

# FCC Test Report

Product Name	HYBRID INSTANT CAMERA
Model No.	INSTAX MINI HM1
FCC ID.	W2Z-03000006

Applicant	FUJIFILM CORPORATION
Address	7-3,Akasaka 9-chome,Minato-ku,Tokyo 107-0052,Japan

Date of Receipt	Feb. 11, 2019
Issued Date	Mar. 06, 2019
Report No.	1920024R-RFUSP01V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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# Test Report

Issued Date: Mar. 06, 2019

Report No.: 1920024R-RFUSP01V00



Product Name	HYBRID INSTANT CAMERA
Applicant	FUJIFILM CORPORATION
Address	7-3,Akasaka 9-chome,Minato-ku,Tokyo 107-0052,Japan
Manufacturer	ABILITY ENTERPRISE CO., LTD.
Model No.	INSTAX MINI HM1
FCC ID.	W2Z-03000006
EUT Rated Voltage	DC 5V by USB or DC 3.7V by Battery
EUT Test Voltage	DC 5V by USB
Trade Name	FUJIFILM
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2017 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 15.247 Meas Guidance v05
Test Result	Complied

Documented By :

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Tested By :

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( Engineer / Sam Hsu )

Approved By :



( Director / Vincent Lin )

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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	HYBRID INSTANT CAMERA
Trade Name	FUJIFILM
Model No.	INSTAX MINI HM1
FCC ID.	W2Z-03000006
Frequency Range	2402-2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / $\pi$ /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	Print on PCB Antenna
Channel Control	Auto
Antenna Gain	Refer to the table "Antenna List"
USB Cable	Shielded, 0.6m, with one ferrite core bonded.
Contain Module	REALTEK / RTL8761ATT

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Ability	N/A	Print on PCB Antenna	1.5dBi for 2.4GHz

Note:

1. The antenna of EUT conforms to FCC 15.203.

## Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

## Note:

1. The EUT is a HYBRID INSTANT CAMERA with a built-in Bluetooth V3.0, V2.1+EDR, V4.2 transceiver, this report for Bluetooth V3.0, V2.1+EDR.
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test
4. Bluetooth operation was evaluated at both 1Mb/s and 3Mb/s data rates. 2Mb/s data rate was found, through pre-testing, to produce emissions similar to those for 3Mb/s.
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
6. The EUT employs Adaptive Frequency Hopping (AFH) which identifies sources of interference namely devices operating in 802.11 WLAN and excludes them from the list of available channels. The process of re-mapping reduces the number of test channels from 79 channels to a minimum number of 20 channels.

Test Mode	Mode 1: Transmit - 1Mbps (GFSK) Mode 2: Transmit - 3Mbps (8DPSK)
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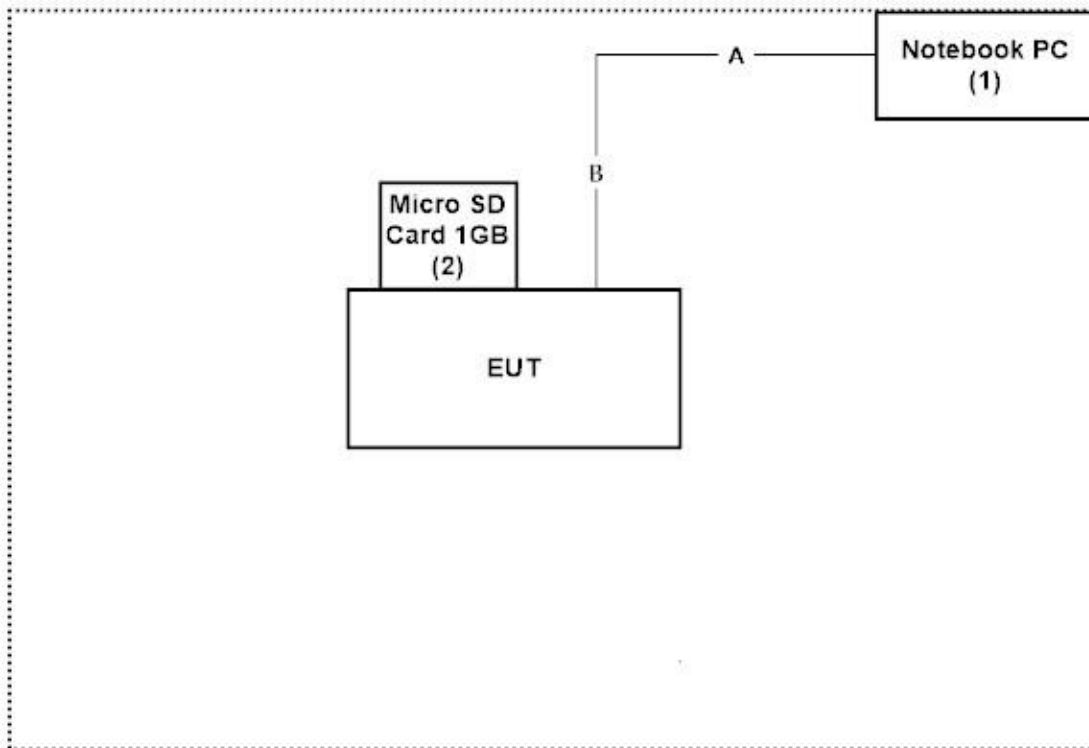
### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Notebook PC	DELL	Latitude E5440	HG26TZ1	N/A
2 Micro SD Card 1GB	SanDisk	N/A	0801002841D2N	N/A

Signal Cable Type	Signal cable Description
A USB Cable	Non-Shielded, 1.8m
B USB Cable	Shielded, 0.6m, with one ferrite core bonded.

### 1.4. Configuration of Tested System



### 1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software "Vendor Command Tool" on the Notebook PC.
3. Configure the test mode, the test channel, and the data rate.
4. Press "OK" to start the continuous Transmit.
5. Verify that the EUT works properly.

## 1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	30-65
Barometric pressure (mbar)	860-1060	950-1000

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E-Mail : [info.tw@dekra.com](mailto:info.tw@dekra.com)

FCC Accreditation Number: TW3023



## 1.7. List of Test Equipment

### For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	<u>2019/02/26</u>	2020/02/25
X	Spectrum Analyzer	Agilent	N9010A	MY53470892	<u>2018/09/27</u>	2019/09/26
X	Peak Power Analyzer	Keysight	8990B	MY51000410	2018/08/01	2019/07/31
X	Wideband Power Sensor	Keysight	N1923A	MY56080003	2018/07/25	2019/07/24
X	Wideband Power Sensor	Keysight	N1923A	MY56080004	2018/07/25	2019/07/24
X	EMI Test Receiver	R&S	ESCS 30	100369	<u>2018/11/19</u>	2019/11/18
X	LISN	R&S	ENV216	101105	2018/03/30	2019/03/29
X	LISN	R&S	ESH3-Z5	836679/014	2018/04/02	2019/04/01
X	Coaxial Cable	DEKRA	RG 400	LC018-RG	2018/06/21	2019/06/20

### For Radiated measurements /Site3/CB8

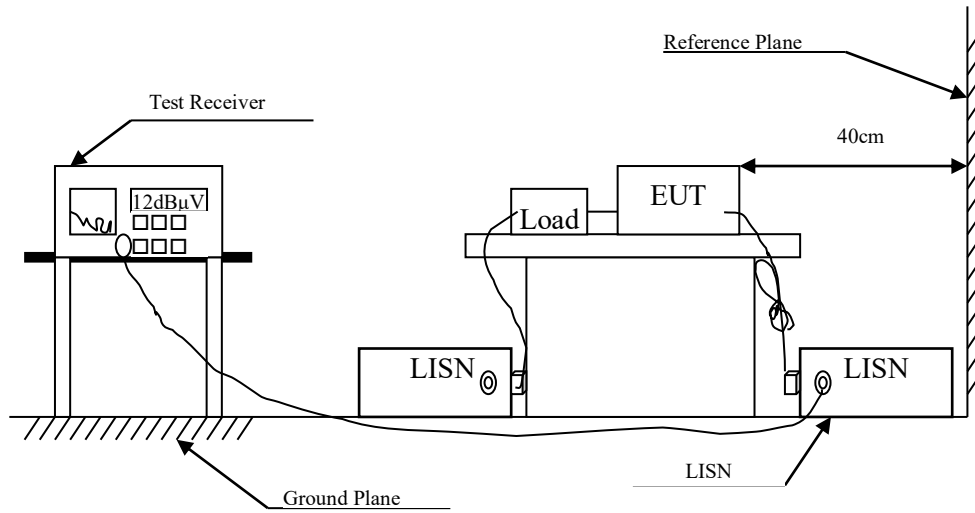
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Spectrum Analyzer	R&S	FSP40	100170	<u>2019/03/12</u>	<u>2020/03/11</u>
X	Loop Antenna	Teseq	HLA6121	37133	2017/10/13	2019/10/12
X	Bilog Antenna	Schaffner Chase	CBL6112B	2707	2018/06/24	2019/06/23
X	Coaxial Cable	DEKRA	RG 214	LC003-RG	2018/06/14	2019/06/13
X	Pre-Amplifier	Jet-Power	JPA-10M1G33	170101000330010	2018/06/14	2019/06/13
X	<u>Horn Antenna</u>	ETS-Lindgren	3117	00135205	2018/05/03	2019/05/02
X	<u>Horn Antenna</u>	SCHWARZBECK	9120D	576	2018/12/18	2019/12/17
X	<u>Pre-Amplifier</u>	EMCI	EMC012630SE	980210	2018/04/10	2019/04/09
X	Horn Antenna	Com-Power	AH-840	101043	2019/01/19	2020/01/18
X	Amplifier + Cable	EMCI	EMC184045SE	980370	2018/03/21	2019/03/20
X	Filter	MICRO-TRONICS	BRM50702	G270	2018/08/06	2019/08/05
X	Filter	MICRO-TRONICS	BRM50716	G196	2018/08/06	2019/08/05

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version :QuieTek EMI 2.0 V2.1.113.

## 2. Conducted Emission

### 2.1. Test Setup



## 2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dB $\mu$ V) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

## 2.3. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

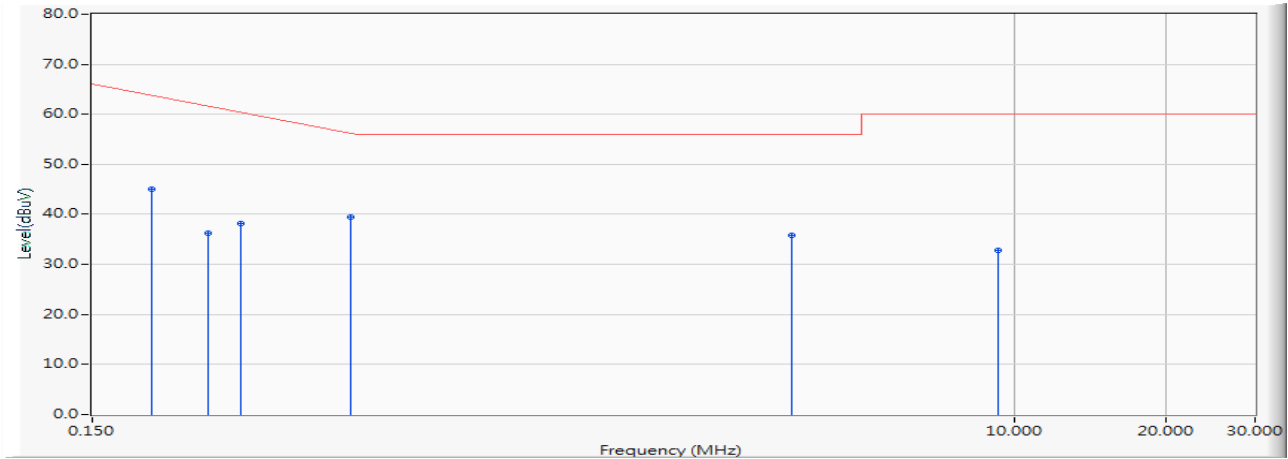
## 2.4. Uncertainty

$\pm 2.26$  dB

### 2.5. Test Result of Conducted Emission

Product : INSTAX MINI HM1  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test date : 2019/02/06  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Line1



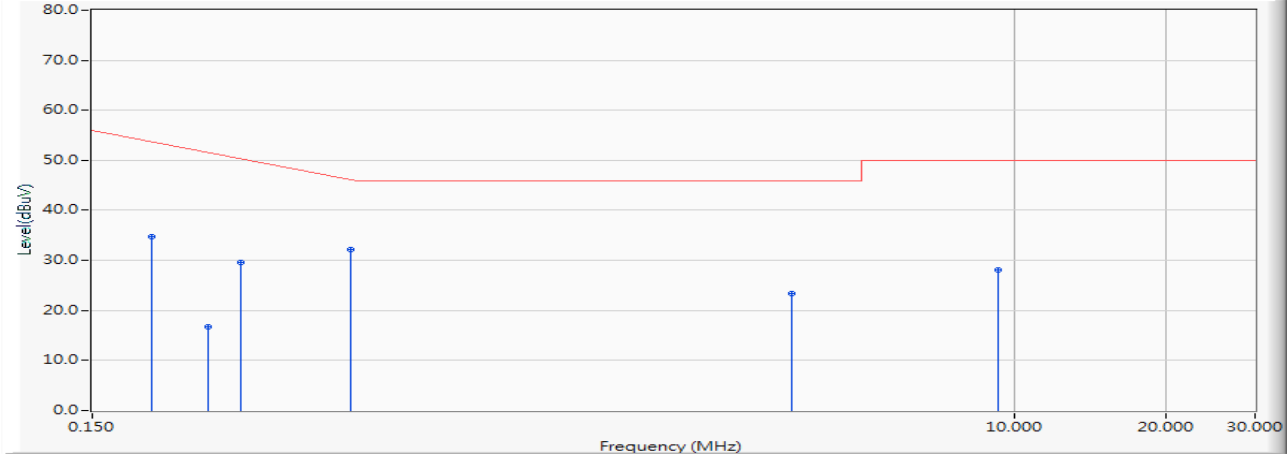
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.197	9.638	35.380	45.018	-19.639	64.657	QUASIPeAK
2	0.255	9.640	26.660	36.300	-26.700	63.000	QUASIPeAK
3	0.295	9.637	28.500	38.136	-23.721	61.857	QUASIPeAK
4	* 0.486	9.640	29.780	39.420	-16.980	56.400	QUASIPeAK
5	3.638	9.762	25.960	35.722	-20.278	56.000	QUASIPeAK
6	9.334	9.930	22.900	32.830	-27.170	60.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : INSTAX MINI HM1  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test date : 2019/02/06  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Line1



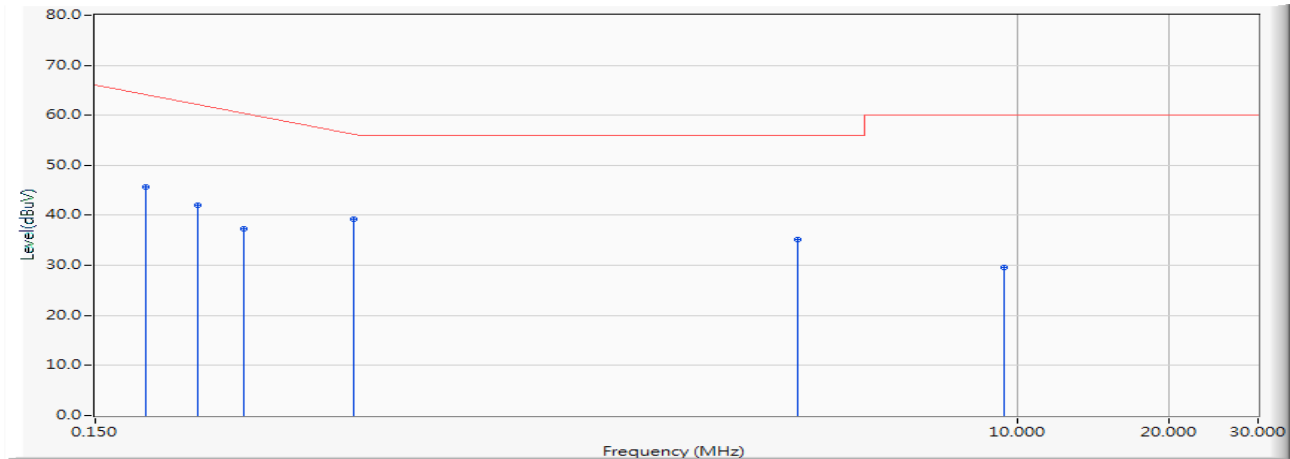
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.197	9.638	25.030	34.668	-19.989	54.657	AVERAGE
2	0.255	9.640	7.130	16.770	-36.230	53.000	AVERAGE
3	0.295	9.637	19.990	29.626	-22.231	51.857	AVERAGE
4	* 0.486	9.640	22.610	32.250	-14.150	46.400	AVERAGE
5	3.638	9.762	13.600	23.362	-22.638	46.000	AVERAGE
6	9.334	9.930	18.230	28.160	-21.840	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "\*" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : INSTAX MINI HM1  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test date : 2019/02/06  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Line2



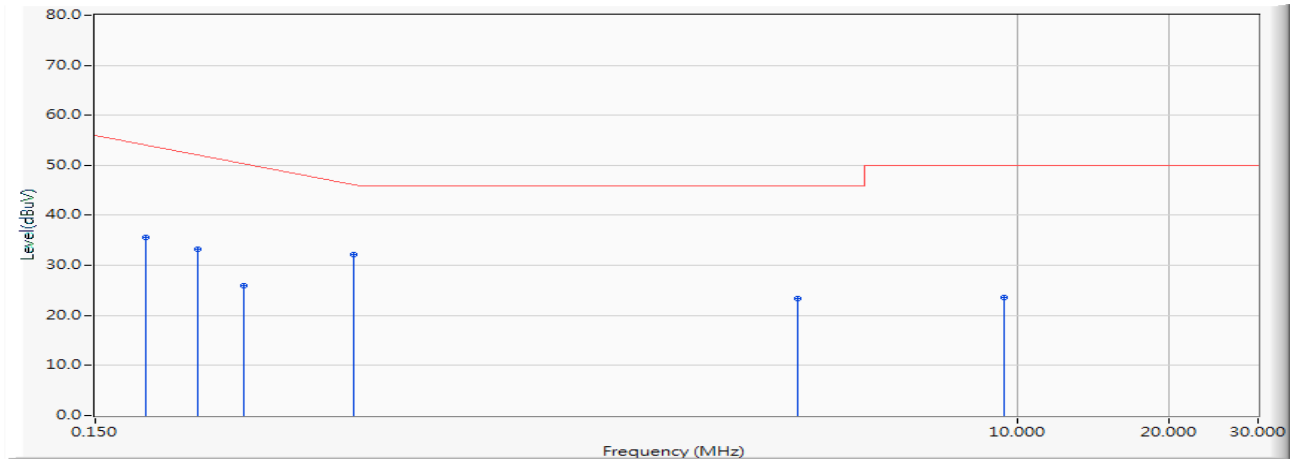
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.189	9.587	36.060	45.647	-19.239	64.886	QUASIPeAK
2	0.240	9.589	32.420	42.009	-21.420	63.429	QUASIPeAK
3	0.295	9.587	27.760	37.346	-24.511	61.857	QUASIPeAK
4	* 0.486	9.590	29.720	39.310	-17.090	56.400	QUASIPeAK
5	3.685	9.724	25.380	35.104	-20.896	56.000	QUASIPeAK
6	9.435	9.901	19.600	29.501	-30.499	60.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " \* " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : INSTAX MINI HM1  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test date : 2019/02/06  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Line2



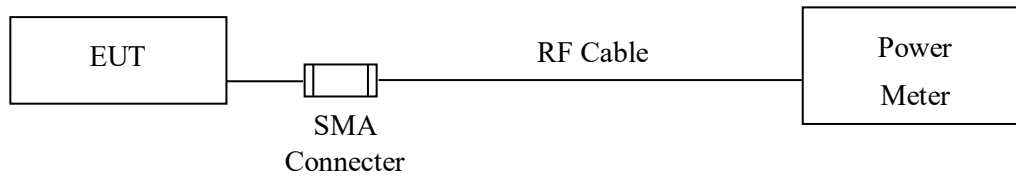
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.189	9.587	26.010	35.597	-19.289	54.886	AVERAGE
2	0.240	9.589	23.740	33.329	-20.100	53.429	AVERAGE
3	0.295	9.587	16.430	26.016	-25.841	51.857	AVERAGE
4	* 0.486	9.590	22.660	32.250	-14.150	46.400	AVERAGE
5	3.685	9.724	13.680	23.404	-22.596	46.000	AVERAGE
6	9.435	9.901	13.600	23.501	-26.499	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "\*" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

### 3. Peak Power Output

#### 3.1. Test Setup



#### 3.2. Limit

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

#### 3.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

#### 3.4. Uncertainty

$\pm 1.19$  dB



### 3.5. Test Result of Peak Power Output

Product : INSTAX MINI HM1  
Test Item : Peak Power Output  
Test Site : No.3 OATS  
Test date : 2019/02/25  
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	6.48	0.125W = 20.97dBm	Pass
Channel 39	2441.00	7.31	0.125W = 20.97dBm	Pass
Channel 78	2480.00	7.27	0.125W = 20.97dBm	Pass

Note: For AFH mode using 20 hopping channels, the maximum output power limit is 0.125W.

