

FCC Radio Test Report

FCC ID: XMF-MID8001

FCC Class II Permissive Change

Report No. : TB-FCC145094
Applicant : Lightcomm Technology Co., Ltd.
Equipment Under Test (EUT)
EUT Name : MID
Model No. : MID8001-IB
Series Model No. : DL801W, DL808W
Brand Name : N/A
Receipt Date : 2015-08-12
Test Date : 2015-08-12 to 2015-08-17
Issue Date : 2015-08-18
Standards : FCC Part 15: 2014, Subpart C(15.247)
Test Method : ANSI C63.10:2013
Conclusions : **PASS**

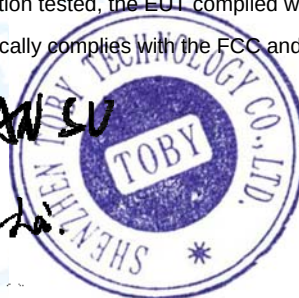
In the configuration tested, the EUT complied with the standards specified above,
The EUT technically complies with the FCC and IC requirements

Test/Witness Engineer :

IVAN SU

Approved& Authorized :

Ray



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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1. General Information about EUT

1.1 Client Information

Applicant : Lightcomm Technology Co., Ltd.
Address : RM 1708-10, 17/F, PROSPERITY CENTRE, 25 CHONG YIP STREET, KWUN TONG, KOWLOON, HONG KONG
Manufacturer : Huizhou Hengdu Electronics Co.,Ltd.
Address : DIP South Area, Huiao Highway, Huizhou, Guangdong, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	MID
Models No.	:	MID8001-IB, DL801W, DL808W
Model Difference	:	All models are identical in the same PCB layout, interior structure and electrical circuit, The only difference is model name for commercial purpose.
Product Description	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
	Number of Channel:	802.11b/g/n(HT20):11 channels see note(3) 802.11n(HT40): 7 channels see note(3)
	RF Output Power:	802.11b: 9.09 dBm 802.11g: 8.95dBm 802.11n (HT20): 8.89dBm 802.11n (HT40): 8.97dBm
	Antenna Gain:	0 dBi (FPC Antenna)
	Modulation Type:	802.11b: DSSS (CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM
	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps
Power Supply	:	DC power supplied by AC/DC Adapter. DC Voltage supplied from Li-ion battery.
Power Rating	:	Input: AC 100~240V 50/60Hz 0.35A Max. Output: 5V 2A. DC 3.7V from 4500mA Li-ion battery.
Connecting I/O Port(S)	:	Please refer to the User's Manual

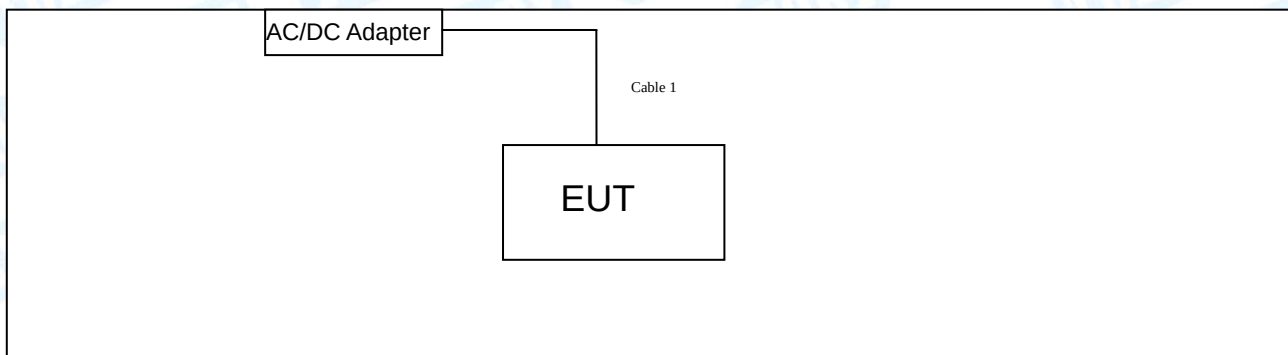
Note:

- (1) This Test Report is FCC Part 15.247 for 802.11b/g/n, the test procedure follows the FCC KDB 558074 D01 DTS Meas Guidance v03r03.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) Antenna information provided by the applicant.
- (4) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		
Note: CH 01~CH 11 for 802.11b/g/n(HT20) CH 03~CH 09 for 802.11n(HT40)					

1.3 Block Diagram Showing the Configuration of System Tested

TX Mode



1.4 Description of Support Units

Equipment Information				
Name	Model	S/N	Manufacturer	Used “√”
/	/	/	/	/
Cable Information				
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	YES	NO	1.1M	Accessories

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test	
Final Test Mode	Description
Mode 1	AC Charging with TX B Mode

For Radiated Test	
Final Test Mode	Description
Mode 3	TX Mode B Mode Channel 01/06/11
Mode 4	TX Mode G Mode Channel 01/06/11
Mode 5	TX Mode N(HT20) Mode Channel 01/06/11
Mode 6	TX Mode N(HT40) Mode Channel 03/06/09

Note:

- (1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.
According to ANSI C63.10 standards, the measurements are performed at the highest, MIDdle, lowest available channels, and the worst case data rate as follows:
802.11b Mode: CCK (1 Mbps)
802.11g Mode: OFDM (6 Mbps)
802.11n (HT20) Mode: MCS 0 (6.5 Mbps)
802.11n (HT40) Mode: MCS 0 (13 Mbps)
- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a mobile unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN.

Test Software Version	Realtek 11n 8723B SDIO WLAN MP Diagnostic Program 31.06.20140627		
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	29	28	23
IEEE 802.11g OFDM	36	35	34
IEEE 802.11n (HT20)	36	35	33
Channel	CH 03	CH 06	CH 09
IEEE 802.11n (HT40)	38	37	36

1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz	± 3.42 dB
	150kHz to 30MHz	± 3.42 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.40 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.

May 22, 2014 certificated by TUV Rheinland(China) Co., Ltd. with TUV certificate No.: UA 50282953 0001 and report No.: 17026822 002. The certificate is valid until the next scheduled audit or up to 18 months, at the discretion of TUV Rhineland.

2. Test Summary

FCC Part 15 Subpart C(15.247)/ RSS 247 Issue 1				
Standard Section		Test Item	Judgment	Remark
FCC	IC			
15.203	/	Antenna Requirement	PASS	N/A
15.207	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205	RSS-GEN 7.2.2	Restricted Bands	PASS	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	PASS	N/A Note(3)
15.247(b)	RSS 247 5.4 (4)	Peak Output Power	PASS	N/A Note(3)
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	PASS	N/A Note(3)
15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious Emission	PASS	N/A
Note (1): "/" for no requirement for this test item. (2): N/A is an abbreviation for Not Applicable. (3): This report is Class II change report for the original equipment have changed, the transmitter module itself has not changed. More information about the test data please refer to the original test report.				

3. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Aug. 07, 2015	Aug. 06, 2016
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Aug. 07, 2015	Aug. 06, 2016
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Aug. 07, 2015	Aug. 06, 2016
LISN	Rohde & Schwarz	ENV216	101131	Aug. 07, 2015	Aug. 06, 2016
Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Sep. 01, 2014	Aug. 31, 2015
EMI Test Receiver	Rohde & Schwarz	ESCI	100010/007	Aug. 07, 2015	Aug. 06, 2016
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 28, 2015	Mar. 27, 2016
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar. 28, 2015	Mar. 27, 2016
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 28, 2015	Mar. 27, 2016
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar. 28, 2015	Mar. 27, 2016
Pre-amplifier	Sonoma	310N	185903	Mar. 28, 2015	Mar. 27, 2016
Pre-amplifier	HP	8447B	3008A00849	Mar. 28, 2015	Mar. 27, 2016
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 28, 2015	Mar. 27, 2016
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1 Test Standard

FCC Part 15.207

4.1.2 Test Limit

Conducted Emission Test Limit

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

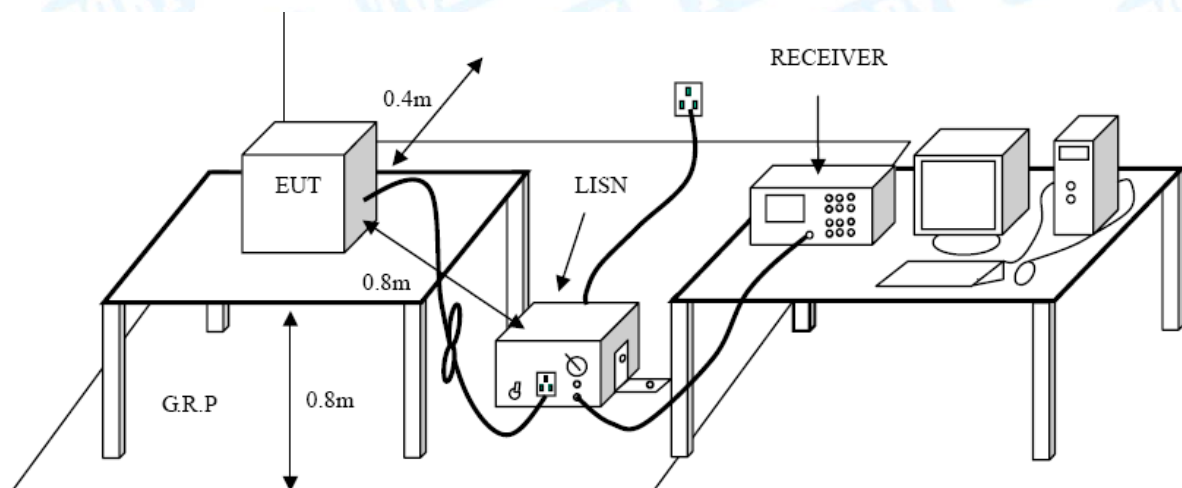
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

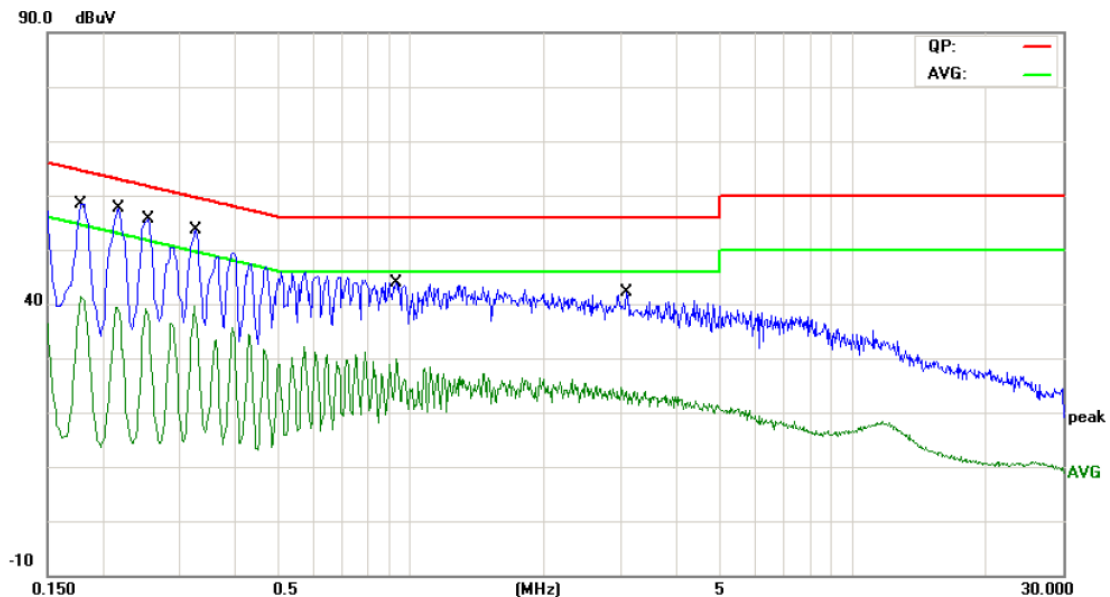
4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Data

Please see the next page.

EUT:	MID	Model Name :	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Line		
Test Mode:	AC Charging with TX B Mode		
Remark:	Only worse case is reported		

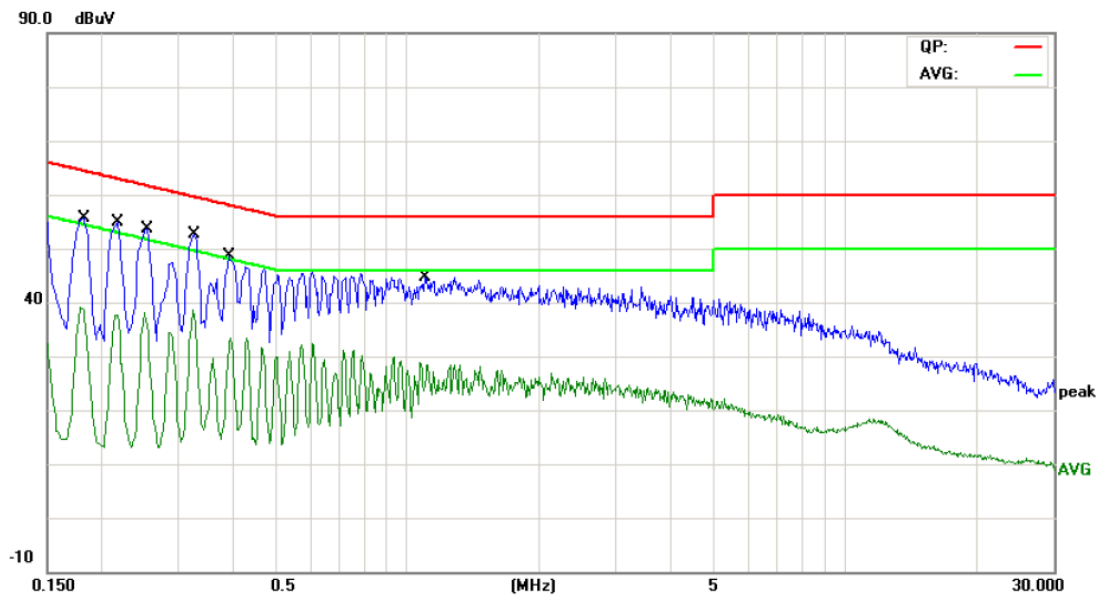


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB	dBuV	dBuV	dB Detector
1		0.1780	43.94	9.98	53.92	64.57	-10.65 QP
2		0.1780	29.14	9.98	39.12	54.57	-15.45 AVG
3		0.2180	42.84	10.02	52.86	62.89	-10.03 QP
4		0.2180	26.48	10.02	36.50	52.89	-16.39 AVG
5		0.2540	41.83	10.02	51.85	61.62	-9.77 QP
6		0.2540	25.51	10.02	35.53	51.62	-16.09 AVG
7	*	0.3260	40.04	10.02	50.06	59.55	-9.49 QP
8		0.3260	26.49	10.02	36.51	49.55	-13.04 AVG
9		0.9260	31.66	10.07	41.73	56.00	-14.27 QP
10		0.9260	17.27	10.07	27.34	46.00	-18.66 AVG
11		3.0740	24.60	10.02	34.62	56.00	-21.38 QP
12		3.0740	12.68	10.02	22.70	46.00	-23.30 AVG

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model Name :	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Neutral		
Test Mode:	AC Charging with TX B Mode		
Remark:	Only worse case is reported		

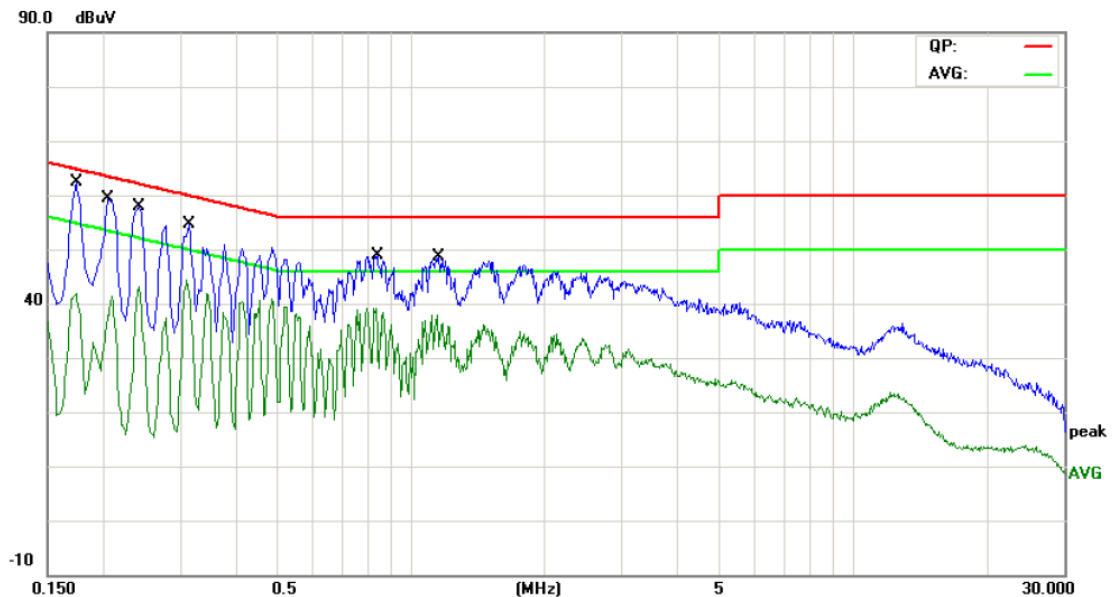


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1819	42.43	9.98	52.41	64.39	-11.98	QP
2		0.1819	26.05	9.98	36.03	54.39	-18.36	AVG
3		0.2180	41.02	10.02	51.04	62.89	-11.85	QP
4		0.2180	24.34	10.02	34.36	52.89	-18.53	AVG
5		0.2540	39.91	10.02	49.93	61.62	-11.69	QP
6		0.2540	23.65	10.02	33.67	51.62	-17.95	AVG
7	*	0.3260	39.68	10.02	49.70	59.55	-9.85	QP
8		0.3260	25.81	10.02	35.83	49.55	-13.72	AVG
9		0.3899	35.50	10.02	45.52	58.06	-12.54	QP
10		0.3899	22.94	10.02	32.96	48.06	-15.10	AVG
11		1.0980	31.48	10.06	41.54	56.00	-14.46	QP
12		1.0980	15.87	10.06	25.93	46.00	-20.07	AVG

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model Name :	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 240V/60 Hz		
Terminal:	Line		
Test Mode:	AC Charging with TX B Mode		
Remark:	Only worse case is reported		

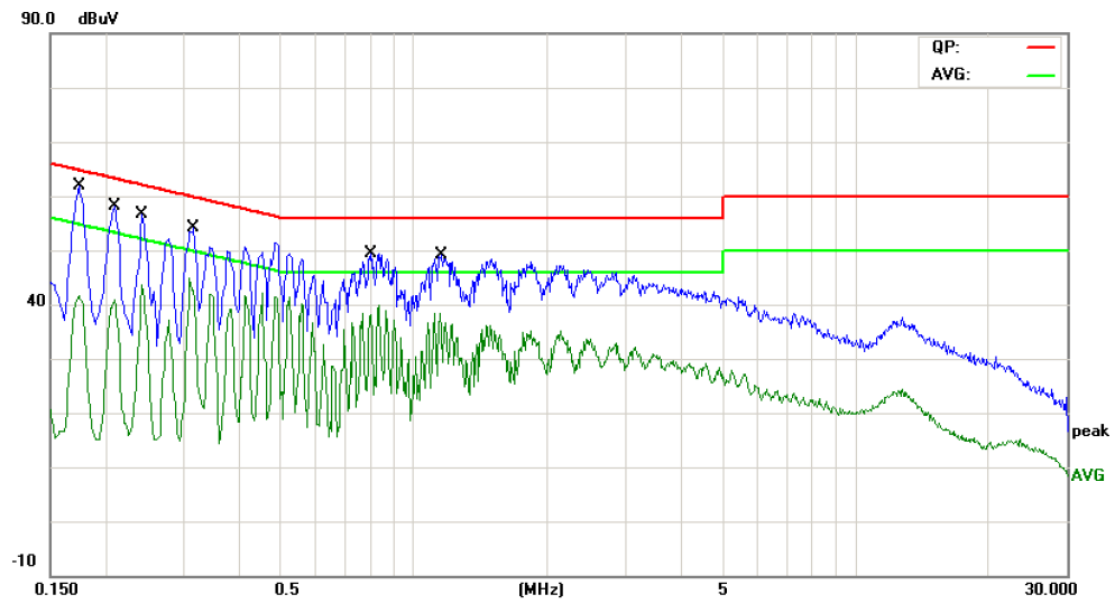


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1740	47.65	10.12	57.77	64.76	-6.99	QP
2		0.1740	32.42	10.12	42.54	54.76	-12.22	AVG
3		0.2060	44.10	10.12	54.22	63.36	-9.14	QP
4		0.2060	30.22	10.12	40.34	53.36	-13.02	AVG
5		0.2420	42.25	10.11	52.36	62.02	-9.66	QP
6		0.2420	31.60	10.11	41.71	52.02	-10.31	AVG
7		0.3140	41.77	10.08	51.85	59.86	-8.01	QP
8	*	0.3140	33.79	10.08	43.87	49.86	-5.99	AVG
9		0.8380	36.32	10.08	46.40	56.00	-9.60	QP
10		0.8380	24.96	10.08	35.04	46.00	-10.96	AVG
11		1.1539	34.82	10.14	44.96	56.00	-11.04	QP
12		1.1539	22.02	10.14	32.16	46.00	-13.84	AVG

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model Name :	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 240V/60 Hz		
Terminal:	Neutral		
Test Mode:	AC Charging with TX B Mode		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1740	46.16	9.97	56.13	64.76	-8.63	QP
2		0.1740	32.98	9.97	42.95	54.76	-11.81	AVG
3		0.2100	43.34	10.02	53.36	63.20	-9.84	QP
4		0.2100	30.82	10.02	40.84	53.20	-12.36	AVG
5		0.2420	40.98	10.02	51.00	62.02	-11.02	QP
6		0.2420	31.59	10.02	41.61	52.02	-10.41	AVG
7		0.3180	41.03	10.02	51.05	59.76	-8.71	QP
8		0.3180	29.81	10.02	39.83	49.76	-9.93	AVG
9		0.7980	38.21	10.10	48.31	56.00	-7.69	QP
10	*	0.7980	29.57	10.10	39.67	46.00	-6.33	AVG
11		1.1539	37.21	10.06	47.27	56.00	-8.73	QP
12		1.1539	25.65	10.06	35.71	46.00	-10.29	AVG

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

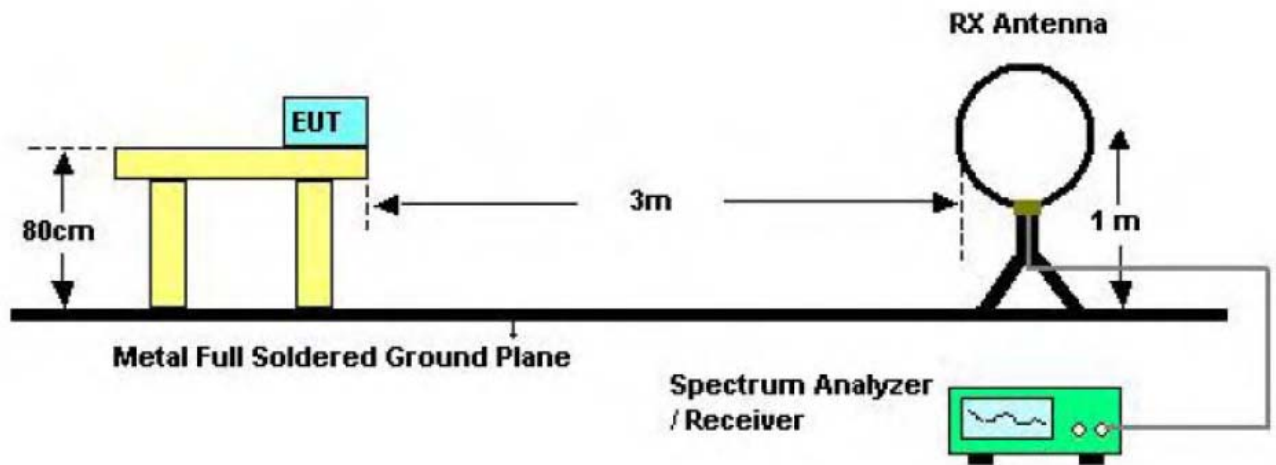
Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Class A (dBuV/m)(at 3 M)		Class B (dBuV/m)(at 3 M)	
	Peak	Average	Peak	Average
Above 1000	80	60	74	54

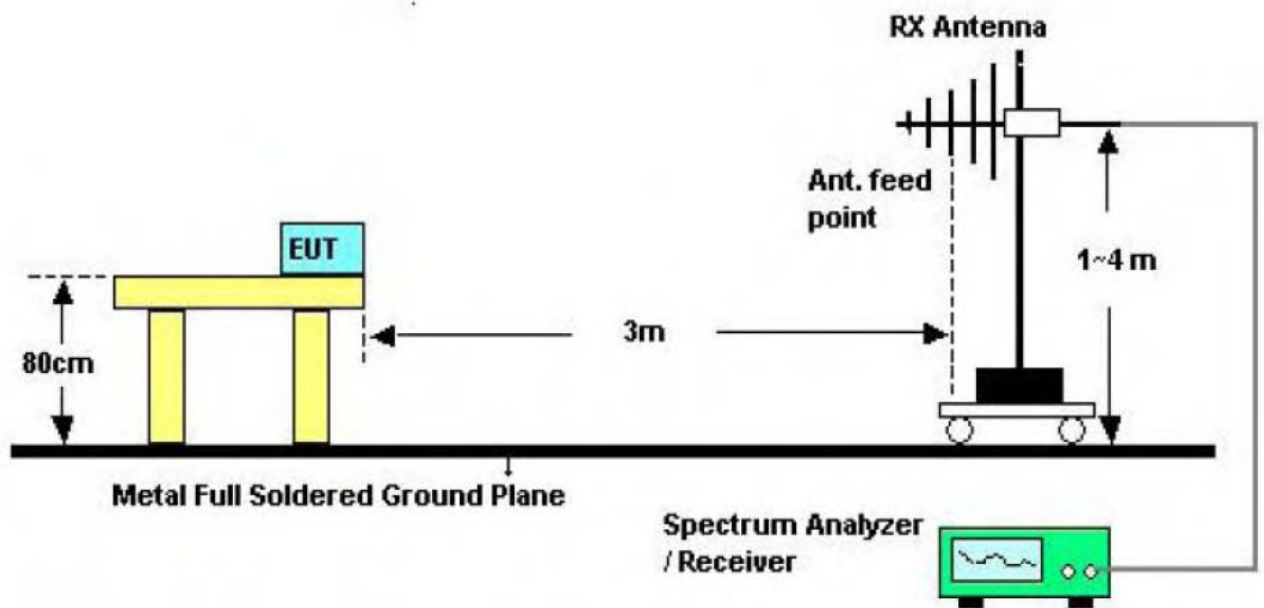
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

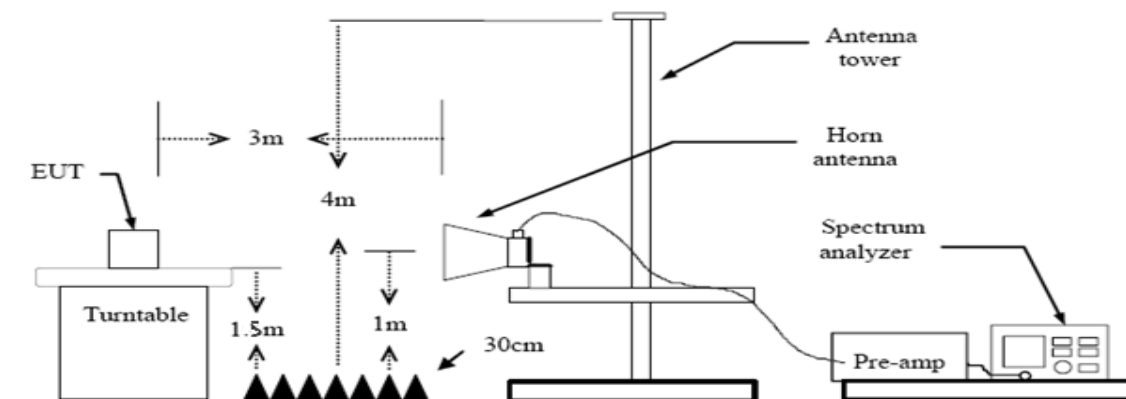
5.2 Test Setup



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

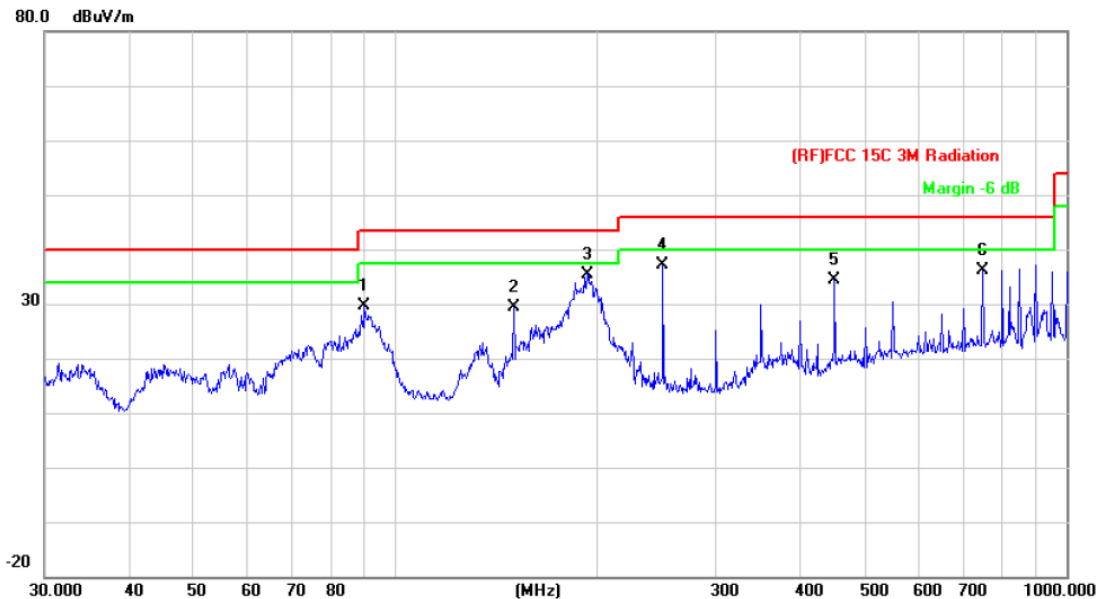
The Equipment Under Test was set to Continual Transmitting in maximum power.

5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Test data please refer the following pages.

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		
Remark:	Only worse case is reported		

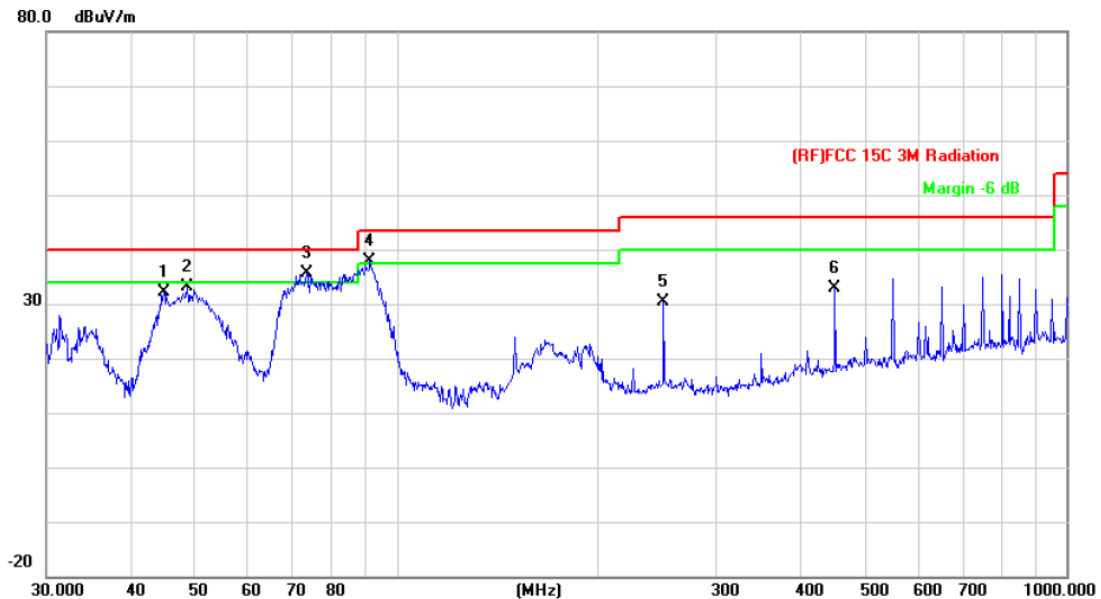


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		89.9047	52.27	-22.69	29.58	43.50	-13.92	peak
2		150.0107	50.56	-21.17	29.39	43.50	-14.11	peak
3	*	193.0945	56.25	-20.75	35.50	43.50	-8.00	peak
4		250.3010	55.29	-18.11	37.18	46.00	-8.82	peak
5		451.1349	46.70	-12.41	34.29	46.00	-11.71	peak
6		750.1082	43.31	-7.08	36.23	46.00	-9.77	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		
Remark:	Only worse case is reported		

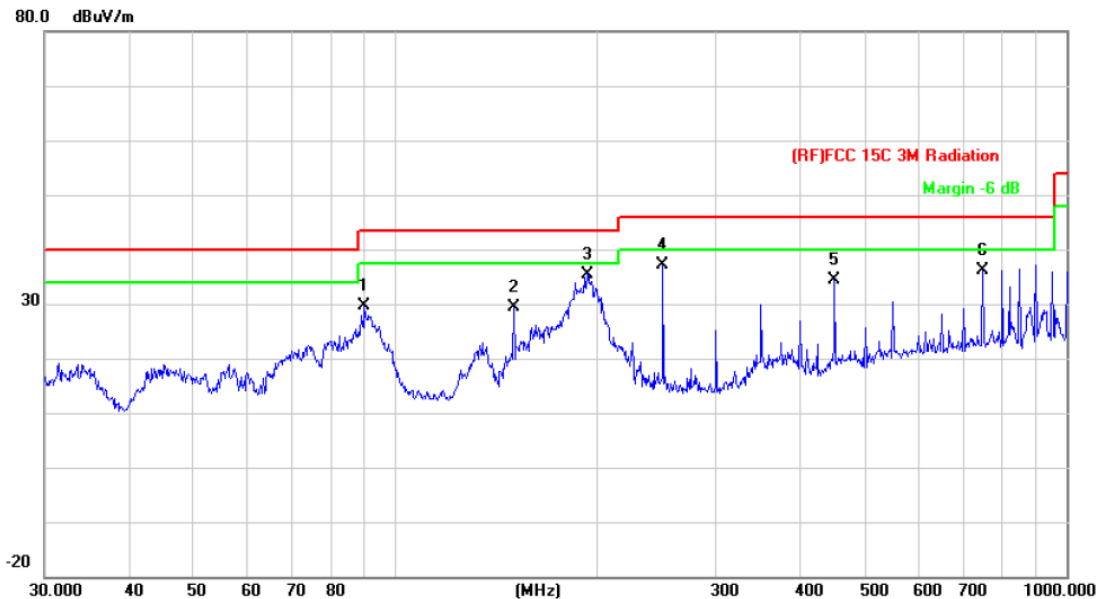


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		44.9004	54.31	-22.23	32.08	40.00	-7.92	peak
2		48.6719	56.87	-23.84	33.03	40.00	-6.97	peak
3	*	73.3593	59.05	-23.50	35.55	40.00	-4.45	peak
4	!	91.1744	60.36	-22.59	37.77	43.50	-5.73	peak
5		250.3010	48.43	-18.11	30.32	46.00	-15.68	peak
6		451.1349	45.27	-12.41	32.86	46.00	-13.14	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		
Remark:	Only worse case is reported		

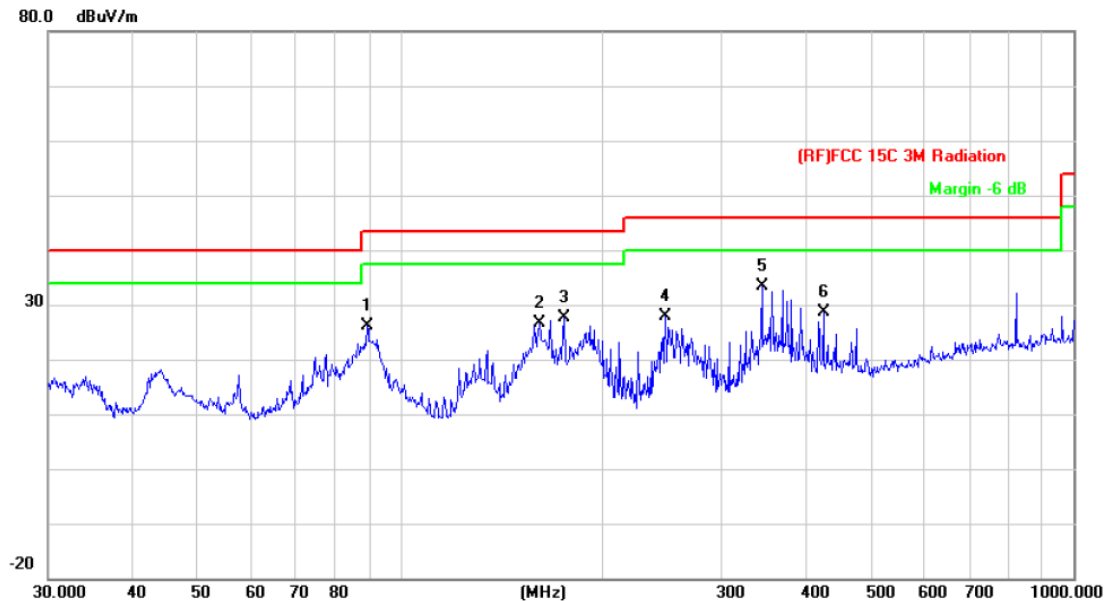


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		89.9047	52.27	-22.69	29.58	43.50	-13.92	peak
2		150.0107	50.56	-21.17	29.39	43.50	-14.11	peak
3	*	193.0945	56.25	-20.75	35.50	43.50	-8.00	peak
4		250.3010	55.29	-18.11	37.18	46.00	-8.82	peak
5		451.1349	46.70	-12.41	34.29	46.00	-11.71	peak
6		750.1082	43.31	-7.08	36.23	46.00	-9.77	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2437MHz		
Remark:	Only worse case is reported		

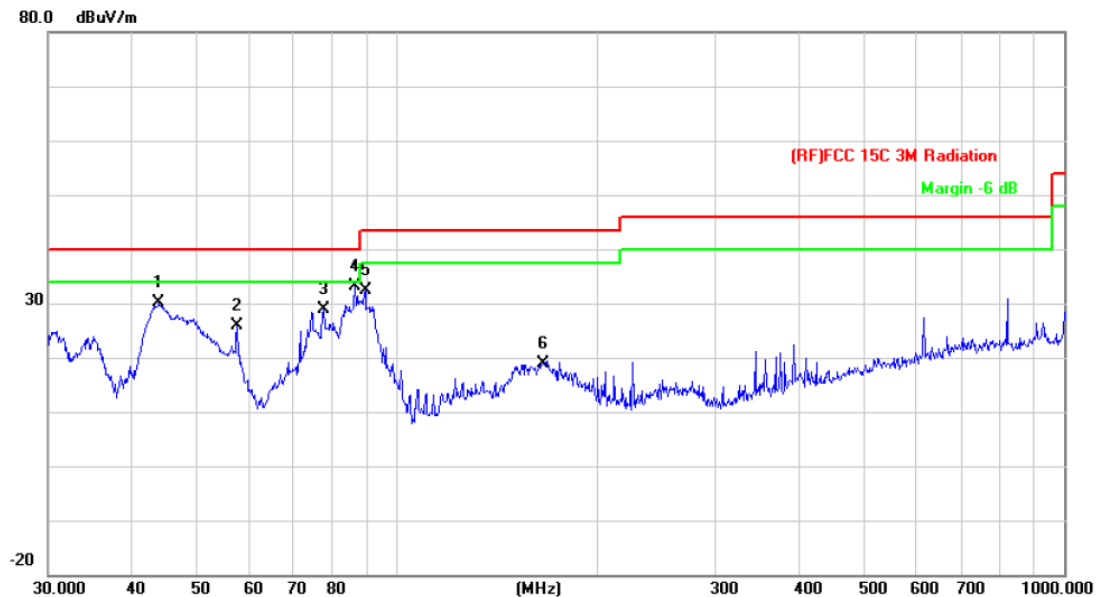


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		89.2762	48.76	-22.74	26.02	43.50	-17.48	peak
2		160.9088	47.31	-20.57	26.74	43.50	-16.76	peak
3		175.0367	48.40	-20.88	27.52	43.50	-15.98	peak
4		247.6819	46.22	-18.23	27.99	46.00	-18.01	peak
5	*	344.3854	48.46	-14.96	33.50	46.00	-12.50	peak
6		425.0280	41.50	-12.92	28.58	46.00	-17.42	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2437MHz		
Remark:	Only worse case is reported		

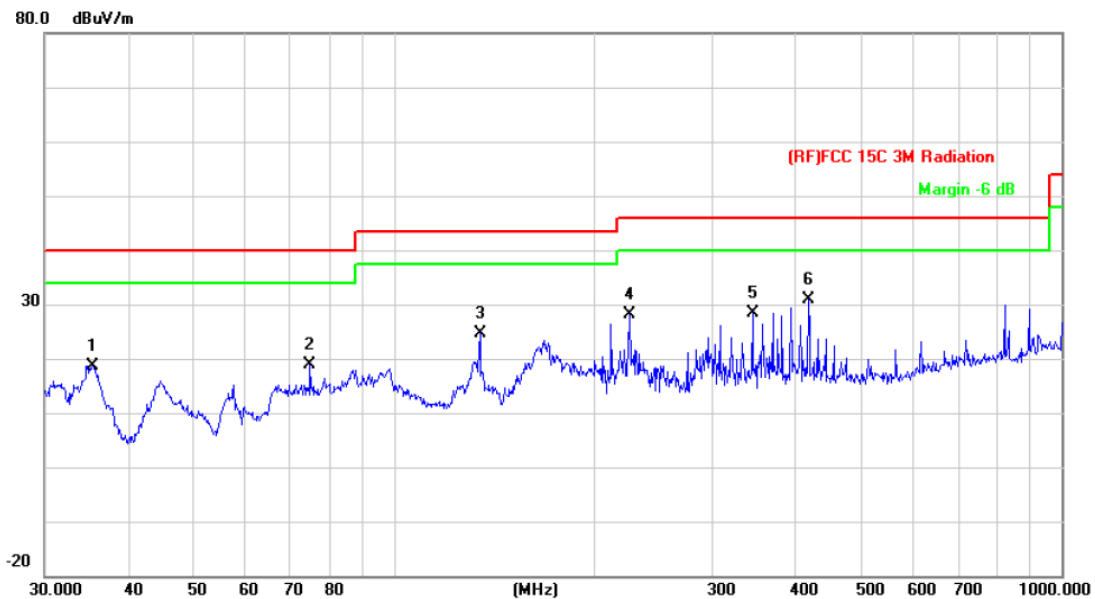


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		43.9658	52.03	-21.84	30.19	40.00	-9.81	peak
2		57.5938	50.30	-24.50	25.80	40.00	-14.20	peak
3		77.5927	52.35	-23.36	28.99	40.00	-11.01	peak
4	*	86.5027	56.00	-22.89	33.11	40.00	-6.89	peak
5		89.5899	55.08	-22.71	32.37	43.50	-11.13	peak
6		165.4866	39.72	-20.88	18.84	43.50	-24.66	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
Remark:	Only worse case is reported		

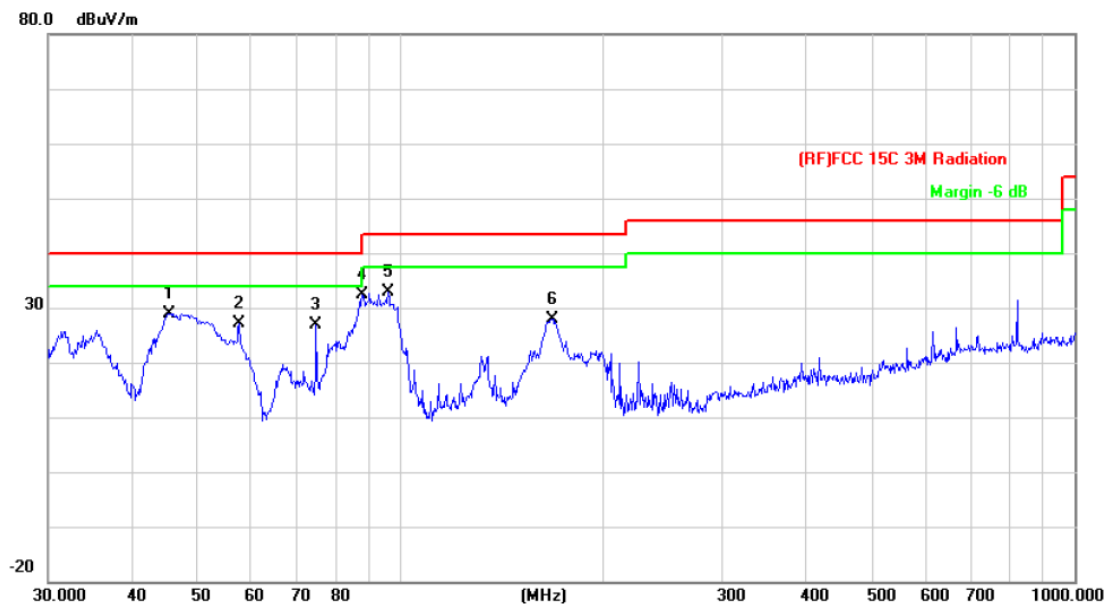


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		35.3750	36.04	-17.29	18.75	40.00	-21.25	peak
2		74.9191	42.33	-23.45	18.88	40.00	-21.12	peak
3		134.5592	46.66	-22.09	24.57	43.50	-18.93	peak
4		225.3079	47.51	-19.30	28.21	46.00	-17.79	peak
5		344.3854	43.39	-14.96	28.43	46.00	-17.57	peak
6	*	417.6409	43.81	-12.89	30.92	46.00	-15.08	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2462MHz		
Remark:	Only worse case is reported		

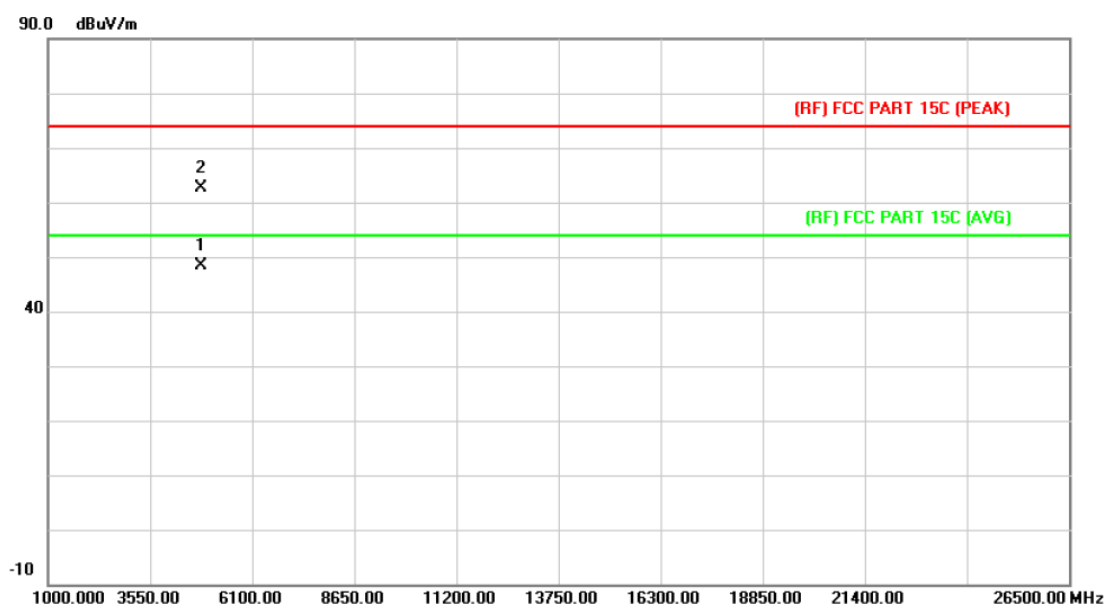


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		45.3755	51.38	-22.44	28.94	40.00	-11.06	peak
2		57.5938	51.71	-24.50	27.21	40.00	-12.79	peak
3		74.9191	50.45	-23.45	27.00	40.00	-13.00	peak
4	*	87.7248	55.10	-22.82	32.28	40.00	-7.72	peak
5		95.7622	55.17	-22.19	32.98	43.50	-10.52	peak
6		167.8242	49.03	-21.04	27.99	43.50	-15.51	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

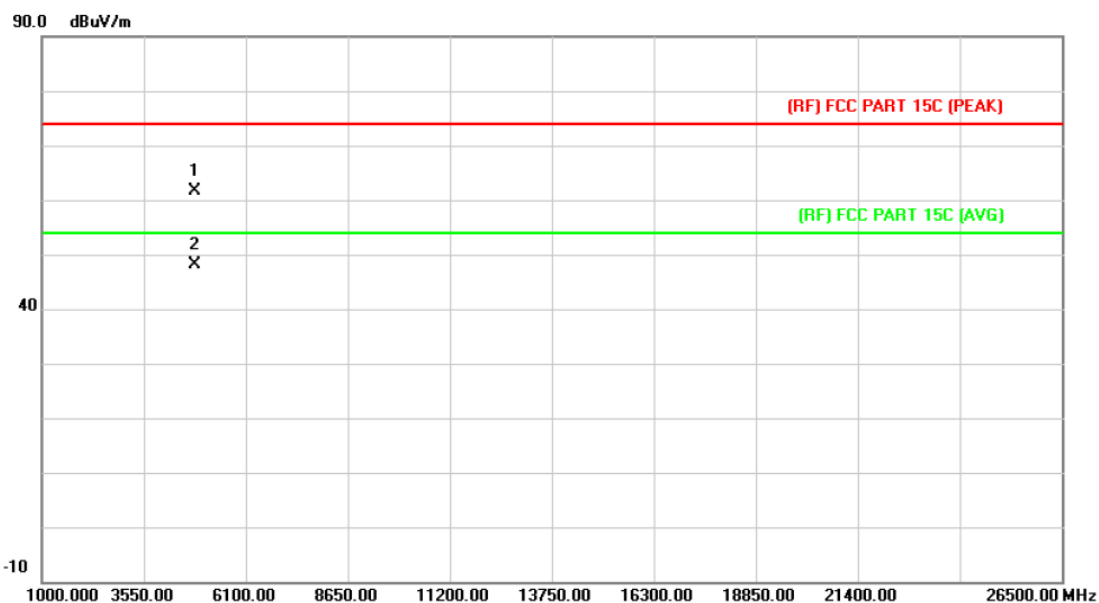
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.947	34.71	13.56	48.27	54.00	-5.73	AVG
2		4824.284	48.98	13.56	62.54	74.00	-11.46	peak

Emission Level= Read Level+ Correct Factor

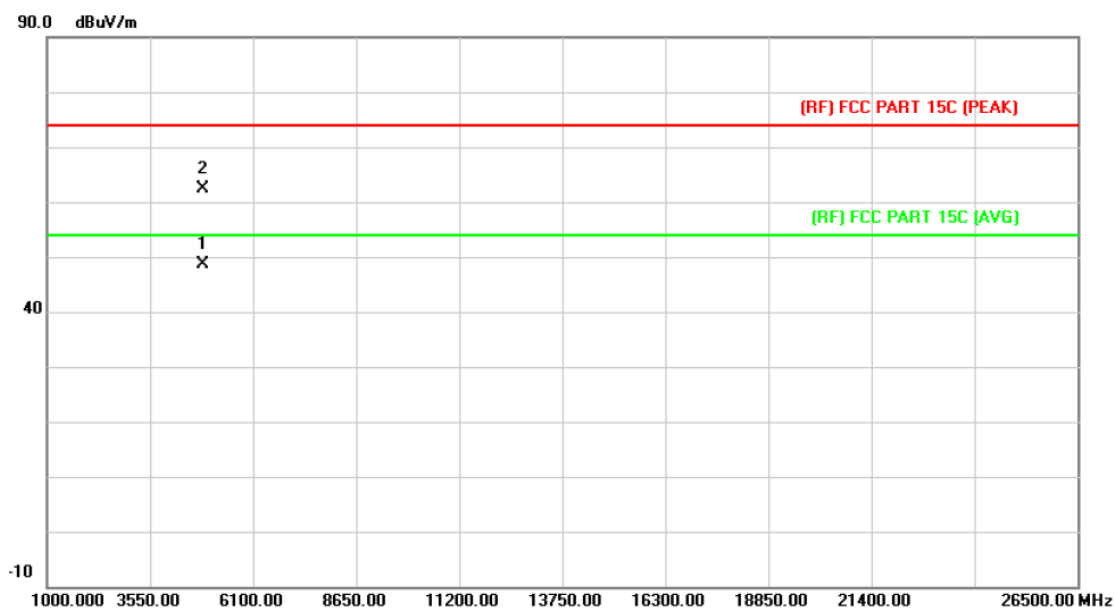
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.884	48.01	13.56	61.57	74.00	-12.43	peak
2	*	4823.947	34.48	13.56	48.04	54.00	-5.96	AVG

Emission Level= Read Level+ Correct Factor

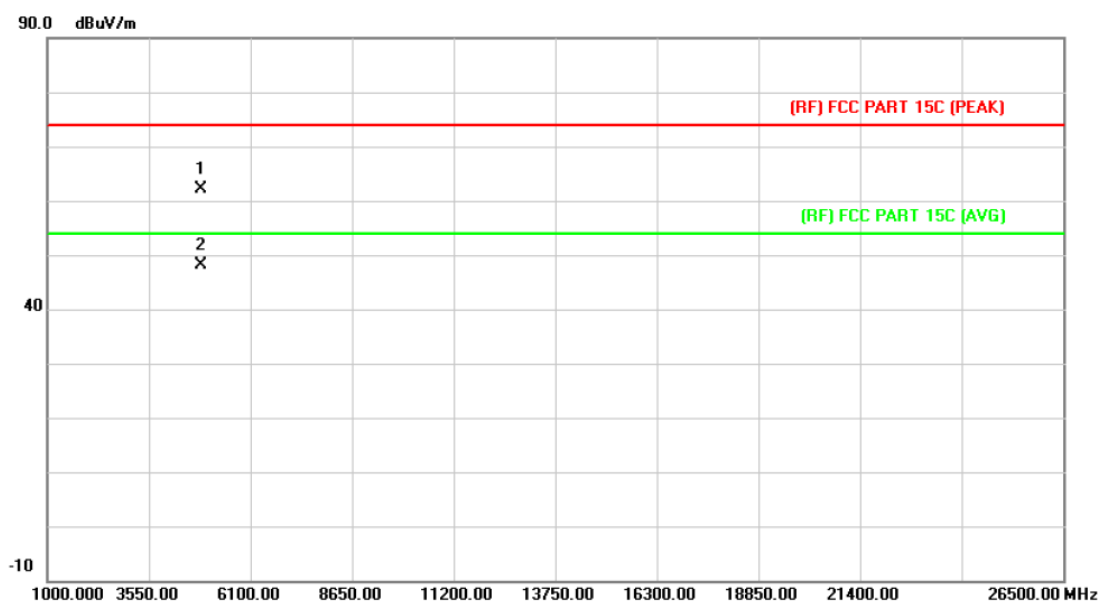
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.037	34.73	13.86	48.59	54.00	-5.41	AVG
2		4874.334	48.61	13.86	62.47	74.00	-11.53	peak

Emission Level= Read Level+ Correct Factor

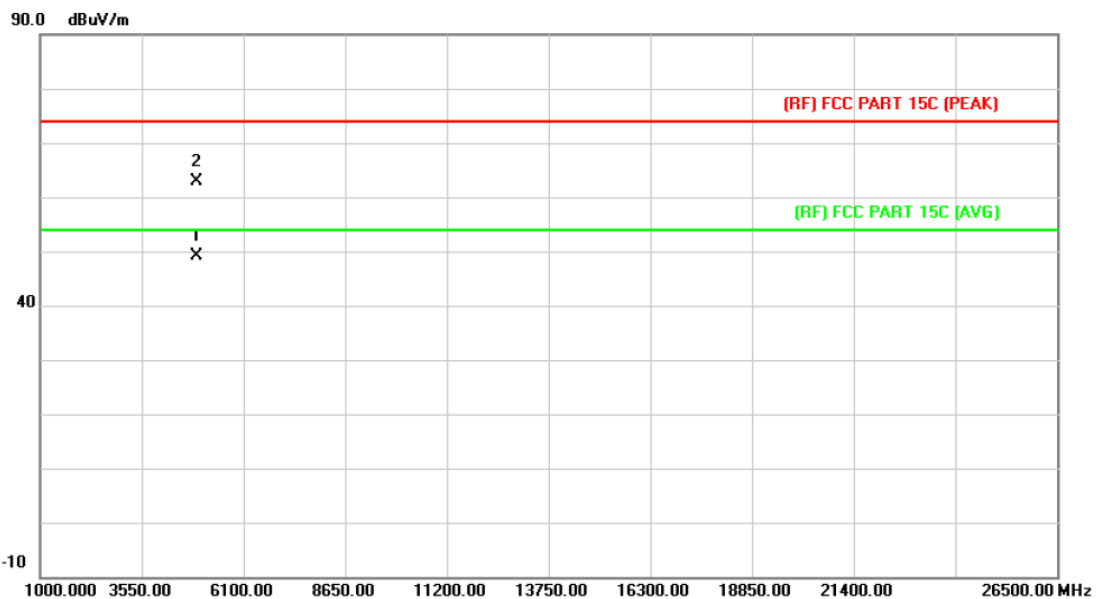
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.787	48.18	13.86	62.04	74.00	-11.96	peak
2	*	4873.964	34.26	13.86	48.12	54.00	-5.88	AVG

Emission Level= Read Level+ Correct Factor

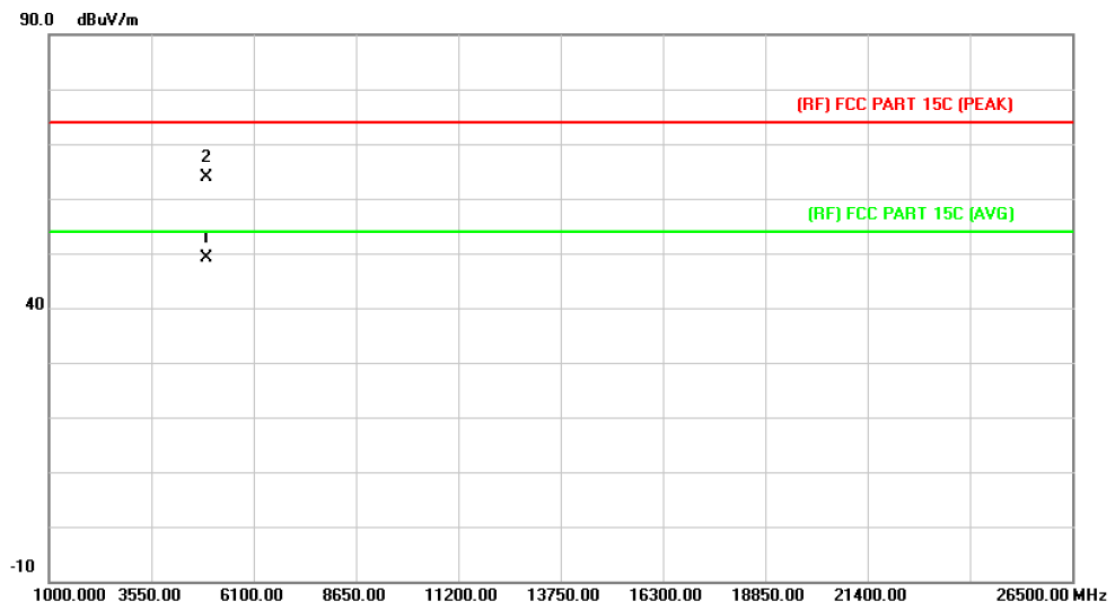
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.087	35.02	14.15	49.17	54.00	-4.83	AVG
2		4924.194	48.72	14.15	62.87	74.00	-11.13	peak

Emission Level= Read Level+ Correct Factor

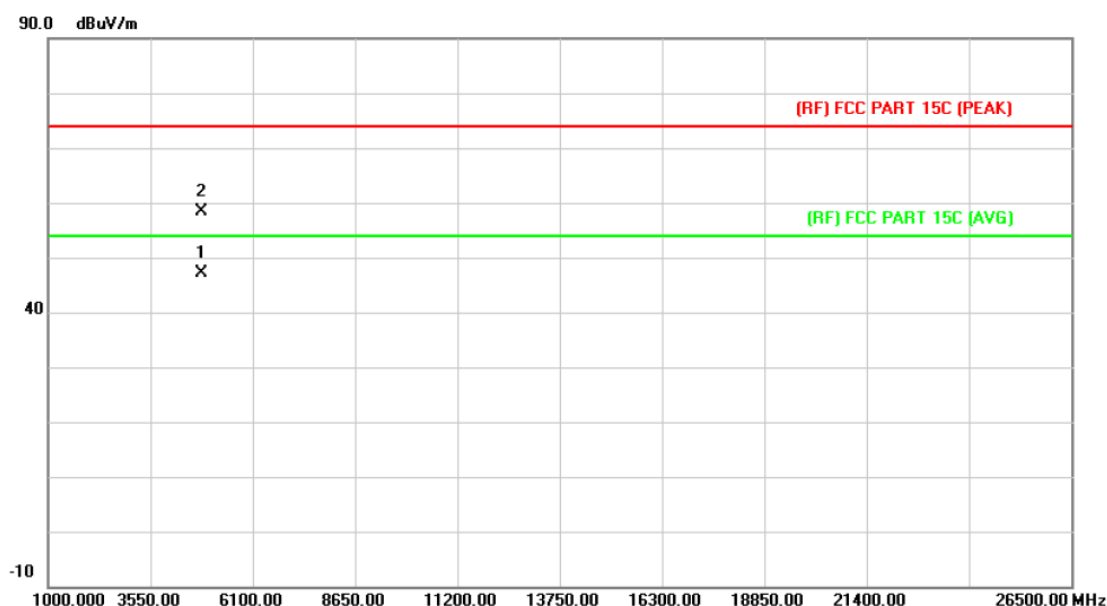
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.047	34.92	14.15	49.07	54.00	-4.93	AVG
2		4924.987	49.63	14.15	63.78	74.00	-10.22	peak

Emission Level= Read Level+ Correct Factor

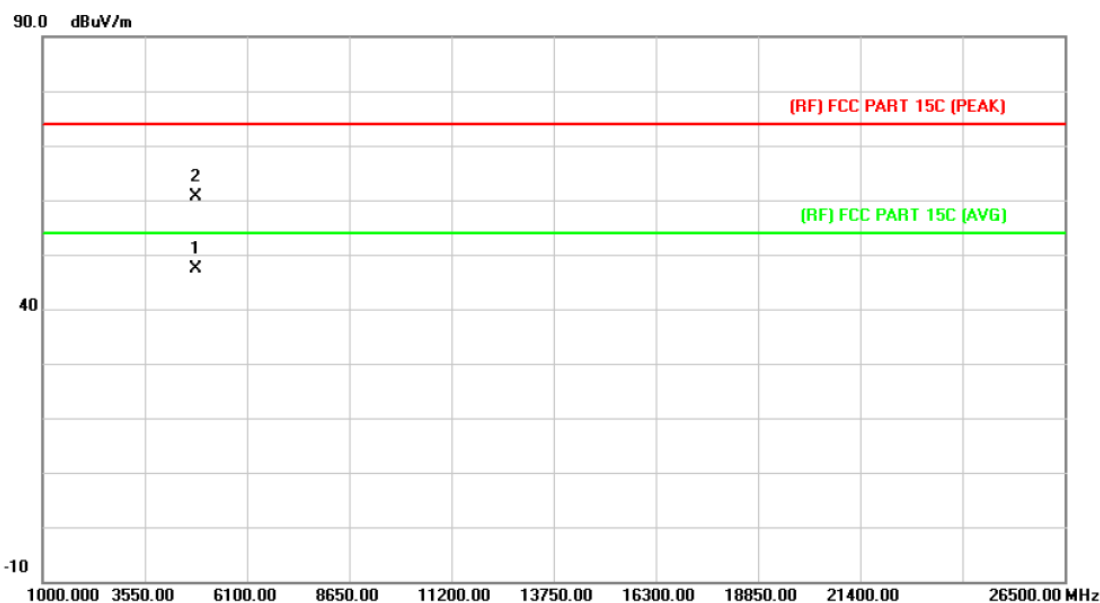
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4824.034	33.56	13.56	47.12	54.00	-6.88	AVG
2		4824.076	44.90	13.56	58.46	74.00	-15.54	peak

Emission Level= Read Level+ Correct Factor

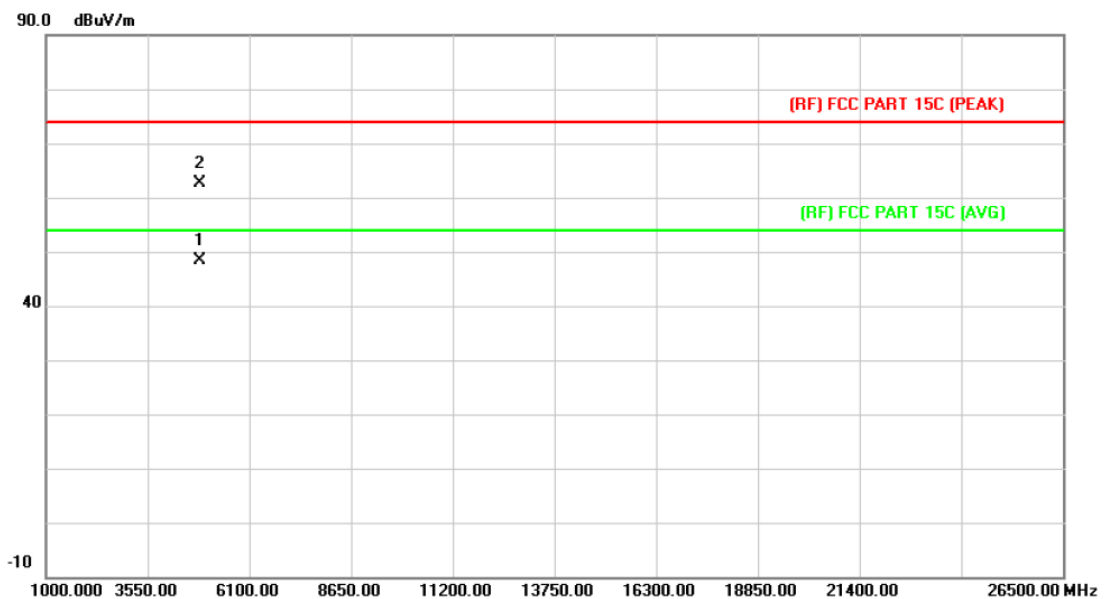
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.412	33.71	13.56	47.27	54.00	-6.73	AVG
2		4824.722	46.95	13.56	60.51	74.00	-13.49	peak

Emission Level= Read Level+ Correct Factor

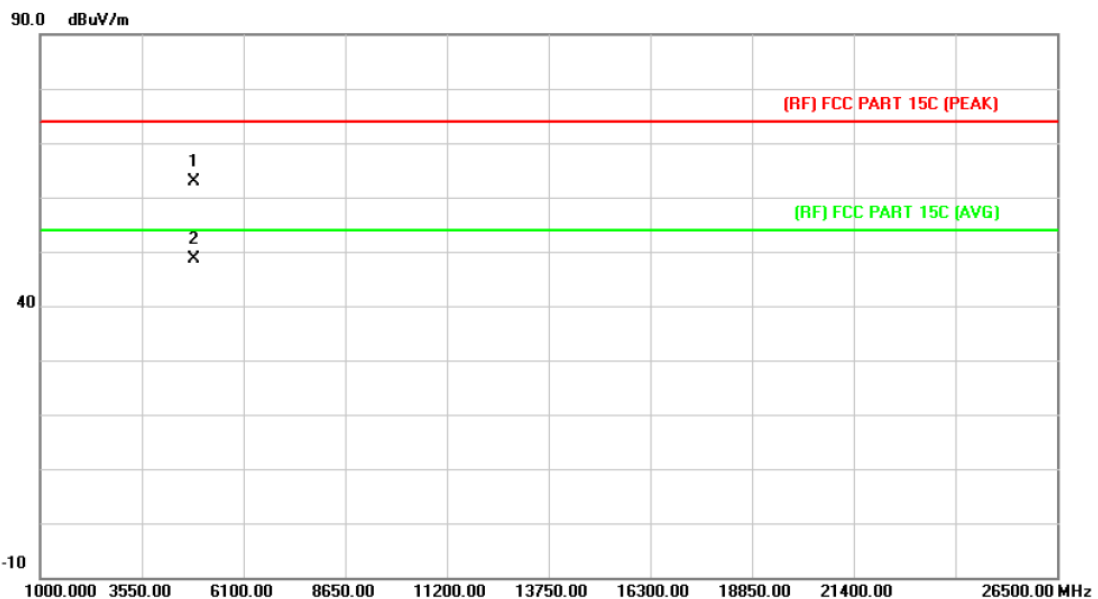
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.071	34.43	13.86	48.29	54.00	-5.71	AVG
2		4875.045	48.67	13.87	62.54	74.00	-11.46	peak

Emission Level= Read Level+ Correct Factor

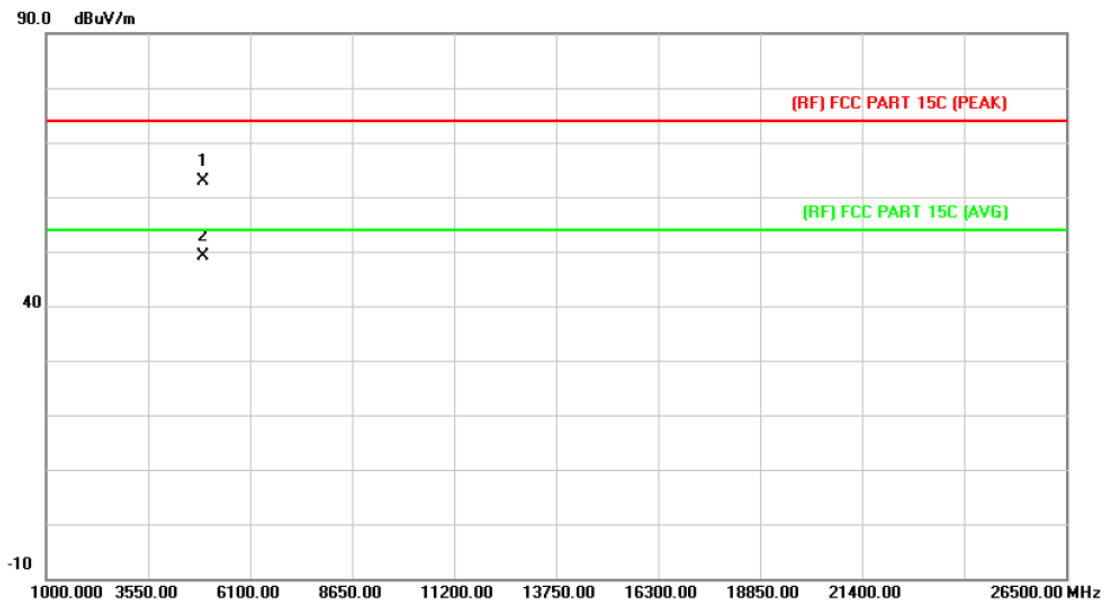
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.654	49.03	13.86	62.89	74.00	-11.11	peak
2	*	4873.784	34.80	13.86	48.66	54.00	-5.34	AVG

Emission Level= Read Level+ Correct Factor

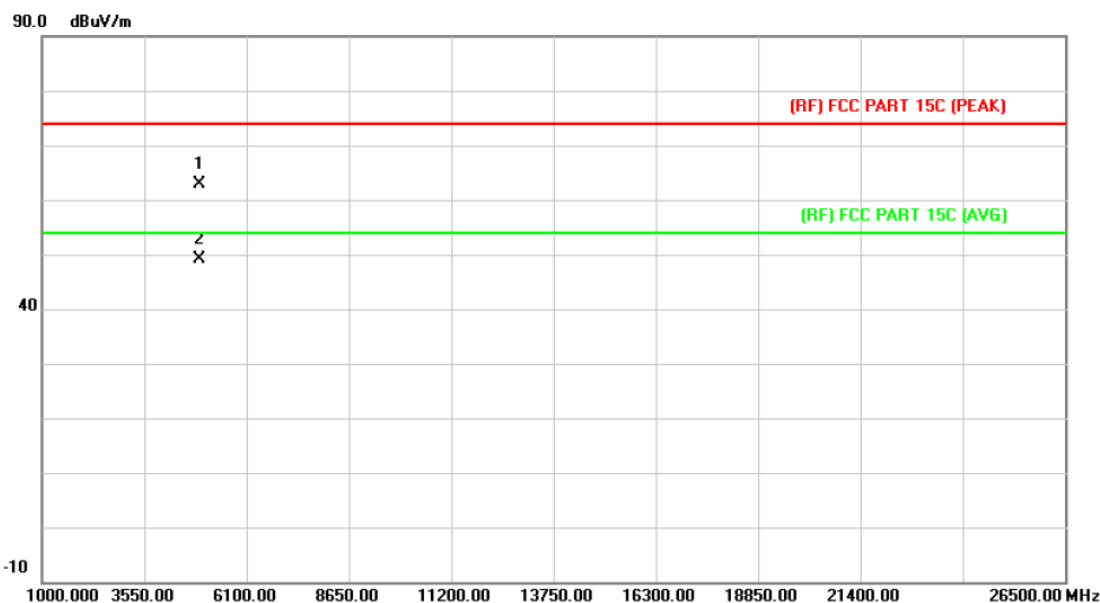
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		4923.757	48.72	14.15	62.87	74.00	-11.13 peak
2	*	4924.845	34.97	14.15	49.12	54.00	-4.88 AVG

Emission Level= Read Level+ Correct Factor

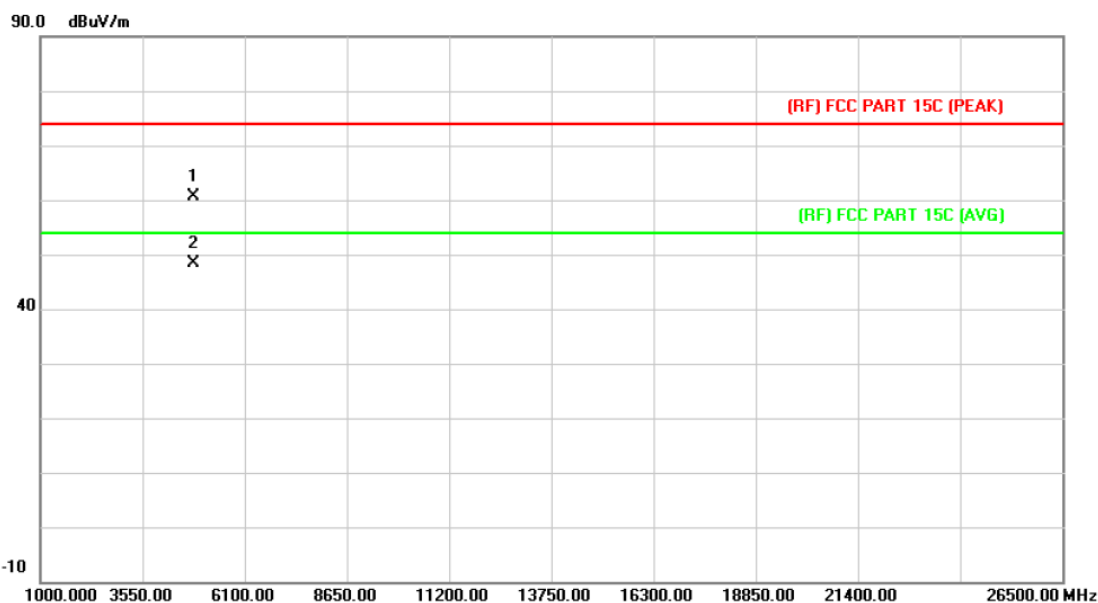
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4925.487	48.78	14.16	62.94	74.00	-11.06	peak
2	*	4925.498	34.89	14.16	49.05	54.00	-4.95	AVG

Emission Level= Read Level+ Correct Factor

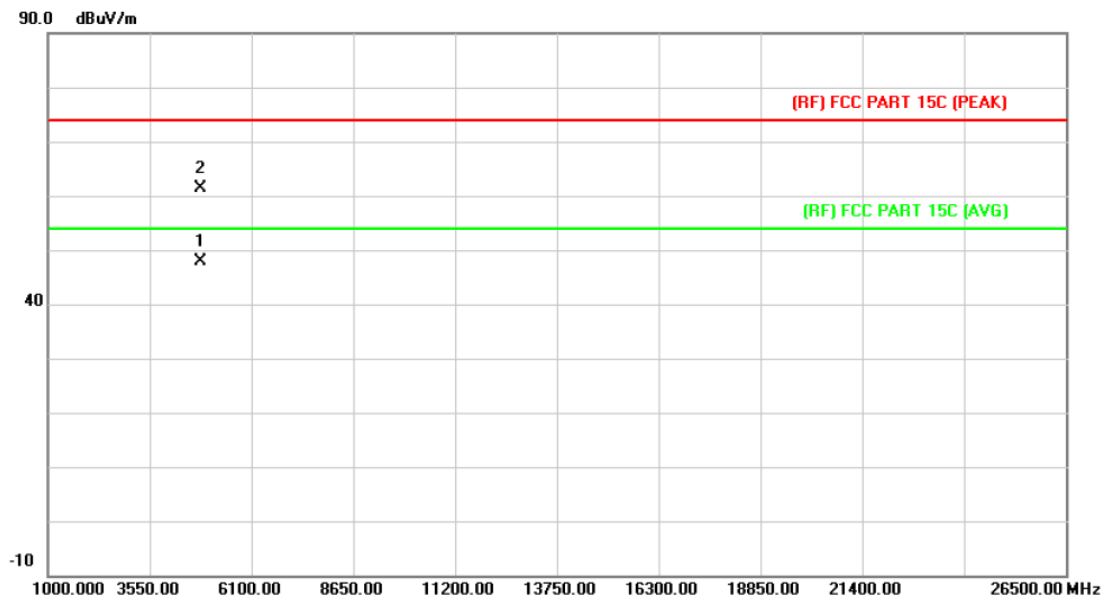
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4823.974	46.96	13.56	60.52	74.00	-13.48	peak
2	*	4823.981	34.75	13.56	48.31	54.00	-5.69	AVG

Emission Level= Read Level+ Correct Factor

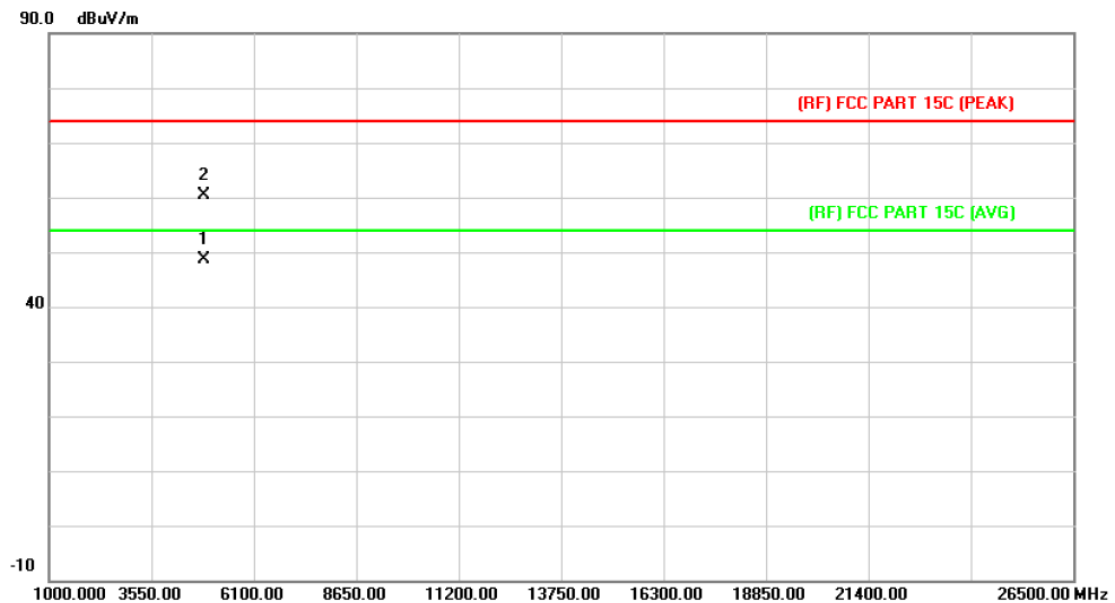
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT20) Mode 2412MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4824.047	34.28	13.56	47.84	54.00	-6.16	AVG
2		4824.087	47.91	13.56	61.47	74.00	-12.53	peak

Emission Level= Read Level+ Correct Factor

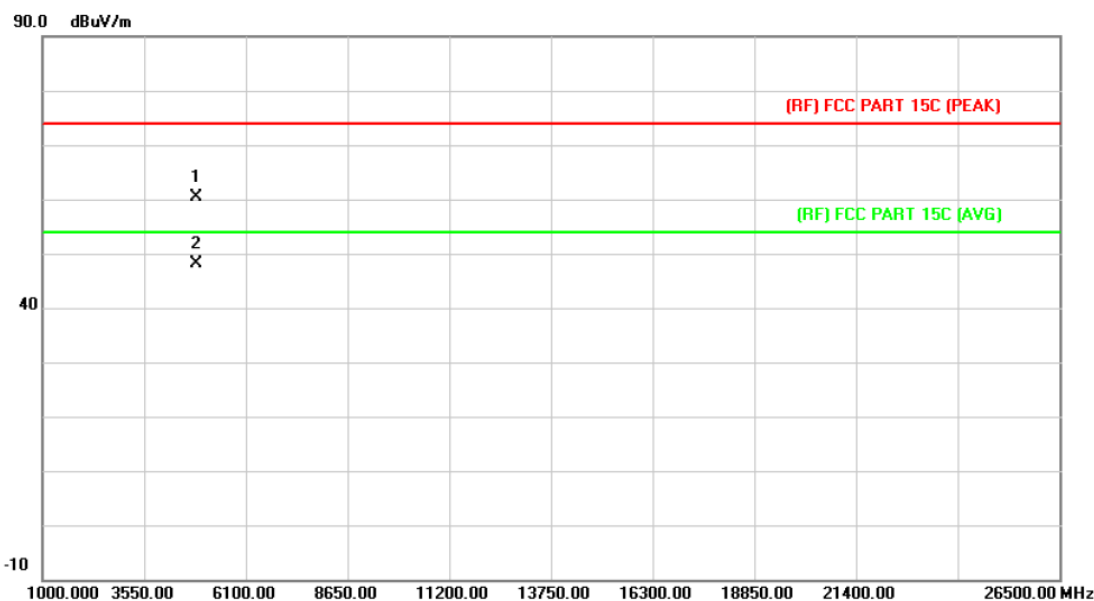
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	4874.048	34.75	13.86	48.61	54.00	-5.39	AVG
2		4874.074	46.61	13.86	60.47	74.00	-13.53	peak

Emission Level= Read Level+ Correct Factor

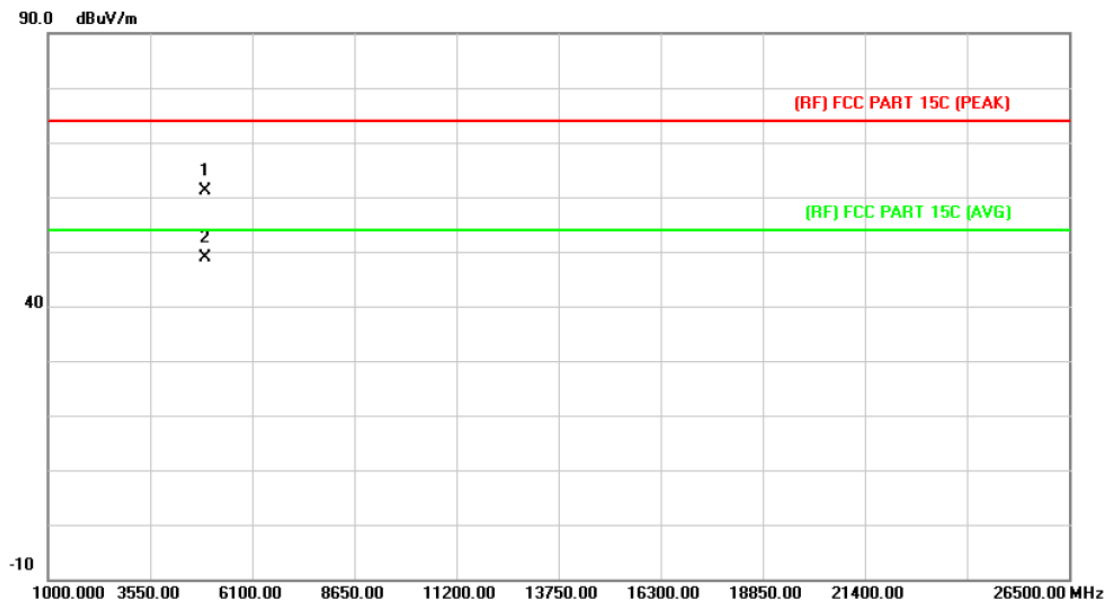
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT20) Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		4874.043	46.63	13.86	60.49	74.00	-13.51 peak
2	*	4874.074	34.31	13.86	48.17	54.00	-5.83 AVG

Emission Level= Read Level+ Correct Factor

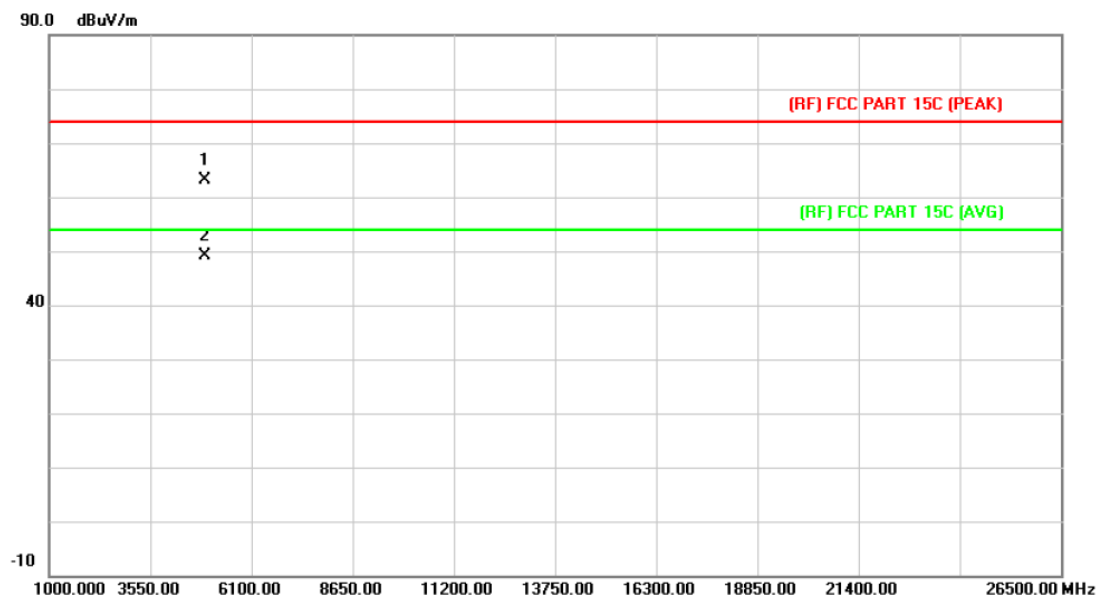
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4924.073	47.07	14.15	61.22	74.00	-12.78	peak
2	*	4924.084	34.63	14.15	48.78	54.00	-5.22	AVG

Emission Level= Read Level+ Correct Factor

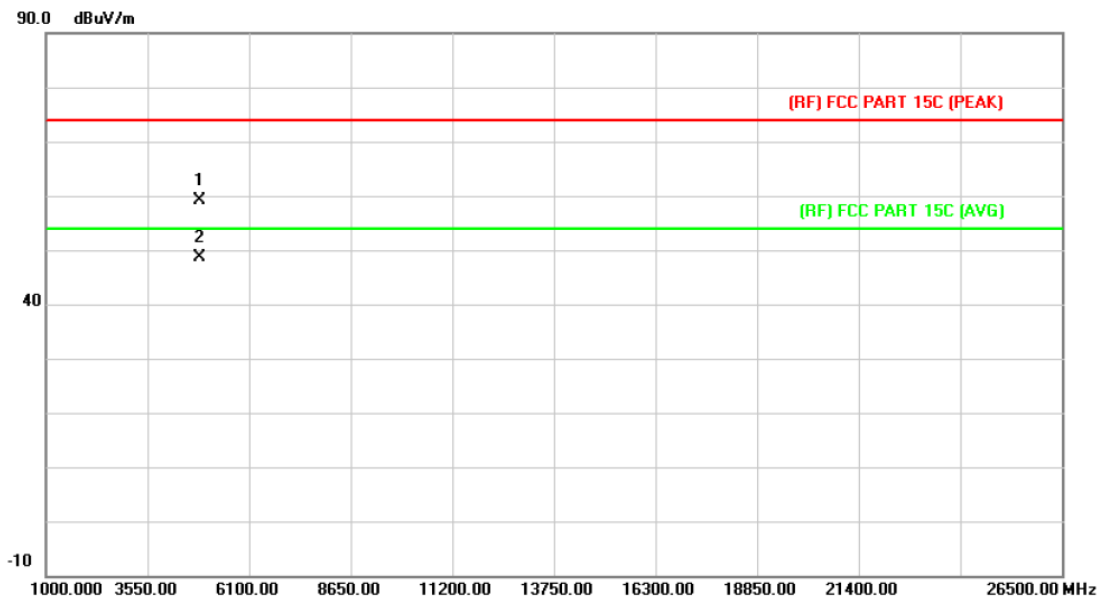
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT20) Mode 2462MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4924.041	48.97	14.15	63.12	74.00	-10.88	peak
2	*	4924.237	34.89	14.15	49.04	54.00	-4.96	AVG

Emission Level= Read Level+ Correct Factor

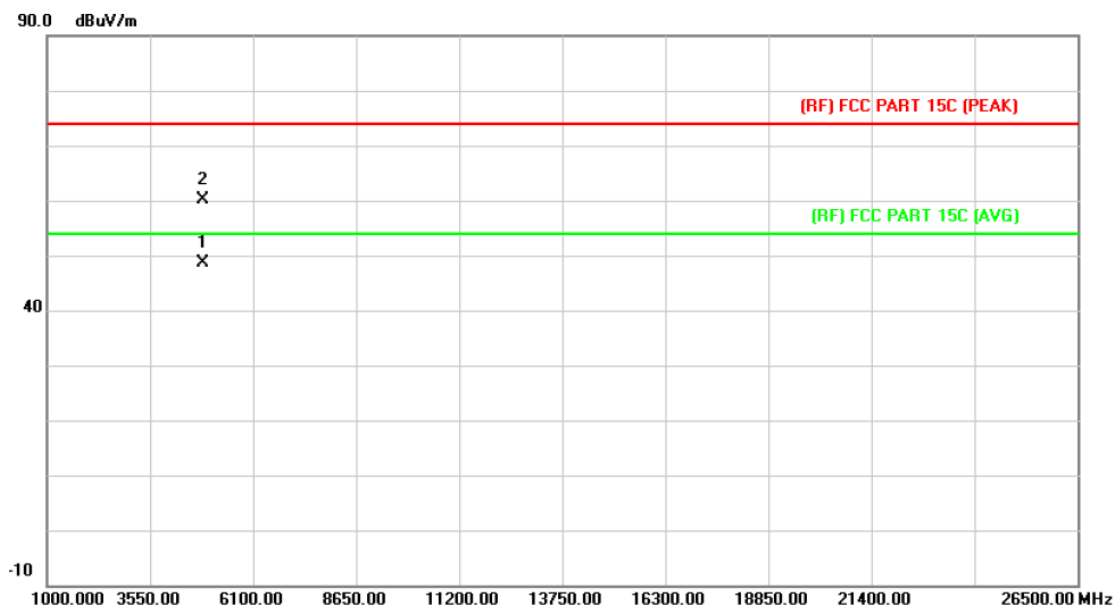
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT40) Mode 2422MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		4844.034	45.43	13.68	59.11	74.00	-14.89 peak
2	*	4844.041	34.93	13.68	48.61	54.00	-5.39 AVG

Emission Level= Read Level+ Correct Factor

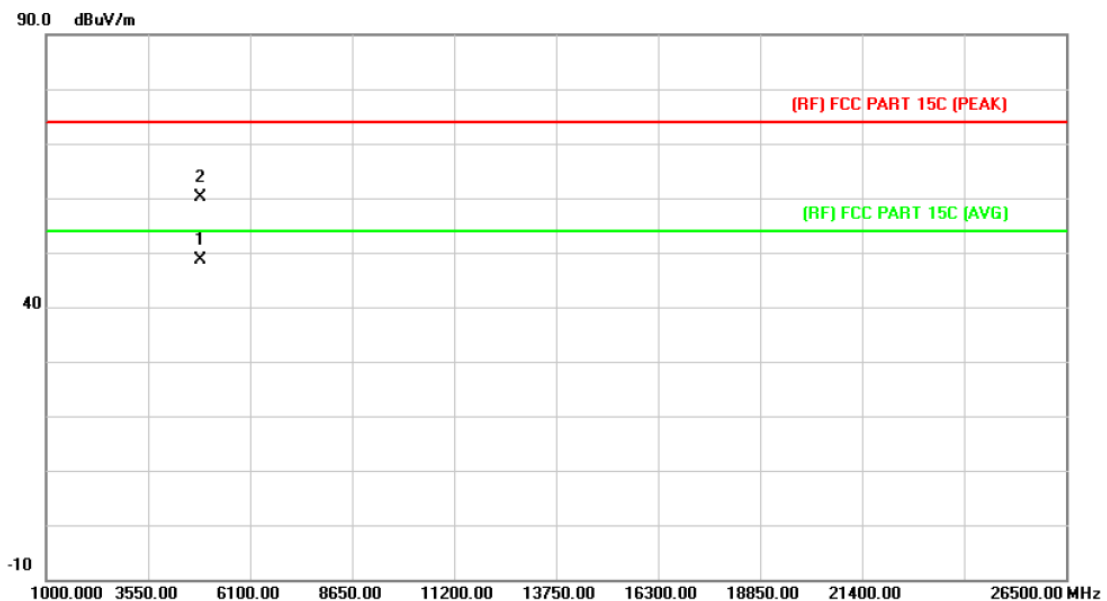
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT40) Mode 2422MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4843.941	34.93	13.68	48.61	54.00	-5.39	AVG
2		4844.047	46.49	13.68	60.17	74.00	-13.83	peak

Emission Level= Read Level+ Correct Factor

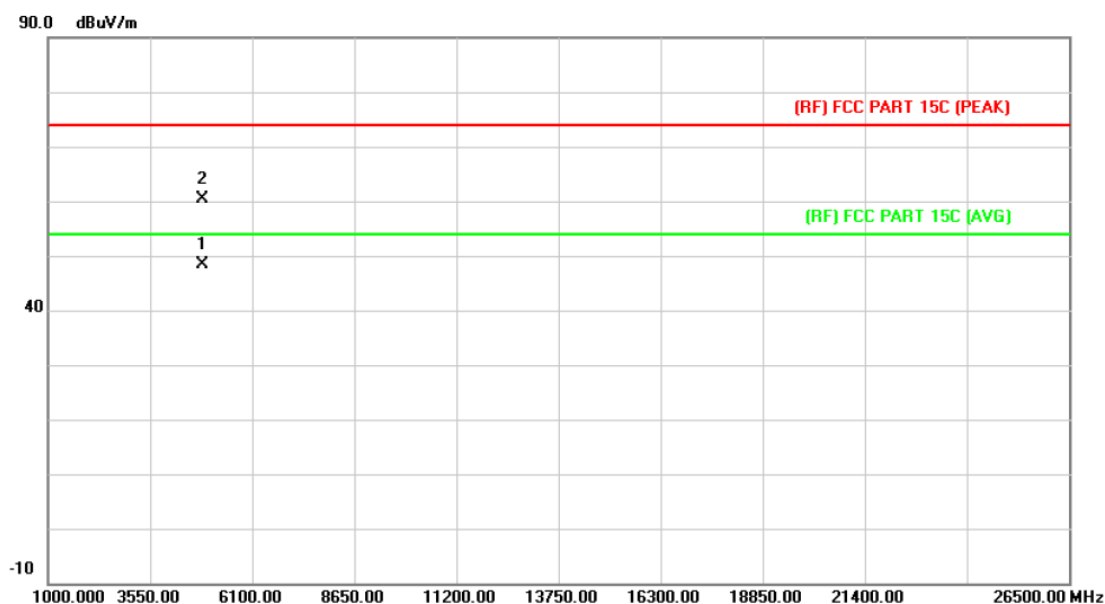
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT40) Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.017	34.65	13.86	48.51	54.00	-5.49	AVG
2		4874.041	46.31	13.86	60.17	74.00	-13.83	peak

Emission Level= Read Level+ Correct Factor

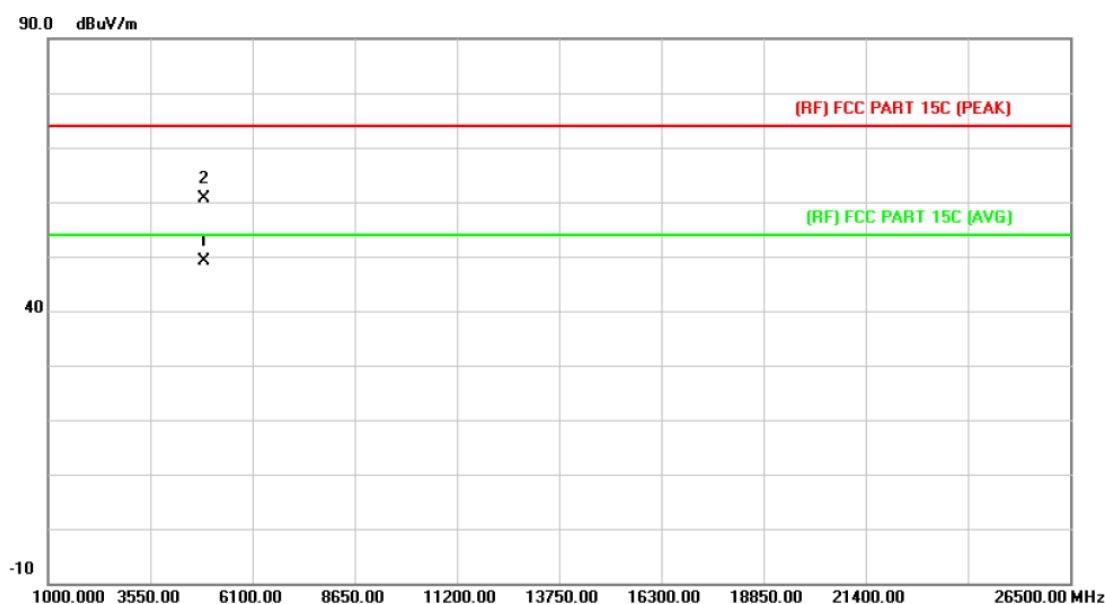
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT40) Mode 2437MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.487	34.52	13.86	48.38	54.00	-5.62	AVG
2		4873.571	46.56	13.86	60.42	74.00	-13.58	peak

Emission Level= Read Level+ Correct Factor

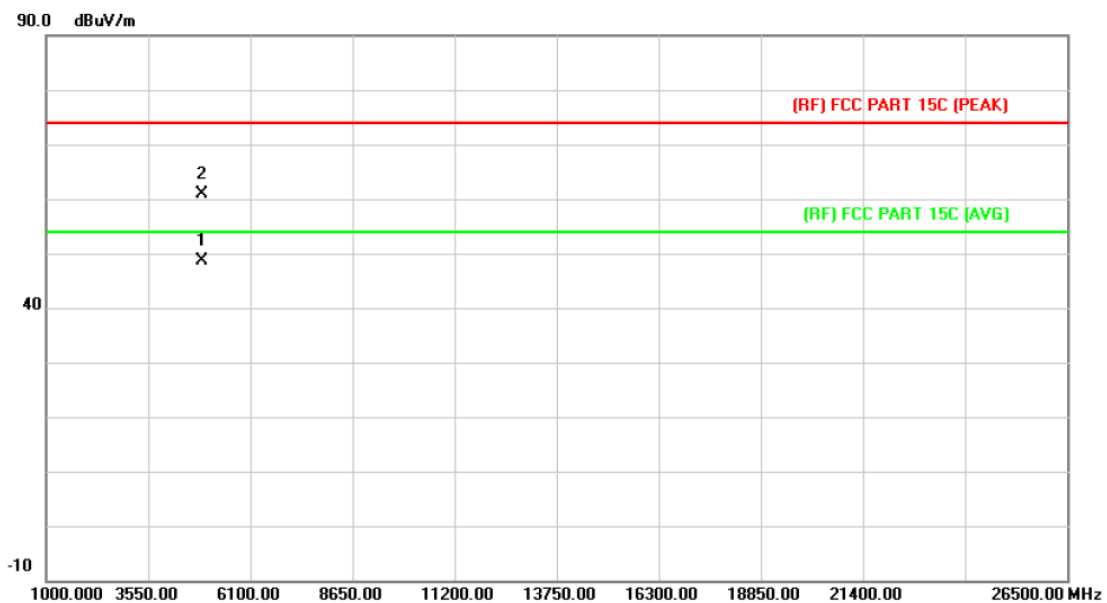
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT40) Mode 2452MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4904.037	35.14	14.03	49.17	54.00	-4.83	AVG
2		4904.074	46.70	14.03	60.73	74.00	-13.27	peak

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT40) Mode 2452MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4903.981	34.64	14.03	48.67	54.00	-5.33	AVG
2		4904.047	46.95	14.03	60.98	74.00	-13.02	peak

Emission Level= Read Level+ Correct Factor

6. Restricted Bands Requirement

6.1 Test Standard and Limit

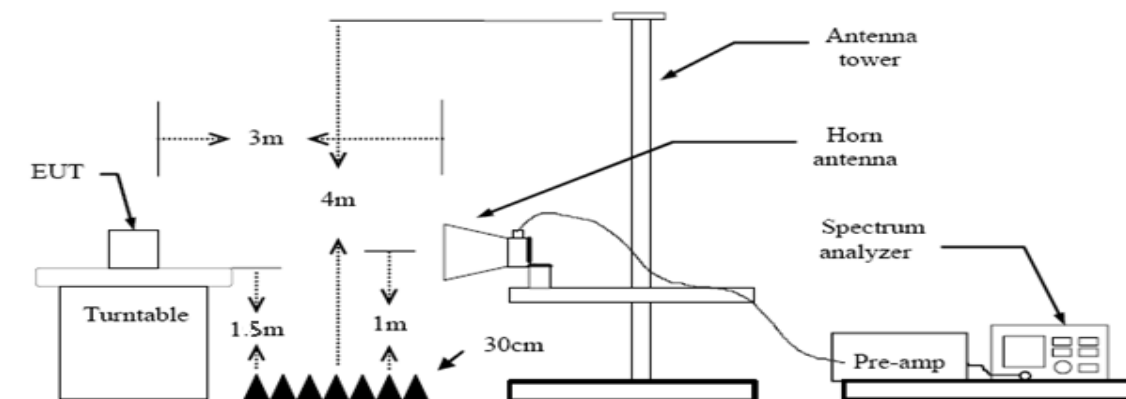
5.1.1 Test Standard

FCC Part 15.209 FCC Part 15.205

5.1.2 Test Limit

Restricted Frequency Band (MHz)	Class B (dBuV/m)(at 3 M)	
	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

6.2 Test Setup



6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit

Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

6.4 EUT Operating Condition

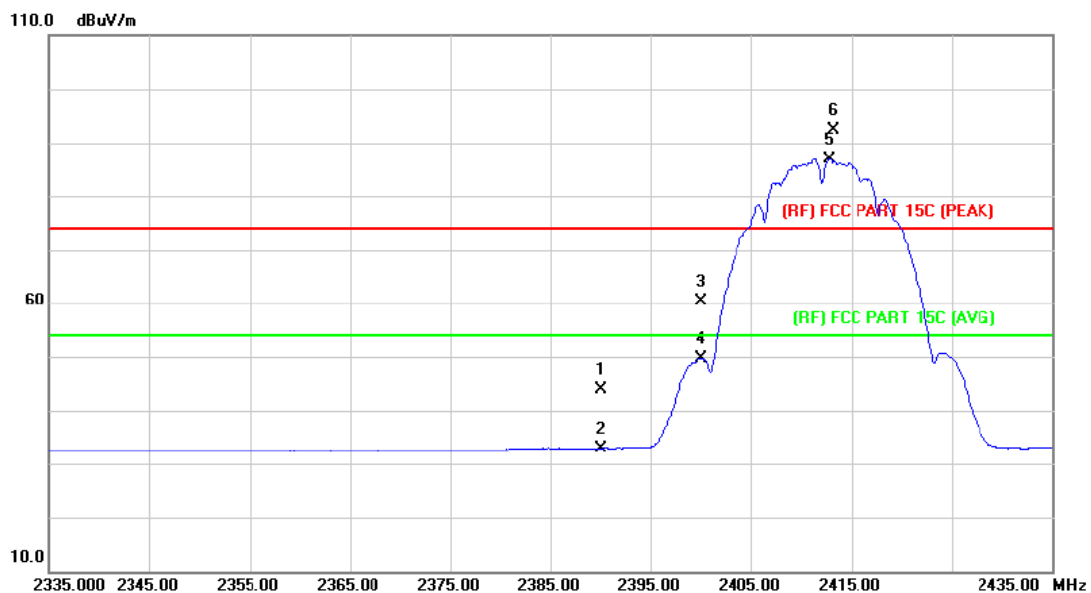
The Equipment Under Test was set to Continual Transmitting in maximum power.

6.5 Test Data

Please see the next page.

(1) Radiation Test

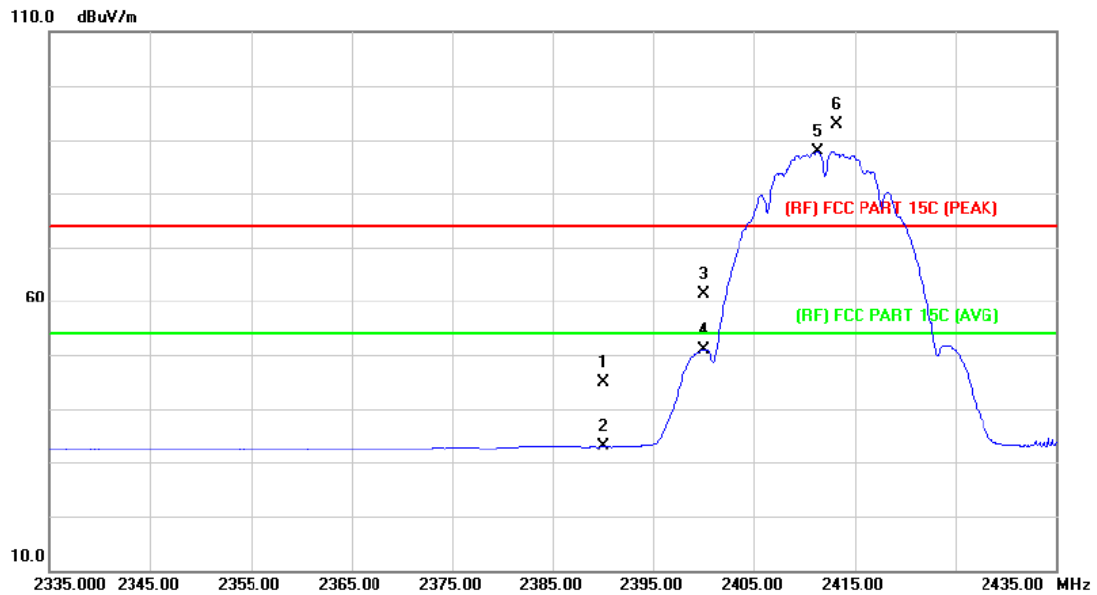
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		2390.000	43.18	0.77	43.95	74.00	-30.05	peak
2		2390.000	32.17	0.77	32.94	54.00	-21.06	AVG
3		2400.000	59.66	0.81	60.47	Fundamental Frequency		peak
4		2400.000	48.75	0.81	49.56	Fundamental Frequency		AVG
5	*	2412.800	86.06	0.86	86.92	54.00	32.92	AVG
6	X	2413.200	91.59	0.86	92.45	74.00	18.45	peak

Emission Level= Read Level+ Correct Factor

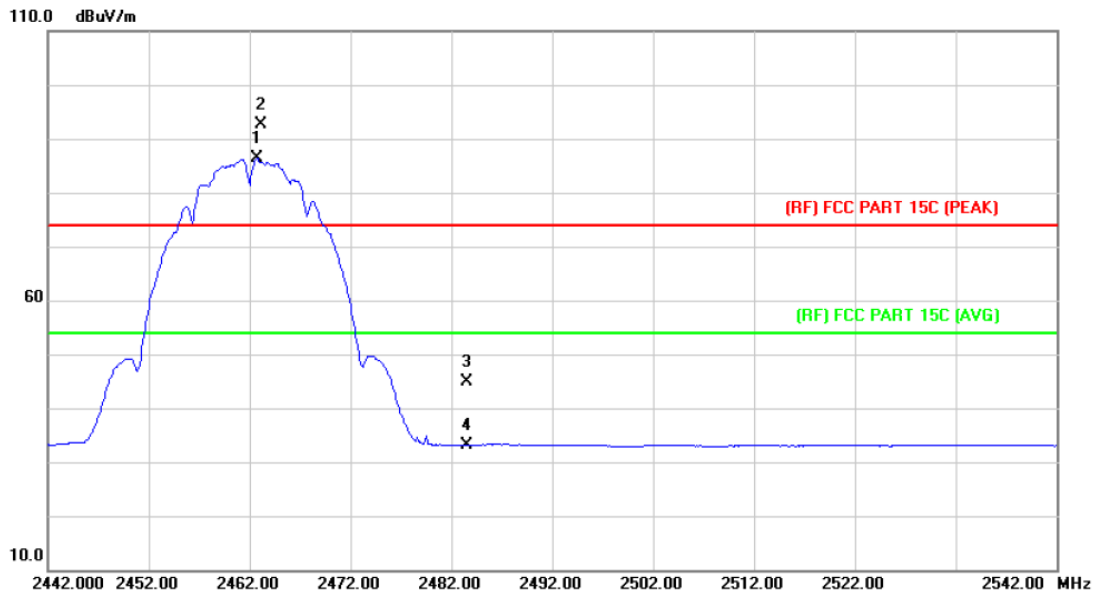
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		2390.000	44.21	0.77	44.98	74.00	-29.02 peak
2		2390.000	32.30	0.77	33.07	54.00	-20.93 AVG
3		2400.000	60.46	0.81	61.27	Fundamental Frequency	
4		2400.000	50.11	0.81	50.92	Fundamental Frequency	
5	*	2411.300	87.04	0.86	87.90	54.00	33.90 AVG
6	X	2413.200	92.01	0.86	92.87	74.00	18.87 peak

Emission Level= Read Level+ Correct Factor

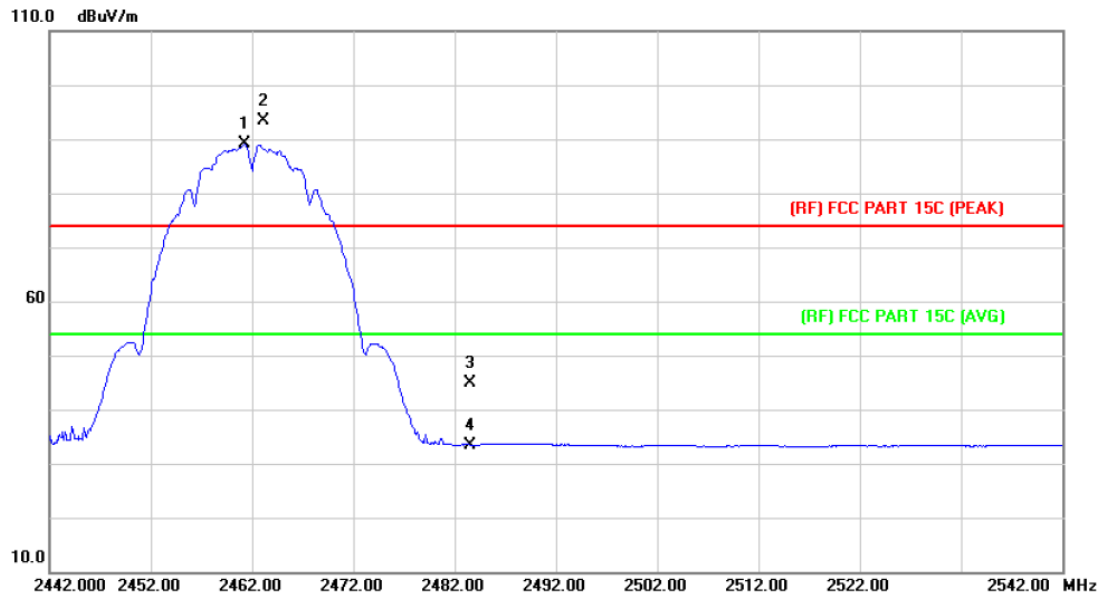
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1	*	2462.700	85.23	1.08	86.31	Fundamental Frequency	AVG
2	X	2463.100	91.43	1.08	92.51	Fundamental Frequency	peak
3		2483.500	43.68	1.17	44.85	74.00	-29.15 peak
4		2483.500	31.94	1.17	33.11	54.00	-20.89 AVG

Emission Level= Read Level+ Correct Factor

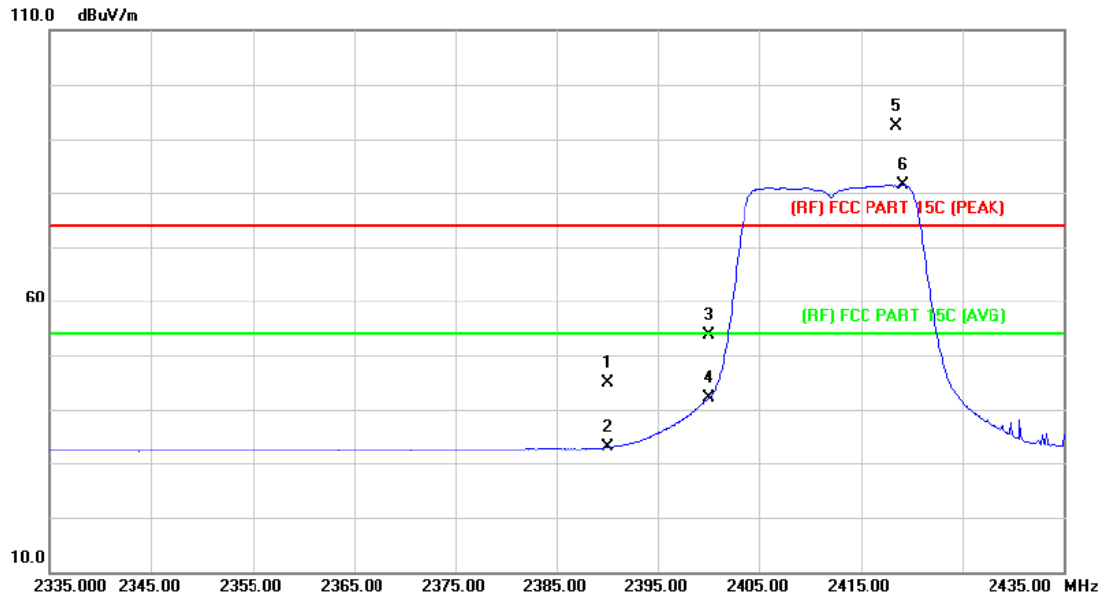
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2461.300	87.94	1.07	89.01	Fundamental Frequency		AVG
2	X	2463.200	92.40	1.08	93.48	Fundamental Frequency		peak
3		2483.500	43.65	1.17	44.82	74.00	-29.18	peak
4		2483.500	32.26	1.17	33.43	54.00	-20.57	AVG

Emission Level= Read Level+ Correct Factor

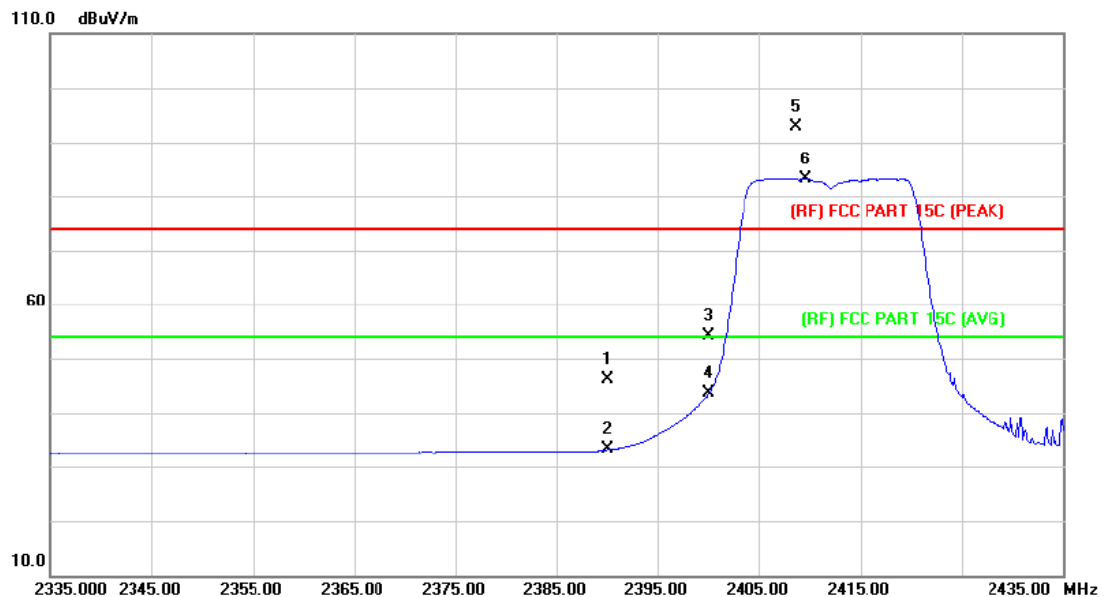
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		2390.000	44.10	0.77	44.87	74.00	-29.13	peak
2		2390.000	32.34	0.77	33.11	54.00	-20.89	AVG
3		2400.000	52.73	0.81	53.54	Fundamental Frequency		peak
4		2400.000	41.26	0.81	42.07	Fundamental Frequency		AVG
5	X	2418.500	91.57	0.89	92.46	74.00	18.46	peak
6	*	2419.200	80.40	0.89	81.29	54.00	27.29	AVG

Emission Level= Read Level+ Correct Factor

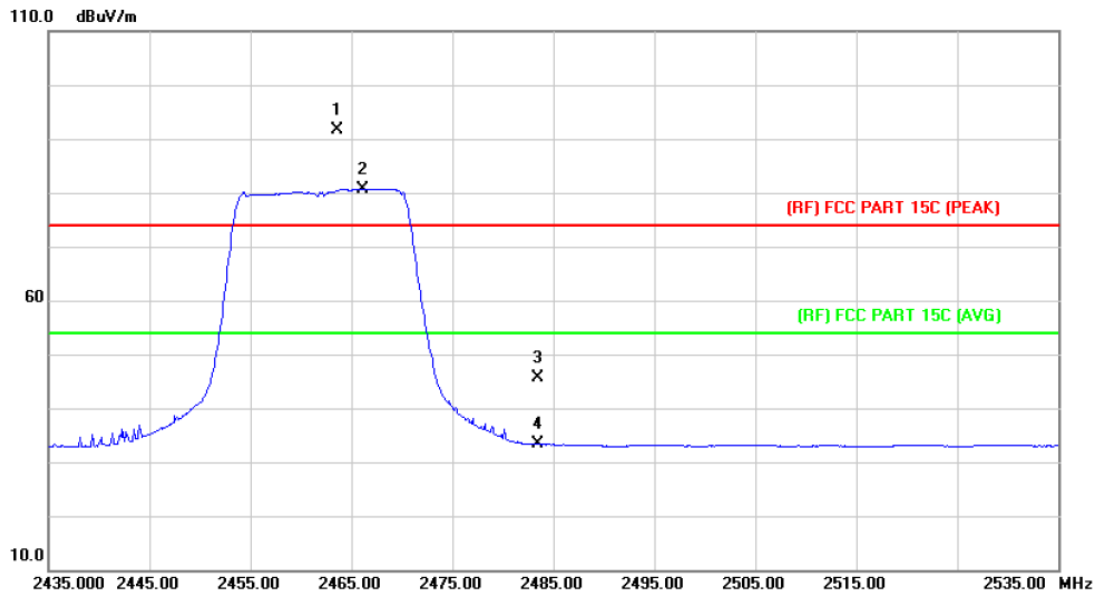
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	45.36	0.77	46.13	74.00	-27.87	peak
2		2390.000	32.50	0.77	33.27	54.00	-20.73	AVG
3		2400.000	53.33	0.81	54.14	Fundamental Frequency		peak
4		2400.000	42.90	0.81	43.71	Fundamental Frequency		AVG
5	X	2408.700	92.02	0.85	92.87	74.00	18.87	peak
6	*	2409.600	82.33	0.85	83.18	54.00	29.18	AVG

Emission Level= Read Level+ Correct Factor

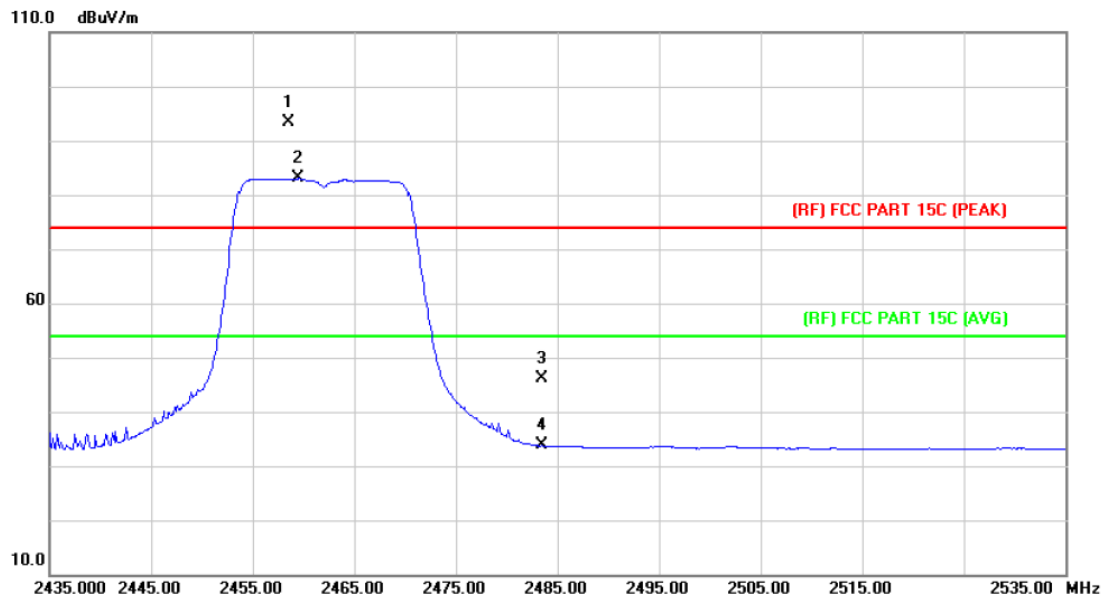
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	X	2463.600	90.43	1.08	91.51	Fundamental Frequency		peak
2	*	2466.100	79.63	1.09	80.72	Fundamental Frequency		AVG
3		2483.500	44.54	1.17	45.71	74.00	-28.29	peak
4		2483.500	32.10	1.17	33.27	54.00	-20.73	AVG

Emission Level= Read Level+ Correct Factor

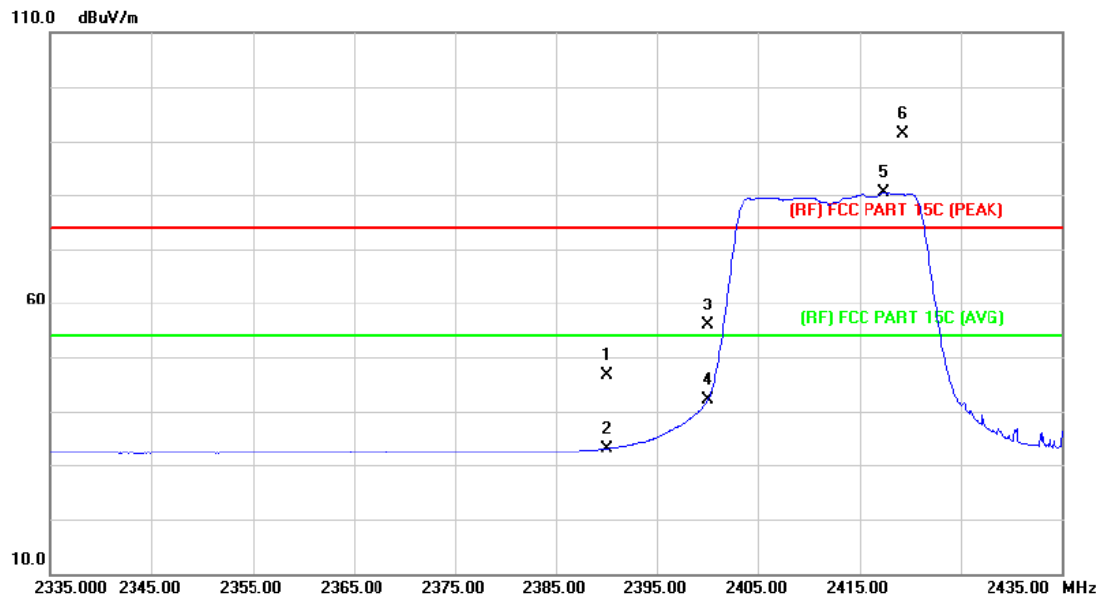
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2458.600	92.36	1.06	93.42	Fundamental Frequency		peak
2	*	2459.500	81.95	1.06	83.01	Fundamental Frequency		AVG
3		2483.500	44.96	1.17	46.13	74.00	-27.87	peak
4		2483.500	32.60	1.17	33.77	54.00	-20.23	AVG

Emission Level= Read Level+ Correct Factor

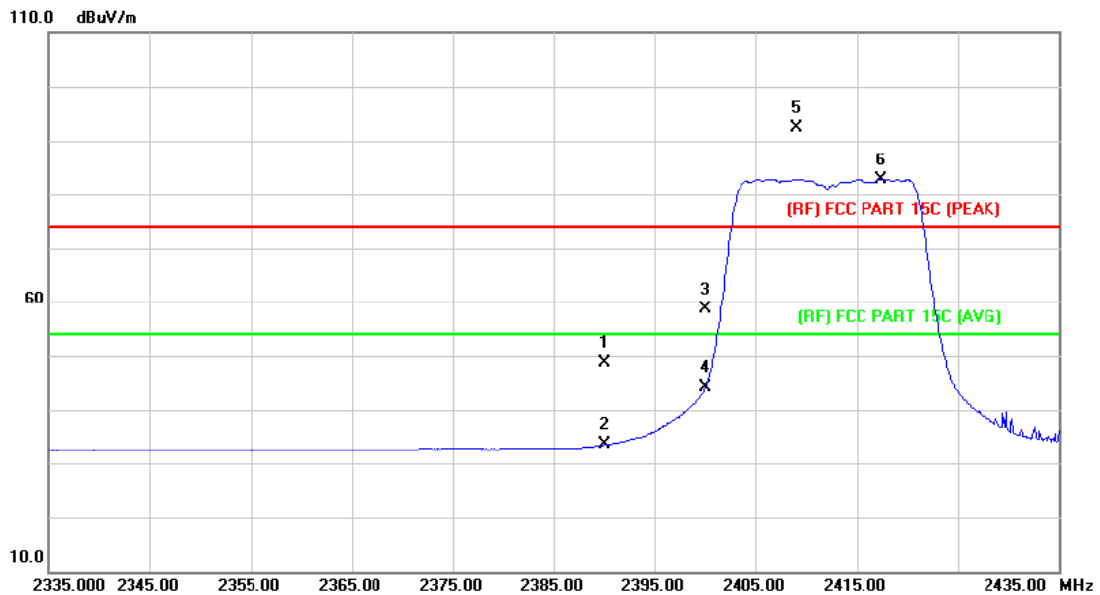
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		2390.000	45.74	0.77	46.51	74.00	-27.49	peak
2		2390.000	32.42	0.77	33.19	54.00	-20.81	AVG
3		2400.000	55.06	0.81	55.87	Fundamental Frequency		peak
4		2400.000	41.33	0.81	42.14	Fundamental Frequency		AVG
5	*	2417.400	79.39	0.89	80.28	54.00	26.28	AVG
6	X	2419.300	90.54	0.89	91.43	74.00	17.43	peak

Emission Level= Read Level+ Correct Factor

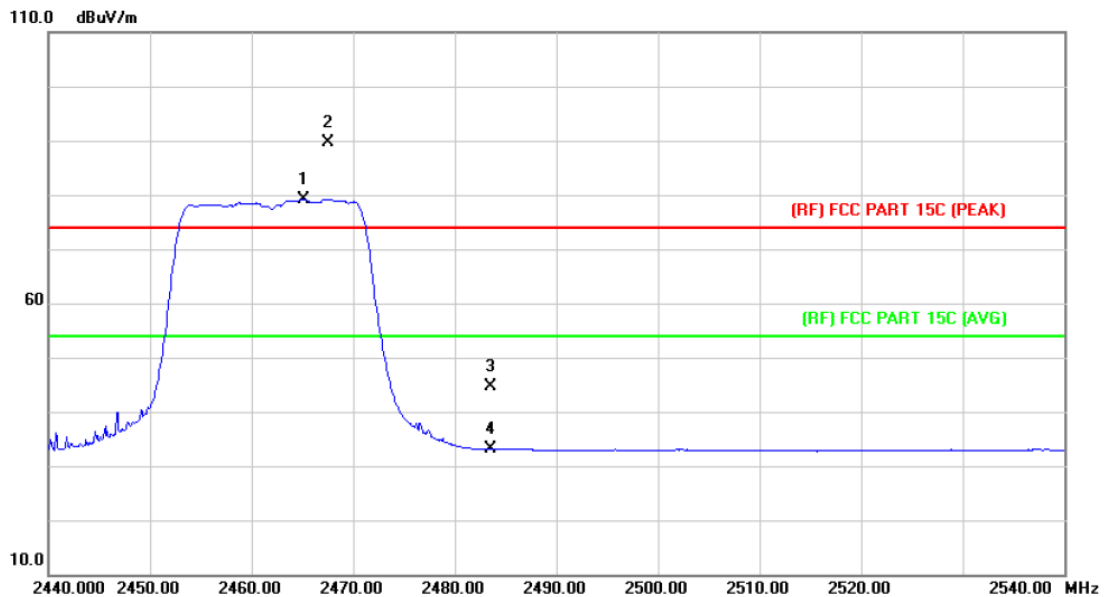
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT20) Mode 2412MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		2390.000	47.85	0.77	48.62	74.00	-25.38	peak
2		2390.000	32.75	0.77	33.52	54.00	-20.48	AVG
3		2400.000	57.80	0.81	58.61	Fundamental Frequency		peak
4		2400.000	43.38	0.81	44.19	Fundamental Frequency		AVG
5	X	2409.100	91.60	0.85	92.45	74.00	18.45	peak
6	*	2417.400	81.83	0.89	82.72	54.00	28.72	AVG

Emission Level= Read Level+ Correct Factor

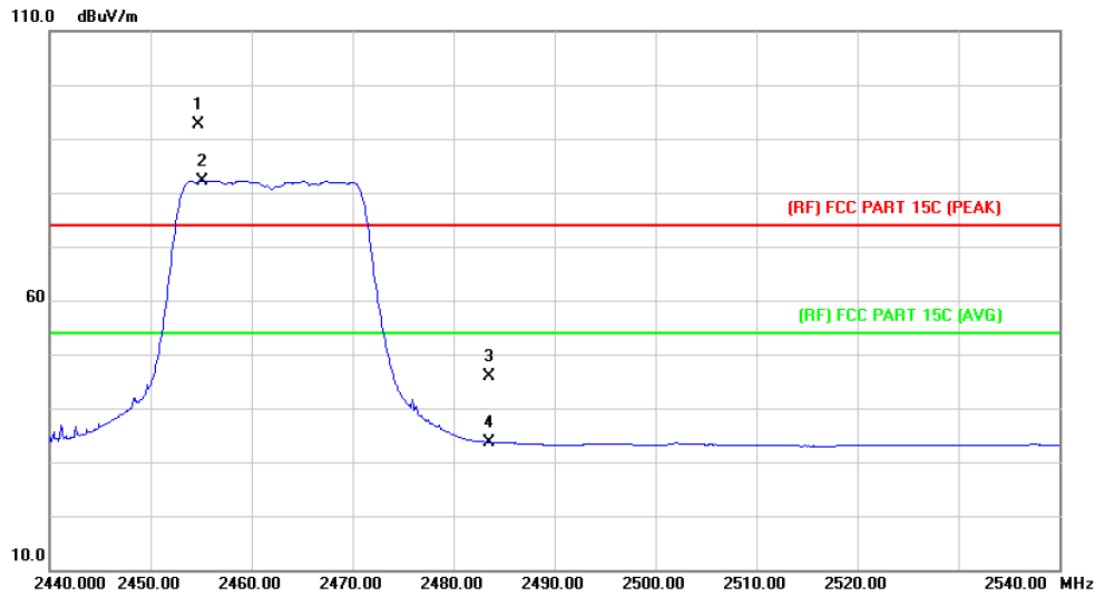
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	*	2465.100	78.05	1.09	79.14	Fundamental Frequency		AVG
2	X	2467.500	88.54	1.10	89.64	Fundamental Frequency		peak
3		2483.500	43.40	1.17	44.57	74.00	-29.43	peak
4		2483.500	31.93	1.17	33.10	54.00	-20.90	AVG

Emission Level= Read Level+ Correct Factor

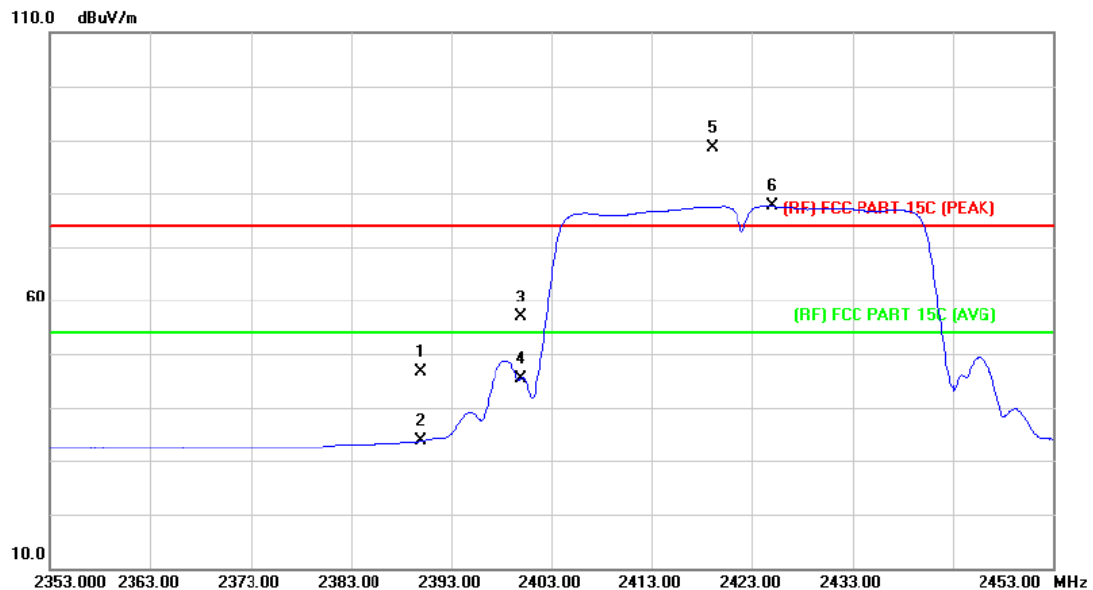
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT20) Mode 2462MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2454.700	91.56	1.05	92.61	Fundamental Frequency		peak
2	*	2455.100	81.15	1.05	82.20	Fundamental Frequency		AVG
3		2483.500	44.70	1.17	45.87	74.00	-28.13	peak
4		2483.500	32.48	1.17	33.65	54.00	-20.35	AVG

Emission Level= Read Level+ Correct Factor

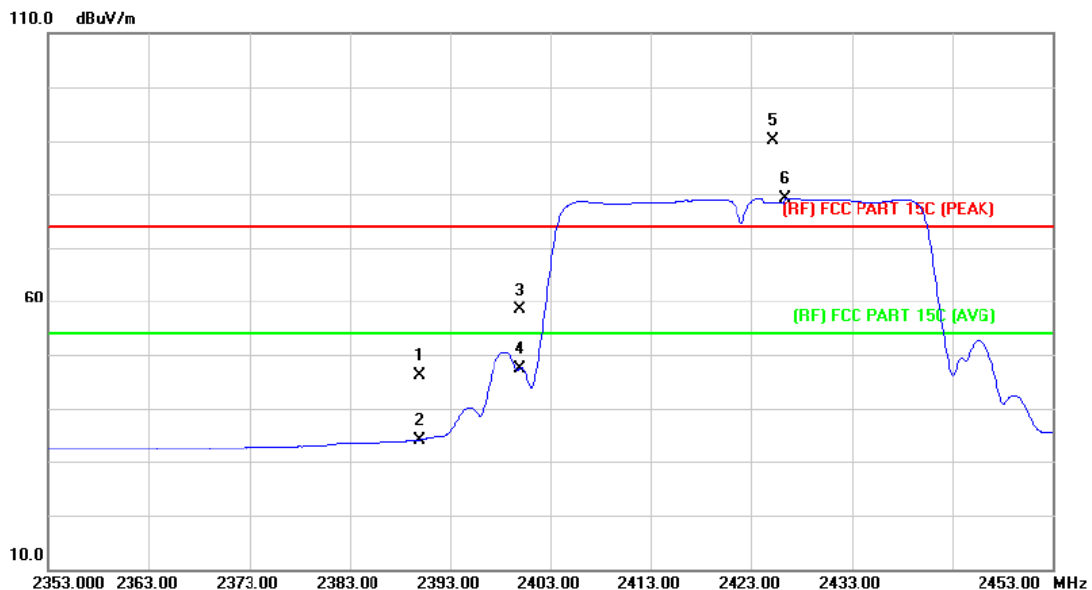
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT40) Mode 2422MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB Detector
1		2390.000	45.98	0.77	46.75	74.00	-27.25 peak
2		2390.000	33.04	0.77	33.81	54.00	-20.19 AVG
3		2400.000	55.96	0.81	56.77	Fundamental Frequency peak	
4		2400.000	44.65	0.81	45.46	Fundamental Frequency AVG	
5	X	2419.100	87.68	0.89	88.57	74.00	14.57 peak
6	*	2425.000	76.60	0.93	77.53	54.00	23.53 AVG

Emission Level= Read Level+ Correct Factor

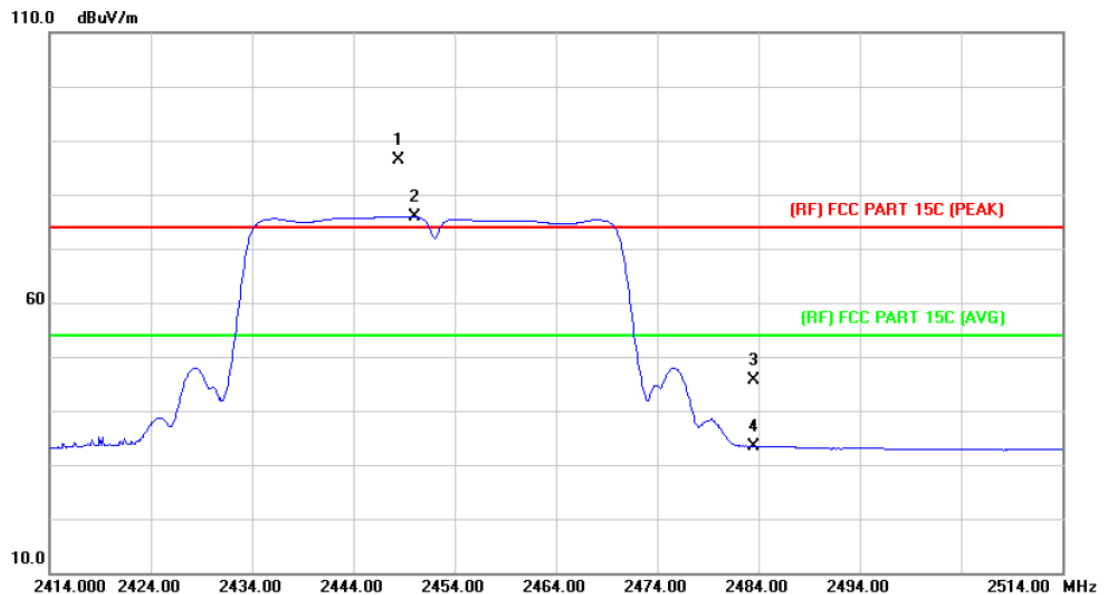
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT40) Mode 2422MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		2390.000	45.36	0.77	46.13	74.00	-27.87	peak
2		2390.000	33.44	0.77	34.21	54.00	-19.79	AVG
3		2400.000	57.56	0.81	58.37	Fundamental Frequency		peak
4		2400.000	46.66	0.81	47.47	Fundamental Frequency		AVG
5	X	2425.200	89.22	0.93	90.15	74.00	16.15	peak
6	*	2426.400	78.32	0.93	79.25	54.00	25.25	AVG

Emission Level= Read Level+ Correct Factor

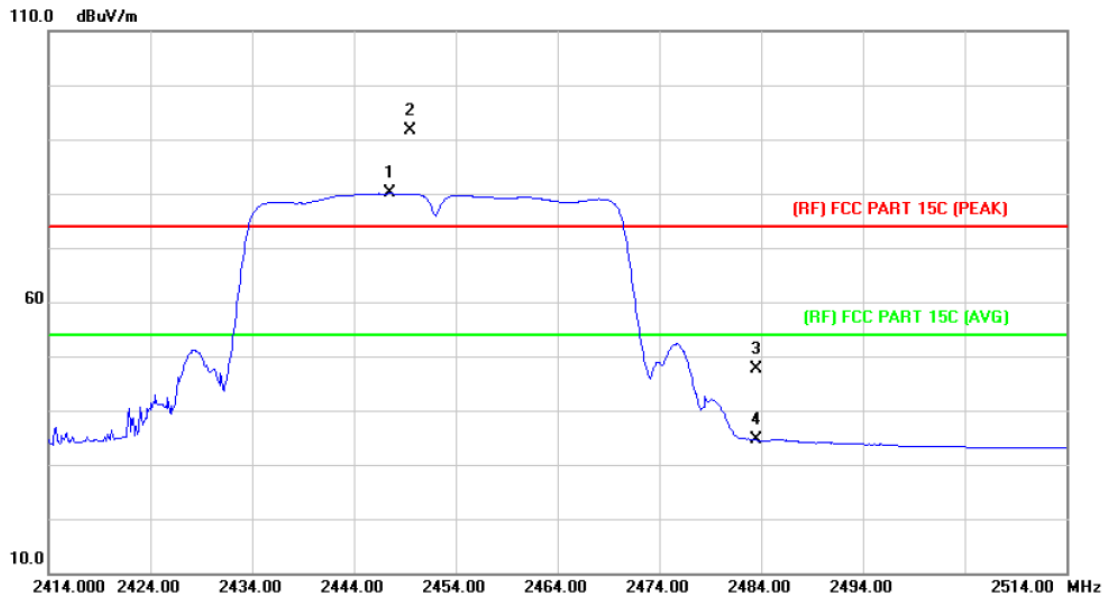
EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT40) Mode 2452MHz		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	X	2448.500	85.45	1.02	86.47	Fundamental Frequency		peak
2	*	2450.000	74.86	1.02	75.88	Fundamental Frequency		AVG
3		2483.500	44.44	1.17	45.61	74.00	-28.39	peak
4		2483.500	32.24	1.17	33.41	54.00	-20.59	AVG

Emission Level= Read Level+ Correct Factor

EUT:	MID	Model:	MID8001-IB
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	TX N(HT40) Mode 2452MHz		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2447.500	79.01	1.01	80.02	Fundamental Frequency		AVG
2	X	2449.500	90.55	1.02	91.57	Fundamental Frequency		peak
3		2483.500	46.44	1.17	47.61	74.00	-26.39	peak
4		2483.500	33.37	1.17	34.54	54.00	-19.46	AVG

Emission Level= Read Level+ Correct Factor

7. Antenna Requirement

7.1 Standard Requirement

7.1.1 Standard

FCC Part 15.203

7.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

7.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 0dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

The EUT antenna is a FPC Antenna. It complies with the standard requirement.

Antenna Type
☒ Permanent attached antenna
☐ Unique connector antenna
☐ Professional installation antenna