



FCC- TEST REPORT

Report Number : **68.730.13.003.01** Date of Issue: 10 January 2014

Model : MD2020, MD2030, MD2060, MD2070, MD2080, MD2021, MD2031,
MD2061, MD2071

Product Type : Digital Automatic Blood Pressure Monitor

Applicant : Grandway Technology(Shenzhen) Limited

Address : Block 6 and 7, Zhu Keng Industrial Zone, Ping Shan,
Long Gang District, 518118, Shenzhen, People's Republic of China

Production Facility : Grandway Technology(Shenzhen) Limited

Address : Block 6 and 7, Zhu Keng Industrial Zone, Ping Shan,
Long Gang District, 518118, Shenzhen, People's Republic of China

Test Result : **Positive** **Negative**

Total pages including
Appendices : 30

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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Telephone: 86 755 8828 6998

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Test Site 2

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Nantou, Shenzhen,
Guangdong,
China

Telephone: 86 755 2663 9496

Fax: 86 755 2663 2877

3 Description of the Equipment under Test

Description of the Equipment Under Test

Product:	Digital Automatic Blood Pressure Monitor
Model no.:	MD2070
FCC ID:	2ABAFMD20XYSERIES
Options and accessories:	NIL
Rating:	DC6.0V, 600mA, (supplied by 4*1.5V AA batteries), tested with external adaptor: (External Adaptor Model: UE05WCP-060060SPC Adaptor Input: 100-240VAC, 50/60Hz, 0.18A Adaptor Output: 6.0VDC, 0.6A Max)
RF Transmission Frequency:	2402-2480MHz
No. of Operated Channel:	40
Modulation:	GFSK
Duty Cycle:	20.5%
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Description of the EUT:	The Equipment Under Test (EUT) is a wireless Digital Automatic Blood Pressure Monitor with Bluetooth 4.0 function operating at 2.4GHz



4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2013Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

All the test methods were according to KDB558074 D01 DTS Meas Guidance v03r01 and ANSI C63.10 (2013).

5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C					
Test Condition	Pages	Test Site	Test Result		
			Pass	Fail	N/A
§15.207 Conducted emission AC power port	11	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247 (b) (1) Conducted peak output power	14	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(a)(1) 20dB bandwidth	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1) Carrier frequency separation	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)(iii) Number of hopping frequencies	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(1)(iii) Dwell Time	---	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
§15.247(a)(2) 6dB bandwidth	15	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(e) Power spectral density	17	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d) Spurious RF conducted emissions	18	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d) Band edge	23	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.247(d) & §15.209 Spurious radiated emissions for transmitter	28	Site 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
§15.203 Antenna requirement	See note 1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remark 1: N/A – Not Applicable.

Note 1: The EUT uses a permanently PCB antenna, which gain is 0dBi. According to §15.203, it is considered sufficiently to comply with the provisions of this section.

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: 2ABAFMD20XYSERIES complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules.

SUMMARY:

All tests according to the regulations cited on page 5 were

- Performed

- **Not** Performed

The Equipment under Test

- **Fulfills** the general approval requirements.

- **Does not** fulfill the general approval requirements.

Sample Received Date: December 1, 2013

Testing Start Date: December 2, 2013

Testing End Date: December 31, 2013

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch -

Reviewed by:

Prepared by:

Tested by:



Ken Li
EMC Project Manager



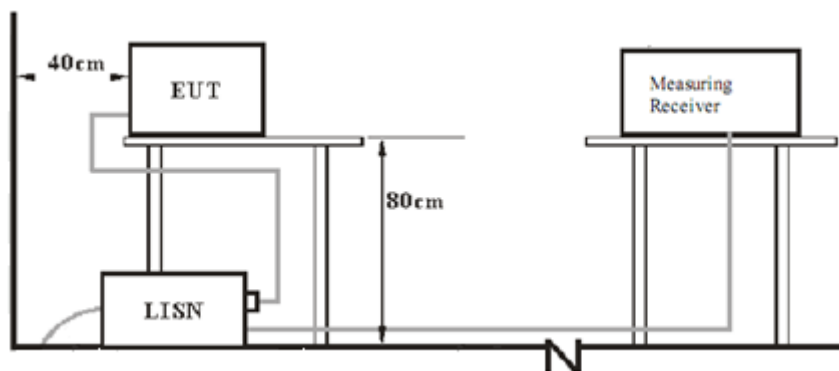
Felix Li
EMC Project Engineer



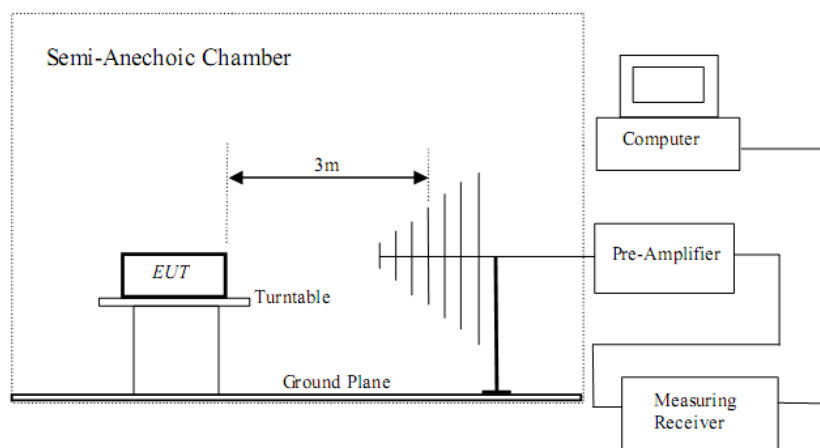
Leo Li
EMC Test Engineer

7 Test Setups

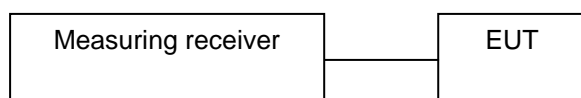
7.1 AC Power Line Conducted Emission test setups



7.2 Radiated test setups



7.3 Conducted RF test setups



8 List of Test Instruments

List of Test Instruments

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE	
CE	Test Receiver	Rohde & Schwarz	ESCI	101152	Nov. 25, 2014	<input checked="" type="checkbox"/>
	L.I.S.N	Rohde & Schwarz	ENV 216	101317	Nov. 09, 2014	<input checked="" type="checkbox"/>
	RF Switching Unit	Compliance Direction Systems Inc.	RSU-M2	38311	Nov. 09, 2014	<input checked="" type="checkbox"/>
	Pulse Limiter	MTS-systemtechnik	MTS-IMP-136	261115-010-0022	Nov. 09, 2014	<input checked="" type="checkbox"/>
C	Test Receiver	Rohde & Schwarz	ESCI7	100837	Nov. 25, 2014	<input checked="" type="checkbox"/>
	Spectrum Analyzer	Agilent	E4408B	MY414407D	Jul. 12, 2014	<input checked="" type="checkbox"/>
RE	Test Receiver	Rohde & Schwarz	ESCI7	100837	Nov. 25, 2014	<input checked="" type="checkbox"/>
	Antenna	Schwarzbeck	VULB9162	9162-010	Jan. 18, 2014	<input checked="" type="checkbox"/>
	Positioning Controller	UC	UC 3000	N/A	N/A	<input checked="" type="checkbox"/>
	Color Monitor	SUNSP0	SP-140A	N/A	N/A	<input checked="" type="checkbox"/>
	Single Phase Power Line Filter	SAEMC	PF201A-32	110210	N/A	<input checked="" type="checkbox"/>
	3 Phase Power Line Filter	SAEMC	PF401A-200	110318	N/A	<input checked="" type="checkbox"/>
	DC Power Filter	SAEMC	PF301A-200	110245	N/A	<input checked="" type="checkbox"/>
	Cable	Huber+Suhner	CBL2-NN-9M	22390001	Nov. 09, 2014	<input checked="" type="checkbox"/>
	Cable	Huber+Suhner	CIL02	N/A	Nov. 09, 2014	<input checked="" type="checkbox"/>
	Power Amplifier	HP	HP 8447D	1145A00203	Nov. 09, 2014	<input checked="" type="checkbox"/>
	Spectrum Analyzer	Agilent	E4408B	MY414407D	Jul. 12, 2014	<input checked="" type="checkbox"/>
	Horn Antenna	COM-Power	AH-118	071078	Jun. 29, 2014	<input checked="" type="checkbox"/>
	Pre-Amplifier	COM-Power	PAM-118	443007	Jul. 12, 2014	<input checked="" type="checkbox"/>

C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth
- Power spectral density
- Spurious RF conducted emissions

9 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Laptop	Lenovo	X61	---

Test software: SmartRF Studio 7, which is used to control the EUT in continues transmitting mode.

