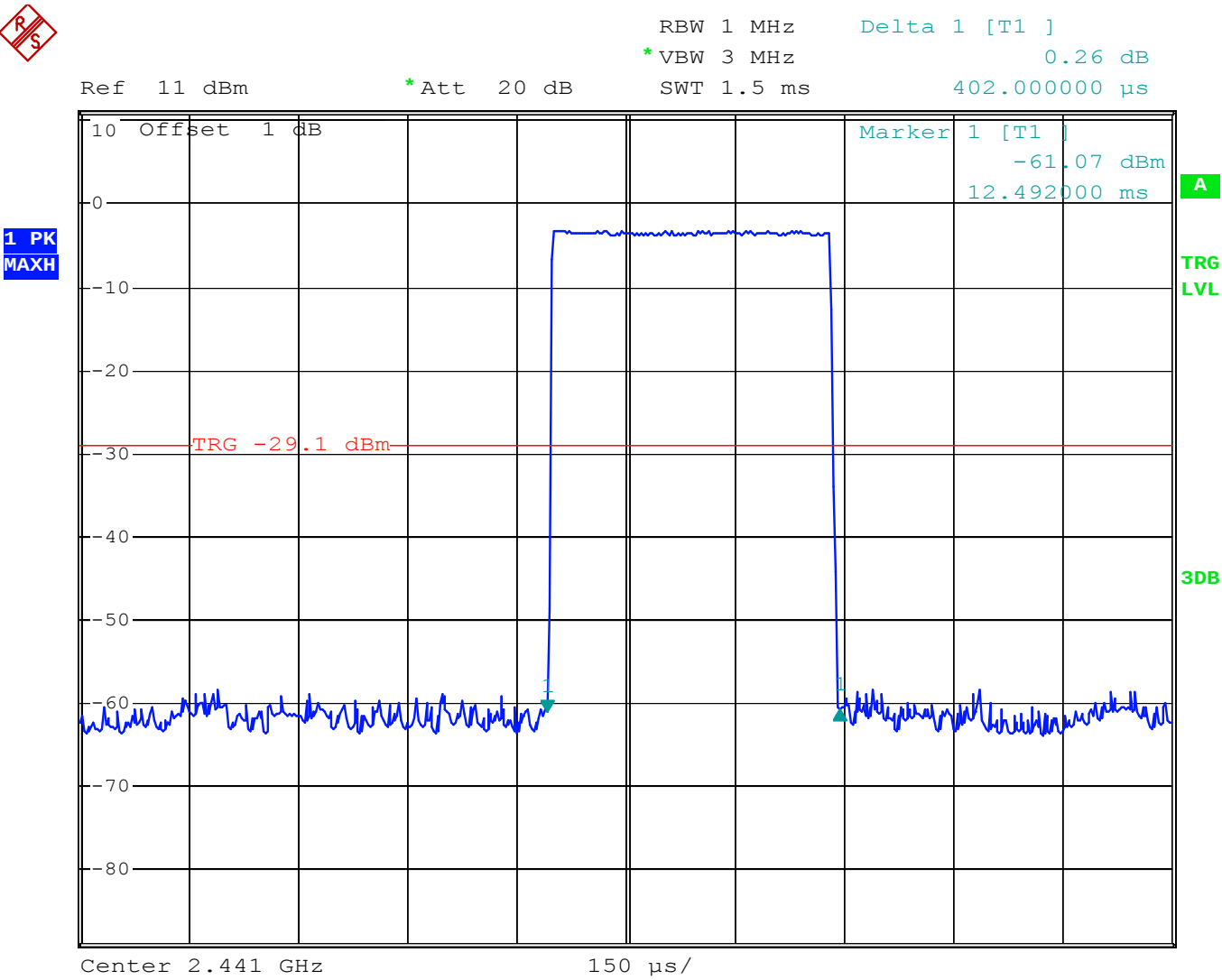


1 PK
MAXH



Date: 9.JAN.2013 16:09:14

DH1:

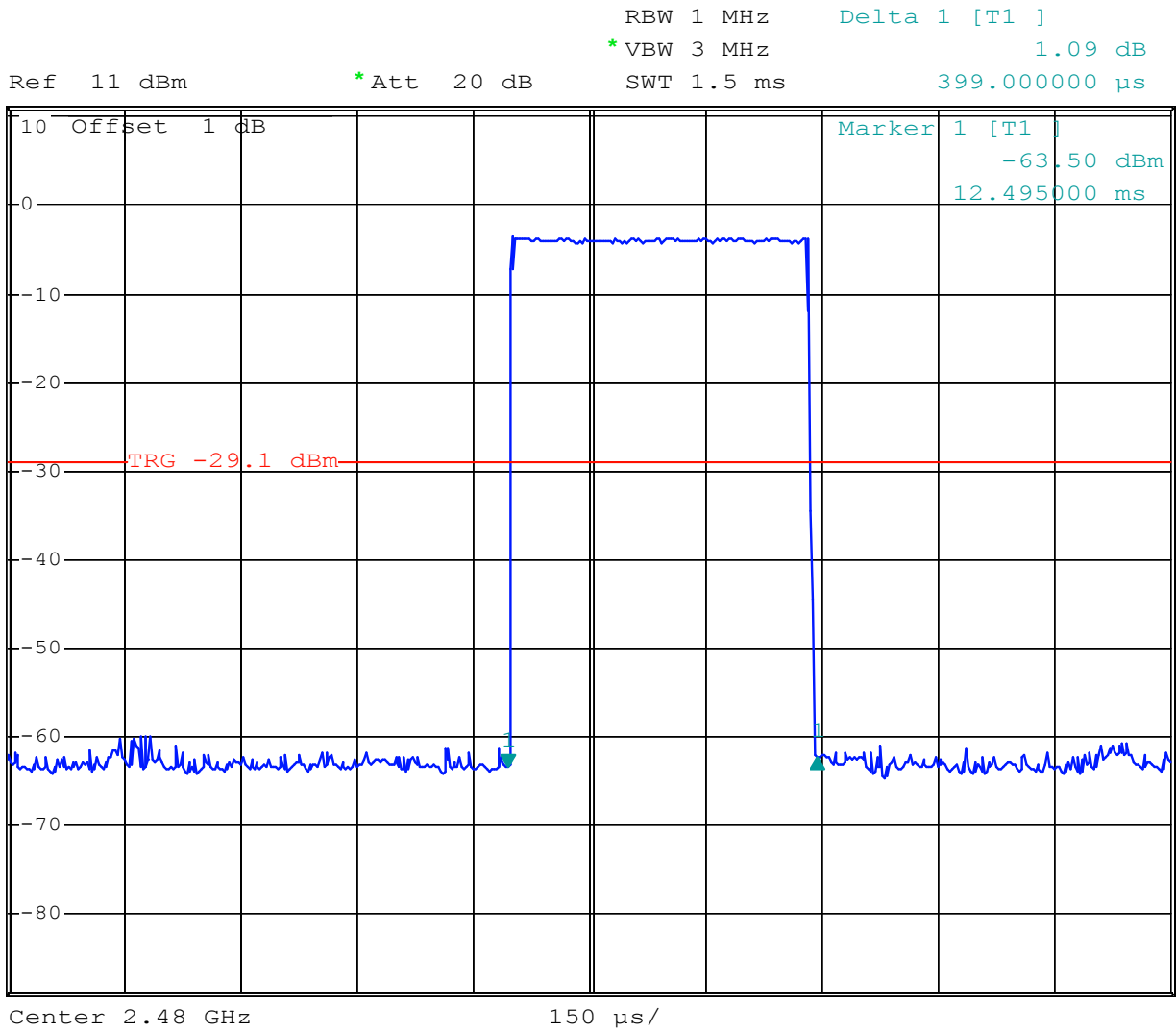


Date: 9.JAN.2013 16:08:39

DH1:



1 PK
MAXH



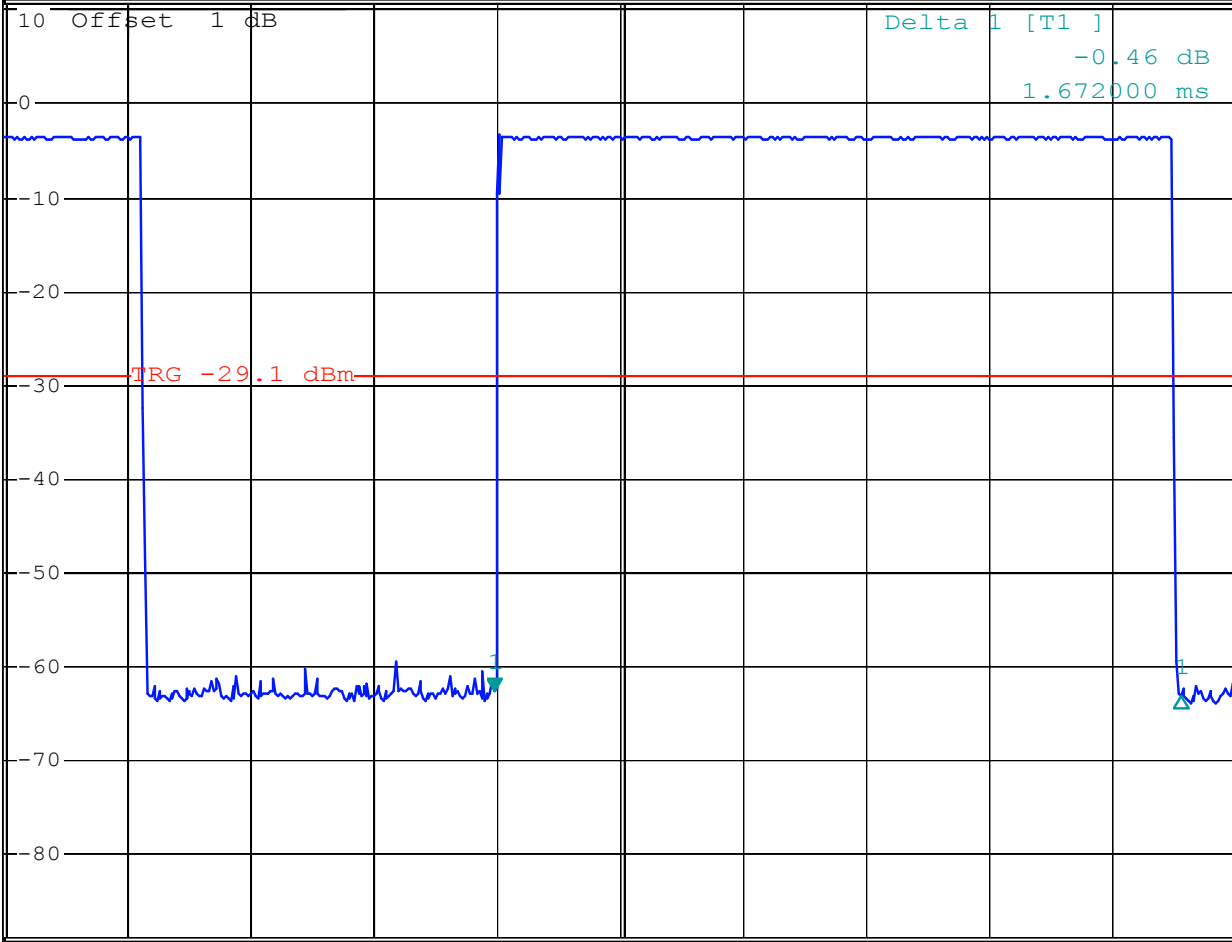
Date: 9.JAN.2013 16:07:19

DH3:



Ref 11 dBm *Att 20 dB RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz -62.57 dBm
SWT 3 ms 14.996000 ms

1 PK
MAXH



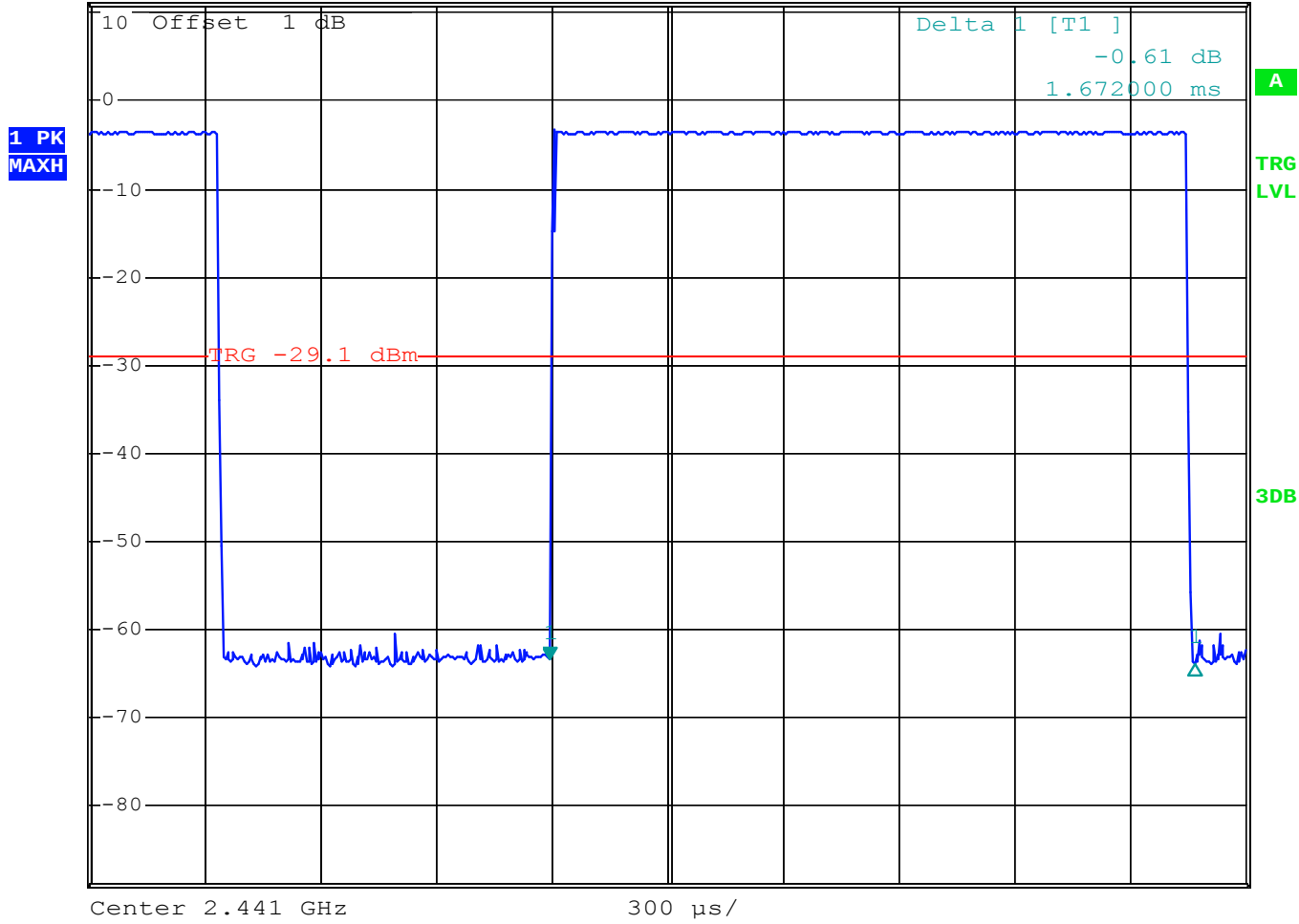
Center 2.402 GHz 300 μ s/

Date: 9.JAN.2013 15:58:39

DH3:



Ref 11 dBm * Att 20 dB RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -63.41 dBm
SWT 3 ms 14.996000 ms

