EMC TEST REPORT

For

STAND ALONE READER

Model Number: STAND ALONE READERII

FCC ID: TLDSARII

Report Number **:** WT078002623

Test Laboratory	:	Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory Guangdong EMC Compliance Test Center
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TEST REPORT DECLARATION

Applicant	:	Cogent systems, Inc. Shenzhen
Address	:	Fiyta Hi-tech Building 1706,Gaoxinnanyidao Avenue, Southern District of Hi-tech Park, nanshan District, Shenzhen, China.
Manufacturer	:	Cogent systems, Inc. Shenzhen
Address	:	Fiyta Hi-tech Building 1706,Gaoxinnanyidao Avenue, Southern District of Hi-tech Park, nanshan District, Shenzhen, China.
EUT Description	:	STAND ALONE READER
Model Number	:	STAND ALONE READERII
FCC ID	:	TLDSARII

Test Standards:

FCC Part 15 15.247, 15.207, 15.209

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in fcc test method DA 00-705 and the energy emitted by the sample EUT tested as described in this report is in compliance with FCC Rules Part 15.247,15.207 and 15.209.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Tested by:	Winnie Hou	Date:	Nov. 5，2007
	(Winnie Hou)		
Checked by:	Louis Lin	Date:	Nov. 5，2007
	(Louis Lin)		
Approved by:	Peter	Date:	Nov. 5，2007
	(Peter Lin)		

1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Part 15	Requirement	Result
15.207(a)	Conducted Disturbance test	Pass
15.247(b)(1)	Maximum Peak Output Power	Pass
15.247(a)(1)	20 dB Bandwidth	Pass
15.247 (d)	100kHz Out of band & Band Edge measurements	Pass
15.209(a) (f)	Radiated Emission	Pass
15.247(a)(1)	Frequency Separation	Pass
15.247(a)(1)(iii)	Number of the Hopping Frequency	Pass
15.247(a)(1)(iii)	Time of Occupancy	Pass
15.203, 15.247(b)(4)	Antenna Requirement	Pass

2. GENERAL INFORMATION

2.1. Report information

2.1.1.This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

2.1.2.The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

2.1.3.Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China. At the time of testing, Laboratory is accredited by the following organizations:
China National Accreditation Committee for Laboratories (**CNAL**) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is L0579.

The Laboratory is listed in the United States of American Federal Communications Commission (**FCC**), and the registration number are **97379**(open area test site) and **274801**(semi anechoic chamber).
The Laboratory is listed in Voluntary Control Council for Interference by Information Technology Equipment (**VCCI**), and the registration number are **R-1974**(open area test site) , **R-1966**(semi anechoic chamber),**C-2117**(mains ports conducted interference measurement) and **T-180**(telecommunication ports conducted interference measurement).

The Laboratory is registered to perform emission tests with Industry Canada (**IC**), and the registration number is **IC4174**.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is **E2024086Z02**.
Measurement Uncertainty

2.3. Measurement Uncertainty

Conducted Disturbance : 9kHz~30MHz 3.5dB

Radiated Disturbance: 30MHz~1000MHz 4.5dB
1GHz~18GHz 4.6dB

3. PRODUCT DESCRIPTION

3.1. EUT Description

Description	:	STAND ALONE READER
Manufacturer	:	COGENT SYSTEM, INC.
Model Number	:	STAND ALONE READERII
Operate Frequency	:	2402-2480MHz
Spread Spectrum	:	FHSS
Channel Spacing	:	1MHz
Antenna Designation	:	integrate
Communication port	:	USB

3.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: TLDSARII filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

3.3. Block Diagram of EUT Configuration

Figure 1 EUT Setup 1

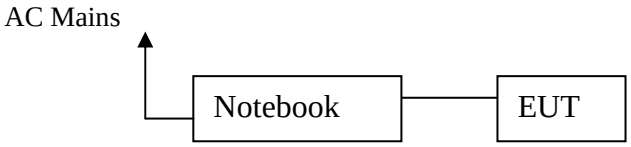


Figure 2 EUT Setup 2

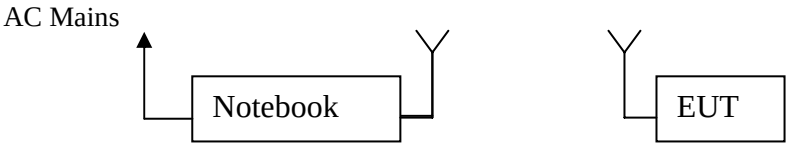


Figure 3 EUT Setup 3

3.4. Operating Condition of EUT

Mode 1: Transmitting at 2402MHz
Mode 2: Transmitting at 2441MHz
Mode 3: Transmitting at 2480MHz
Mode 4: ON
Mode 5: Connect to PC (USB port)

3.5. Support Equipment List

Table 2 Support Equipment List

Name	Model Number	S/N	Manufacture
PC	P9111A #AB2	CN31104346	COMPAQ
Monitor(LCD)	P4825	CN3087A026	COMPAQ
Adaptor for Monitor	PA-1400-02	3101571101LN	LITEON
Keyboard(PS2)	KB-0133	CT:B55930DGANN3NU	COMPAQ
Mouse(PS2)	M-S69	CT:F466BOMMSNS05J2	COMPAQ
Printer	BJC-265SP	EVX81604	CANON
Adapter for Printer	AD-300	--	CANON
Modem	56000BPS	200060057	KPT
Adapter for Modem	AM-1280AV	--	KPT

3.6. Test Conditions

Date of test：Oct 10, 2007- Nov 3, 2007
Date of EUT Receive：Oct 10, 2007
Temperature: 20-30 ℃
Relative Humidity: 50-60%

4. TEST EQUIPMENT USED

4.1. Test Equipment Used to Measure Conducted Disturbance

Table 3 Test Equipment List

No.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB2603	EMI Test Receiver	Rohde & Schwarz	ESCS30	Jan.25, 2007	1 Year
SB3321	AMN	Rohde & Schwarz	ESH2-Z5	Jan.25, 2007	1 Year
SB2604	AMN	Rohde & Schwarz	ESH3-Z5	Jan.25, 2007	1 Year
SB3436	EMI Test Receiver	Rohde & Schwarz	ESI26	Jan.25, 2007	1 Year
SB3440	Bilog Antenna	Chase	CBL6112B	Jan.25, 2007	1 Year
SB3435	Horn Antenna	Rohde & Schwarz	HF906	Jan.25, 2007	1 Year
SB3435/01	Amplifier(1-18GHz)	Rohde & Schwarz	---	Jan.25, 2007	1 Year
SB3435/02	Amplifier(18-40GHz)	Rohde & Schwarz	---	May.05, 2007	1 Year
SB3435/03	Horn Antenna	Rohde & Schwarz	AT4560	May.05, 2007	1 Year
SB3450/01	3m Semi-anechoic chamber	Albatross Projects	9X6X6	Jan.25, 2007	1 Year

5. CONDUCTED DISTURBANCE TEST

5.1. Test Standard and Limit

5.1.1.Test Standard

FCC Part 15 15.207

5.1.2.Test Limit

Table 4 Conducted Disturbance Test Limit (Class B)

Frequency	Maximum RF Line Voltage (dBμV)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

- Decreasing linearly with logarithm of the frequency
- The lower limit shall apply at the transition frequency.

5.2. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.4-2003.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.The bandwidth of EMI test receiver is set at 9kHz.

5.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

5.4. Test Data

Table 5 Conducted Disturbance Test Data

Model：STAND ALONE READERII Mode: 5
Live

Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
		Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)
0.186	9.8	26.4	36.2	64.2	12.6	22.4	54.2
0.234	9.8	25.6	35.4	62.3	21.5	31.3	52.3
0.278	9.8	31.6	41.4	60.9	28.1	37.9	50.9
0.322	9.8	25.4	35.2	59.7	21.4	31.2	49.7
0.418	9.8	21.2	31.0	57.5	15.5	25.3	47.5
8.765	9.9	20.2	30.1	60	13.4	23.3	50

REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)
3. The other emission levels were very low against the limit.

