

APPLICATION CERTIFICATION
On Behalf of
SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.

All in one Entertainment System
Model No.: DSUN1170(CNE-8206-RS)

FCC ID: V8VCNE8206RS

Prepared for : SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.
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Date of Report : August 27, 2011

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Test Report Certification

Applicant : SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.
Manufacturer : SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.
EUT Description : All in one Entertainment System
(A) MODEL NO.: DSUN1170(CNE-8206-RS)
(B) SERIAL NO.: N/A
(C) POWER SUPPLY: DC 12V

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.4: 2003

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 : August 10-26, 2011

Prepared by :

APPLE

(Engineer)

Approved & Authorized Signer :

Heimle

(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	All in one Entertainment System
Model Number	:	DSUN1170(CNE-8206-RS)
Frequency Band	:	2402MHz-2480MHz
Number of Channels	:	79
Antenna Gain		0dBi
Power Supply	:	DC 12V
Applicant	:	SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.
Address	:	A1 Building, No.6 Xinxing Industrial Park, Xinhe Village, Fuyong Town, Baoan, Shenzhen City, China
Manufacturer	:	SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.
Address	:	A1 Building, No.6 Xinxing Industrial Park, Xinhe Village, Fuyong Town, Baoan, Shenzhen City, China
Date of sample received	:	August 9, 2011
Date of Test	:	August 10-26, 2011

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 until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 9, 2012
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 9, 2012
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 9, 2012
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 9, 2012
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 9, 2012
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 9, 2012
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 9, 2012
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 9, 2012
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 9, 2012
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 9, 2012

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: Transmitting mode

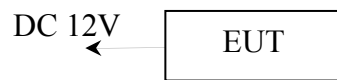
Low Channel: 2402MHz

Middle Channel: 2441MHz

High Channel: 2480MHz

Hopping

3.2.Configuration and peripherals



Setup: Transmitting mode

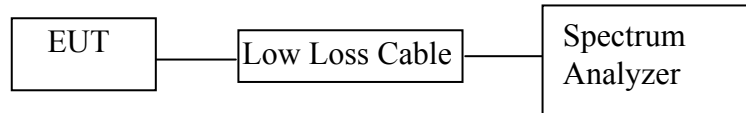
(EUT: All in one Entertainment System)

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
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)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 20DB BANDWIDTH TEST

5.1. Block Diagram of Test Setup



(EUT: All in one Entertainment System)

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. All in one Entertainment System (EUT)

Model Number	: DSUN1170(CNE-8206-RS)
Serial Number	: N/A
Manufacturer	: SKYPINE ELECTRONICS (SHEN ZHEN) 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, 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 30kHz and VBW to 100kHz.

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

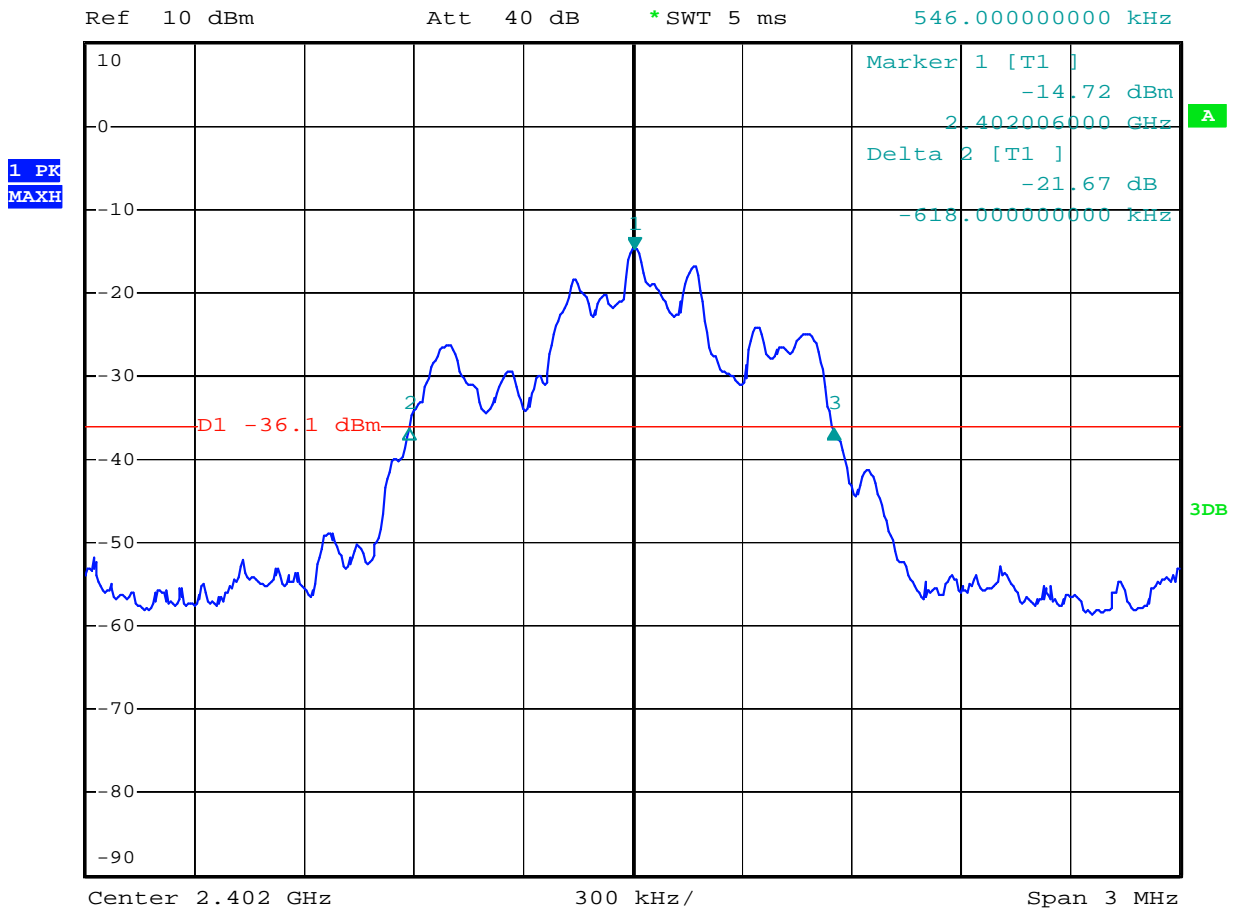
5.6. Test Result

PASS.

Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>TX</u>	Test Engineer:	<u>Apple</u>

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
Low	2402	1.164	---
Middle	2441	1.152	---
High	2480	1.146	---

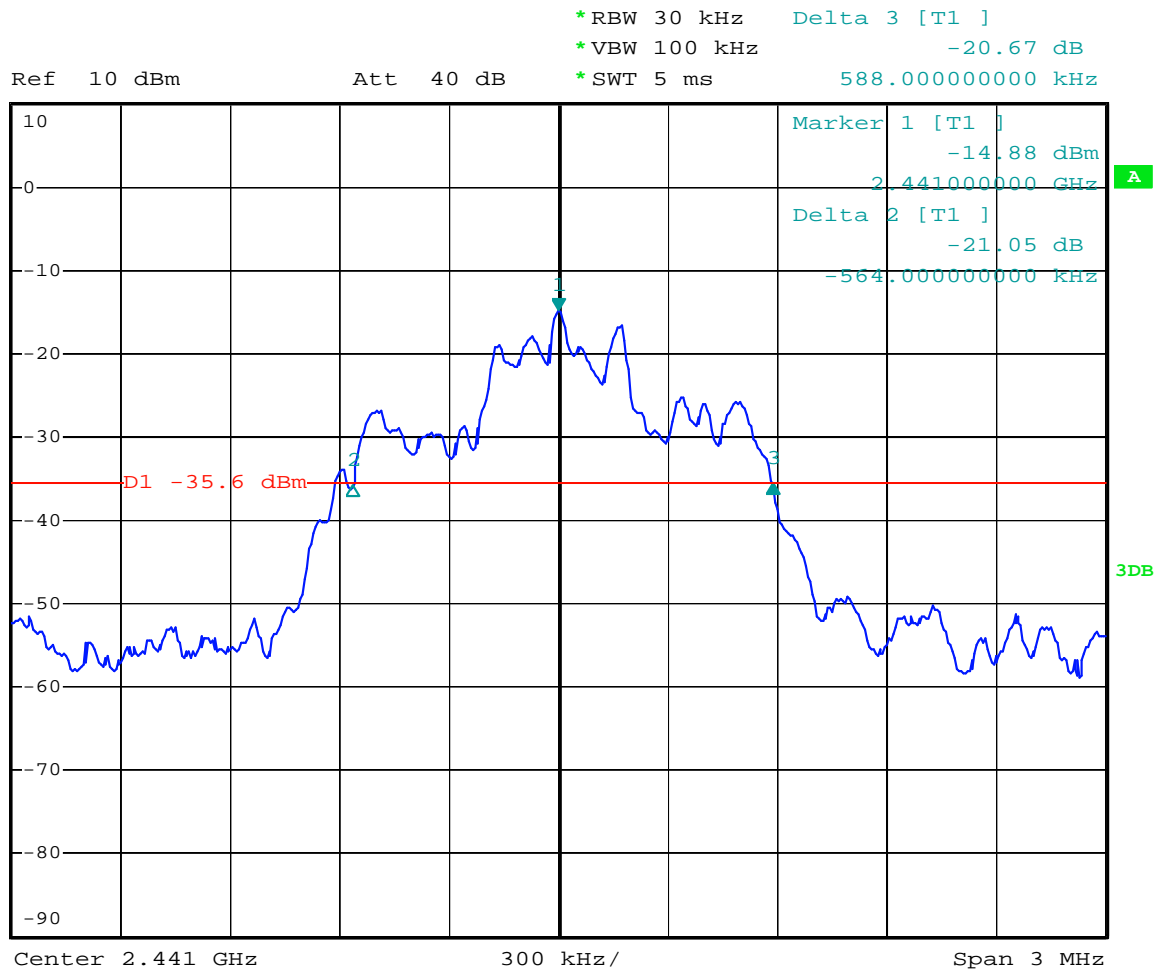
The spectrum analyzer plots are attached as below.



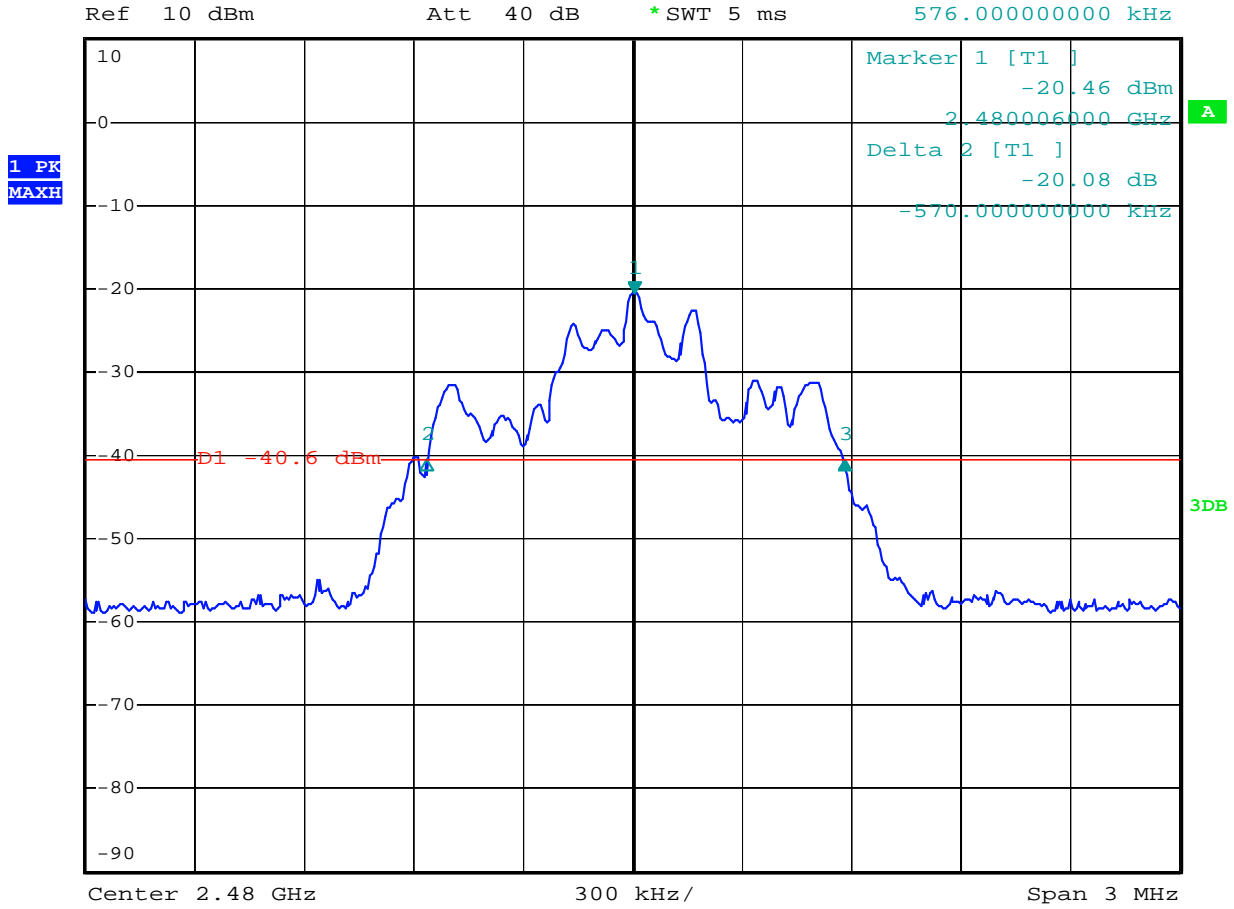
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1 PK
MAXH



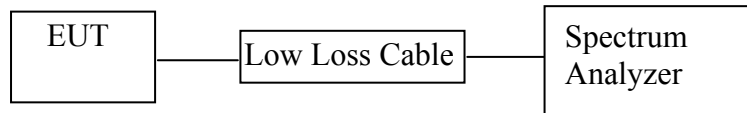
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Date: 11.AUG.2011 16:57:05

6. CARRIER FREQUENCY SEPARATION TEST

6.1. Block Diagram of Test Setup



(EUT: All in one Entertainment System)

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. All in one Entertainment System (EUT)

Model Number : DSUN1170(CNE-8206-RS)
 Serial Number : N/A
 Manufacturer : SKYPINE ELECTRONICS (SHEN ZHEN) 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, 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 100kHz and VBW to 300kHz. 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.

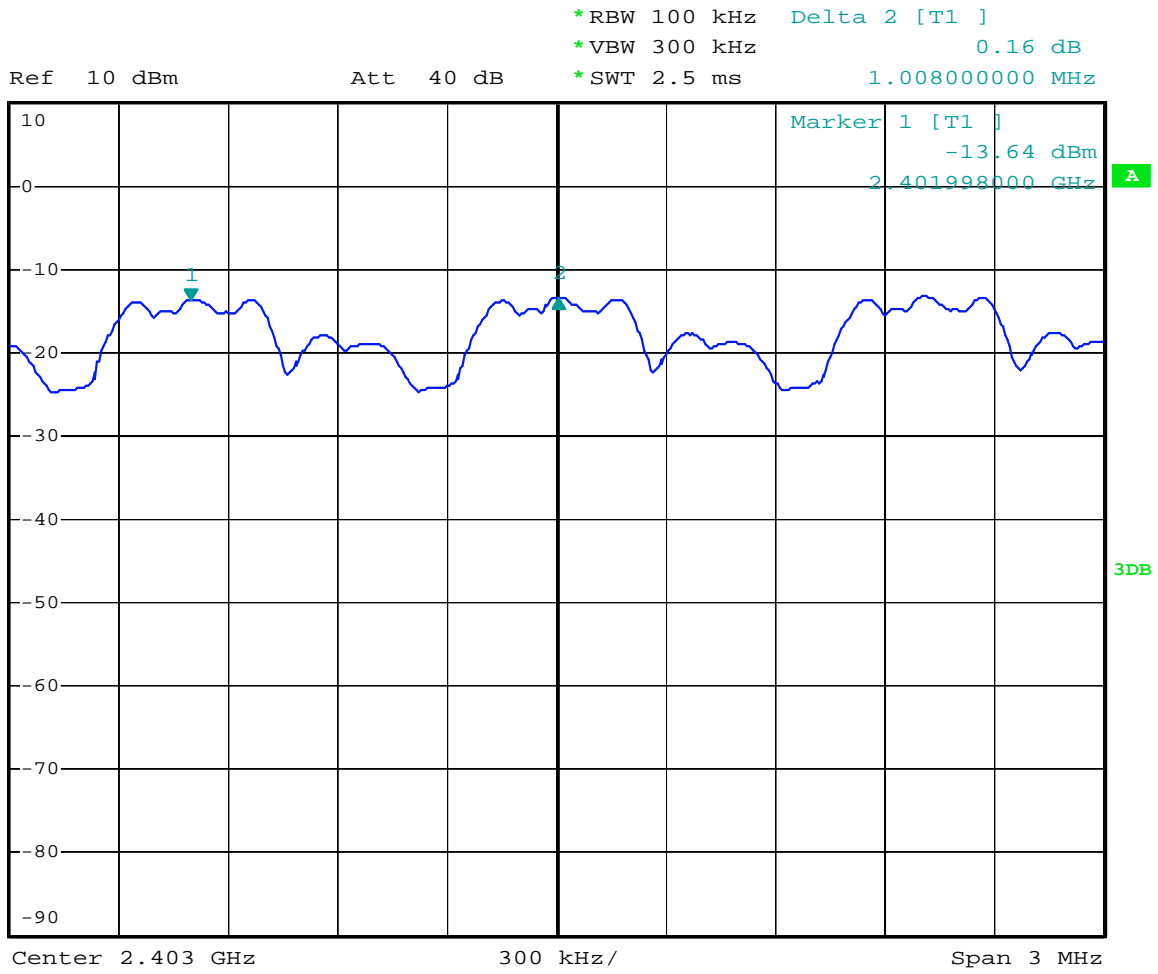
Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>Hopping</u>	Test Engineer:	<u>Apple</u>

Channel	Channel Frequency (MHz)	Channel separation (MHz)	Limit
Low	2402	1.008	> 25 kHz or two-thirds of the 20 dB bandwidth (whichever is greater)
Middle	2441	1.002	> 25 kHz or two-thirds of the 20 dB bandwidth (whichever is greater)
High	2480	1.002	> 25 kHz or two-thirds of the 20 dB bandwidth (whichever is greater)

The spectrum analyzer plots are attached as below.



