

APPLICATION FOR CERTIFICATION

On Behalf of

LG Electronics Inc.

Portable Computer

Model No. : H1000B

FCC ID : BEJNT-H1000B

Brand : LG

Prepared for : LG Electronics Inc.
19-1, Cheongho-ri, Jinwi-myeon,
Pyeongtaek-si, Gyeonggi-do,
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TEST REPORT CERTIFICATION

Applicant	:	LG Electronics Inc.	
Manufacturer	:	LG Electronics Inc.	
EUT Description	:	Portable Computer	
FCC ID	:	BEJNT-H1000B	
	(A) Model No.	:	H1000B
	(B) Serial No.	:	N/A
	(C) Brand	:	LG
	(D) Power Supply	:	DC 19V

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C, Oct. 2009

ANSI C63.4/2003

FCC Public Notice DA 00-705, Mar. 2000

(FCC 47 CFR Part 15C, §15.205 and §15.207 and §15.209 and §15.247)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C limits.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test : Oct. 12 ~ 28, 2010 Date of Report : Oct. 28, 2010

Producer : Tina Huang
(Tina Huang/Administrator)

Review : Henning Chang
(Henning Chang/Supervisor)

Signatory : Ben Cheng
(Ben Cheng/Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Portable Computer (The EUT is built-in wireless LAN and Bluetooth combo card, this report for Bluetooth. Wireless LAN is tested in others report of EM-F991033)
Model Number	:	H1000B
Serial Number	:	N/A
Brand	:	LG
FCC ID	:	BEJNT-H1000B
Applicant	:	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do,, 451-713 Korea
Manufacturer	:	LG Electronics Inc. 299, Gongdan-dong, Gumi-si, Gyeongsangbuk-do, 730-030, Korea
WLAN and Bluetooth Combo Card (1T1R)	:	AZUREWAVE, M/N RTL8188CEBT FCC ID: TX2RTL8188CEBT IC: 6317A-RTL8188CEBT
Fundamental Range	:	2400MHz ~ 2483.5MHz
Frequency Channel	:	802.11b/g: 11 channels 802.11n-HT20: 11 channels 802.11n-HT40: 7 channels Bluetooth: 79 channels
Radio Technology	:	802.11b: DSSS Modulation (DBPSK/DQPSK/CCK) 802.11g/n: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) Bluetooth: GFSK, π /4DQPSK, 8-DPSK
Data Transfer Rate	:	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps Bluetooth: 1/2/3Mbps

Antenna Gain : AMAPCLG001 antenna: 1.19dBi (Peak)
AMAPCLG002 antenna: 3.65dBi (Peak)

Battery : Sony, PN:LIP4128
7.4V, 4240mAh, 31Wh

AC/DC Adapter : SUNGHO, M/N SHA1010L
I/P: 100-240V~, 1.2A, 50/60Hz
O/P: 19V, 2.1A, 40W
DC Cord: Non-Shielded, Undetached, 1.5m
Bonded a ferrite core
AC Cord: Non-Shielded, Detached, 1.0m (2Pin)

Date of Receipt of Sample : Oct. 11, 2010

Date of Test : Oct. 12 ~ 28, 2010

Antenna Information

Antenna Part Number	Manufacture	Antenna Type	Peak Gain W/ Cable loss (dBi)	
			Frequency (MHz)	Max Gain (dBi)
AMAPCLG001	Amotech	Cable Assembly Antenna	2400MHz	1.19dBi (peak)
			2500MHz	1.19dBi (peak)
			2500MHz	0.37dBi (peak)
AMAPCLG002	Amotech	Cable Assembly Antenna	2400MHz	2.71dBi (peak)
			2500MHz	3.65dBi (peak)
			2500MHz	3.69dBi (peak)

1.2. Tested Supporting System Details**【Only For Conducted Emission Measurement】****1.2.1. USB MOUSE**

Model Number : 1000USB
 Serial Number : LZ635AB
 FCC ID : By DoC
 BSMI ID : T41126
 Brand : LOGITECH
 Data Cable : Shielded, Undetachable, 1.8m

1.2.2. I-POD PLAYER

Model Number : A1204
 Serial Number : 4H722TDYVTE
 FCC ID : By DoC
 BSMI ID : R33057
 Manufacturer : APPLE
 USB Data Cable : Shielded, Undetachable, 1m

1.2.3. EARPHONE

Model Number : N/A
 Serial Number : N/A
 Manufacturer : APPLE
 Earphone Cable : Non-Shielded, Detachable, 0.9m

1.2.4. BLUETOOTH HEADSET

Model Number : IH-05
 Serial Number : N/A
 Manufacturer : INNOSTAR
 FCC ID : UU9MBH200

1.2.5. SD CARD (INSTALL IN EUT)

Model Number : AP-SDC51201AC0G
 Serial Number : 390619200000
 Manufacturer : Apacer
 Capacity : 512MB

【Partner System】

1.2.6. AP SERVER

Model Number : Di-624
 Serial Number : F34U177001195
 FCC ID : By DoC
 Manufacturer : D-Link
 LAN Cable : Non-Shielded, Detachable, 1.8m
 -to Partner Notebook PC
 AC Adapter : M/N AM-91000A
 Input: 120VAC 60Hz 15W
 Output: 9VDC 1000mA
 Power Cord: Non-Shielded, Detachable, 1.8m

1.2.7. PARTNER NOTEBOOK PC

Model Number : A8J
 Serial Number : 74N0AS228167
 FCC ID : By DoC
 BSMI ID : R31018
 Manufacturer : ASUSTeK Computer Inc.

1.3. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation**
 EMC Department
 No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,
 Taipei Hsien, Taiwan

Test Site : **No. 3 Shielded Room**
 (C3/Semi-AC) No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang
 Taipei Hsien, Taiwan

Semi-Anechoic Chamber
 No. 53-11, Tin-Fu Tsun, Lin-Kou, Hsiang,
 Taipei Hsien, Taiwan

May 14, 2009 Renewal on
 Federal Communication Commission
 Registration Number: 90993

NVLAP Lab. Code : 200077-0

TAF Accreditation No : 1724

1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	$\pm 1.73\text{dB}$
Radiation Test (Distance: 3m)	30MHz~300MHz	$\pm 2.91\text{dB}$
	300MHz~1000MHz	$\pm 2.94\text{dB}$
	Above 1GHz	$\pm 5.02\text{dB}$

Remark : Uncertainty = $k_{uc}(y)$

Test Item	Uncertainty
20dB Bandwidth	$\pm 0.2\text{kHz}$
Carrier Frequency Separation	$\pm 0.2\text{kHz}$
Time Of Occupancy	$\pm 0.03\text{sec}$
Maximum peak Output power	$\pm 0.52\text{dBm}$
Emission Limitations	$\pm 0.13\text{dB}$
Band Edges	$\pm 0.13\text{dB}$

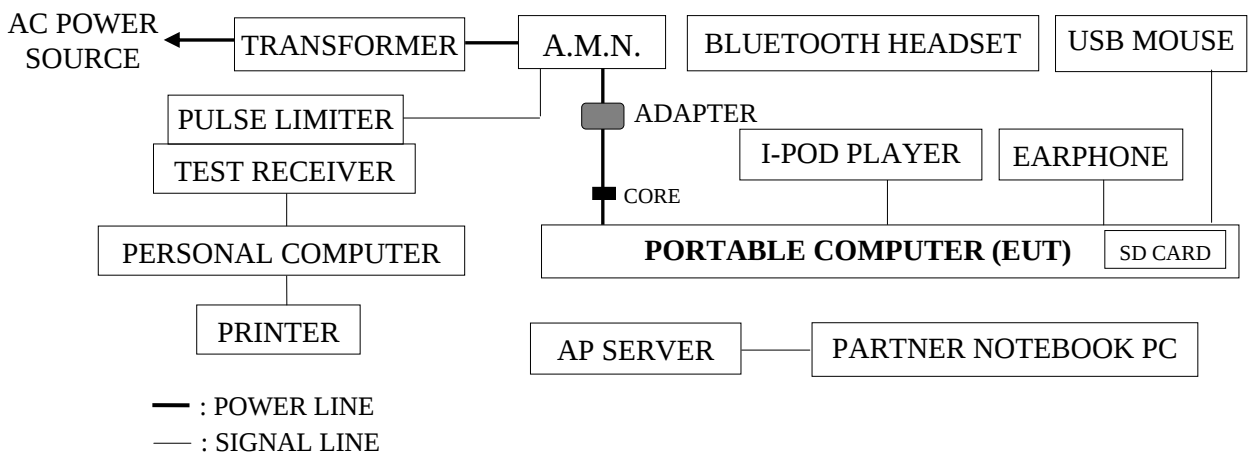
2. CONDUCTED EMISSION MEASUREMENT

2.1. Test Equipment

The following test equipment was used during the conducted emission measurement :
(No. 3 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCS30	100337	Apr. 08, 10'	Apr. 07, 11'
2.	A.M.N.	Kyoritsu	KNW-244C	8-1373-5	Jul. 21, 10'	Jul. 20, 11'
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1370-9	Jun. 09, 10'	Jun. 08, 11'
4.	Pulse Limiter	R & S	ESH3Z2	100041	Feb. 08, 10'	Feb. 07, 11'

2.2. Block Diagram of Test Setup



2.3. Conducted Emission Limits (§15.207)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB μ V	56 ~ 46 dB μ V
500kHz ~ 5MHz	56 dB μ V	46 dB μ V
5MHz ~ 30MHz	60 dB μ V	50 dB μ V

Remark1.: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2.: The lower limit applies at the band edges.

2.4. Operating Condition of EUT

- 2.4.1. Set up the EUT and simulator as shown on 2.2.
- 2.4.2. Turn on the power of all equipment.
- 2.4.3. The WLAN and Bluetooth combo card was installed in the Portable Computer (EUT), the Portable Computer was running test program "Realtek 11n single chip 92C PCIE WLAN MP Diagnostic Program 0.0015.0524.2010" and to set the EUT on transmitting and receiving during all testing.
- 2.4.4. The other peripheral devices were driven and operated in turn during all testing.

2.5. Test Procedure

The EUT was placed on the table which was above the ground by 80cm and its AC adapter's power cord connected to the AC mains through an Artificial Mains Network (A.M.N.). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables should be manipulated according to FCC ANSI C63.4-2003 regulation, and the measurement guideline was according to FCC Public Notice DA 00-705.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

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

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

2.6. Conducted Emission Measurement Results

PASSED.

(All the emissions not reported below are too low against the prescribed limits.)

[Note: Three types of modulation (GFSK, π /4DQPSK, 8-DPSK) were evaluated but only the worst case (GFSK) was reported in this report.]

EUT was performed during this section testing and all the test results are attached in next pages.

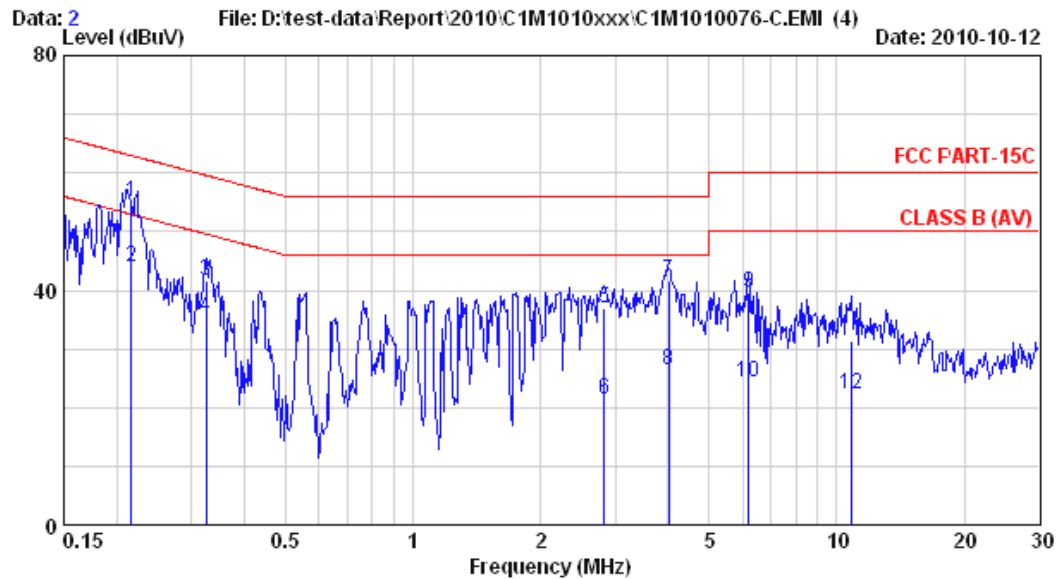
EUT : Portable Computer M/N : H1000B

Test Date : Oct. 12, 2010 Temperature : 21°C Humidity : 48%

Reference Test Data : Neutral # 2; Line # 1



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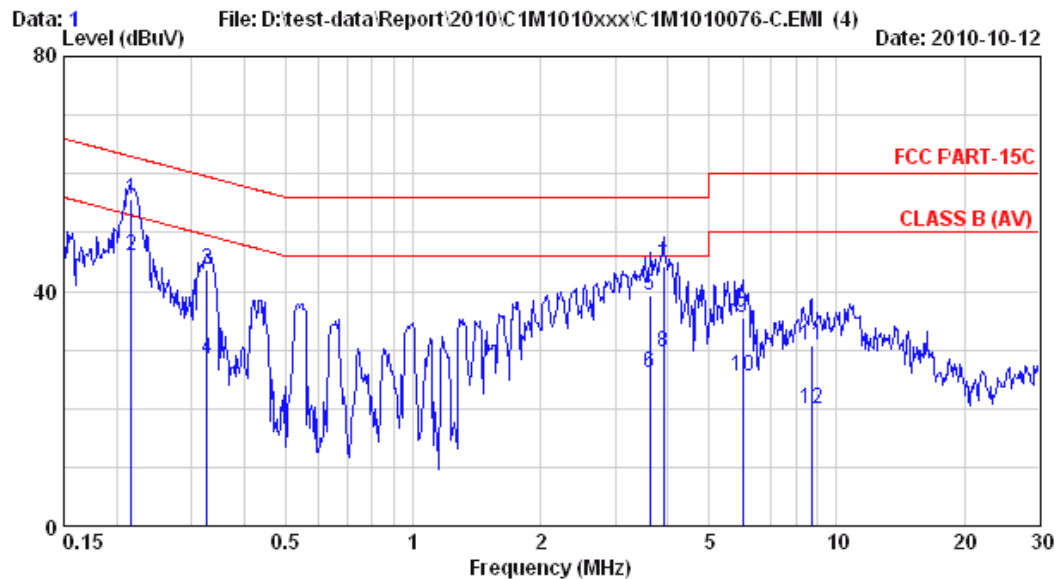
Site : No.3 Shielded Room Data : 2
 Condition : KNW-244C Phase : NEUTRAL
 Limit : FCC PART-15C
 Env. / Ins. : 21°C / 48% ESCS 30 (337) Engineer: Edward
 EUT M/N : H100B
 Power Rating : 120Vac / 60Hz
 Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.217	0.10	0.20	54.84	55.14	62.94	7.80	QP
2	0.217	0.10	0.20	43.52	43.82	52.94	9.12	AVERAGE
3	0.325	0.10	0.20	41.42	41.72	59.58	17.86	QP
4	0.325	0.10	0.20	35.22	35.52	49.58	14.06	AVERAGE
5	2.829	0.20	0.40	36.31	36.91	56.00	19.09	QP
6	2.829	0.20	0.40	20.69	21.29	46.00	24.71	AVERAGE
7	4.008	0.20	0.60	40.80	41.60	56.00	14.40	QP
8	4.008	0.20	0.60	25.66	26.46	46.00	19.54	AVERAGE
9	6.208	0.25	0.60	38.72	39.57	60.00	20.43	QP
10	6.208	0.25	0.60	23.57	24.42	50.00	25.58	AVERAGE
11	10.796	0.32	0.70	30.45	31.47	60.00	28.53	QP
12	10.796	0.32	0.70	21.32	22.34	50.00	27.66	AVERAGE

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
 2.If the average limit is met when using a quasi-peak detector
 ,the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.



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Site : No.3 Shielded Room Data : 1
Condition : KNW-244C Phase : LINE
Limit : FCC PART-15C
Env. / Ins. : 21°C / 48% ESCS 30 (337) Engineer: Edward
EUT M/N : H100B
Power Rating : 120Vac / 60Hz
Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.216	0.10	0.20	55.40	55.70	62.96	7.26	QP
2	0.216	0.10	0.20	45.62	45.92	52.96	7.04	AVERAGE
3	0.327	0.10	0.20	43.31	43.61	59.52	15.91	QP
4	0.327	0.10	0.20	28.19	28.49	49.52	21.03	AVERAGE
5	3.628	0.19	0.40	38.58	39.17	56.00	16.83	QP
6	3.628	0.19	0.40	25.43	26.02	46.00	19.98	AVERAGE
7	3.907	0.20	0.40	43.63	44.23	56.00	11.77	QP
8	3.907	0.20	0.40	29.12	29.72	46.00	16.28	AVERAGE
9	6.010	0.29	0.60	34.65	35.54	60.00	24.46	QP
10	6.010	0.29	0.60	24.47	25.36	50.00	24.64	AVERAGE
11	8.738	0.37	0.60	29.91	30.88	60.00	29.12	QP
12	8.738	0.37	0.60	19.05	20.02	50.00	29.98	AVERAGE

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.
2.If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

3.1.1. For Frequency Range 30MHz~1000MHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8564EC	3946A00249	Oct. 27, 09'	Oct. 26, 10'
2.	Test Receiver	R & S	ESCS30	100338	Jul. 08, 10'	Jul. 07, 11'
3.	Amplifier	HP	8447D	2944A06305	Feb. 03, 10'	Feb. 02, 11'
4.	Log Periodic Antenna	Schwarzbeck	UHALP 9108-A	0810	Mar. 13, 10'	Mar. 12, 11'
5.	Biconical Antenna	CHASE	VBA6106A	1264	Mar. 13, 10'	Mar. 12, 11'

3.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

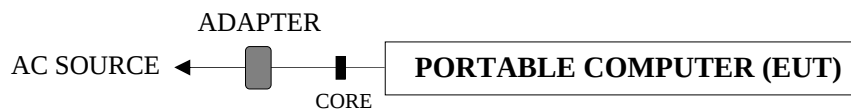
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8564EC	3946A00249	Oct. 27, 09'	Oct. 26, 10'
2.	Amplifier	HP	8449B	3008A00529	Dec. 15, 09'	Dec. 14, 10'
3.	Horn Antenna	EMCO	3115	9112-3775	May 10, 10'	May 09, 11'
4.	Horn Antenna	EMCO	3116	2653	Oct. 04, 10'	Oct. 03, 11'

3.2. Block Diagram of Test Setup

3.2.1. Block Diagram of connection between EUT and simulators

3.2.1.1. Test Mode: WLAN +Bluetooth Function,

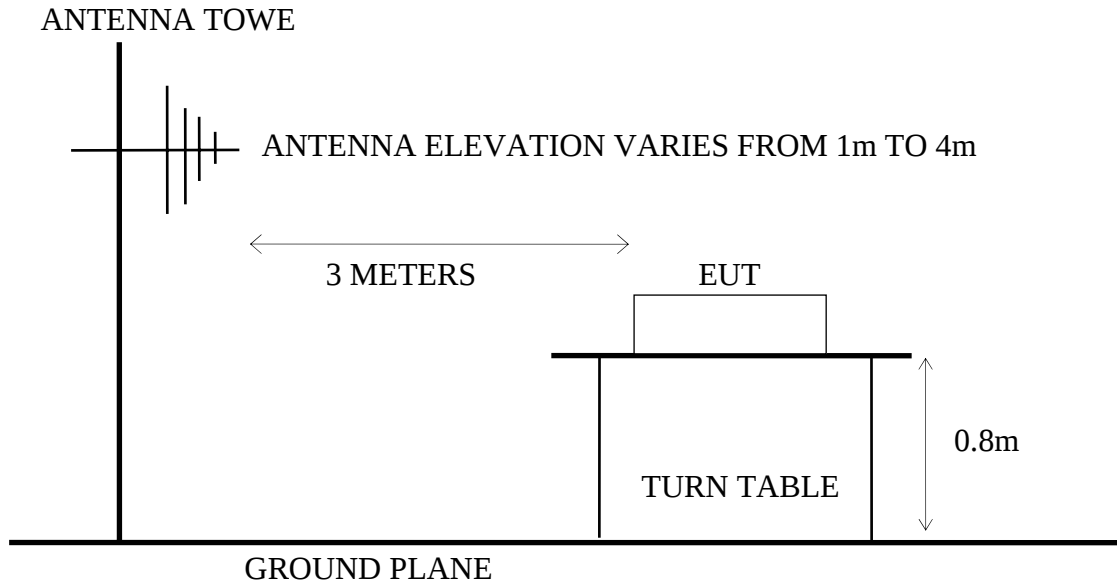
Test Voltage: AC 120V/60Hz



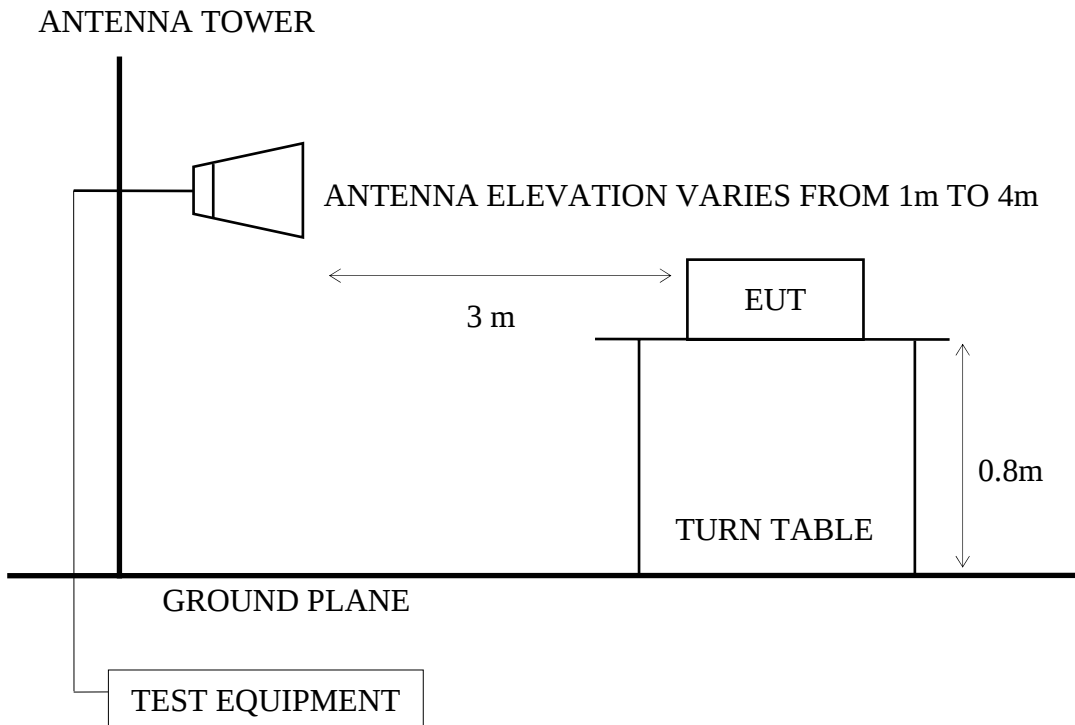
3.2.1.2. Test Mode: Bluetooth Function Only, Test Voltage: DC 19V

PORTABLE COMPUTER (EUT)

3.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



3.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



3.3. Radiated Emission Limits (§15.209)

Frequency MHz	Distance Meters	Field Strengths Limits	
		$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 $\text{dB}\mu\text{V/m}$ (Peak) 54.0 $\text{dB}\mu\text{V/m}$ (Average)	

- Remark :
- (1) Emission level ($\text{dB}\mu\text{V/m}$) = 20 log Emission level ($\mu\text{V/m}$)
 - (2) The tighter limit applies at the edge between two frequency bands.
 - (3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 - (4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).
 - (5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

3.4. Operating Condition of EUT

【Test Mode: WLAN+Bluetooth Function】

- 3.4.1. Set up the EUT (Portable Computer) and simulator as shown on 3.2.1.1.
- 3.4.2. To turn on the power of all equipments.
- 3.4.3. The EUT (Portable Computer) was running test program “Realtek 11n single chip 92C PCIE WLAN MP Diagnostic Program 0.0015.0524.2010”.
- 3.4.4. The EUT was set to continuously transmit signals at 2412MHz (802.11g) through AMAPCLG002 antenna and 2402MHz (GFSK) through AMAPCLG001 antenna during testing.

【Test Mode: Bluetooth Function Only】

- 3.4.5. Set up the EUT (Portable Computer) and simulator as shown on 3.2.1.2.
- 3.4.6. To turn on the power of all equipments.
- 3.4.7. The EUT (Portable Computer) was running test program “Realtek 11n single chip 92C PCIE WLAN MP Diagnostic Program 0.0015.0524.2010”.
- 3.4.8. Transmit Mode: The EUT was set to continuously transmit signals at 2402MHz, 2441MHz and 2480MHz through AMAPCLG002 antenna during testing.
- 3.4.9. Receive Mode: The EUT was set to continuously receive signals at 2441MHz AMAPCLG002 antenna during testing.

3.5. Test Procedure

The EUT and its simulators were placed on the turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated biconical and log-periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to FCC ANSI C63.4-2003 regulation, and the measurement guideline was according to FCC Public Notice DA 00-705.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120kHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of test spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of test spectrum analyzer is 1MHz and the video bandwidth is 10Hz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 25GHz (Up to 10th harmonics from fundamental frequency) was checked. 30MHz to 1000MHz was measured with Quasi-Peak detector. Above 1GHz was measured with peak and average detector. For average reading in frequency from 5.5G to 25GHz, we checked it in 1 meter distance and with a shorter cable 2 meter instead of original's. There is no signal exist.

Note: The H1000B built with wireless combo card supports WiFi and BT and can be transmitted simultaneously. The simultaneously radiation emission is measured in 802.11g and BT(GFSK), they are the max power modulation for WiFi and BT.

3.6. Radiated Emission Measurement Results

PASSED. (All the emissions not reported below are too low against the prescribed limits.)

EUT : Portable Computer M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 24°C Humidity : 63%

This device is portable, so radiation tests on three different axes (stand, lie and side), we assessed the value and we selected the worst radiation position “lie” for our measured results.

For Frequency Range 30MHz-1000MHz:

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only the worst case (GFSK) was reported in this report.]

The EUT select **worst position “lie”** and with following test modes were performed during this section testing and all the test results are listed in section 3.6.1.

No.	Test Voltage	Test Mode	Channel	Frequency	Test Mode	Reference Test Data	
						Horizontal	Vertical
1.	AC 120V/60Hz (Via AC/DC Adapter)	WLAN (802.11g)+ Bluetooth (GFSK)	CH 01+ CH00	2412MHz+ 2480MHz	Transmit	# 2	# 1
2.	DC 19V (Via Battery)	Bluetooth (GFSK)	CH 00	2402MHz	Transmit	# 7	# 8
3.			CH 39	2441MHz		# 10	# 9
4.			CH 78	2480MHz		# 9	# 10
5.			CH 39	2441MHz	Receive	# 1	# 2

* All above final readings were measured with Quasi-Peak detector.

For Frequency Range above 1GHz:

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only the worst case (GFSK) was reported in this report.]

The EUT select **worst position “lie”** and with following test modes was performed during this section testing and all the test results are listed in section 3.6.2.

No.	Test Voltage	Test Mode	Channel	Frequency	Test Mode	Reference Test Data	
						Horizontal	Vertical
1.	AC 120V/60Hz (Via AC/DC Adapter)	WLAN (802.11g)+ Bluetooth (GFSK)	CH 01+ CH00	2412MHz+ 2480MHz	Transmit	# 4, #5	# 3, #6
2.	DC 19V (Via Battery)	Bluetooth (GFSK)	CH 00	2402MHz	Transmit	# 1, #4	# 2, #3
3.			CH 39	2441MHz		# 1, #4	# 2, #3
4.			CH 78	2480MHz		# 2, #3	# 1, #4
5.			CH 39	2441MHz	Receive	# 1, #4	# 2, #3

Note: 1. Above all final readings were measured with Peak detector.

**2. For measurements above 1GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
(According to ANSI C63.4-2003 section 8.3.2.2)**

For Restricted Bands:

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (8-DPSK and GFSK) were reported in this report.]

The EUT was tested in restricted bands and all the test results are listed in section 3.6.3. (The restricted bands defined in part 15.205(a))

No.	Test Voltage	Test Mode	Channel	Frequency	Test Mode	Reference Test Data	
						Horizontal	Vertical
1.	DC 19V (Via Battery)	GFSK	CH 0	2402MHz	Transmit	# 1, # 4	# 2, # 3
2.			CH 78	2480MHz		# 8, # 5	# 7, # 6
3.		8-DPSK	CH 6	2402MHz	Transmit	# 9, # 12	# 10, # 11
4.			CH 11	2480MHz		# 16, # 13	# 15, # 14

3.6.1. Frequency Range 30MHz-1000MHz Measurement Result

WLAN (802.11g)+Bluetooth (GFSK), Transmit, Frequency: 2412MHz+2480MHz

Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	165.800	20.93	2.70	9.87	33.50	43.50	10.00	
2	399.570	17.69	4.80	9.01	31.50	46.00	14.50	
3	451.950	17.65	5.40	7.64	30.69	46.00	15.31	
4	676.020	22.89	6.40	9.48	38.76	46.00	7.24	
5	750.710	23.35	6.70	2.36	32.41	46.00	13.59	
6	900.090	24.96	7.37	10.02	42.35	46.00	3.65	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 1
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	167.740	20.97	2.70	6.67	30.35	43.50	13.15	
2	357.860	15.90	4.40	3.08	23.38	46.00	22.62	
3	451.950	17.65	5.40	6.69	29.74	46.00	16.26	
4	600.360	21.31	6.30	3.28	30.89	46.00	15.11	
5	676.020	22.89	6.40	5.26	34.54	46.00	11.46	
6	900.090	24.96	7.37	10.67	43.00	46.00	3.00	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2402MHz

Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	204.600	21.97	3.10	5.79	30.86	43.50	12.64	
2	325.850	15.15	4.20	9.47	28.82	46.00	17.18	
3	400.540	17.66	4.80	9.11	31.57	46.00	14.43	
4	451.950	17.65	5.40	10.52	33.57	46.00	12.43	
5	676.020	22.89	6.40	11.63	40.91	46.00	5.09	
6	750.710	23.35	6.70	3.11	33.16	46.00	12.84	
7	826.370	24.42	7.00	1.67	33.09	46.00	12.91	
8	900.090	24.96	7.37	12.80	45.13	46.00	0.87	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	251.160	23.90	3.50	0.74	28.14	46.00	17.86	
2	399.570	17.69	4.80	2.54	25.02	46.00	20.98	
3	451.950	17.65	5.40	5.71	28.76	46.00	17.24	
4	600.360	21.31	6.30	5.66	33.27	46.00	12.73	
5	676.020	22.89	6.40	5.63	34.91	46.00	11.09	
6	900.090	24.96	7.37	10.97	43.30	46.00	2.70	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2441MHz

Site no. : A/C Chamber Data no. : 10
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	199.750	22.09	3.00	3.85	28.93	43.50	14.57	
2	376.290	17.15	4.60	7.65	29.40	46.00	16.60	
3	400.540	17.66	4.80	8.64	31.10	46.00	14.90	
4	451.950	17.65	5.40	9.00	32.05	46.00	13.95	
5	676.020	22.89	6.40	12.53	41.81	46.00	4.19	
6	750.710	23.35	6.70	2.15	32.20	46.00	13.80	
7	826.370	24.42	7.00	3.66	35.08	46.00	10.92	
8	900.090	24.96	7.37	12.14	44.47	46.00	1.53	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 9
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	133.790	19.89	2.40	3.86	26.15	43.50	17.35	
2	266.680	24.74	3.70	1.37	29.81	46.00	16.19	
3	451.950	17.65	5.40	6.53	29.58	46.00	16.42	
4	599.390	21.30	6.30	6.26	33.86	46.00	12.15	
5	676.020	22.89	6.40	6.53	35.81	46.00	10.19	
6	900.090	24.96	7.37	11.46	43.79	46.00	2.21	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2480MHz

Site no. : A/C Chamber Data no. : 9
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	206.540	21.91	3.10	3.39	28.41	43.50	15.09	
2	376.290	17.15	4.60	8.58	30.33	46.00	15.67	
3	450.010	17.65	5.40	7.47	30.51	46.00	15.49	
4	676.020	22.89	6.40	11.13	40.41	46.00	5.59	
5	750.710	23.35	6.70	4.29	34.34	46.00	11.66	
6	826.370	24.42	7.00	2.64	34.06	46.00	11.94	
7	900.090	24.96	7.37	10.66	42.99	46.00	3.01	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 10
 Dis. / Ant. : 3m VBA6106A/UHALP9108A Ant. pol. : VERTICAL
 Limit : FCC PART-15C
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	295.780	26.48	4.00	0.68	31.15	46.00	14.85	
2	451.950	17.65	5.40	4.32	27.37	46.00	18.63	
3	599.390	21.30	6.30	5.65	33.25	46.00	12.76	
4	676.020	22.89	6.40	3.54	32.82	46.00	13.18	
5	707.060	23.55	6.60	-0.28	29.87	46.00	16.13	
6	900.090	24.96	7.37	10.19	42.52	46.00	3.48	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Receive, Frequency: 2441MHz

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 1
 Ant. pol. : HORIZONTAL

□Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	18.93	47.41	54.00	6.59	Peak
2	1199.920	24.88	4.59	14.95	44.42	54.00	9.58	Peak
3	1300.720	25.17	4.84	12.87	42.88	54.00	11.12	Peak
4	1401.520	25.46	5.14	12.46	43.06	54.00	10.94	Peak
5	1599.760	26.08	6.14	19.25	51.46	54.00	2.54	Peak
6	1801.360	26.84	6.92	10.80	44.55	54.00	9.45	Peak
7	2002.960	27.60	5.86	8.87	42.33	54.00	11.67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 2
 Ant. pol. : VERTICAL

□Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	20.56	49.04	54.00	4.96	Peak
2	1199.920	24.88	4.59	13.23	42.70	54.00	11.30	Peak
3	1398.160	25.41	5.14	12.16	42.71	54.00	11.29	Peak
4	1502.320	25.76	5.43	14.37	45.57	54.00	8.43	Peak
5	1574.560	26.02	5.98	14.69	46.68	54.00	7.32	Peak
6	1594.720	26.08	6.12	17.91	50.12	54.00	3.88	Peak
7	1796.320	26.84	6.92	12.19	45.95	54.00	8.05	Peak
8	1997.920	27.60	5.89	15.03	48.52	54.00	5.48	Peak
9	2627.920	29.15	6.68	9.81	45.64	54.00	8.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3.6.2. Frequency Range Above 1GHz Measurement Results

WLAN (802.11g)+Bluetooth (GFSK), Transmit, Frequency: 2412MHz+2480MHz

Site no. : A/C Chamber Data no. : 4
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1003.360	24.30	4.18	11.47	39.95	54.00	14.05	Peak
2	1398.160	25.41	5.14	10.66	41.21	54.00	12.79	Peak
3	1502.320	25.76	5.43	16.05	47.25	54.00	6.75	Peak
4	1594.720	26.08	6.12	12.08	44.29	54.00	9.71	Peak
5	1796.320	26.84	6.92	15.17	48.93	54.00	5.07	Peak
6	2023.120	27.64	5.89	12.72	46.24	54.00	7.76	Peak
7	2199.520	28.06	6.11	12.24	46.41	54.00	7.59	Peak
8	2254.960	28.17	6.17	10.89	45.23	54.00	8.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 3
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	15.08	43.56	54.00	10.44	Peak
2	1398.160	25.41	5.14	15.65	46.20	54.00	7.80	Peak
3	1502.320	25.76	5.43	20.28	51.48	54.00	2.52	Peak
4	1515.760	25.76	5.54	17.16	48.46	54.00	5.54	Peak
5	1599.760	26.08	6.14	12.72	44.93	54.00	9.07	Peak
6	1801.360	26.84	6.92	15.73	49.48	54.00	4.52	Peak
7	2023.120	27.64	5.89	16.34	49.86	54.00	4.14	Peak
8	2191.120	28.02	6.10	11.59	45.71	54.00	8.29	Peak
9	2594.320	29.04	6.61	12.23	47.89	54.00	6.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2995.480	30.34	7.20	8.27	45.82	54.00	8.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : 120Vac/60Hz
 Test Mode : TX2412(802.11g)+BT TX2480(GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2992.840	30.34	7.20	10.04	47.58	54.00	6.42	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2402MHz