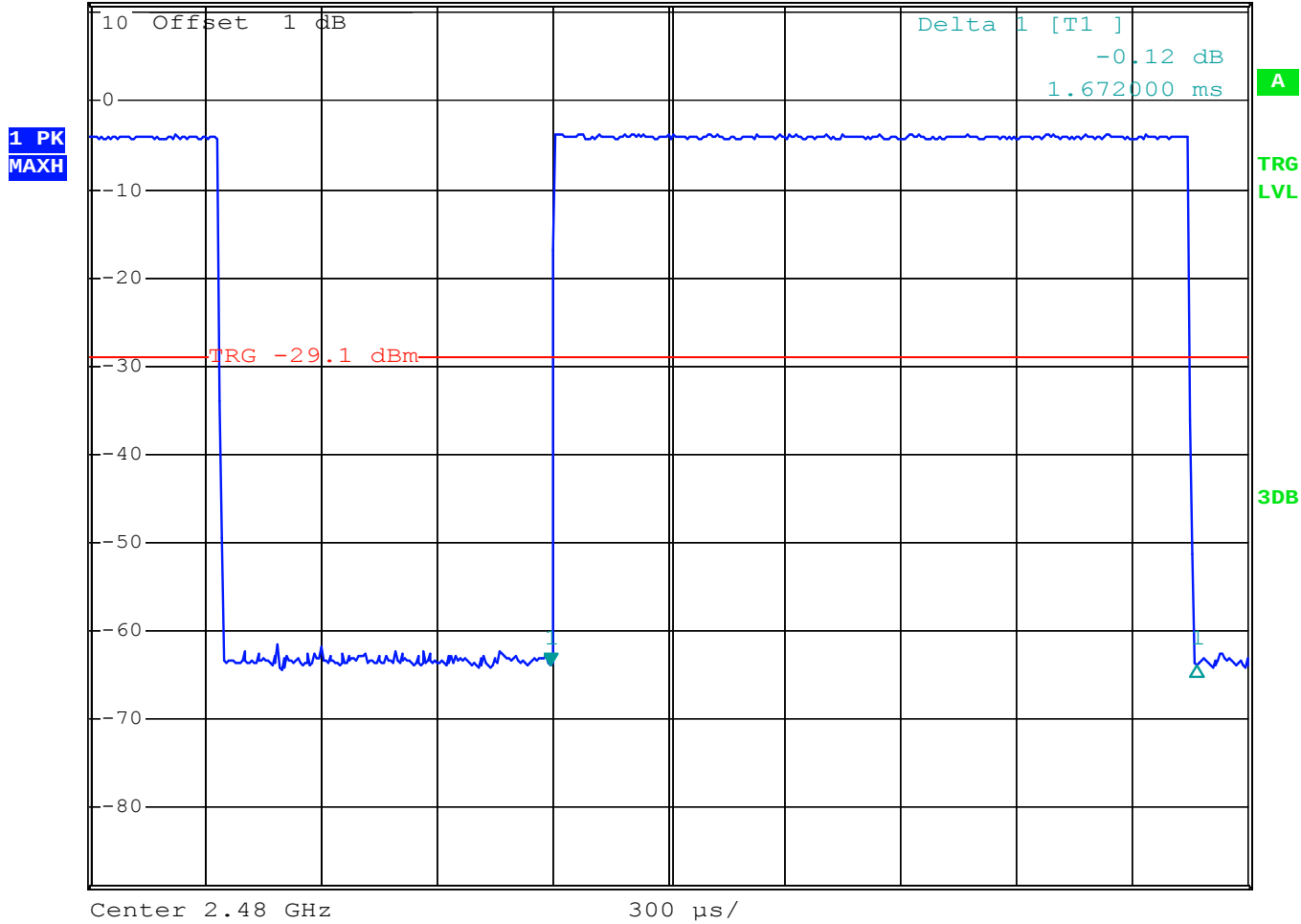


Date: 9.JAN.2013 15:59:45

DH3:



RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -63.82 dBm
Ref 11 dBm * Att 20 dB SWT 3 ms 14.996000 ms



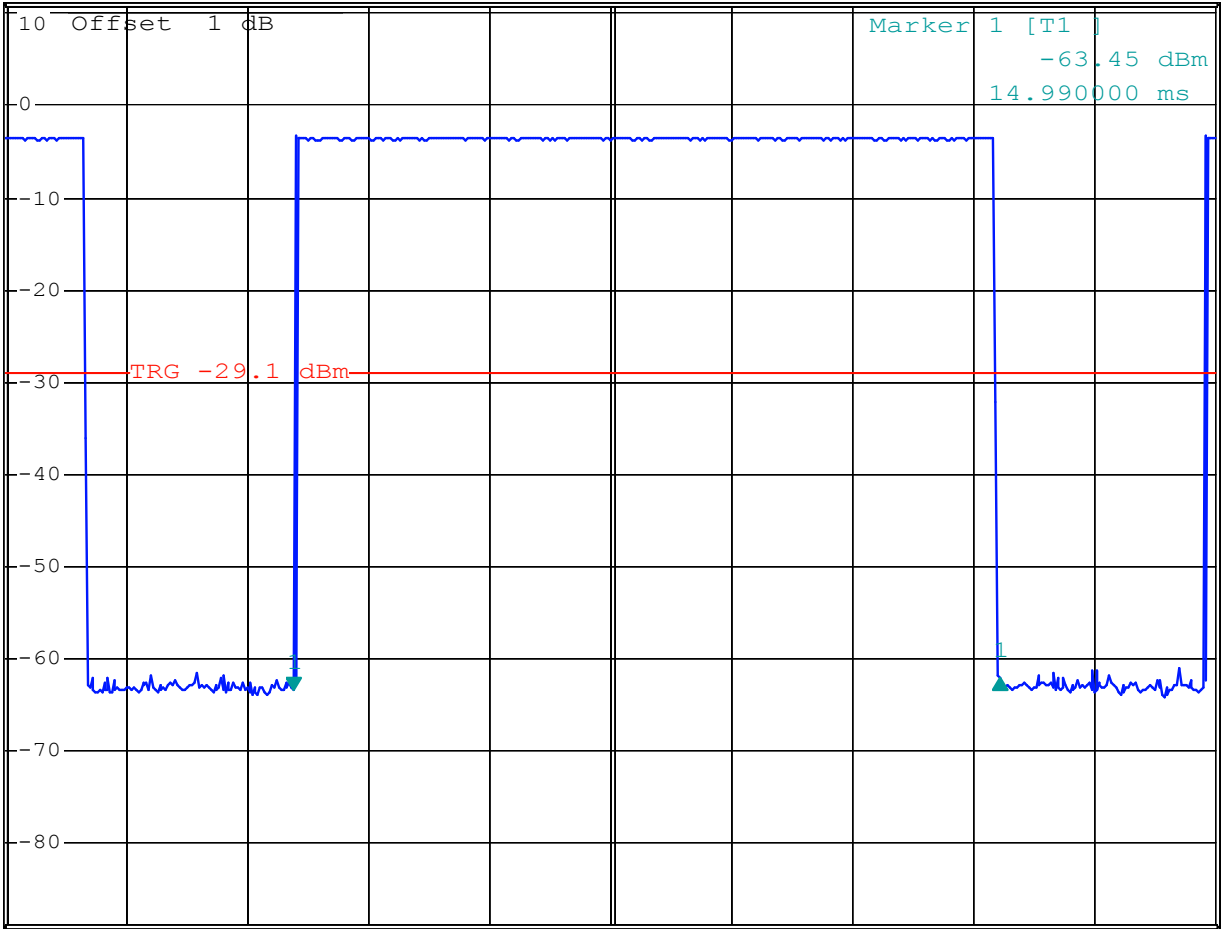
Date: 9.JAN.2013 16:01:05

DH5:



1 PK
MAXH

RBW 1 MHz Delta 1 [T1]
* VBW 3 MHz 1.25 dB
Ref 11 dBm * Att 20 dB SWT 5 ms 2.920000 ms



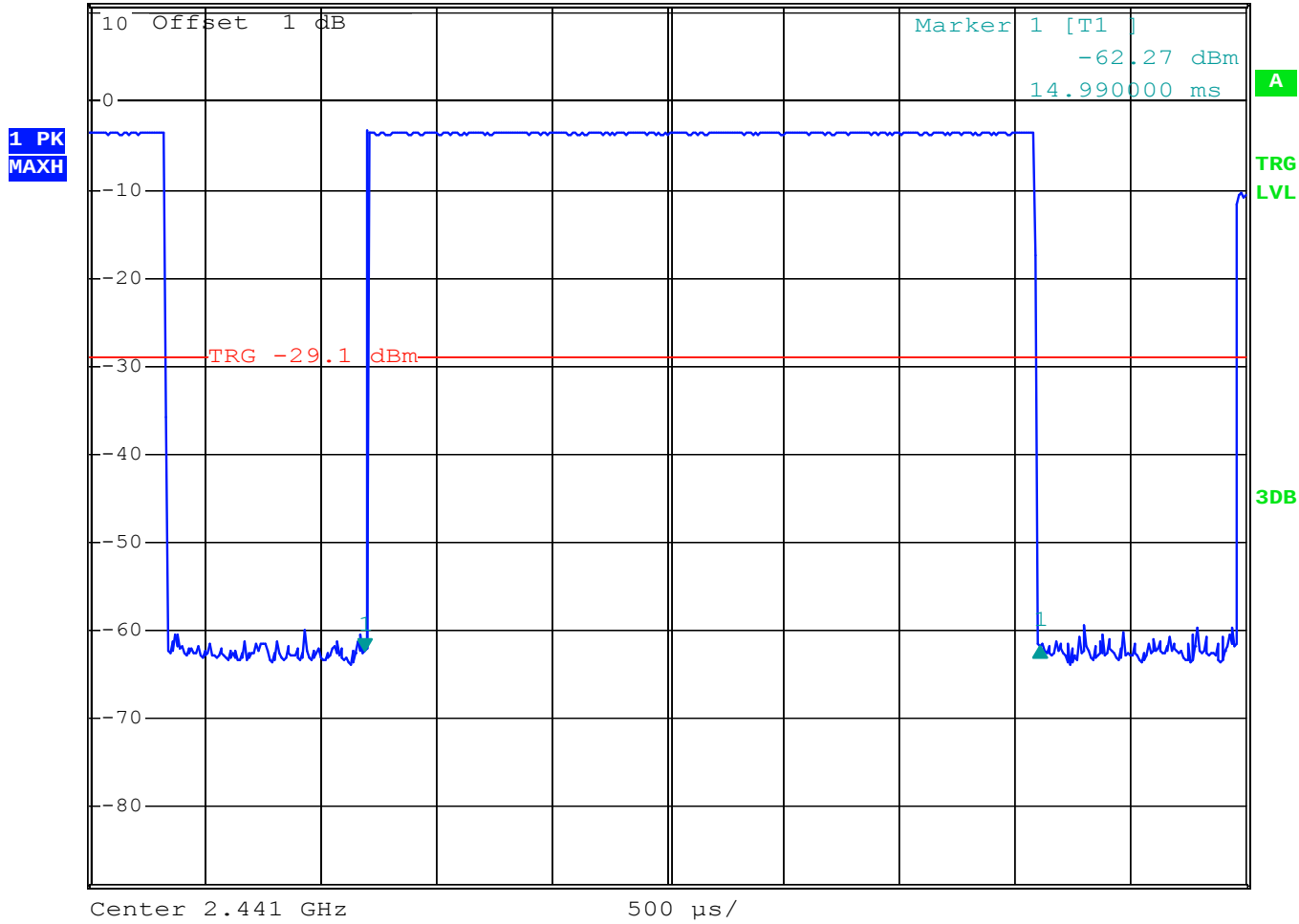
Center 2.402 GHz 500 μ s/

Date: 9.JAN.2013 15:57:06

DH5:



RBW 1 MHz Delta 1 [T1]
* VBW 3 MHz 0.50 dB
Ref 11 dBm * Att 20 dB SWT 5 ms 2.920000 ms

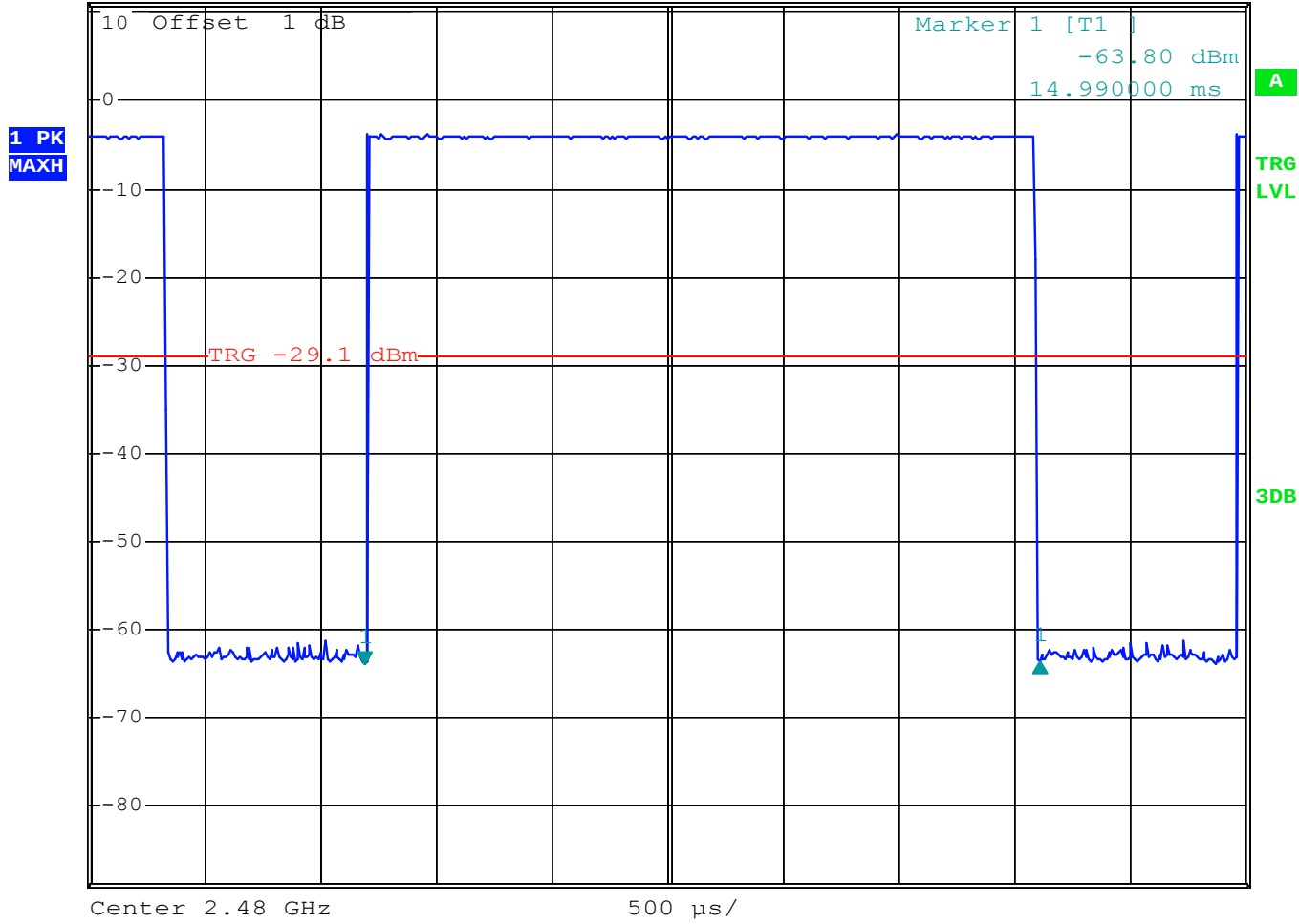


Date: 9.JAN.2013 15:56:03

DH5:



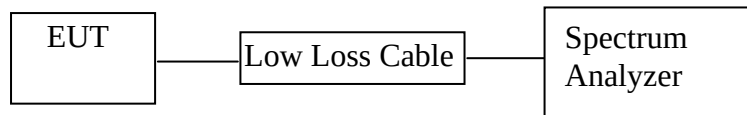
RBW 1 MHz Delta 1 [T1]
* VBW 3 MHz 0.26 dB
Ref 11 dBm * Att 20 dB SWT 5 ms 2.920000 ms



Date: 9.JAN.2013 15:54:56

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1. Block Diagram of Test Setup



(EUT: Tablet PC)

9.2. The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3. EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.3.1. Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, and 2480MHz TX frequency to transmit.