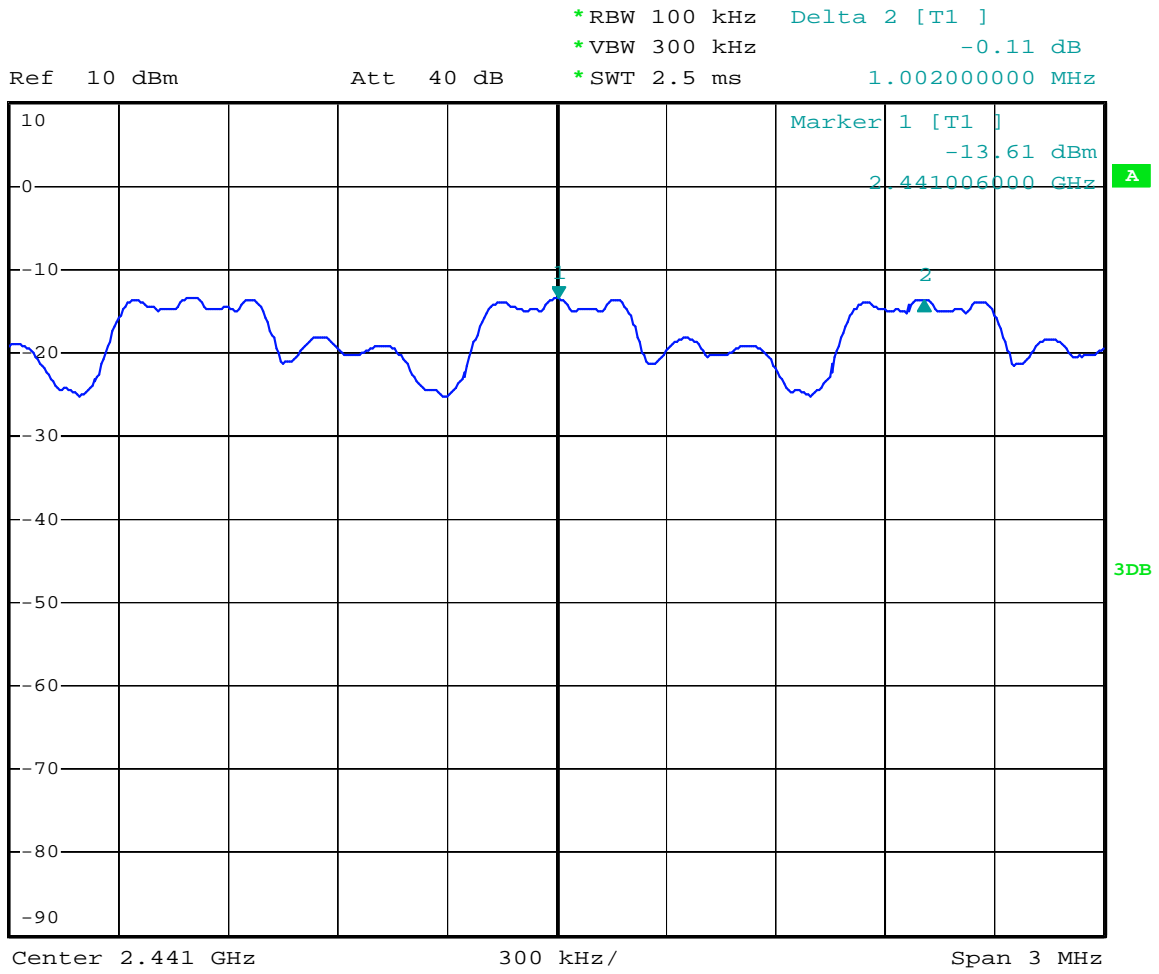
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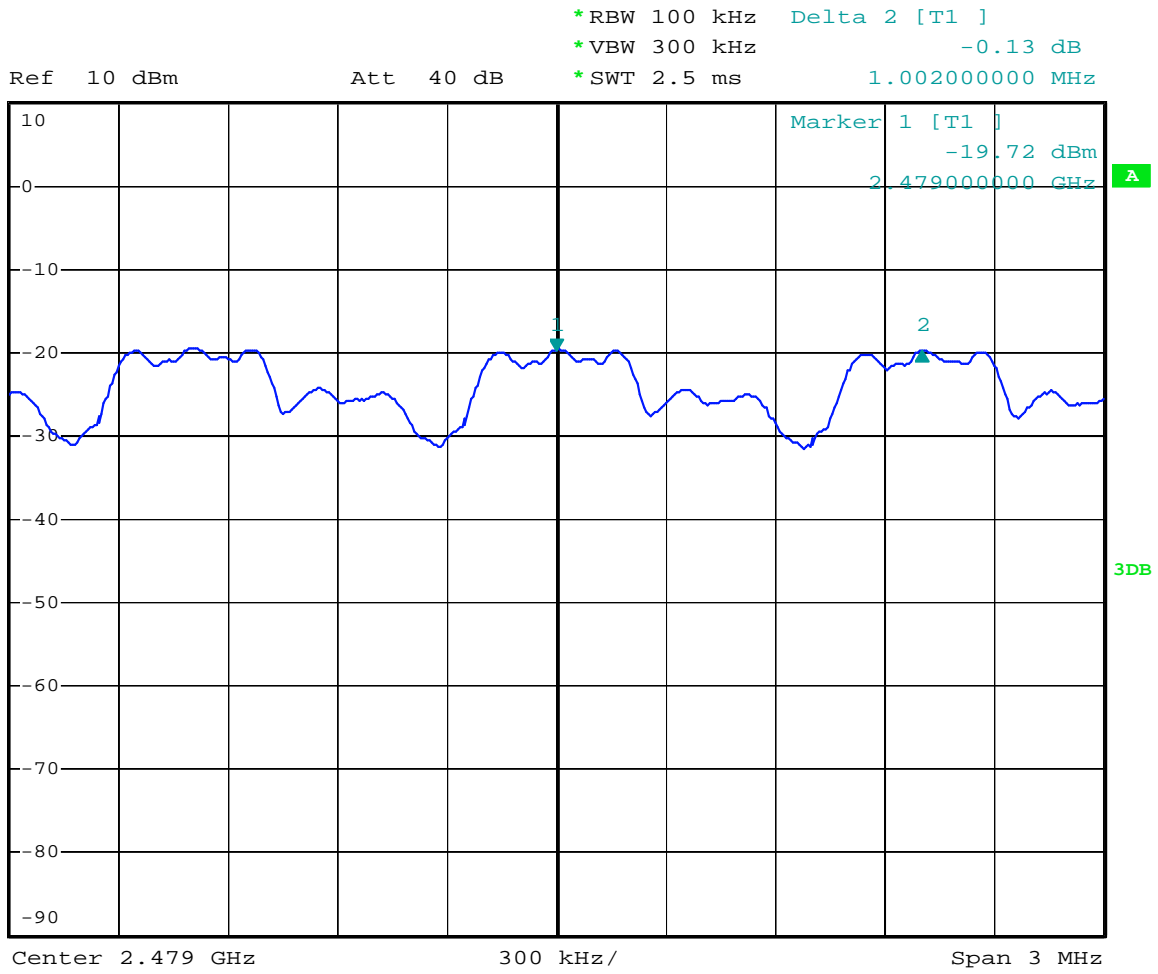
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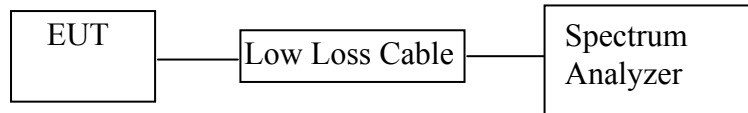
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7. NUMBER OF HOPPING FREQUENCY TEST

7.1. Block Diagram of Test Setup



(EUT: All in one Entertainment System)

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. All in one Entertainment System (EUT)

Model Number	:	DSUN1170(CNE-8206-RS)
Serial Number	:	N/A
Manufacturer	:	SKYPINE ELECTRONICS (SHEN ZHEN) 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=30MHz, RBW=300kHz, VBW=300kHz.

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

7.6. Test Result

PASS.

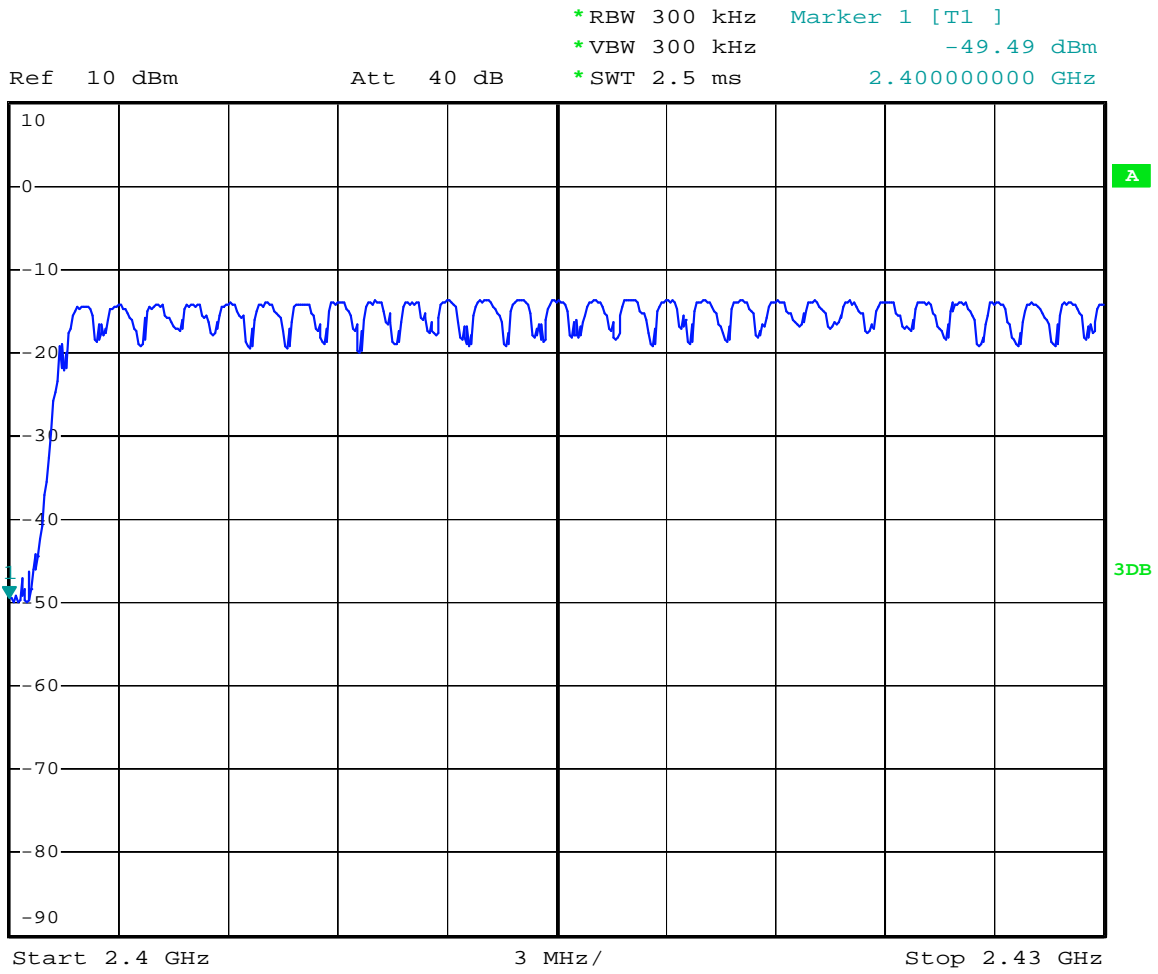
Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
	<u>All in one Entertainment</u>		
EUT:	<u>System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>Hopping</u>	Test Engineer:	<u>Apple</u>

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

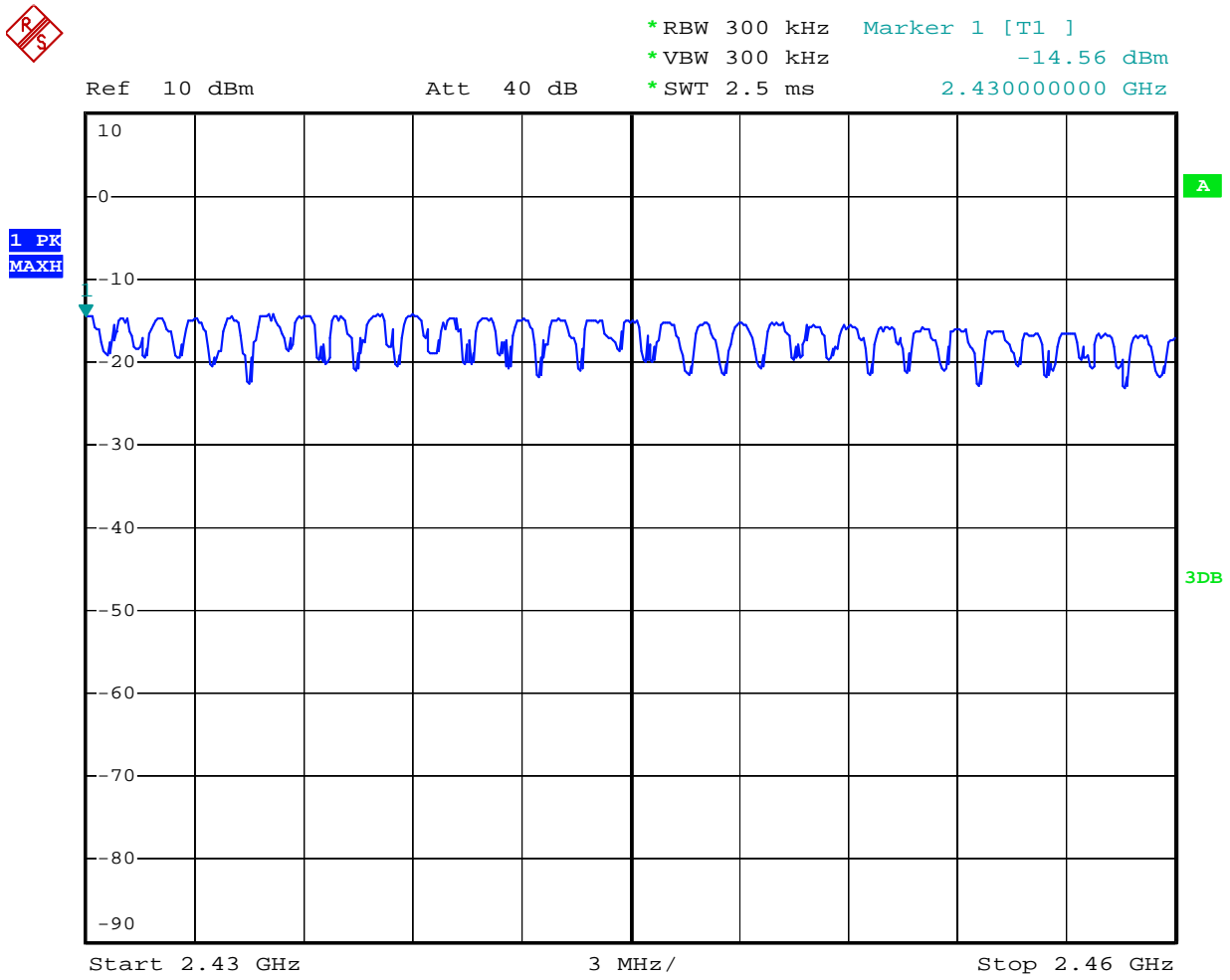
The spectrum analyzer plots are attached as below.



