MEASUREMENT REPORT

FCC PART 15 Subpart E WLAN 802.11a/n/ac

FCC ID:	Q9DAPEX037457
APPLICANT:	Hewlett Packard Enterprise Company
Application Type:	Certification
Product:	ACCESS POINT
Model No.:	APEX0374, APEX0375, APEX0377
Brand Name:	aruba a Hewlett Packard Enterprise company , Hewlett Packard Enterprise
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
FCC Rule Part(s):	Part15 Subpart E (Section 15.407)
Test Procedure(s):	ANSI C63.10-2013, KDB 789033 D02v01r04, KDB 644545 D03v01, KDB 662911 D01v02r01
Test Date:	August 01 ~ November 10, 2017

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

The test results relate only to the samples tested.
This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurementreport and was tested in accordance with the measurement procedures specified in KDB 789033 D02v01r04. Test results reported hereinrelate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
1710TW0108-U3	Rev. 01	Initial report	11-15-2017	Valid

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Description Page

§2.1033General Information

Applicant:	Hewlett Packard Enterprise Company
Applicant Address:	3000 Hanover St. Palo Alto, CA 94304, USA
Manufacturer:	Hewlett Packard Enterprise Company
Manufacturer Address:	3000 Hanover St. Palo Alto, CA 94304, USA
Test Site:	MRT Technology (Taiwan) Co., Ltd
Test Site Address:	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
FCC Registration No.:	153292
FCC Rule Part(s):	Part15 Subpart E (Section 15.407)
Model No.:	APEX0374, APEX0375, APEX0377
FCC ID:	Q9DAPEX037457
Test Device Serial No.:	APEX0374 (Conducted Sample S/N: CNDNK7Z002, Radiated Sample S/N: CNDNK7Z001)
	APEX0375 (Conducted Sample S/N: CNDJK8001T, Radiated Sample S/N: CNDJK8001L)
	APEX0377 (Conducted Sample S/N: CNDJK8001J, Radiated Sample S/N: CNDNK81002)

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- **MRT facility is a FCC registered (Reg. No. 153292) test facility with the site description report on file and is designated by the FCC as an Accredited Test Film.**
- **MRT facility is an IC registered (MRT Reg. No. 21723-1) test laboratory with the site description on file at Industry Canada.**
- **MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (TAF) under the American Association for Laboratory Accreditation Program (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC, Industry Taiwan, EU and TELEC Rules.**

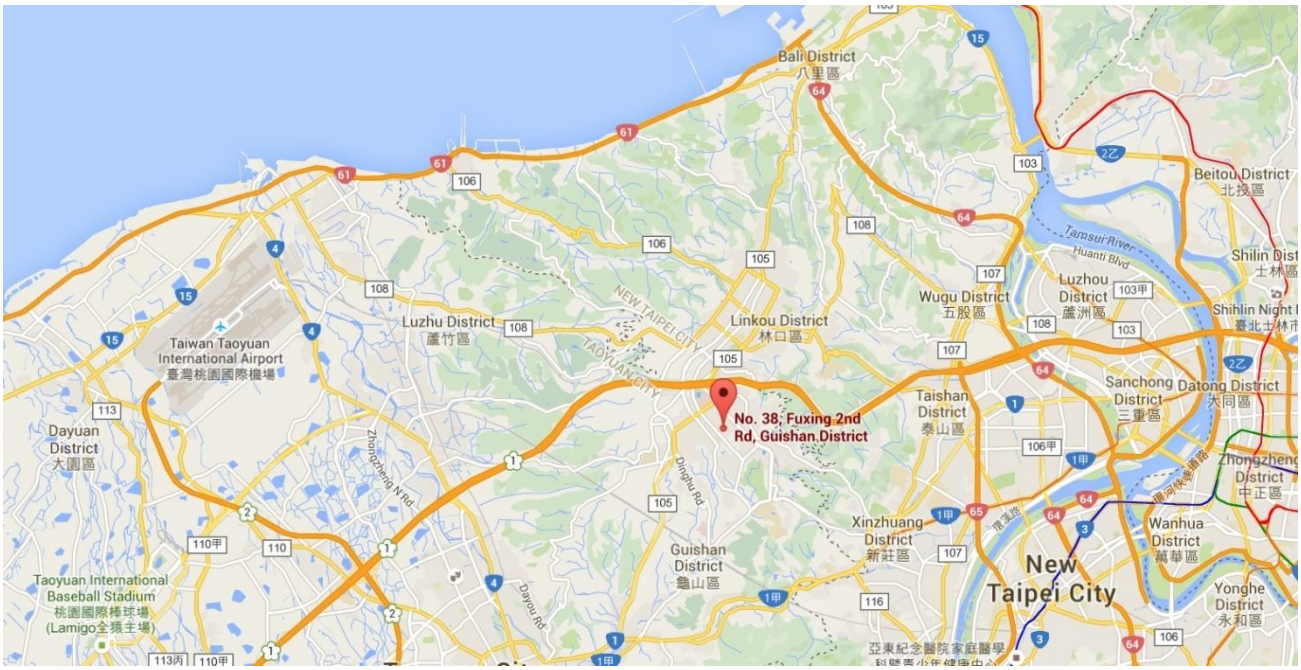
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices includingintentional and/or unintentional radiators for compliance with the technical rules and regulations of the FederalCommunications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	ACCESS POINT
Model No.	APEX0374, APEX0375, APEX0377
Brand Name:	aruba a Hewlett Packard Enterprise company , Hewlett Packard Enterprise
Wi-Fi Specification:	802.11a/b/g/n/ac
Bluetooth Specification:	v4.0 single mode
Software Version:	R660.1.1.0.3.005
Operating Temperature:	-40 ~ 65 °C
Power Type:	POE input or AC adapter input
Operating Environment:	Outdoor Use

Note 1: The difference between three models is that the EUT use different antenna and appearance, other hardware and software are the same. Each model has its own power parameter value.
Note 2: The applicant provide one POE adapter (Manufacturer: MICROSEMI & Model: PD-9001GR/AT/AC) for approval testing, it is not for sale.

2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20/ac-VHT20: 5180~5240MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40: 5190~5230MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5775MHz For 802.11ac-VHT80+80: 5210MHz + 5775MHz
Type of Modulation:	802.11a/n/ac: OFDM
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.2Mbps

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

2.3. Working Frequencies for this report

802.11a/n-HT20/ac-VHT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	149	5745 MHz	153	5765 MHz
157	5785 MHz	161	5805 MHz	165	5825 MHz

802.11n-HT40/ac-VHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	151	5755 MHz
159	5795 MHz	--	--	--	--

802.11ac-VHT80/ac-VHT80+80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	155	5775 MHz	--	--

Note: For 802.11ac-VHT80+80 mode, Ant 0 & Ant 1 port work on one frequency of the above table, Ant 2 & Ant 3 port work on another frequency of the above table. E.g, channel 42 + 155 group, channel 42 will transmit by Ant 0+1 port and channel 155 will transmit by Ant 2+3 port.

2.4. Description of Available Antennas

Model No.: APEX0374

Antenna No.	Polarization	Frequency Band (GHz)	Model No.	Max Peak Gain (dBi)	30 Degree Antenna Gain (dBi)	BF Gain (dBi)	CDD Directional Gain (dBi)	
							For Power	For PSD
Wi-Fi External Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)								
1 (Note 3)	**Omni**	**2.4**	**ANT-2x2-2005**	**5.0**	**N/A**	**0**	**5.0**	**5.00**
2 (Note 3)	**Omni**	**5**	**ANT-2x2-5005**	**5.0**	**0**	**3.0**	**5.0**	**8.01**
3 (Note 3)	**Directional**	**2.4**	**ANT-2x2-2314**	**14.0**	**N/A**	**0**	**14.0**	**14.00**
4 (Note 3)	Directional	5	ANT-3x3-5712	11.5	1.5	3.0	11.5	14.51
5 (Note 3)	Directional	5	ANT-4x4-5314	14.0	6.0	3.0	14.0	17.01
6 (Note 3)	**Directional**	**5**	MT-484052/NVH	**16.0**	**3.0**	**3.0**	**16.0**	**19.01**
7 (Note 3)	Directional	2.4	ANT-3x3-D608	7.5	N/A	3.0	7.5	10.51
		5		7.5	4.5	3.0	7.5	10.51
8 (Note 3)	Directional	2.4	ANT-3x3-D100	5.0	N/A	3.0	5.0	8.01
		5		5.0	4.0	3.0	5.0	8.01
Bluetooth Internal Antenna								
PCB		2.4		3.0				

Model No.: APEX0377

Polarization	Frequency Band (GHz)	Max Peak Gain (dBi)	30 Degree Antenna Gain (dBi)	BF Gain (dBi)	CDD Directional Gain (dBi)	
					For Power	For PSD
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)						
Directional (Note 3)	2.4	6.4	N/A	0.0	6.4	6.40
Directional (Note 3)	5	6.3	6.3	3.0	6.3	9.31
Bluetooth Internal Antenna						
PCB	2.4	6.7				

Model No.: APEX0375

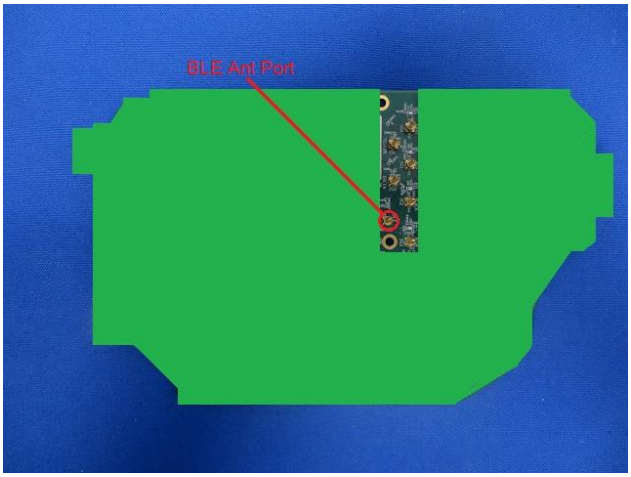
Polarization	Frequency Band (GHz)	Max Peak Gain (dBi)	30 Degree Antenna Gain (dBi)	BF Gain (dBi)	CDD Directional Gain (dBi)	
					For Power	For PSD
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)						
Directional (Note 3)	2.4	4.0	N/A	0.0	4.0	4.00
Directional (Note 3)	5	4.6	-4.0	3.0	4.6	7.61
Bluetooth Internal Antenna						
PCB	2.4	4.5				

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.
   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 $N_{ANT} \leq 4$;
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g.
   Directional gain = G_{ANT} + BF Gain, BF Gain was declared by the applicant.
3. These antennas have Cross-Polarized design, the detail see the antenna specification.
4. For Model No.: APEX0374 approval, we selected the max peak gain antenna of each type to perform RF testing. (Omni antenna 1# and 2#, Directional antenna 3# and 6#)

2.5. Description of Antenna RF Port

<table>
<tr><td colspan="7">Antenna RF Port</td></tr>
<tr><td>--</td><td colspan="2">2.4GHz RF Port</td><td colspan="4">5GHz RF Port</td></tr>
<tr><td>Software Control Port</td><td>Ant 0</td><td>Ant 1</td><td>Ant 0</td><td>Ant 1</td><td>Ant 2</td><td>Ant 3</td></tr>
<tr><td colspan="7">APEX0374</td></tr>
<tr><td colspan="7"> 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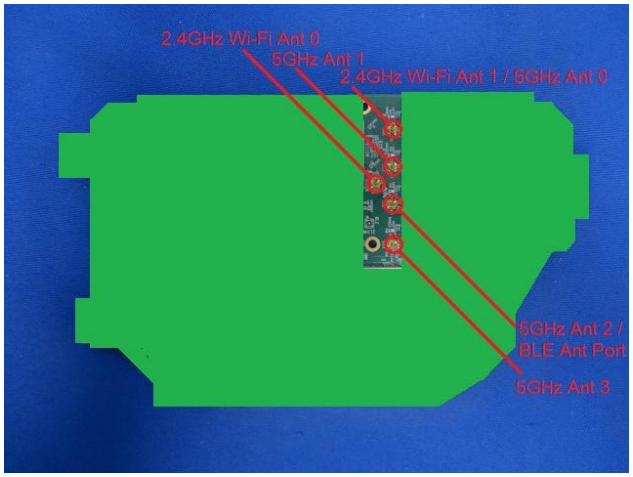
<tr><td colspan="4">APEX0375</td><td colspan="3">APEX0377</td></tr>
<tr><td colspan="4"> 
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2.6. Test Mode

Test Mode	Mode 1: Transmit by 802.11a
	Mode 2: Transmit by 802.11n-HT20
	Mode 3: Transmit by 802.11n-HT40
	Mode 4: Transmit by 802.11ac-VHT20
	Mode 5: Transmit by 802.11ac-VHT40
	Mode 6: Transmit by 802.11ac-VHT80
	Mode 7: Transmit by 802.11ac-VHT80+80

5GHz Test Mode	Ant 0 + 1 + 2 + 3	
	CDD	Beam-Forming
802.11a	√	×
802.11n-HT20	√	√
802.11n-HT40	√	√
802.11ac-VHT20	√	√
802.11ac-VHT40	√	√
802.11ac-VHT80	√	√
802.11ac-VHT80+80	√	√

2.7. Description of Test Software

The test utility software used during testing was“QCARCT”, and the version was “v3.0.174.0”.

Power Parameter Value for APEX0374 / Omni Antenna (ANT-2x2-5005):

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value	
			CDD Mode	Beam-Forming Mode
802.11a	36	5180	14.5	--
	44	5220	14.5	--
	48	5240	14.5	--
	149	5745	22.5	--
	157	5785	22.5	--
	165	5825	22.0	--
802.11 n-HT20	36	5180	15.0	11.5
	44	5220	15.0	11.5
	48	5240	15.0	12.0
	149	5745	22.5	22.0
	157	5785	22.5	22.0
	165	5825	22.5	22.0
802.11n-HT40	38	5190	15.0	11.0
	46	5230	15.0	11.0
	151	5755	22.5	22.0
	159	5795	22.0	21.5
802.11ac-VHT20	36	5180	15.0	11.5
	44	5220	15.0	11.5
	48	5240	15.0	12.0
	149	5745	23.0	22.5
	157	5785	22.5	22.0
	165	5825	22.5	21.5
802.11ac-VHT40	38	5190	15.0	11.0
	46	5230	15.0	11.0
	151	5755	22.5	21.5
	159	5795	22.0	21.0
802.11ac-VHT80	42	5210	14.5	11.0
	155	5775	20.0	20.0

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value for CDD & Beam-Forming Mode	
			Ant 0 + 1 / Ant 0 + 1 + 2 + 3	Ant 2 + 3 / Ant 0 + 1 + 2 + 3
802.11ac-VHT80+80	42	5210	17.5	--
	42	5210	--	17.5
	155	5775	22.0	--
	155	5775	--	22.0

Power Parameter Value for APEX0374 / Directional Antenna (MT-484052/NVH):

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value	
			CDD Mode	Beam-Forming Mode
802.11a	36	5180	9.0	--
	44	5220	8.5	--
	48	5240	8.5	--
	149	5745	14.0	--
	157	5785	14.0	--
	165	5825	13.5	--
802.11 n-HT20	36	5180	9.0	5.5
	44	5220	9.0	6.0
	48	5240	9.0	6.0
	149	5745	14.0	11.0
	157	5785	14.0	11.0
	165	5825	13.5	10.5
802.11n-HT40	38	5190	9.0	5.0
	46	5230	9.0	5.5
	151	5755	13.5	11.0
	159	5795	13.5	11.0
802.11ac-VHT20	36	5180	9.0	6.0
	44	5220	9.0	6.0
	48	5240	9.0	6.0
	149	5745	14.0	11.5
	157	5785	14.0	11.0
	165	5825	13.5	10.5
802.11ac-VHT40	38	5190	9.0	5.5
	46	5230	9.0	5.5
	151	5755	13.5	10.5

	159	5795	13.5	10.5
802.11ac-VHT80	42	5210	9.0	5.0
	155	5775	13.5	10.0

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value for CDD & Beam-Forming Mode	
			Ant 0 + 1 / Ant 0 + 1 + 2 + 3	Ant 2 + 3 / Ant 0 + 1 + 2 + 3
802.11ac-VHT80+80	42	5210	11.0	--
	42	5210	--	11.5
	155	5775	17.0	--
	155	5775	--	17.0

Power Parameter Value for APEX0375:

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value	
			CDD Mode	Beam-Forming Mode
802.11a	36	5180	17.0	--
	44	5220	17.0	--
	48	5240	17.0	--
	149	5745	21.0	--
	157	5785	21.0	--
	165	5825	21.0	--
802.11n-HT20	36	5180	17.5	14.5
	44	5220	17.5	14.5
	48	5240	17.5	14.5
	149	5745	21.0	21.0
	157	5785	21.0	21.0
	165	5825	21.0	21.0
802.11n-HT40	38	5190	17.0	14.0
	46	5230	17.0	14.0
	151	5755	21.0	21.0
	159	5795	21.0	21.0
802.11ac-VHT20	36	5180	17.5	14.5
	44	5220	17.5	14.5
	48	5240	17.5	14.5
	149	5745	21.0	21.0
	157	5785	21.0	21.0

	165	5825	21.0	21.0
802.11ac-VHT40	38	5190	17.0	14.0
	46	5230	17.0	14.0
	151	5755	21.0	21.0
	159	5795	21.0	21.0
802.11ac-VHT80	42	5210	14.5	13.5
	155	5775	20.5	20.5

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value for CDD & Beam-Forming Mode	
			Ant 0 + 1 / Ant 0 + 1 + 2 + 3	Ant 2 + 3 / Ant 0 + 1 + 2 + 3
802.11ac-VHT80+80	42	5210	20.0	--
	42	5210	--	20.5
	155	5775	21.0	--
	155	5775	--	21.0

Power Parameter Value for APEX0377:

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value	
			CDD Mode	Beam-Forming Mode
802.11a	36	5180	9.0	--
	44	5220	9.0	--
	48	5240	9.0	--
	149	5745	21.0	--
	157	5785	21.0	--
	165	5825	21.0	--
802.11n-HT20	36	5180	9.0	5.5
	44	5220	9.0	5.5
	48	5240	9.0	6.0
	149	5745	21.0	18.5
	157	5785	21.0	18.5
	165	5825	21.0	18.5
802.11n-HT40	38	5190	8.5	5.0
	46	5230	8.5	5.0
	151	5755	21.0	18.5
	159	5795	21.0	18.5
802.11ac-VHT20	36	5180	9.0	5.5

	44	5220	9.0	6.0
	48	5240	9.0	6.0
	149	5745	21.0	19.0
	157	5785	21.0	18.5
	165	5825	21.0	18.5
802.11ac-VHT40	38	5190	8.5	5.0
	46	5230	8.5	5.0
	151	5755	21.0	18.5
	159	5795	21.0	18.0
802.11ac-VHT80	42	5210	8.5	5.0
	155	5775	18.5	18.0

Test Mode	Test Channel No.	Test Frequency (MHz)	Power Parameter Value for CDD & Beam-Forming Mode	
			Ant 0 + 1 / Ant 0 + 1 + 2 + 3	Ant 2 + 3 / Ant 0 + 1 + 2 + 3
802.11ac-VHT80+80	42	5210	11.0	--
	42	5210	--	11.5
	155	5775	19.5	--
	155	5775	--	20.5

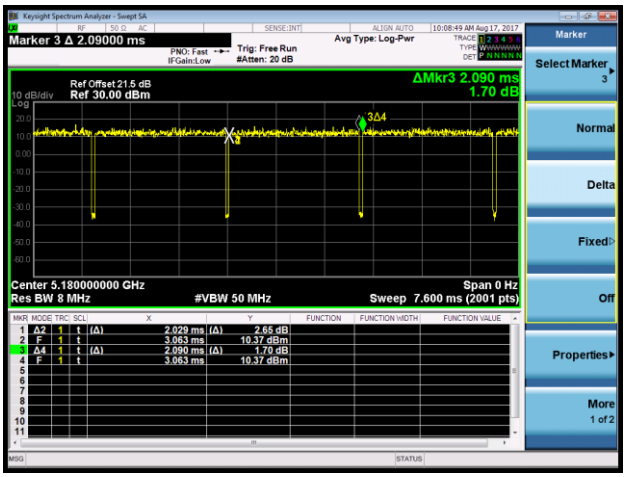
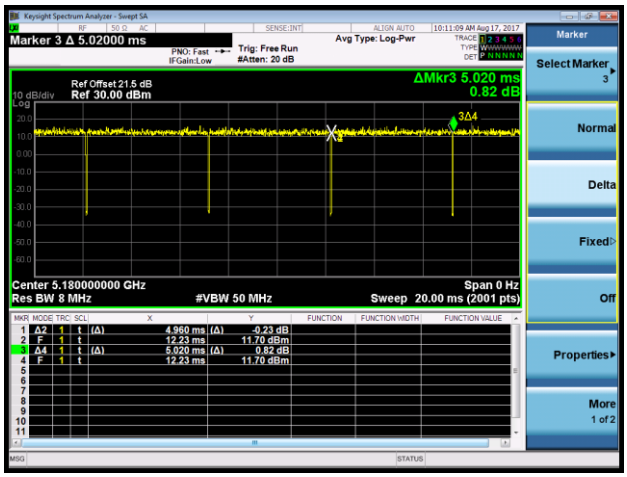
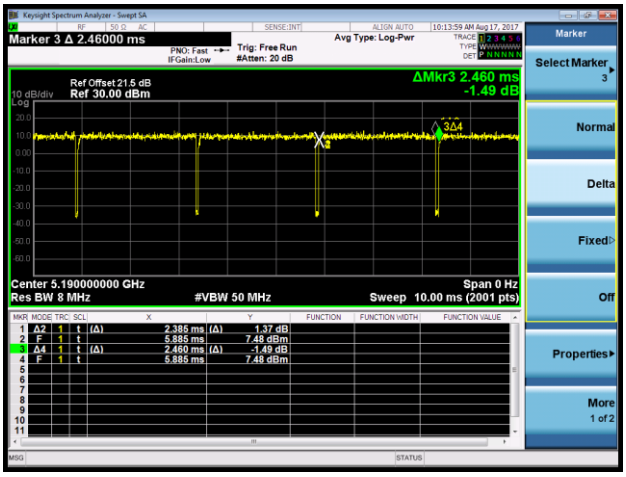
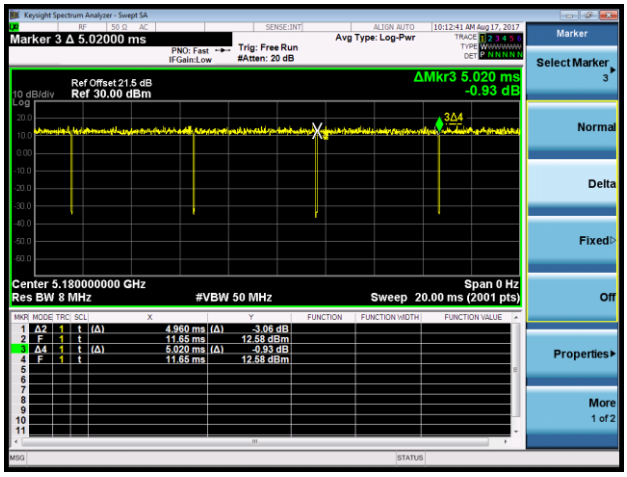
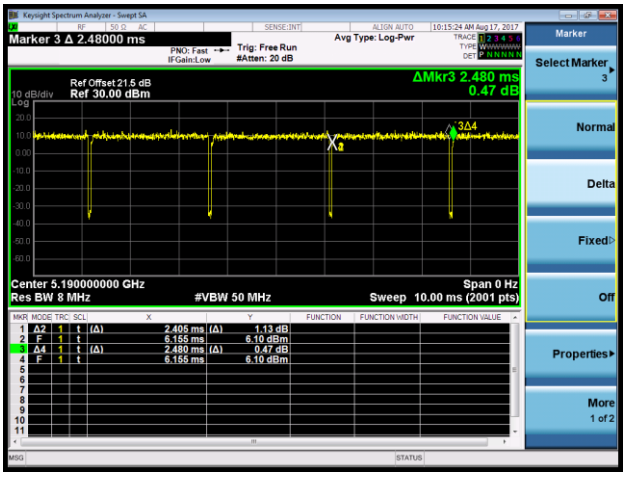
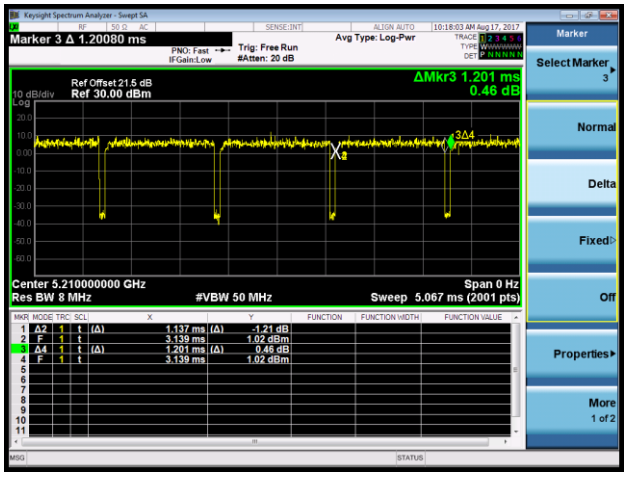
2.8. Device Capabilities

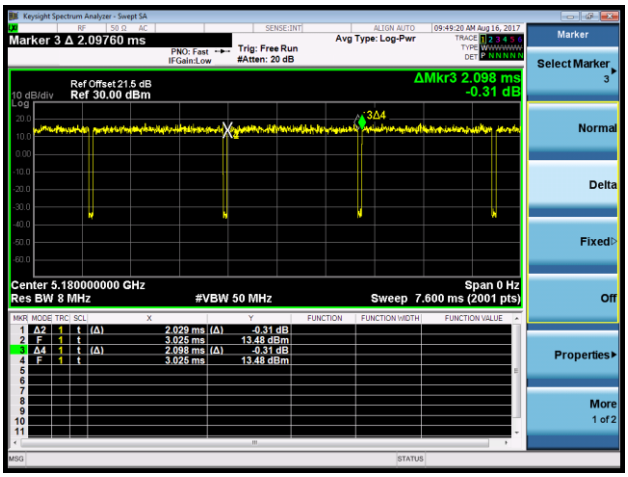
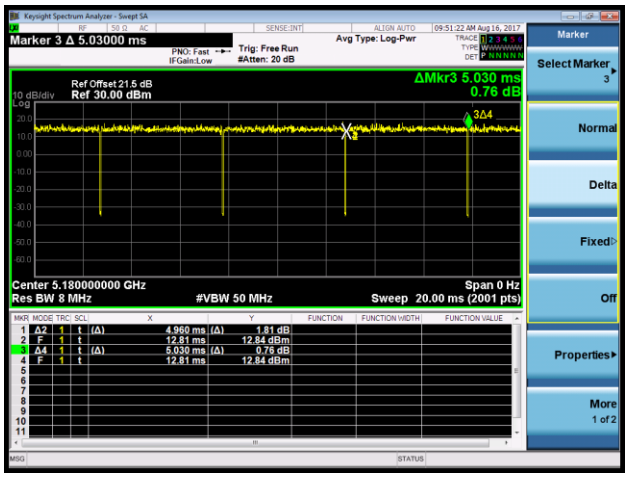
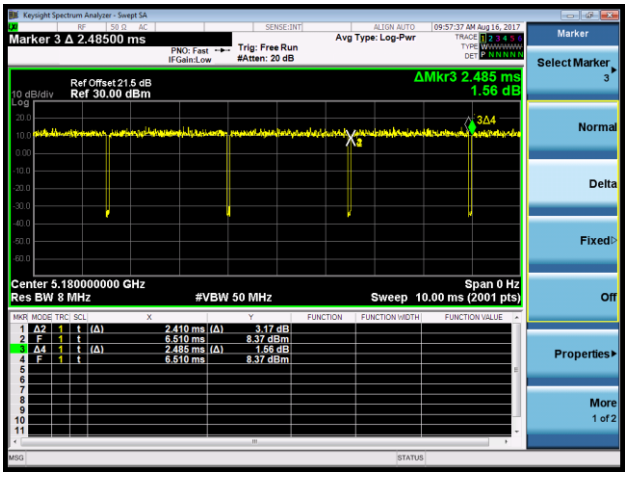
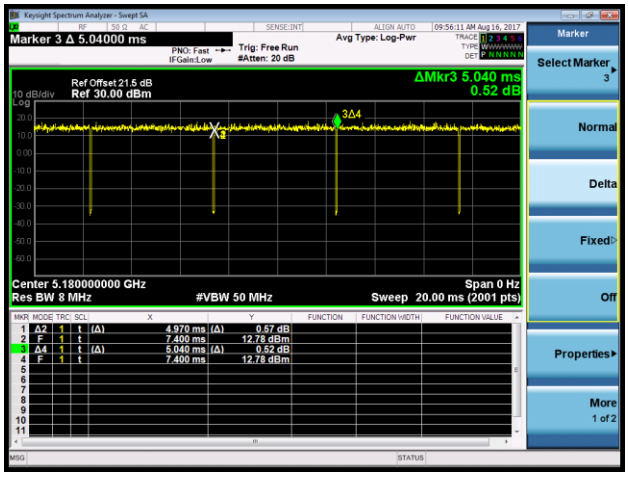
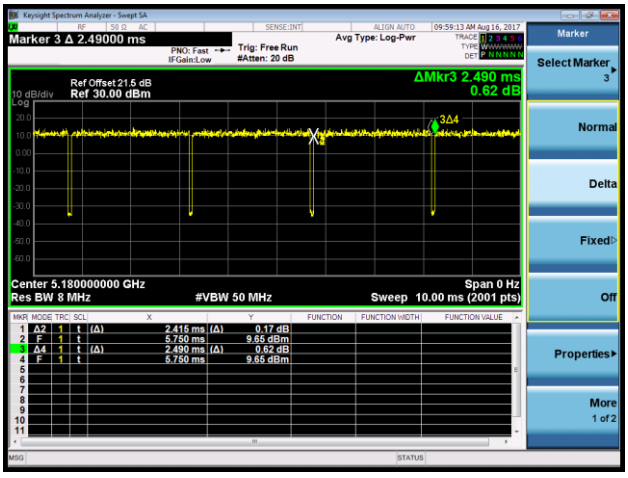
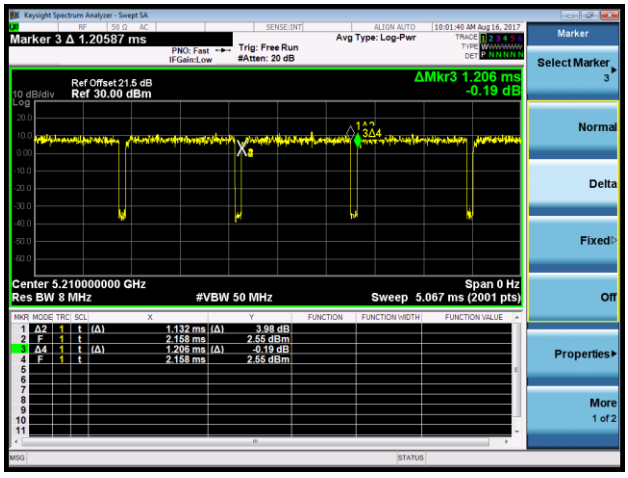
This device contains the following capabilities:

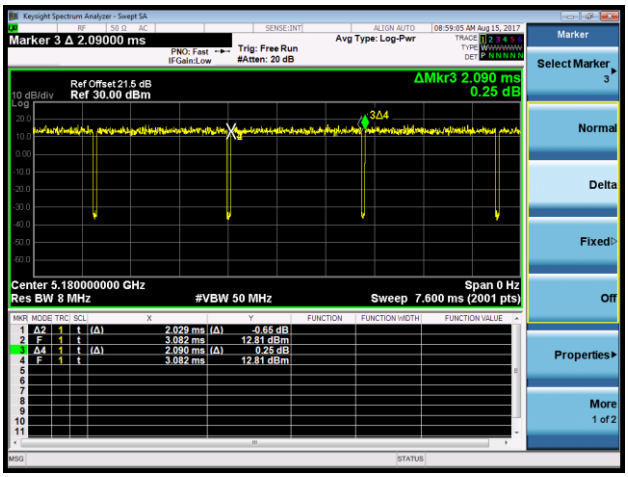
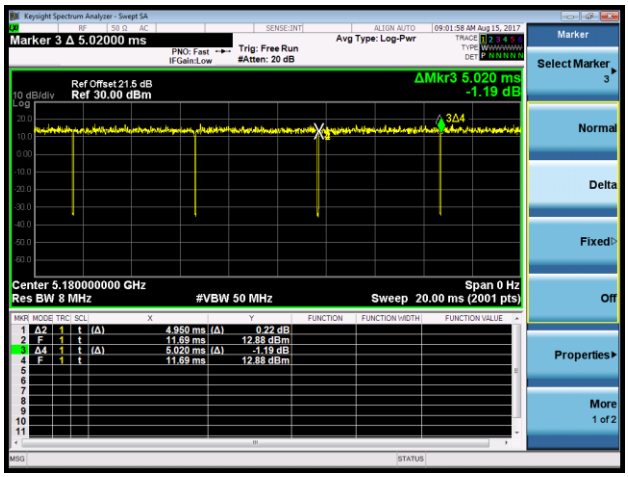
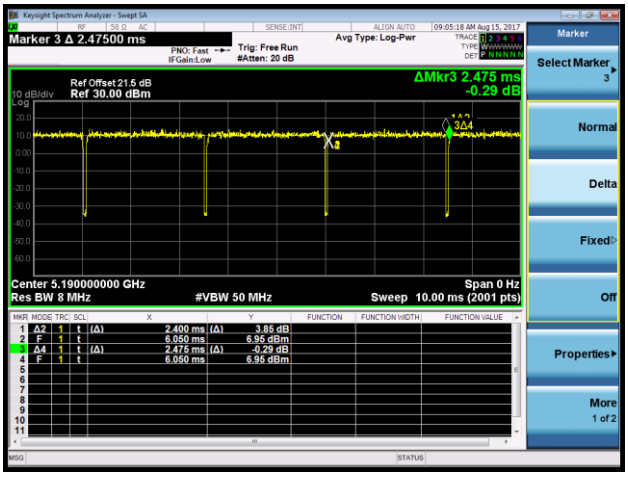
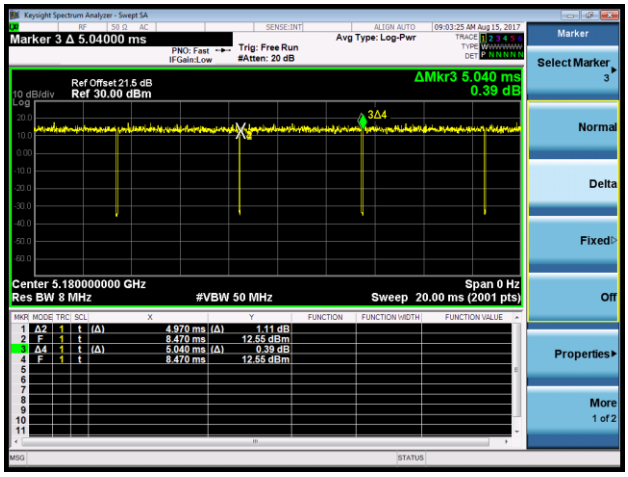
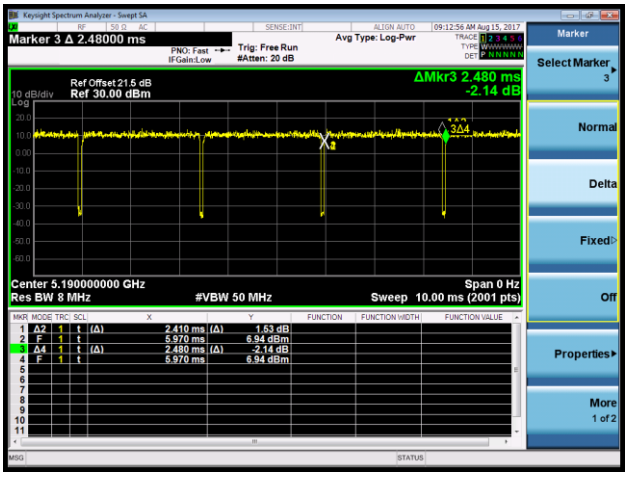
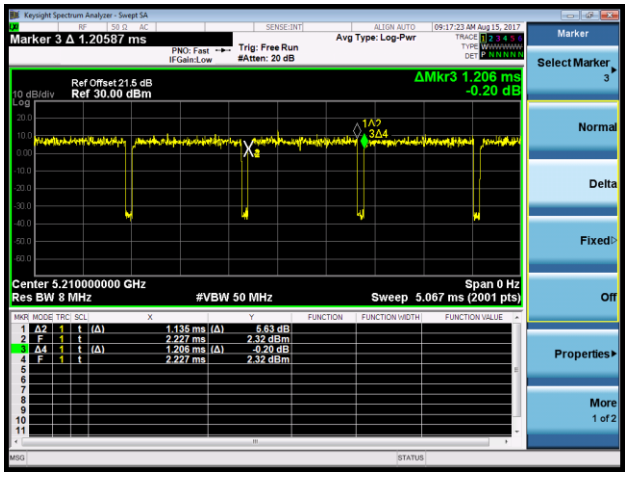
802.11a/b/g/n/ac Wi-Fi and BT v4.0 single mode

Note: 5GHz (NII) operation is possible in 20MHz, 40MHz and 80MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = average per the guidance of Section B)2)b) of KDB 789033 D02v01r04. 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:

Model No.	Test Mode	Duty Cycle
APEX0374	802.11a	97.08 %
	802.11n-HT20	98.80 %
	802.11n-HT40	96.95 %
	802.11ac-VHT20	98.80 %
	802.11ac-VHT40	96.98 %
	802.11ac-VHT80	94.67 %
APEX0375	802.11a	96.71 %
	802.11n-HT20	98.61 %
	802.11n-HT40	96.98 %
	802.11ac-VHT20	98.61 %
	802.11ac-VHT40	96.99 %
	802.11ac-VHT80	93.86 %
APEX0377	802.11a	97.08 %
	802.11n-HT20	98.61 %
	802.11n-HT40	96.97 %
	802.11ac-VHT20	98.61 %
	802.11ac-VHT40	97.18 %
	802.11ac-VHT80	94.11 %

APEX0374 (T = Transmission Duration)	
802.11a (T = 2.029ms)	802.11n-HT20 (T = 4.960ms)
	
802.11n-HT40 (T = 2.385ms)	802.11ac-VHT20 (T = 4.960ms)
	
802.11ac-VHT40 (T = 2.405ms)	802.11ac-VHT80 (T = 1.137ms)
	

APEX0375 (T = Transmission Duration)	
802.11a (T = 2.029ms)	802.11n-HT20 (T = 4.960ms)
	
802.11n-HT40 (T = 2.410ms)	802.11ac-VHT20 (T = 4.970ms)
	
802.11ac-VHT40 (T = 2.415ms)	802.11ac-VHT80 (T = 1.132ms)
	

APEX0377 (T = Transmission Duration)	
802.11a (T = 2.029ms)	802.11n-HT20 (T = 4.950ms)
	
802.11n-HT40 (T = 2.400ms)	802.11ac-VHT20 (T = 4.970ms)
	
802.11ac-VHT40 (T = 2.410ms)	802.11ac-VHT80 (T = 1.135ms)
	

2.9. Test Configuration

The **ACCESS POINT**was tested per the guidance of KDB 789033 D02v01r04. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testingand AC line conducted testing.

2.10. EMI Suppression Device(s)/Modifications

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

2.11. 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 pamphletsupplied to the user and be readily visible to the purchaser at the time of purchase. However, when the deviceis 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 andlabel location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed WirelessDevices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v01r04 were used in themeasurement of the **ACCESS POINT.**

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

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an8'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 are 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.

Line conducted emissions test results are shown in Section 7.10.

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, remotecontrolled, 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. An80cm 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 tomaximize 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 theresponsible party can be used with the device. The use of a permanently attached antenna or of an antennathat uses a unique coupling to the intentional radiator shall be considered sufficient to comply with theprovisions 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

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTTWA00045	1 year	2018/03/17
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2018/03/23
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2018/03/23
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2018/06/08

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Signal Analyzer	R&S	FSV40	MRTTWA00007	1 year	2018/03/02
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2018/03/16
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2018/04/06
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2018/04/06
Acitve Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2018/04/06
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2018/04/06
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2018/04/06
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2018/04/06
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2018/06/08

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2018/07/10
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00014	1 year	2018/03/18
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2018/03/18
Programmable Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2018/05/11
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2018/06/08

Software	Version	Function
e3	V 8.3.5	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.

AC Conducted Emission Measurement - SR2
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: 3.46dB
Radiated Emission Measurement - AC1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: 4.18dB 1GHz ~ 40GHz: 4.76dB
Output Power - SR1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.13dB
Power Spectrum Density - SR1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.15dB
Occupied Bandwidth - SR1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.28%

7. TEST RESULT

7.1. Summary

Product Name: **ACCESS POINT**

FCC ID: **Q9DAPEX037457**

FCC Classification: **Unlicensed National Information Infrastructure (UNII)**

Data Rate / MCS Tested: **6Mbps ~ 54Mbps (a); MCS0 for802.11n-HT20MHz; MCS0 for 802.11n-HT40MHz; MCS0 for802.11ac-VHT20MHz; MCS0 for 802.11ac-VHT40MHz; MCS0 for 802.11ac-VHT80MHz; MCS0 for 802.11ac-VHT80+80MHz.**

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section 7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
15.407(a)(1)(i), (3)	Maximum Conducted Output Power	Refer to Section 7.4		Pass	Section 7.4
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		N/A	Section 7.5
15.407(a)(1)(i), (3), (5)	Peak Power Spectral Density	Refer to Section 7.6		Pass	Section 7.6
15.407(g)	Frequency Stability	± 20 ppm		Pass	Section 7.7
15.407(b)(1), (4)(i)	Undesirable Emissions	Refer to Section 7.8	Radiated	Pass	Section 7.8 & 7.9
15.205, 15.209 15.407(b)(5), (6), (7)	General Field Strength Limits(Restricted Bands andRadiated Emission Limits)	Emissions in restrictedbands must meet theradiated limits detailed in15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.10

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 ofthe system to connect the EUT to the analyzer at all frequencies of interest.
2) Test Items “26dB Bandwidth” & “6dB Bandwidth” have been assessed MIMO transmission, and showed the worst test data in this report.

7.2. 26dB Bandwidth Measurement

7.2.1.Test Limit

N/A

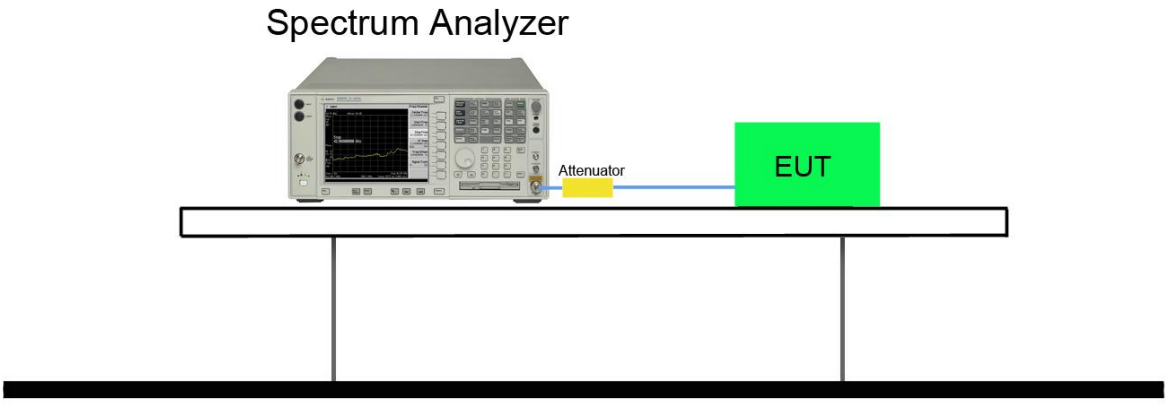
7.2.2.TestProcedure used

KDB 789033 D02v01r04 - Section C.1

7.2.3.TestSetting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW ≥ 3×RBW.
4. Detector = Peak.
5. Trace mode = max hold.

7.2.4.Test Setup



7.2.5.Test Result

For APEX0374, please refer to Annex D clause 1;

For APEX0375, please refer to Annex E clause 1;

For APEX0377, please refer to Annex F clause 1;

7.3. 6dB Bandwidth Measurement

7.3.1.Test Limit

The minimum 6dBbandwidth shall be at least 500 kHz.

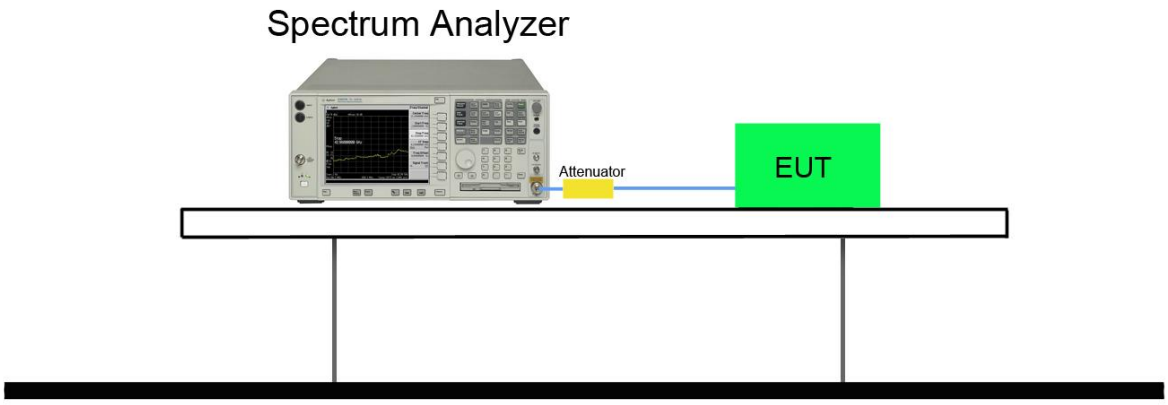
7.3.2.Test Procedure used

KDB 789033 D02v01r04 – Section C.2

7.3.3.TestSetting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW ≧ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4.Test Setup



7.3.5.TestResult

For APEX0374, please refer to Annex D clause 2;

For APEX0375, please refer to Annex E clause 2;

For APEX0377, please refer to Annex F clause 2;

7.4. Output Power Measurement

7.4.1.TestLimit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6dBi are used, the maximumconducted output power shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

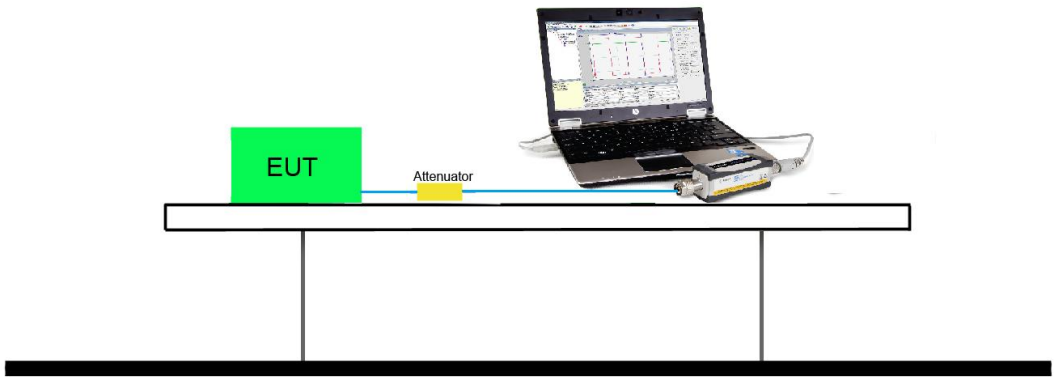
7.4.2.Test Procedure Used

KDB 789033D02v01r04- Section E) 3) b) Method PM-G

7.4.3.Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.4.4.Test Setup



7.4.5.TestResult

For APEX0374, please refer to Annex D clause 3;

For APEX0375, please refer to Annex E clause 3;

For APEX0377, please refer to Annex F clause 3;

7.5. Transmit Power Control

7.5.1.Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

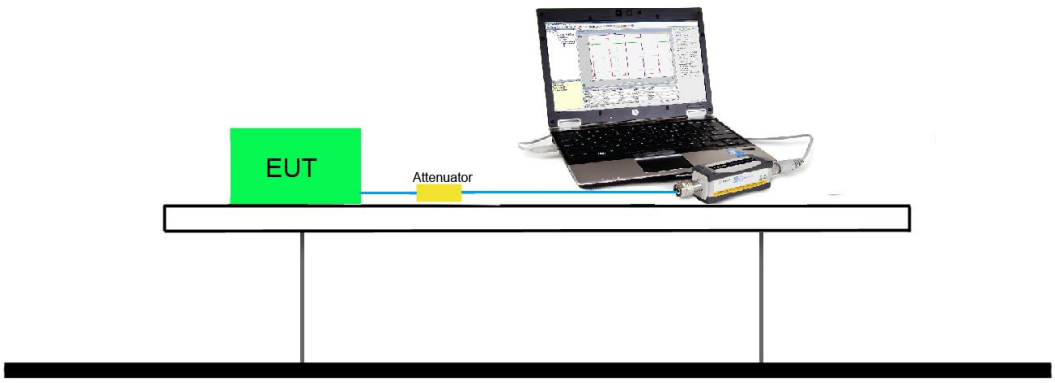
7.5.2.Test Procedure Used

KDB 789033 D02v01- Section E)3)b) Method PM-G

7.5.3.Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4.Test Setup



7.5.5.Test Result

A TPC mechanism is not required for systems operating in frequency band 5150 ~ 5250 MHz & 5725 ~ 5850 MHz.

7.6. Power Spectral Density Measurement

7.6.1.TestLimit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

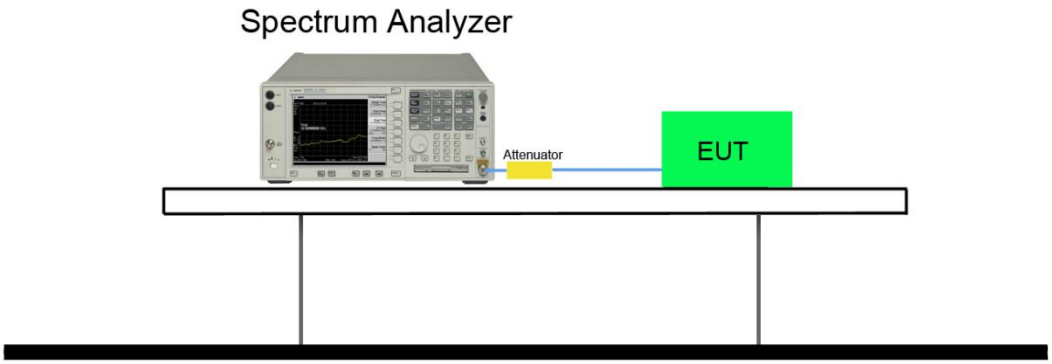
7.6.2.Test Procedure Used

KDB 789033 D02v01r04 – SectionF

7.6.3.Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 100 kHz
4. VBW = 3MHz
5. Number of sweep points ≥ 2 × (span / RBW)
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add 10*log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log(1/0.25) = 6 dB if the duty cycle is 25 percent.
11. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor 10*log(500kHz/100kHz) = 6.99 dB to the measured result.

7.6.4.Test Setup



7.6.5.Test Result

For APEX0374, please refer to Annex D clause 4;

For APEX0375, please refer to Annex E clause 4;

For APEX0377, please refer to Annex F clause 4;

7.7. Frequency Stability Measurement

7.7.1.TestLimit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be ±20 ppm maximum for the 5GHz band (IEEE 802.11 specification).

7.7.2.Test Procedure Used

Frequency Stability Under Temperature Variations:

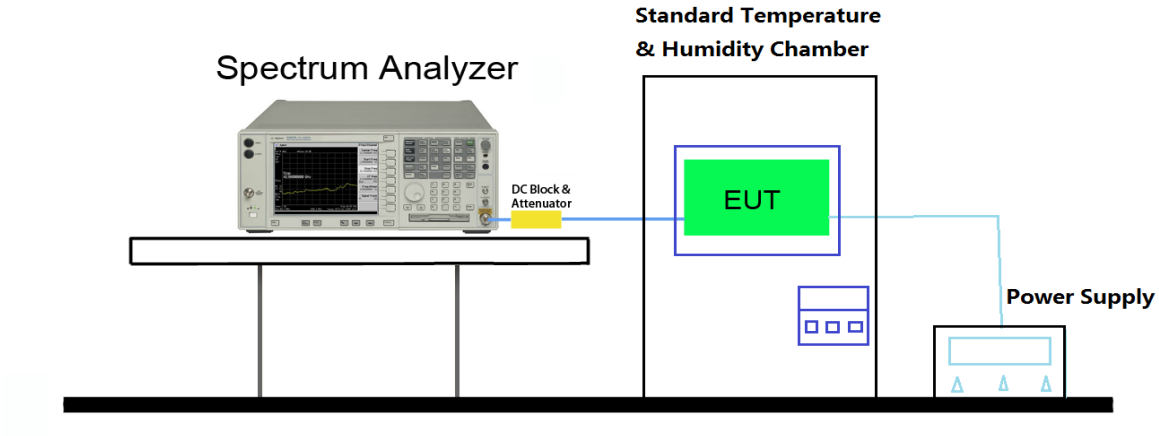
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, recordthe maximum frequency change.

7.7.3.Test Setup



7.7.4.Test Result

For APEX0374, please refer to Annex D clause 5;

For APEX0375, please refer to Annex E clause 5;

For APEX0377, please refer to Annex F clause 5;

7.8. Radiated Spurious Emission Measurement

7.8.1.Test Limit

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

7.8.2.Test Procedure Used

KDB 789033 D02v01r04 – Section G

7.8.3.Test Setting

Quasi-Peak& Average Measurements below30MHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 200Hz for 9kHz to 150kHz frequency; RBW = 9kHz for 0.15MHz to 30MHz frequency
4. Detector = CISPR quasi-peak or power average (Average)
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

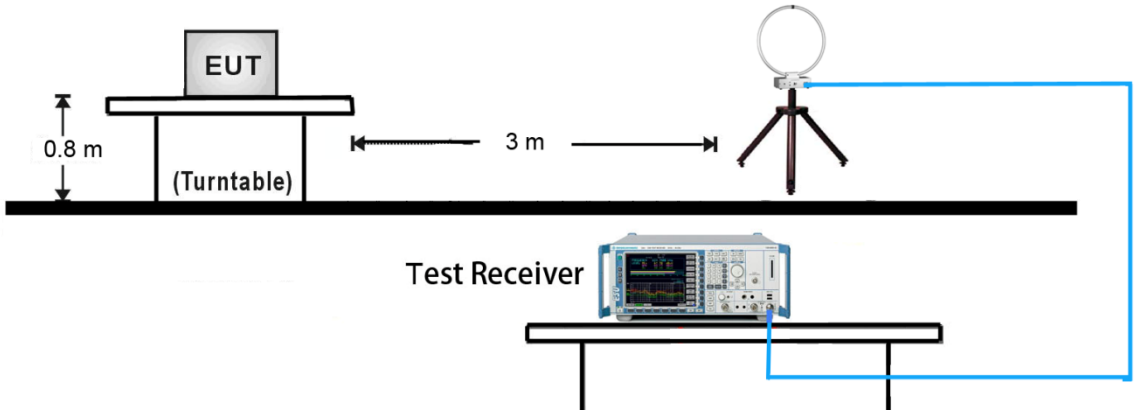
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

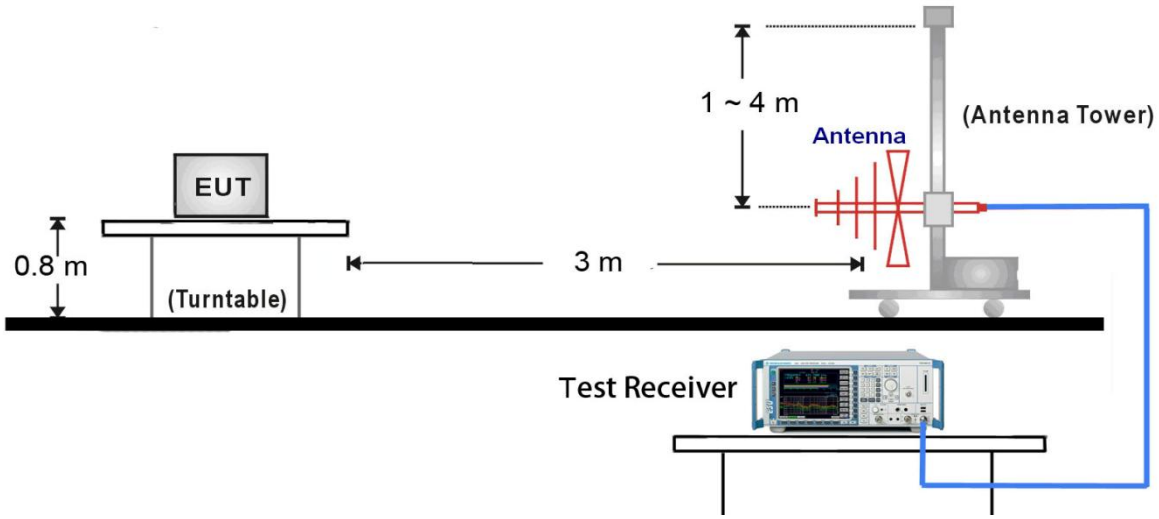
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW ≤ RBW/100 (i.e., 10 kHz) but not less than 10 Hz. If the EUT duty cycle is < 98%, set VBW ≥ 1/T.
4. Detector = Peak
5. Sweep time = auto
6. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where x is the duty cycle.

7.8.4.Test Setup

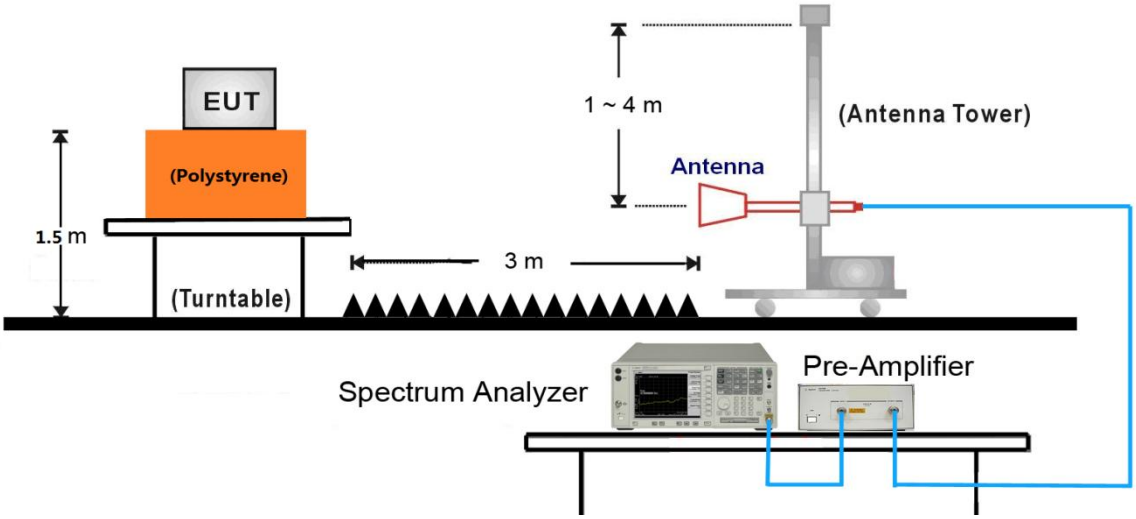
9kHz ~30MHz Test Setup:



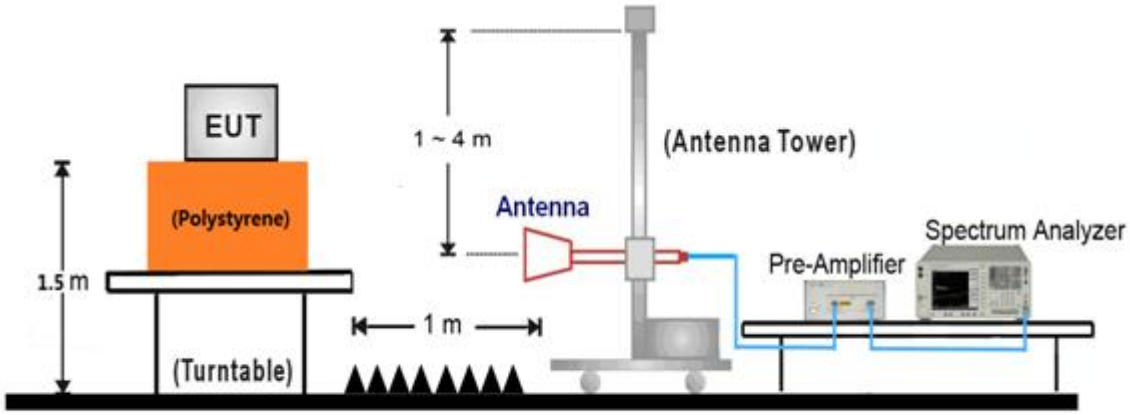
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:



18GHz ~40GHz Test Setup:



7.8.5.Test Result

For APEX0374, please refer to Annex D clause 6;

For APEX0375, please refer to Annex E clause 6;

For APEX0377, please refer to Annex F clause 6;

7.9. Radiated RestrictedBand Edge Measurement

7.9.1.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	8.25 - 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	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Refer to KDB 789033 D02v01r04 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz

that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

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

7.9.2.Test Procedure Used

KDB 789033 D02v01r04 – Section G

7.9.3.Test Setting

Peak Measurements above 1GHz

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 Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

2. RBW = 1MHz

3. VBW If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW ≤ RBW/100 (i.e., 10 kHz) but not less than 10 Hz. If the EUT duty cycle is < 98%, set VBW ≥ 1/T.

4. Detector = Peak

5. Sweep time = auto

6. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where x is the duty cycle.

7.9.4.Test Result

For APEX0374, please refer to Annex D clause 7;

For APEX0375, please refer to Annex E clause 7;

For APEX0377, please refer to Annex F clause 7;

7.10. AC Conducted Emissions Measurement

7.10.1. TestLimit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
0.15 - 0.50	66 - 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

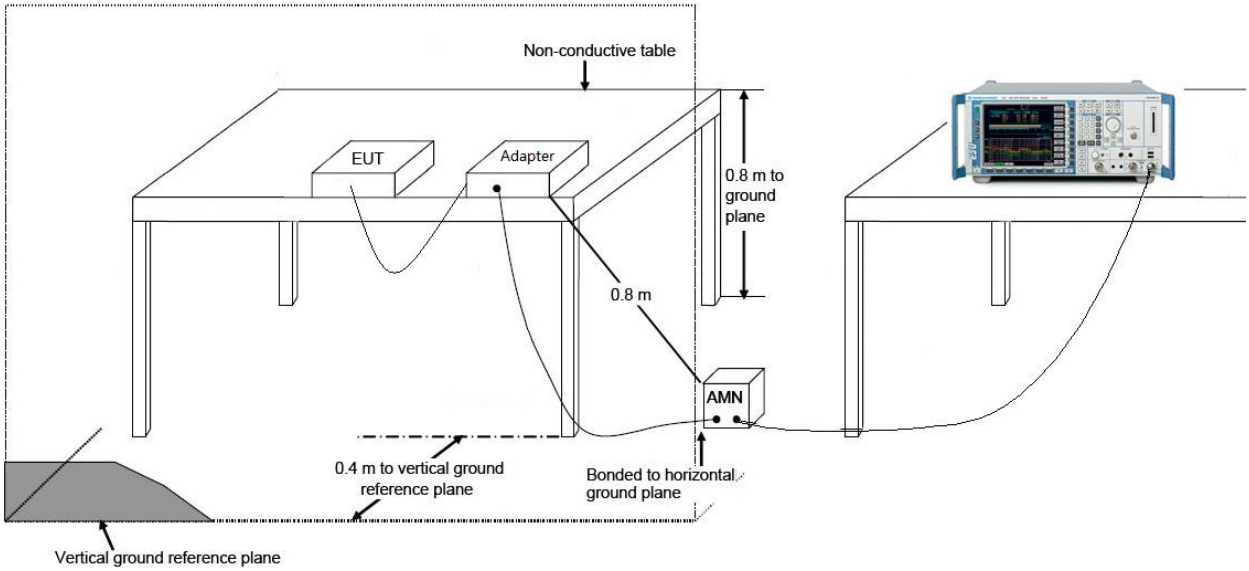
7.10.2. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

7.10.3. Test Setup



7.10.4.Test Result

For APEX0374, please refer to Annex D clause 8;

For APEX0375, please refer to Annex E clause 8;

For APEX0377, please refer to Annex F clause 8;

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **ACCESS POINT FCC ID:**

Q9DAPEX037457 is in compliance with Part 15E of the FCC Rules.

The End