

# FCC Test Report

Product Name	Mobile Medical Assistant Tablet
Model No.	xxxONYX-MD116xxxxxxxxxx(Where "x" is 0~9, A~Z, "-" or blank)
FCC ID.	RZ5-MD116

Applicant	ONYX Healthcare Inc.
Address	2F,No.135,lane235,Pao Chiao Rd.Hsin-Tien Dist,New Taipei City,Taiwan,ROC.

Date of Receipt	May 31, 2017
Issued Date	Aug. 18, 2017
Report No.	1770099R-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: Aug. 18, 2017

Report No.: 1770099R-RFUSP01V00



Product Name	Mobile Medical Assistant Tablet
Applicant	ONYX Healthcare Inc.
Address	2F, No. 135, Lane 235, Pao Chiao Rd. Hsin-Tien Dist, New Taipei City, Taiwan, ROC.
Manufacturer	ONYX Healthcare Inc.
Model No.	xxxONYX-MD116xxxxxxxxxx (Where "x" is 0~9, A~Z, "-" or blank)
FCC ID.	RZ5-MD116
EUT Rated Voltage	AC 100-240V, 50/60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	onyx
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2016 ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By :



( Senior Adm. Specialist / Genie Chang )

Tested By :



( Engineer / Kevin Liu )

Approved By :



( Director / Vincent Lin )

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## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Mobile Medical Assistant Tablet
Trade Name	onyx
Model No.	xxxONYX-MD116xxxxxxxxxx(Where "x" is 0~9, A~Z, "-" or blank)
FCC ID.	RZ5-MD116
Frequency Range	2402 – 2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / $\pi$ /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	PIFA Antenna
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”
Docking No.	xxxOPM-T016xxxxxxxxxx(Where "x" is 0~9, A~Z, "-" or blank)
Power Adapter	MFR: APAPTER TECH, M/N: ATM090T-P120 Input: AC 100-240V, 50-60Hz, 5A Output: DC 12V, 7A Cable Out: Shielded, 1.8m, with one ferrite core bonded.

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	ARISTOTLE ENTERPRISES INC.	RFA-25-AP152-70B340R (Main) RFA-25-AP152-70-285L (Aux)	PIFA Antenna	3.93dBi for 2.4 GHz

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 Mobile Medical Assistant Tablet with a built-in WLAN 、 Bluetooth transceiver, this report for Bluetooth.
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.

Test Mode	Mode 1: Transmit - 1Mbps Mode 2: Transmit - 3Mbps Mode 3: Charger Mode
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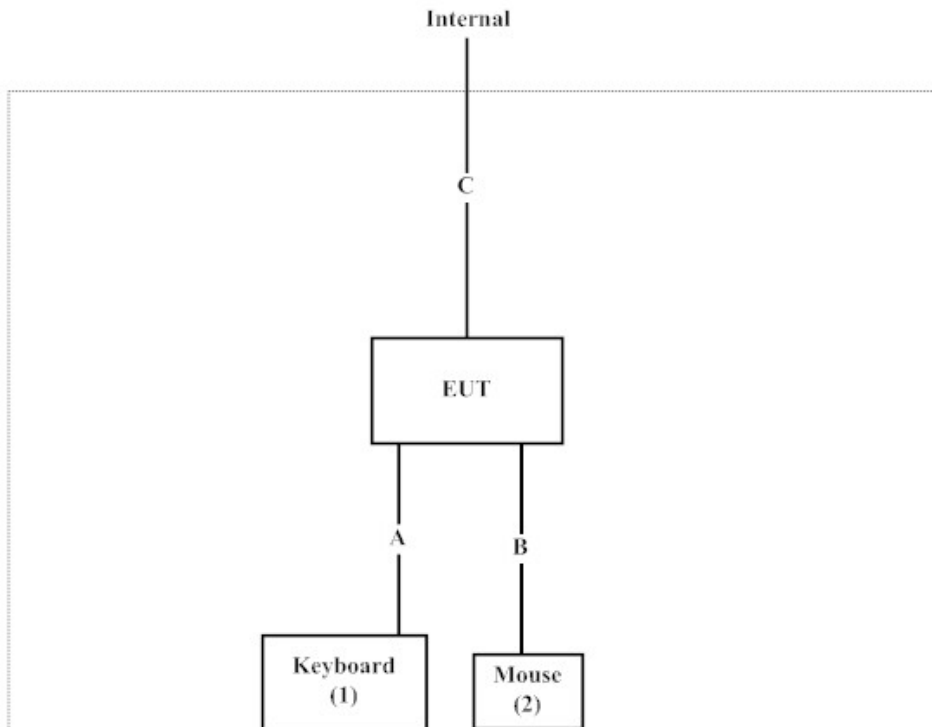
### 1.3. Tested System Details

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	Keyboard	Logitech	K120	N/A	N/A
2	Mouse	Logitech	U0026	N/A	N/A

Signal Cable Type	Signal cable Description
A	USB Keyboard Cable
B	USB Mouse Cable
C	LAN Cable

### 1.4. Configuration of Tested System



### 1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “Atheros Radio Test 2 V4.4” on the EUT.
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	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

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## 1.7. List of Test Equipment

### For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	161601	2017.01.06	2018.01.05
X	Two-Line V-Network	R&S	ENV216	101306	2017.02.16	2018.02.15
X	Two-Line V-Network	R&S	ENV216	101307	2017.03.17	2018.03.16
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2017.05.24	2018.05.23

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

### For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103464	2017.01.09	2018.01.08
X	Power Meter	Anritsu	ML2496A	1548003	2016.12.15	2017.12.14
X	Power Sensor	Anritsu	MA2411B	1531024	2016.12.15	2017.12.14
X	Power Sensor	Anritsu	MA2411B	1531025	2016.12.15	2017.12.14
	Bluetooth Tester	R&S	CBT	101238	2017.01.03	2018.01.02

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 Conduction Test System V8.0.110

### For Radiated measurements /ACB1

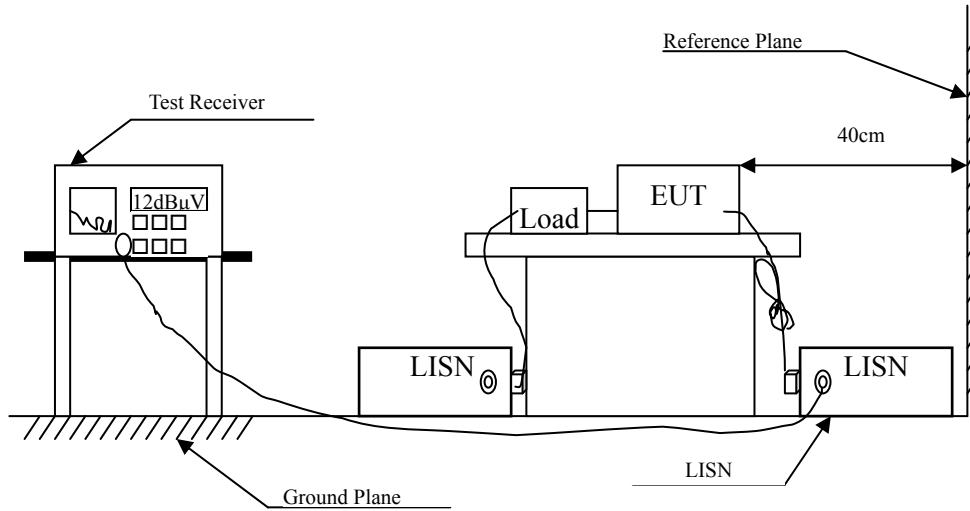
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	A.H.	SAS-562B	272	2016.03.18	2018.03.17
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2017.02.09	2018.02.08
X	Horn Antenna	ETS-Lindgren	3117	00203800	2016.10.13	2017.10.12
X	Horn Antenna	Com-Power	AH-840	101087	2017.05.24	2018.05.23
X	Pre-Amplifier	EMCI	EMC001330	980316	2017.05.14	2018.05.13
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2017.05.15	2018.05.14
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2017.05.15	2018.05.14
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2017.05.17	2018.05.16
X	Filter	MICRO TRONICS	BRM50702	G251	2016.08.11	2017.08.10
	Filter	MICRO TRONICS	BRM50716	G188	2016.08.11	2017.08.10
X	EMI Test Receiver	R&S	ESR7	101602	2016.12.15	2017.12.14
X	Spectrum Analyzer	R&S	FSV40	101149	2017.01.24	2018.01.23
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2017.05.25	2018.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2016.08.11	2017.08.10

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**

±2.35dB

## 2.5. Test Result of Conducted Emission

Product : Mobile Medical Assistant Tablet  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)  
 Test Date : 2017/06/15

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V	Margin dB	Limit dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.152	9.707	36.555	46.262	-19.681	65.943
0.404	9.717	26.112	35.829	-22.914	58.743
0.512	9.739	10.684	20.423	-35.577	56.000
0.947	9.754	12.215	21.969	-34.031	56.000
18.244	10.124	17.367	27.490	-32.510	60.000
24.576	10.172	31.091	41.263	-18.737	60.000
<b>Average</b>					
0.152	9.707	11.945	21.652	-34.291	55.943
0.404	9.717	25.259	34.976	-13.767	48.743
0.512	9.739	4.264	14.003	-31.997	46.000
0.947	9.754	9.844	19.598	-26.402	46.000
18.244	10.124	13.664	23.787	-26.213	50.000
24.576	10.172	29.814	39.986	-10.014	50.000

### 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 : Mobile Medical Assistant Tablet  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)  
 Test Date : 2017/06/15

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V	Margin dB	Limit dB $\mu$ V
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.161	9.696	36.257	45.953	-19.733	65.686
0.317	9.699	12.697	22.397	-38.832	61.229
0.404	9.711	24.518	34.229	-24.514	58.743
1.912	9.783	10.319	20.101	-35.899	56.000
4.465	9.865	9.100	18.964	-37.036	56.000
24.576	10.212	30.664	40.876	-19.124	60.000
<b>Average</b>					
0.161	9.696	9.923	19.620	-36.066	55.686
0.317	9.699	10.105	19.804	-31.425	51.229
0.404	9.711	23.267	32.978	-15.765	48.743
1.912	9.783	2.067	11.849	-34.151	46.000
4.465	9.865	4.714	14.579	-31.421	46.000
24.576	10.212	29.363	39.575	-10.425	50.000

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 : Mobile Medical Assistant Tablet  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 3: Charger Mode  
 Test Date : 2017/06/15

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V	Margin dB	Limit dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.152	9.707	36.184	45.892	-20.051	65.943
0.393	9.716	23.513	33.228	-25.829	59.057
0.683	9.741	16.182	25.924	-30.076	56.000
5.091	9.882	17.040	26.922	-33.078	60.000
8.187	9.963	18.704	28.668	-31.332	60.000
24.576	10.172	24.559	34.731	-25.269	60.000
<b>Average</b>					
0.152	9.707	20.252	29.959	-25.984	55.943
0.393	9.716	21.929	31.644	-17.413	49.057
0.683	9.741	10.110	19.851	-26.149	46.000
5.091	9.882	10.879	20.761	-29.239	50.000
8.187	9.963	12.551	22.515	-27.485	50.000
24.576	10.172	23.391	33.563	-16.437	50.000

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 : Mobile Medical Assistant Tablet  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 3: Charger Mode  
 Test Date : 2017/06/15

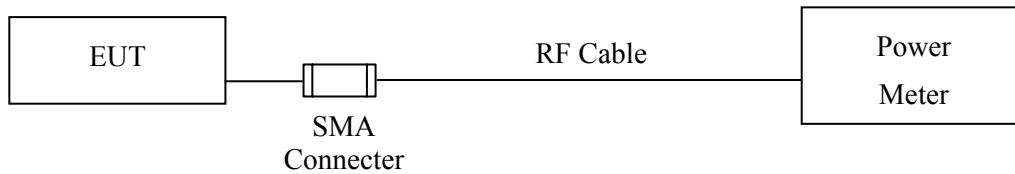
Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V	Margin dB	Limit dB $\mu$ V
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.152	9.698	39.201	48.899	-17.044	65.943
0.395	9.710	25.342	35.052	-23.948	59.000
0.672	9.738	16.751	26.489	-29.511	56.000
5.215	9.874	19.132	29.006	-30.994	60.000
8.124	9.965	17.984	27.948	-32.052	60.000
24.576	10.212	24.586	34.798	-25.202	60.000
<b>Average</b>					
0.152	9.698	16.802	26.500	-29.443	55.943
0.395	9.710	21.324	31.034	-17.966	49.000
0.672	9.738	10.956	20.694	-25.306	46.000
5.215	9.874	13.474	23.348	-26.652	50.000
8.124	9.965	11.933	21.897	-28.103	50.000
24.576	10.212	23.386	33.598	-16.402	50.000

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

The maximum peak power shall be less 1Watt.

#### 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

$\pm 0.86$  dB



### 3.5. Test Result of Peak Power Output

Product : Mobile Medical Assistant Tablet  
Test Item : Peak Power Output  
Test Mode : Mode 1: Transmit - 1Mbps  
Test Date : 2017/06/21

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	0.66	1 Watt= 30 dBm	Pass
Channel 39	2441.00	0.20	1 Watt= 30 dBm	Pass
Channel 78	2480.00	0.15	1 Watt= 30 dBm	Pass

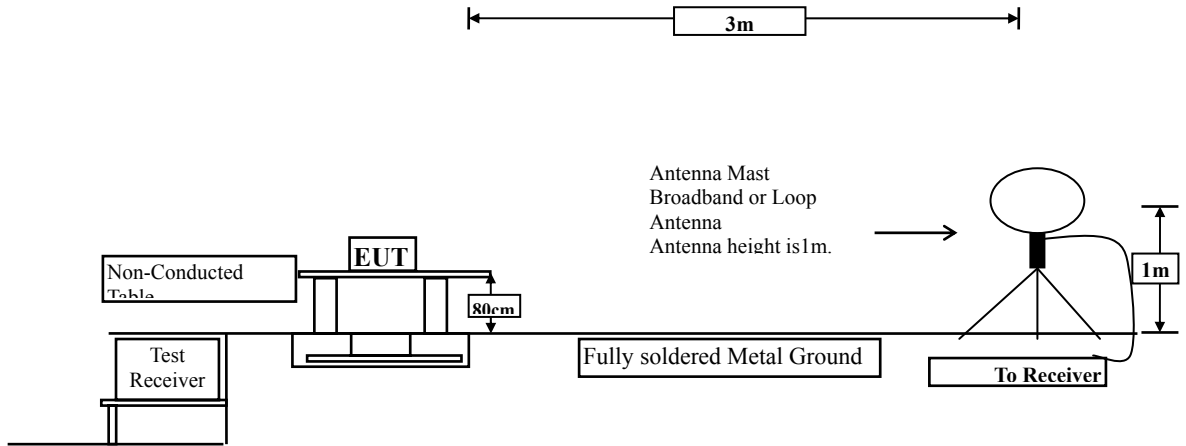
Product : Mobile Medical Assistant Tablet  
Test Item : Peak Power Output  
Test Mode : Mode 2: Transmit - 3Mbps  
Test Date : 2017/06/21

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	3.85	1 Watt= 30 dBm	Pass
Channel 39	2441.00	3.35	1 Watt= 30 dBm	Pass
Channel 78	2480.00	2.82	1 Watt= 30 dBm	Pass

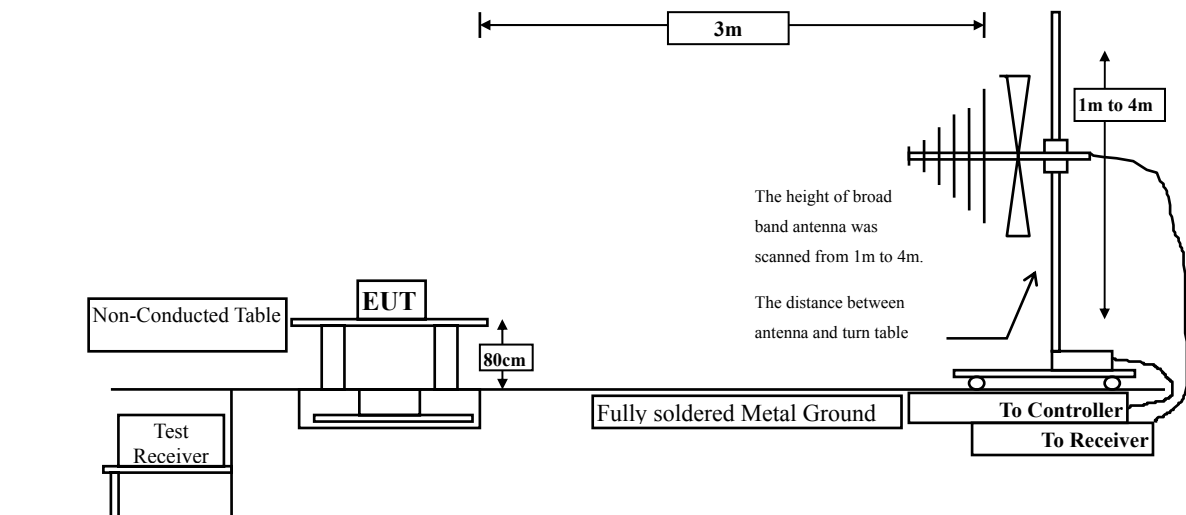
#### 4. Radiated Emission

##### 4.1. Test Setup

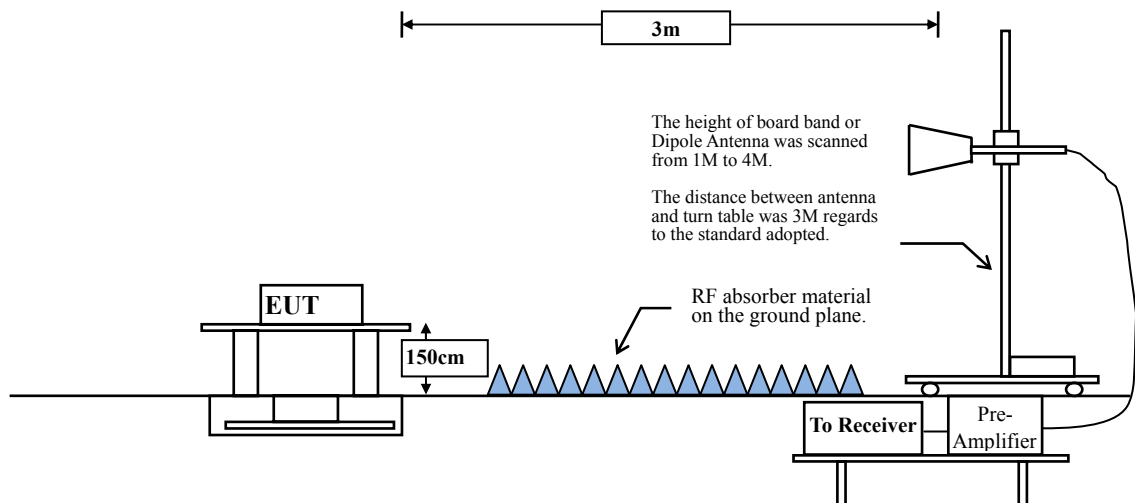
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission 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.