Product : INSTAX MINI HM1  
 Test Item : Peak Power Output  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

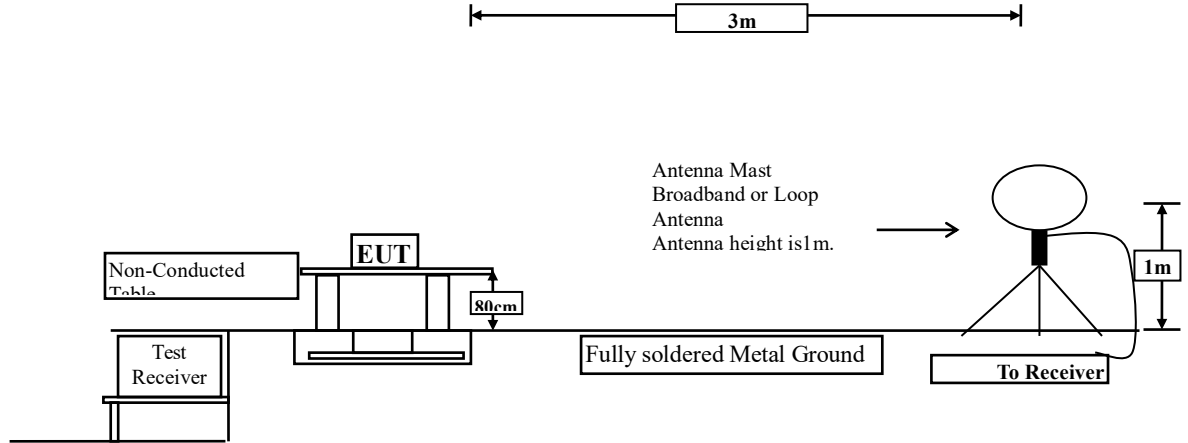
Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	8.13	0.125W = 20.97dBm	Pass
Channel 39	2441.00	8.73	0.125W = 20.97dBm	Pass
Channel 78	2480.00	8.69	0.125W = 20.97dBm	Pass

Note: For AFH mode using 20 hopping channels, the maximum output power limit is 0.125W

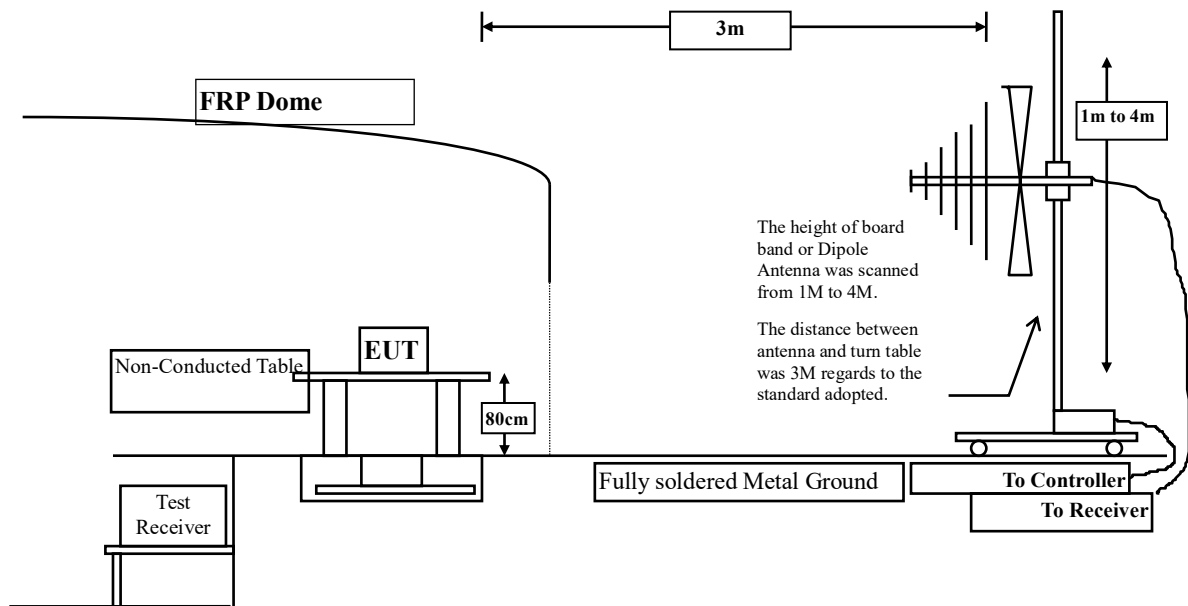
#### 4. Radiated Emission

##### 4.1. Test Setup

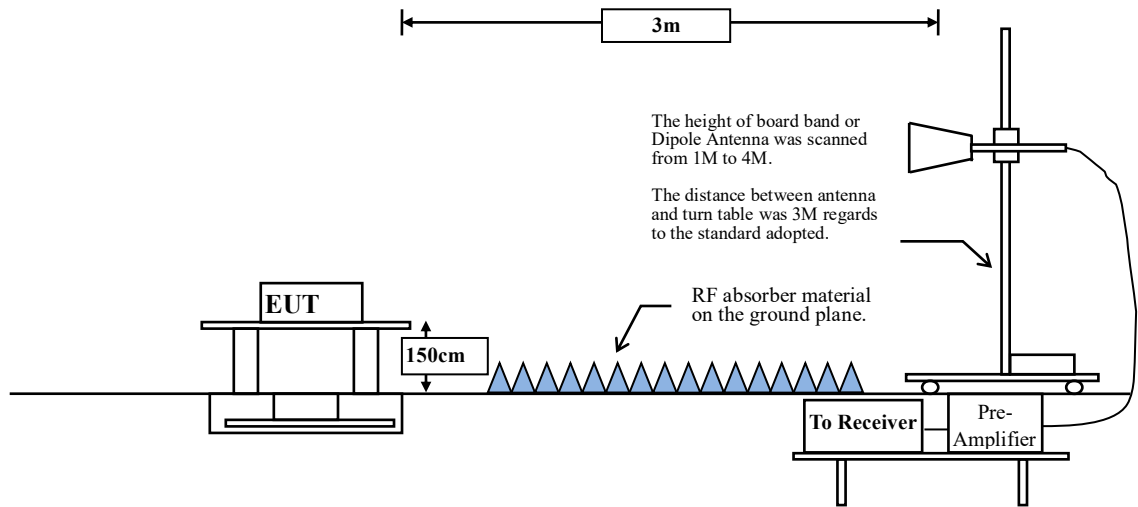
Under 30MHz



Below 1GHz



Above 1GHz



## 4.2. Limits

### ➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

- Remarks:
1. RF Voltage (dB $\mu$ V) = 20 log RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  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.

### 4.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

### 4.4. Uncertainty

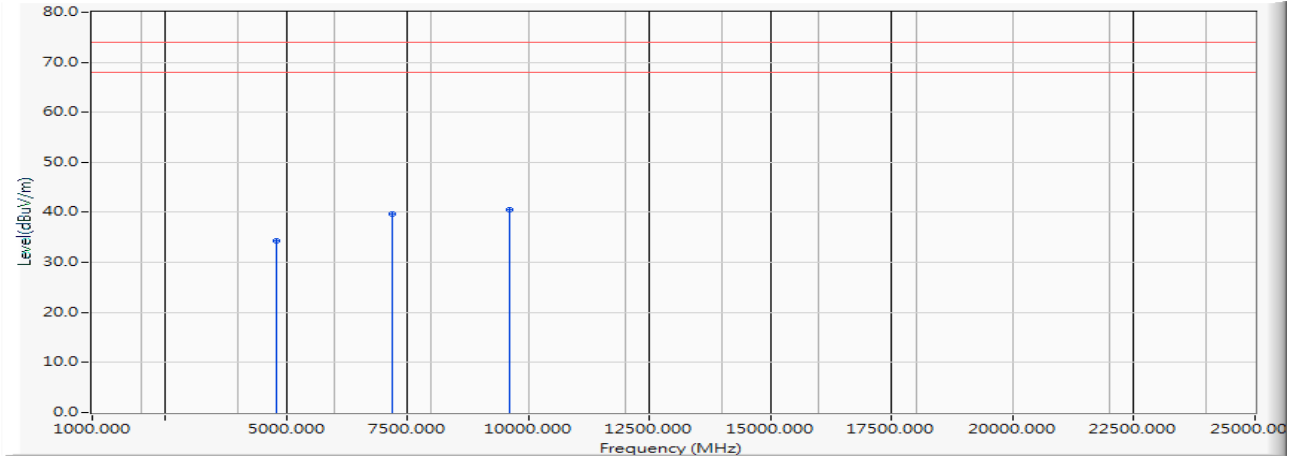
± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

#### 4.5. Test Result of Radiated Emission

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

##### Horizontal



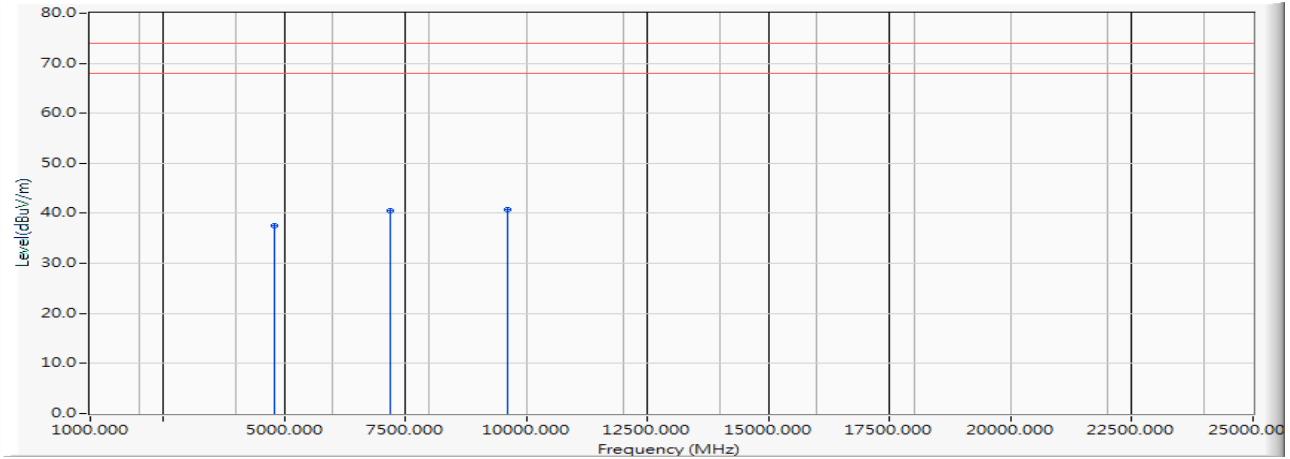
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4804.000	6.787	27.604	34.391	-39.609	74.000	PEAK
2		7206.000	11.333	28.311	39.644	-34.356	74.000	PEAK
3	*	9608.000	14.713	25.790	40.503	-33.497	74.000	PEAK

##### Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Vertical



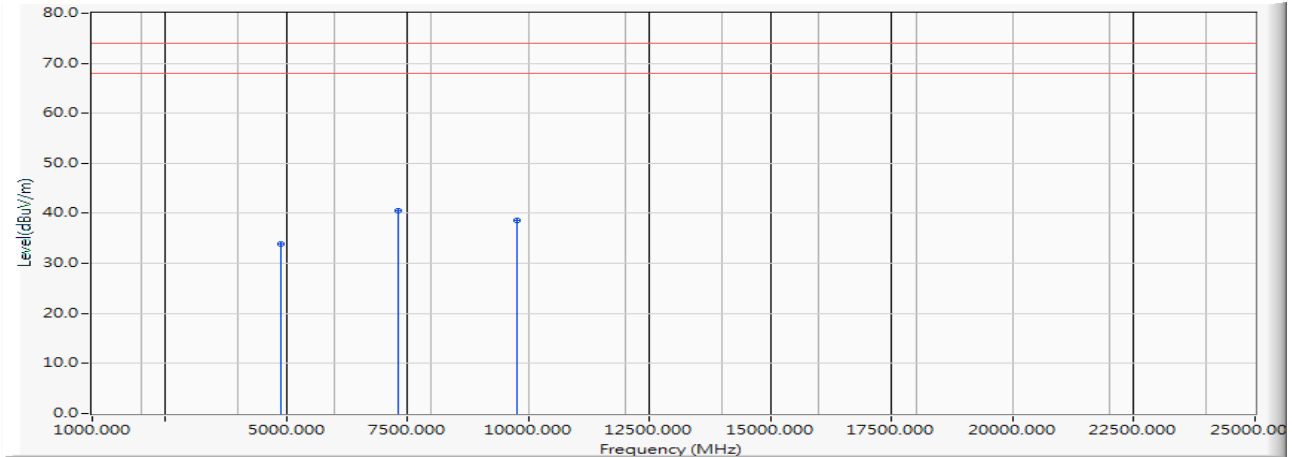
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4804.000	6.787	30.735	37.522	-36.478	74.000	PEAK
2	7206.000	11.333	29.221	40.554	-33.446	74.000	PEAK
3	* 9608.000	14.713	26.137	40.850	-33.150	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Horizontal



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4882.000	6.904	26.946	33.850	-40.150	74.000	PEAK
2	* 7323.000	11.380	29.151	40.531	-33.469	74.000	PEAK
3	9764.000	15.054	23.554	38.607	-35.393	74.000	PEAK

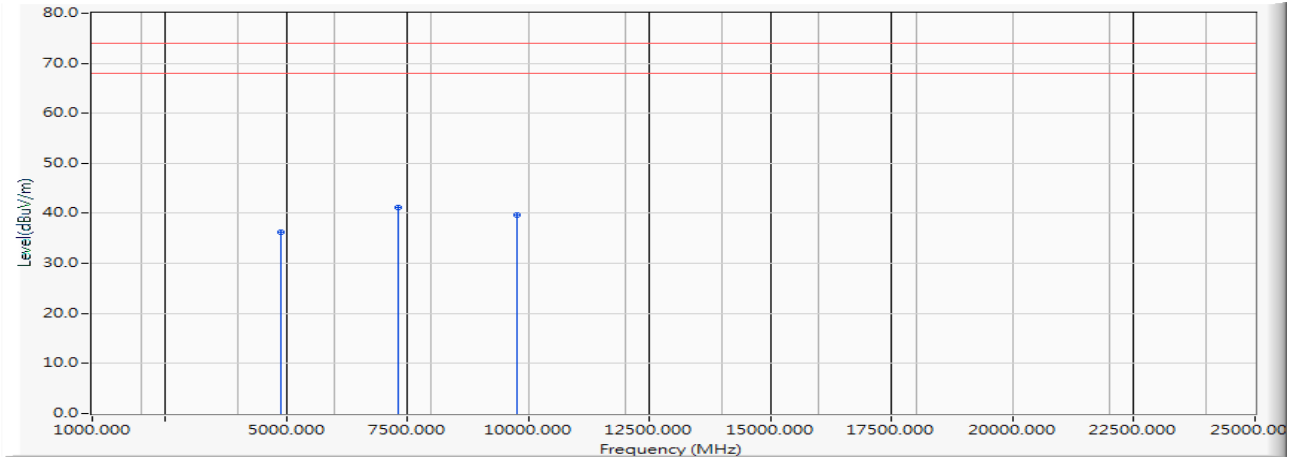
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Vertical



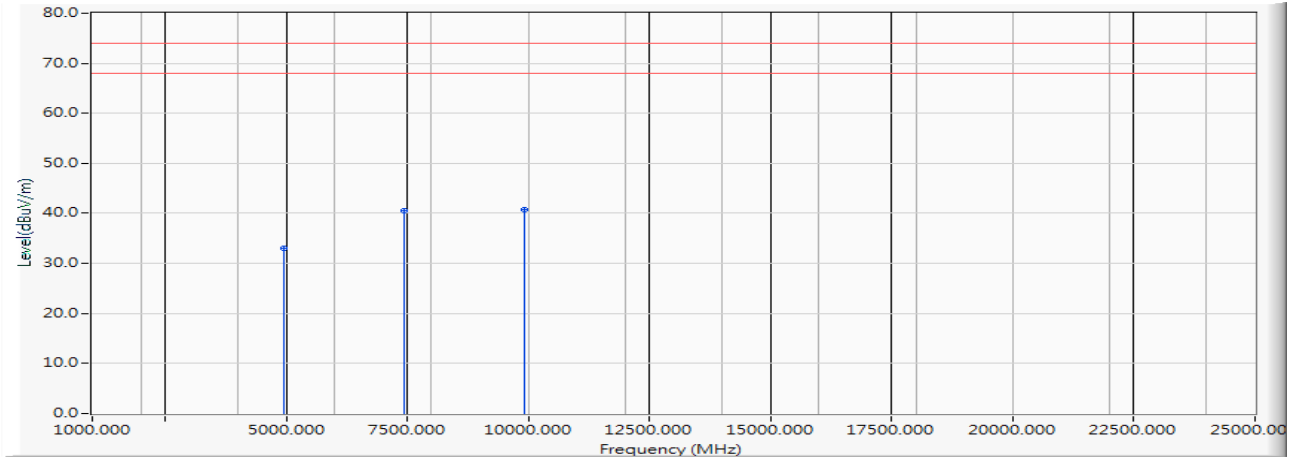
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4882.000	6.904	29.268	36.172	-37.828	74.000	PEAK
2	* 7323.000	11.380	29.862	41.242	-32.758	74.000	PEAK
3	9764.000	15.054	24.689	39.742	-34.258	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Horizontal



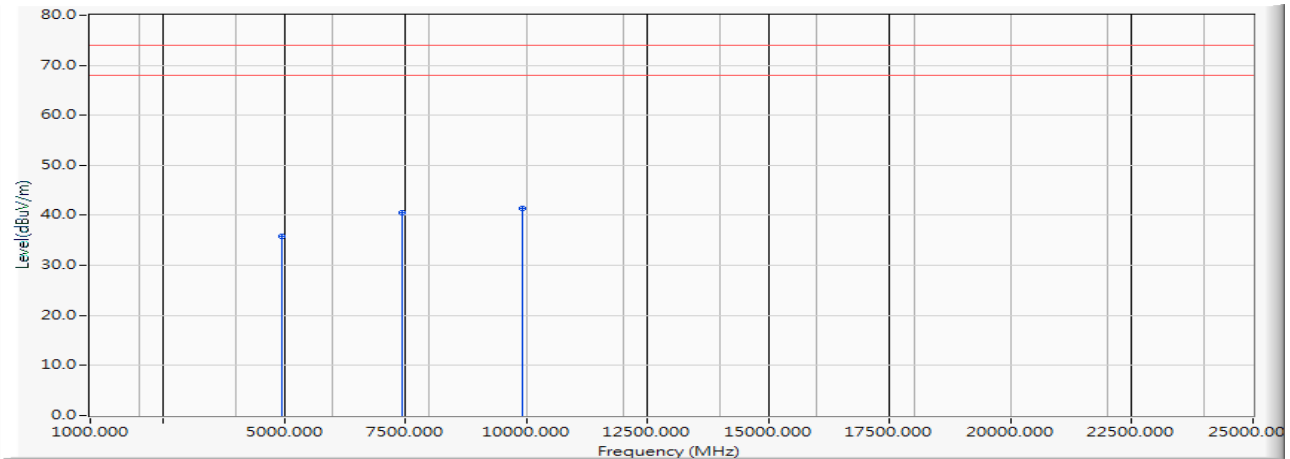
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4960.000	7.008	26.027	33.035	-40.965	74.000	PEAK
2	7440.000	11.485	29.033	40.518	-33.482	74.000	PEAK
3	* 9920.000	15.146	25.710	40.856	-33.144	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Vertical



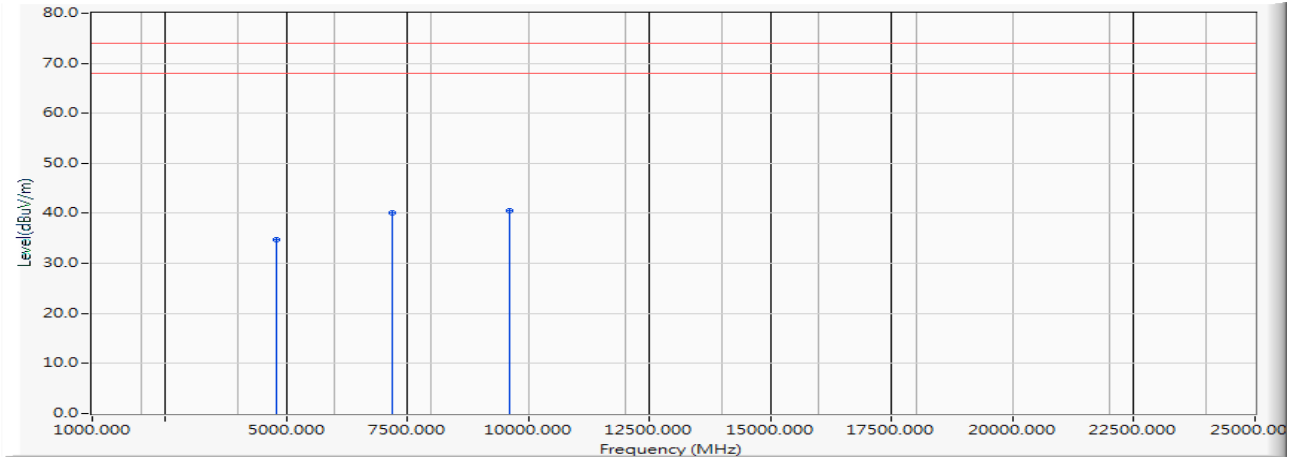
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4960.000	7.008	28.744	35.752	-38.248	74.000	PEAK
2	7440.000	11.485	29.072	40.557	-33.443	74.000	PEAK
3	* 9920.000	15.146	26.172	41.318	-32.682	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz)

Horizontal



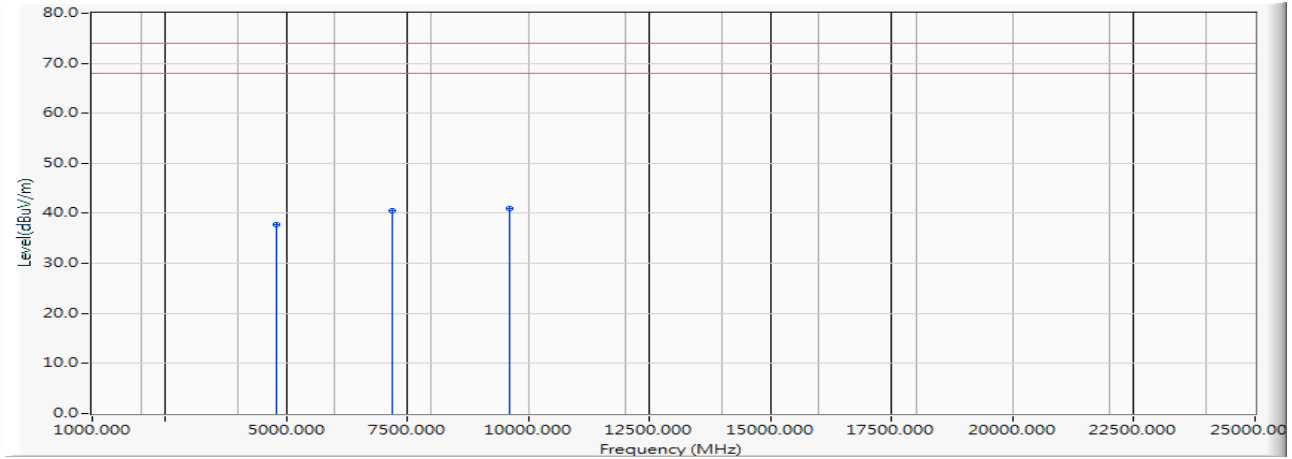
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4804.000	6.787	28.024	34.811	-39.189	74.000	PEAK
2	7206.000	11.333	28.701	40.034	-33.966	74.000	PEAK
3	* 9608.000	14.713	25.930	40.643	-33.357	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz)