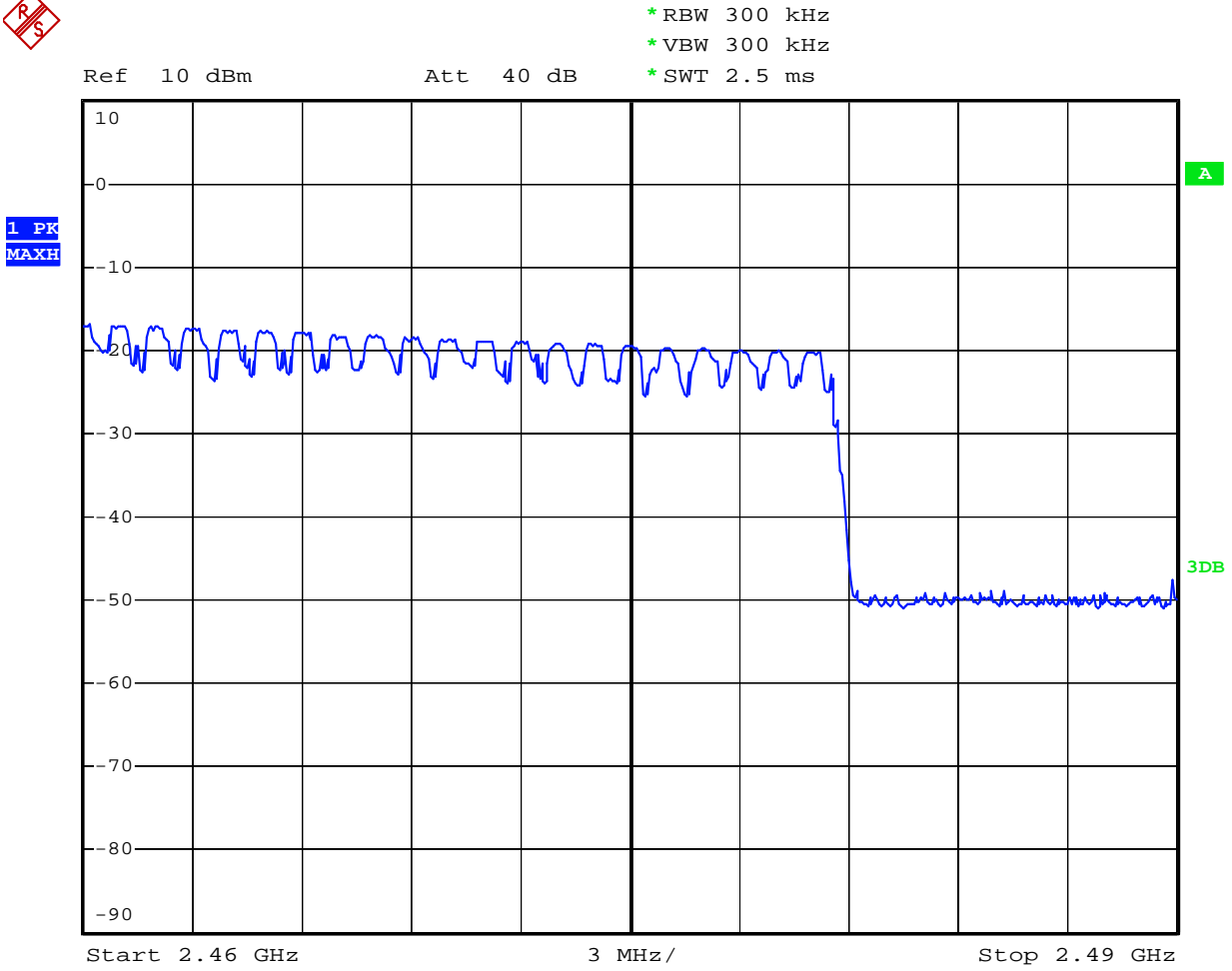
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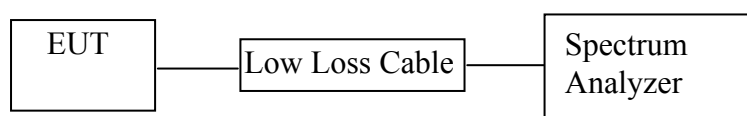
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Date: 11.AUG.2011 20:16:29

8. DWELL TIME TEST

8.1. Block Diagram of Test Setup



(EUT: All in one Entertainment System)

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. All in one Entertainment System (EUT)

Model Number	: DSUN1170(CNE-8206-RS)
Serial Number	: N/A
Manufacturer	: SKYPINE ELECTRONICS (SHEN ZHEN) 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, 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=100kHz, VBW=300kHz, Span=0Hz, Adjust Sweep=200ms. Get the burst (in 200 ms.).
- 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.

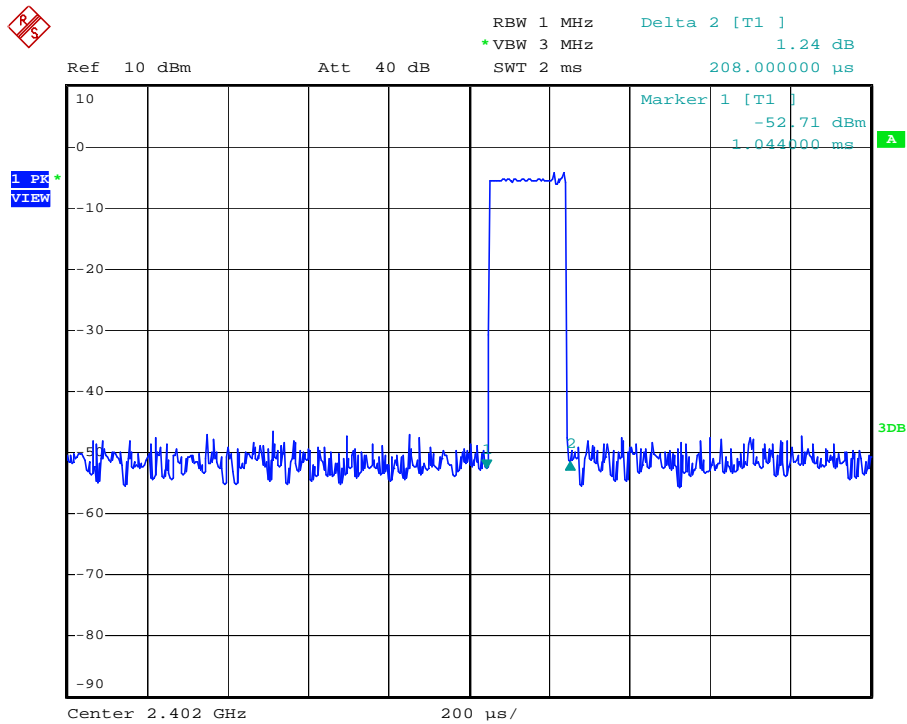
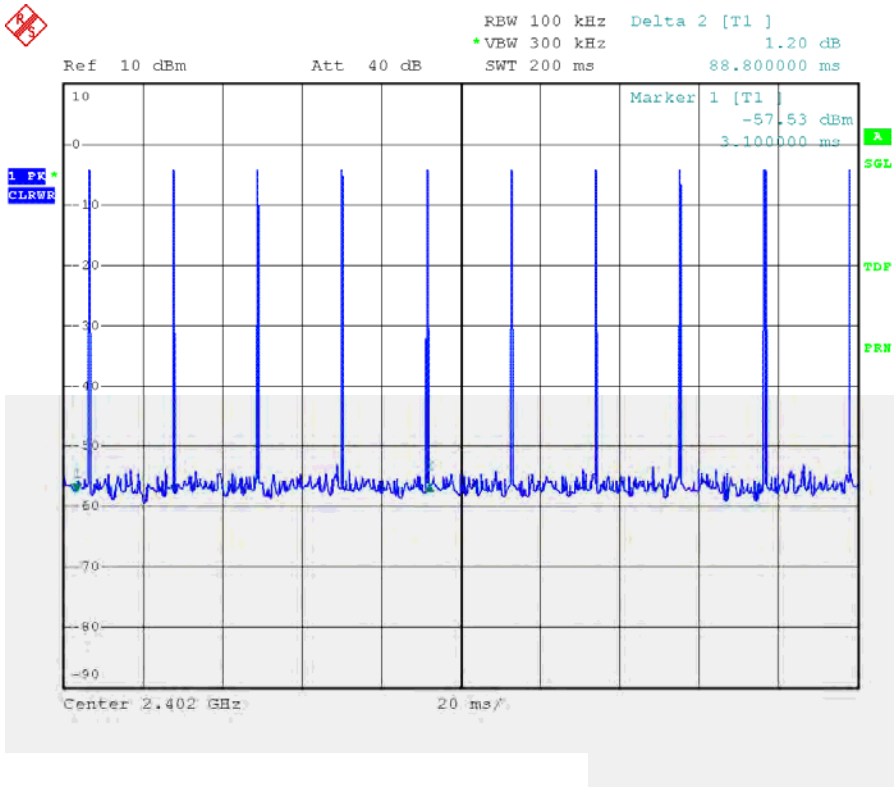
8.6. Test Result

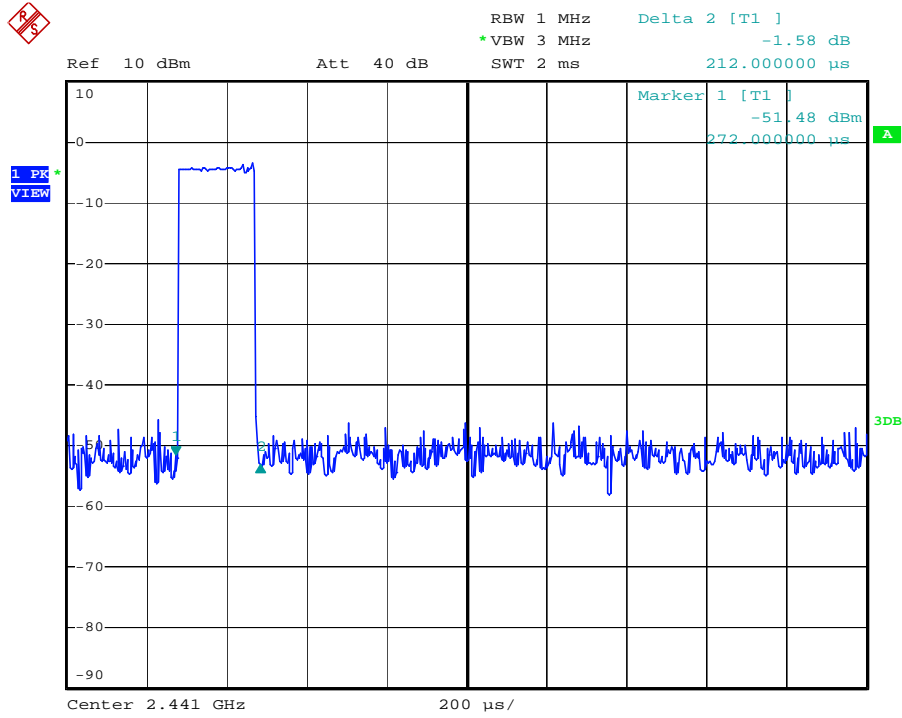
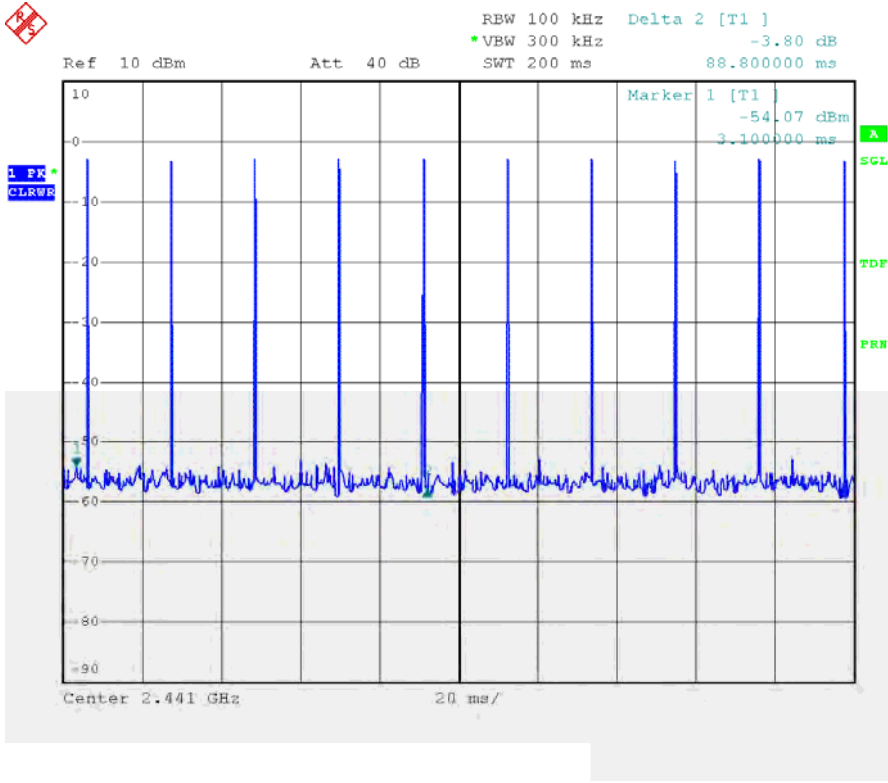
PASS.

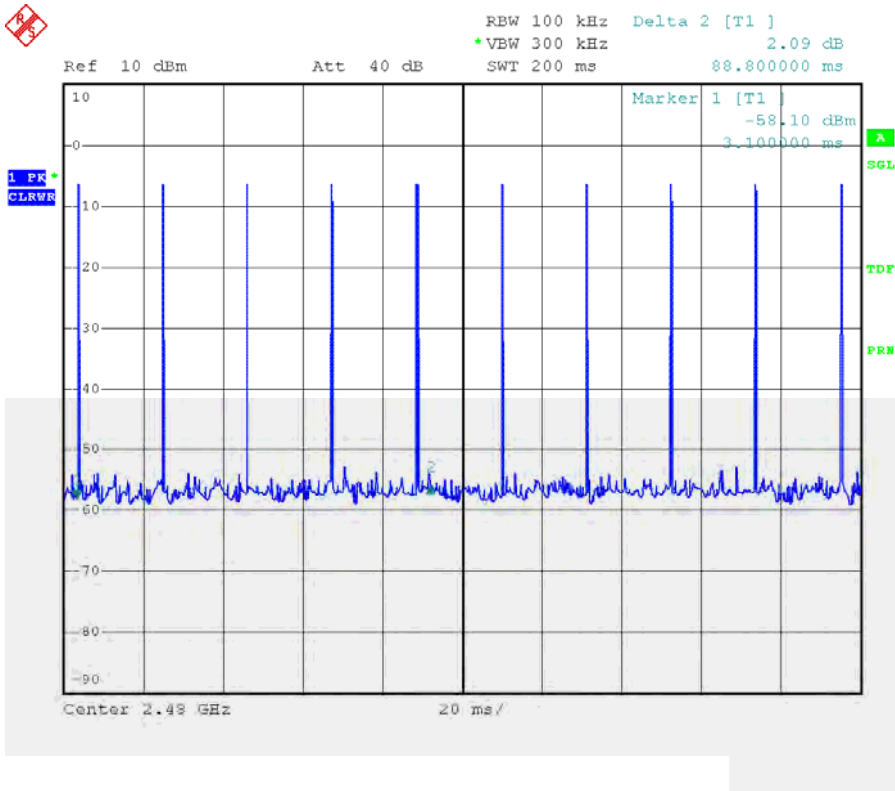
Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>Hopping</u>	Test Engineer:	<u>Apple</u>

A period transmit time = $0.4 \times 79 = 31.6$					
Dwell time = pulse time \times burst (in 200mS) \times (31.6S/200mS)					
Channel	Channel Frequency (MHz)	Pulse Time (ms)	Burst (in 200ms.)	Dwell Time (ms)	Limit (ms)
Low	2402	0.208	10	328.6	400
Middle	2441	0.212	10	335.0	400
High	2480	0.220	10	347.6	400

The spectrum analyzer plots are attached as below.

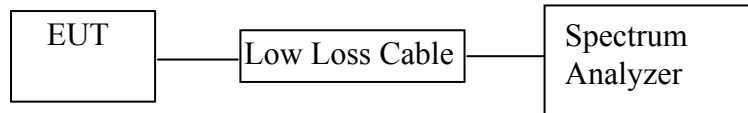






9. MAXIMUM PEAK OUTPUT POWER TEST

9.1. Block Diagram of Test Setup



(EUT: All in one Entertainment System)

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. All in one Entertainment System (EUT)

Model Number	:	DSUN1170(CNE-8206-RS)
Serial Number	:	N/A
Manufacturer	:	SKYPINE ELECTRONICS (SHEN ZHEN) 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, 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 1MHz and VBW to 3MHz.

9.5.3. Measurement the maximum peak output power.

9.6. Test Result

PASS.

Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>TX</u>	Test Engineer:	<u>Apple</u>

Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2402	-12.84	0.052	30 dBm / 1 W
Middle	2441	-12.89	0.051	30 dBm / 1 W
High	2480	-18.20	0.015	30 dBm / 1 W

The spectrum analyzer plots are attached as below.