<b>FCC Part 15 Subpart C Paragraph 15.209 Limits</b>		
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 (dBuV) = 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 measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

### 4.4. Uncertainty

Horizontal polarization :

30-300MHz:  $\pm 4.08$ dB ; 300M-1GHz:  $\pm 3.86$ dB ; 1-18GHz:  $\pm 3.77$ dB ; 18-40GHz:  $\pm 3.98$ dB

Vertical polarization :

30-300MHz:  $\pm 4.81$ dB ; 300M-1GHz:  $\pm 3.87$ dB ; 1-18GHz :  $\pm 3.83$ dB ; 18-40GHz:  $\pm 3.98$ dB

#### 4.5. Test Result of Radiated Emission

Product : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 1: Transmit - 1Mbps(2402MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4804.000	-6.114	54.250	48.136	-25.864	74.000
7206.000	-3.112	50.970	47.858	-26.142	74.000
9608.000	-0.801	51.150	50.350	-23.650	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4804.000	-6.114	52.310	46.196	-27.804	74.000
7206.000	-3.112	50.760	47.648	-26.352	74.000
9608.000	-0.801	51.950	51.150	-22.850	74.000
<b>Average Detector:</b>					
--					54.000

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 : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 1: Transmit - 1Mbps(2441MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4882.000	-6.066	52.270	46.204	-27.796	74.000
7323.000	-3.022	50.760	47.738	-26.262	74.000
9764.000	-0.522	52.140	51.617	-22.383	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4882.000	-6.066	53.040	46.974	-27.026	74.000
7323.000	-3.022	51.280	48.258	-25.742	74.000
9764.000	-0.522	50.710	50.187	-23.813	74.000
<b>Average Detector:</b>					
--					54.000

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 : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 1: Transmit - 1Mbps(2480MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4960.000	-6.055	53.420	47.365	-26.635	74.000
7440.000	-2.861	51.240	48.378	-25.622	74.000
9920.000	-0.306	51.600	51.294	-22.706	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4960.000	-6.055	52.670	46.615	-27.385	74.000
7440.000	-2.861	51.960	49.098	-24.902	74.000
9920.000	-0.306	50.870	50.564	-23.436	74.000
<b>Average Detector:</b>					
--					54.000

## 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 : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 2: Transmit - 3Mbps(2402MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4804.000	-6.114	52.710	46.596	-27.404	74.000
7206.000	-3.112	50.390	47.278	-26.722	74.000
9608.000	-0.801	50.990	50.190	-23.810	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4804.000	-6.114	52.910	46.796	-27.204	74.000
7206.000	-3.112	50.850	47.738	-26.262	74.000
9608.000	-0.801	51.360	50.560	-23.440	74.000
<b>Average Detector:</b>					
--					54.000

## 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 : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dBµV	Measurement Level dBµV/m	Margin dB	Limit dBµV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4882.000	-6.066	52.400	46.334	-27.666	74.000
7323.000	-3.022	51.370	48.348	-25.652	74.000
9764.000	-0.522	51.230	50.707	-23.293	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4882.000	-6.066	52.270	46.204	-27.796	74.000
7323.000	-3.022	50.630	47.608	-26.392	74.000
9764.000	-0.522	51.090	50.567	-23.433	74.000
<b>Average Detector:</b>					
--					54.000

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 : Mobile Medical Assistant Tablet  
 Test Item : Harmonic Radiated Emission  
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)  
 Test Date : 2017/06/14

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4960.000	-6.055	53.320	47.265	-26.735	74.000
7440.000	-2.861	51.860	48.998	-25.002	74.000
9920.000	-0.306	51.700	51.394	-22.606	74.000
<b>Average Detector:</b>					
--					54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4960.000	-6.055	52.370	46.315	-27.685	74.000
7440.000	-2.861	51.670	48.808	-25.192	74.000
9920.000	-0.306	50.950	50.644	-23.356	74.000
<b>Average Detector:</b>					
--					54.000

## 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 : Mobile Medical Assistant Tablet  
 Test Item : General Radiated Emission  
 Test Mode : Mode 1: Transmit - 1Mbps (2441MHz)  
 Test Date : 2017/06/20

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
239.464	-12.295	46.181	33.886	-12.114	46.000
299.913	-10.364	45.728	35.364	-10.636	46.000
354.739	-9.101	47.524	38.423	-7.577	46.000
387.072	-8.369	44.661	36.293	-9.707	46.000
581.072	-4.503	36.711	32.208	-13.792	46.000
960.638	0.360	45.648	46.007	-7.993	54.000
<b>Vertical</b>					
239.464	-12.295	45.486	33.191	-12.809	46.000
299.913	-10.364	41.859	31.495	-14.505	46.000
354.739	-9.101	44.181	35.080	-10.920	46.000
440.493	-7.085	36.763	29.678	-16.322	46.000
710.406	-2.851	34.157	31.306	-14.694	46.000
960.638	0.360	45.559	45.918	-8.082	54.000

## 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 : Mobile Medical Assistant Tablet  
 Test Item : General Radiated Emission  
 Test Mode : Mode 2: Transmit - 3Mbps (2441MHz)  
 Test Date : 2017/06/20

Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
299.913	-10.364	45.248	34.884	-11.116	46.000
354.739	-9.101	47.265	38.164	-7.836	46.000
387.072	-8.369	44.399	36.031	-9.969	46.000
548.739	-5.259	40.090	34.830	-11.170	46.000
680.884	-3.319	37.837	34.518	-11.482	46.000
960.638	0.360	52.280	52.639	-1.361	54.000
<b>Vertical</b>					
239.464	-12.295	50.425	38.130	-7.870	46.000
267.580	-11.505	47.472	35.966	-10.034	46.000
354.739	-9.101	44.607	35.506	-10.494	46.000
387.072	-8.369	40.937	32.569	-13.431	46.000
710.406	-2.851	35.189	32.338	-13.662	46.000
960.638	0.360	47.526	47.885	-6.115	54.000

## 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 : Mobile Medical Assistant Tablet  
 Test Item : General Radiated Emission  
 Test Mode : Mode 3: Charger Mode  
 Test Date : 2017/06/20

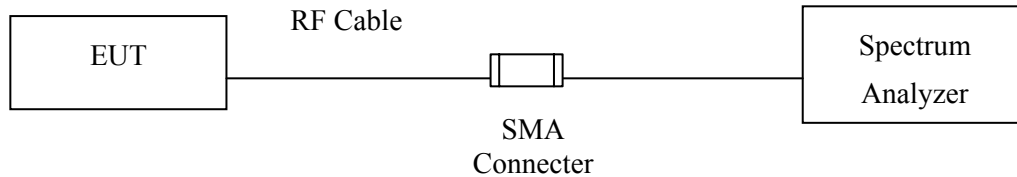
Frequency MHz	Correct Factor dB	Reading Level dB $\mu$ V	Measurement Level dB $\mu$ V/m	Margin dB	Limit dB $\mu$ V/m
<b>Horizontal</b>					
119.971	-13.428	51.757	38.329	-5.171	43.500
193.072	-13.679	53.006	39.327	-4.173	43.500
225.406	-13.141	50.878	37.737	-8.263	46.000
322.406	-9.840	50.040	40.200	-5.800	46.000
524.841	-5.636	38.591	32.955	-13.045	46.000
960.638	0.360	50.821	51.180	-2.820	54.000
<b>Vertical</b>					
122.783	-13.137	50.128	36.991	-6.509	43.500
239.464	-12.295	50.900	38.605	-7.395	46.000
322.406	-9.840	44.733	34.893	-11.107	46.000
543.116	-5.348	43.575	38.227	-7.773	46.000
717.435	-2.714	37.723	35.009	-10.991	46.000
960.638	0.360	46.458	46.817	-7.183	54.000

## 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.

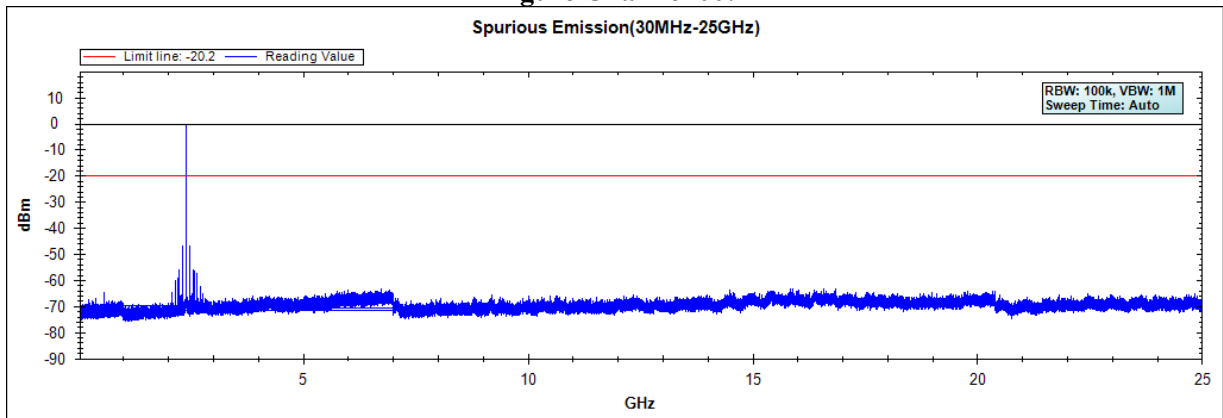
### 5.4. Uncertainty

$\pm 1.23\text{dB}$

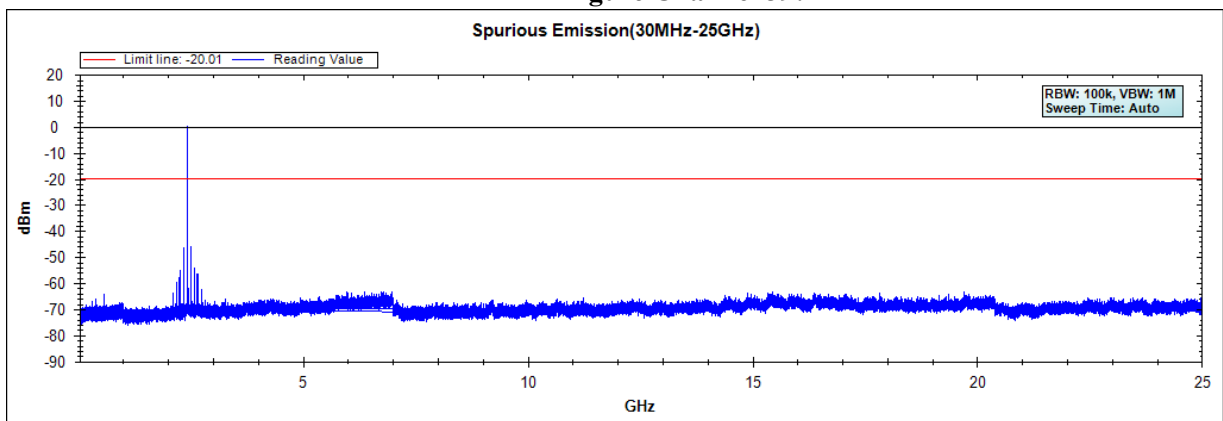
### 5.5. Test Result of RF Antenna Conducted Test

Product : Mobile Medical Assistant Tablet  
 Test Item : RF Antenna Conducted Test  
 Test Mode : Mode 1: Transmit - 1Mbps  
 Test Date : 2017/06/21

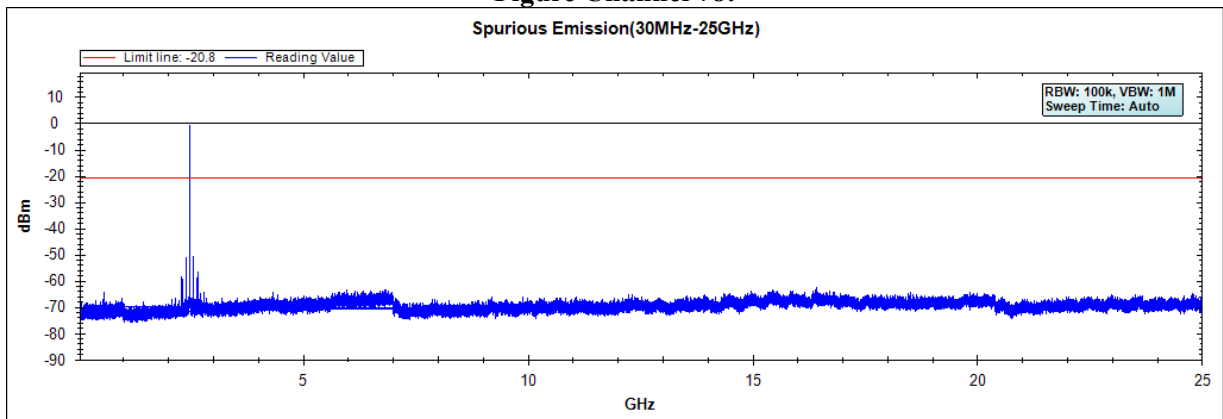
**Figure Channel 00:**



**Figure Channel 39:**



**Figure Channel 78:**

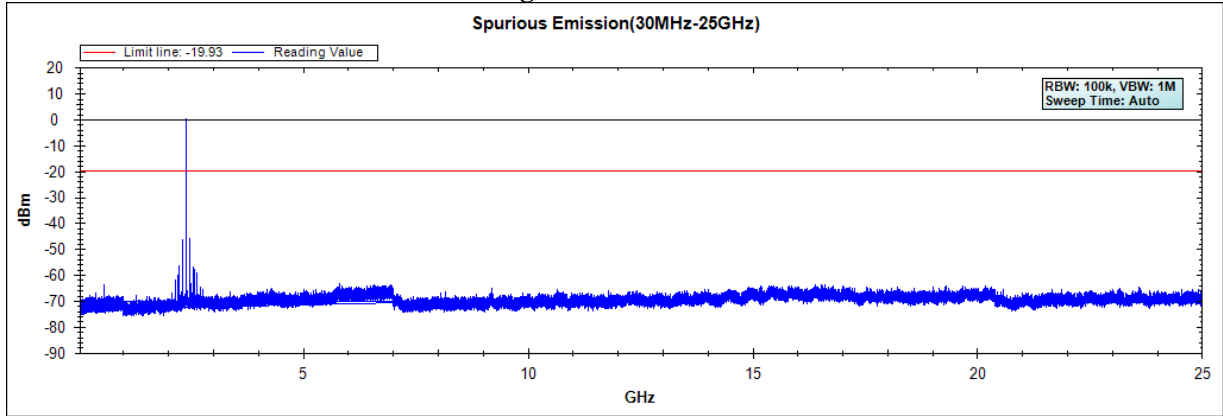


Note: The above test pattern is synthesized by multiple of the frequency range.