Table 6 Conducted Disturbance Test Data

Model：STAND ALONE READERII

Mode: 5

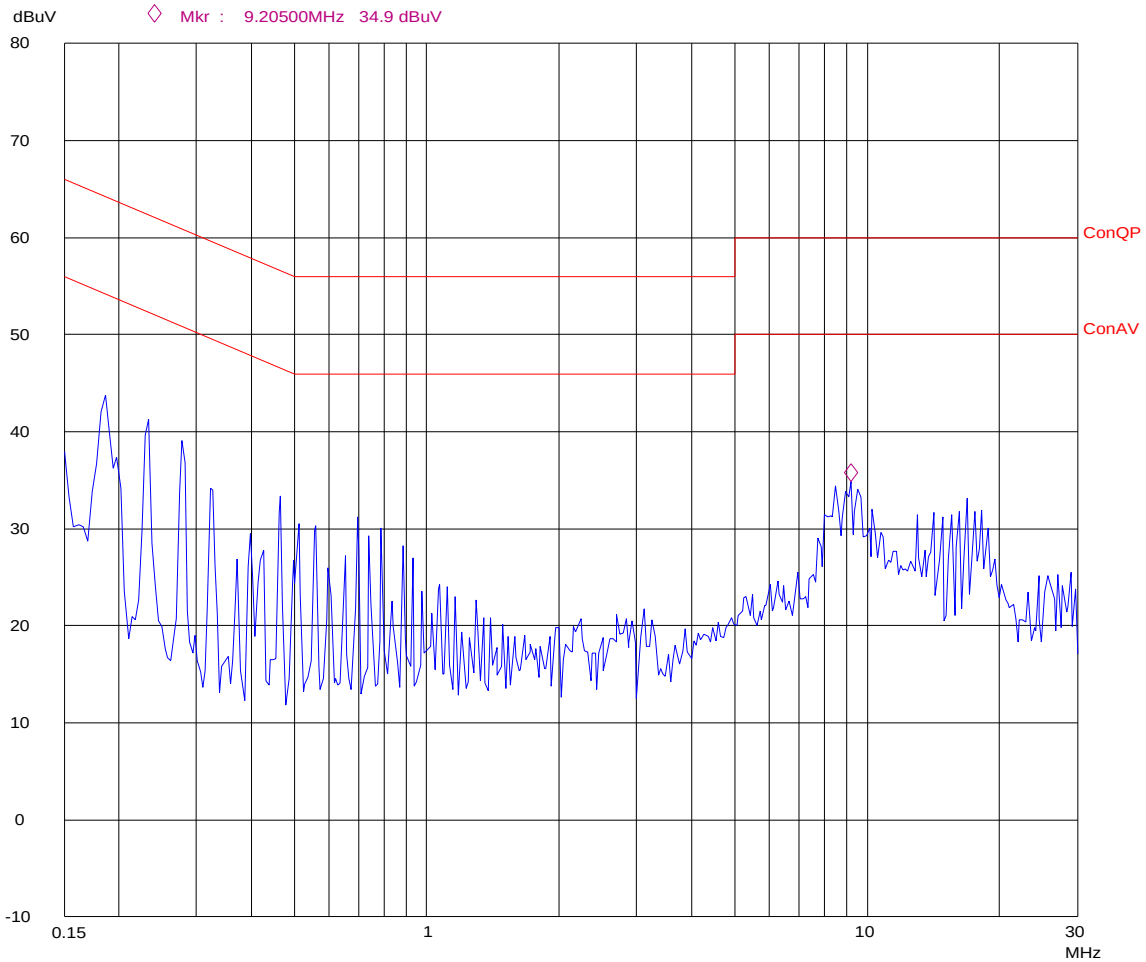
Neutral

Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
		Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)
0.186	9.8	31.7	41.5	64.2	16.3	26.1	54.2
0.234	9.8	28.7	38.5	62.3	23.6	33.4	52.3
0.278	9.8	28.6	38.4	60.9	26.0	35.8	50.9
0.322	9.8	20.6	30.4	59.7	18.2	28.0	49.7
0.466	9.8	20.9	30.7	56.6	17.8	27.6	46.6
9.205	9.9	21.4	31.3	60	15.1	25.0	50

REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)
3. The other emission levels were very low against the limit.

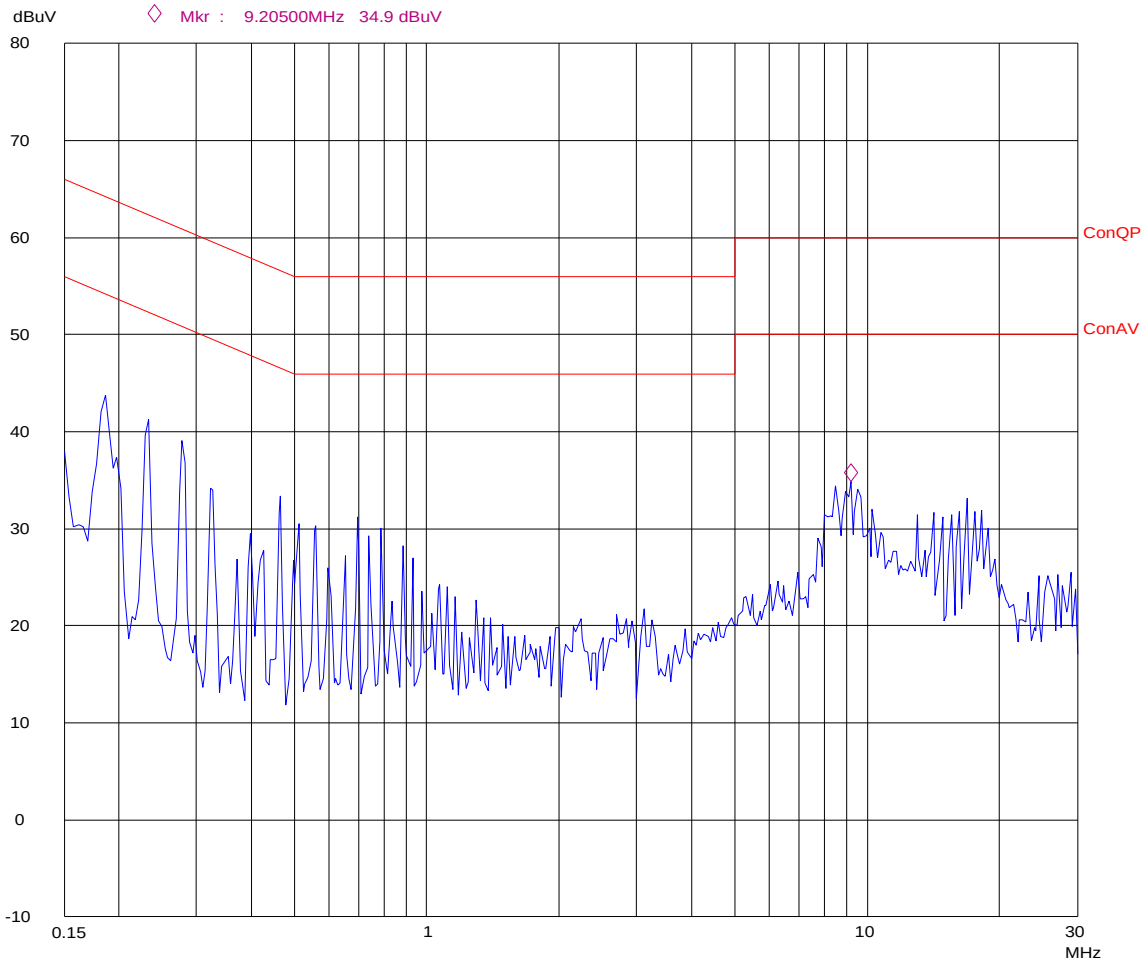
Conducted Disturbance

EUT: M/N:STAND ALONE READER II
Op Cond: Connect to PC
Test Spec: L
Comment: AC 120V/60Hz



Conducted Disturbance

EUT: M/N:STAND ALONE READER II
Op Cond: Connect to PC
Test Spec: N
Comment: AC 120V/60Hz



6. MAXIMUM PEAK OUTPUT POWER

6.1. Test Standard and Limit

6.1.1.Test Standard

FCC 15.247 (b)

6.1.2.Test Limit

Table 7 Maximum Peak Output Power Limit

Frequency MHz	Channels	Types of Devices	Power
2400-2483.5	>= 75	Hopping	1 Watt

6.2. Test Procedure

Remove the antenna from the EUT and then connect the transmitter output to the power meter via a suitable attenuator. Set the EUT transmitting continuously to each of low, middle, and high frequency.

