FCC TEST REPORT

for

47 CFR, Part 15, Subpart C

Equipment : ME-103 WIRELESS ACCESS POINT WITH ANTENNA AND CABLES

Model No. : Please see section 1.4 of this test report

FCC ID. : PY3ME103

Filing Type : Certification

Applicant : **NETGEAR Inc.**
4500 Great America Parkway, Santa Clara, CA 95054, USA

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**

SPORTON International Inc.
6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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History of this test report

Original Report Issue Date: Aug. 12, 2003

■ No additional attachment.

□ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

Certificate No. : F341403-01

CERTIFICATE OF COMPLIANCE

for

47 CFR, Part 15, Subpart C

Equipment : ME-103 WIRELESS ACCESS POINT WITH ANTENNA AND CABLES

Model No. : Please see section 1.4 of this test report

FCC ID. : PY3ME103

Filing Type : Certification

Applicant : **NETGEAR Inc.**
4500 Great America Parkway, Santa Clara, CA 95054, USA

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 1992** and the equipment under test was ***passed*** all test items required in FCC Part 15 subpart C, relative to the equipment under test. Testing was carried out on Jul. 15, 2003 at **SPORTON International Inc.** LAB.

Alex Chun Aug. 12, 2003

Alex Chun
Manager

SPORTON International Inc.
6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1. General Description of Equipment under Test

1.1. Applicant

NETGEAR Inc.
4500 Great America Parkway, Santa Clara, CA 95054, USA

1.2. Manufacturer

SERCOMM CORPORATION
10th FL., NO. 19-13, SANGCHUNG RD., NANKANG, TAIPEI CITY, TAIWAN 115, R.O.C.

1.3. Basic Description of Equipment under Test

Equipment	: ME-103 WIRELESS ACCESS POINT WITH ANTENNA AND CABLES
FCC ID.	: PY3ME103
Trade Name	: NETGEAR
TP Cable	: Non-Shielded, 1.5m
Power Supply Type	: Switching
AC Power Input	: Wall-Mount, 2pin
DC Power Cable	: Shielded, 1.8m

1.4. Model No.

1. ANT24P2 2dBi Dipole Antenna & ME103
2. ANT24P5 5dBi Dipole Antenna & ME103
3. ANT24P7 7dBi Dipole Antenna & ME103
4. ANT24P9 9dBi Dipole Antenna & ACC-10314-01/02/03/04 RF Cable & ME103
5. ANT2405 5dBi Ceiling Antenna & ACC-10314-01/02/03/04 RF Cable & ME103
6. ANT24S5 5dBi Style Patch Antenna & ACC-10314-01/02/03/04 RF Cable & ME103
7. ANT24S4 4dBi Style Triband Antenna & ACC-10314-01/02/03/04 RF Cable & ME103
8. ANT24D12 12dBi Patch Antenna & ACC-10314-01/02/03/04 RF Cable & ME103
9. ANT24D18 NA 18dBi Patch Antenna with N(F) jack & ACC-10314-01/02/03/04 RF Cable & ME103

1.5. Feature of Equipment under Test

	Description	Comments
Chipset	TI ACX100	Mac + BB
Power	12V DC/5V DC	Must interoperate with POE101
Ethernet port	Single 10/100, RJ45	Auto-MDIX
Wireless	802.11b	2.4GHz, 11 Mbps
Antennae	2x2dBi detachable Dipole Antenna 2x5dBi detachable Dipole Antenna 2x4dBi detachable Style Triband Antenna 2x5dBi detachable Ceiling Antenna 2x7dBi detachable Dipole Antenna 2x9dBi detachable GP Antenna 2x5dBi detachable Style Patch Antenna 2x12dBi detachable Patch Antenna 2x18dBi detachable Patch Antenna	Antenna Type: Reverse SMA
Ext. Antenna(e) Average gain	Min.+1dBi (+3dBi desired)	mounted with the housing, if applicable
Ext. Antenna(e) Average gain	Min.+2dBi (+5dBi desired)	
Maximum Output Power	18dBm	
Adapter	NETGEAR / PWR-012-101	

2. Test Configuration of Equipment under Test

2.1. Test Manner

a. The EUT has been associated with notebook and peripherals pursuant to ANSI C63.4-1992 and configuration operated in a manner, which tended to maximize its emission characteristics in a typical application.

b. The complete test system included COMPAQ Notebook, VIEWSONIC Monitor, LOGITECH PS/2 Keyboard, LOGITECH USB Mouse, EPSON Printer and EUT for EMI test.

c. The following modes were pretested for conduction test:

Mode 1. CH01(2412MHz)
Mode 2. CH06(2437MHz)
Mode 3. CH11(2462MHz)

d. The EUT equipped five types of antenna, the following modes were pretested for radiation test:

1. ANT24P2 2dBi Dipole Antenna & ME103
2. ANT24P5 5dBi Dipole Antenna & ME103
3. ANT24P7 7dBi Dipole Antenna & ME103
4. ANT24P9 9dBi Dipole Antenna & ACC-10314-01/02/03/04 RF Cables & ME103
5. ANT2405 5dBi Ceiling Antenna & ACC-10314-01/02/03/04 RF Cables & ME103
6. ANT24S5 Style Patch Antenna & ACC-10314-01/02/03/04 RF Cables & ME103
7. ANT24S4 4dBi Style Triband Antenna & ACC-10314-01/02/03/04 RF Cables & ME103
8. ANT24D12 12dBi Patch Antenna & ACC-10314-01/02/03/04 RF Cables & ME103
9. ANT24D18 NA 18dBi Patch Antenna with N(F) jack & ACC-10314-01/02/03/04 RF Cables & ME103

cause “4dBi, 5dBi, 9dBi and 18dBi antenna gain” generated the worst test result, it was selected to measured the other two channels (one near middle and one near bottom), according to 15.31(m), as following:

Mode 1. CH01(2412MHz), antenna: 4dBi Triband
Mode 2. CH06(2437MHz), antenna: 4dB Triband
Mode 3. CH11(2462MHz), antenna: 4dB Triband
Mode 4. CH01(2412MHz), antenna: 5dBi Ceiling
Mode 5. CH06(2437MHz), antenna: 5dBi Ceiling
Mode 6. CH11(2462MHz), antenna: 5dBi Ceiling
Mode 7. CH01(2412MHz), antenna: 9dBi Dipole
Mode 8. CH06(2437MHz), antenna: 9dBi Dipole
Mode 9. CH11(2462MHz), antenna: 9dBi Dipole
Mode 10. CH01(2412MHz), antenna: 18dBi Patch
Mode 11. CH06(2437MHz), antenna: 18dBi Patch
Mode 12. CH11(2462MHz), antenna: 18dBi Patch

b. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 24620MHz.

2.2. Description of Test System

Support Unit 1. – Notebook (COMPAQ)

FCC ID	: N/A
Model No.	: PRESARIO 1500
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0036
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 2. -- Monitor (VIEWSONIC)

FCC ID	: N/A
Model No.	: VCDTS21553-3P
Power Supply Type	: Switching
Power Cord	: Non-Shielded
Serial No.	: SP0051
Data Cable	: Shielded, 1.7m
Remark	: This support device was tested to compy with FCC standards and authorized under a declaration of conformity.

Support Unit 3. -- PS/2 Keyboard (LOGITECH)

FCC ID	: N/A
Model No.	: Y-SJ17
Serial No.	: SP0054
Data Cable	: Shielded, 1.7m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

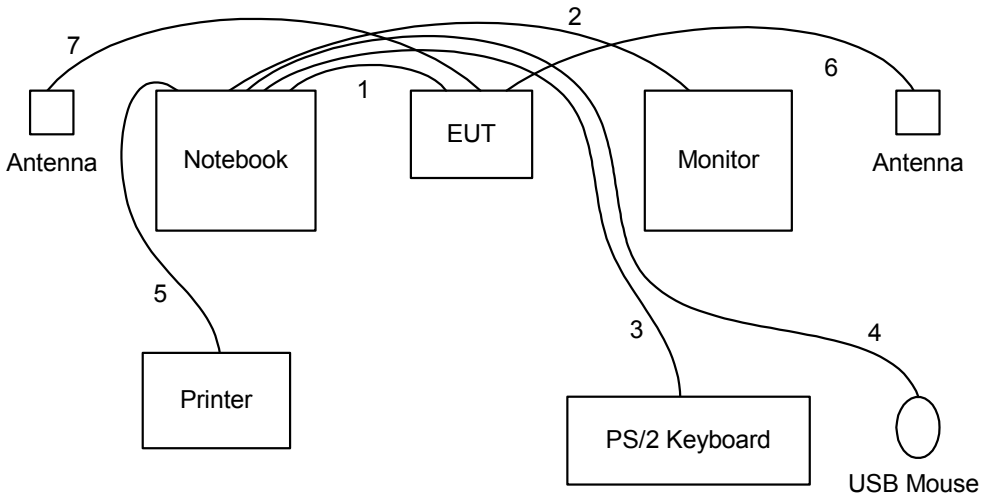
Support Unit 4. -- USB Mouse (LOGITECH)

FCC ID	: N/A
Model No.	: M-BE58
Serial No.	: SP0041
Data Cable	: Shielded, 1.7m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 5. -- Printer (EPSON)

FCC ID	: N/A
Model No.	: STYLUS COLRO 680
Power Supply Type	: Linear
Power Cord	: Non-Shielded
Serial No.	: SP0048
Data Cable	: Shielded, 1.35m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

2.3. Connection Diagram of Test System



1. The TP cable is connected from PC to the EUT.
2. The I/O cable is connected from PC to the support unit 2.
3. The I/O cable is connected from PC to the support unit 3.
4. The I/O cable is connected from PC to the support unit 4.
5. The I/O cable is connected from PC to the support unit 5.
6. The RF coaxial cable is connected from EUT to the Antenna.
7. The RF coaxial cable is connected from EUT to the Antenna.

3. Test Software

An executive program, EMCTEST.EXE under WIN XP, which generates a complete line of continuously repeating " H " pattern was used as the test software.

The program was executed as follows:

a. Turn on the power of all equipment.
b. The PC reads the test program from the hard disk drive and runs it.
c. The PC sends " H" messages to the monitor, and the monitor displays " H " patterns on the screen.
d. The PC sends " H " messages to the printer, then the printer prints them on the paper.
e. The PC sends " H " messages to the internal Hard Disk, and the Hard Disk reads and writes the message.
f. Repeat the steps from c to e.

At the same time, "Win FT" was executed to keep transmitting signals at fixed frequency.

4. General Information of Test

Test Site Location	:	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiag, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
Test Site No	:	CO01-HY, 03CH03-HY

4.1. Test Voltage

110V/60Hz

4.2. Standard for Methods of Measurement

ANSI C63.4-1992

4.3. Test in Compliance with

FCC Part 15, Subpart C 15.247

4.4. Frequency Range Investigated

a. Conduction: from 150 KHz to 30 MHz
b. Radiation: from 30 MHz to 24620MHz

4.5. Test Distance

The test distance of radiated emission from antenna to EUT is 3 M.

5. Report of Measurements and Examinations

5.1. List of Measurements and Examinations

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209	Radiated Emission	Pass
15.247(c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203	Antenna Requirement	Pass
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	Pass

5.2. 6dB Bandwidth

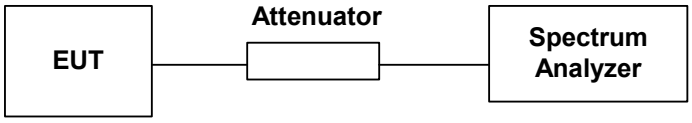
5.2.1. Measuring Instruments☐

As described in chapter 7 of this test report.

5.2.2. Test Procedure☐

1. The transmitter output was connected to the spectrum analyzer through an attenuator.
2. Set RBW of spectrum analyzer to 100KHz and VBW to 100KHz.
3. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

5.2.3. Test Setup Layout☐



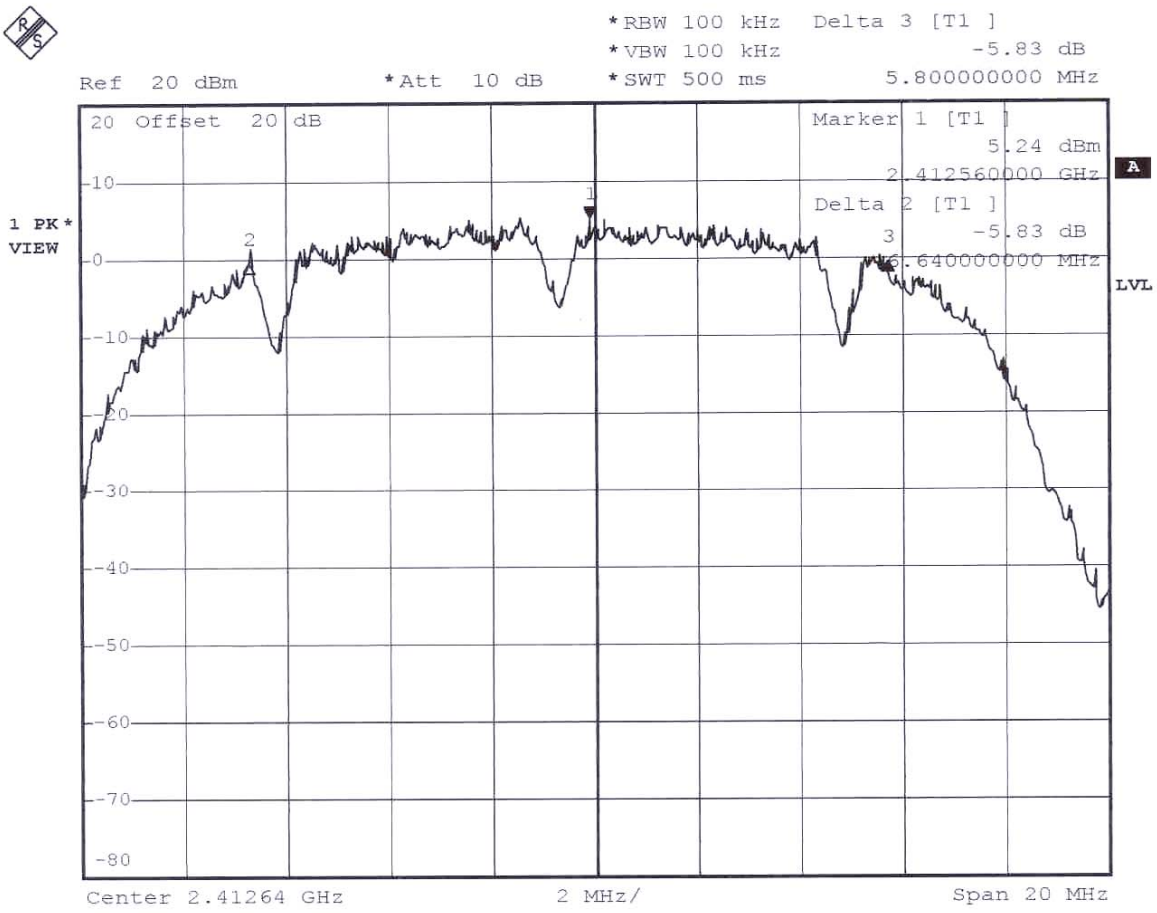
5.2.4. Test Result☐The spectrum analyzer plots are attached as below

- Temperature : 24°C
- Relative Humidity : 62 %

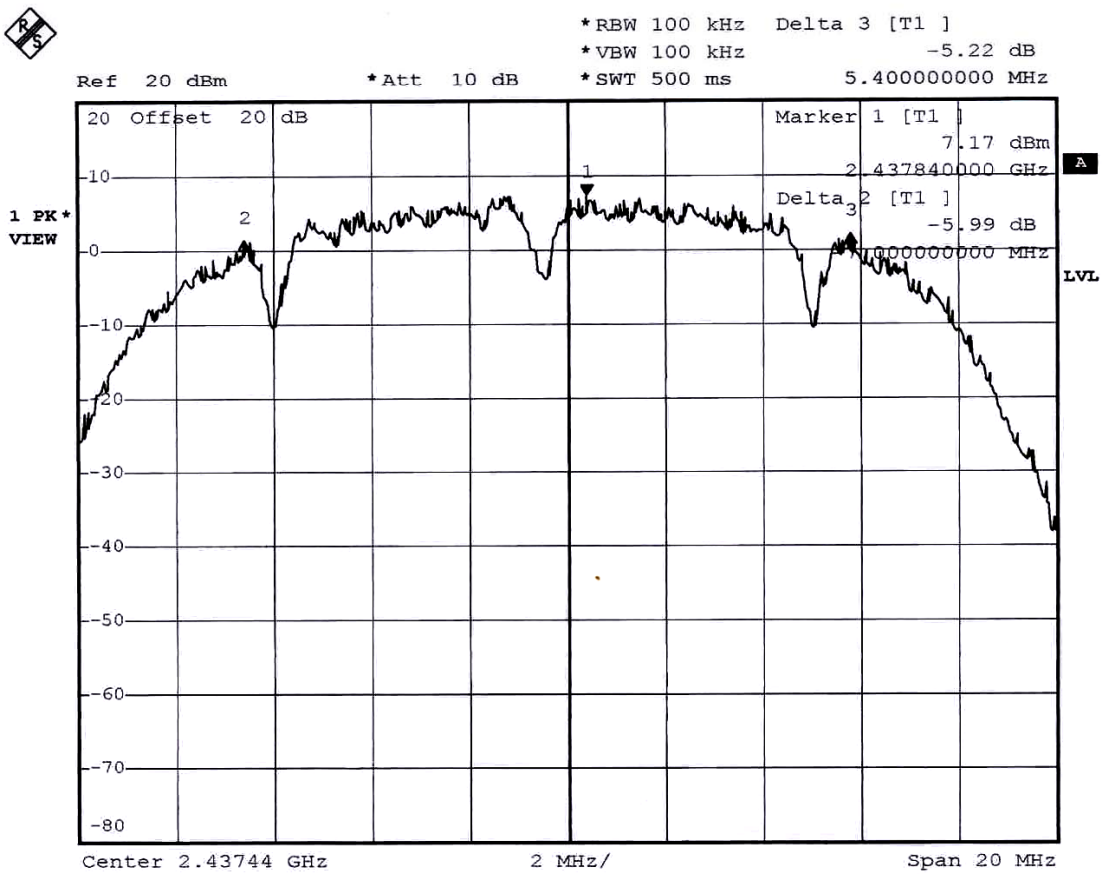
Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
1	2412	12.44	0.5	1
6	2437	12.40	0.5	2
11	2462	10.16	0.5	3

▪

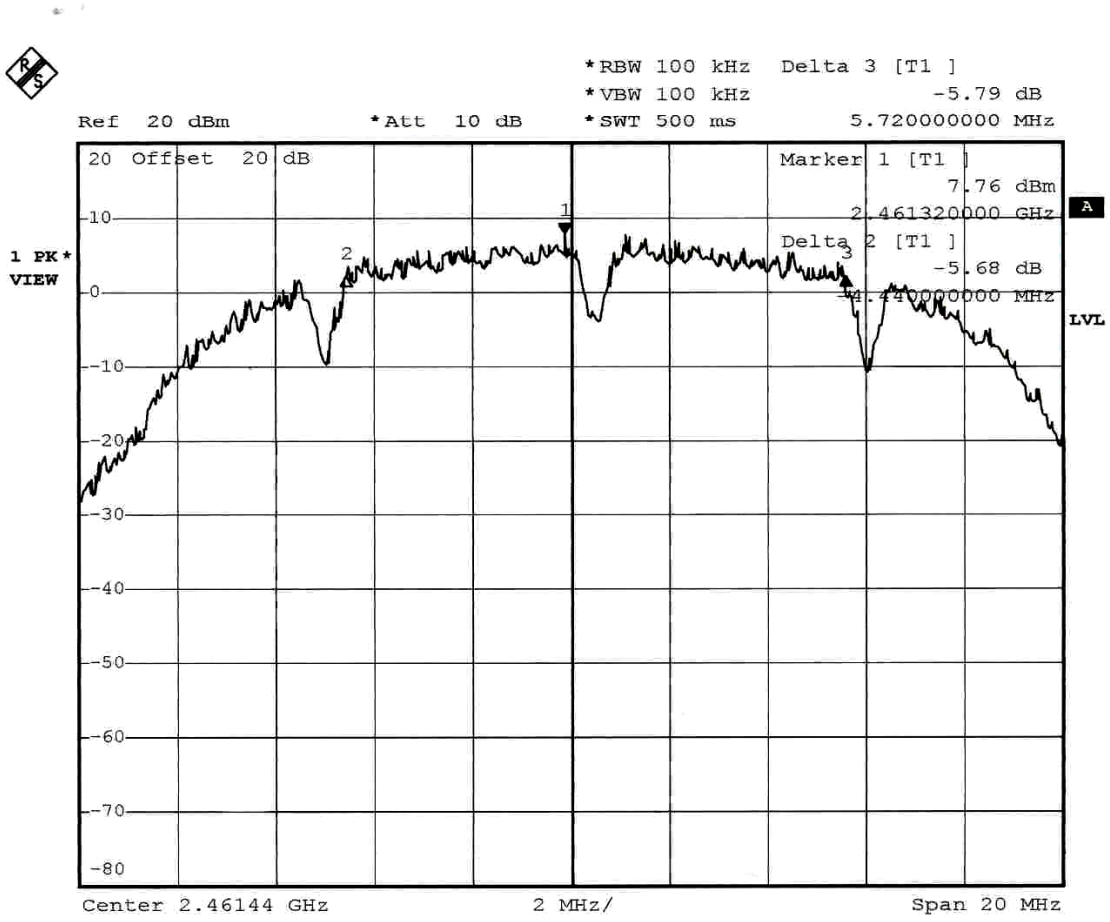
Plot1(Channel 1)



Plot2(Channel 6)



Plot3(Channel 11)



Comments 6dB Emission bandwidth>500kHz

5.3. Peak Output Power

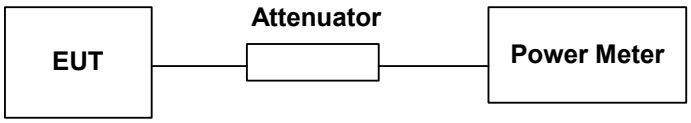
5.3.1. Measuring Instruments□

As described in chapter 7 of this test report.

5.3.2. Test Procedure□

The antenna port□RF output□of the EUT was connected to the input□RF input□of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

5.3.3. Test Setup Layout□



5.3.4. Test Result□See spectrum analyzer plots below

- Temperature : 26°C
- Relative Humidity : 62 %
- Antenna Gain: 4 dBi

Channel	Frequency (MHz)	Measured Output Power (mWatt)	Measured Output Power (dBm)	Limits (Watt/dBm)
1	2412	54.20008904	17.34	1W/30 dBm
6	2437	57.2796031	17.58	1W/30 dBm
11	2462	59.42921586	17.74	1W/30 dBm

- Comments□Maximum Peak Output Power < 30dBm (1Watt)

5.4. Power Spectral Density

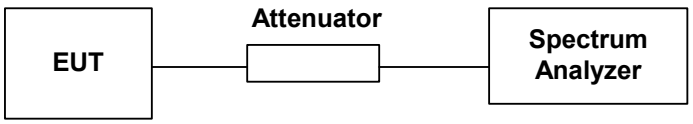
5.4.1. Measuring Instruments☐

As described in chapter 7 of this test report.

5.4.2. Test Procedure☐

1. The transmitter output was connected to spectrum analyzer through an attenuator.
2. The spectrum analyzer's resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=span/3KHz.
3. The power spectral density was measured and recorded.
4. The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

5.4.3. Test Setup Layout□



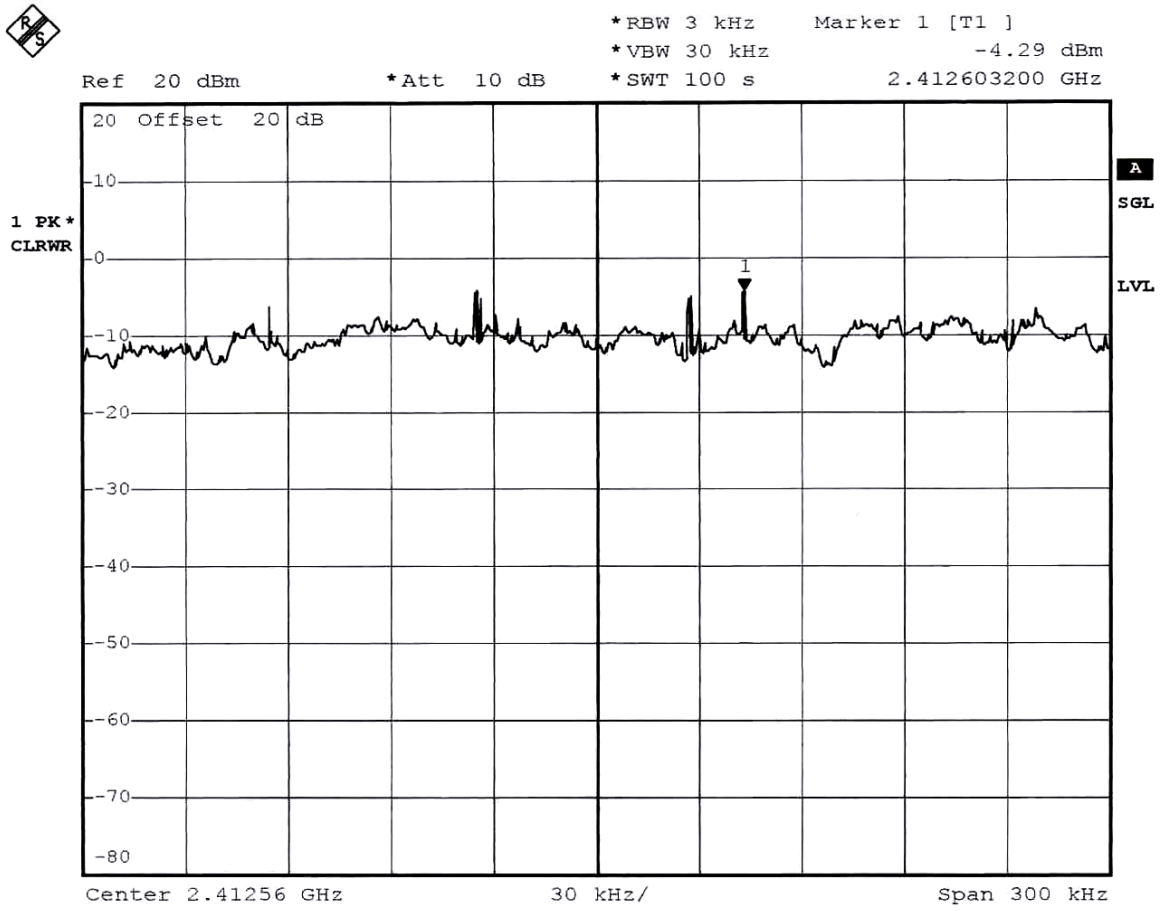
5.4.4. Test Result□See spectrum analyzer plots below

- Temperature : 26°C
- Relative Humidity : 62 %

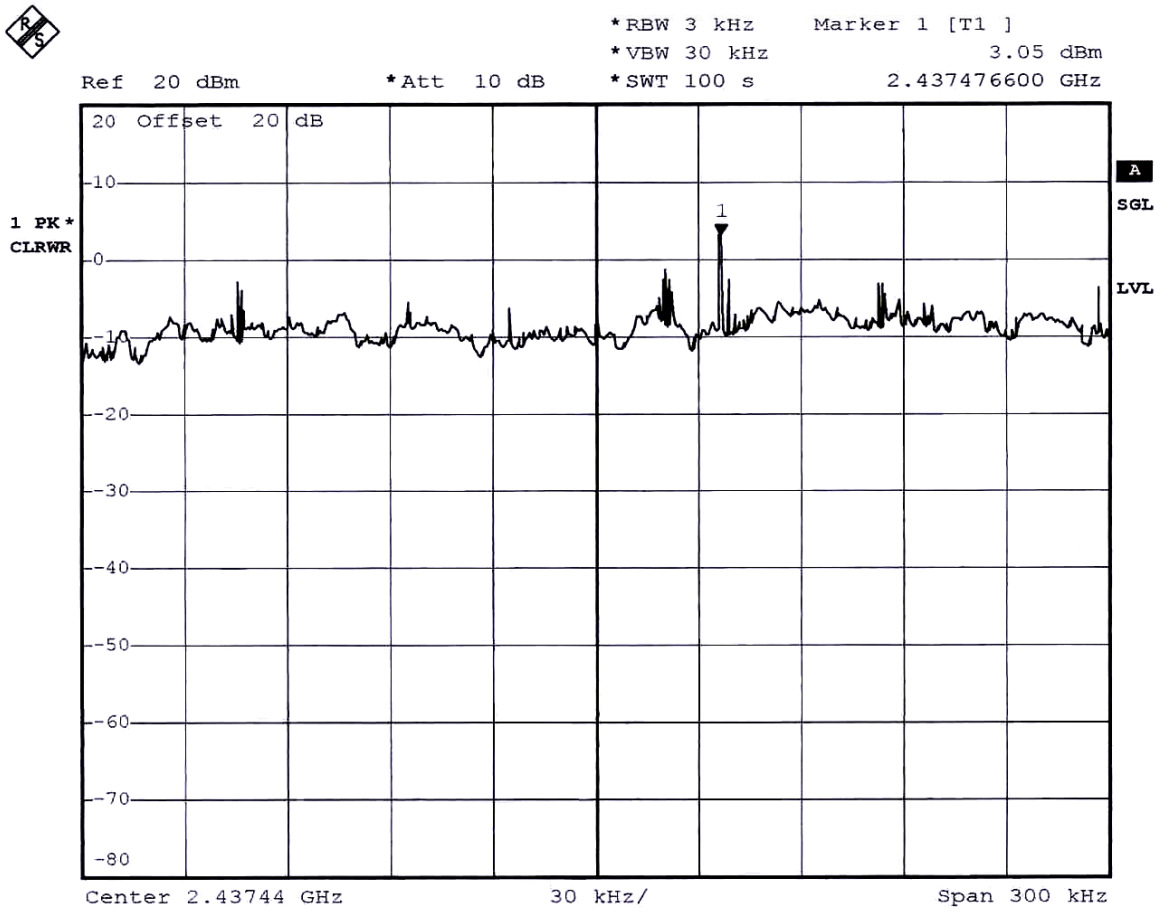
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-4.29	8	1
6	2437	3.05	8	2
11	2462	-2.07	8	3

▪

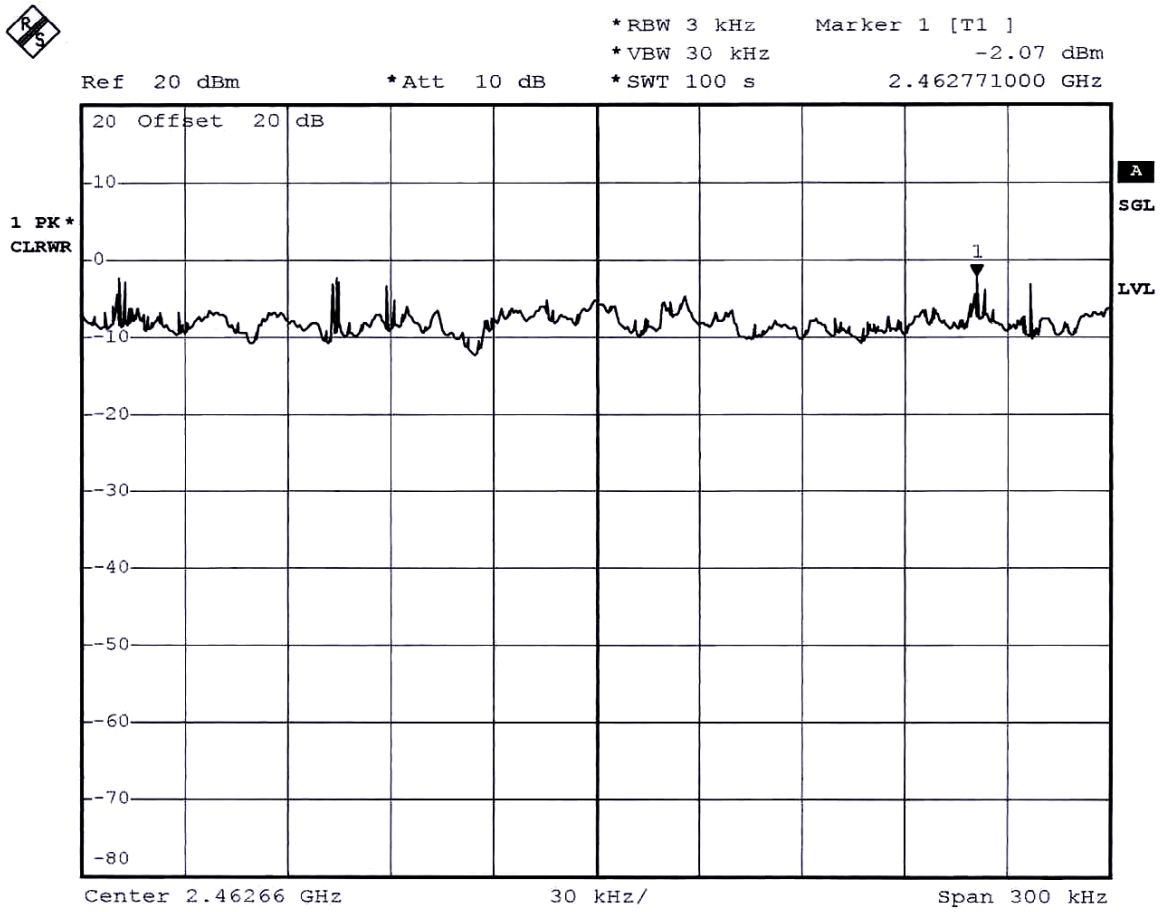
Plot1(Channel 1):



Plot2(Channel 6):



Plot3(Channel 11):



5.5. Test of Conducted Emission

Conducted Emissions were measured from 150 KHz to 30 MHz with a bandwidth of 9 KHz and return leads of the EUT according to the methods defined in ANSI C63.4-1992 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

5.5.1. Major Measuring Instruments☐

• Test Receiver	(R&S ESCS 30)
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

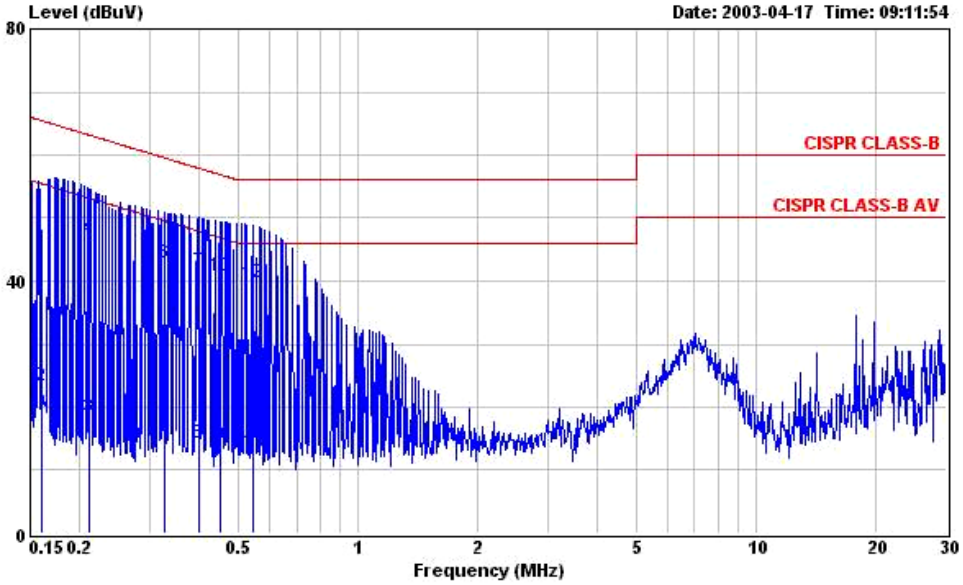
5.5.2. Test Procedures☐

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connect to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 KHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5.5.3. Test Result of Conducted Emission☐

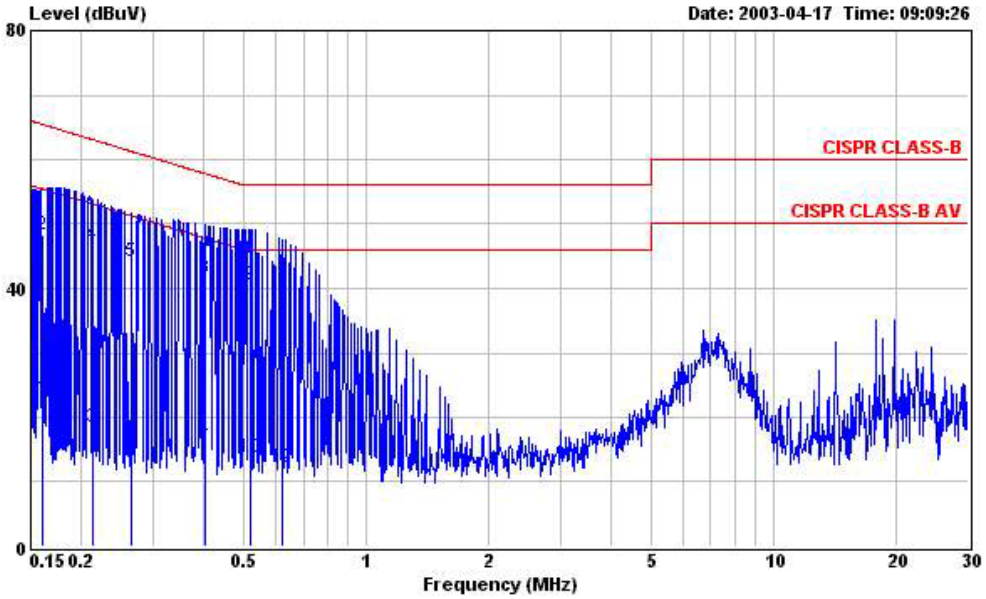
- Test Mode: Mode 1
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 24°C
- Relative Humidity: 60 %

■ The test was passed at the minimum margin that marked by a frame in the following data



Site : C001-HY
Condition : CISPR CLASS-B LISN-L LINE
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 01

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	48.36	-17.06	65.42	48.06	0.10	0.20	QP
2	0.161	23.26	-32.16	55.42	22.96	0.10	0.20	Average
3	0.212	18.52	-34.61	53.13	18.26	0.10	0.16	Average
4	0.212	46.78	-16.35	63.13	46.52	0.10	0.16	QP
5	0.326	15.69	-33.87	49.56	15.42	0.10	0.17	Average
6	0.326	42.83	-16.73	59.56	42.56	0.10	0.17	QP
7	0.400	41.62	-16.23	57.85	41.34	0.10	0.18	QP
8	0.400	14.25	-33.60	47.85	13.97	0.10	0.18	Average
9	0.449	14.03	-32.86	46.89	13.75	0.10	0.18	Average
10	0.449	40.90	-15.99	56.89	40.62	0.10	0.18	QP
11	0.546	12.79	-33.21	46.00	12.51	0.10	0.18	Average
12	0.546	39.72	-16.28	56.00	39.44	0.10	0.18	QP



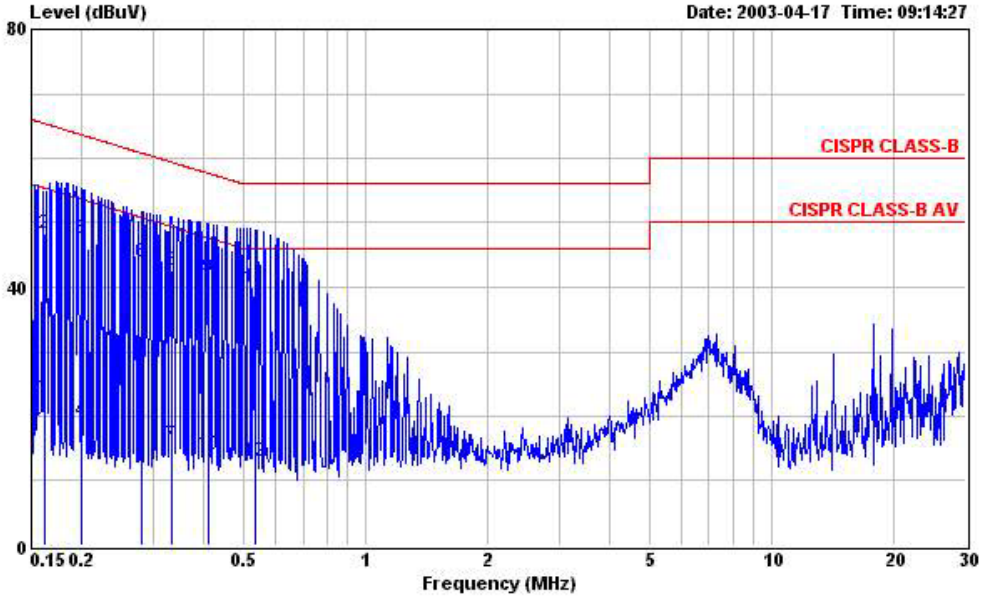
Site : C001-HY
Condition : CISPR CLASS-B LISN-N NEUTRAL
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 01

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	22.93	-32.49	55.42	22.63	0.10	0.20	Average
2	0.161	48.38	-17.04	65.42	48.08	0.10	0.20	QP
3	0.214	18.45	-34.60	53.05	18.19	0.10	0.16	Average
4	0.214	46.64	-16.41	63.05	46.38	0.10	0.16	QP
5	0.266	44.15	-17.09	61.24	43.88	0.10	0.17	QP
6	0.266	16.59	-34.65	51.24	16.32	0.10	0.17	Average
7	0.402	15.22	-32.59	47.81	14.94	0.10	0.18	Average
8	0.402	41.48	-16.33	57.81	41.20	0.10	0.18	QP
9	0.518	40.63	-15.37	56.00	40.35	0.10	0.18	QP
10	0.518	13.69	-32.31	46.00	13.41	0.10	0.18	Average
11	0.624	38.61	-17.39	56.00	38.33	0.10	0.18	QP
12	0.624	12.24	-33.76	46.00	11.96	0.10	0.18	Average

Test Engineer: Jay
Jay Zhong

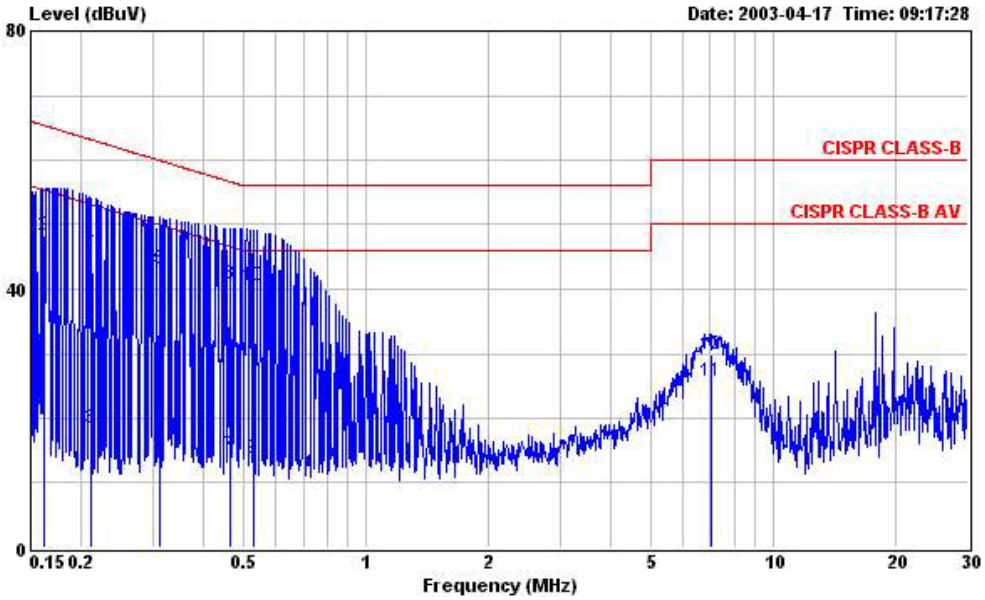
- Test Mode: Mode 2
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 24°C
- Relative Humidity: 60 %

■ **The test was passed at the minimum margin that marked by a frame in the following data**



Site : CO01-HY
Condition : CISPR CLASS-B LISN-L LINE
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 06

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.162	23.17	-32.21	55.38	22.87	0.10	0.20	Average
2	0.162	48.39	-16.99	65.38	48.09	0.10	0.20	QP
3	0.200	47.58	-16.03	63.61	47.32	0.10	0.16	QP
4	0.200	19.20	-34.41	53.61	18.94	0.10	0.16	Average
5	0.280	15.99	-34.83	50.82	15.72	0.10	0.17	Average
6	0.280	43.77	-17.05	60.82	43.50	0.10	0.17	QP
7	0.334	15.68	-33.67	49.35	15.41	0.10	0.17	Average
8	0.334	42.70	-16.65	59.35	42.43	0.10	0.17	QP
9	0.408	41.49	-16.20	57.69	41.21	0.10	0.18	QP
10	0.408	14.13	-33.56	47.69	13.85	0.10	0.18	Average
11	0.532	39.96	-16.04	56.00	39.68	0.10	0.18	QP
12	0.532	12.97	-33.03	46.00	12.69	0.10	0.18	Average



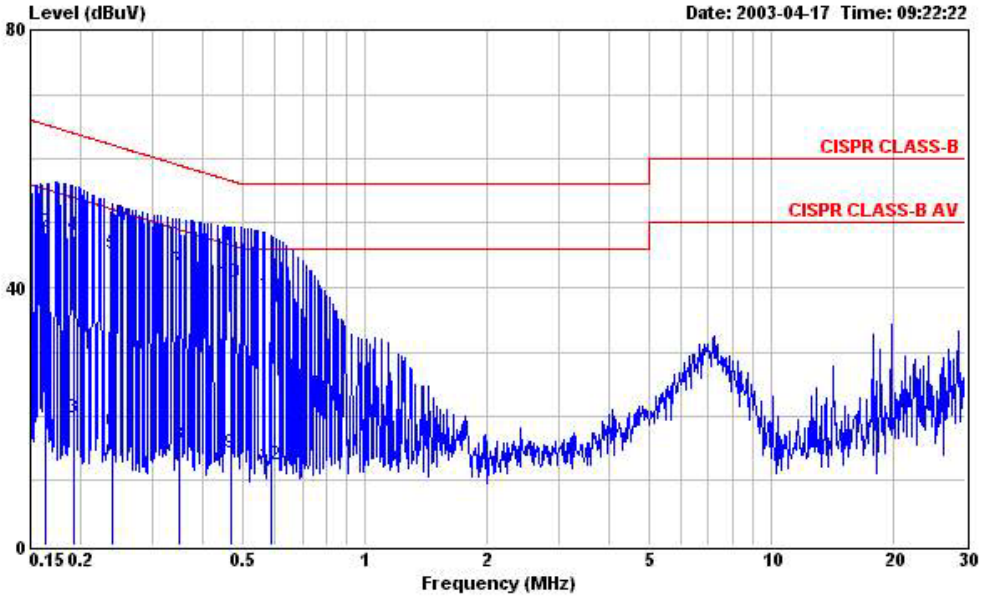
Site : C001-HY
Condition : CISPR CLASS-B LISN-N NEUTRAL
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 06

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.161	22.92	-32.47	55.39	22.62	0.10	0.20	Average
2	0.161	48.43	-16.96	65.39	48.13	0.10	0.20	QP
3	0.212	18.45	-34.68	53.13	18.19	0.10	0.16	Average
4	0.212	46.78	-16.35	63.13	46.52	0.10	0.16	QP
5	0.312	43.04	-16.88	59.92	42.77	0.10	0.17	QP
6	0.312	15.53	-34.39	49.92	15.26	0.10	0.17	Average
7	0.464	14.36	-32.26	46.62	14.08	0.10	0.18	Average
8	0.464	40.88	-15.74	56.62	40.60	0.10	0.18	QP
9	0.528	13.74	-32.26	46.00	13.46	0.10	0.18	Average
10	0.528	40.61	-15.39	56.00	40.33	0.10	0.18	QP
11	7.060	25.80	-24.20	50.00	25.44	0.20	0.16	Average
12	7.060	29.95	-30.05	60.00	29.59	0.20	0.16	QP

Test Engineer: Jay
Jay Zhong

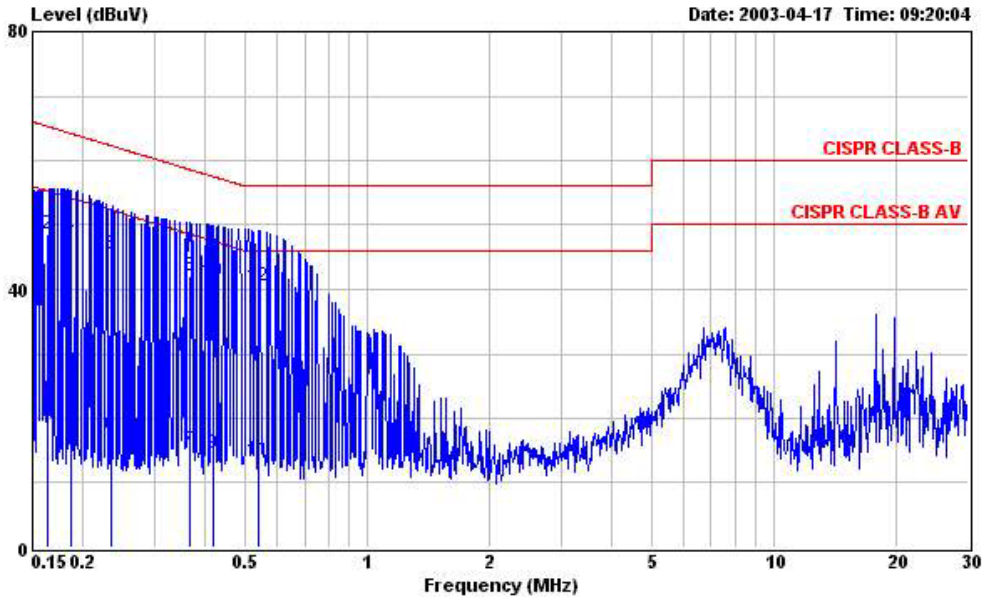
- Test Mode: Mode 3
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 24°C
- Relative Humidity: 60 %

■ **The test was passed at the minimum margin that marked by a frame in the following data**



Site : COO1-HY
Condition : CISPR CLASS-B LISN-L LINE
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 11

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.164	22.83	-32.44	55.27	22.53	0.10	0.20	Average
2	0.164	48.47	-16.80	65.27	48.17	0.10	0.20	QP
3	0.192	19.71	-34.23	53.94	19.44	0.10	0.17	Average
4	0.192	48.05	-15.89	63.94	47.78	0.10	0.17	QP
5	0.239	45.24	-16.89	62.13	44.97	0.10	0.17	QP
6	0.239	17.57	-34.56	52.13	17.30	0.10	0.17	Average
7	0.348	42.48	-16.53	59.01	42.20	0.10	0.18	QP
8	0.348	15.50	-33.51	49.01	15.22	0.10	0.18	Average
9	0.469	14.36	-32.17	46.53	14.08	0.10	0.18	Average
10	0.469	40.66	-15.87	56.53	40.38	0.10	0.18	QP
11	0.585	38.89	-17.11	56.00	38.61	0.10	0.18	QP
12	0.585	12.40	-33.60	46.00	12.12	0.10	0.18	Average



Site : C001-HY
Condition : CISPR CLASS-B LISN-N NEUTRAL
EUT : WIRELESS 2.4G AP
Power : 110V/60Hz
Memo : ME-103
Memo : TX CH 11

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.163	22.83	-32.49	55.32	22.53	0.10	0.20	Average
2	0.163	48.45	-16.87	65.32	48.15	0.10	0.20	QP
3	0.187	20.00	-34.18	54.18	19.73	0.10	0.17	Average
4	0.187	48.32	-15.86	64.18	48.05	0.10	0.17	QP
5	0.235	45.41	-16.86	62.27	45.15	0.10	0.16	QP
6	0.235	17.52	-34.75	52.27	17.26	0.10	0.16	Average
7	0.365	15.05	-33.56	48.61	14.77	0.10	0.18	Average
8	0.365	42.11	-16.50	58.61	41.83	0.10	0.18	QP
9	0.419	14.51	-32.96	47.47	14.23	0.10	0.18	Average
10	0.419	41.24	-16.23	57.47	40.96	0.10	0.18	QP
11	0.538	13.60	-32.40	46.00	13.32	0.10	0.18	Average
12	0.538	40.51	-15.49	56.00	40.23	0.10	0.18	QP

Test Engineer: Jay
Jay Zhong

5.6. Test of Radiated Emission

Radiated emissions from 30 MHz to 24.62 GHz were measured according to the methods defines in ANSI C63.4-1992. The EUT was placed on a nonmetallic stand, 0.8 meter above the ground plane, as shown in section 4.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

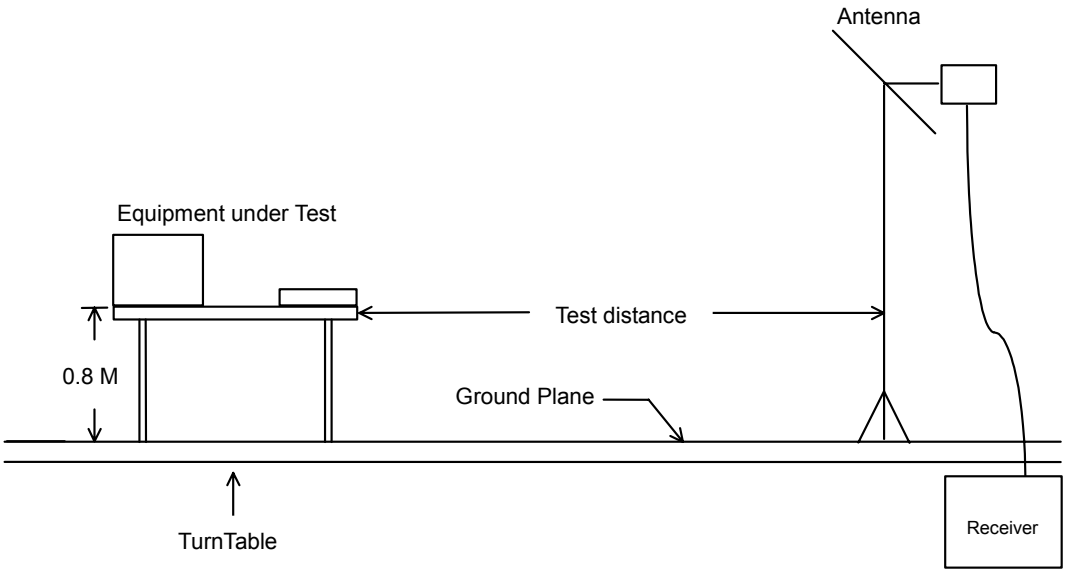
5.6.1. Major Measuring Instruments

● Amplifier	(MITEQ AFS44)
RF Gain	40 dB
Signal Input	100 MHz to 26.5 GHz
● Amplifier	(HP 8447D)
RF Gain	30 dB
Signal Input	100 KHz to 1.3 GHz
● Spectrum analyzer	(R&S FSP40)
Attenuation	10 dB
Start Frequency	1 GHz
Stop Frequency	24 GHz
Resolution Bandwidth	1 MHz
Video Bandwidth	1 MHz
Signal Input	9 KHz to 40 GHz
● Test Receiver	(SCHAFFNER SCR3501)
Resolution Bandwidth	120 KHz
Frequency Band	9 K – 1 GHz
Quasi-Peak Detector	ON for Quasi-Peak Mode
	OFF for Peak Mode

5.6.2. Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
5. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.6.3. Typical Test Setup Layout of Radiated Emission

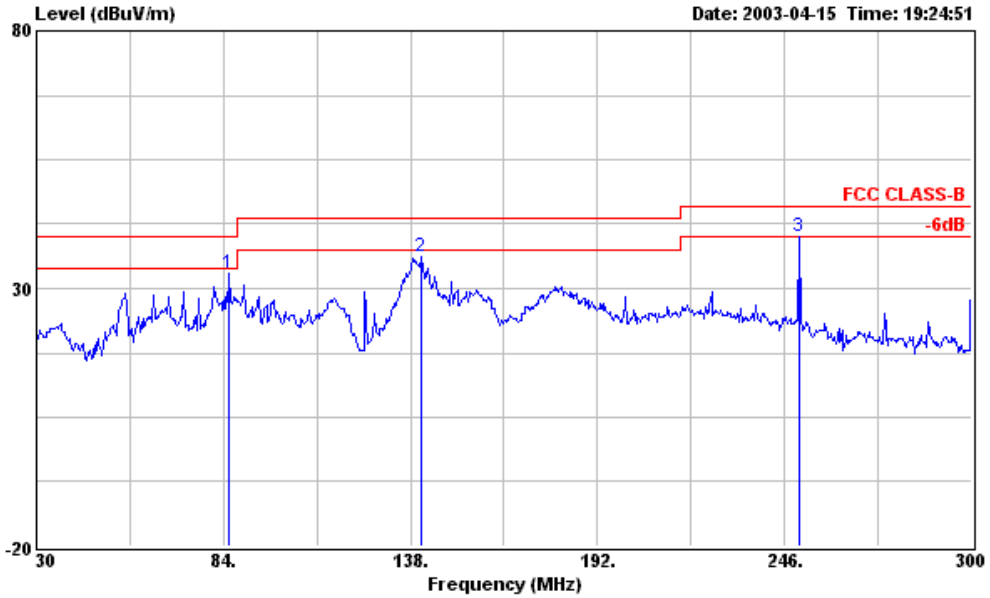


5.6.4. Test Result of Radiated Emission

- Test Mode: Mode 1
- Test Distance: 3 M
- Temperature: 26 °C
- Relative Humidity: 62 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

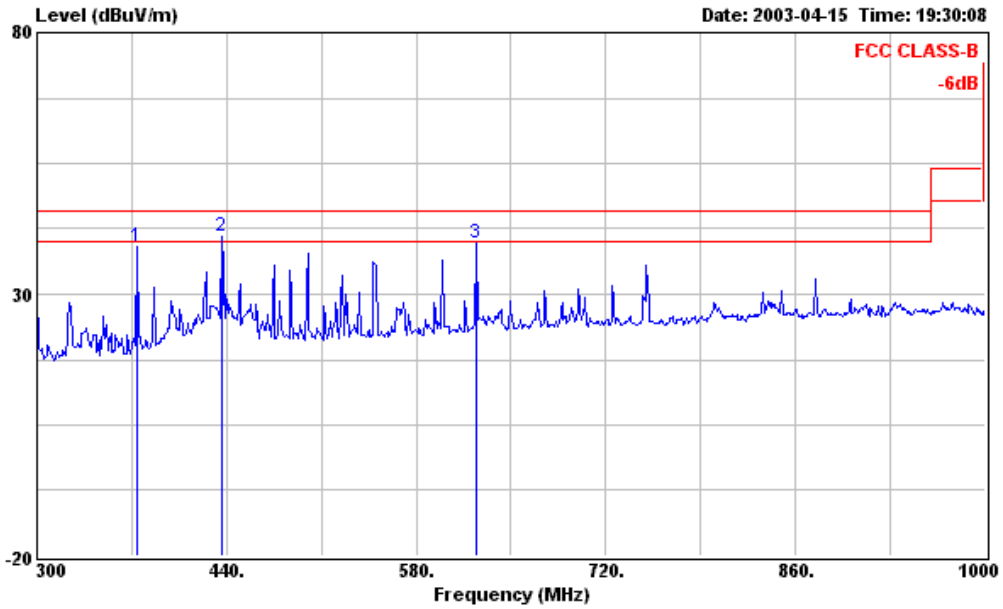
■ **The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission



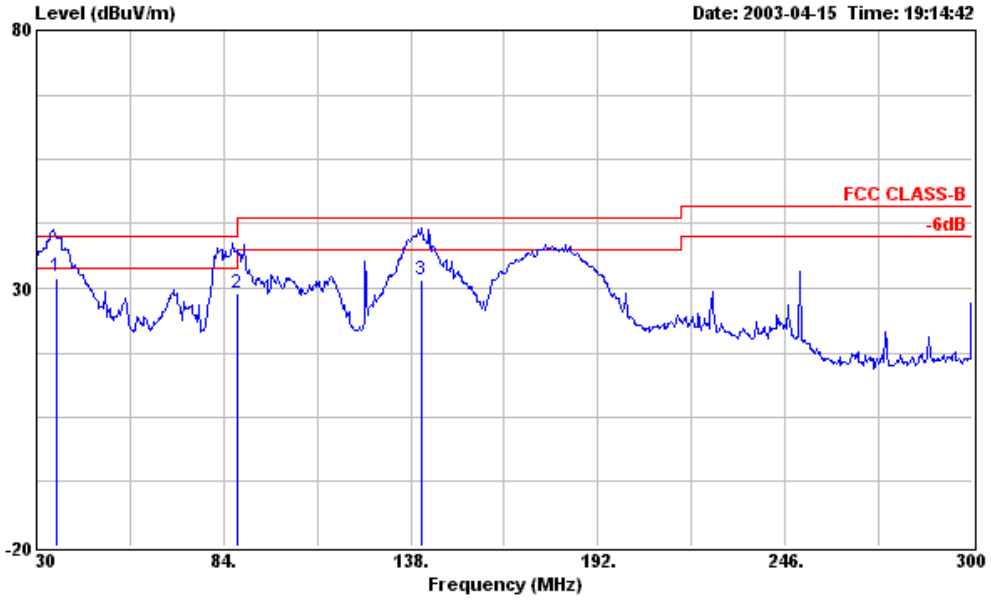

```
Site       : 03CH03-HY
Condition  : 3m 03CH03-MAT HORIZONTAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH01 2412MHz
           : F341403
           : Triband
```

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	85.620	32.76	-7.24	40.00	50.31	7.70	1.78	27.03	Peak	---	---
2	140.970	36.05	-7.45	43.50	50.46	10.18	2.25	26.84	Peak	---	---
3	250.050	39.92	-6.08	46.00	52.04	11.34	3.14	26.60	Peak	---	---



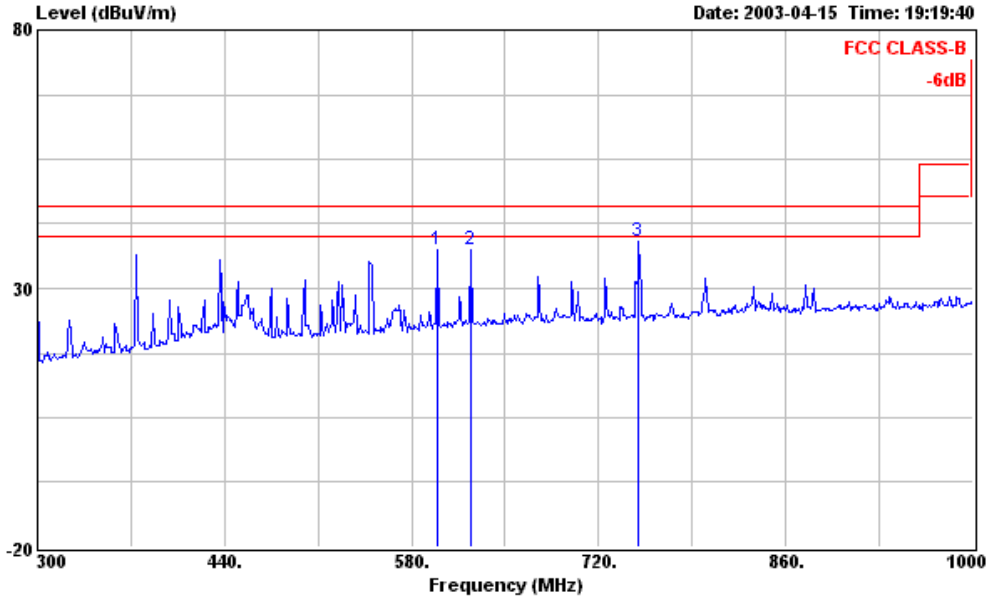
Site : 03CH03-HY
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	374.200	39.23	-6.77	46.00	48.46	13.82	3.99	27.04	Peak	---	---
2 !	436.500	41.07	-4.93	46.00	49.07	15.14	4.24	27.38	Peak	100	150
3	624.100	39.82	-6.18	46.00	44.74	17.46	5.62	28.00	Peak	---	---



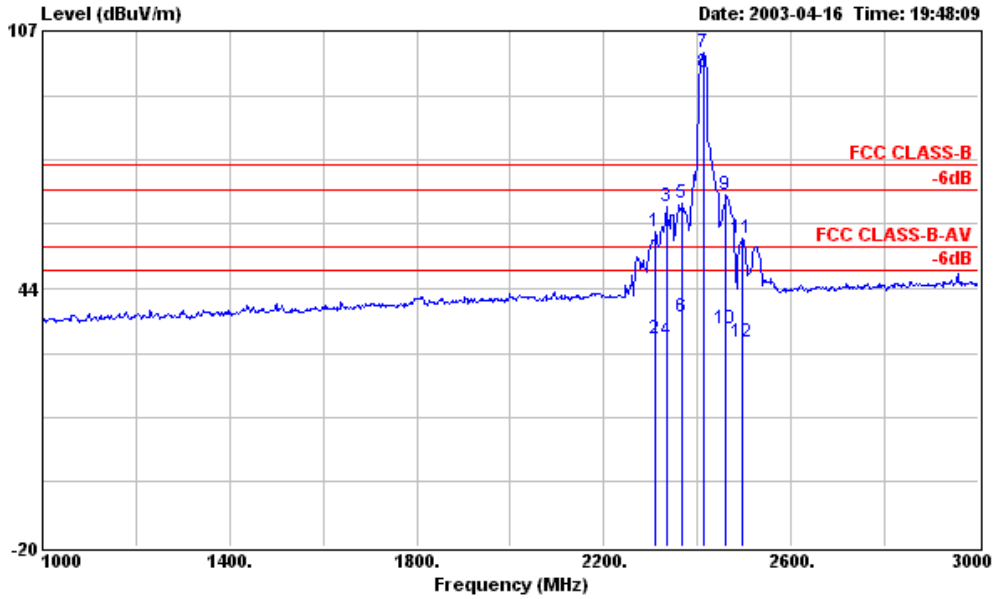
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	35.932	32.43	-7.57	40.00	45.90	12.52	1.11	27.10	QP	---	---
2	88.006	29.17	-14.33	43.50	45.99	8.39	1.81	27.02	QP	---	---
3	141.188	31.58	-11.92	43.50	45.99	10.16	2.26	26.83	QP	---	---



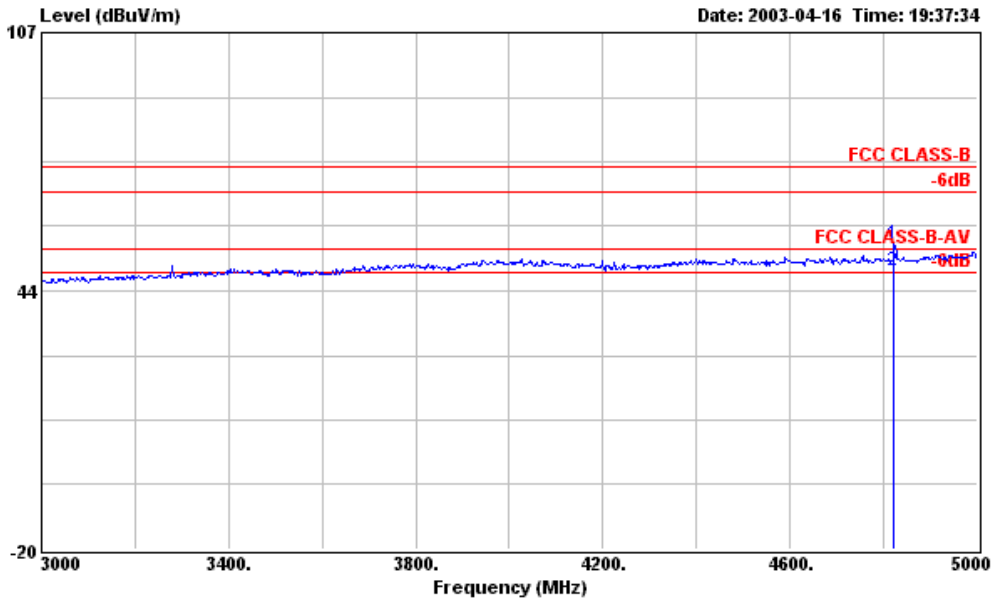
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	598.900	37.34	-8.66	46.00	42.58	17.28	5.48	28.00	Peak	---	---
2	624.100	37.37	-8.63	46.00	42.29	17.46	5.62	28.00	Peak	---	---
3	750.100	39.03	-6.97	46.00	42.47	18.40	6.16	28.00	Peak	---	---

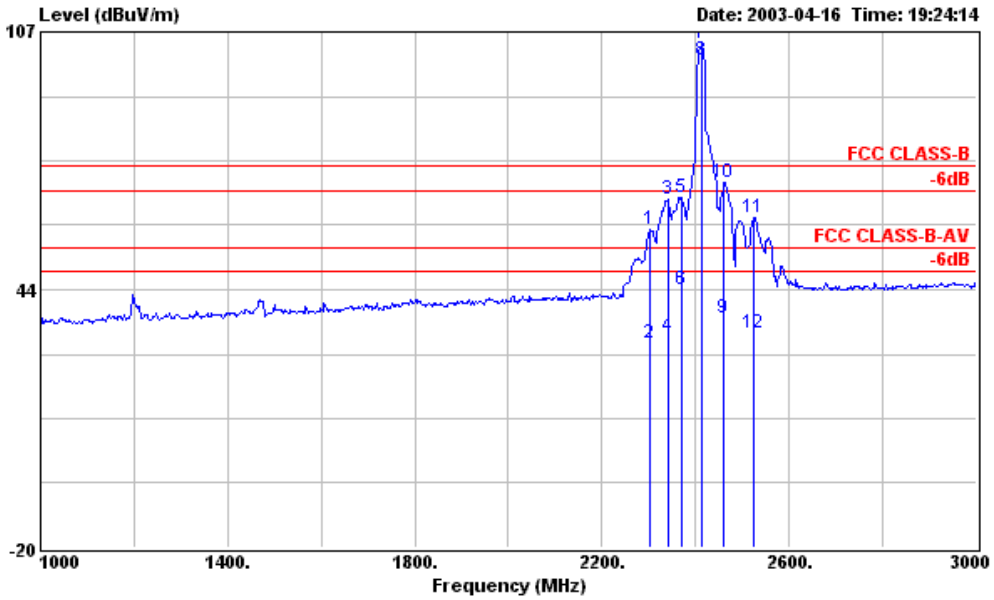


Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2310.000	57.46	-16.54	74.00	61.74	28.04	5.84	38.16	Peak	---	---
2	2310.000	31.17	-22.83	54.00	35.45	28.04	5.84	38.16	Average	---	---
3	2334.000	63.55	-10.45	74.00	67.75	28.09	5.87	38.16	Peak	---	---
4	2334.000	30.83	-23.17	54.00	35.03	28.09	5.87	38.16	Average	---	---
5	2366.000	64.73	-9.27	74.00	68.83	28.15	5.92	38.17	Peak	---	---
6	2366.000	36.41	-17.59	54.00	40.51	28.15	5.92	38.17	Average	---	---
9	2460.000	66.77	-7.23	74.00	70.57	28.34	6.04	38.18	Peak	---	---
10	2460.000	33.65	-20.35	54.00	37.45	28.34	6.04	38.18	Average	---	---
11	2494.000	55.67	-18.33	74.00	59.35	28.42	6.08	38.18	Peak	---	---
12	2494.000	30.37	-23.63	54.00	34.05	28.42	6.08	38.18	Average	---	---

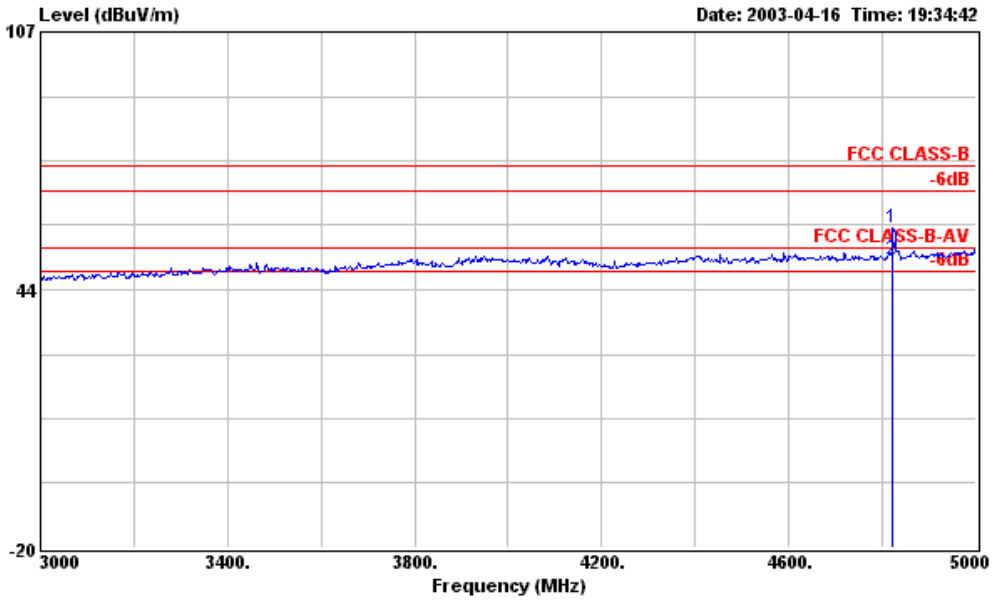


Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband



Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2302.000	58.26	-15.74	74.00	62.57	28.02	5.83	38.16	Peak	---	---
2	2302.000	30.23	-23.77	54.00	34.54	28.02	5.83	38.16	Average	---	---
3	2340.000	65.78	-8.22	74.00	69.96	28.10	5.88	38.16	Peak	---	---
4	2340.000	31.77	-22.23	54.00	35.95	28.10	5.88	38.16	Average	---	---
5	2370.000	66.14	-7.86	74.00	70.23	28.16	5.92	38.17	Peak	---	---
6	2370.000	43.39	-10.61	54.00	47.48	28.16	5.92	38.17	Average	---	---
9	2460.000	36.51	-17.49	54.00	40.31	28.34	6.04	38.18	Average	---	---
10 !	2460.000	70.06	-3.94	74.00	73.86	28.34	6.04	38.18	Peak	---	---
11	2524.000	61.28	-12.72	74.00	64.82	28.51	6.14	38.19	Peak	---	---
12	2524.000	32.58	-21.42	54.00	36.12	28.51	6.14	38.19	Average	---	---




```
Site      : 03CH03-HY
Condition : 3m HORN-ANT-6741 VERTICAL
EUT       : Wireless 2.4G AP
Power     : 110V/60Hz
MODEL     : ME-103
MEMO      : TX CH01 2412MHz
          : F341403
          : Triband
```

- For 5GHz ~ 25GHz

Remark: Frequency from 5000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Polarity	Antenna Factor	Cable Loss	Reading	Limits		Emission Level		Margin	Detect
(MHz)		(dB/m)	(dB)	(dBuV)	(dBuV/m)	(uV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2414.000	H	28.25	5.98	67.58	-	-	101.81	123168.60		Peak
2414.000	H	28.25	5.98	62.51	-	-	96.74	68706.84		A.V.
4822.000	H	33.06	9.16	12.67	74.00	5011.87	54.89	555.26	-19.11	Peak
4822.000	H	33.06	9.16	6.17	54.00	501.19	48.39	262.72	-5.61	A.V.
2412.000	V	28.24	5.98	69.69	-	-	103.91	156855.59		Peak
2412.000	V	28.24	5.98	65.61	-	-	99.83	98061.83		A.V.
4822.000	V	33.06	9.16	16.72	74.00	5011.87	58.94	885.12	-15.06	Peak
4822.000	V	33.06	9.16	8.62	54.00	501.19	50.84	348.34	-3.16	A.V.
7236.000	V/H						-			Peak, A.V.
9648.000	V/H						-			Peak, A.V.
12060.000	V/H						-			Peak, A.V.
14472.000	V/H						-			Peak, A.V.
16884.000	V/H						-			Peak, A.V.
19296.000	V/H						-			Peak, A.V.
21708.000	V/H						-			Peak, A.V.
24120.000	V/H						-			Peak, A.V.

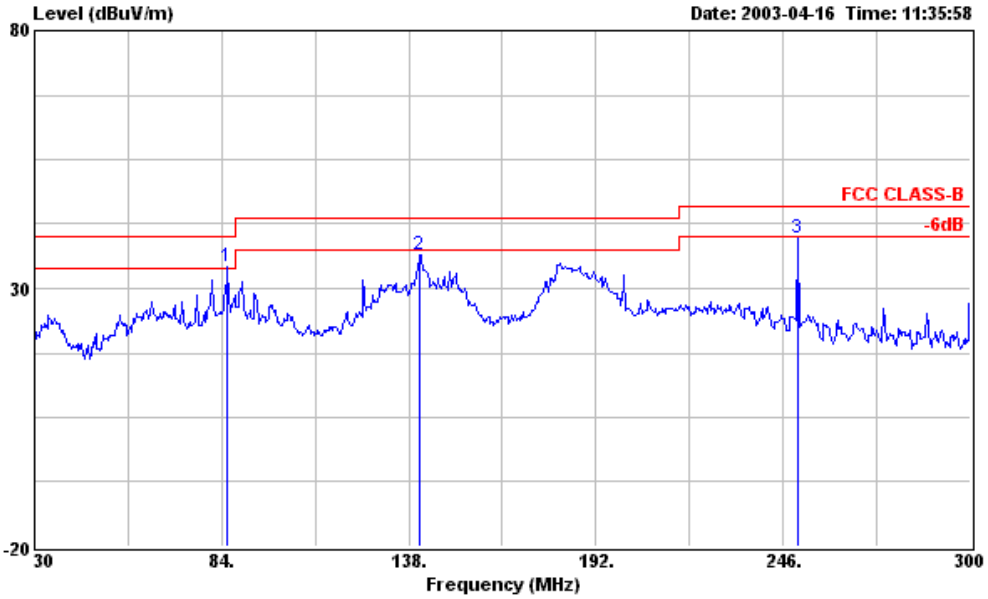
Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer: Jay
Jay Zhong

- Test Mode: Mode 2
- Test Distance: 3 M
- Temperature: 26 °C
- Relative Humidity: 62 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

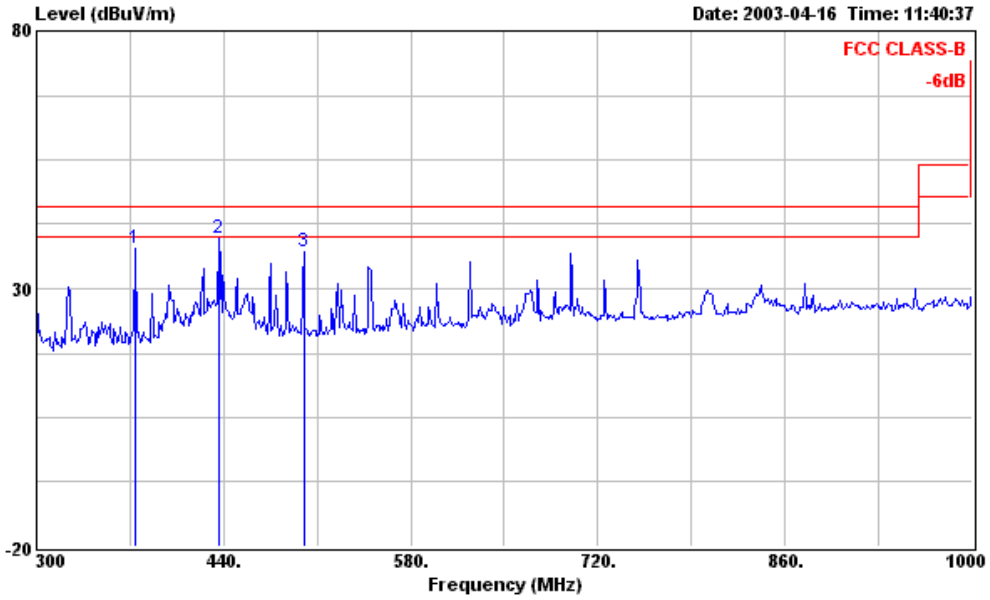
■ **The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission



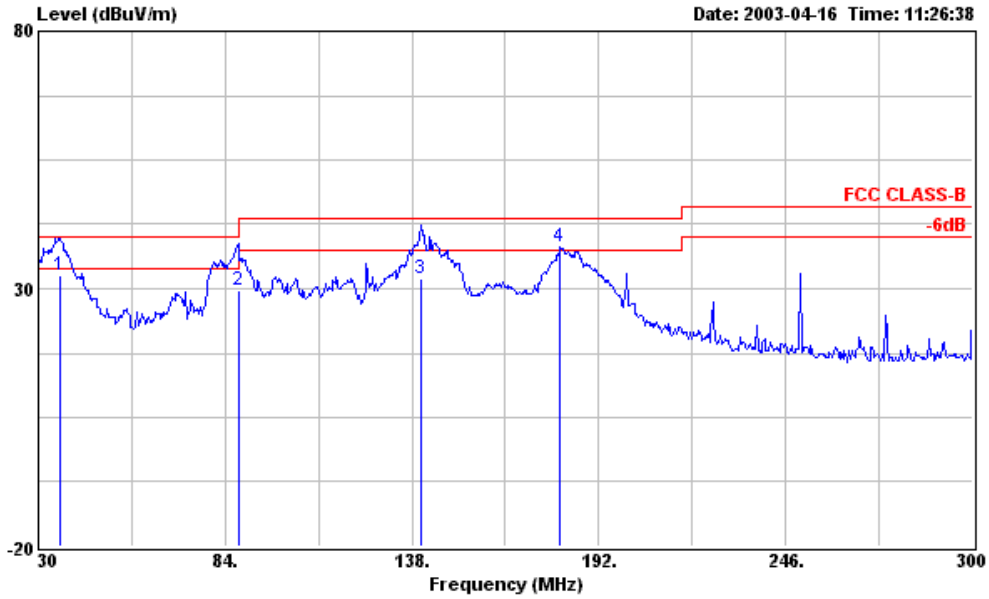

```
Site       : 03CH03-HY
Condition  : 3m 03CH03-MAT HORIZONTAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH06 2437MHz
           : F341403
           : Triband
```

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	85.620	34.17	-5.83	40.00	51.72	7.70	1.78	27.03	Peak	---	---
2	140.970	36.42	-7.08	43.50	50.83	10.18	2.25	26.84	Peak	---	---
3	250.050	39.71	-6.29	46.00	51.83	11.34	3.14	26.60	Peak	---	---



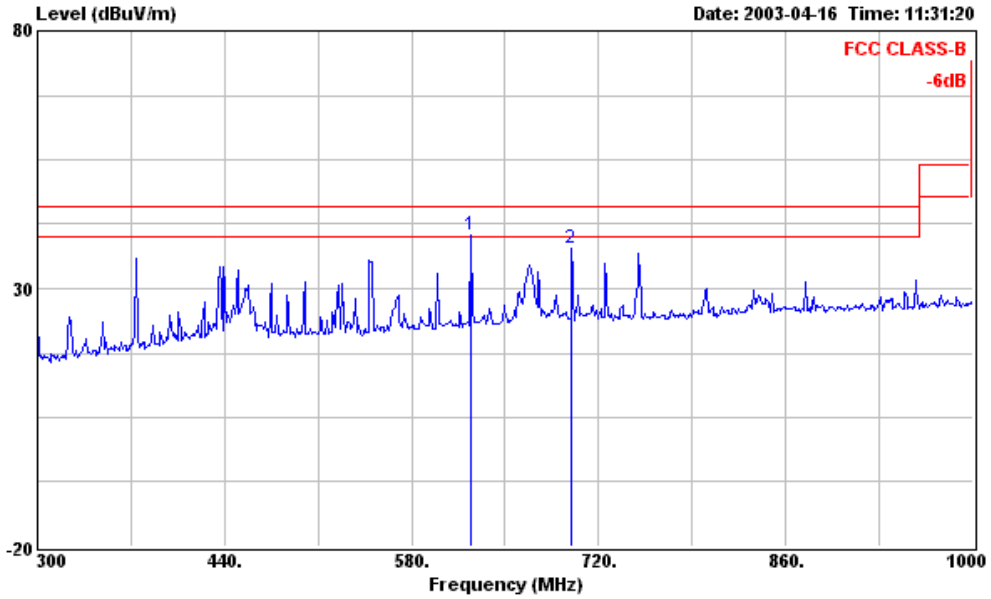
Site : 03CH03-HY
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	374.200	37.84	-8.16	46.00	47.07	13.82	3.99	27.04	Peak	---	---
2	436.500	39.69	-6.31	46.00	47.69	15.14	4.24	27.38	Peak	---	---
3	500.200	37.08	-8.92	46.00	44.11	16.03	4.64	27.70	Peak	---	---



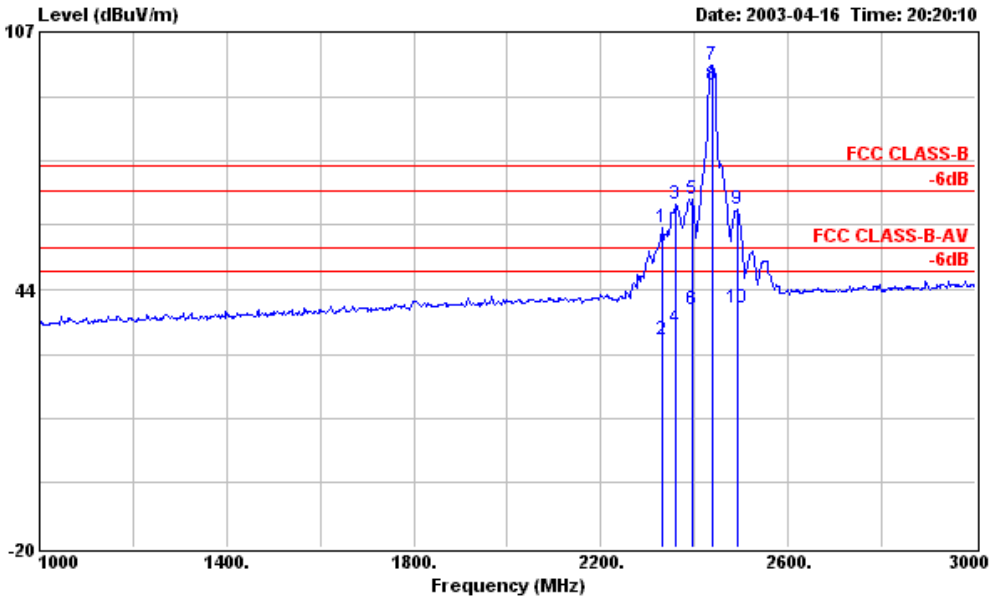
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	36.210	32.68	-7.32	40.00	46.28	12.38	1.12	27.10	QP	---	---
2	87.780	29.61	-10.39	40.00	46.51	8.32	1.80	27.02	QP	---	---
3	140.700	31.98	-11.52	43.50	46.37	10.20	2.25	26.84	QP	---	---
4 !	180.930	37.97	-5.53	43.50	54.45	7.57	2.62	26.67	Peak	100	126



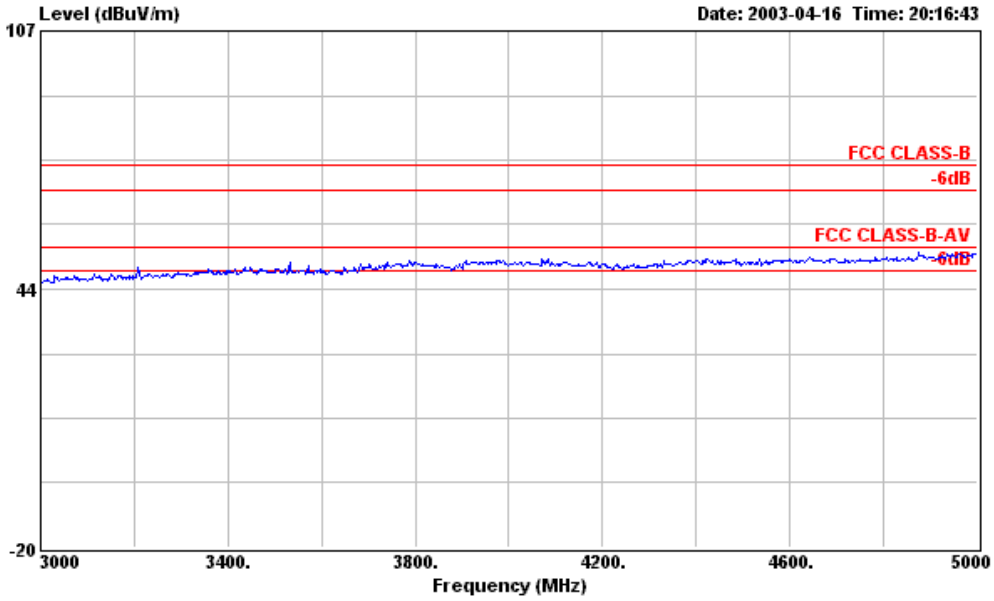
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	624.100	40.40	-5.60	46.00	45.32	17.46	5.62	28.00	Peak	---	---
2	699.700	37.74	-8.26	46.00	41.80	18.00	5.94	28.00	Peak	---	---

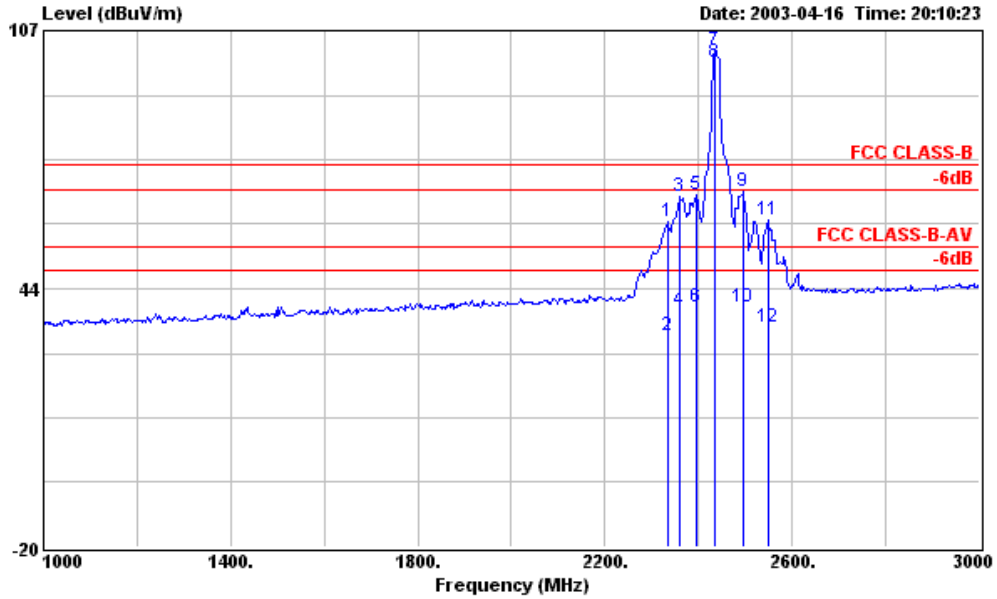


Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2332.000	58.82	-15.18	74.00	63.03	28.08	5.87	38.16	Peak	---	---
2	2332.000	31.08	-22.92	54.00	35.29	28.08	5.87	38.16	Average	---	---
3	2358.000	64.54	-9.46	74.00	68.66	28.14	5.91	38.17	Peak	---	---
4	2358.000	34.04	-19.96	54.00	38.16	28.14	5.91	38.17	Average	---	---
5	2396.000	65.68	-8.32	74.00	69.68	28.21	5.96	38.17	Peak	---	---
6	2396.000	38.58	-15.42	54.00	42.58	28.21	5.96	38.17	Average	---	---
9	2492.000	63.18	-10.82	74.00	66.87	28.41	6.08	38.18	Peak	---	---
10	2492.000	38.98	-15.02	54.00	42.67	28.41	6.08	38.18	Average	---	---

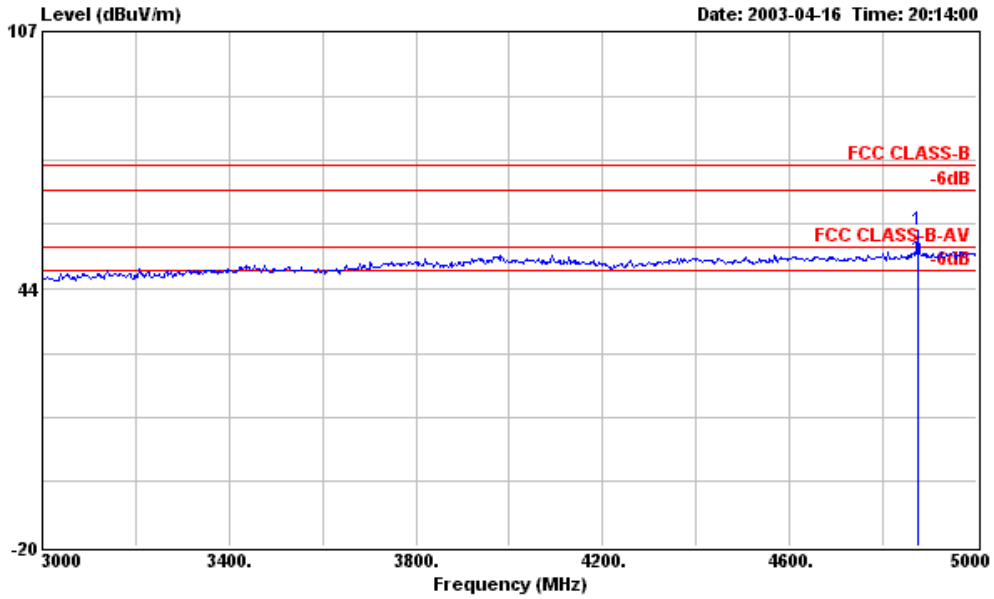


Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband



Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2334.000	59.97	-14.03	74.00	64.17	28.09	5.87	38.16	Peak	---	---
2	2334.000	31.78	-22.22	54.00	35.98	28.09	5.87	38.16	Average	---	---
3	2358.000	66.29	-7.71	74.00	70.41	28.14	5.91	38.17	Peak	---	---
4	2358.000	38.00	-16.00	54.00	42.12	28.14	5.91	38.17	Average	---	---
5	2396.000	66.40	-7.60	74.00	70.40	28.21	5.96	38.17	Peak	---	---
6	2396.000	39.15	-14.85	54.00	43.15	28.21	5.96	38.17	Average	---	---
9	2494.000	67.37	-6.63	74.00	71.05	28.42	6.08	38.18	Peak	---	---
10	2494.000	38.88	-15.12	54.00	42.56	28.42	6.08	38.18	Average	---	---
11	2548.000	60.30	-13.70	74.00	63.72	28.59	6.18	38.19	Peak	---	---
12	2548.000	34.17	-19.83	54.00	37.59	28.59	6.18	38.19	Average	---	---




```
Site       : 03CH03-HY
Condition  : 3m HORN-ANT-6741 VERTICAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH06 2437MHz
           : F341403
           : Triband
```

- For 5GHz ~ 25GHz

Remark: Frequency from 5000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Polarity	Antenna Factor	Cable Loss	Reading	Limits		Emission	Level	Margin	Detect
(MHz)		(dB/m)	(dB)	(dBuV)	(dBuV/m)	(uV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2438.000	H	28.30	6.01	64.46	-	-	98.77	86796.06		Peak
2438.000	H	28.30	6.01	59.50	-	-	93.81	49034.30		A.V.
2436.000	V	28.29	6.01	67.92	-	-	102.22	129121.93		Peak
2436.000	V	28.29	6.01	64.68	-	-	98.98	88920.11		A.V.
4876.000	V	33.17	9.18	15.42	74.00	5011.87	57.77	773.57	-16.23	Peak
4876.000	V	33.17	9.18	8.30	54.00	501.19	50.65	340.80	-3.35	A.V.
4874.000	H						-			Peak, A.V.
7311.000	V/H						-			Peak, A.V.
9748.000	V/H						-			Peak, A.V.
12185.000	V/H						-			Peak, A.V.
14622.000	V/H						-			Peak, A.V.
17059.000	V/H						-			Peak, A.V.
19496.000	V/H						-			Peak, A.V.
21933.000	V/H						-			Peak, A.V.
24370.000	V/H						-			Peak, A.V.

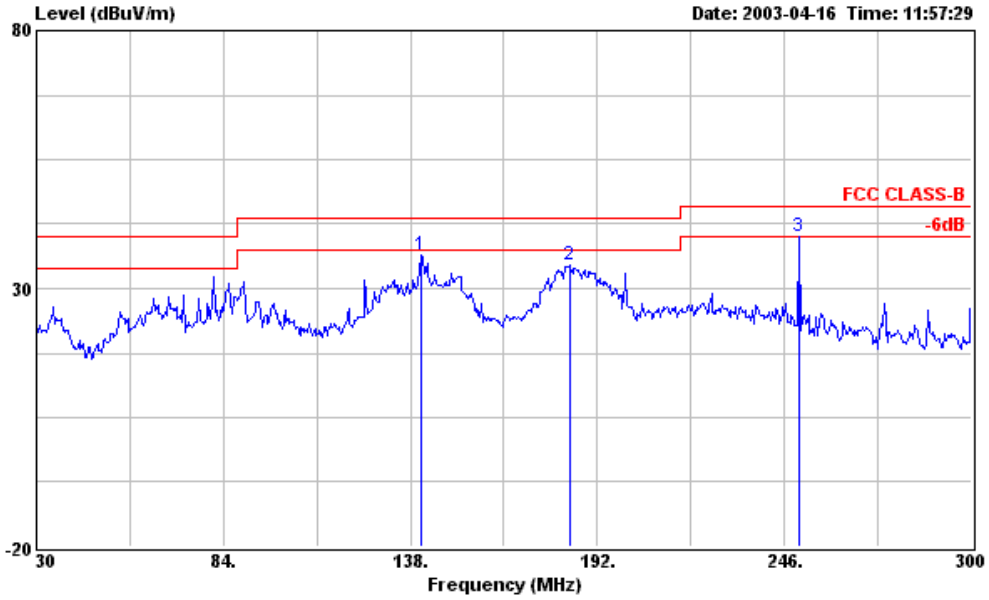
Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer: Jay
Jay Zhong

- Test Mode: Mode 3
- Test Distance: 3 M
- Temperature: 26 °C
- Relative Humidity: 62 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

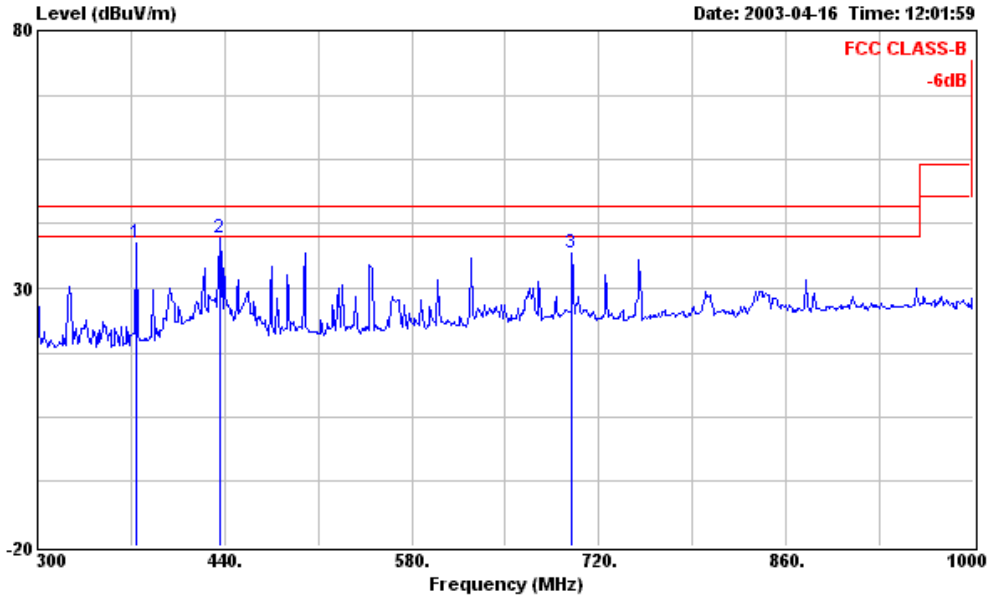
■ **The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission



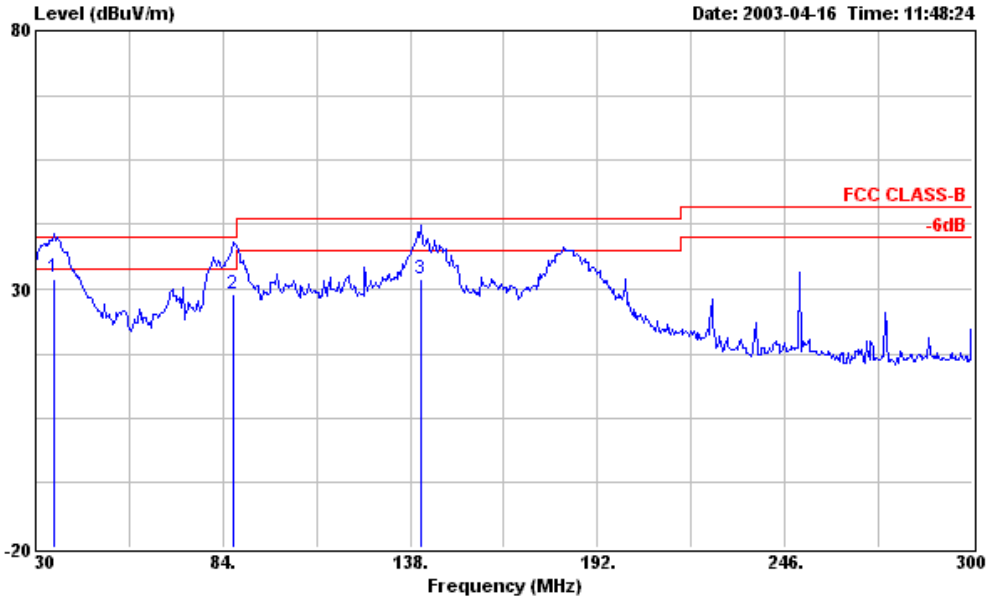

```
Site      : 03CH03-HY
Condition : 3m 03CH03-MAT HORIZONTAL
EUT       : Wireless 2.4G AP
Power     : 110V/60Hz
MODEL     : ME-103
MEMO      : TX CH11 2462MHz
          : F341403
          : Triband
```

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	140.970	36.64	-6.86	43.50	51.05	10.18	2.25	26.84	Peak	---	---
2	183.900	34.45	-9.05	43.50	50.96	7.52	2.63	26.66	Peak	---	---
3 !	250.050	40.03	-5.97	46.00	52.15	11.34	3.14	26.60	Peak	---	---



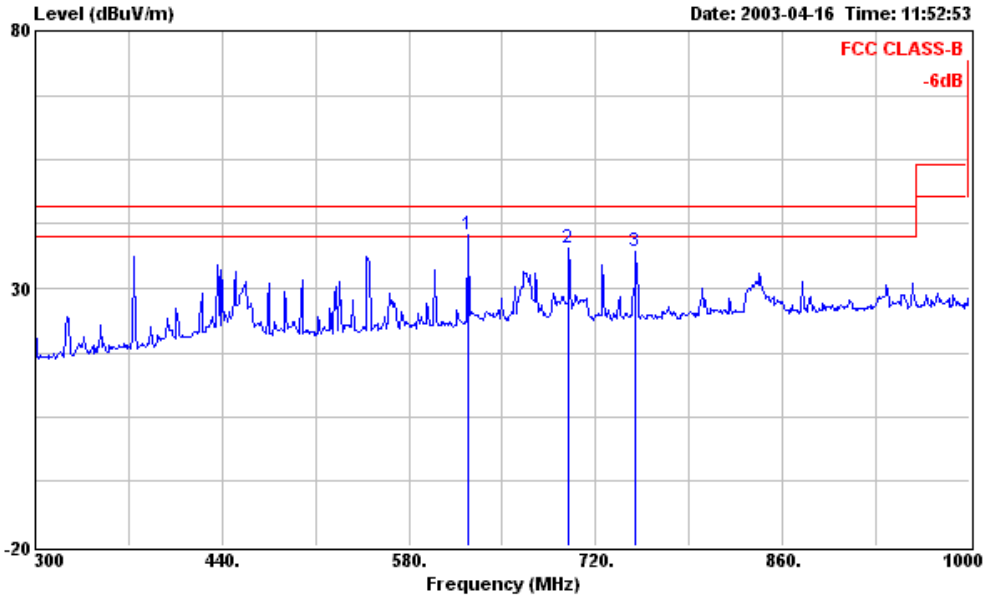
Site : 03CH03-HY
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH11 2462MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	374.200	38.67	-7.33	46.00	47.90	13.82	3.99	27.04	Peak	---	---
2	436.500	39.68	-6.32	46.00	47.68	15.14	4.24	27.38	Peak	---	---
3	699.700	36.95	-9.05	46.00	41.01	18.00	5.94	28.00	Peak	---	---



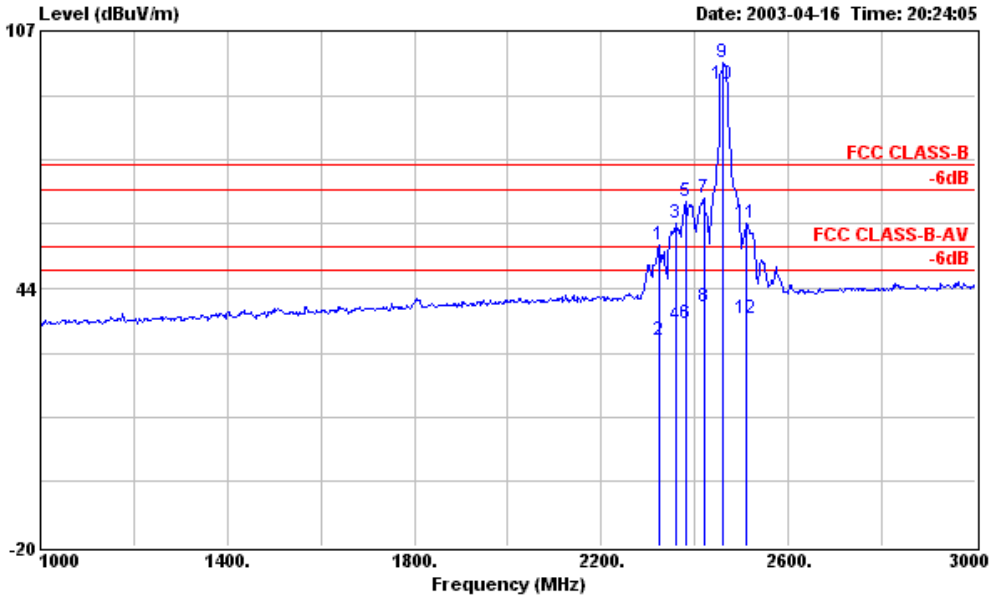
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH11 2462MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	35.130	32.43	-7.57	40.00	45.53	12.91	1.09	27.10	QP	---	---
2	86.970	29.00	-11.00	40.00	46.14	8.10	1.79	27.03	QP	---	---
3	140.970	31.86	-11.64	43.50	46.27	10.18	2.25	26.84	QP	---	---



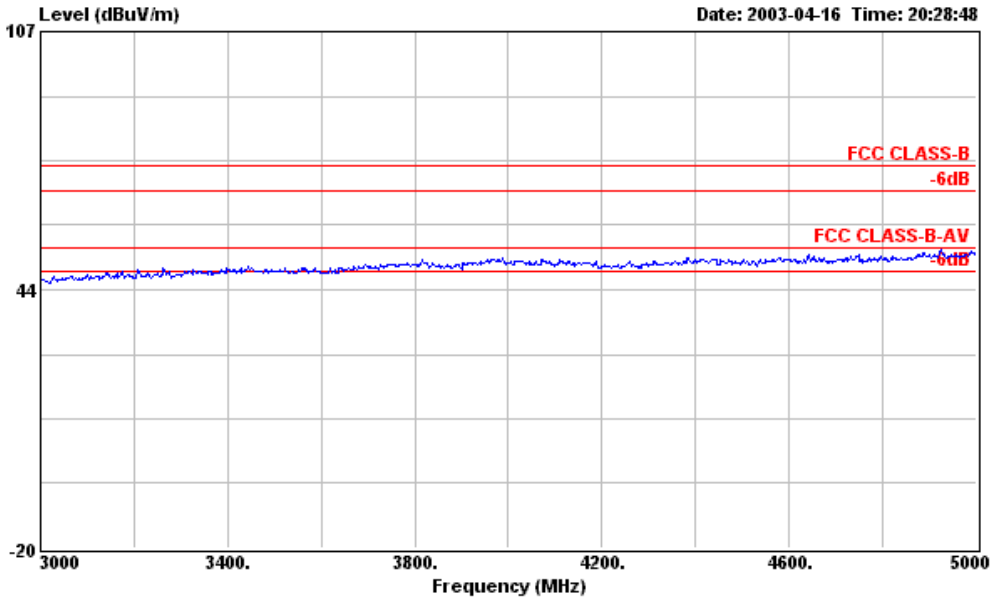
Site : 03CH03-HY
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH11 2462MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	624.100	40.52	-5.48	46.00	45.44	17.46	5.62	28.00	Peak	200	126
2	699.700	37.83	-8.17	46.00	41.89	18.00	5.94	28.00	Peak	---	---
3	750.100	37.29	-8.71	46.00	40.73	18.40	6.16	28.00	Peak	---	---

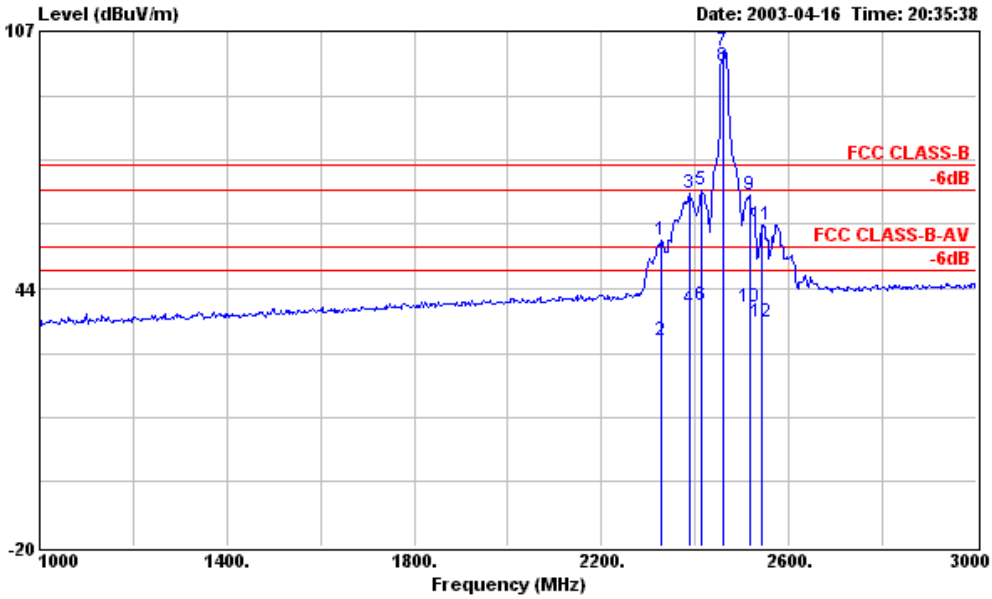


Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH11 2462MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2324.000	54.11	-19.89	74.00	58.34	28.07	5.86	38.16	Peak	---	---
2	2324.000	30.62	-23.38	54.00	34.85	28.07	5.86	38.16	Average	---	---
3	2358.000	59.67	-14.33	74.00	63.79	28.14	5.91	38.17	Peak	---	---
4	2358.000	34.63	-19.37	54.00	38.75	28.14	5.91	38.17	Average	---	---
5	2380.000	64.85	-9.15	74.00	68.91	28.18	5.93	38.17	Peak	---	---
6	2380.000	34.91	-19.09	54.00	38.97	28.18	5.93	38.17	Average	---	---
7	2420.000	65.76	-8.24	74.00	69.68	28.26	5.99	38.17	Peak	---	---
8	2420.000	38.86	-15.14	54.00	42.78	28.26	5.99	38.17	Average	---	---
11	2510.000	59.62	-14.38	74.00	63.23	28.47	6.11	38.19	Peak	---	---
12	2510.000	36.03	-17.97	54.00	39.64	28.47	6.11	38.19	Average	---	---

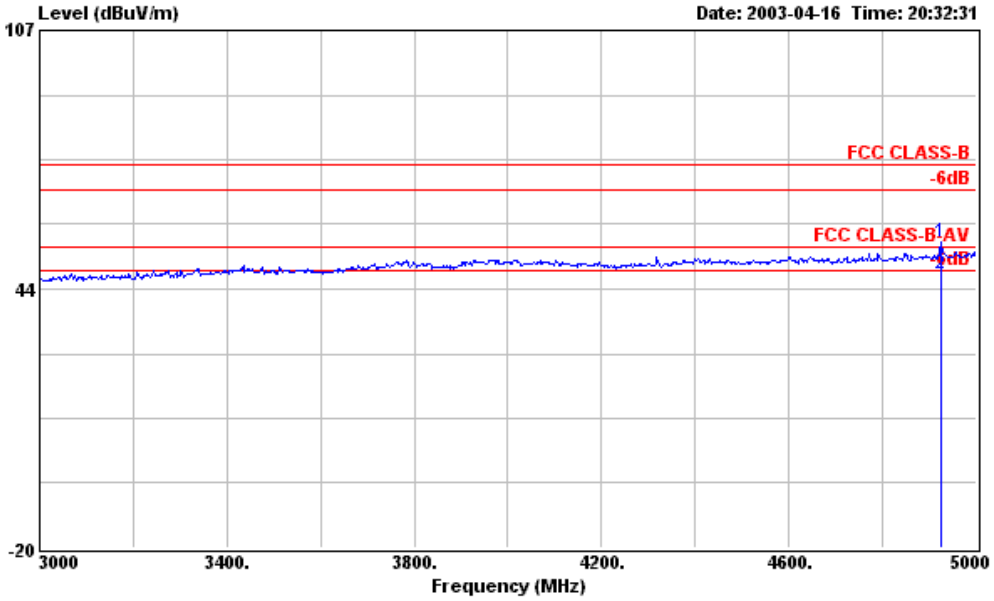



```
Site       : 03CH03-HY
Condition  : 3m HORN-ANT-6741 HORIZONTAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH11 2462MHz
           : F341403
           : Triband
```



Site : 03CH03-HY
Condition : 3m HORN-ANT-6741 VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH11 2462MHz
: F341403
: Triband

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2326.000	55.29	-18.71	74.00	59.52	28.07	5.86	38.16	Peak	---	---
2	2326.000	30.78	-23.22	54.00	35.01	28.07	5.86	38.16	Average	---	---
3	2388.000	67.10	-6.90	74.00	71.13	28.20	5.94	38.17	Peak	---	---
4	2388.000	38.65	-15.35	54.00	42.68	28.20	5.94	38.17	Average	---	---
5	2412.000	67.76	-6.24	74.00	71.71	28.24	5.98	38.17	Peak	---	---
6	2412.000	39.32	-14.68	54.00	43.27	28.24	5.98	38.17	Average	---	---
9	2516.000	66.63	-7.37	74.00	70.21	28.49	6.12	38.19	Peak	---	---
10	2516.000	38.97	-15.03	54.00	42.55	28.49	6.12	38.19	Average	---	---
11	2542.000	59.32	-14.68	74.00	62.77	28.57	6.17	38.19	Peak	---	---
12	2542.000	35.23	-18.77	54.00	38.68	28.57	6.17	38.19	Average	---	---




```
Site       : 03CH03-HY
Condition  : 3m HORN-ANT-6741 VERTICAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH11 2462MHz
           : F341403
           : Triband
```

- For 5GHz ~ 25GHz

Remark: Frequency from 5000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Polarity	Antenna Factor	Cable Loss	Reading	Limits		Emission	Level	Margin	Detect
(MHz)		(dB/m)	(dB)	(dBuV)	(dBuV/m)	(uV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2460.000	H	28.34	6.04	64.59	-	-	98.97	88817.80		Peak
2460.000	H	28.34	6.04	59.51	-	-	93.89	49488.01		A.V.
2460.000	V	28.34	6.04	67.83	-	-	102.21	128973.36		Peak
2460.000	V	28.34	6.04	63.77	-	-	98.15	80816.49		A.V.
4924.000	V	33.27	9.20	12.47	74.00	5011.87	54.94	558.47	-19.06	Peak
4924.000	V	33.27	9.20	4.62	54.00	501.19	47.09	226.20	-6.91	A.V.
4924.000	H						-			Peak, A.V.
7386.000	V/H						-			Peak, A.V.
9848.000	V/H						-			Peak, A.V.
12310.000	V/H						-			Peak, A.V.
14772.000	V/H						-			Peak, A.V.
17234.000	V/H						-			Peak, A.V.
19696.000	V/H						-			Peak, A.V.
22158.000	V/H						-			Peak, A.V.
24620.000	V/H						-			Peak, A.V.

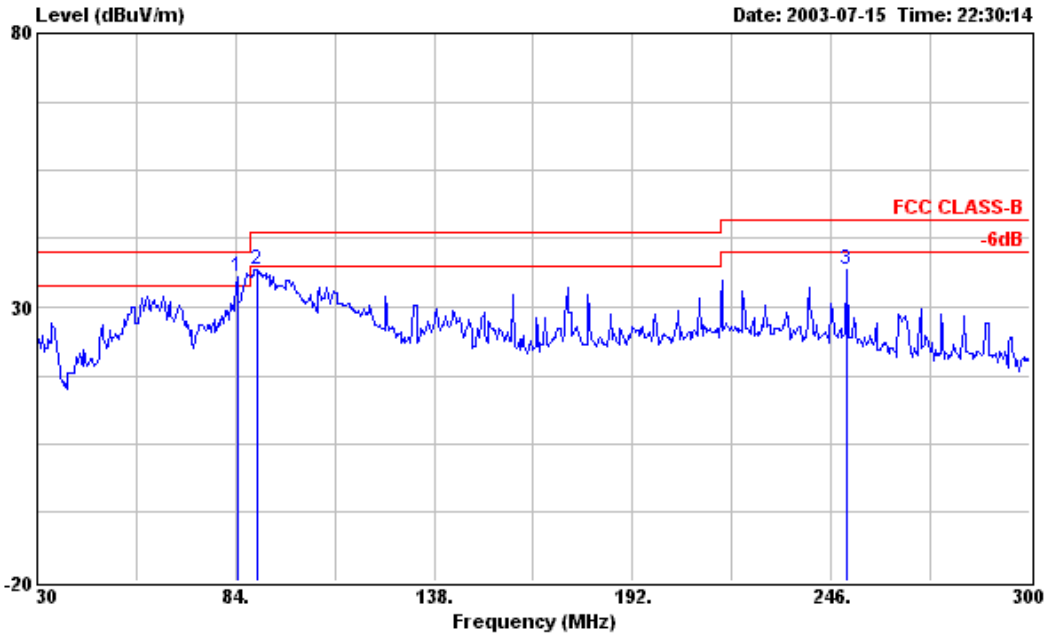
Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer: Jay
Jay Zhong

- Test Mode: Mode 4
- Test Distance: 3 M
- Temperature: 29.9 °C
- Relative Humidity: 72 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

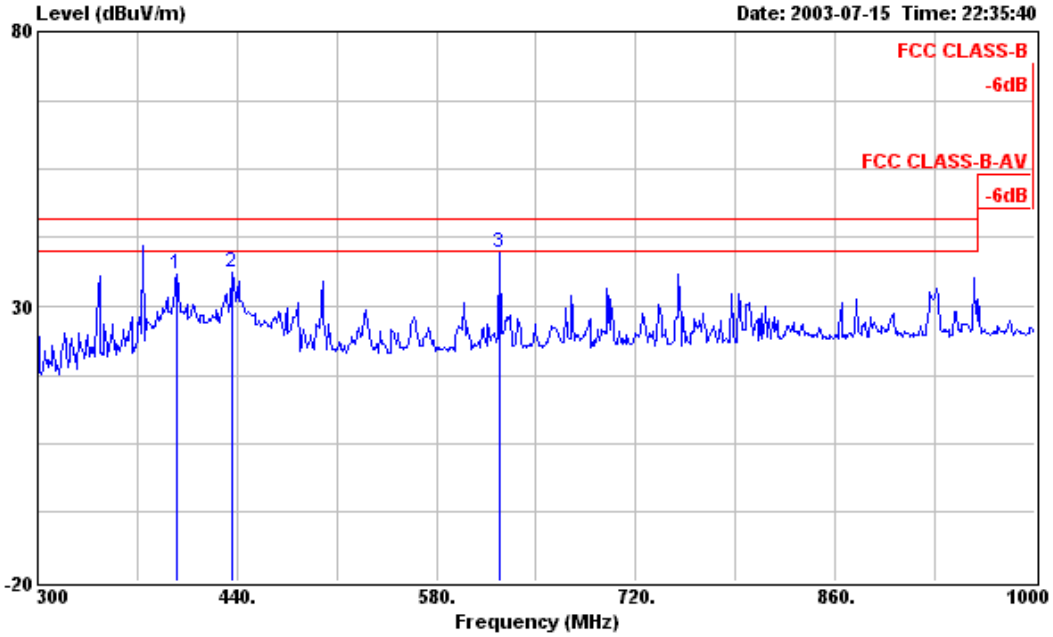
■ **The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission



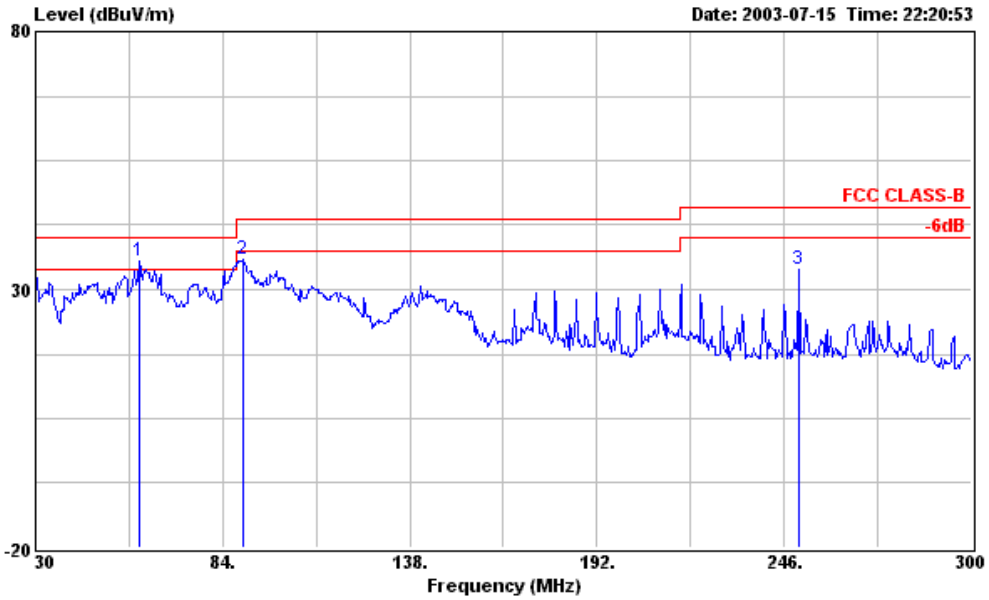

```
Site       : site
Condition  : 3m 03CH03-MAT HORIZONTAL
EUT        : Wireless 2.4G AP
Power      : 110V/60Hz
MODEL      : ME-103
MEMO       : TX CH01 2412MHz
           : 1.5m+5dBi Ceiling
```

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	84.540	35.44	-4.56	40.00	53.45	7.40	1.62	27.03	Peak	---	---
2	89.940	36.97	-6.53	43.50	53.78	8.78	1.43	27.02	Peak	---	---
3	250.050	36.71	-9.29	46.00	49.36	11.34	2.61	26.60	Peak	---	---



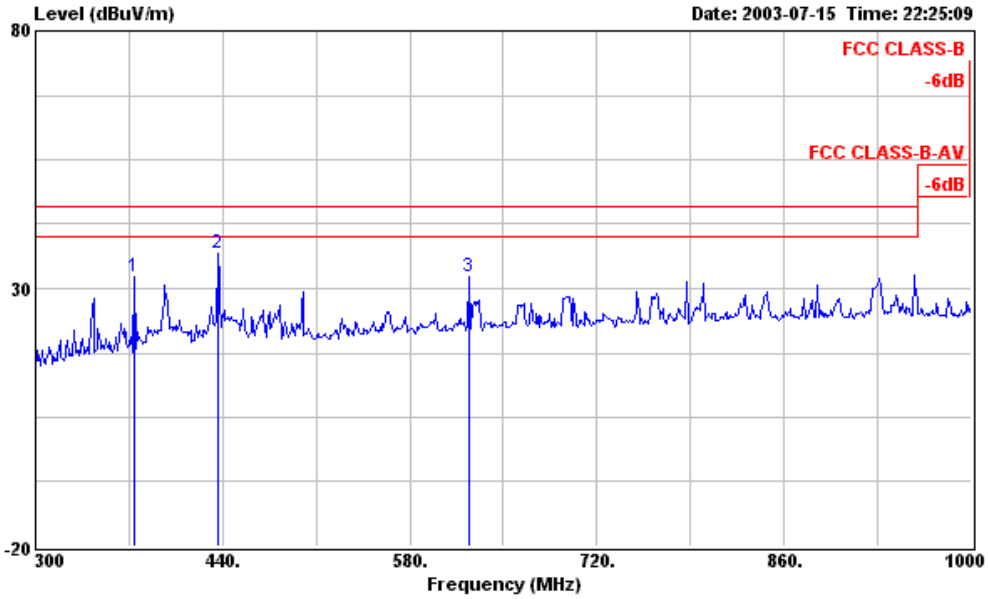
Site : site
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	397.300	35.82	-10.18	46.00	44.95	14.54	3.51	27.18	Peak	---	---
2	436.500	36.22	-9.78	46.00	44.92	15.14	3.54	27.38	Peak	---	---
3	624.100	39.64	-6.36	46.00	45.76	17.46	4.42	28.00	Peak	---	---



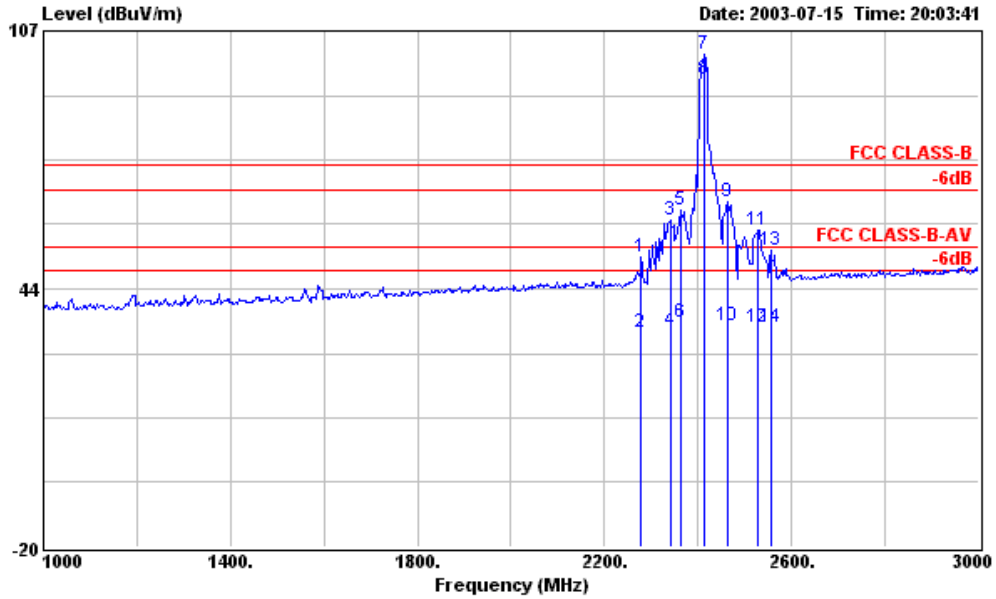
Site : site
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	59.970	35.53	-4.47	40.00	55.87	5.16	1.58	27.08	Peak	---	---
2	89.940	35.78	-7.72	43.50	52.59	8.78	1.43	27.02	Peak	---	---
3	250.050	33.97	-12.03	46.00	46.62	11.34	2.61	26.60	Peak	---	---



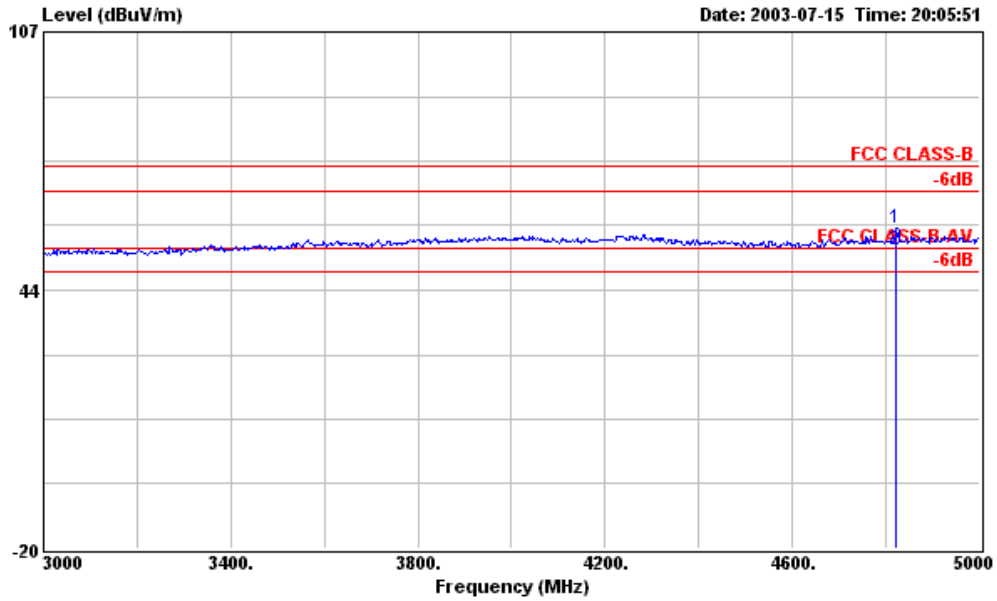
Site : site
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	374.200	32.15	-13.85	46.00	41.87	13.82	3.50	27.04	Peak	---	---
2	436.500	36.96	-9.04	46.00	45.66	15.14	3.54	27.38	Peak	---	---
3	624.100	32.38	-13.62	46.00	38.50	17.46	4.42	28.00	Peak	---	---

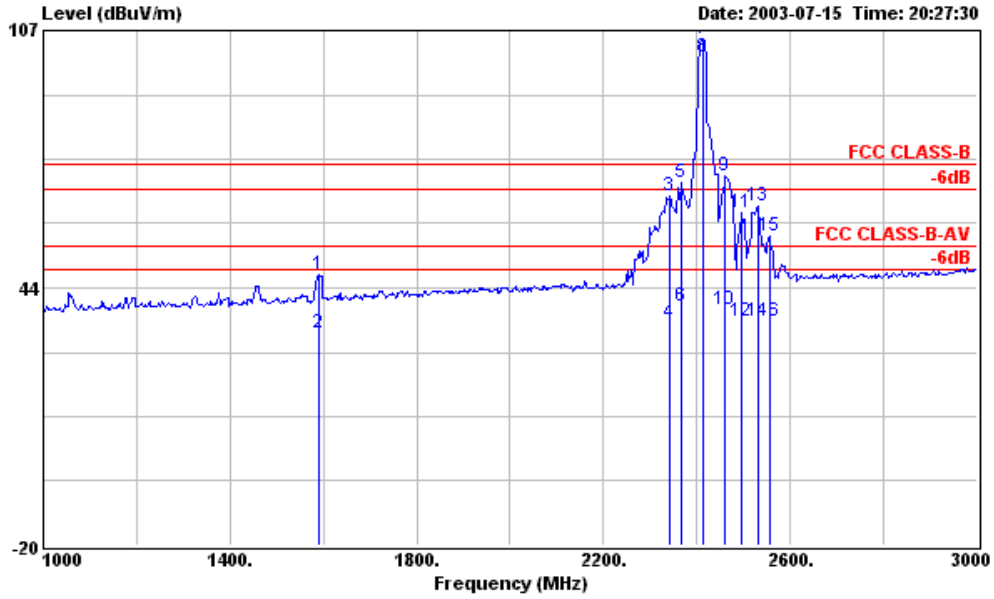


Site : site
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2278.000	51.28	-22.72	74.00	44.40	27.97	6.05	27.14	Peak	---	---
2	2278.000	32.62	-21.38	54.00	25.74	27.97	6.05	27.14	Average	---	---
3	2340.000	60.24	-13.76	74.00	53.16	28.10	6.13	27.15	Peak	---	---
4	2340.000	33.27	-20.73	54.00	26.19	28.10	6.13	27.15	Average	---	---
5	2364.000	62.71	-11.29	74.00	55.56	28.15	6.16	27.16	Peak	---	---
6	2364.000	35.44	-18.56	54.00	28.29	28.15	6.16	27.16	Average	---	---
9	2462.000	64.84	-9.16	74.00	57.37	28.35	6.29	27.17	Peak	---	---
10	2462.000	34.26	-19.74	54.00	26.79	28.35	6.29	27.17	Average	---	---
11	2526.000	58.12	-15.88	74.00	50.39	28.52	6.39	27.18	Peak	---	---
12	2526.000	33.92	-20.08	54.00	26.19	28.52	6.39	27.18	Average	---	---
13	2556.000	52.97	-21.03	74.00	45.10	28.61	6.44	27.18	Peak	---	---
14	2556.000	33.85	-20.15	54.00	25.98	28.61	6.44	27.18	Average	---	---

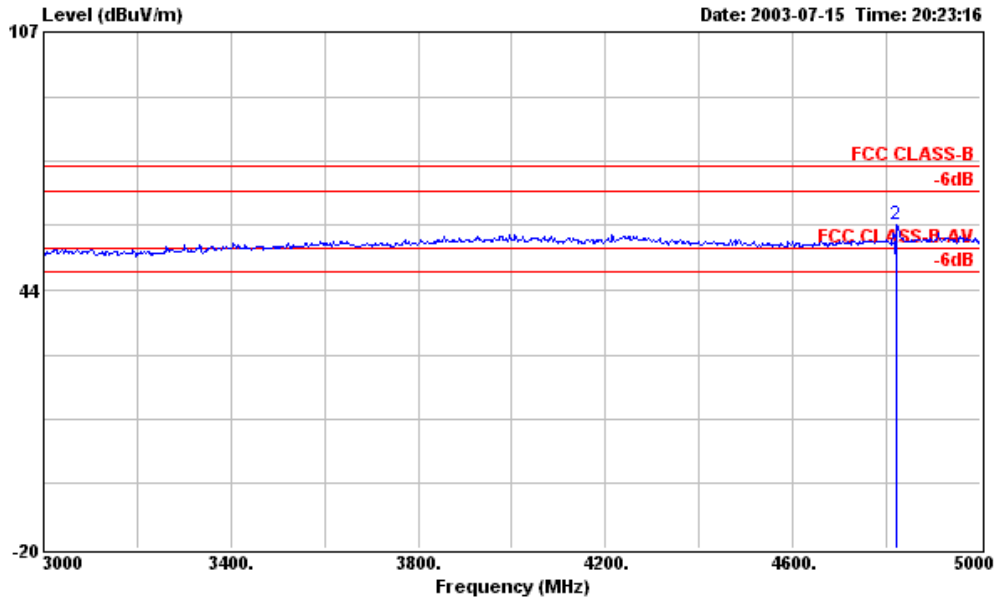


Site : site
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling



Site : site
Condition : 3m HORN-ANT-6741 VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH01 2412MHz
: 1.5m+5dBi Ceiling

		Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1		1590.000	46.69	-27.31	74.00	43.13	25.73	4.88	27.05	Peak	---	---
2		1590.000	32.40	-21.60	54.00	28.84	25.73	4.88	27.05	Average	---	---
3		2342.000	66.28	-7.72	74.00	59.20	28.10	6.13	27.15	Peak	---	---
4		2342.000	34.92	-19.08	54.00	27.84	28.10	6.13	27.15	Average	---	---
5	!	2366.000	69.68	-4.32	74.00	62.53	28.15	6.16	27.16	Peak	---	---
6		2366.000	39.05	-14.95	54.00	31.90	28.15	6.16	27.16	Average	---	---
9	!	2460.000	71.23	-2.77	74.00	63.77	28.34	6.29	27.17	Peak	100	74
10		2460.000	38.21	-15.79	54.00	30.75	28.34	6.29	27.17	Average	---	---
11		2494.000	61.98	-12.02	74.00	54.41	28.42	6.33	27.18	Peak	---	---
12		2494.000	35.28	-18.72	54.00	27.71	28.42	6.33	27.18	Average	---	---
13		2532.000	63.85	-10.15	74.00	56.09	28.54	6.40	27.18	Peak	---	---
14		2532.000	35.45	-18.55	54.00	27.69	28.54	6.40	27.18	Average	---	---
15		2556.000	56.11	-17.89	74.00	48.24	28.61	6.44	27.18	Peak	---	---
16		2556.000	35.12	-18.88	54.00	27.25	28.61	6.44	27.18	Average	---	---




```
Site      : site
Condition : 3m HORN-ANT-6741 VERTICAL
EUT       : Wireless 2.4G AP
Power     : 110V/60Hz
MODEL     : ME-103
MEMO      : TX CH01 2412MHz
          : 1.5m+5dBi Ceiling
```

- For 5GHz ~ 25GHz

Remark: Frequency from 5000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Polarity	Antenna Factor	Cable Loss	Reading	Limits		Emission	Level	Margin	Detect
(MHz)		(dB/m)	(dB)	(dBuV)	(dBuV/m)	(uV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2414.000	H	28.25	6.23	66.88	-	-	101.36	116949.94		A.V.
2414.000	H	28.25	6.23	60.54	-	-	95.02	56363.77		Peak
4822.000	H	33.06	9.06	16.71	74.00	5011.87	58.83	873.98	-15.17	Peak
4822.000	H	33.06	9.06	11.19	54.00	501.19	53.31	462.91	-0.69	A.V.
2412.000	V	28.24	6.22	70.66	-	-	105.12	180301.77		Peak
2412.000	V	28.24	6.22	65.84	-	-	100.30	103514.22		A.V.
4822.000	V	33.06	9.06	8.64	54.00	501.19	50.76	345.14	-3.24	A.V.
4822.000	V	33.06	9.06	17.26	74.00	5011.87	59.38	931.11	-14.62	Peak
7236.000	V/H						-			Peak, A.V.
9648.000	V/H						-			Peak, A.V.
12060.000	V/H						-			Peak, A.V.
14472.000	V/H						-			Peak, A.V.
16884.000	V/H						-			Peak, A.V.
19296.000	V/H						-			Peak, A.V.
21708.000	V/H						-			Peak, A.V.
24120.000	V/H						-			Peak, A.V.

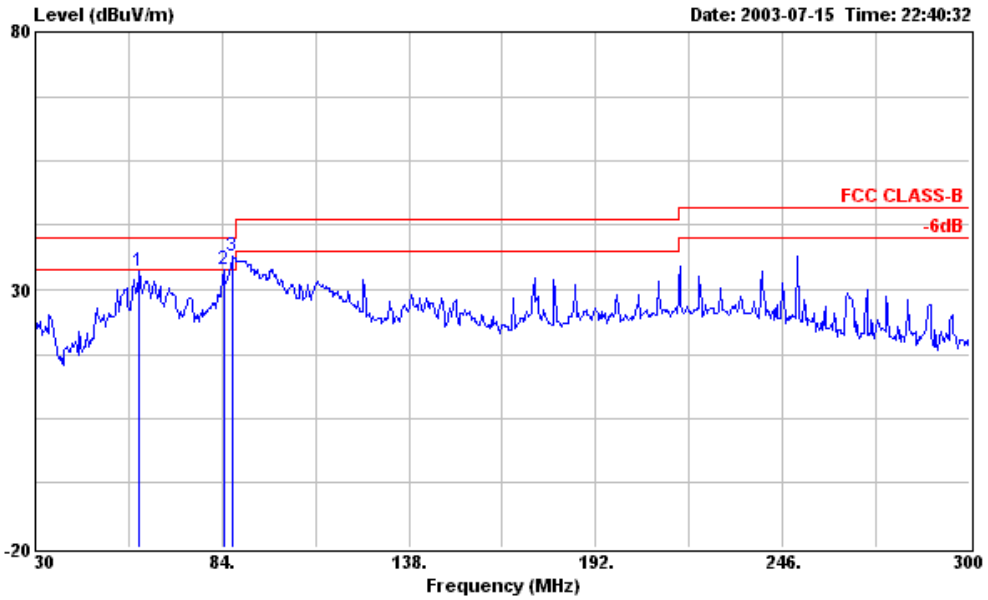
Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer: Jay
Jay Zhong

- Test Mode: Mode 5
- Test Distance: 3 M
- Temperature: 29.9 °C
- Relative Humidity: 72 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

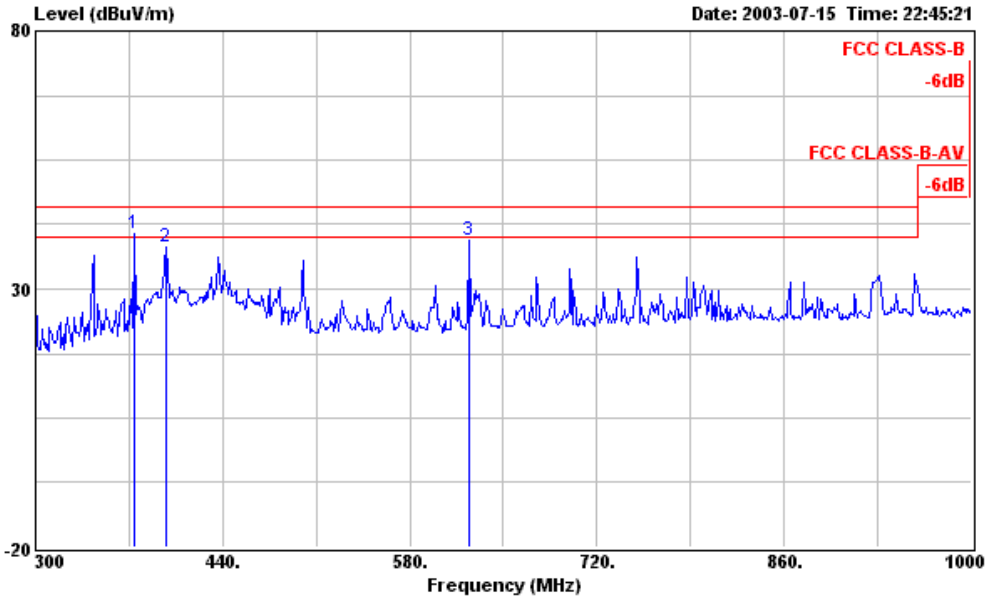
■ **The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission



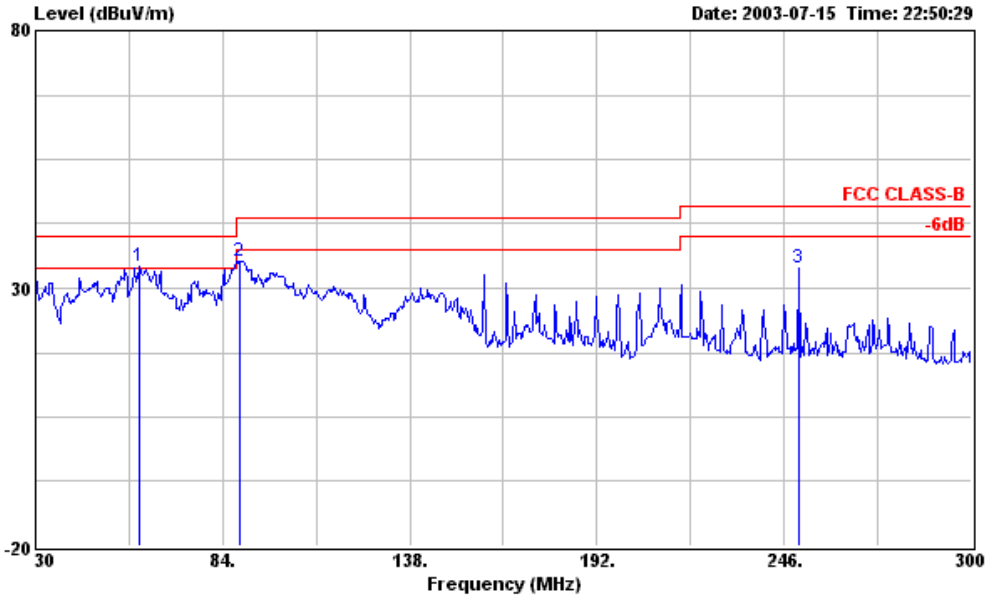
Site : site
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	59.970	33.45	-6.55	40.00	53.79	5.16	1.58	27.08	Peak	---	---
2	84.540	33.82	-6.18	40.00	51.83	7.40	1.62	27.03	Peak	---	---
3 !	86.970	36.42	-3.58	40.00	53.81	8.10	1.54	27.03	Peak	100	45



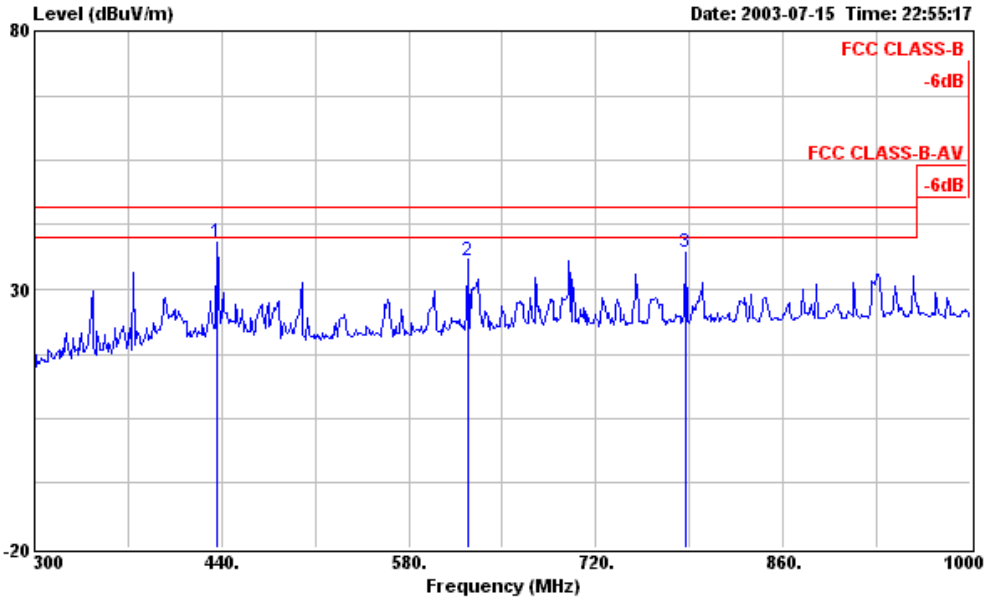
Site : site
Condition : 3m 03CH03-MAT HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	374.200	40.62	-5.38	46.00	50.34	13.82	3.50	27.04	Peak	---	---
2	397.300	38.17	-7.83	46.00	47.30	14.54	3.51	27.18	Peak	---	---
3	624.100	39.48	-6.52	46.00	45.60	17.46	4.42	28.00	Peak	---	---



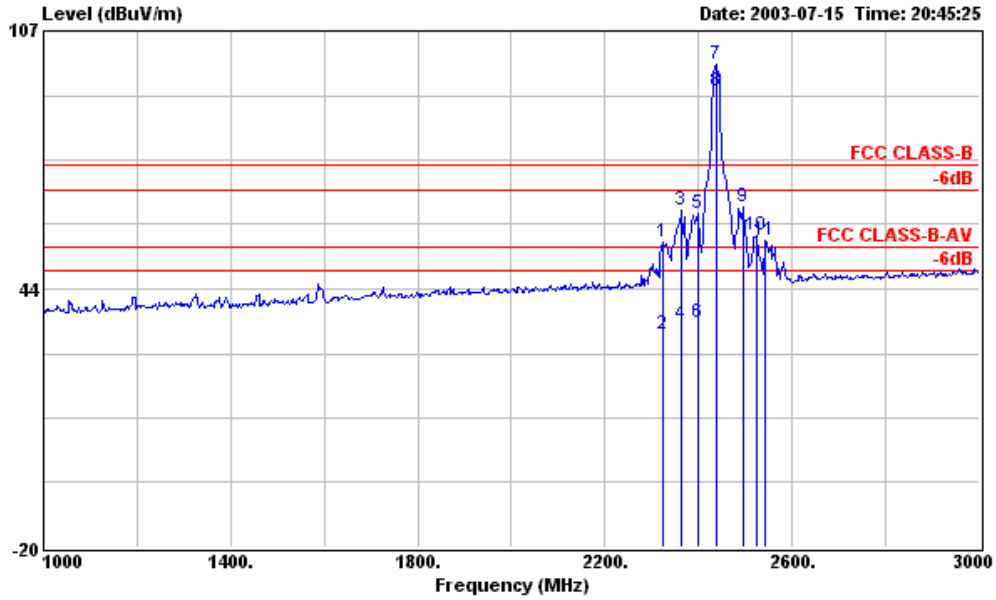
Site : site
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	59.970	34.10	-5.90	40.00	54.44	5.16	1.58	27.08	Peak	---	---
2	88.860	35.24	-8.26	43.50	52.16	8.65	1.45	27.02	Peak	---	---
3	250.050	34.02	-11.98	46.00	46.67	11.34	2.61	26.60	Peak	---	---



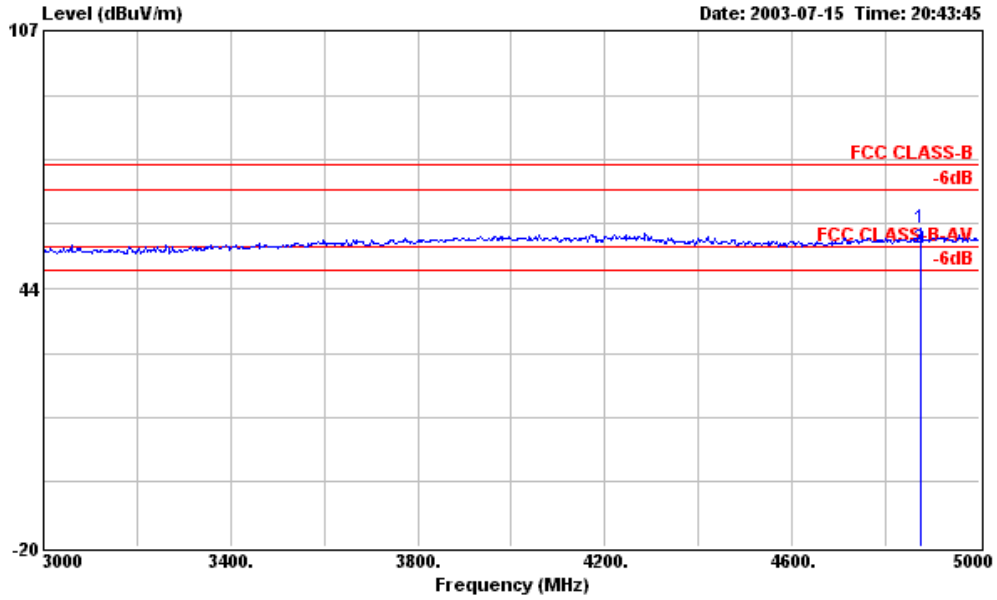
Site : site
Condition : 3m 03CH03-MAT VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	436.500	39.06	-6.94	46.00	47.76	15.14	3.54	27.38	Peak	---	---
2	624.100	35.68	-10.32	46.00	41.80	17.46	4.42	28.00	Peak	---	---
3	786.500	37.28	-8.72	46.00	41.57	18.68	5.03	28.00	Peak	---	---

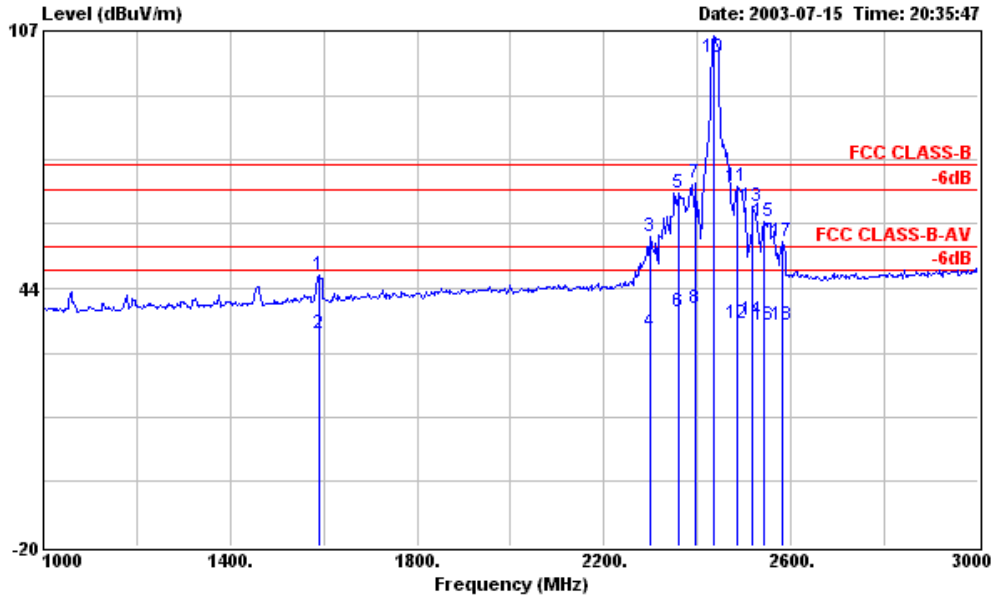


Site : site
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2324.000	55.10	-18.90	74.00	48.07	28.07	6.11	27.15	Peak	---	---
2	2324.000	32.52	-21.48	54.00	25.49	28.07	6.11	27.15	Average	---	---
3	2364.000	62.88	-11.12	74.00	55.73	28.15	6.16	27.16	Peak	---	---
4	2364.000	34.85	-19.15	54.00	27.70	28.15	6.16	27.16	Average	---	---
5	2398.000	61.95	-12.05	74.00	54.68	28.22	6.21	27.16	Peak	---	---
6	2398.000	35.13	-18.87	54.00	27.86	28.22	6.21	27.16	Average	---	---
9	2494.000	63.82	-10.18	74.00	56.25	28.42	6.33	27.18	Peak	---	---
10	2524.000	56.56	-17.44	74.00	48.84	28.51	6.39	27.18	Peak	---	---
11	2542.000	55.51	-18.49	74.00	47.70	28.57	6.42	27.18	Peak	---	---



Site : site
Condition : 3m HORN-ANT-6741 HORIZONTAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling



Site : site
Condition : 3m HORN-ANT-6741 VERTICAL
EUT : Wireless 2.4G AP
Power : 110V/60Hz
MODEL : ME-103
MEMO : TX CH06 2437MHz
: 1.5m+5dBi Ceiling

		Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1		1590.000	46.66	-27.34	74.00	43.10	25.73	4.88	27.05	Peak	---	---
2		1590.000	32.25	-21.75	54.00	28.69	25.73	4.88	27.05	Average	---	---
3		2300.000	56.26	-17.74	74.00	49.31	28.02	6.08	27.15	Peak	---	---
4		2300.000	32.67	-21.33	54.00	25.72	28.02	6.08	27.15	Average	---	---
5		2358.000	67.07	-6.93	74.00	59.94	28.14	6.15	27.16	Peak	---	---
6		2358.000	37.62	-16.38	54.00	30.49	28.14	6.15	27.16	Average	---	---
7	!	2396.000	69.30	-4.70	74.00	62.05	28.21	6.20	27.16	Peak	100	69
8		2396.000	38.53	-15.47	54.00	31.28	28.21	6.20	27.16	Average	---	---
11	!	2486.000	68.49	-5.51	74.00	60.94	28.40	6.32	27.17	Peak	---	---
12		2486.000	34.83	-19.17	54.00	27.28	28.40	6.32	27.17	Average	---	---
13		2518.000	63.64	-10.36	74.00	55.95	28.49	6.38	27.18	Peak	---	---
14		2518.000	35.64	-18.36	54.00	27.95	28.49	6.38	27.18	Average	---	---
15		2542.000	59.98	-14.02	74.00	52.17	28.57	6.42	27.18	Peak	---	---
16		2542.000	34.37	-19.63	54.00	26.56	28.57	6.42	27.18	Average	---	---
17		2580.000	55.11	-18.89	74.00	47.12	28.69	6.49	27.19	Peak	---	---
18		2580.000	34.26	-19.74	54.00	26.27	28.69	6.49	27.19	Average	---	---