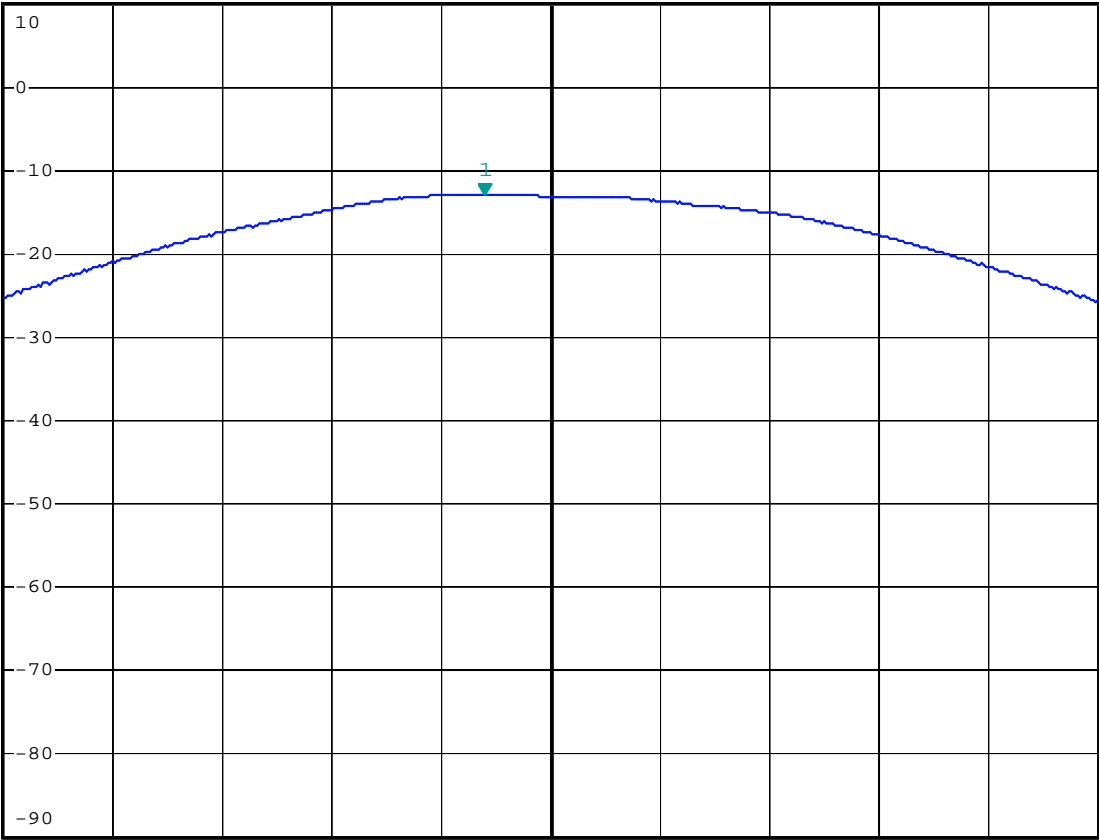


* RBW 1 MHz Marker 1 [T1]
* VBW 3 MHz -12.84 dBm
* SWT 2.5 ms 2.401820000 GHz

Ref 10 dBm

Att 40 dB

1 PK
MAXH



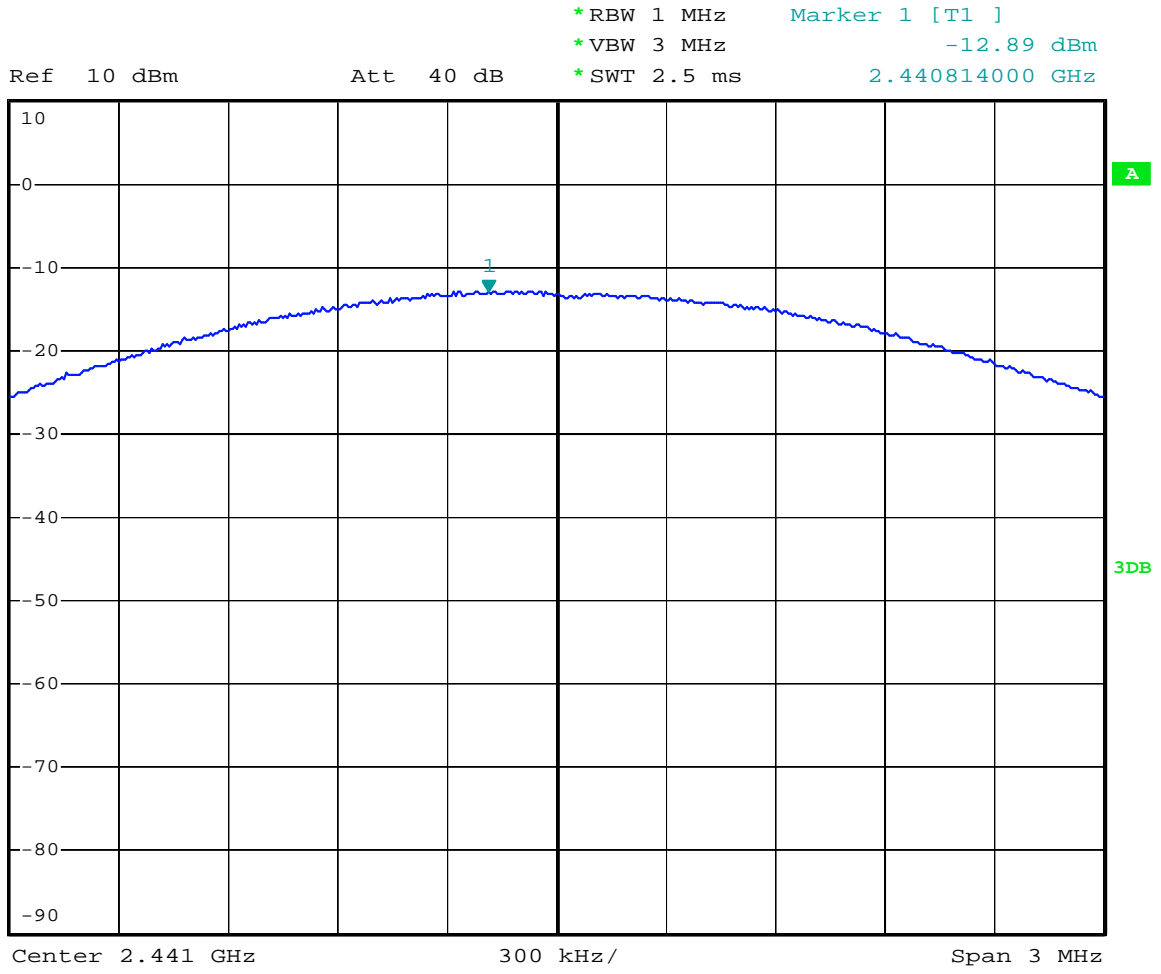
Center 2.402 GHz

300 kHz/

Span 3 MHz

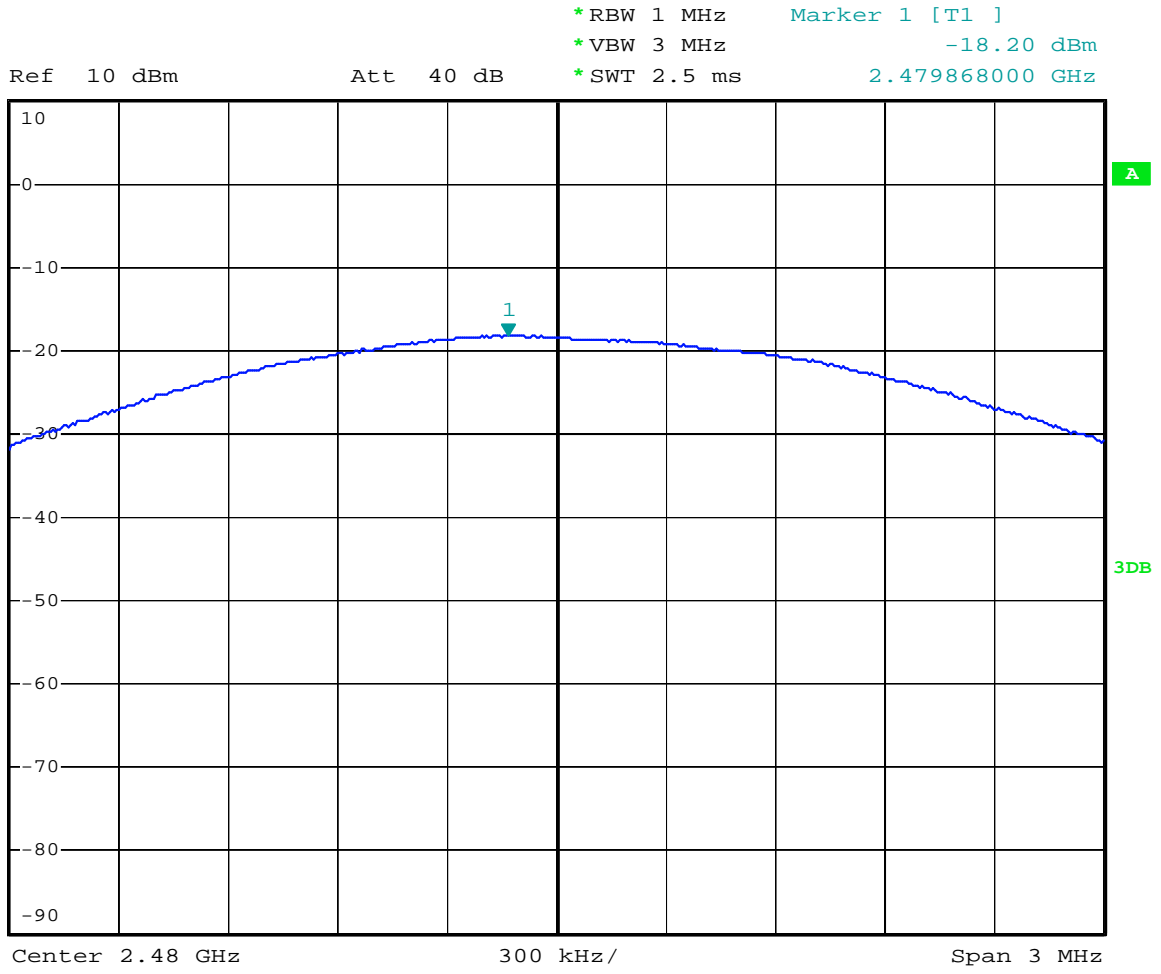


1 PK
MAXH



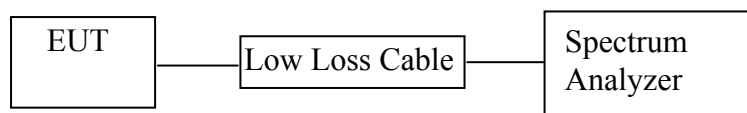


1 PK
MAXH



10.BAND EDGE COMPLIANCE TEST

10.1.Block Diagram of Test Setup



(EUT: All in one Entertainment System)

10.2.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).

10.3.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.

10.3.1.All in one Entertainment System (EUT)

Model Number	:	DSUN1170(CNE-8206-RS)
Serial Number	:	N/A
Manufacturer	:	SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.

10.4.Operating Condition of EUT

10.4.1.Setup the EUT and simulator as shown as Section 10.1.

10.4.2.Turn on the power of all equipment.

10.4.3.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.

10.5.Test Procedure

Conducted Band Edge:

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

10.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

10.5.3.The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

10.5.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.

10.5.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

10.5.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

10.5.7.The band edges was measured and recorded.

10.6. Test Result

Pass

Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>TX (Hopping off)</u>	Test Engineer:	<u>Apple</u>

Conducted test

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2402	39.14	> 20dBc
2480	34.34	> 20dBc

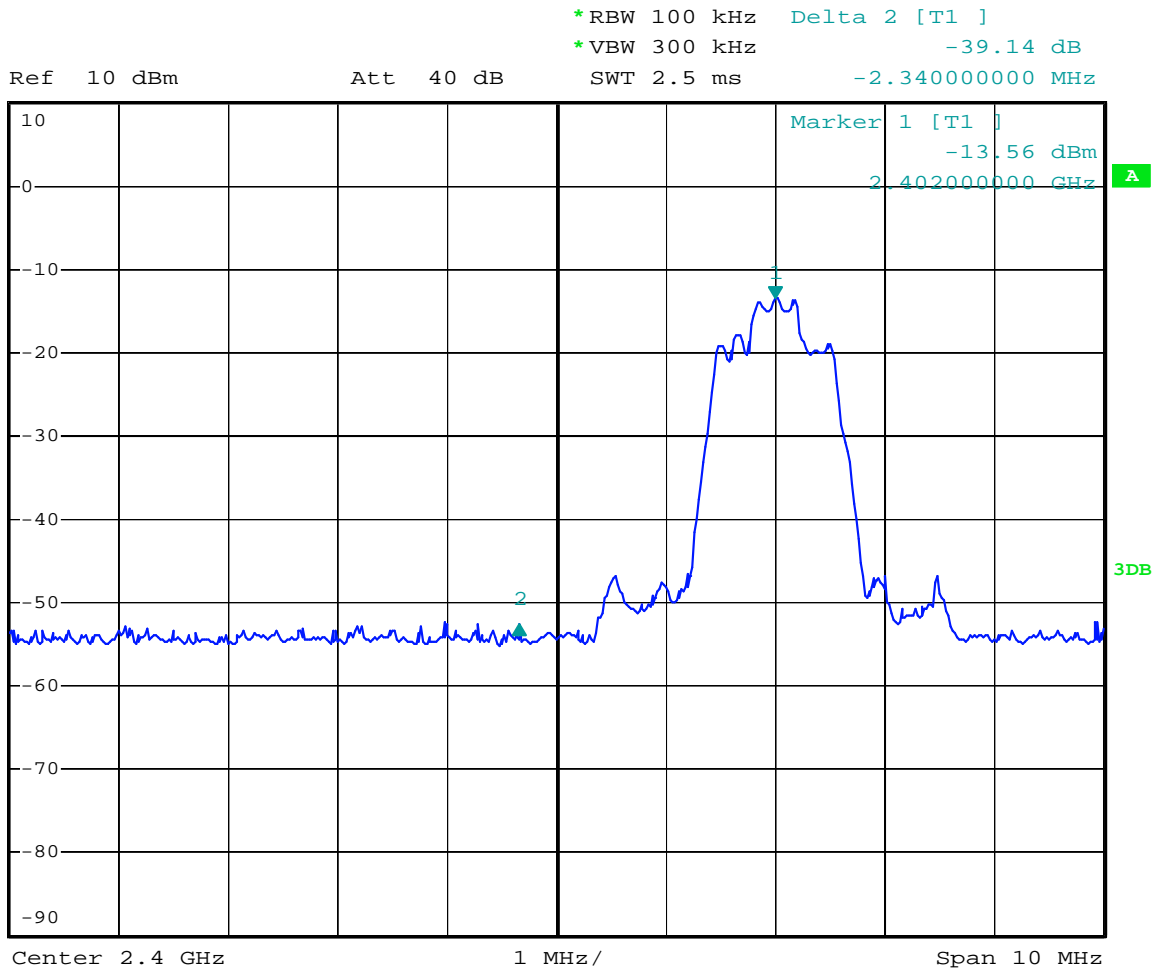
Date of Test:	<u>August 11, 2011</u>	Temperature:	<u>25°C</u>
EUT:	<u>All in one Entertainment System</u>	Humidity:	<u>50%</u>
Model No.:	<u>DSUN1170(CNE-8206-RS)</u>	Power Supply:	<u>DC 12V</u>
Test Mode:	<u>TX (Hopping on)</u>	Test Engineer:	<u>Apple</u>

Conducted test

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2402	38.56	> 20dBc
2480	33.82	> 20dBc