6.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

6.4. Test Data

Table 8 Maximum Peak Output Power Test Result

Channel	Frequency (MHz)	Reading (dBm)	Limit	Result
Low	2402	-12.5	1W (30dBm)	Pass
Middle	2441	-13.2	1W (30dBm)	Pass
High	2480	-12.7	1W (30dBm)	Pass

7. HOPPING CHANNEL 20 DB BANDWIDTH

7.1. Test Standard and Limit

7.1.1.Test Standard

FCC 15.247 (a)

7.1.2.Test Limit

For frequency hopping systems operating in the 2400MHz-2483.5 MHz no limit for 20dB bandwidth.

7.2. Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=10KHz (1 % of Bandwidth.), Span= 3MHz, Sweep=auto
4. Mark the peak frequency and –20dB (upper and lower) frequency.
5. Repeat above procedures until all frequency measured were complete.

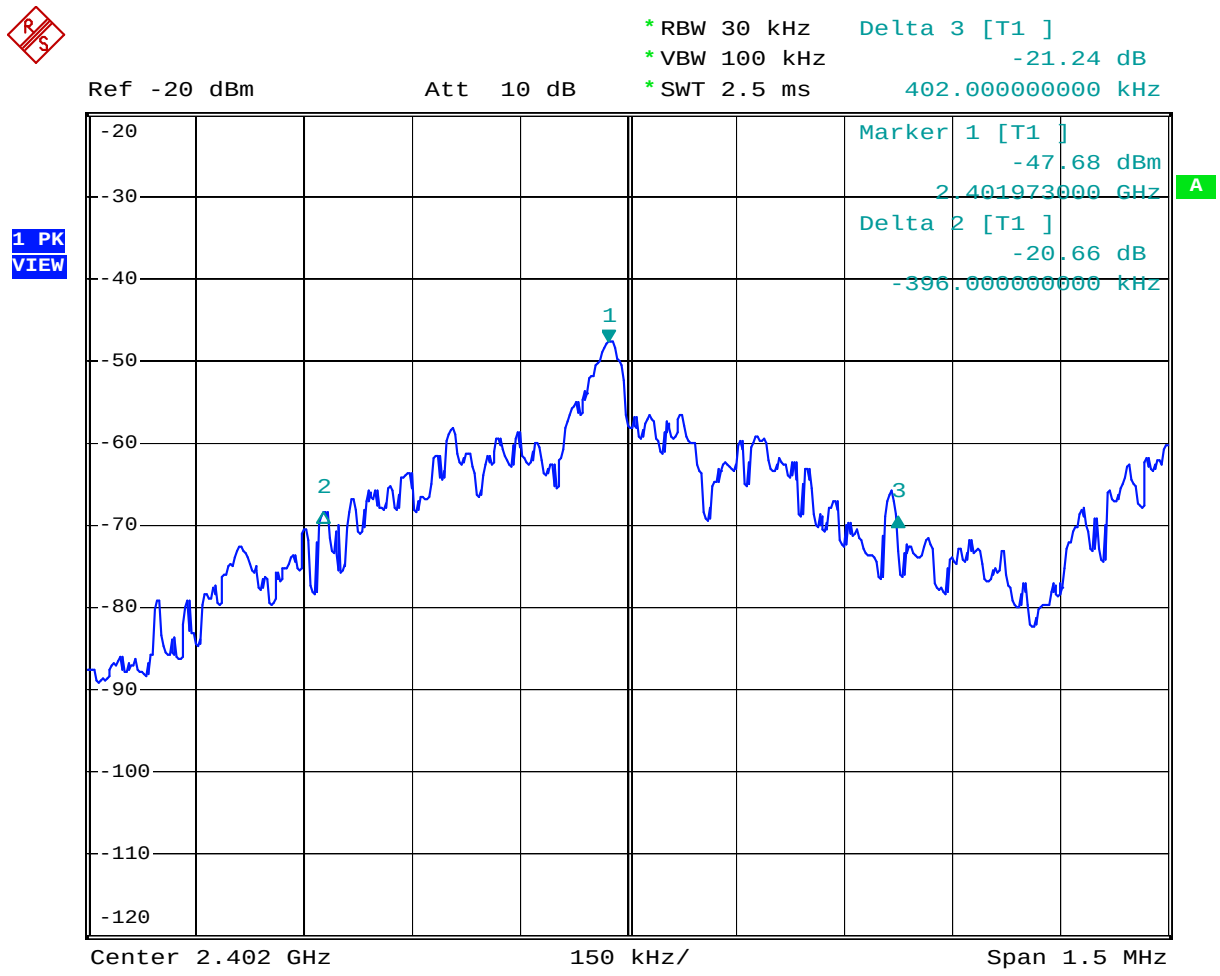
7.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

7.4. Test Data

Table 9 20dBC Bandwidth Test Result

Channel	Frequency (MHz)	20 dB Bandwidth
Low	2402	798 kHz
Mid	2441	747kHz
High	2480	804 kHz