The system was configured to channel 0, 19, and 39 for the test.

10 Technical Requirement

10.1 Conducted Emission

Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

Limit

According to §15.207, conducted emissions limit as below:

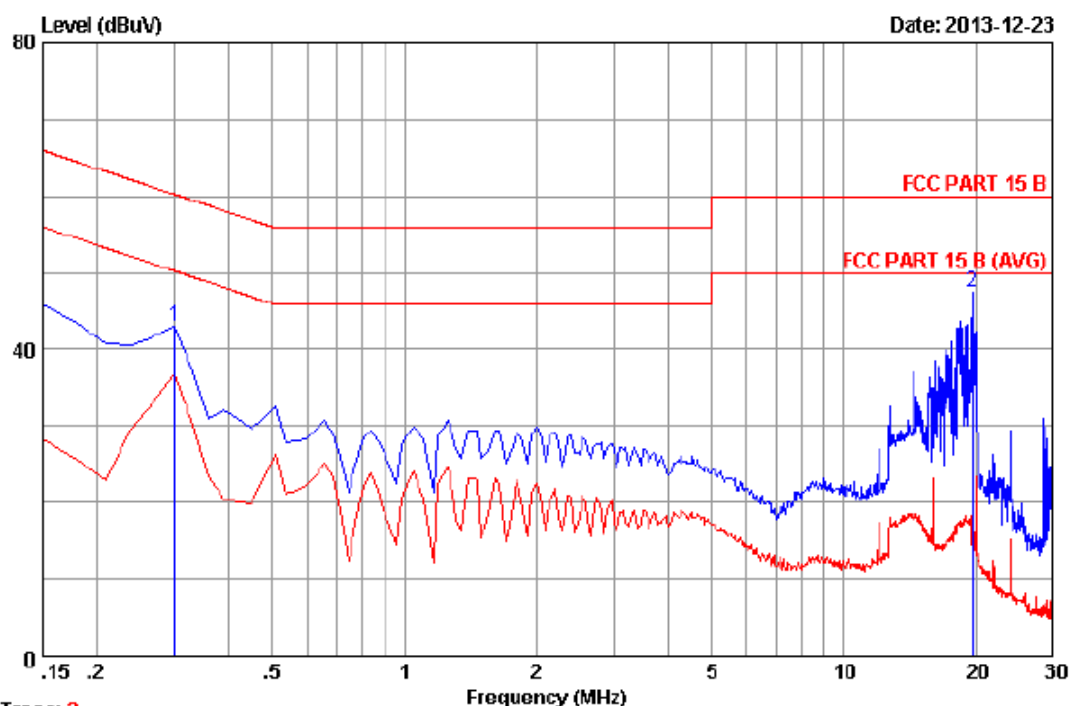
Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

Remark: This test was carried out in all the test modes, here only the worst test result was shown.

Conducted Emission

Product Type : Digital Automatic Blood Pressure Monitor
 M/N : MD2070
 Operating Condition : transmitting
 Test specification : Live
 Comment : AC 120V/60Hz



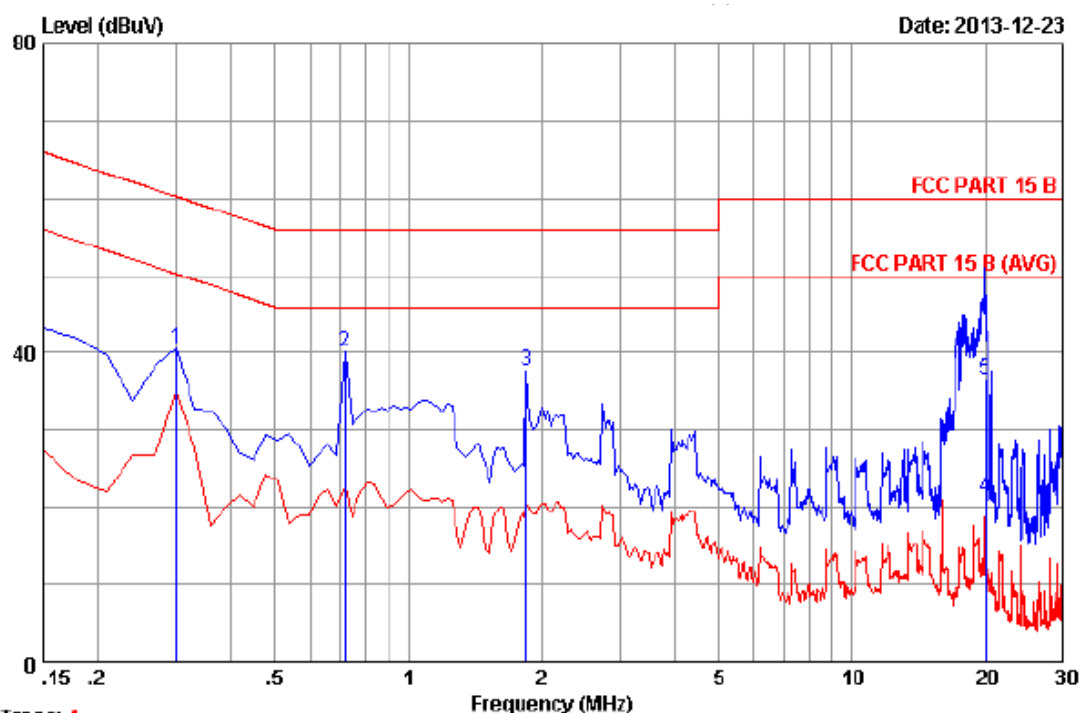
Trace: 2

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.29925	0.15	0.01	42.91	43.07	60.26	17.19	QP
2	19.642	1.67	0.14	45.69	47.50	60.00	12.50	QP

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

Conducted Emission

Product Type : Digital Automatic Blood Pressure Monitor
 M/N : MD2070
 Operating Condition : transmitting
 Test specification : Neutral
 Comment : AC 120V/60Hz



Trace: 4

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.29925	0.20	0.01	40.36	40.57	60.26	19.69	QP
2	0.71715	0.27	0.03	39.89	40.19	56.00	15.81	QP
3	1.851	0.26	0.04	37.37	37.67	56.00	18.33	QP
4	20.013	1.31	0.14	19.70	21.15	50.00	28.85	Average
5	20.013	1.31	0.14	35.20	36.65	60.00	23.35	QP

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

10.2 Conducted peak output power

Test Method

1. Use the following spectrum analyzer settings:
RBW > the 6 dB bandwidth of the emission being measured, VBW \geq 3RBW, Span \geq 3RBW
Sweep = auto, Detector function = peak, Trace = max hold.
2. Add a correction factor to the display.
3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power.

Limits

According to §15.247 (b) (1), conducted peak output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤ 1	≤ 30

Test result as below table

Frequency MHz	Conducted Peak Output Power dBm	Result
Top channel 2402MHz	-1.641	Pass
Middle channel 2440MHz	-1.778	Pass
Bottom channel 2480MHz	-1.728	Pass

10.3 6dB bandwidth

Test Method

1. Use the following spectrum analyzer settings:
RBW=100K, VBW≥3RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Use the automatic bandwidth measurement capability of an instrument, may be employed using the X dB bandwidth mode with X set to 6 dB, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.
3. Allow the trace to stabilize, record the X dB Bandwidth value.

Limit

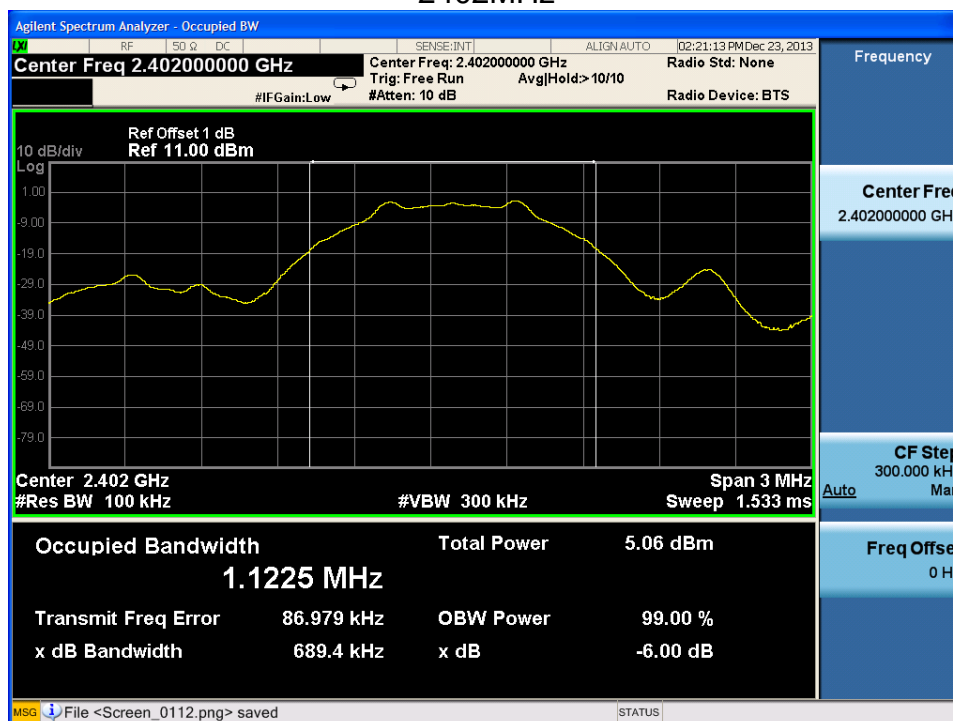
Limit [kHz]

≥500

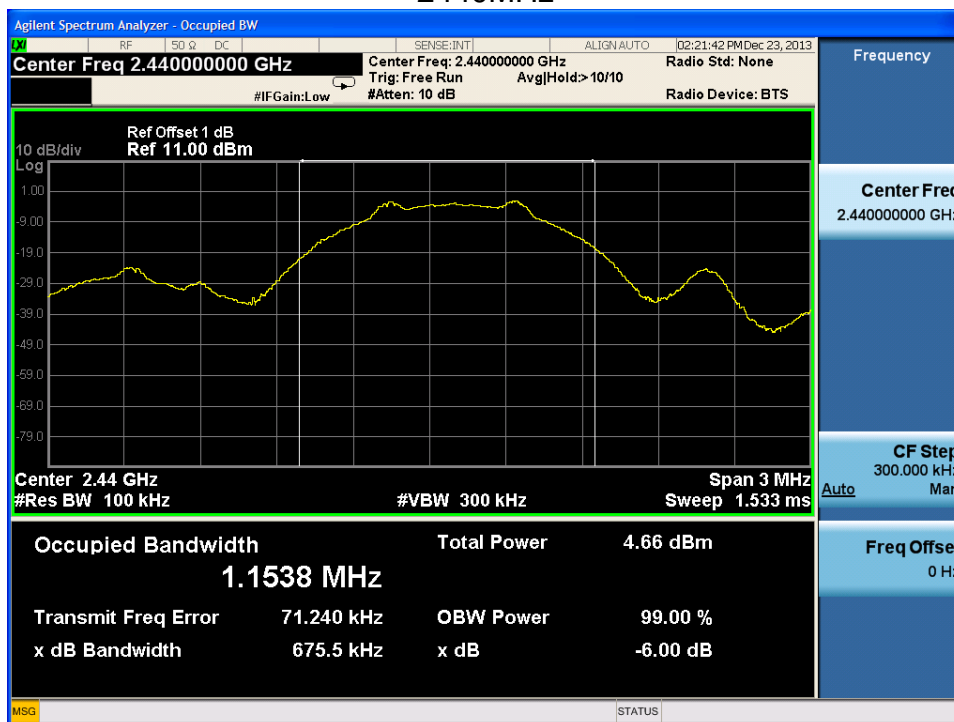
Test result

Frequency MHz	6dB bandwidth kHz	Result
Top channel 2402MHz	689.4	Pass
Middle channel 2440MHz	675.5	Pass
Bottom channel 2480MHz	691.1	Pass

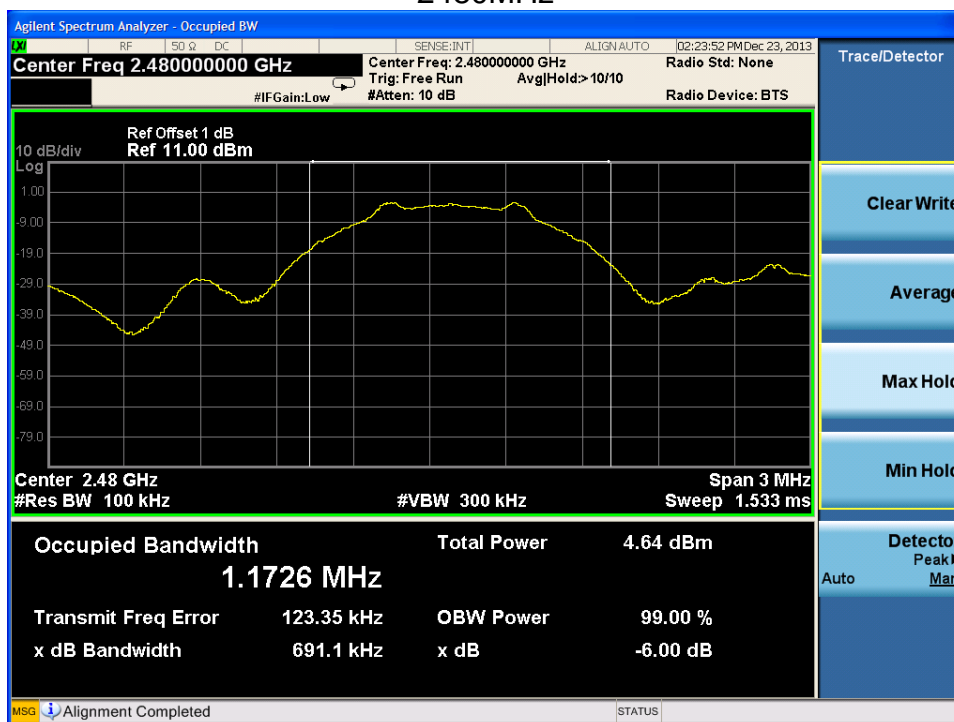
2402MHz



2440MHz



2480MHz



10.4 Power spectral density

Test Method

This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance:

1. Set analyzer center frequency to DTS channel center frequency.
RBW=3kHz,VBW \geq 3RBW,Span=1.5 times DTS bandwidth, Detector=Peak, Sweep=auto, Trace= max hold.
2. Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level within the RBW.
3. Repeat above procedures until other frequencies measured were completed.

Limit

Limit [dBm]

≤ 8

Test result

Frequency MHz	Power spectral density dBm	Result
Top channel 2402MHz	-13.765	Pass
Middle channel 2440MHz	-14.192	Pass
Bottom channel 2480MHz	-13.581	Pass

10.5 Spurious RF conducted emissions

Test Method

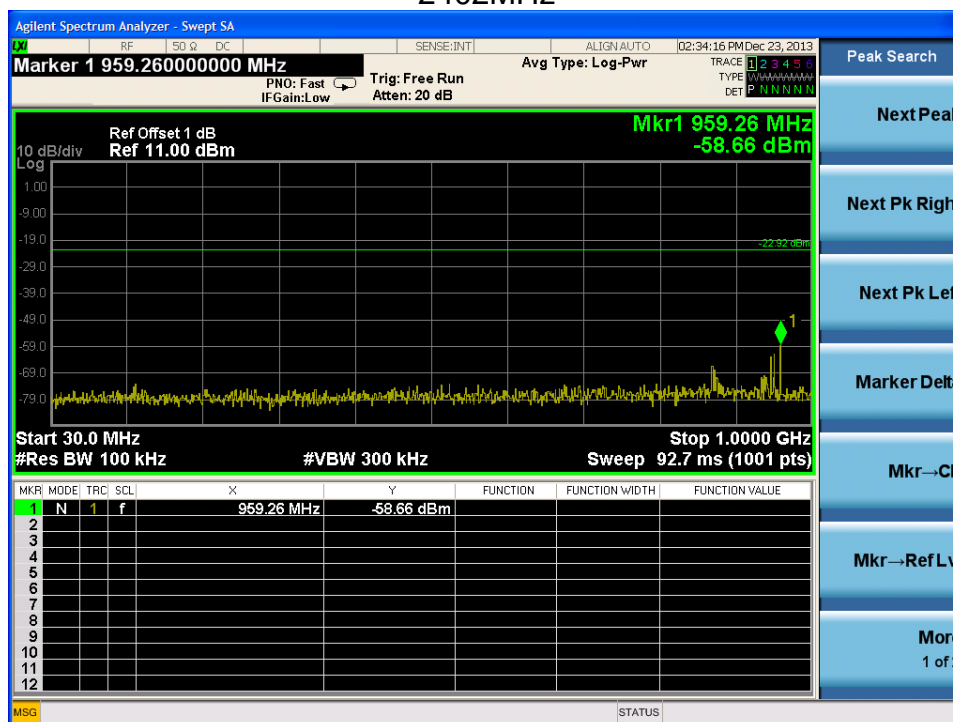
1. Establish a reference level by using the following procedure:
 - a. Set RBW=100 kHz. VBW≥3RBW. Detector =peak, Sweep time = auto couple, Trace mode = max hold.
 - b. Allow trace to fully stabilize, use the peak marker function to determine the maximum PSD level.
2. Use the maximum PSD level to establish the reference level.
 - a. Set the center frequency and span to encompass frequency range to be measured.
 - b. Use the peak marker function to determine the maximum amplitude level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements, report the three highest emissions relative to the limit.
3. Repeat above procedures until other frequencies measured were completed.

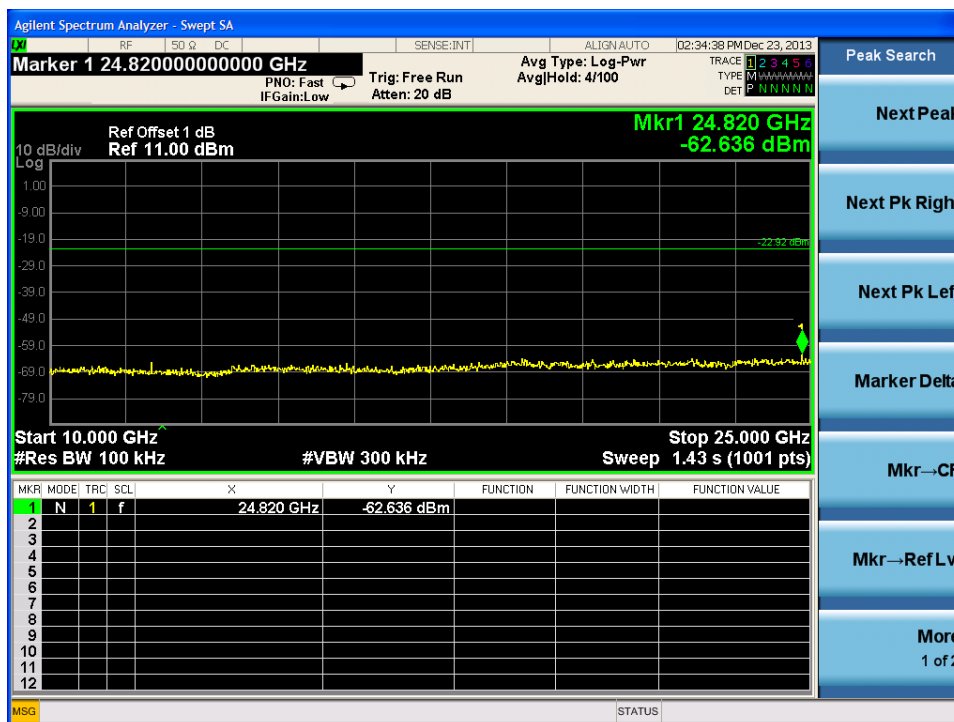
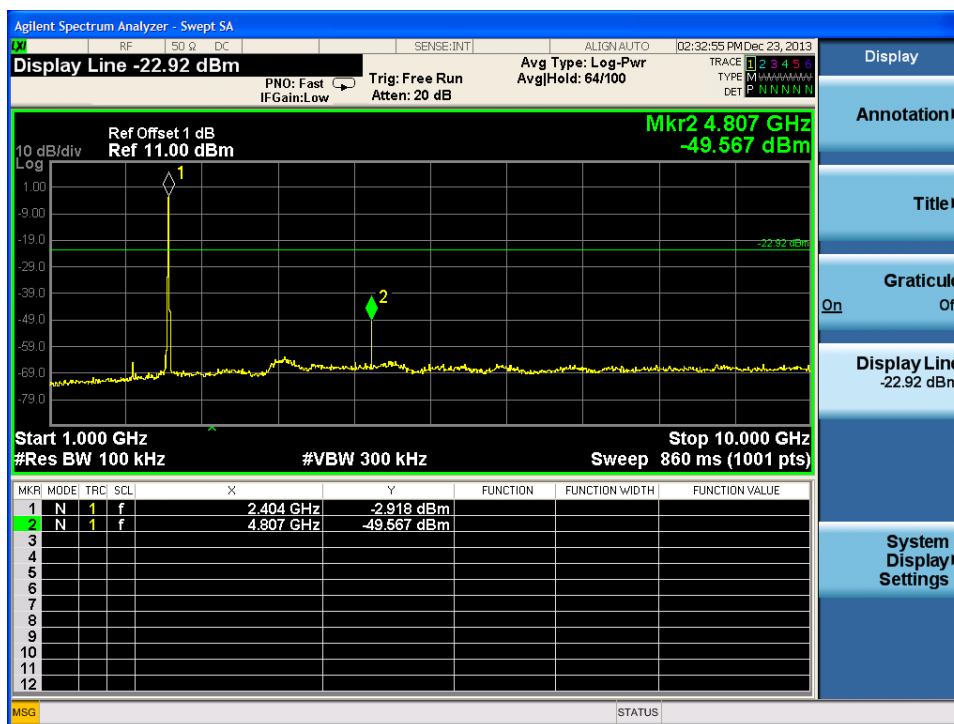
Limit

Frequency Range MHz	Limit (dBc)
30-25000	-20

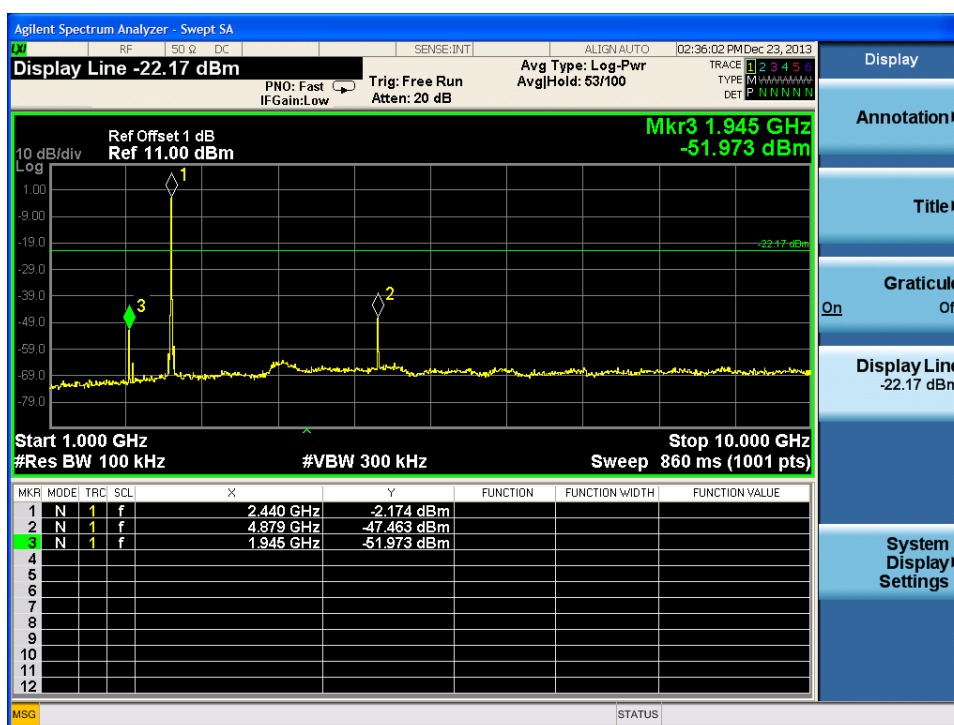
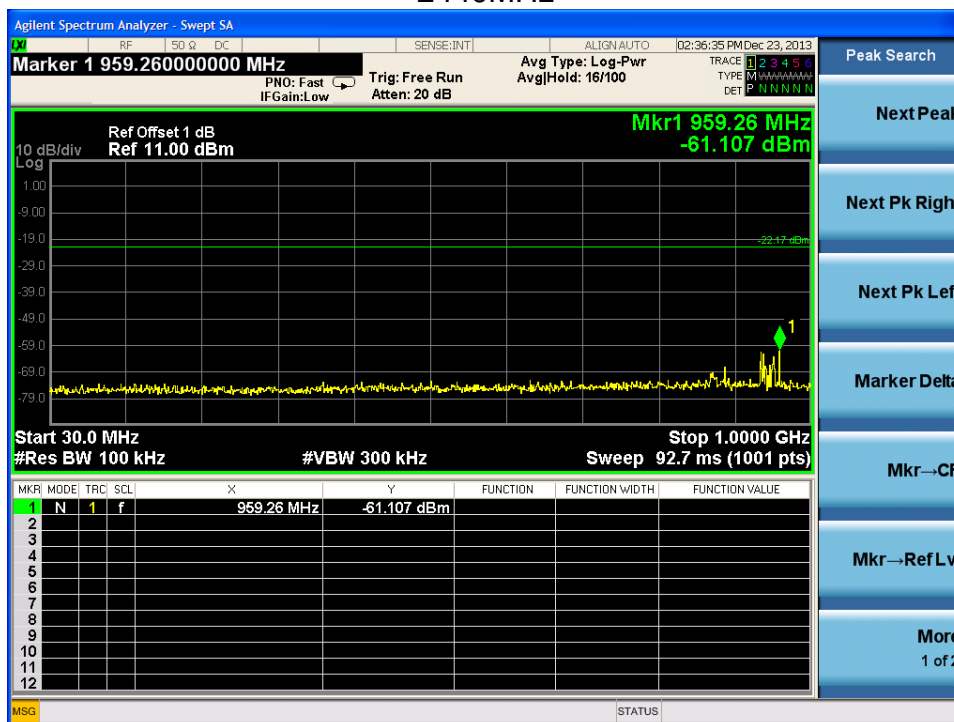
Spurious RF conducted emissions

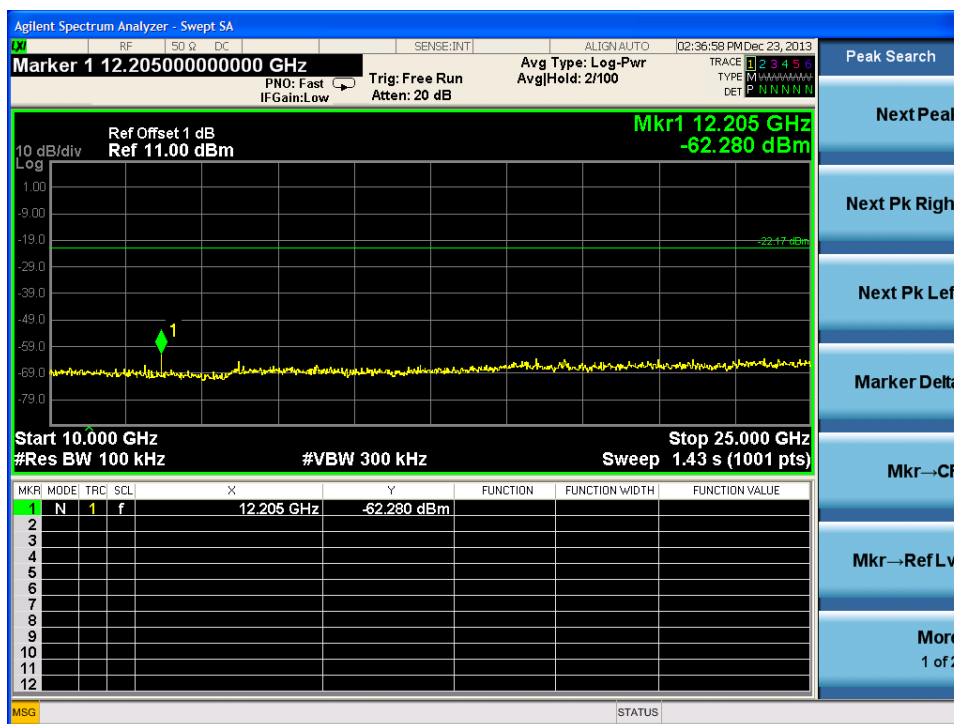
2402MHz



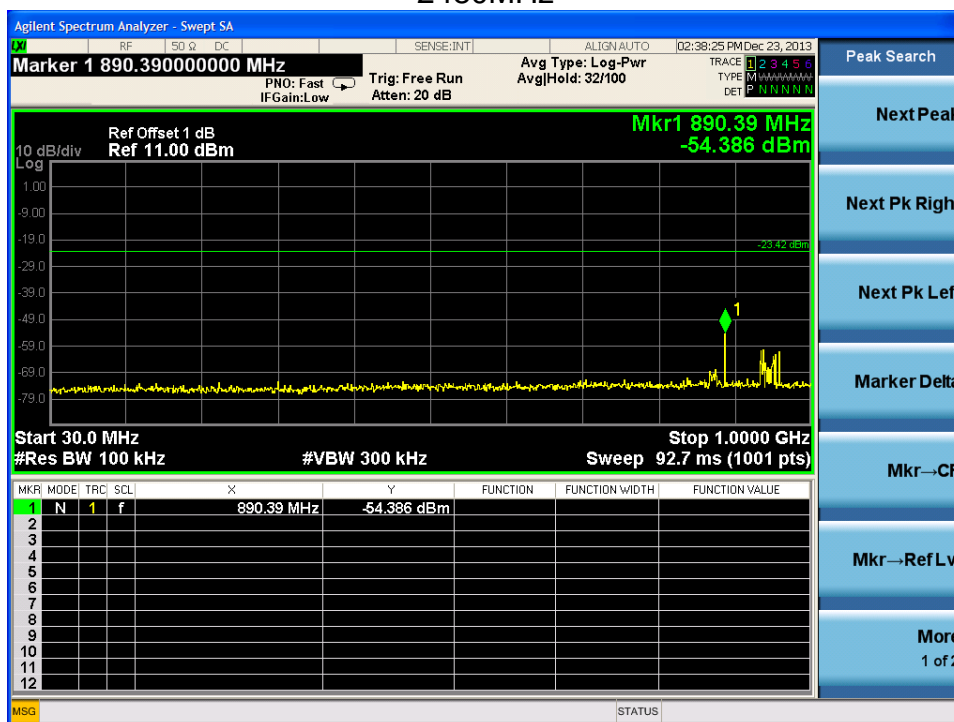


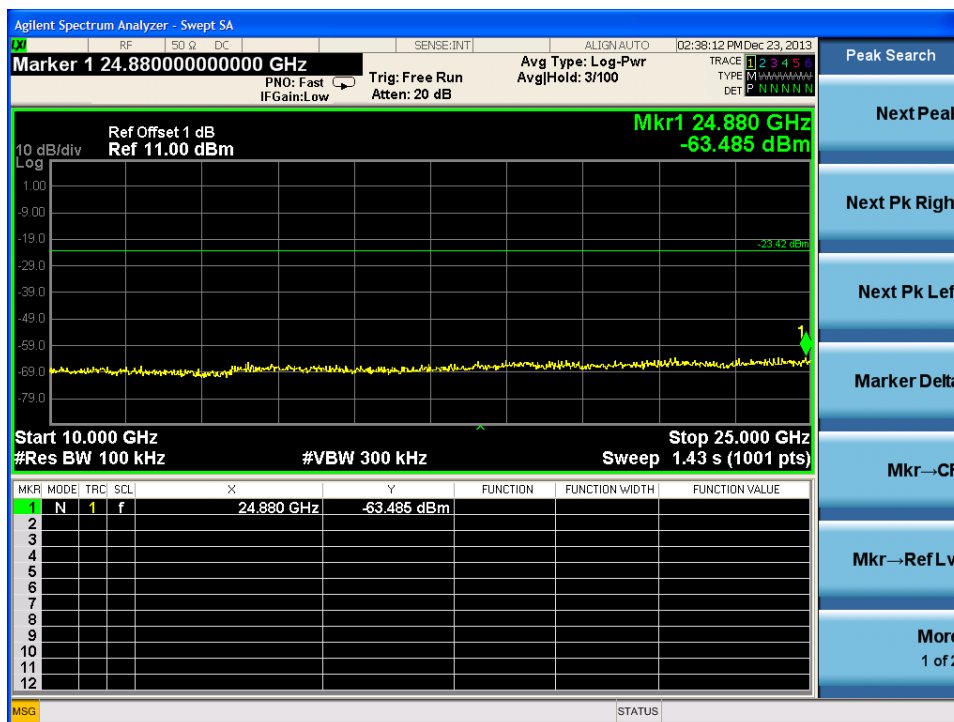
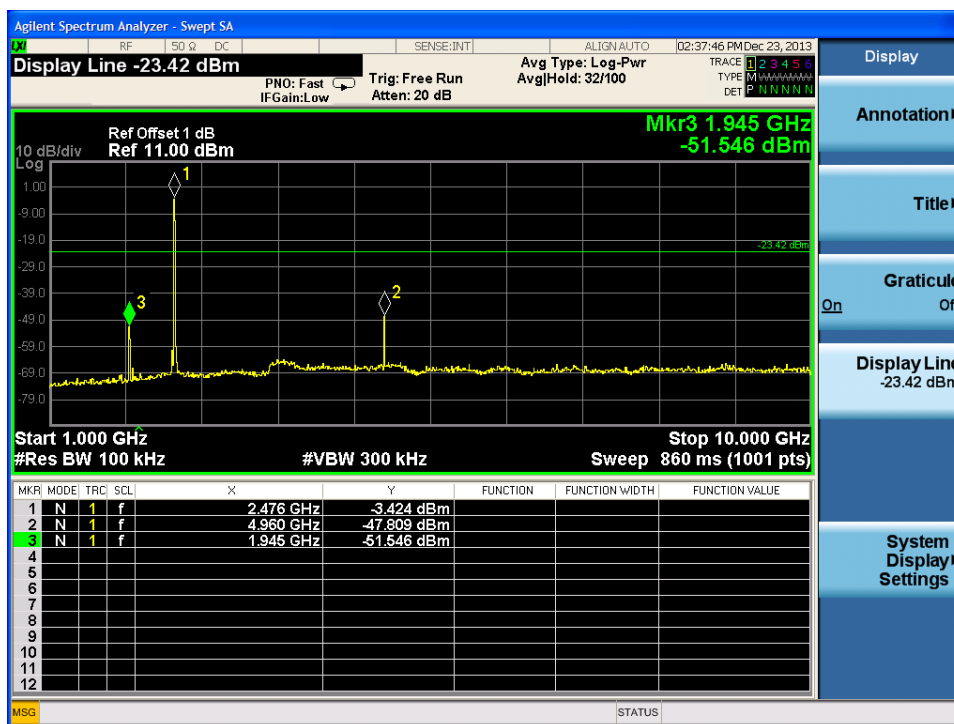
2440MHz





2480MHz





10.6 Band edge compliance of RF emissions

Test Method

1. Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation. $RBW \geq 1\%$ of the span, $VBW \geq RBW$, Sweep = auto, Detector function = peak, Trace = max hold
2. Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section. Submit this plot.
3. Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit. Submit this plot.

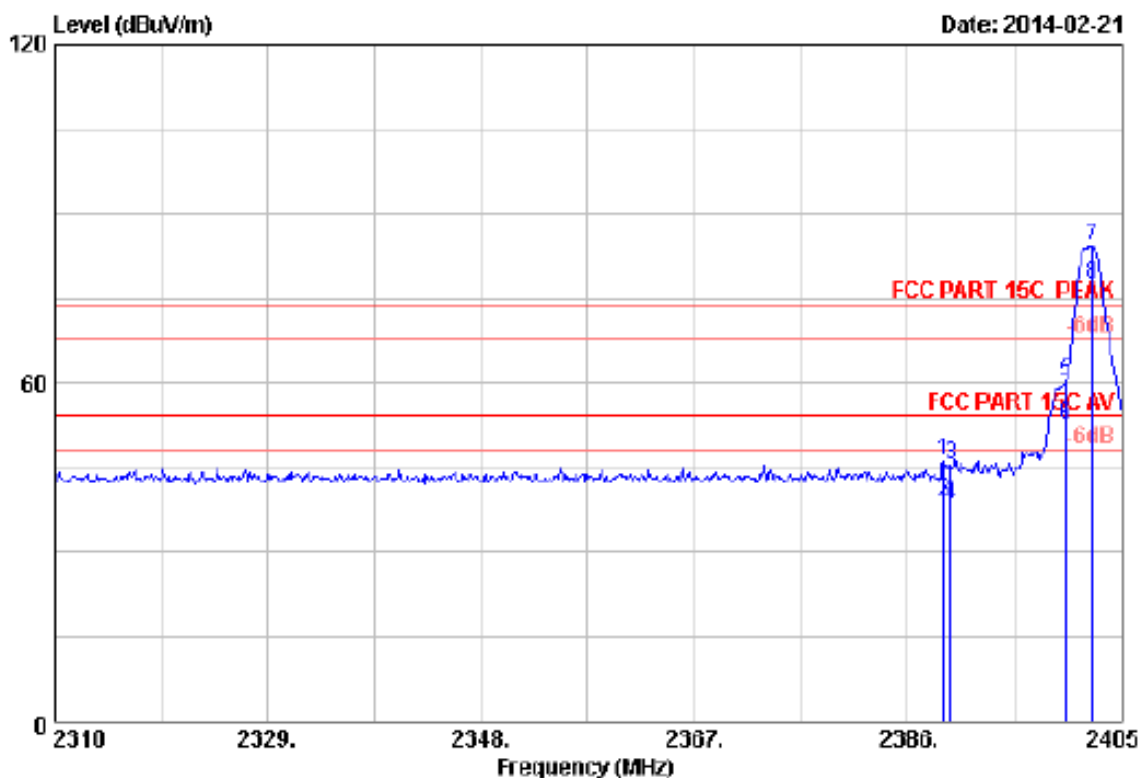
Limits

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands 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, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c))