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

Data no. : 1
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1003.360	24.30	4.18	17.83	46.31	54.00	7.69	Peak
2	1196.560	24.88	4.58	18.20	47.66	54.00	6.34	Peak
3	1393.120	25.41	5.12	14.34	44.87	54.00	9.13	Peak
4	1502.320	25.76	5.43	12.89	44.09	54.00	9.91	Peak
5	1599.760	26.08	6.14	14.82	47.03	54.00	6.97	Peak
6	1801.360	26.84	6.92	12.47	46.22	54.00	7.78	Peak
7	1994.560	27.60	5.91	10.98	44.49	54.00	9.51	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

Data no. : 2
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	17.69	46.17	54.00	7.83	Peak
2	1398.160	25.41	5.14	13.09	43.64	54.00	10.36	Peak
3	1502.320	25.76	5.43	14.62	45.82	54.00	8.18	Peak
4	1574.560	26.02	5.98	15.74	47.73	54.00	6.27	Peak
5	1599.760	26.08	6.14	15.42	47.63	54.00	6.37	Peak
6	1796.320	26.84	6.92	12.81	46.57	54.00	7.43	Peak
7	1994.560	27.60	5.91	15.74	49.25	54.00	4.75	Peak
8	2627.920	29.15	6.68	10.17	46.00	54.00	8.00	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

Data no. : 4
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	8.96	46.58	54.00	7.42	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

Data no. : 3
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	10.02	47.64	54.00	6.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2441MHz

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

Data no. : 1
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1003.360	24.30	4.18	18.92	47.40	54.00	6.60	Peak
2	1199.920	24.88	4.59	11.40	40.87	54.00	13.13	Peak
3	1401.520	25.46	5.14	13.13	43.73	54.00	10.27	Peak
4	1574.560	26.02	5.98	13.90	45.89	54.00	8.11	Peak
5	1594.720	26.08	6.12	13.79	46.00	54.00	8.00	Peak
6	1801.360	26.84	6.92	12.86	46.61	54.00	7.39	Peak
7	1997.920	27.60	5.89	9.26	42.75	54.00	11.25	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

Data no. : 2
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	21.32	49.80	54.00	4.20	Peak
2	1199.920	24.88	4.59	13.02	42.49	54.00	11.51	Peak
3	1401.520	25.46	5.14	15.46	46.06	54.00	7.94	Peak
4	1502.320	25.76	5.43	13.23	44.43	54.00	9.57	Peak
5	1574.560	26.02	5.98	15.86	47.85	54.00	6.15	Peak
6	1599.760	26.08	6.14	16.02	48.23	54.00	5.77	Peak
7	1792.960	26.84	6.94	15.10	48.88	54.00	5.12	Peak
8	2002.960	27.60	5.86	15.39	48.85	54.00	5.15	Peak
9	2627.920	29.15	6.68	11.57	47.40	54.00	6.60	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

Data no. : 4
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	9.80	47.42	54.00	6.58	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2441(GFSK)

Data no. : 3
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	10.21	47.83	54.00	6.17	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Transmit, Frequency: 2480MHz

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

Data no. : 2
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1003.360	24.30	4.18	18.99	47.47	54.00	6.53	Peak
2	1401.520	25.46	5.14	14.98	45.58	54.00	8.42	Peak
3	1502.320	25.76	5.43	14.39	45.59	54.00	8.41	Peak
4	1574.560	26.02	5.98	14.30	46.29	54.00	7.71	Peak
5	1599.760	26.08	6.14	15.88	48.09	54.00	5.91	Peak
6	1792.960	26.84	6.94	10.70	44.48	54.00	9.52	Peak
7	2002.960	27.60	5.86	9.75	43.21	54.00	10.79	Peak
8	2627.920	29.15	6.68	7.53	43.36	54.00	10.64	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

Data no. : 1
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1003.360	24.30	4.18	19.80	48.28	54.00	5.72	Peak
2	1398.160	25.41	5.14	13.34	43.89	54.00	10.11	Peak
3	1502.320	25.76	5.43	13.79	44.99	54.00	9.01	Peak
4	1577.920	26.02	5.98	16.87	48.86	54.00	5.14	Peak
5	1599.760	26.08	6.14	15.44	47.65	54.00	6.35	Peak
6	1796.320	26.84	6.92	12.56	46.32	54.00	7.68	Peak
7	2002.960	27.60	5.86	12.60	46.06	54.00	7.94	Peak
8	2196.160	28.02	6.11	9.79	43.92	54.00	10.08	Peak
9	2627.920	29.15	6.68	10.38	46.21	54.00	7.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480(GFSK)

Data no. : 3
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	9.75	47.37	54.00	6.63	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480(GFSK)

Data no. : 4
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	9.43	47.05	54.00	6.95	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

GFSK, Receive, Frequency: 2441MHz

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 1
 Ant. pol. : HORIZONTAL

□Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	18.93	47.41	54.00	6.59	Peak
2	1199.920	24.88	4.59	14.95	44.42	54.00	9.58	Peak
3	1300.720	25.17	4.84	12.87	42.88	54.00	11.12	Peak
4	1401.520	25.46	5.14	12.46	43.06	54.00	10.94	Peak
5	1599.760	26.08	6.14	19.25	51.46	54.00	2.54	Peak
6	1801.360	26.84	6.92	10.80	44.55	54.00	9.45	Peak
7	2002.960	27.60	5.86	8.87	42.33	54.00	11.67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 2
 Ant. pol. : VERTICAL

□Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1000.000	24.30	4.18	20.56	49.04	54.00	4.96	Peak
2	1199.920	24.88	4.59	13.23	42.70	54.00	11.30	Peak
3	1398.160	25.41	5.14	12.16	42.71	54.00	11.29	Peak
4	1502.320	25.76	5.43	14.37	45.57	54.00	8.43	Peak
5	1574.560	26.02	5.98	14.69	46.68	54.00	7.32	Peak
6	1594.720	26.08	6.12	17.91	50.12	54.00	3.88	Peak
7	1796.320	26.84	6.92	12.19	45.95	54.00	8.05	Peak
8	1997.920	27.60	5.89	15.03	48.52	54.00	5.48	Peak
9	2627.920	29.15	6.68	9.81	45.64	54.00	8.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 4
 Ant. pol. : HORIZONTAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	8.99	46.61	54.00	7.39	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Site no. : A/C Chamber
 Dis. / Ant. : 3m 3115(4927)
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63%
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : RX2441(GFSK)

Data no. : 3
 Ant. pol. : VERTICAL
 □Jarwei Wang

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	3001.480	30.40	7.22	10.35	47.97	54.00	6.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

3.6.3. Restricted Bands Measurement Results

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

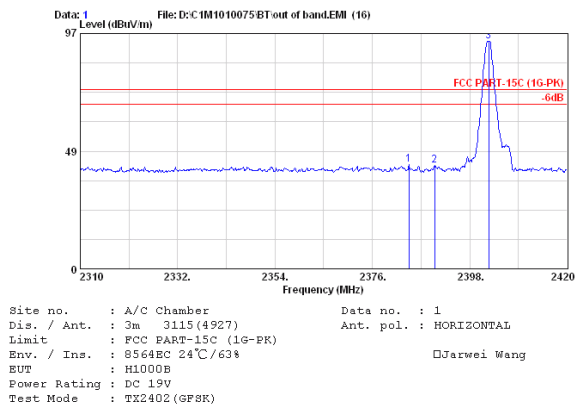
Test Mode : GFSK, Transmit, Channel: 0, Frequency: 2402MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
Peak *	2384.280	28.43	6.33	8.08	42.84	74.00	31.16
Average *	2382.240	28.43	6.33	-1.77	32.99	54.00	21.01

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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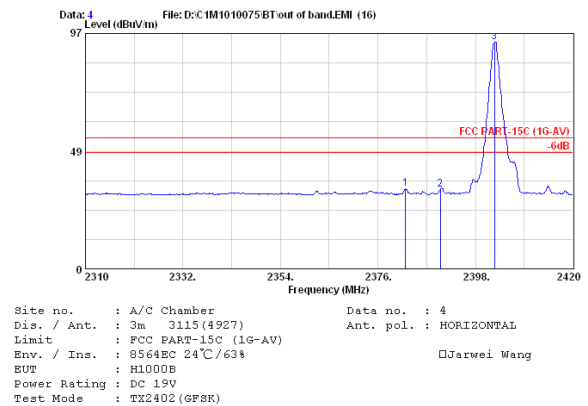


	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2384.280	28.43	6.33	8.08	42.85	74.00	31.15	Peak
2	2390.040	28.47	6.34	7.96	42.78	74.00	31.22	Peak
3	2402.280	28.47	6.36	59.10	93.93	74.00	-19.93	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2382.240	28.43	6.33	-1.77	32.99	54.00	21.01	Average
2	2390.040	28.47	6.34	-2.05	32.77	54.00	21.23	Average
3	2402.280	28.47	6.36	58.75	93.58	54.00	-39.58	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

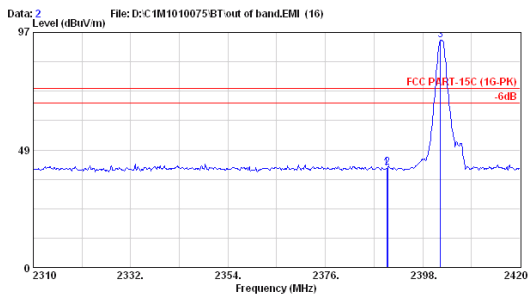
Test Mode : GFSK, Transmit, Channel: 0, Frequency: 2402MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
Peak *	2389.920	28.47	6.34	6.14	40.95	74.00	33.05
Average *	2389.920	28.47	6.34	-2.77	32.04	54.00	21.96

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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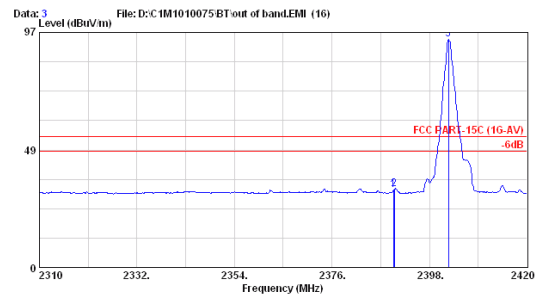
Site no. : A/C Chamber Data no. : 2
 Dis. / Ant. : 3m 3115 (4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2389.920	28.47	6.34	6.14	40.95	74.00	33.05	Peak
2	2390.040	28.47	6.34	6.26	41.08	74.00	32.92	Peak
3	2402.040	28.47	6.36	59.08	93.91	74.00	-19.91	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : A/C Chamber Data no. : 3
 Dis. / Ant. : 3m 3115 (4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2389.920	28.47	6.34	-2.77	32.04	54.00	21.96	Average
2	2390.040	28.47	6.34	-2.44	32.38	54.00	21.62	Average
3	2402.280	28.47	6.36	59.22	94.05	54.00	-40.05	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

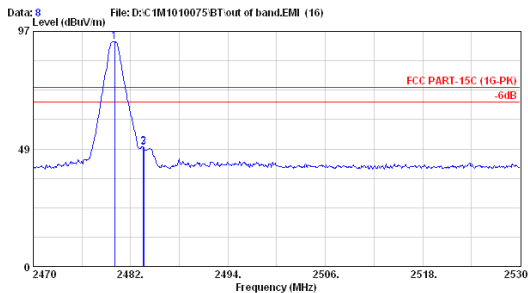
Test Mode : GFSK, Transmit, Channel: 78, Frequency: 2480MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
Peak *	2483.560	28.66	6.45	14.14	49.25	74.00	24.75
Average *	2484.040	28.66	6.45	7.97	43.08	54.00	10.92

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2700MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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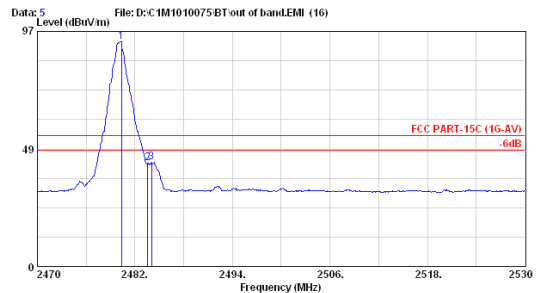
Site no. : A/C Chamber Data no. : 8
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.020	28.66	6.44	57.70	92.81	74.00	-18.81	Peak
2	2483.560	28.66	6.45	14.14	49.26	74.00	24.74	Peak
3	2483.620	28.66	6.45	14.04	49.16	74.00	24.84	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : A/C Chamber Data no. : 5
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.320	28.66	6.44	57.54	92.65	54.00	-38.65	Average
2	2483.560	28.66	6.45	7.40	42.51	54.00	11.49	Average
3	2484.040	28.66	6.45	7.97	43.08	54.00	10.92	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

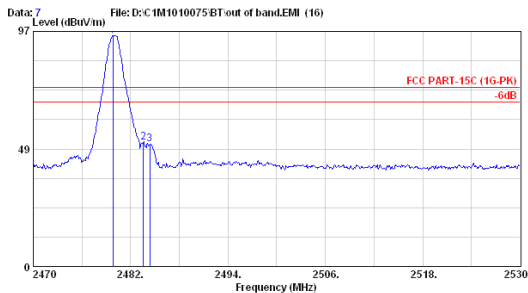
Test Mode : GFSK, Transmit, Channel: 78, Frequency: 2480MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
Peak *	2483.560	28.66	6.45	16.22	51.33	74.00	22.67
Average *	2483.560	28.66	6.45	9.38	44.49	54.00	9.51

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2483.5-2500MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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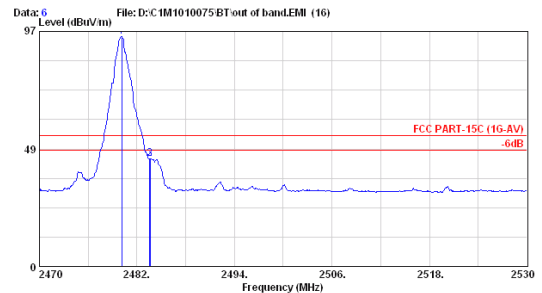
Site no. : A/C Chamber Data no. : 7
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2479.840	28.66	6.44	60.19	95.30	74.00	-21.30	Peak
2	2483.560	28.66	6.45	16.22	51.34	74.00	-22.66	Peak
3	2484.340	28.66	6.45	15.50	50.61	74.00	-23.39	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : A/C Chamber Data no. : 6
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (GFSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.140	28.66	6.44	59.70	94.81	54.00	-40.81	Average
2	2483.560	28.66	6.45	9.38	44.49	54.00	9.51	Average
3	2483.620	28.66	6.45	9.34	44.46	54.00	9.54	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

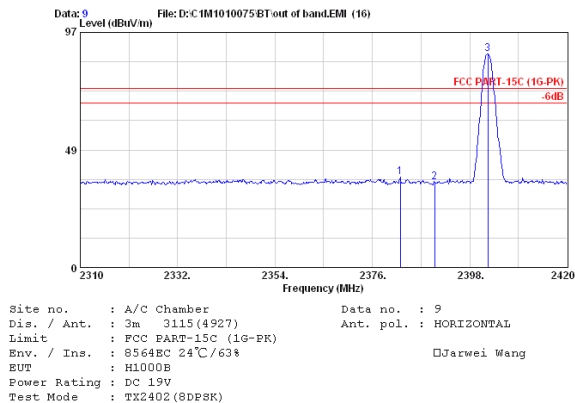
Test Mode : 8-DPSK, Transmit, Channel: 0, Frequency: 2402MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
Peak *	2382.270	28.43	6.33	2.40	37.16	74.00	36.84
Average *	2388.760	28.47	6.34	-9.14	25.67	54.00	28.33

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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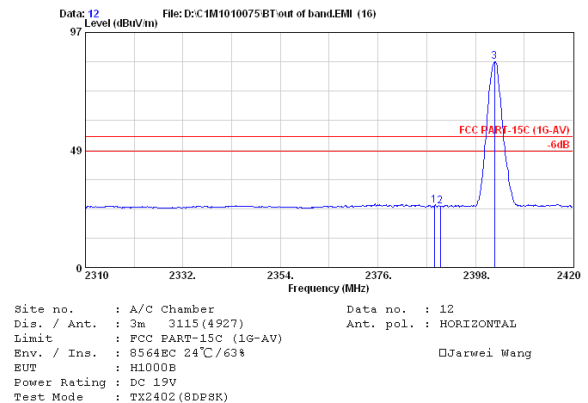


Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1 2382.270	28.43	6.33	2.40	37.17	74.00	36.83	Peak
2 2390.080	28.47	6.34	0.20	35.01	74.00	38.99	Peak
3 2402.070	28.47	6.36	53.28	88.11	74.00	-14.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1 2388.760	28.47	6.34	-9.14	25.67	54.00	28.33	Average
2 2390.080	28.47	6.34	-9.60	25.21	54.00	28.79	Average
3 2402.290	28.47	6.36	50.08	84.91	54.00	-30.91	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

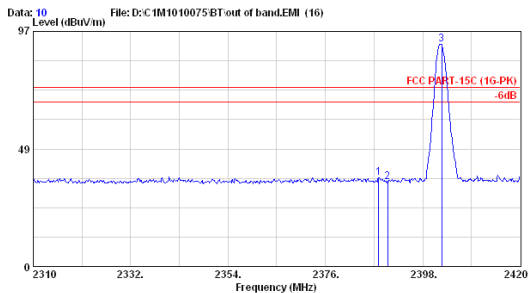
Test Mode : 8-DPSK, Transmit, Channel: 0, Frequency: 2402MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
Peak *	2387.990	28.47	6.34	1.96	36.77	74.00	37.23
Average *	2389.970	28.47	6.34	-8.99	25.82	54.00	28.18

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. ‘*’ The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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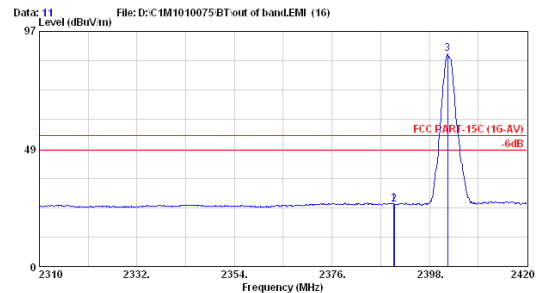
Site no. : A/C Chamber Data no. : 10
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (8DPSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2387.990	28.47	6.34	1.96	36.77	74.00	37.23	Peak
2	2390.080	28.47	6.34	0.09	34.90	74.00	39.10	Peak
3	2402.290	28.47	6.36	56.94	91.77	74.00	-17.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : A/C Chamber Data no. : 11
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2402 (8DPSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2389.970	28.47	6.34	-8.99	25.82	54.00	28.18	Average
2	2390.080	28.47	6.34	-9.07	25.74	54.00	28.26	Average
3	2402.070	28.47	6.36	52.91	87.74	54.00	-33.74	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

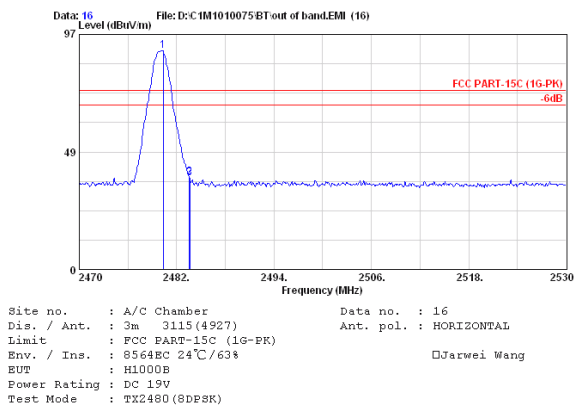
Test Mode : 8-DPSK, Transmit, Channel: 78, Frequency: 2480MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Horizontal dBμV	Emission Level Horizontal dBμV/m	Limits dBμV/m	Margin dB
Peak *	2483.560	28.66	6.45	2.95	38.06	74.00	35.94
Average *	2483.560	28.66	6.45	1.12	36.23	54.00	17.77

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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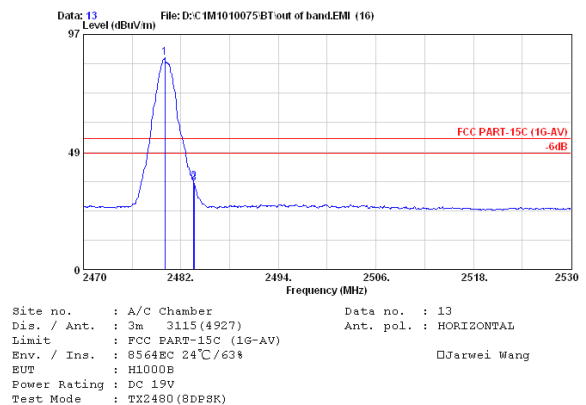


	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.320	28.66	6.44	55.22	90.32	74.00	-16.32	Peak
2	2483.560	28.66	6.45	2.95	38.06	74.00	35.94	Peak
3	2483.620	28.66	6.45	2.48	37.59	74.00	36.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.020	28.66	6.44	52.17	87.27	54.00	-33.27	Average
2	2483.560	28.66	6.45	1.12	36.23	54.00	17.77	Average
3	2483.620	28.66	6.45	0.58	35.69	54.00	18.31	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Date of Test : Oct. 19, 2010 Temperature : 24°C

EUT : Portable Computer Humidity : 63%

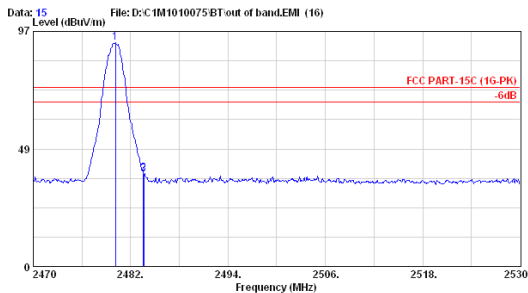
Test Mode : 8-DPSK, Transmit, Channel: 78, Frequency: 2480MHz

	Emission Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Meter Reading Vertical dBμV	Emission Level Vertical dBμV/m	Limits dBμV/m	Margin dB
Peak *	2483.560	28.66	6.45	3.35	38.46	74.00	35.54
Average *	2483.560	28.66	6.45	1.98	37.09	54.00	16.91

- Remark : 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 2. Low frequency section (spurious in the restricted band 2310-2390MHz).
 3. '*' The field strength of emission appearing within Part 15.205(a) shall not exceed the limits shown in section 15.209.



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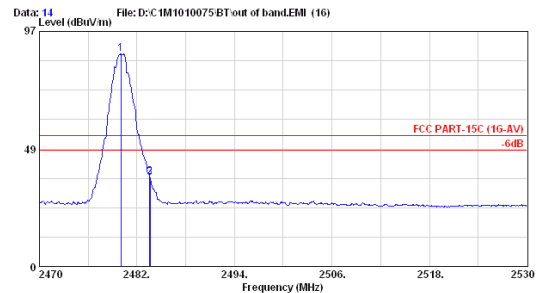
Site no. : A/C Chamber Data no. : 15
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-PK)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (8DPSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.140	28.66	6.44	57.30	92.40	74.00	-18.40	Peak
2	2483.560	28.66	6.45	3.35	38.46	74.00	35.54	Peak
3	2483.620	28.66	6.45	2.84	37.95	74.00	36.05	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : A/C Chamber Data no. : 14
 Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
 Limit : FCC PART-15C (1G-AV)
 Env. / Ins. : 8564EC 24°C/63% □Jarwei Wang
 EUT : H1000B
 Power Rating : DC 19V
 Test Mode : TX2480 (8DPSK)

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	2480.020	28.66	6.44	52.80	87.90	54.00	-33.90	Average
2	2483.560	28.66	6.45	1.98	37.09	54.00	16.91	Average
3	2483.620	28.66	6.45	1.41	36.52	54.00	17.48	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

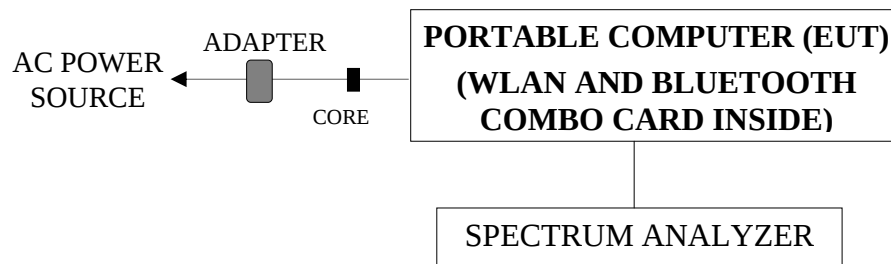
4. 20dB BANDWIDTH MEASUREMENT

4.1. Test Equipment

The following test equipment was used during the 20dB bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

4.2. Block Diagram of Test Setup



4.3. Specification Limits (§15.247(a)(1))

Alternatively, frequency hopping systems operating in the 2400-2483.5MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

4.4. Operating Condition of EUT

The test program “Realtek 11n single chip 92C PCIE WLAN MP Diagnostic Program 0.0015.0524.2010” was used to enable the EUT to transmit data at different channel frequency individually..

4.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. The RBW of the fundamental frequency was measure by spectrum analyzer 1% of the 20dB bandwidth and the setting equal to RBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

The measurement guideline was according to FCC Public Notice DA 00-705.

4.6. Test Results

PASSED. All the test results are attached in next pages.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

4.6.1.Type of Modulation: GFSK

No.	Channel	Test Frequency	20dB Bandwidth	2/3 (20dB Bandwidth)
1.	0	2402MHz	945kHz	630kHz
2.	39	2441MHz	935kHz	623kHz
3.	78	2480MHz	935kHz	623kHz

The maximum two-thirds of the 20dB bandwidth shall be at maximum 0.630MHz.

4.6.2.Type of Modulation: 8-DPSK

No.	Channel	Test Frequency	20dB Bandwidth	2/3 (20dB Bandwidth)
1.	0	2402MHz	1.210MHz	0.807MHz
2.	39	2441MHz	1.205MHz	0.803MHz
3.	78	2480MHz	1.205MHz	0.803MHz

The maximum two-thirds of the 20dB bandwidth shall be at maximum 0.807MHz.