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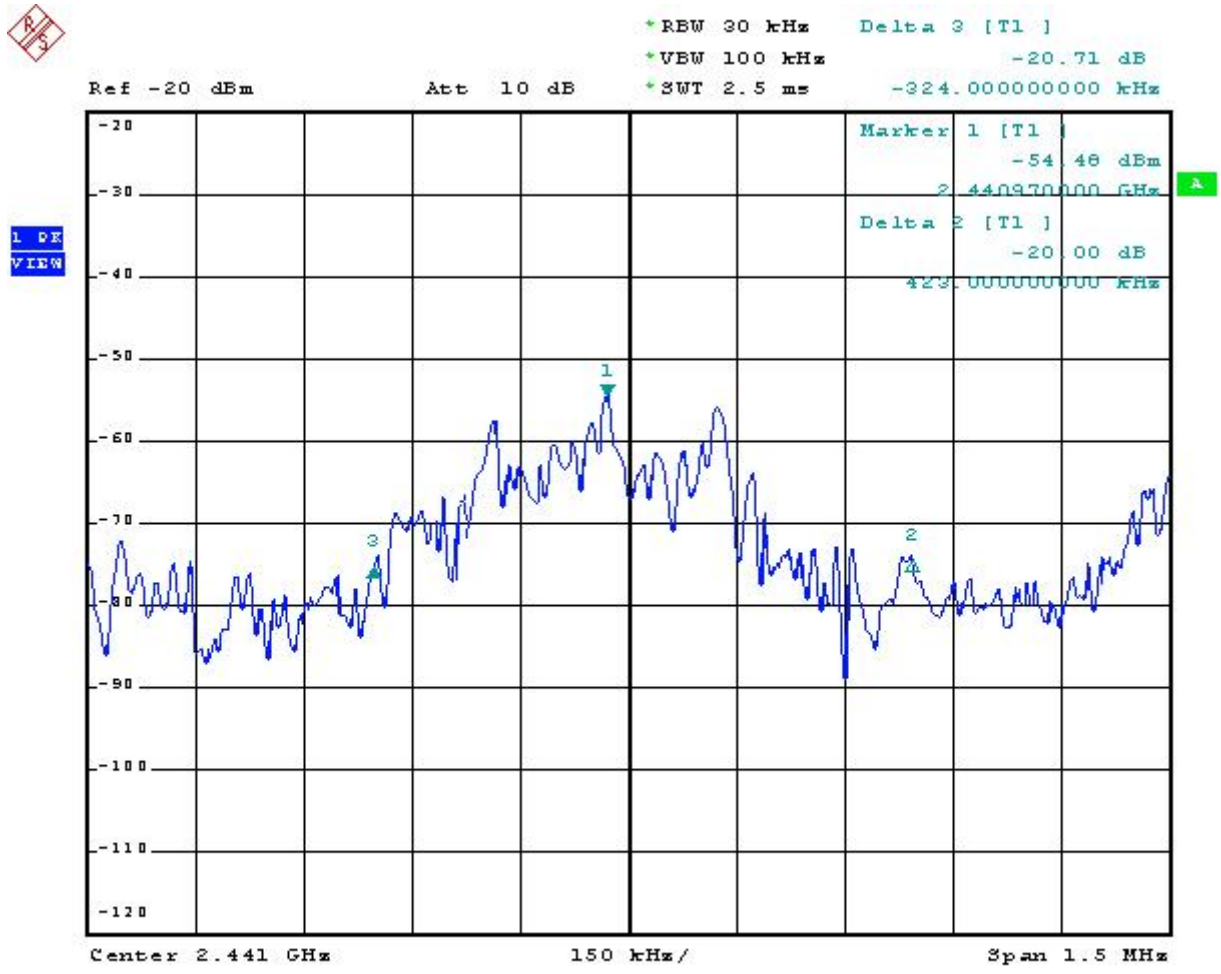
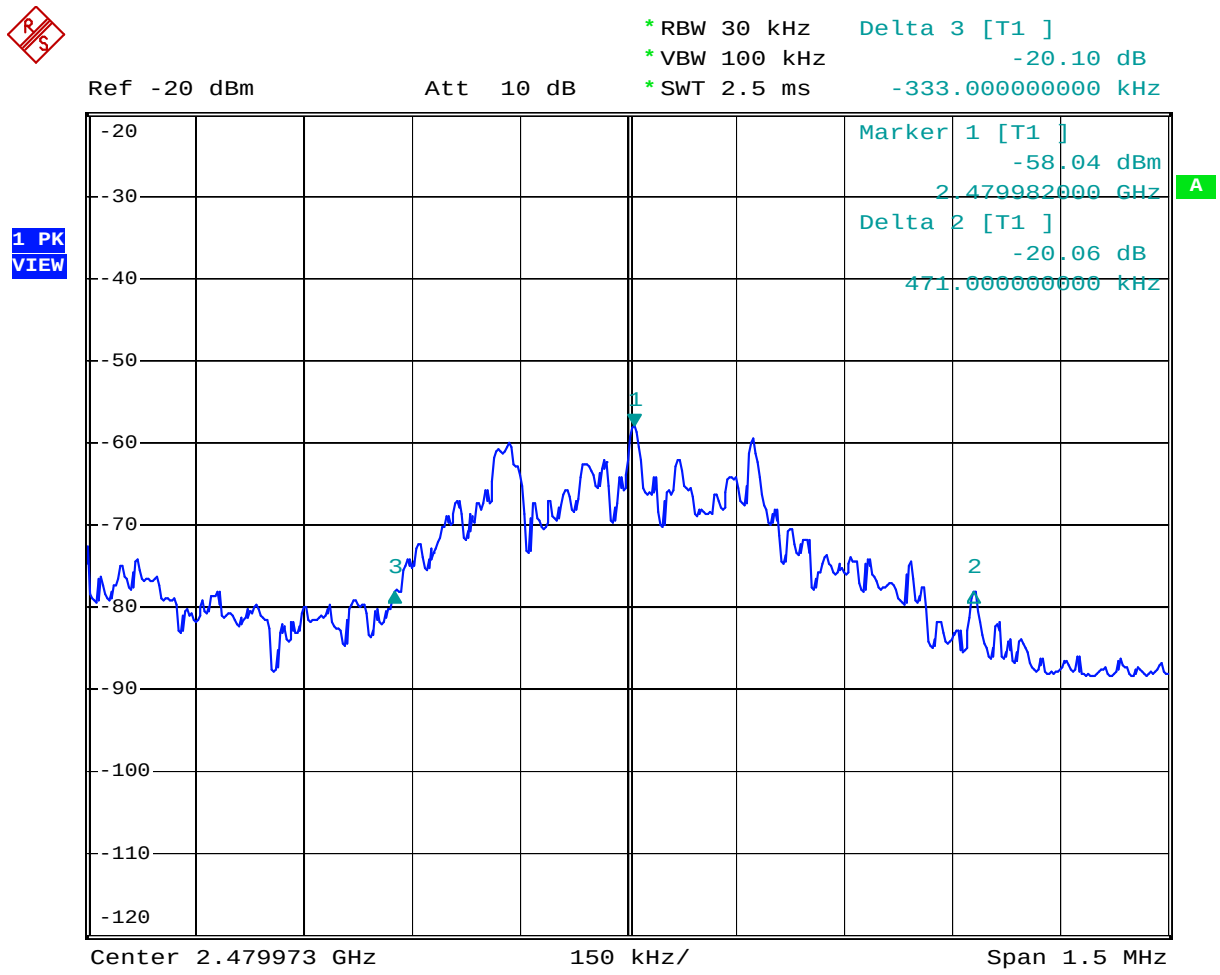

*RBW 30 kHz
*VBW 100 kHz
*SWT 2.5 ms
Delta 3 [T1]
-20.71 dB
-324.000000000 kHz
Ref -20 dBm
Att 10 dB
Marker 1 [T1]
-54.46 dBm
2.440970000 GHz
Delta 2 [T1]
-20.00 dB
423.000000000 kHz
1 PK
VIEW
A
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
Center 2.441 GHz
150 kHz/
Span 1.5 MHz
Date: 5.NOV.2007 20:24:02



Date: 5.NOV.2007 20:16:34

8. 100KHZ BANDWIDTH OF BAND EDGES MEASUREMENT

8.1. Test Standard and Limit

8.1.1.Test Standard

FCC Part 15 15.247(d)

8.2. Band Edge FCC 15.247(d) Limit

According to § 15.247(c), in any 100 KHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100KHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in15.209(a).

8.3. Test Procedure

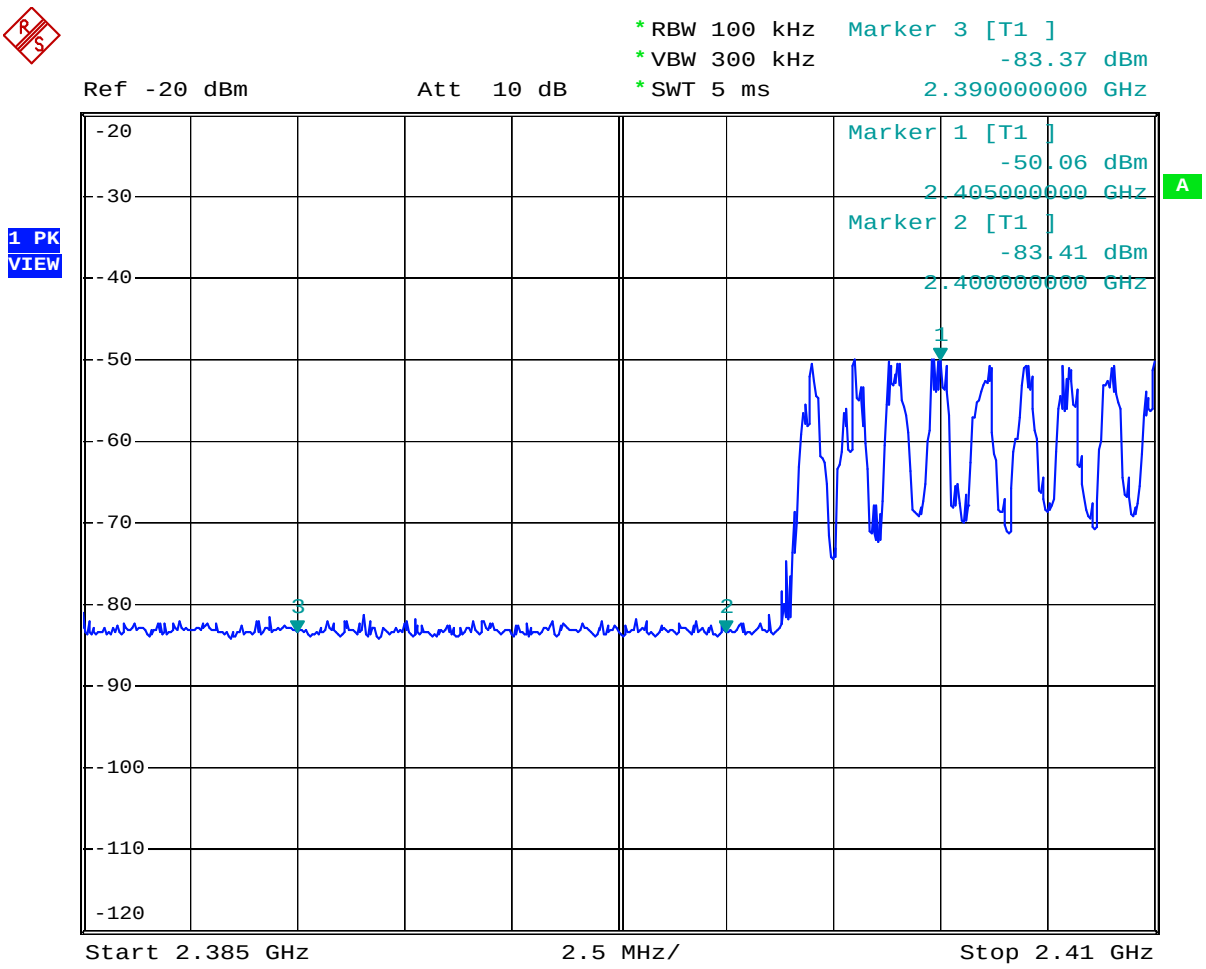
1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW, VBW=1MHz, Span=20MHz, Sweep = auto Mark Peak, .
5. Repeat above procedures until all frequency measured were complete.