Vertical



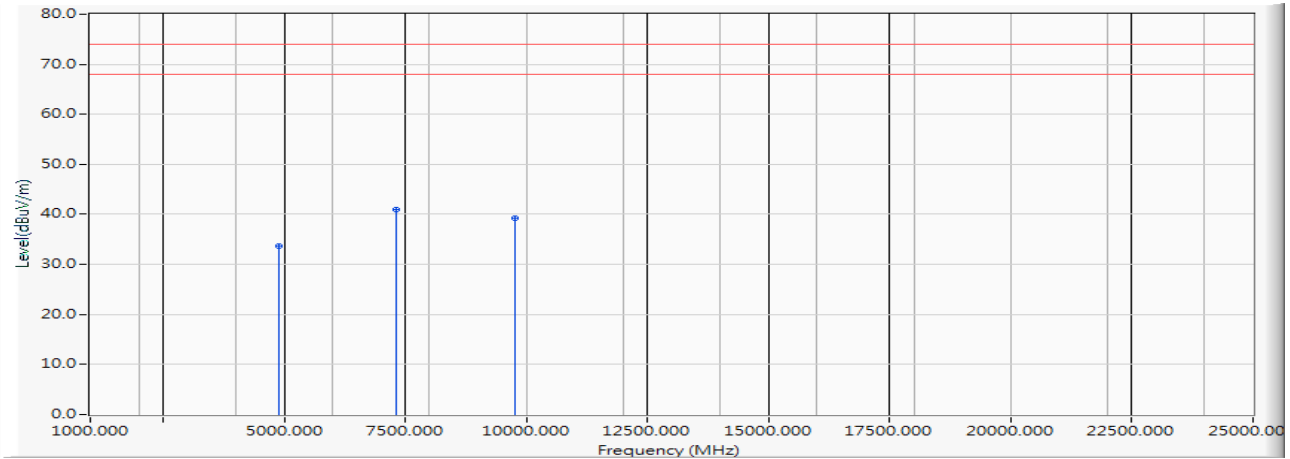
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4804.000	6.787	30.975	37.762	-36.238	74.000	PEAK
2	7206.000	11.333	29.101	40.434	-33.566	74.000	PEAK
3	* 9608.000	14.713	26.357	41.070	-32.930	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Horizontal



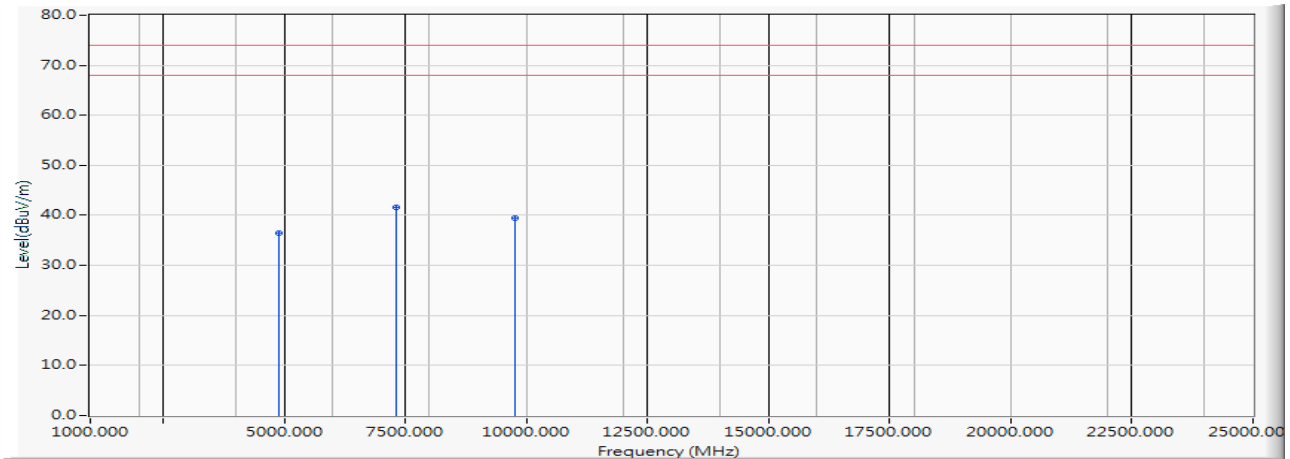
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4882.000	6.904	26.876	33.780	-40.220	74.000	PEAK
2	* 7323.000	11.380	29.671	41.051	-32.949	74.000	PEAK
3	9764.000	15.054	24.254	39.307	-34.693	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Vertical



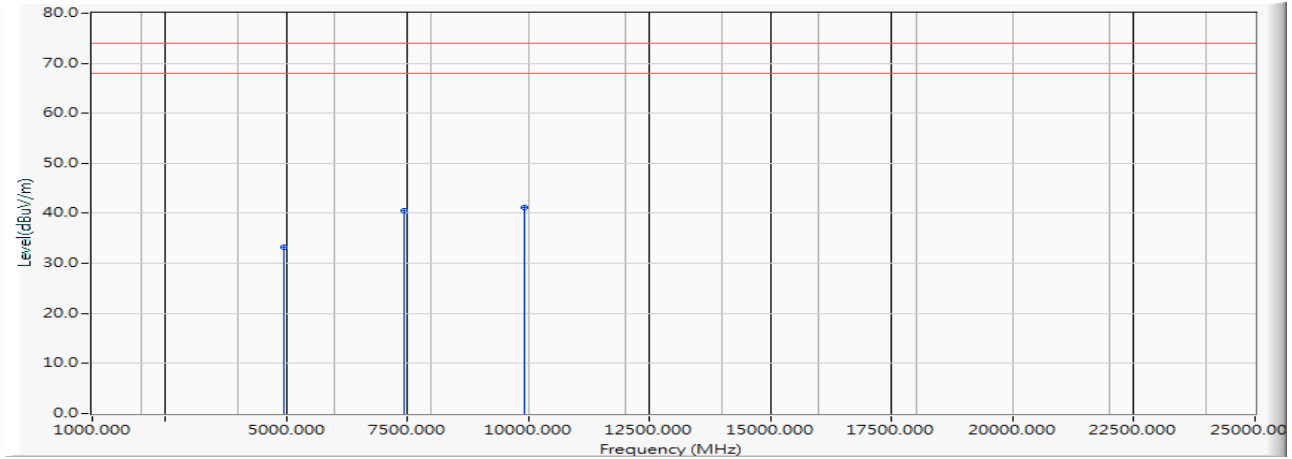
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4882.000	6.904	29.458	36.362	-37.638	74.000	PEAK
2	* 7323.000	11.380	30.222	41.602	-32.398	74.000	PEAK
3	9764.000	15.054	24.339	39.392	-34.608	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Horizontal



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4960.000	7.008	26.317	33.325	-40.675	74.000	PEAK
2	7440.000	11.485	29.063	40.548	-33.452	74.000	PEAK
3	* 9920.000	15.146	25.960	41.106	-32.894	74.000	PEAK

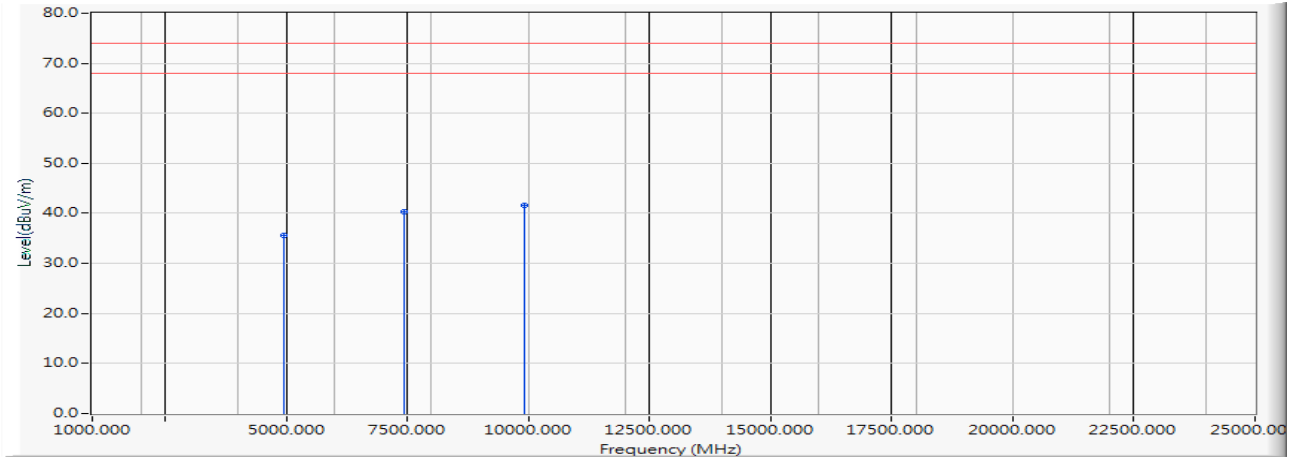
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product : INSTAX MINI HM1  
 Test Item : Harmonic Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/25  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Vertical



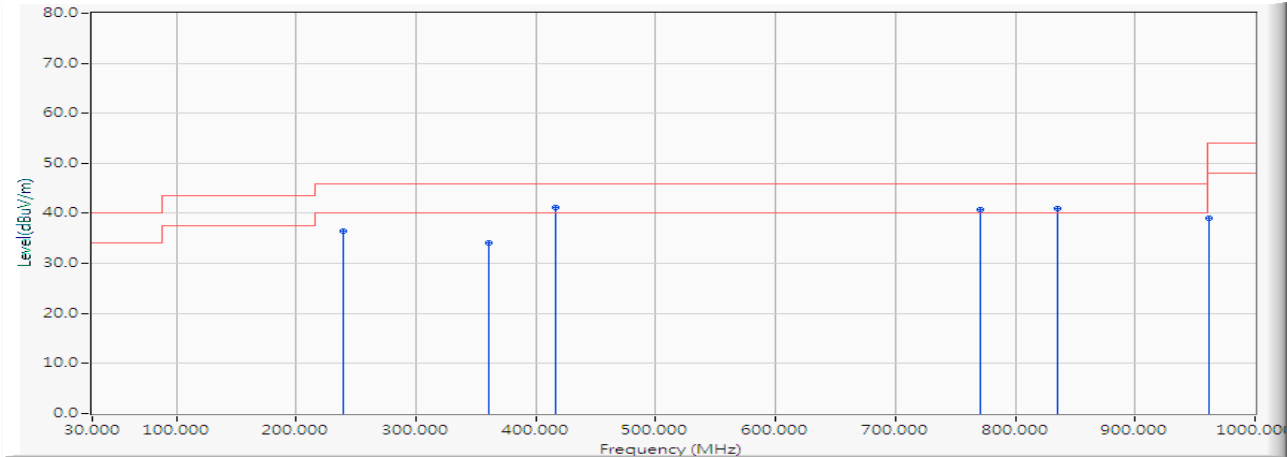
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4960.000	7.008	28.664	35.672	-38.328	74.000	PEAK
2	7440.000	11.485	28.882	40.367	-33.633	74.000	PEAK
3	* 9920.000	15.146	26.492	41.638	-32.362	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/20  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz)

Horizontal



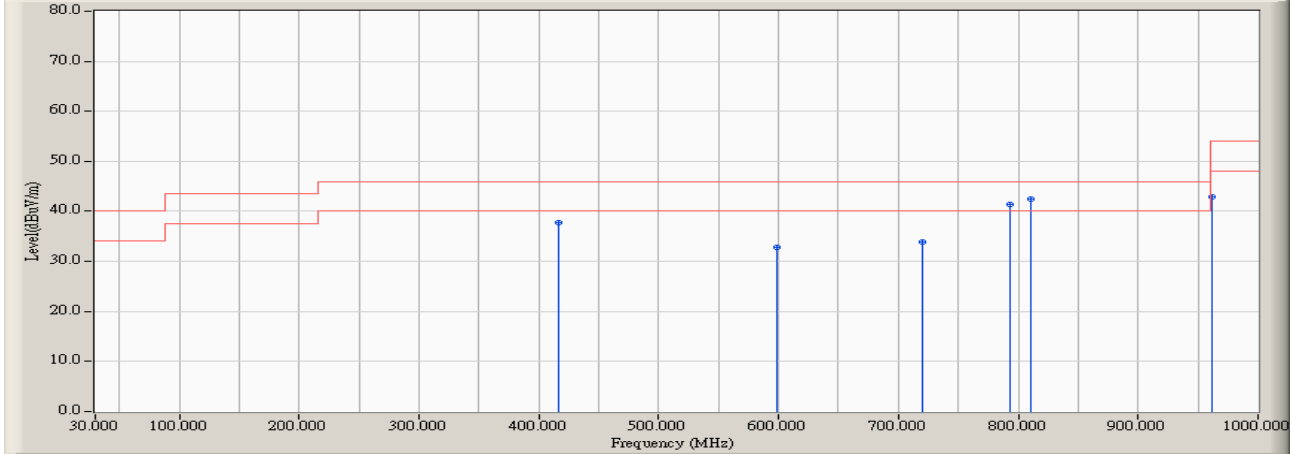
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	239.856	-0.285	36.729	36.444	-9.556	46.000	QUASIPeAK
2	361.106	3.766	30.343	34.109	-11.891	46.000	QUASIPeAK
3	417.067	5.242	35.938	41.180	-4.820	46.000	QUASIPeAK
4	* 793.253	10.693	32.583	43.276	-2.724	46.000	QUASIPeAK
5	810.353	10.968	30.450	41.418	-4.582	46.000	QUASIPeAK
6	961.138	13.052	26.009	39.061	-14.939	54.000	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/20  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz)

Vertical



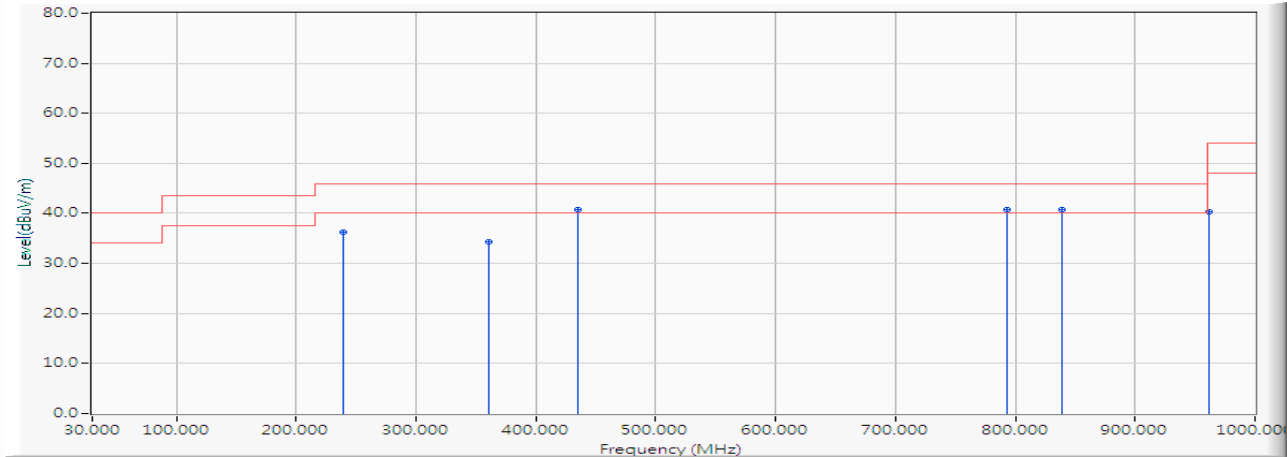
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	417.067	5.242	32.553	37.795	-8.205	46.000	QUASPEAK
2	598.942	8.325	24.534	32.859	-13.141	46.000	QUASPEAK
3	720.192	9.706	24.219	33.926	-12.074	46.000	QUASPEAK
4	793.253	10.693	30.782	41.475	-4.525	46.000	QUASPEAK
5	* 810.353	10.968	31.585	42.553	-3.447	46.000	QUASPEAK
6	961.138	13.052	29.774	42.826	-11.174	54.000	QUASPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : INSTAX MINI HM1  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/20  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Horizontal



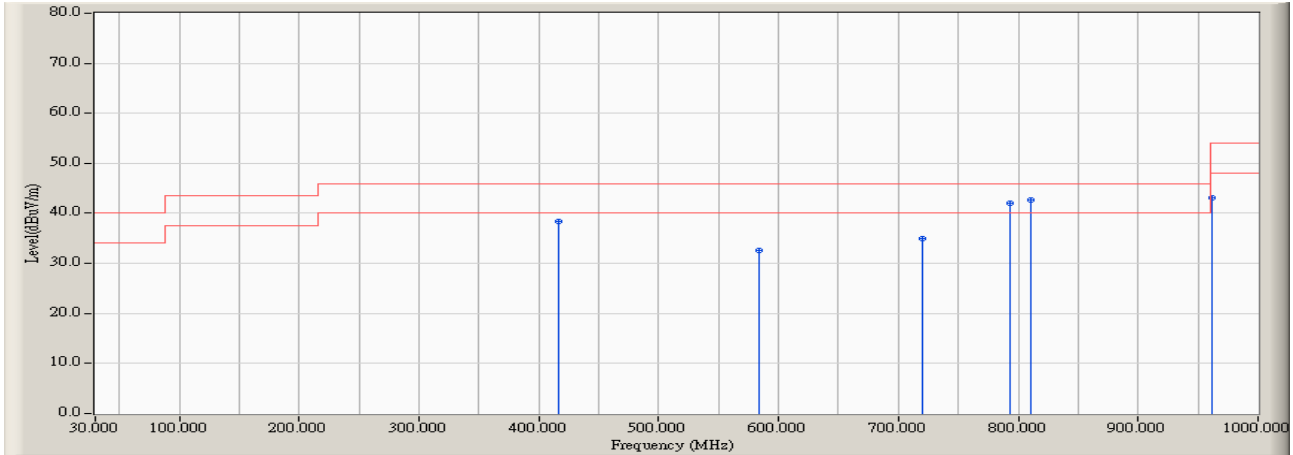
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	239.856	-0.285	36.513	36.228	-9.772	46.000	QUASIPeAK
2	361.106	3.766	30.552	34.318	-11.682	46.000	QUASIPeAK
3	* 417.067	5.242	36.215	41.457	-4.543	46.000	QUASIPeAK
4	793.253	10.693	29.973	40.666	-5.334	46.000	QUASIPeAK
5	839.229	11.295	29.477	40.771	-5.229	46.000	QUASIPeAK
6	961.138	13.052	27.361	40.413	-13.587	54.000	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : INSTAX MINI HM1  
 Test Item : General Radiated Emission  
 Test Site : No.3 OATS  
 Test date : 2019/02/20  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Vertical



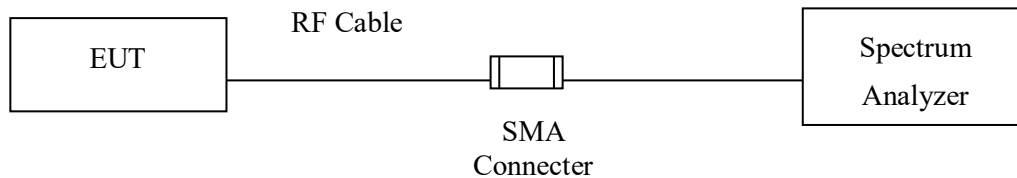
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	417.067	5.242	33.174	38.416	-7.584	46.000	QUASIPeAK
2	583.397	8.149	24.378	32.527	-13.473	46.000	QUASIPeAK
3	720.192	9.706	25.210	34.917	-11.083	46.000	QUASIPeAK
4	793.253	10.693	31.306	41.999	-4.001	46.000	QUASIPeAK
5	* 810.353	10.968	31.714	42.682	-3.318	46.000	QUASIPeAK
6	961.138	13.052	29.962	43.014	-10.986	54.000	QUASIPeAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

## 5. RF Antenna Conducted Test

### 5.1. Test Setup



### 5.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

### 5.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

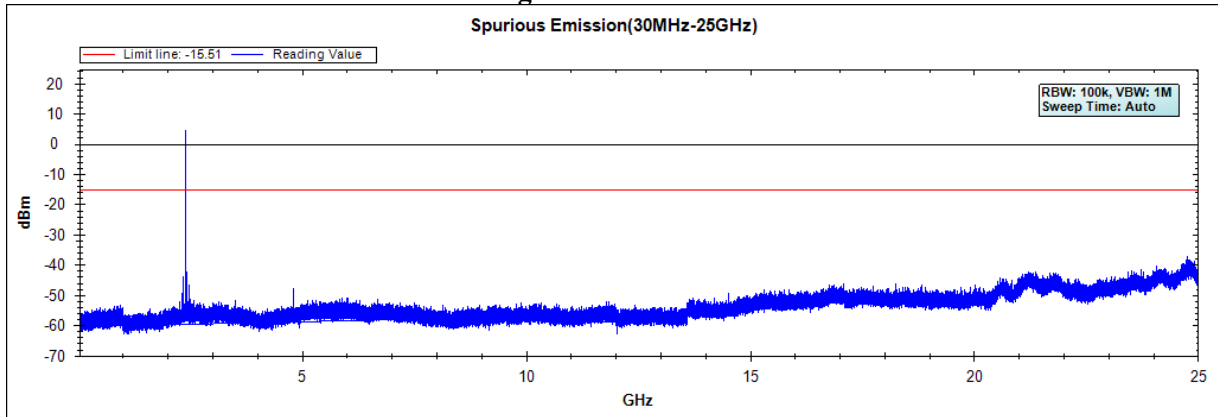
### 5.4. Uncertainty

$\pm 1.20\text{dB}$

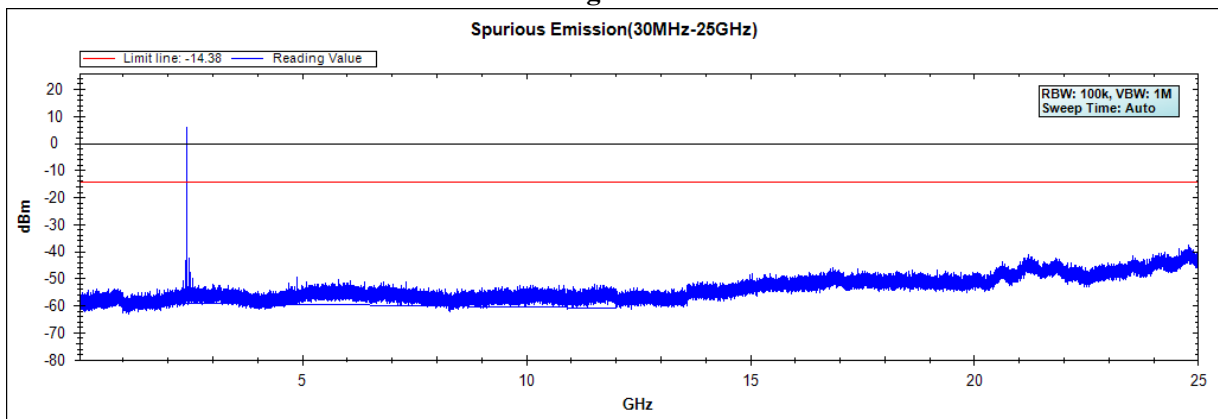
### 5.5. Test Result of RF Antenna Conducted Test