9.5. Test Procedure

9.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

9.5.2. Set RBW of spectrum analyzer to 3MHz and VBW to 3MHz.

9.5.3. Measurement the maximum peak output power.

9.6. Test Result

PASS.

Date of Test:	Jan 9, 2012	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX	Test Engineer:	Ricky

Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2402	-5.05	0.313	21 / 0.125
Middle	2441	-5.26	0.298	21 / 0.125
High	2480	-6.10	0.245	21 / 0.125

The spectrum analyzer plots are attached as below.

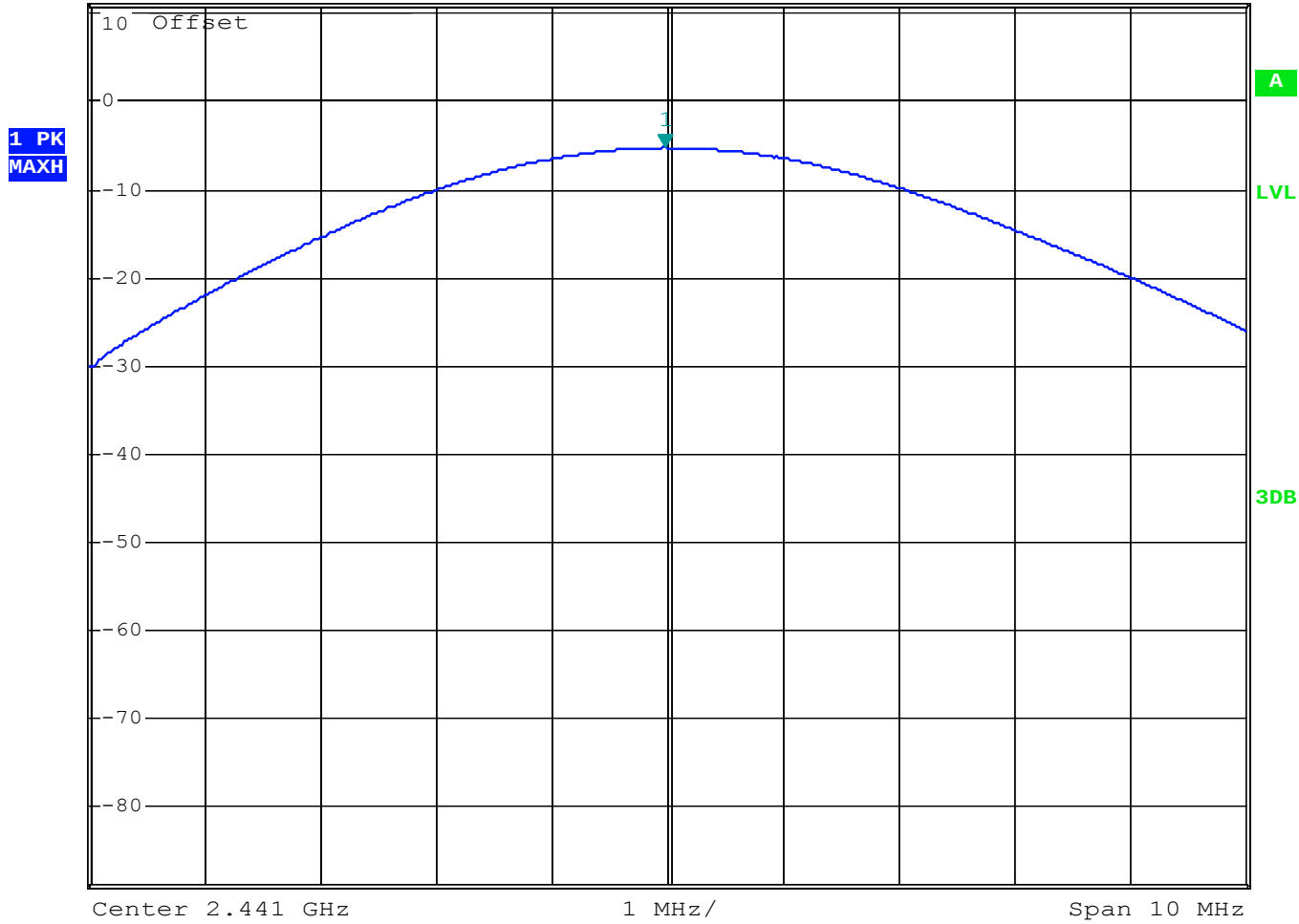


FCC ID: BRCPC7023ME

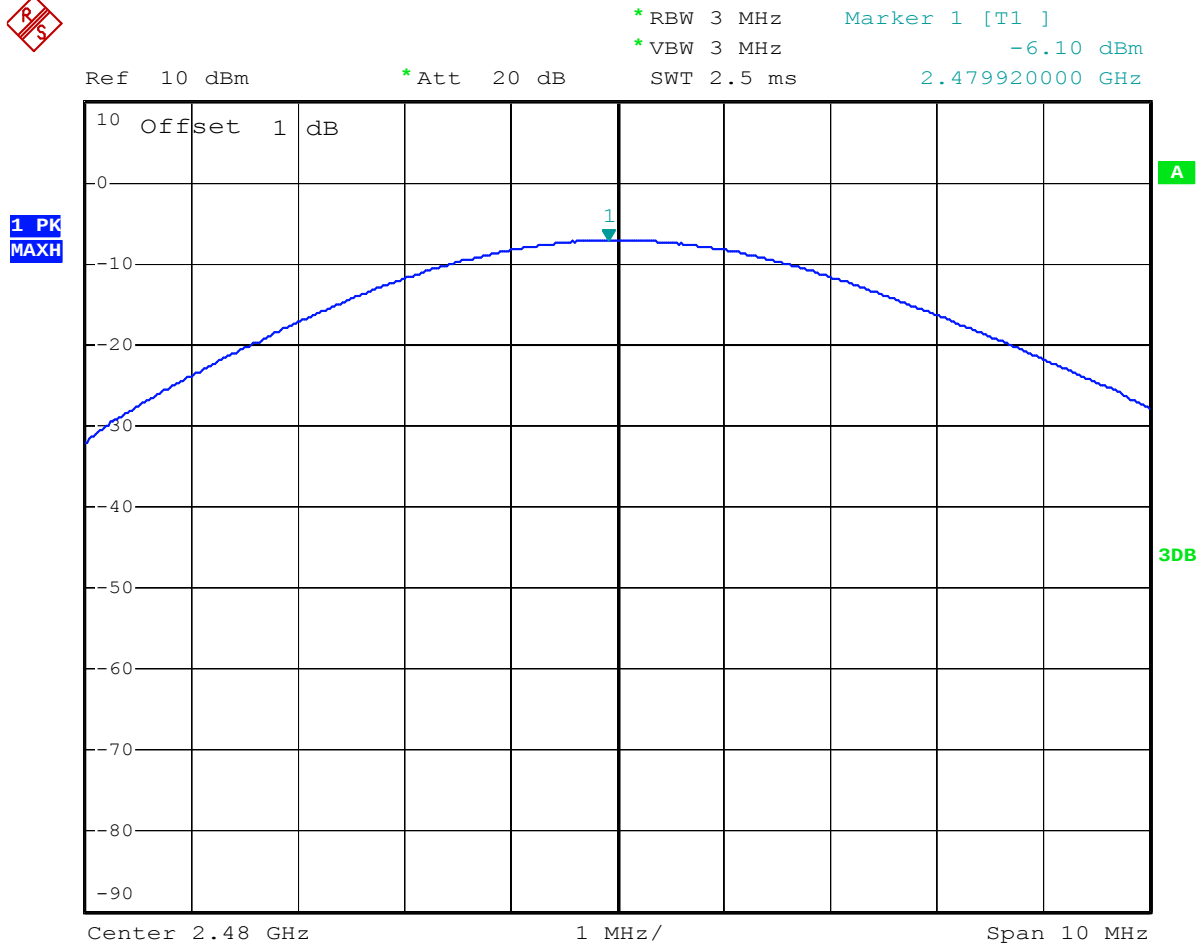
ACCURATE TECHNOLOGY CO. LTD **REPORT NO. ATE20130026**



* RBW 3 MHz Marker 1 [T1]
* VBW 3 MHz -5.26 dBm
Ref 11 dBm * Att 20 dB SWT 2.5 ms 2.440980000 GHz



Date: 9.JAN.2013 15:13:17

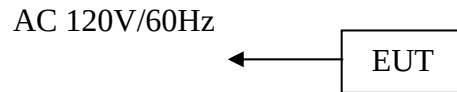


Date: 9.JAN.2013 15:43:49

10. RADIATED EMISSION TEST

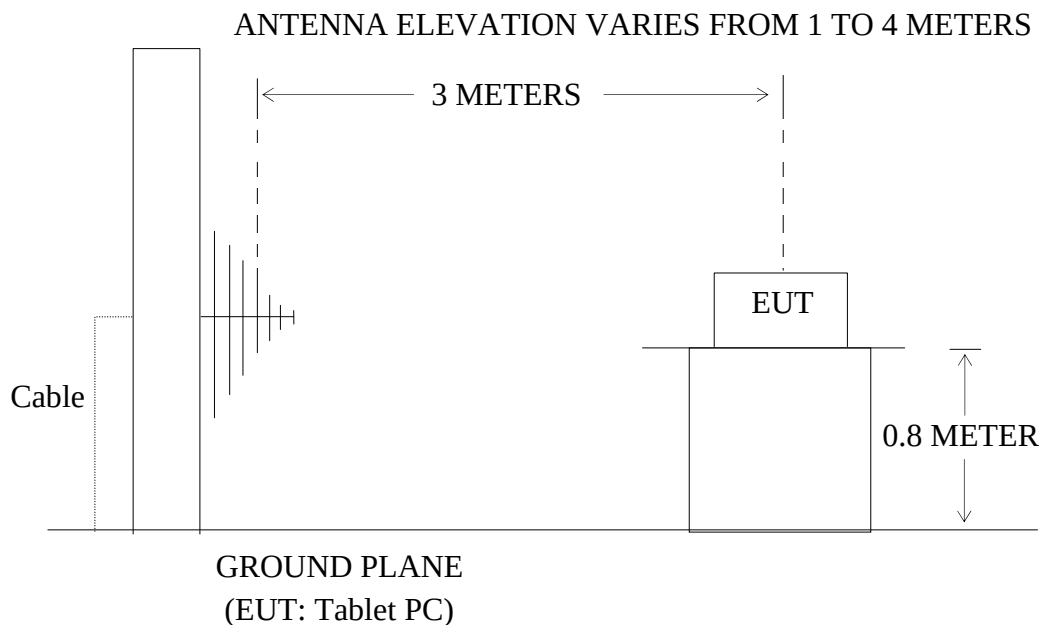
10.1. Block Diagram of Test Setup

10.1.1. Block diagram of connection between the EUT and simulators



(EUT: Tablet PC)

10.1.2. Anechoic Chamber Test Setup Diagram



10.2. The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3.Restricted bands of operation

10.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4.Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.4.1.Tablet PC (EUT)

Model Number : PC7023ME
 Serial Number : N/A
 Manufacturer : Kintech Co. Ltd

10.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement.

The bandwidth of test receiver (R&S ESI26) is set at 120 KHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

10.6.The Field Strength of Radiation Emission Measurement Results

PASS.

Date of Test:	Jan 15, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX (2402MHz)	Test Engineer:	Ricky

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
36.7811	16.66	15.28	31.94	40.00	-8.06	Vertical
48.0392	13.67	14.45	28.12	40.00	-11.88	Vertical
405.3551	8.85	22.61	31.46	46.00	-14.54	Vertical
186.4684	15.90	13.84	29.74	43.50	-13.76	Horizontal
264.0416	14.95	18.66	33.61	46.00	-12.39	Horizontal
471.4665	14.30	22.39	36.69	46.00	-9.31	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4804.000	51.00	55.46	-0.30	50.70	55.16	54.00	74.00	-3.30	-18.84	Vertical
4804.000	51.10	54.87	-0.30	50.80	54.57	54.00	74.00	-3.20	-19.43	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	Jan 15, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX (2441MHz)	Test Engineer:	Ricky

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
34.8928	16.33	15.70	32.03	40.00	-7.97	Vertical
187.7829	10.47	13.85	24.32	43.50	-19.18	Vertical
391.3599	10.34	21.93	32.27	46.00	-13.73	Vertical
185.1622	15.51	13.83	29.34	43.50	-14.16	Horizontal
260.3566	13.25	18.60	31.85	46.00	-14.15	Horizontal
384.5446	14.03	21.69	35.72	46.00	-10.28	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4882.000	49.20	52.34	0.14	49.34	52.48	54.00	74.00	-4.66	-21.52	Vertical
4882.000	49.16	52.98	0.14	49.30	53.12	54.00	74.00	-4.70	-20.88	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 15, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX (2480MHz)	Test Engineer:	Ricky

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
37.4328	16.14	15.13	31.27	40.00	-8.73	Vertical
48.2083	12.82	14.45	27.27	40.00	-12.73	Vertical
185.8143	11.04	13.83	24.87	46.00	-18.63	Vertical
185.1626	15.08	13.83	28.91	43.50	-14.59	Horizontal
265.9035	14.03	18.59	32.62	46.00	-13.38	Horizontal
381.3599	13.52	21.93	35.45	46.00	-10.55	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4960.000	47.15	50.78	0.52	47.67	51.30	54.00	74.00	-6.33	-22.70	Vertical
4960.000	50.21	52.96	0.52	50.73	53.48	54.00	74.00	-3.27	-20.52	Horizontal

Note: 1.The emission emitted by the EUT is too low to be measured except the emission listed above.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**



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Fax:+86-0755-26503396

Job No.: Ricky #1

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2402MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

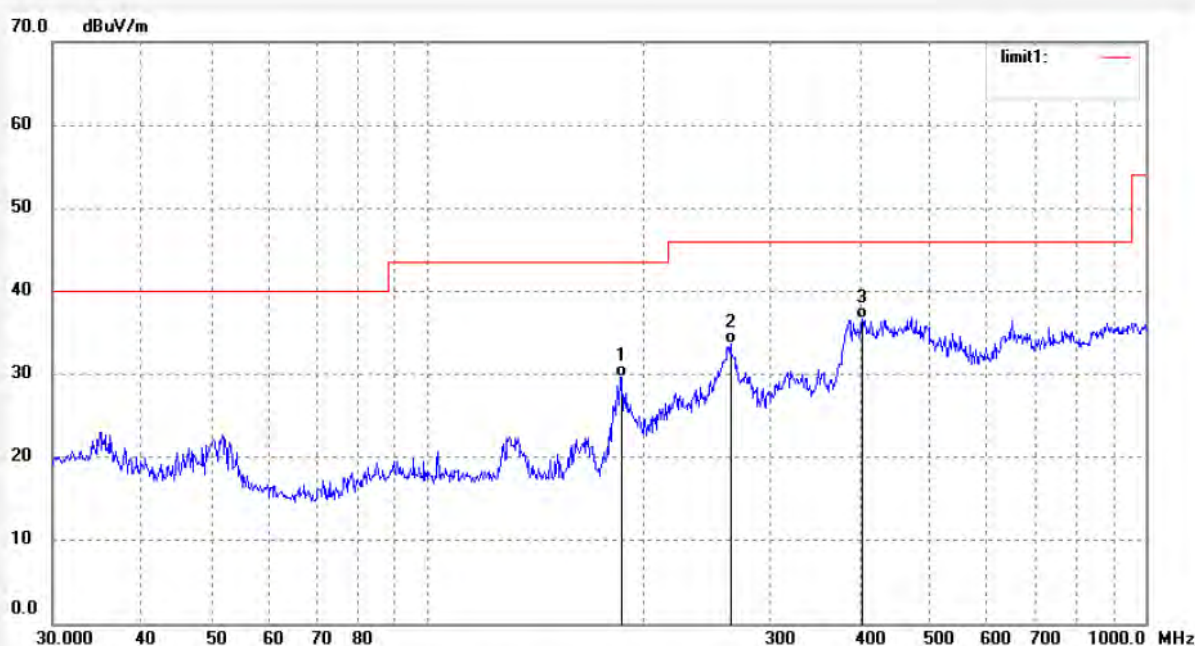
Date: 2013/01/15

Time: 12:09:13

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	186.4684	15.90	13.84	29.74	43.50	-13.76	QP			
2	264.0416	14.95	18.66	33.61	46.00	-12.39	QP			
3	402.5167	14.30	22.39	36.69	46.00	-9.31	QP			