8.4. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

8.5. Test Data

Frequency Hopping



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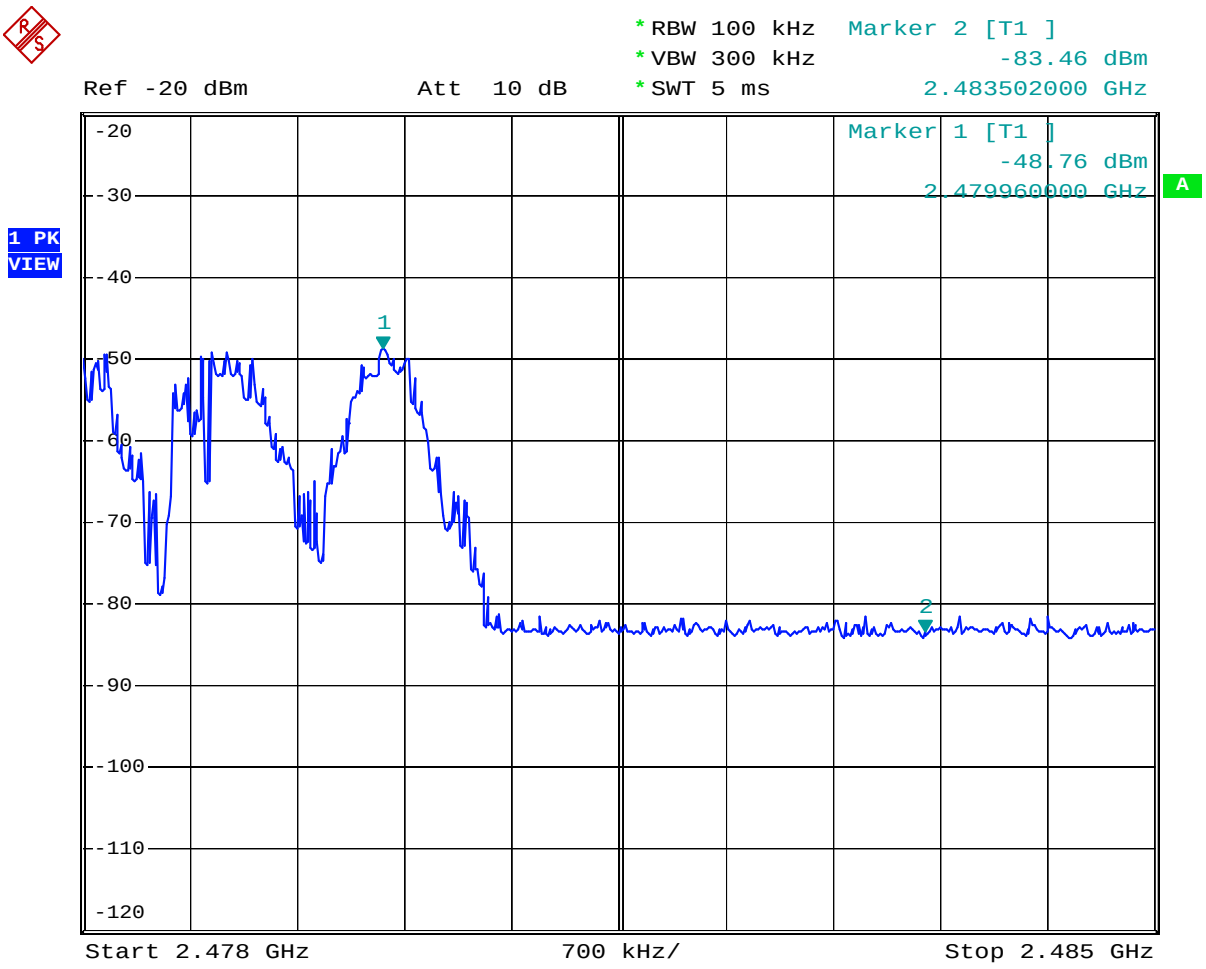

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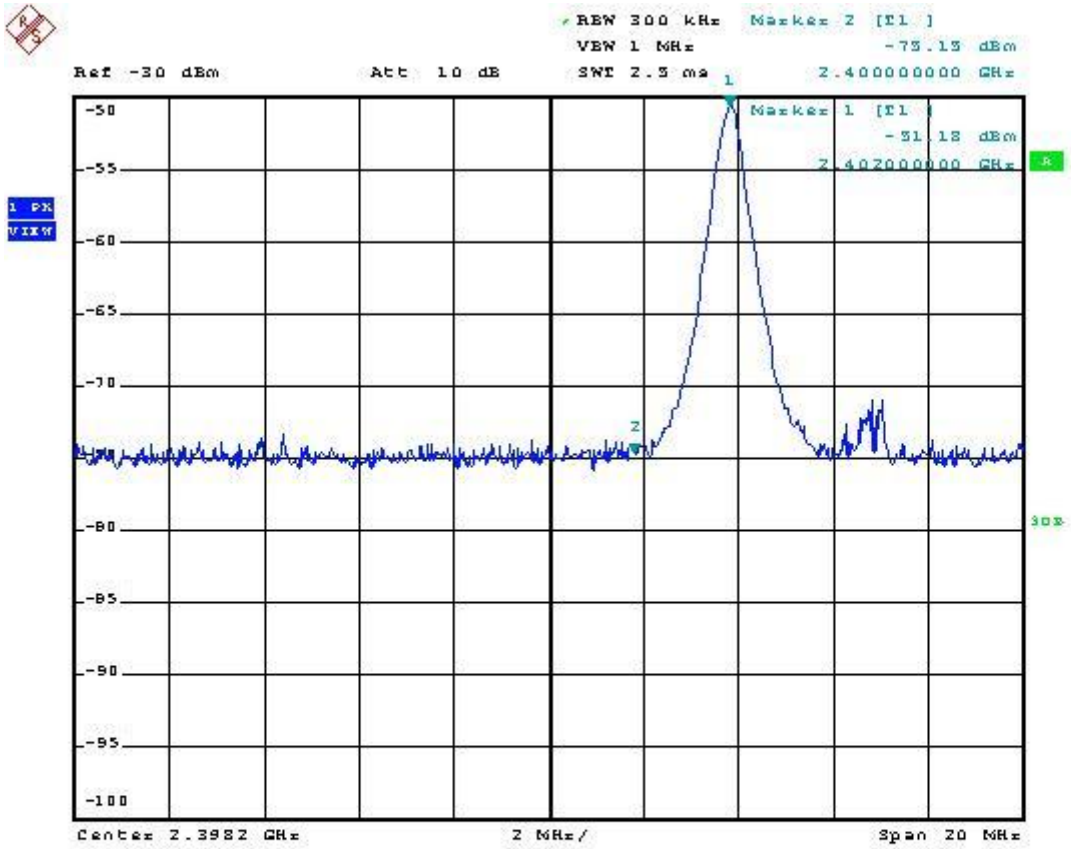
Frequency Hopping Stop