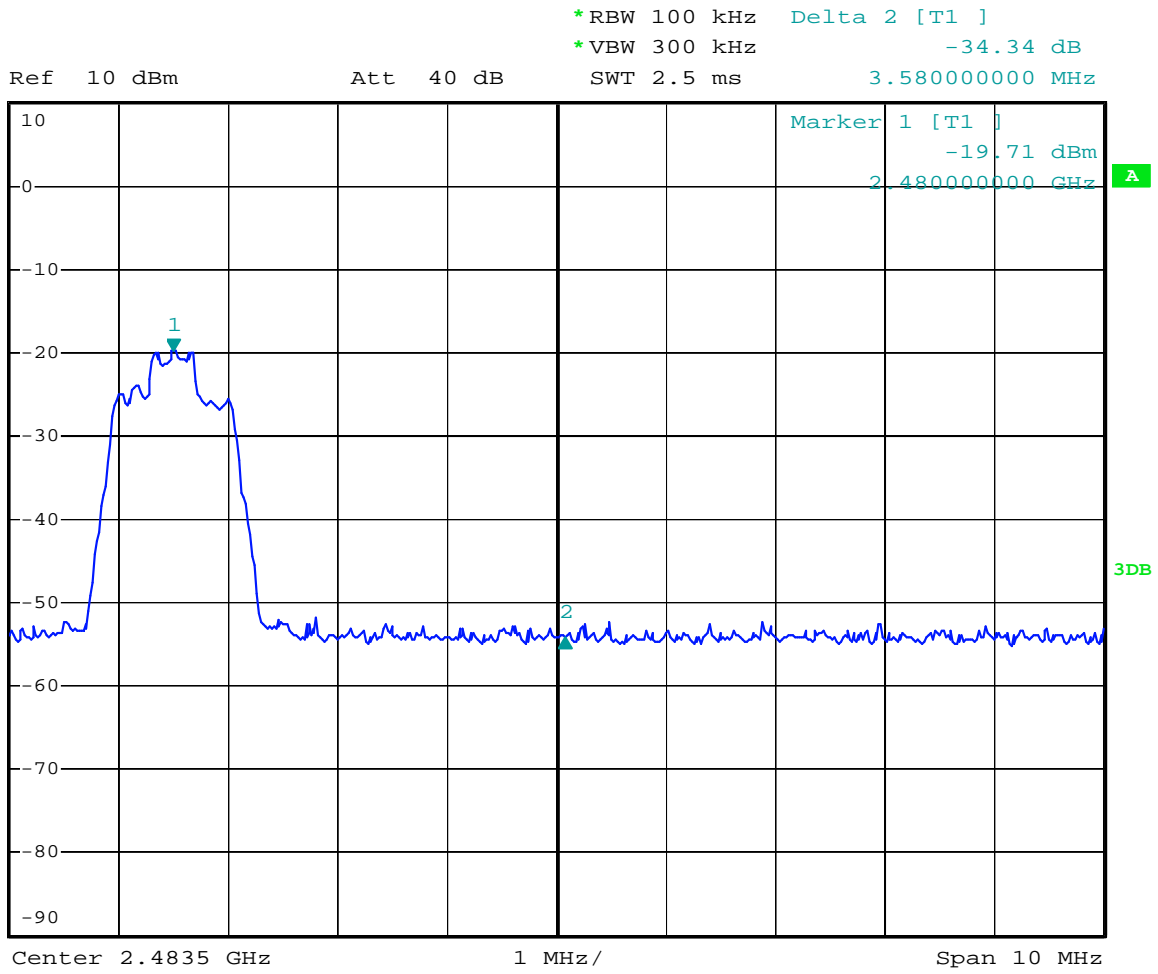
1 PK
MAXH



Date: 11.AUG.2011 19:00:53



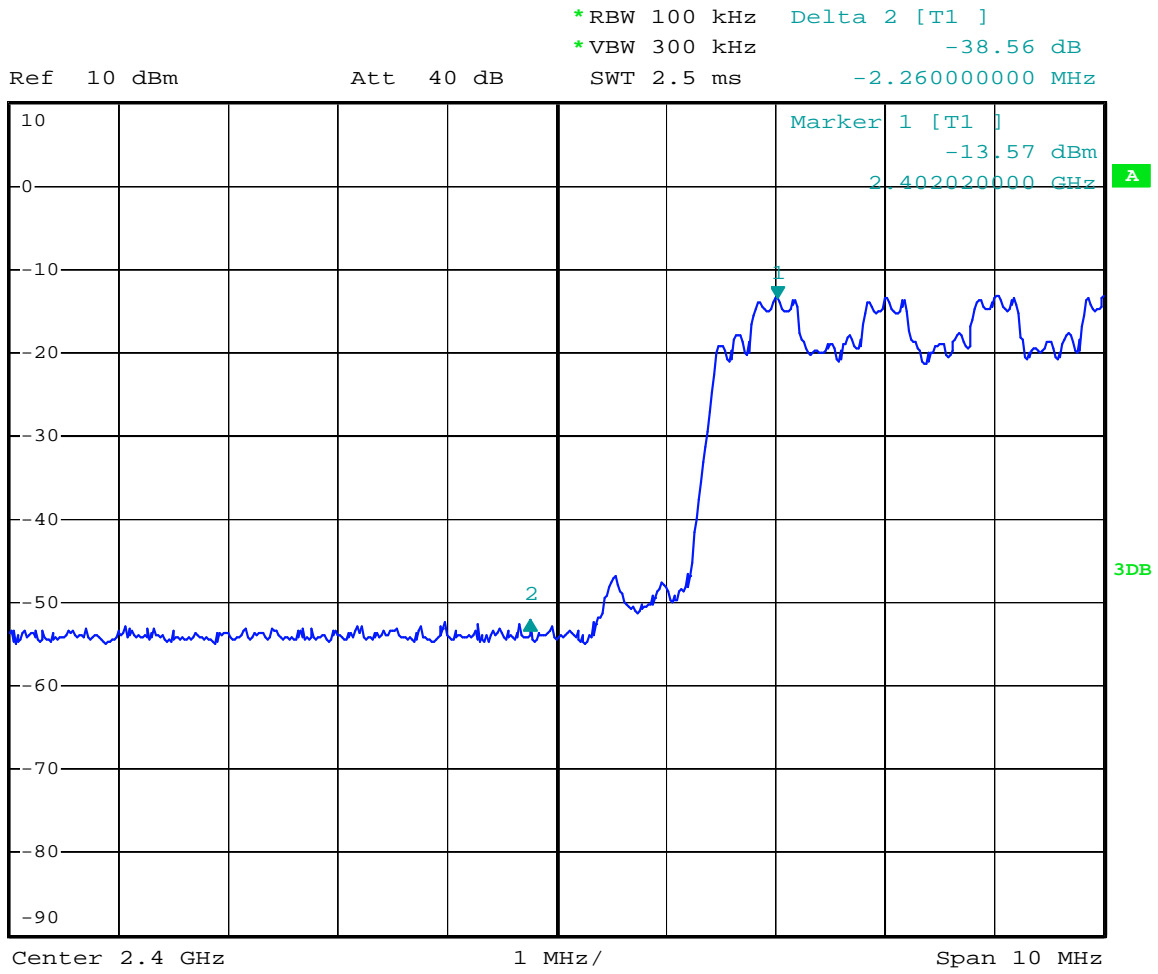
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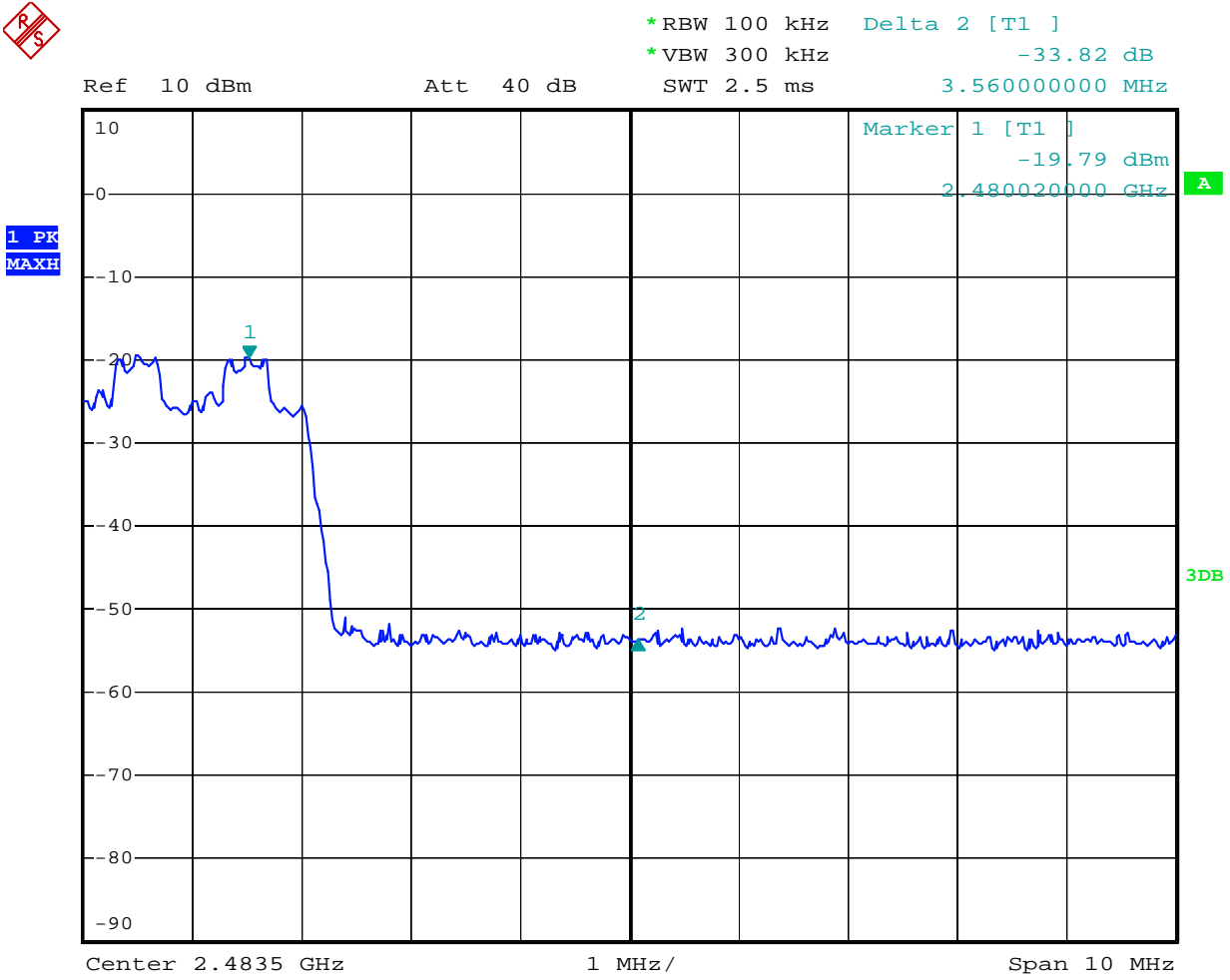
Date: 11.AUG.2011 18:53:37



1 PK
MAXH



Date: 11.AUG.2011 19:02:49



Date: 11.AUG.2011 18:55:29

Radiate test



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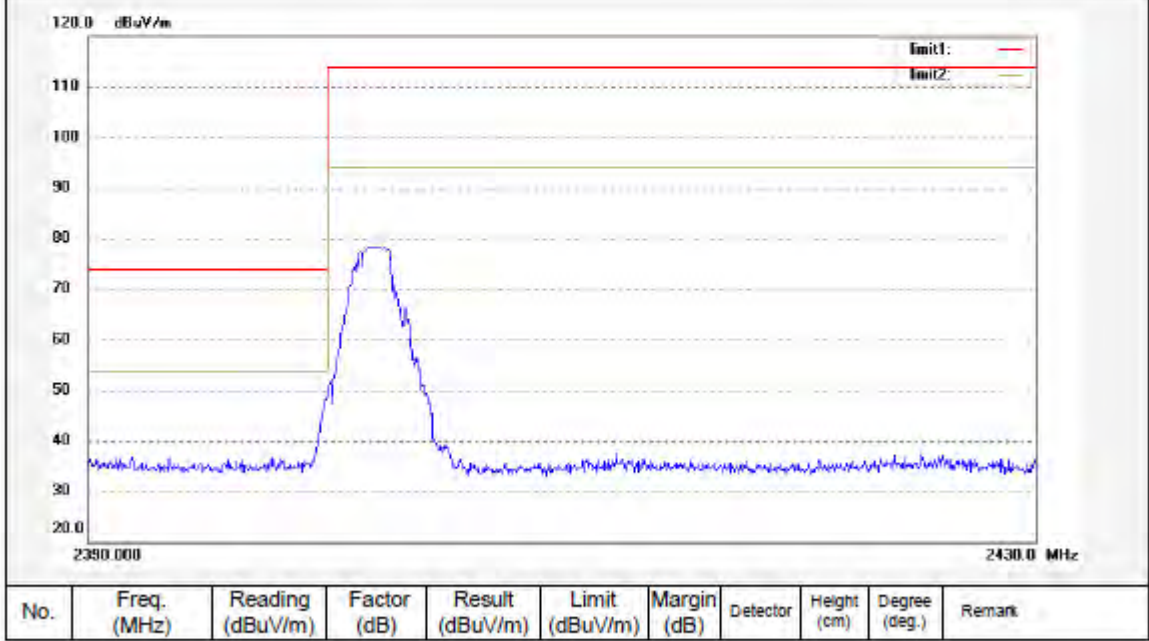
Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #179
Standard: FCC Part 15 PEAK 2.4G
Test item: Radiation Test
Temp.(C)/Hum.(%) 24 C / 48 %
EUT: All in one entertainment system
Mode: TX 2402
Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal
Power Source: DC 12V
Date: 2011/08/26
Time: 21:39:47
Engineer Signature: Apple
Distance:

Note:




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Fax:+86-0755-26503396

Job No.: Apple #180

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

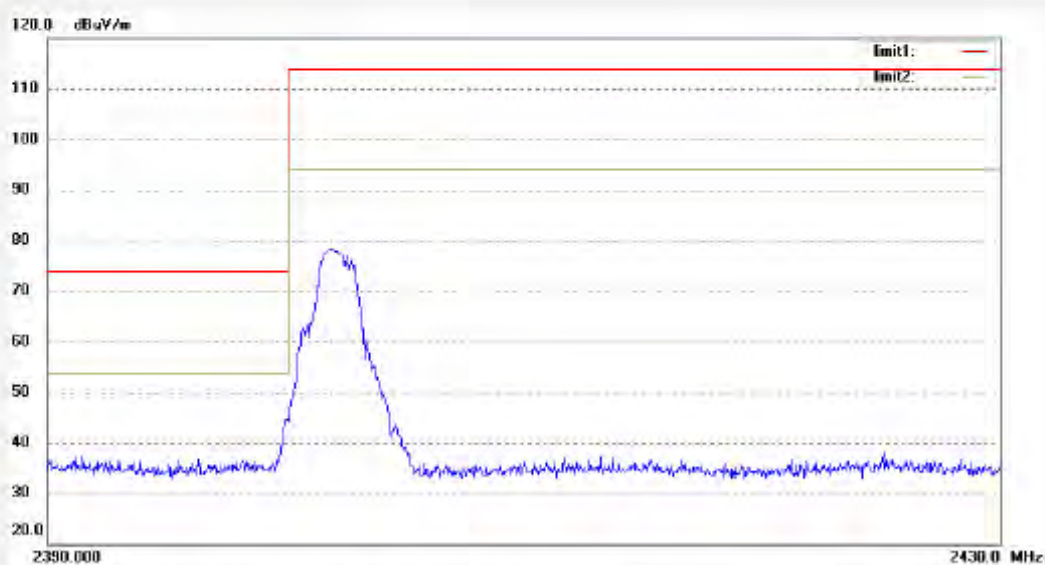
Date: 2011/08/26

Time: 21:41:29

Engineer Signature: Apple

Distance:

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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Site: 966 chamber

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Fax:+86-0755-26503396

Job No.: Apple #182

Standard: FCC Part 15 PEAK 2.4G

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2480

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

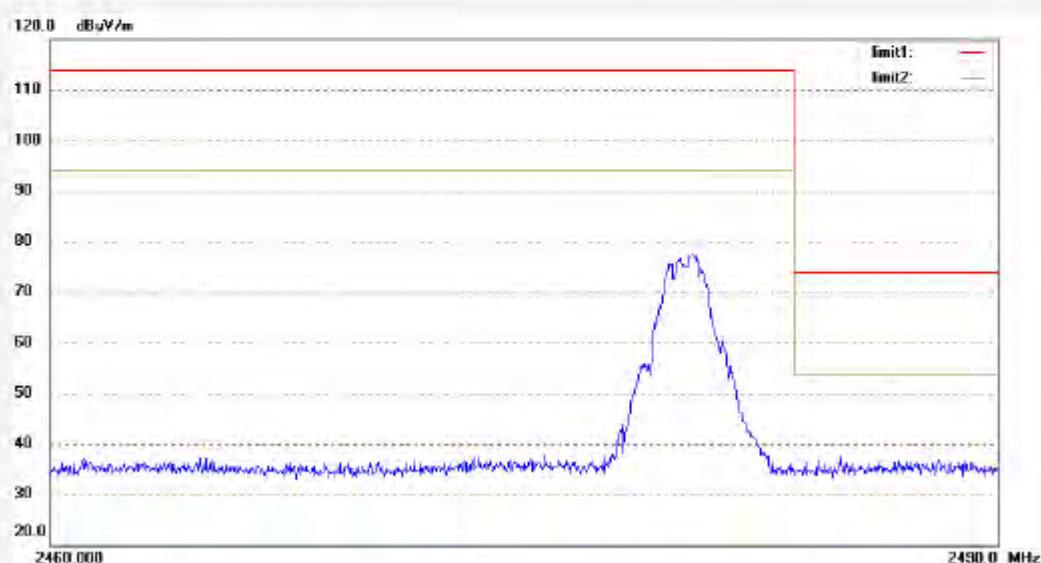
Date: 2011/08/26

Time: 21:45:32

Engineer Signature: Apple

Distance:

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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Site: 966 chamber

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Job No.: Apple #181

Polarization: Vertical

Standard: FCC Part 15 PEAK 2.4G

Power Source: DC 12V

Test item: Radiation Test

Date: 2011/08/26

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 21:43:54

EUT: All in one entertainment system

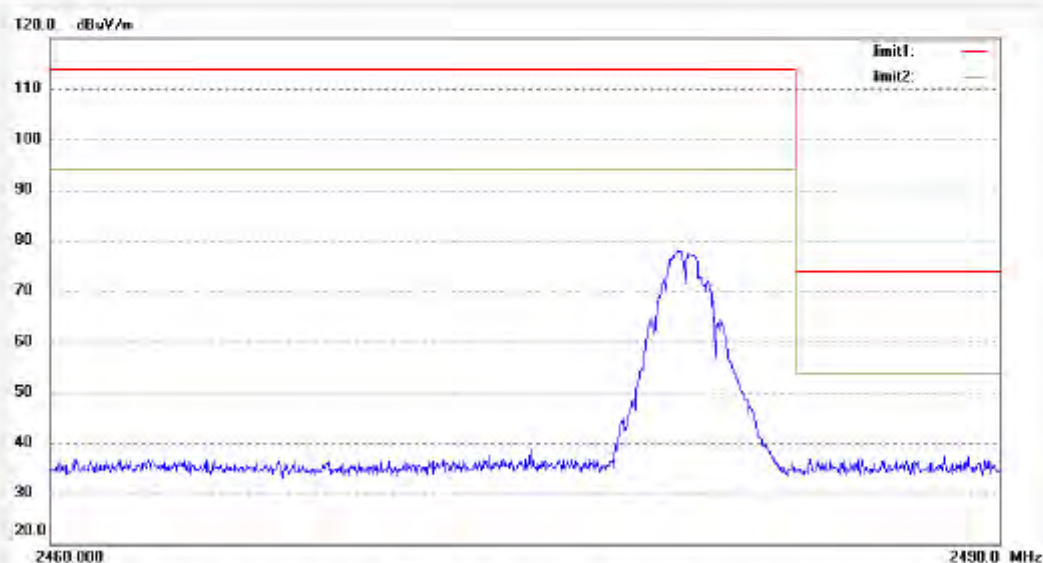
Engineer Signature: Apple

Mode: TX 2480

Distance:

Model: DSUN1170(CNE-8206-RS)

Note:

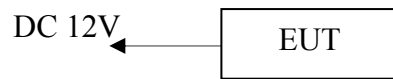


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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11.RADIATED SPURIOUS EMISSION TEST

11.1.Block Diagram of Test Setup

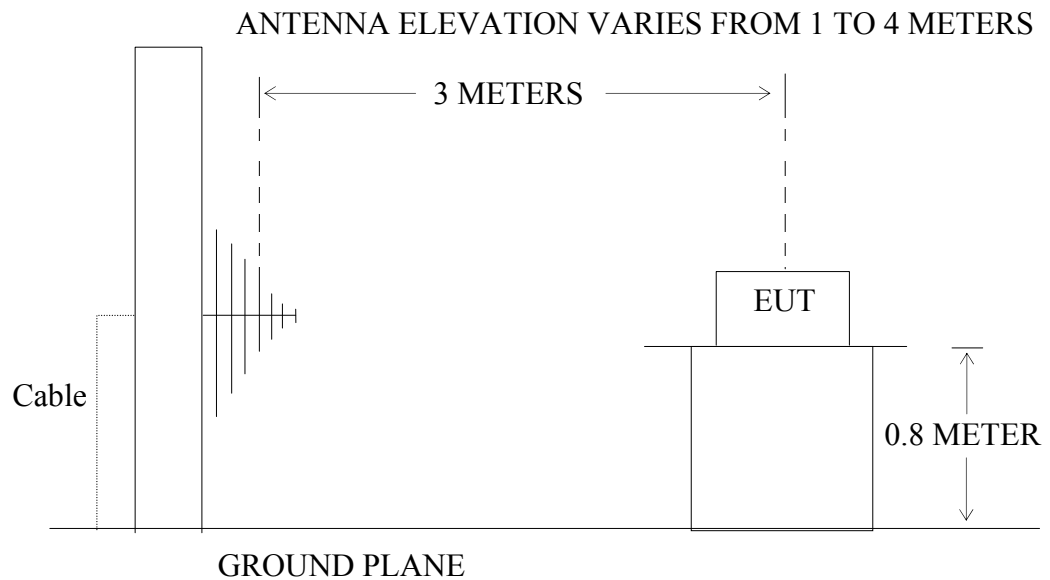
11.1.1.Block diagram of connection between the EUT and simulators



Setup: Transmitting mode

(EUT: All in one Entertainment System)

11.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: All in one Entertainment System)

11.2.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).

11.3.Restricted bands of operation

11.3.1.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.

11.4. Configuration of EUT on Measurement

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

11.4.1. All in one Entertainment System (EUT)

Model Number : DSUN1170(CNE-8206-RS)
 Serial Number : N/A
 Manufacturer : SKYPINE ELECTRONICS (SHEN ZHEN) CO., LTD.

11.5. Operating Condition of EUT

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

11.5.2. Turn on the power of all equipment.

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

11.6. Test Procedure

The EUT and its sim ulators are placed on a turntable, which is 0.8 m eter high above ground. The turntable can rotate 360 degrees to determine the position of the m aximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be m oved up and down between 1.0 m eter and 4 meters to find out the m aximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both hor izontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables m ust be m anipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

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 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those fr eQUENCY bands m ention 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

11.7. The Field Strength of Radiation Emission Measurement Results

PASS.

Date of Test:	August 26, 2011	Temperature:	25°C
EUT:	All in one Entertainment System	Humidity:	50%
Model No.:	DSUN1170(CNE-8206-RS)	Power Supply:	DC 12V
Test Mode:	TX (2402MHz)	Test Engineer:	Apple

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	
272.7140	19.76	18.24	38.00	46.00	-8.00	Vertical
367.9888	19.90	21.50	41.40	46.00	-4.60	Vertical
436.3540	21.19	22.91	44.10	46.00	-1.90	Vertical
272.7230	25.46	18.24	43.70	46.00	-2.30	Horizontal
378.0150	20.46	21.54	42.00	46.00	-4.00	Horizontal
436.3530	19.49	22.91	42.40	46.00	-3.60	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	
2402.000	57.65	80.46	-7.45	50.20	73.01	-	-	-	-	Vertical
2402.000	54.45	82.10	-7.45	47.00	74.65	-	-	-	-	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

Date of Test:	August 26, 2011	Temperature:	25°C
EUT:	All in one Entertainment System	Humidity:	50%
Model No.:	DSUN1170(CNE-8206-RS)	Power Supply:	DC 12V
Test Mode:	TX (2441MHz)	Test Engineer:	Apple

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	
367.9930	19.70	21.50	41.20	46.00	-4.80	Vertical
436.3540	21.59	22.91	44.50	46.00	-1.50	Vertical
654.5254	14.21	25.99	40.20	46.00	-5.80	Vertical
272.7260	25.56	18.24	43.80	46.00	-2.20	Horizontal
381.8057	20.60	21.60	42.20	46.00	-3.80	Horizontal
436.3530	21.29	22.91	44.20	46.00	-1.80	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	
2441.000	57.37	76.45	-7.35	50.02	69.10	-	-	-	-	Vertical
2441.000	58.58	77.26	-7.35	51.23	69.91	-	-	-	-	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.**

Date of Test:	August 26, 2011	Temperature:	25°C
EUT:	All in one Entertainment System	Humidity:	50%
Model No.:	DSUN1170(CNE-8206-RS)	Power Supply:	DC 12V
Test Mode:	TX (2480MHz)	Test Engineer:	Apple

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	
367.2480	19.98	21.49	41.47	46.00	-4.53	Vertical
436.3397	21.32	22.91	44.23	46.00	-1.77	Vertical
654.3831	14.89	25.99	40.88	46.00	-5.12	Vertical
272.7212	25.06	18.24	43.30	46.00	-2.70	Horizontal
381.2022	21.25	21.58	42.83	46.00	-3.17	Horizontal
436.3396	21.19	22.91	44.10	46.00	-1.90	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	
2480.000	58.40	70.90	-7.37	51.03	63.53	-	-	-	-	Vertical
2480.000	59.48	72.85	-7.37	52.11	65.84	-	-	-	-	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.**


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Job No.: Apple #173

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

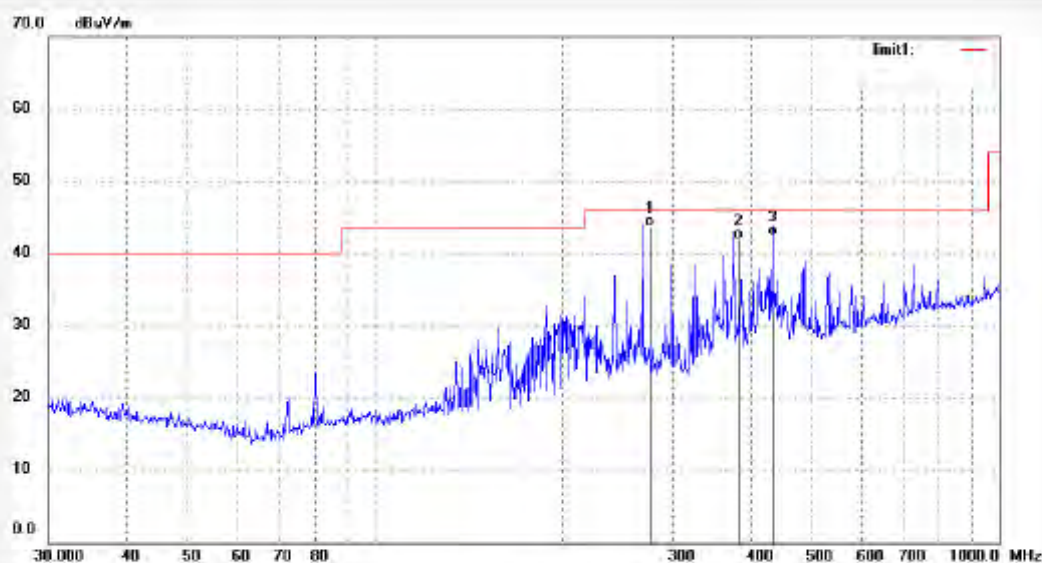
Date: 2011/08/26

Time: 20:36:05

Engineer Signature: Apple

Distance:

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	272.7230	25.46	18.24	43.70	46.00	-2.30	QP			
2	378.0150	20.46	21.54	42.00	46.00	-4.00	QP			
3	436.3530	19.49	22.91	42.40	46.00	-3.60	QP			


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Job No.: Apple #174

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

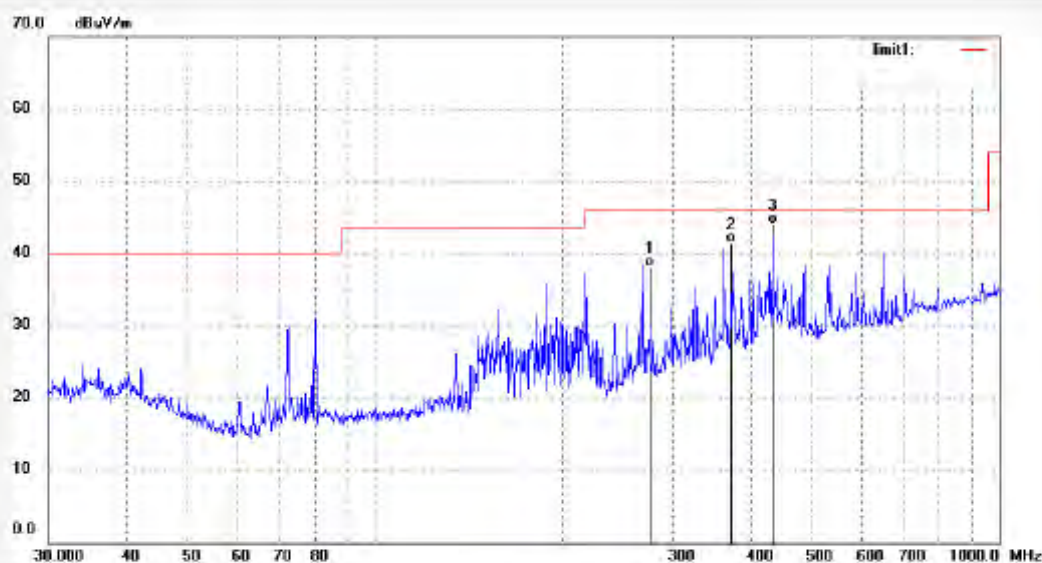
Date: 2011/08/26

Time: 20:45:24

Engineer Signature: Apple

Distance:

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	272.7140	19.76	18.24	38.00	46.00	-8.00	QP			
2	367.9888	19.90	21.50	41.40	46.00	-4.60	QP			
3	436.3540	21.19	22.91	44.10	46.00	-1.90	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

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Job No.: Apple #160

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

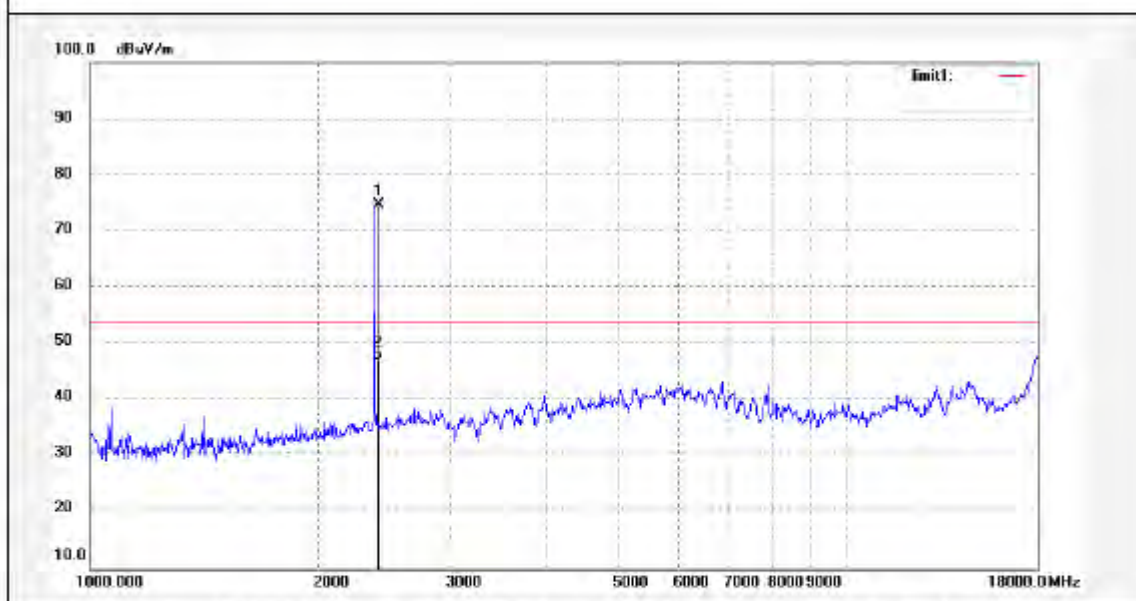
Date: 2011-8-15

Time: 8:37:17

Engineer Signature: Apple

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	2402.000	82.10	-7.45	74.65	-	-	peak			
2	2402.000	54.45	-7.45	47.00	-	-	AVG		0	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #161

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

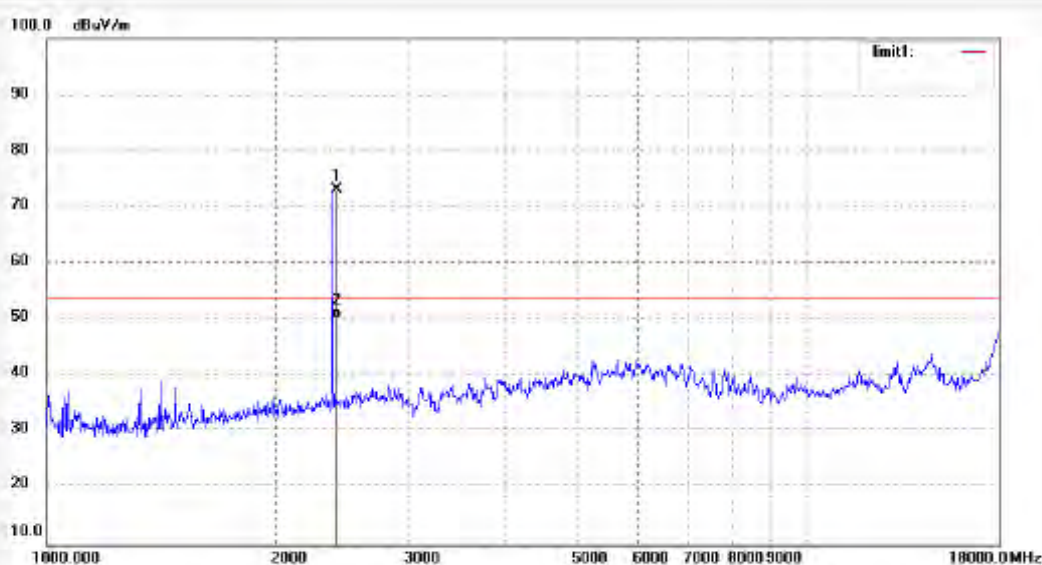
Date: 2011-8-15

Time: 8:47:00

Engineer Signature: Apple

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	2402.000	80.46	-7.45	73.01	-	-	peak			
2	2402.000	57.65	-7.45	50.20	-	-	AVG		0	


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #184

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2402

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

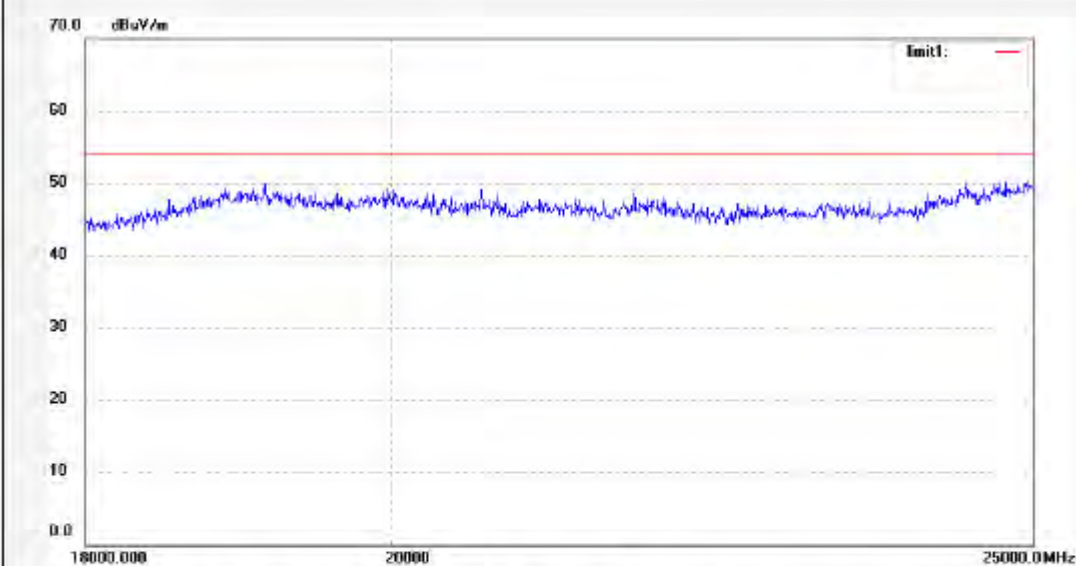
Date: 2011/08/26

Time: 21:58:27

Engineer Signature: Apple

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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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #183