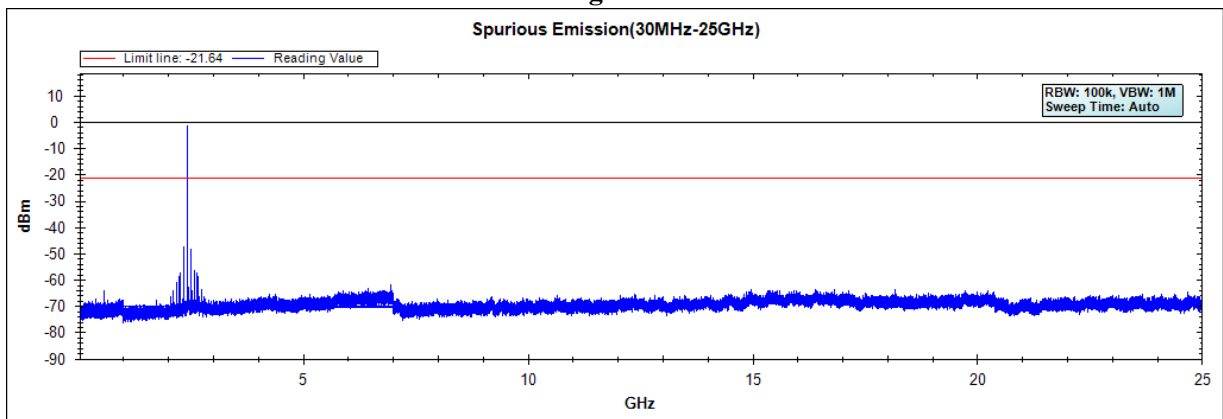


Product : Mobile Medical Assistant Tablet  
Test Item : RF Antenna Conducted Test  
Test Mode : Mode 2: Transmit - 3Mbps  
Test Date : 2017/06/21

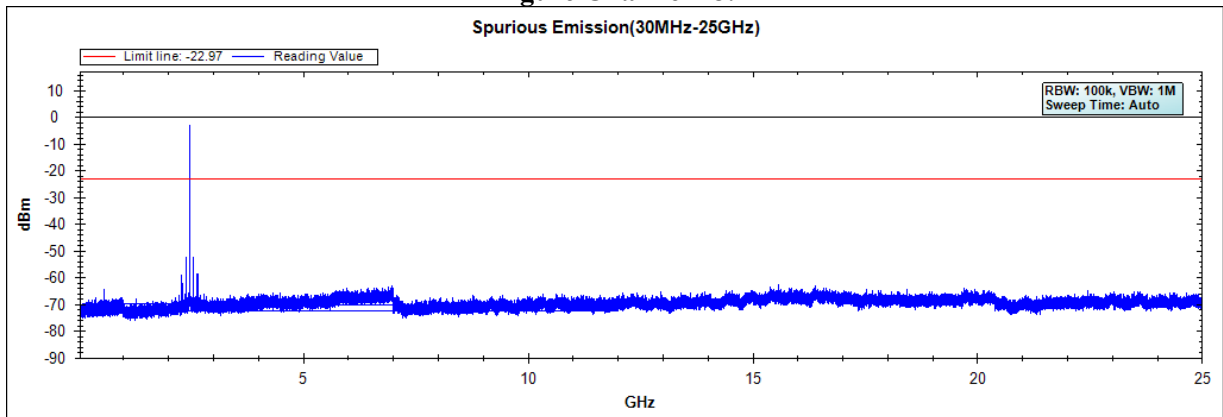
**Figure Channel 00:**



**Figure Channel 39:**



**Figure Channel 78:**

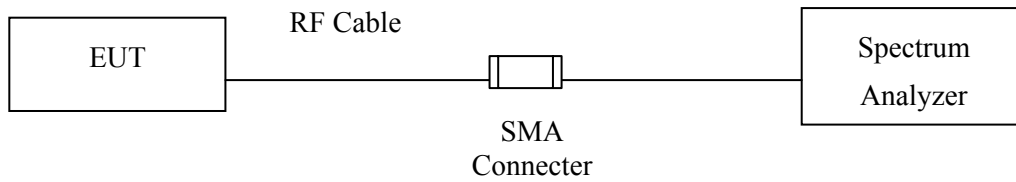


Note: The above test pattern is synthesized by multiple of the frequency range.

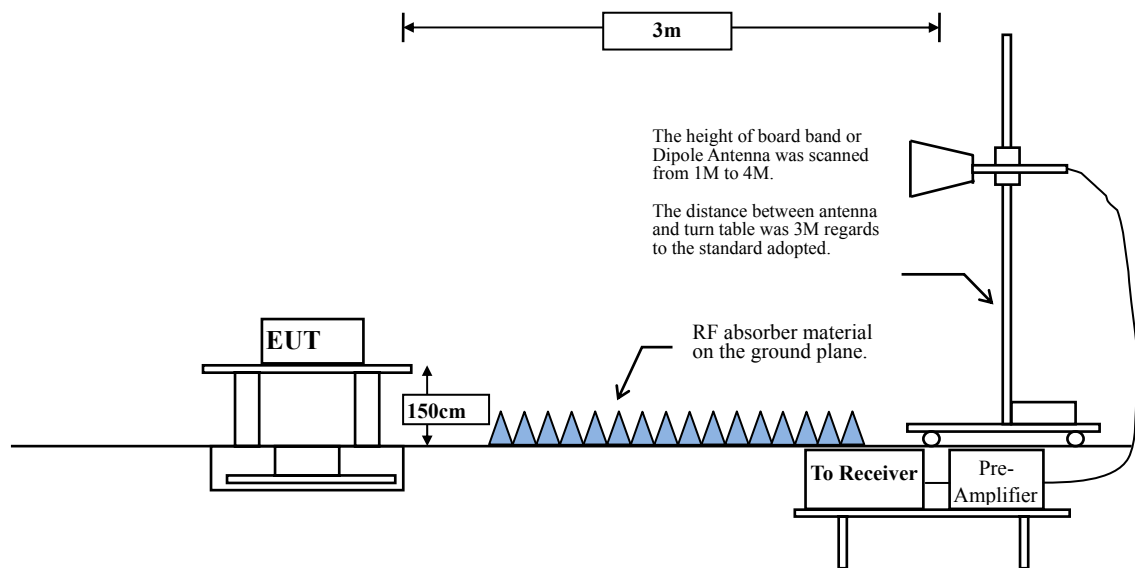
## 6. Band Edge

### 6.1. Test Setup

#### RF Conducted Measurement



#### RF Radiated Measurement:



## 6.2. Limit

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. 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

Conducted:  $\pm 1.23$ dB

Radiated:

Horizontal polarization : 1-18GHz:  $\pm 3.77$ dB

Vertical polarization : 1-18GHz :  $\pm 3.83$ dB

### 6.5. Test Result of Band Edge

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)  
 Test Date : 2017/06/13

#### RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2389.710	-8.951	60.016	51.065	74.00	54.00	Pass
00 (Peak)	2390.000	-8.951	56.627	47.677	74.00	54.00	Pass
00 (Peak)	2400.000	-8.912	63.889	54.977	--	--	--
00 (Peak)	2402.174	-8.904	96.694	87.790	--	--	--
00 (Average)	2390.000	-8.951	35.301	26.351	74.00	54.00	Pass
00 (Average)	2400.000	-8.912	54.121	45.209	--	--	--
00 (Average)	2402.029	-8.904	96.294	87.390	--	--	--

Figure Channel 00: Horizontal (Peak)

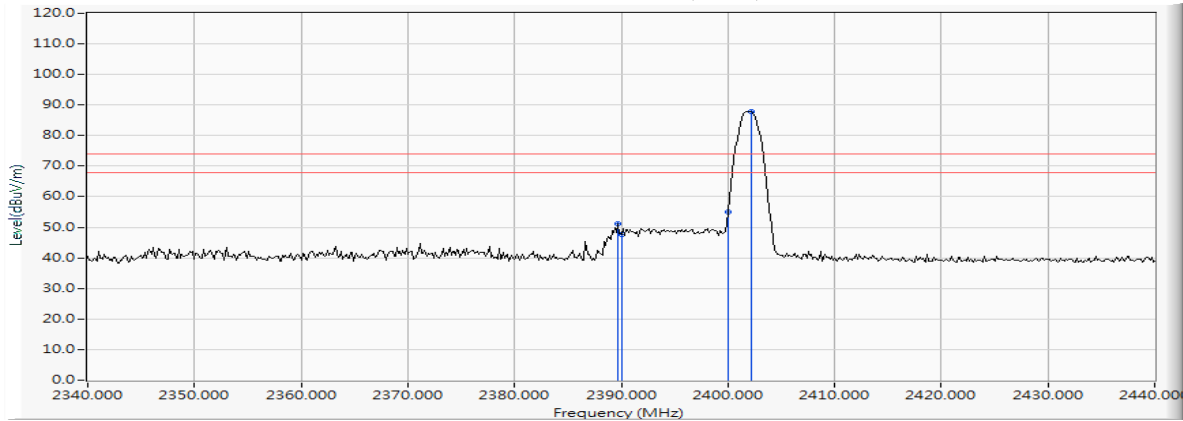
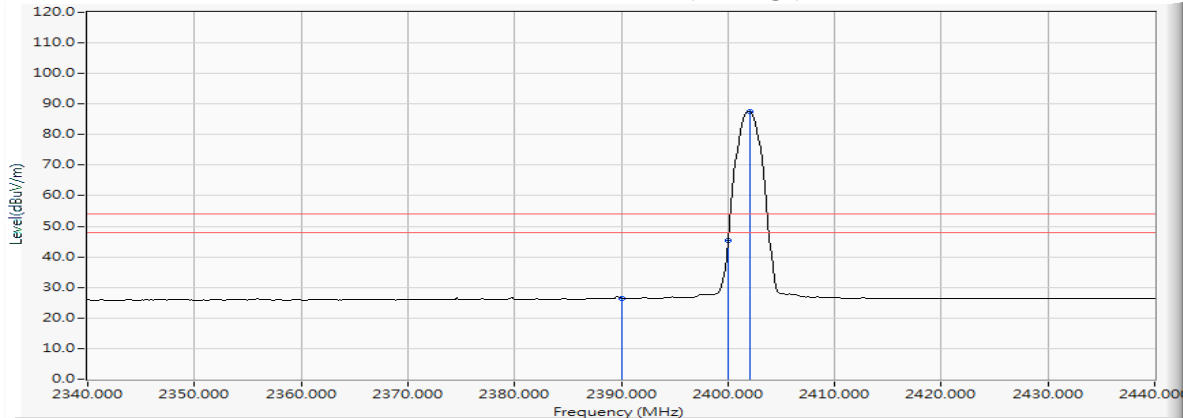


Figure Channel 00: Horizontal (Average)



Note:

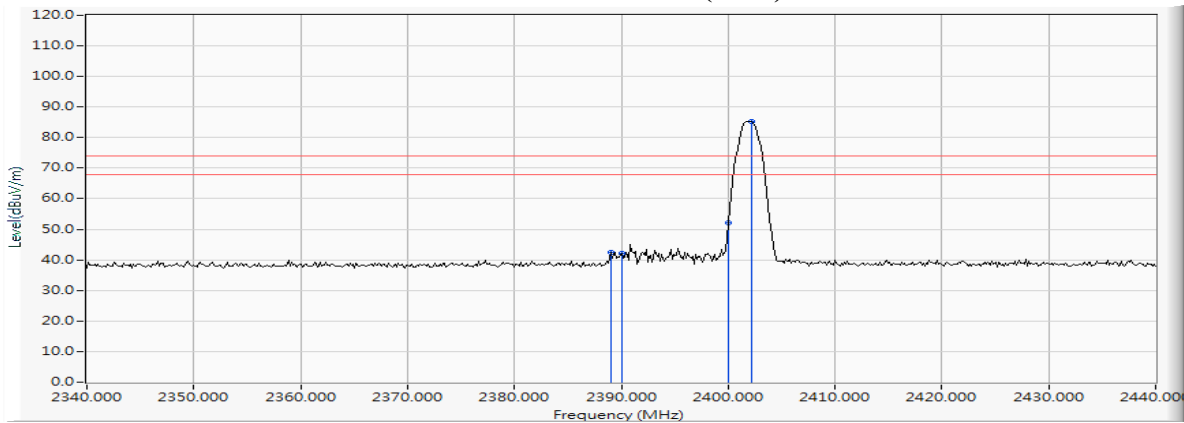
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “\*”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps (2402MHz)  
 Test Date : 2017/06/13

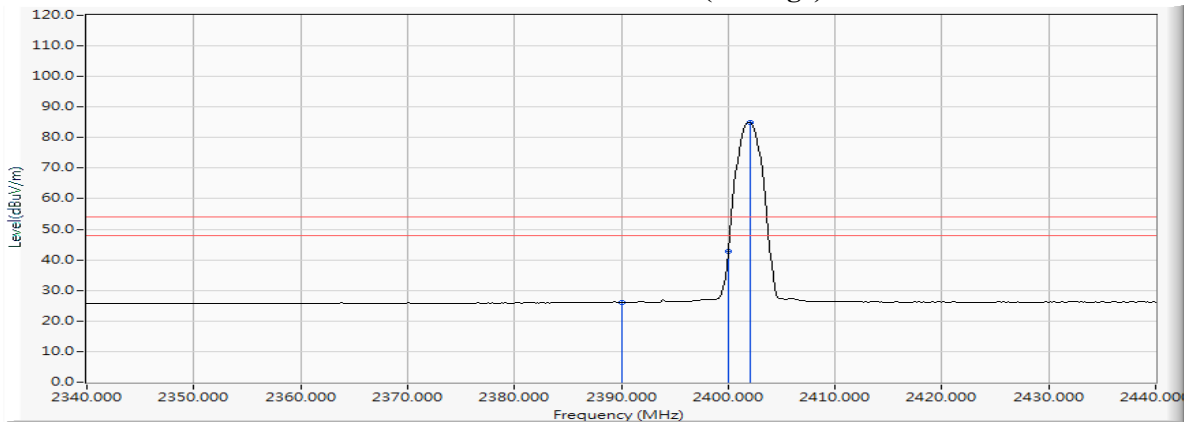
**RF Radiated Measurement (VERTICAL):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2388.986	-8.954	51.510	42.556	74.00	54.00	Pass
00 (Peak)	2390.000	-8.951	51.033	42.083	74.00	54.00	Pass
00 (Peak)	2400.000	-8.912	60.950	52.038	--	--	--
00 (Peak)	2402.174	-8.904	94.163	85.259	--	--	--
00 (Average)	2390.000	-8.951	35.026	26.076	74.00	54.00	Pass
00 (Average)	2400.000	-8.912	51.657	42.745	--	--	--
00 (Average)	2402.029	-8.904	93.734	84.830	--	--	--

**Figure Channel 00: VERTICAL (Peak)**



**Figure Channel 00: VERTICAL (Average)**



Note:

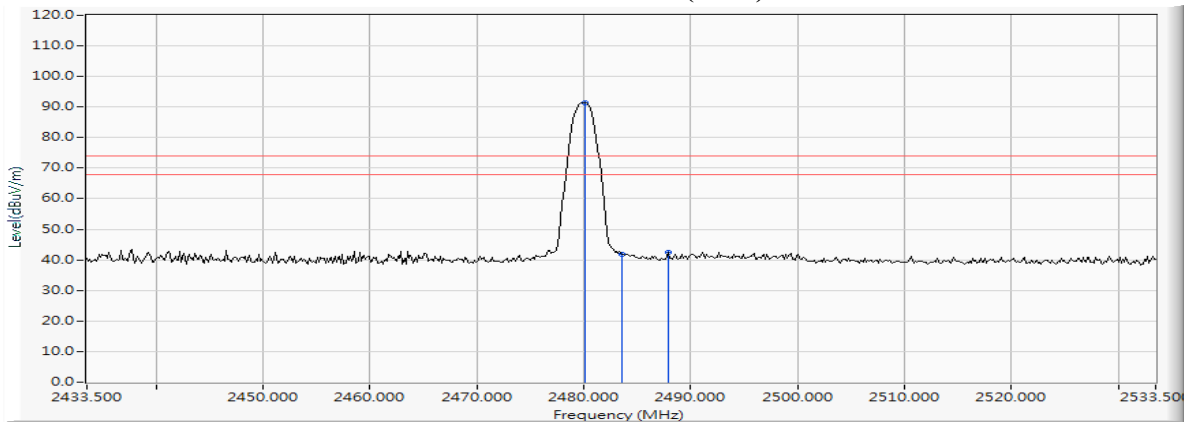
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)  
 Test Date : 2017/06/13

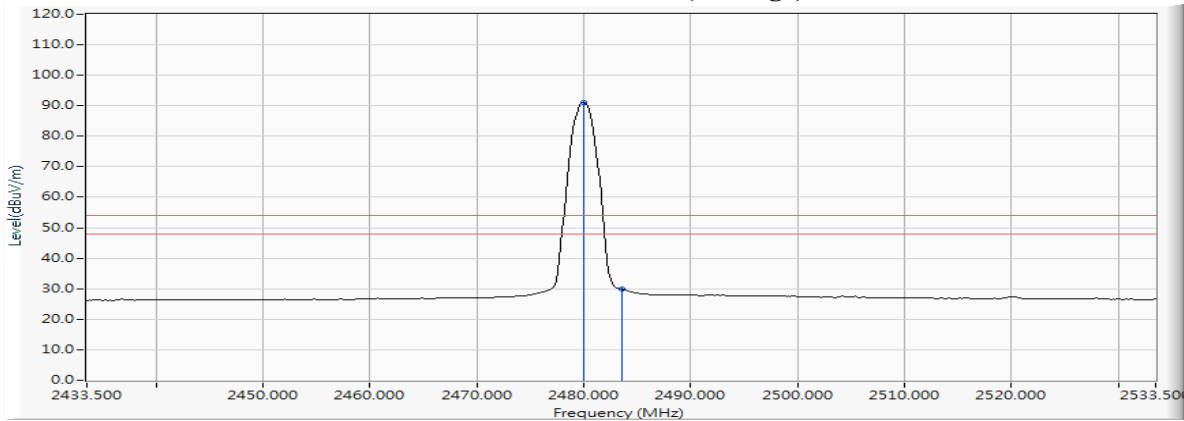
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2480.167	-8.614	100.028	91.413	--	--	Pass
78 (Peak)	2483.500	-8.604	50.536	41.933	74.00	54.00	Pass
78 (Peak)	2487.848	-8.588	50.903	42.315	74.00	54.00	Pass
78 (Average)	2480.022	-8.615	99.623	91.008	--	--	Pass
78 (Average)	2483.500	-8.604	38.403	29.800	74.00	54.00	Pass

**Figure Channel 78: Horizontal (Peak)**



**Figure Channel 78: Horizontal (Average)**



Note:

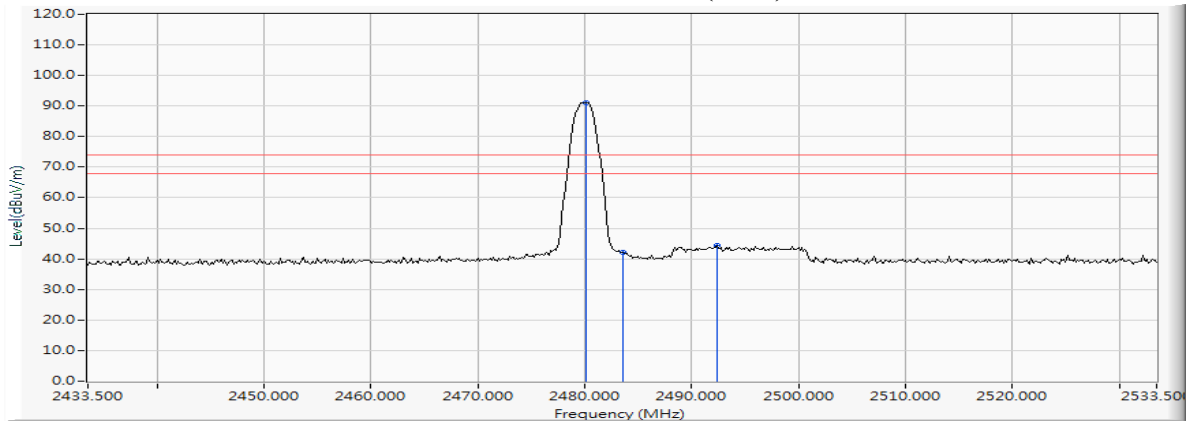
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps (2480MHz)  
 Test Date : 2017/06/13

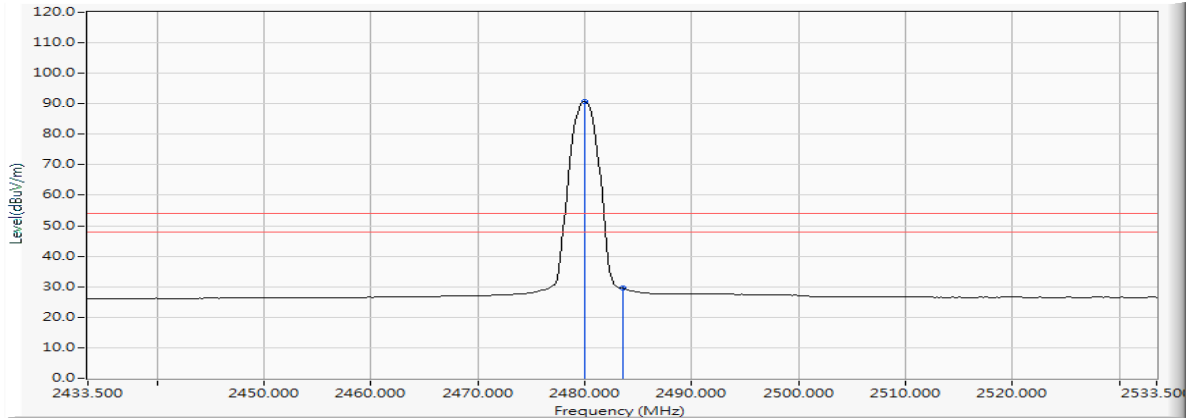
**RF Radiated Measurement (VERTICAL):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2480.167	-8.614	99.768	91.153	--	--	Pass
78 (Peak)	2483.500	-8.604	50.721	42.118	74.00	54.00	Pass
78 (Peak)	2492.341	-8.572	52.898	44.326	74.00	54.00	Pass
78 (Average)	2480.022	-8.615	99.381	90.766	--	--	Pass
78 (Average)	2483.500	-8.604	38.064	29.461	74.00	54.00	Pass

**Figure Channel 78: VERTICAL (Peak)**



**Figure Channel 78: VERTICAL (Average)**



Note:

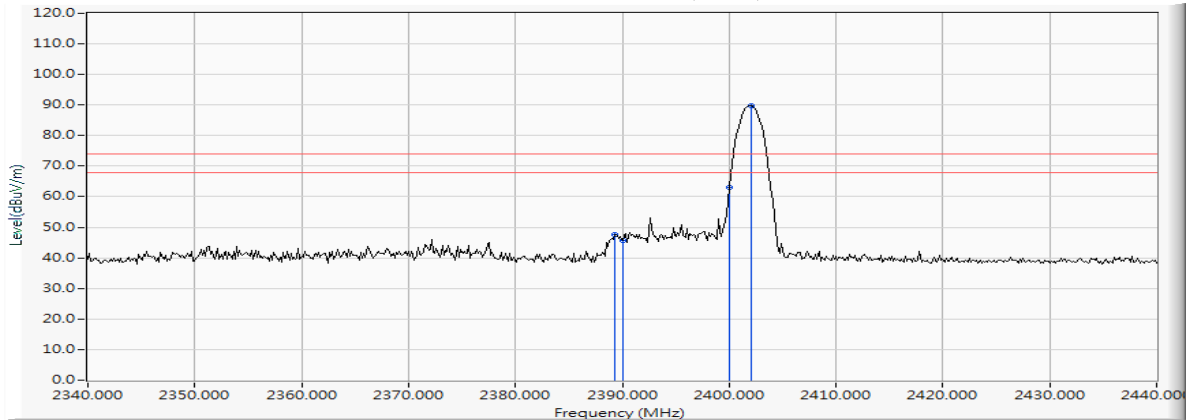
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (2402MHz)  
 Test Date : 2017/06/13

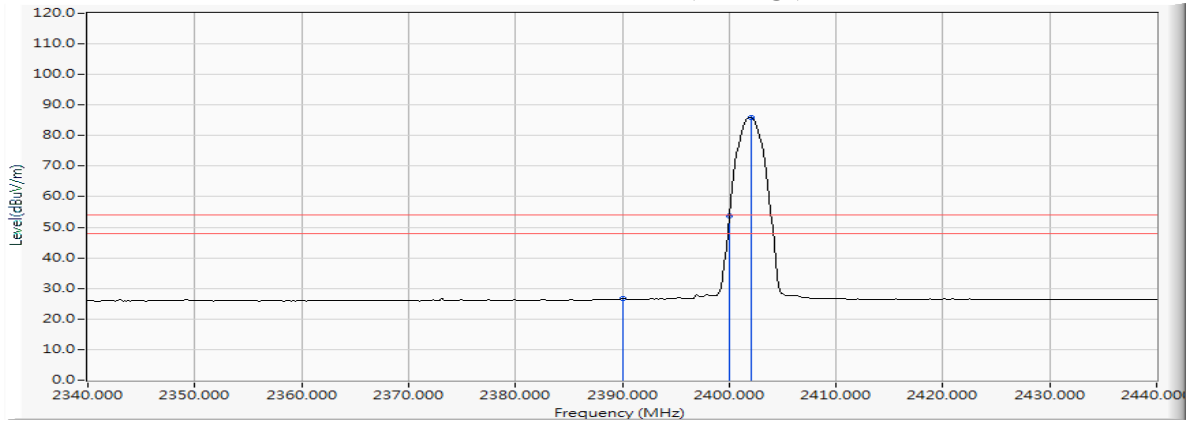
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2389.275	-8.952	56.675	47.722	74.00	54.00	Pass
00 (Peak)	2390.000	-8.951	54.779	45.829	74.00	54.00	Pass
00 (Peak)	2400.000	-8.912	71.812	62.900	--	--	--
00 (Peak)	2402.029	-8.904	98.703	89.799	--	--	--
00 (Average)	2390.000	-8.951	35.495	26.545	74.00	54.00	Pass
00 (Average)	2400.000	-8.912	62.779	53.867	--	--	--
00 (Average)	2402.029	-8.904	94.658	85.754	--	--	--

**Figure Channel 00: Horizontal (Peak)**



**Figure Channel 00: Horizontal (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.

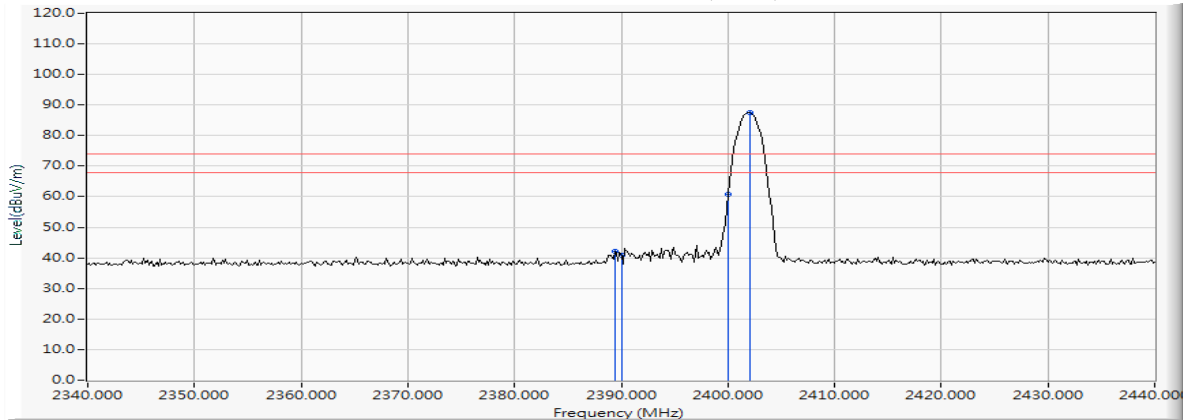


Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (2402MHz)  
 Test Date : 2017/06/13

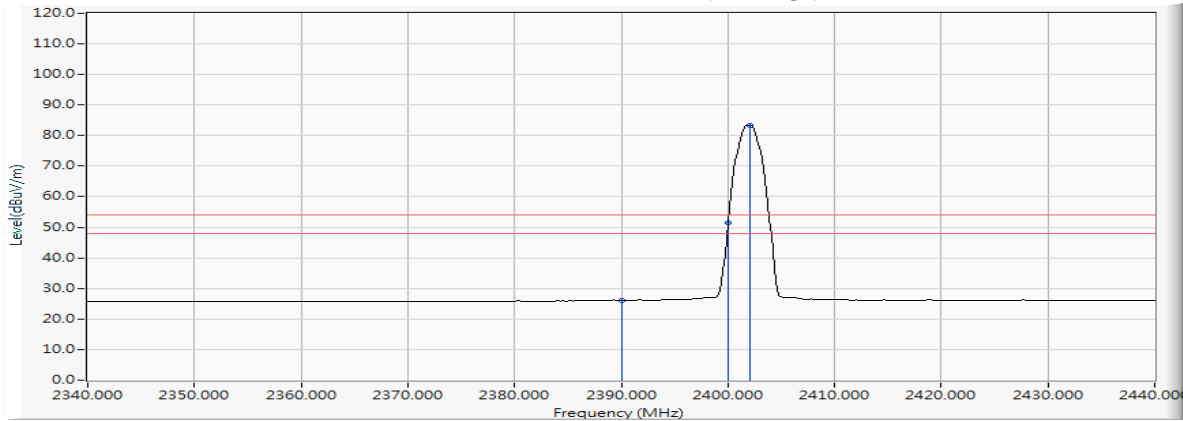
**RF Radiated Measurement (VERTICAL):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
00 (Peak)	2389.420	-8.952	51.015	42.062	74.00	54.00	Pass
00 (Peak)	2390.000	-8.951	49.871	40.921	74.00	54.00	Pass
00 (Peak)	2400.000	-8.912	69.616	60.704	--	--	--
00 (Peak)	2402.029	-8.904	96.426	87.522	--	--	--
00 (Average)	2390.000	-8.951	35.001	26.051	74.00	54.00	Pass
00 (Average)	2400.000	-8.912	60.509	51.597	--	--	--
00 (Average)	2402.029	-8.904	92.388	83.484	--	--	--

**Figure Channel 00: VERTICAL (Peak)**



**Figure Channel 00: VERTICAL (Average)**



Note:

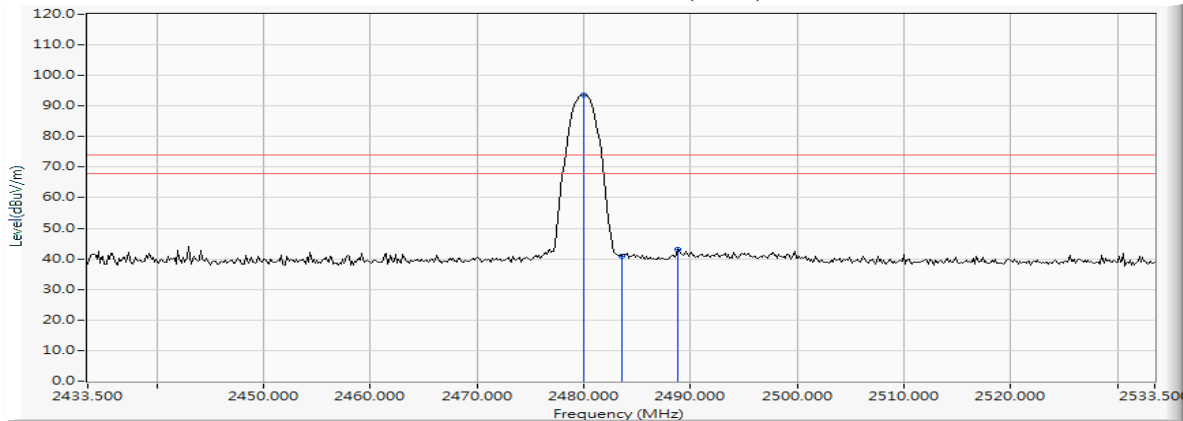
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)  
 Test Date : 2017/06/13

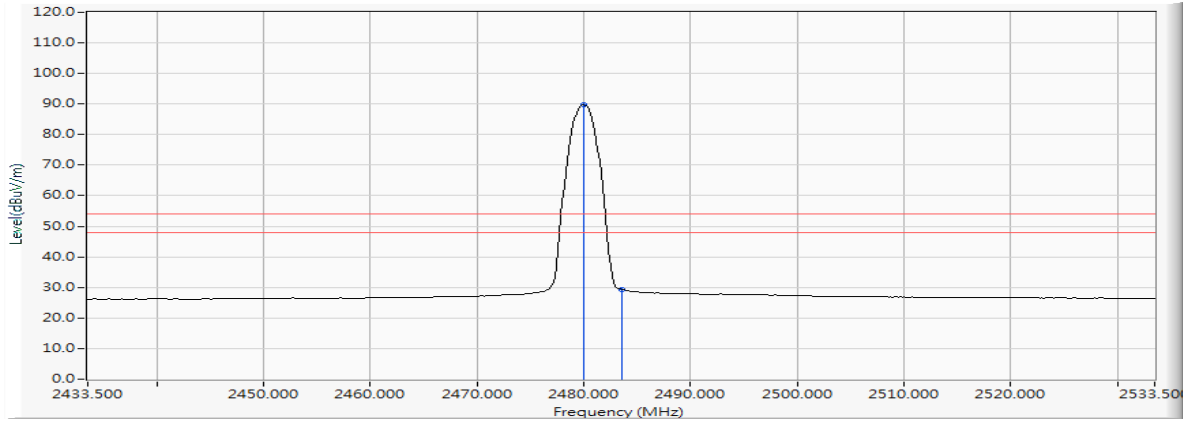
**RF Radiated Measurement (Horizontal):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2480.022	-8.615	102.357	93.742	--	--	--
78 (Peak)	2483.500	-8.604	49.336	40.733	74.00	54.00	Pass
78 (Peak)	2488.862	-8.585	51.558	42.974	74.00	54.00	Pass
78 (Average)	2480.022	-8.615	98.344	89.729	--	--	--
78 (Average)	2483.500	-8.604	37.976	29.373	74.00	54.00	Pass

**Figure Channel 00: Horizontal (Peak)**



**Figure Channel 00: Horizontal (Average)**



Note:

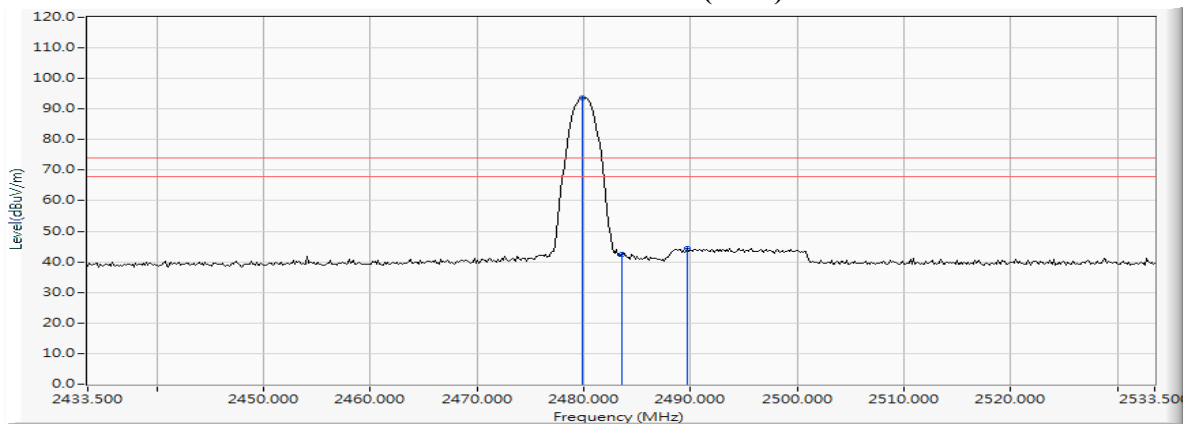
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ \* ”, means this data is the worst emission level.
5. Measurement Level = Reading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

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (2480MHz)  
 Test Date : 2017/06/13

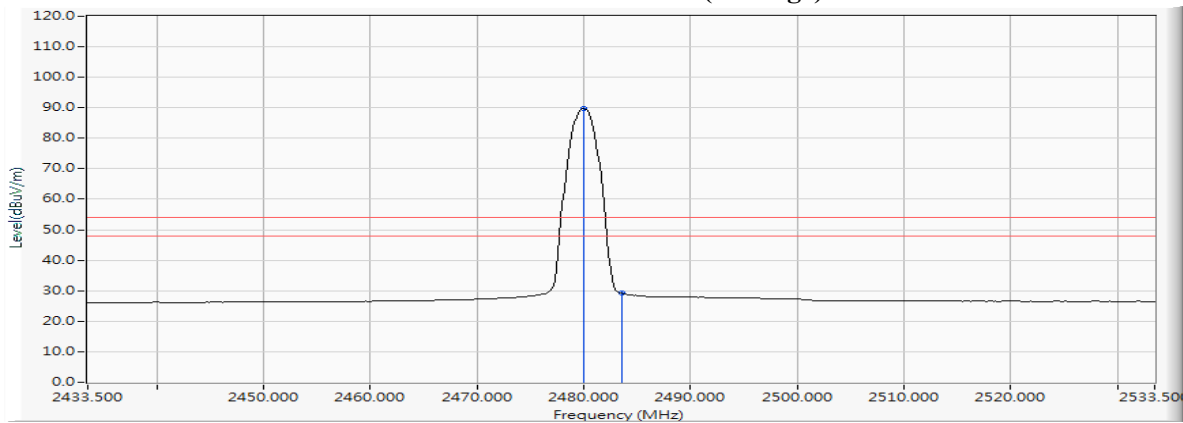
**RF Radiated Measurement (VERTICAL):**

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Peak Limit (dBμV/m)	Average Limit (dBμV/m)	Result
78 (Peak)	2479.877	-8.615	102.376	93.760	--	--	--
78 (Peak)	2483.500	-8.604	51.168	42.565	74.00	54.00	Pass
78 (Peak)	2489.732	-8.581	52.847	44.266	74.00	54.00	Pass
78 (Average)	2480.022	-8.615	98.352	89.737	--	--	--
78 (Average)	2483.500	-8.604	37.888	29.285	74.00	54.00	Pass

**Figure Channel 78: VERTICAL (Peak)**



**Figure Channel 78: VERTICAL (Average)**



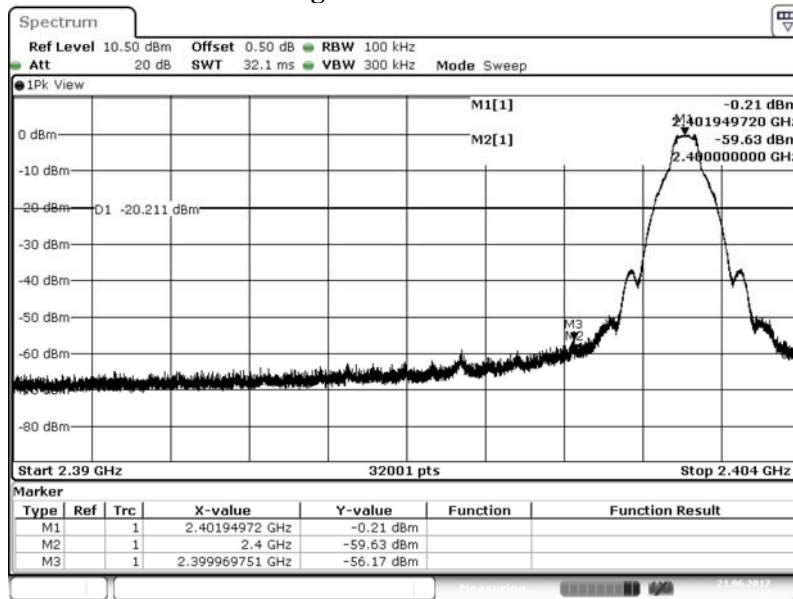
Note:

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 : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps(Hopping off)  
 Test Date : 2017/06/21

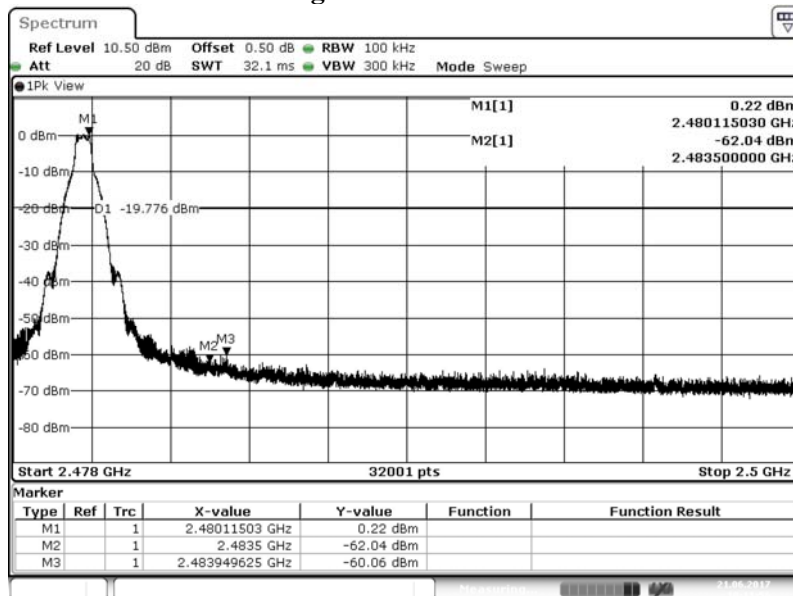
Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel 00:



Date: 21 JUN 2017 09:42:17

Figure Channel 78:

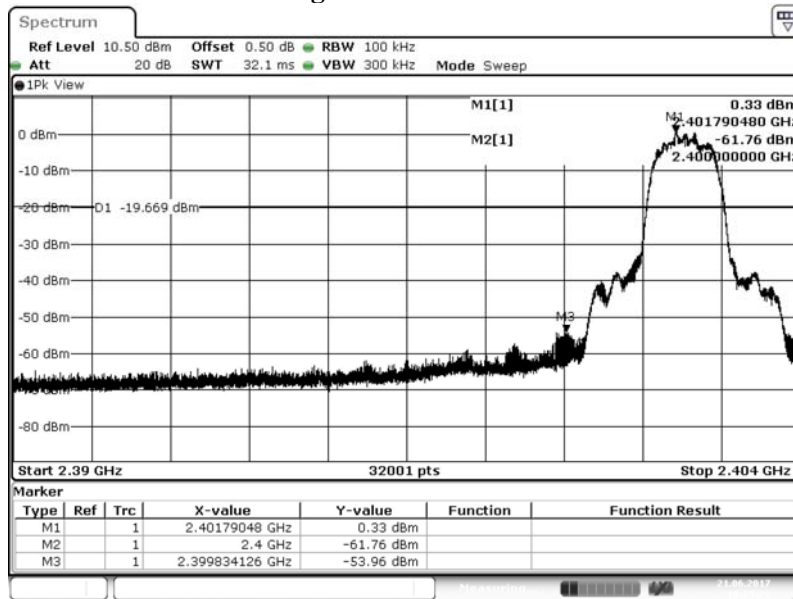


Date: 21 JUN 2017 10:11:56

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (Hopping off)  
 Test Date : 2017/06/21

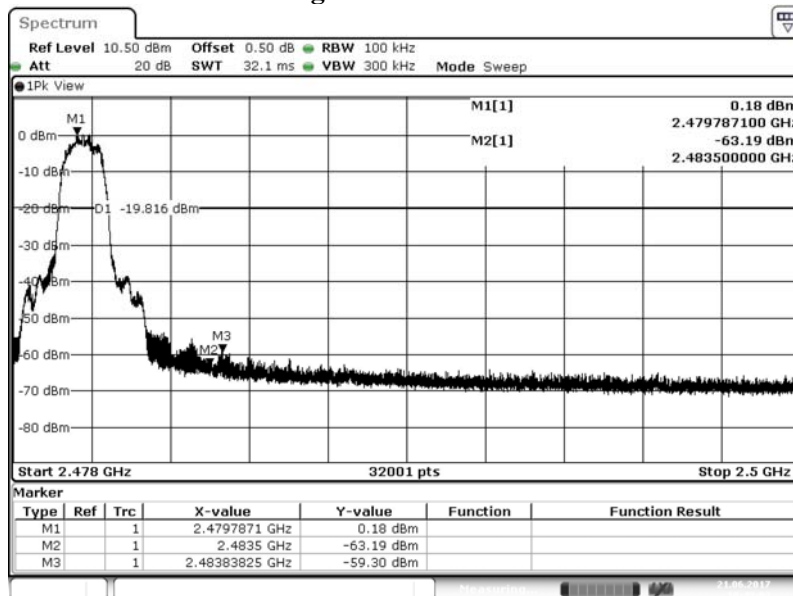
Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel 00:



Date: 21 JUN 2017 10:25:23

Figure Channel 78:

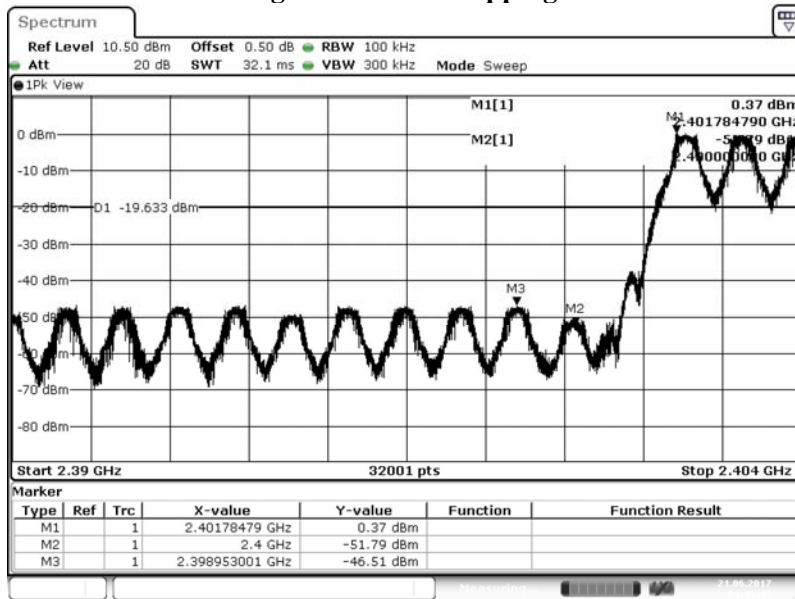


Date: 21 JUN 2017 10:43:03

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 1: Transmit - 1Mbps(Hopping on)  
 Test Date : 2017/06/21

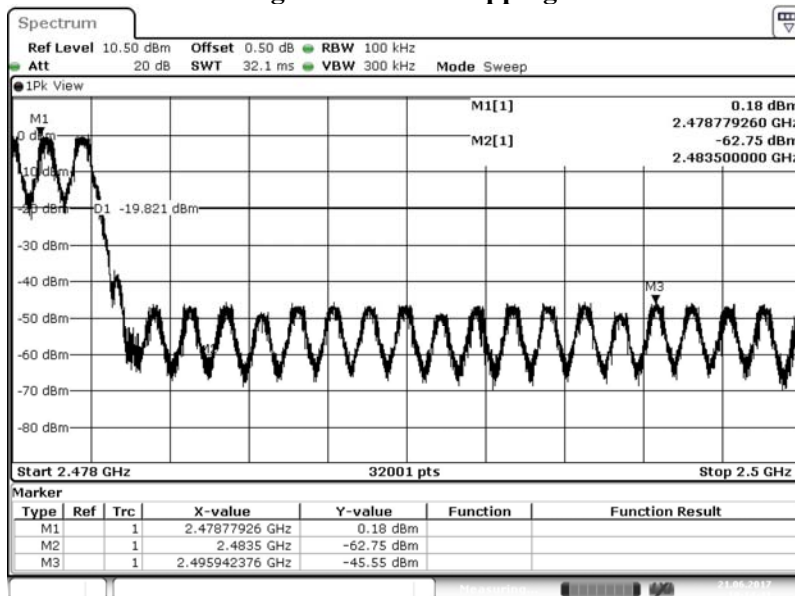
Measurement Level	Result
$\Delta$ (dB)	
> 20	PASS

Figure Channel Hopping:



Date: 21 JUN 2017 09:45:45

Figure Channel Hopping:

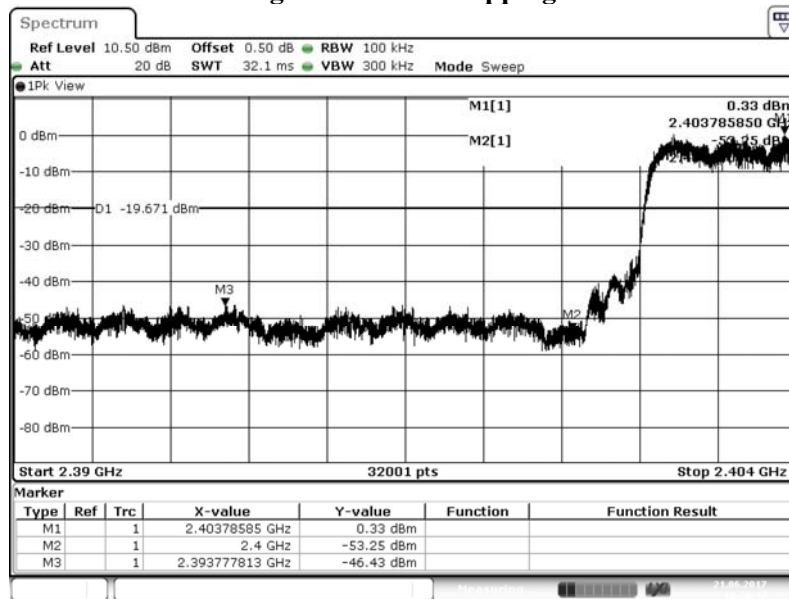


Date: 21 JUN 2017 10:14:42

Product : Mobile Medical Assistant Tablet  
 Test Item : Band Edge  
 Test Mode : Mode 2: Transmit - 3Mbps (Hopping on)  
 Test Date : 2017/06/21

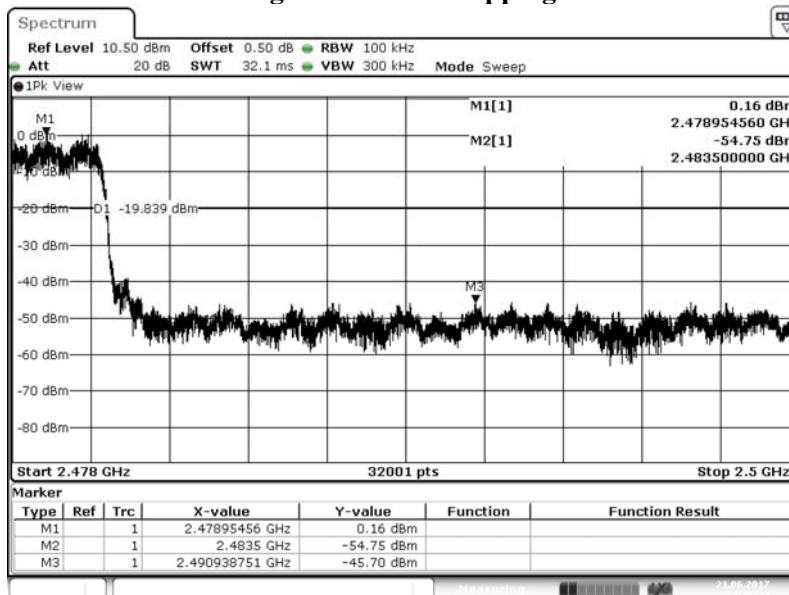
Measurement Level $\Delta$ (dB)	Result
> 20	PASS

Figure Channel Hopping:



Date: 21 JUN 2017 10:28:48

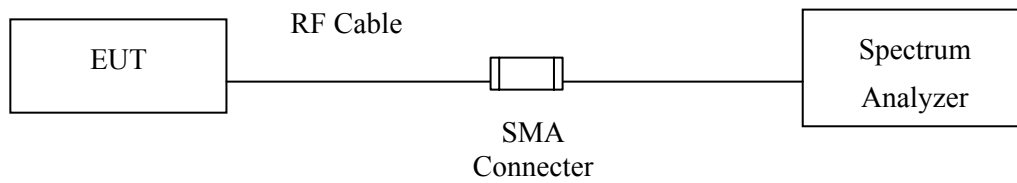
Figure Channel Hopping:



Date: 21 JUN 2017 10:45:44

## 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 75 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

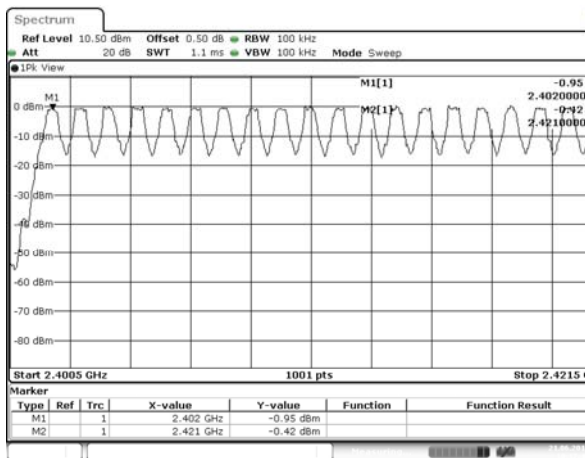


### 7.5. Test Result of Channel Number

Product : Mobile Medical Assistant Tablet  
 Test Item : Channel Number  
 Test Mode : Mode 1: Transmit - 1Mbps  
 Test Date : 2017/06/21

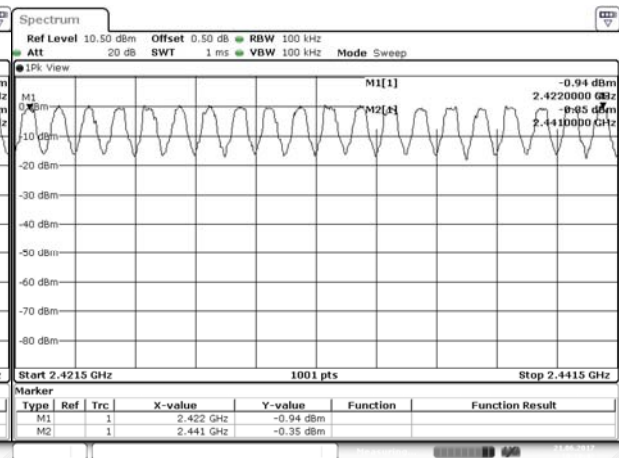
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



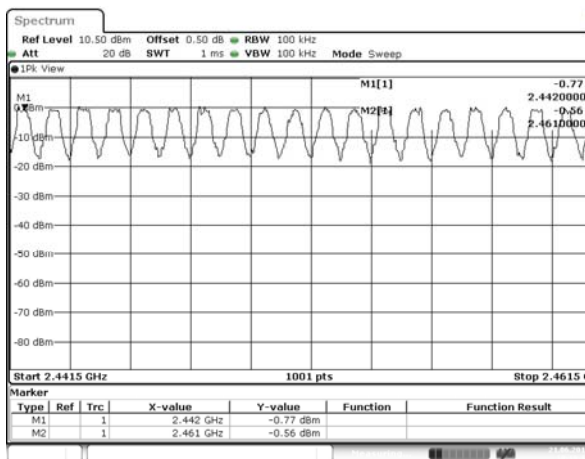
Date: 21 JUN 2017 10:17:44

2422-2441MHz



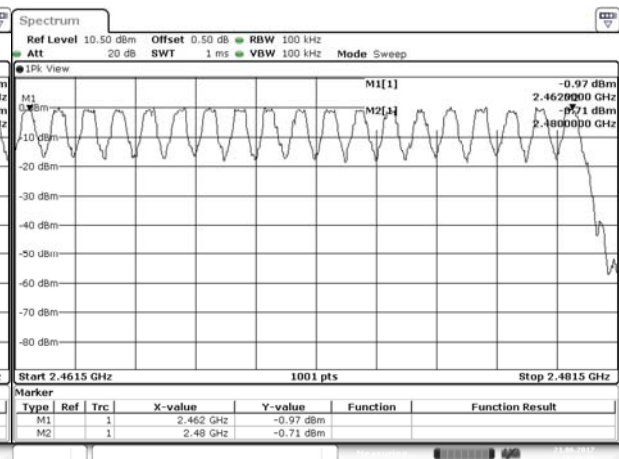
Date: 21 JUN 2017 10:18:42

2442-2461MHz



Date: 21 JUN 2017 10:19:14

2462-2480MHz

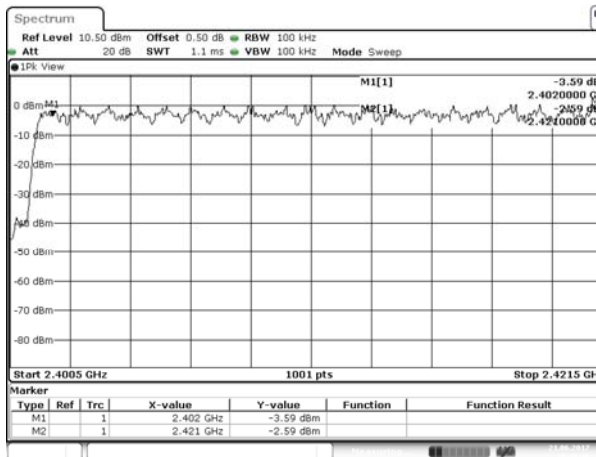


Date: 21 JUN 2017 10:19:58

Product : Mobile Medical Assistant Tablet  
 Test Item : Channel Number  
 Test Mode : Mode 2: Transmit - 3Mbps  
 Test Date : 2017/06/21

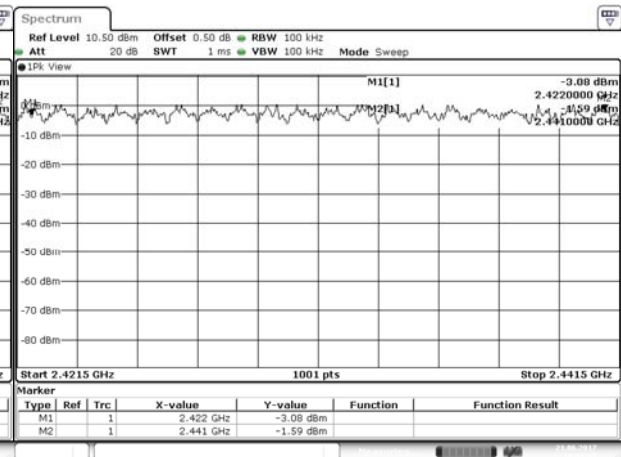
Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

2402-2421MHz



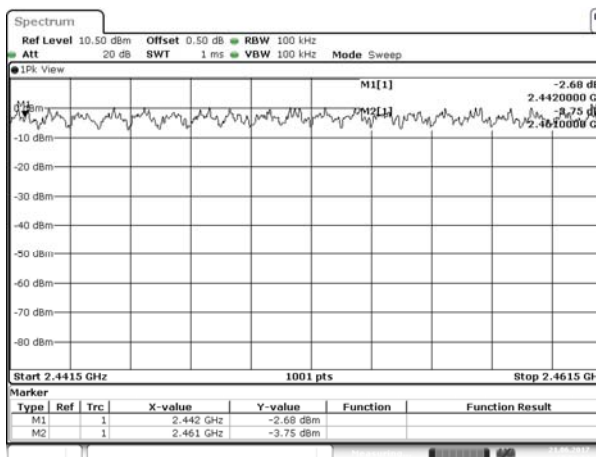
Date: 21 JUN 2017 10:49:48

2422-2441MHz



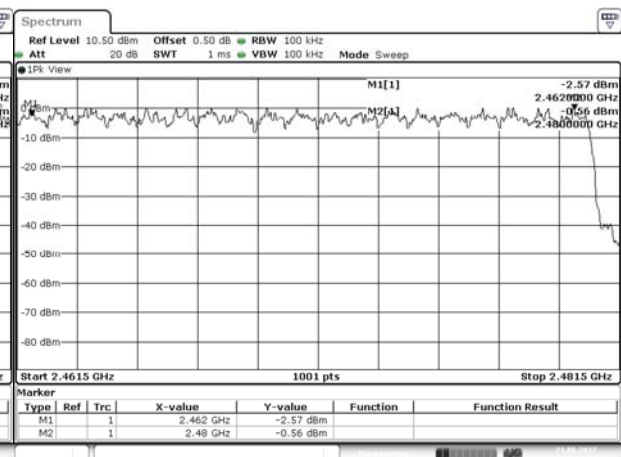
Date: 21 JUN 2017 10:51:37

2442-2461MHz



Date: 21 JUN 2017 10:52:35

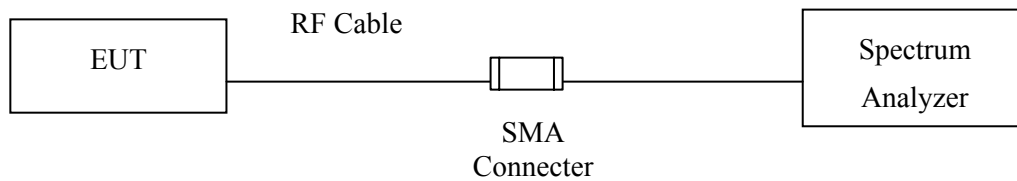
2462-2480MHz



Date: 21 JUN 2017 10:53:54

## 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

$\pm 279.2\text{Hz}$

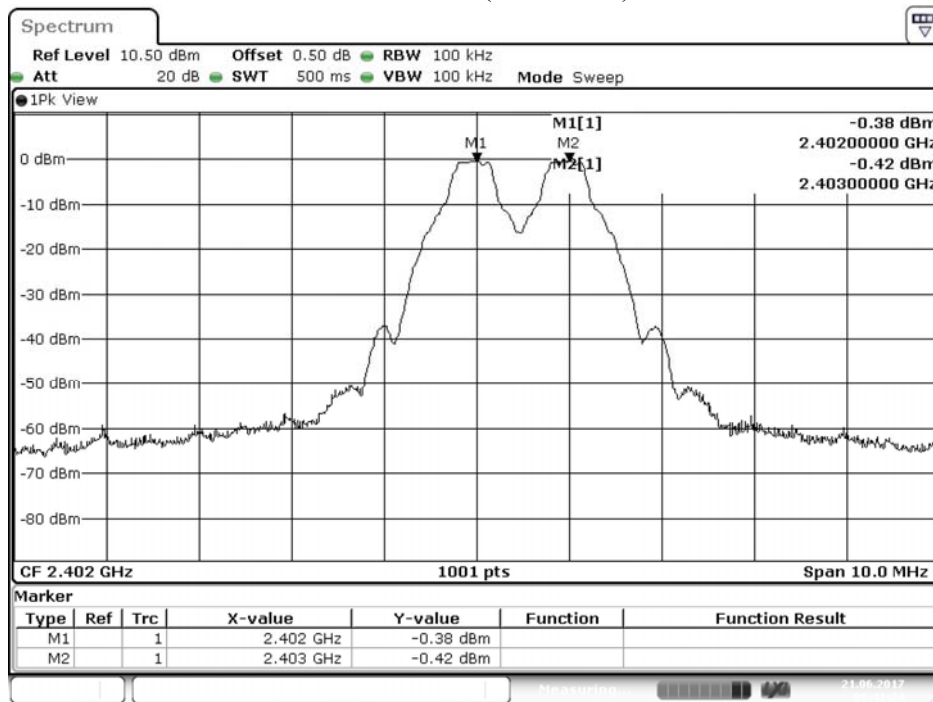
### 8.5. Test Result of Channel Separation

Product : Mobile Medical Assistant Tablet  
 Test Item : Channel Separation  
 Test Mode : Mode 1: Transmit - 1Mbps  
 Test Date : 2017/06/21

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	639.3	Pass
39	2441	1000	>25 kHz	639.3	Pass
78	2480	1000	>25 kHz	639.3	Pass

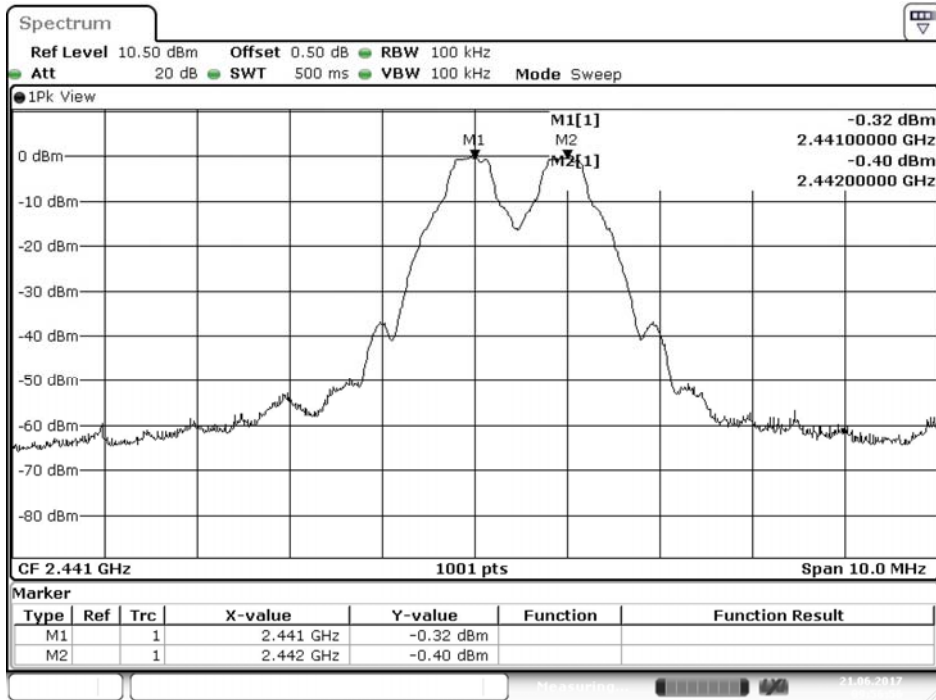
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



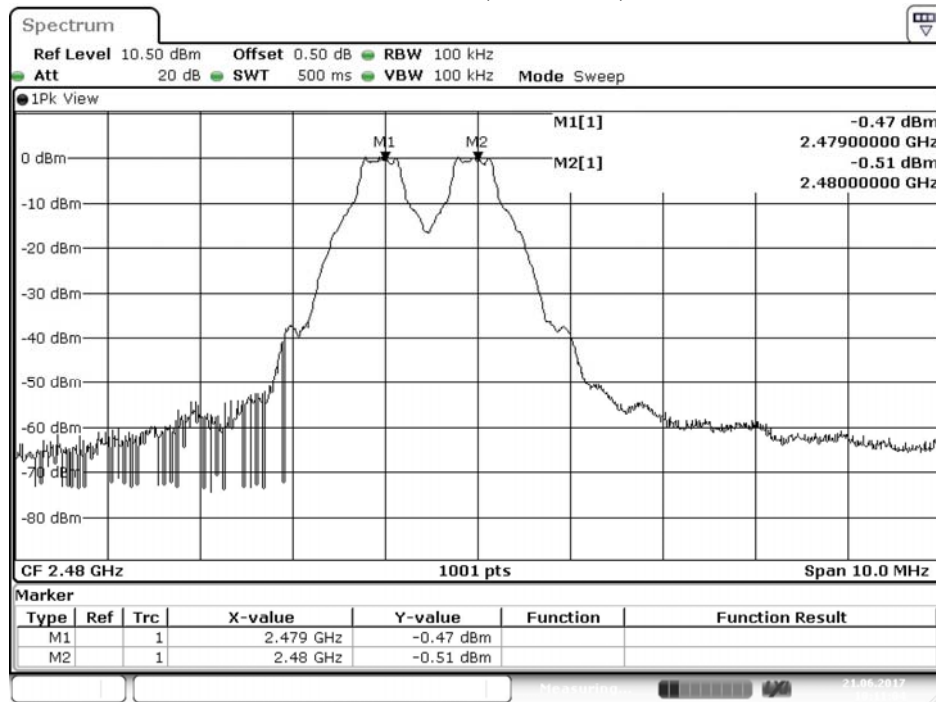
Date: 21.JUN.2017 09:41:24

### Channel 39 (2441MHz)



Date: 21.JUN.2017 09:56:56

### Channel 78 (2480MHz)



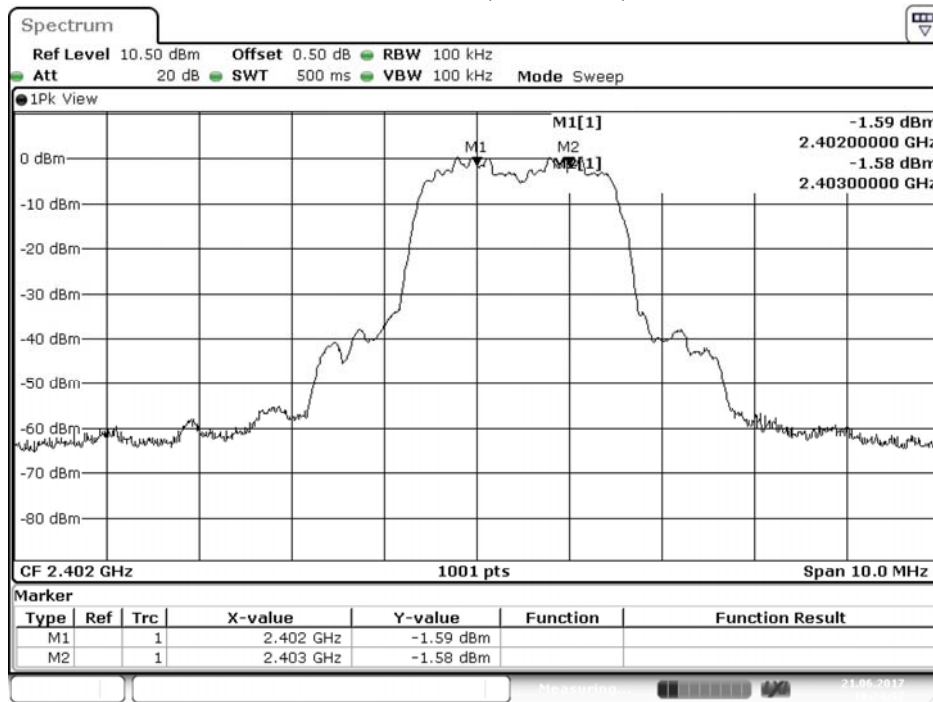
Date: 21.JUN.2017 10:11:05

Product : Mobile Medical Assistant Tablet  
 Test Item : Channel Separation  
 Test Mode : Mode 2: Transmit - 3Mbps  
 Test Date : 2017/06/21

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
00	2402	1000	>25 kHz	818.7	Pass
39	2441	1000	>25 kHz	812.0	Pass
78	2480	1000	>25 kHz	812.0	Pass

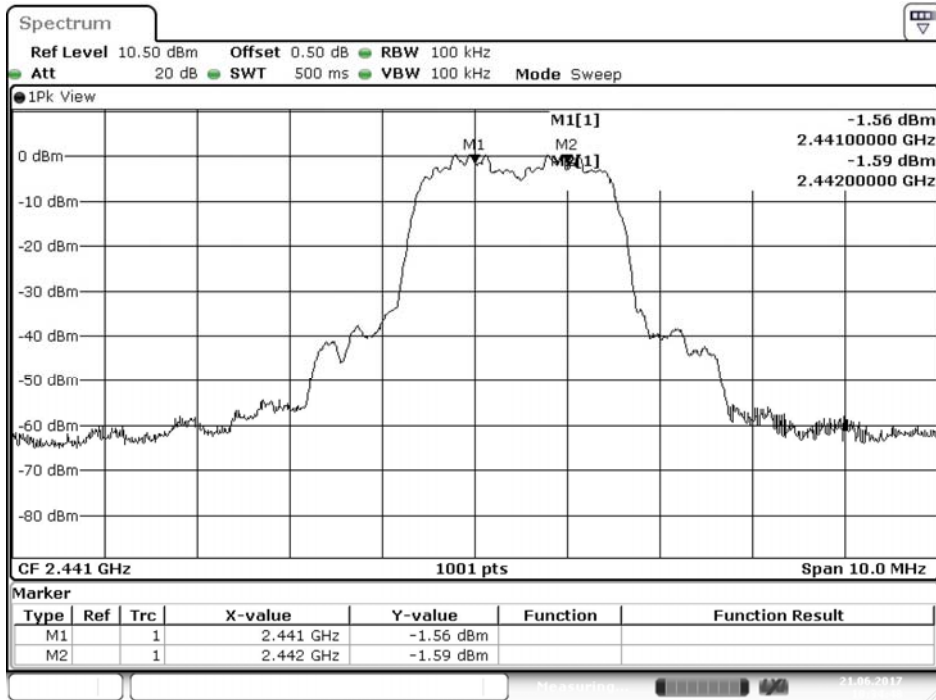
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 (2402MHz)



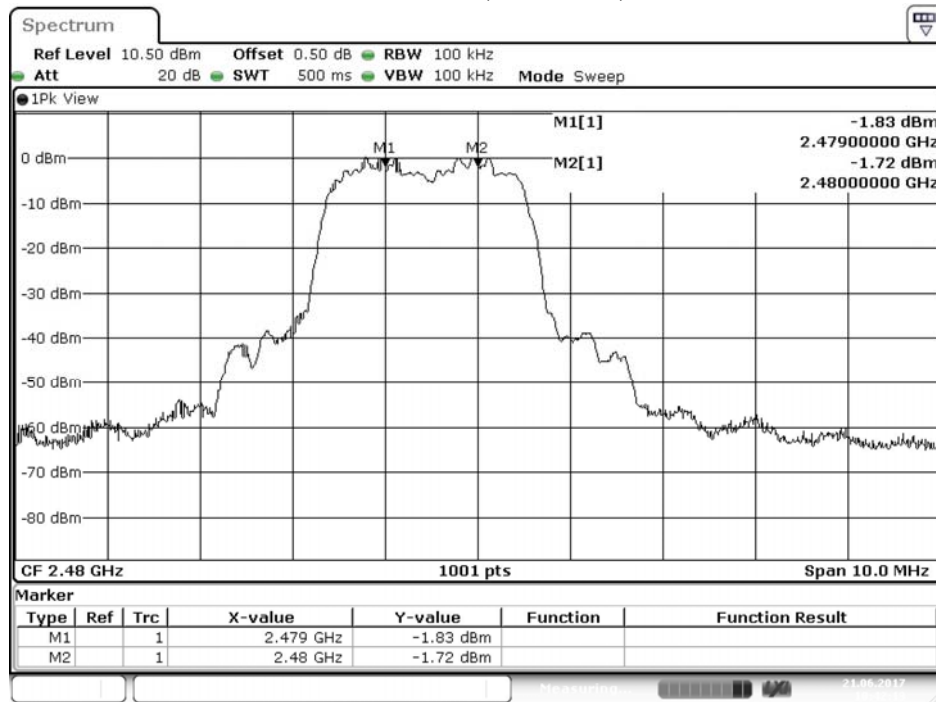
Date: 21.JUN.2017 10:24:37

### Channel 39 (2441MHz)



Date: 21.JUN.2017 10:34:48

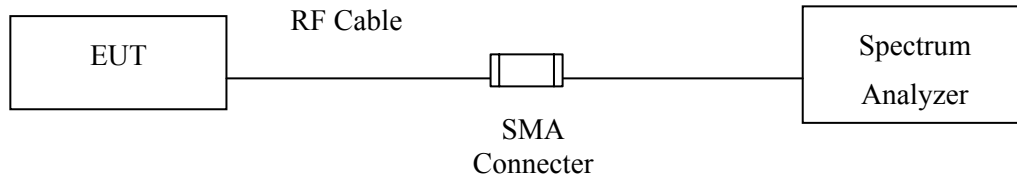
### Channel 78 (2480MHz)



Date: 21.JUN.2017 10:42:14

## 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

$\pm 2.31\text{msec}$



### 9.5. Test Result of Dwell Time

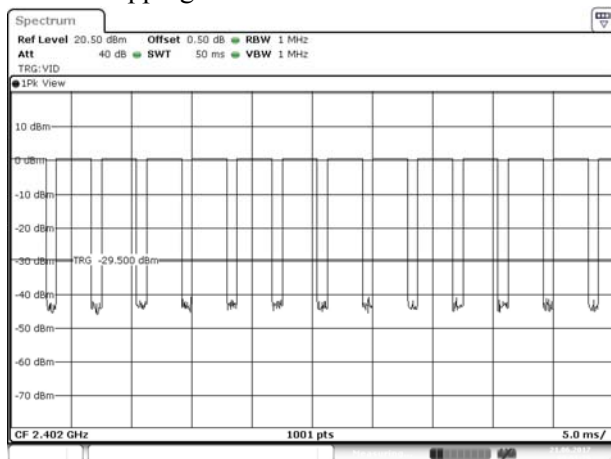
Product : Mobile Medical Assistant Tablet  
 Test Item : Dwell Time  
 Test Mode : Mode 1: Transmit - 1Mbps (Channel 00,39,78)  
 Test Date : 2017/06/21

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.897	13	50	0.75	0.301	0.4	Pass
2441	2.897	13	50	0.75	0.301	0.4	Pass
2480	2.897	13	50	0.75	0.301	0.4	Pass

Duty cycle = ((Time slot length(ms)\*Hopping of Number) / Sweep time (ms))

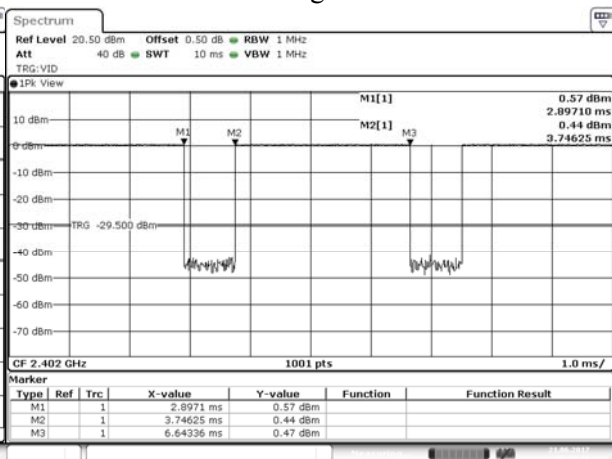
Dwell time = (Duty cycle /79) \* (79\*0.4)

CH 00 Hopping of Number



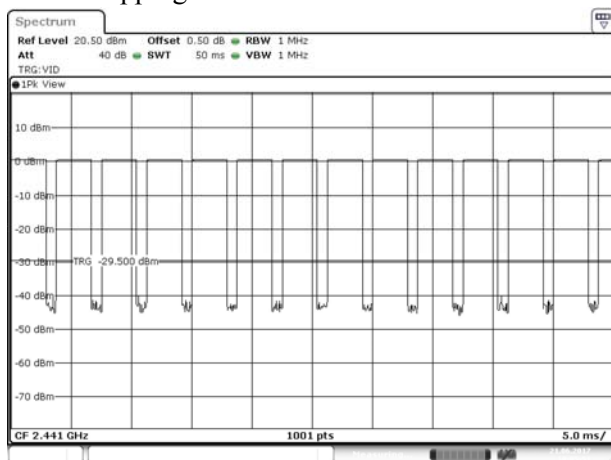
Date: 21 JUN 2017 09:51:30

CH 00 Time slot length



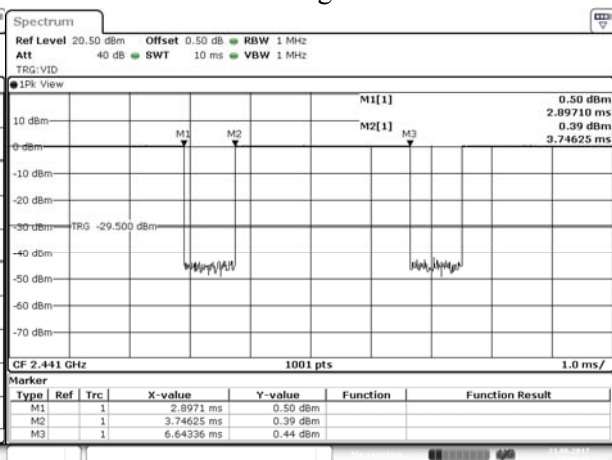
Date: 21 JUN 2017 09:52:19

CH39 Hopping of Number



Date: 21 JUN 2017 10:05:51

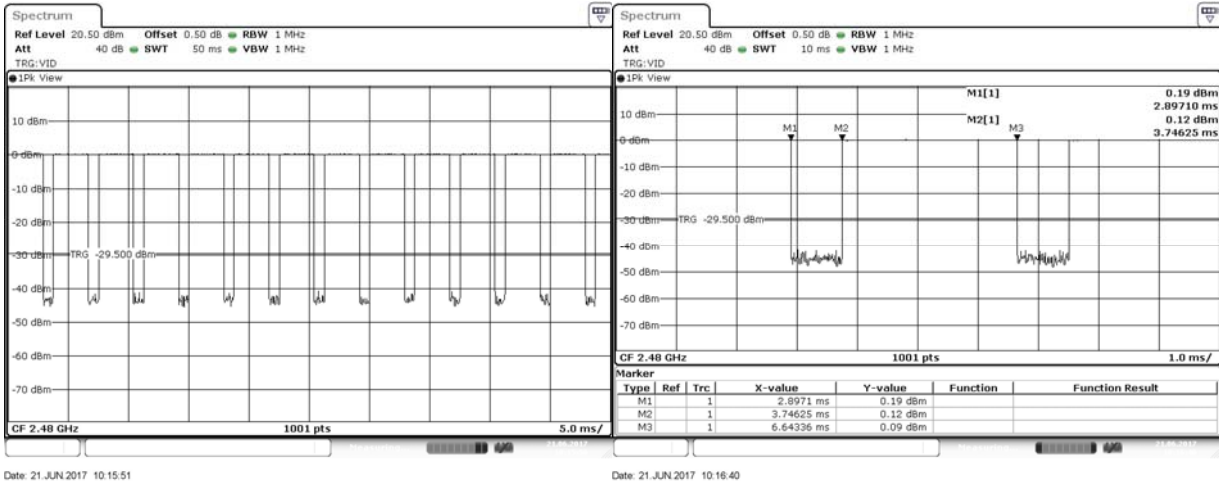
CH 39 Time slot length



Date: 21 JUN 2017 10:06:40

CH 78 Hopping of Number

CH 78 Time slot length



Note:

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

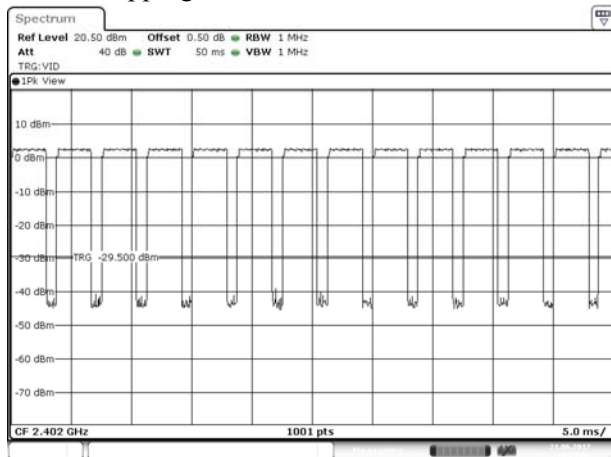
Product : Mobile Medical Assistant Tablet  
 Test Item : Dwell Time  
 Test Mode : Mode 2: Transmit - 3Mbps (Channel 00,39,78)  
 Test Date : 2017/06/21

Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.907	13	50	0.76	0.302	0.4	Pass
2441	2.907	13	50	0.76	0.302	0.4	Pass
2480	2.907	13	50	0.76	0.302	0.4	Pass

Duty cycle = ((Time slot length(ms)\*Hopping of Number) / Sweep time (ms))

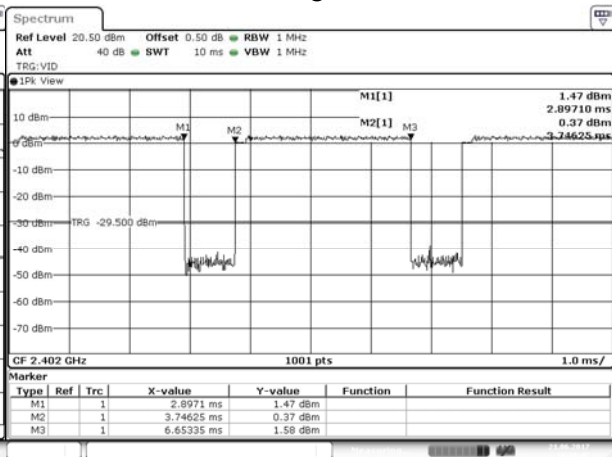
Dwell time = (Duty cycle / 79) \* (79\*0.4)

CH 00 Hopping of Number



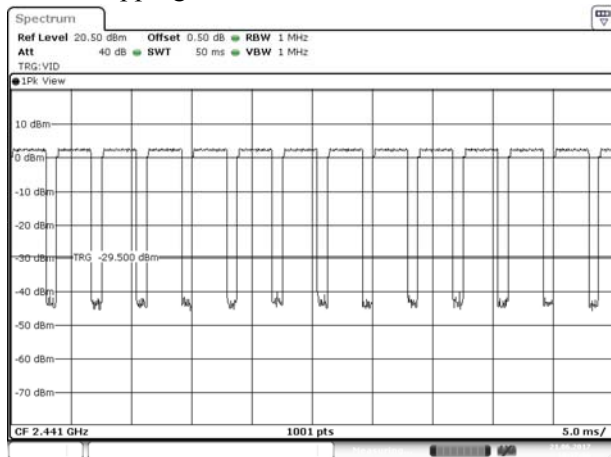
Date: 21 JUN 2017 10:29:53

CH 00 Time slot length



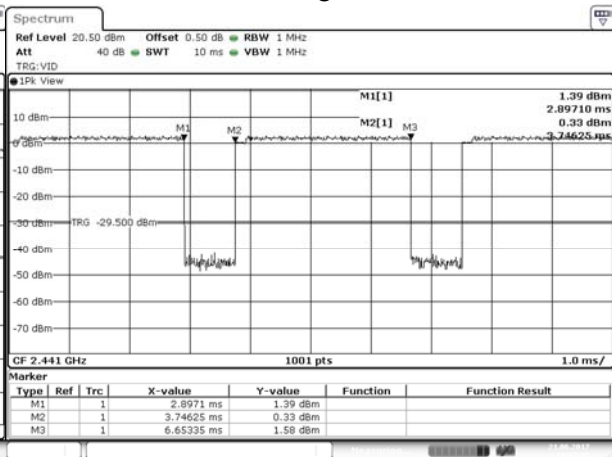
Date: 21 JUN 2017 10:30:42

CH39 Hopping of Number



Date: 21 JUN 2017 10:37:06

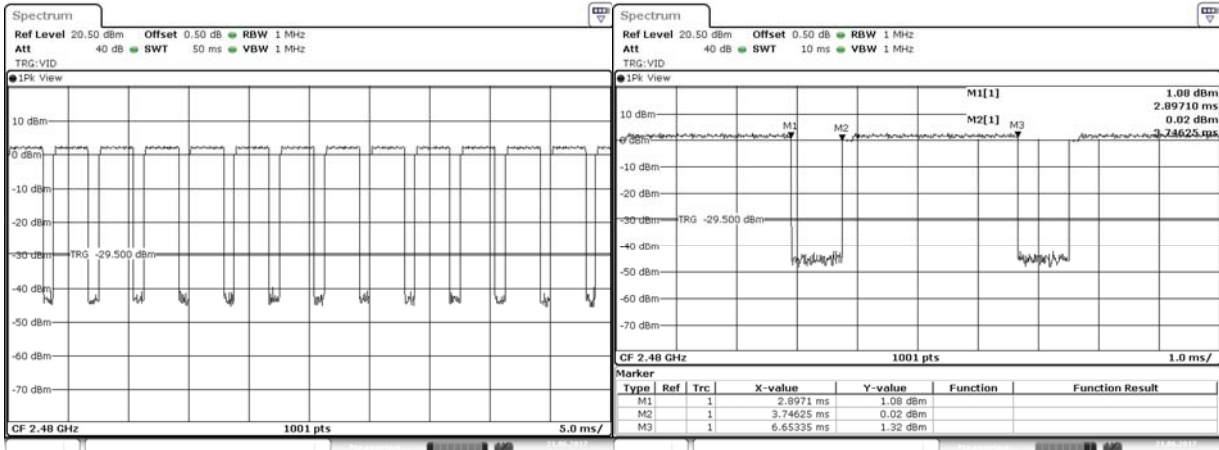
CH 39 Time slot length



Date: 21 JUN 2017 10:37:55

CH 78 Hopping of Number

CH 78 Time slot length



Date: 21 JUN 2017 10:46:43

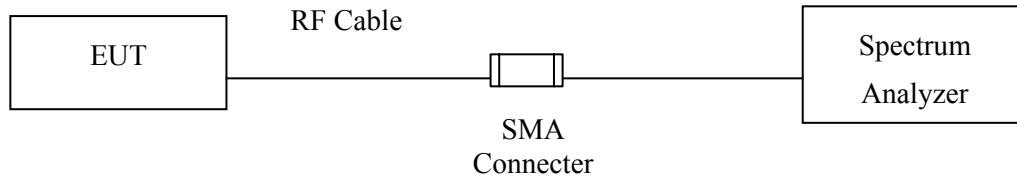
Date: 21 JUN 2017 10:47:32

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

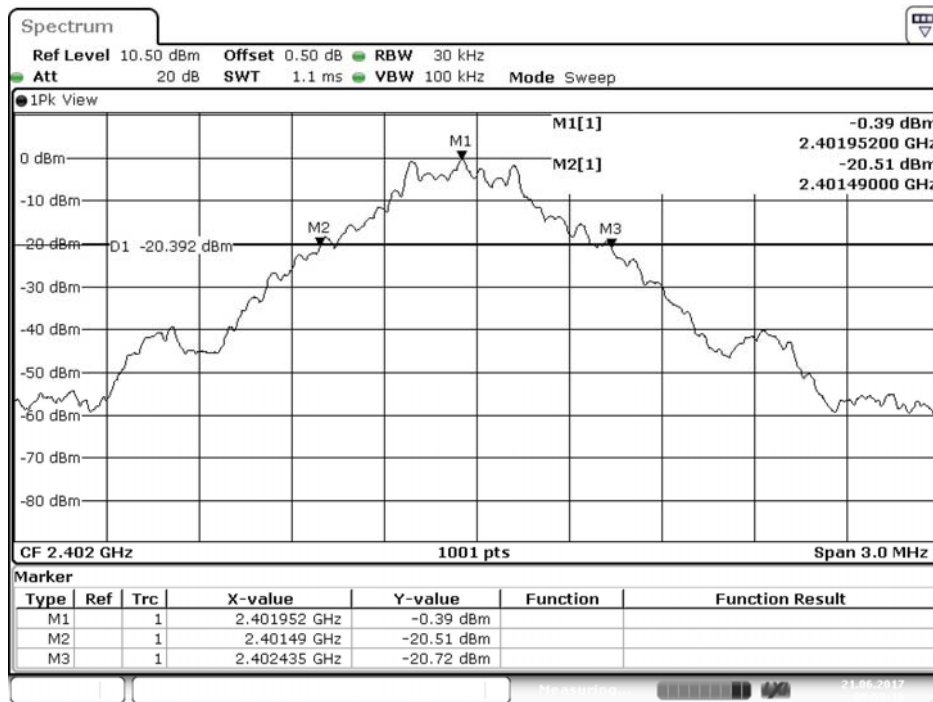
$\pm 279.2\text{Hz}$

### 10.5. Test Result of Occupied Bandwidth

Product : Mobile Medical Assistant Tablet  
 Test Item : Occupied Bandwidth Data  
 Test Mode : Mode 1: Transmit - 1Mbps  
 Test Date : 2017/06/21

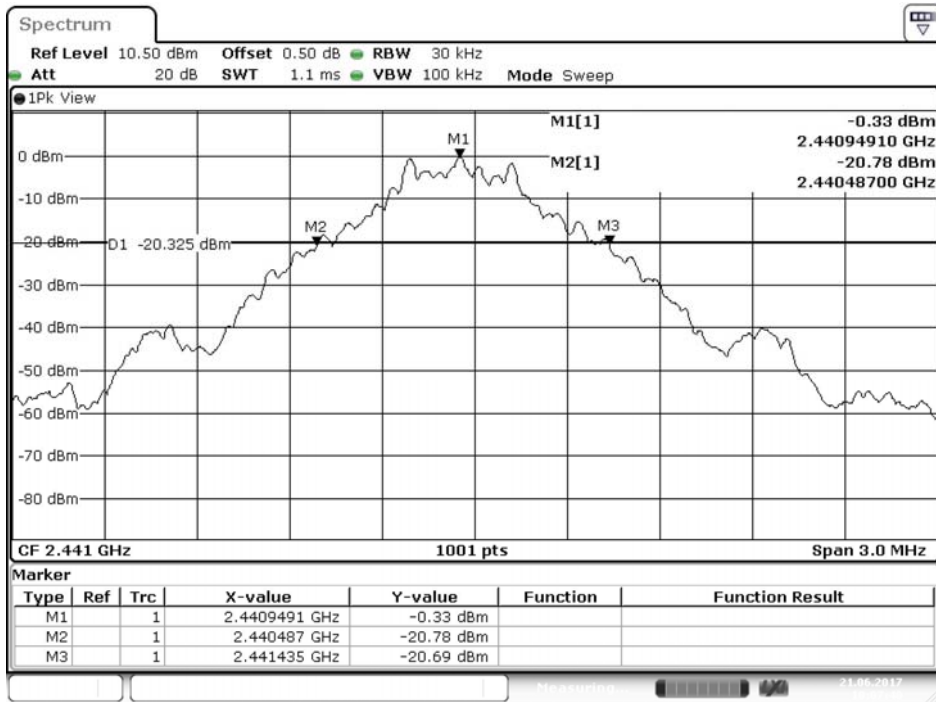
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	959	--	NA
39	2441	959	--	NA
78	2480	959	--	NA

Figure Channel 00:



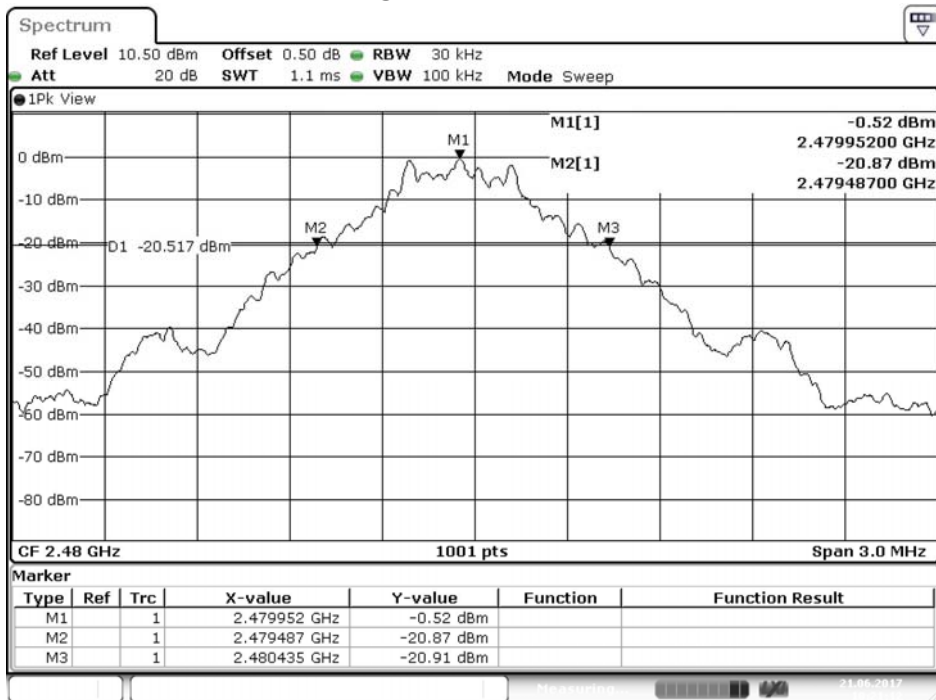
Date: 21 JUN 2017 09:53:18

Figure Channel 39:



Date: 21.JUN.2017 10:07:40

Figure Channel 78:

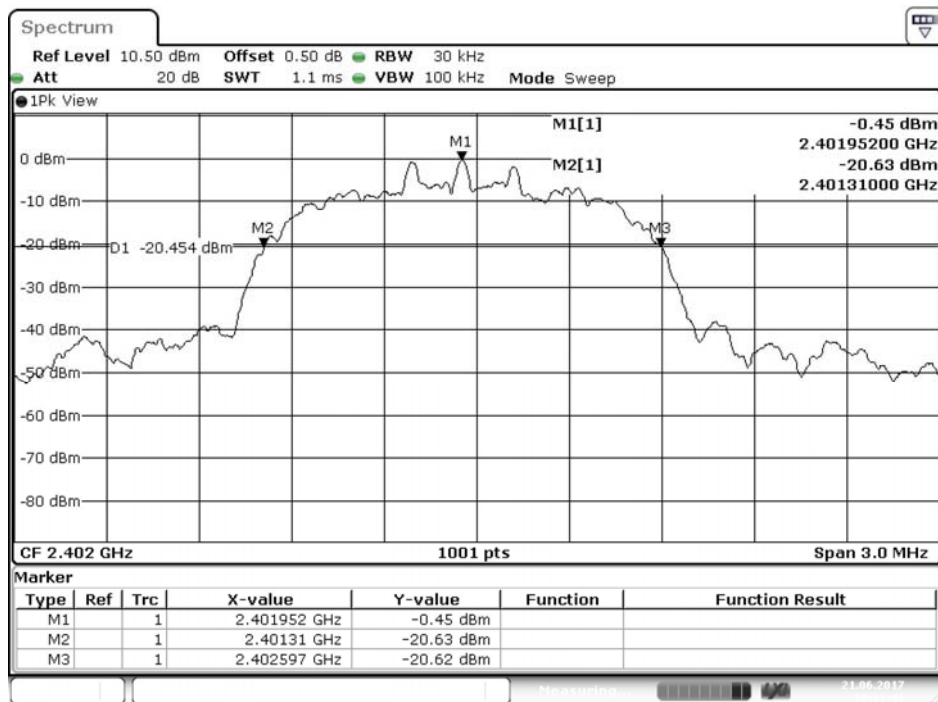


Date: 21.JUN.2017 10:21:12

Product : Mobile Medical Assistant Tablet  
 Test Item : Occupied Bandwidth Data  
 Test Mode : Mode 2: Transmit - 3Mbps (2402MHz)  
 Test Date : 2017/06/21

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1228	--	NA
39	2441	1218	--	NA
78	2480	1218	--	NA

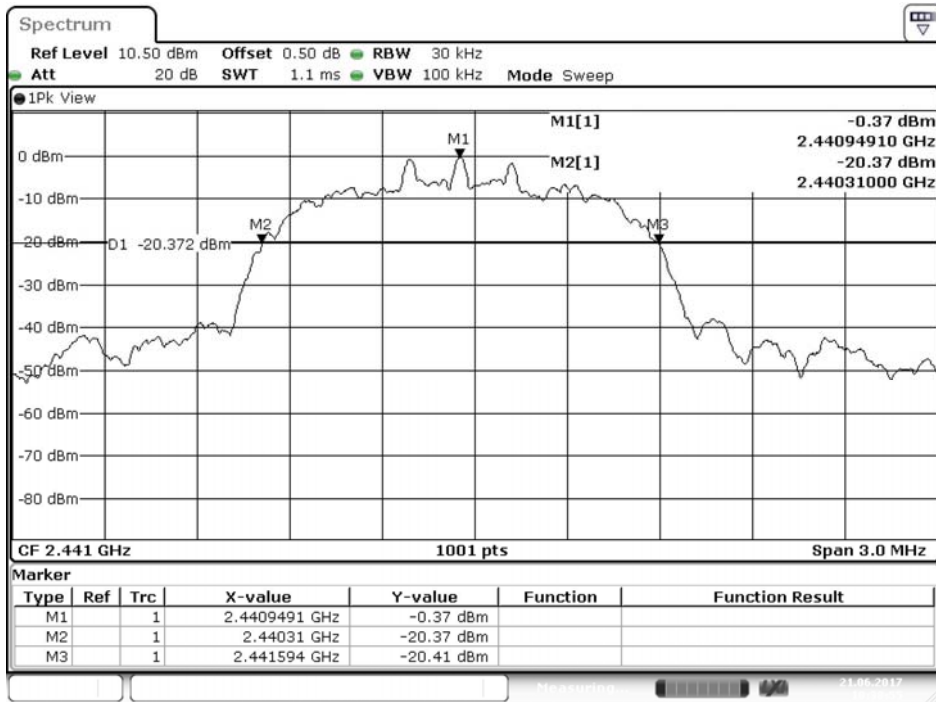
Figure Channel 00:



Date: 21.JUN.2017 10:31:42

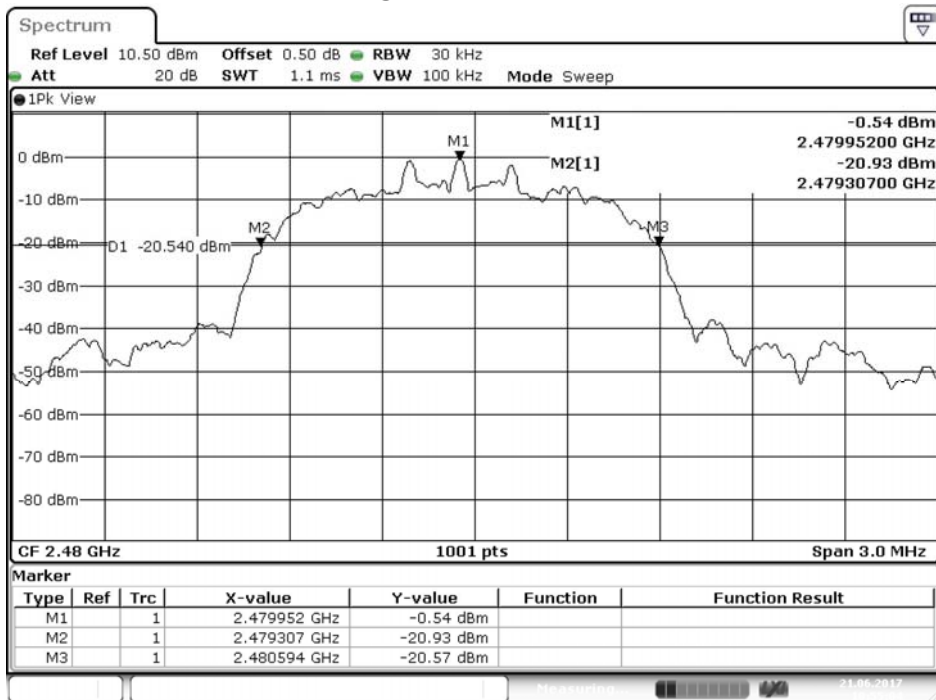


Figure Channel 39:



Date: 21.JUN.2017 10:38:55

Figure Channel 78:



Date: 21.JUN.2017 10:55:04

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

No modification was made during testing.

## Attachment 1: EUT Test Photographs

## Attachment 2: EUT Detailed Photographs