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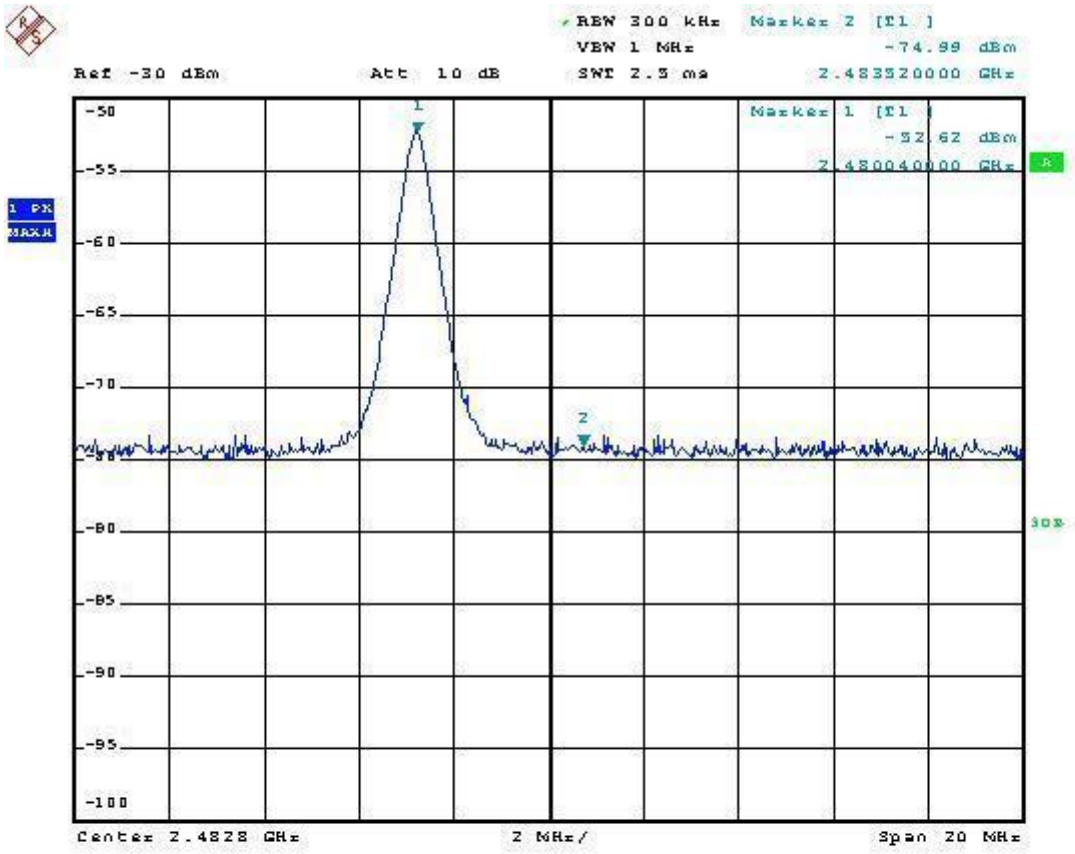

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Date: 6.AUG.2007 21:15:59

9. RADIATED EMISSION TEST

9.1. Test Standard and Limit

9.1.1.Test Standard

FCC Part 15 15.209

9.2. Band Edge FCC 15.209 Limit

all other emissions outside these bands shall not exceed the general radiated emission limits specified in § 15.209(a). And according to § 15.33(a)(1), for an intentional radiator operates below 10GHz, the frequency range of measurements: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.

9.3. Test Procedure

1. The radiated emission tests were performed in the 3 meter open-test site, using the setup in accordance with the ANSI C63.4-2003.
2. The EUT was put in the front of the test table. The peripherals was placed on the side of the host system. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The spacing between the peripherals was 10 centimeters.
4. External I/O cables were draped along the edge of the test table and bundle when necessary.
5. The host PC system was connected with 110Vac/60Hz power source.

9.4. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

9.5. Test Data

Low Channel (2402MHz)

Table 10 Radiated Emission Test Result

Test mode: 1						
Frequency MHz	Emission (dBuV/m)	Read Value (dBuV)	Correction Factor (dB/m)	Polarization	Limits (dBuV/m)	Note
4804.985	45.0	42.7	2.3	H	74.0	PK Value
4804.985	49.1	46.8	2.3	V	74.0	PK Value
7206.931	50.7	42.6	8.1	H	74.0	PK Value
7206.932	50.8	42.7	8.1	V	74.0	PK Value
4804.985	31.1	28.8	2.3	H	54.0	AV Value
4804.985	31.2	28.9	2.3	V	54.0	AV Value
7206.931	36.9	28.8	8.1	H	54.0	AV Value
7206.932	36.9	28.8	8.1	V	54.0	AV Value

Note :1. Emission level(dBuV/m)=Read Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)+Amplifier Factor(dB)
3. The other emission levels were very low against the limit(>15dB to limit).

Mid Channel (2441MHz)

Table 11 Radiated Emission Test Result

Test mode: 2						
Frequency MHz	Emission (dBuV/m)	Read Value(dBuV)	Correction Factor(dB/m)	Polarization	Limits (dBuV/m)	Note
4883.002	48.1	45.8	2.3	H	74.0	PK Value
4883.002	50.5	48.2	2.3	V	74.0	PK Value
7324.021	52.7	44.6	8.1	H	74.0	PK Value
7324.021	52.4	44.3	8.1	V	74.0	PK Value
4883.002	33.2	30.9	2.3	H	54.0	AV Value
4883.002	33.9	31.6	2.3	V	54.0	AV Value
7324.021	37.5	29.4	8.1	H	54.0	AV Value
7324.021	37.8	29.7	8.1	V	54.0	AV Value

Note :1. Emission level(dBuV/m)=Read Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)+Amplifier Factor(dB)
3. The other emission levels were very low against the limit(>15dB to limit).

High Channel (2480MHz)

Table 12 Radiated Emission Test Result

Test mode: 3						
Frequency MHz	Emission (dBuV/m)	Read Value(dBuV)	Correction Factor(dB/m)	Polarization	Limits (dBuV/m)	Note
4961.008	45.4	43.1	2.3	H	74.0	PK Value
4961.008	48.3	46.0	2.3	V	74.0	PK Value
7440.022	50.1	42.0	8.1	H	74.0	PK Value
7440.022	50.5	42.4	8.1	V	74.0	PK Value
4961.008	31.1	28.8	2.3	H	54.0	AV Value
4961.008	31.9	29.6	2.3	V	54.0	AV Value
7440.022	35.5	27.4	8.1	H	54.0	AV Value
7440.022	36.0	27.9	8.1	V	54.0	AV Value

Note : 1. Emission level(dBuV/m)=Read Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)+Amplifier Factor(dB)
3. The other emission levels were very low against the limit(>15dB to limit).

Table 13 Radiated Emission Test Result

Test mode: 4						
Frequency MHz	Emission (dBuV/m)	Read Value(dBuV)	Correction Factor(dB/m)	Polarization	Limits (dBuV/m)	Note
92.112	25.4	12.6	12.8	H	43.5	QK Value
500.076	28.9	7.6	21.3	V	74.0	QK Value

Note : 1. Emission level(dBuV/m)=Read Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)+Amplifier Factor(dB)
3. The other emission levels were very low against the limit(>15dB to limit).

Table 14 Radiated Emission Test Result

Test mode: 5						
Frequency MHz	Emission (dBuV/m)	Read Value(dBuV)	Correction Factor(dB/m)	Polarization	Limits (dBuV/m)	Note
185.426	35.8	23.7	12.1	H	43.5	QK Value
185.738	33.4	21.3	12.1	V	43.5	QK Value

Note : 1. Emission level(dBuV/m)=Read Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)+Amplifier Factor(dB)
3. The other emission levels were very low against the limit(>15dB to limit).

10. NUMBER OF HOPPING FREQUENCY

10.1.Test Standard and Limit

10.1.1.Test Standard

FCC Part 15 15.247(c) :2006

10.2.Band Edge FCC 15.247(c) Limit

According to §15.247(a)(1)(iii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

10.3.Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set spectrum analyzer Start=2400MHz, Stop = 2483.5MHz, Sweep = auto.
4. Set the spectrum analyzer as RBW,VBW=100KHz,
5. Max hold, view and count how many channel in the band.