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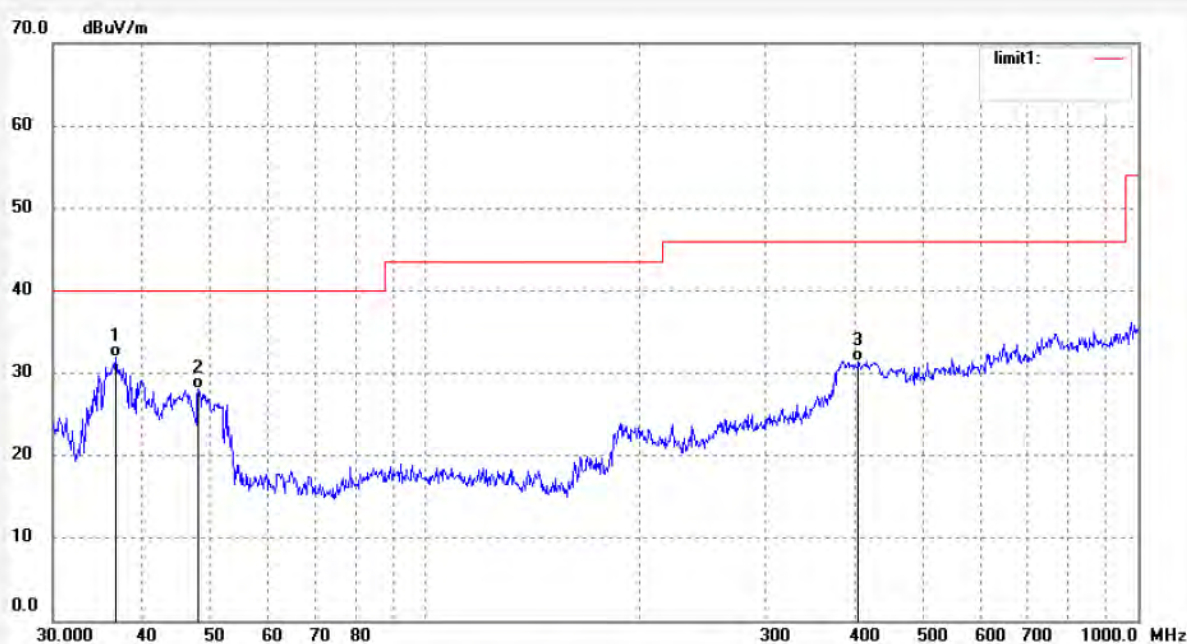
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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Ricky #2
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2402MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 12:10:43
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	36.7811	16.66	15.28	31.94	40.00	-8.06	QP			
2	48.0392	13.67	14.45	28.12	40.00	-11.88	QP			
3	405.3551	8.85	22.61	31.46	46.00	-14.54	QP			



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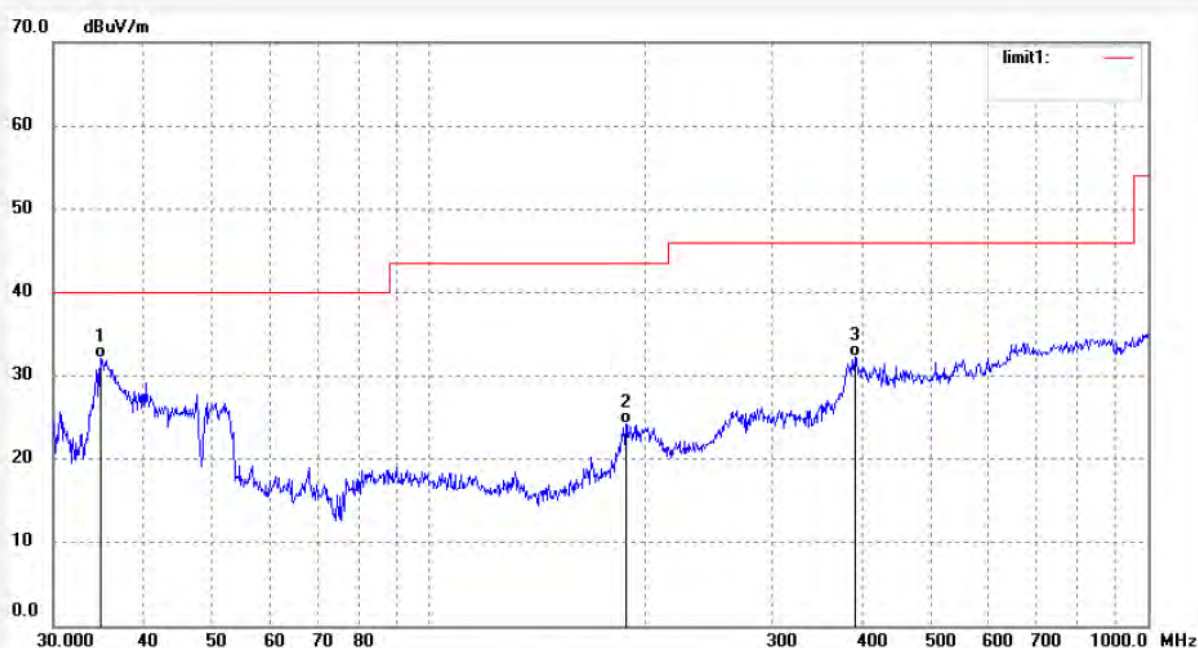
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #3
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2441MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 12:12:27
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.8928	16.33	15.70	32.03	40.00	-7.97	QP			
2	187.7829	10.47	13.85	24.32	43.50	-19.18	QP			
3	391.3599	10.34	21.93	32.27	46.00	-13.73	QP			



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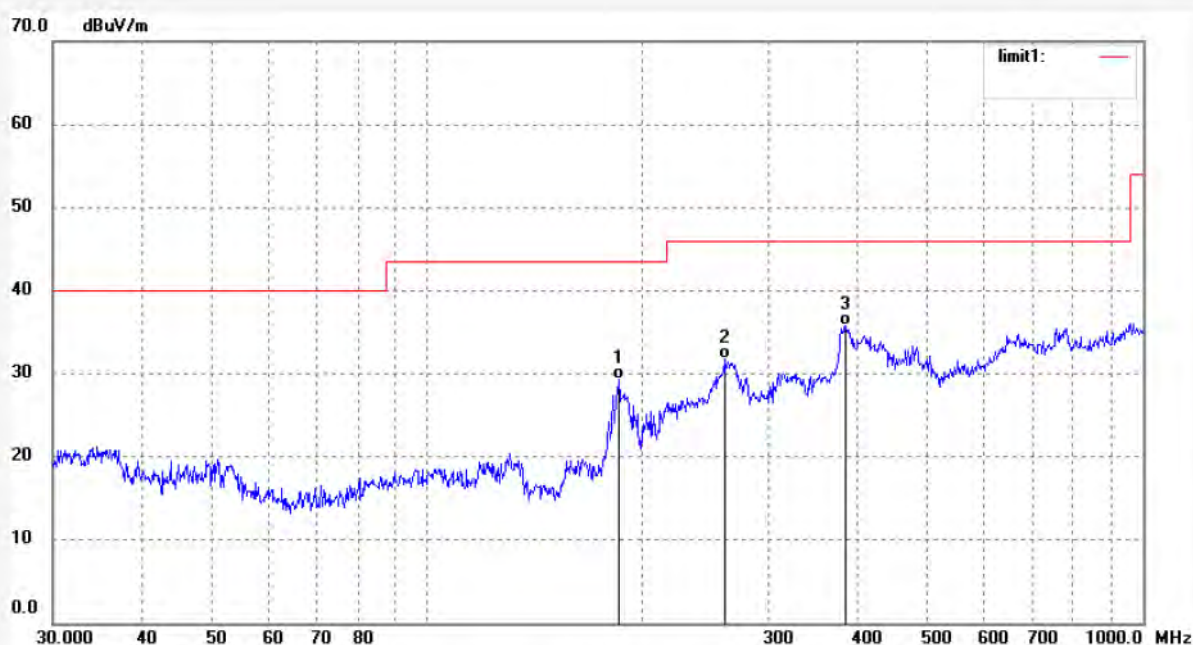
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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: Ricky #4
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2441MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 12:13:23
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	185.1622	15.51	13.83	29.34	43.50	-14.16	QP			
2	260.3566	13.25	18.60	31.85	46.00	-14.15	QP			
3	384.5446	14.03	21.69	35.72	46.00	-10.28	QP			



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Job No.: Ricky #5

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2480MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

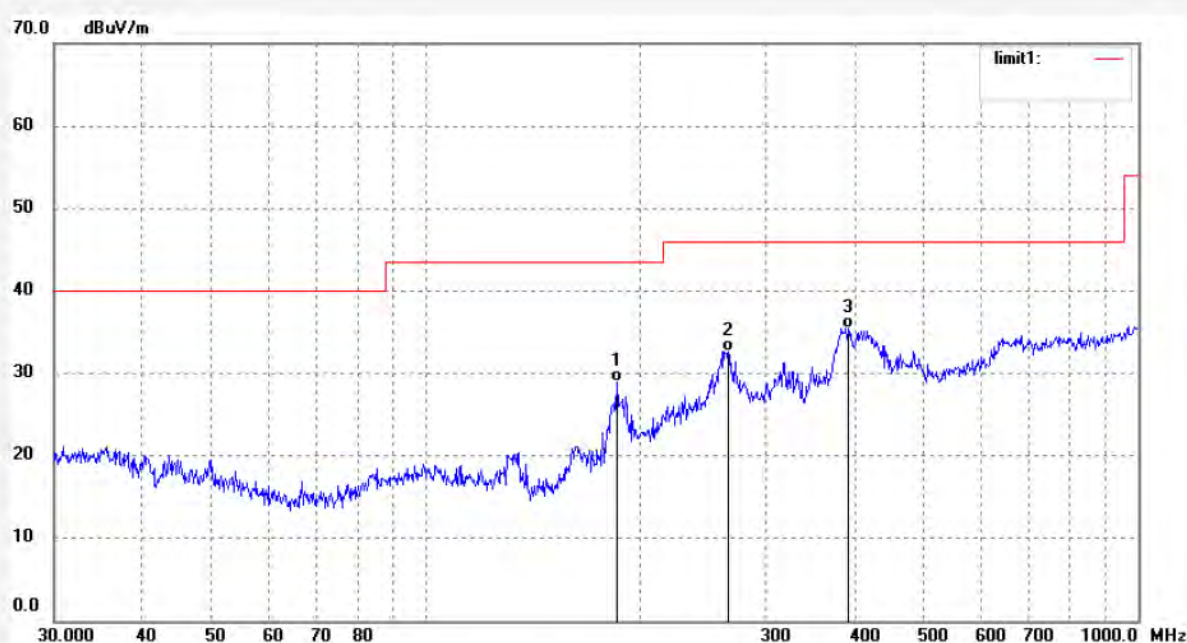
Date: 2013/01/15

Time: 12:14:44

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	185.1622	15.08	13.83	28.91	43.50	-14.59	QP			
2	265.9035	14.03	18.59	32.62	46.00	-13.38	QP			
3	391.3599	13.52	21.93	35.45	46.00	-10.55	QP			



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Job No.: Ricky #6

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2480MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Vertical

Power Source: AC 120V/60Hz

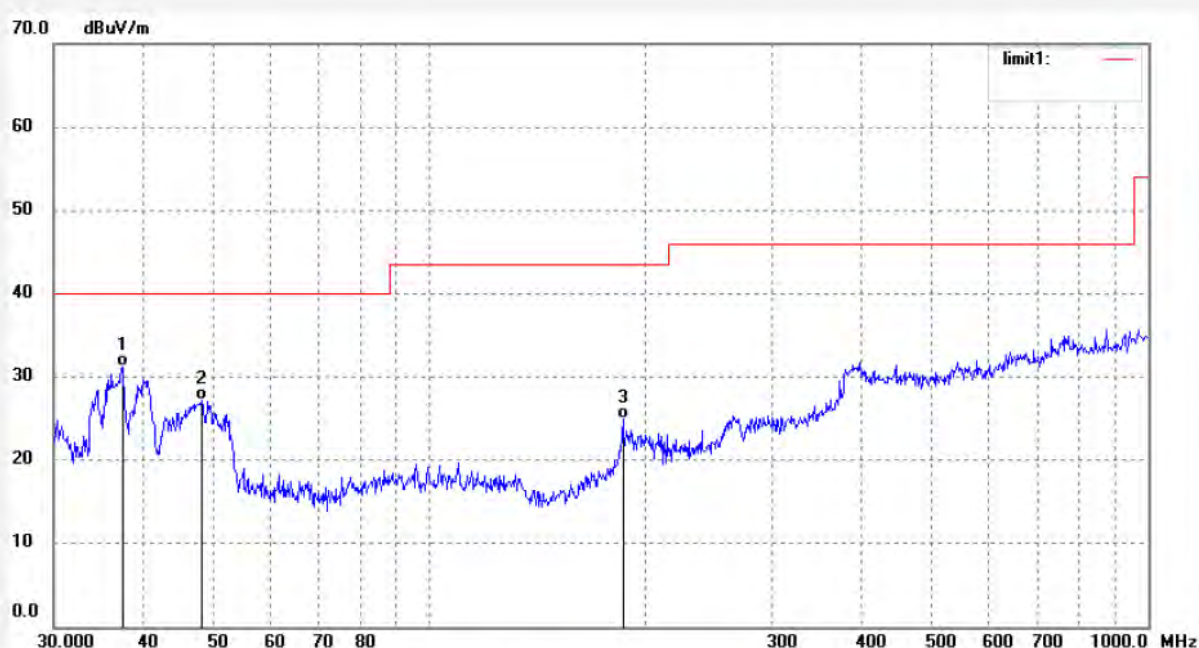
Date: 2013/01/15

Time: 12:15:52

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	37.4328	16.14	15.13	31.27	40.00	-8.73	QP			
2	48.2083	12.82	14.45	27.27	40.00	-12.73	QP			
3	185.8143	11.04	13.83	24.87	43.50	-18.63	QP			