Figure 1: GFSK, Channel 0, Frequency: 2402MHz

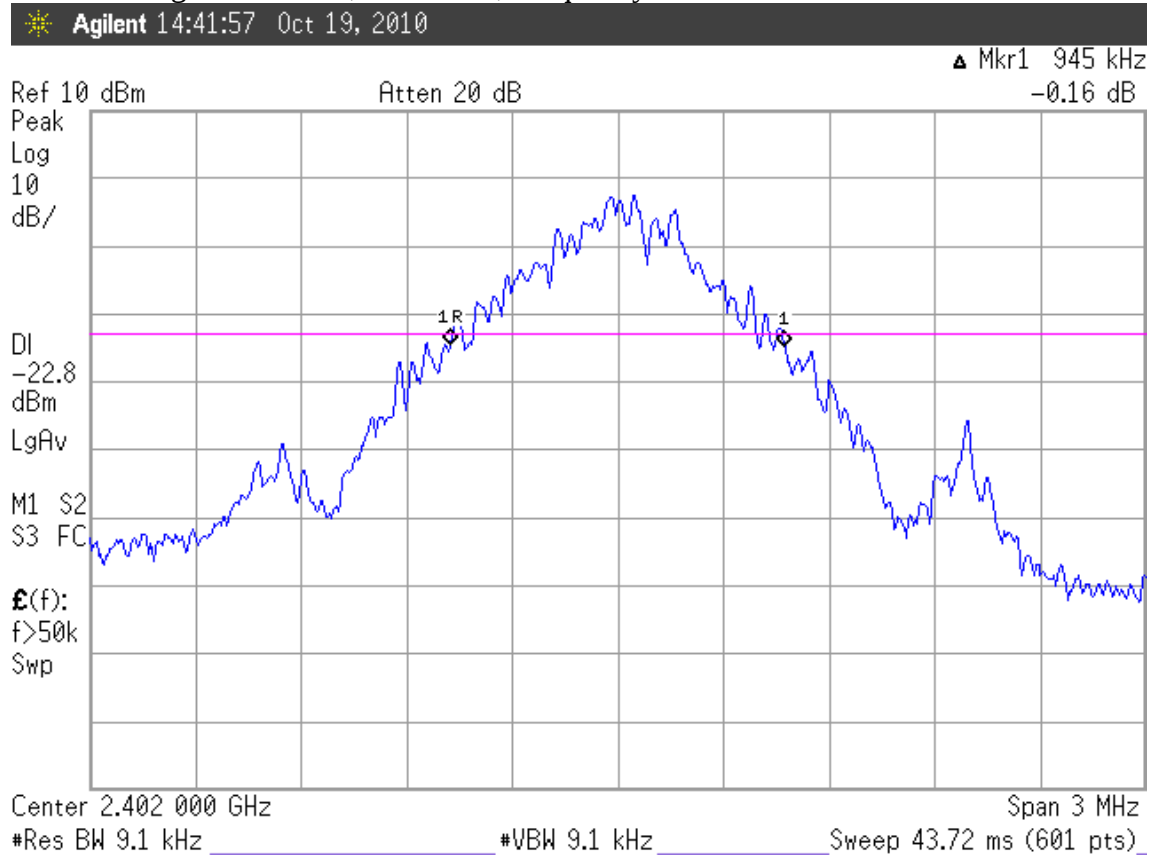


Figure 2: GFSK, Channel 39, Frequency: 2441MHz

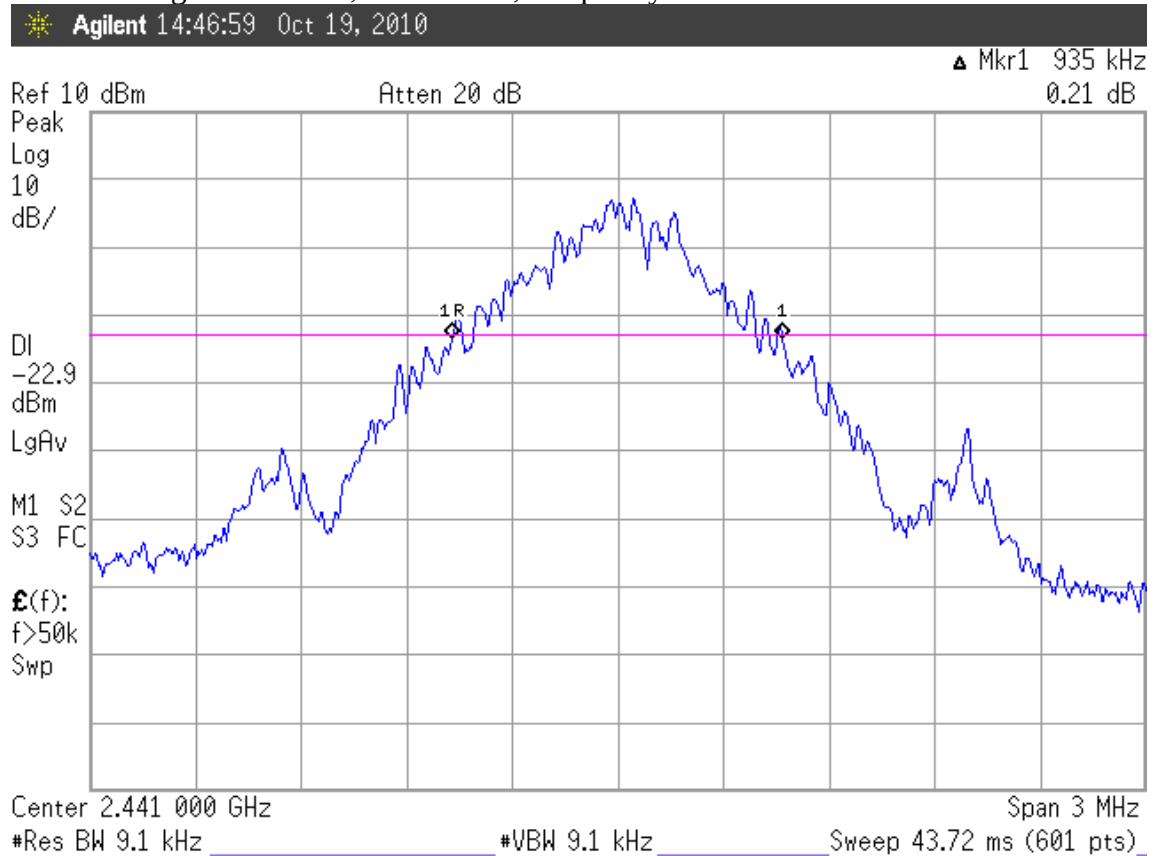


Figure 3: GFSK, Channel 78, Frequency: 2480MHz

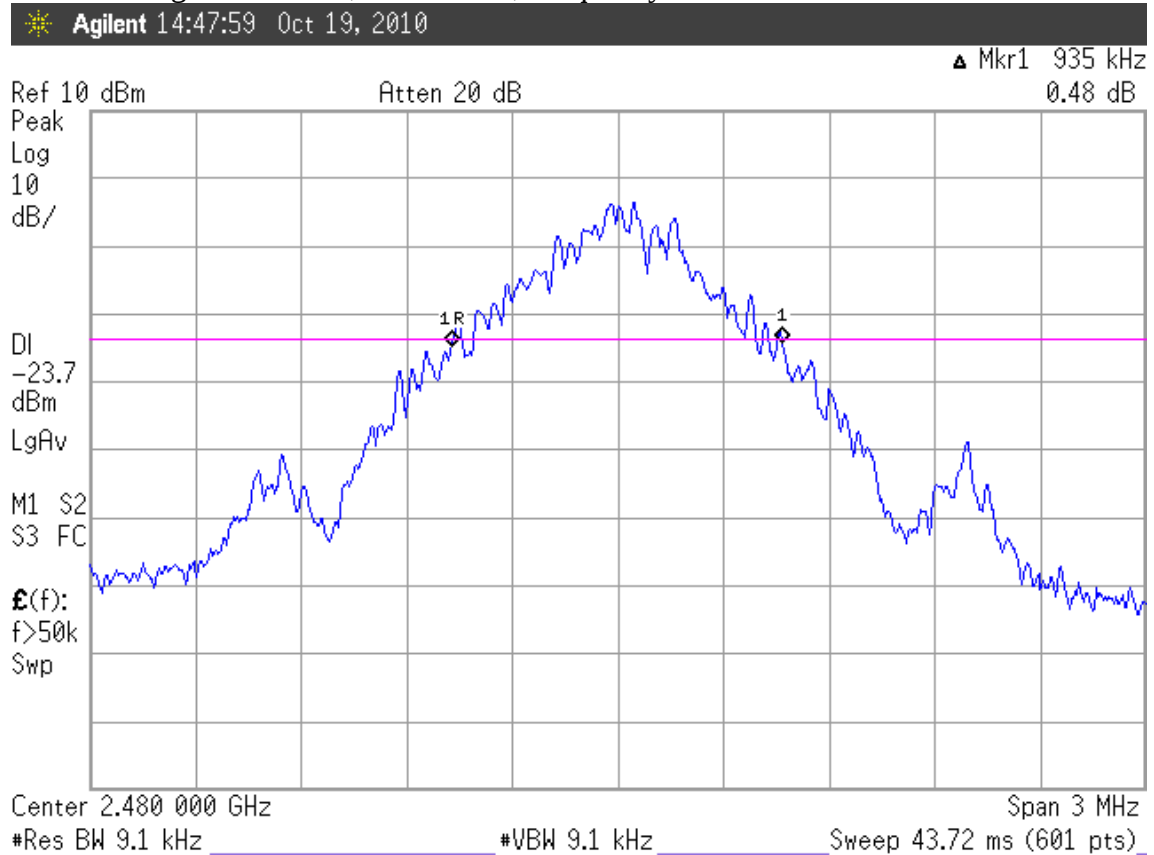


Figure 4: 8-DPSK, Channel 0, Frequency: 2402MHz

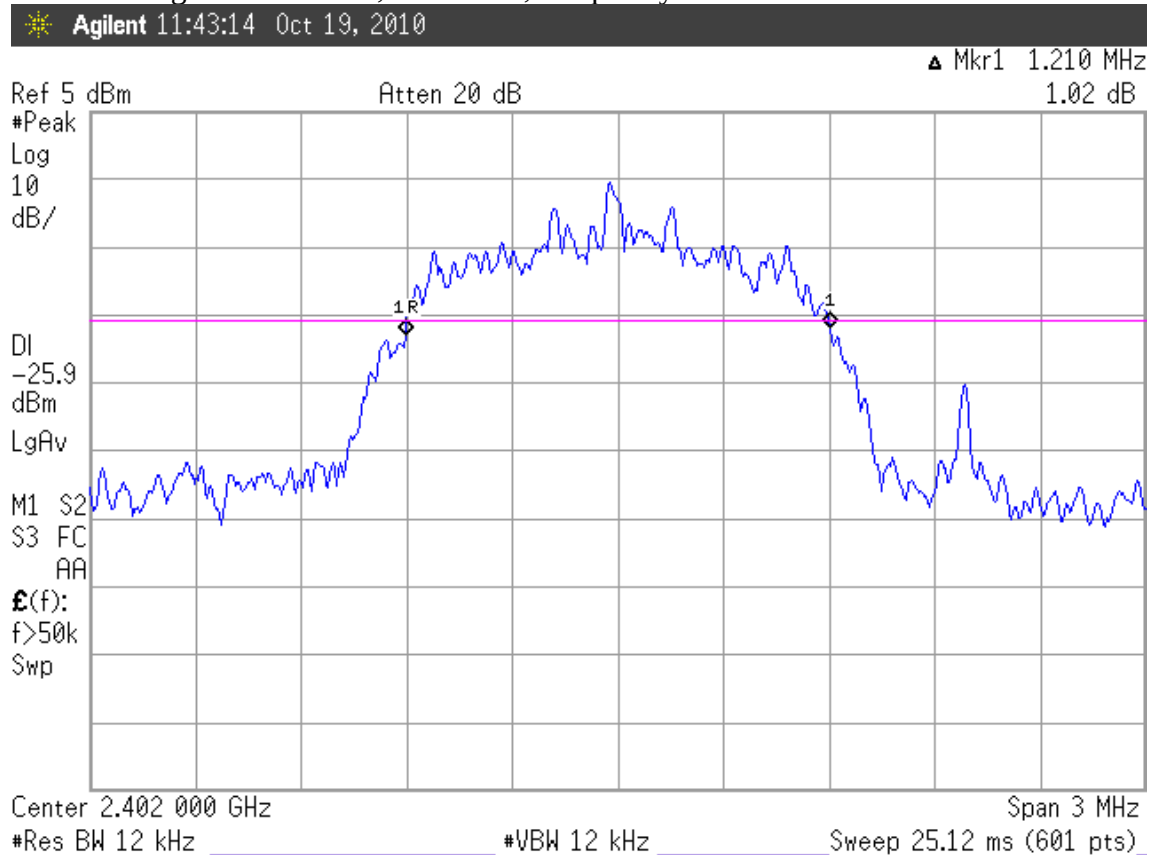


Figure 5: 8-DPSK, Channel 39, Frequency: 2441MHz

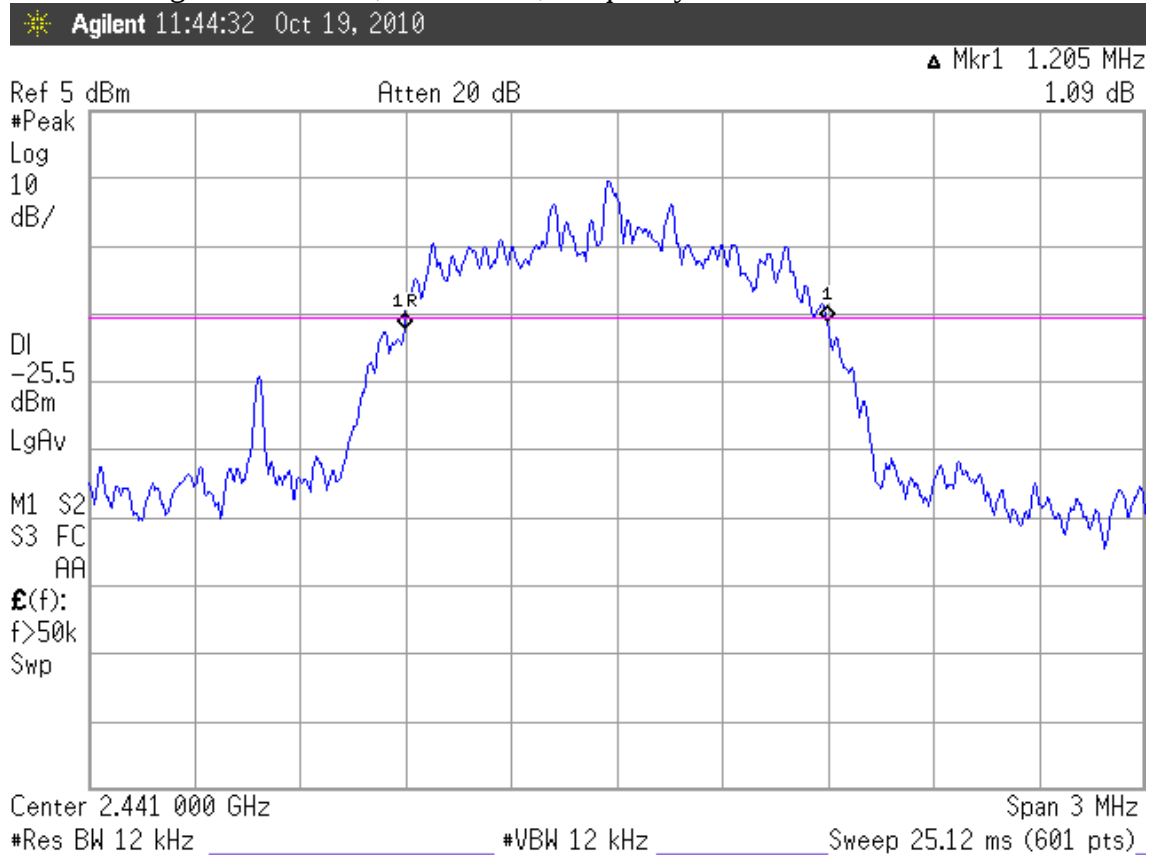
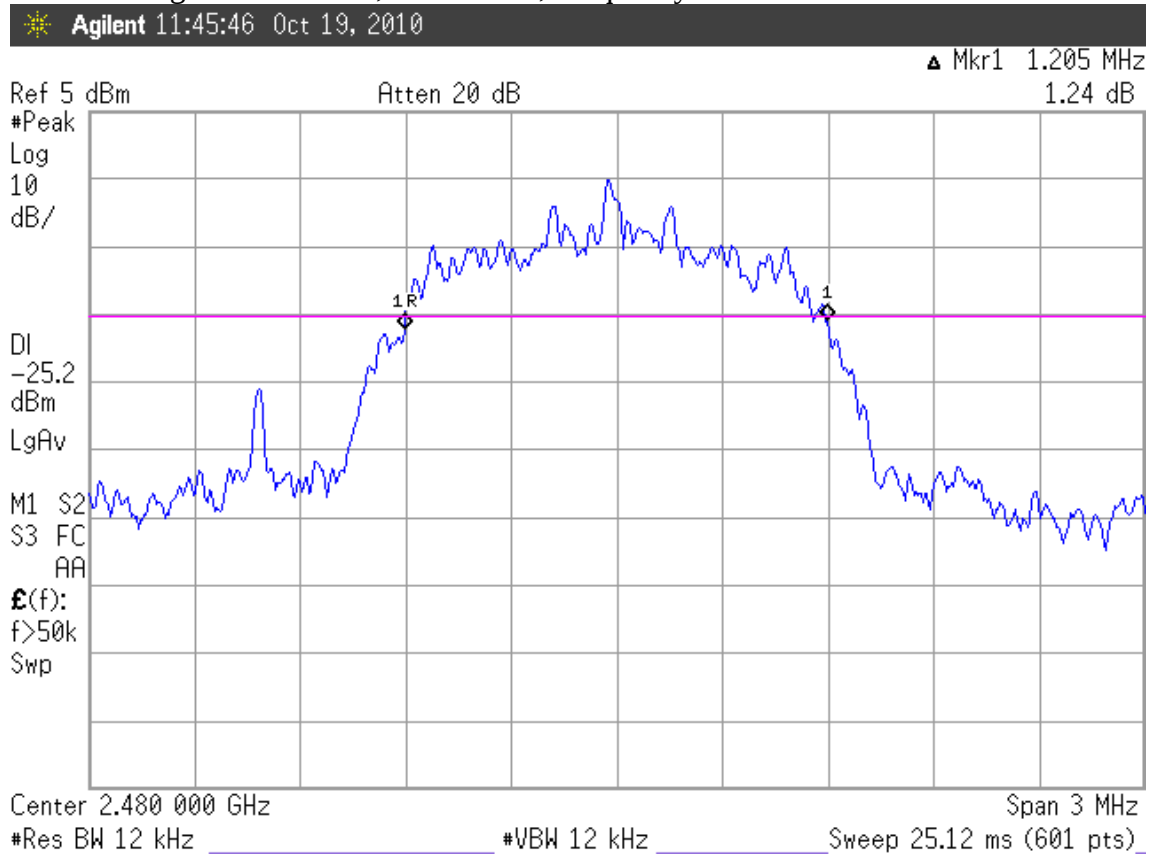


Figure 6: 8-DPSK, Channel 78, Frequency: 2480MHz



5. CARRIER FREQUENCY SEPARATION MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the carrier frequency separation measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

5.2. Block Diagram of Test Setup

The same as section.4.2.

5.3. Specification Limits (§15.247(a)(1))

Alternatively, frequency hopping systems operating in the 2400-2483.5MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output no greater than 125mW.

5.4. Operating Condition of EUT

Same as 20dB bandwidth measurement which was listed in section 4.4.

5.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. The channel separation was measure by spectrum analyzer with RBW equal to 1% of the span. The video bandwidth not to be smaller than resolution bandwidth, the peak was mark on adjacent bandwidth, the between of peak is carrier frequency separation. The measurement guideline was according to FCC Public Notice DA 00-705.

5.6. Test Results

PASSED. All the test results are attached in next pages.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

5.6.1.Type of Modulation: GFSK

1. 2402MHz adjacent channel of carrier frequency separation: 995kHz ◦
2. 2441MHz adjacent channel of right carrier frequency separation: 1.000MHz ◦
3. 2441MHz adjacent channel of left carrier frequency separation: 1.000MHz ◦
4. 2480MHz adjacent channel of carrier frequency separation: 1.000MHz ◦

[Above values have met the requirement as specified in section 4.3: 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.]

5.6.2.Type of Modulation: 8-DPSK

1. 2402MHz adjacent channel of carrier frequency separation: 1.000MHz ◦
2. 2441MHz adjacent channel of right carrier frequency separation: 1.000MHz ◦
3. 2441MHz adjacent channel of left carrier frequency separation: 1.000MHz ◦
4. 2480MHz adjacent channel of carrier frequency separation: 1.000MHz ◦

[Above values have met the requirement as specified in section 4.3: 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.]

Figure 1: GFSK, 2402MHz adjacent channel of carrier frequency separation

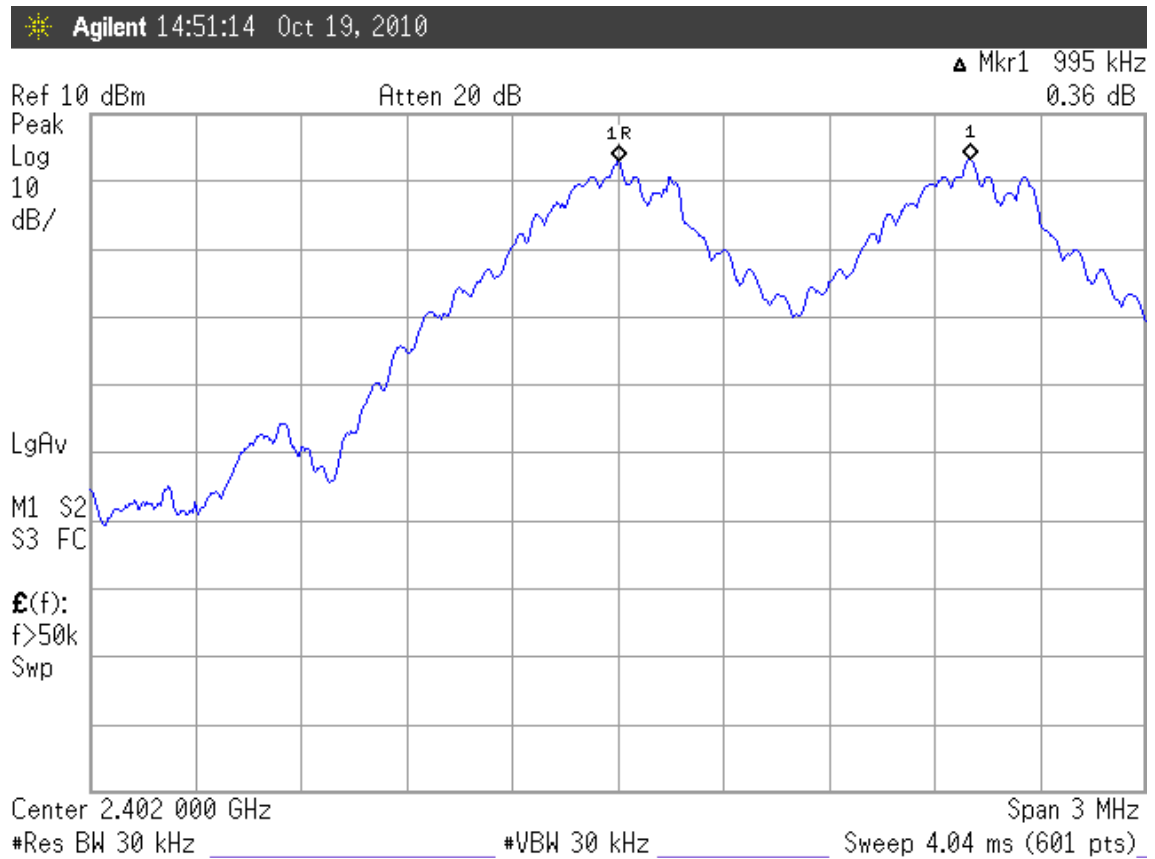


Figure 2: GFSK, 2441MHz adjacent channel of right carrier frequency separation

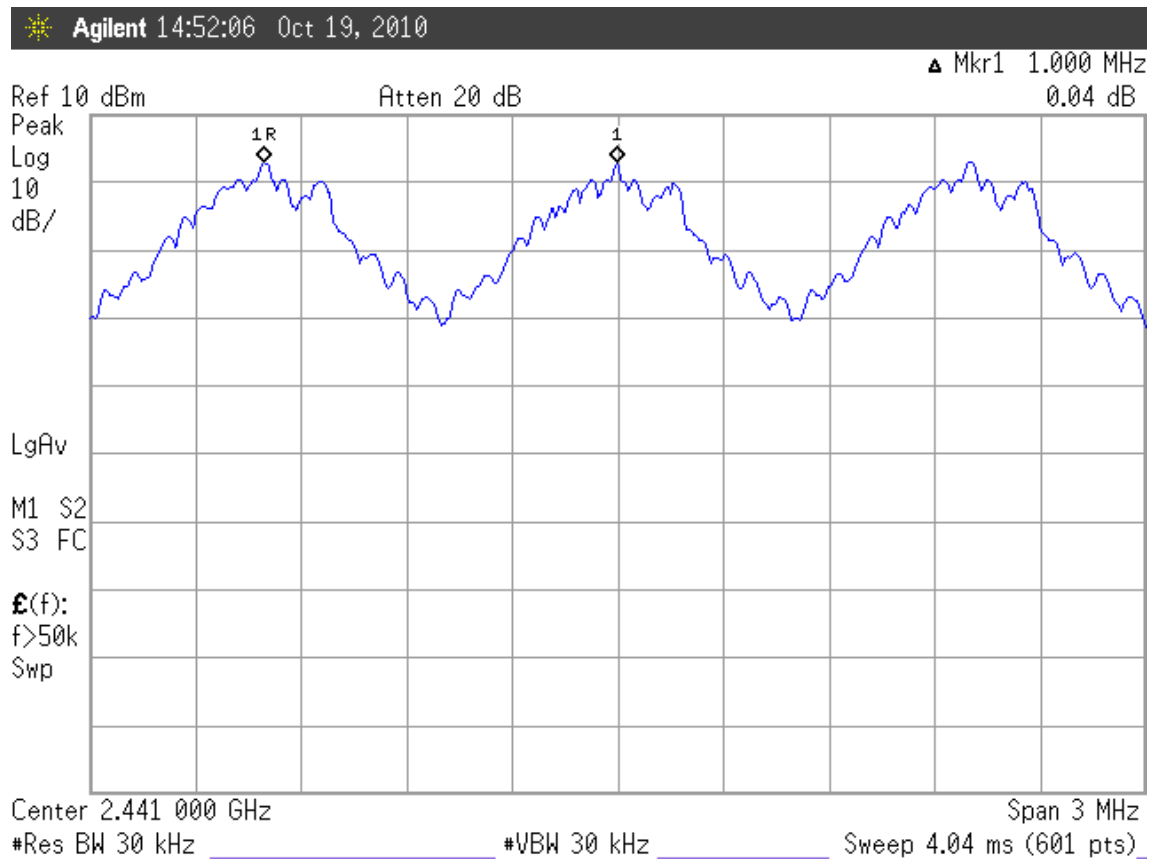


Figure 3: GFSK, 2441MHz adjacent channel of left carrier frequency separation

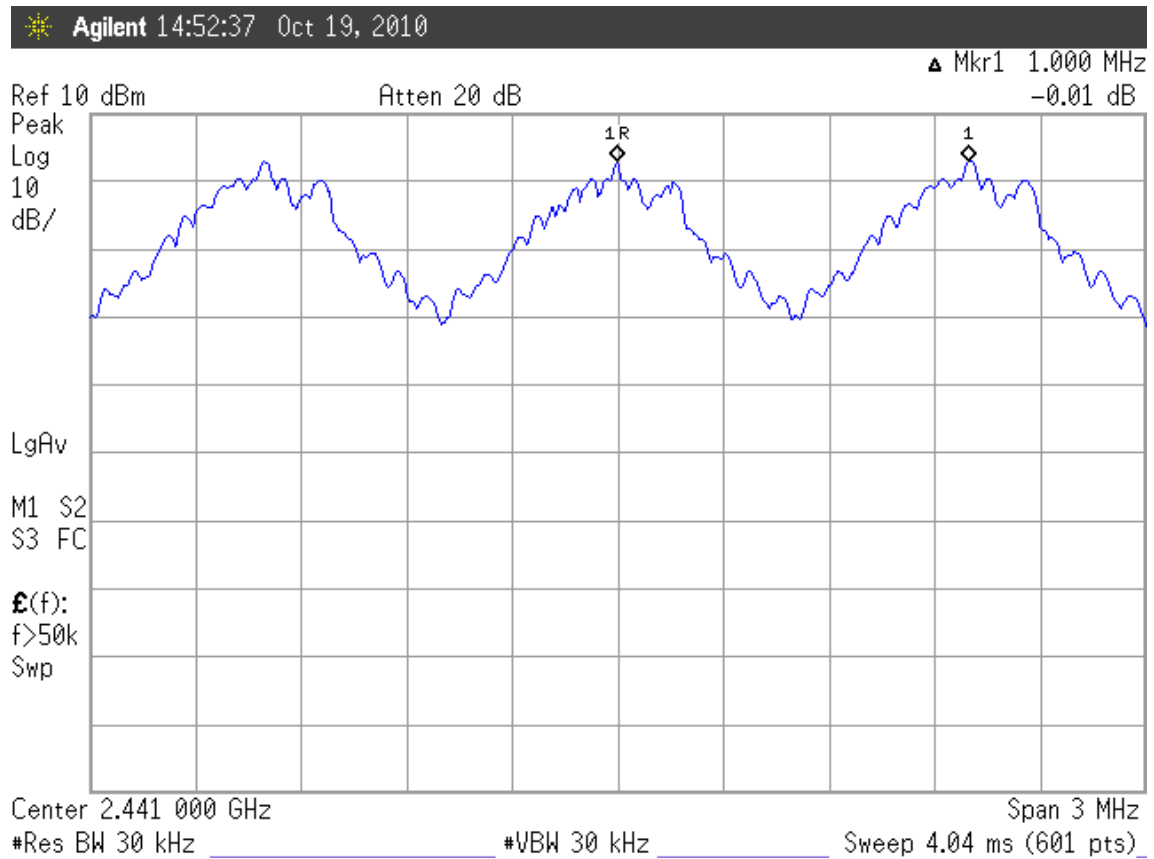


Figure 4: GFSK, 2480MHz adjacent channel of carrier frequency separation

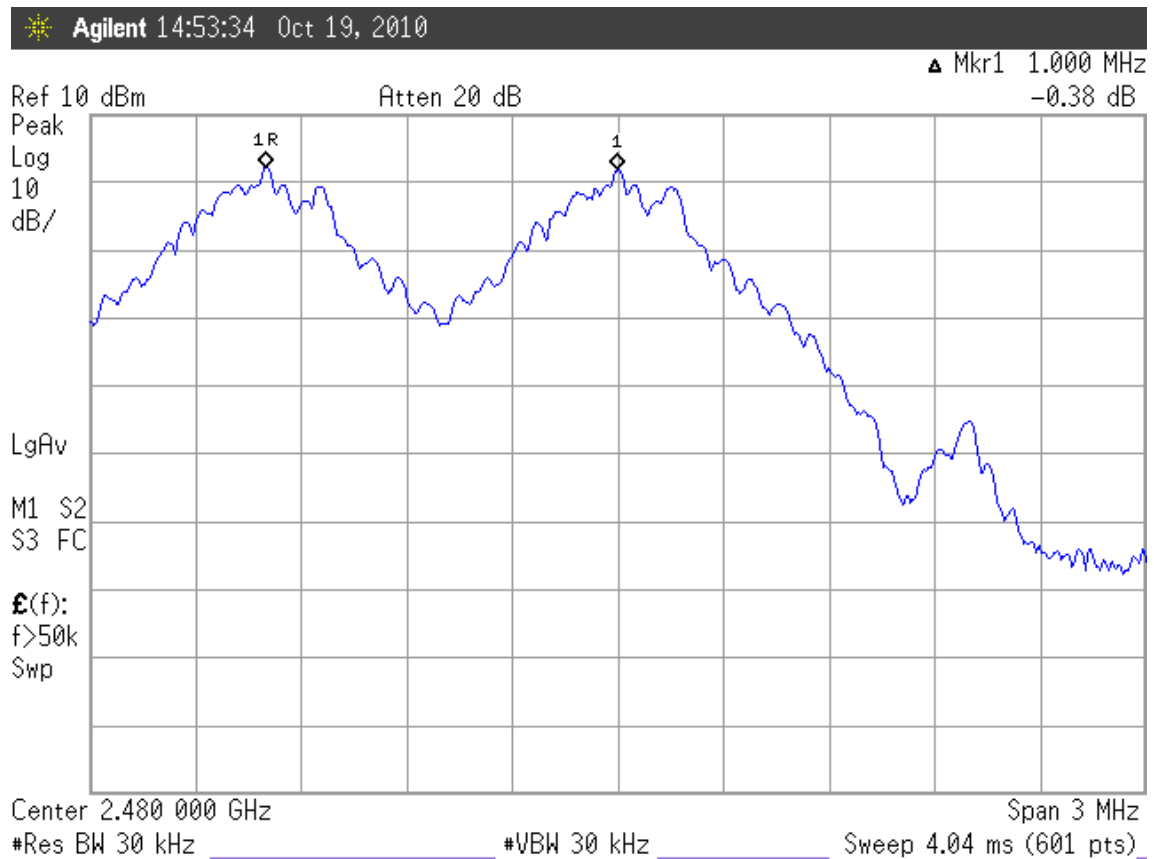


Figure 5: 8-DPSK, 2402MHz adjacent channel of carrier frequency separation

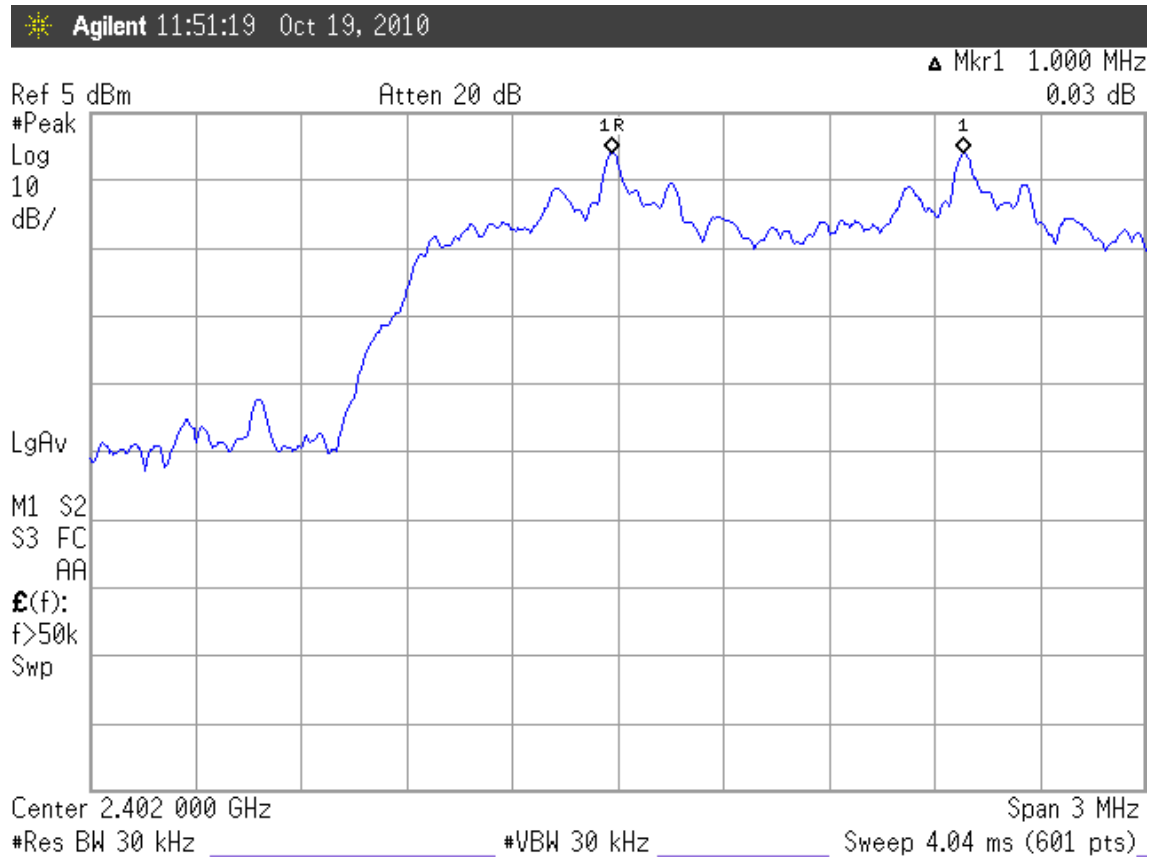


Figure 6: 8-DPSK, 2441MHz adjacent channel of right carrier frequency separation

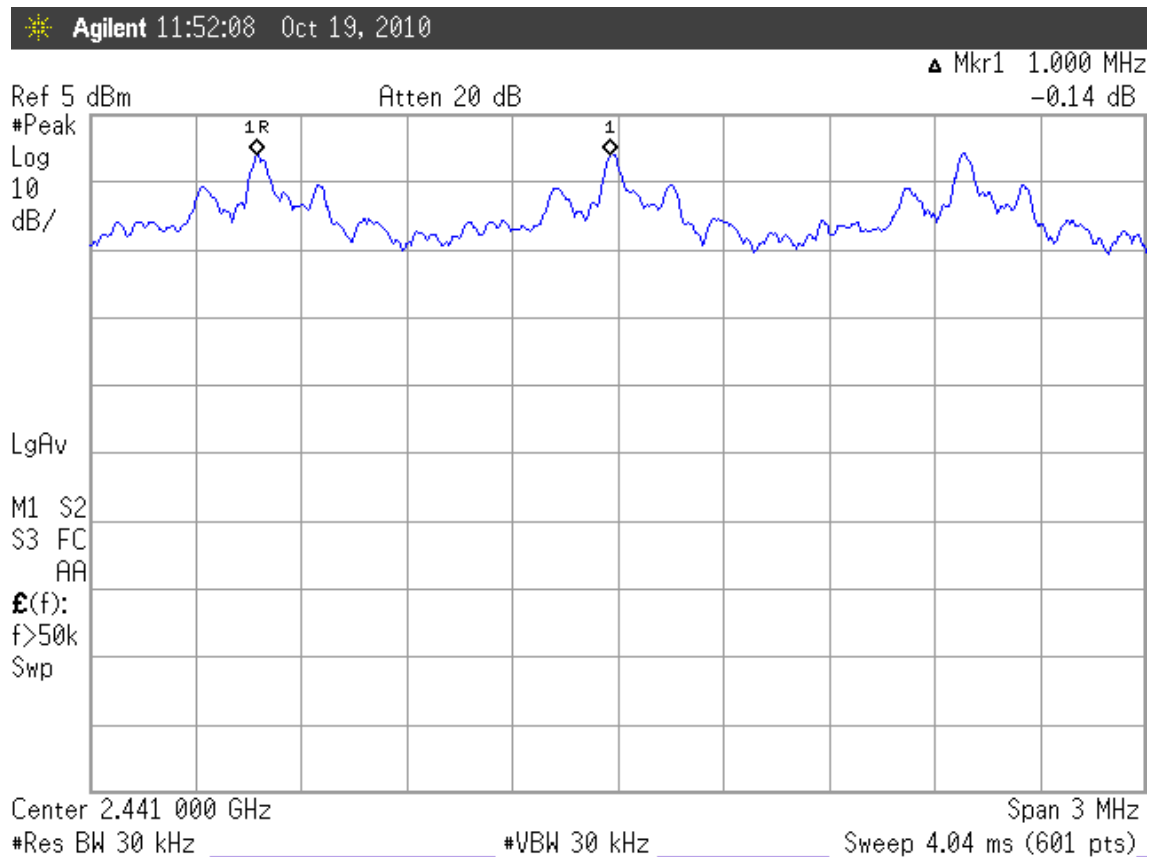


Figure 7: 8-DPSK, 2441MHz adjacent channel of left carrier frequency separation

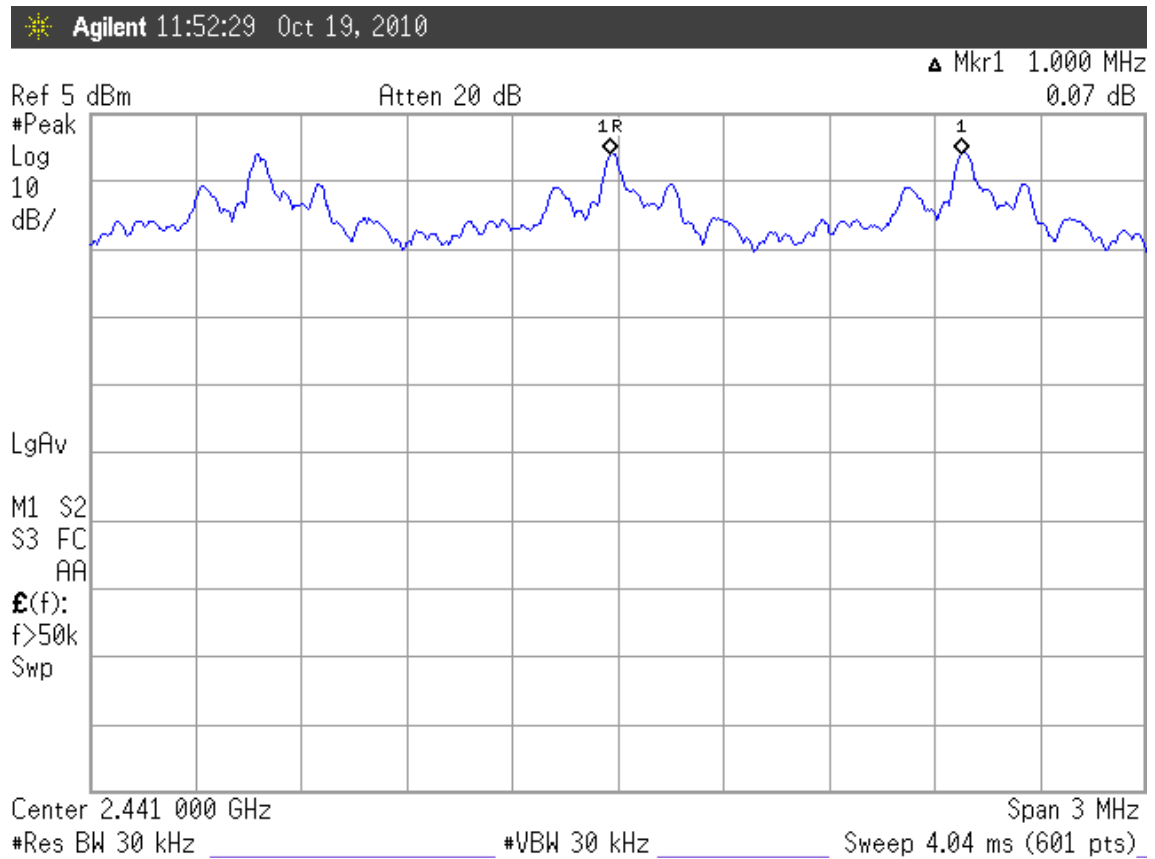
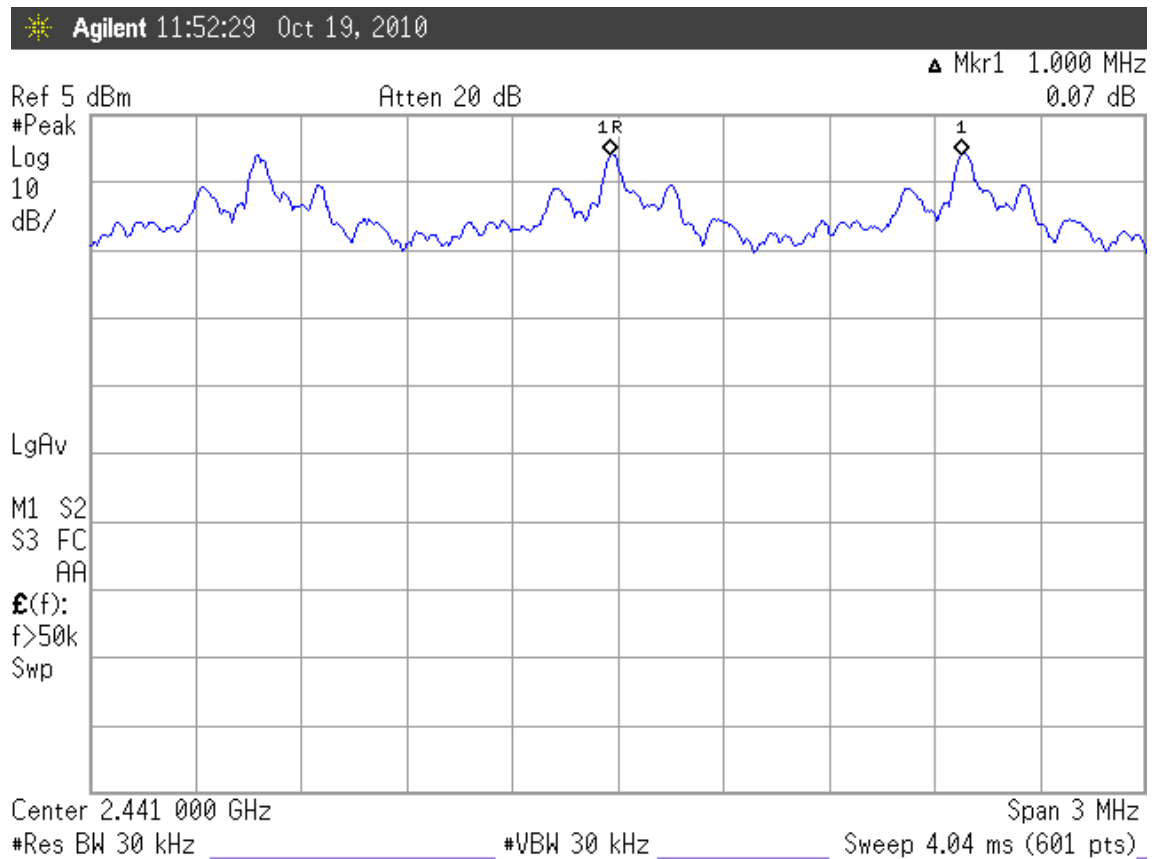


Figure 8: 8-DPSK, 2480MHz adjacent channel of carrier frequency separation



6. TIME OF OCCUPANCY MEASUREMENT

6.1. Test Equipment

The following test equipment was used during the time of occupancy measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

6.2. Block Diagram of Test Setup

The same as section.4.2.

