MEASUREMENT REPORT

FCC PART 15.247 Bluetooth-LE

FCC ID:	2ALJ3AP36X
APPLICANT:	HAN Networks Co., Ltd.
Application Type:	Certification
Product:	HAN Access Point
Model No.:	AP361, AP361D, AP361e
Brand Name:	HAN NETWORKS; HANNETWORKS
FCC Classification:	Digital Transmission System (DTS)
FCC Rule Part(s):	Part 15 Subpart C (Section 15.247)
Test Procedure(s):	ANSI C63.10-2013, KDB 558074 D01v05r02;
Test Date:	November 05, 2019 ~ March 01, 2020

Reviewed By: Sunny Sun
(Sunny Sun)

Approved By: Robin Wu
(Robin Wu)

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

Revision History

Report No.	Version	Description	Issue Date	Note
1911RSU003-U1	Rev. 01	Initial Report	03-18-2020	Valid

CONTENTS

Description Page

General Information

Applicant:	HAN Networks Co., Ltd.
Applicant Address:	101-A16, 1st Floor, Building 3, No.9 compound, Yongfeng Road, Haidian District, Beijing, P.R. China
Manufacturer:	HAN Networks Co., Ltd.
Manufacturer Address:	101-A16, 1st Floor, Building 3, No.9 compound, Yongfeng Road, Haidian District, Beijing, P.R. China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- **MRT facility is a FCC accredited (MRT Designation No. CN1166) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.**
- **MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.**
- **MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.**
- **MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.**

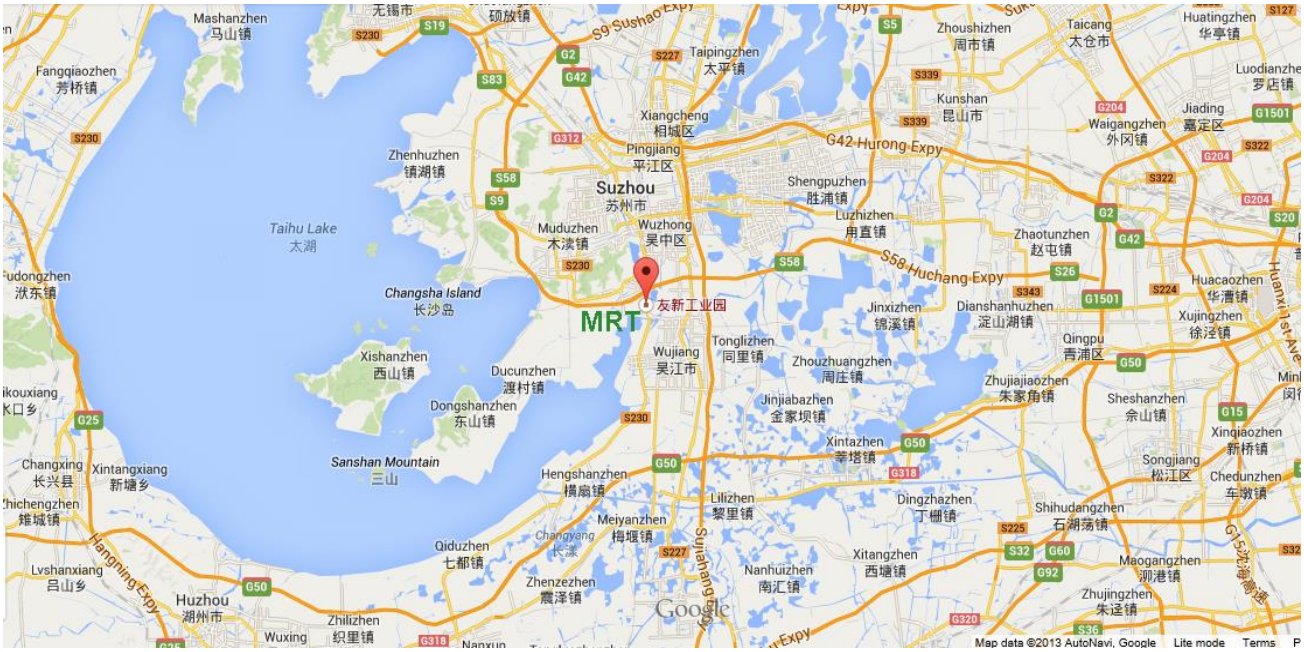
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name:	HAN Access Point
Model No.:	AP361, AP361D, AP361e
Brand Name:	HAN NETWORKS; HANNETWORKS
Wi-Fi Specification:	802.11a/b/g/n/ac/ax
Bluetooth Specification:	v5.1 single mode
Operating Temperature:	-40 ~ 65 °C
Power Type:	PoE input
Operating Environment:	Outdoor Use
Accessories	
Adapter	Model No.: PD-9501GC/AC Input Power: 100 - 240V ~ 50/60Hz, 1.5A Output Power: 55VDC/1.1A

Note 1: The difference between models is that EUT use different antennas and appearances, other hardware and software are the same.

Note 2: The adapter is not for sale together with AP.

2.2. Product Specification Subjective to this Report

Frequency Range:	2400MHz ~ 2483.5MHz
Number of Channels:	40
Data Rate:	1MHz & 2MHz
Type of Modulation:	GFSK

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies for this report

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2.4. Description of Available Antennas

Model No.: AP361

Antenna Type	Frequency Band (GHz)	T_X Paths	Bandwidth (MHz)	Max Peak Gain (dBi)				Directional Gain (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3	CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)									
Omni Antenna	2400 ~ 2483.5	2	20, 40	4.72	4.85	--	--	4.85	7.86
	5150 ~ 5850	4	20, 40, 80	6.48	6.31	6.26	6.12	6.48	12.50
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	-5.46	-4.22	-2.90	-3.84	--	

Bluetooth Internal Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	4.64

Scan Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	4.58
	5150 ~ 5850	6.00
	5150 ~ 5250 30° elevation angle	-5.83

Model No.: AP361D

Antenna Type	Frequency Band (GHz)	T_X Paths	Bandwidth (MHz)	Max Peak Gain (dBi)				Directional Gain (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3	CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)									
Directional Antenna	2400 ~ 2483.5	2	20, 40	7.5	7.0	--	--	7.5	10.51
	5150 ~ 5850	4	20, 40, 80	7.4	7.0	6.9	7.2	7.4	13.42
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	3.12	2.98	3.24	3.65	--	

Bluetooth Internal Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	3.30

Scan Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	7.20
	5150 ~ 5850	9.40
	5150 ~ 5250 30° elevation angle	2.88

Model No.: AP361e

Antenna Type	Frequency Band (GHz)	T_X Paths	Bandwidth (MHz)	Max Peak Gain (dBi)	Directional Gain (dBi)	
					CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)						
Omni Antenna	2400 ~ 2483.5	2	20, 40	5	5	8.01
	5150 ~ 5850	4	20, 40, 80	7	7	13.02
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	-0.3	--	

Bluetooth Internal Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	4.06

Scan Antenna		
Antenna Type	Frequency Band (GHz)	Max Peak Gain (dBi)
Omni Antenna	2400 ~ 2483.5	4.58
	5150 ~ 5850	6.00
	5150 ~ 5250 30° elevation angle	2.88

Note 1: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11a/b/g/n/ac/ax and Beam Forming technology for 802.11n/ac/ax.

Note 2: When the EUT supports Cyclic Delay Diversity (CDD) and it is correlated.

If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log (N_{ANT}/ N_{SS}) dB = 3.01;

- For power measurements on IEEE 802.11 devices,

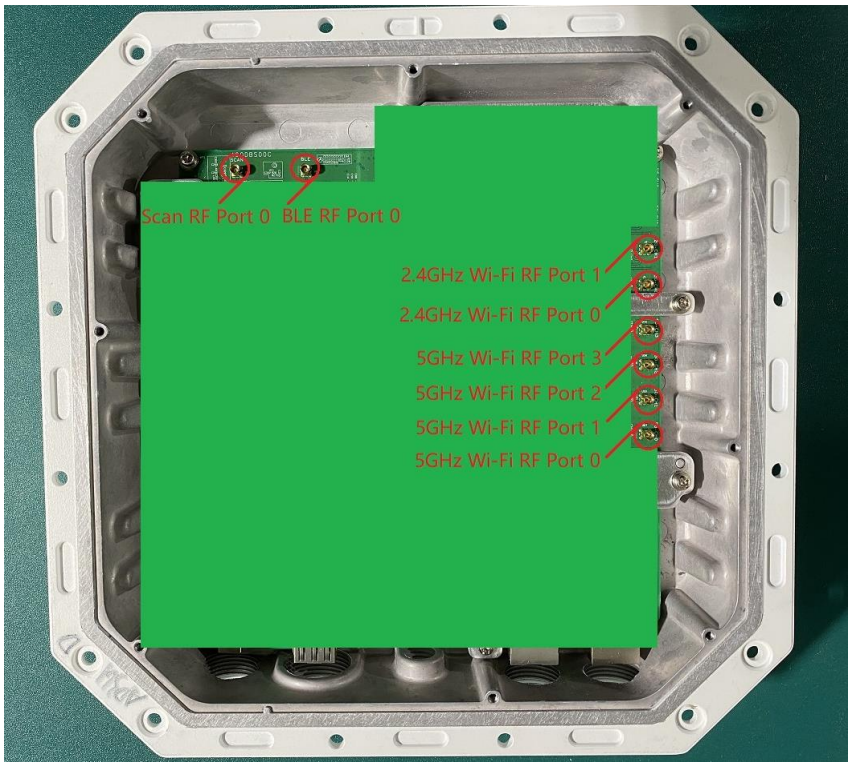
Array Gain = 0 dB for $N_{ANT} \leq 4$;

If antenna gains are not equal, Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

Note 3: The EUT also supports Beam Forming mode, Directional gain = G_{ANT} + 10 log(N_{ANT}/N_{SS}) dBi, Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

2.5. Description of Antenna RF Port

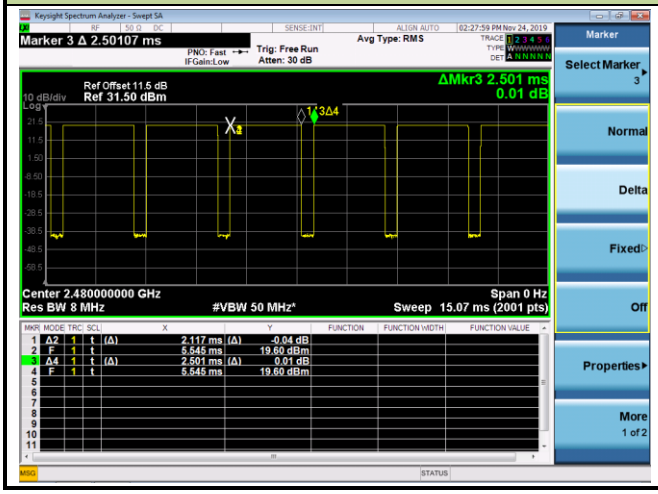
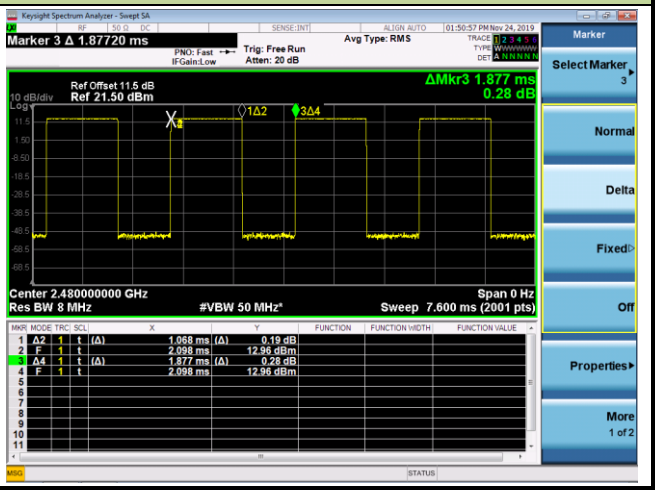
Antenna RF Port								
--	2.4GHz RF Port		5GHz RF Port				Scan RF Port	BLE RF Port
Software Control Port	Ant 0	Ant 1	Ant 0	Ant 1	Ant 2	Ant 3	Ant 0	Ant 0



2.6. Duty Cycle

The maximum achievable duty cycle was determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
BT5.1 - 1Mbps	84.65%
BT5.1 - 2Mbps	56.90%

Duty Cycle (T = Transmission Duration)	
BT5.1 - 1Mbps (T = 2.117ms)	BT5.1- 2Mbps (T = 1.068ms)
	

2.7. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.8. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.9. Test Software

The test utility software used during testing was “Console”.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in ANSI C63.10-2013 were used in the measurement.

Deviation from measurement procedure…….....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions were used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the Antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive Antenna height using a broadband Antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn Antennas were used. For frequencies below 30MHz, a calibrated loop Antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband Antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive Antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn Antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive Antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive Antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn Antenna, the horn Antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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."

Conclusion:

The product is defined as the professional installation of equipment by the manufacturer, there is no necessary to comply with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2020/04/15
Two-Line V-Network	R&S	ENV 216	MRTSUE06002	1 year	2020/06/13
Two-Line V-Network	R&S	ENV 216	MRTSUE06003	1 year	2020/06/13
Thermohygrometer	Testo	608-H1	MRTSUE06404	1 year	2020/08/08
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

Radiated Emissions - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2020/08/01
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2020/09/03
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2020/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2020/10/13
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2020/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2020/08/08
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2020/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2020/08/01
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2020/10/13
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2020/10/27
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2020/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2020/12/13
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2020/04/30

Conducted Test Equipment - TR3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2020/04/15
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06452	1 year	2020/07/11
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2020/04/15
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2020/11/18
USB wideband power sensor	Keysight	U2021XA	MRTSUE06446	1 year	2020/06/30
USB wideband power sensor	Keysight	U2021XA	MRTSUE06447	1 year	2020/06/30
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2020/06/13
Audio Analyzer	Agilent	U8903B	MRTSUE06143	1 year	2020/06/13
Modulation Analyzer	HP	8901A	MRTSUE06098	1 year	2020/10/10
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2020/11/07
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2020/08/08

Software	Version	Function
EMI Software	V3	EMI Test Software

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Conducted Emission Measurement - SR2
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.84dB 150kHz~30MHz: 3.46dB
Radiated Emission Measurement - AC1
The maximum measurement uncertainty is evaluated as: Horizontal: 30MHz~300MHz: 4.07dB 300MHz~1GHz: 3.63dB 1GHz~18GHz: 4.16dB Vertical: 30MHz~300MHz: 4.18dB 300MHz~1GHz: 3.60dB 1GHz~18GHz: 4.76dB
Radiated Emission Measurement - AC2
The maximum measurement uncertainty is evaluated as: Horizontal: 30MHz~300MHz: 3.75dB 300MHz~1GHz: 3.53dB 1GHz~18GHz: 4.28dB Vertical: 30MHz~300MHz: 3.86dB 300MHz~1GHz: 3.53dB 1GHz~18GHz: 4.33dB

7. TEST RESULT

7.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	≥ 500kHz	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	≤ 30dBm		Pass	Section 7.3
15.247(e)	Power Spectral Density	≤ 8dBm/3kHz		Pass	Section 7.4
15.247(d)	Band Edge / Out-of-Band Emissions	≤ 20dBc (Peak)		Pass	Section 7.5
15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.6 & 7.7
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.8

Notes:

1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2) All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst case emissions.
3) The difference between models is that EUT use different antennas and appearances, other hardware and software are the same, so we only use the AP361D to perform all conducted tests.
4) This report is supplemented to MRT Original “1912RSU073-U1” Report, FCC ID: 2AI9TOAW-AP136X updating applicant, product name and model number.

7.2. 6dB Bandwidth Measurement

7.2.1.Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

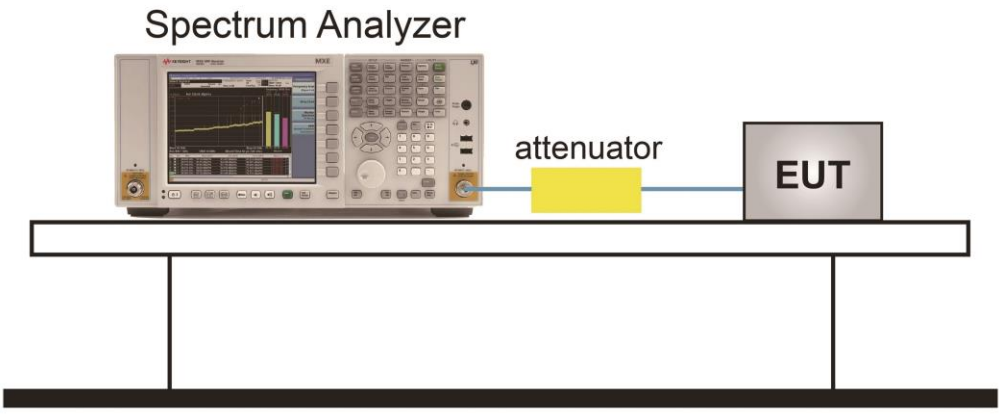
7.2.2.Test Procedure used

ANSI C63.10-2013 - Section 11.8.2 Option 2

7.2.3.Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 6. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

7.2.4.Test Setup



7.2.5.Test Result

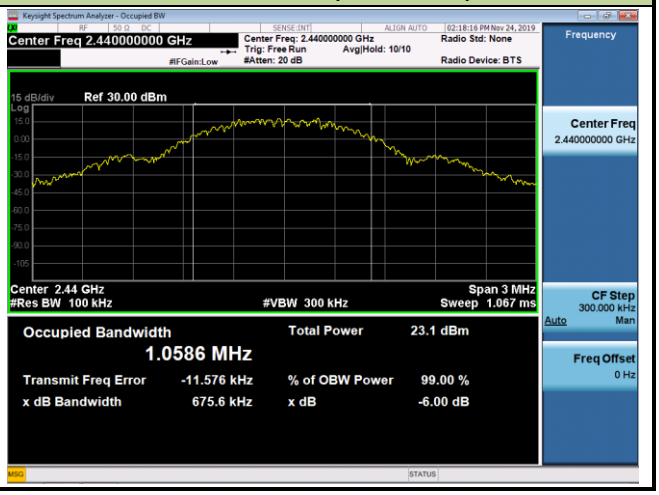
Product	HAN Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	AP361D		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
BT5.1	1	00	2402	0.67	≥ 0.5	Pass
		19	2440	0.68	≥ 0.5	Pass
		39	2480	0.67	≥ 0.5	Pass
	2	00	2402	1.33	≥ 0.5	Pass
		19	2440	1.35	≥ 0.5	Pass
		39	2480	1.27	≥ 0.5	Pass

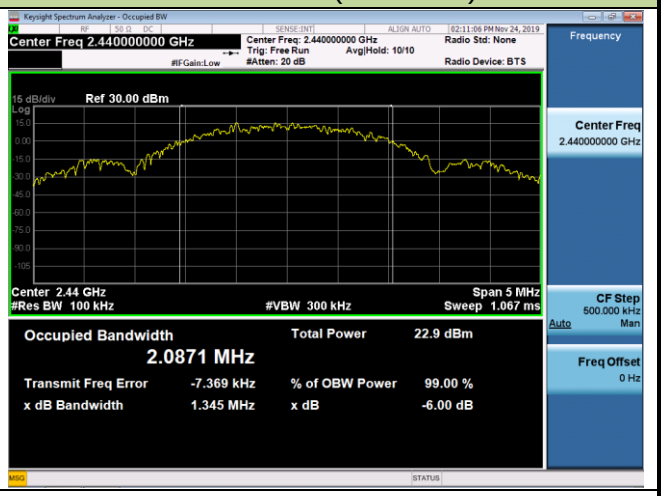
BT5.1 - 1Mbps 6dB Bandwidth

Channel 00 (2402MHz)

Channel 19 (2440MHz)



Channel 39 (2480MHz)	
	

BT5.1 - 2Mbps 6dB Bandwidth	
Channel 00 (2402MHz)	Channel 19 (2440MHz)
	

Channel 39 (2480MHz)	
	

7.3. Output Power Measurement

7.3.1.Test Limit

The maximum out power shall be less 1 Watt (30dBm).

7.3.2.Test Procedure Used

ANSI C63.10-2013 - Section 11.9.2.3

7.3.3.Test Setting

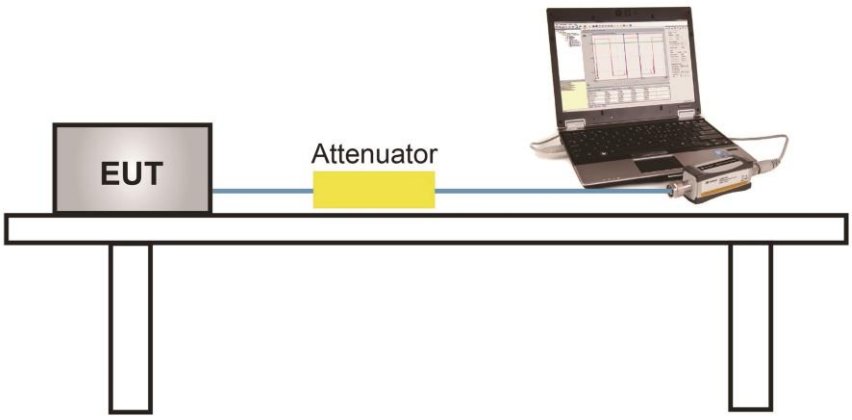
Method PKPM1 (Peak Power Measurement of Signals with DTS BW ≤ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Method AVGPM-G (Measurement using a gated RF average-reading power meter)

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.

7.3.4.Test Setup



7.3.5.Test Result of Output Power

Product	HAN Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	56%
Test Site	TR3	Test Date	2019/11/20
Model No.	AP361D		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BT5.1	1	00	2402	19.25	≤ 30.00	Pass
		19	2440	18.72	≤ 30.00	Pass
		39	2480	19.47	≤ 30.00	Pass
	2	00	2402	19.26	≤ 30.00	Pass
		19	2440	18.72	≤ 30.00	Pass
		39	2480	13.19	≤ 30.00	Pass

7.4. Power Spectral Density Measurement

7.4.1.Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

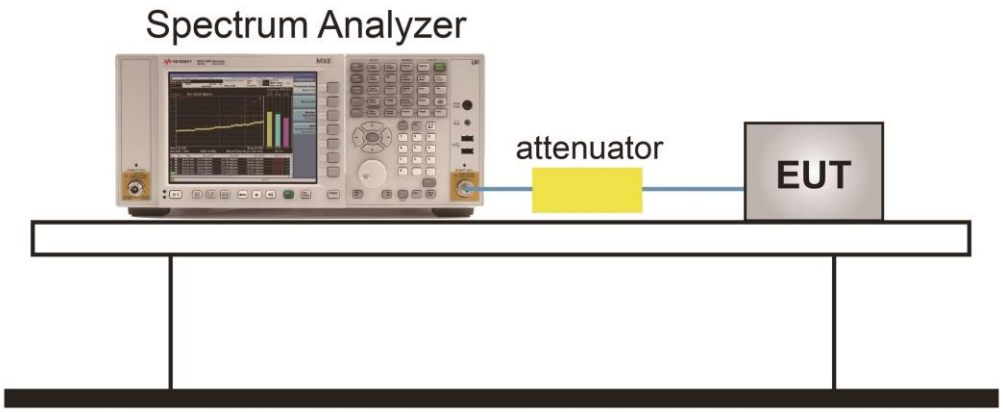
7.4.2.Test Procedure Used

ANSI C63.10 Section 11.10.2

7.4.3.Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

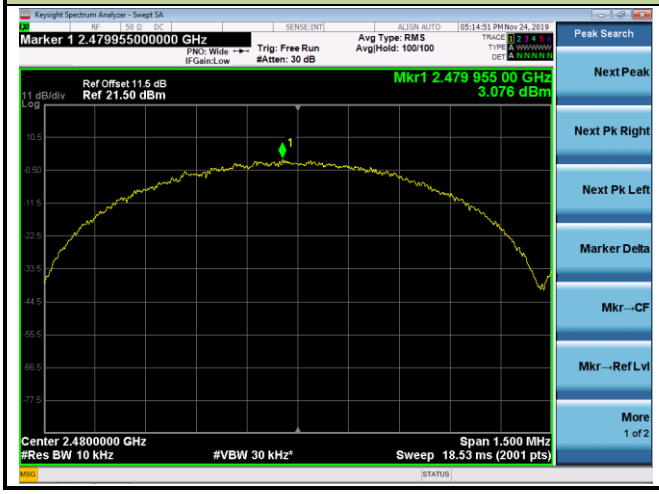
7.4.4.Test Setup

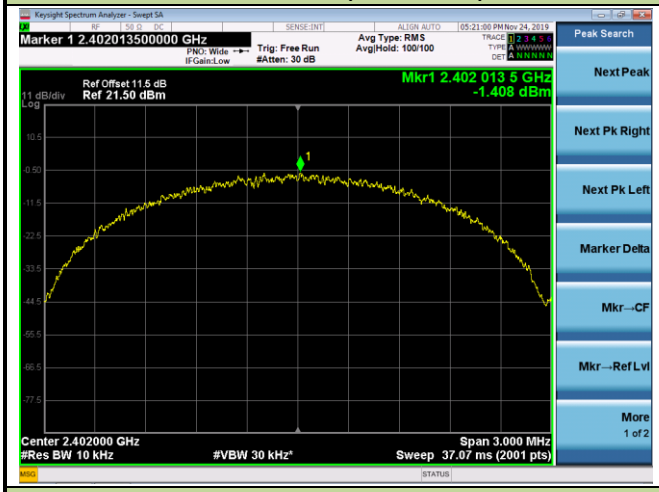
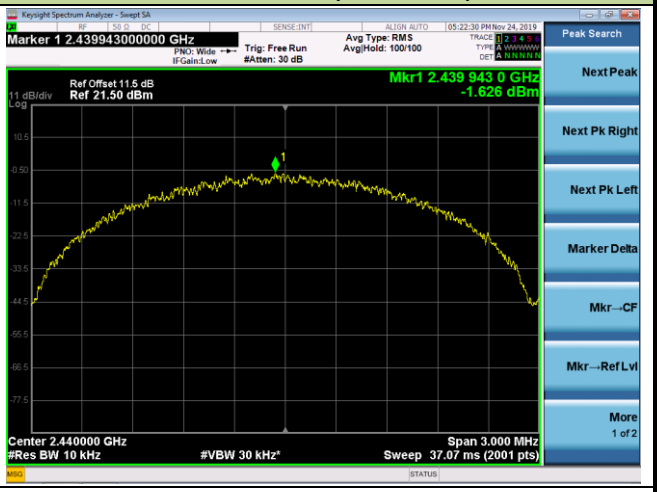


7.4.5.Test Result

Product	HAN Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	AP361D		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	PSD Result (dBm / 10kHz)	Duty Cycle (%)	Constant Factor (dB)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BT5.1	1	00	2402	2.75	84.65	-5.23	-1.76	≤ 8.00	Pass
		19	2440	3.01	84.65	-5.23	-1.50	≤ 8.00	Pass
		39	2480	3.08	84.65	-5.23	-1.43	≤ 8.00	Pass
	2	00	2402	-1.41	56.90	-5.23	-4.19	≤ 8.00	Pass
		19	2440	-1.63	56.90	-5.23	-4.41	≤ 8.00	Pass
		39	2480	-6.90	56.90	-5.23	-9.68	≤ 8.00	Pass

BT5.1 - 1Mbps PSD	
Channel 00 (2402MHz)	Channel 19 (2440MHz)
	
Channel 39 (2480MHz)	
	

BT5.1 - 2Mbps PSD	
Channel 00 (2402MHz)	Channel 19 (2440MHz)
	
Channel 39 (2480MHz)	
	

7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1.Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

7.5.2.Test Procedure Used

ANSI C63.10 Section 11.11

7.5.3.Test Settitng

Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW ≥ 3 x RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

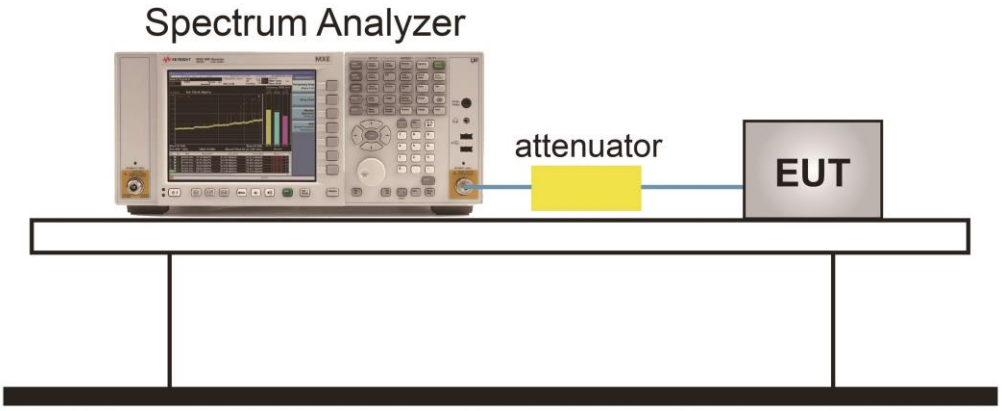
Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Notes

1. RBW was set to 1.3MHz rather than 100KHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100KHz bandwidth. However, since the traces in the following plots are measured with a 1.3MHz RBW, the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1.3MHz bandwidth.
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.

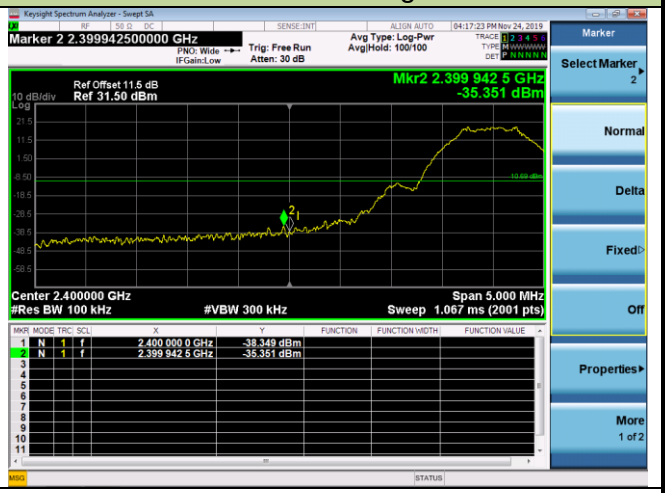
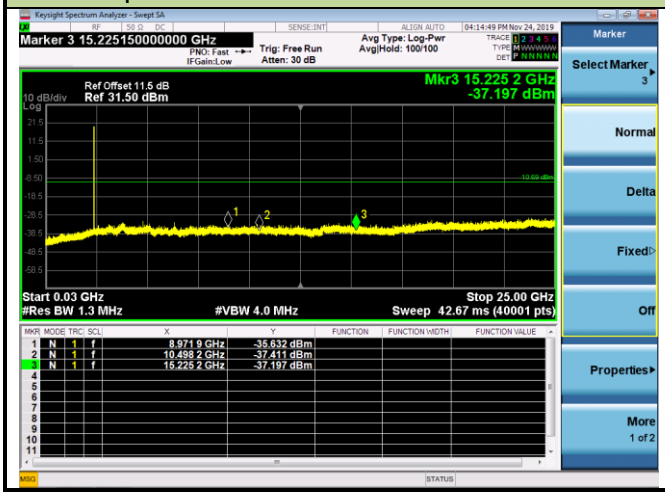
7.5.4.Test Setup

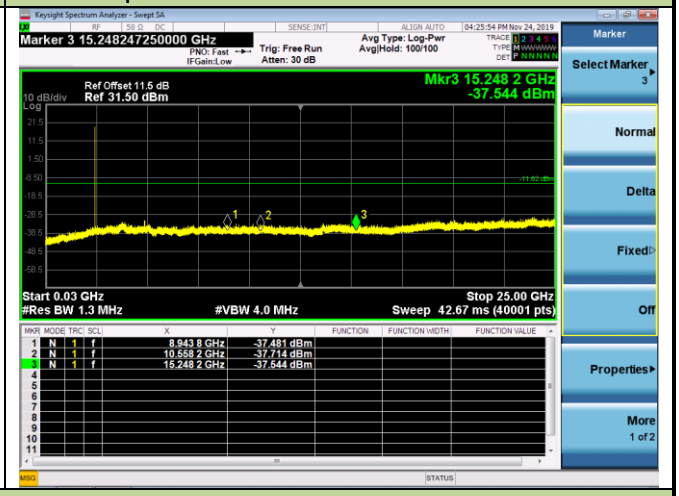
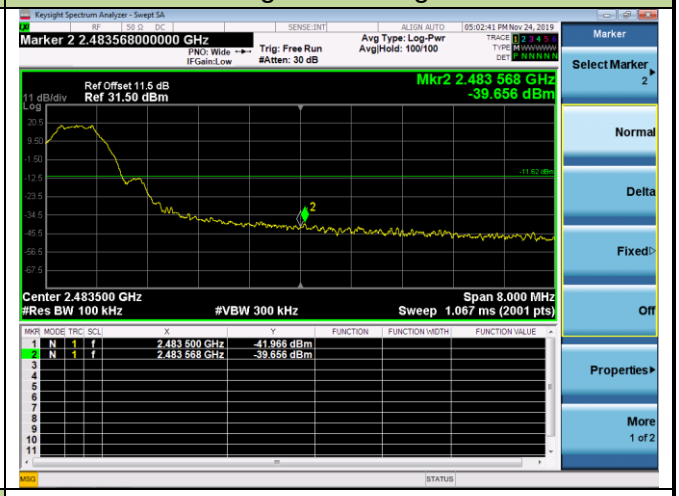
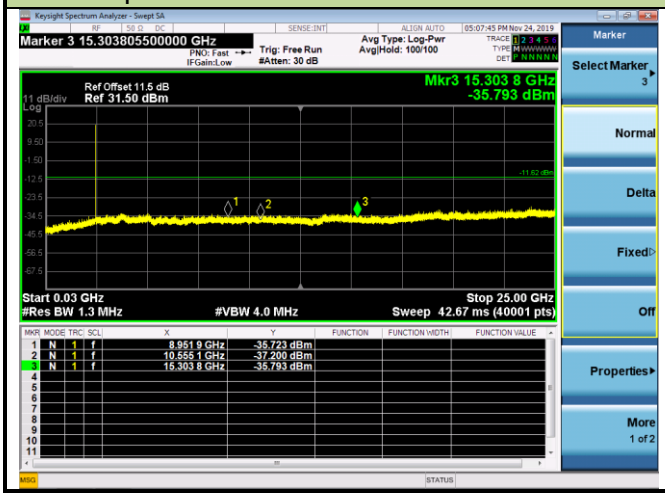


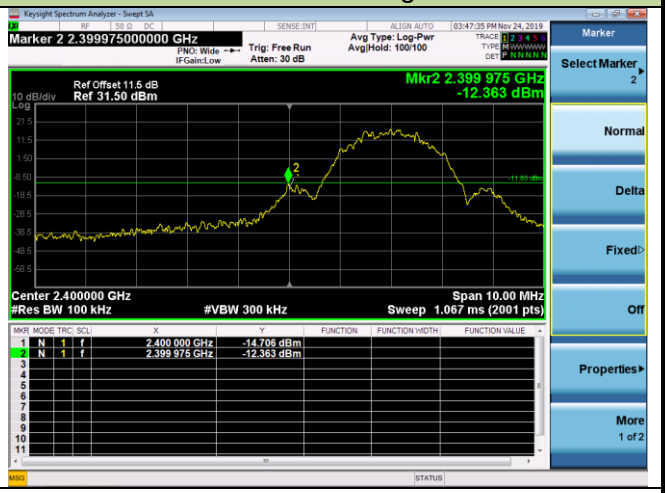
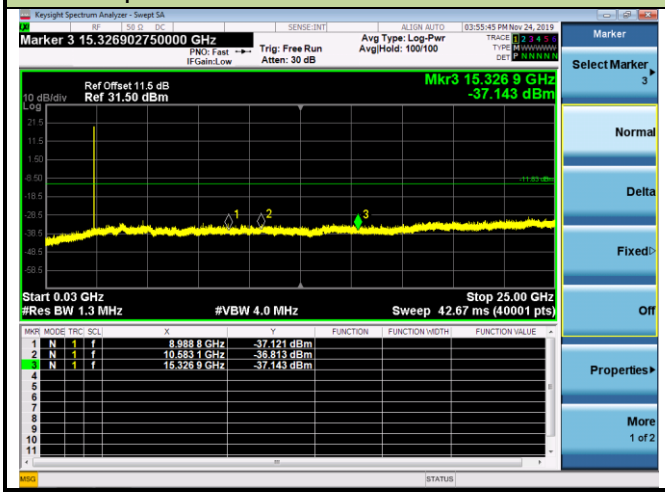
7.5.5.Test Result

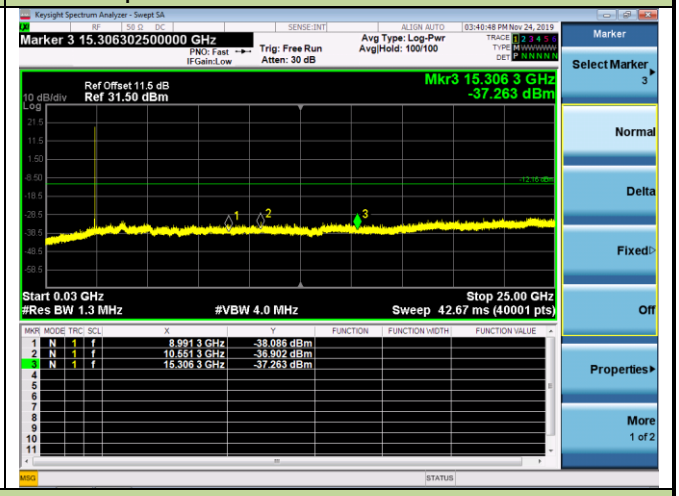
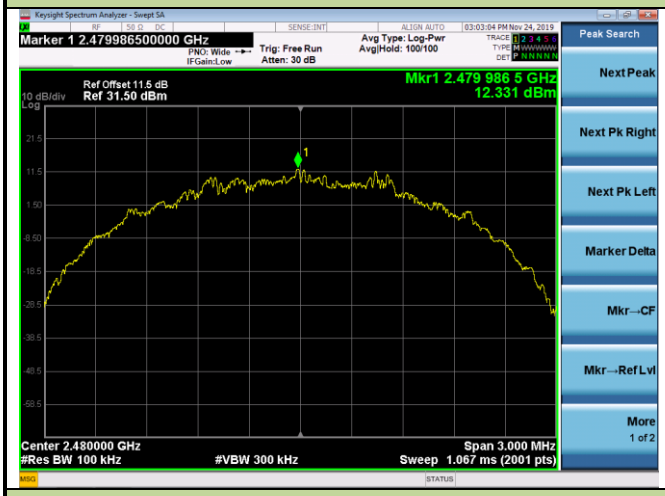
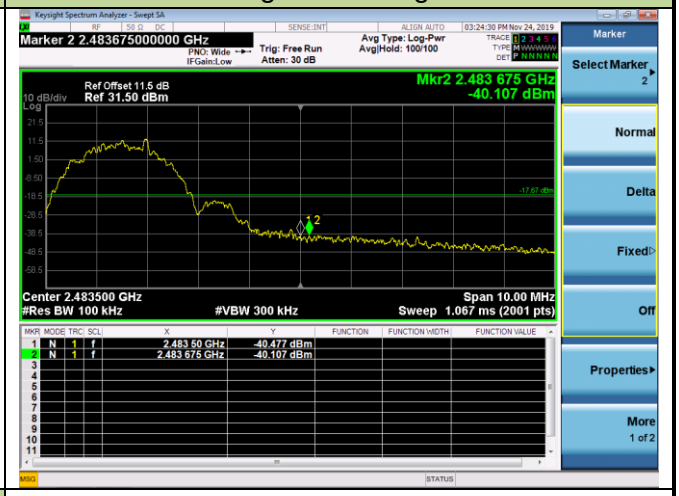
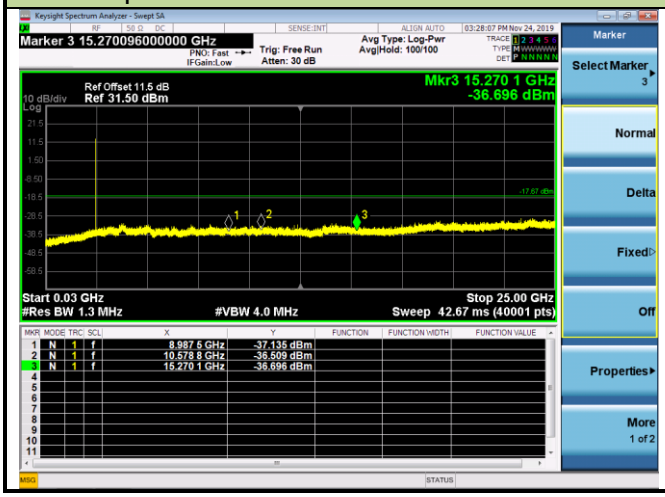
Product	HAN Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	AP361D		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
BT5.1	1	00	2402	30dBc	Pass
		19	2440	30dBc	Pass
		39	2480	30dBc	Pass
	2	00	2402	30dBc	Pass
		19	2440	30dBc	Pass
		39	2480	30dBc	Pass

BT5.1 - 1Mbps Out-of-Band Emissions	
Channel 00 (2402MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 25GHz	
	

Channel 19 (2440MHz)	
100kHz PSD reference Level	Spurious Emission 30MHz ~ 25GHz
	
Channel 39 (2480MHz)	
100kHz PSD reference Level	High Band Edge
	
Spurious Emission 30MHz ~ 25GHz	
	

BT5.1 - 2Mbps Out-of-Band Emissions	
Channel 00 (2402MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 25GHz	
	

Channel 19 (2440MHz)	
100kHz PSD reference Level	Spurious Emission 30MHz ~ 25GHz
	
Channel 39 (2480MHz)	
100kHz PSD reference Level	High Band Edge
	
Spurious Emission 30MHz ~ 25GHz	
	

7.6. Radiated Spurious Emission Measurement

7.6.1.Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Field Strength (uV/m)	Measured Distance (Meters)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.6.3.Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

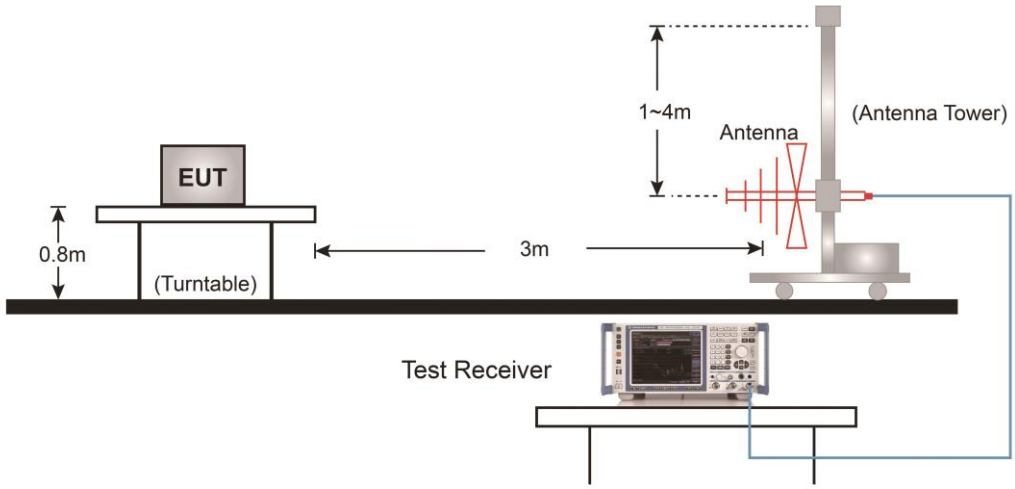
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

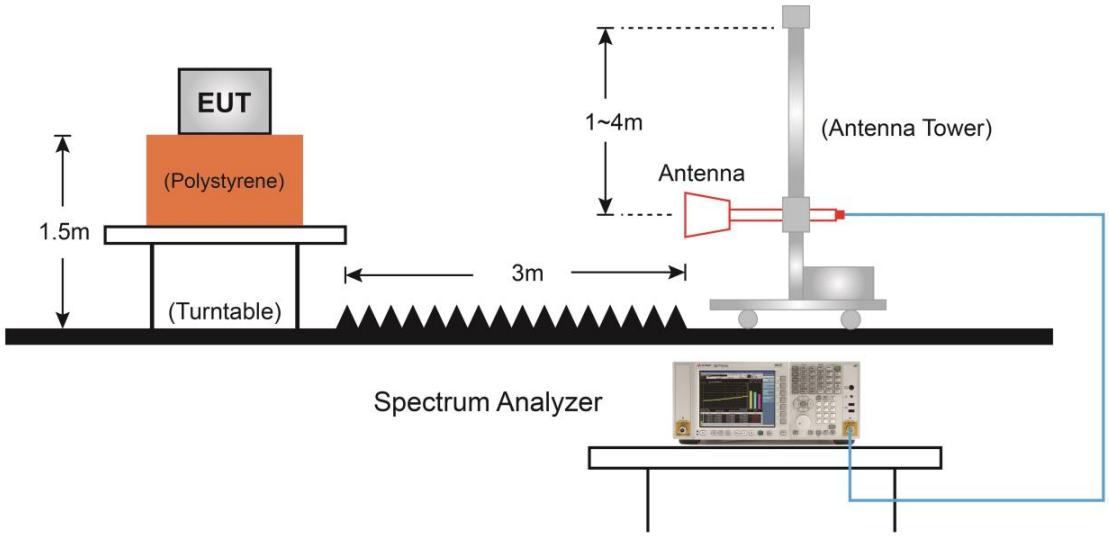
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4.Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.6.5.Test Result

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4366.0	36.5	2.5	39.0	74.0	-35.0	Peak	Horizontal
	4799.5	38.8	4.3	43.1	74.0	-30.9	Peak	Horizontal
*	5751.5	35.6	5.7	41.3	81.2	-39.9	Peak	Horizontal
*	7137.0	32.5	11.7	44.2	81.2	-37.0	Peak	Horizontal
	4272.5	36.5	2.2	38.7	74.0	-35.3	Peak	Vertical
	4808.0	44.2	4.2	48.4	74.0	-25.6	Peak	Vertical
*	6533.5	33.2	8.7	41.9	81.2	-39.3	Peak	Vertical
*	6958.5	32.5	10.6	43.1	81.2	-38.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (111.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4009.0	35.4	1.3	36.7	74.0	-37.3	Peak	Horizontal
	4876.0	39.2	3.7	42.9	74.0	-31.1	Peak	Horizontal
*	5879.0	34.5	6.0	40.5	82.5	-42.0	Peak	Horizontal
*	7137.0	33.0	11.7	44.7	82.5	-37.8	Peak	Horizontal
	3788.0	37.4	0.9	38.3	74.0	-35.7	Peak	Vertical
	4876.0	42.2	3.7	45.9	74.0	-28.1	Peak	Vertical
*	6270.0	34.6	7.2	41.8	82.5	-40.7	Peak	Vertical
*	7188.0	32.2	11.9	44.1	82.5	-38.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.5dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4638.0	36.1	3.6	39.7	74.0	-34.3	Peak	Horizontal
	4961.0	36.4	3.9	40.3	74.0	-33.7	Peak	Horizontal
*	6508.0	34.5	8.6	43.1	77.9	-34.8	Peak	Horizontal
*	7035.0	33.1	11.1	44.2	77.9	-33.7	Peak	Horizontal
	4604.0	34.0	3.4	37.4	74.0	-36.6	Peak	Vertical
	4961.0	39.1	3.9	43.0	74.0	-31.0	Peak	Vertical
*	6083.0	33.8	7.0	40.8	77.9	-37.1	Peak	Vertical
*	6406.0	34.3	7.9	42.2	77.9	-35.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (107.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3856.0	38.3	0.4	38.7	74.0	-35.3	Peak	Horizontal
	4808.0	39.3	4.2	43.5	74.0	-30.5	Peak	Horizontal
*	5845.0	35.3	6.0	41.3	81.3	-40.0	Peak	Horizontal
*	7086.0	32.1	11.9	44.0	81.3	-37.3	Peak	Horizontal
	4111.0	36.5	1.7	38.2	74.0	-35.8	Peak	Vertical
	4808.0	43.6	4.2	47.8	74.0	-26.2	Peak	Vertical
*	6202.0	34.1	7.1	41.2	81.3	-40.1	Peak	Vertical
*	7086.0	32.0	11.9	43.9	81.3	-37.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (111.3dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4196.0	36.5	2.1	38.6	74.0	-35.4	Peak	Horizontal
	4876.0	37.8	3.7	41.5	74.0	-32.5	Peak	Horizontal
*	6185.0	34.7	6.9	41.6	82.4	-40.8	Peak	Horizontal
*	6984.0	33.2	10.8	44.0	82.4	-38.4	Peak	Horizontal
	4638.0	35.6	3.6	39.2	74.0	-34.8	Peak	Vertical
	4876.0	41.6	3.7	45.3	74.0	-28.7	Peak	Vertical
*	5471.0	34.9	4.5	39.4	82.4	-43.0	Peak	Vertical
*	7137.0	31.8	11.7	43.5	82.4	-38.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	AP361		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	31.3	11.7	43.0	74.0	-31.0	Peak	Horizontal
*	7851.0	31.8	12.0	43.8	74.0	-30.2	Peak	Horizontal
	8395.0	31.2	12.4	43.6	74.0	-30.4	Peak	Horizontal
	9143.0	29.9	14.7	44.6	74.0	-29.4	Peak	Horizontal
*	7120.0	32.3	11.6	43.9	74.0	-30.1	Peak	Vertical
*	7868.0	31.5	12.1	43.6	74.0	-30.4	Peak	Vertical
	8395.0	32.0	12.4	44.4	74.0	-29.6	Peak	Vertical
	9092.0	31.1	14.5	45.6	74.0	-28.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (99.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3924.0	38.0	3.6	41.6	74.0	-32.4	Peak	Horizontal
	4808.0	38.6	6.2	44.8	74.0	-29.2	Peak	Horizontal
*	5513.5	37.3	7.4	44.7	83.0	-38.3	Peak	Horizontal
*	7179.5	34.4	12.3	46.7	83.0	-36.3	Peak	Horizontal
	3915.5	37.6	3.6	41.2	74.0	-32.8	Peak	Vertical
	4808.0	42.0	6.2	48.2	74.0	-25.8	Peak	Vertical
*	5981.0	35.4	8.2	43.6	83.0	-39.4	Peak	Vertical
*	6967.0	34.7	11.2	45.9	83.0	-37.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	40.1	6.3	46.4	74.0	-27.6	Peak	Horizontal
	7553.5	33.9	12.3	46.2	74.0	-27.8	Peak	Horizontal
*	8701.0	33.3	14.4	47.7	83.7	-36.0	Peak	Horizontal
*	10078.0	30.8	16.6	47.4	83.7	-36.3	Peak	Horizontal
	4884.5	44.5	6.4	50.9	74.0	-23.1	Peak	Vertical
	7519.5	33.6	12.5	46.1	74.0	-27.9	Peak	Vertical
*	9721.0	34.6	16.5	51.1	83.7	-32.6	Peak	Vertical
*	10537.0	31.3	17.6	48.9	83.7	-34.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.7dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4332.0	37.9	4.7	42.6	74.0	-31.4	Peak	Horizontal
	5080.0	36.6	7.0	43.6	74.0	-30.4	Peak	Horizontal
*	6083.0	34.2	8.6	42.8	83.0	-40.2	Peak	Horizontal
*	7009.5	34.6	11.6	46.2	83.0	-36.8	Peak	Horizontal
	4961.0	41.0	6.6	47.6	74.0	-26.4	Peak	Vertical
	8208.0	34.4	12.9	47.3	74.0	-26.7	Peak	Vertical
*	9619.0	34.3	16.1	50.4	83.0	-32.6	Peak	Vertical
*	10409.5	30.5	17.5	48.0	83.0	-35.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4136.5	36.9	4.2	41.1	74.0	-32.9	Peak	Horizontal
	5063.0	36.4	7.2	43.6	74.0	-30.4	Peak	Horizontal
*	6346.5	35.3	9.5	44.8	83.1	-38.3	Peak	Horizontal
*	7953.0	31.8	13.1	44.9	83.1	-38.2	Peak	Horizontal
	4119.5	36.4	4.2	40.6	74.0	-33.4	Peak	Vertical
	4808.0	41.6	6.2	47.8	74.0	-26.2	Peak	Vertical
*	6355.0	34.3	9.5	43.8	83.1	-39.3	Peak	Vertical
*	7222.0	34.3	12.1	46.4	83.1	-36.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3983.5	37.7	3.8	41.5	74.0	-32.5	Peak	Horizontal
	4876.0	39.6	6.3	45.9	74.0	-28.1	Peak	Horizontal
*	6652.5	32.7	10.3	43.0	84.3	-41.3	Peak	Horizontal
*	8565.0	34.3	13.4	47.7	84.3	-36.6	Peak	Horizontal
	4043.0	36.5	3.7	40.2	74.0	-33.8	Peak	Vertical
	4884.5	44.9	6.4	51.3	74.0	-22.7	Peak	Vertical
*	7842.5	34.2	12.6	46.8	84.3	-37.5	Peak	Vertical
*	9712.5	34.1	16.5	50.6	84.3	-33.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (114.3dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	AP361D		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4323.5	36.9	4.7	41.6	74.0	-32.4	Peak	Horizontal
	4961.0	36.1	6.6	42.7	74.0	-31.3	Peak	Horizontal
*	5658.0	35.0	7.7	42.7	74.0	-31.3	Peak	Horizontal
*	6576.0	34.6	10.5	45.1	74.0	-28.9	Peak	Horizontal
	4272.5	39.8	2.2	42.0	74.0	-32.0	Peak	Vertical
	4961.0	42.0	3.9	45.9	74.0	-28.1	Peak	Vertical
*	7111.5	34.1	12.1	46.2	74.0	-27.8	Peak	Vertical
*	8743.5	34.2	14.1	48.3	74.0	-25.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (102.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3788.0	36.7	0.9	37.6	74.0	-36.4	Peak	Horizontal
	4808.0	47.1	4.2	51.3	74.0	-22.7	Peak	Horizontal
*	6278.5	34.4	7.0	41.4	79.2	-37.8	Peak	Horizontal
*	7069.0	33.1	11.5	44.6	79.2	-34.6	Peak	Horizontal
	3873.0	37.4	0.8	38.2	74.0	-35.8	Peak	Vertical
	4799.5	51.3	4.3	55.6	74.0	-18.4	Peak	Vertical
	4799.5	46.4	4.3	50.7	54.0	-3.3	Average	Vertical
*	6185.0	33.9	6.9	40.8	79.2	-38.4	Peak	Vertical
*	7145.5	35.0	11.6	46.6	79.2	-32.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3975.0	36.4	0.7	37.1	74.0	-36.9	Peak	Horizontal
	4876.0	37.4	3.7	41.1	74.0	-32.9	Peak	Horizontal
*	6185.0	35.0	6.9	41.9	80.4	-38.5	Peak	Horizontal
*	7188.0	32.4	11.9	44.3	80.4	-36.1	Peak	Horizontal
	4340.5	36.0	2.4	38.4	74.0	-35.6	Peak	Vertical
	4884.5	41.7	3.9	45.6	74.0	-28.4	Peak	Vertical
*	6406.0	34.0	7.9	41.9	80.4	-38.5	Peak	Vertical
*	6958.5	33.4	10.6	44.0	80.4	-36.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (110.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4867.5	35.6	3.7	39.3	74.0	-34.7	Peak	Horizontal
	5071.5	35.2	4.5	39.7	74.0	-34.3	Peak	Horizontal
*	6712.0	32.7	9.5	42.2	78.1	-35.9	Peak	Horizontal
*	7060.5	32.4	11.4	43.8	78.1	-34.3	Peak	Horizontal
	4638.0	36.2	3.6	39.8	74.0	-34.2	Peak	Vertical
	4961.0	39.2	3.9	43.1	74.0	-30.9	Peak	Vertical
*	6329.5	34.4	7.4	41.8	78.1	-36.3	Peak	Vertical
*	7043.5	32.8	11.2	44.0	78.1	-34.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4136.5	35.2	1.9	37.1	74.0	-36.9	Peak	Horizontal
	4808.0	47.4	4.2	51.6	74.0	-22.4	Peak	Horizontal
*	6397.5	33.6	7.8	41.4	80.0	-38.6	Peak	Horizontal
*	7069.0	32.0	11.5	43.5	80.0	-36.5	Peak	Horizontal
	4230.0	36.1	1.9	38.0	74.0	-36.0	Peak	Vertical
	4799.5	52.3	4.3	56.6	74.0	-17.4	Peak	Vertical
	4799.5	47.5	4.3	51.8	54.0	-2.2	Average	Vertical
*	6304.0	34.9	7.1	42.0	80.0	-38.0	Peak	Vertical
*	6601.5	33.3	9.2	42.5	80.0	-37.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (110.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3983.5	36.4	0.8	37.2	74.0	-36.8	Peak	Horizontal
	4876.0	37.9	3.7	41.6	74.0	-32.4	Peak	Horizontal
*	6431.5	34.0	8.1	42.1	82.4	-40.3	Peak	Horizontal
*	7043.5	32.3	11.2	43.5	82.4	-38.9	Peak	Horizontal
	4306.5	35.9	2.5	38.4	74.0	-35.6	Peak	Vertical
	4876.0	41.5	3.7	45.2	74.0	-28.8	Peak	Vertical
*	6227.5	34.4	7.2	41.6	82.4	-40.8	Peak	Vertical
*	7035.0	32.9	11.1	44.0	82.4	-38.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HAN Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	AP361e		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3890.0	37.7	0.8	38.5	74.0	-35.5	Peak	Horizontal
	4842.0	34.7	4.0	38.7	74.0	-35.3	Peak	Horizontal
*	6185.0	34.3	6.9	41.2	74.0	-32.8	Peak	Horizontal
*	7086.0	32.7	11.9	44.6	74.0	-29.4	Peak	Horizontal
	4315.0	35.8	2.4	38.2	74.0	-35.8	Peak	Vertical
	4612.5	35.0	3.4	38.4	74.0	-35.6	Peak	Vertical
*	6431.5	34.0	8.1	42.1	74.0	-31.9	Peak	Vertical
*	7196.5	32.0	12.1	44.1	74.0	-29.9	Peak	Vertical

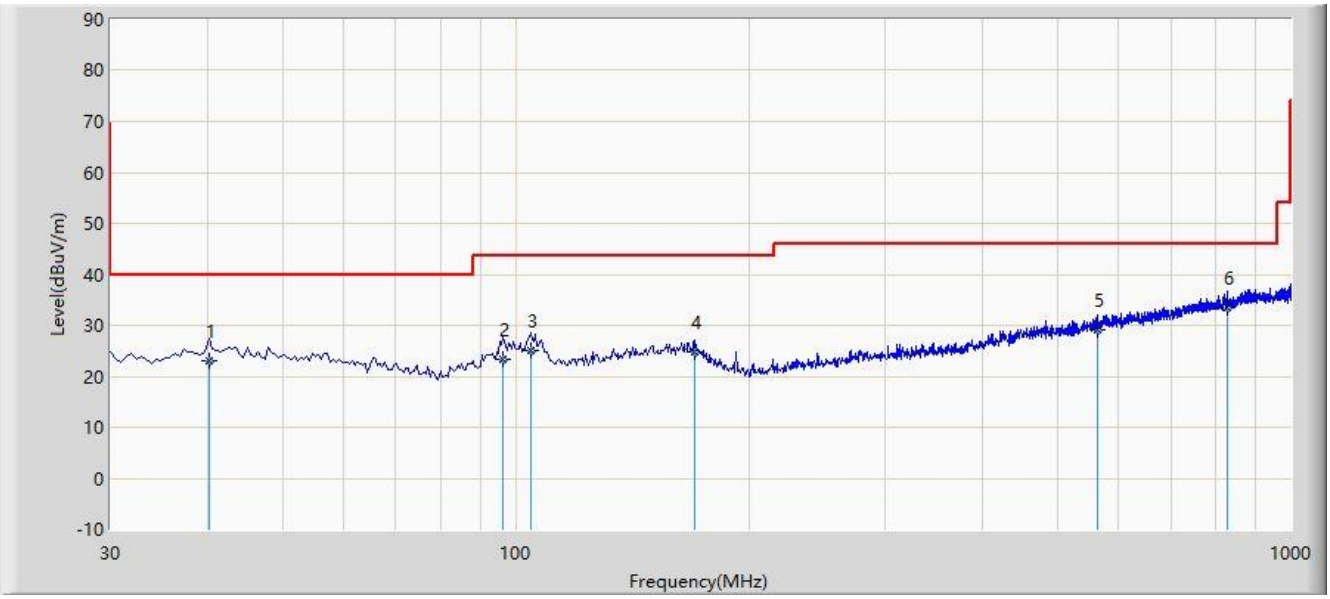
Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (96.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2020/01/17 - 10:45
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: AC2_VULB9162_0.03-7GHz	Polarity: Horizontal
EUT: HAN Access Point	Power: By PoE
Worse Case Mode: Transmit by BT5.1 - 1Mbps at channel 2402MHz with AP361e	



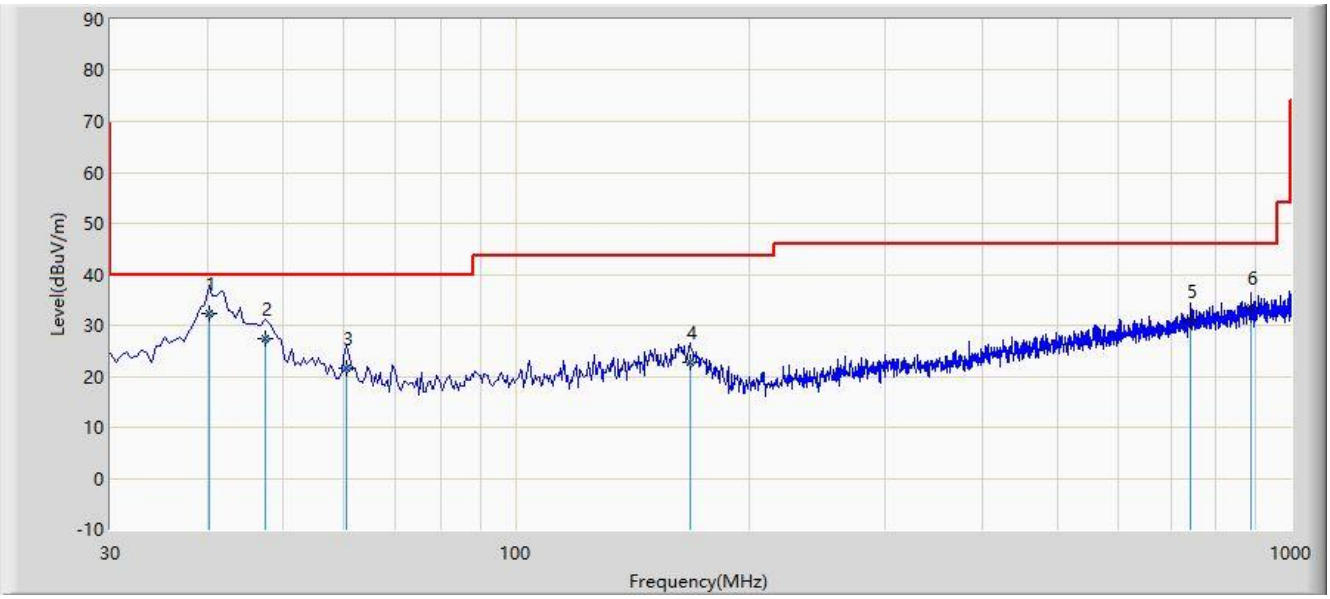
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			40.180	22.903	9.580	-17.097	40.000	13.323	QP
2			96.450	23.422	11.470	-20.078	43.500	11.952	QP
3			104.680	24.931	12.480	-18.569	43.500	12.451	QP
4			170.150	24.828	14.710	-18.672	43.500	10.118	QP
5			563.080	29.220	9.040	-16.780	46.000	20.181	QP
6		*	829.750	33.578	9.300	-12.422	46.000	24.278	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC2	Time: 2020/01/17 - 10:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: AC2_VULB9162_0.03-7GHz	Polarity: Vertical
EUT: HAN Access Point	Power: By PoE
Worse Case Mode: Transmit by BT5.1 - 1Mbps at channel 2402MHz with AP361e	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.190	32.356	19.030	-7.644	40.000	13.326	QP
2			47.450	27.478	12.970	-12.522	40.000	14.508	QP
3			60.560	21.693	8.490	-18.307	40.000	13.203	QP
4			167.740	22.620	12.590	-20.880	43.500	10.030	QP
5			743.450	30.829	7.390	-15.171	46.000	23.438	QP
6			887.950	33.387	8.300	-12.613	46.000	25.086	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.7. Radiated Restricted Band Edge Measurement

7.7.1.Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1] 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz]	Field Strength (uV/m]	Measured Distance (Meters)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.7.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.7.3.Test Setting

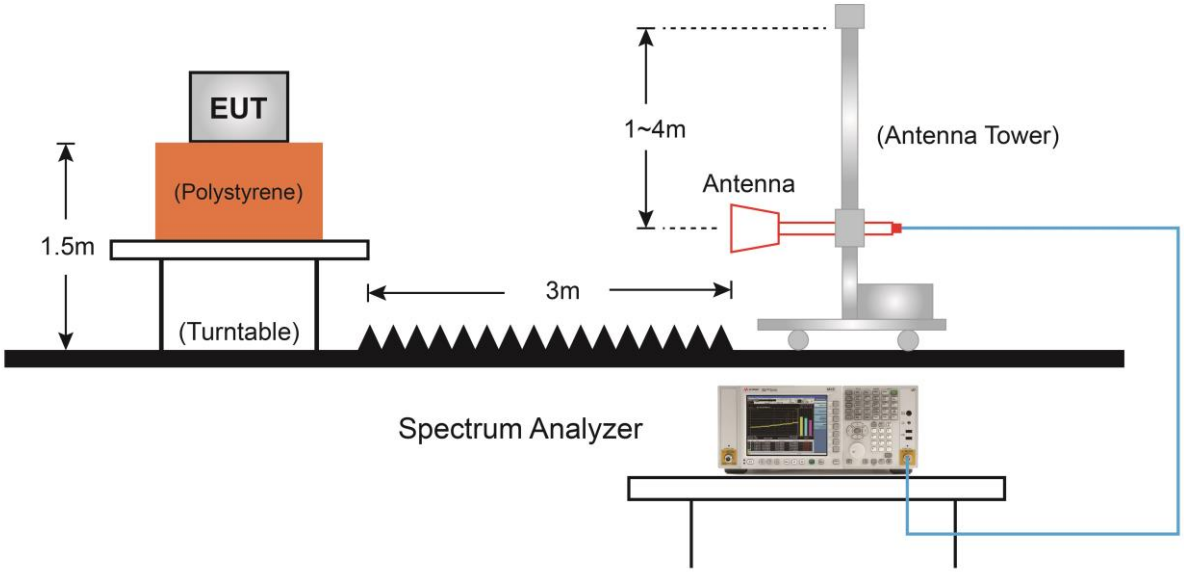
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

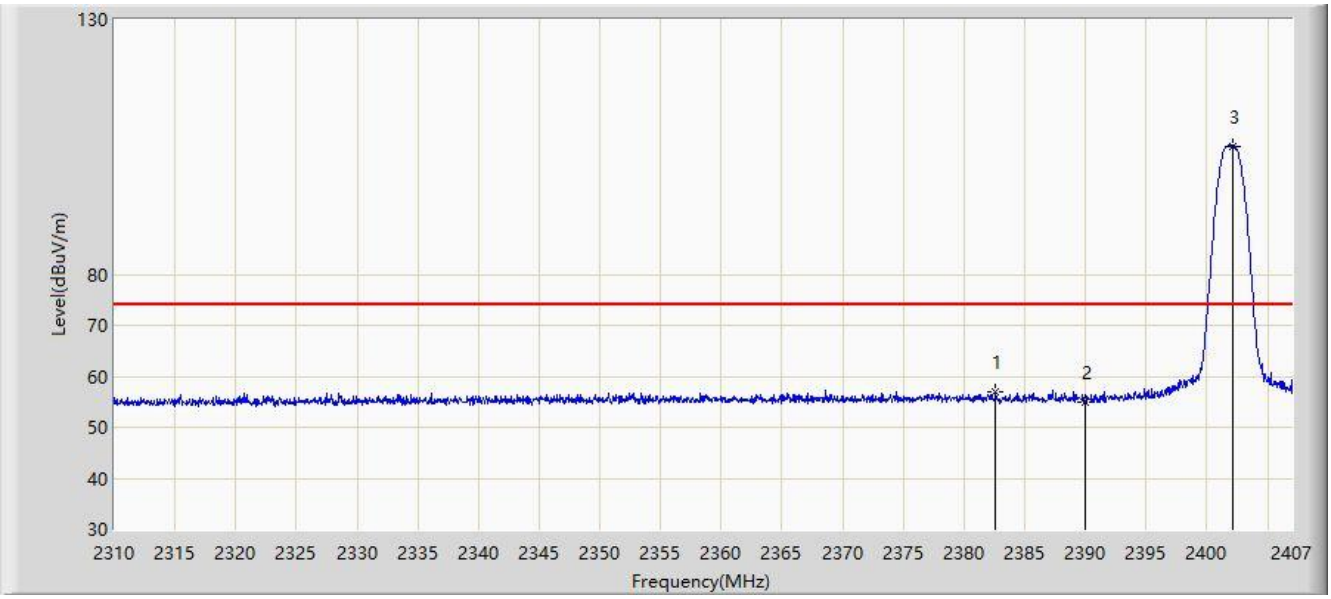
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.7.4.Test Setup



7.7.5.Test Result

Site: AC2	Time: 2020/01/16 - 12:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HAN Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with AP361	

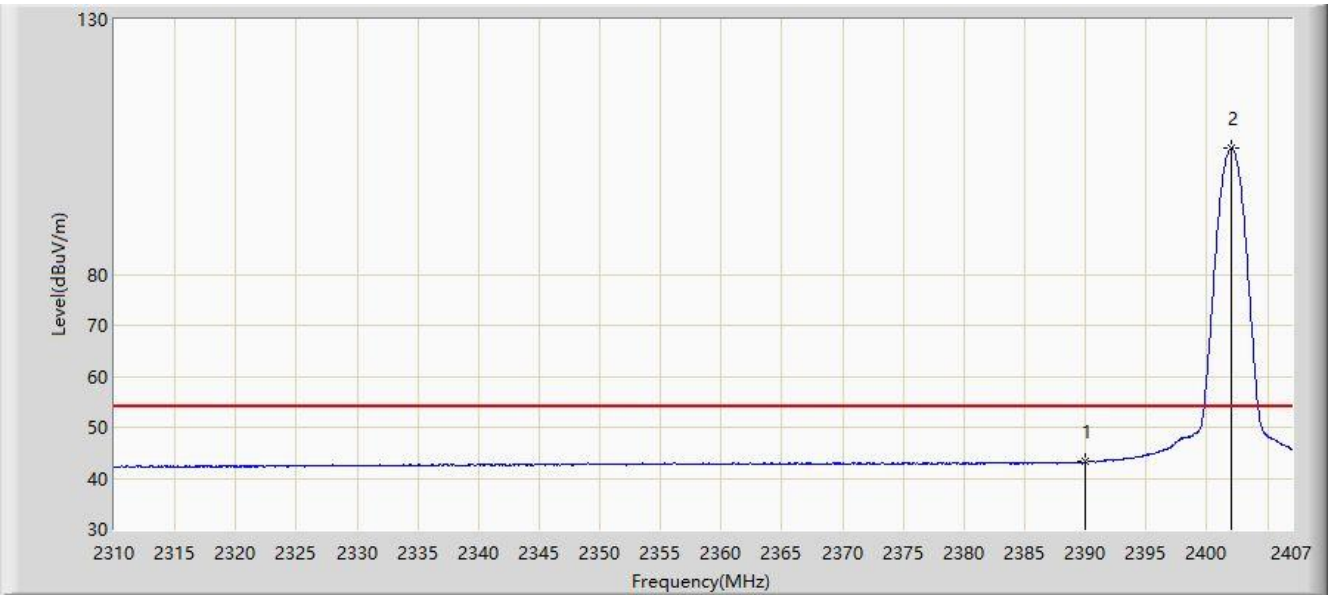


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2382.556	57.079	24.601	-16.921	74.000	32.477	PK
2			2390.000	55.047	22.562	-18.953	74.000	32.485	PK
3		*	2402.102	105.208	72.694	N/A	N/A	32.514	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HAN Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with AP361	

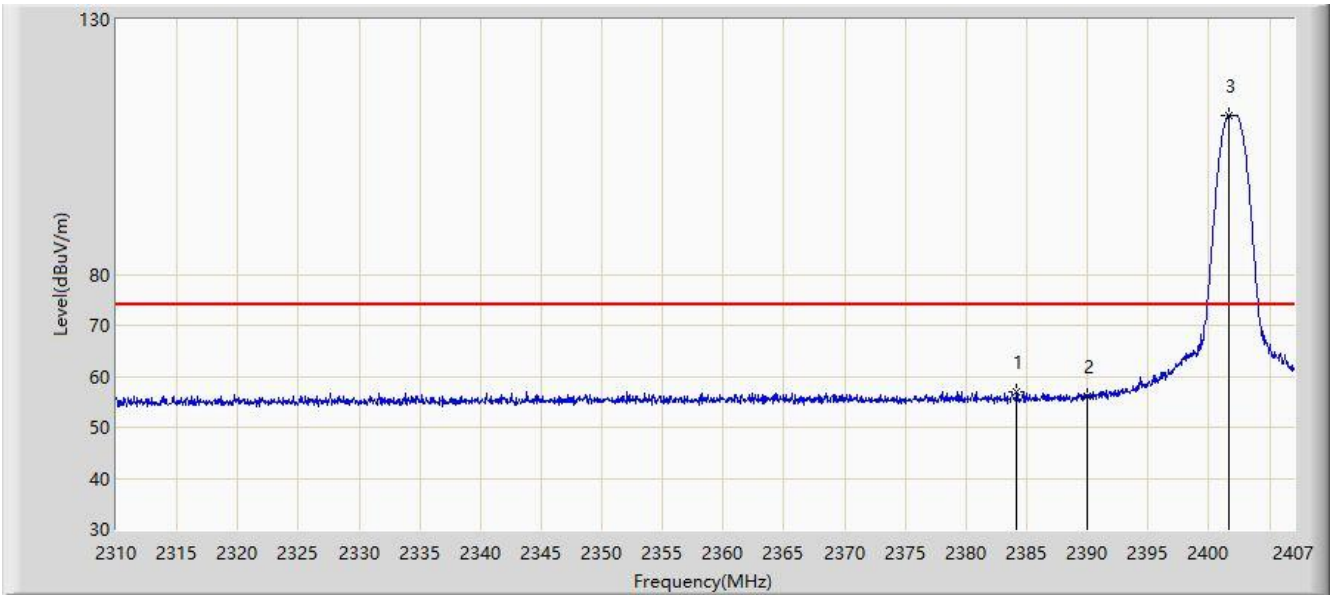


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.218	10.733	-10.782	54.000	32.485	AV
2		*	2401.956	104.702	72.189	N/A	N/A	32.513	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HAN Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with AP361	

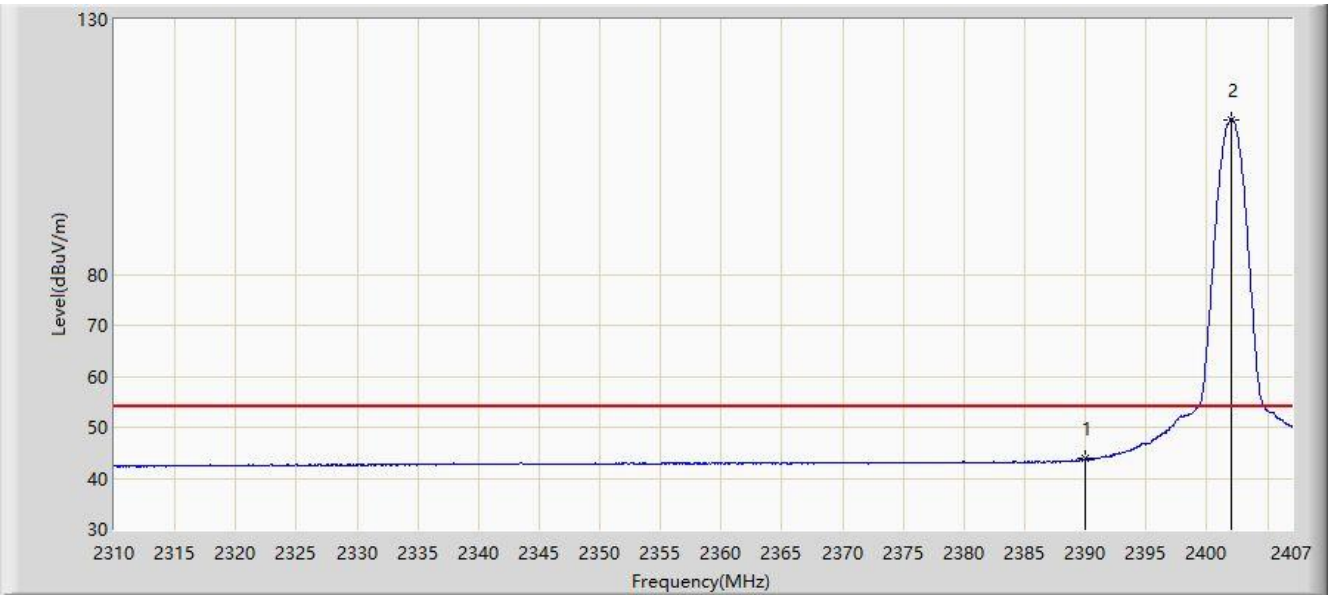


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2384.205	56.917	24.438	-17.083	74.000	32.480	PK
2			2390.000	56.058	23.573	-17.942	74.000	32.485	PK
3		*	2401.665	111.224	78.712	N/A	N/A	32.512	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:12
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HAN Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with AP361	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.774	11.289	-10.226	54.000	32.485	AV
2	X	*	2401.956	110.400	77.887	N/A	N/A	32.513	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)