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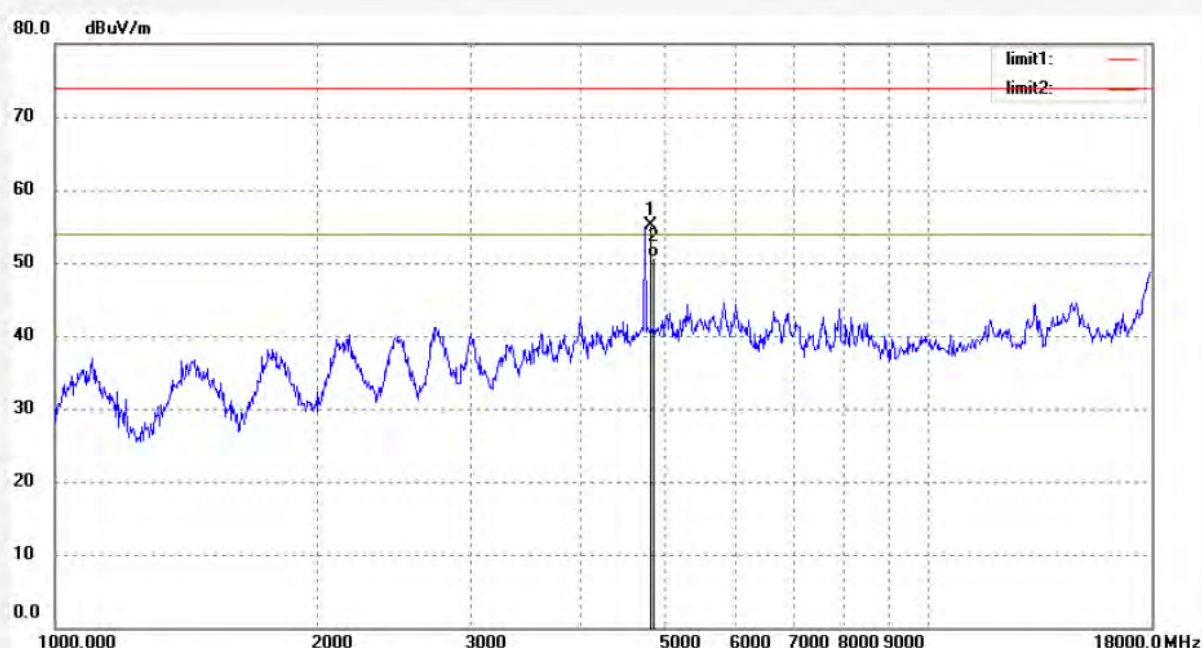
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Fax:+86-0755-26503396

Job No.: Ricky #7
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2402MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 12:35:56
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4804.000	55.46	-0.30	55.16	74.00	-18.84	peak			
2	4804.000	51.00	-0.30	50.70	54.00	-3.30	AVG			



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Fax:+86-0755-26503396

Job No.: Ricky #8

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2402MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

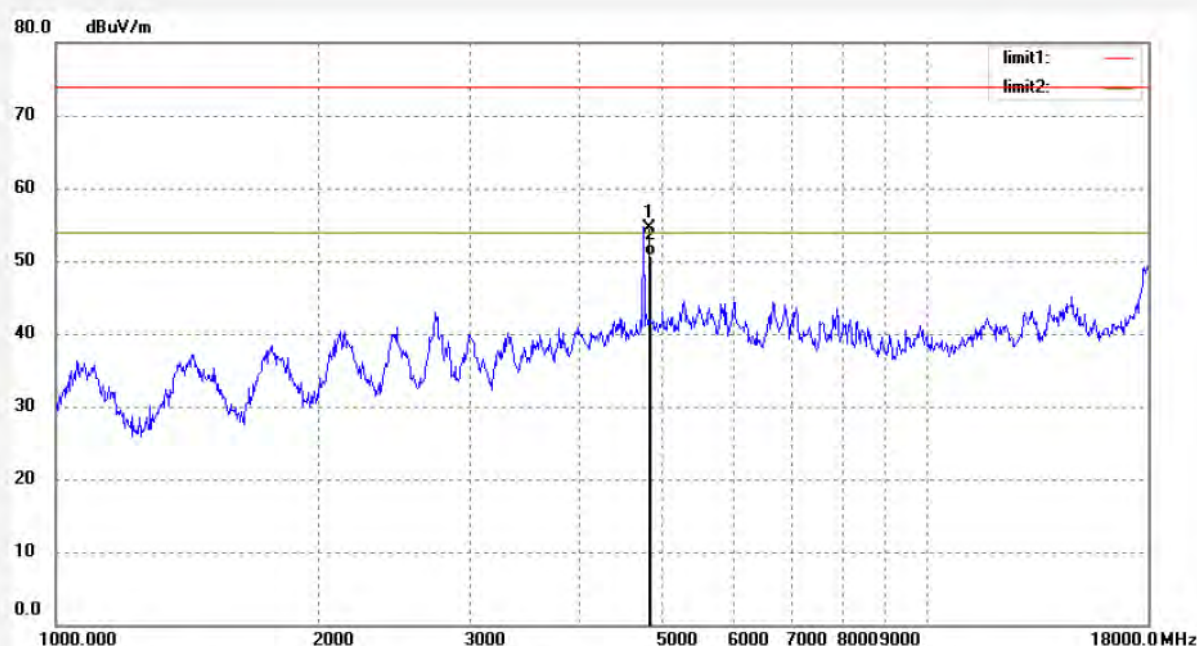
Date: 2013/01/15

Time: 12:38:36

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4804.000	54.87	-0.30	54.57	74.00	-19.43	peak			
2	4804.000	51.10	-0.30	50.80	54.00	-3.20	AVG			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Ricky #9

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2441MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

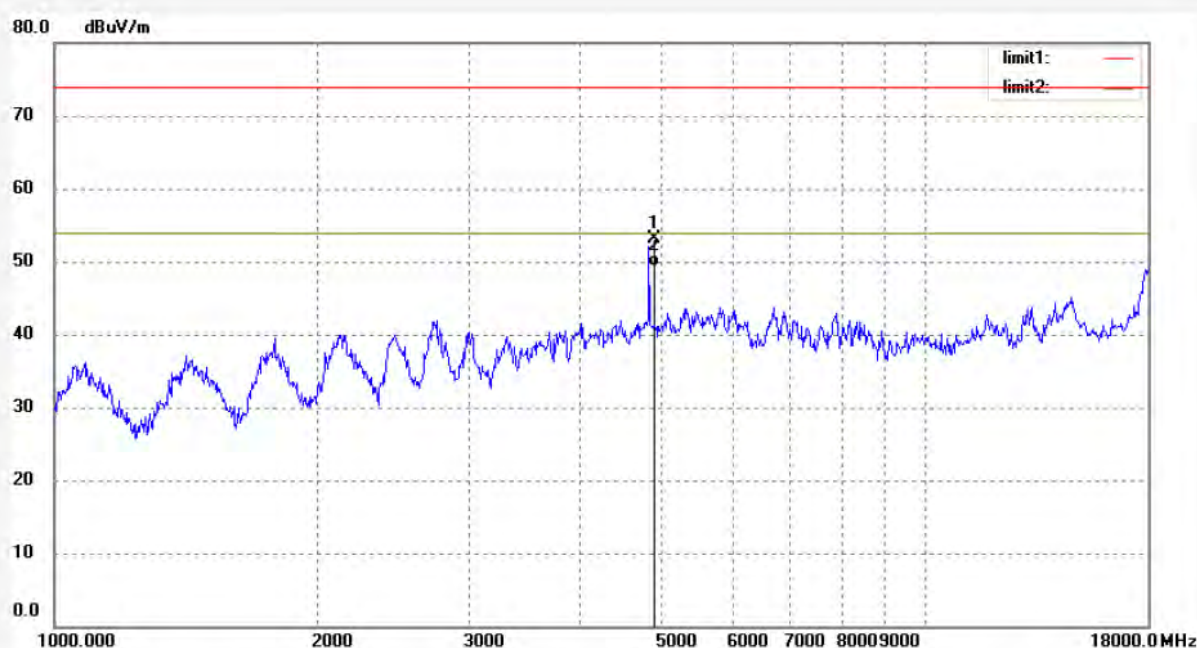
Date: 2013/01/15

Time: 12:42:50

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4882.000	52.98	0.14	53.12	74.00	-20.88	peak			
2	4882.000	49.16	0.14	49.30	54.00	-4.70	AVG			



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Site: 2# Chamber

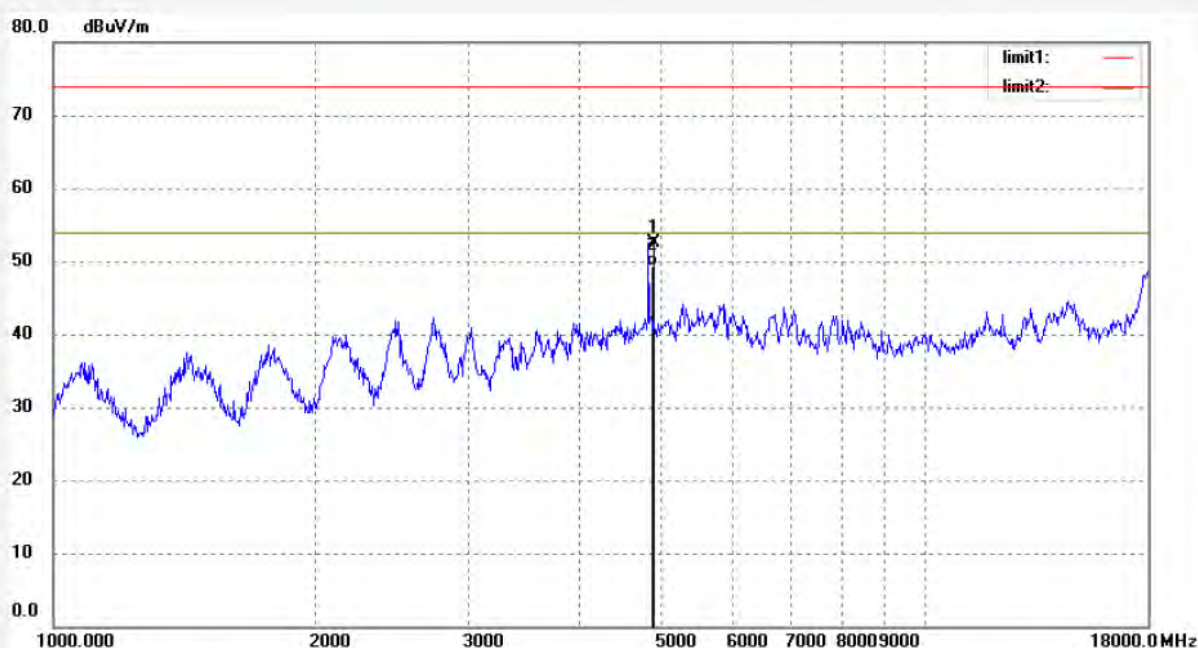
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Ricky #10
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2441MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 12:44:45
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4882.000	52.34	0.14	52.48	74.00	-21.52	peak			
2	4882.000	49.20	0.14	49.34	54.00	-4.66	AVG			



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Fax:+86-0755-26503396

Job No.: Ricky #11

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2480MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Vertical

Power Source: AC 120V/60Hz

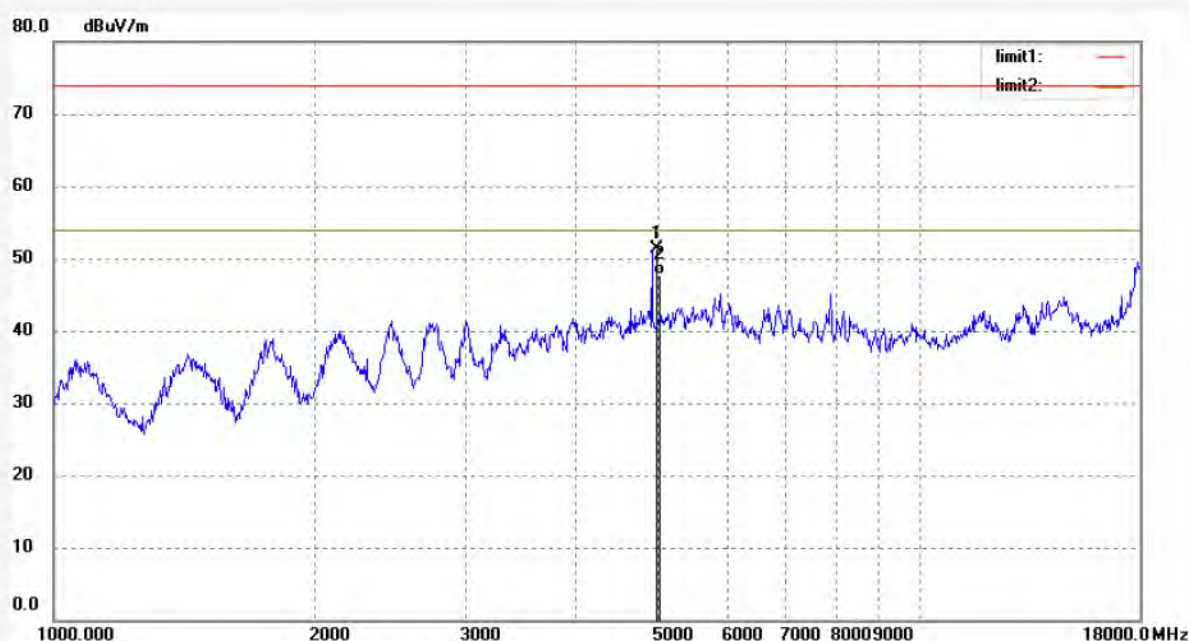
Date: 2013/01/15

Time: 12:47:04

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4960.000	50.78	0.52	51.30	74.00	-22.70	peak			
2	4960.000	47.15	0.52	47.67	54.00	-6.33	AVG			



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Fax:+86-0755-26503396

Job No.: Ricky #12

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2480MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

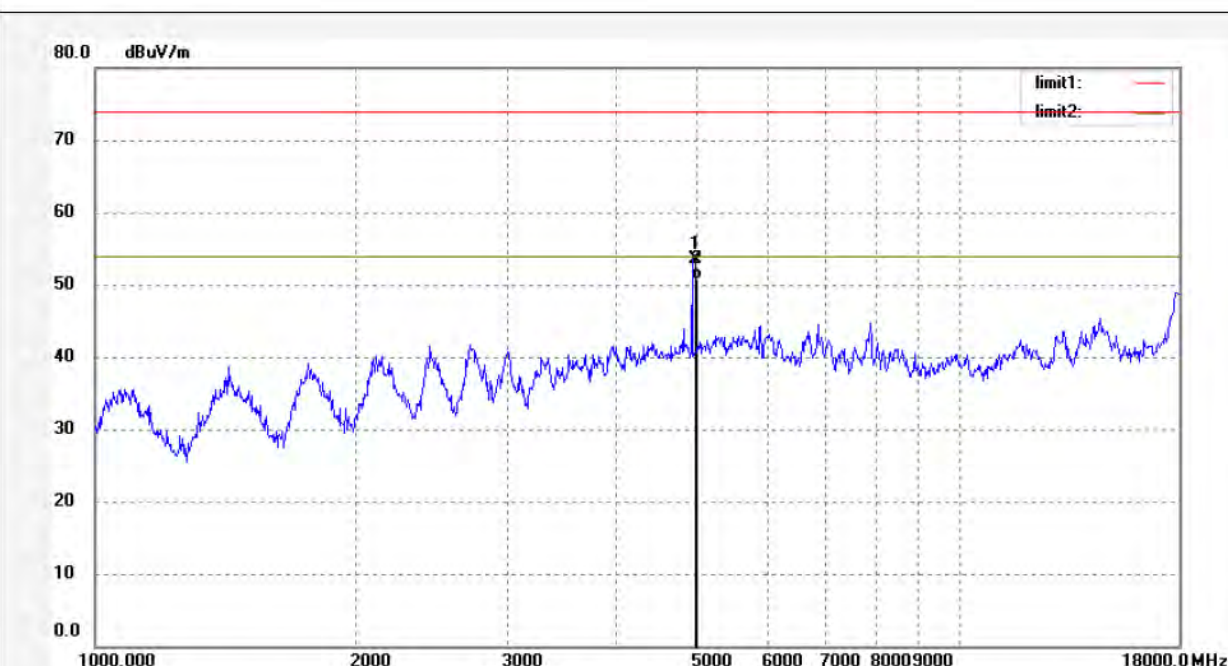
Date: 2013/01/15

Time: 12:48:12

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4960.000	52.96	0.52	53.48	74.00	-20.52	peak			
2	4960.000	50.21	0.52	50.73	54.00	-3.27	AVG			



