

# FCC BT TEST REPORT

No. 150934-BT

For

OBI Connect FZE

Product Name: Mobile Phone

Model Name: Obi Worldphone SJ1.5

Trade Name: OBI

Issued Date: 2015-11-27

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of GCCT.

To verify test report authenticity, send full test report to Email: [gaoxiaoqing0310@126.com](mailto:gaoxiaoqing0310@126.com)

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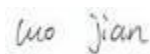
**CONTENTS**

<b>1. Test Laboratory.....</b>	<b>4</b>
1.1 Testing Location.....	4
1.2 Testing Environment.....	4
1.3 Project Data.....	4
<b>2. Client Information.....</b>	<b>5</b>
2.1 Applicant Information.....	5
2.2 Manufacturer Information.....	5
<b>3. Equipment Under Test (EUT) and Ancillary Equipment (AE).....</b>	<b>6</b>
3.1 About EUT.....	6
3.2 Internal Identification of EUT.....	7
3.3 Internal Identification of AE .....	7
<b>4. Test Results.....</b>	<b>8</b>
4.1 Summary of Test Results .....	8
4.2 Statements .....	8
<b>5. Test Equipment Utilized .....</b>	<b>9</b>
<b>ANNEX A: EUT Photograph.....</b>	<b>10</b>
<b>ANNEX B: Detailed Test Results.....</b>	<b>19</b>
B.1 Maximum Transmit Power.....	19
B.2 20dB Bandwidth.....	24
B.3 Band Edge Compliance .....	31
B.4 Carrier Frequency Separation.....	41
B.5 Time Of Occupancy (Dwell Time).....	44
B.6 Number of Channel Hopping .....	51
B.7 Conducted Spurious Emissions .....	55
B.8 AC Conducted Emission .....	71
B.9 Radiated Emission.....	75
B.10 Antenna Requirements .....	81
<b>ANNEX C: Report Revision History.....</b>	<b>82</b>

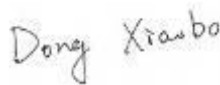
## GENERAL SUMMARY

<b>Product Name</b>	Mobile Phone
<b>Model Name</b>	Obi Worldphone SJ1.5
<b>Trade Name</b>	OBI
<b>Applicant</b>	OBI Connect FZE
<b>Manufacturer</b>	CK Telecom Limited
<b>Test Laboratory</b>	GCCT, Guangdong Telecommunications Terminal Products Quality Supervision and Testing Center
<b>Reference Standards</b>	FCC CFR 47 Part 15C: "Radio Frequency Devices Sub-Part C: intentional Radiators" ANSI C63.10-2013, "American National Standard for Testing Unlicensed Wireless Devices" FCC Public Notice DA 00-705, "Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems"
<b>Test Conclusion</b>	This portable wireless equipment has been measured in all cases requested by the relevant standards. Test results in annex B of this test report are below limits specified in the relevant standards.  General Judgment: Pass  Date of issue: 2015.11.27
<b>Comment</b>	The test results in this report apply only to the tested sample of the stated device/equipment.

Approved by:

Luo Jian  
Manager

Reviewed by:

Dong Xiaobo  
Deputy Manager

Tested by:

Gao Xiaoqing  
Test Engineer

## 1. Test Laboratory

### 1.1 Testing Location

<b>Company Name</b>	GCCT, Guangdong Telecommunications Terminal Products Quality Supervision and Testing Center
<b>Address</b>	Technology Road, High-tech Zone, Heyuan, Guangdong Province, PR.China
<b>CNAS Registration No.</b>	L4992
<b>FCC Registration No.</b>	303878
<b>Postal Code</b>	517001
<b>Telephone</b>	+86-762-3607221
<b>Fax</b>	+86-762-3603336

### 1.2 Testing Environment

<b>Environment Data</b>	<b>Temperature(°C)</b>	<b>Humidity(%)</b>
<b>Maximum Ambient</b>	25.8	46
<b>Minimum Ambient</b>	22.3	42

EUT is under testing environment.

### 1.3 Project Data

<b>Project Leader</b>	Dong Xiaobo
<b>Testing Start Date</b>	2015-10-23
<b>Testing End Date</b>	2015-11-27

## 2. Client Information

### 2.1 Applicant Information

<b>Company Name</b>	OBI Connect FZE
<b>Address</b>	B-21,Dubai Airport Free zone, PO BOX 371475, United Arab Emirates
<b>City</b>	Dubai
<b>Postal Code</b>	/
<b>Country</b>	United Arab Emirates

### 2.2 Manufacturer Information

<b>Company Name</b>	CK Telecom Limited
<b>Address</b>	Technology Road.High-Tech Development Zone. Heyuan, Guangdong,P.R.China.
<b>City</b>	Heyuan
<b>Postal Code</b>	/
<b>Country</b>	China

### 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

#### 3.1 About EUT

<b>Model Name</b>	Obi Worldphone SJ1.5
<b>FCC ID</b>	2AGBLSJ15
<b>Tx Frequency</b>	GSM850:824 ~ 848 MHz PCS1900 : 1850 ~ 1909MHz WCDMA Band V: 826 ~ 846MHz Bluetooth& BLE: 2402 ~ 2480MHz WIFI(802.11b/g/n-20): 2412 ~ 2472MHz WIFI(802.11n-40): 2422 ~ 2462MHz
<b>Rx Frequency</b>	GSM850: 869 ~ 893MHz GSM1900: 1930 ~ 1989MHz WCDMA Band V: 871 ~ 891MHz Bluetooth& BLE: 2402 ~ 2480MHz WIFI(802.11b/g/n-20): 2412 ~ 2472MHz WIFI(802.11n-40): 2422 ~ 2462MHz
<b>Number of Channels</b>	GSM850 :25 GSM1900 : 60 WCDMA Band V: 25 Bluetooth:79 BLE:40 WIFI(802.11b/g/n-20):13 WIFI(802.11n-40):7
<b>Modulation</b>	GSM:GMSK WCDMA:BPSK/QPSK BLE:GFSK Bluetooth: GFSK& $\pi/4$ -DQPSK&8DPSK WIFI:CCK/OFDM
<b>Antenna Gain</b>	GSM850&1900:-0.5dBi WCDMA Band V: -1dBi Bluetooth&BLE&WIFI: -1dBi
<b>Normal Voltage</b>	3.8V
<b>Extreme Low Voltage</b>	3.7V
<b>Extreme High Voltage</b>	4.2V
<b>Extreme Low Temperature</b>	0°C
<b>Extreme High Temperature</b>	40°C

Note: Photographs of EUT are shown in ANNEX A of this test report.

Note: high and low voltage values in extreme condition test are given by manufacturer

### 3.2 Internal Identification of EUT

EUT ID *	IMEI	HW Version	SW Version
150934-M01	/	V1.0	OBI-SJ1.5-000-Ver1.5
150934-M03	/	V1.0	OBI-SJ1.5-000-Ver1.5

\*EUT ID: is used to identify the test sample in the lab internally.150934-M01 and 150934-M03 are the same mobile phone.

### 3.3 Internal Identification of AE

AE ID *	Description	Model	Manufacturer
150934-B01	Battery	OB3000CKA	DONG GUAN DRN NEW ENERGY CO.,LTD.
150934-C01	Adapter	A0D2A5V	DONG GUAN AOHA1 POWER TECHNOLOGY CO.,LTD.
150934-B03	Battery	OB3000CKA	DONG GUAN DRN NEW ENERGY CO.,LTD.
150934-C03	Adapter	A0D2A5V	DONG GUAN AOHA1 POWER TECHNOLOGY CO.,LTD.

\*AE ID: is used to identify the test sample in the lab internally.150934-B01 and 150934-B03 are the same accessories, 150934-C01 and 150934-C03 are the same accessories.

## 4. Test Results

### 4.1 Summary of Test Results

No	Test cases	Sample	Verdict
1	Maximum transmit power	M01	Pass
2	20dB Bandwidth	M01	Pass
3	Band Edge Compliance	M01	Pass
4	Carrier Frequency Separation	M01	Pass
5	Time Of Occupancy (Dwell Time)	M01	Pass
6	Number Of Channel Hopping	M01	Pass
7	Conducted Spurious Emissions	M01	Pass
8	AC ConductedEmission	M03	Pass
9	Radiated Emissions	M03	Pass
10	Antenna Requirements	M01	Pass

Note: please refer to Annex B in this test report for the detailed test results.

### 4.2 Statements

GCCT has evaluated the test cases requested by the applicant/manufacture as listed in section 4.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in general summary.



**5. Test Equipment Utilized****Table 1. Measurement Equipment**

Hardware						
No.	Name	Model	SN	Manufacture	Cal. Date	Cal. Due Date
1	Signal Tester	MT8852B	1307002	Anritsu	2015.08.21	2016.08.20
2	Spectrum Analyzer	N9020A	MY52091261	Agilent	2015.08.21	2016.08.20
3	Switch Unit	/	E0112	/	2015.08.21	2016.08.20
Software						
Tech BT			v1.0.3			

**Table 2. Radiated emission test system**

No.	Name	Model	SN	Manufacture	Cal. date	Cal. Due Date
1	Spectrum Analyzer	E4440A	MY48250641	Agilent	2015.08.21	2016.08.20
2	BiCoNilog Antenna	3142E	00142015	ETS-Lindgren	2015.09.15	2017.09.14
3	Horn Antenna	3117	129169	ETS-Lindgren	2015.09.15	2017.09.14
4	Signal Generator	N5183A-532	MY49060563	Agilent	2015.08.21	2016.08.20
5	Universal Radio Communication Tester	E5515C	MY48367105	Agilent	2015.08.21	2016.08.20
6	RF Preselector	N9039A	MY48260024	Agilent	/	/
7	Loop Antenna	HFH2	860015/00	R&S	2015.08.21	2016.08.20

## ANNEX A: EUT Photograph

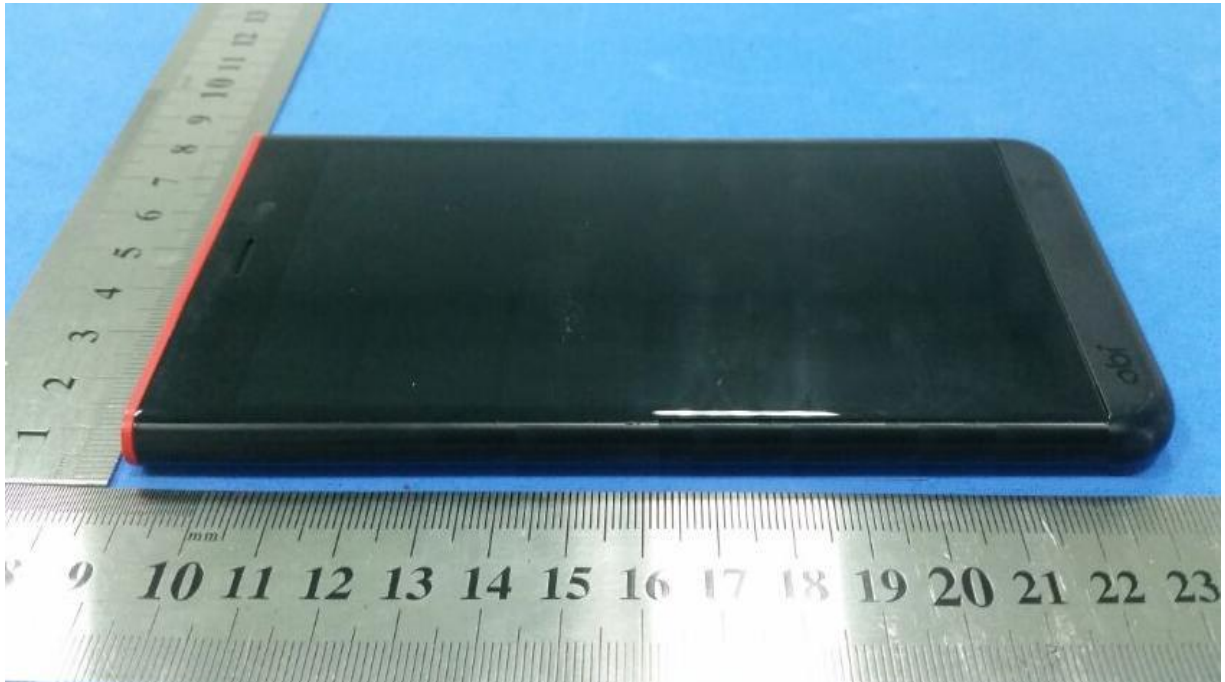
**EUT Front View**



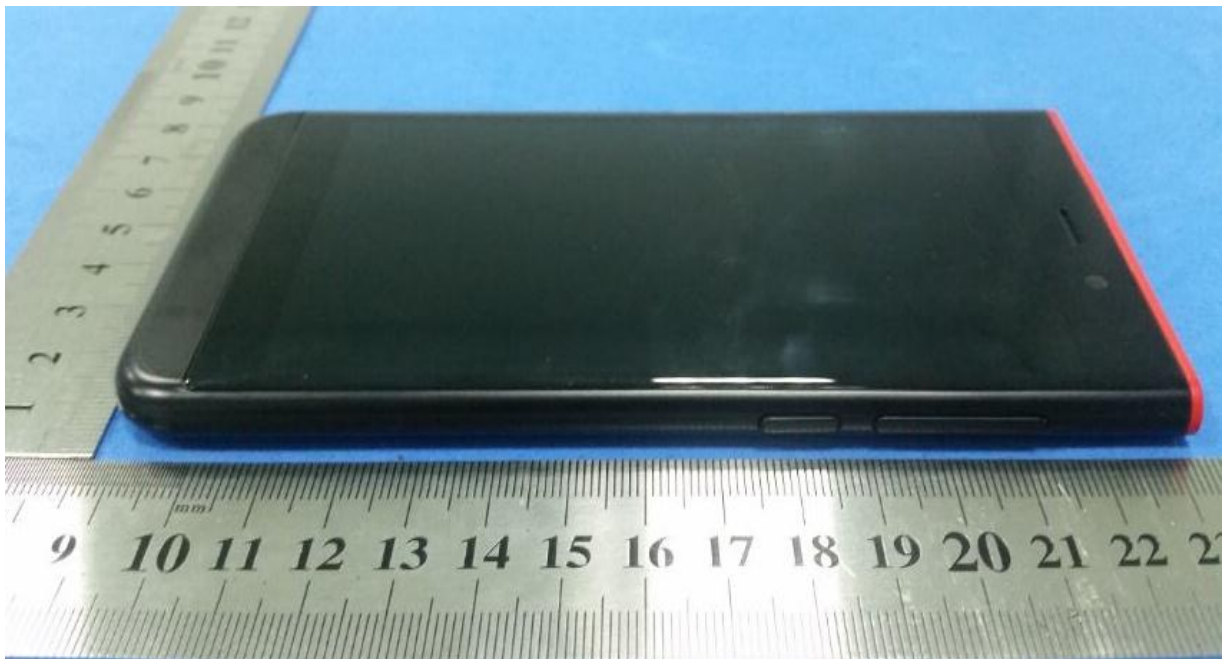
**EUT behind View**



**EUT Left View**



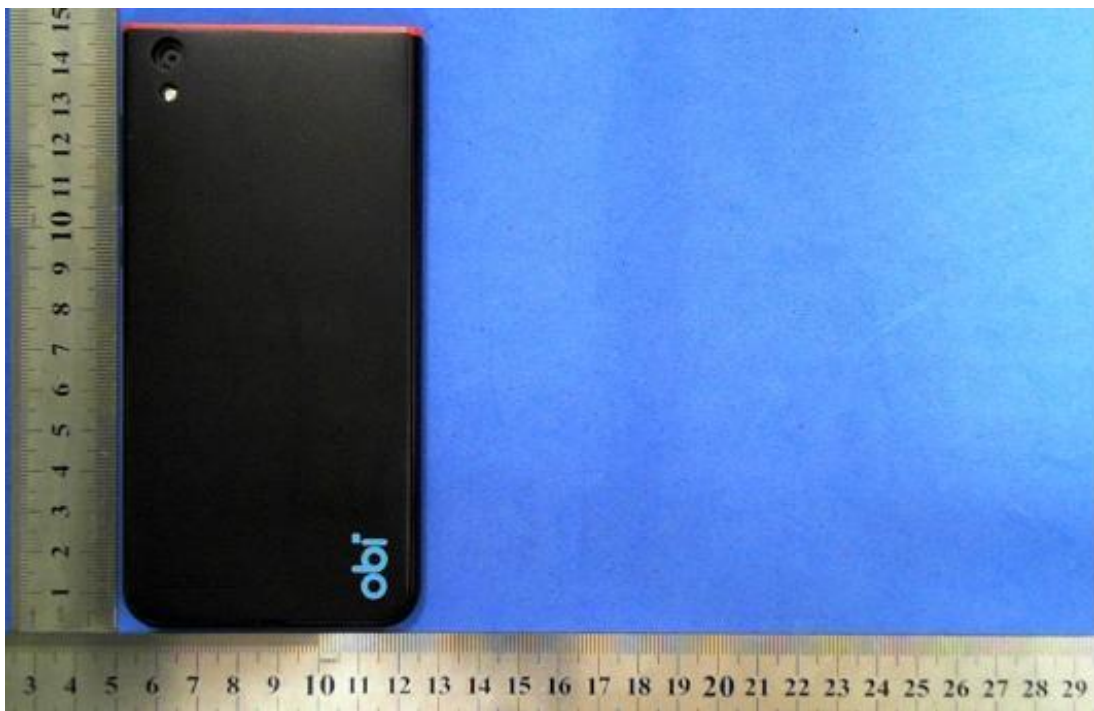
**EUT Right View**



**EUT Top View**



**EUT Rear View**





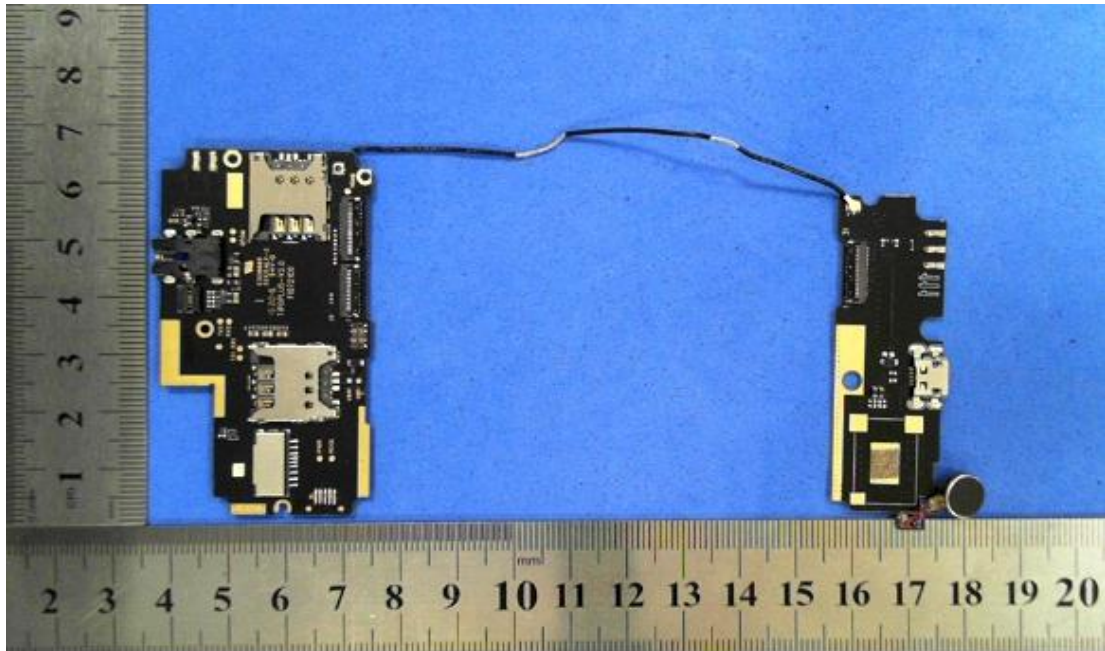
All



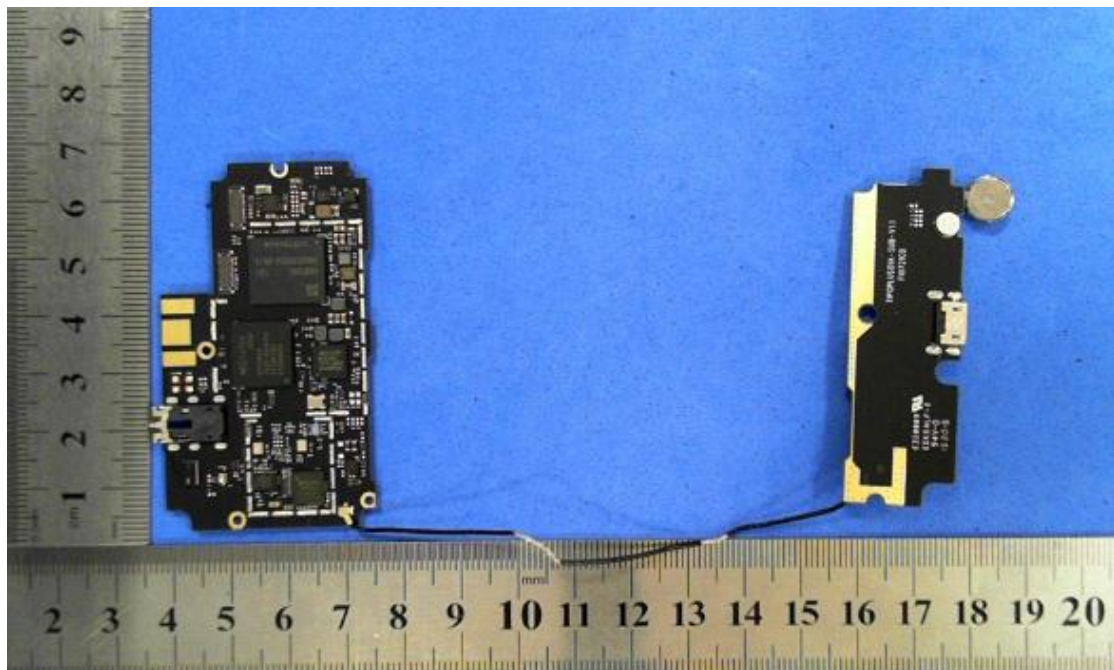
Cover off



**Main board Front View**



**Main board Rear View**





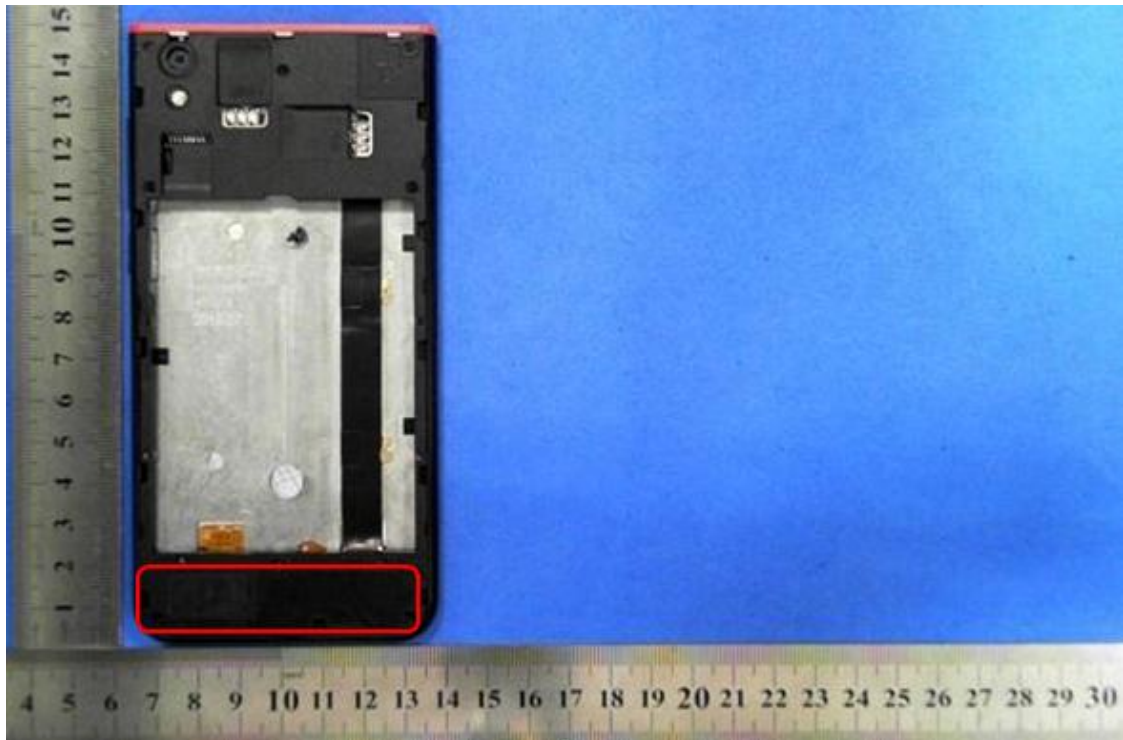
Battery Front View



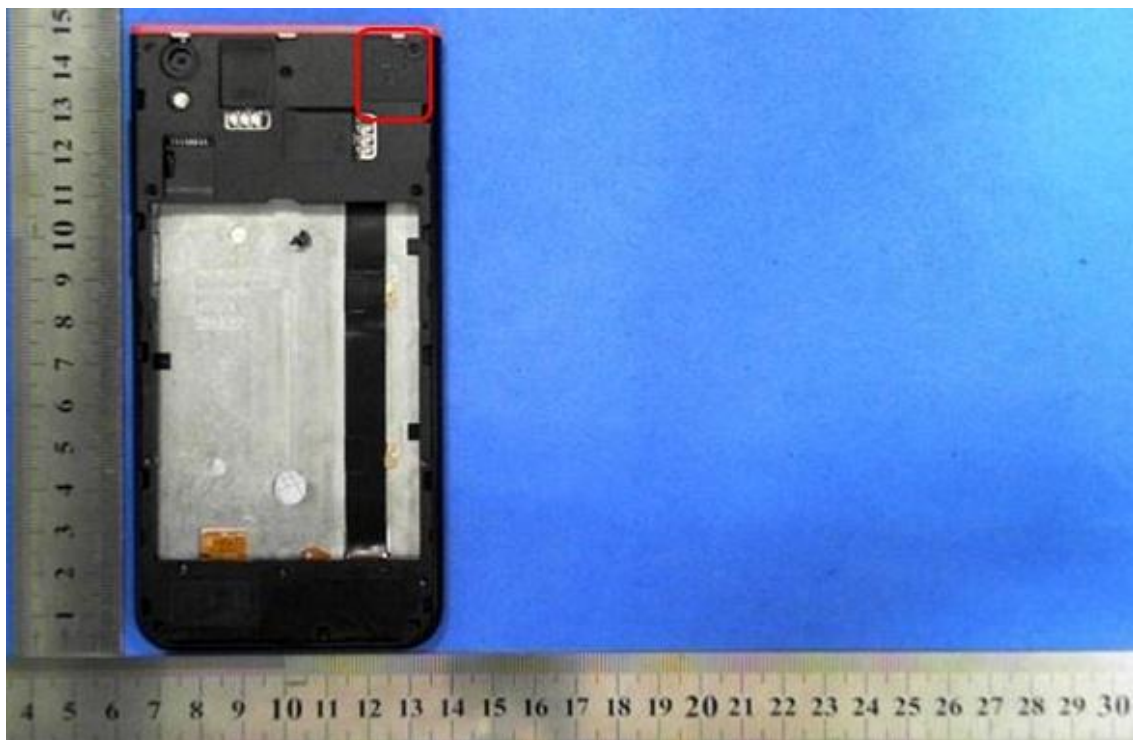
Battery Back View



**GSM/WCDMA Antenna View**

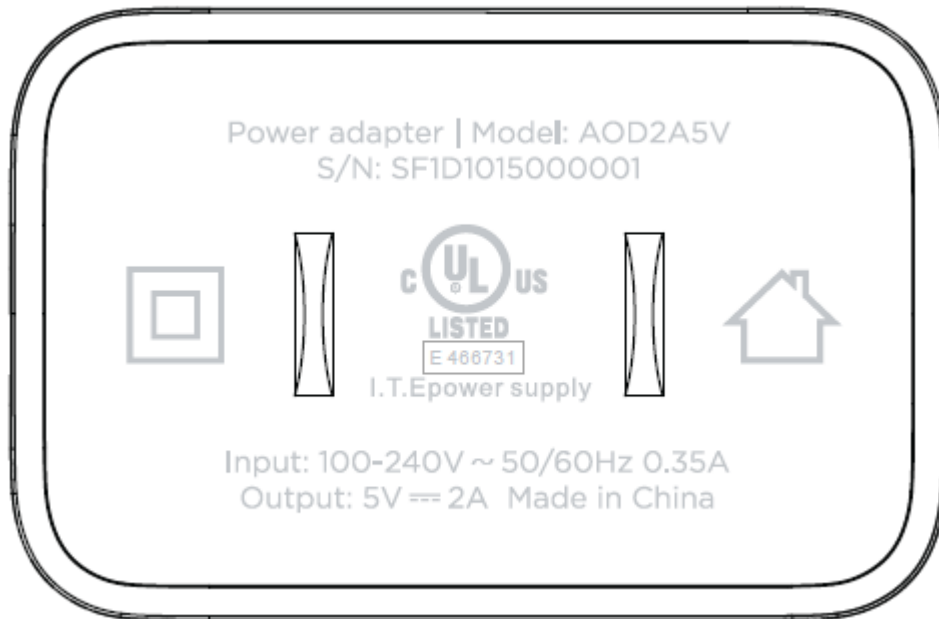


**BT/WIFI Antenna View**

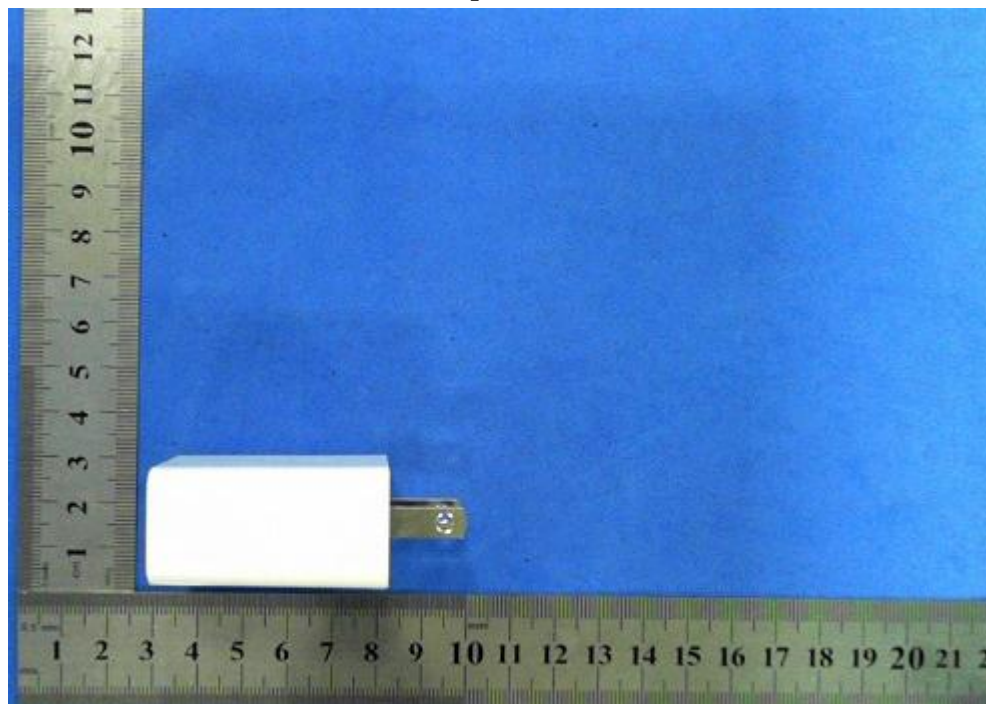




Adapter label view



Adapter view

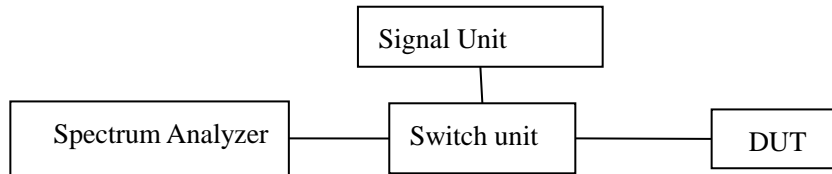


**USB Cable**



## ANNEX B: Detailed Test Results

The radiated test setup is shown in each radiated test case section. The conducted test setup is shown as following:



All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.

### B.1 Maximum Transmit Power

#### B.1.1 Description

According to §15.247(b)(1),

The maximum Peak Output power shall be equal to or less than  $125\text{mW} \approx 21\text{dBm}$

#### B.1.2 Test procedures

##### Conducted Measurement

EUT was set for low, mid, high channel with modulated mode and highest RF output power

The spectrum analyzer was connected to the antenna terminal.

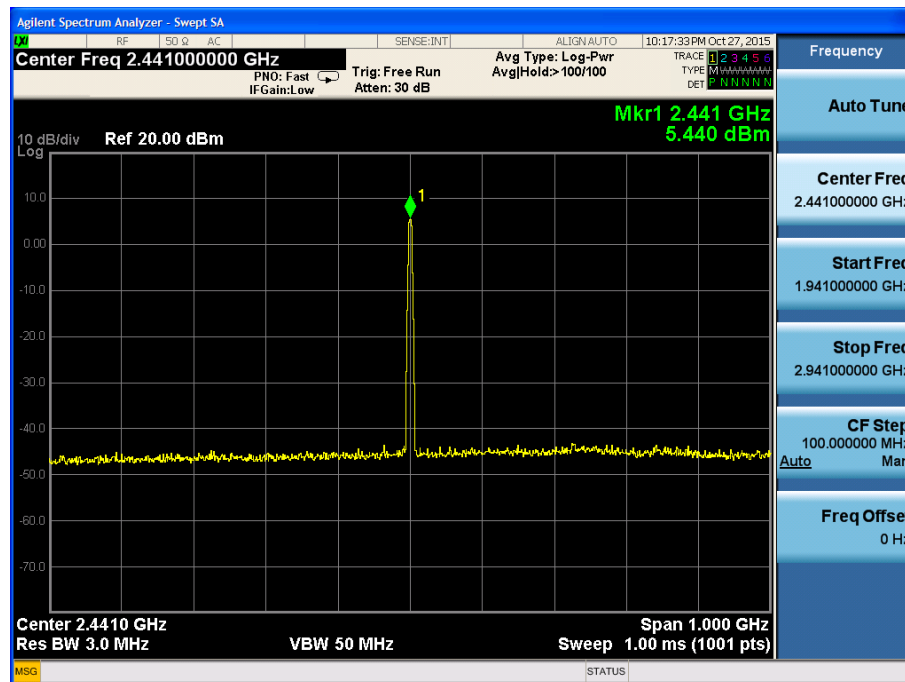
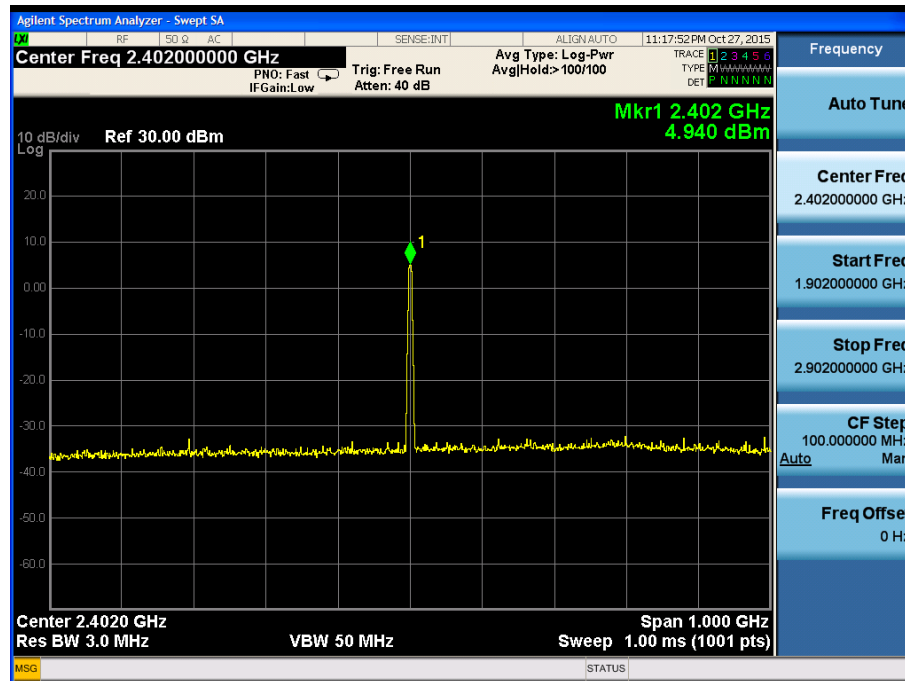
##### Procedures:

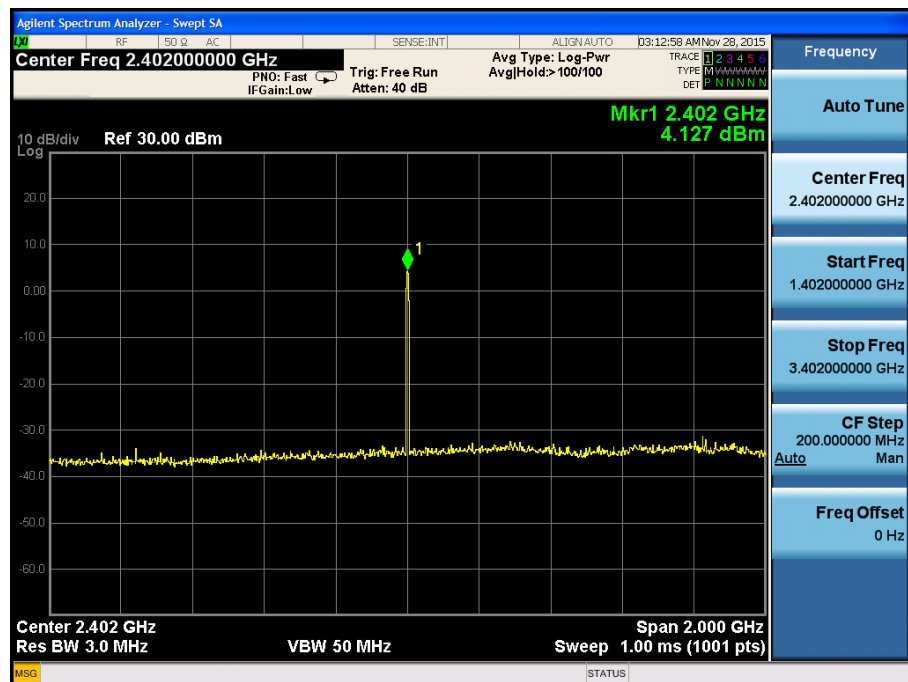
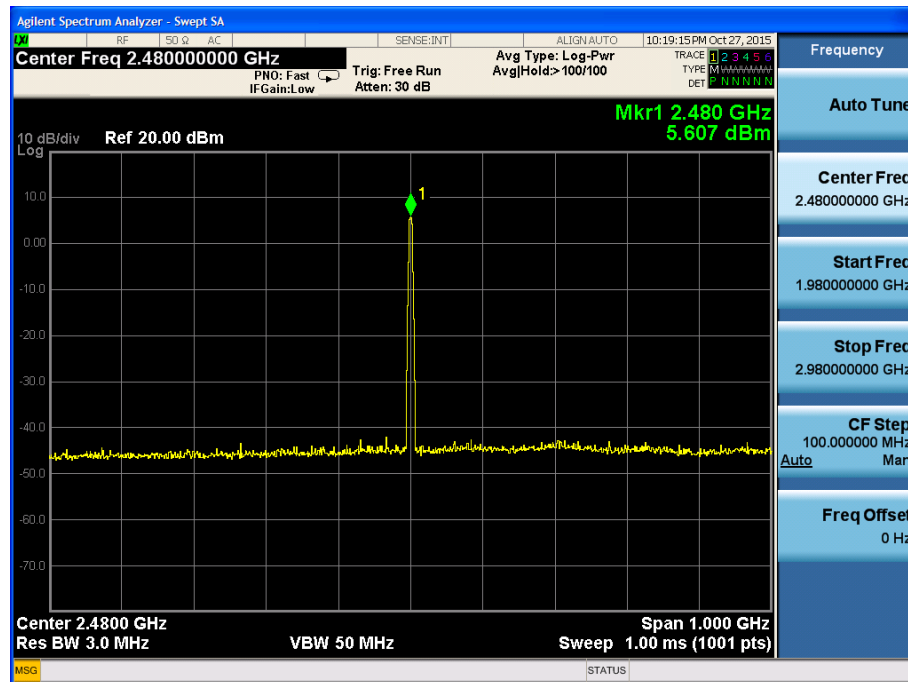
- Place the EUT on the table and set it in transiting mode.
- RF output of EUT was connected to SA by a low loss cable.
- SA settings as follow: Span= approximately 5 times the 20 dB bandwidth, centered on a hopping channel,  $\text{RBW} \geq$  the 20 dB bandwidth of the emission being measured,  $\text{VBW} \geq \text{RBW}$ , Sweep time= auto, Detector function= Peak, Trace= Max hold
- Then set the EUT to transmit at low, middle and high frequency and measure the conducted output power separately

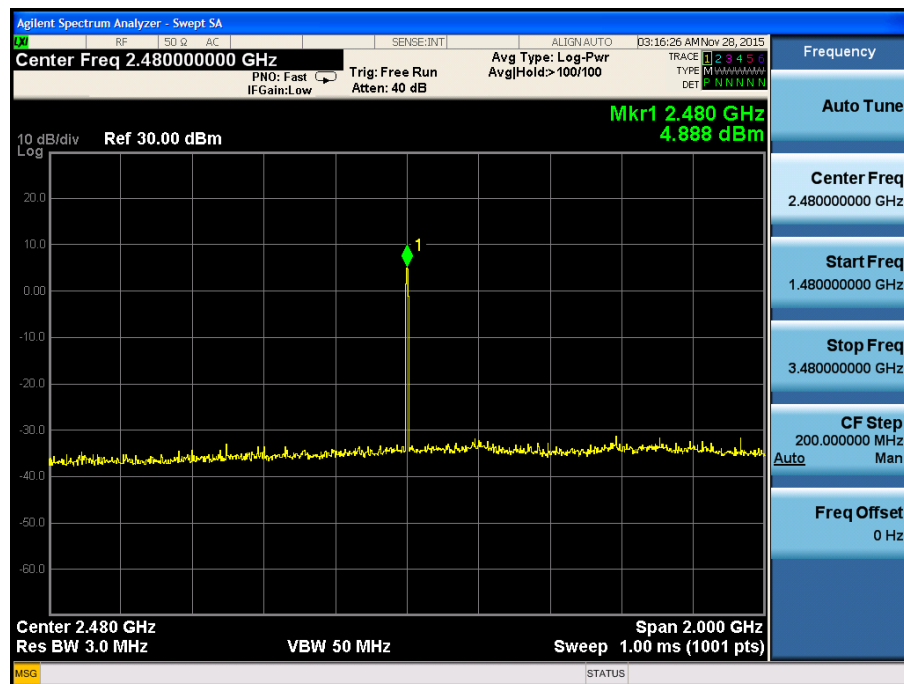
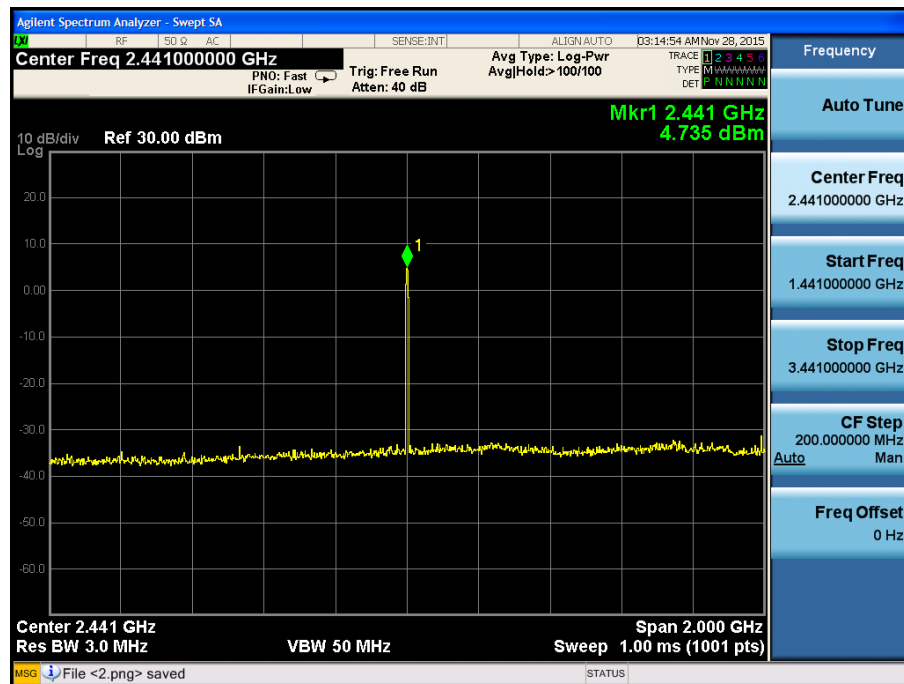
#### B.1.3 Test Results

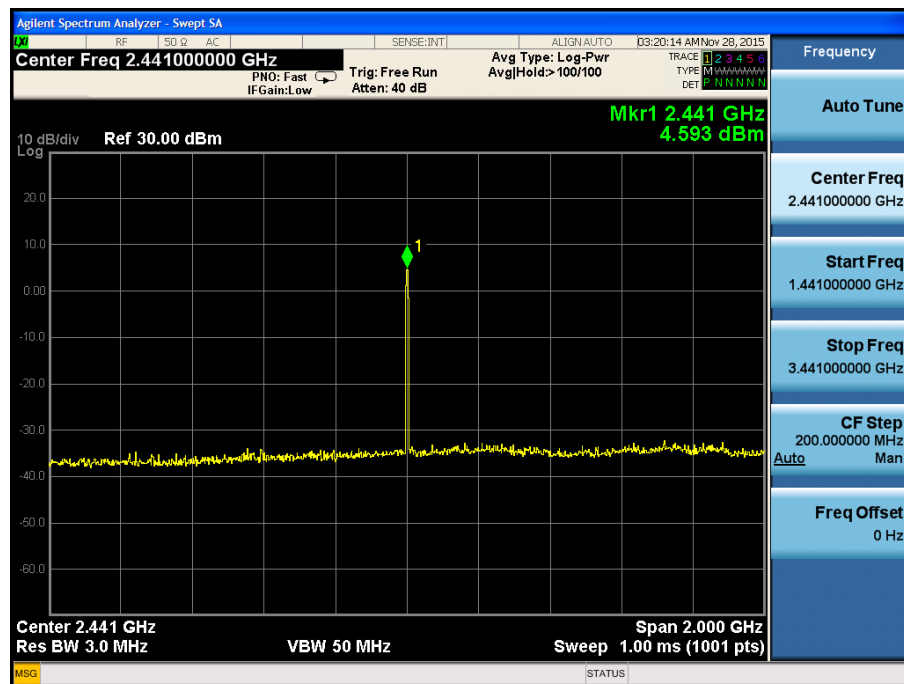
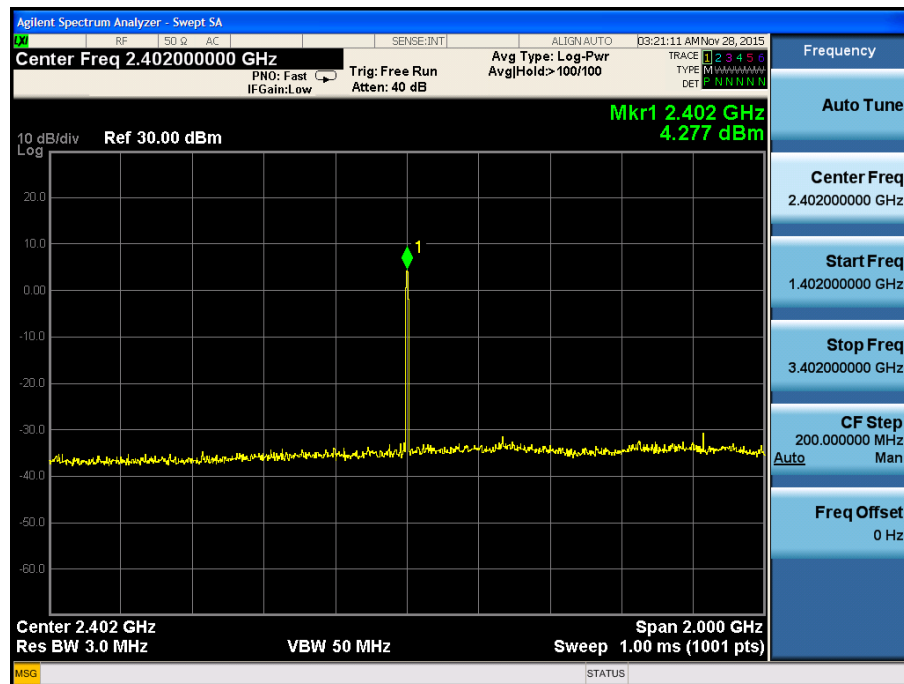
Date rate (Mbps)	Maximum peak output power(dBm)			Verdict
	2402MHz	2441MHz	2480MHz	
1	4.940	5.440	5.607	Pass
2	4.127	4.735	4.888	Pass

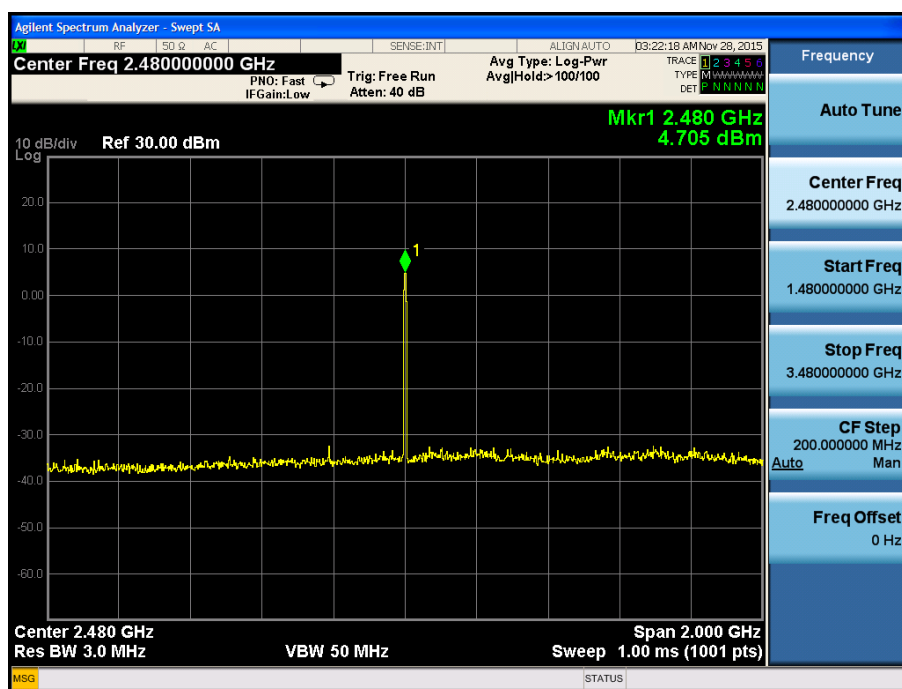
3	4.277	4.593	4.705	Pass
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## B.2 20dB Bandwidth

### B.2.1 Description

According to §15.247(a)(1)(iii)

The bandwidth at 20 dBm down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receiver antenna while the EUT is operating in transmission mode at the appropriate frequencies.

### B.2.2 Test procedures

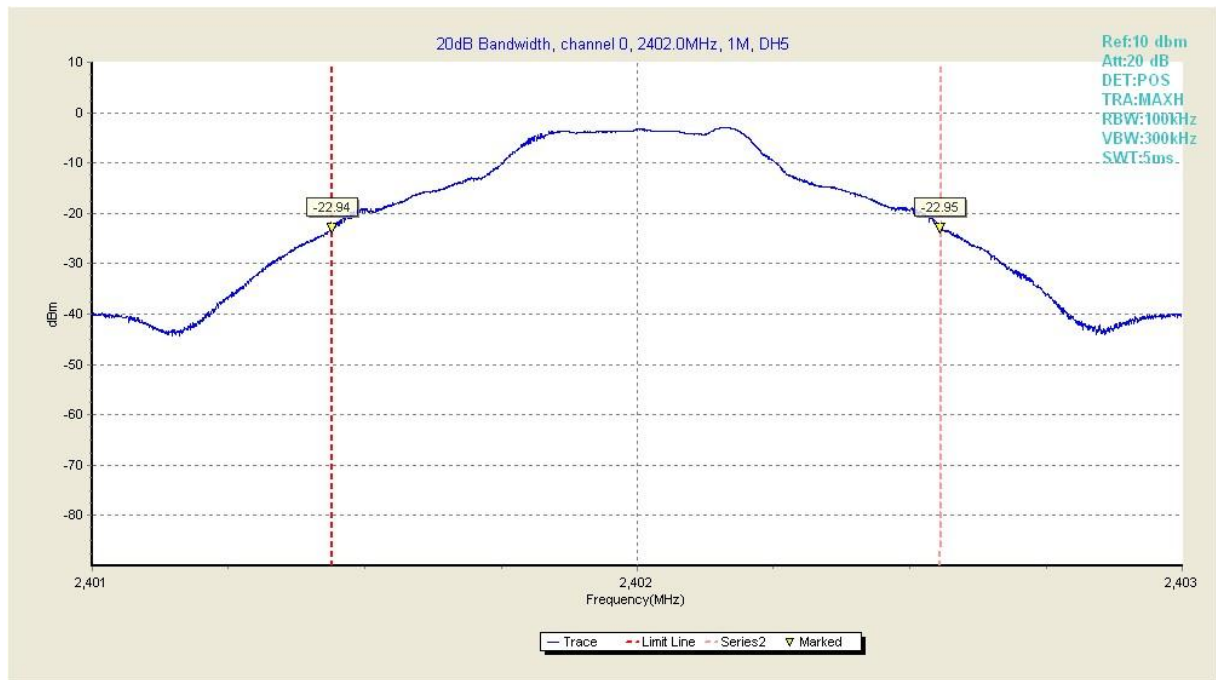
- Testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
- RF output of EUT was connected to SA by a low loss cable.
- SA settings as follow: Span= approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel, RBW $\geq$ 1% of 20 dB bandwidth, VBW $\geq$  RBW, Sweep time= auto, Detector function= Peak, Trace= Max hold
- Set the measured low, middle and high frequency and test 20dB bandwidth with spectrum analyzer

### B.2.3 Test Results

#### GFSK Modulation

Date rate (Mbps)	Frequency(MHz)	Test Result(MHz)		Verdict
1	2402	1.117	Fig.1	Pass
	2441	1.120	Fig.2	Pass
	2480	1.119	Fig.3	Pass





Test plot 1	2401.439453	-22.940001
Test plot 2	2402.556396	-22.950001

**Fig1. 20dB Bandwidth in 2402MHz,1Mbps**



Test plot 1	2440.439453	-22.150000
Test plot 2	2441.559082	-22.190001

**Fig2. 20 dB Bandwidth in 2441MHz,1Mbps**

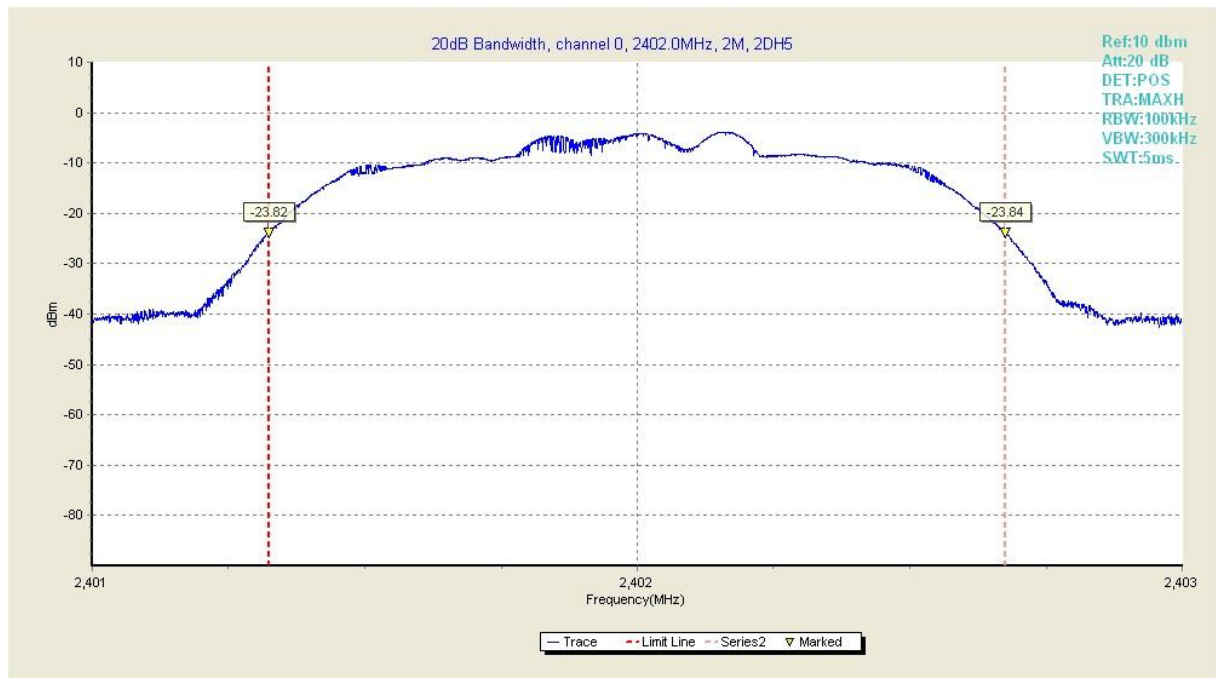


Test plot 1	2479.438965	-21.719999
Test plot 2	2480.558105	-21.799999

**Fig3. 20 dB Bandwidth in 2480MHz,1Mbps**

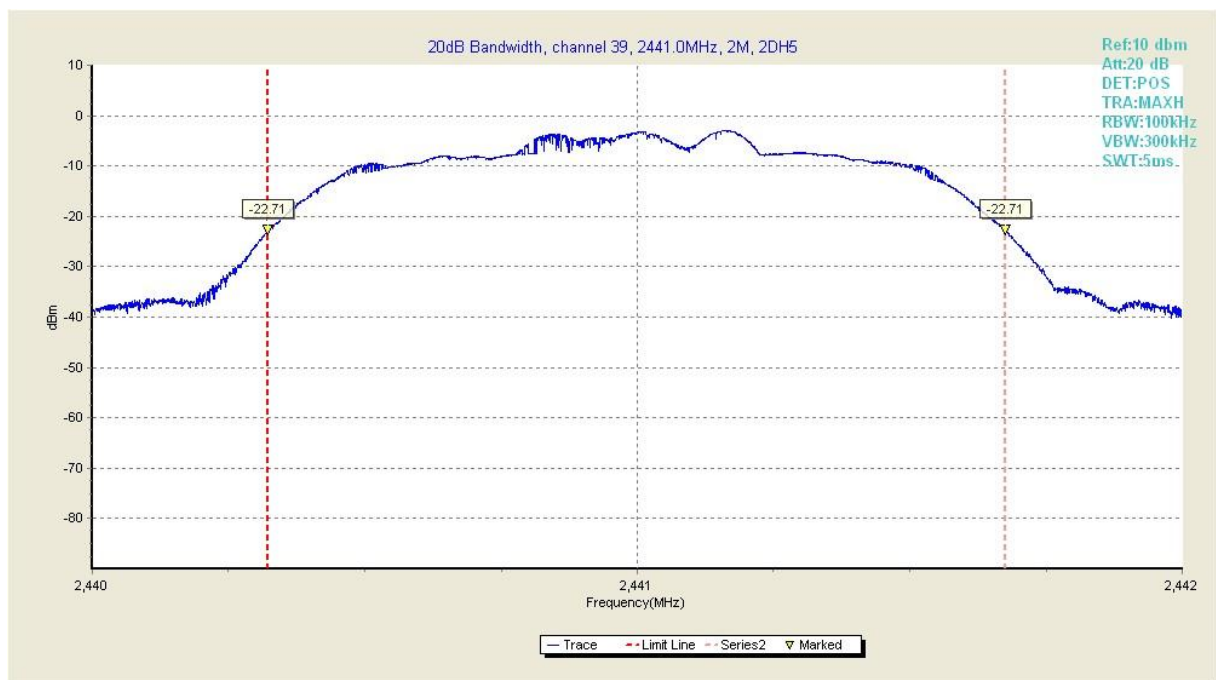
### $\pi/4$ -DQPSK Modulation

Date rate (Mbps)	Frequency(MHz)	Test Result(MHz)		Verdict
2	2402	1.350	Fig.4	Pass
	2441	1.354	Fig.5	Pass
	2480	1.356	Fig.6	Pass



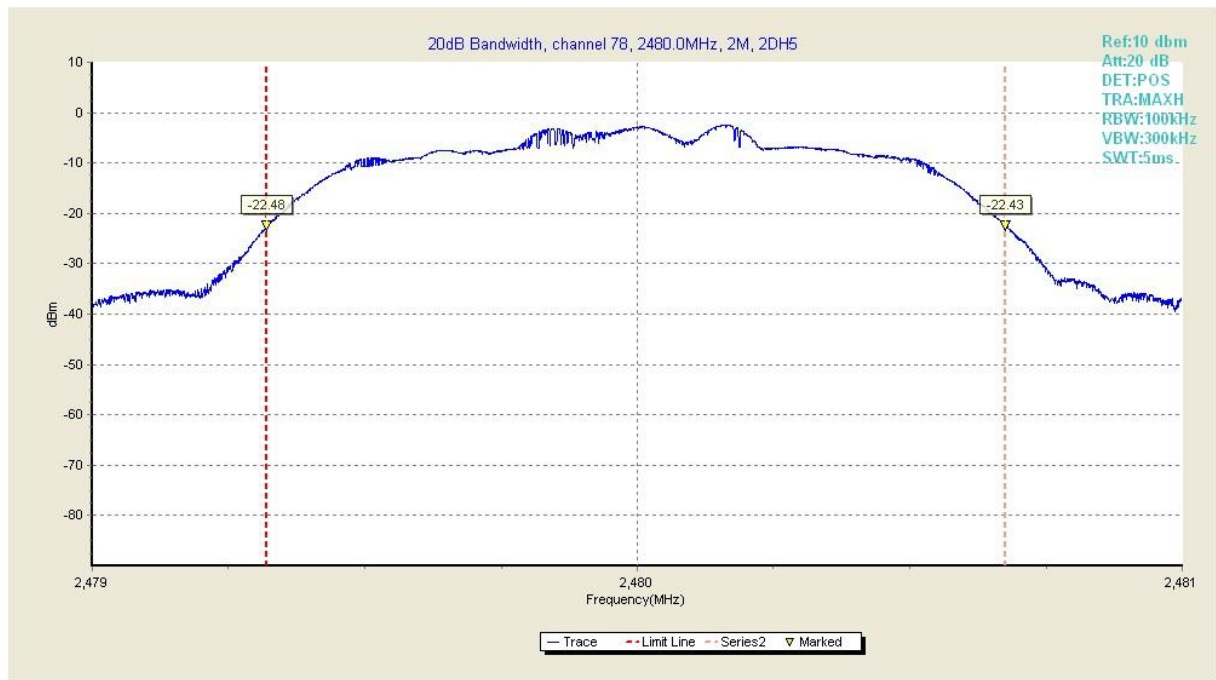
Test plot 1	2401.324463	-23.820000
Test plot 2	2402.674561	-23.840000

**Fig4. 20dB Bandwidth in 2402MHz,2Mbps**



Test plot 1	2440.322021	-22.709999
Test plot 2	2441.675537	-22.709999

**Fig5. 20 dB Bandwidth in 2441MHz,2Mbps**

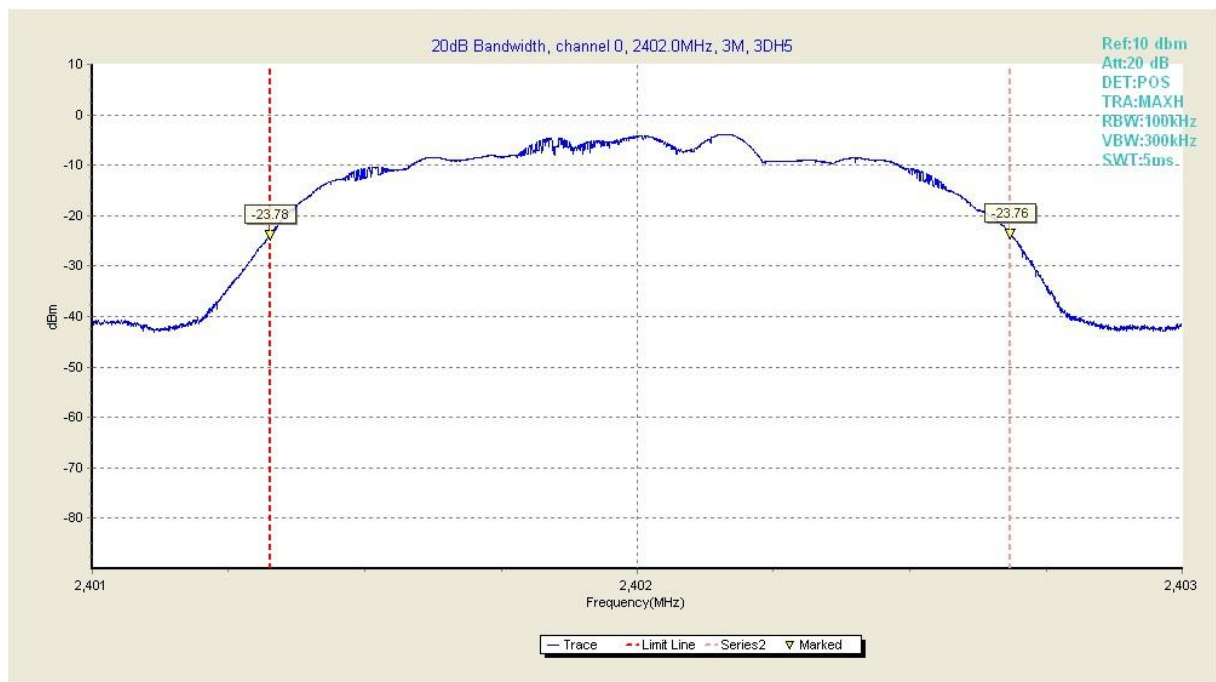


Test plot 1	2479.320557	-22.480000
Test plot 2	2480.676025	-22.430000

**Fig6. 20 dB Bandwidth in 2480MHz,2Mbps**

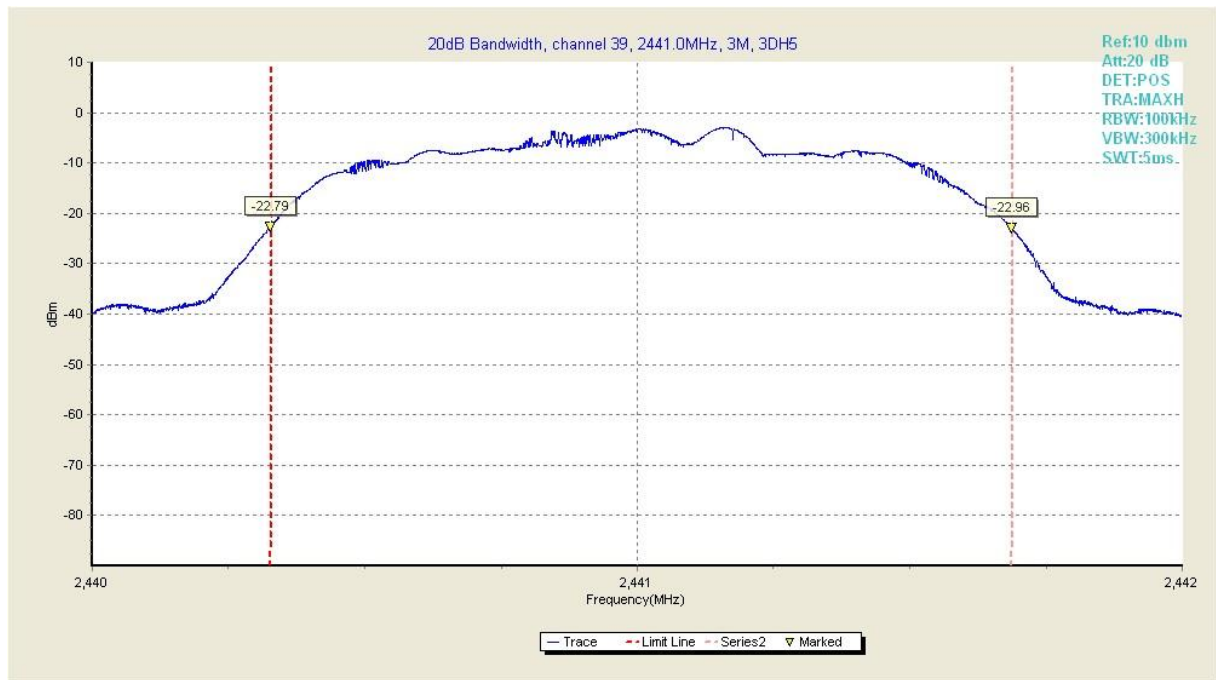
## 8DPSK Modulation

Date rate (Mbps)	Frequency(MHz)	Test Result(MHz)		Verdict
3	2402	1.359	Fig.7	Pass
	2441	1.360	Fig.8	Pass
	2480	1.362	Fig.9	Pass



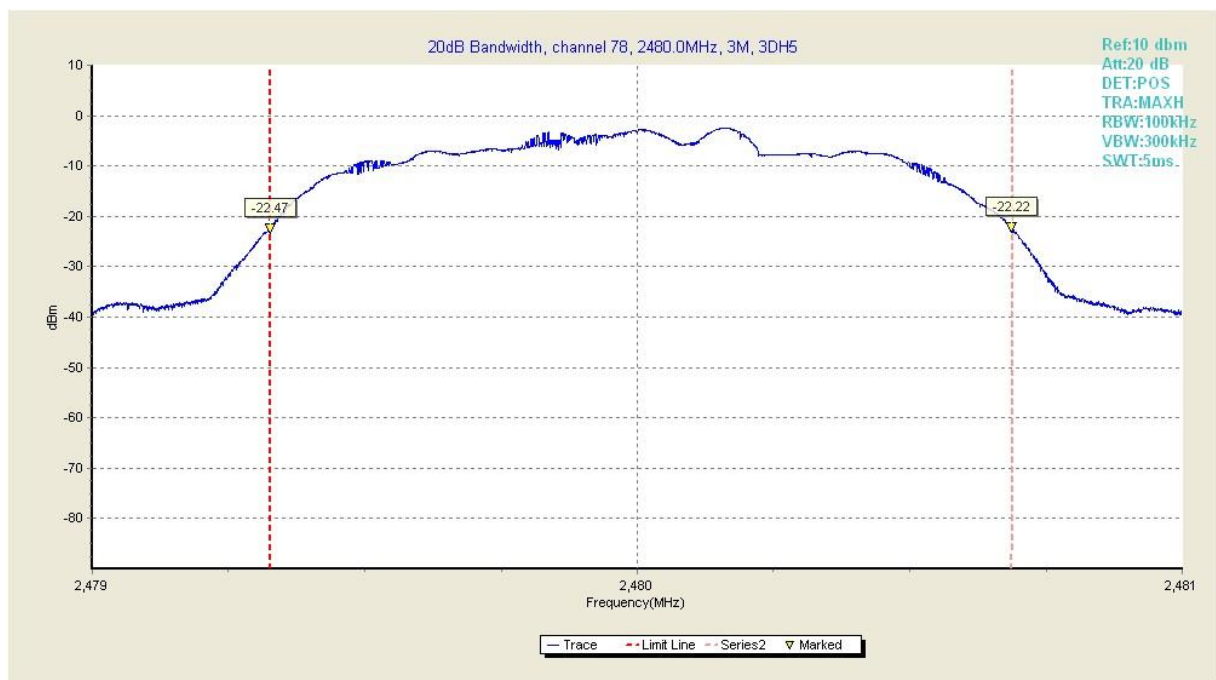
Test plot 1	2401.325928	-23.780001
Test plot 2	2402.684570	-23.760000

**Fig7. 20dB Bandwidth in 2402MHz,3Mbps**



Test plot 1	2440.327393	-22.790001
Test plot 2	2441.687500	-22.959999

**Fig8. 20 dB Bandwidth in 2441MHz,3Mbps**



Test plot 1	2479.325928	-22.469999
Test plot 2	2480.687500	-22.219999

**Fig9. 20 dB Bandwidth in 2480MHz, 3Mbps**

## B.3 Band Edge Compliance

### B.3.1 Conducted Measurement

#### B.3.1.1 Description

According to §15.247(d), the Band Edges Compliance shall be equal to or less than -20 dB.

#### B.3.1.2 Test procedures

##### Conducted Measurement

EUT was set for low, mid, high channel with modulated mode and highest RF output power

The spectrum analyzer was connected to the antenna terminal.

##### Standard Requirement

Emissions within 2 MHz of an authorized band edge may be measured using either the marker-delta method (for peak or average emissions) or the integration method (for average emissions only), described below, provided that the OBW edge falls within 2 MHz of the band edge. Otherwise, all unwanted emissions measurements shall be performed using the standard methods.

##### Procedures

##### Peak Detection

When using a peak detector to measure unwanted emissions at or near the band edge (within 2 MHz of the authorized band), the following integration procedure can be used.

- a) Set instrument center frequency to the frequency of the emission to be measured (must be within 2 MHz of the authorized band edge).
- b) Set span to 2 MHz
- c) RBW = 100 kHz.
- d) VBW  $\geq 3 \times$  RBW.
- e) Detector = peak.
- f) Sweep time = auto.
- g) Trace mode = max hold.
- h) Allow sweep to continue until the trace stabilizes (required measurement time may increase for low duty cycle applications)
- i) Compute the power by integrating the spectrum over 1 MHz using the analyzer's bandpower measurement function with band limits set equal to the emission frequency ( $f_{\text{emission}} \pm 0.5$  MHz). If the instrument does not have a band power function, then sum the amplitude levels (in power units) at 100 kHz intervals extending across the 1 MHz spectrum defined by  $f_{\text{emission}} \pm 0.5$  MHz.

#### B.3.1.3 Test Results

## GFSK Modulation

Date rate (Mbps)	Frequency(MHz)	Limit (dB)	Test Result(dB)		Verdict
1	2400	-20	-41.58	Fig.10	Pass
			-45.09	Fig.11	
	2483.5		-57.36	Fig.12	Pass
			-63.42	Fig.13	

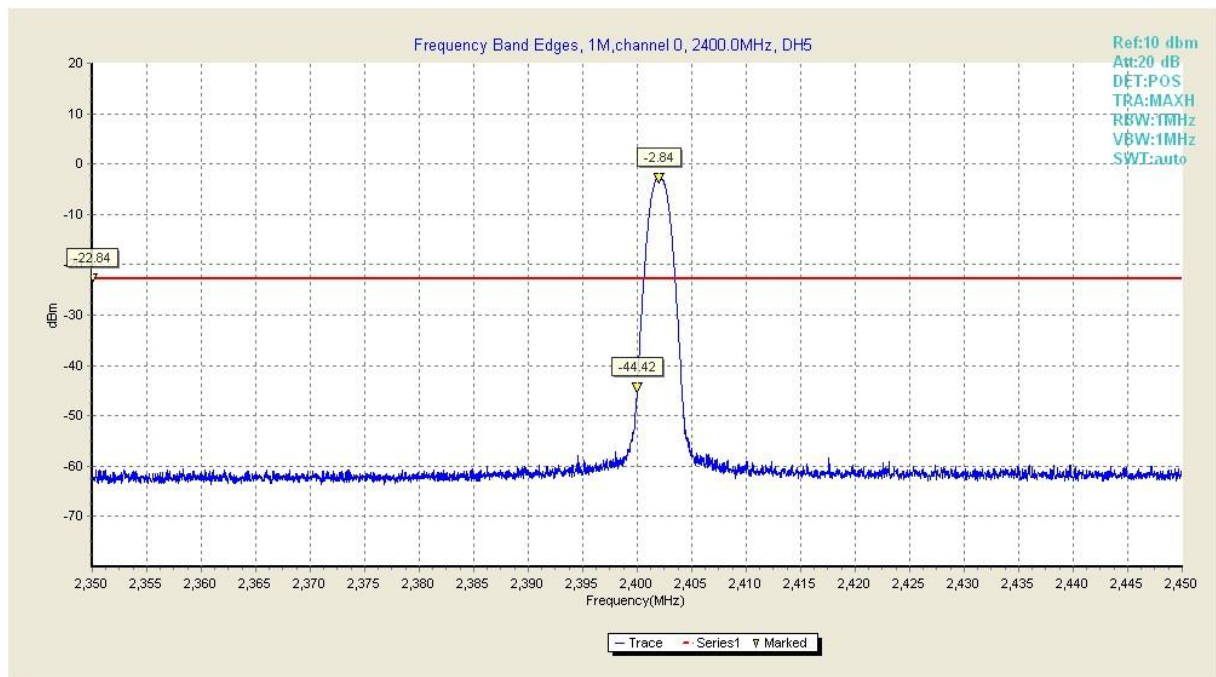
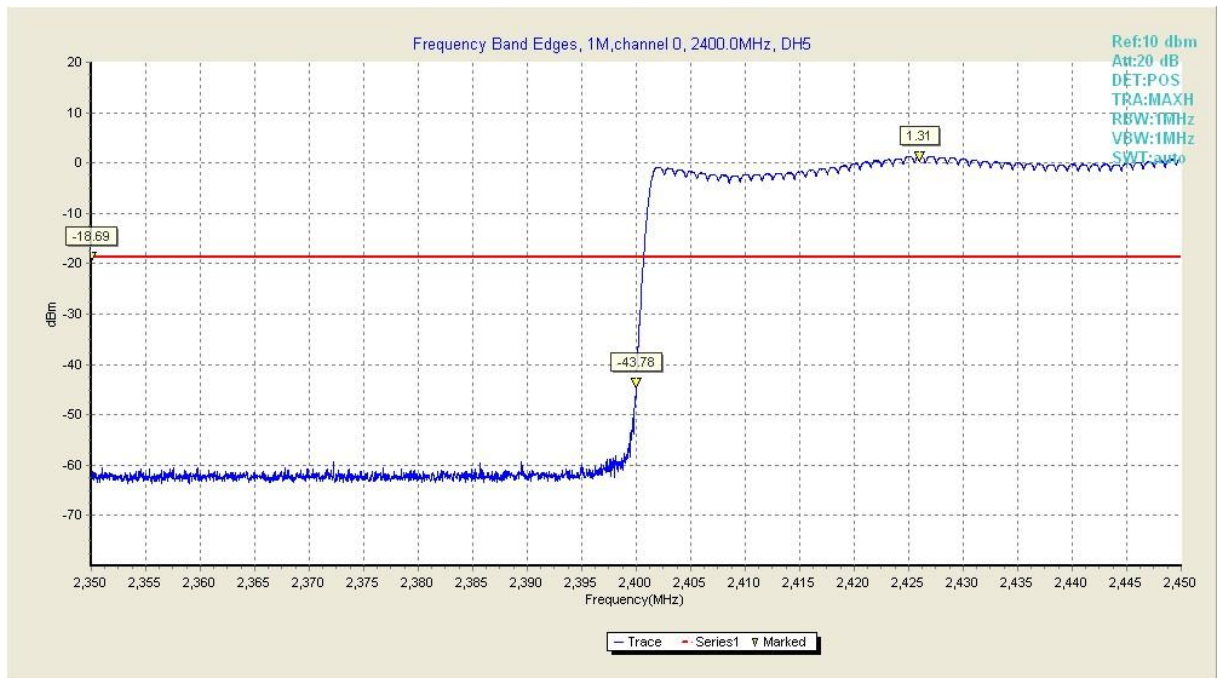
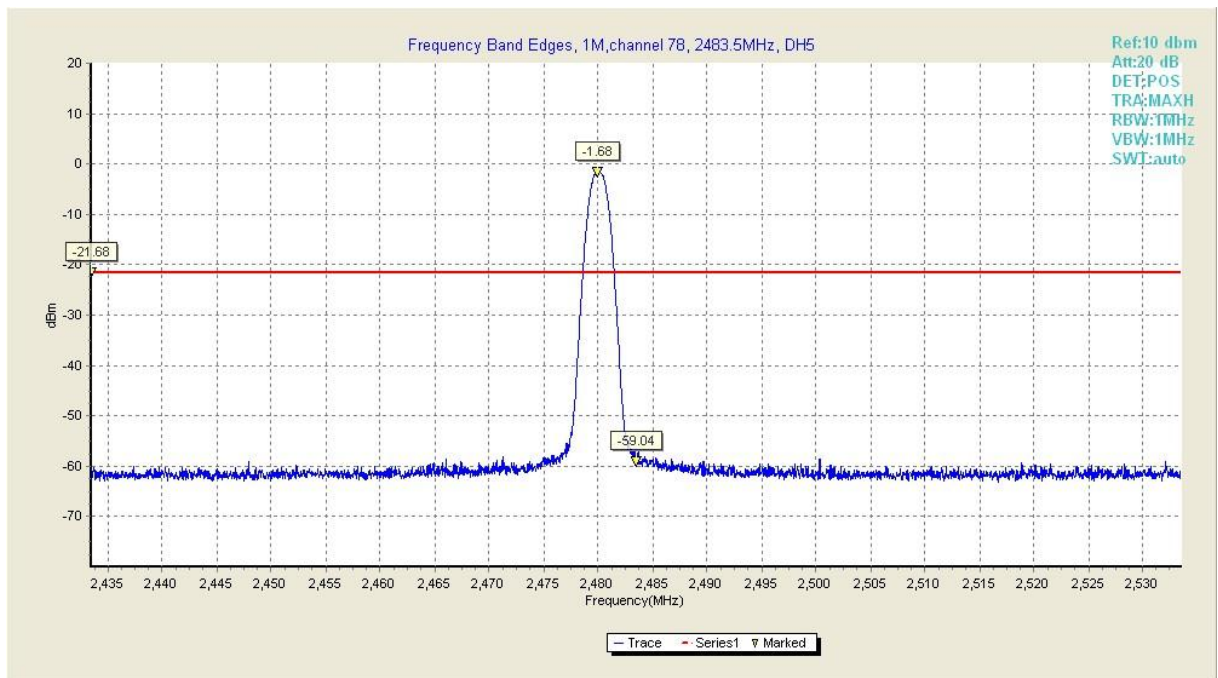


Fig10. Frequency Band Edges in CH0,1Mbps,Hopping off

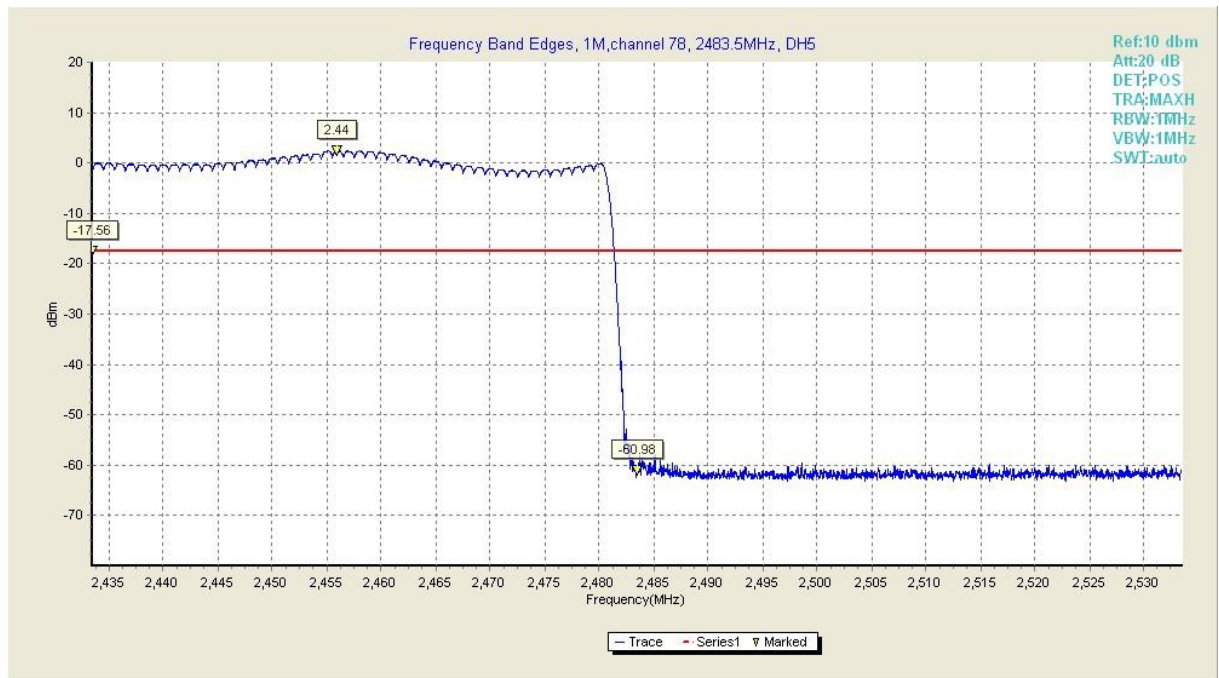




**Fig11. Frequency Band Edges in CH0,1Mbps,Hopping on**



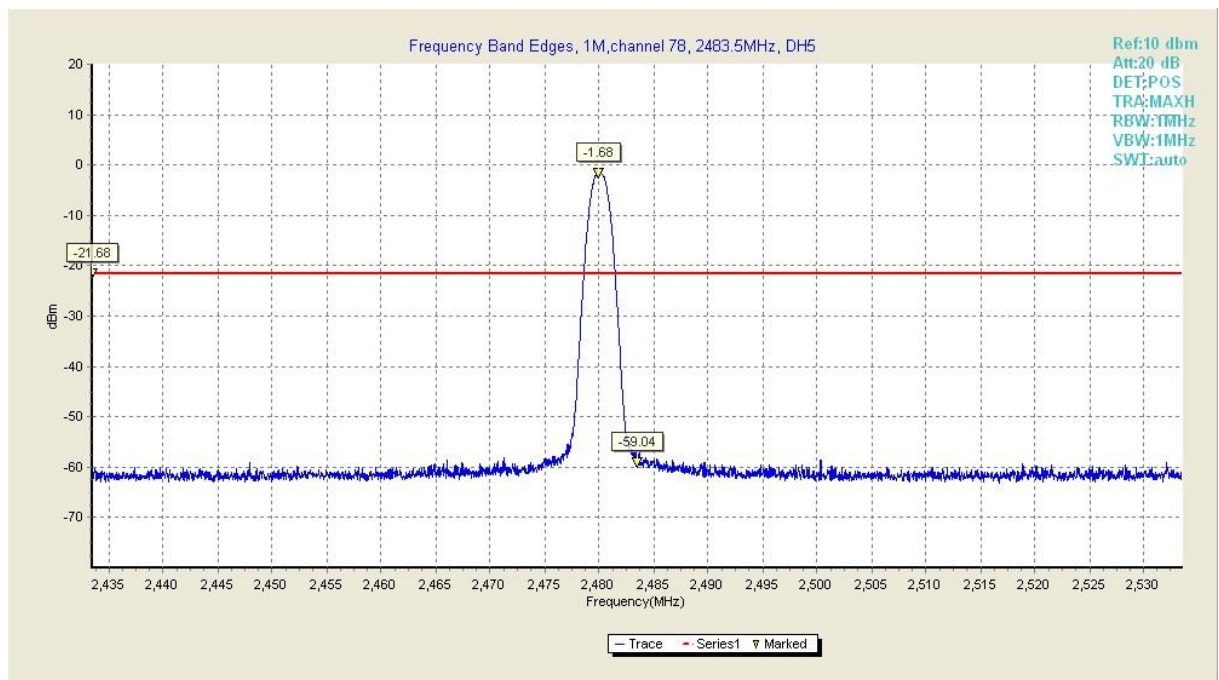
**Fig12. Frequency Band Edges in CH78,1Mbps, Hopping off**



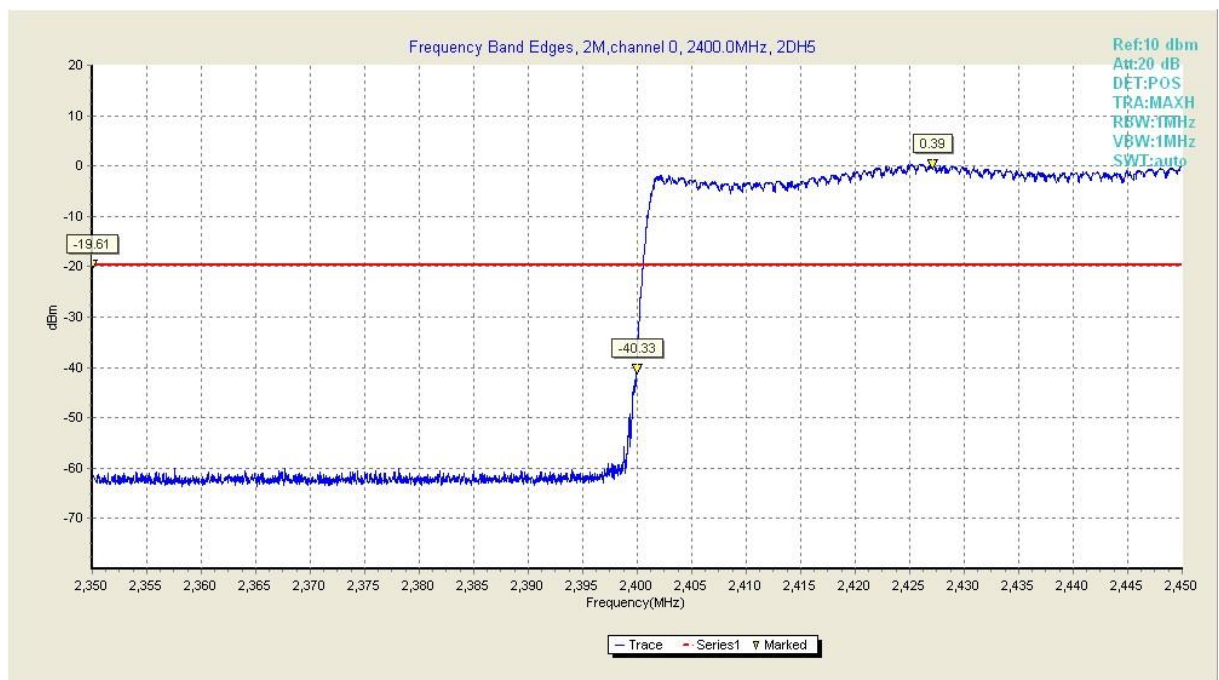
**Fig13. Frequency Band Edges in CH78,1Mbps, Hopping on**

## $\pi/4$ -DQPSK Modulation

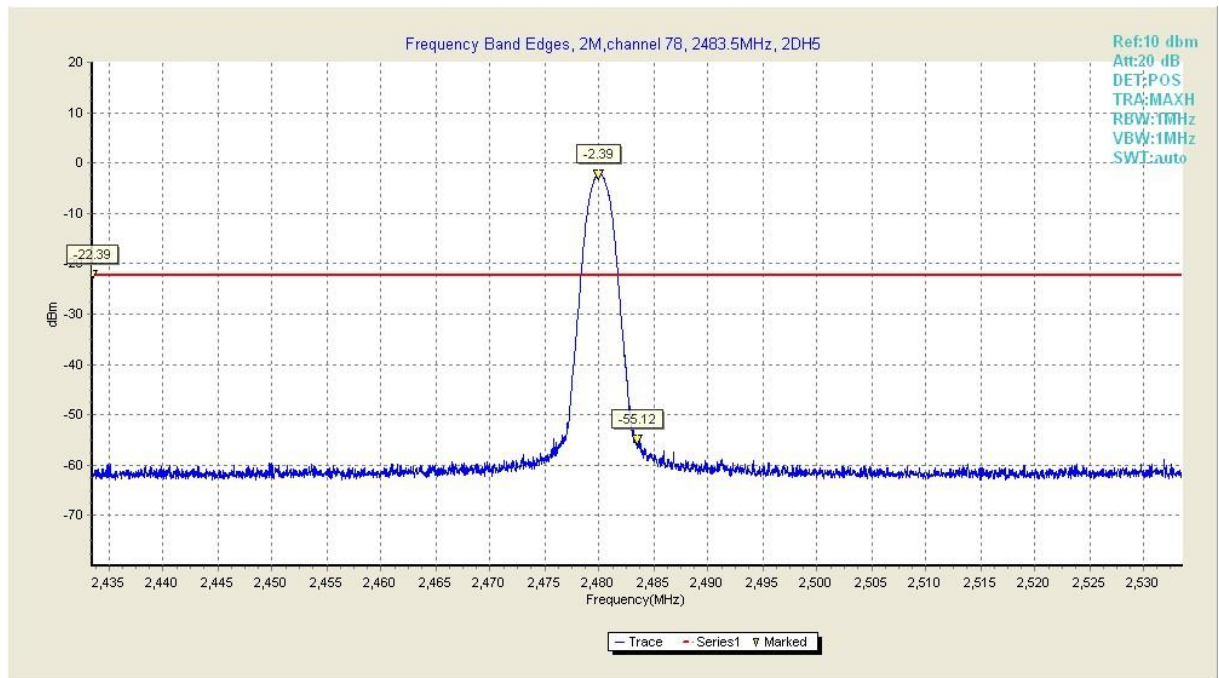
Date rate (Mbps)	Frequency(MHz)	Limit (dB)	Test Result(dB)		Verdict
2	2400	-20	-31.50	Fig.14	Pass
			-40.72	Fig.15	
	2483.5		-52.73	Fig.16	Pass
			-58.77	Fig.17	



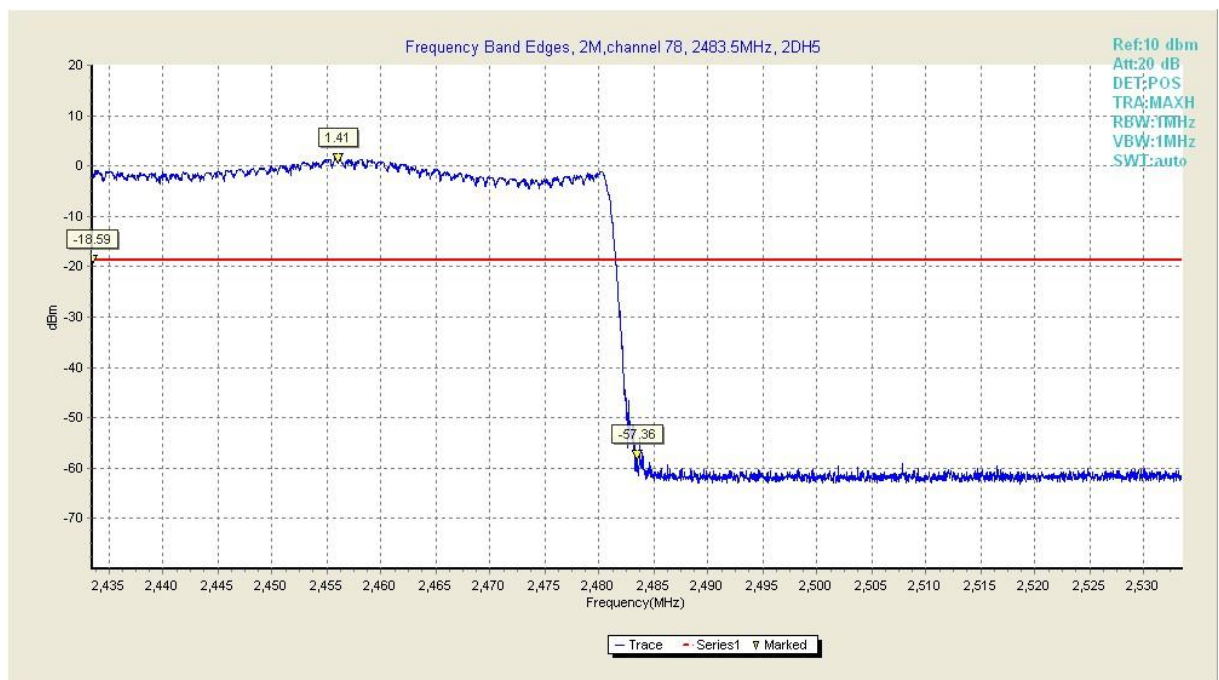
**Fig14. Frequency Band Edges in CH 0, 2Mbps, Hopping off**



**Fig15. Frequency Band Edges in CH 0, 2Mbps, Hopping on**



**Fig16. Frequency Band Edges in CH 78, 2Mbps, Hopping off**



**Fig17. Frequency Band Edges in CH 78, 2Mbps, Hopping on**

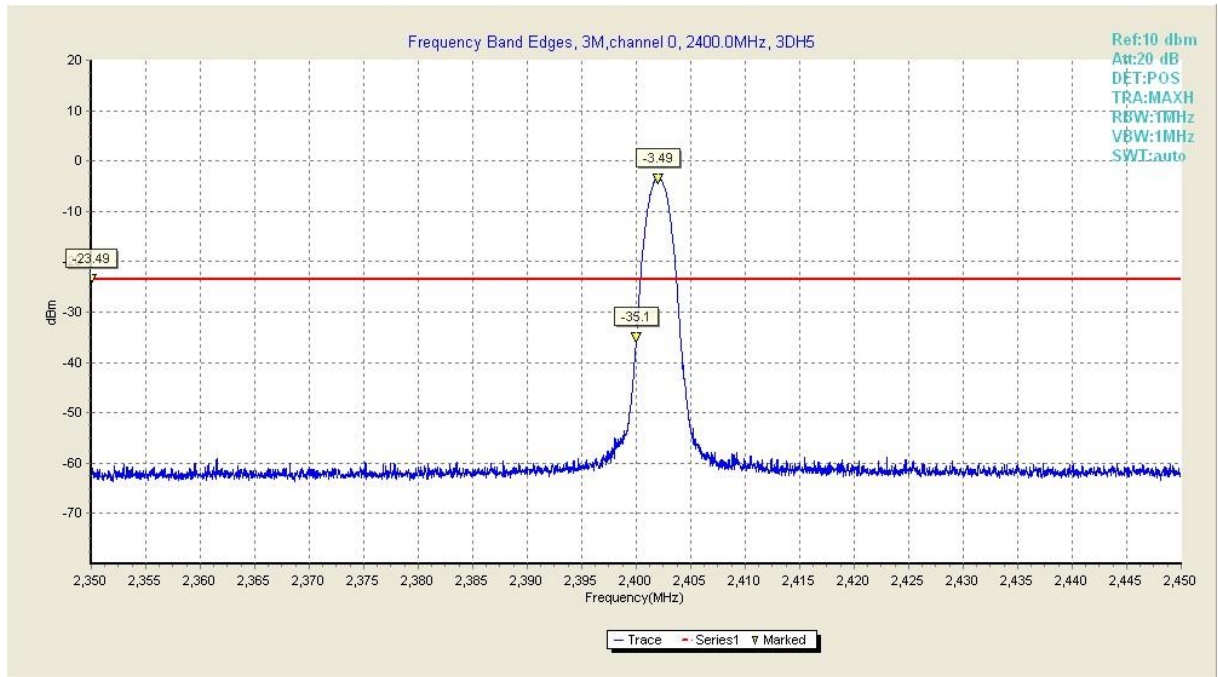
## 8DPSK Modulation

Date rate (Mbps)	Frequency(MHz)	Limit (dB)	Test Result(dB)		Verdict
3	2400	-20	-31.61	Fig.18	Pass
			-37.13	Fig.19	
	2483.5		-51.22	Fig.20	Pass

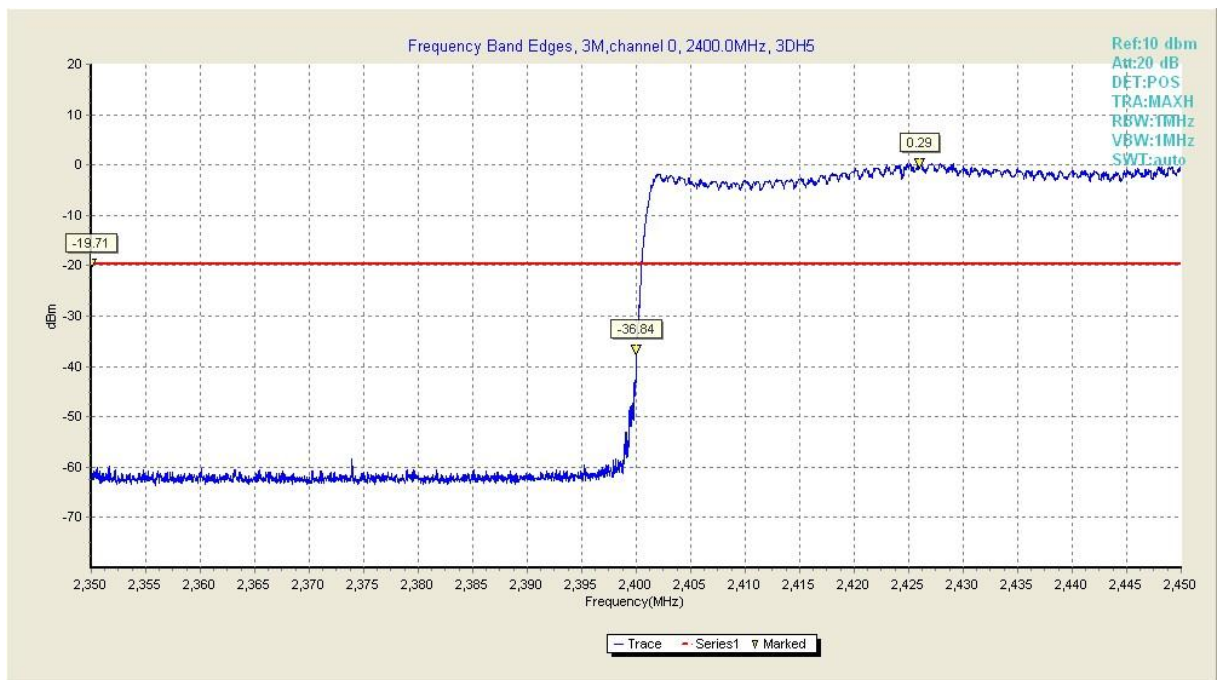


-61.88

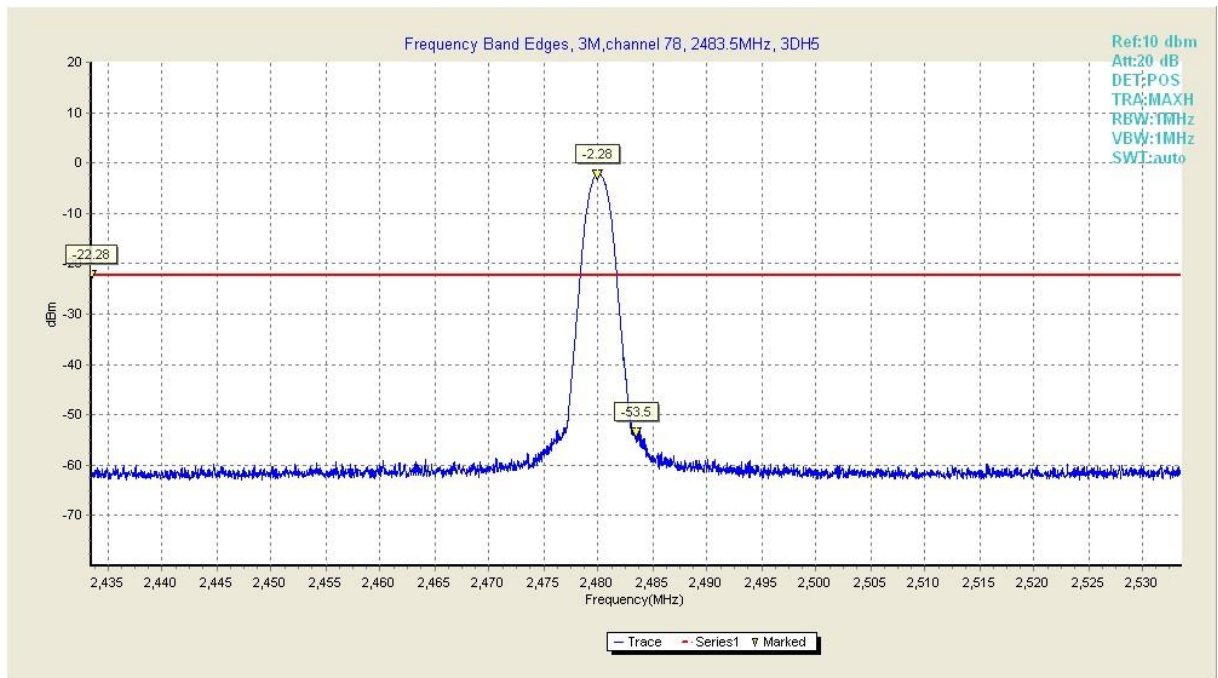
Fig.21



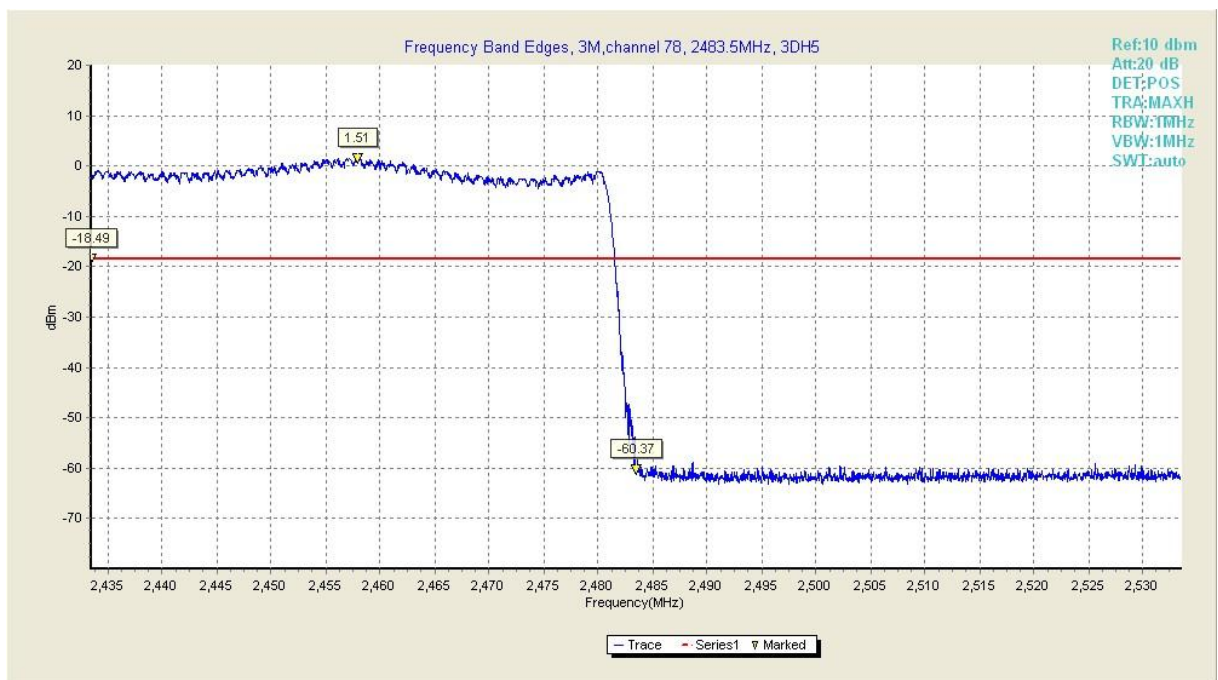
**Fig18. Frequency Band Edges in CH0 , 3Mbps,Hopping off**



**Fig19. Frequency Band Edges in CH0 , 3Mbps,Hopping on**



**Fig20. Frequency Band Edges in CH 78, 3Mbps,Hopping off**



**Fig21. Frequency Band Edges in CH 78, 3Mbps,Hopping on**

## B.3.2 Radiated measurement

### B.3.2.1 Procedures:

- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Position the EUT on the rotated table inside the anechoic chamber without connection to measurement instrument. Turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel

and High Channel within its operating range, and make sure the instrument is operated in its linear range. Repeat above procedures until all measured frequencies were complete.

- c) Set band RBW=1MHz,VBW=3MHz with a convenient frequency span from band edge.
- d) Find the highest point in edge frequency,and then calculated results.
- e) Repeat above procedures until all measured frequencies were complete.

### B.3.2.2 Test Results

Only the GFSK worst case were reported.

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	Limit	Margin
				Height	Polar				
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
2400MHz									
175.68	20.32	QP	24	1.4	H	10.52	30.84	43.50	-12.66
175.68	20.05	QP	92	1.3	V	10.52	30.57	43.50	-12.93
4804.00	52.22	PK	253	1.3	V	-1.05	51.17	74.00	-22.83
4804.00	41.29	Ave	253	1.3	V	-1.05	40.24	54.00	-13.76
7206.00	51.96	PK	215	1.6	H	1.33	53.29	74.00	-20.71
7206.00	41.18	Ave	215	1.6	H	1.33	42.51	54.00	-11.49
2326.45	46.66	PK	118	1.9	V	-13.19	33.47	74.00	-40.53
2326.45	39.12	Ave	118	1.9	V	-13.19	25.93	54.00	-28.07
2368.48	42.40	PK	32	1.3	H	-13.15	29.25	74.00	-44.75
2368.48	37.05	Ave	32	1.3	H	-13.15	23.90	54.00	-30.10
<b>2400</b>	<b>44.55</b>	<b>PK</b>	<b>315</b>	<b>1.2</b>	<b>V</b>	<b>-13.12</b>	<b>34.13</b>	<b>74.00</b>	<b>-39.87</b>
<b>2400</b>	<b>42.64</b>	<b>Ave</b>	<b>315</b>	<b>1.2</b>	<b>V</b>	<b>-13.12</b>	<b>29.52</b>	<b>54.00</b>	<b>-24.48</b>
2496.27	44.29	PK	112	2.0	V	-13.08	31.21	74.00	-42.79
2496.27	36.41	Ave	112	2.0	V	-13.08	23.33	54.00	-30.67
2483.5MHz									
175.68	20.01	QP	174	1.6	H	10.52	30.53	43.50	-12.97
175.68	19.72	QP	182	1.9	V	10.52	30.24	43.50	-13.26
4960.00	52.96	PK	2	1.9	V	-0.24	52.72	74.00	-21.28
4960.00	43.52	Ave	2	1.9	V	-0.24	43.28	54.00	-10.72
7440.00	51.21	PK	314	1.5	H	2.85	54.06	74.00	-19.94

7440.00	43.39	Ave	314	1.5	H	2.85	46.24	54.00	-7.76
2348.63	45.19	PK	44	1.6	V	-13.19	32.00	74.00	-42.00
2348.63	38.65	Ave	44	1.6	V	-13.19	25.46	54.00	-28.54
2365.85	43.39	PK	71	1.7	H	-13.15	30.24	74.00	-43.76
2365.85	36.00	Ave	71	1.7	H	-13.15	22.85	54.00	-31.15
<b>2483.5</b>	<b>43.37</b>	<b>PK</b>	<b>309</b>	<b>1.6</b>	<b>V</b>	<b>-13.11</b>	<b>30.26</b>	<b>74.00</b>	<b>-43.74</b>
<b>2483.5</b>	<b>38.69</b>	<b>Ave</b>	<b>309</b>	<b>1.6</b>	<b>V</b>	<b>-13.11</b>	<b>25.58</b>	<b>54.00</b>	<b>-28.42</b>
2492.34	43.62	PK	173	1.6	V	-13.08	30.54	74.00	-43.46
2492.34	38.88	Ave	173	1.6	V	-13.08	25.80	54.00	-28.20



## B.4 Carrier Frequency Separation

### B.4.1 Description

According to §15.247(a)(1), Carrier Frequency Separation should be more than two-thirds of the 20 dB bandwidth of the hopping channel

### B.4.2 Test Procedures

- Testing follows the guidelines in FCC Public Notice DA 00-705 Measurement Guidelines.
- Place the EUT on the table and set it in hopping mode
- EUT was connected to SA by a low loss cable.
- Set center frequency of spectrum analyzer=middle of hopping channel.
- SA setting: Span= wide enough to capture the peaks of two adjacent channels; Set RBW $\geq$ 1% of span, VBW $\geq$  RBW, sweep time- auto, detector function= peak, trace= max hold.
- Max hold, mark 2 peaks of hopping channel and record the 2 peaks frequency.

### B.4.2 Test Results

The Worst case is 1M and only 1M results are present

**Worst case data rate: 1M**

**GFSK Modulation**

Channel	Frequency(MHz)	Limit (MHz)	Test Result(MHz)		Verdict
Low Channel	2402	0.7447	1.006	Fig.22	Pass
Adjacency Channel	2403				
Low Channel	2441	0.7467	1.006	Fig.23	Pass
Adjacency Channel	2442				
Low Channel	2479	0.7460	1.002	Fig.24	Pass
Adjacency Channel	2480				

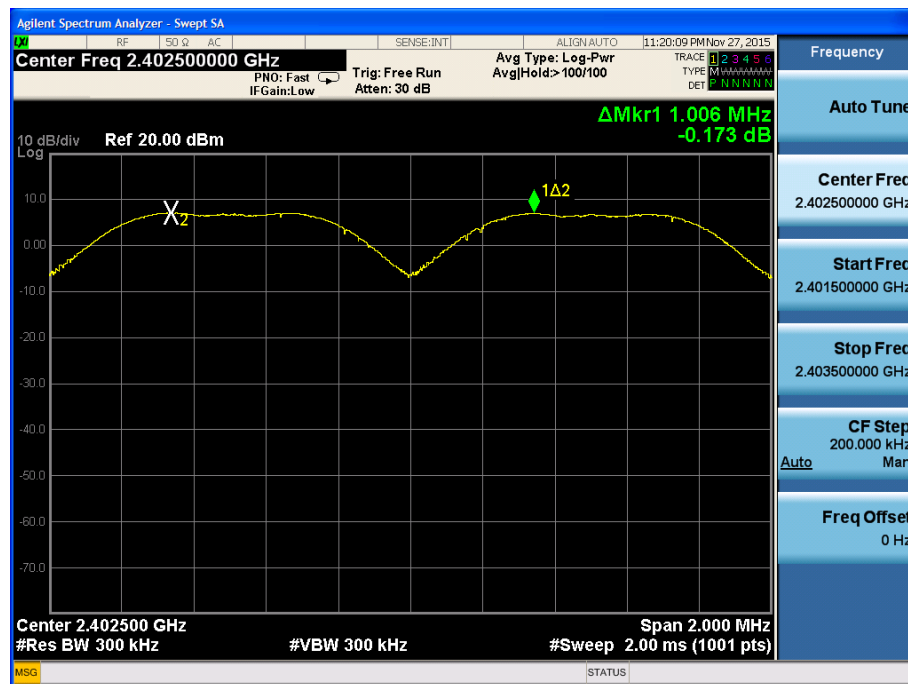


Fig 22. Carrier Frequency Separation in Low channel,1Mbps

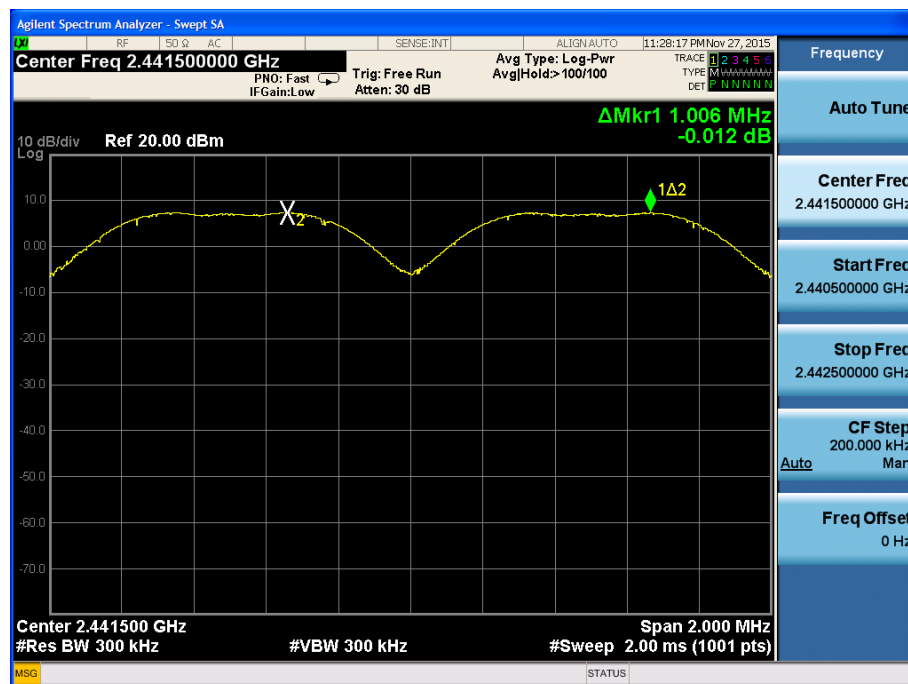


Fig 23. Carrier Frequency Separation in Middle channel,1Mbps

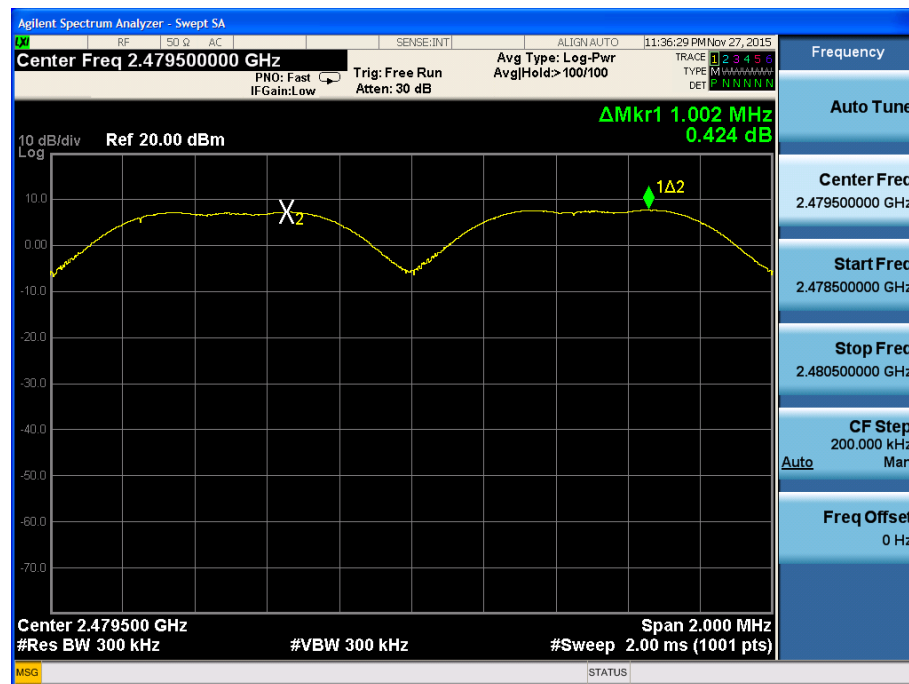


Fig 24. Carrier Frequency Separation in High channel,1Mbps

**B.5 Time Of Occupancy (Dwell Time)****B.5.1 Description**

According to §15.247(a)(1)(iii)

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.

**B.5.2 Test Procedures****Conducted Measurement**

EUT was set for low, mid, high channel with modulated mode and highest RF output power

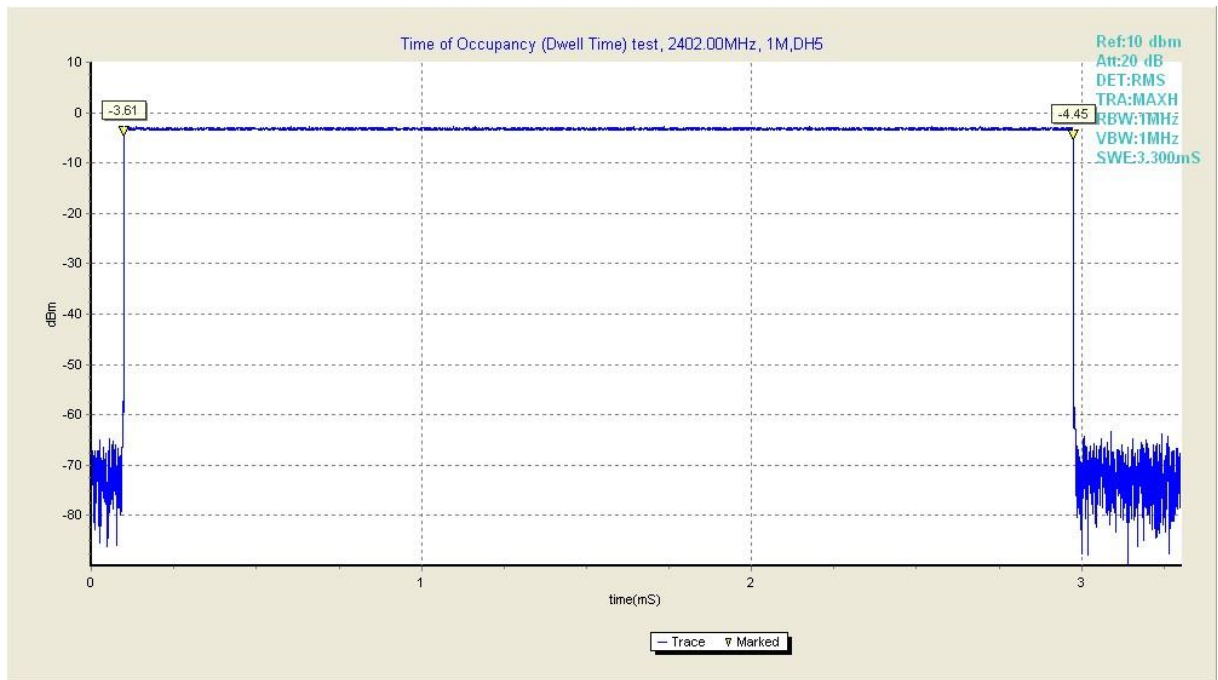
The spectrum analyzer was connected to the antenna terminal.

**Procedures**

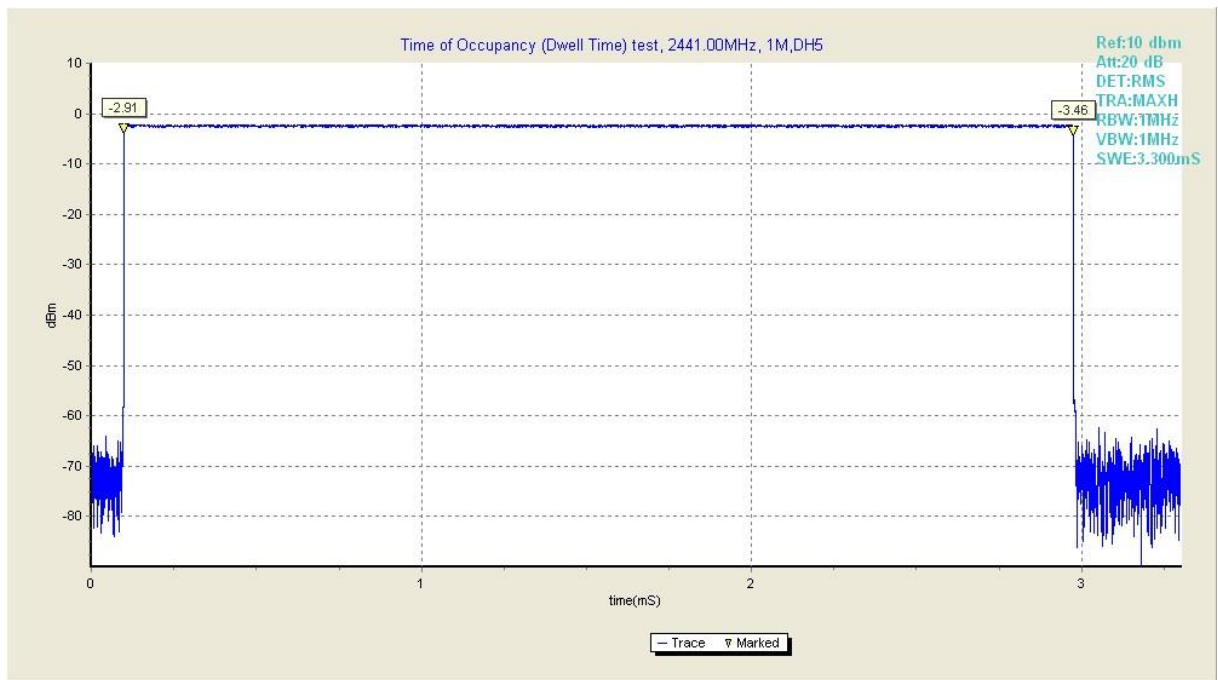
- a) Place the EUT on the table and set it in transmitting mode and switch on frequency hopping function.
- b) Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- c) Set the spectrum analyzer as Span=zero span, centered on a hopping channel, RBW=1MHz, VBW $\geq$ RBW, Sweep=as necessary to capture the entire dwell time per hopping channel, Detector function=peak, Trace=max hold.
- d) Calculate the time of occupancy in a period with time occupancy of a burst and quantity of bursts.

**B.5.3 Test Results****GFSK Modulation**

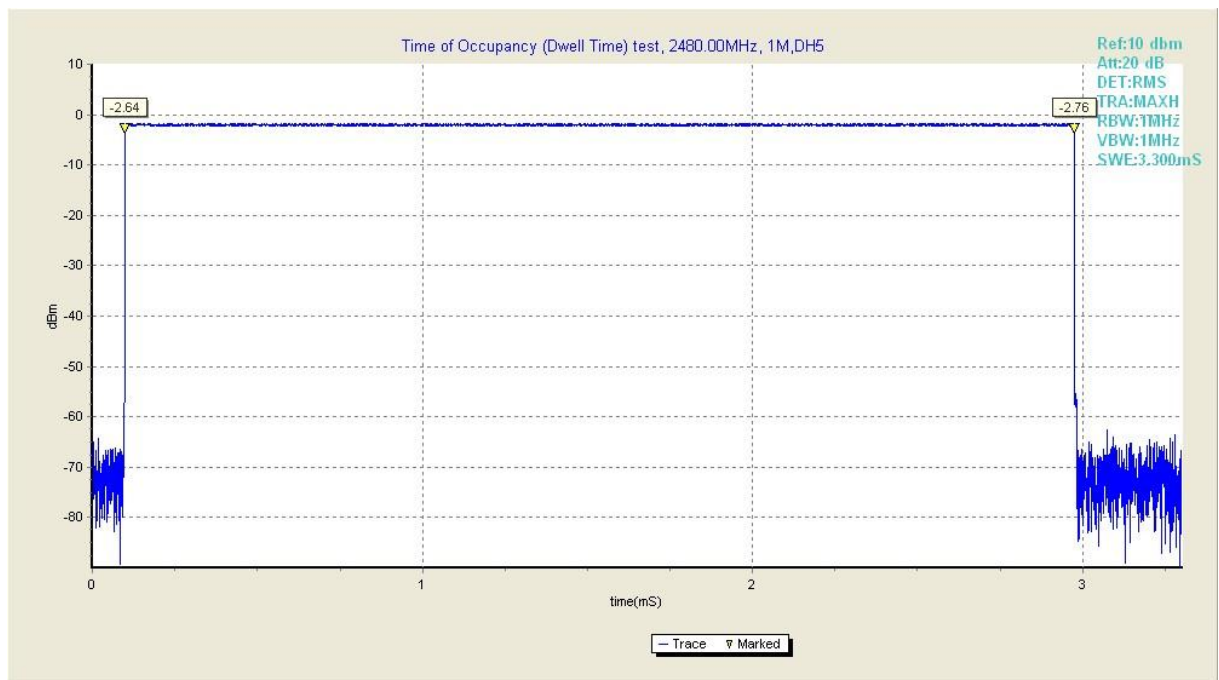
Date rate (Mbps)	Frequency(MHz)	Limit (ms)	Test Result(ms)		Verdict
1	2402	400	306.46	Fig.25	Pass
	2441		306.46	Fig.26	Pass
	2480		306.46	Fig.27	Pass



**Fig25. Dwell Time in 2402MHz,1Mbps**



**Fig26. Dwell Time in 2441MHz,1Mbps**



**Fig27. Dwell Time in 2480MHz,1Mbps**

## $\pi/4$ -DQPSK Modulation

Date rate (Mbps)	Frequency(MHz)	Limit (ms)	Test Result(ms)		Verdict
2	2402	400	306.77	Fig.28	Pass
	2441		306.81	Fig.29	Pass
	2480		306.81	Fig.30	Pass

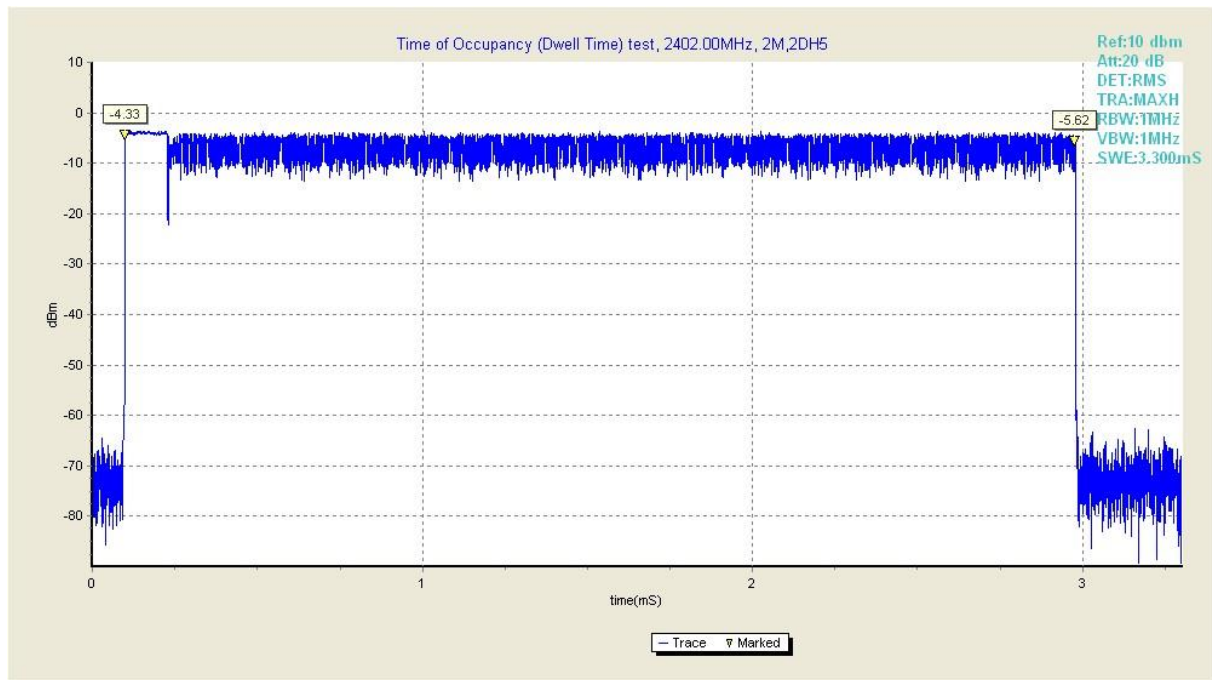
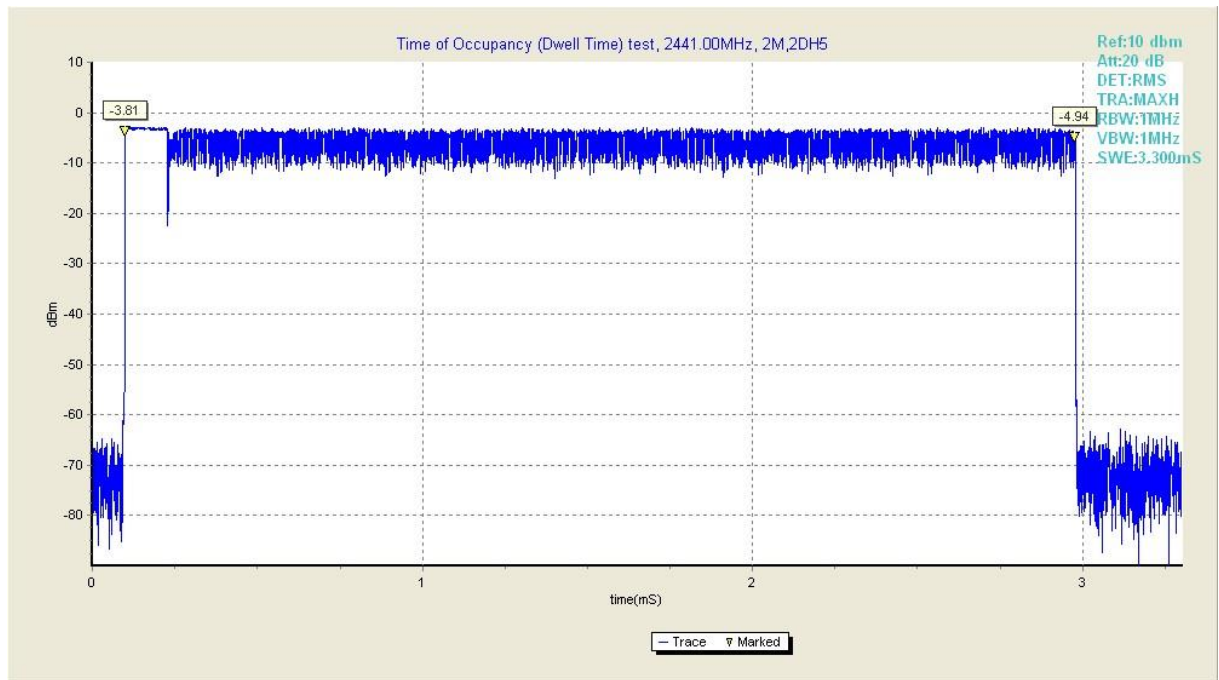
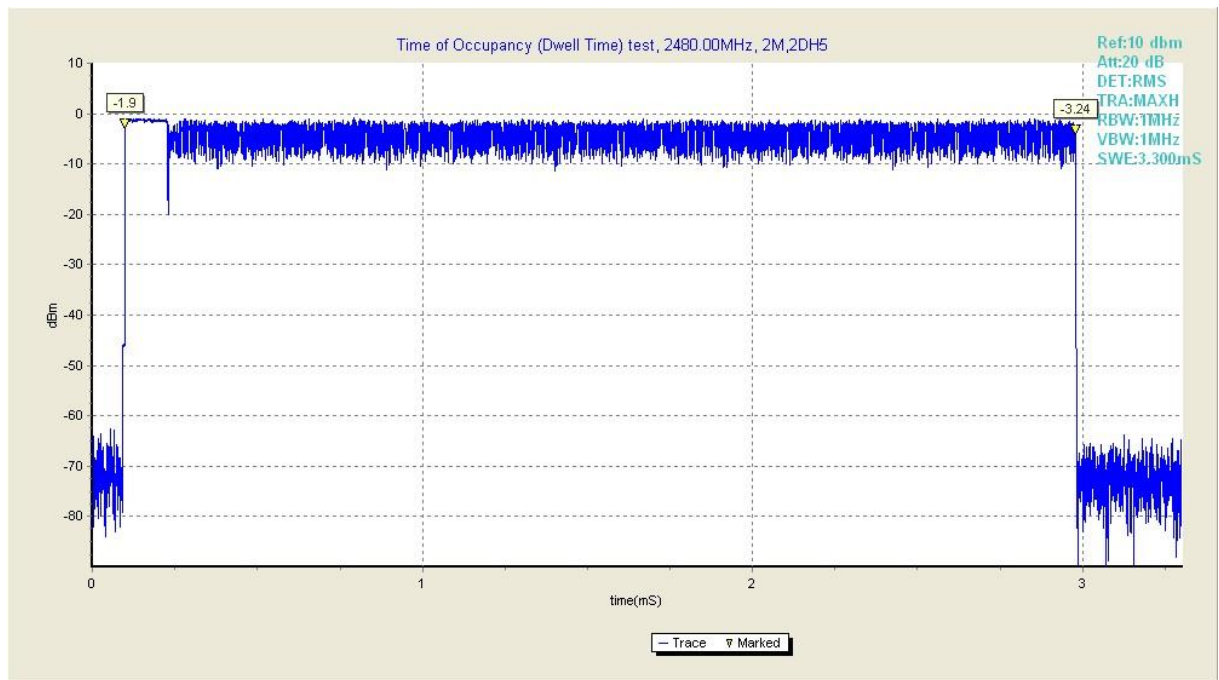


Fig28. Dwell Time in 2402MHz,2Mbps



**Fig29. Dwell Time in 2441MHz,2Mbps**



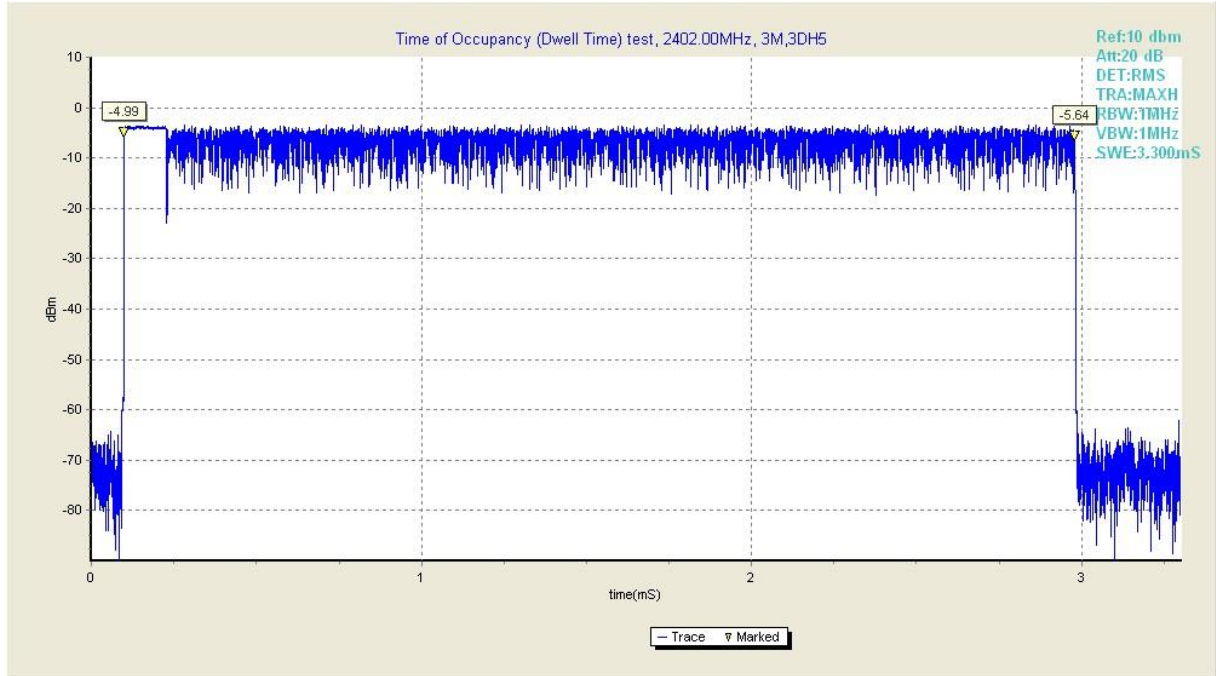
**Fig30. Dwell Time in 2480MHz,2Mbps**

## 8DPSK Modulation

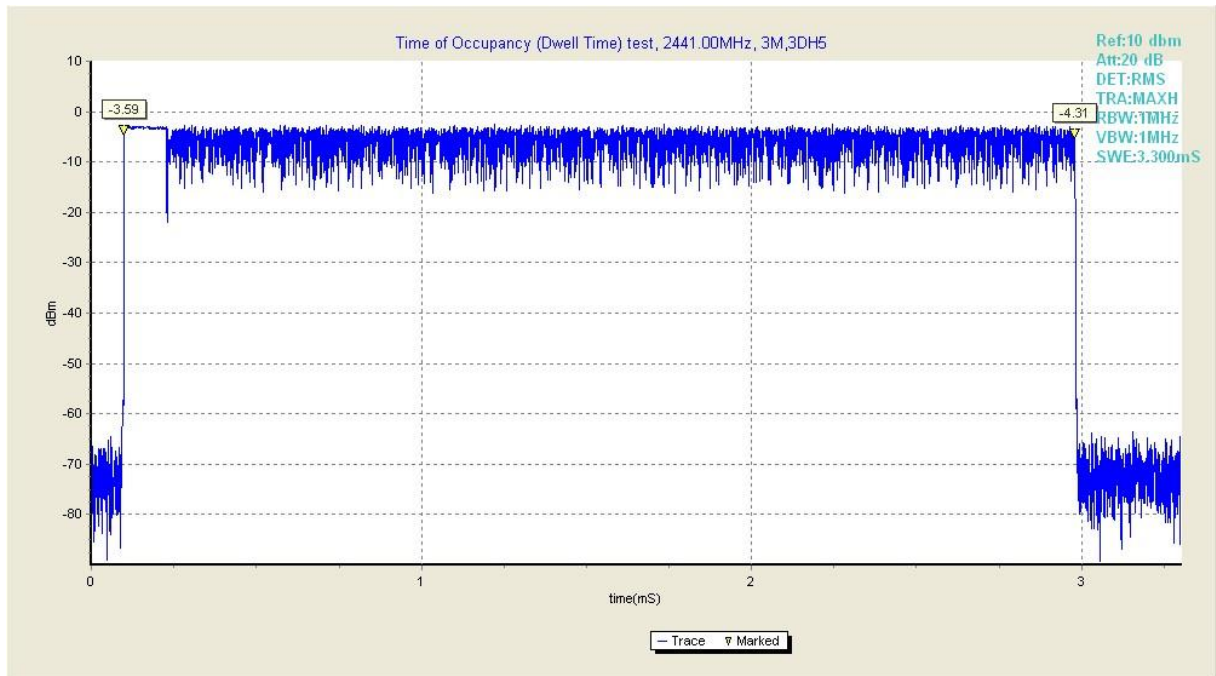
Date rate (Mbps)	Frequency(MHz)	Limit (ms)	Test Result(ms)		Verdict
3	2402	400	307.08	Fig.31	Pass



	2441		306.99	Fig.32	Pass
	2480		307.03	Fig.33	Pass



**Fig31 Dwell Time in 2402MHz,3Mbps**



**Fig32. Dwell Time in 2441MHz,3Mbps**