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 12V

Test item: Radiation Test

Date: 2011/08/26

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 21:55:12

EUT: All in one entertainment system

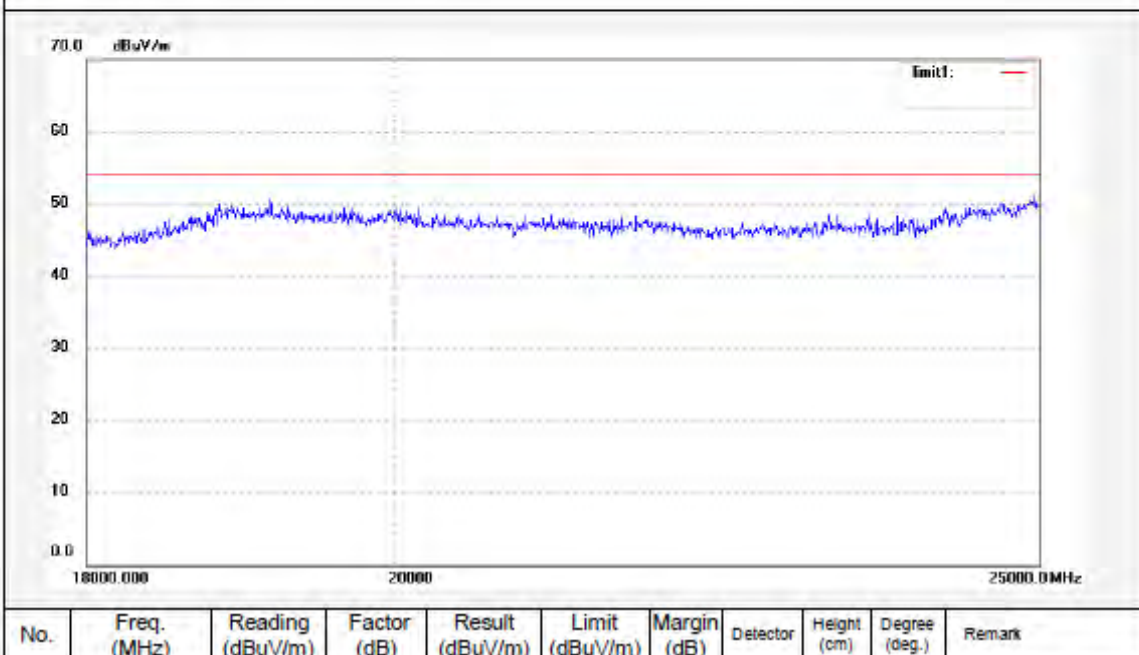
Engineer Signature: Apple

Mode: TX 2402

Distance: 3m

Model: DSUN1170(CNE-8206-RS)

Note:




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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #176

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2441

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

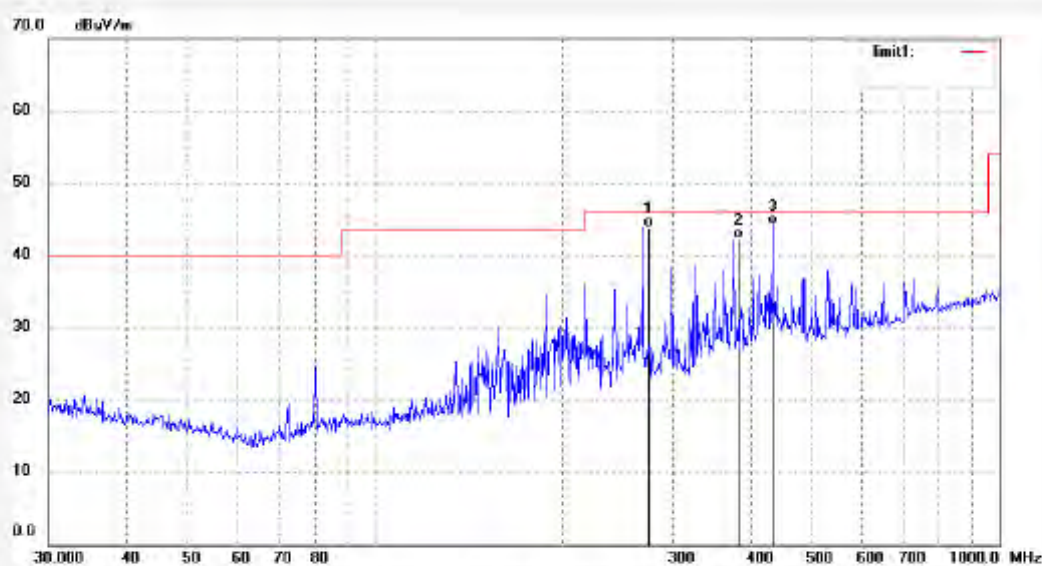
Date: 2011/08/26

Time: 21:07:33

Engineer Signature: Apple

Distance:

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	272.7260	25.56	18.24	43.80	46.00	-2.20	QP			
2	381.8057	20.60	21.60	42.20	46.00	-3.80	QP			
3	436.3530	21.29	22.91	44.20	46.00	-1.80	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #175

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2441

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

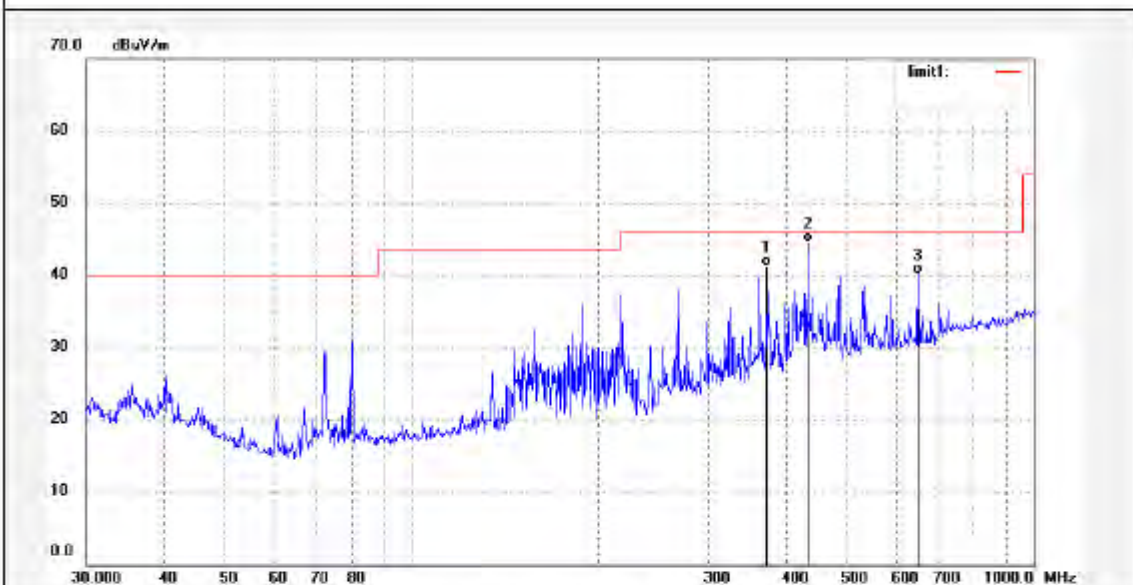
Date: 2011/08/26

Time: 20:56:34

Engineer Signature: Apple

Distance:

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	367.9930	19.70	21.50	41.20	46.00	-4.80	QP			
2	436.3540	21.59	22.91	44.50	46.00	-1.50	QP			
3	654.5254	14.21	25.99	40.20	46.00	-5.80	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #163

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 12V

Test item: Radiation Test

Date: 2011-8-15

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 8:58:03

EUT: All in one entertainment system

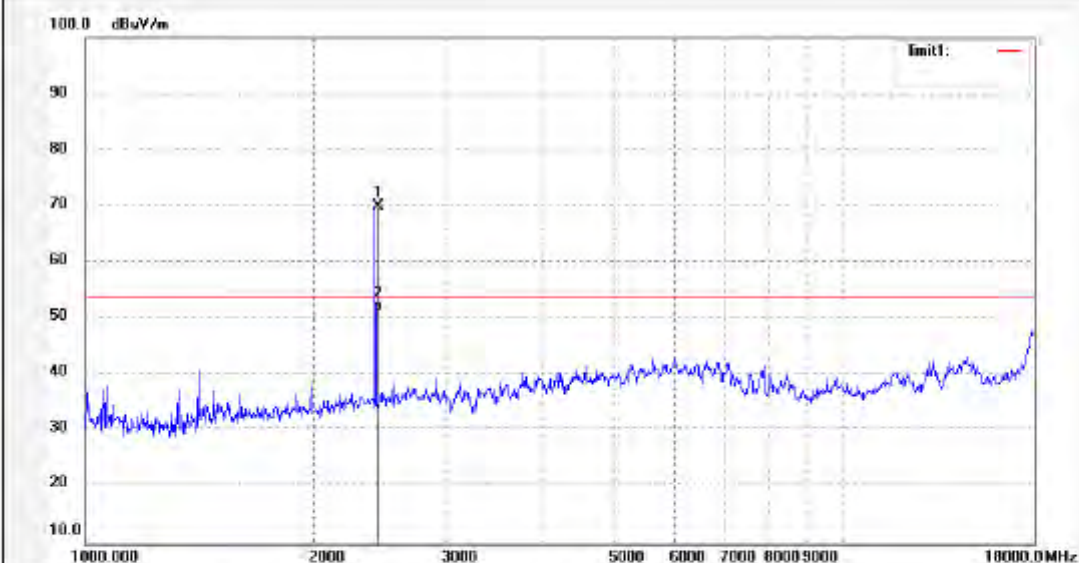
Engineer Signature: Apple

Mode: TX 2441

Distance: 3m

Model: DSUN1170(CNE-8206-RS)

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.000	77.26	-7.35	69.91	-	-	peak			
2	2441.000	58.58	-7.35	51.23	-	-	AVG			


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

Job No.: Apple #164

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2441

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

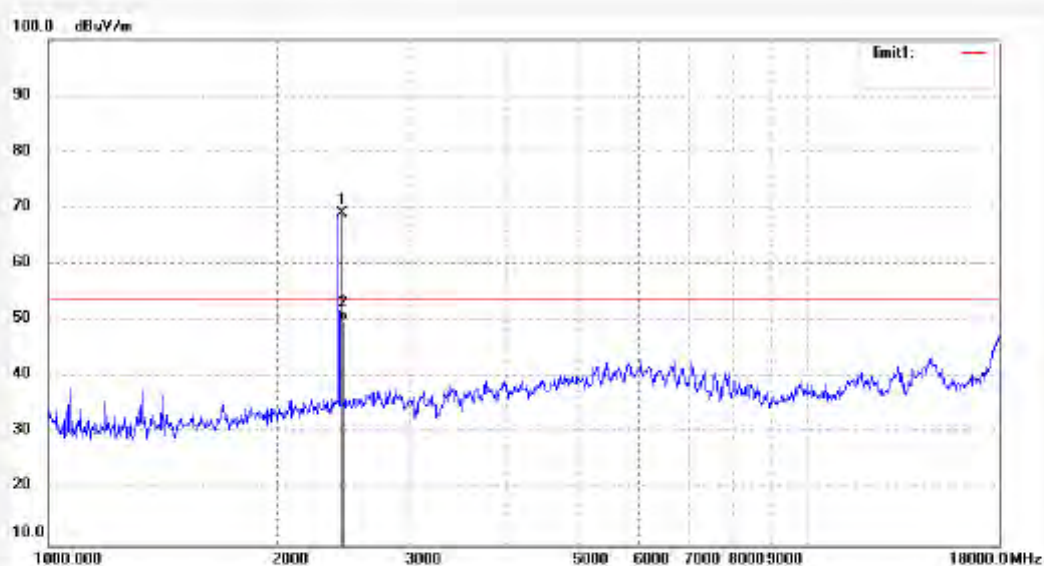
Date: 11/08/15/

Time: 9/08/52

Engineer Signature: Apple

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	2441.000	76.45	-7.35	69.10	-	-	peak			
2	2441.000	57.37	-7.35	50.02	-	-	AVG			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #185

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2441

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

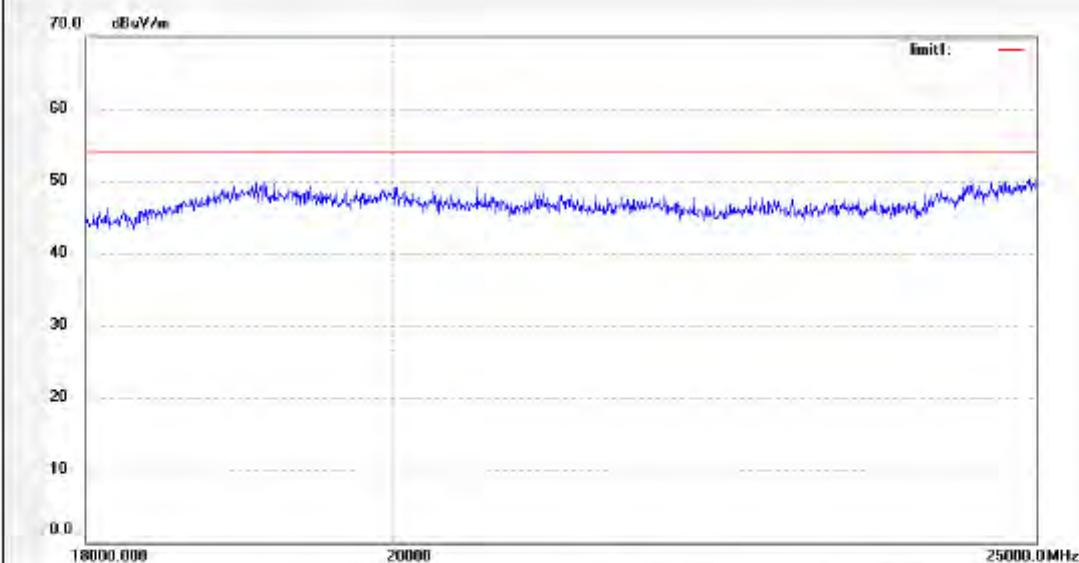
Date: 2011/08/26

Time: 22:04:36

Engineer Signature: Apple

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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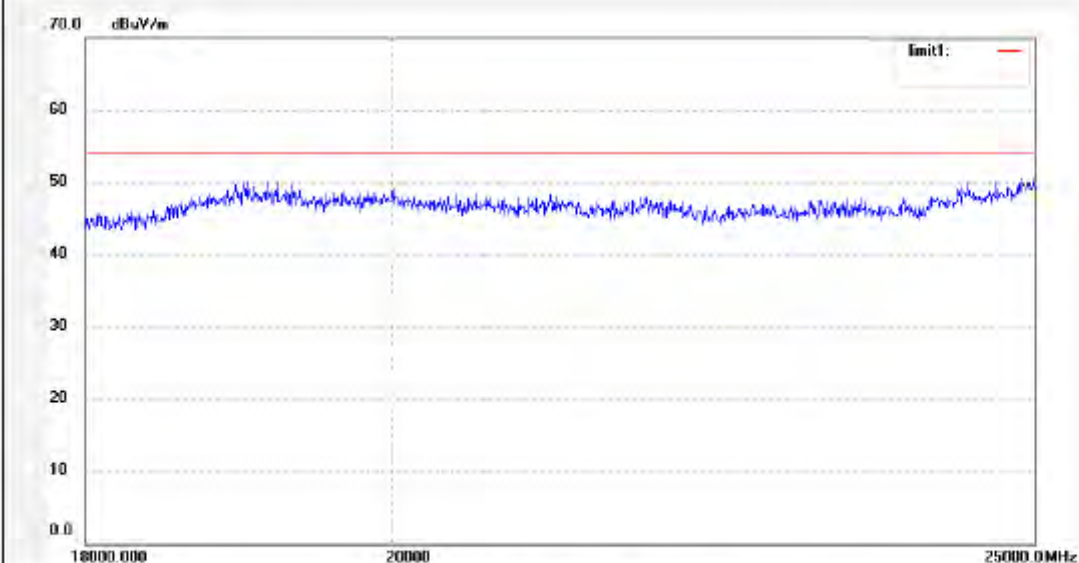
Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #186	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 12V
Test item: Radiation Test	Date: 2011/08/26
Temp.(C)/Hum.(%) 24 C / 48 %	Time: 22:06:55
EUT: All in one entertainment system	Engineer Signature: Apple
Mode: TX 2441	Distance: 3m
Model: DSUN1170(CNE-8206-RS)	