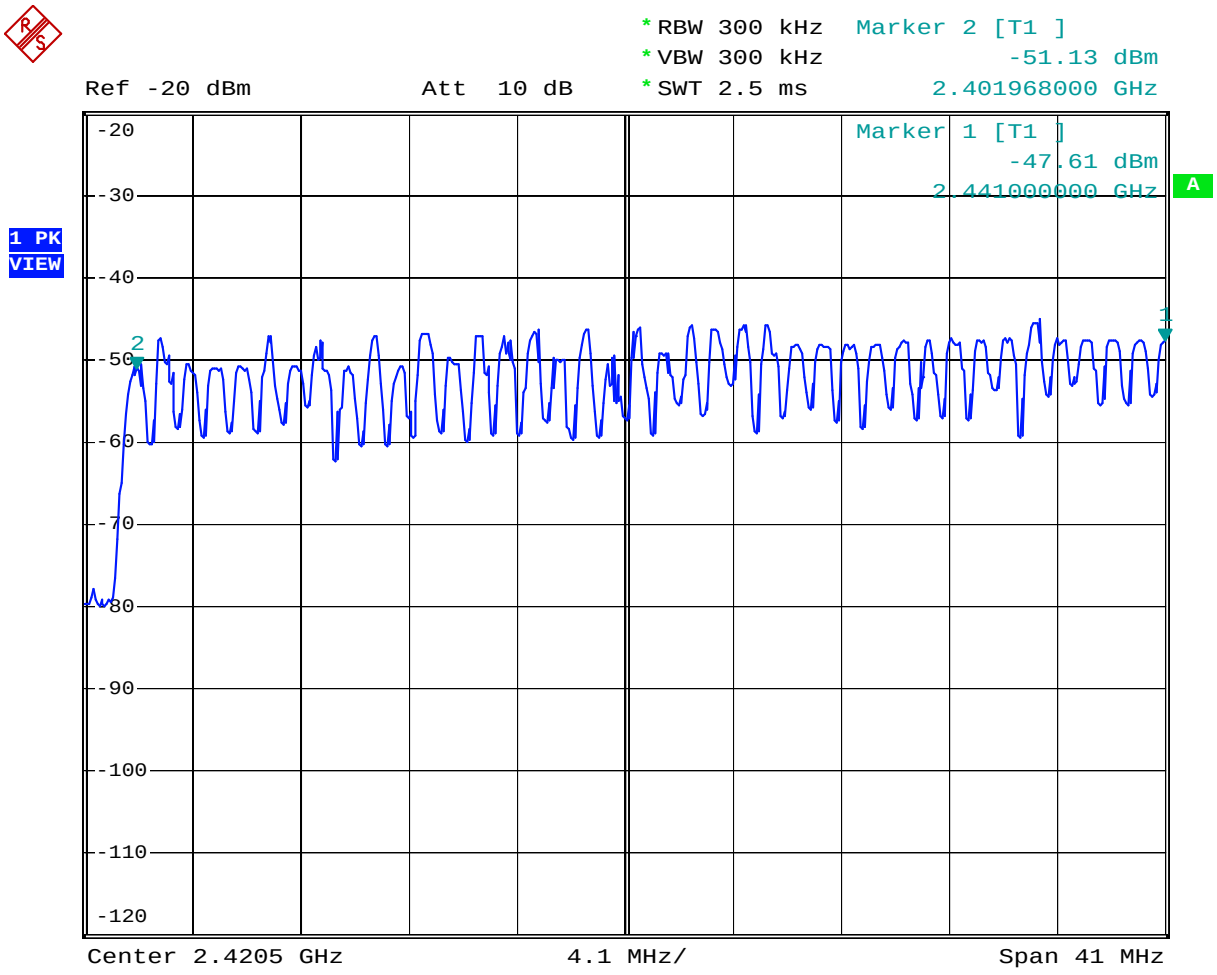
10.4.Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

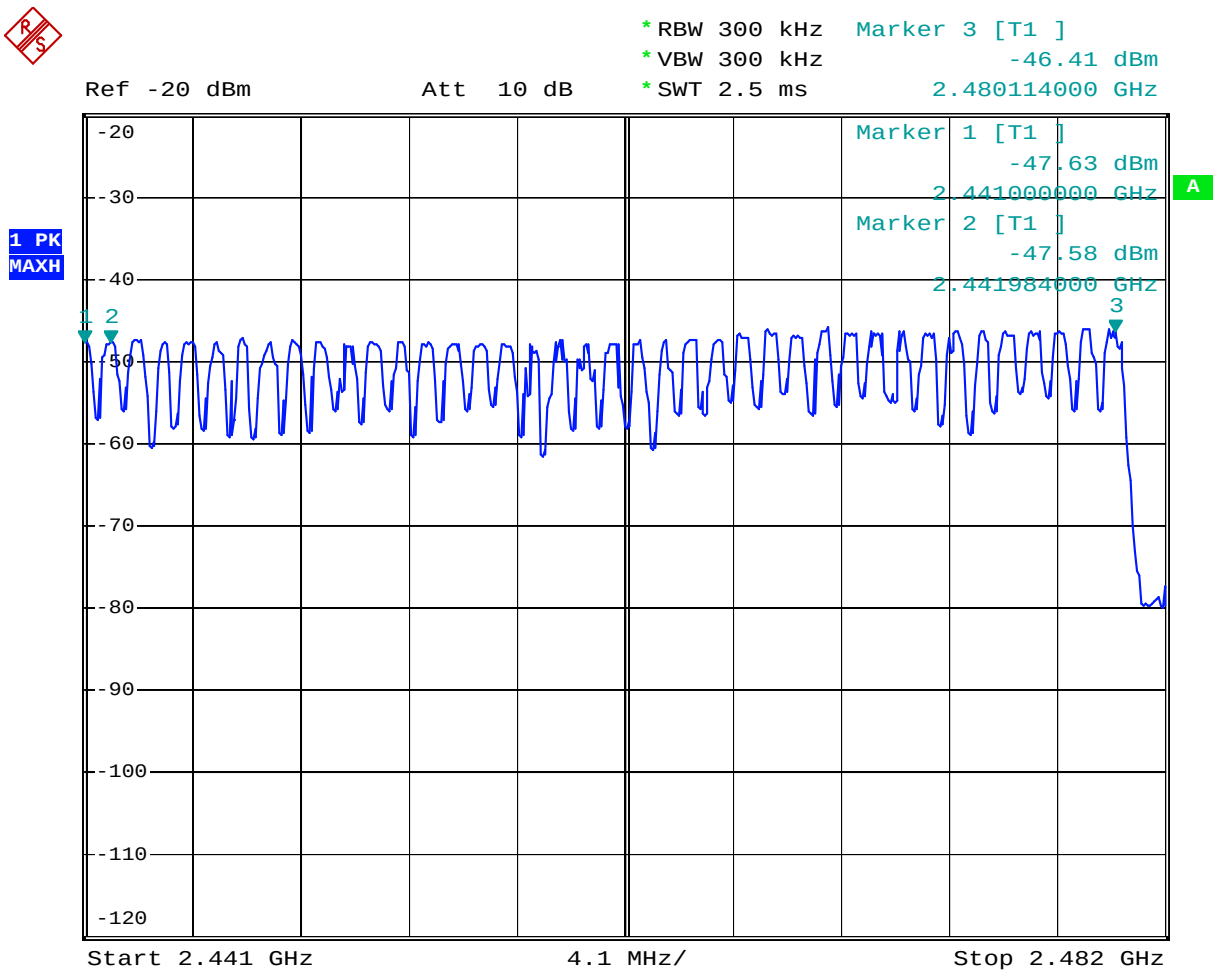
10.5.Test Data

Table 15 Number of Hopping Frequency Test Result

Total No of hopping channel	Limit (CH)	Measurement result (CH)	Result
	>15	79	Pass



Date: 1.NOV.2007 21:06:47



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11. FREQUENCY SEPARATION

11.1.Test Standard and Limit

11.1.1.Test Standard

FCC Part 15 15.247(c) :2006

11.2.Band Edge FCC 15.247(c) Limit

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

11.3.Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = middle of hopping channel .
4. Set the spectrum analyzer as RBW,VBW=100KHz, Adjust Span to 5 MHz, Sweep = auto.
5. Max hold. Mark 3 Peaks of hopping channel and record the 3 peaks frequency.

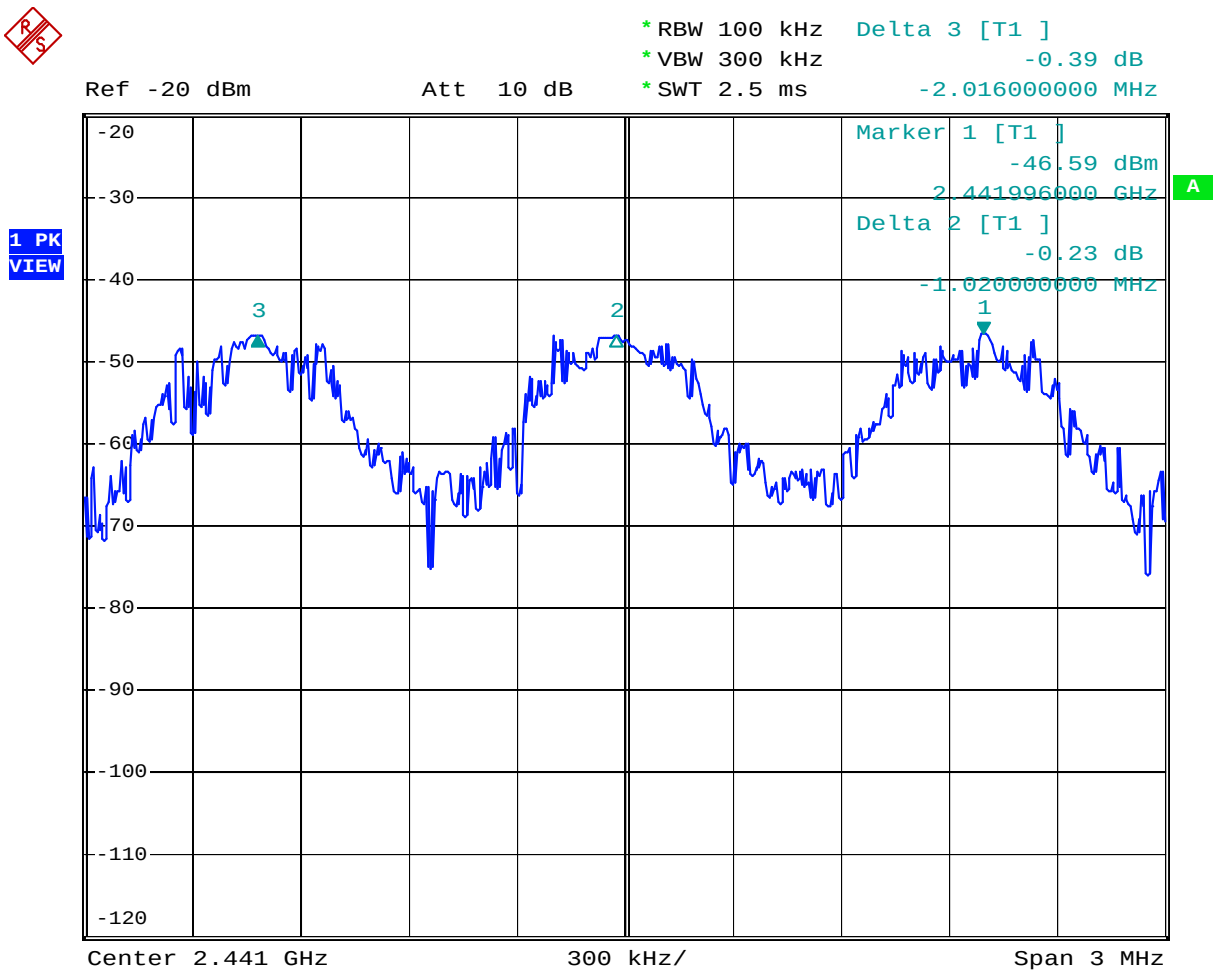
11.4.Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

11.5.Test Data

Table 16 Frequency Separation Test Result

Channel separation （MHz）	Limit （kHz）	Result
1.0	>=25KHz or 2/3*20 dB bandwidth	Pass



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12. TIME OF OCCUPANCY (DWELL TIME)

12.1.Test Standard and Limit

12.1.1.Test Standard

FCC Part 15 15.247(c):2006

12.2.Band Edge FCC 15.247(c) Limit

According to § 15.247(a)(1)(iii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz.
The average time of occupancy on any frequency shall not greater than 0.4 s within period of 0.4 seconds
multiplied by the number of hopping channel employed.

12.3.Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set center frequency of spectrum analyzer = operating frequency.
4. Set the spectrum analyzer as RBW,VBW=100KHz, Span = 0Hz , Adjust Sweep = 30s.
5. Repeat above procedures until all frequency measured were complete.

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12.4.Test Arrangement

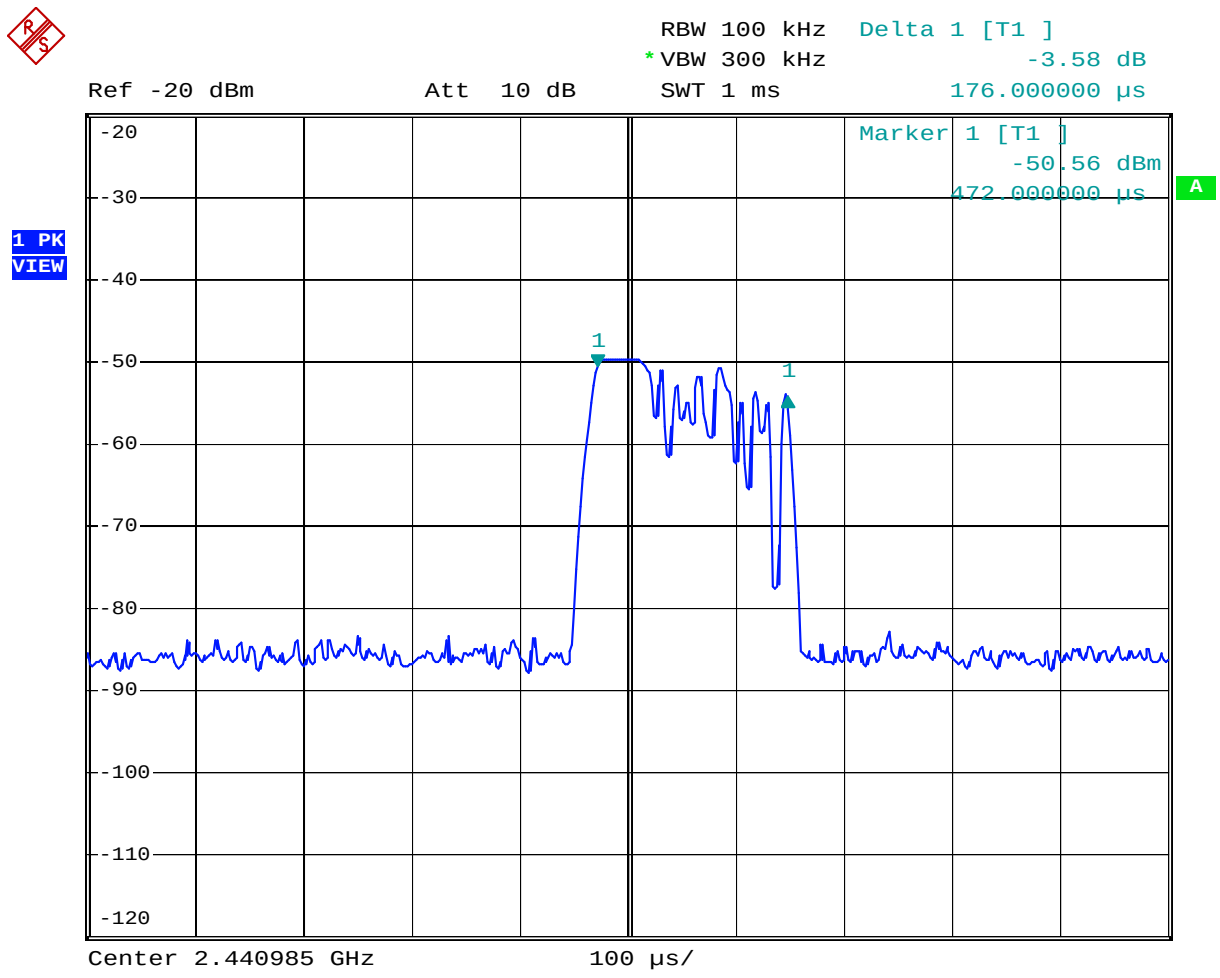
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

12.5.Test Data

The EUT working on DH1 mode only.

Dwell time = $T_{on\ time}$ *$N_{time/1s}$*0.4*79

DH1 time slot = 0.176 (ms) * (1600/(2*79)) * 0.4*79 = 56.3 (ms)



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13. ANTENNA REQUIREMENT

13.1.Standard Applicable

For intentional device, according to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device. And according to § 15.247(4)(1), system operating in the 2400-2483.5MHz bands that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

13.2.Antenna Connected Construction

The directional gains of antenna used for transmitting is 0.8 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement.