



Co-location Report

FCC ID: Q9DAPIN0514515

APPLICANT: Hewlett Packard Enterprise Company

Application Type: Certification

Product: ACCESS POINT

Model No.: APIN0514, APIN0515

Brand Name:  

FCC Rule Part(s): Part15 Subpart C (Section 15.247)
Part15 Subpart E (Section 15.407)

Test Date: June 19 ~ September 25, 2018

Reviewed By: 
(Paddy Chen)

Approved By: 
(Chenz Ker)



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 measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2013. Test results reported herein relate only to the item(s) tested.

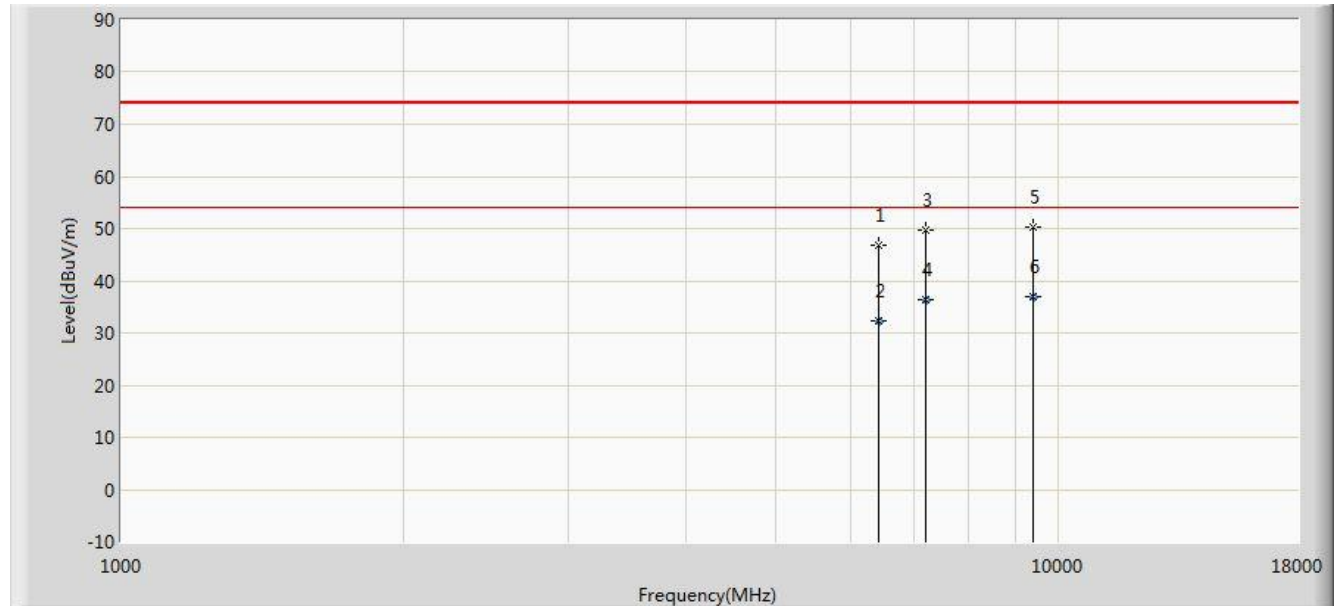
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Revision History

Report No.	Version	Description	Issue Date	Note
1807TW0111-U6	Rev. 01	Initial report	09-30-2018	Valid

1. TEST RESULT of Radiated Emissions for Co-located

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Horizontal
Antenna Type:	Omni Antenna (M/N: AP-ANT-20W)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			6431.500	46.717	38.815	-27.283	74.000	7.903	PK
2			6431.500	32.192	24.290	-21.808	54.000	7.903	AV
3			7205.000	49.576	37.476	-24.424	74.000	12.100	PK
4			7205.000	36.290	24.190	-17.710	54.000	12.100	AV
5			9389.500	50.423	35.932	-23.577	74.000	14.491	PK
6		*	9389.500	37.051	22.560	-16.949	54.000	14.491	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

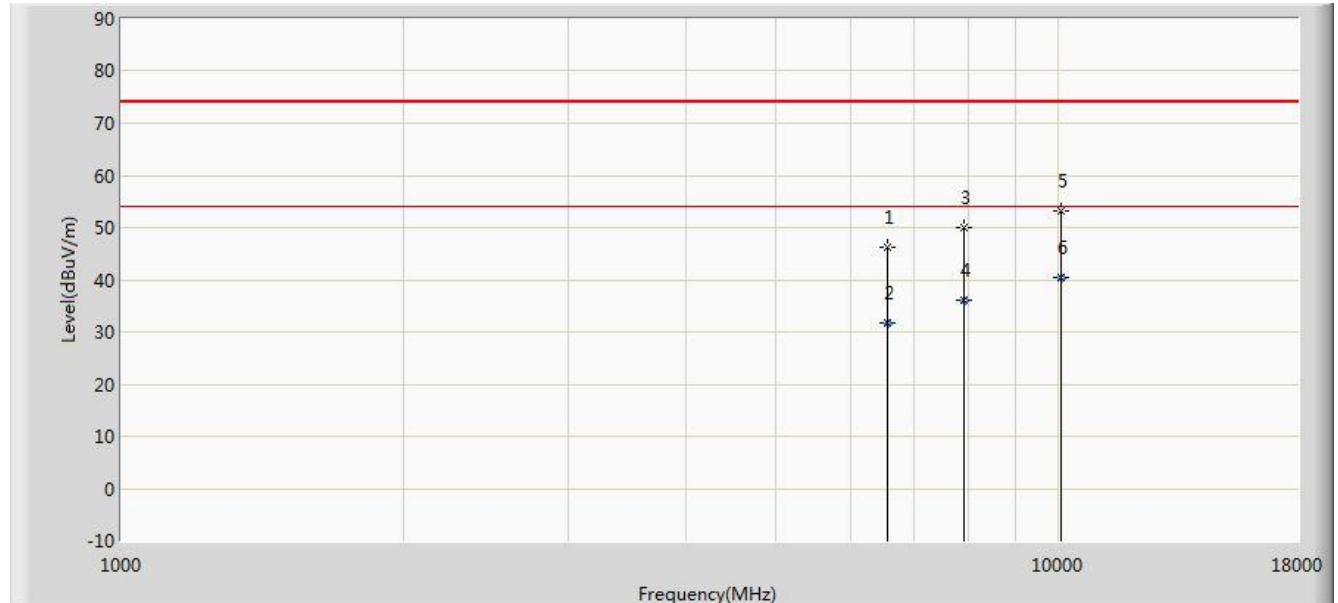
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2412MHz Power setting = 76;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 75;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Vertical
Antenna Type:	Omni Antenna (M/N: AP-ANT-20W)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			6576.000	46.207	37.574	-27.793	74.000	8.633	PK
2			6576.000	31.823	23.190	-22.177	54.000	8.633	AV
3			7927.500	50.120	37.680	-23.880	74.000	12.441	PK
4			7927.500	36.020	23.580	-17.980	54.000	12.441	AV
5			10061.000	53.150	37.593	-20.850	74.000	15.557	PK
6		*	10061.000	40.467	24.910	-13.533	54.000	15.557	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

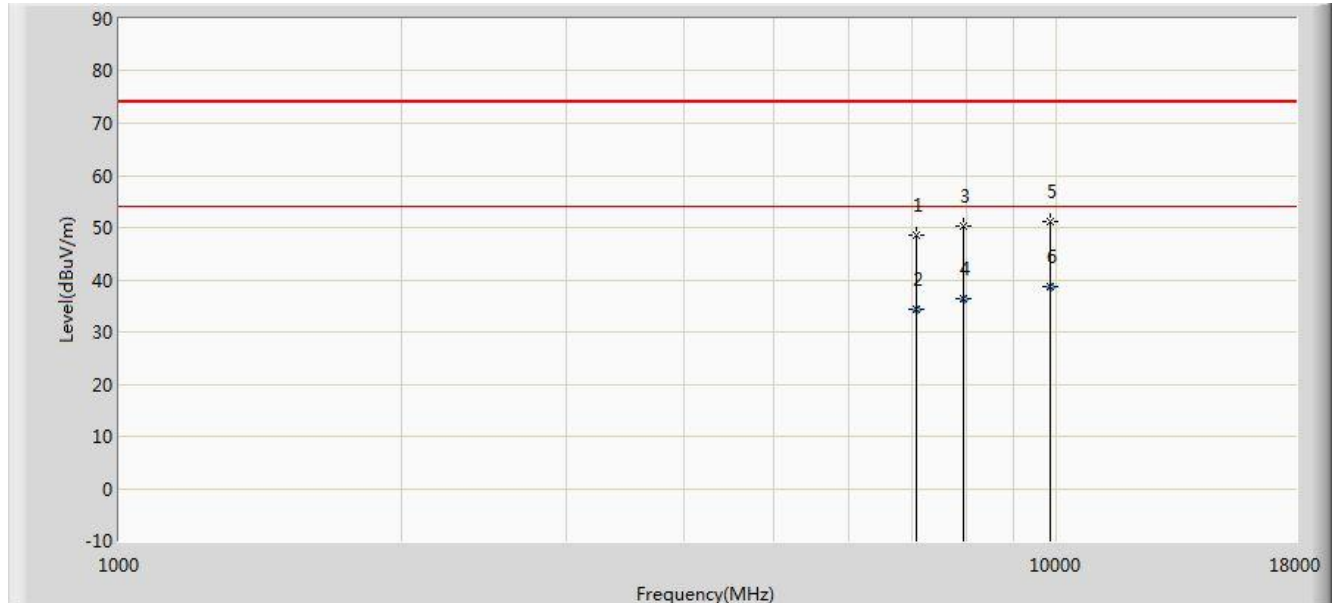
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2412MHz Power setting = 76;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 75;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Horizontal
Antenna Type:	Omni Antenna (M/N: AP-ANT-40)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7086.000	48.612	37.273	-25.388	74.000	11.339	PK
2			7086.000	34.349	23.010	-19.651	54.000	11.339	AV
3			7944.500	50.251	37.797	-23.749	74.000	12.454	PK
4			7944.500	36.304	23.850	-17.696	54.000	12.454	AV
5			9857.000	51.018	34.831	-22.982	74.000	16.187	PK
6		*	9857.000	38.567	22.380	-15.433	54.000	16.187	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

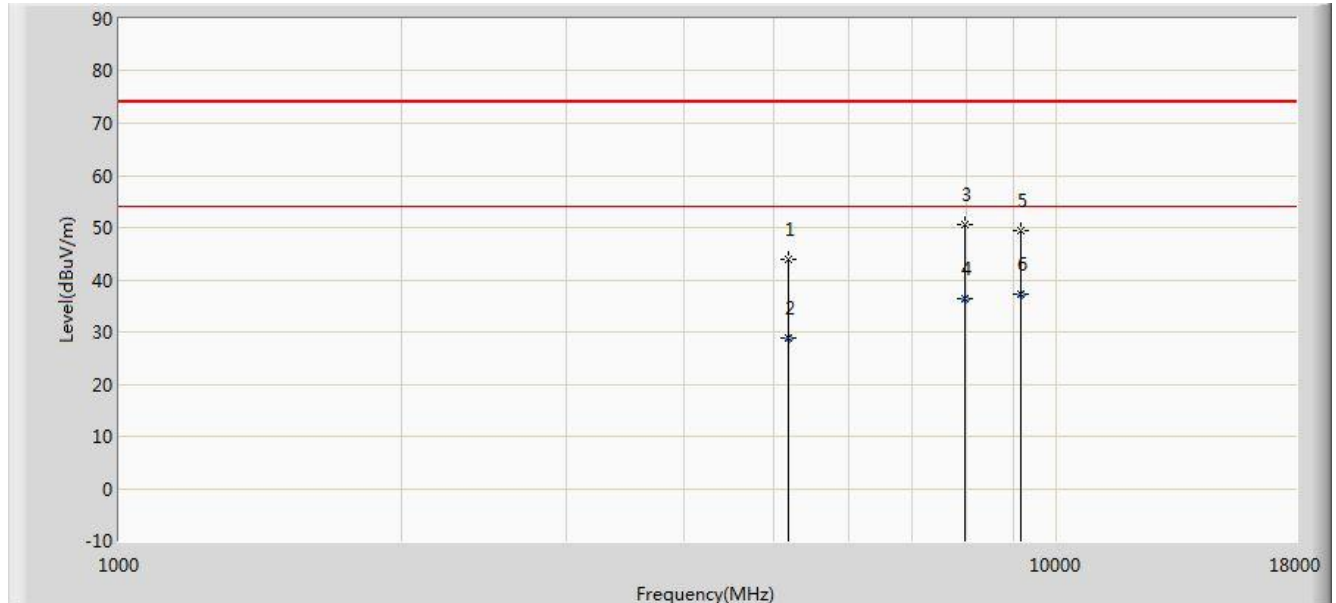
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 75;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Vertical
Antenna Type:	Omni Antenna (M/N: AP-ANT-40)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5182.000	43.952	39.890	-30.048	74.000	4.062	PK
2			5182.000	28.942	24.880	-25.058	54.000	4.062	AV
3			7978.500	50.541	38.054	-23.459	74.000	12.487	PK
4			7978.500	36.327	23.840	-17.673	54.000	12.487	AV
5			9143.000	49.480	34.839	-24.520	74.000	14.641	PK
6		*	9143.000	37.131	22.490	-16.869	54.000	14.641	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

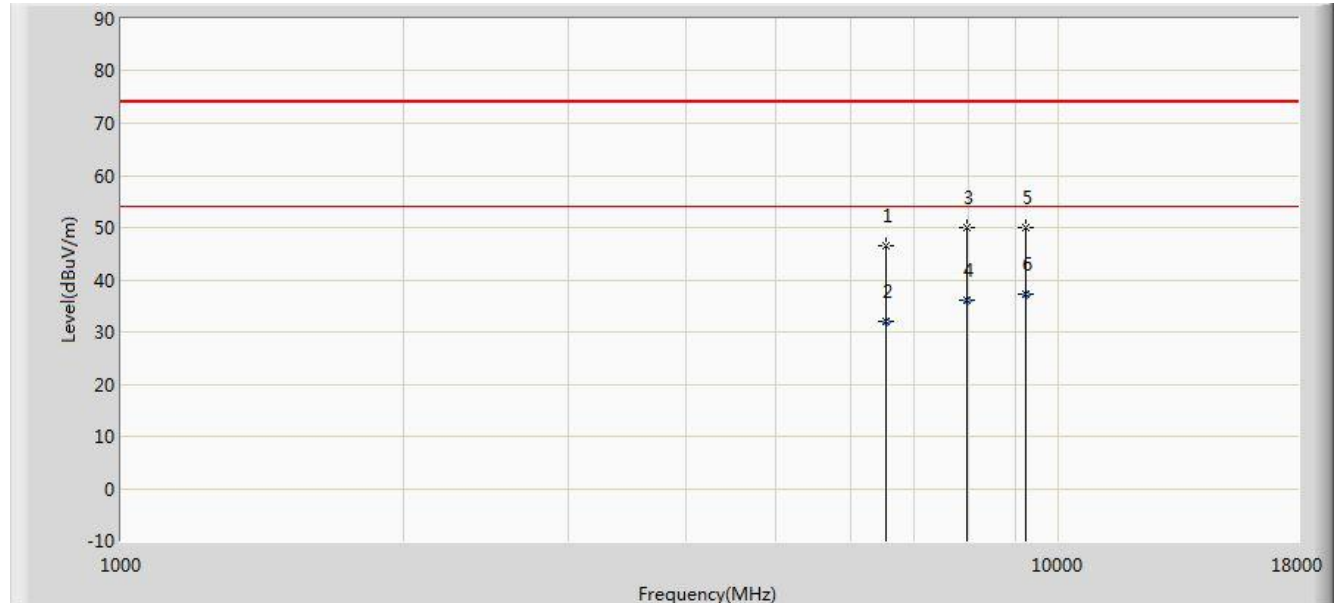
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 75;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Horizontal
Antenna Type:	Omni Antenna (M/N: AP-ANT-19)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			6550.500	46.424	37.847	-27.576	74.000	8.577	PK
2			6550.500	32.167	23.590	-21.833	54.000	8.577	AV
3			7995.500	49.902	37.401	-24.098	74.000	12.501	PK
4			7995.500	36.081	23.580	-17.919	54.000	12.501	AV
5			9236.500	49.872	35.106	-24.128	74.000	14.766	PK
6		*	9236.500	37.236	22.470	-16.764	54.000	14.766	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

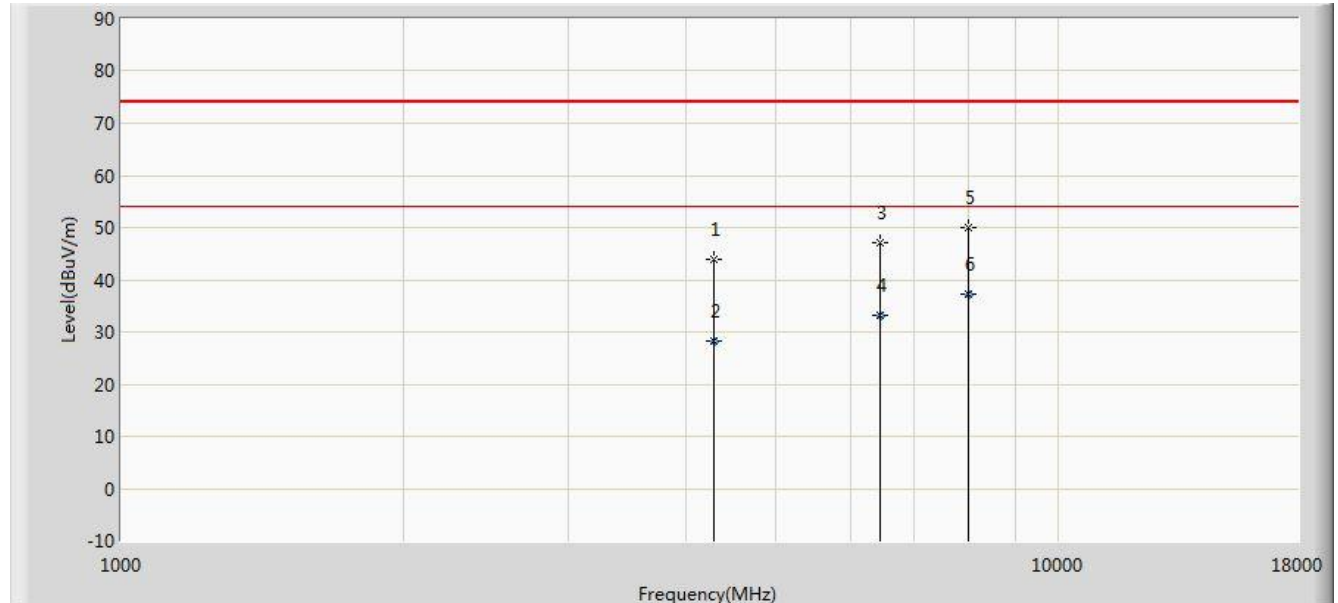
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 72;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Vertical
Antenna Type:	Omni Antenna (M/N: AP-ANT-19)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			4289.500	44.038	42.512	-29.962	74.000	1.526	PK
2			4289.500	28.206	26.680	-25.794	54.000	1.526	AV
3			6440.000	47.114	39.155	-26.886	74.000	7.959	PK
4			6440.000	33.239	25.280	-20.761	54.000	7.959	AV
5			8012.500	49.986	37.485	-24.014	74.000	12.501	PK
6		*	8012.500	37.291	24.790	-16.709	54.000	12.501	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

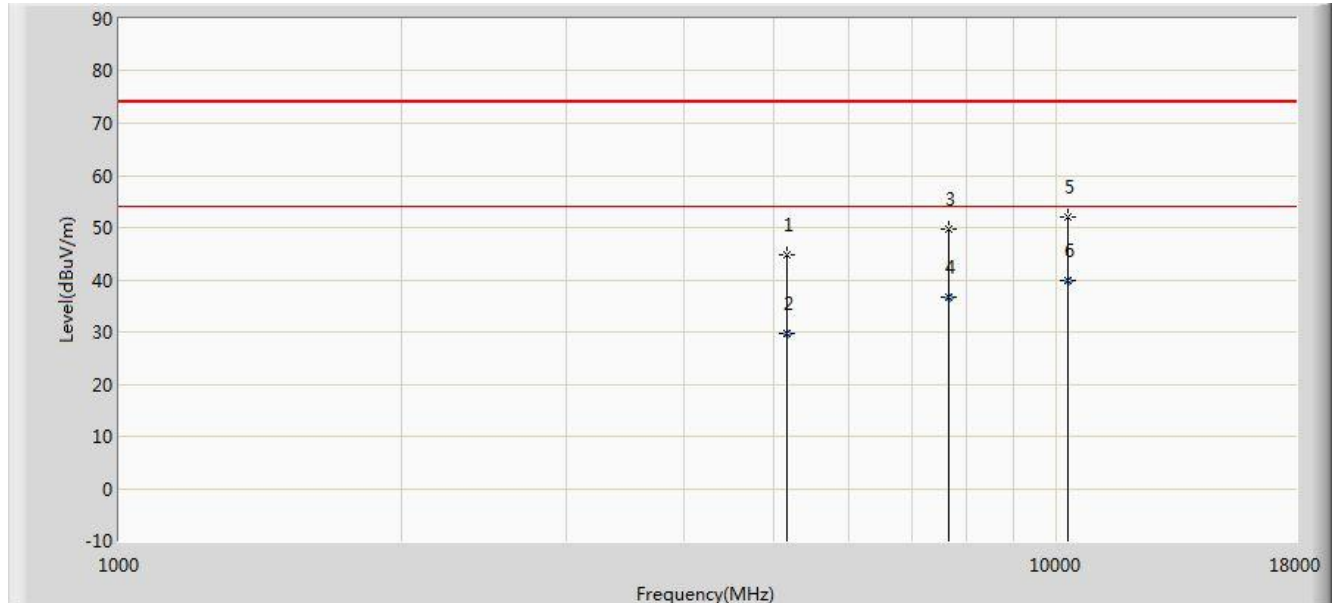
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 72;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Horizontal
Antenna Type:	Directional Antenna (M/N: AP-ANT-48)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5165.000	44.662	40.540	-29.338	74.000	4.122	PK
2			5165.000	29.812	25.690	-24.188	54.000	4.122	AV
3			7681.000	49.575	37.113	-24.425	74.000	12.462	PK
4			7681.000	36.642	24.180	-17.358	54.000	12.462	AV
5			10299.000	52.073	35.480	-21.927	74.000	16.594	PK
6		*	10299.000	39.843	23.250	-14.157	54.000	16.594	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

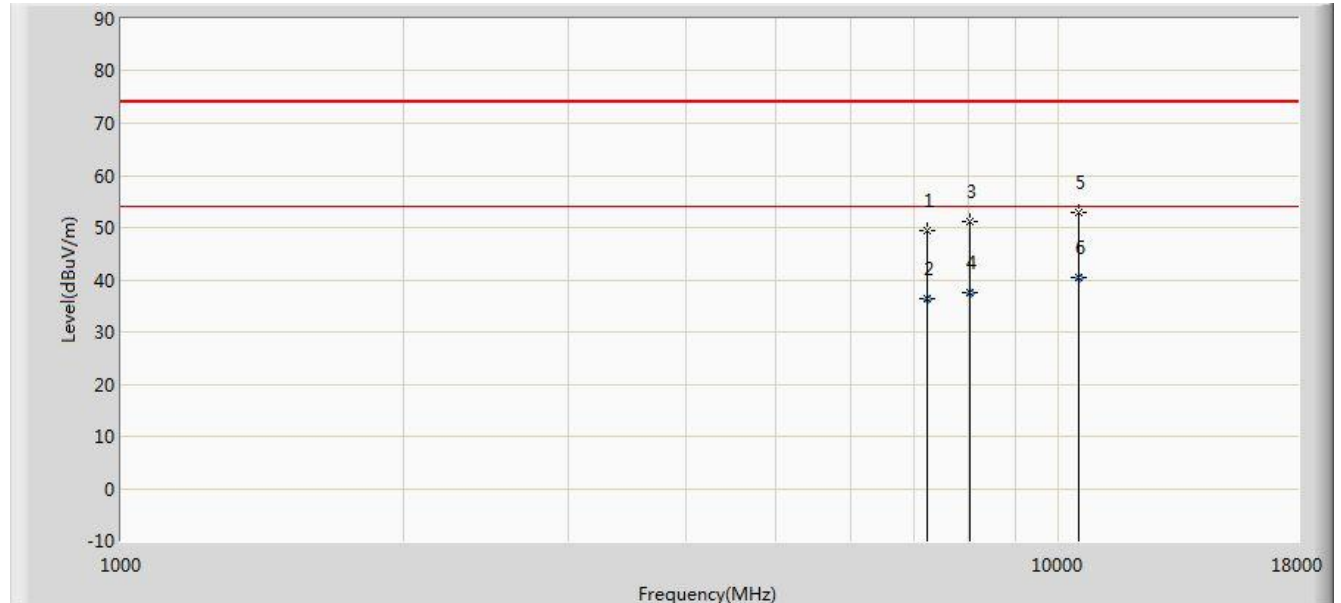
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 67;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Vertical
Antenna Type:	Directional Antenna (M/N: AP-ANT-48)	Model No.:	APIN0514
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7247.500	49.309	37.092	-24.691	74.000	12.217	PK
2			7247.500	36.397	24.180	-17.603	54.000	12.217	AV
3			8046.500	51.025	38.558	-22.975	74.000	12.468	PK
4			8046.500	37.427	24.960	-16.573	54.000	12.468	AV
5			10503.000	52.765	35.600	-21.235	74.000	17.165	PK
6		*	10503.000	40.525	23.360	-13.475	54.000	17.165	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

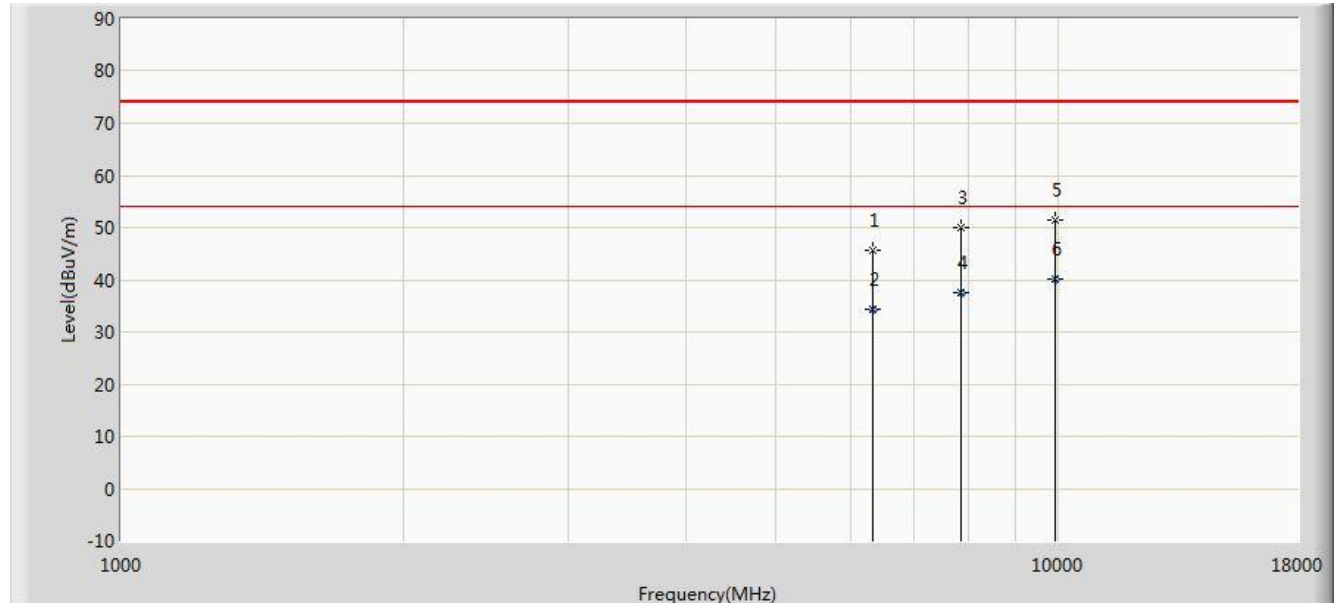
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ac-VHT20 Channel 5240MHz Power setting = 67;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Horizontal
Antenna Type:	Internal Antenna	Model No.:	APIN0515
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			6346.500	45.761	38.353	-28.239	74.000	7.408	PK
2			6346.500	34.248	26.840	-19.752	54.000	7.408	AV
3			7876.500	49.897	37.490	-24.103	74.000	12.407	PK
4			7876.500	37.527	25.120	-16.473	54.000	12.407	AV
5			9899.500	51.471	36.105	-22.529	74.000	15.366	PK
6		*	9899.500	40.116	24.750	-13.884	54.000	15.366	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

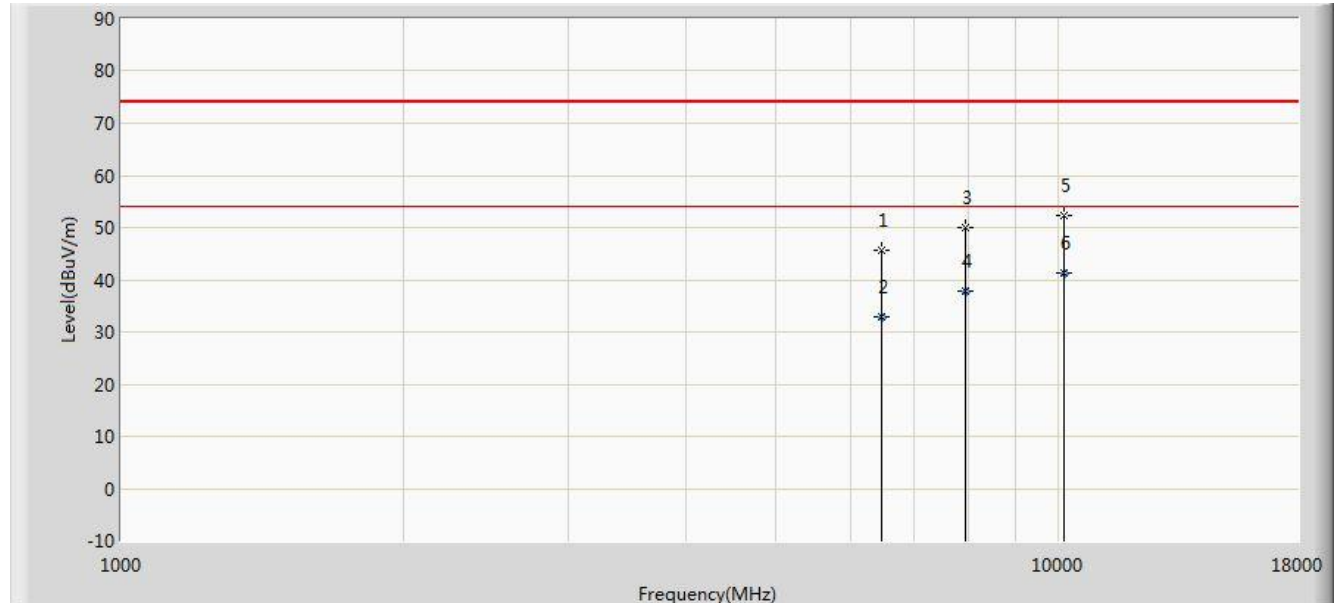
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting = 76;

5GHz Wi-Fi 802.11ax-VHE20 Channel 5825MHz Power setting = 74;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

Test Mode:	2.4GHz, 5GHz Wi-Fi + BLE Transmit	Test Site:	AC1
Test Engineer:	Kevin	Polarity:	Vertical
Antenna Type:	Internal Antenna	Model No.:	APIN0515
Remark:	There is the ambient noise within frequency range 9kHz~30MHz and 18GHz~40GHz, the permissible value is not show in the report.		



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			6482.500	45.689	37.430	-28.311	74.000	8.258	PK
2			6482.500	32.999	24.740	-21.001	54.000	8.258	AV
3			7953.000	49.930	37.467	-24.070	74.000	12.463	PK
4			7953.000	37.783	25.320	-16.217	54.000	12.463	AV
5			10137.500	52.249	36.331	-21.751	74.000	15.918	PK
6		*	10137.500	41.388	25.470	-12.612	54.000	15.918	AV

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

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

Note 2: We selected the 2.4GHz and 5GHz worst-case mode of radiated spurious emissions in the DTS and UNII reports.

Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting = 76;

5GHz Wi-Fi 802.11ax-VHE20 Channel 5825MHz Power setting = 74;

2.4GHz Bluetooth LE channel 2402MHz Power setting = 8;

Note 4: ZigBee and Bluetooth-LE can't transmit simultaneously and Bluetooth-LE power higher than ZigBee, so we only assess the WIFI and Bluetooth-LE simultaneous transmission.

The End