Product : INSTAX MINI HM1  
 Test Item : RF Antenna Conducted Test  
 Test Site : No.3 OATS  
 Test date : 2019/02/18  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

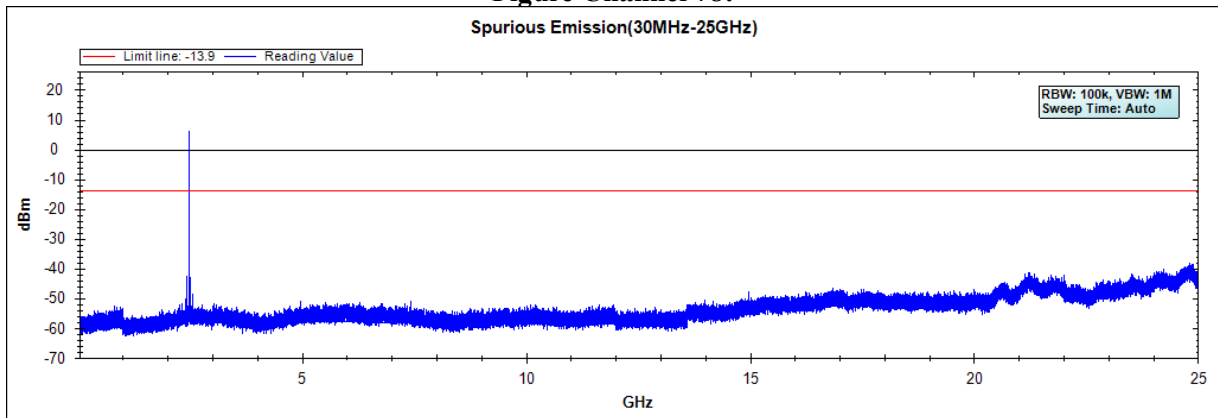
**Figure Channel 00:**



**Figure Channel 39:**



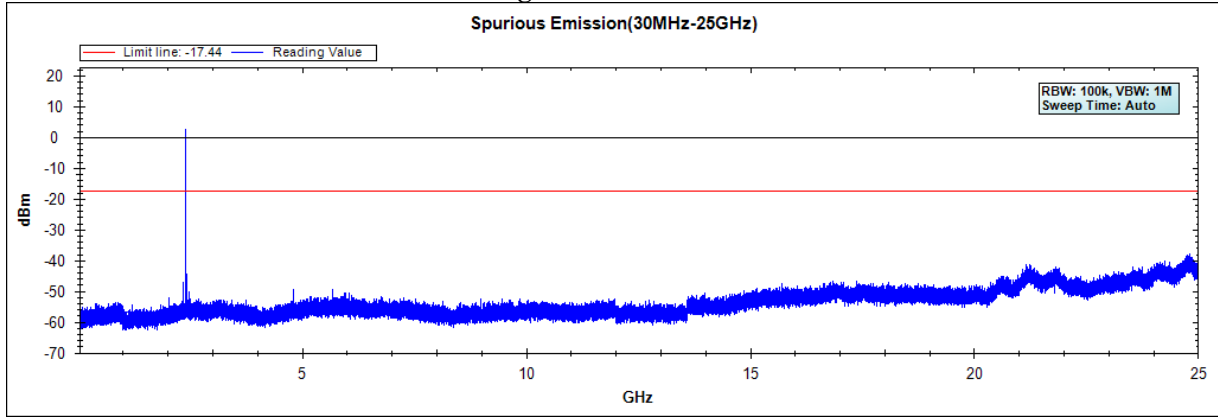
**Figure Channel 78:**



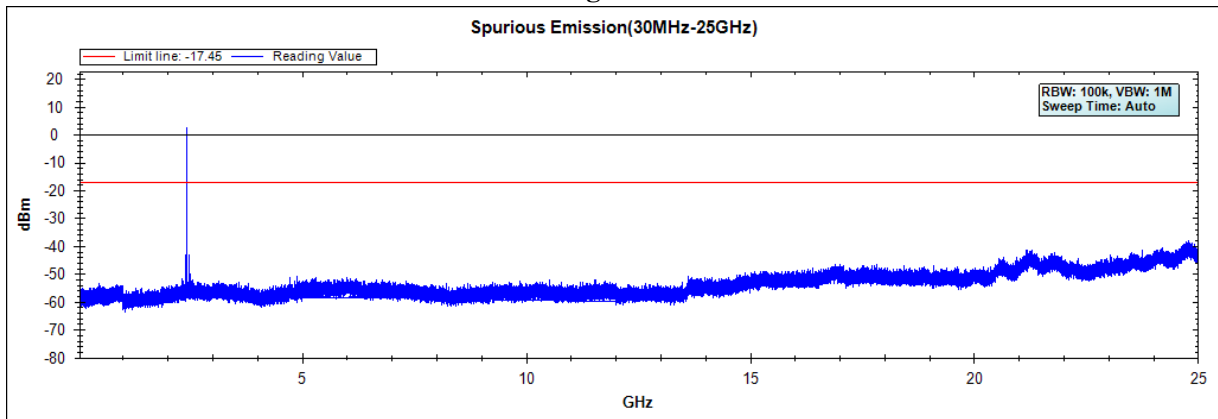
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : INSTAX MINI HM1  
Test Item : RF Antenna Conducted Test  
Test Site : No.3 OATS  
Test date : 2019/02/18  
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

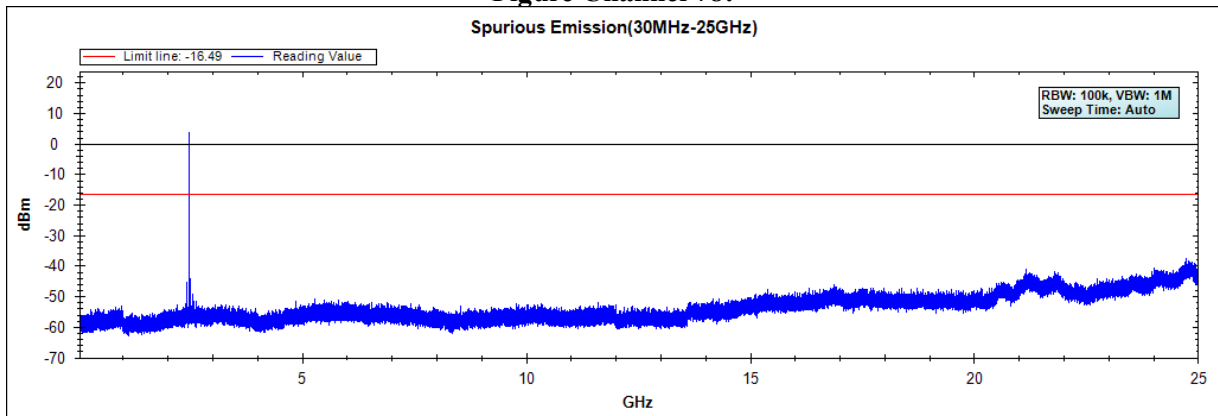
**Figure Channel 00:**



**Figure Channel 39:**



**Figure Channel 78:**



Note: The above test pattern is synthesized by multiple of the frequency range.

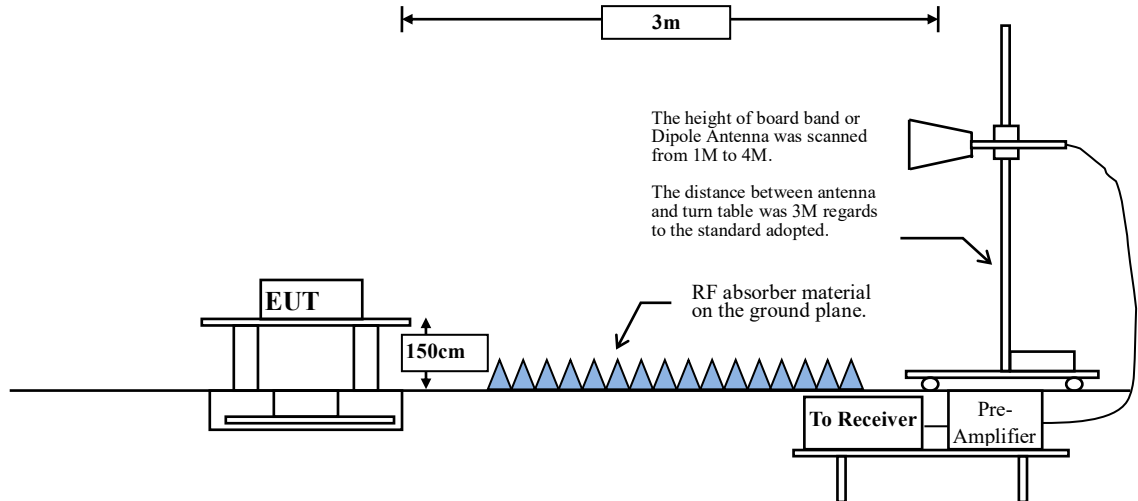


## 6. Band Edge

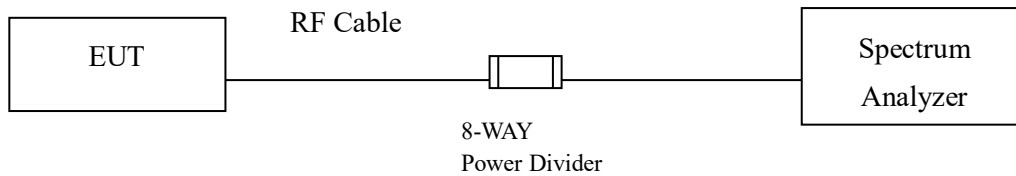
### 6.1. Test Setup

#### RF Radiated Measurement:

Above 1GHz



#### RF Conducted Measurement



### 6.2. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### 6.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

The bandwidth setting below 1GHz and above 1GHz on the field strength meter is 120 kHz and 1MHz, respectively.

### 6.4. Uncertainty

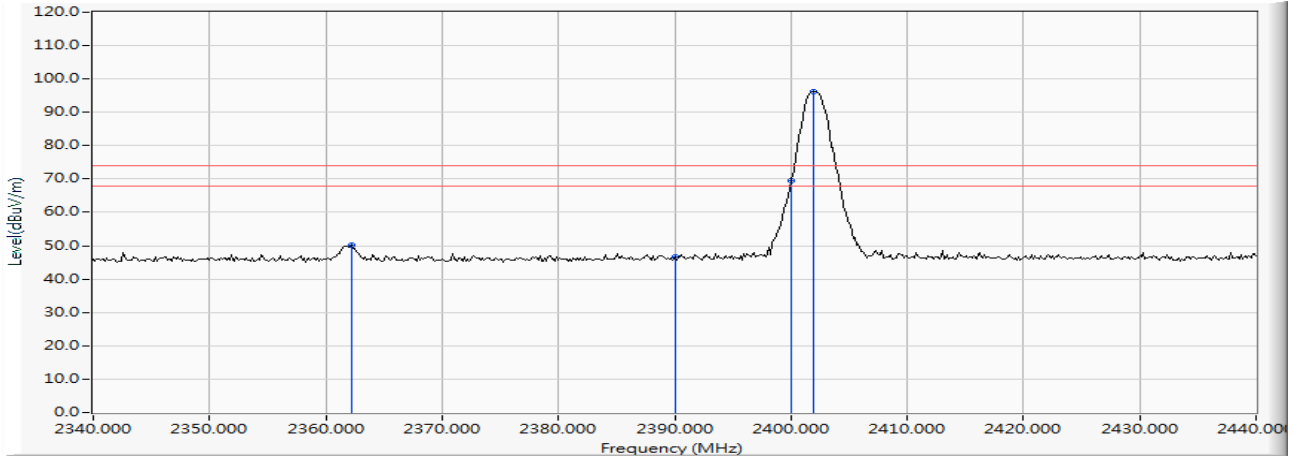
± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

### 6.5. Test Result of Band Edge

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Horizontal



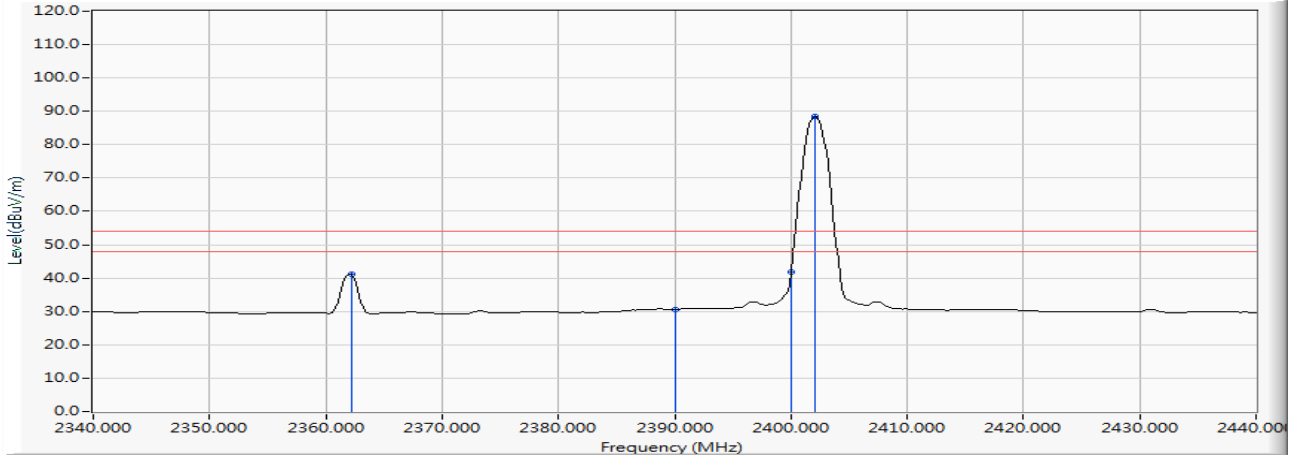
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2362.174	6.351	43.892	50.243	-23.757	74.000	PEAK
2	2390.000	6.474	40.217	46.692	-27.308	74.000	PEAK
3	2400.000	6.528	63.015	69.543	-4.457	74.000	PEAK
4	* 2401.884	6.540	89.536	96.076	22.076	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Horizontal



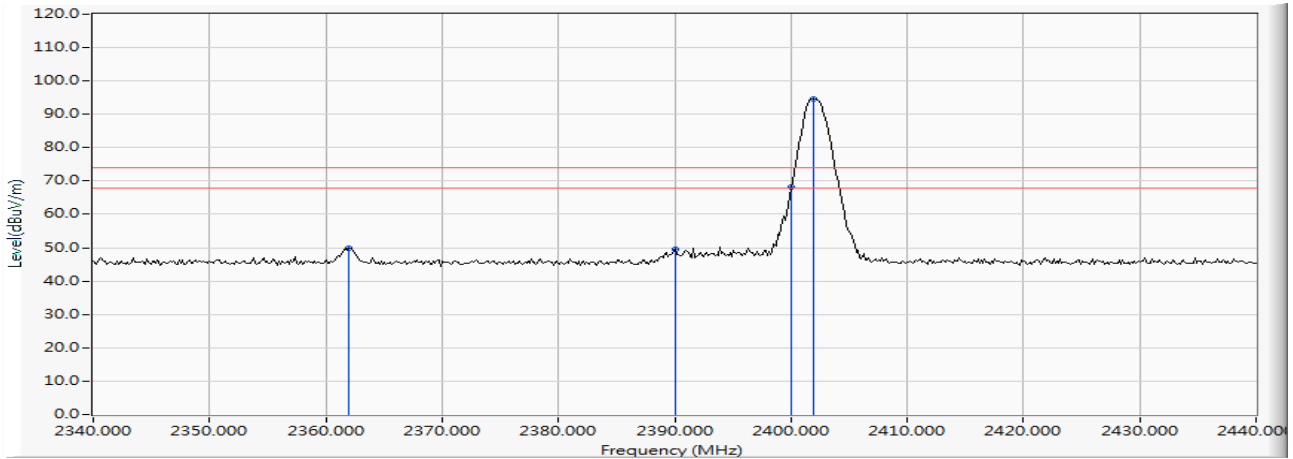
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2362.174	6.351	34.679	41.030	-12.970	54.000	AVERAGE
2	2390.000	6.474	24.179	30.654	-23.346	54.000	AVERAGE
3	2400.000	6.528	35.235	41.763	-12.237	54.000	AVERAGE
4	* 2402.029	6.540	81.807	88.347	34.347	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Vertical



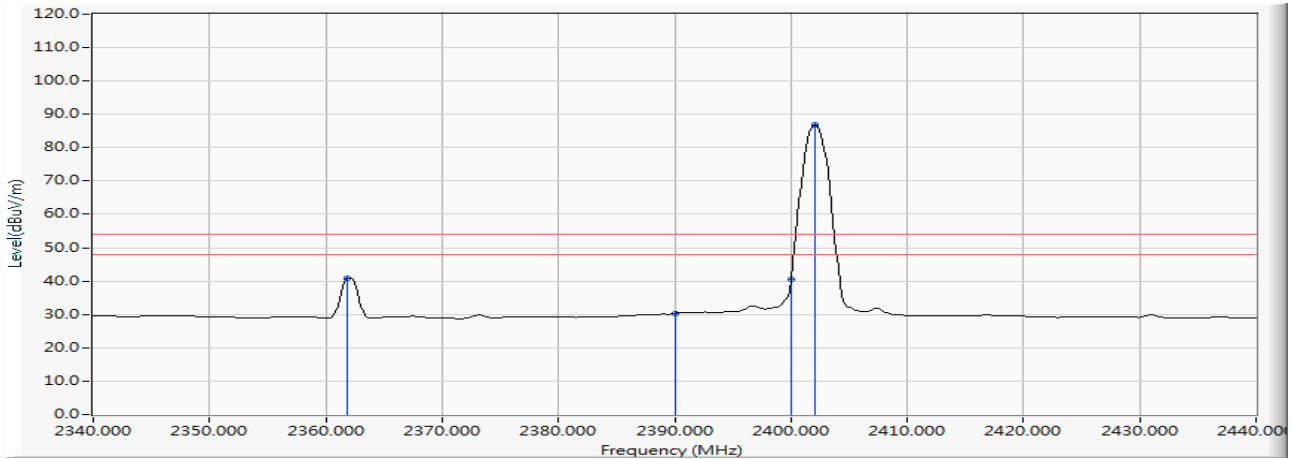
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2362.029	5.996	43.872	49.867	-24.133	74.000	PEAK
2	2390.000	5.880	43.509	49.390	-24.610	74.000	PEAK
3	2400.000	5.879	62.302	68.181	-5.819	74.000	PEAK
4	* 2401.884	5.884	88.606	94.490	20.490	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2402MHz)

Vertical



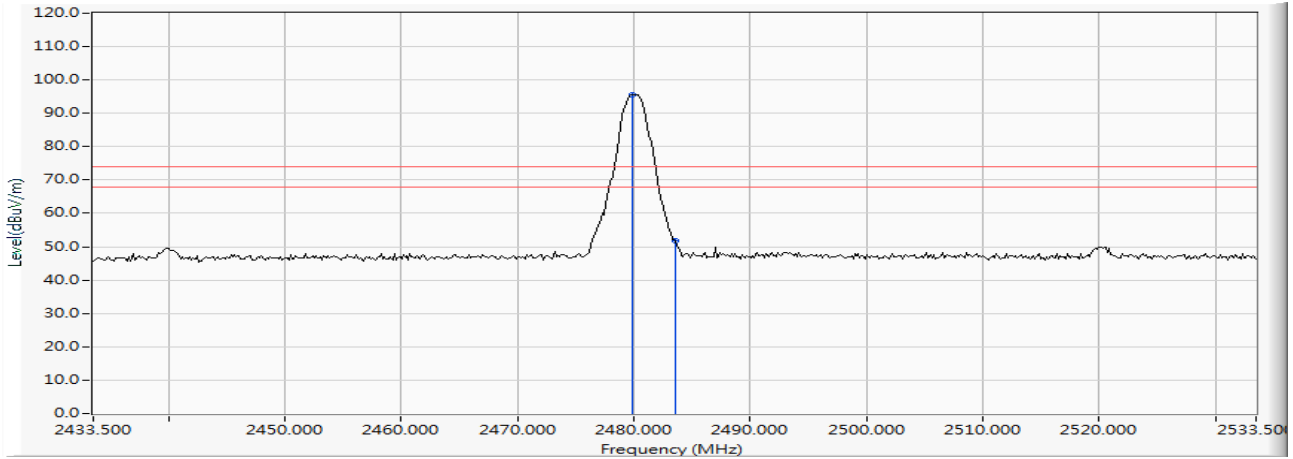
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2361.884	5.996	34.903	40.899	-13.101	54.000	AVERAGE
2	2390.000	5.880	24.444	30.325	-23.675	54.000	AVERAGE
3	2400.000	5.879	34.641	40.520	-13.480	54.000	AVERAGE
4	* 2402.029	5.884	80.985	86.869	32.869	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Horizontal



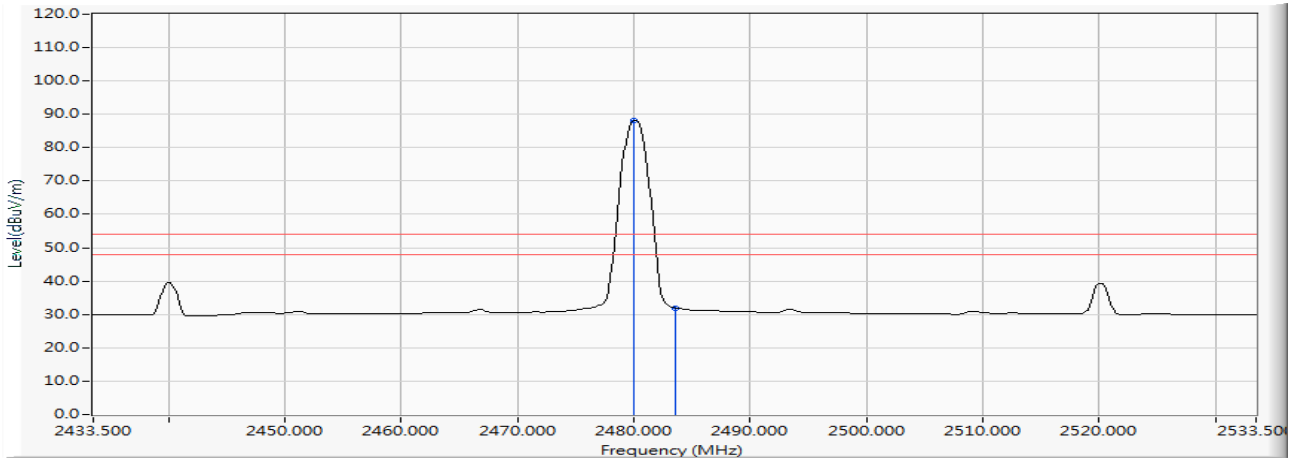
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	7.085	88.566	95.650	21.650	74.000	PEAK
2		2483.500	7.110	44.750	51.860	-22.140	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	7.086	81.090	88.175	34.175	54.000	AVERAGE
2		2483.500	7.110	24.899	32.009	-21.991	54.000	AVERAGE

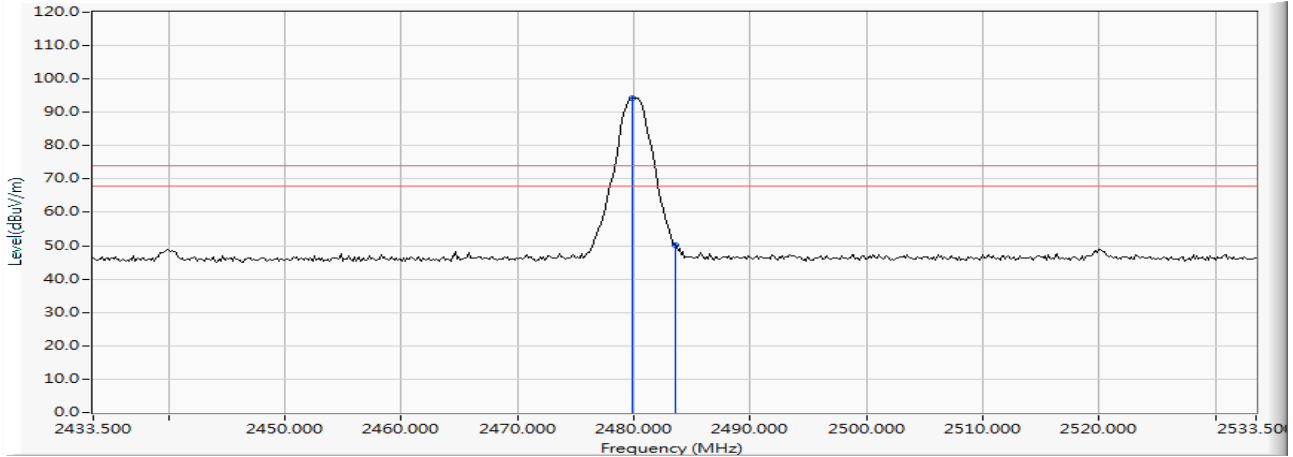
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*” , means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.



Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Vertical



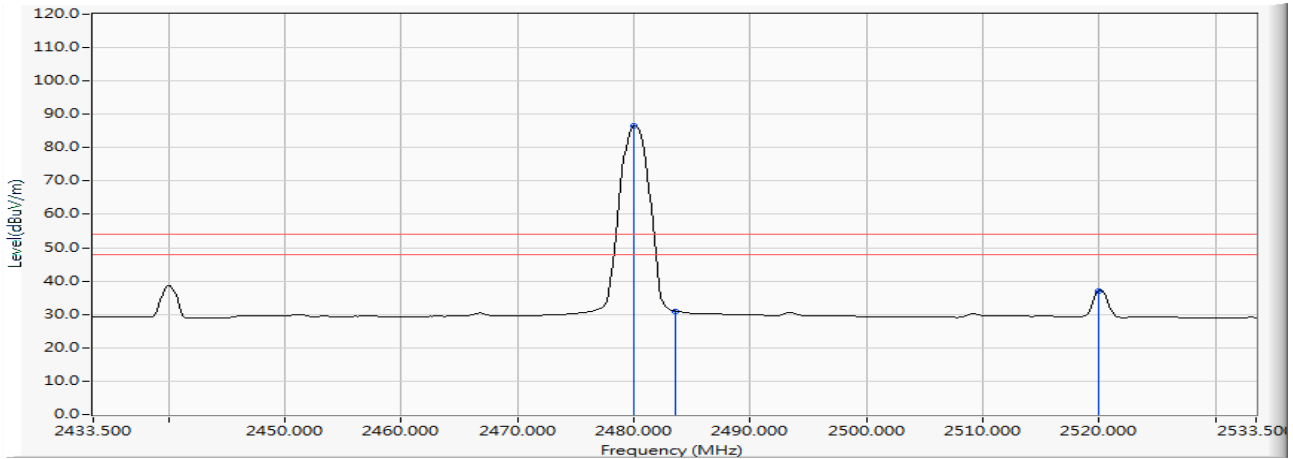
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2479.877	6.341	87.991	94.332	20.332	74.000	PEAK
2		2483.500	6.363	43.923	50.286	-23.714	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2480MHz)

Vertical



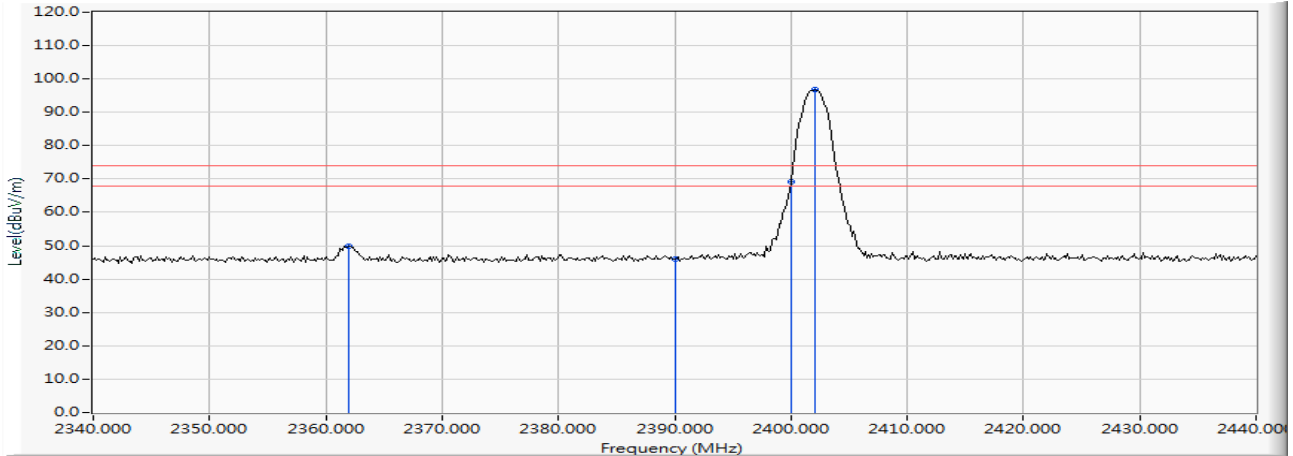
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	6.342	80.081	86.423	32.423	54.000	AVERAGE
2		2483.500	6.363	24.647	31.010	-22.990	54.000	AVERAGE
3		2520.022	6.465	30.643	37.108	-16.892	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)

Horizontal



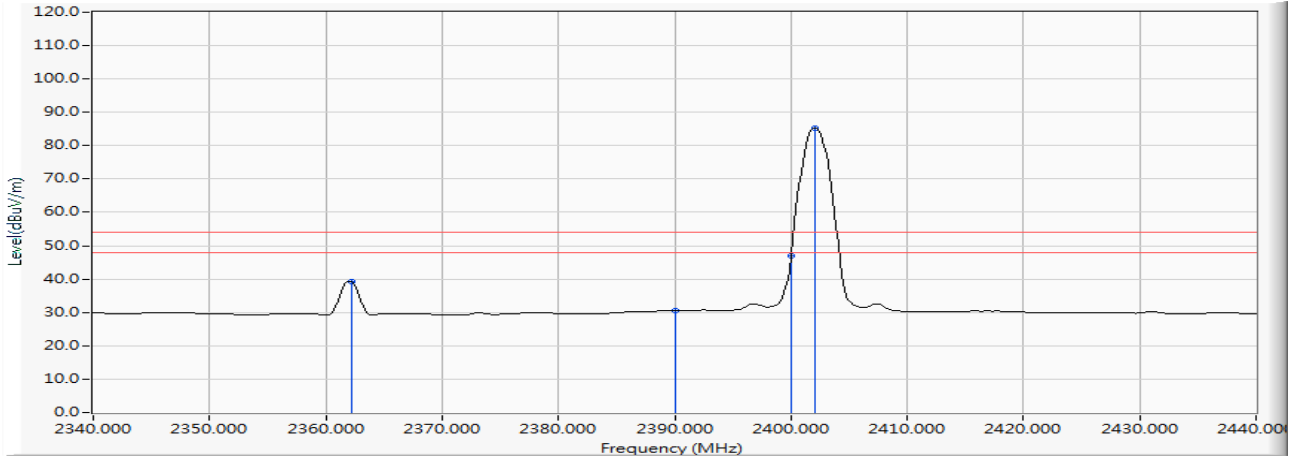
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2362.029	6.350	43.659	50.009	-23.991	74.000	PEAK
2		2390.000	6.474	39.610	46.085	-27.915	74.000	PEAK
3		2400.000	6.528	62.641	69.169	-4.831	74.000	PEAK
4	*	2402.029	6.540	90.177	96.717	22.717	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)

Horizontal



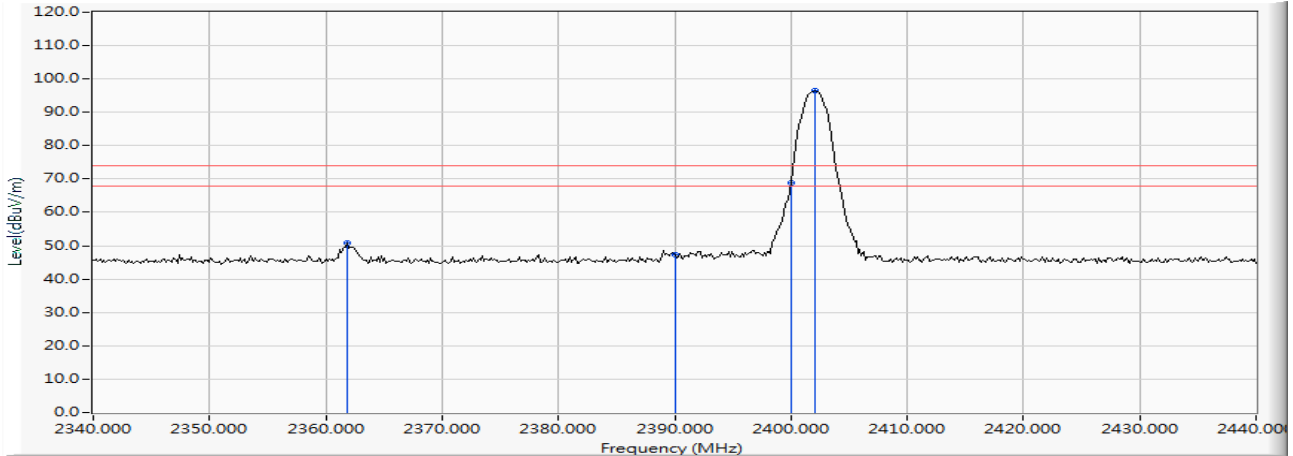
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2362.174	6.351	32.908	39.259	-14.741	54.000	AVERAGE
2		2390.000	6.474	24.012	30.487	-23.513	54.000	AVERAGE
3		2400.000	6.528	40.391	46.919	-7.081	54.000	AVERAGE
4	*	2402.029	6.540	78.873	85.413	31.413	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)

Vertical

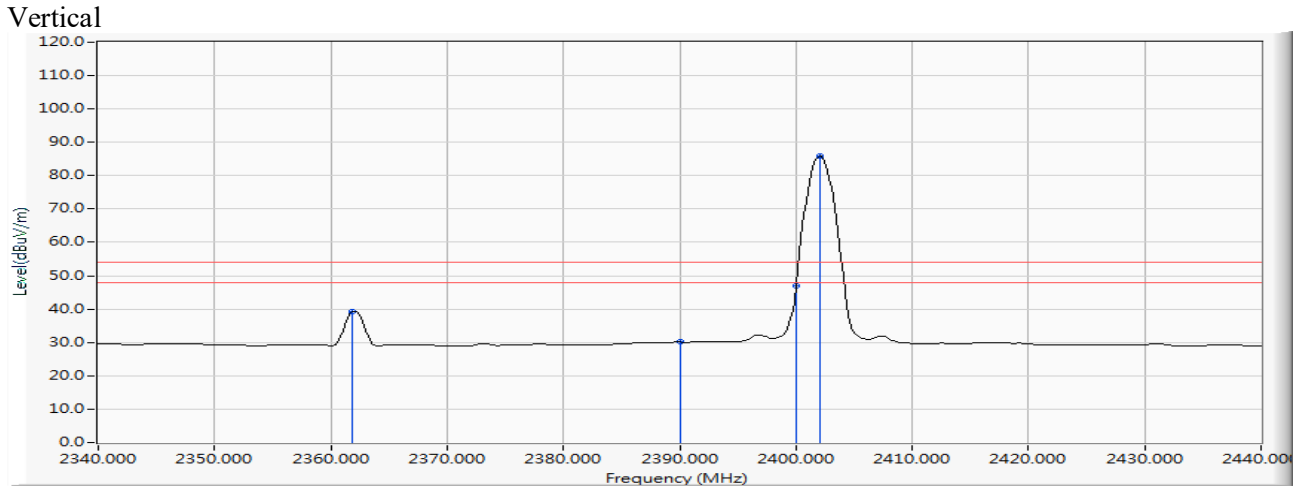


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2361.884	5.996	44.720	50.716	-23.284	74.000	PEAK
2		2390.000	5.880	41.427	47.308	-26.692	74.000	PEAK
3		2400.000	5.879	63.095	68.974	-5.026	74.000	PEAK
4	*	2402.029	5.884	90.524	96.408	22.408	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)



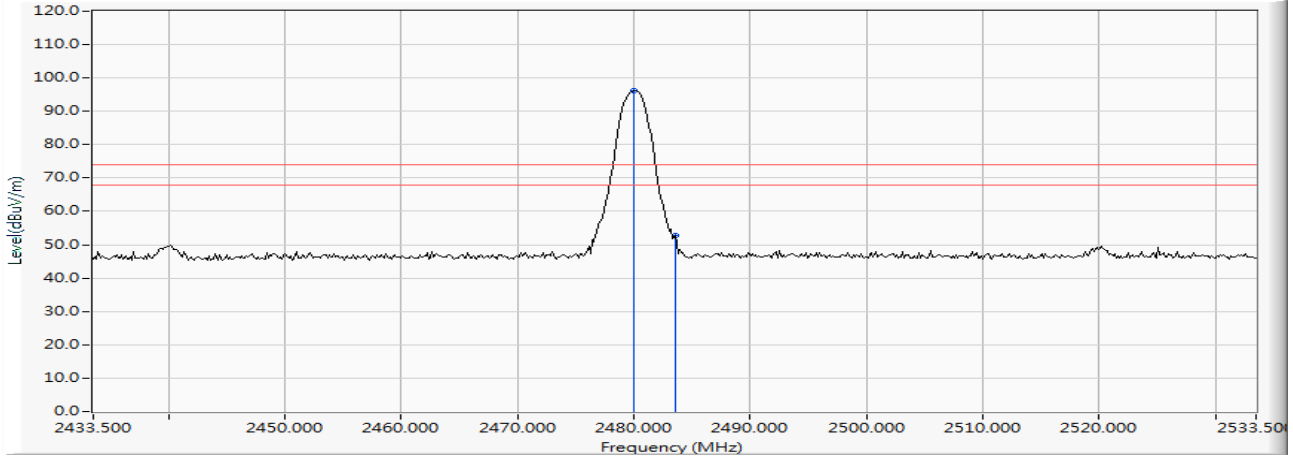
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2361.884	5.996	33.288	39.284	-14.716	54.000	AVERAGE
2		2390.000	5.880	24.206	30.087	-23.913	54.000	AVERAGE
3		2400.000	5.879	40.974	46.853	-7.147	54.000	AVERAGE
4	*	2402.029	5.884	79.913	85.797	31.797	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Horizontal



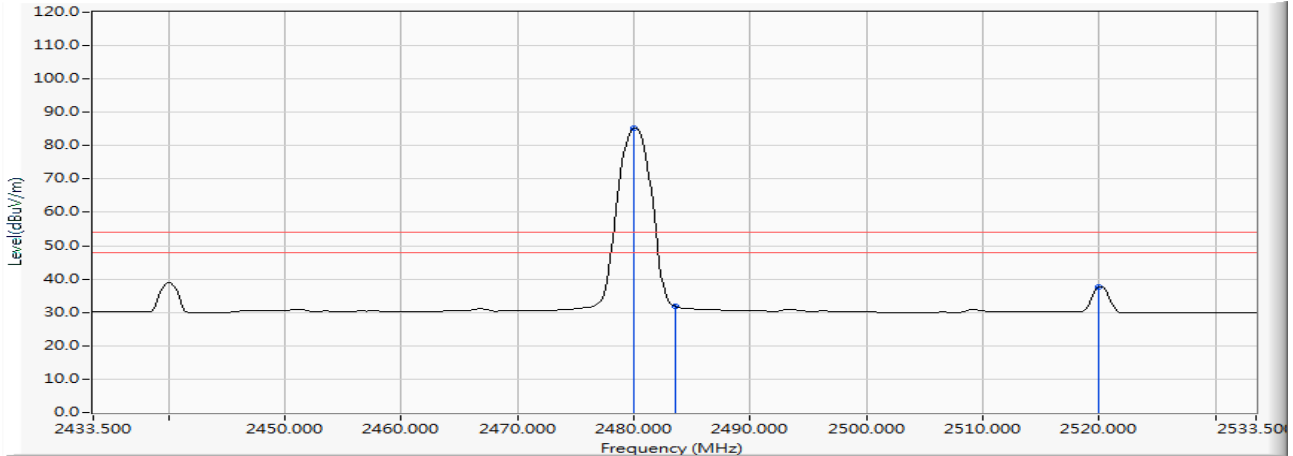
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	7.086	89.070	96.155	22.155	74.000	PEAK
2		2483.500	7.110	45.624	52.734	-21.266	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*” means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Horizontal



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	7.086	78.146	85.231	31.231	54.000	AVERAGE
2		2483.500	7.110	24.654	31.764	-22.236	54.000	AVERAGE
3		2520.022	7.125	30.573	37.698	-16.302	54.000	AVERAGE

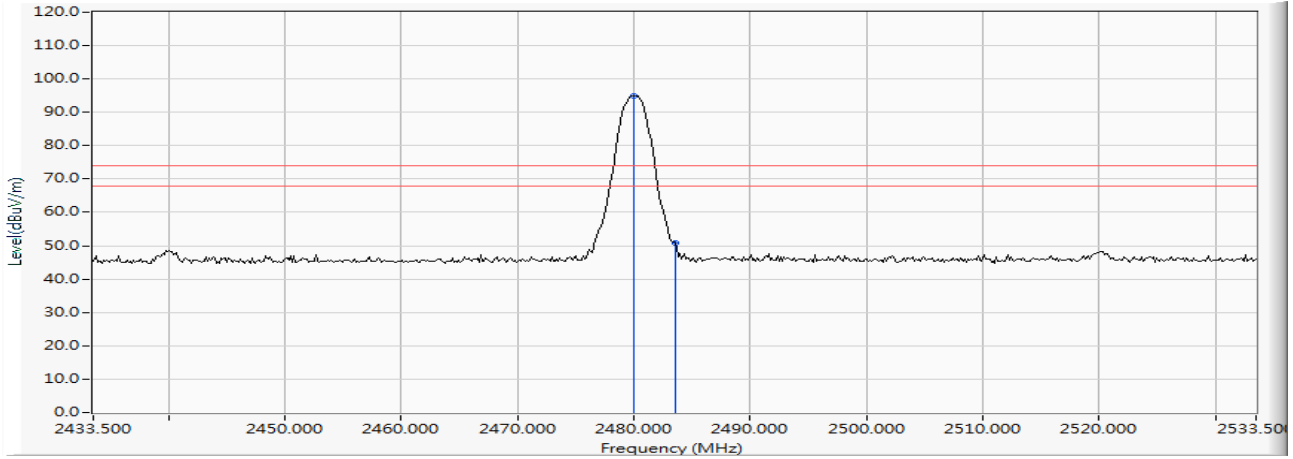
Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.



Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)

Vertical

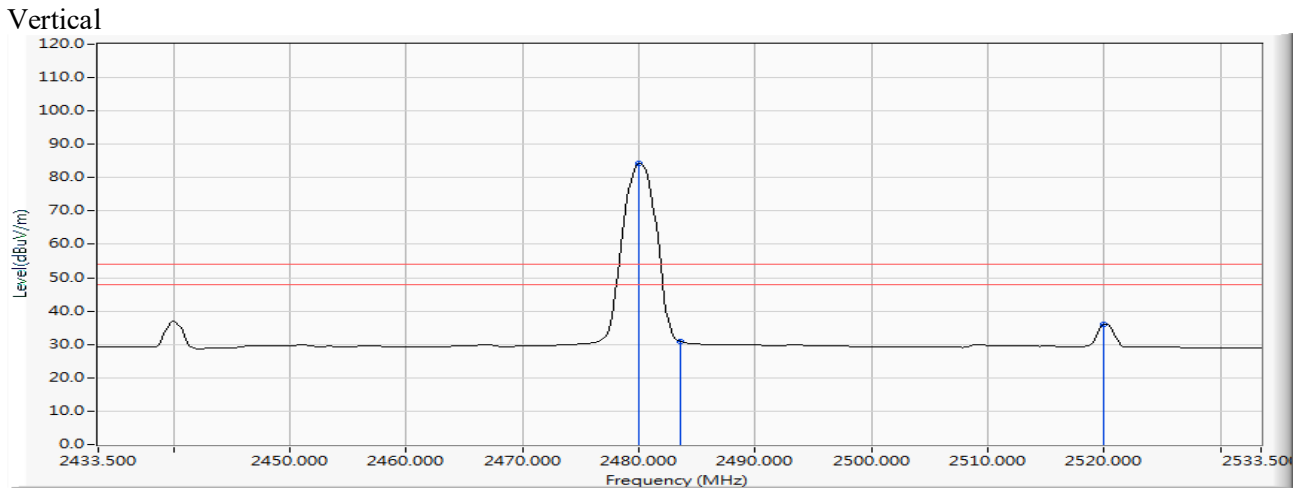


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	6.342	88.700	95.042	21.042	74.000	PEAK
2		2483.500	6.363	44.610	50.973	-23.027	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test date : 2019/02/19  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2480.022	6.342	77.809	84.151	30.151	54.000	AVERAGE
2		2483.500	6.363	24.523	30.886	-23.114	54.000	AVERAGE
3		2520.022	6.465	29.547	36.012	-17.988	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correction Factor.
6. The average measurement was not performed when the peak measured data is under the limit of average detection.

Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(Hopping off)

Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel 00:

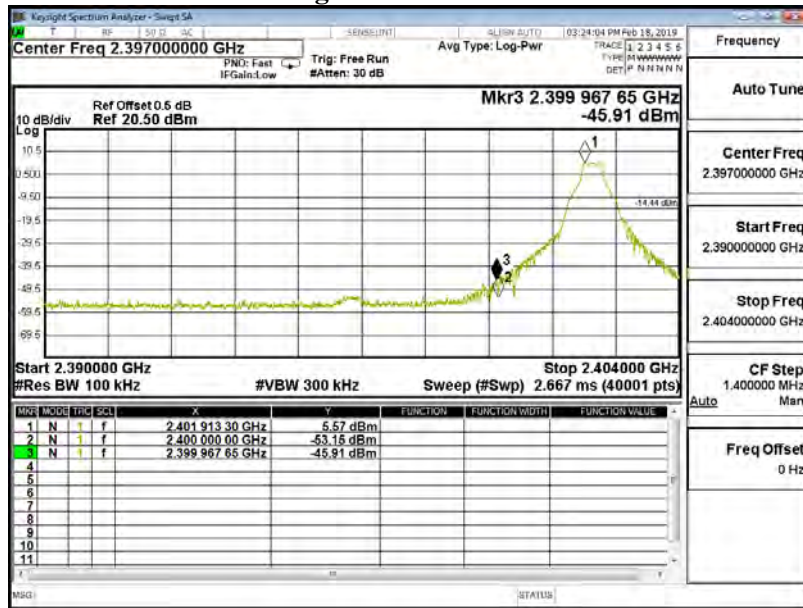
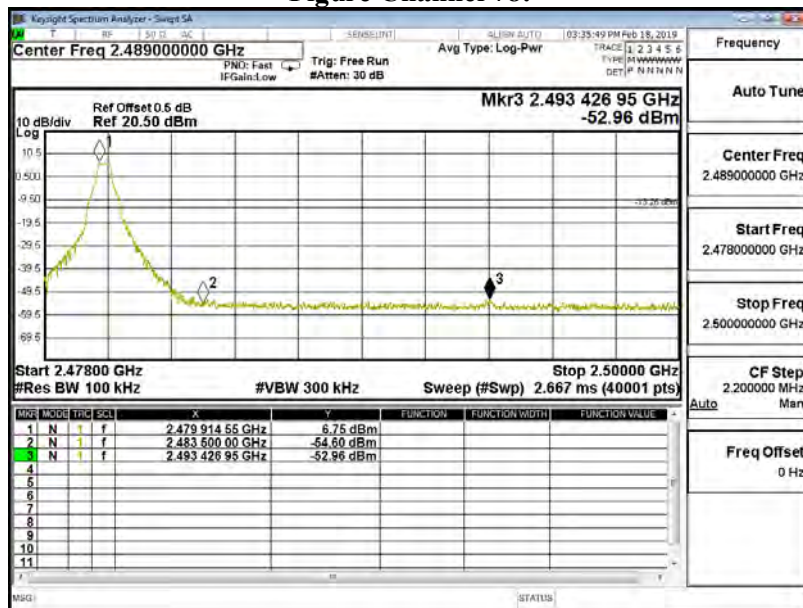


Figure Channel 78:



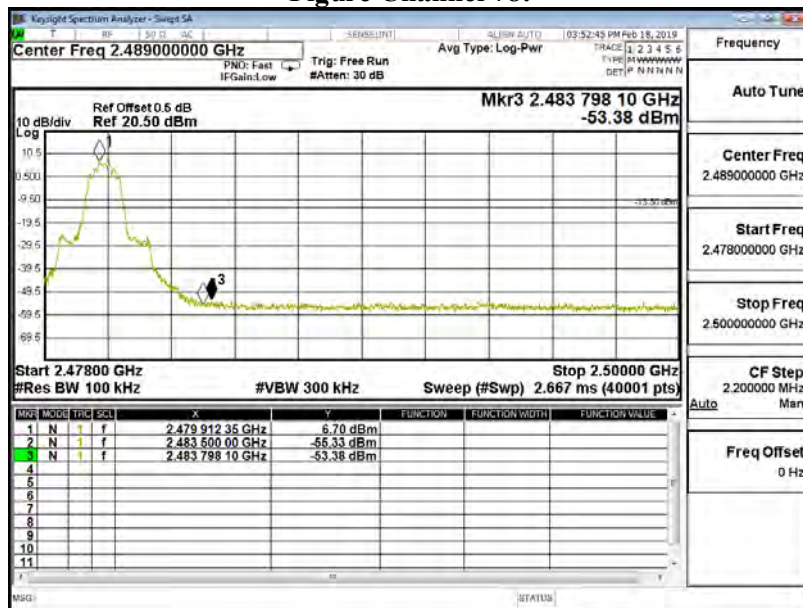
Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (Hopping off)

Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel 00:



Figure Channel 78:



Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(Hopping on)

Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel 00 Hopping:

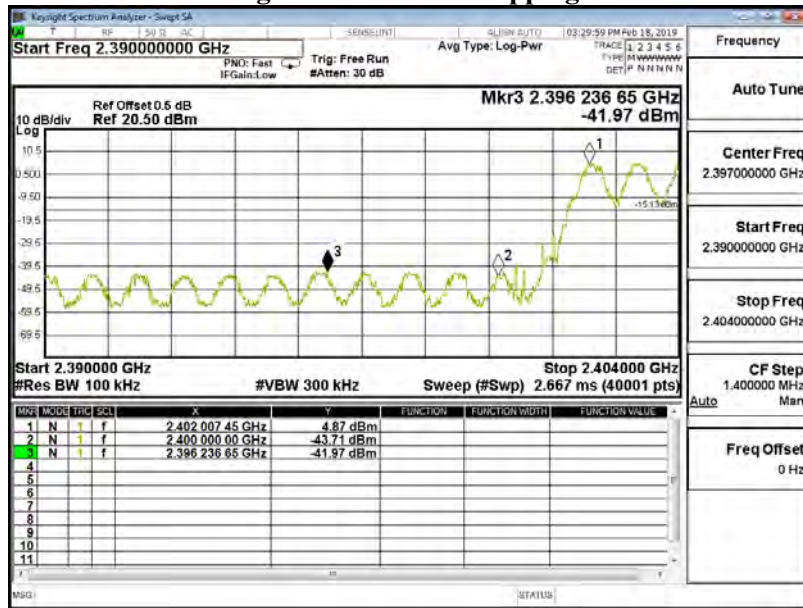
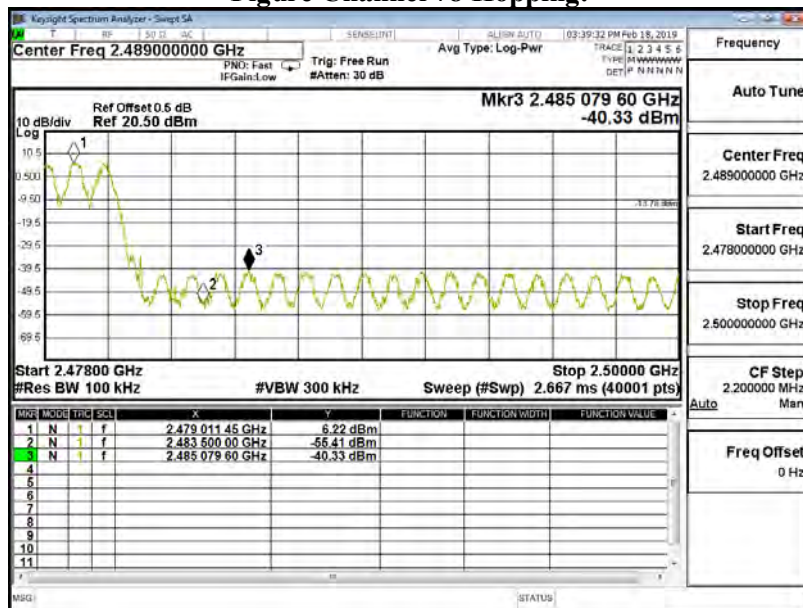


Figure Channel 78 Hopping:

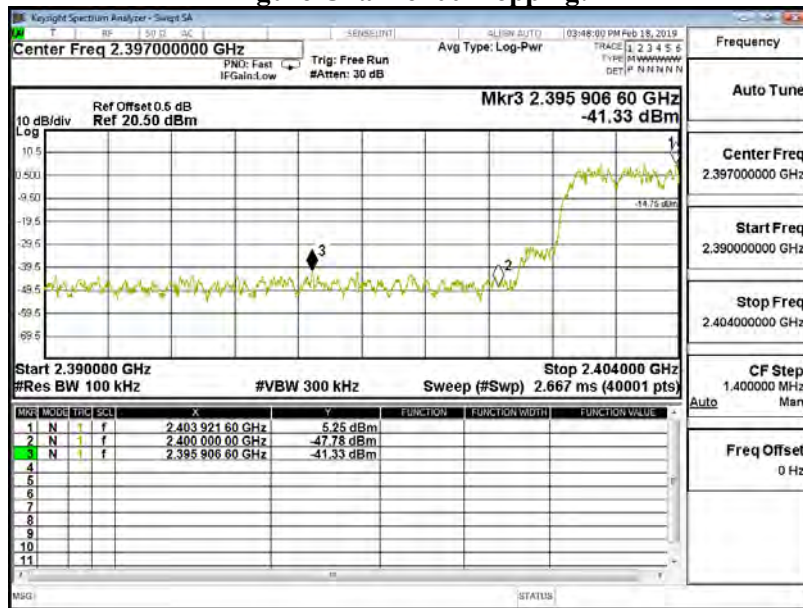




Product : INSTAX MINI HM1  
 Test Item : Band Edge  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (Hopping on)

Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

**Figure Channel 00 Hopping:**

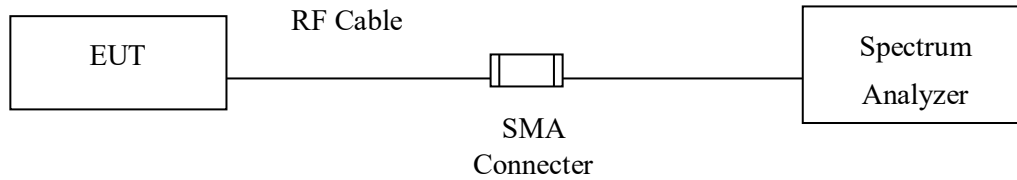


**Figure Channel 78 Hopping:**



## 7. Channel Number

### 7.1. Test Setup



### 7.2. Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 15 hopping frequencies.

### 7.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 7.4. Uncertainty

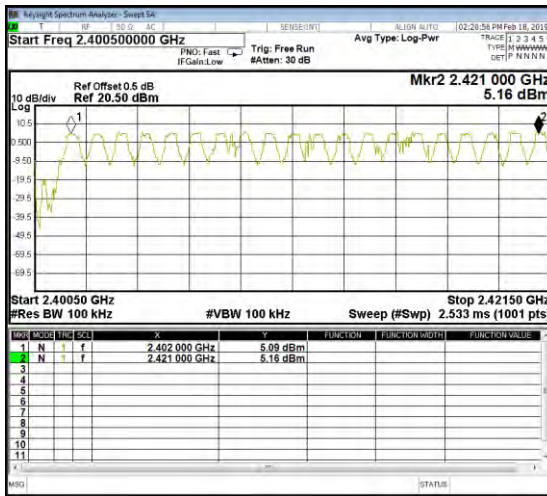
N/A

### 7.5. Test Result of Channel Number

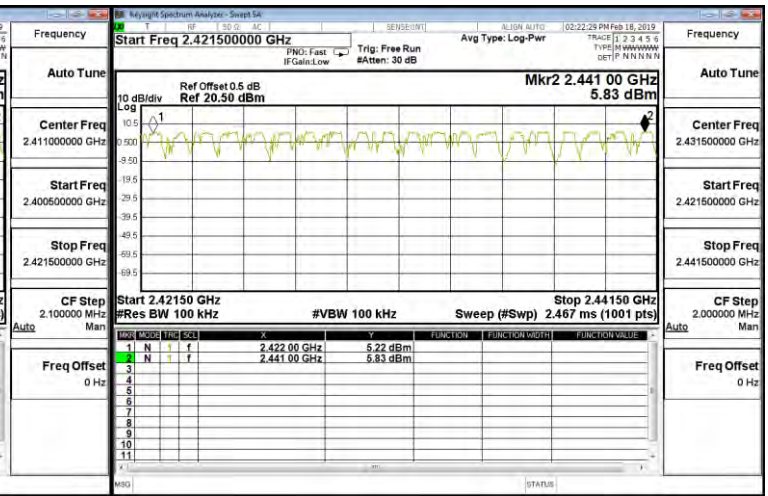
Product : INSTAX MINI HM1  
 Test Item : Channel Number  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>15	Pass

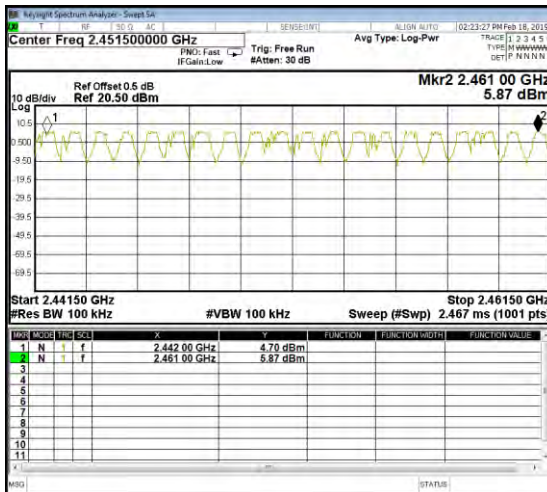
2402-2421MHz



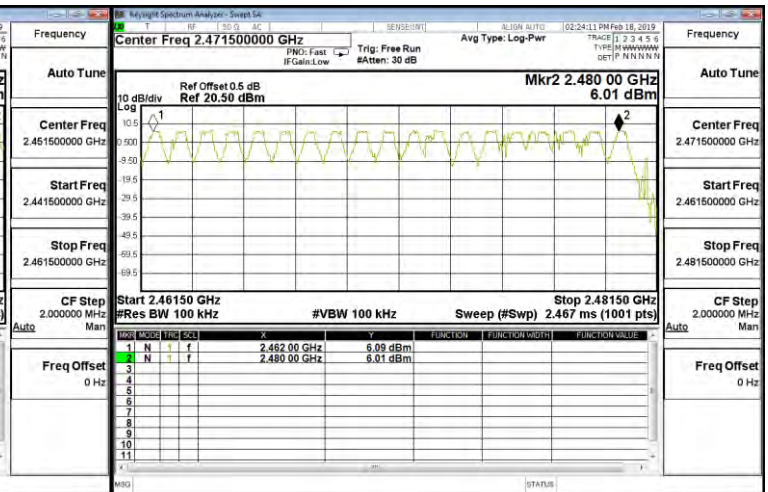
2422-2441MHz



2442-2461MHz



2462-2480MHz

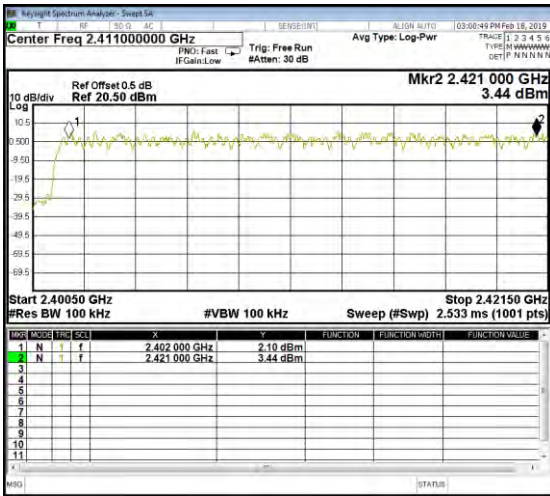




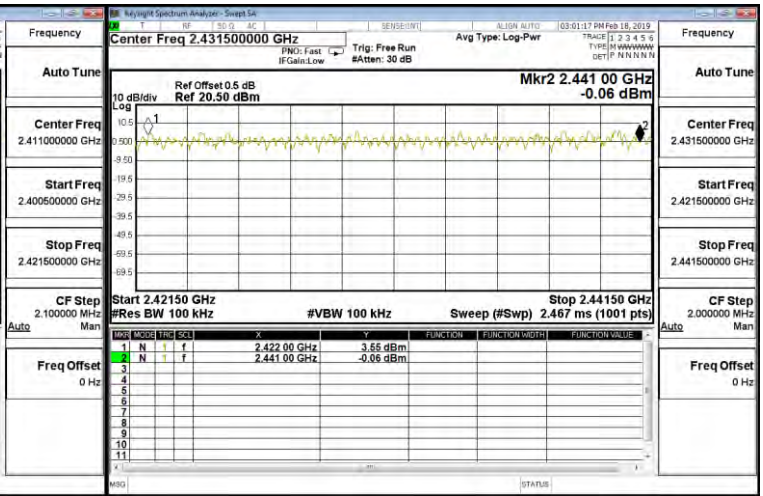
Product : INSTAX MINI HM1  
 Test Item : Channel Number  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>15	Pass

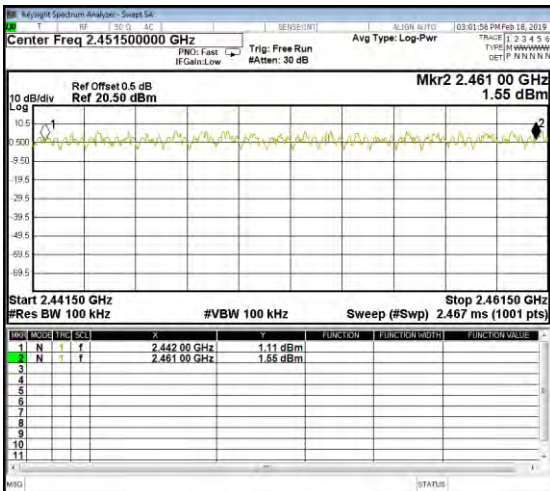
2402-2421MHz



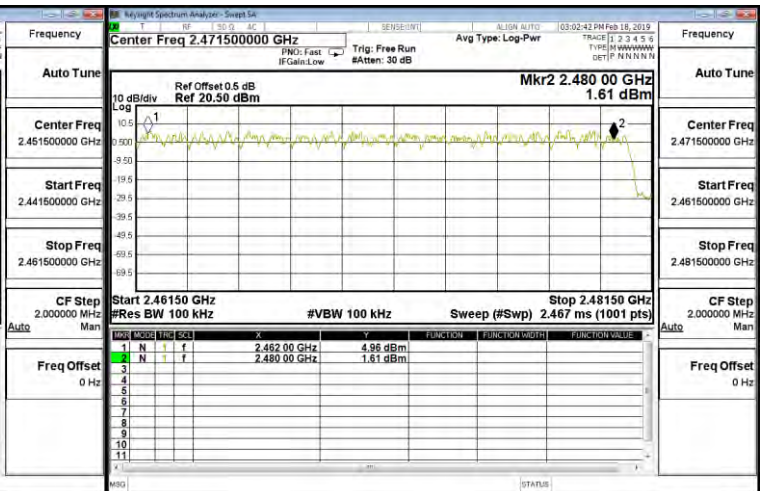
2422-2441MHz



2442-2461MHz

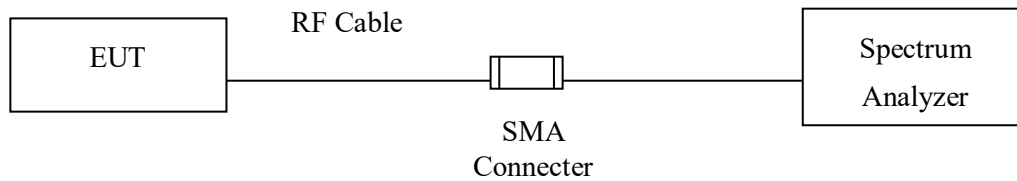


2462-2480MHz



## 8. Channel Separation

### 8.1. Test Setup



### 8.2. Limit

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

### 8.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 8.4. Uncertainty

$\pm 283\text{Hz}$

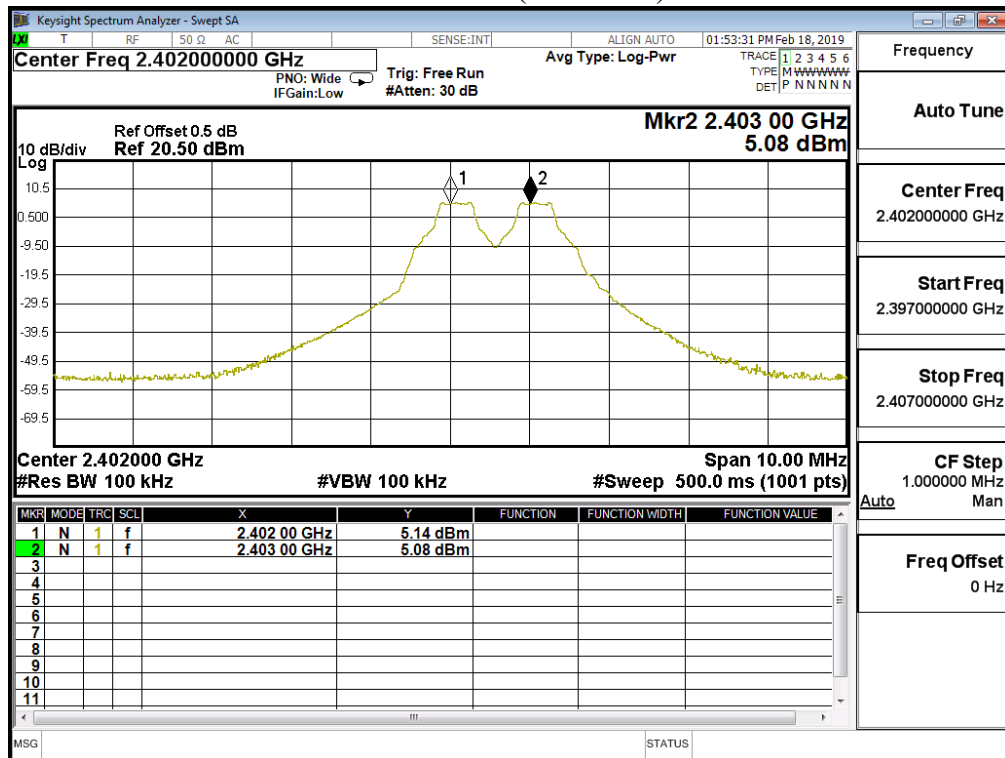
### 8.5. Test Result of Channel Separation

Product : INSTAX MINI HM1  
 Test Item : Channel Separation  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

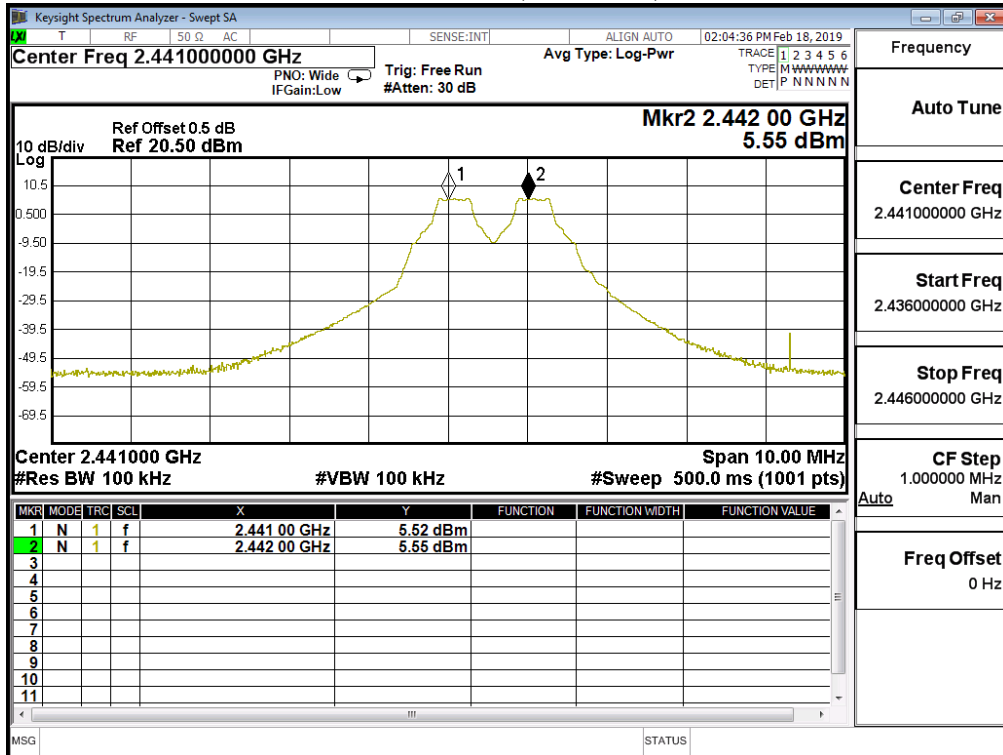
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	688.0	Pass
39	2441	1000	>25 kHz	690.0	Pass
78	2480	1000	>25 kHz	692.0	Pass

NOTE: The 20dB Bandwidth is refer to section 10.

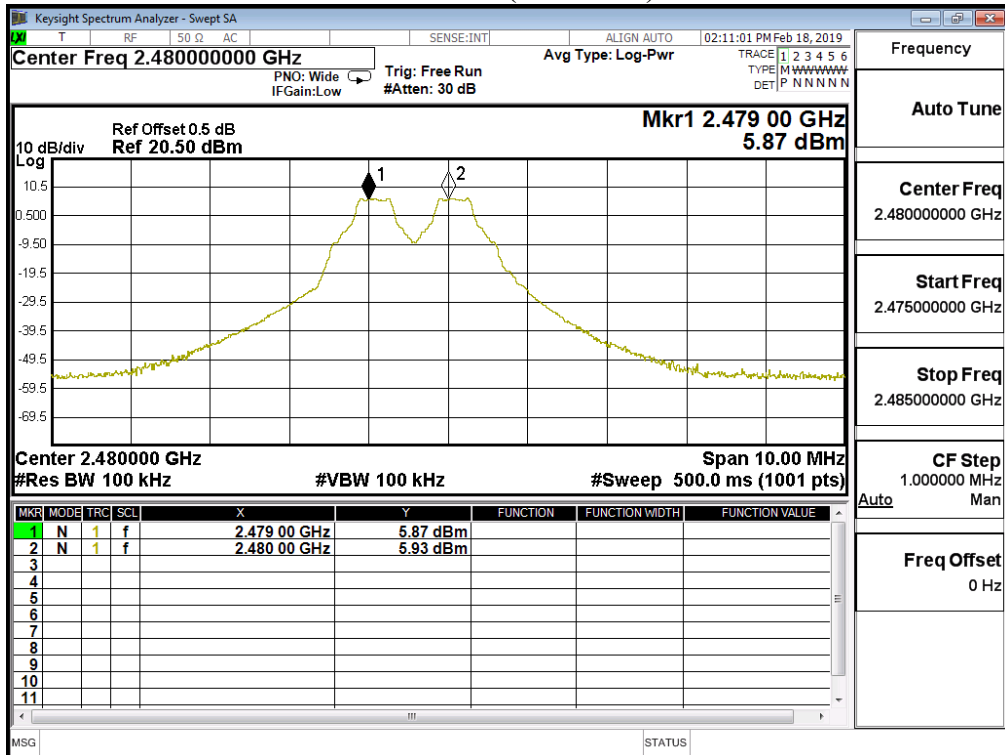
Channel 00 (2402MHz)



### Channel 39 (2441MHz)



### Channel 78 (2480MHz)

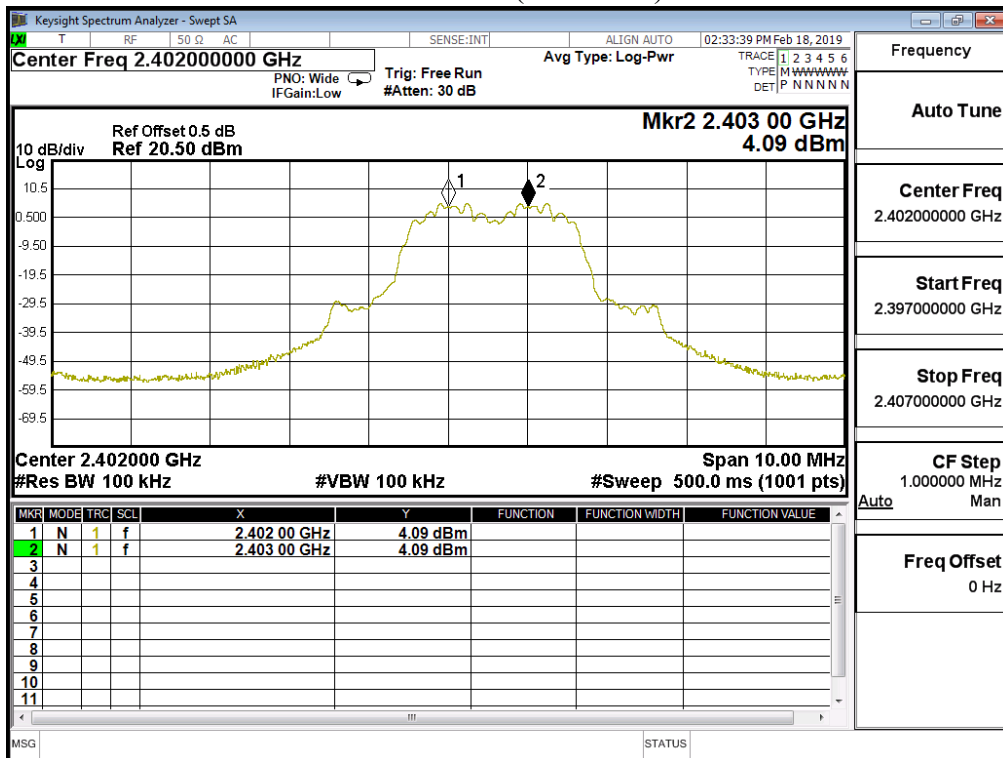


Product : INSTAX MINI HM1  
 Test Item : Channel Separation  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

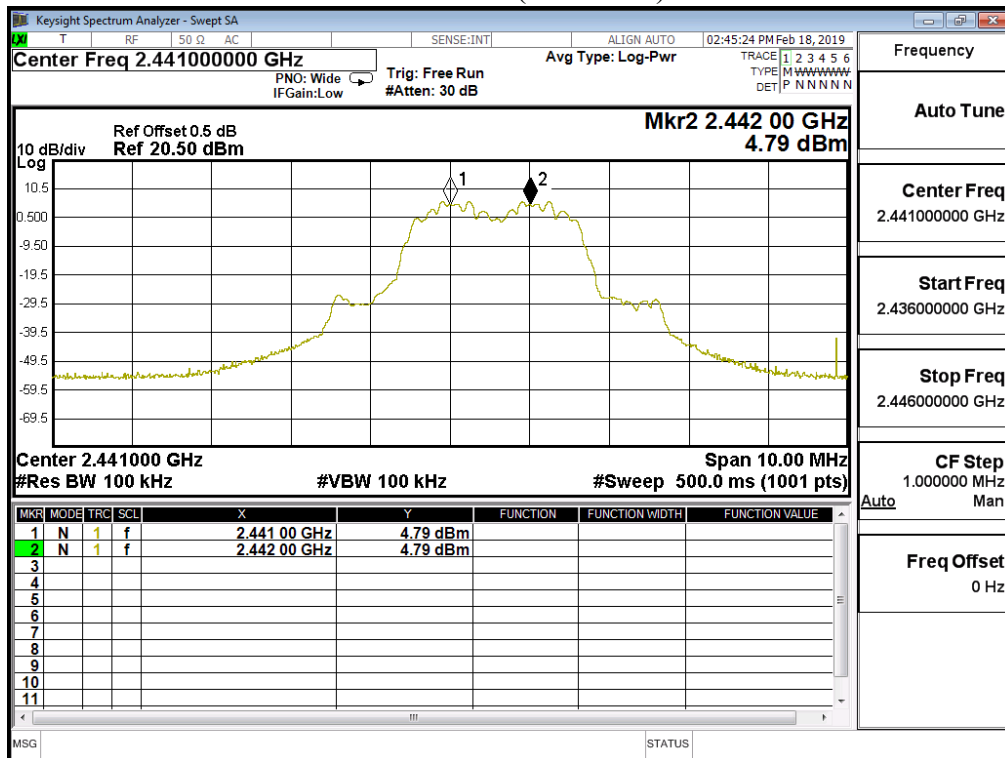
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	862.0	Pass
39	2441	1000	>25 kHz	864.0	Pass
78	2480	1000	>25 kHz	864.0	Pass

NOTE: The 20dB Bandwidth is refer to section 10.

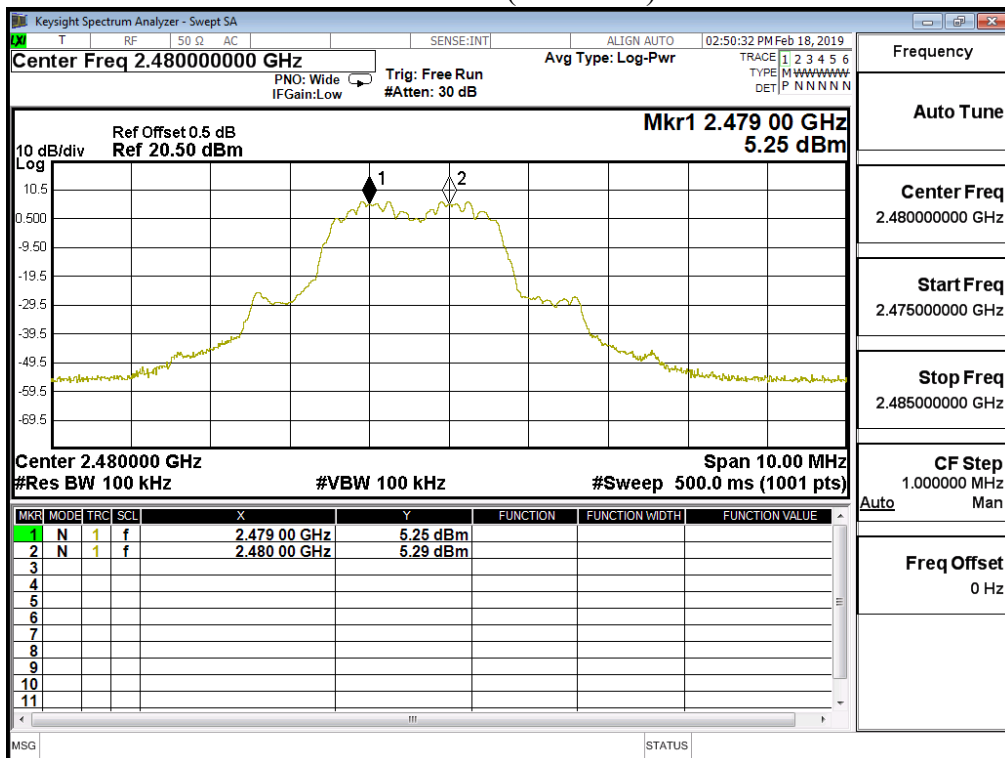
Channel 00 (2402MHz)



### Channel 39 (2441MHz)

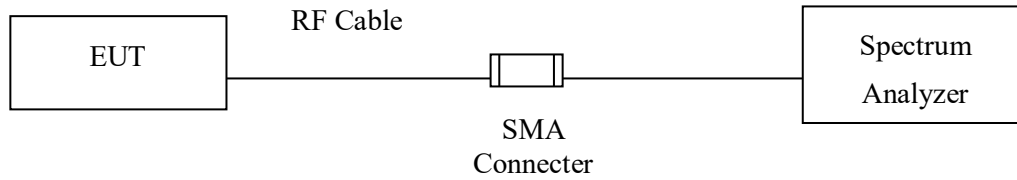


### Channel 78 (2480MHz)



## 9. Dwell Time

### 9.1. Test Setup



### 9.2. Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

### 9.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 9.4. Uncertainty

$\pm 25\text{msec}$



### 9.5. Test Result of Dwell Time

Product : INSTAX MINI HM1  
 Test Item : Dwell Time  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (Channel 00,39,78 –DH5)

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.890	99	31600	286.110	400	Pass
2441	2.900	104	31600	301.600	400	Pass
2480	2.890	110	31600	317.900	400	Pass

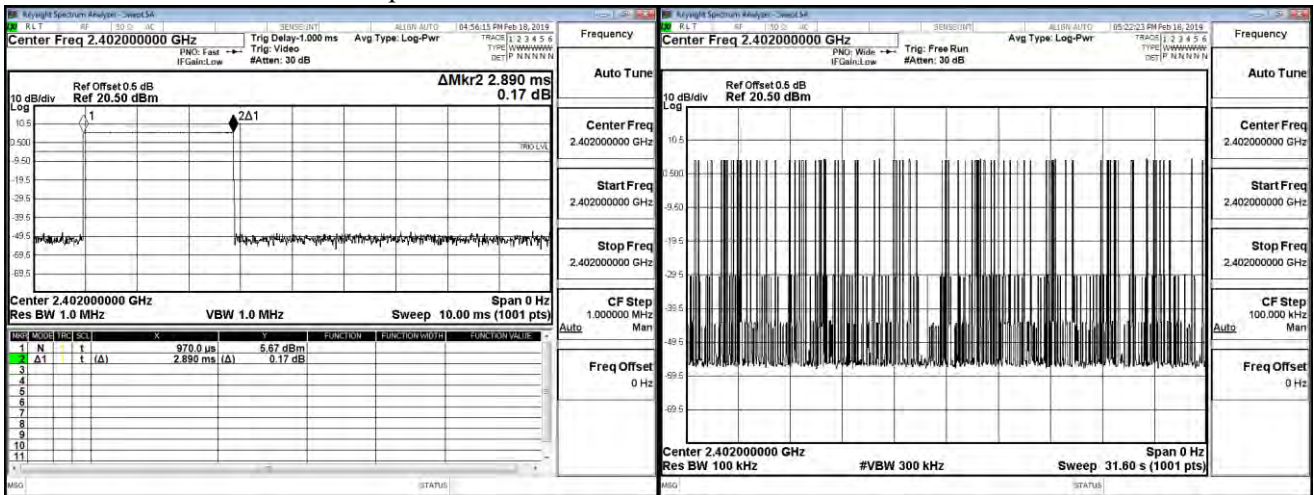
Dwell time = Time slot length\*Hopping of number

Sweep time= 79 Channel \* 0.4

Dwell time in AFH mode / 20 channels with hopping rate 800 hops /sec.

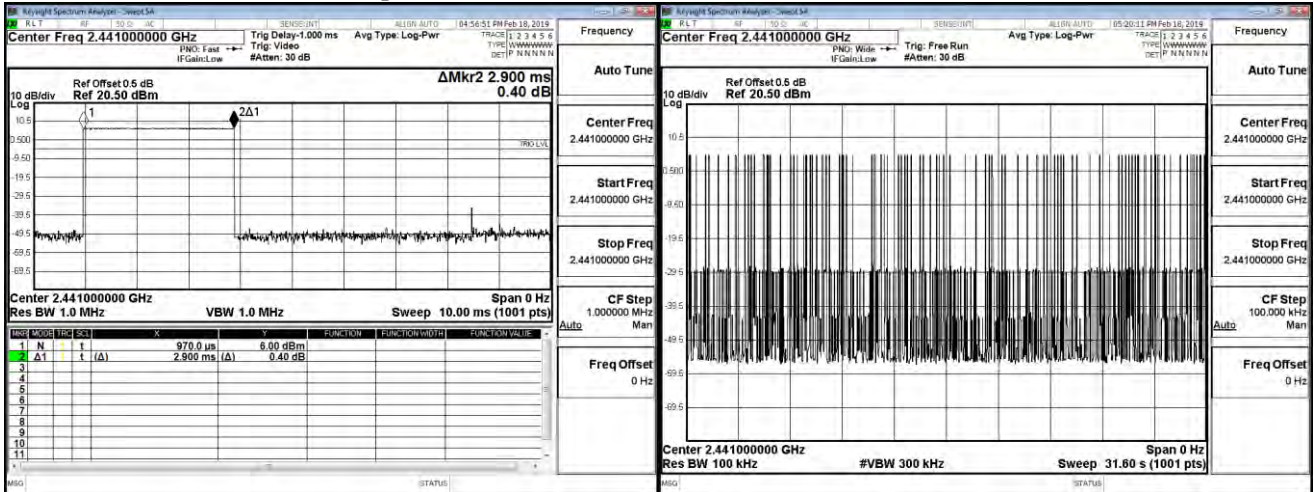
CH 00 Time Interval between hops

CH 00 Transmission Time



CH39 Time Interval between hops

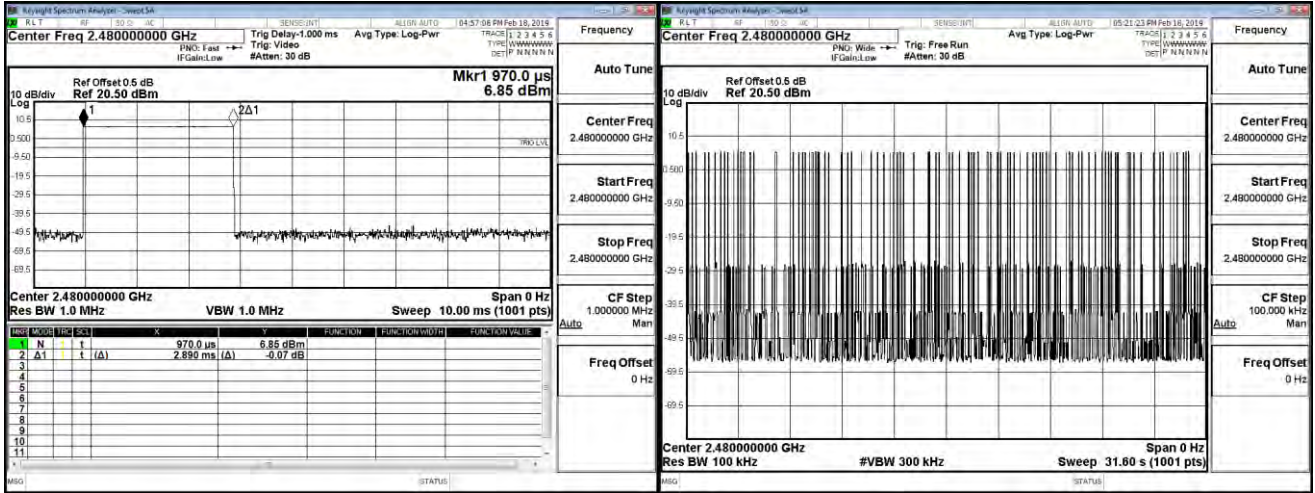
CH 39Transmission Time





CH 78 Time Interval between hops

CH 78 Transmission Time



Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

Product : INSTAX MINI HM1  
 Test Item : Dwell Time  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (Channel 00,39,78 –DH5)

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.900	104	31600	301.600	400	Pass
2441	2.900	116	31600	336.400	400	Pass
2480	2.910	112	31600	325.920	400	Pass

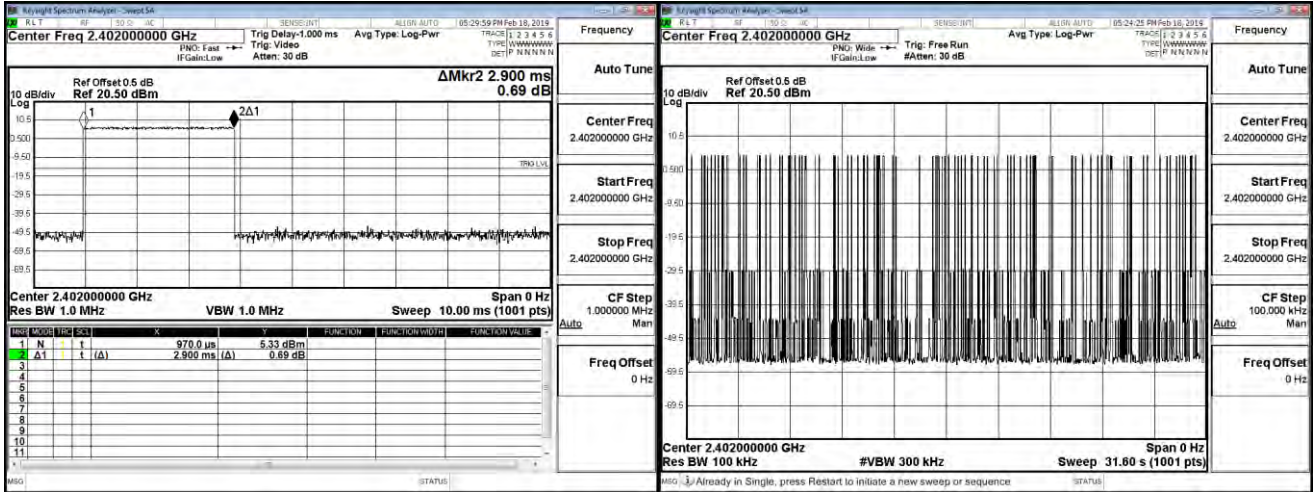
Dwell time = Time slot length\*Hopping of number

Sweep time= 79 Channel \* 0.4

Dwell time in AFH mode / 20 channels with hopping rate 800 hops /sec.

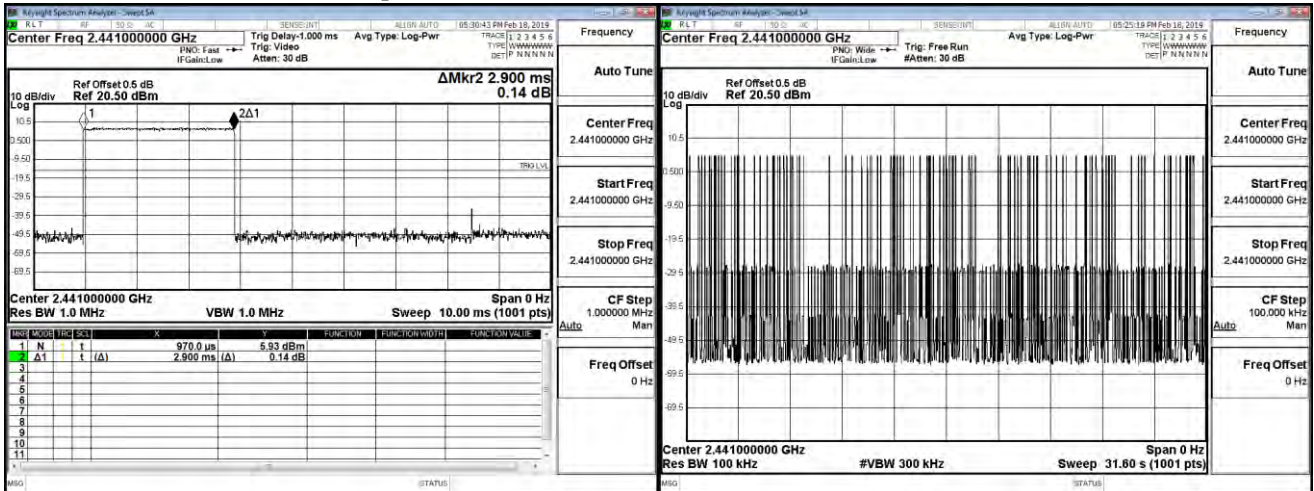
CH 00 Time Interval between hops

CH 00 Transmission Time



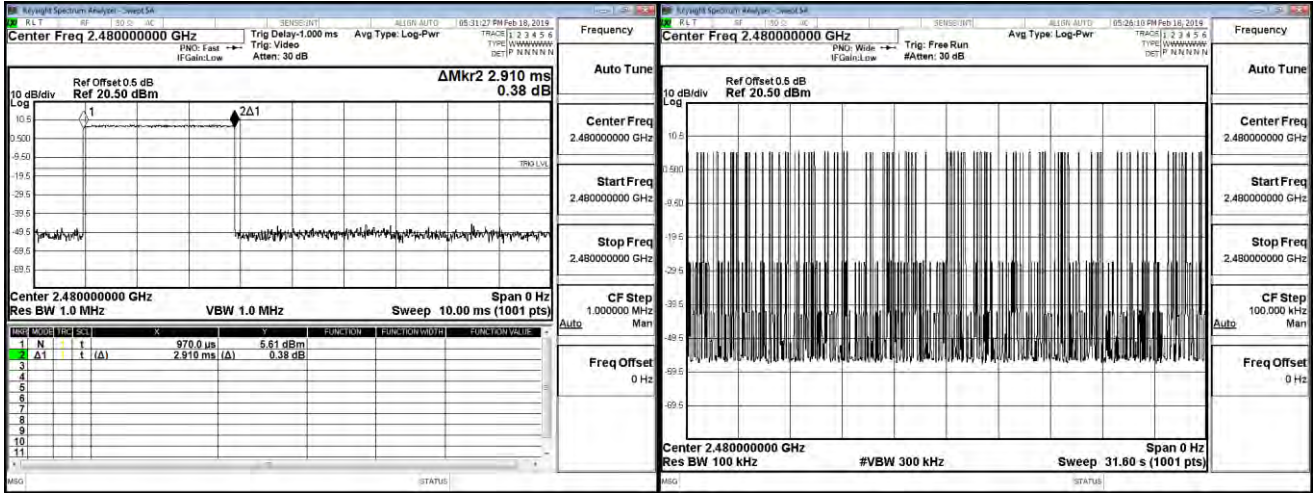
CH39 Time Interval between hops

CH 39Transmission Time



CH 78 Time Interval between hops

CH 78 Transmission Time

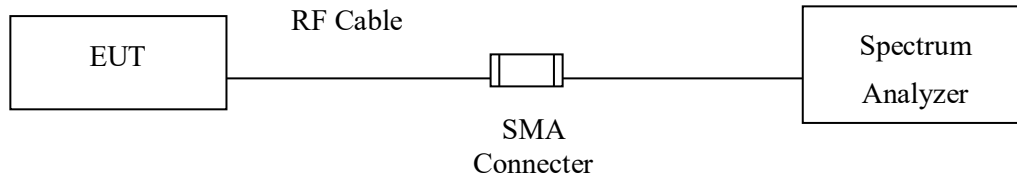


Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.

## 10. Occupied Bandwidth

### 10.1. Test Setup



### 10.2. Limits

N/A

### 10.3. Test Procedure

The EUT was setup to ANSI C63.4, 2014; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

### 10.4. Uncertainty

$\pm 283\text{Hz}$

### 10.5. Test Result of Occupied Bandwidth

Product : INSTAX MINI HM1  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1032	--	NA
39	2441	1035	--	NA
78	2480	1038	--	NA

Figure Channel 00:

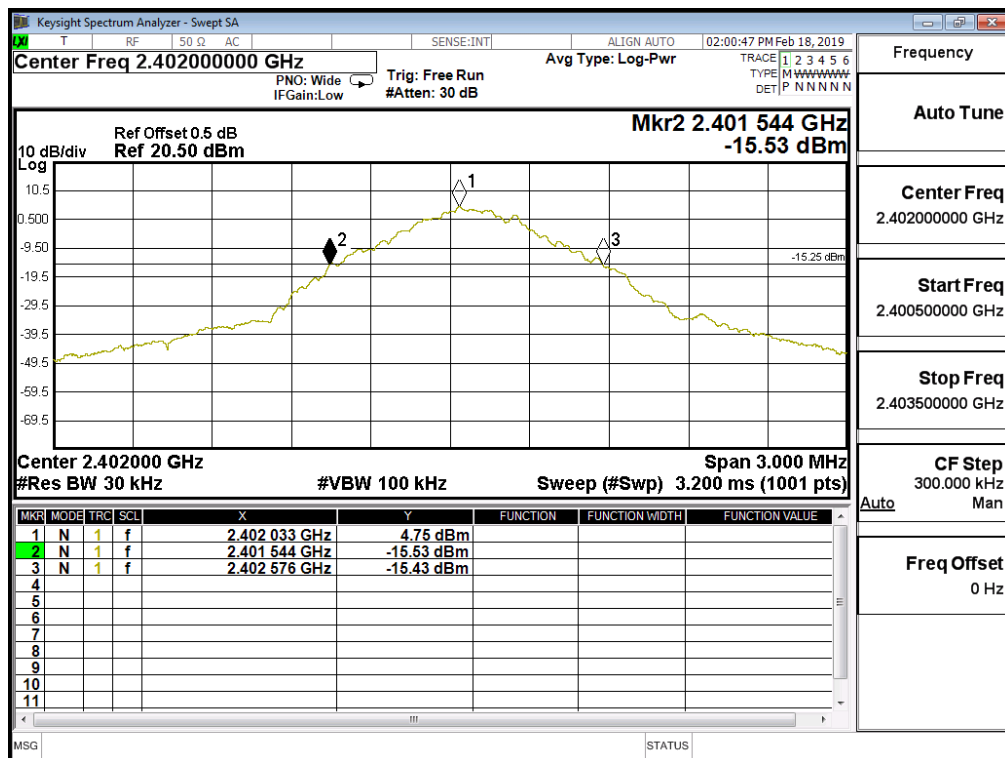


Figure Channel 39:

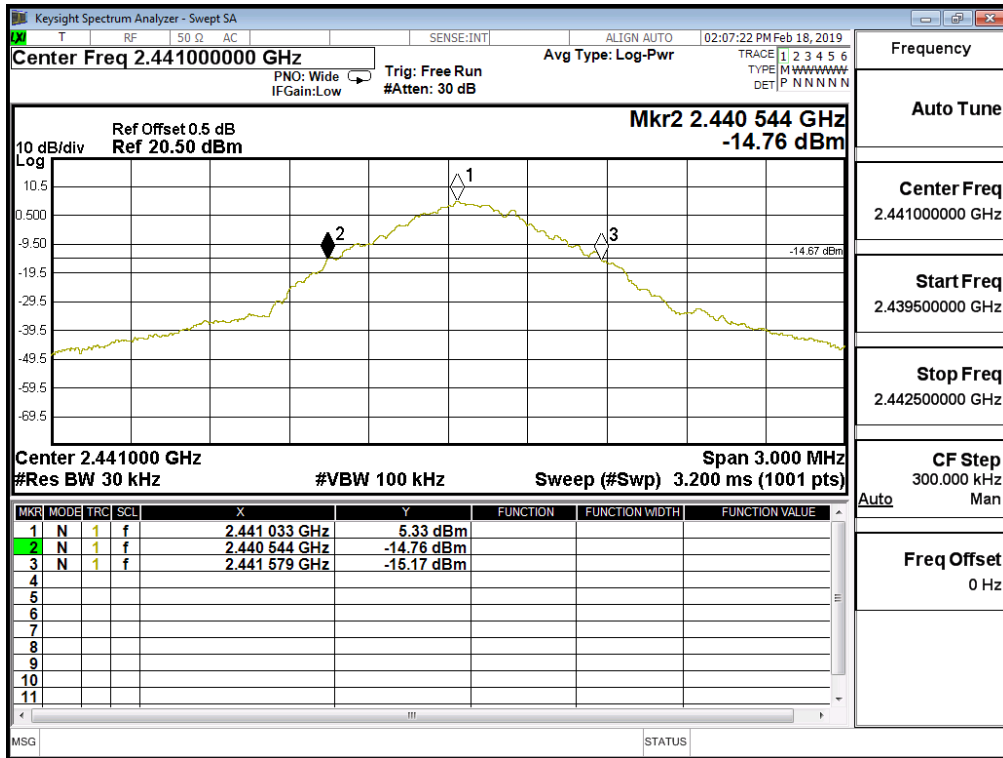
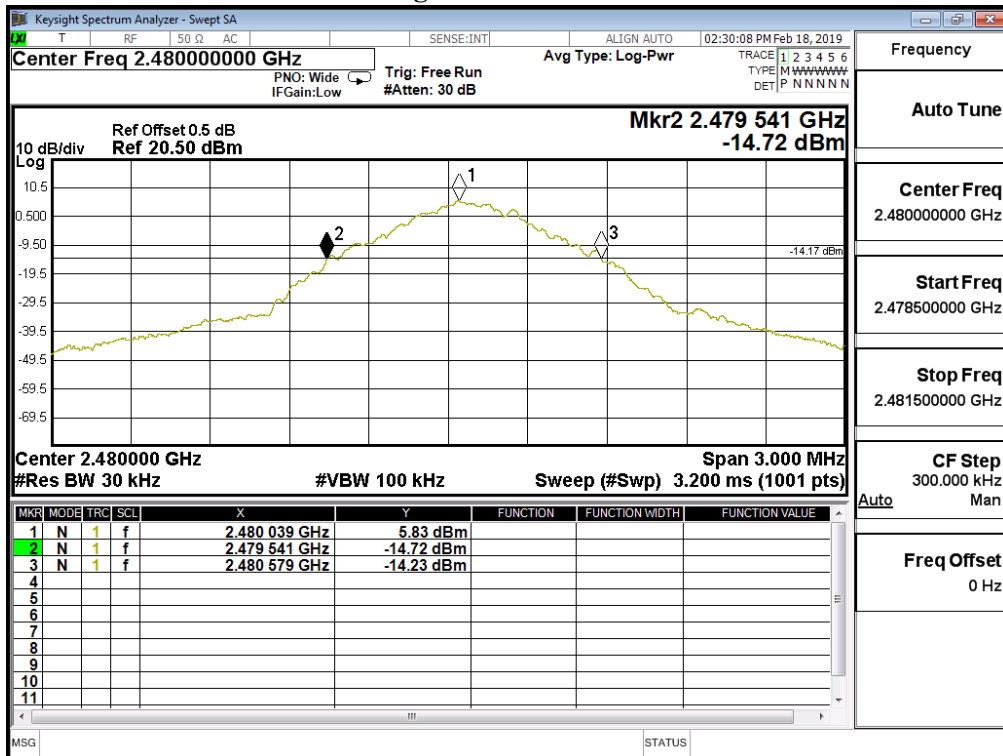


Figure Channel 78:



Product : INSTAX MINI HM1  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1293	--	NA
39	2441	1296	--	NA
78	2480	1296	--	NA

Figure Channel 00:

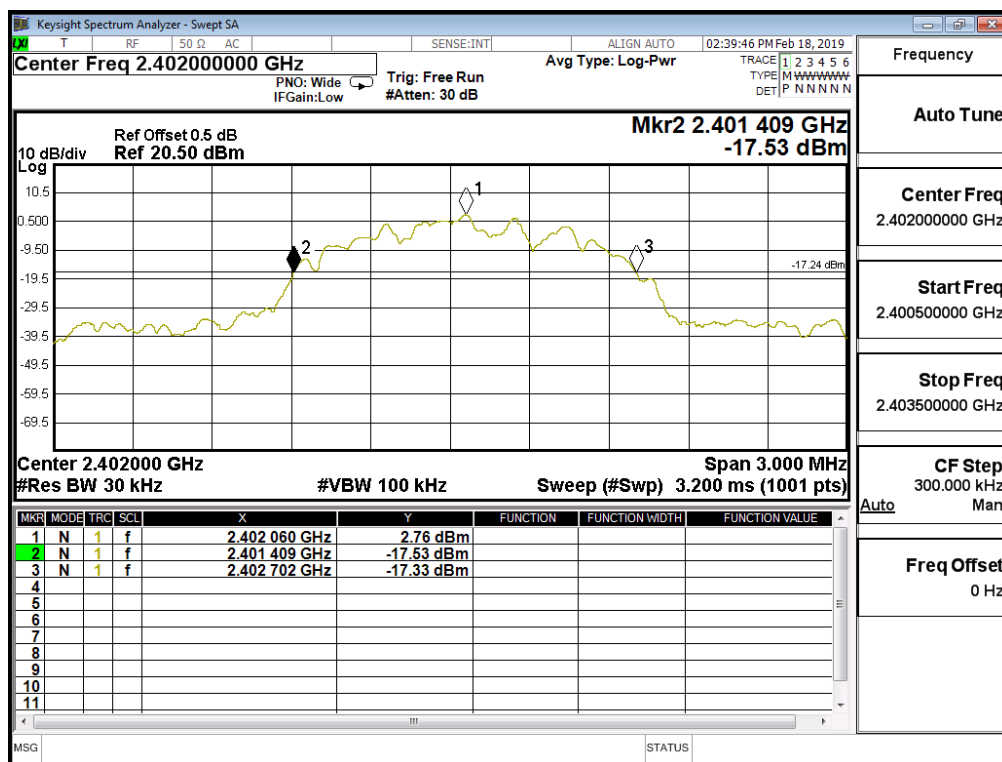




Figure Channel 39:

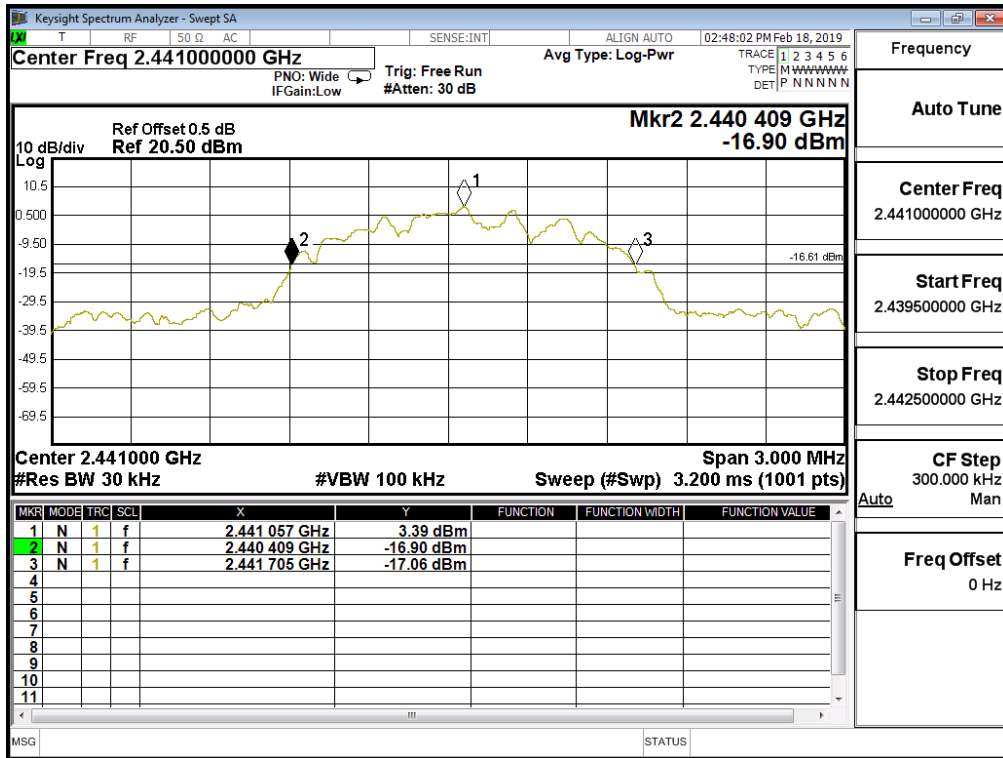
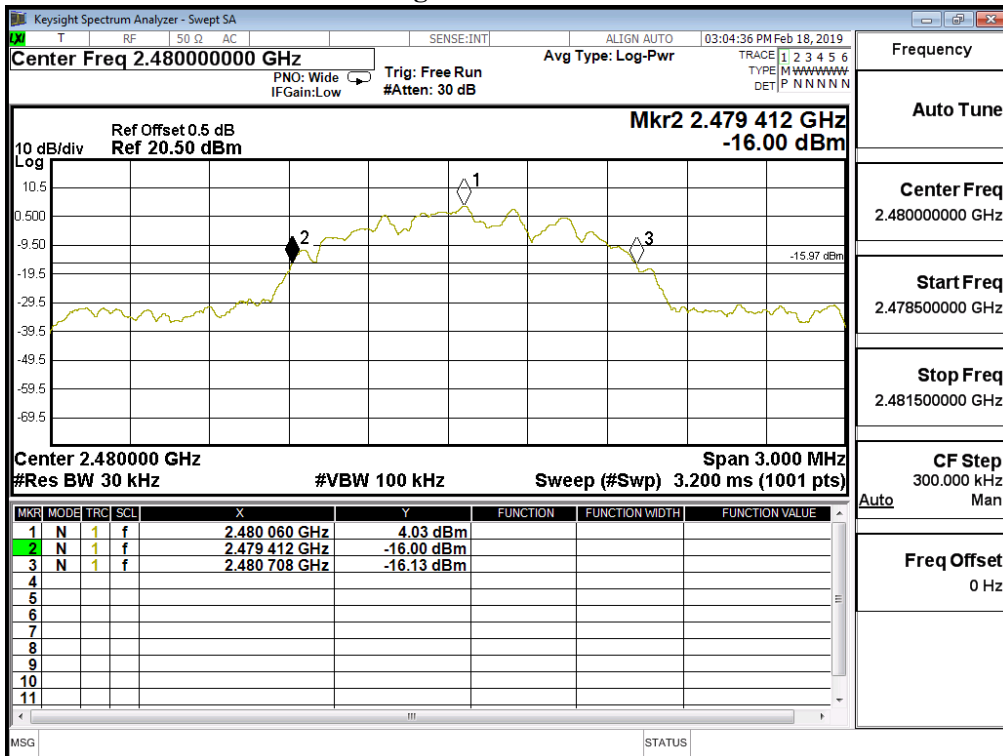


Figure Channel 78:





## **11. EMI Reduction Method During Compliance Testing**

No modification was made during testing.

Attachment 1: EUT Test Photographs

## Attachment 2: EUT Detailed Photographs