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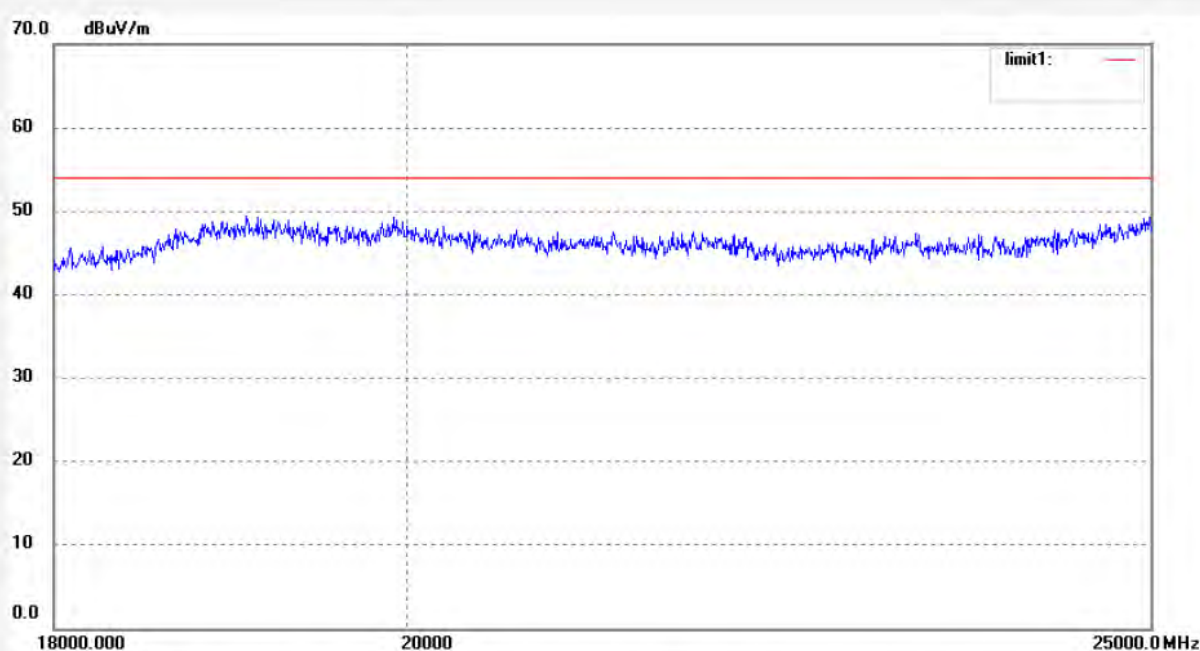
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #670
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2402MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:07:15
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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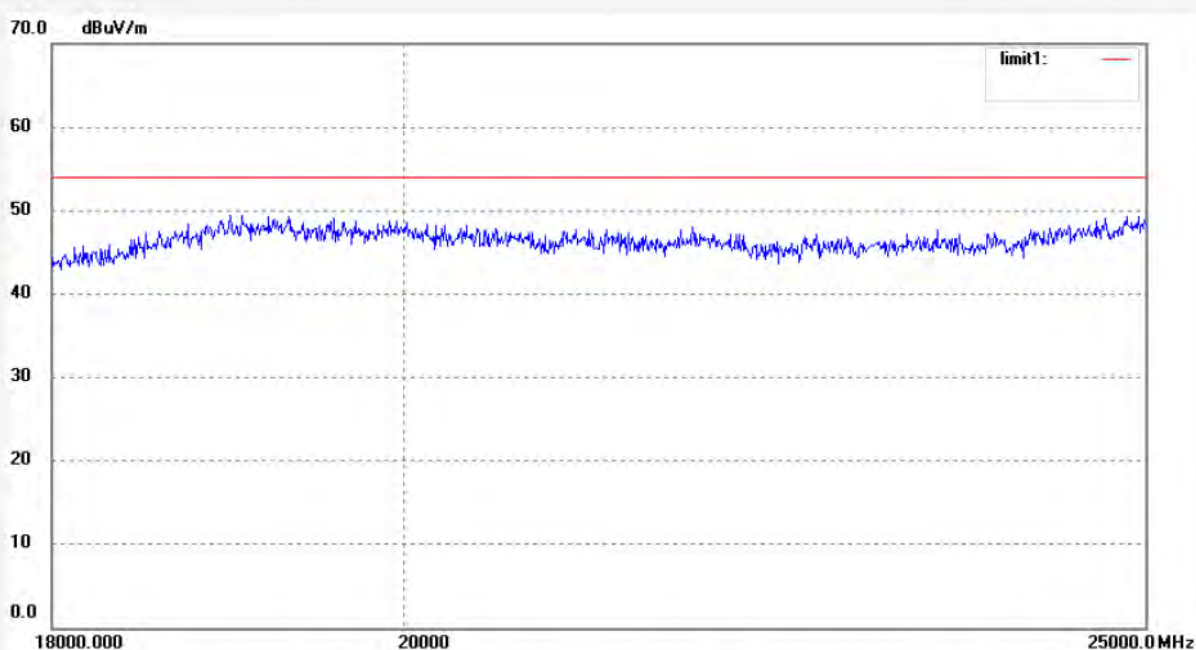
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #671
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2402MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:09:22
Engineer Signature:Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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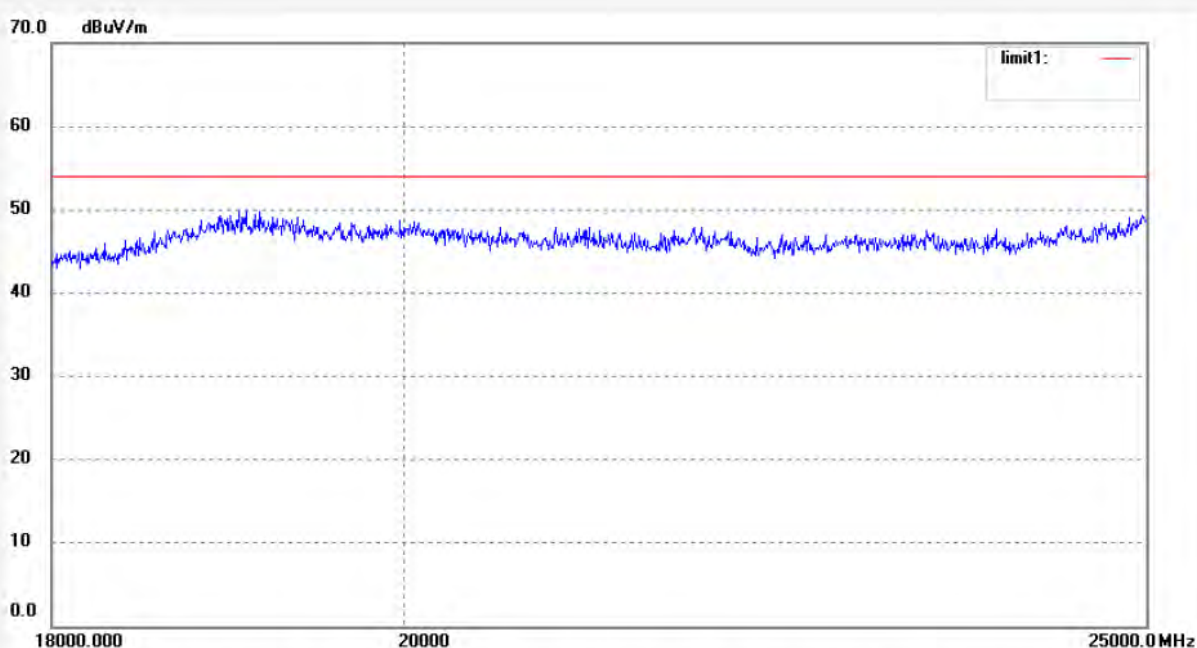
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #672
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2441MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:14:45
Engineer Signature:Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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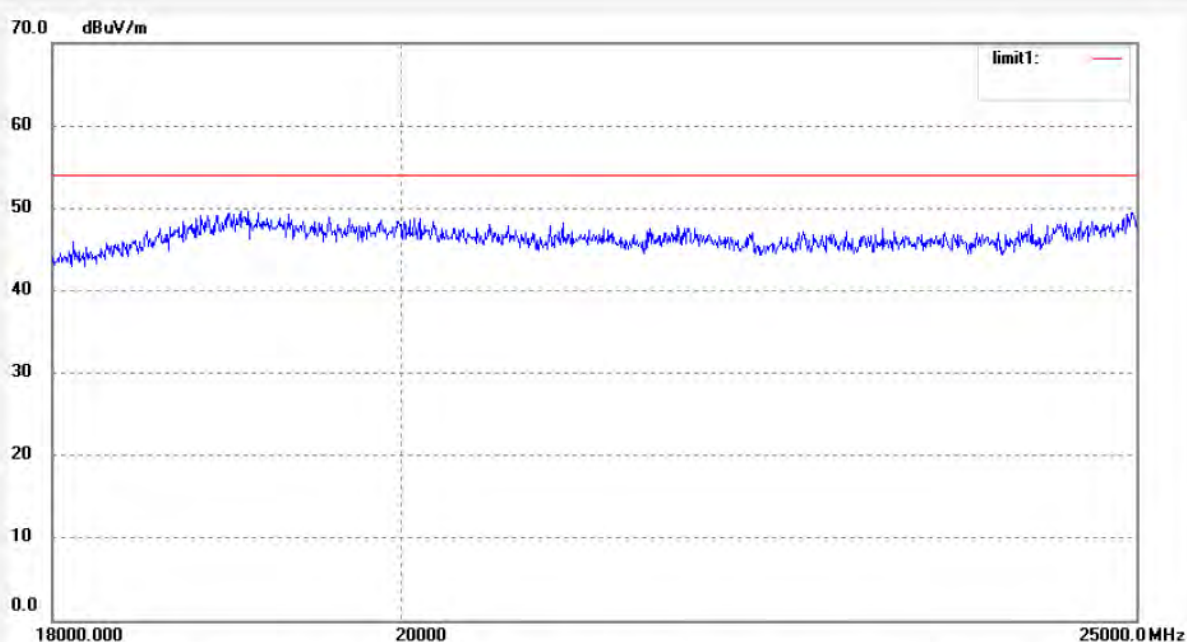
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #673
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2441MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:18:36
Engineer Signature:Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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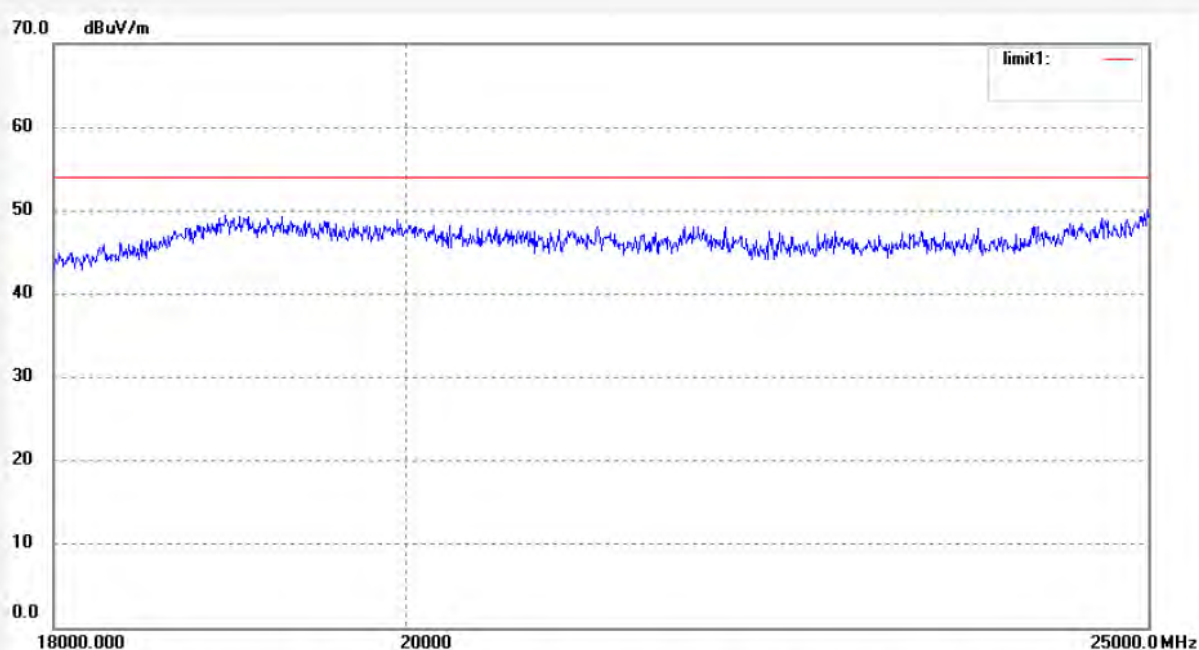
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #674
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2480MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:23:55
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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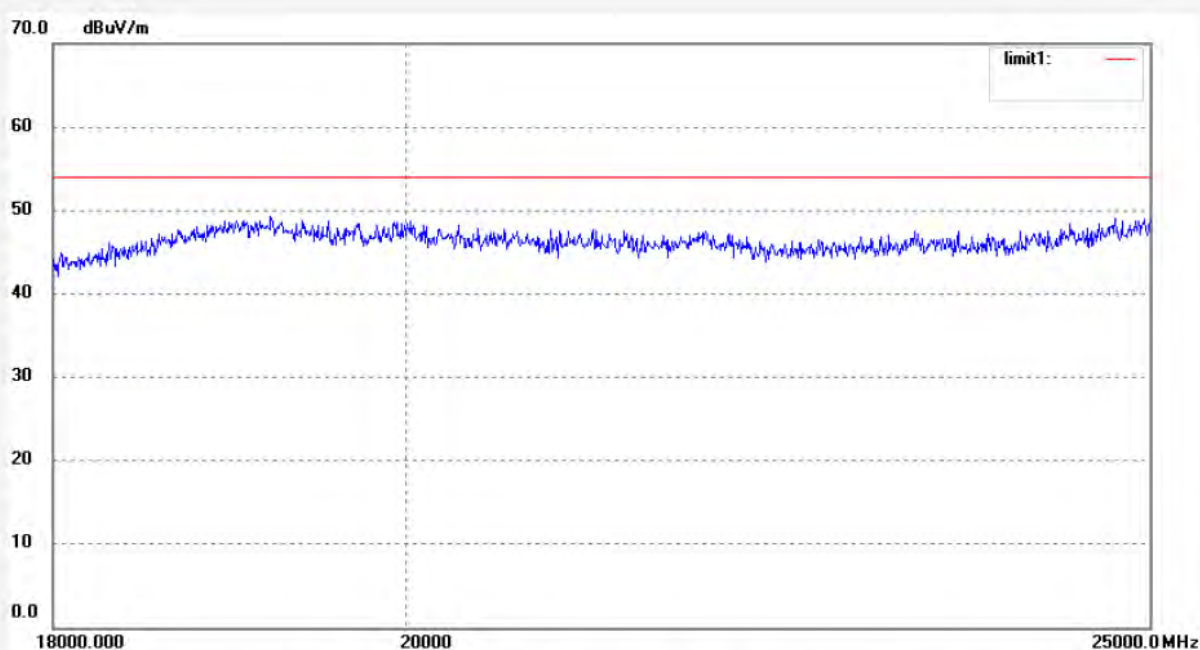
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
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Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky#675
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: Tablet PC
Mode: TX 2480MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/16/
Time: 10:27:11
Engineer Signature:Ricky
Distance: 3m

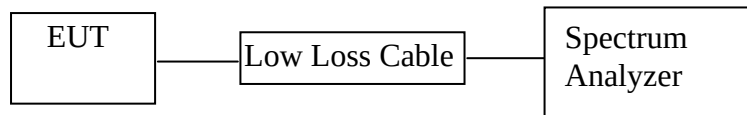
Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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11.BAND EDGE COMPLIANCE TEST

11.1.Block Diagram of Test Setup



(EUT: Tablet PC)

11.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

11.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.3.1.Tablet PC (EUT)

Model Number	:	PC7023ME
Serial Number	:	N/A
Manufacturer	:	Kintech Co. Ltd

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz with convenient frequency span including 100 kHz bandwidth from band edge.