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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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #177

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 12V

Test item: Radiation Test

Date: 2011/08/26

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 21:17:34

EUT: All in one entertainment system

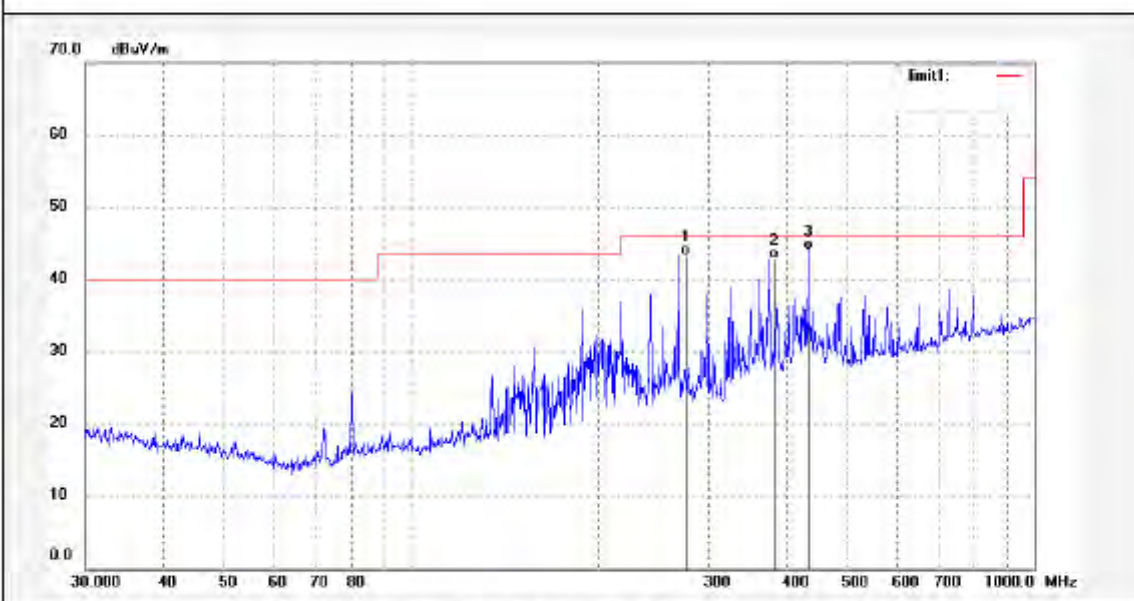
Engineer Signature: Apple

Mode: TX 2480

Distance:

Model: DSUN1170(CNE-8206-RS)

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	272.7212	25.06	18.24	43.30	46.00	-2.70	QP			
2	381.2022	21.25	21.58	42.83	46.00	-3.17	QP			
3	436.3396	21.19	22.91	44.10	46.00	-1.90	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #178

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2480

Model: DSUN1170(CNE-8206-RS)

Polarization: Vertical

Power Source: DC 12V

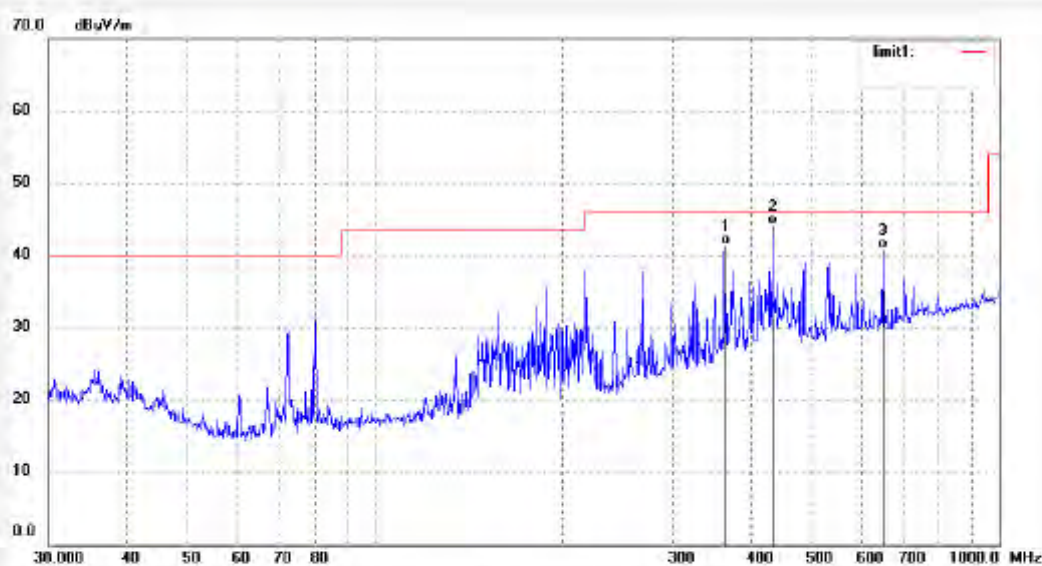
Date: 2011/08/26

Time: 21:21:06

Engineer Signature: Apple

Distance:

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	367.2480	19.98	21.49	41.47	46.00	-4.53	QP			
2	436.3397	21.32	22.91	44.23	46.00	-1.77	QP			
3	654.3831	14.89	25.99	40.88	46.00	-5.12	QP			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #168

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2480

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

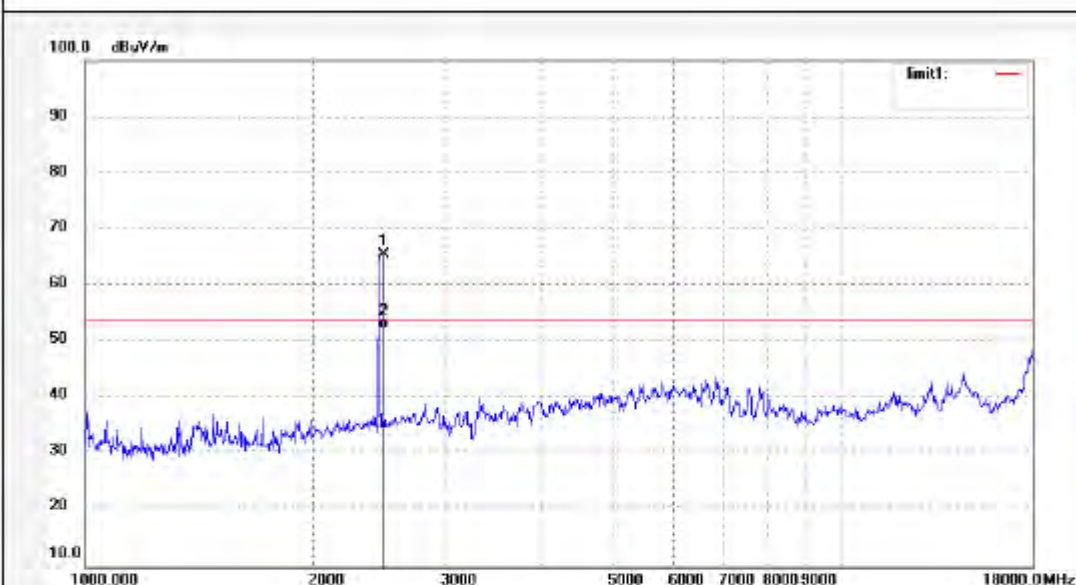
Date: 11/08/15/

Time: 9/21/54

Engineer Signature: Apple

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	2480.000	72.85	-7.37	65.48	-	-	peak			
2	2480.000	59.48	-7.37	52.11	-	-	AVG			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #166

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 12V

Test item: Radiation Test

Date: 11/08/15/

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 9/14/37

EUT: All in one entertainment system

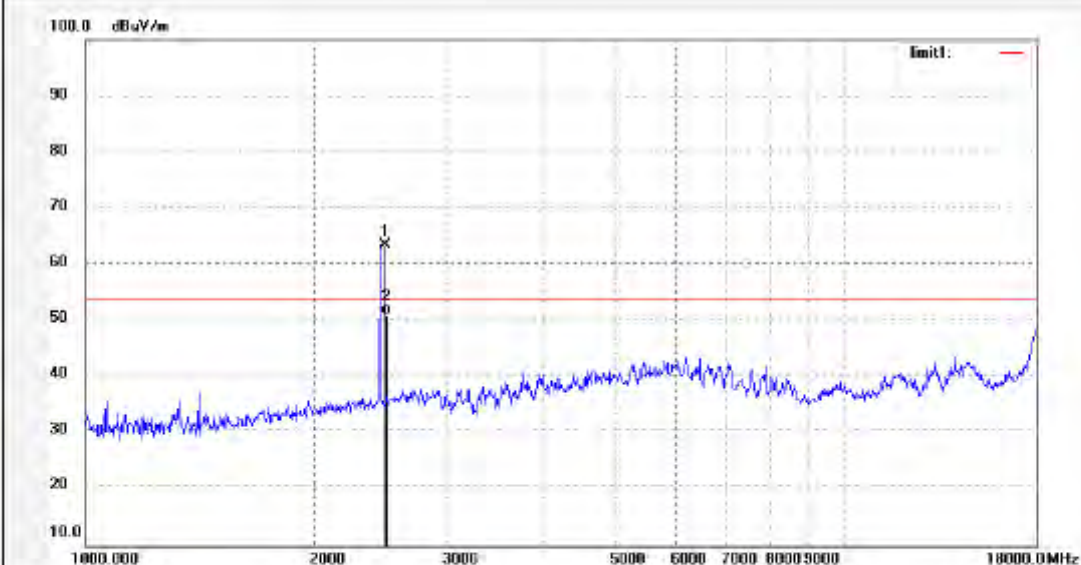
Engineer Signature: Apple

Mode: TX 2480

Distance: 3m

Model: DSUN1170(CNE-8206-RS)

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.000	70.90	-7.37	63.53	-	-	peak			
2	2480.000	58.40	-7.37	51.03	-	-	AVG			


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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #188

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: All in one entertainment system

Mode: TX 2480

Model: DSUN1170(CNE-8206-RS)

Polarization: Horizontal

Power Source: DC 12V

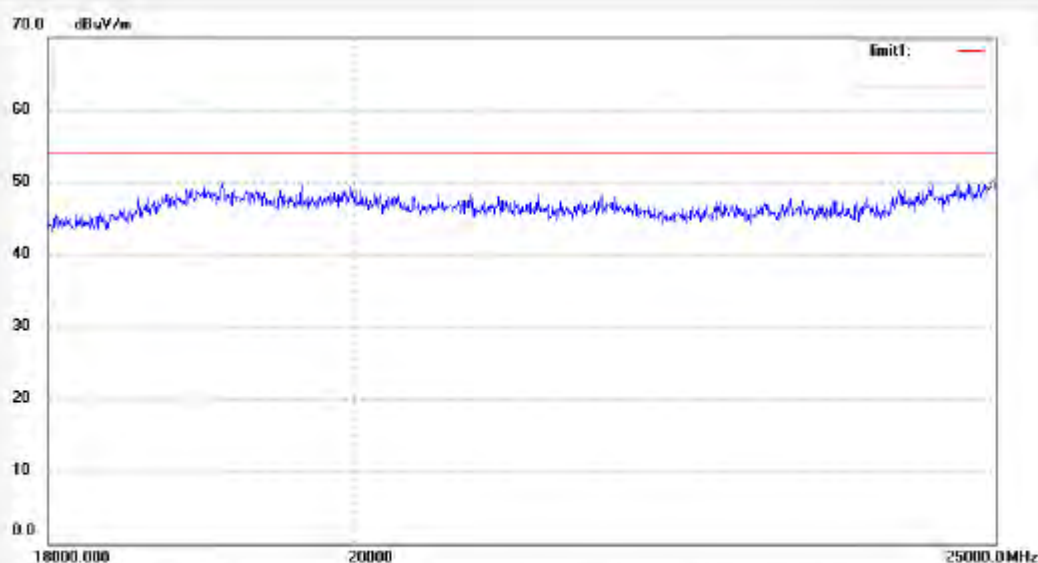
Date: 2011/08/26

Time: 22:15:19

Engineer Signature: Apple

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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Site: 966 chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Apple #187

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 12V

Test item: Radiation Test

Date: 2011/08/26

Temp.(C)/Hum.(%) 24 C / 48 %

Time: 22:12:40

EUT: All in one entertainment system

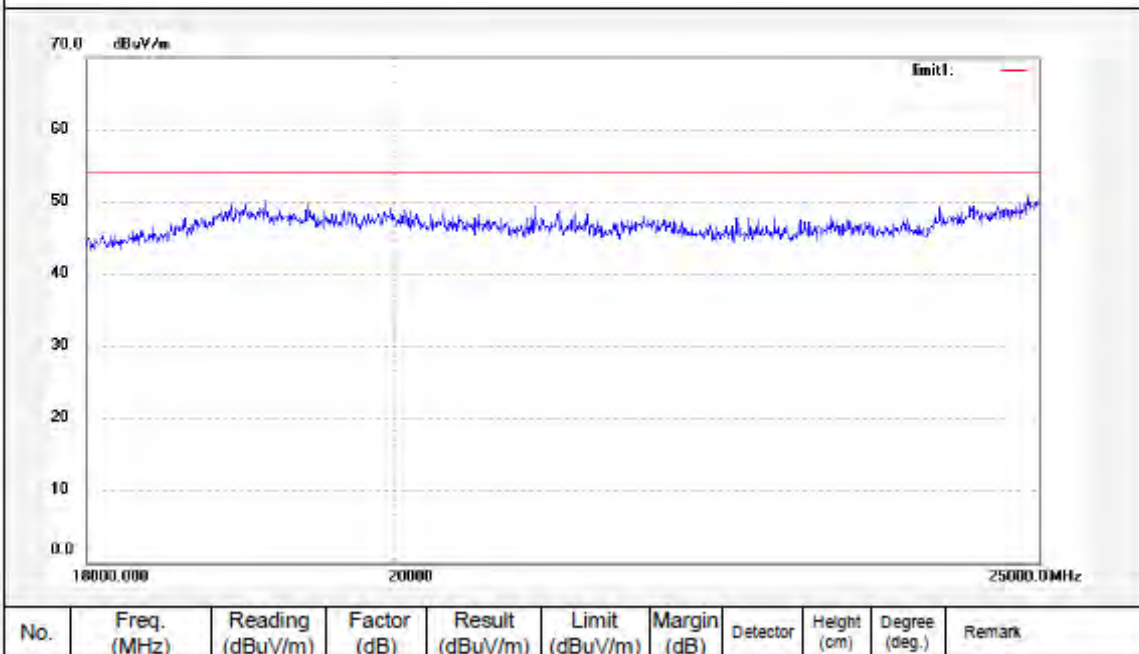
Engineer Signature: Apple

Mode: TX 2480

Distance: 3m

Model: DSUN1170(CNE-8206-RS)

Note:



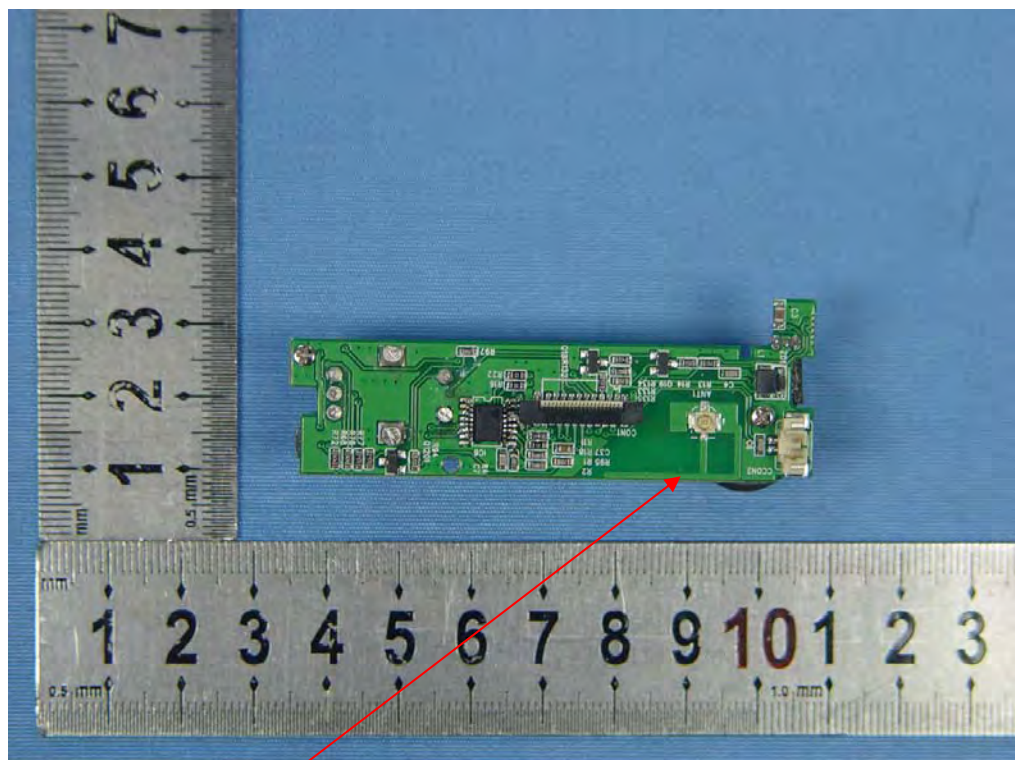
12.ANTENNA REQUIREMENT

12.1.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.

12.2.Antenna Construction

Antenna is formed by a copper trace on the PCB. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna