



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

(Paddy Chen)

Approved By:

Chenz Ker

(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.

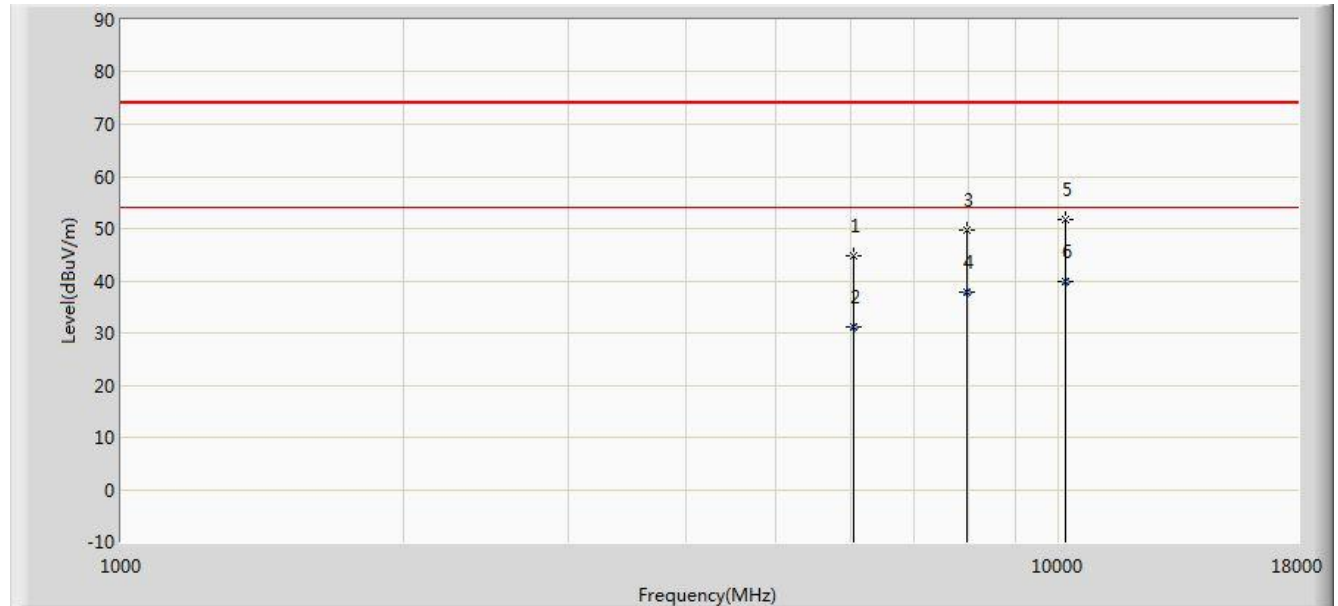
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Revision History

Report No.	Version	Description	Issue Date	Note
1807TW0111-U11	Rev. 01	Initial report	01-05-2019	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			6040.500	44.736	38.528	-29.264	74.000	6.209	PK
2			6040.500	31.238	25.030	-22.762	54.000	6.209	AV
3			7995.500	49.641	37.140	-24.359	74.000	12.501	PK
4			7995.500	37.761	25.260	-16.239	54.000	12.501	AV
5			10188.500	51.691	35.530	-22.309	74.000	16.161	PK
6		*	10188.500	39.791	23.630	-14.209	54.000	16.161	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.

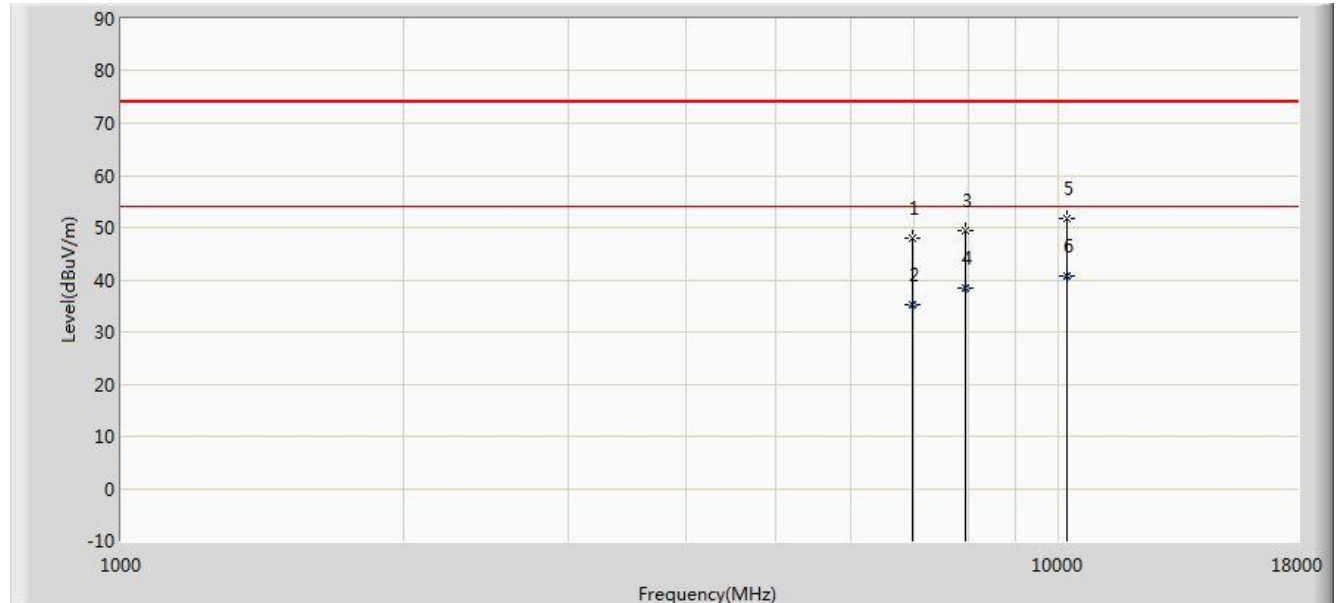
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2412MHz Power setting = 76;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz 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-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			6984.000	47.928	37.483	-26.072	74.000	10.445	PK
2			6984.000	35.185	24.740	-18.815	54.000	10.445	AV
3			7944.500	49.497	37.043	-24.503	74.000	12.454	PK
4			7944.500	38.334	25.880	-15.666	54.000	12.454	AV
5			10205.500	51.861	35.620	-22.139	74.000	16.242	PK
6		*	10205.500	40.661	24.420	-13.339	54.000	16.242	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.