11.5.3.The band edges was measured and recorded.

11.6. Test Result

Pass

Date of Test:	<u>Jan 9, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>Tablet PC</u>	Humidity:	<u>50%</u>
Model No.:	<u>PC7023ME</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>TX 2402MHz</u>	Test Engineer:	<u>Ricky</u>

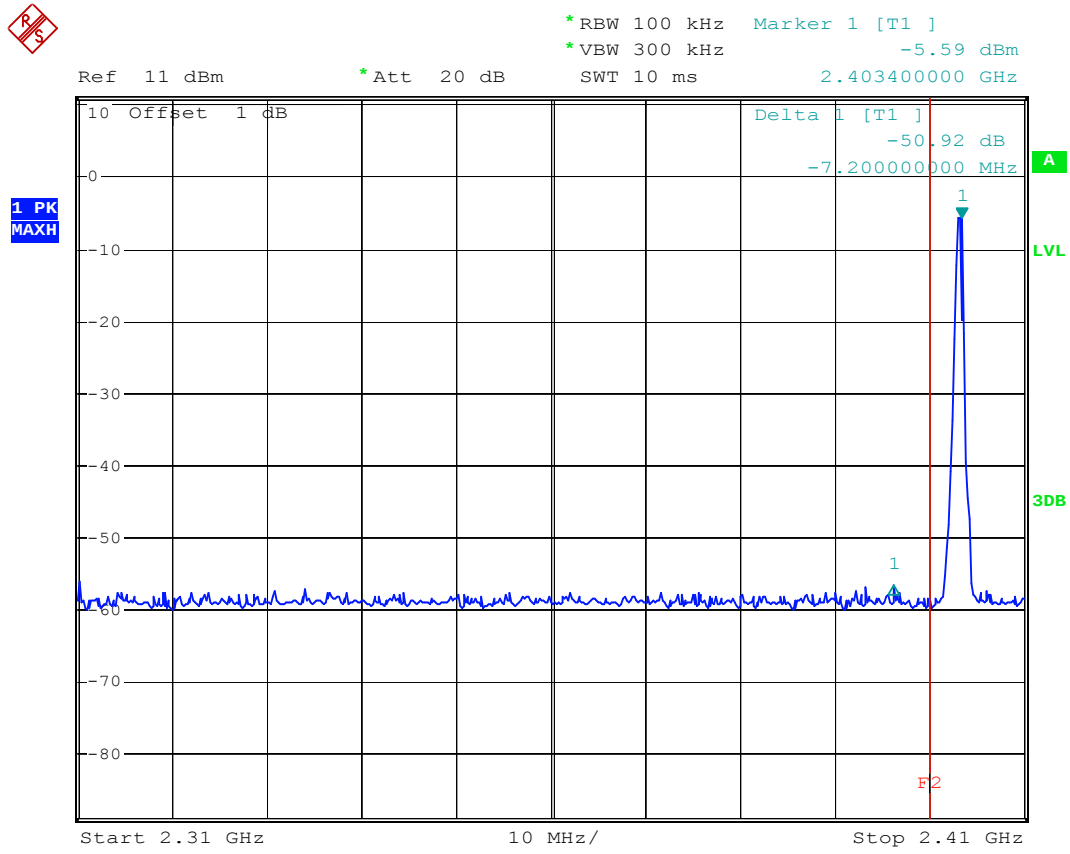
Conducted test

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2396.200	45.33	> 20dBc

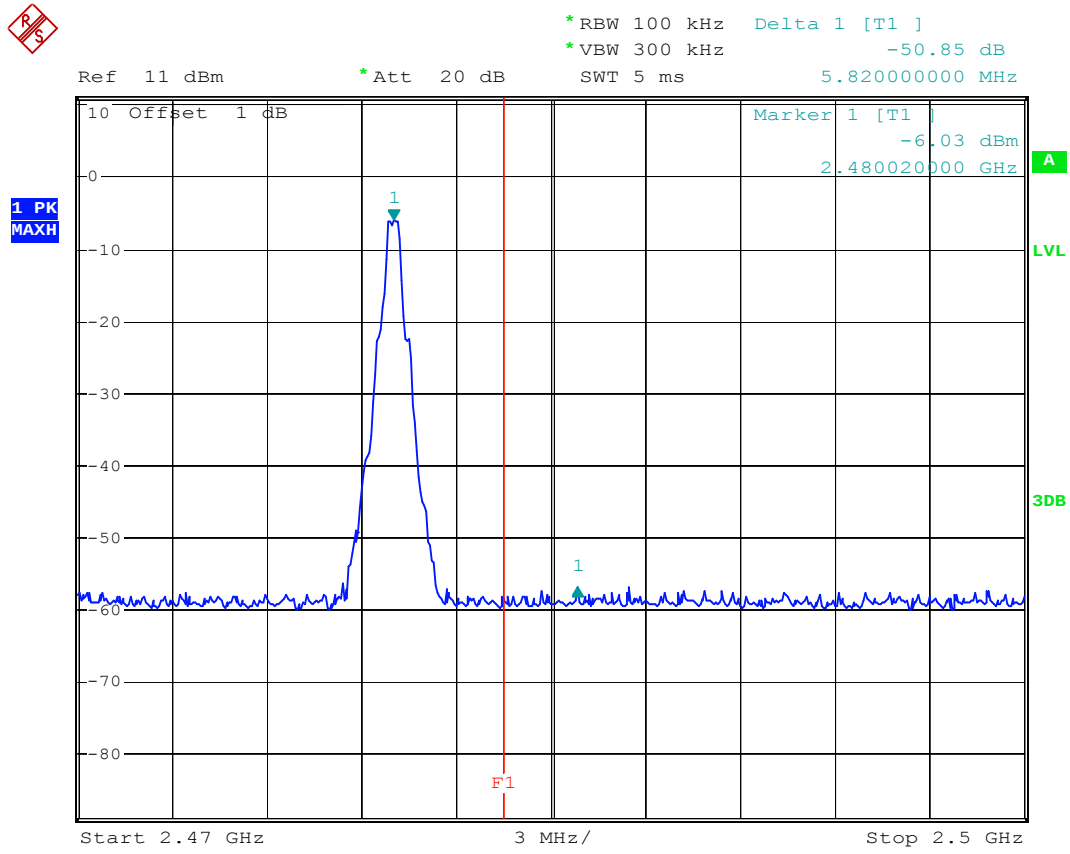
Date of Test:	<u>Jan 9, 2012</u>	Temperature:	<u>25°C</u>
EUT:	<u>Tablet PC</u>	Humidity:	<u>50%</u>
Model No.:	<u>PC7023ME</u>	Power Supply:	<u>AC 120V/60Hz</u>
Test Mode:	<u>TX 2480MHz</u>	Test Engineer:	<u>Ricky</u>

Conducted test

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2485.840	44.82	> 20dBc



Date: 9.JAN.2013 15:00:58



Date: 9.JAN.2013 15:33:31

Radiated Band Edge Result

Date of Test:	Jan 15, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX (2402MHz)	Test Engineer:	Ricky

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2400.000	55.26	58.33	-7.46	47.80	50.87	54.00	74.00	-6.20	-23.13	Vertical
2400.004	52.14	55.78	-7.46	44.68	48.32	54.00	74.00	-9.32	-25.68	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.

Date of Test:	Jan 15, 2013	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	TX (2480MHz)	Test Engineer:	Ricky

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.529	37.51	40.56	-7.37	30.14	33.19	54.00	74.00	-23.86	-40.81	Vertical
2483.529	37.23	40.18	-7.37	29.86	32.81	54.00	74.00	-24.14	-41.19	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.



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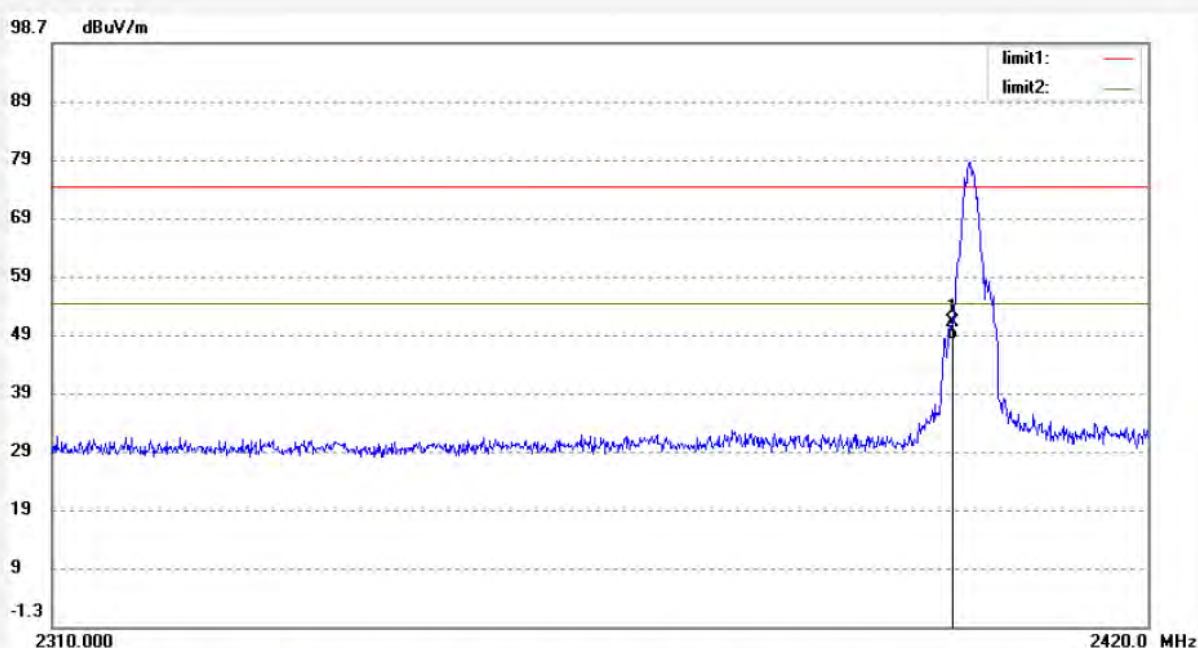
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #15
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2402MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 14:57:26
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2400.000	58.33	-7.46	50.87	74.00	-23.13	peak			
2	2400.000	55.26	-7.46	47.80	54.00	-6.20	AVG			



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Fax:+86-0755-26503396

Job No.: Ricky #16

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2402MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Horizontal

Power Source: AC 120V/60Hz

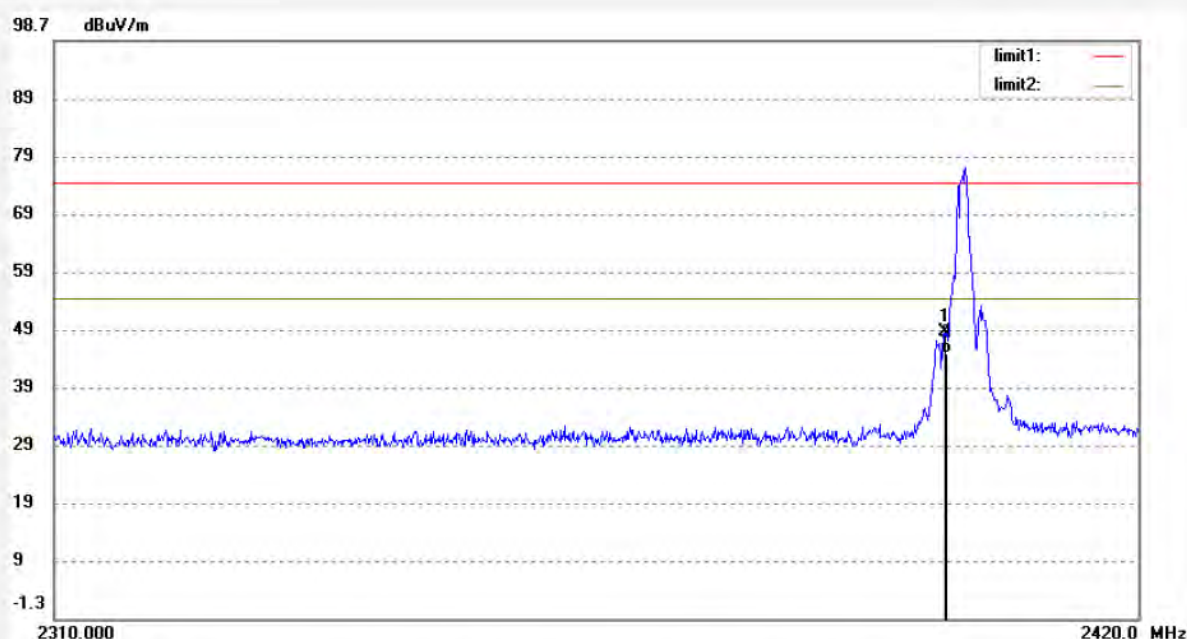
Date: 2013/01/15

Time: 15:01:20

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2400.004	55.78	-7.46	48.32	74.00	-25.68	peak			
2	2400.004	52.14	-7.46	44.68	54.00	-9.32	AVG			



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Fax:+86-0755-26503396

Job No.: Ricky #13

Standard: FCC 15C PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: Tablet PC

Mode: TX 2480MHz

Model: PC7023ME

Manufacturer: Kintech Co., Ltd

Polarization: Vertical

Power Source: AC 120V/60Hz

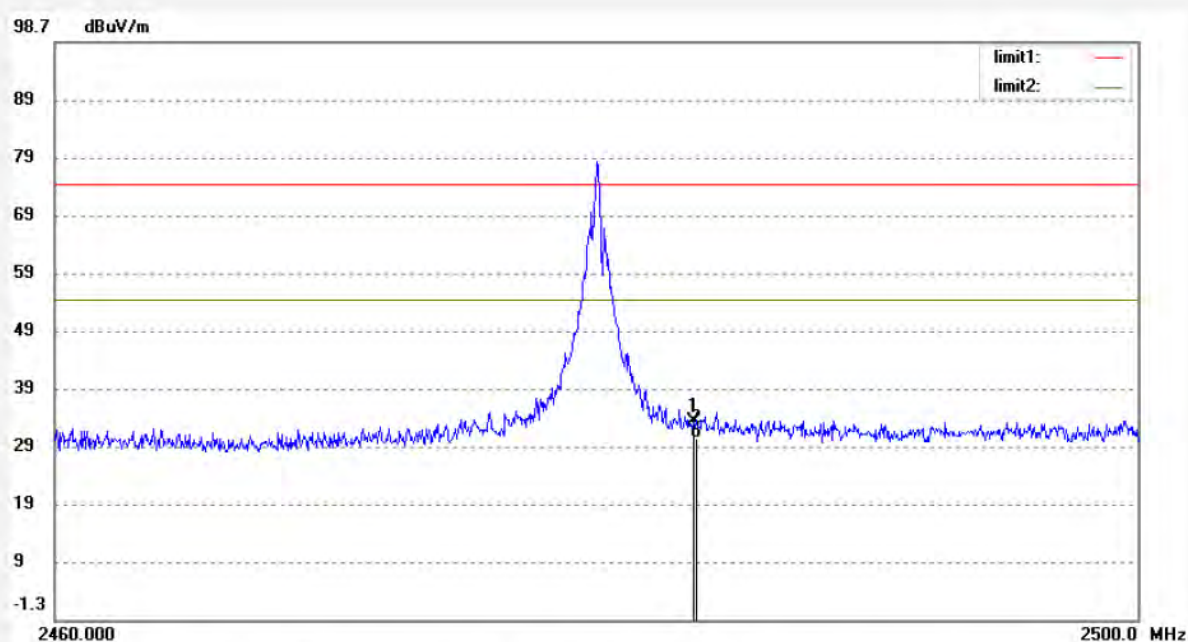
Date: 2013/01/15

Time: 14:50:31

Engineer Signature: Ricky

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.529	40.56	-7.37	33.19	74.00	-40.81	peak			
2	2483.529	37.51	-7.37	30.14	54.00	-23.86	AVG			