6.3. Specification Limits (§15.247(a)(1)(iii))

Frequency hopping systems in the 2400-2483.5MHz shall use at least 15 non-overlapping 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 number of hopping channels employed.

6.4. Operating Condition of EUT

Same as 20dB bandwidth measurement which was listed in section 4.4.

6.5. Test Procedure

The EUT was connected to the notebook. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 1MHz RBW and 1MHz VBW. VBW≥RBW ; Span=zero span.

Centred on a hopping channel sweep=as necessary to capture the entire dwell time per hopping channel ; Detector function=peak ; Trace=Max hold

The measurement guideline was according to FCC Public Notice DA 00-705.

6.6. Test Results

PASSED. All the test results are attached in next pages.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

Test Date : Oct. 20, 2010 Temperature : 26 °C Humidity : 55 %

6.6.1. Type of Modulation : GFSK, Test Frequency : 2402MHz

Duty cycle: 79channels*0.4 seconds = 31.6 seconds

DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$10.13 \text{ time} * 31.6 \text{ seconds} * 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$51 \text{ channels} * 31.6 \text{ seconds} / 5 * 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$

DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$5.1 \text{ time} * 31.6 \text{ seconds} * 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$25 \text{ channels} * 31.6 \text{ seconds} / 5 * 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$

DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$3.37 \text{ time} * 31.6 \text{ seconds} * 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$17 \text{ channels} * 31.6 \text{ seconds} / 5 * 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$

Figure 1: GFSK, 2402MHz, DH1

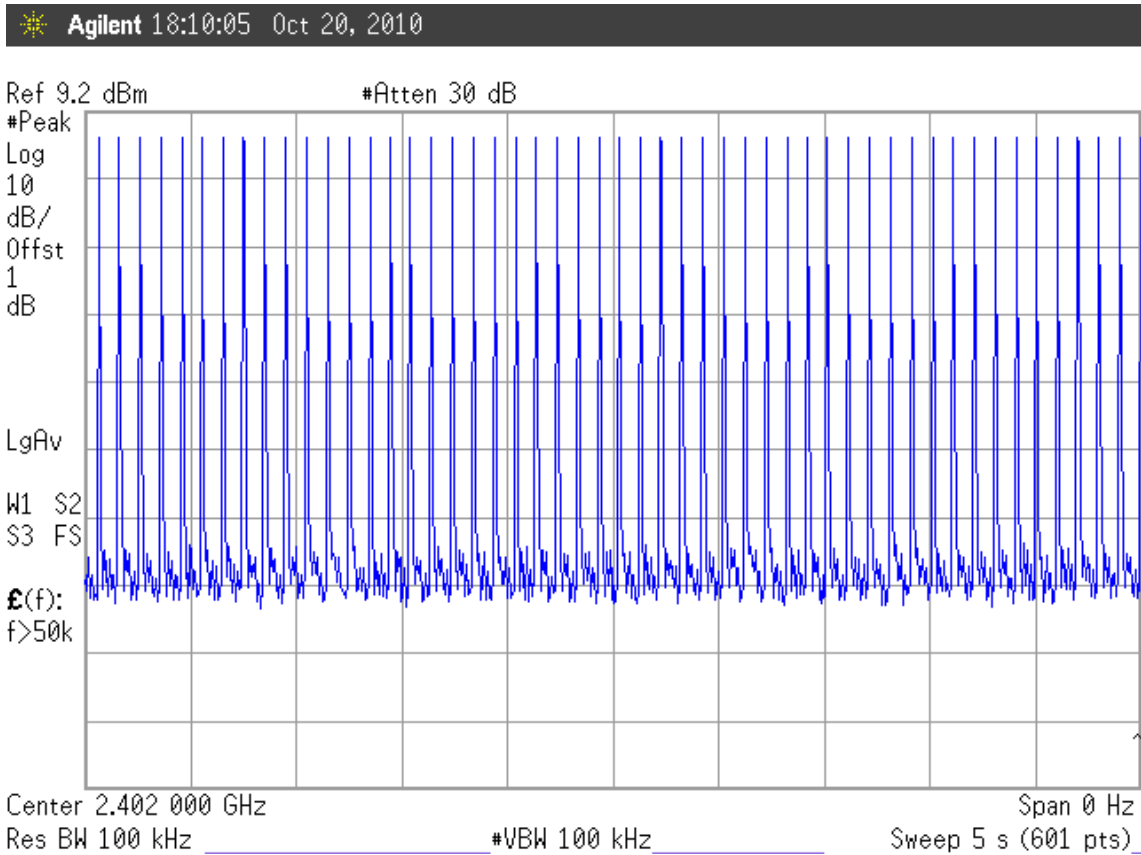
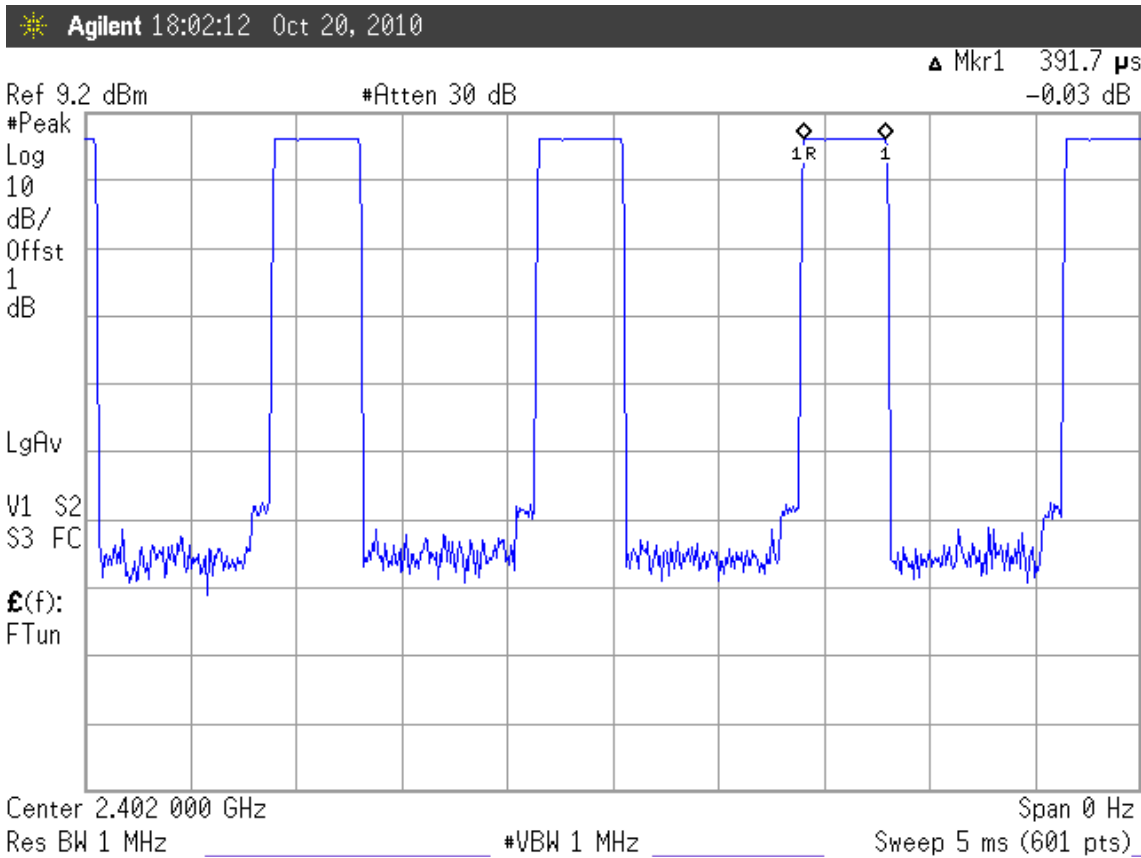


Figure 2: GFSK, 2402MHz, DH3

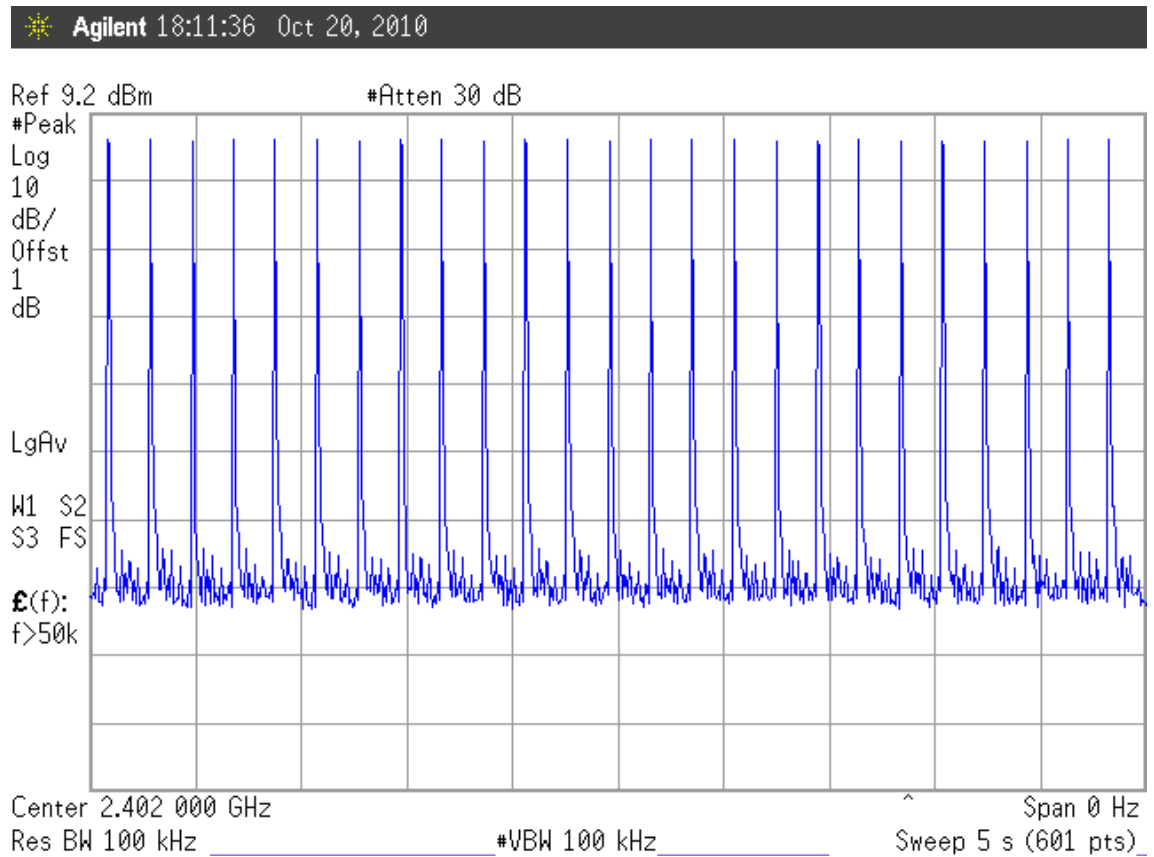
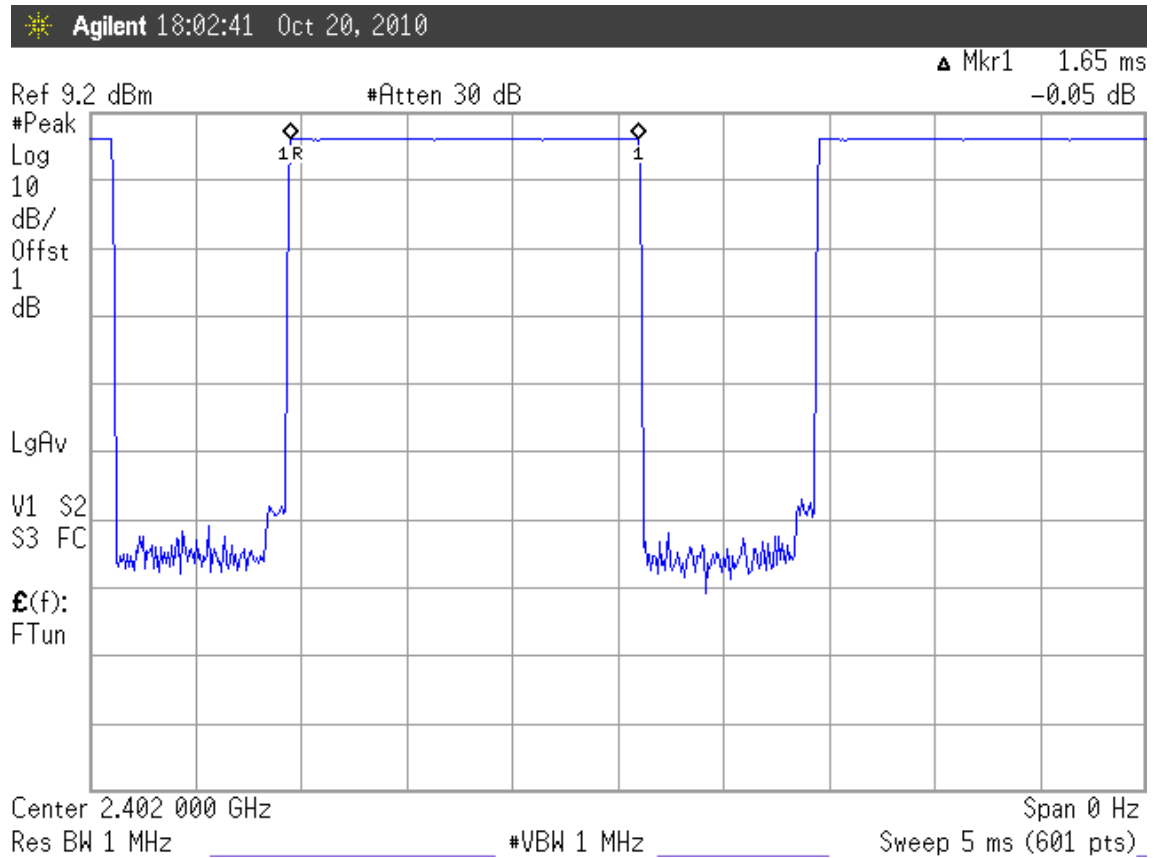
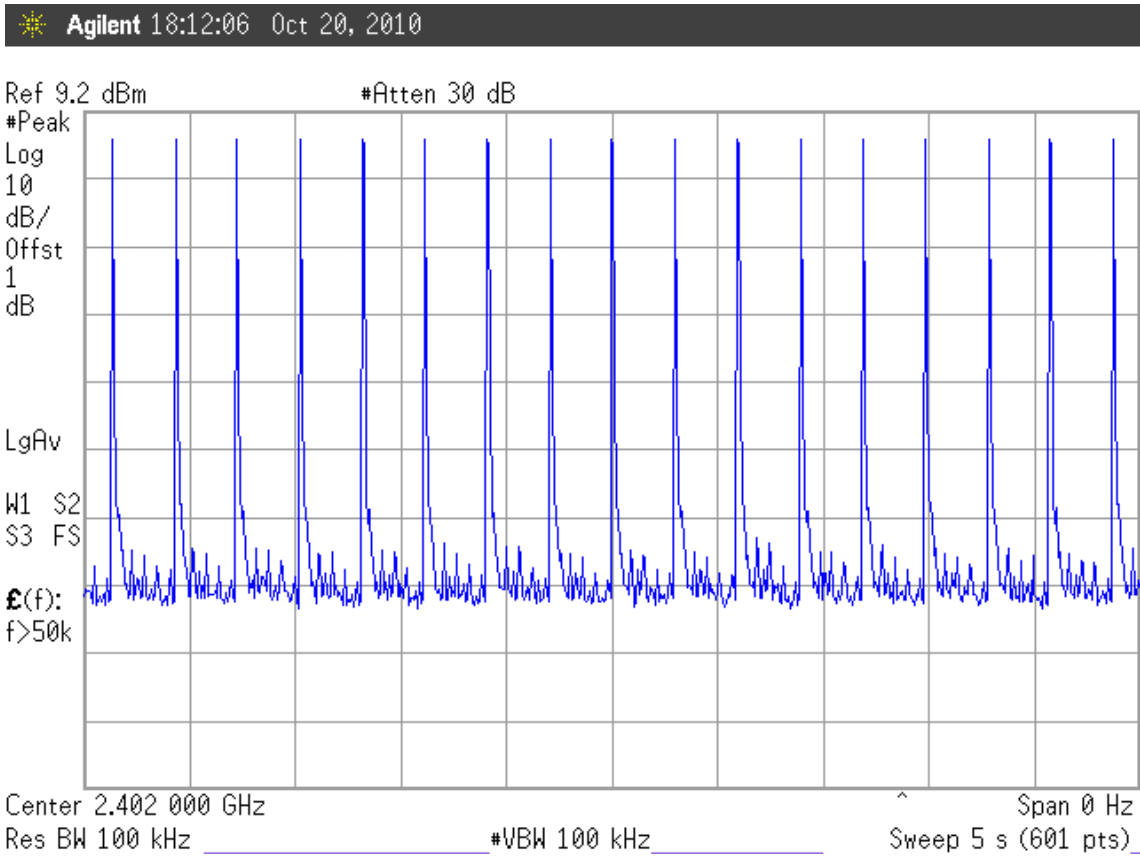
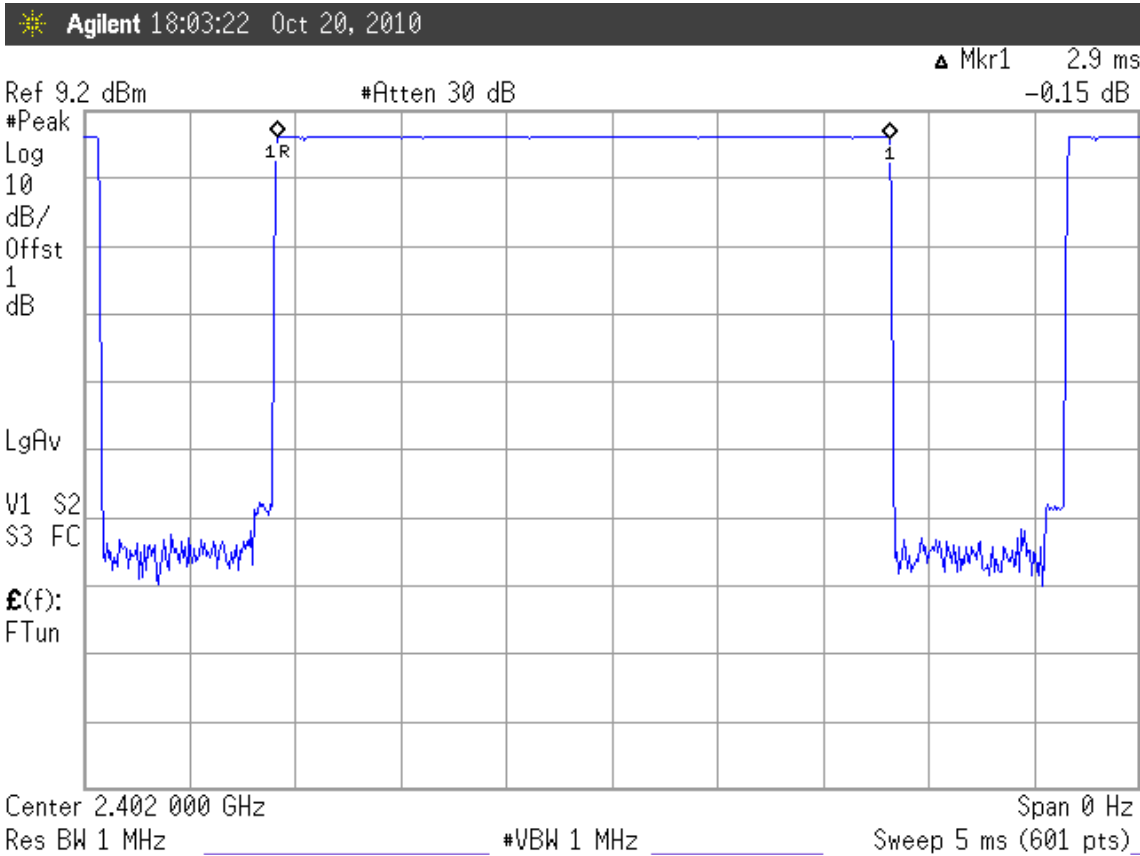


Figure 3: GFSK, 2402MHz, DH5



6.6.2. Type of Modulation : GFSK, Test Frequency : 2441MHz

Duty cycle: $79\text{channels} \times 0.4\text{ seconds} = 31.6\text{ seconds}$

DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$$10.13\text{ time} \times 31.6\text{ seconds} \times 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$51\text{ channels} \times 31.6\text{ seconds} / 5 \times 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$$

DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$$5.1\text{ time} \times 31.6\text{ seconds} \times 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$25\text{ channels} \times 31.6\text{ seconds} / 5 \times 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$$

DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$$3.37\text{ time} \times 31.6\text{ seconds} \times 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$17\text{ channels} \times 31.6\text{ seconds} / 5 \times 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$$

Figure 1: GFSK, 2441MHz, DH1

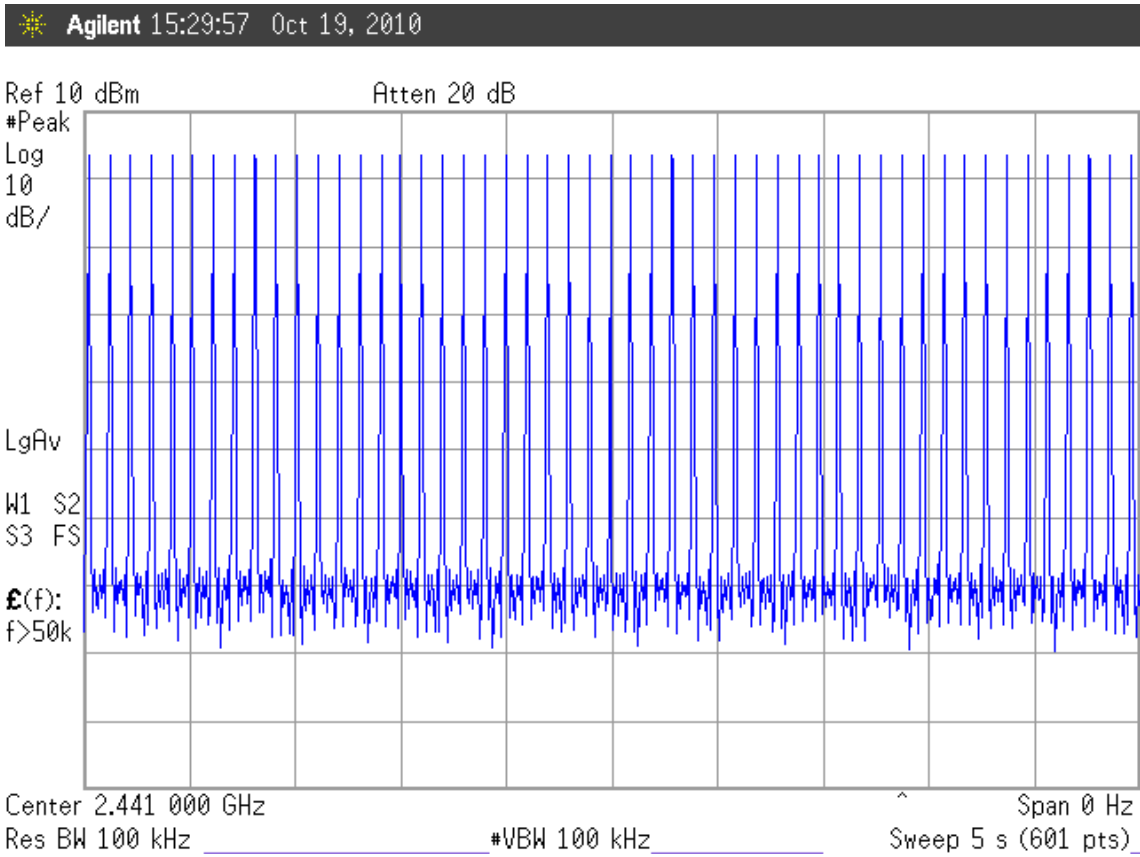
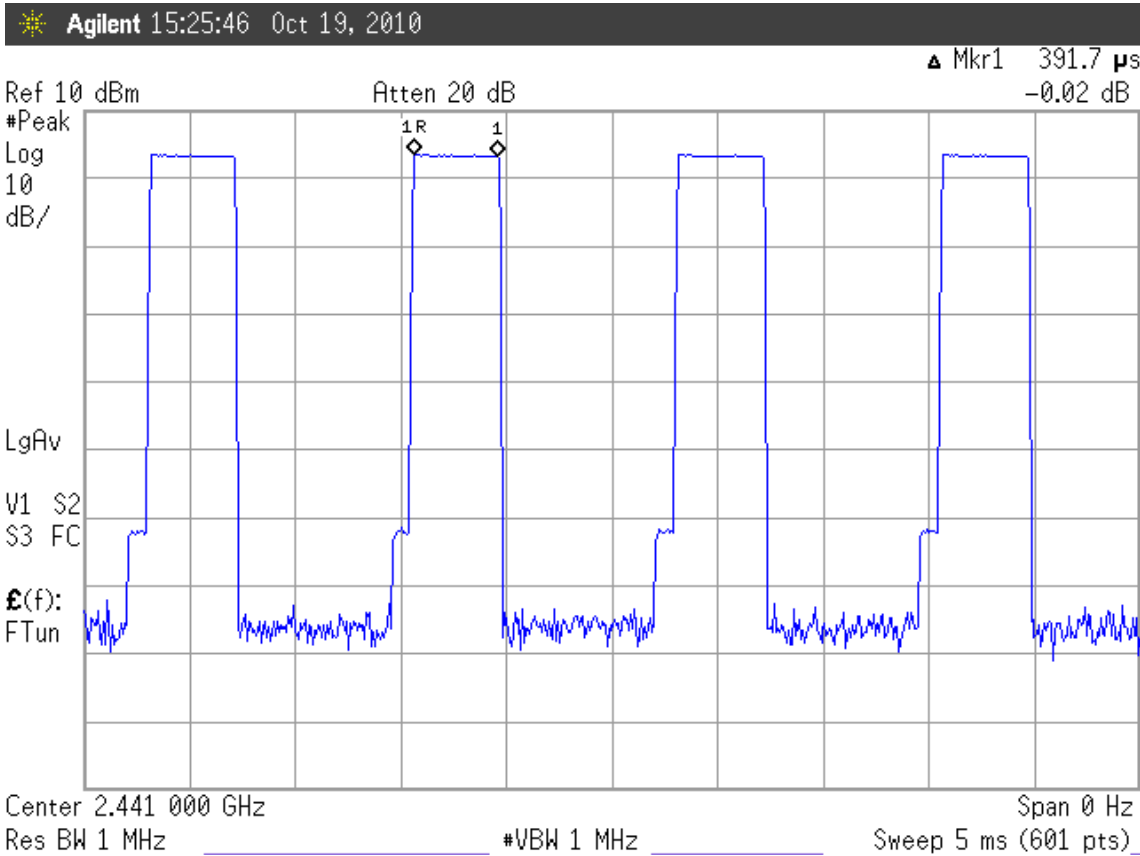


Figure 2: GFSK, 2441MHz, DH3

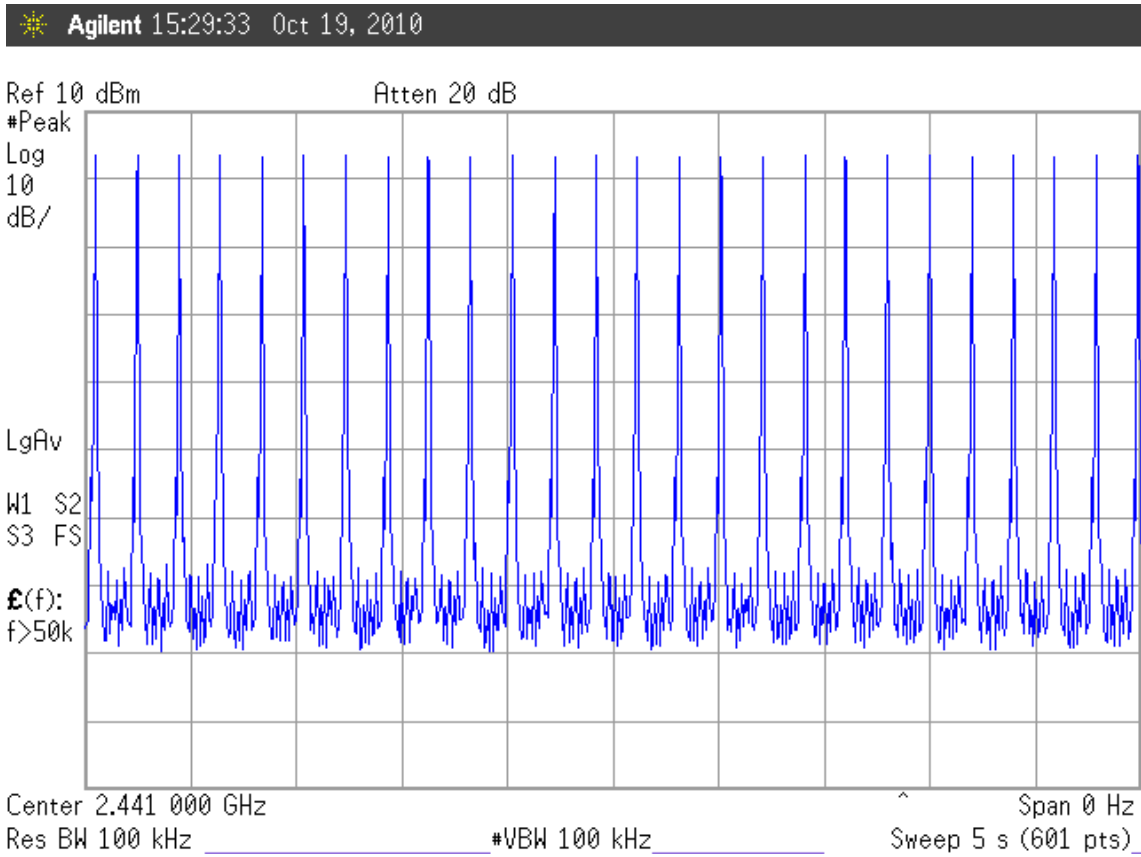
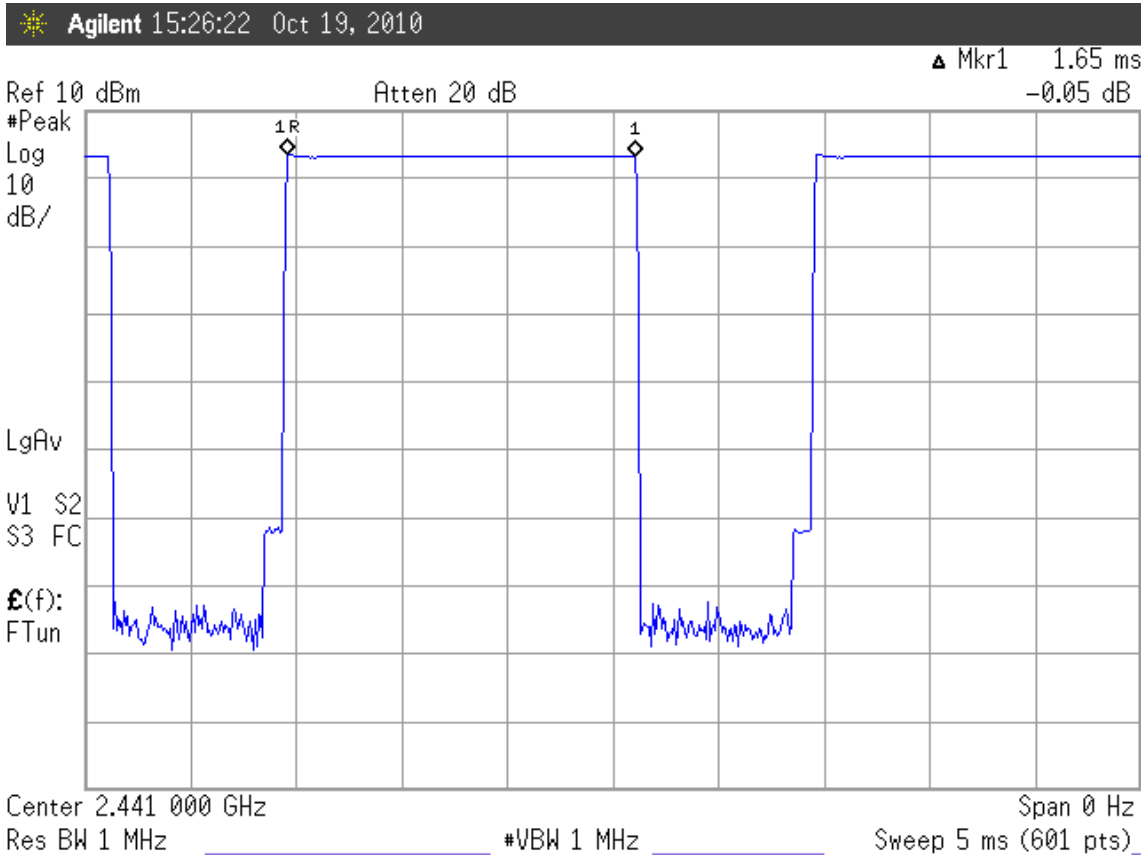
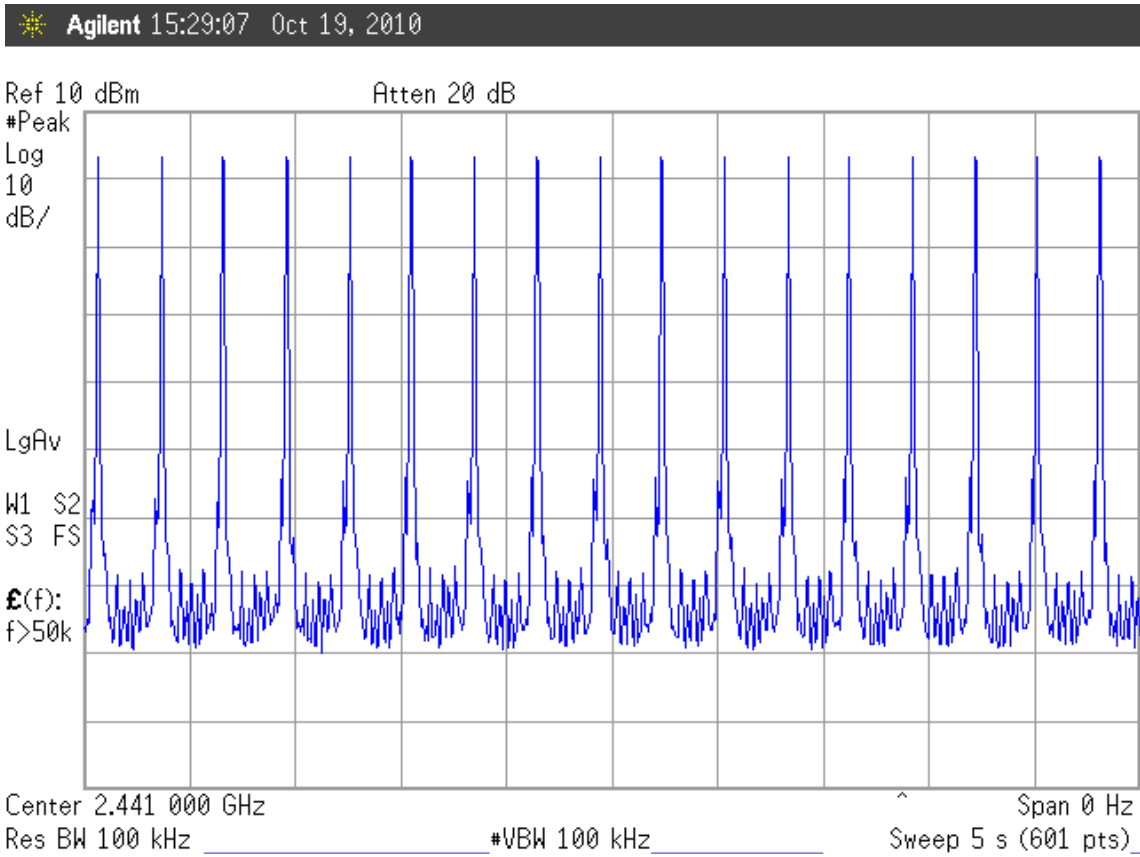
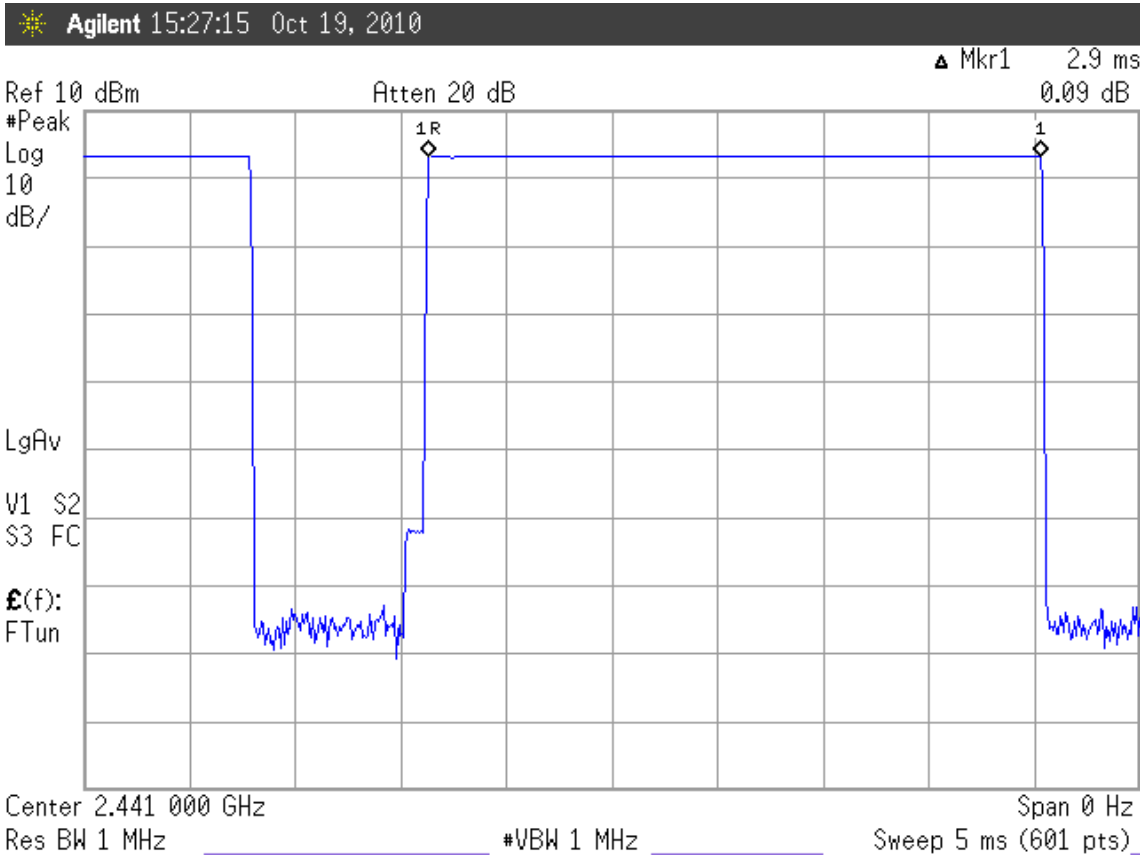


Figure 3: GFSK, 2441MHz, DH5



6.6.3. Type of Modulation : GFSK, Test Frequency : 2480MHz

Duty cycle: $79\text{channels} \times 0.4\text{ seconds} = 31.6\text{ seconds}$

DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$$10.13\text{ time} \times 31.6\text{ seconds} \times 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$51\text{ channels} \times 31.6\text{ seconds} / 5 \times 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$$

DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$$5.1\text{ time} \times 31.6\text{ seconds} \times 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$25\text{ channels} \times 31.6\text{ seconds} / 5 \times 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$$

DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$$3.37\text{ time} \times 31.6\text{ seconds} \times 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$17\text{ channels} \times 31.6\text{ seconds} / 5 \times 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$$

Figure 1: GFSK, 2480MHz, DH1

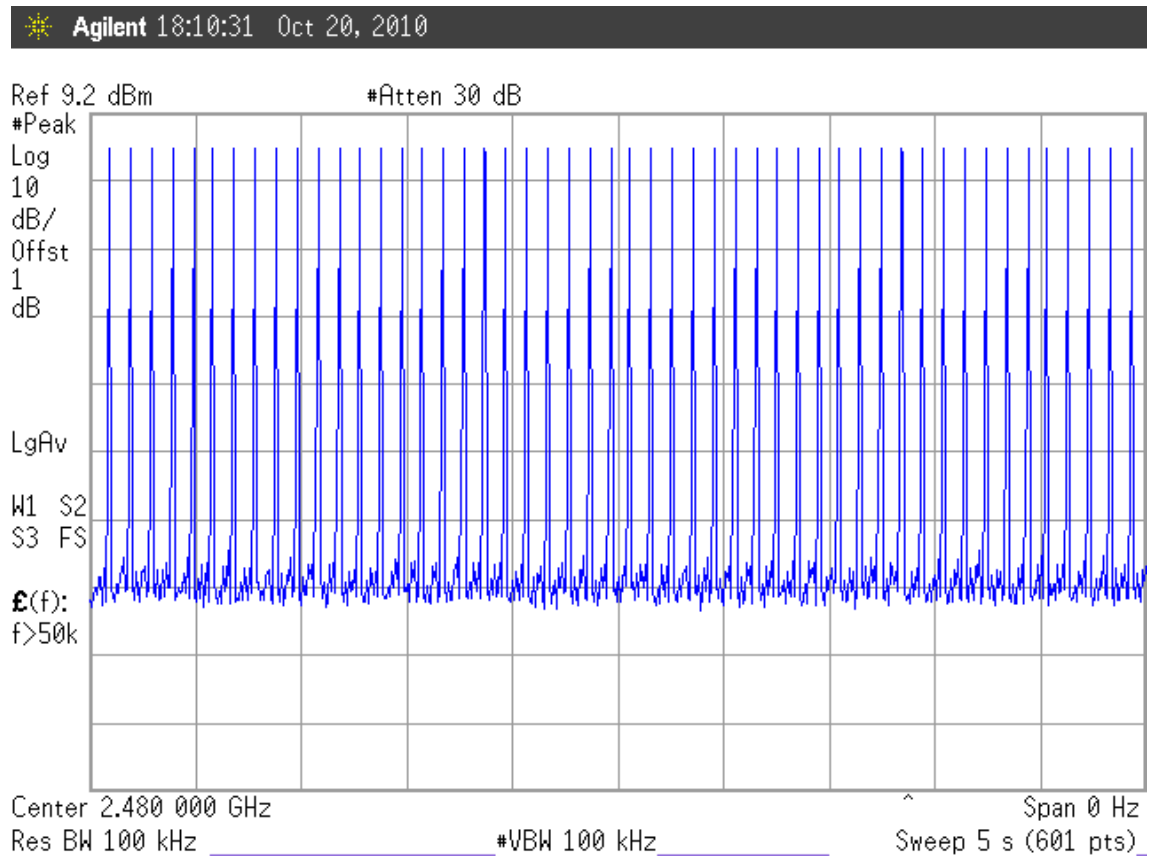
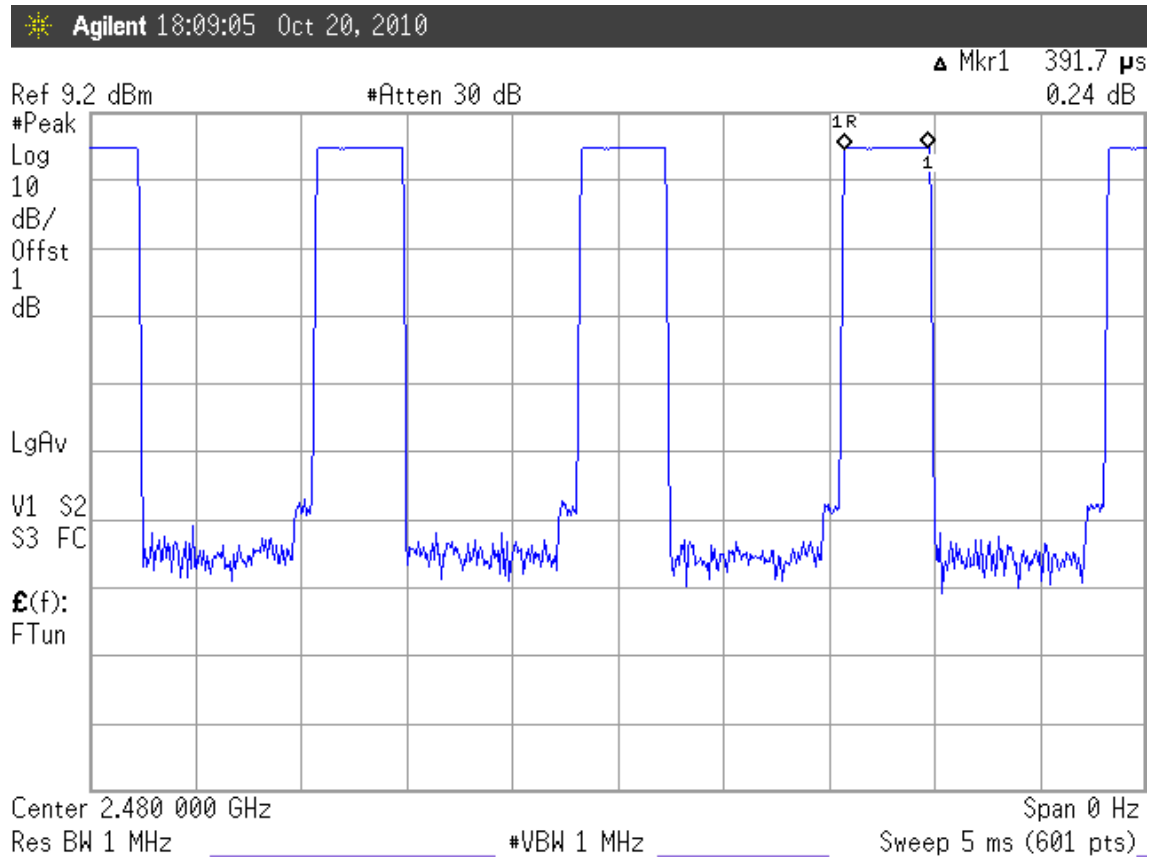


Figure 2: GFSK, 2480MHz, DH3

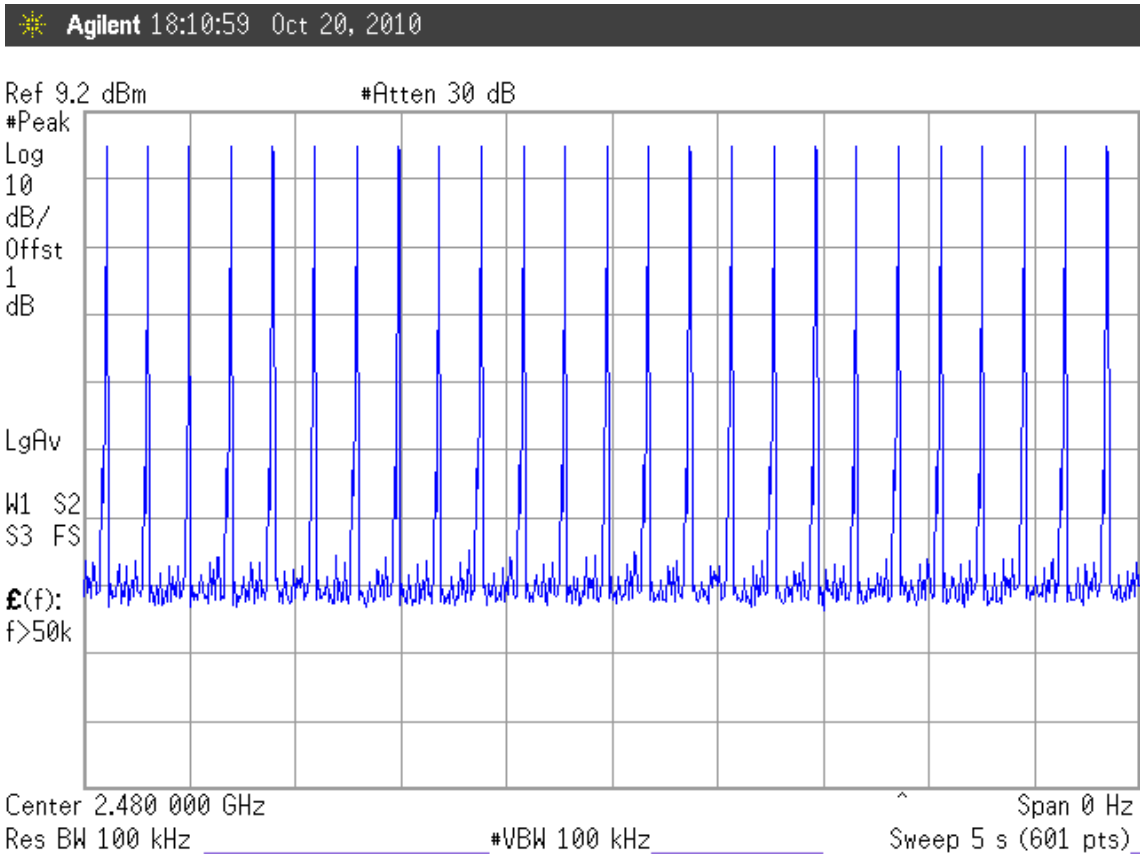
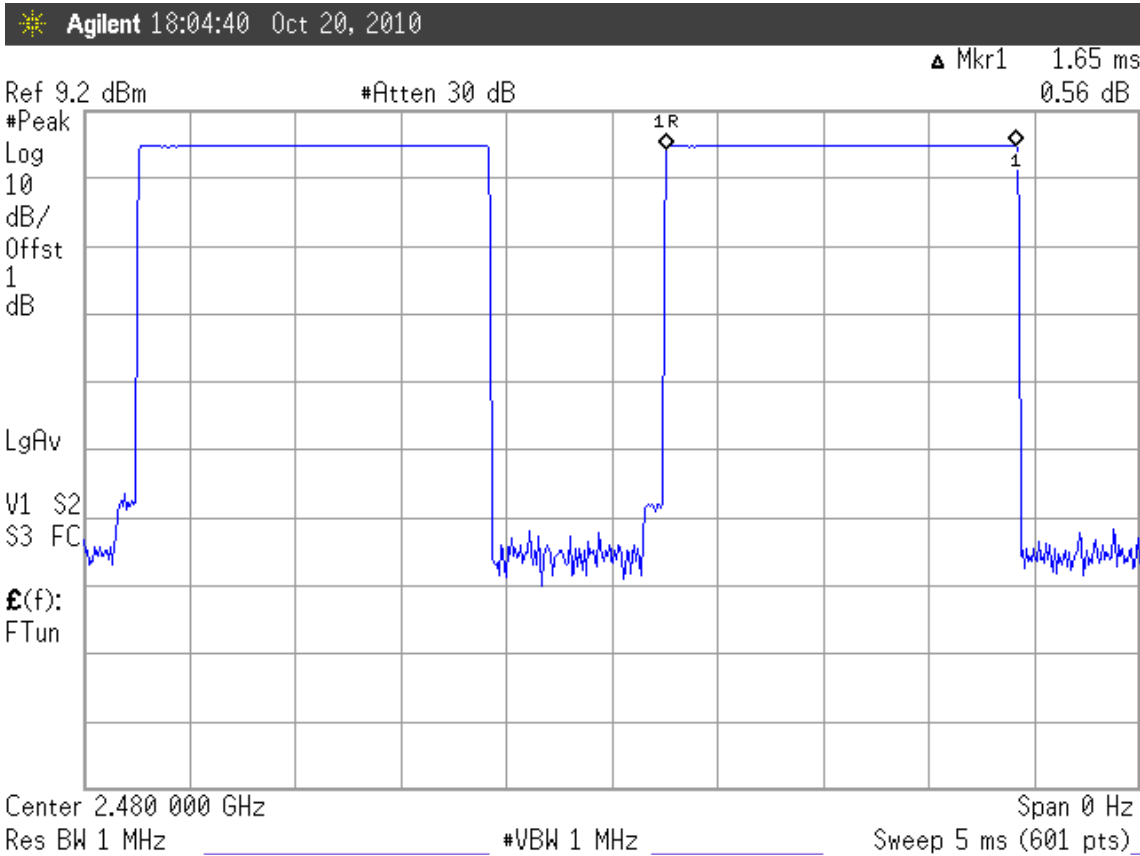
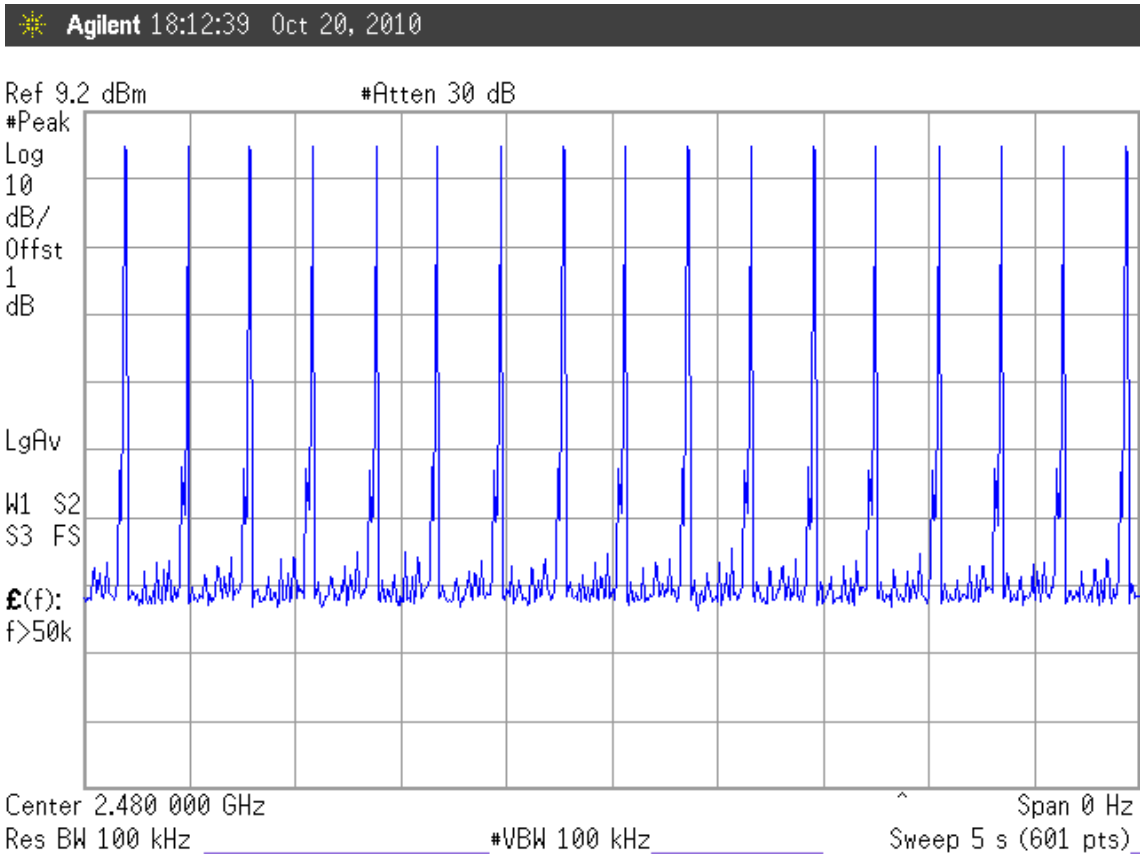
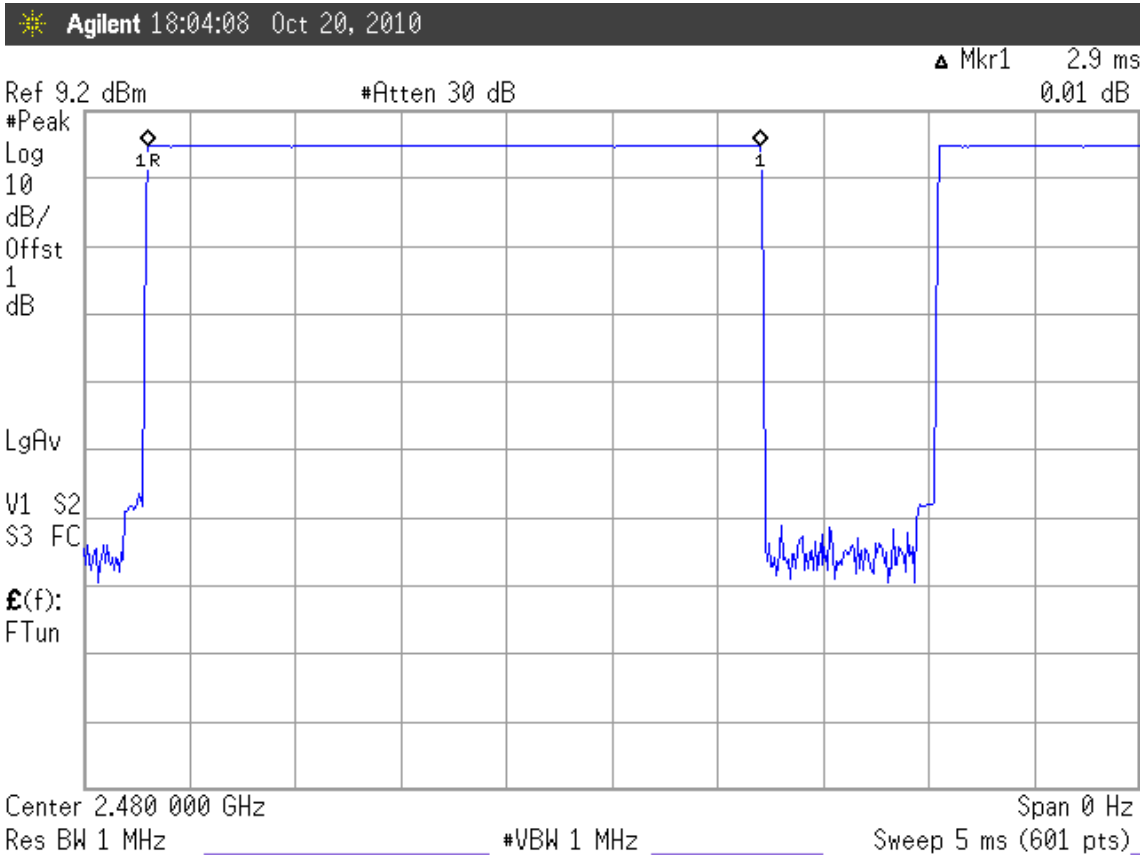


Figure 3: GFSK, 2480MHz, DH5



6.6.4. Type of Modulation : 8-DPSK, Test Frequency : 2402MHz

Duty cycle: 79channels*0.4 seconds = 31.6 seconds

3DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$$10.13 \text{ time} * 31.6 \text{ seconds} * 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$51 \text{ channels} * 31.6 \text{ seconds} / 5 * 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$$

3DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$$5.1 \text{ time} * 31.6 \text{ seconds} * 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$25 \text{ channels} * 31.6 \text{ seconds} / 5 * 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$$

3DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$$3.37 \text{ time} * 31.6 \text{ seconds} * 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$17 \text{ channels} * 31.6 \text{ seconds} / 5 * 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$$

Figure 1: 8-DPSK, 2402MHz, 3DH1

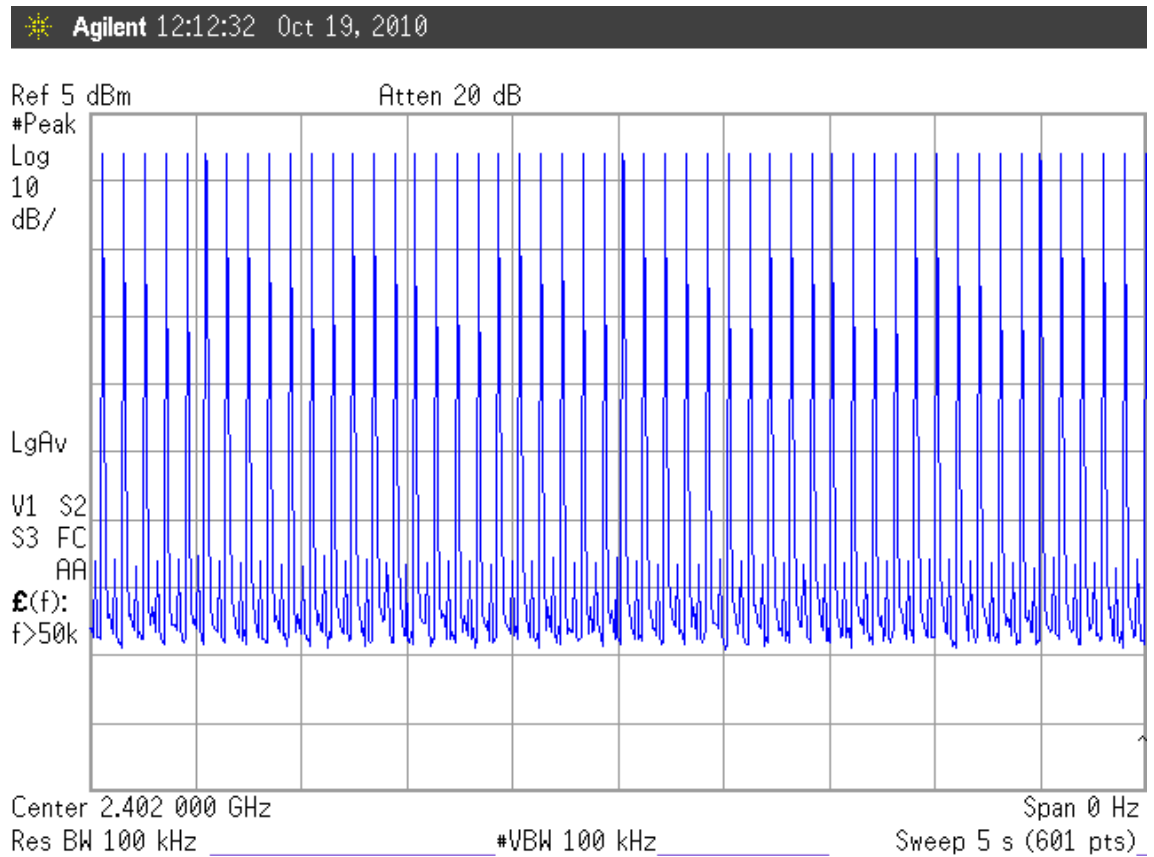
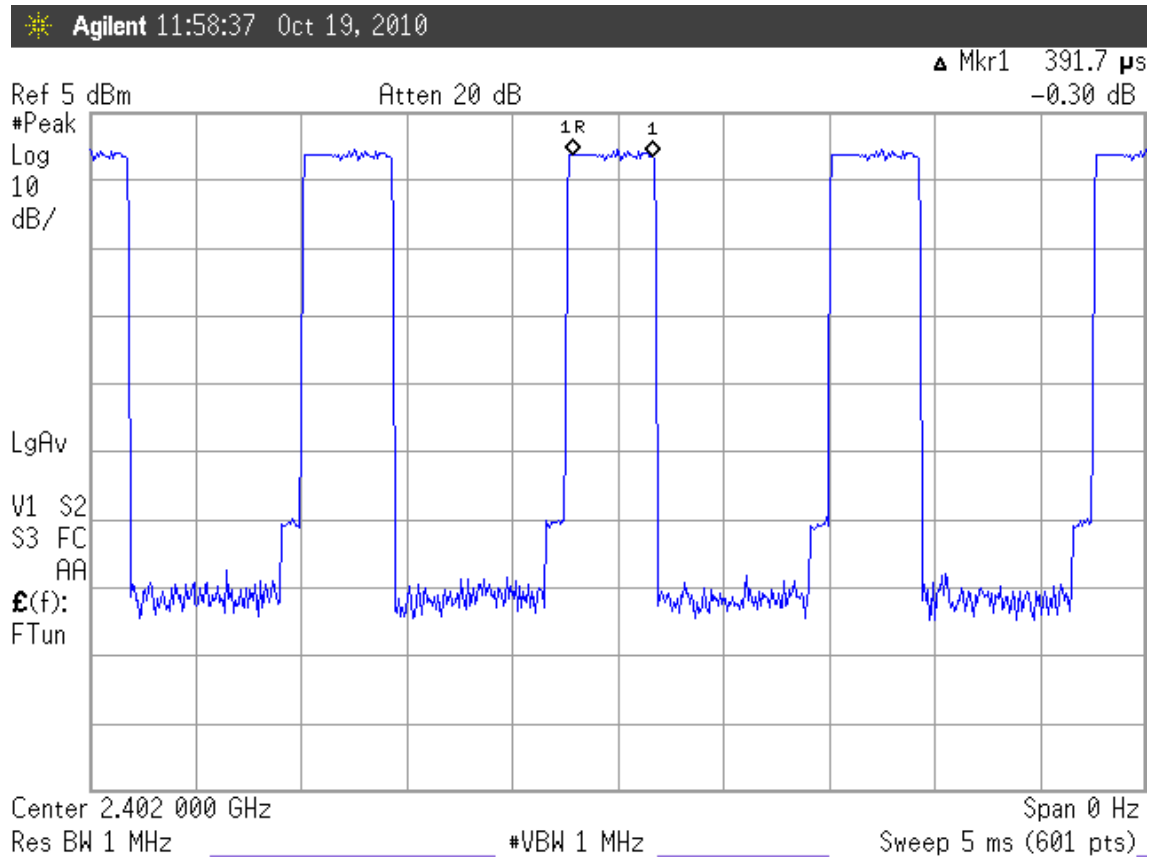


Figure 2: 8-DPSK, 2402MHz, 3DH3

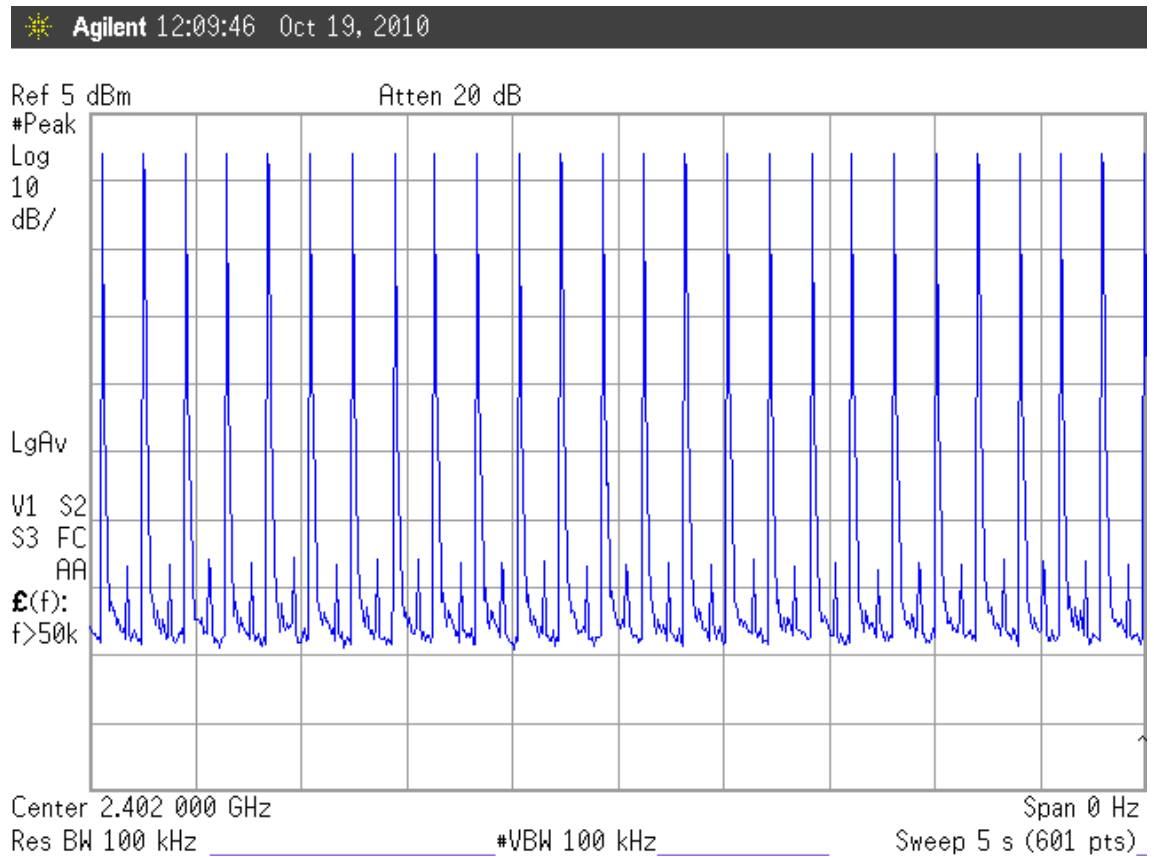
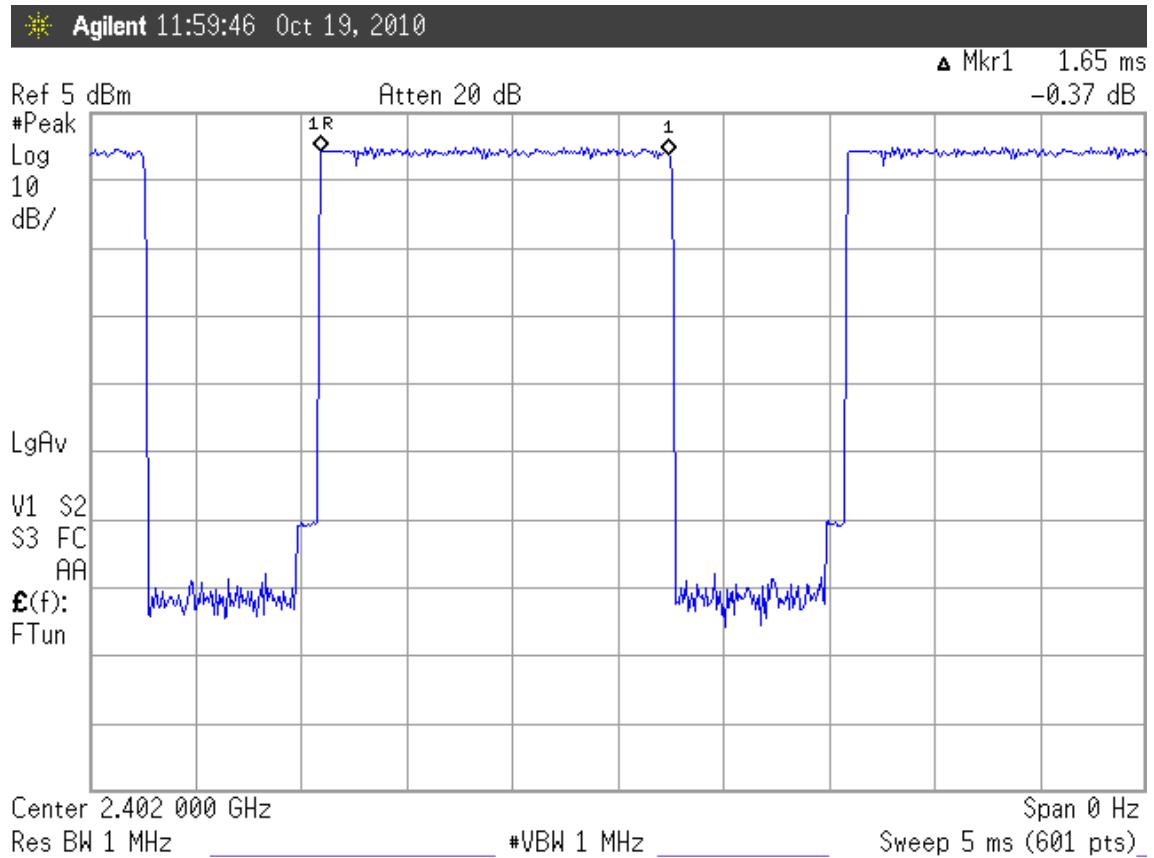
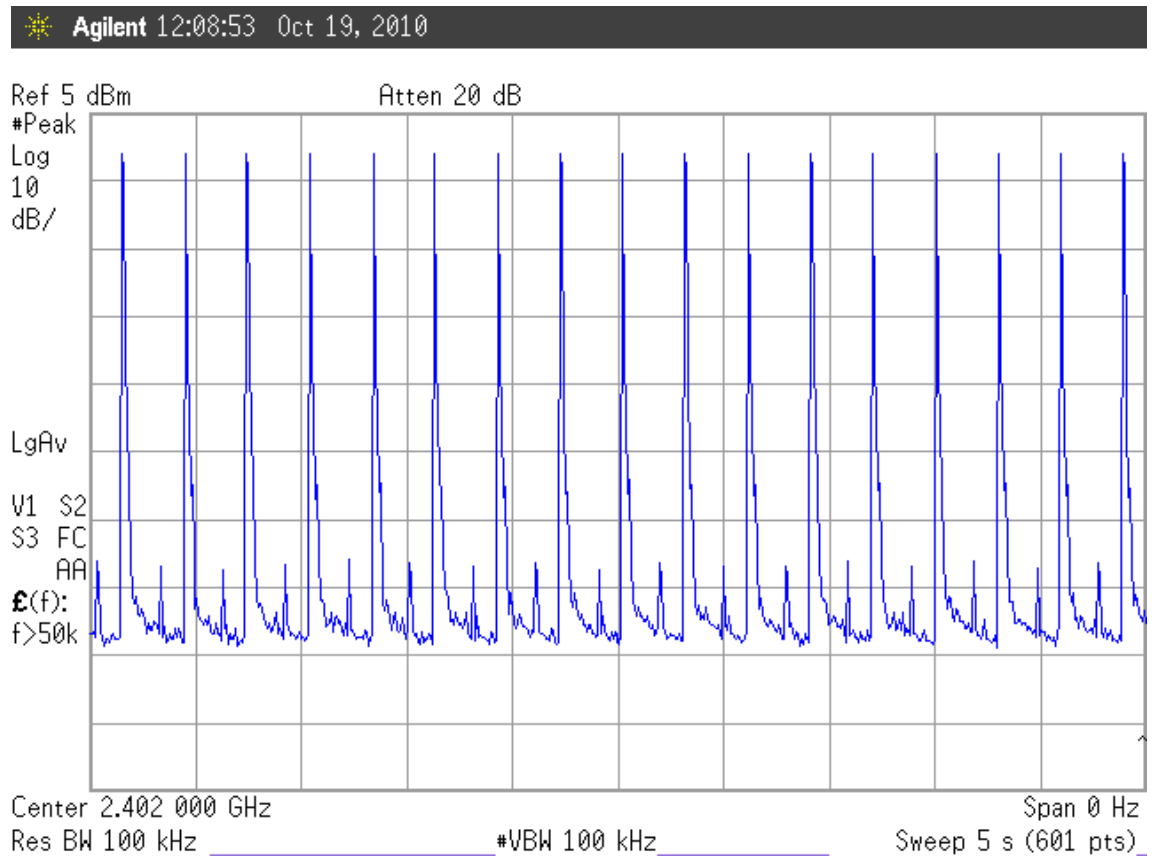
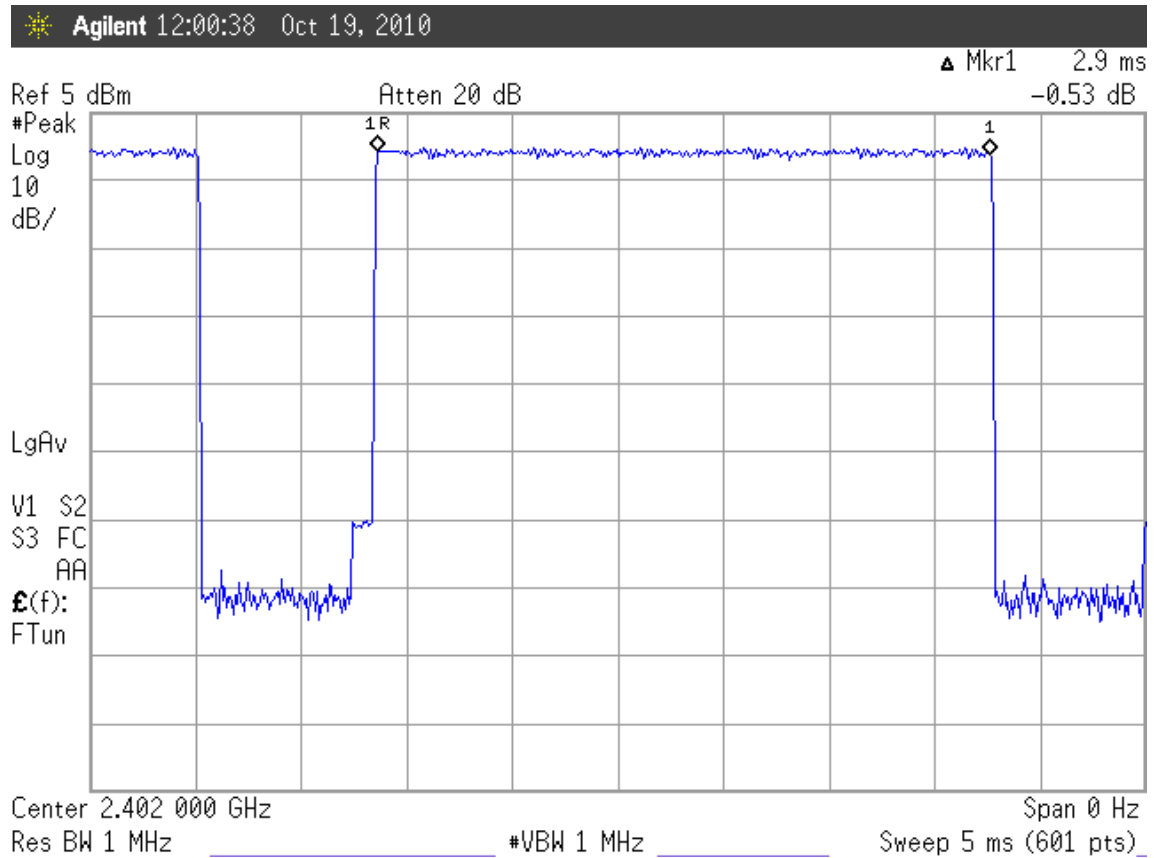


Figure 3: 8-DPSK, 2402MHz, 3DH5



6.6.5. Type of Modulation : 8-DPSK, Test Frequency : 2441MHz

Duty cycle: 79channels*0.4 seconds = 31.6 seconds

3DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$$10.13 \text{ time} * 31.6 \text{ seconds} * 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$51 \text{ channels} * 31.6 \text{ seconds} / 5 * 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$$

3DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$$5.1 \text{ time} * 31.6 \text{ seconds} * 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$25 \text{ channels} * 31.6 \text{ seconds} / 5 * 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$$

3DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$$3.37 \text{ time} * 31.6 \text{ seconds} * 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$17 \text{ channels} * 31.6 \text{ seconds} / 5 * 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$$

Figure 1: 8-DPSK, 2441MHz, 3DH1

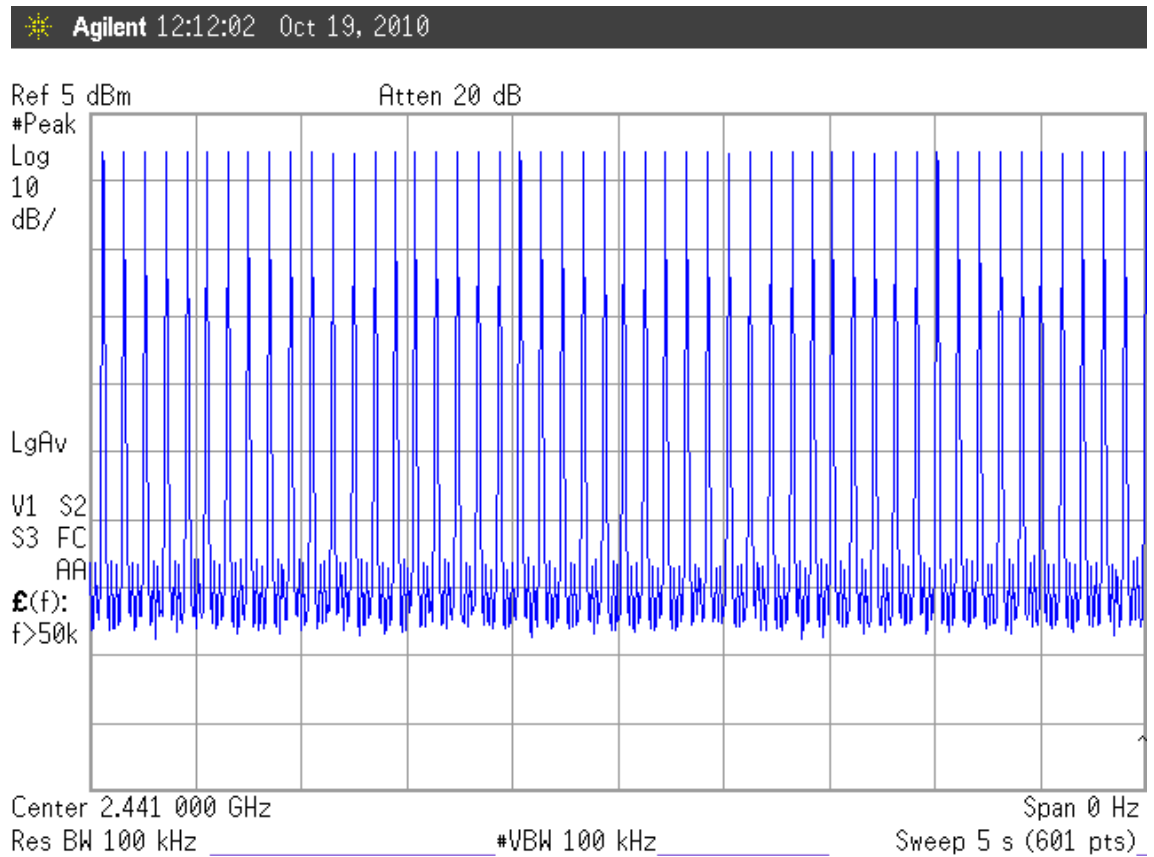
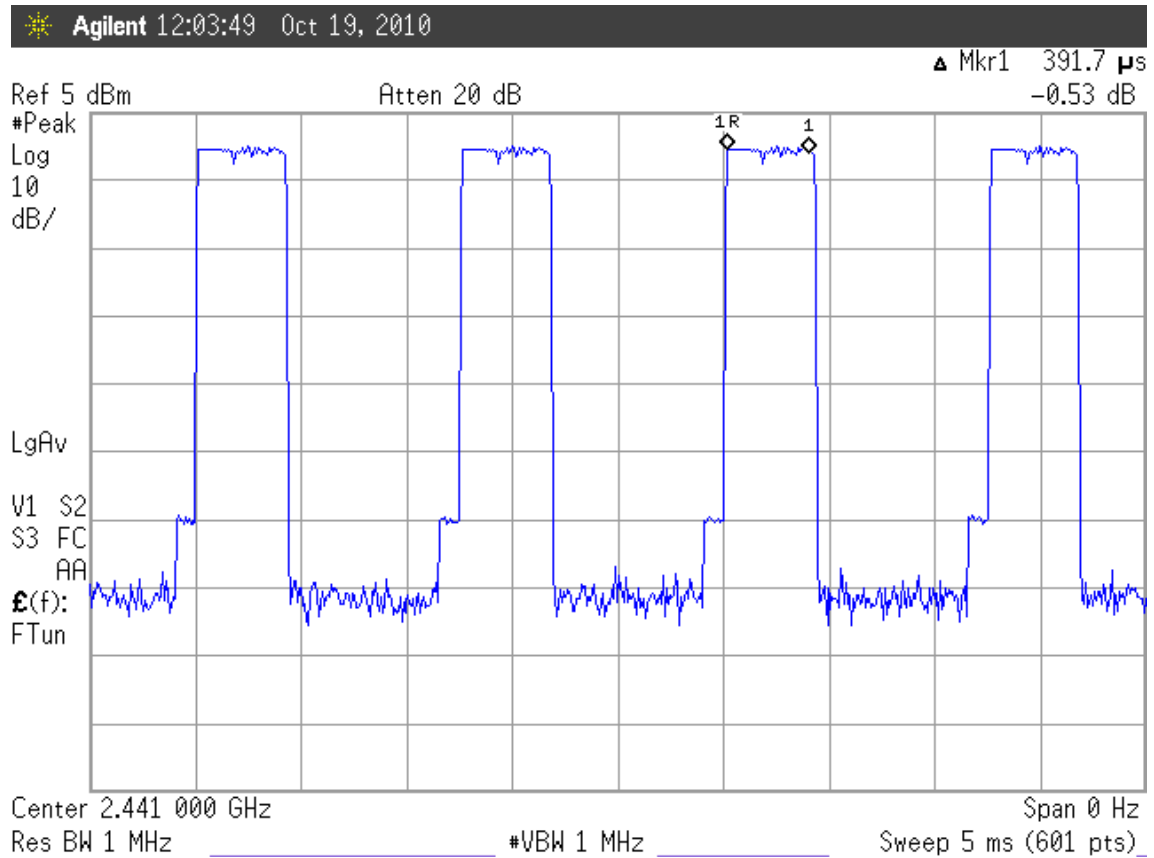


Figure 2: 8-DPSK, 2441MHz, 3DH3

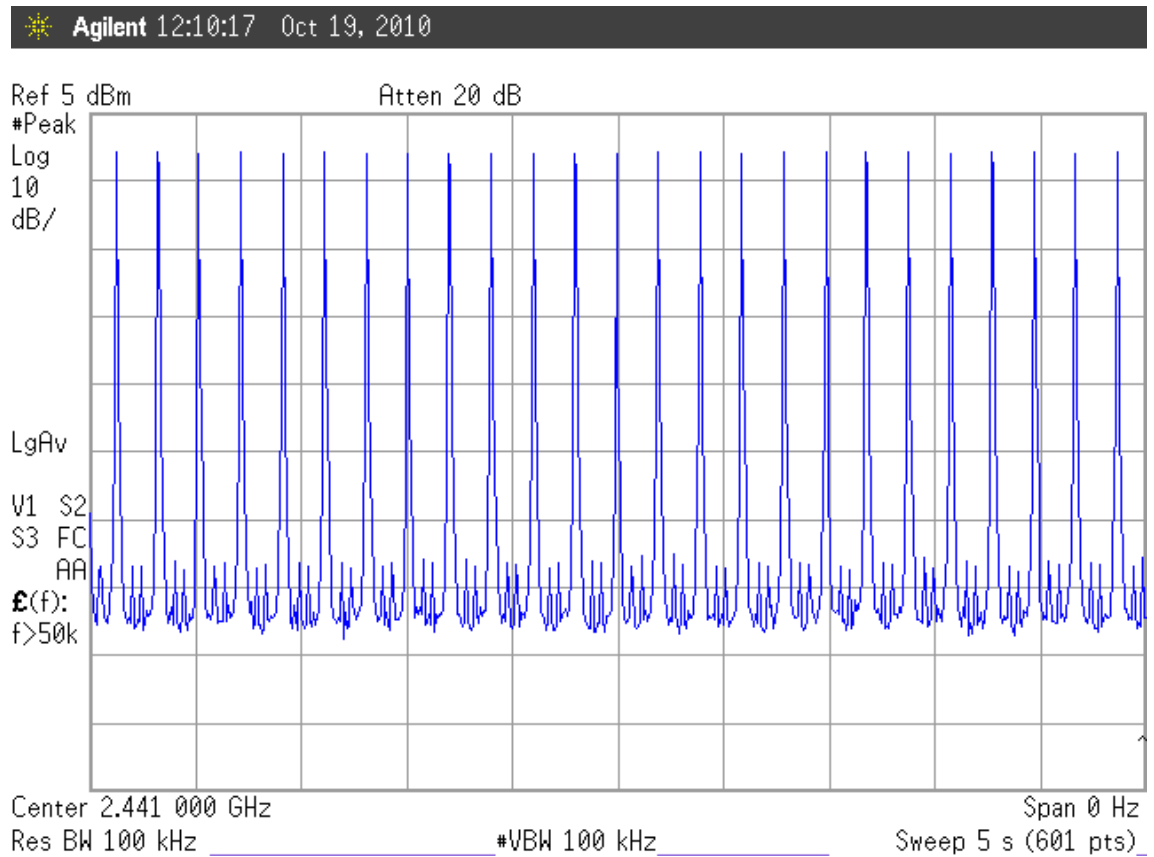
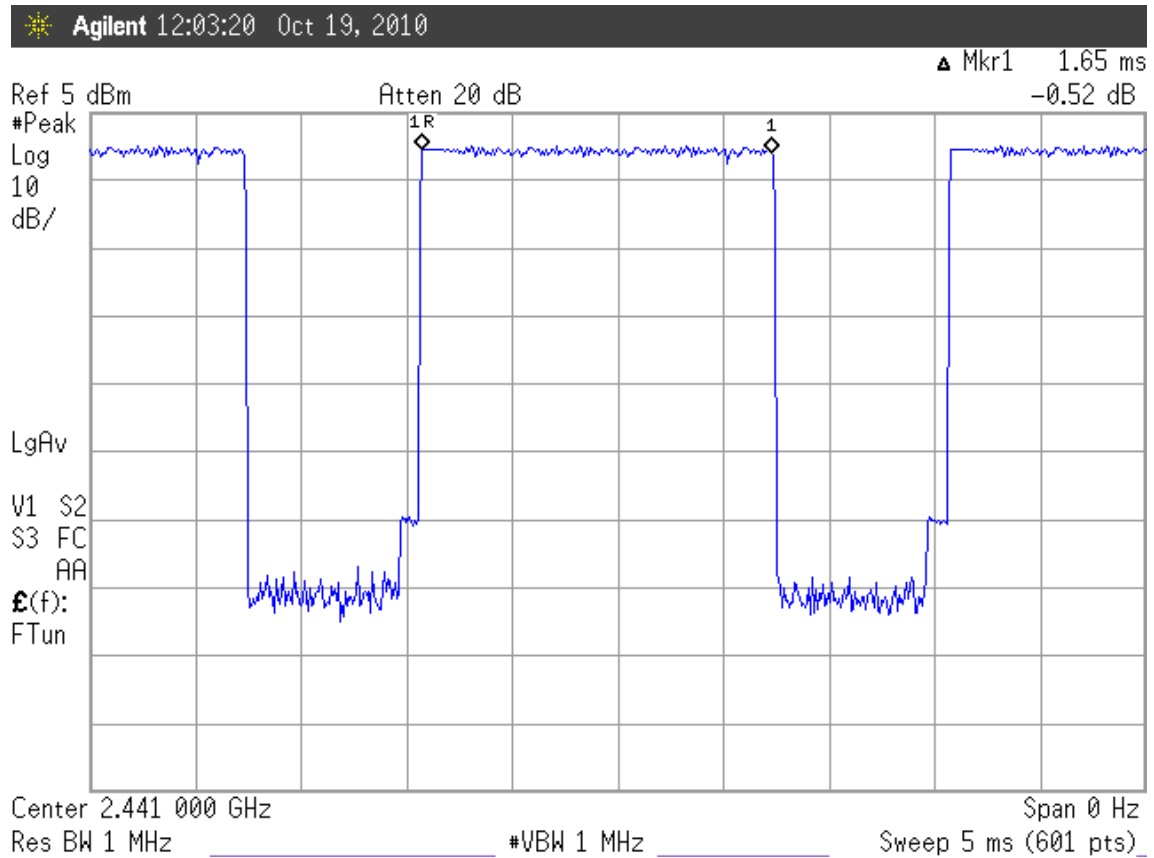
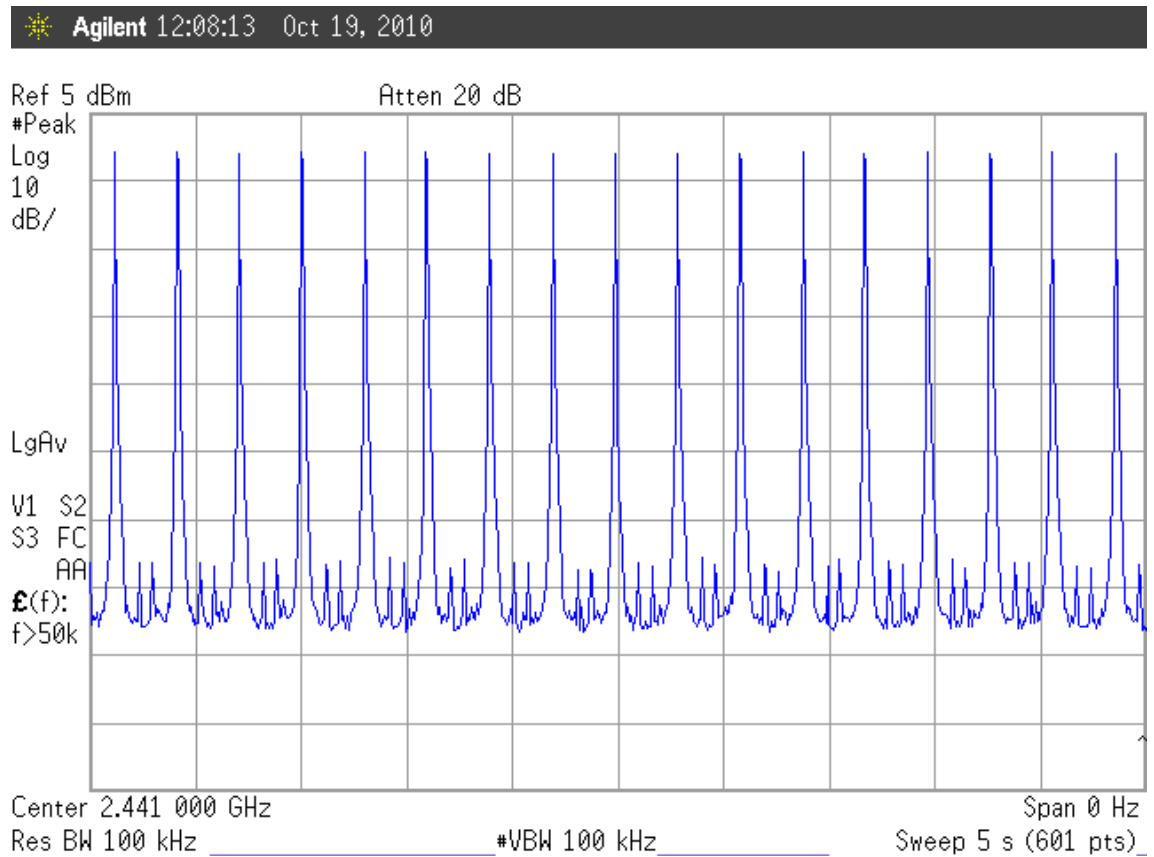
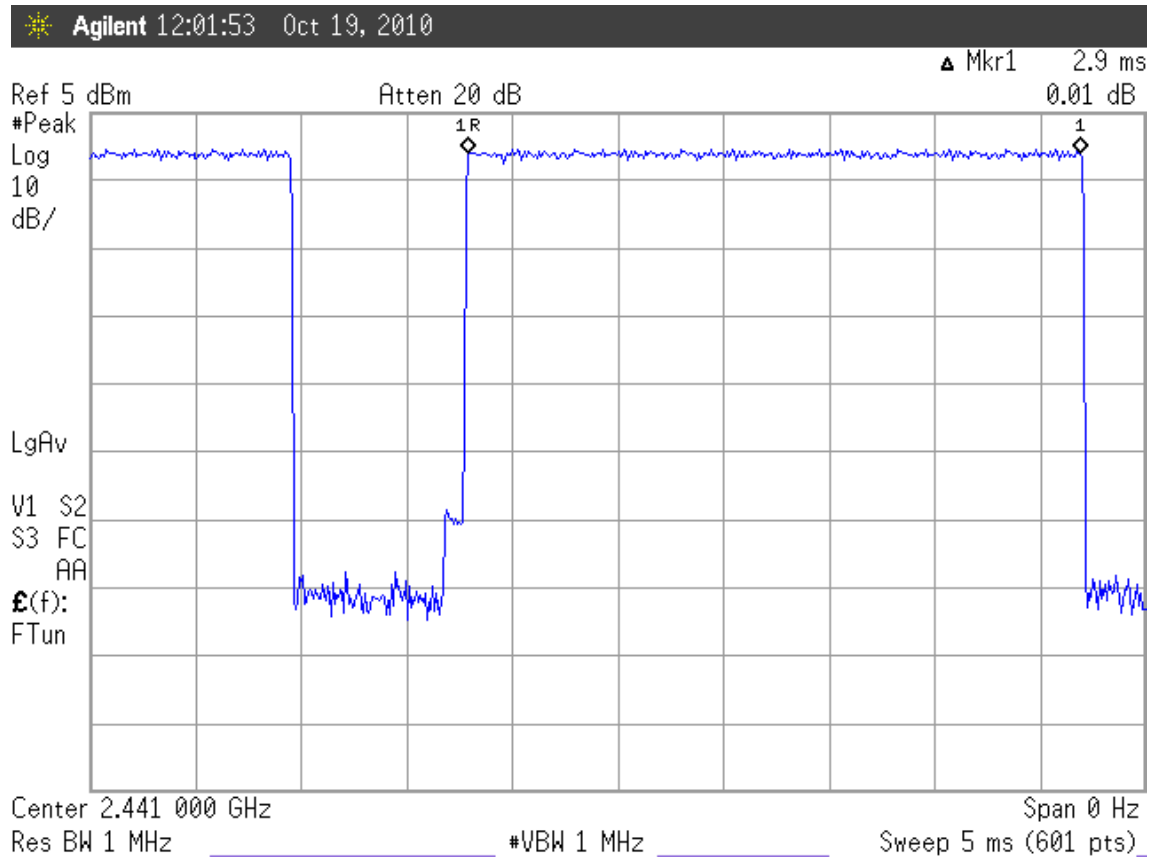


Figure 3: 8-DPSK, 2441MHz, 3DH5



6.6.6. Type of Modulation : 8-DPSK, Test Frequency : 2480MHz

Duty cycle: 79channels*0.4 seconds = 31.6 seconds

3DH1 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH1 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 800 hops per second with 79 channels. So you have each channel 10.13 time per second and so for 31.6 seconds you have 320 time of appearance.

Each Tx-time per appearance is 391.7us.

$$10.13 \text{ time} * 31.6 \text{ seconds} * 0.3917\text{ms} = 125.386\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 51 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$51 \text{ channels} * 31.6 \text{ seconds} / 5 * 0.3917\text{ms} = 126.252\text{ms} (<400\text{ms})$$

3DH3 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH3 packet need 3 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 400 hops per second with 79 channels. So you have each channel 5.1 time per second and so for 31.6 seconds you have 161 time of appearance.

Each Tx-time per appearance is 1650us.

$$5.1 \text{ time} * 31.6 \text{ seconds} * 1.650\text{ms} = 265.914\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 25 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$25 \text{ channels} * 31.6 \text{ seconds} / 5 * 1.650\text{ms} = 260.70\text{ms} (<400\text{ms})$$

3DH5 : A The system makes worst case 1600 hops per second or 1 time slot has a length of 625us with 79 channels. A DH5 packet need 1 time slot for transmitting and 1 time slot for receiving. Then the system makes worst case 266.7 hops per second with 79 channels. So you have each channel 3.37 time per second and so for 31.6 seconds you have 106 time of appearance.

Each Tx-time per appearance is 2900us.

$$3.37 \text{ time} * 31.6 \text{ seconds} * 2.900\text{ms} = 308.826\text{ms} (<400\text{ms})$$

B. For each 5 seconds of 17 channels appearance, the longest time of occupancy for each of 31.6 seconds is:

$$17 \text{ channels} * 31.6 \text{ seconds} / 5 * 2.900\text{ms} = 311.576\text{ms} (<400\text{ms})$$

Figure 1: 8-DPSK, 2480MHz, 3DH1

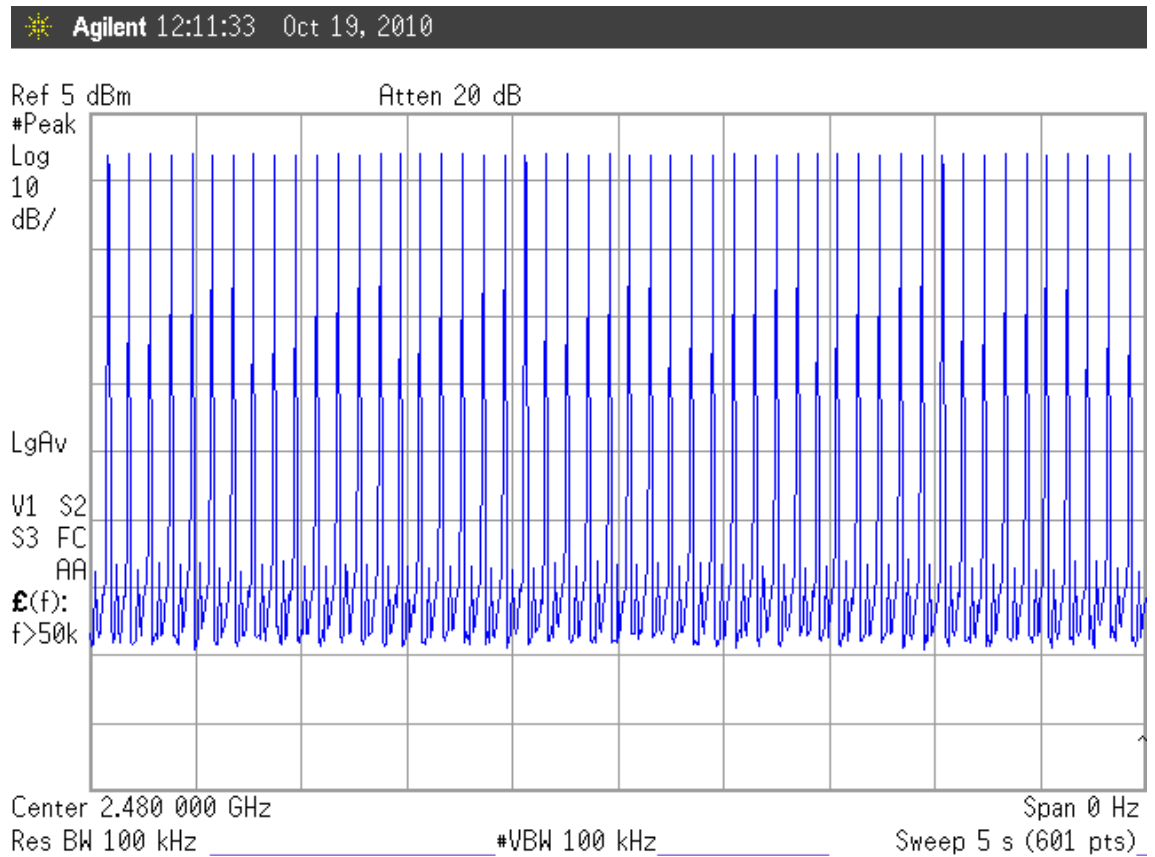
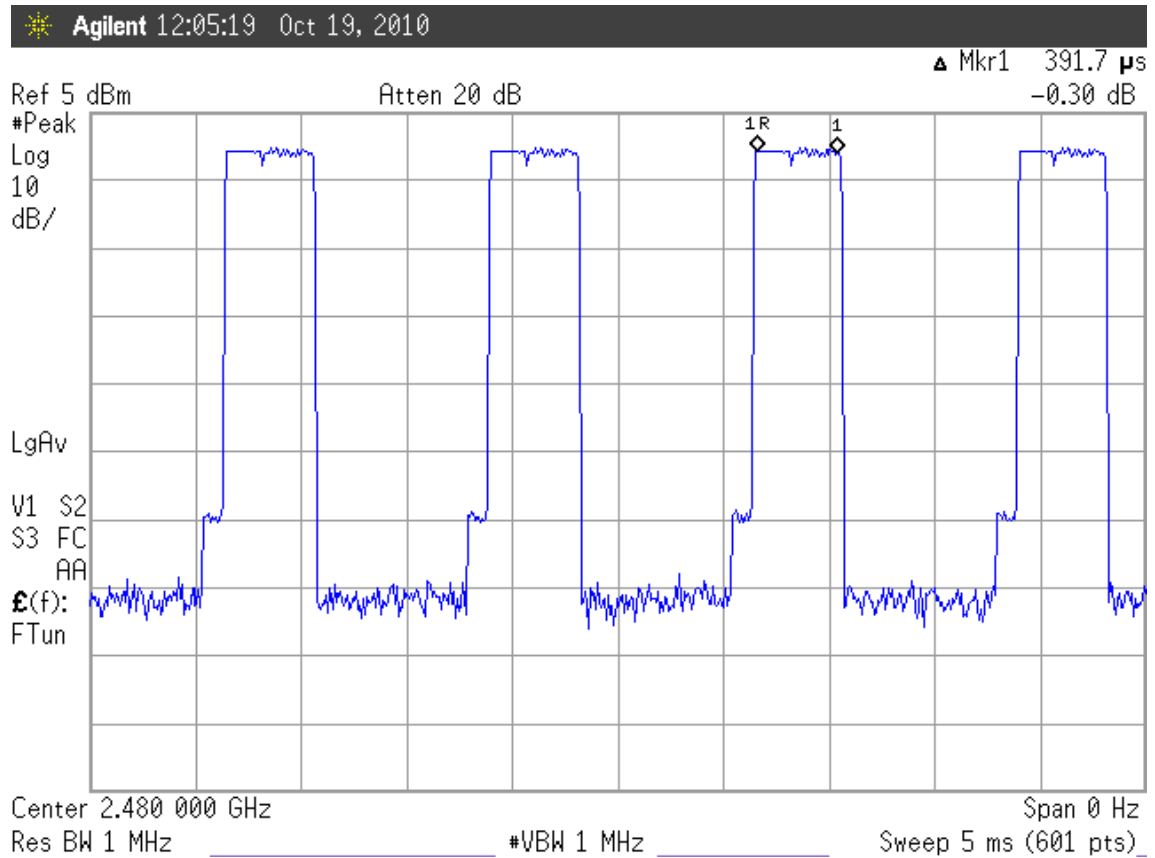


Figure 2: 8-DPSK, 2480MHz, 3DH3

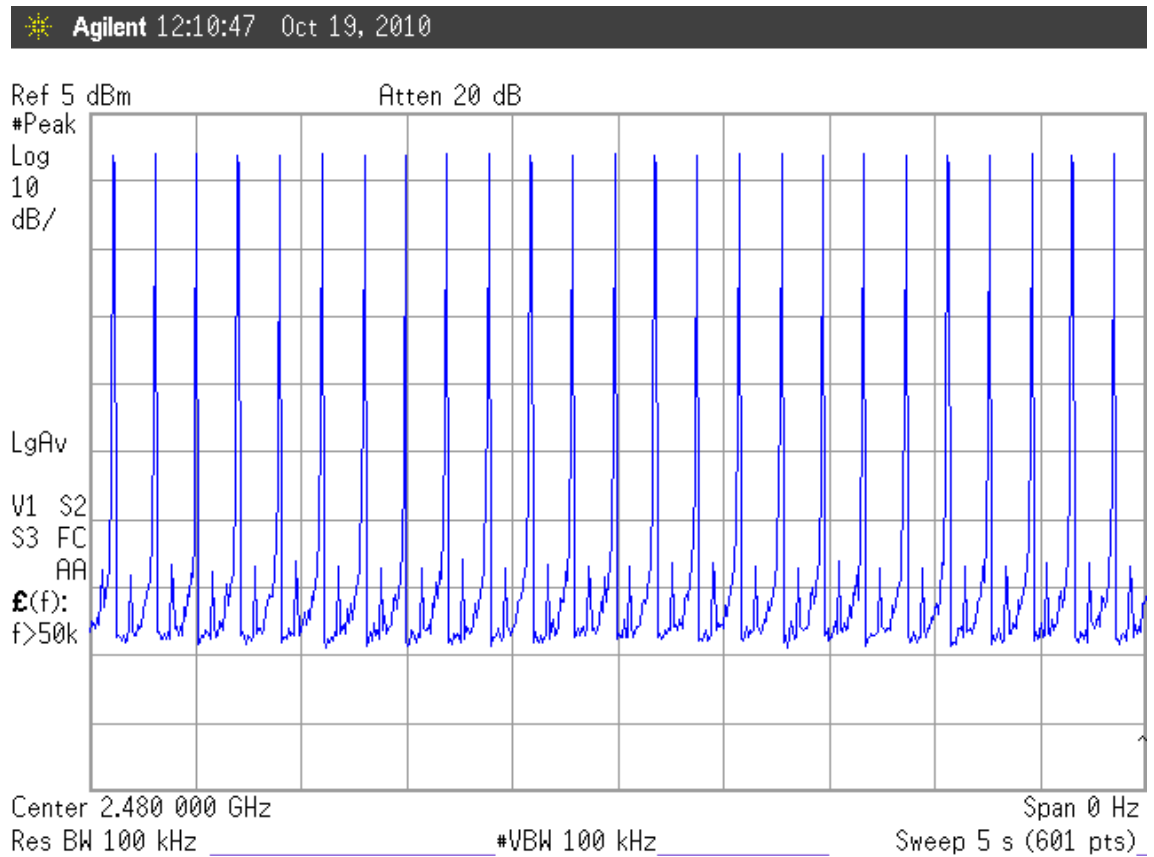
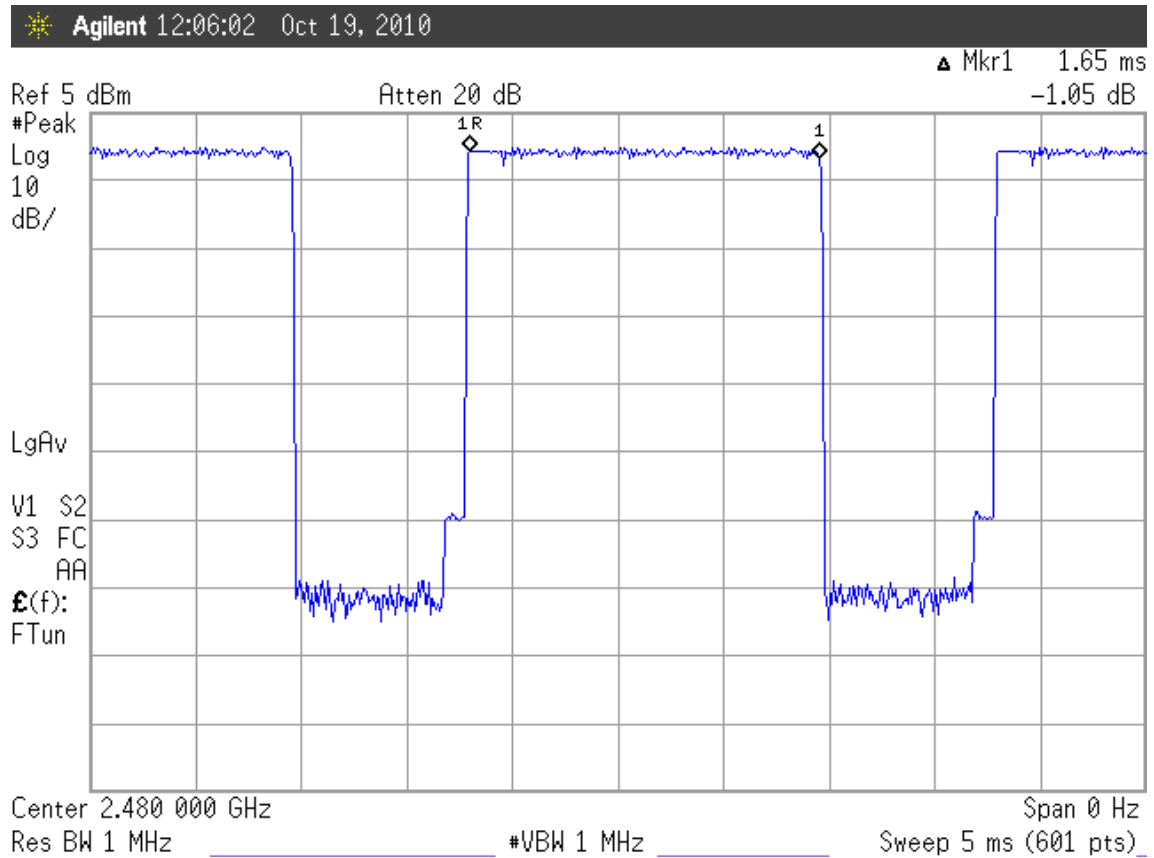
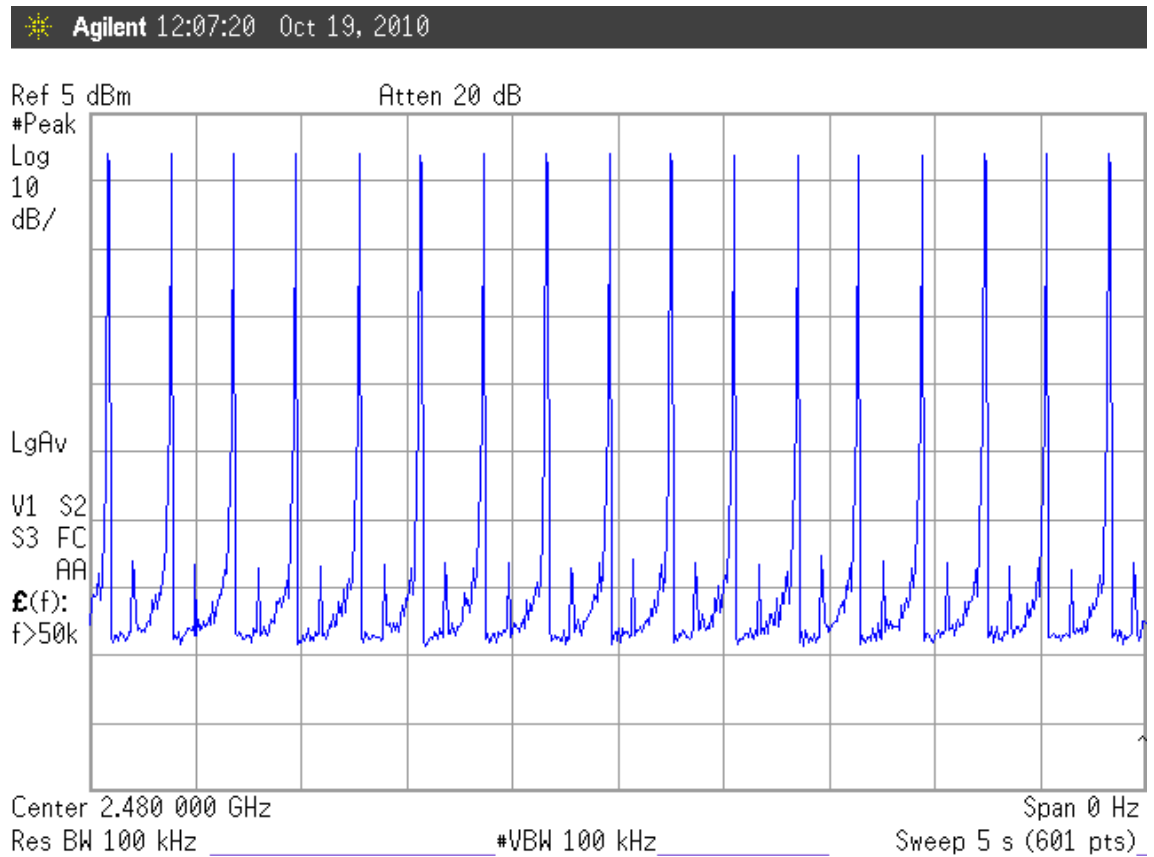
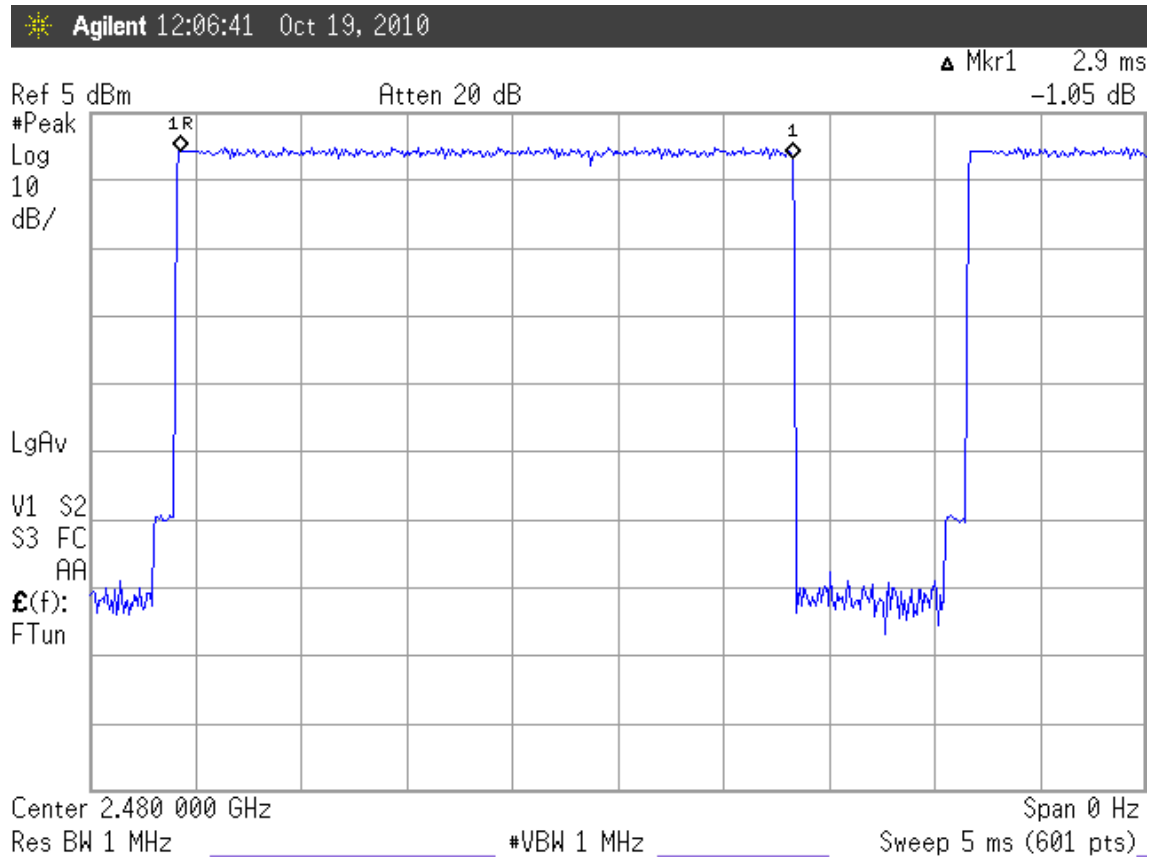


Figure 3: 8-DPSK, 2480MHz, 3DH5



7. NUMBER OF HOPPING CHANNELS MEASUREMENT

7.1. Test Equipment

The following test equipment was used during the number of hopping channels measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

7.2. Block Diagram of Test Setup

The same as section.4.2.

7.3. Specification Limits (§15.247(a)(1)(iii))

Frequency hopping systems which use fewer than 20 hopping frequencies may employ intelligent hopping techniques to avoid interference to other transmissions. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 non-overlapping channels.

7.4. Operating Condition of EUT

Same as carrier frequency separation measurement which was listed in section 4.4.

7.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 100kHz RBW and 100kHz VBW. Sweep=Auto ; Detector function=peak ; Trace=Max hold
The measurement guideline was according to FCC Public Notice DA 00-705.

7.6. Test Results

PASSED. All the test results are attached in next page.

[Note: Three types of modulation (8-DPSK,π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

7.6.1.Type of Modulation: GFSK

The number hopping channel is 79.

7.6.2.Type of Modulation: 8-DPSK

The number hopping channel is 79.

Figure 1: GFSK

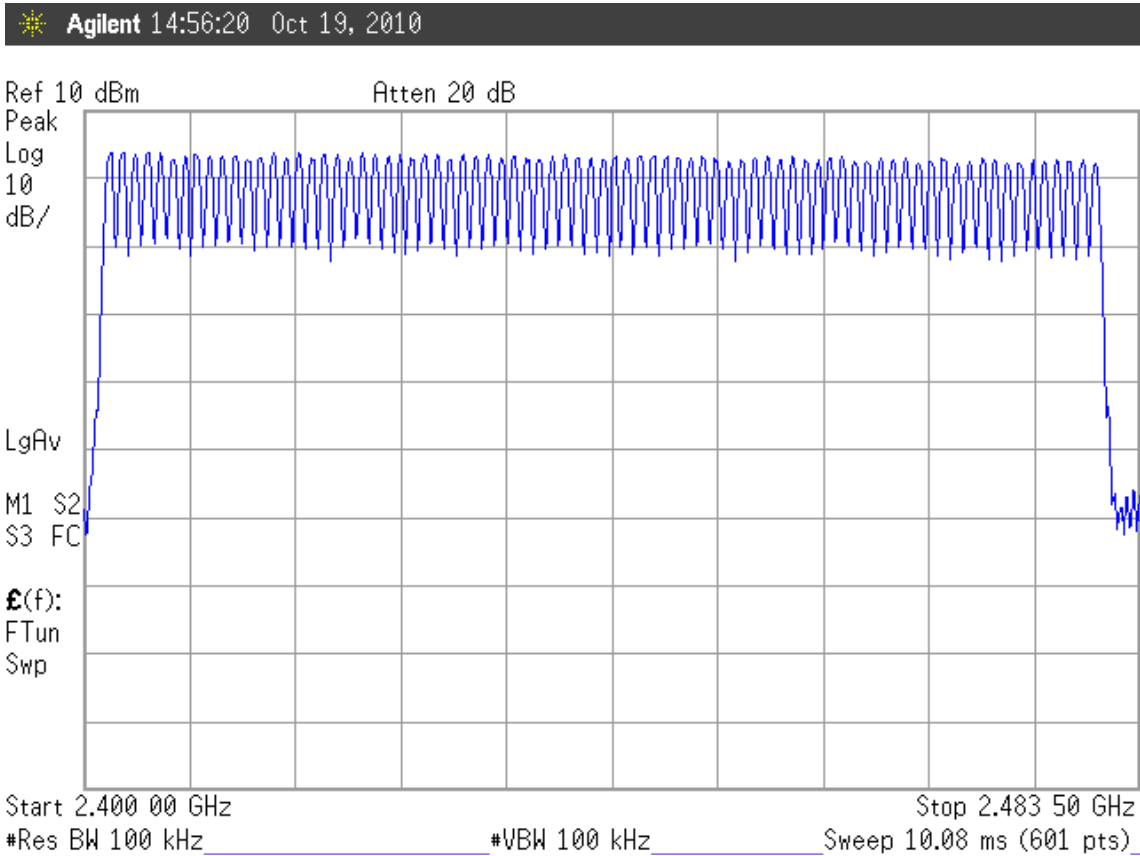
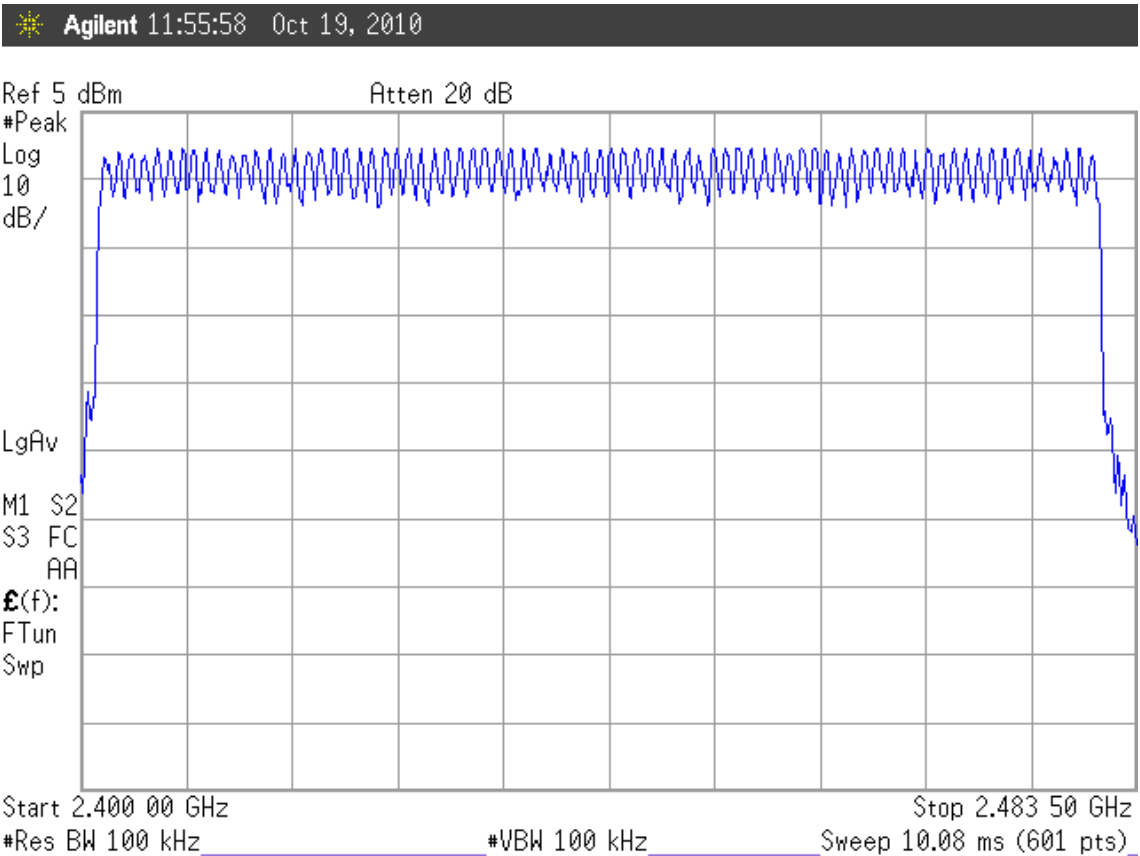


Figure 2: 8-DPSK



8. MAXIMUM PEAK OUTPUT POWER MEASUREMENT

8.1. Test Equipment

The following test equipment was used during the maximum peak output power measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

8.2. Block Diagram of Test Setup

The same as section.4.2.

8.3. Specification Limits (§15.247(b)-(1))

The Limits of maximum Peak Output Power for frequency hopping systems in 2400-2483.5MHz is: 0.125Watt. (21dBm)

8.4. Operating Condition of EUT

Same as 20dB bandwidth measurement which was listed in section 4.4.

8.5. Test Procedure

The transmitter output was connected to the spectrum analyzer.

Span can encompass the waveform

RBW=1MHz

VBW=3MHz

Sweep=Auto

The measurement guideline was according to FCC Public Notice DA 00-705.

8.6. Test Results

PASSED. All the test results are listed below.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (8-DPSK and GFSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

8.6.1.Type of Modulation: GFSK

No.	Channel	Test Frequency	Peak Output Power	Limit
1.	0	2402MHz	3.67dBm	21dBm
2.	39	2441MHz	3.39dBm	21dBm
3.	78	2480MHz	2.62dBm	21dBm

8.6.2.Type of Modulation: 8-DPSK

No.	Channel	Test Frequency	Peak Output Power	Limit
1.	0	2402MHz	0.00dBm	21dBm
2.	39	2441MHz	0.40dBm	21dBm
3.	78	2480MHz	0.34dBm	21dBm

Figure 1: GFSK, Channel 0, Frequency: 2402MHz

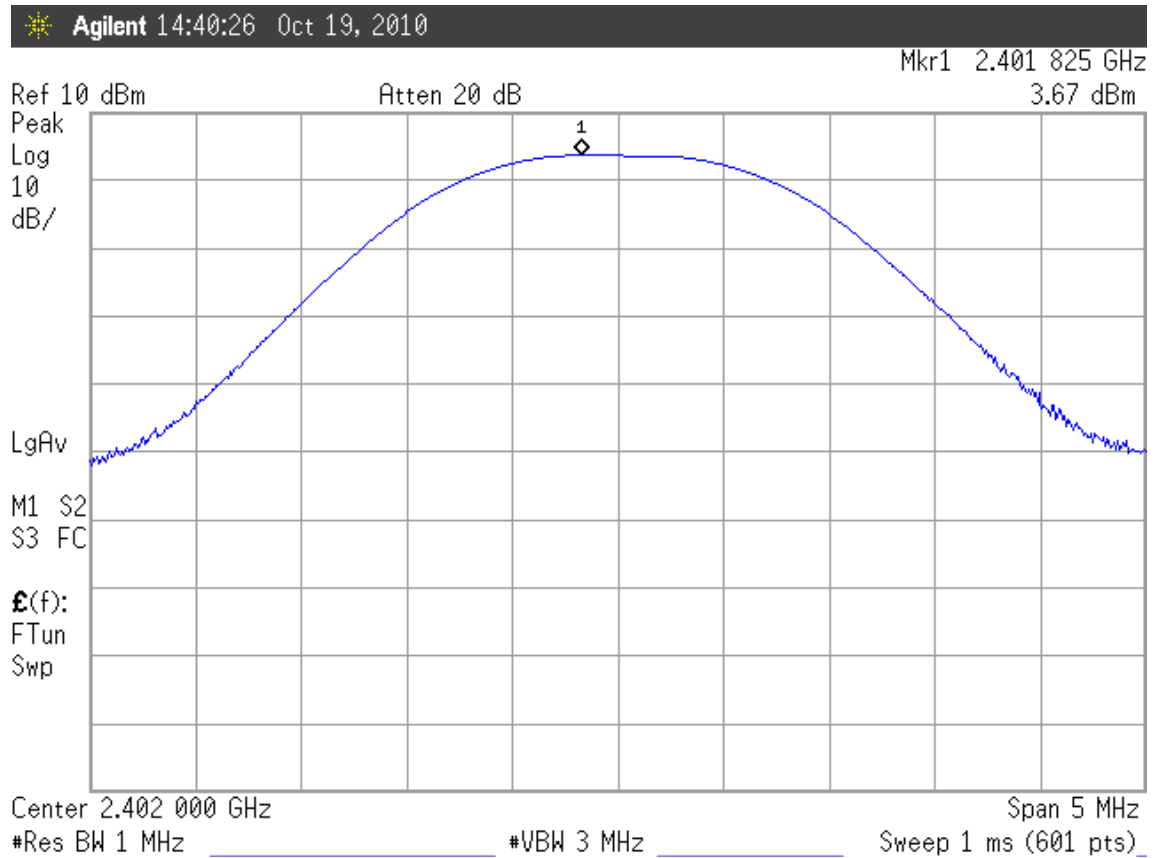


Figure 2: GFSK, Channel 39, Frequency: 2441MHz

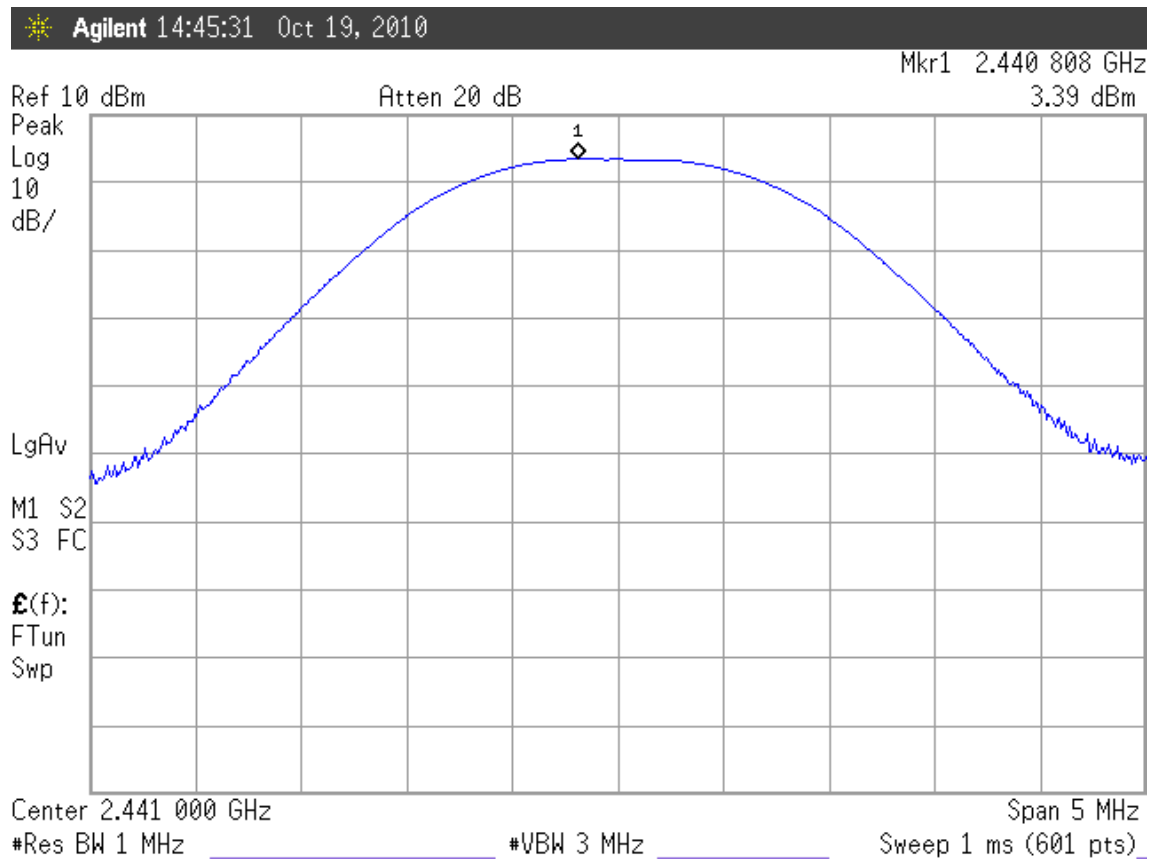


Figure 3: GFSK, Channel 78, Frequency: 2480MHz

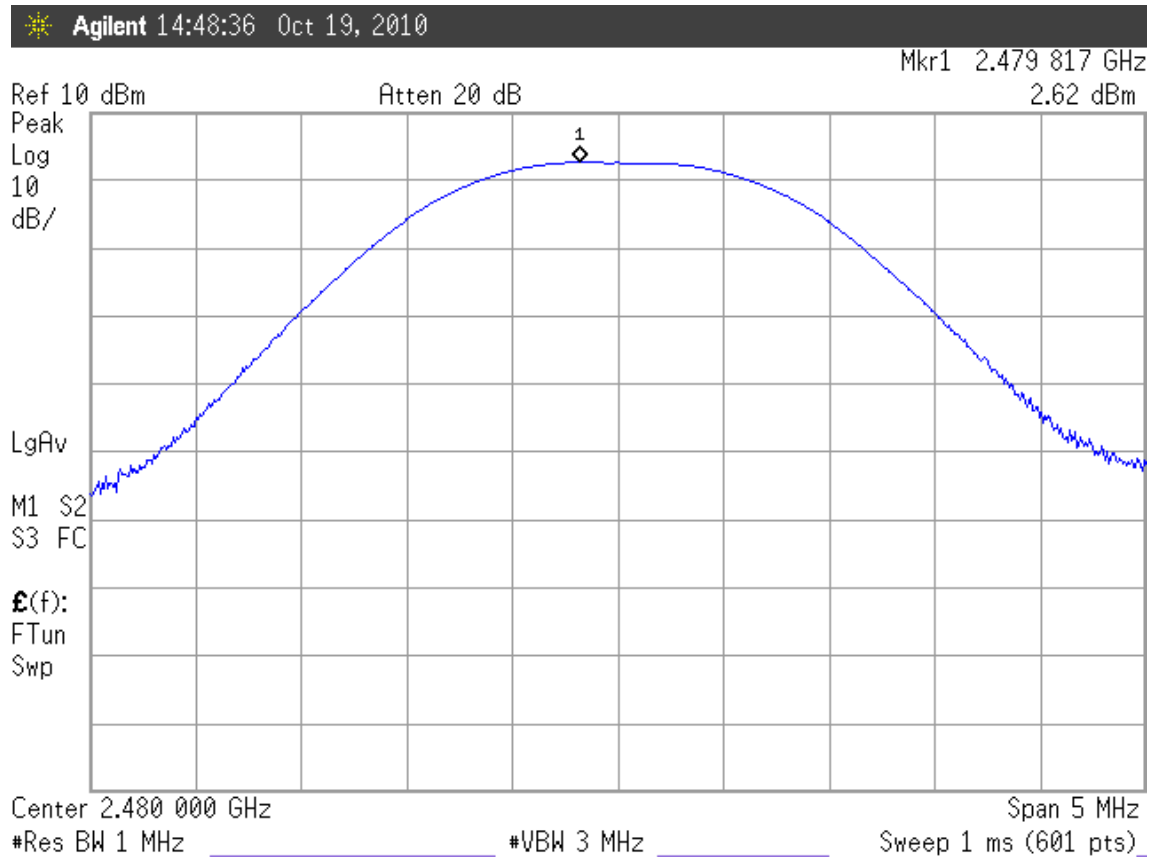


Figure 4: 8-DPSK, Channel 0, Frequency: 2402MHz

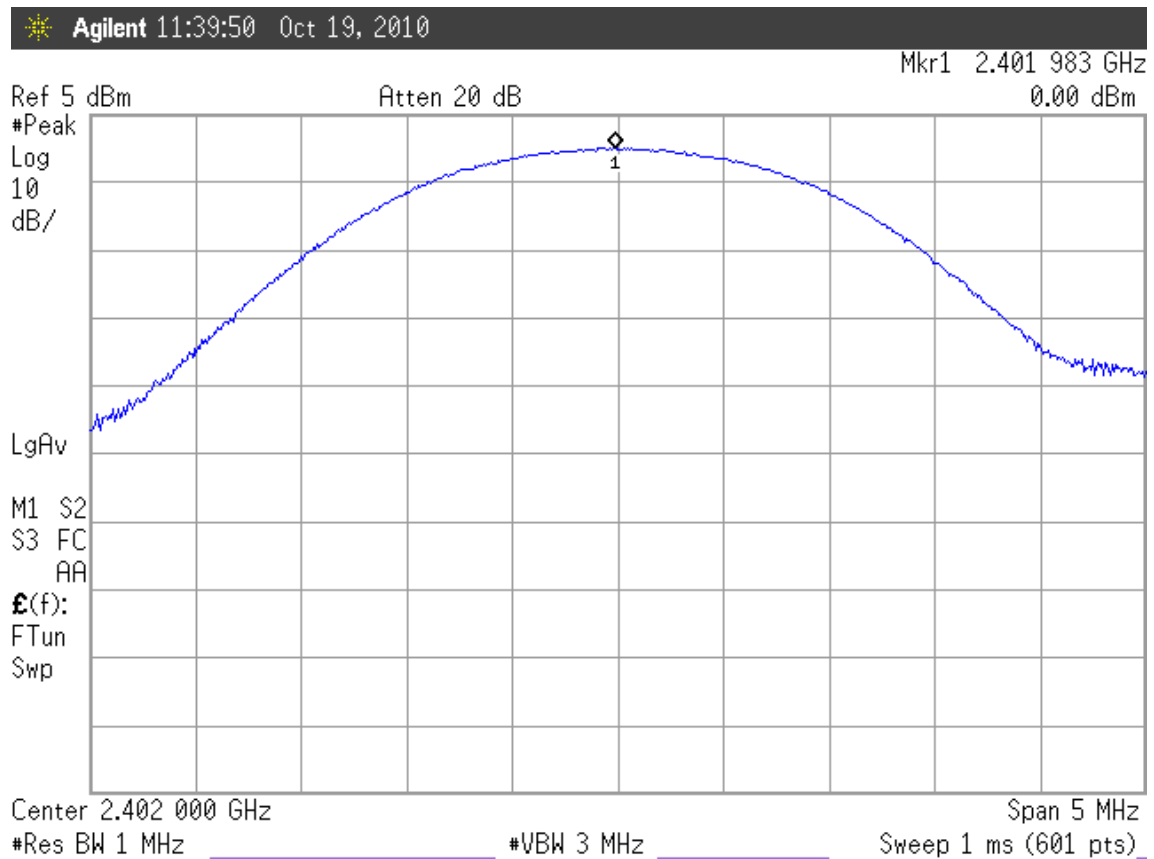


Figure 5: 8-DPSK, Channel 39, Frequency: 2441MHz

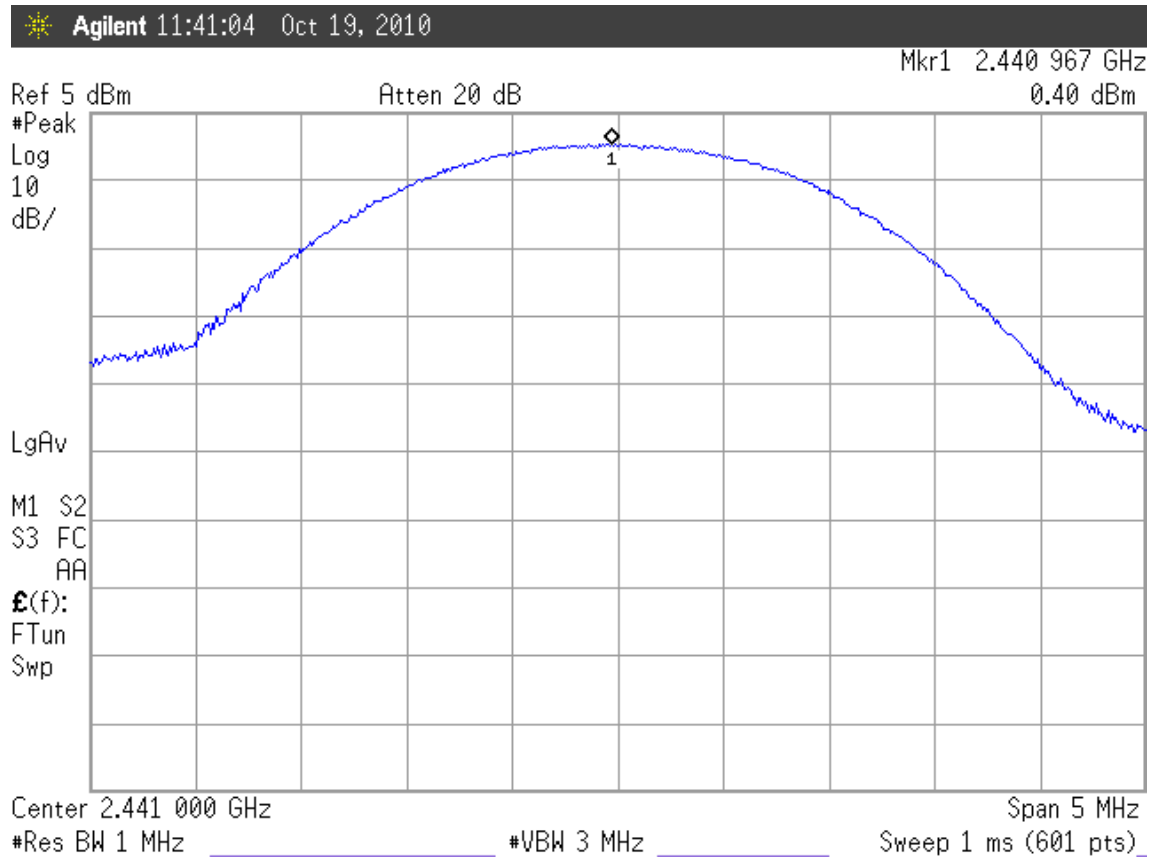
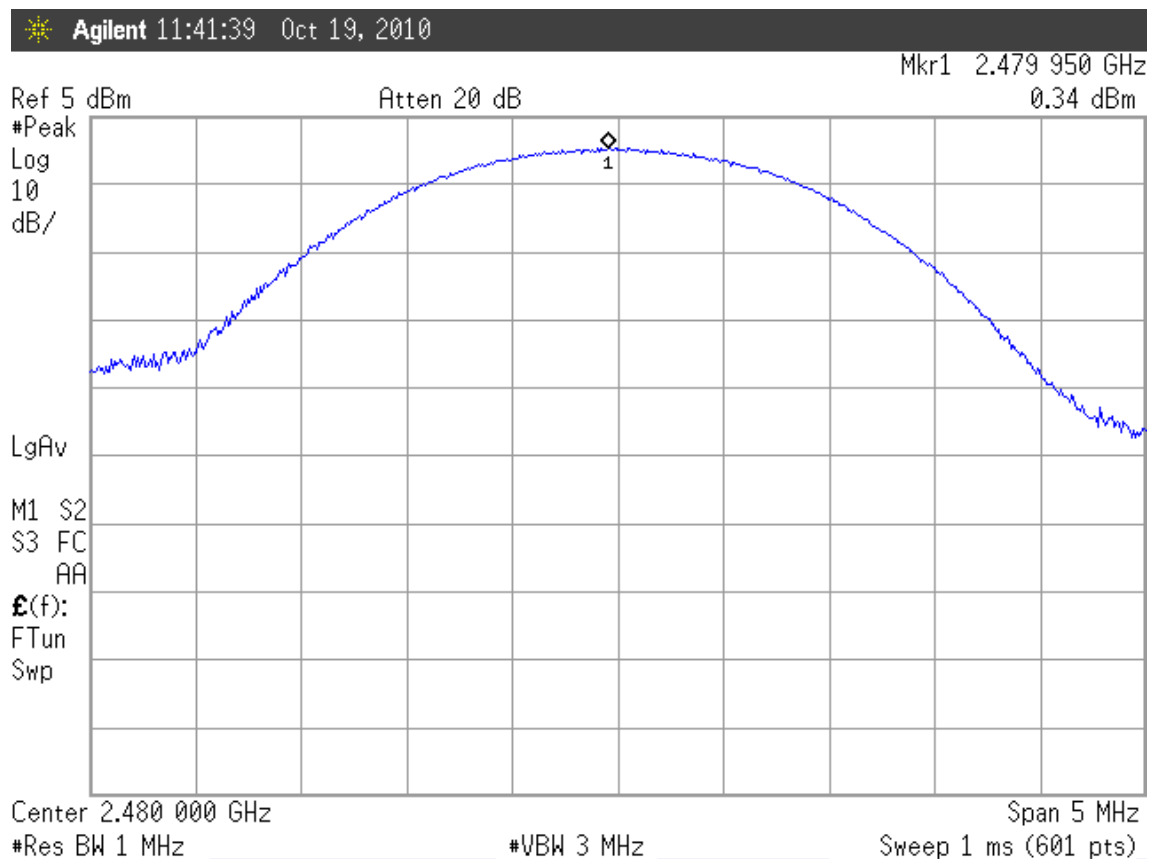


Figure 6: 8-DPSK, Channel 78, Frequency: 2480MHz



9. EMISSION LIMITATIONS MEASUREMENT

9.1. Test Equipment

The following test equipment was used during the emission limitations measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

9.2. Block Diagram of Test Setup

The same as section.4.2.

9.3. Specification Limits (§15.247(c))

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (See Section 15.205(c)).(※ This test result attaching to §3.6.3)

9.4. Operating Condition of EUT

Same as carrier frequency separation measurement which was listed in section 4.4.

9.5. Test Procedure

The transmitter output was connected to the spectrum analyzer. Set both RBW and VBW of spectrum analyzer to 100kHz with frequency range from 30MHz to 25GHz. The measurement guideline was according to FCC Public Notice DA 00-705.

9.6. Test Results

PASSED. All the test results are attached in next pages.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 28, 2010 Temperature : 24°C Humidity : 58%

9.6.1. Type of Modulation: GFSK

1. 2402MHz: During 30MHz~25GHz bandwidth. In the 3.19GHz, the -53.15dBm is max value that is lower than 20dB of primary channel.
2. 2441MHz: During 30MHz~25GHz bandwidth. In the 3.28GHz, the -56.47dBm is max value that is lower than 20dB of primary channel.
3. 2480MHz: During 30MHz~25GHz bandwidth. In the 1.65GHz, the -56.87dBm is max value that is lower than 20dB of primary channel.

Note: The peak above the limit line is the carrier frequency.

9.6.2. Type of Modulation: 8-DPSK

1. 2402MHz: During 30MHz~25GHz bandwidth. In the 1.61GHz, the -54.79dBm is max value that is lower than 20dB of primary channel.
2. 2441MHz: During 30MHz~25GHz bandwidth. In the 1.61GHz, the -55.34dBm is max value that is lower than 20dB of primary channel.
3. 2480MHz: During 30MHz~25GHz bandwidth. In the 1.65GHz, the -55.32dBm is max value that is lower than 20dB of primary channel.

Note: The peak above the limit line is the carrier frequency.

Figure 1: GFSK, Channel 0, Frequency: 2402MHz

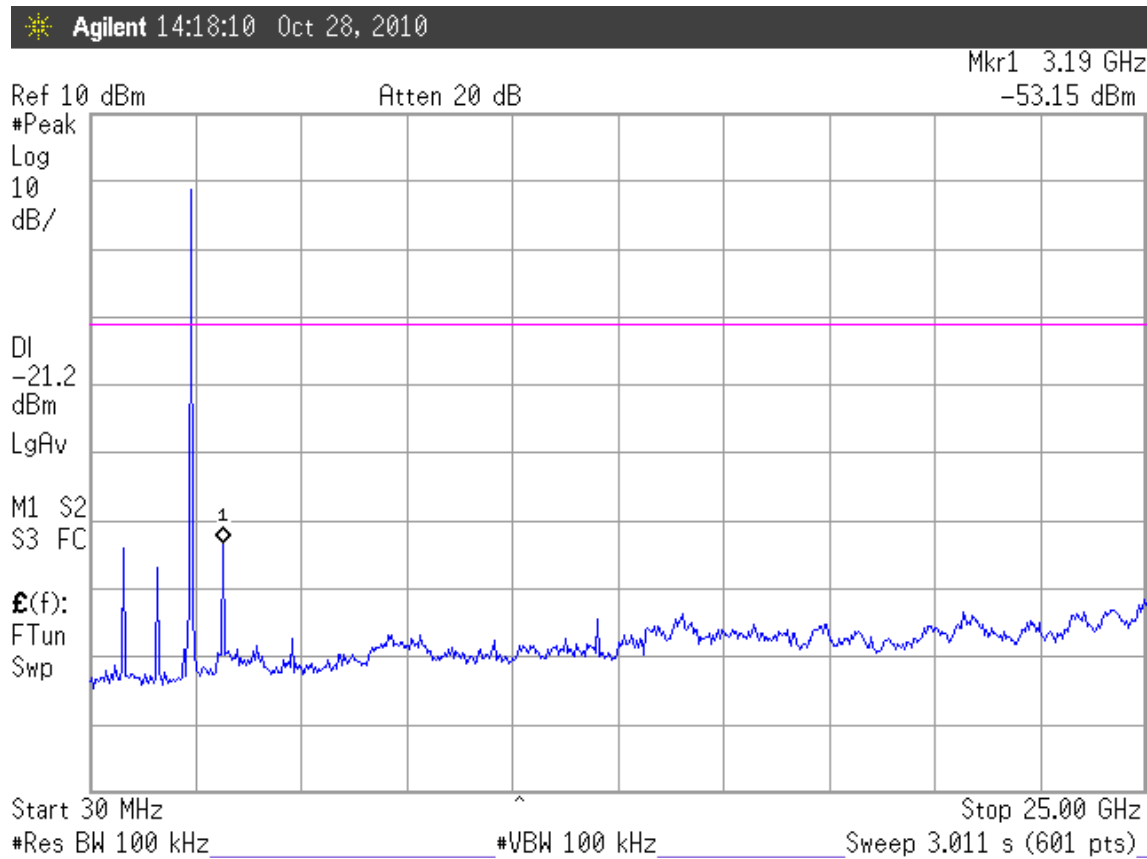


Figure 2: GFSK, Channel 39, Frequency: 2441MHz

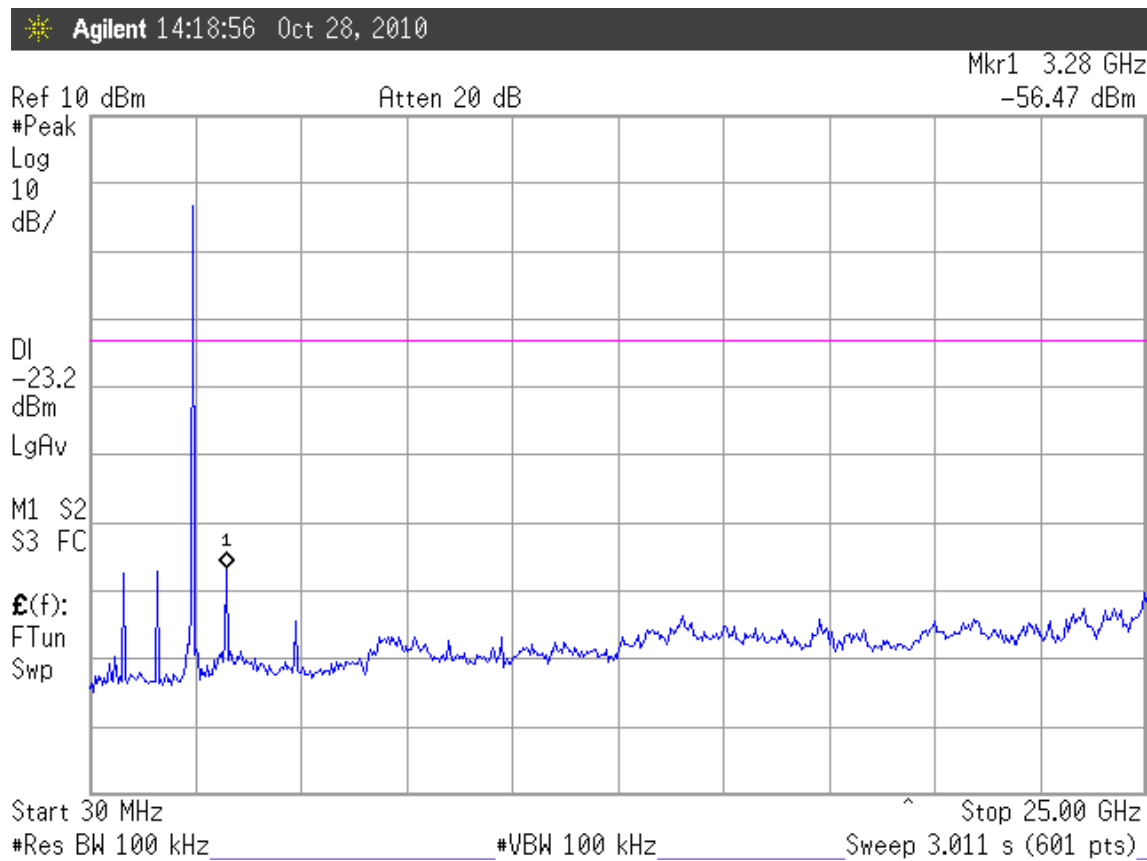


Figure 3: GFSK, Channel 78, Frequency: 2480MHz

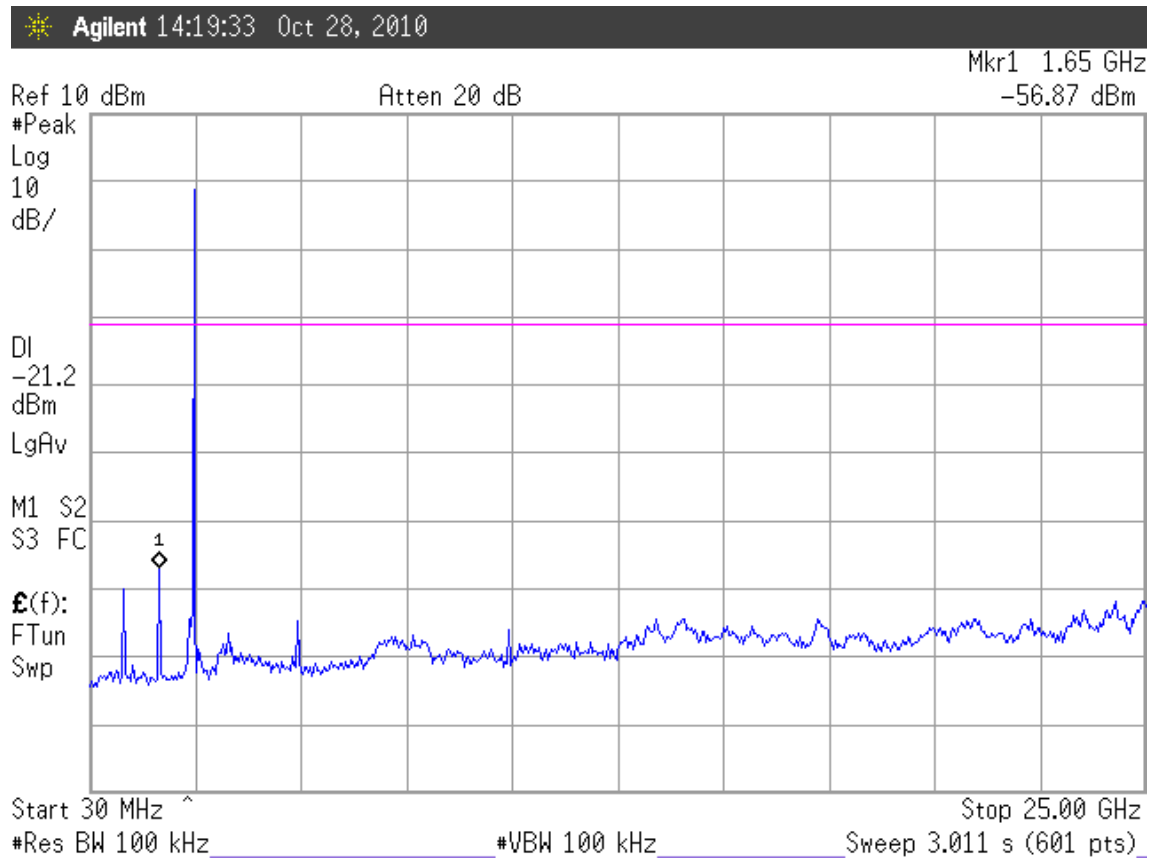


Figure 4: 8-DPSK, Channel 0, Frequency: 2402MHz

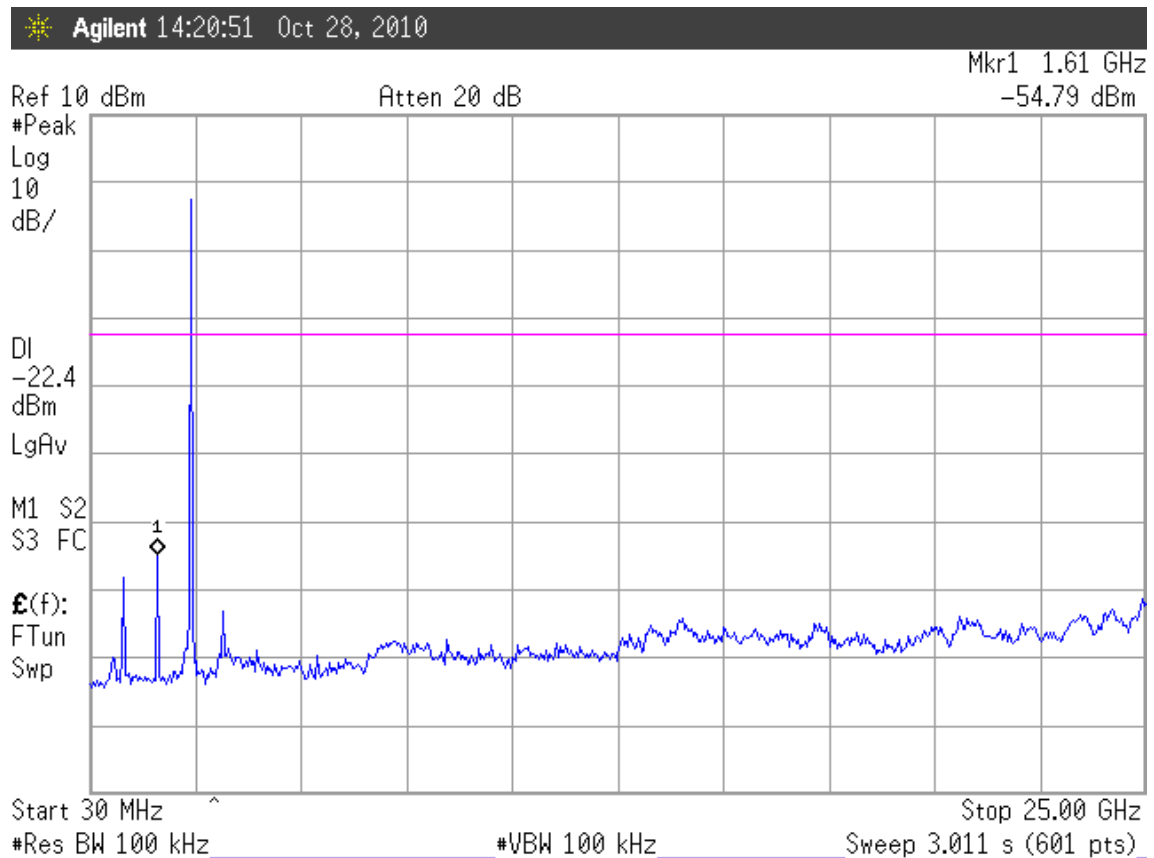


Figure 5: 8-DPSK, Channel 39, Frequency: 2441MHz

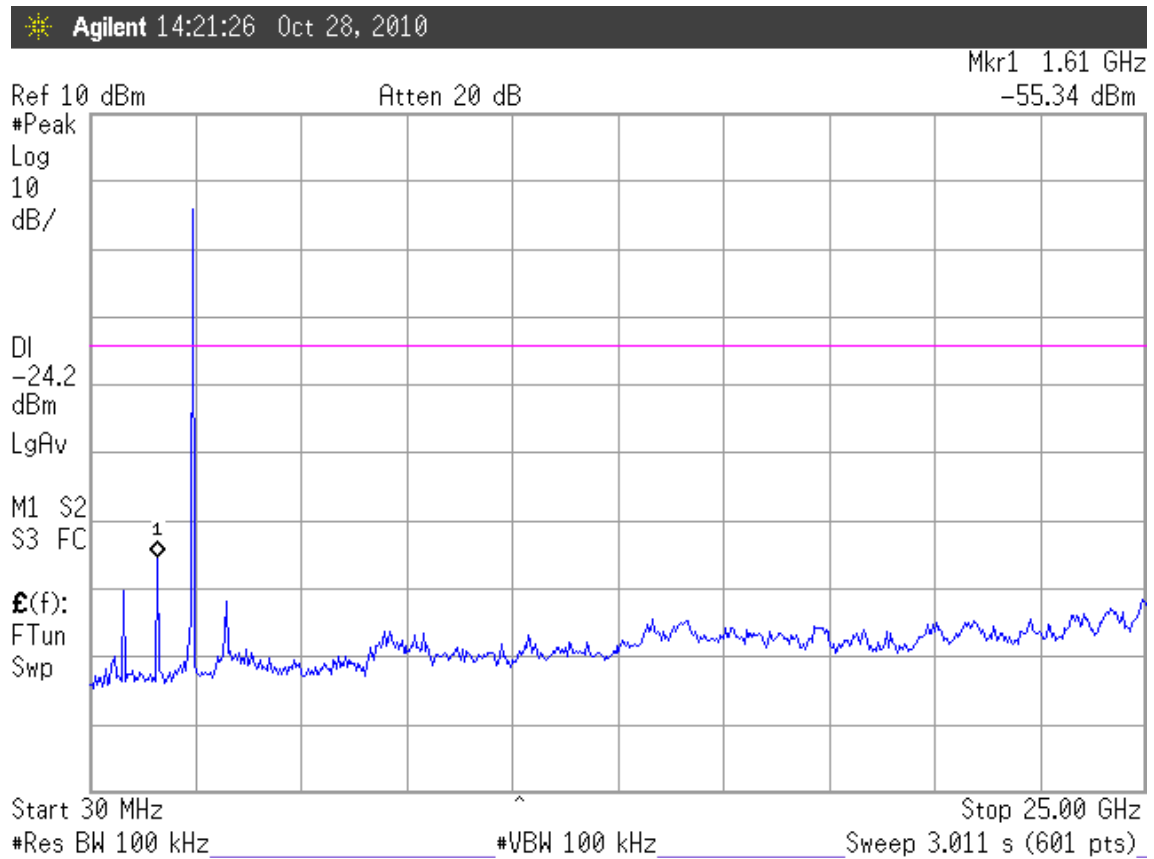
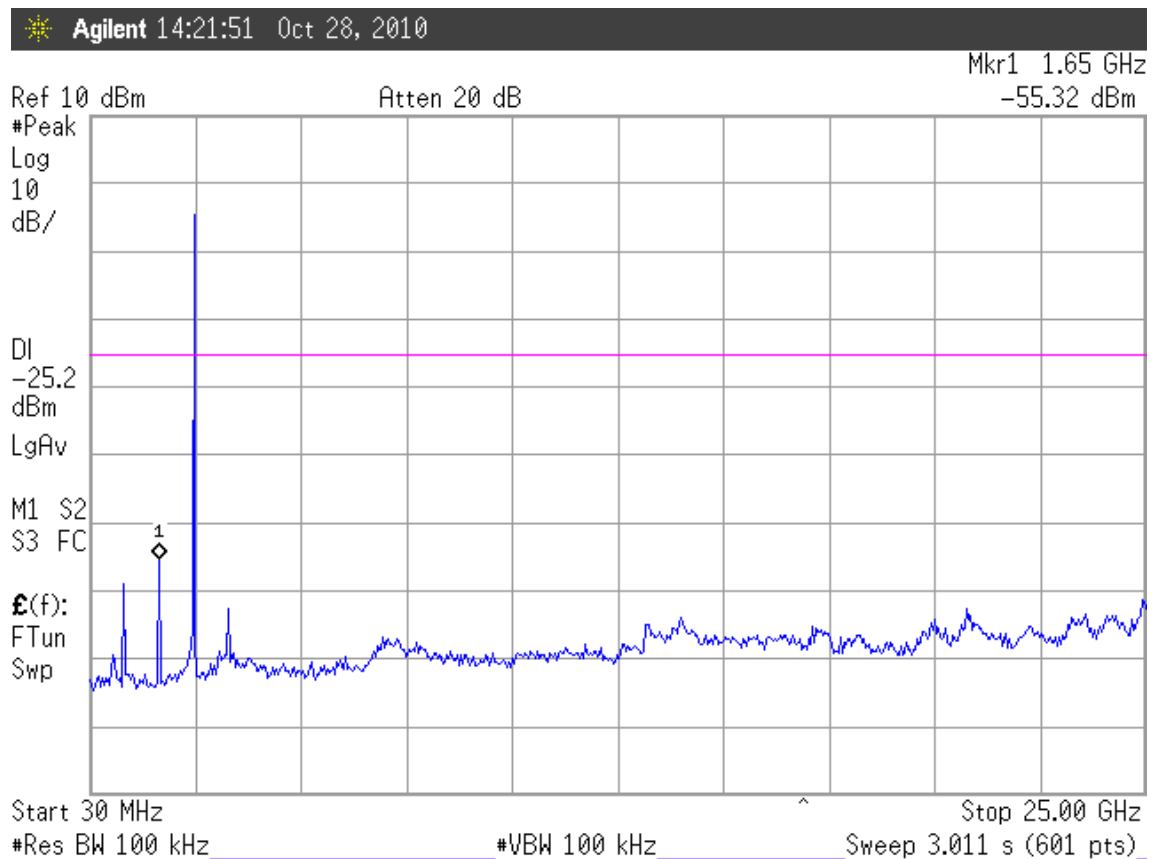


Figure 6: 8-DPSK, Channel 78, Frequency: 2480MHz



10.BAND EDGES MEASUREMENT

10.1.Test Equipment

The following test equipment was used during the band edges measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	Aug. 04, 10'	Aug. 03, 11'

10.2.Block Diagram of Test Setup

The same as section.4.2.

10.3.Specification Limits (§15.247(c))

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (See Section 15.205(c)). (※ This test result attaching to §3.6.3)

10.4.Operating Condition of EUT

Same as 20dB bandwidth measurement which was listed in section 4.4.

10.5.Test Procedure

The transmitter output was connected to the spectrum analyzer. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100kHz bandwidth from band edge.

The measurement guideline was according to FCC Public Notice DA 00-705.

10.6. Test Results

PASSED. The testing data was attached in the next pages.

[Note: Three types of modulation (8-DPSK, π /4DQPSK, GFSK) were evaluated but only two types of modulation (GFSK and 8-DPSK) were reported in this report.]

EUT : Portable Computer

M/N : H1000B

Test Date : Oct. 19, 2010 Temperature : 26 °C Humidity : 55 %

10.6.1. Type of Modulation: GFSK

1. Upper Band edge : The highest emission level is -47.07dBm on 2.39992GHz °
2. Below Band edge: The highest emission level is -47.90dBm on 2.48358GHz °

10.6.2. Type of Modulation: 8-DPSK

1. Upper Band edge : The highest emission level is -49.02dBm on 2.39992GHz °
2. Below Band edge: The highest emission level is -57.41dBm on 2.48358GHz °

Figure 1: GFSK, Upper Band edge

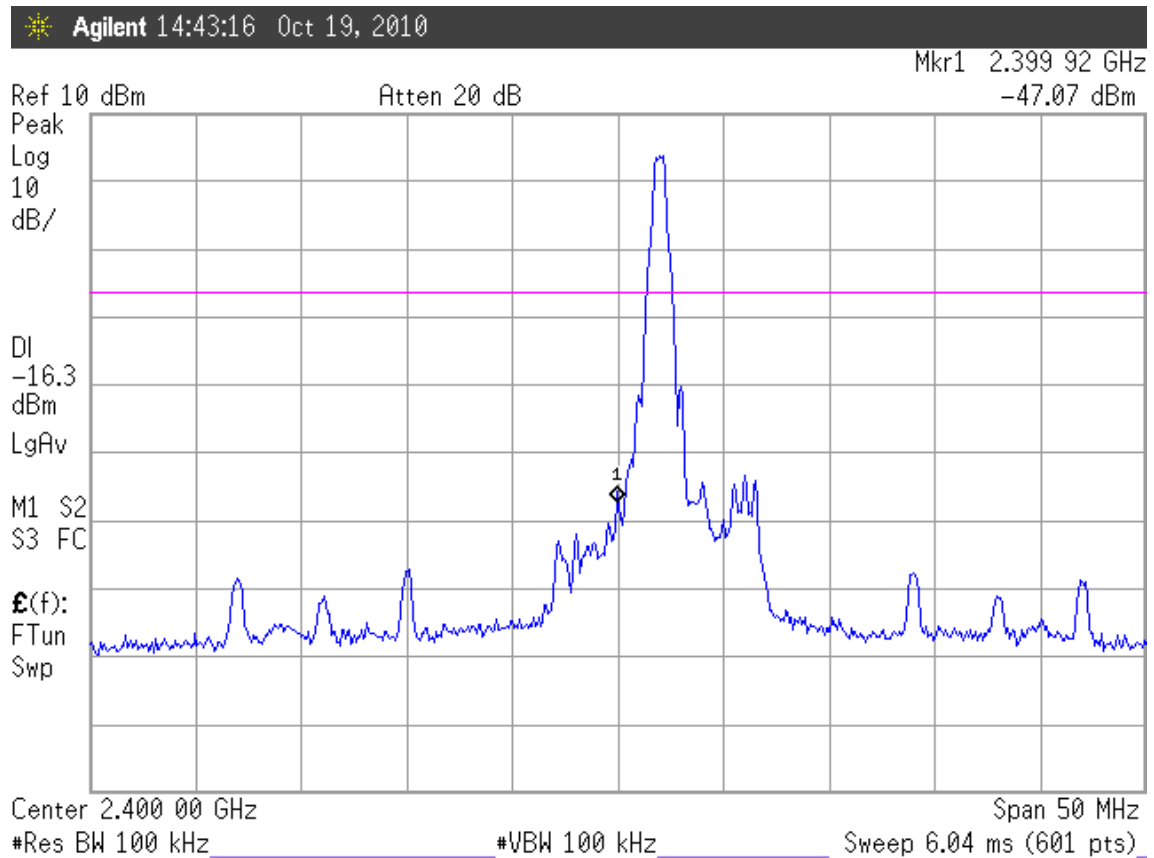


Figure 2: GFSK, Below Band edge

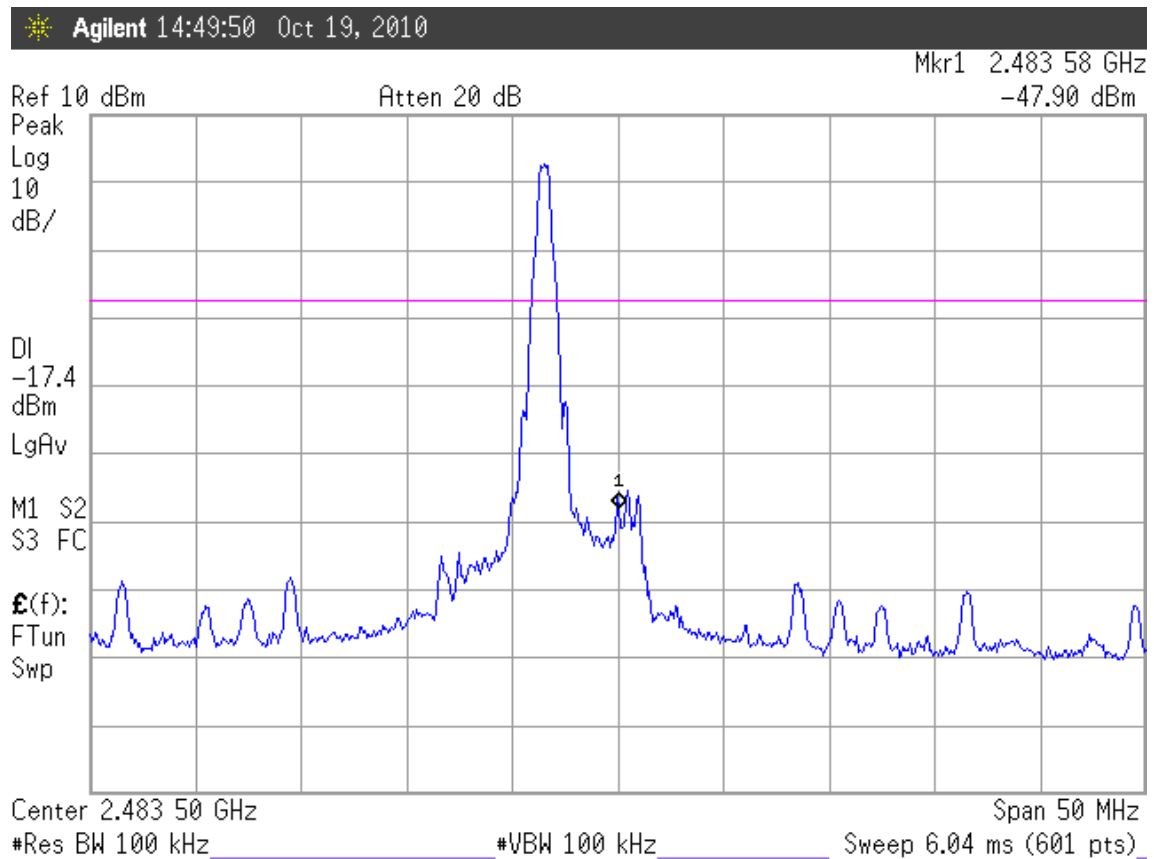


Figure 3: 8-DPSK, Upper Band edge

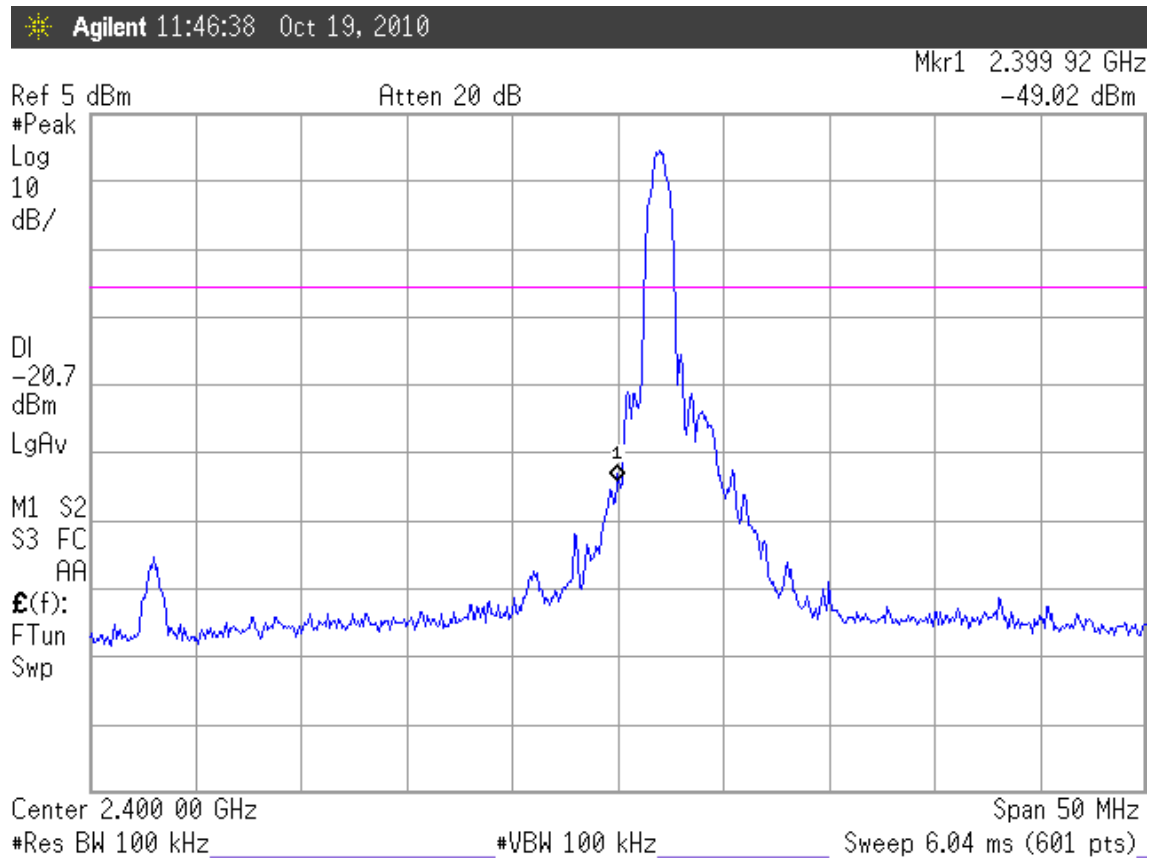
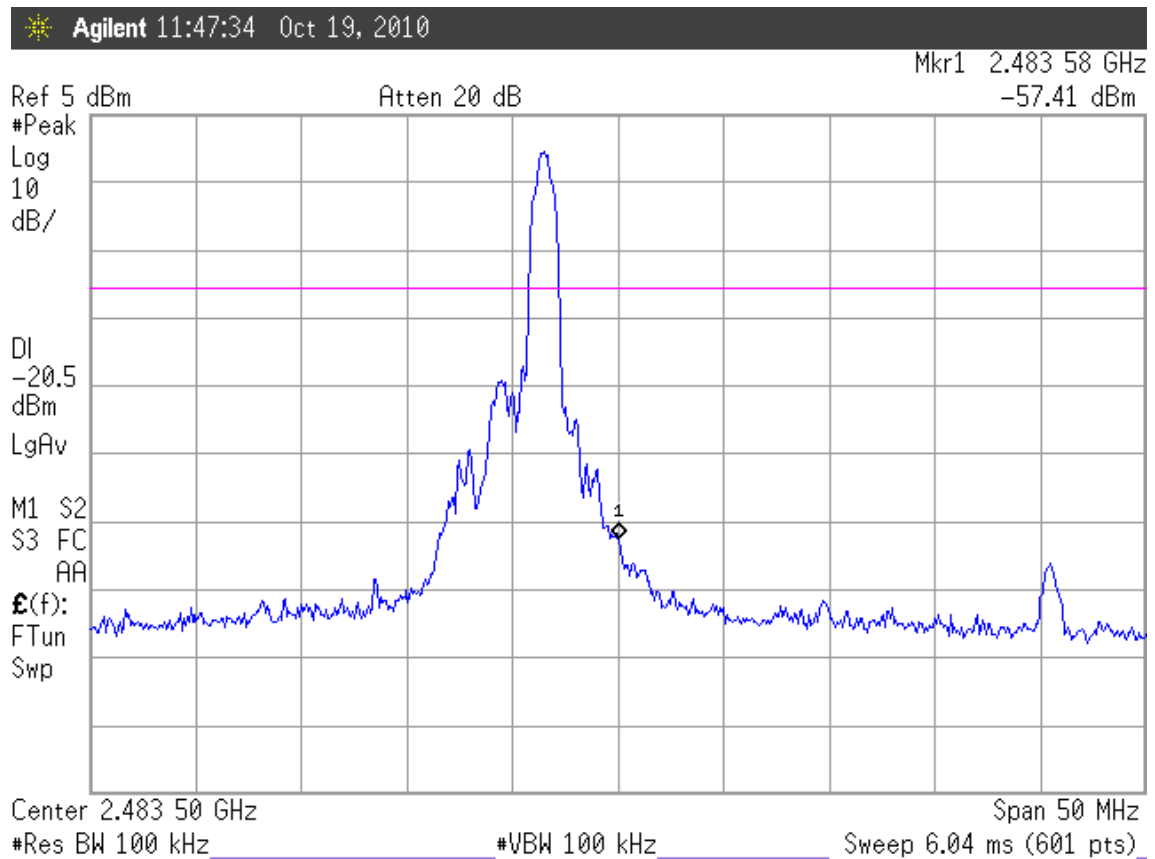


Figure 4: 8-DPSK, Below Band edge



11.DEVIATION TO TEST SPECIFICATIONS

【NONE】