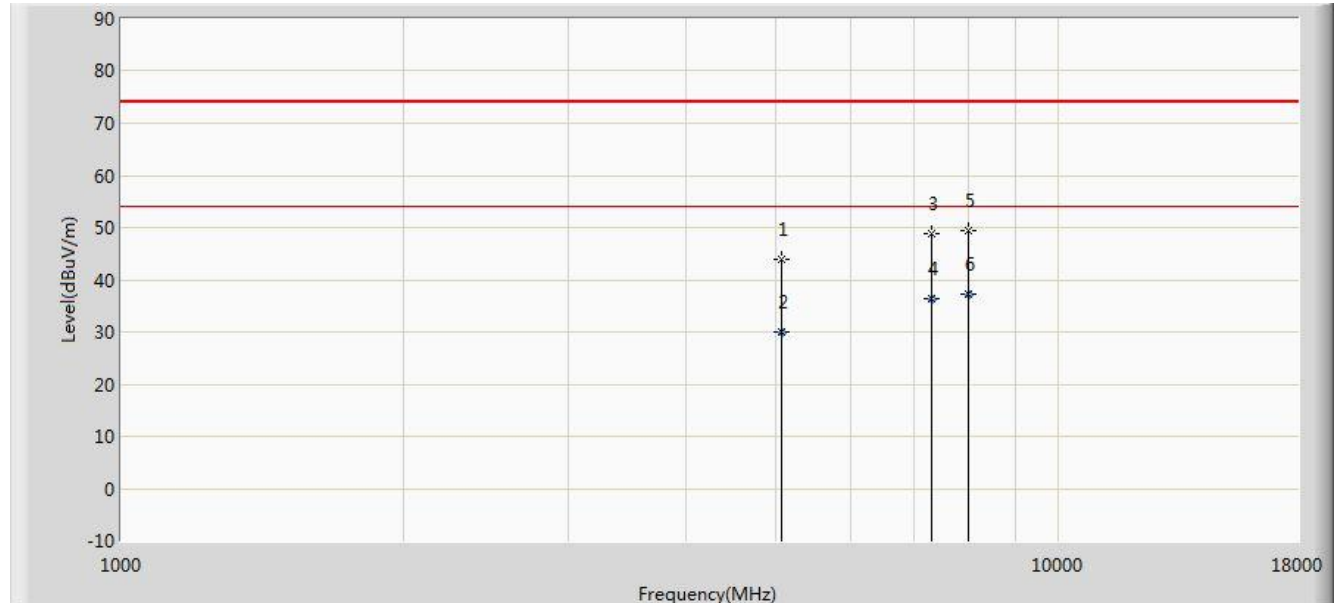
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2412MHz Power setting = 76;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz 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:	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			5063.000	44.043	39.996	-29.957	74.000	4.047	PK
2			5063.000	30.077	26.030	-23.923	54.000	4.047	AV
3			7315.500	48.982	36.634	-25.018	74.000	12.348	PK
4			7315.500	36.378	24.030	-17.622	54.000	12.348	AV
5			8012.500	49.565	37.064	-24.435	74.000	12.501	PK
6		*	8012.500	37.241	24.740	-16.759	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.

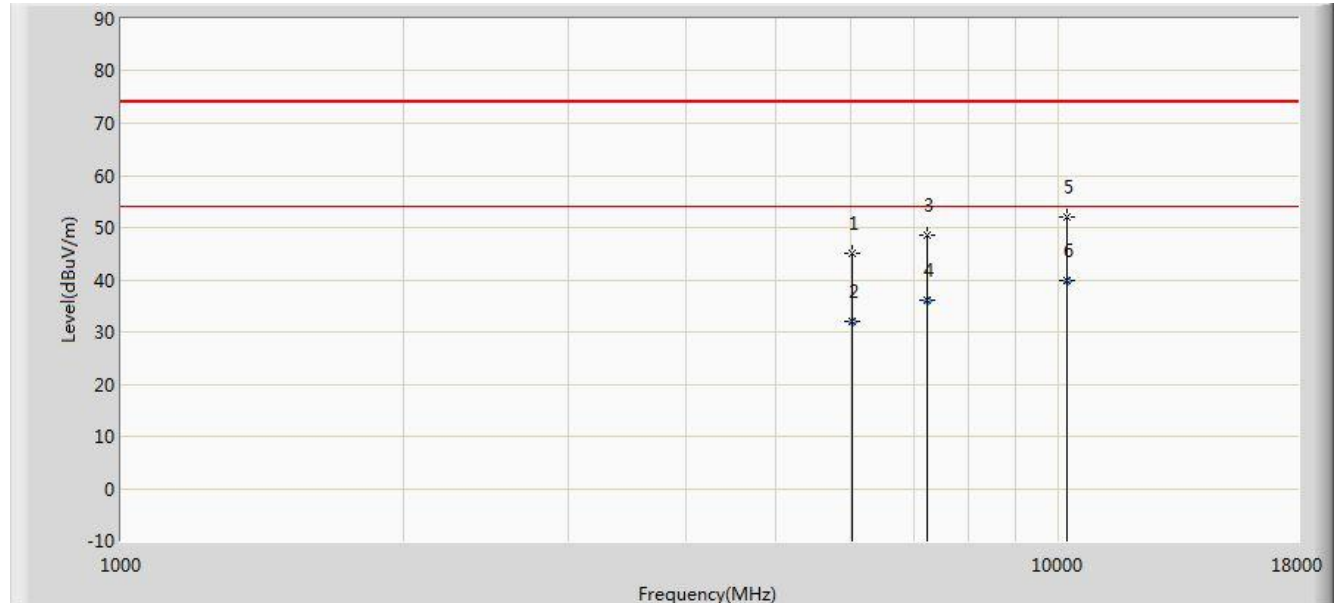
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz 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-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			6015.000	45.130	38.984	-28.870	74.000	6.146	PK
2			6015.000	31.946	25.800	-22.054	54.000	6.146	AV
3			7230.500	48.554	36.382	-25.446	74.000	12.172	PK
4			7230.500	36.062	23.890	-17.938	54.000	12.172	AV
5			10197.000	52.028	35.829	-21.972	74.000	16.199	PK
6		*	10197.000	39.839	23.640	-14.161	54.000	16.199	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.

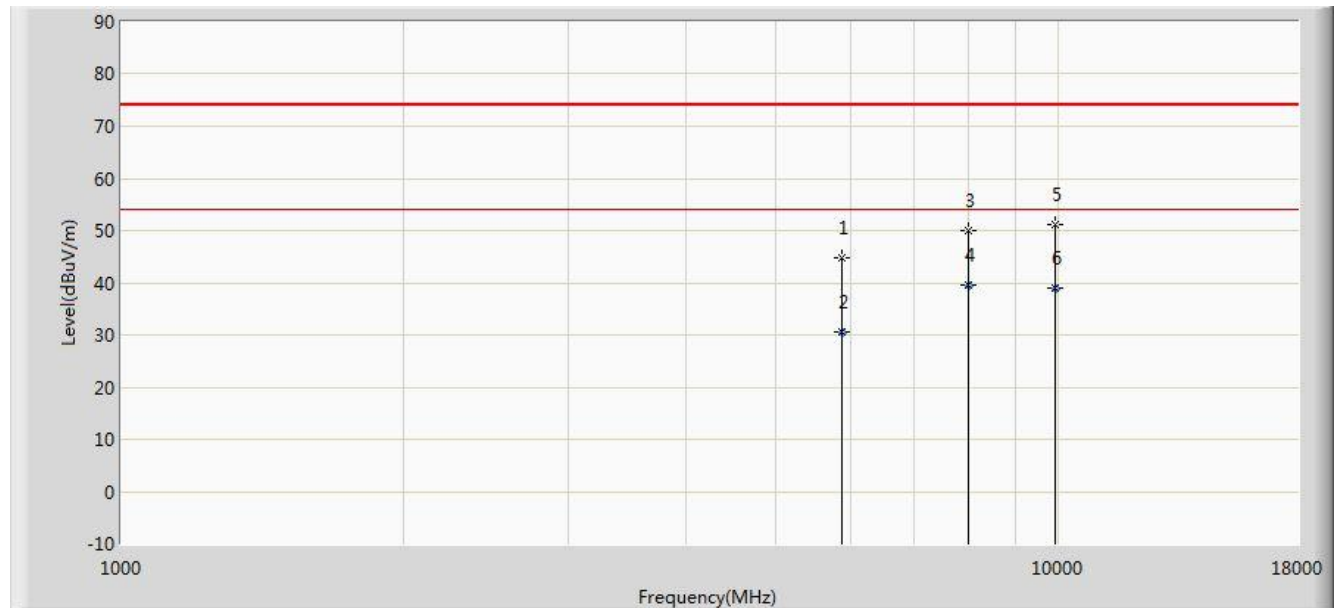
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz 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:	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			5870.500	44.653	38.849	-29.347	74.000	5.804	PK
2			5870.500	30.544	24.740	-23.456	54.000	5.804	AV
3			8021.000	50.119	37.624	-23.881	74.000	12.495	PK
4			8021.000	39.435	26.940	-14.565	54.000	12.495	AV
5			9933.500	51.289	35.984	-22.711	74.000	15.305	PK
6		*	9933.500	38.955	23.650	-15.045	54.000	15.305	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.

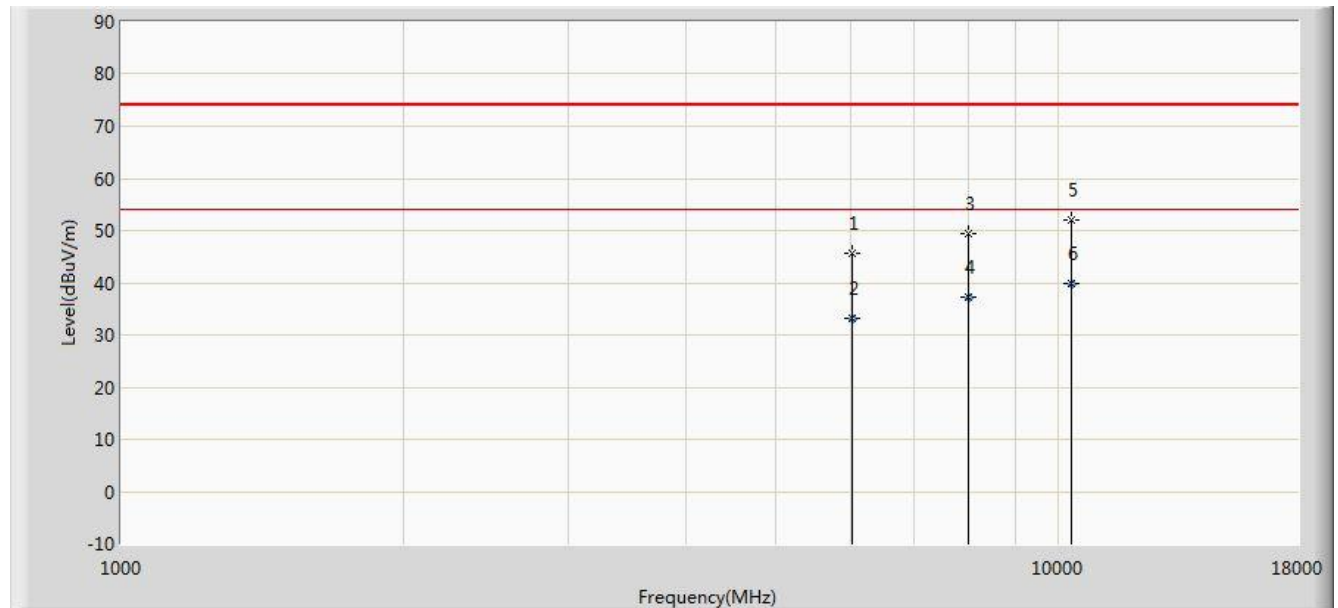
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz Power setting = 66;

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			6023.500	45.634	39.467	-28.366	74.000	6.167	PK
2			6023.500	33.047	26.880	-20.953	54.000	6.167	AV
3			8012.500	49.554	37.053	-24.446	74.000	12.501	PK
4			8012.500	37.161	24.660	-16.839	54.000	12.501	AV
5			10316.000	52.086	35.431	-21.914	74.000	16.654	PK
6		*	10316.000	39.795	23.140	-14.205	54.000	16.654	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.

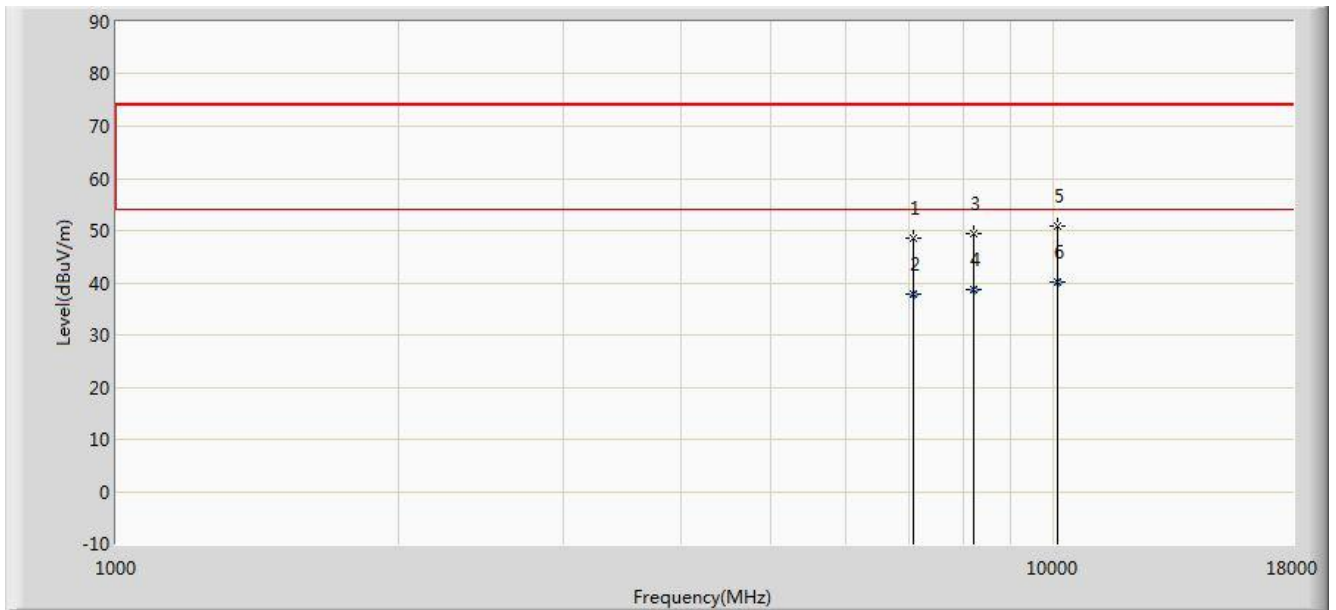
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz Power setting = 66;

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			7086.000	48.612	37.273	-25.388	74.000	11.339	PK
2			7086.000	37.689	26.350	-16.311	54.000	11.339	AV
3			8225.000	49.403	37.502	-24.597	74.000	11.902	PK
4			8225.000	38.721	26.820	-15.279	54.000	11.902	AV
5			10095.000	50.744	35.043	-23.256	74.000	15.701	PK
6		*	10095.000	40.051	24.350	-13.949	54.000	15.701	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.

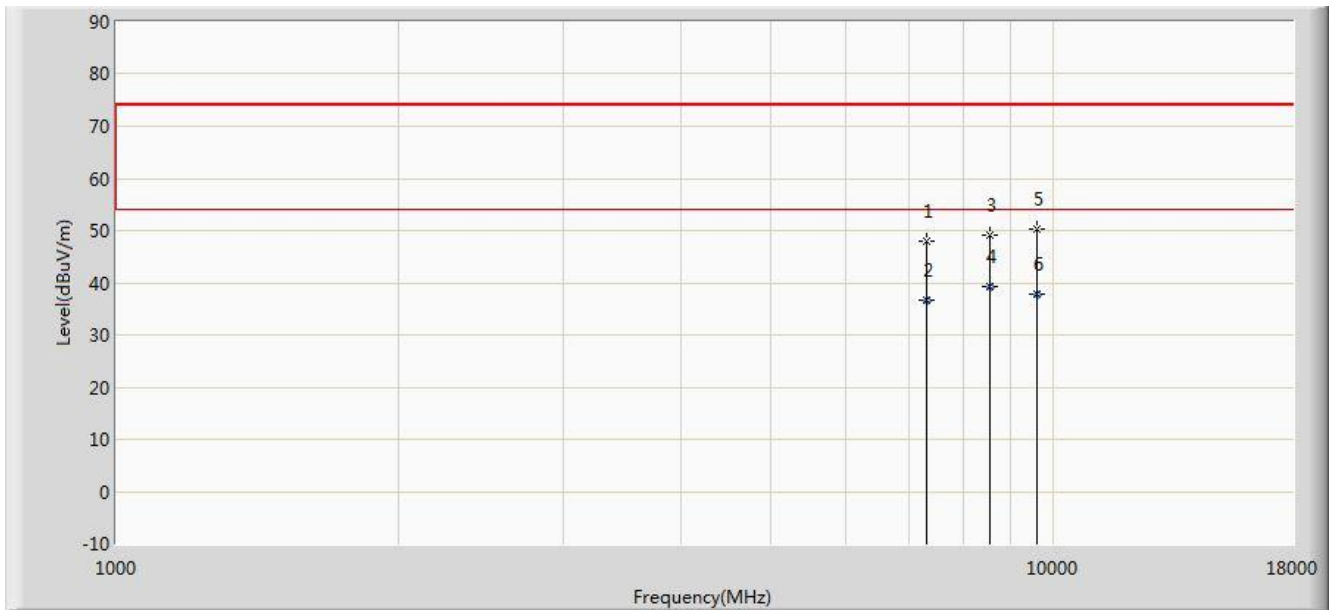
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz Power setting = 60;

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			7332.500	48.024	35.645	-25.976	74.000	12.379	PK
2			7332.500	36.759	24.380	-17.241	54.000	12.379	AV
3			8548.000	49.238	36.068	-24.762	74.000	13.170	PK
4			8548.000	39.190	26.020	-14.810	54.000	13.170	AV
5			9593.500	50.321	35.927	-23.679	74.000	14.393	PK
6		*	9593.500	37.914	23.520	-16.086	54.000	14.393	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.

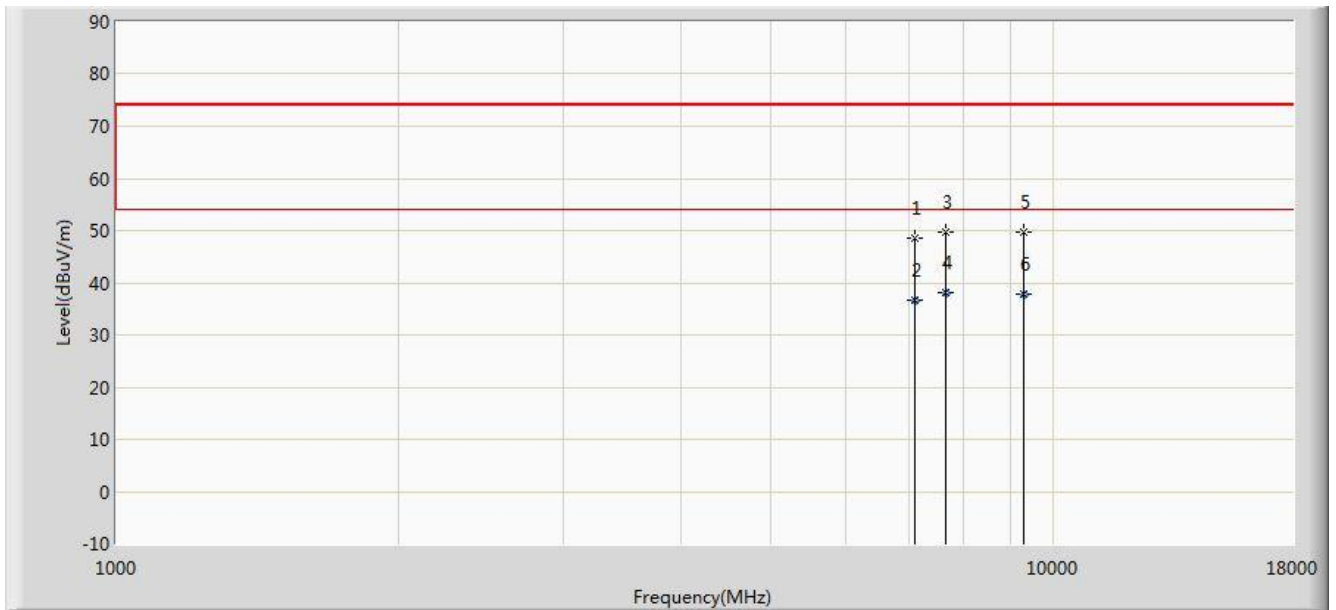
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting =75;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz Power setting = 60;

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			7120.000	48.444	36.833	-25.556	74.000	11.611	PK
2			7120.000	36.571	24.960	-17.429	54.000	11.611	AV
3			7681.000	49.575	37.113	-24.425	74.000	12.462	PK
4			7681.000	38.252	25.790	-15.748	54.000	12.462	AV
5			9304.500	49.600	34.924	-24.400	74.000	14.675	PK
6		*	9304.500	37.866	23.190	-16.134	54.000	14.675	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.

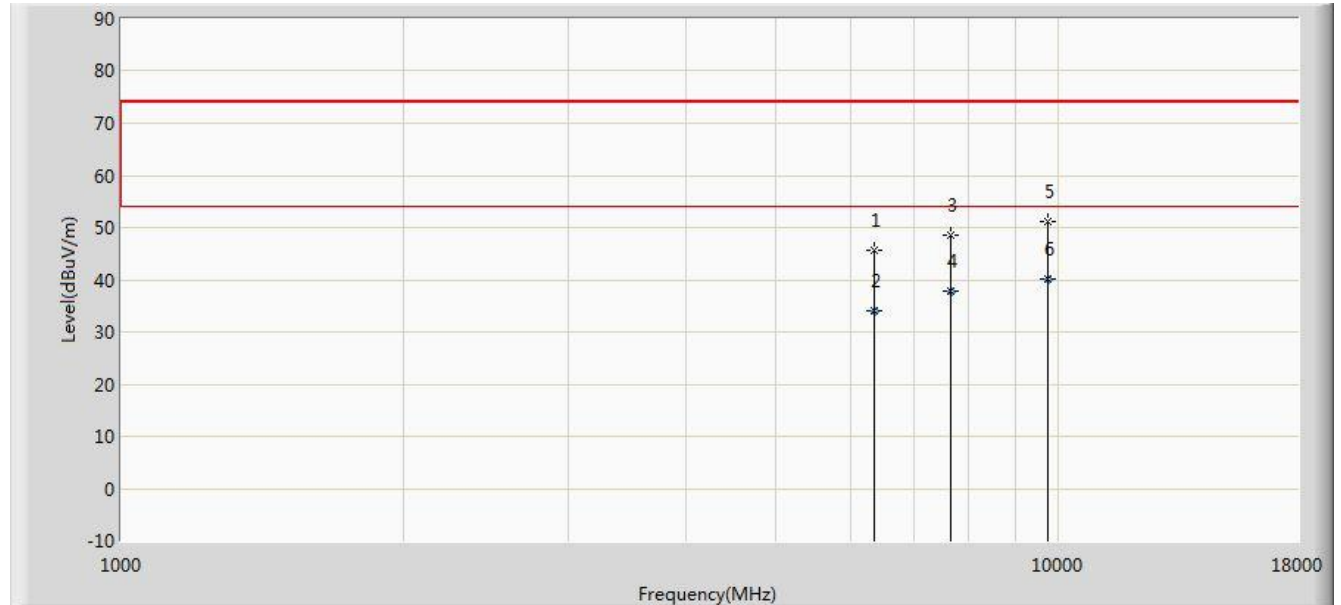
Note 3: 2.4GHz Wi-Fi 802.11b Channel 2437MHz Power setting = 76;

5GHz Wi-Fi 802.11ax-HE80 Channel 5690MHz 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:	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			6363.500	45.687	38.191	-28.313	74.000	7.496	PK
2			6363.500	33.976	26.480	-20.024	54.000	7.496	AV
3			7672.500	48.516	36.036	-25.484	74.000	12.481	PK
4			7672.500	37.870	25.390	-16.130	54.000	12.481	AV
5			9738.000	51.034	36.273	-22.966	74.000	14.761	PK
6		*	9738.000	40.151	25.390	-13.849	54.000	14.761	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-HE80 Channel 5690MHz 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.

The End