Frequency MHz	Limit Average dBuV/m	Limit Peak dBuV/m
Below 2390 Above 2483.5	54	74

Test result

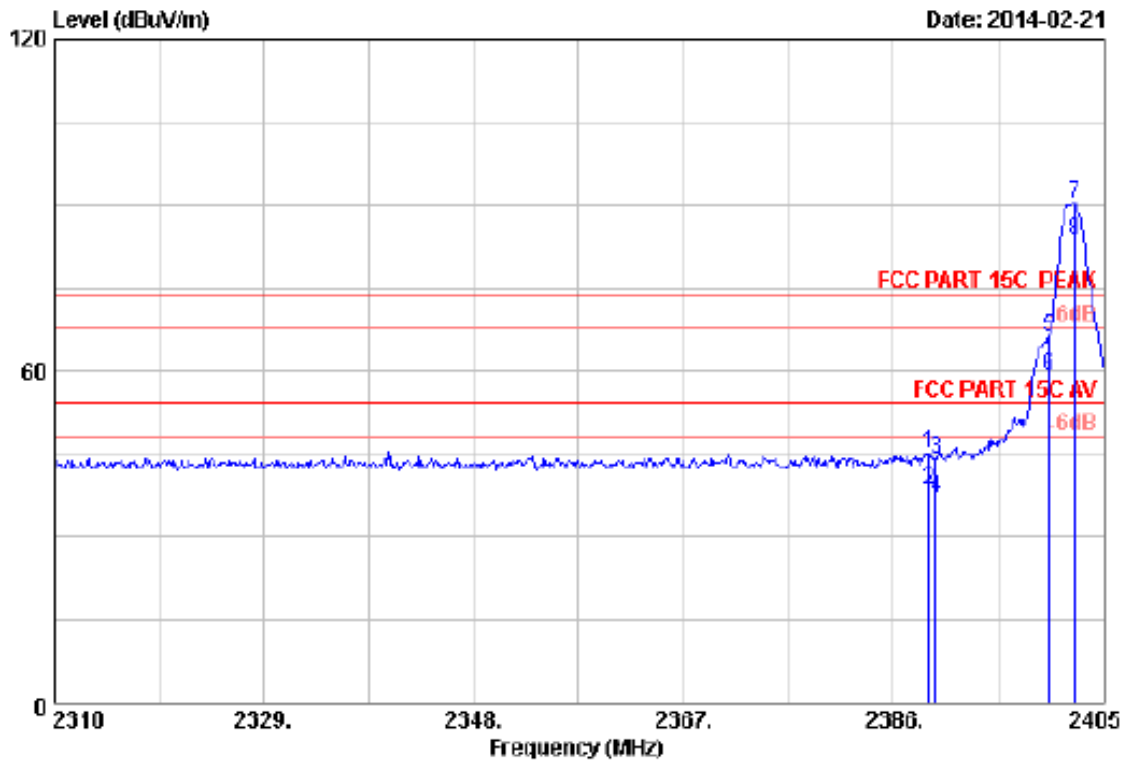
EUT: Digital Automatic Blood Pressure Monitor
M/N: MD2070
Operating Condition: TX 2402MHz
Test Specification: Horizontal



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.325	28.16	5.78	35.70	47.89	46.13	74.00	27.87	Peak
2	2389.325	28.16	5.78	35.70	41.01	39.25	54.00	14.75	Average
3	2390.000	28.16	5.78	35.70	47.07	45.31	74.00	28.69	Peak
4	2390.000	28.16	5.78	35.70	40.18	38.42	54.00	15.58	Average
5	2400.000	28.18	5.80	35.70	61.96	60.24	74.00	13.76	Peak
6	2400.000	28.18	5.80	35.70	54.08	52.36	54.00	1.64	Average
7	2402.340	28.19	5.80	35.70	86.03	84.32	74.00	-10.32	Peak
8	2402.340	28.19	5.80	35.70	79.35	77.64	54.00	-23.64	Average

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

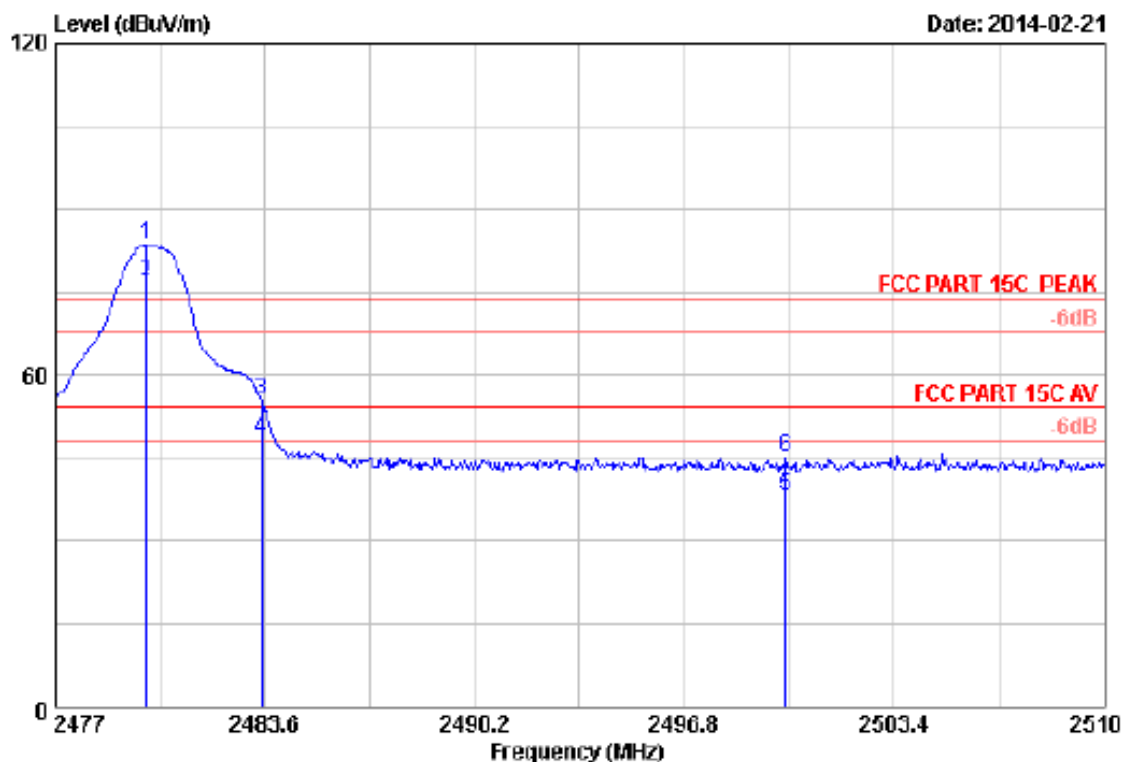
EUT: Digital Automatic Blood Pressure Monitor
M/N: MD2070
Operating Condition: TX 2402MHz
Test Specification: Vertical



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.325	28.16	5.78	35.70	47.03	45.27	74.00	28.73	Peak
2	2389.325	28.16	5.78	35.70	40.15	38.39	54.00	15.61	Average
3	2390.000	28.16	5.78	35.70	45.72	43.96	74.00	30.04	Peak
4	2390.000	28.16	5.78	35.70	38.83	37.07	54.00	16.93	Average
5	2400.000	28.18	5.80	35.70	67.81	66.09	74.00	7.91	Peak
6	2400.000	28.18	5.80	35.70	60.92	59.20	54.00	-5.20	Average
7	2402.340	28.19	5.80	35.70	91.93	90.22	74.00	-16.22	Peak
8	2402.340	28.19	5.80	35.70	85.25	83.54	54.00	-29.54	Average

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

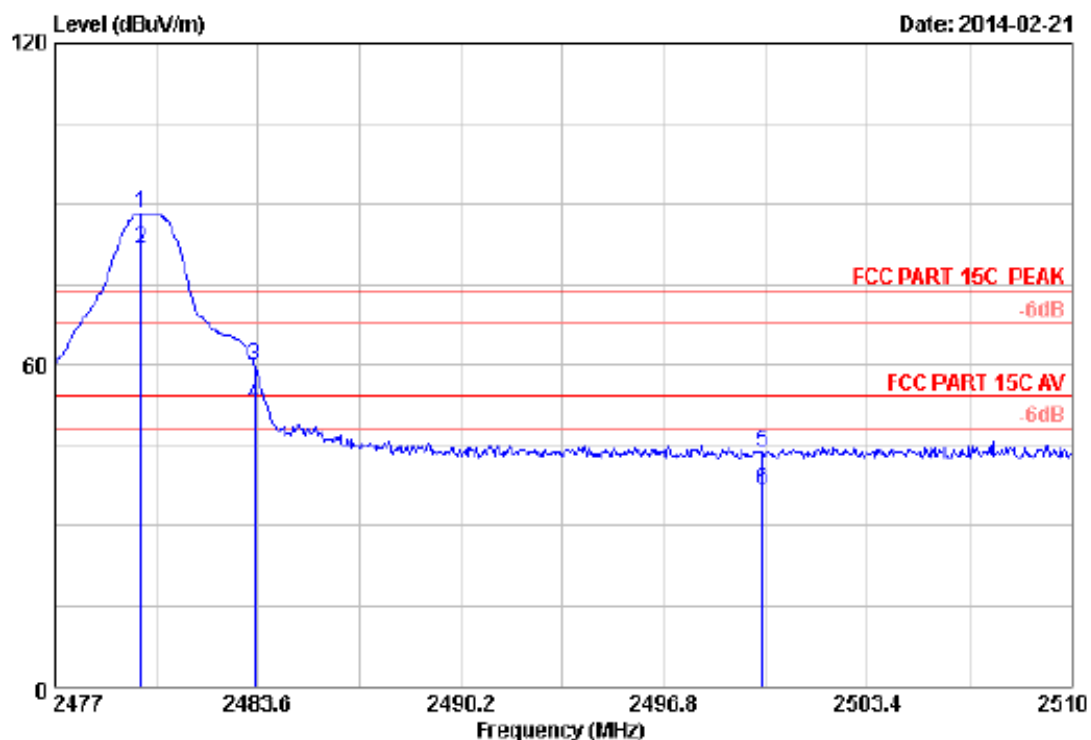
EUT: Digital Automatic Blood Pressure Monitor
M/N: MD2070
Operating Condition: TX 2480MHz
Test Specification: Horizontal



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.871	28.36	5.91	35.70	84.91	83.48	74.00	-9.48	Peak
2	2479.871	28.36	5.91	35.70	78.23	76.80	54.00	-22.80	Average
3	2483.500	28.36	5.92	35.70	56.81	55.39	74.00	18.61	Peak
4	2483.500	28.36	5.92	35.70	49.93	48.51	54.00	5.49	Average
5	2500.000	28.40	5.94	35.70	39.48	38.12	54.00	15.88	Average
6	2500.000	28.40	5.94	35.70	46.37	45.01	74.00	28.99	Peak

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

EUT: Digital Automatic Blood Pressure Monitor
M/N: MD2070
Operating Condition: TX 2480MHz
Test Specification: Vertical



No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.605	26.36	5.91	35.70	69.83	68.40	74.00	-14.40	Peak
2	2479.805	26.36	5.91	35.70	83.15	81.72	54.00	-27.72	Average
3	2483.500	26.36	5.92	35.70	61.10	59.68	74.00	14.32	Peak
4	2483.500	26.36	5.92	35.70	54.03	52.61	54.00	1.39	Average
5	2500.000	26.40	5.94	35.70	45.02	43.66	74.00	30.34	Peak
6	2500.000	26.40	5.94	35.70	38.14	36.78	54.00	17.22	Average

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

10.7 Spurious radiated emissions for transmitter

Test Method

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
3. Use the following spectrum analyzer settings:
Span = wide enough to fully capture the emission being measured, RBW = 1 MHz for $f \geq 1\text{GHz}$, 100 kHz for $f < 1\text{GHz}$, VBW \geq RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Follow the guidelines in ANSI C63.4-1992 with respect to maximizing the emission by rotating the EUT, adjusting the measurement antenna height and polarization, etc. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, submit this data. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
5. Set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the duty cycle per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{duty cycle}/100\text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

Limit

According to part 15.247(d), the radio emission outside the operating frequency band 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. Radiated emissions which fall in the restricted bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dB μ V/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Spurious radiated emissions for transmitter

Transmitting spurious emission test result as below:

2402MHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Amp. Factor dB	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
30-1000	-	-	-	-	-	Horizontal	-	-	Pass
30-1000	-	-	-	-	-	Vertical	-	-	Pass
2402	28.18	5.80	35.70	86.12	84.40	Horizontal	-	PK	Pass
2402	28.18	5.80	35.70	91.93	90.21	Vertical	-	PK	Pass
*4804	32.85	8.56	35.70	51.49	56.20	Horizontal	74	PK	Pass
*4804	32.85	8.56	35.70	51.49	57.20	Vertical	74	PK	Pass
*4804	32.85	8.56	35.70	37.73	42.24	Horizontal	54	AV	Pass
*4804	32.85	8.56	35.70	37.73	43.44	Vertical	54	AV	Pass

2440MHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Amp. Factor dB	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
2440	28.27	5.86	35.70	86.54	84.97	Horizontal	-	PK	-
2440	28.27	5.86	35.70	90.64	89.07	Vertical	-	PK	-
*4880	32.98	8.64	35.70	51.09	57.01	Horizontal	74	PK	Pass
*4880	32.98	8.64	35.70	51.52	57.44	Vertical	74	PK	Pass
*4880	32.98	8.64	35.70	37.33	43.25	Horizontal	54	AV	Pass
*4880	32.98	8.64	35.70	37.76	43.68	Vertical	54	AV	Pass

2480MHz

Frequency MHz	Antenna Factor dB/m	Cable Loss dB	Amp. Factor dB	Reading dBuV	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Result
2480	28.36	5.91	35.70	84.53	83.10	Horizontal	-	PK	-
2480	28.36	5.91	35.70	89.76	88.33	Vertical	-	PK	-
*4960	33.13	8.72	35.70	49.81	55.96	Horizontal	74	PK	Pass
*4960	33.13	8.72	35.70	49.46	55.79	Vertical	74	PK	Pass
*4960	33.13	8.72	35.70	36.05	42.20	Horizontal	54	AV	Pass
*4960	33.13	8.72	35.70	35.70	42.03	Vertical	54	AV	Pass

Remark:

- (1) QP Emission Level= Antenna Factor +Cable Loss + Reading
 PK Emission Level= Antenna Factor +Cable Loss - Amp. Factor + Reading
 AV Emission Level= PK Emission Level+20log (dutycycle)
- (2) Data of measurement within 30-1000MHz frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (3) "*" means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

Items	Extended Uncertainty
Radiation emission	U=4.32dB (30MHz-25GHz)
Output power test	0.94 dB
Power density test	2.10 dB
Bandwidth	1x10 ⁻⁹