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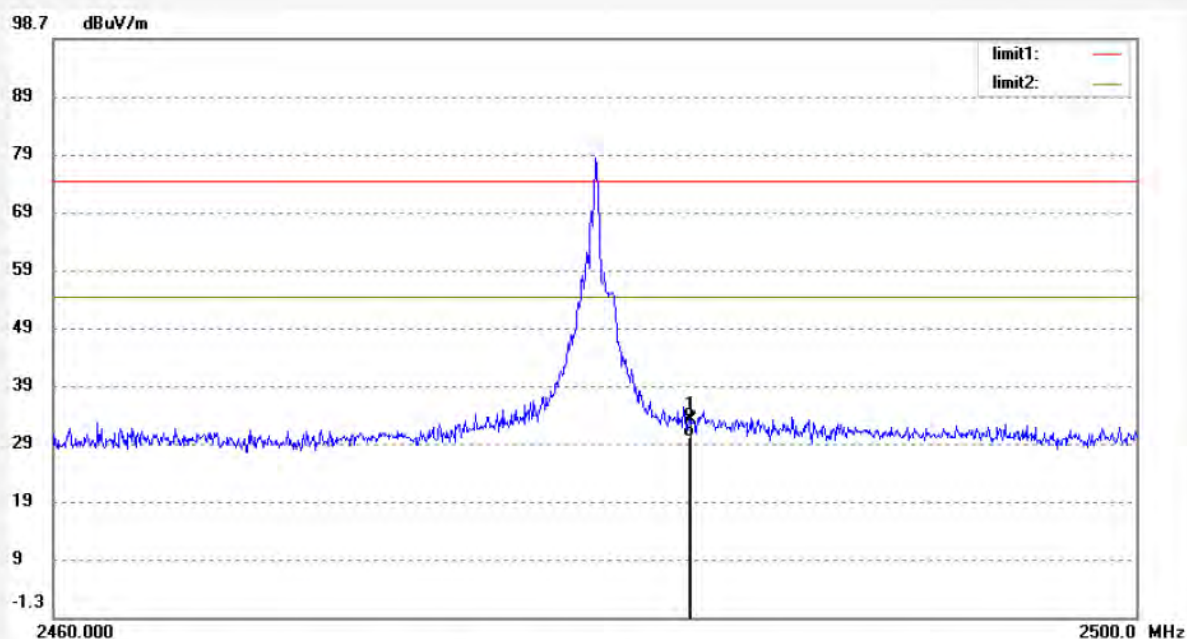
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Ricky #14
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: Tablet PC
Mode: TX 2480MHz
Model: PC7023ME
Manufacturer: Kintech Co., Ltd

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 2013/01/15
Time: 14:52:53
Engineer Signature: Ricky
Distance: 3m

Note:



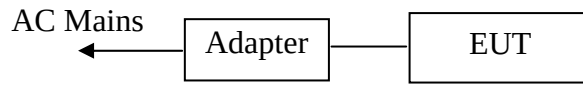
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.529	40.18	-7.37	32.81	74.00	-41.19	peak			
2	2483.529	37.23	-7.37	29.86	54.00	-24.14	AVG			

12.AC POWER LINE CONDUCTED EMISSION FOR FCC PART

15 SECTION 15.207(A)

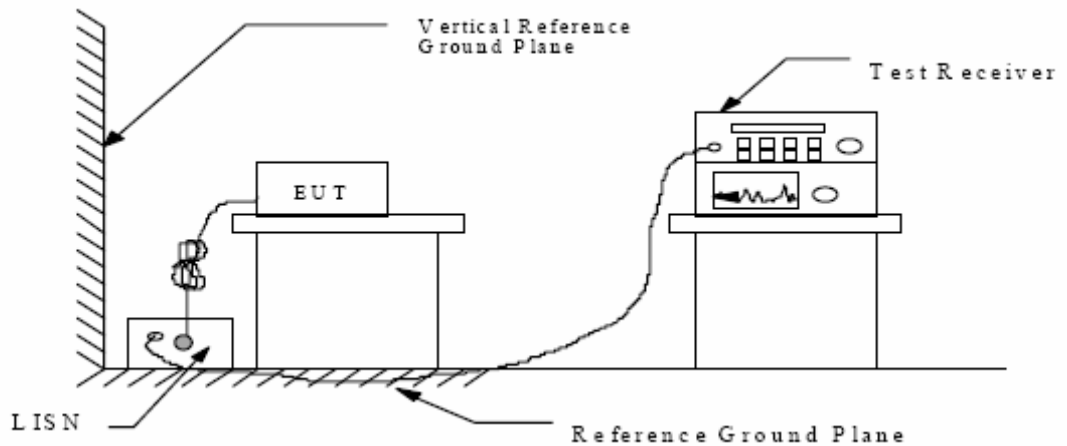
12.1.Block Diagram of Test Setup

12.1.1.Block diagram of connection between the EUT and simulators



(EUT: Tablet PC)

12.1.2.Shielding Room Test Setup Diagram



(EUT: Tablet PC)

12.2.The Emission Limit

12.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

* Decreases with the logarithm of the frequency.

12.3.Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

12.3.1. Tablet PC (EUT)

Model Number : PC7023ME
Serial Number : N/A
Manufacturer : Kintech Co. Ltd

12.4.Operating Condition of EUT

12.4.1. Setup the EUT and simulator as shown as Section 11.1.

12.4.2. Turn on the power of all equipment.

12.4.3. Let the EUT work in TX (Operation) mode measure it.

12.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9 kHz.

The frequency range from 150 kHz to 30MHz is checked.

12.6.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150 kHz to 30MHz is checked.

Date of Test:	Jan 9, 2012	Temperature:	25°C
EUT:	Tablet PC	Humidity:	50%
Model No.:	PC7023ME	Power Supply:	AC 120V/60Hz
Test Mode:	operation	Test Engineer:	Ricky

Frequency (MHz)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector	Line
0.173876	56.30	11.2	8.5	QP	Neutral
0.886326	30.80	11.3	25.2	QP	
5.279139	30.60	11.4	29.4	QP	
0.178091	36.30	11.2	18.3	AV	
0.231775	35.10	11.2	17.3	AV	
0.987197	25.50	11.3	20.5	AV	
0.182408	53.10	11.2	11.3	QP	Live
4.272443	32.40	11.4	23.6	QP	
5.258106	30.50	11.4	29.5	QP	
0.173876	39.10	11.2	15.7	AV	
0.979346	25.80	11.3	20.2	AV	
5.258106	22.80	11.4	27.2	AV	

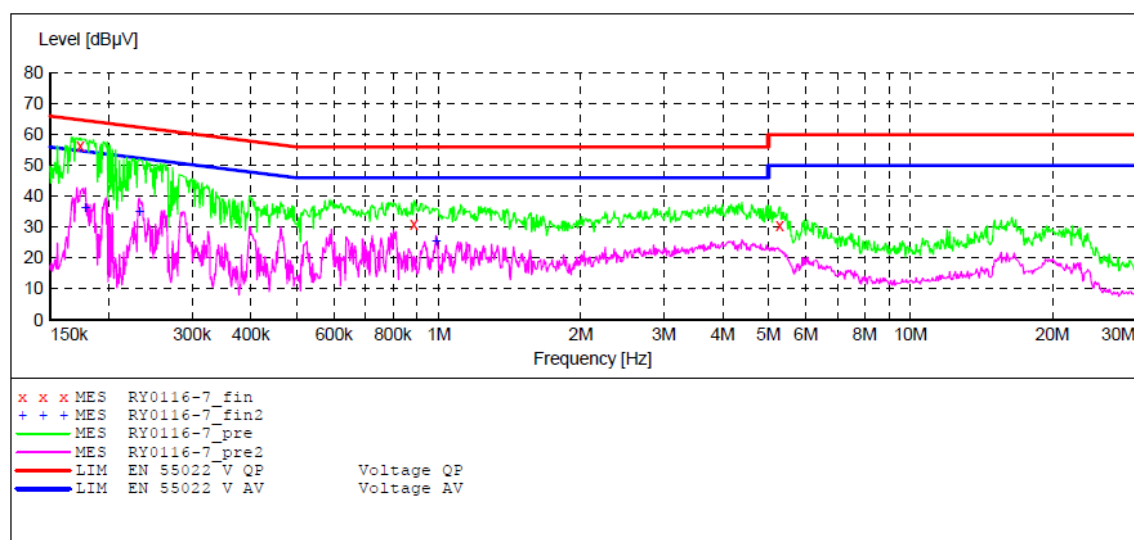
Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO.,LTD**CONDUCTED EMISSION STANDARD EN55022B**

EUT: Tablet PC M/N:PC7023ME
 Manufacturer: Kintech Co., Ltd
 Operating Condition: Operation
 Test Site: 1#Shielding Room
 Operator: Ricky
 Test Specification: N 230V/50Hz
 Comment:
 Start of Test: 1/16/2013 / 2:36:33PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: SUB STD VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average

**MEASUREMENT RESULT: "RY0116-7_fin"**

1/16/2013 2:38PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.173876	56.30	11.2	65	8.5	QP	N	GND
0.886326	30.80	11.3	56	25.2	QP	N	GND
5.279139	30.60	11.4	60	29.4	QP	N	GND

MEASUREMENT RESULT: "RY0116-7_fin2"

1/16/2013 2:38PM

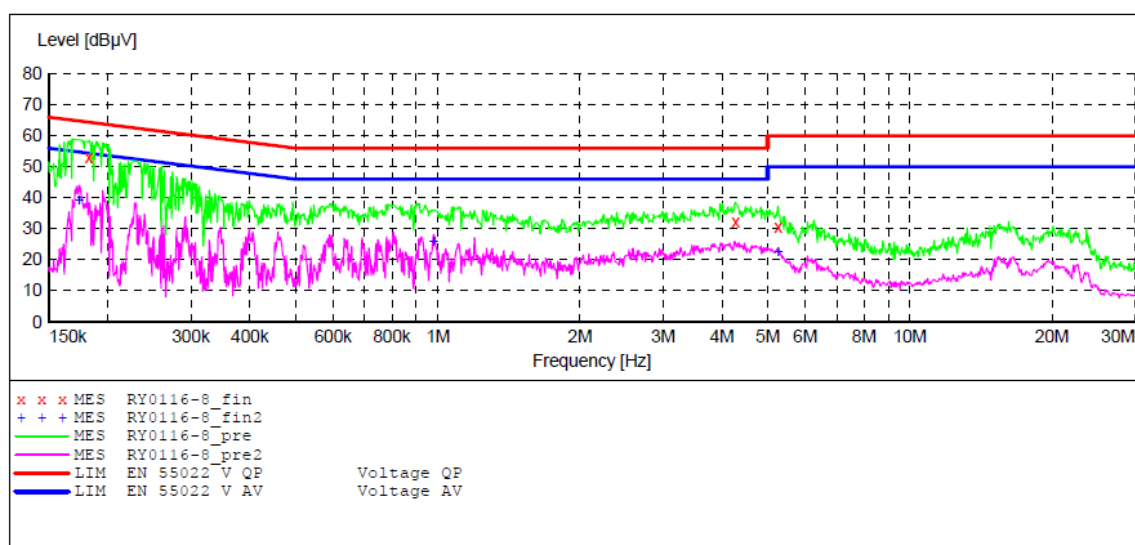
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.178091	36.30	11.2	55	18.3	AV	N	GND
0.231775	35.10	11.2	52	17.3	AV	N	GND
0.987197	25.50	11.3	46	20.5	AV	N	GND

ACCURATE TECHNOLOGY CO.,LTD**CONDUCTED EMISSION STANDARD EN55022B**

EUT: Tablet PC M/N:PC7023ME
 Manufacturer: Kintech Co., Ltd
 Operating Condition: Operation
 Test Site: 1#Shielding Room
 Operator: Ricky
 Test Specification: L 230V/50Hz
 Comment:
 Start of Test: 1/16/2013 / 2:39:38PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: SUB STD VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average

**MEASUREMENT RESULT: "RY0116-8_fin"**

1/16/2013 2:42PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.182408	53.10	11.2	64	11.3	QP	L1	GND
4.272443	32.40	11.4	56	23.6	QP	L1	GND
5.258106	30.50	11.4	60	29.5	QP	L1	GND

MEASUREMENT RESULT: "RY0116-8_fin2"

1/16/2013 2:42PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.173876	39.10	11.2	55	15.7	AV	L1	GND
0.979346	25.80	11.3	46	20.2	AV	L1	GND
5.258106	22.80	11.4	50	27.2	AV	L1	GND

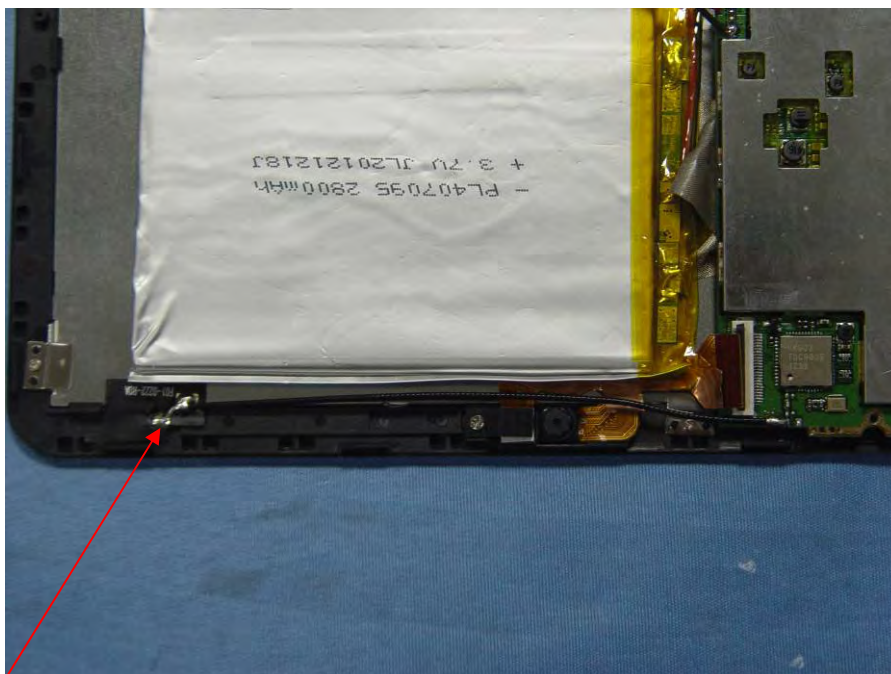
13.ANTENNA REQUIREMENT

13.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

13.2.Antenna Construction

The antenna is PCB Layout antenna, no consideration of replacement. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna