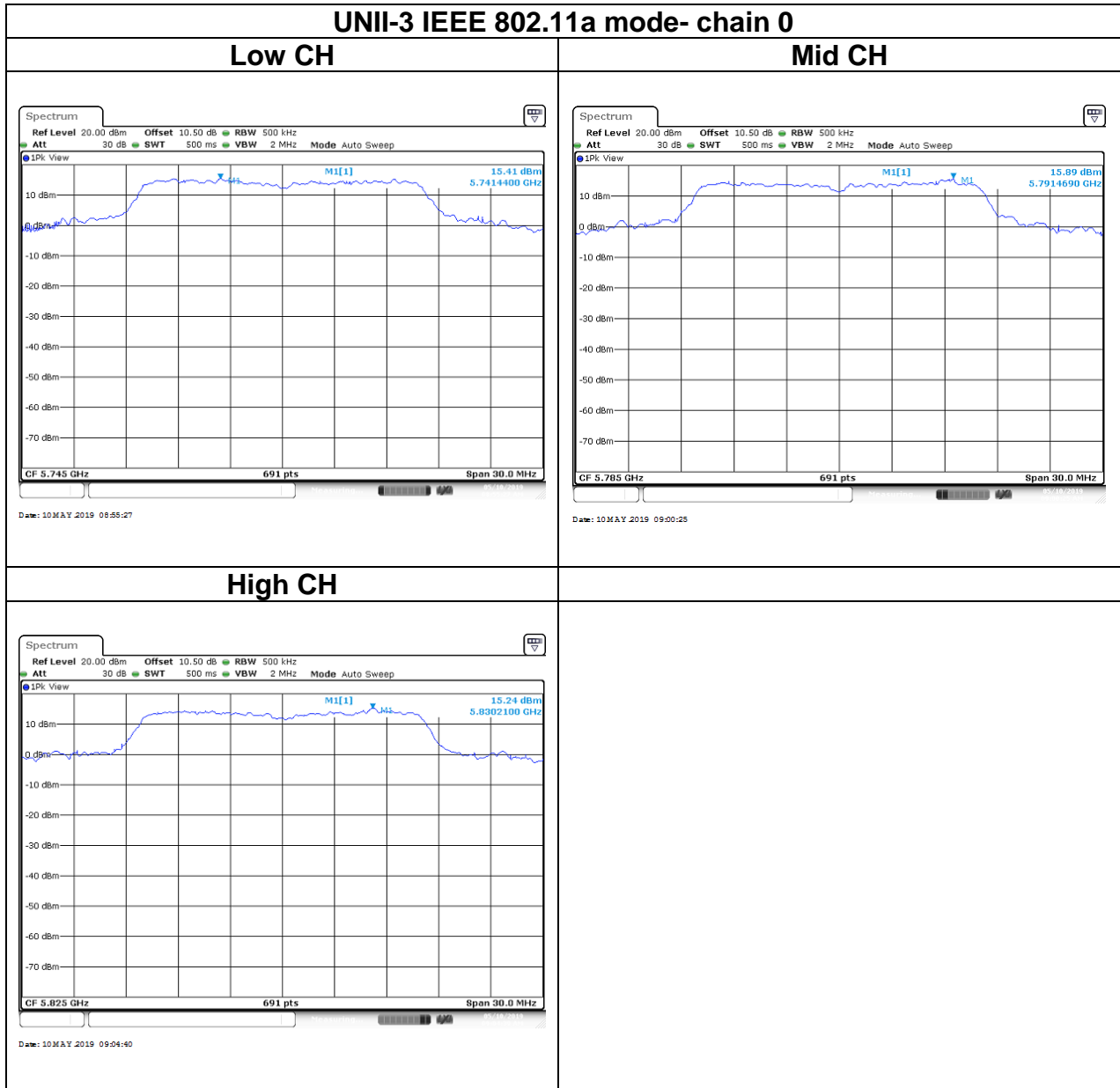
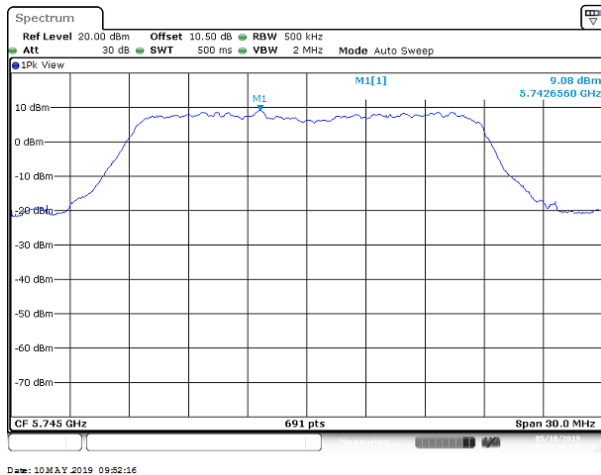


Test Data

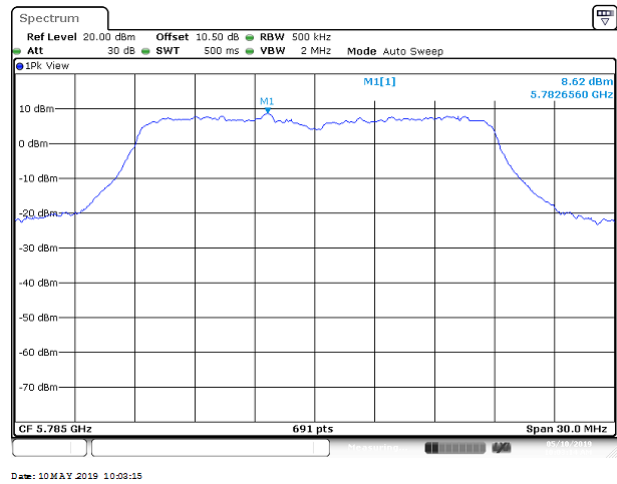


UNII-3 IEEE 802.11n HT20 mode- chain 0

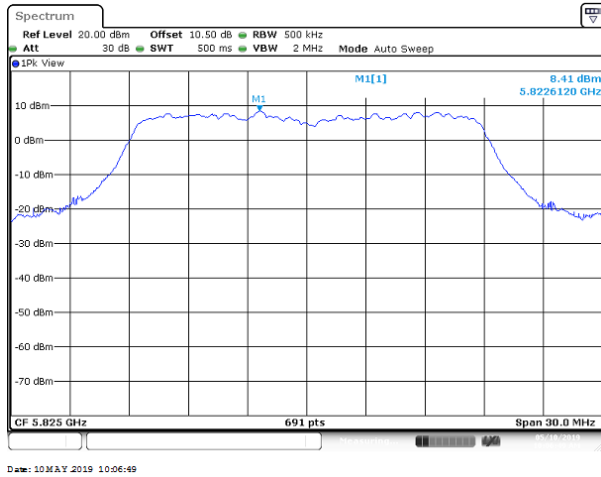
Low CH



Mid CH

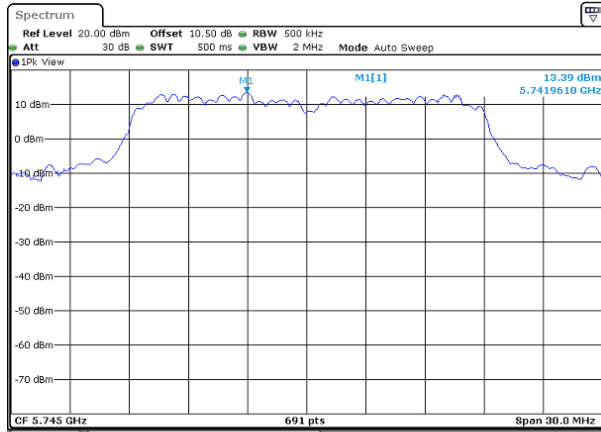


High CH



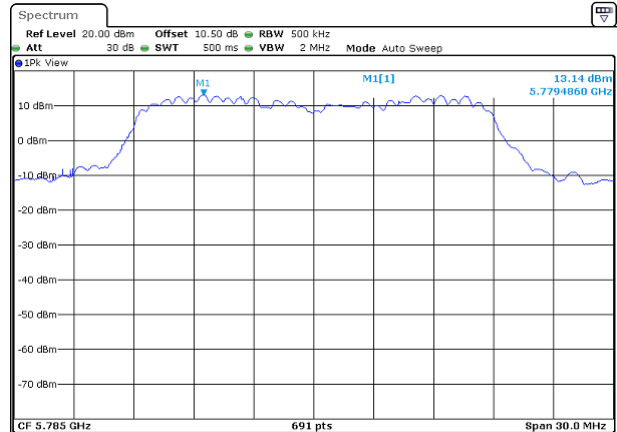
UNII-3 IEEE 802.11n HT20 mode- chain 1

Low CH



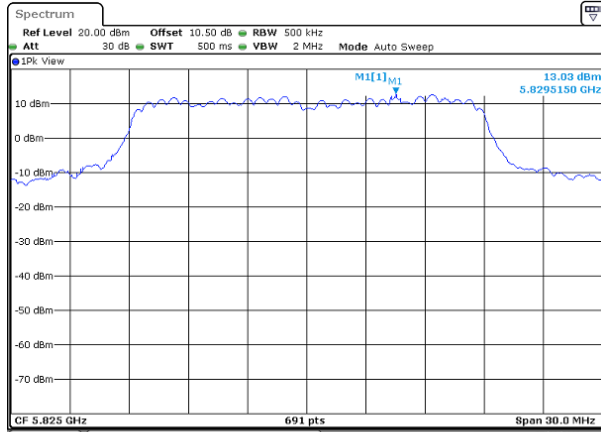
Date: 10 MAY 2019 09:56:15

Mid CH

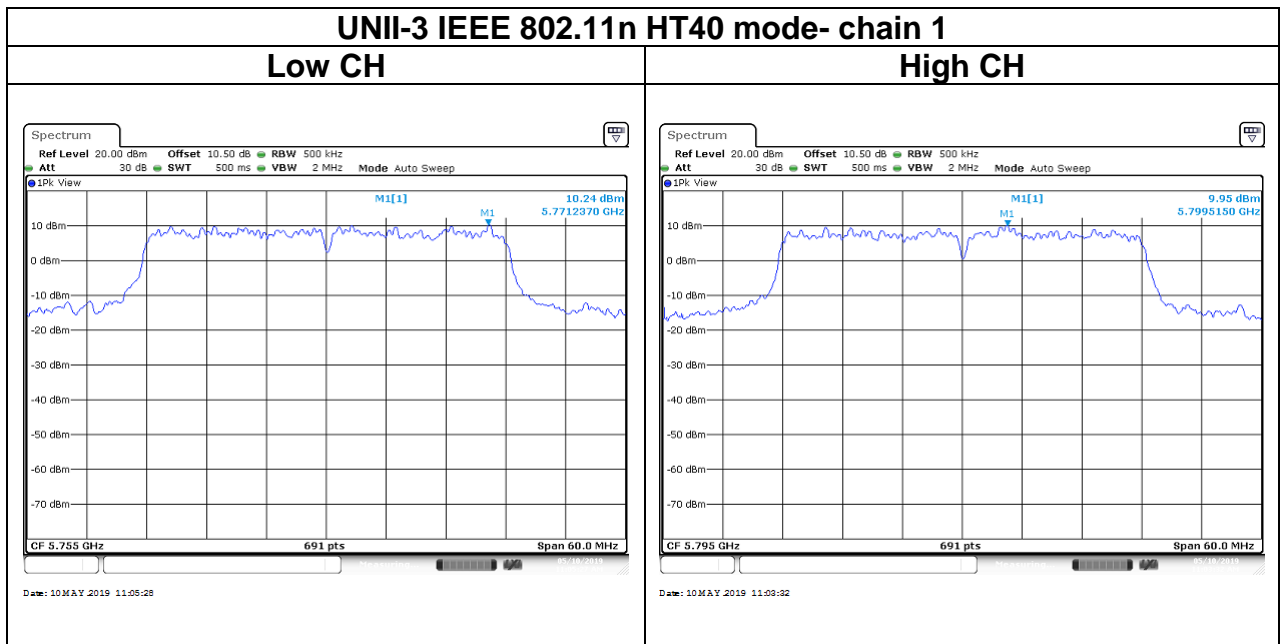
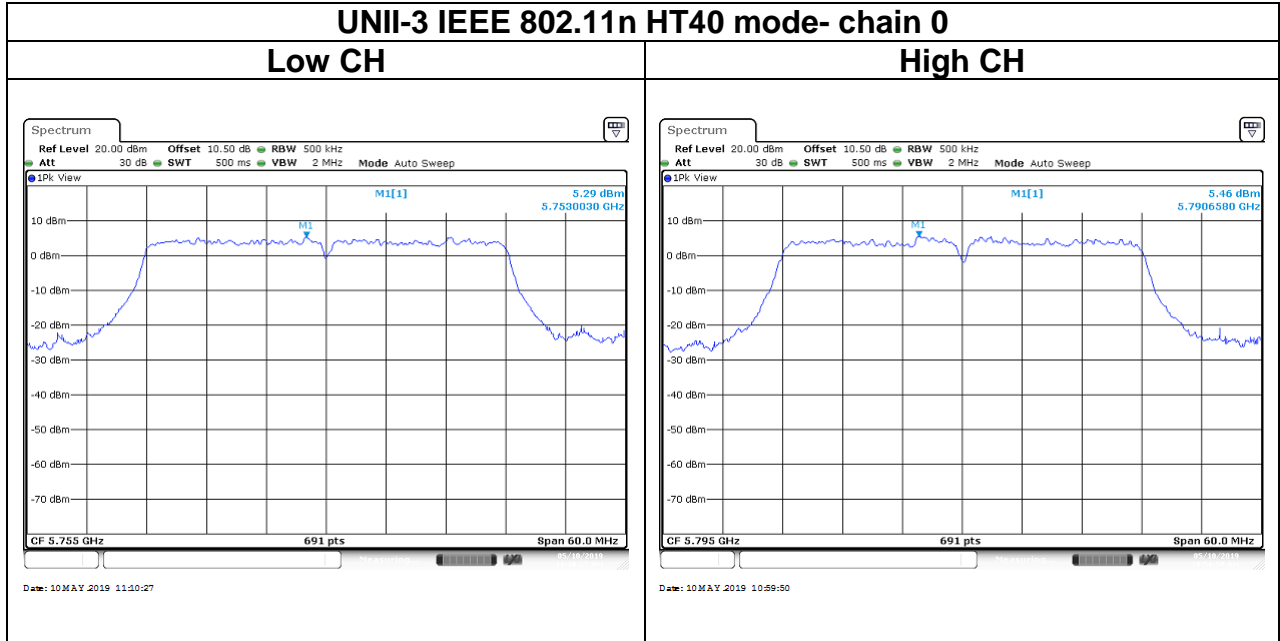


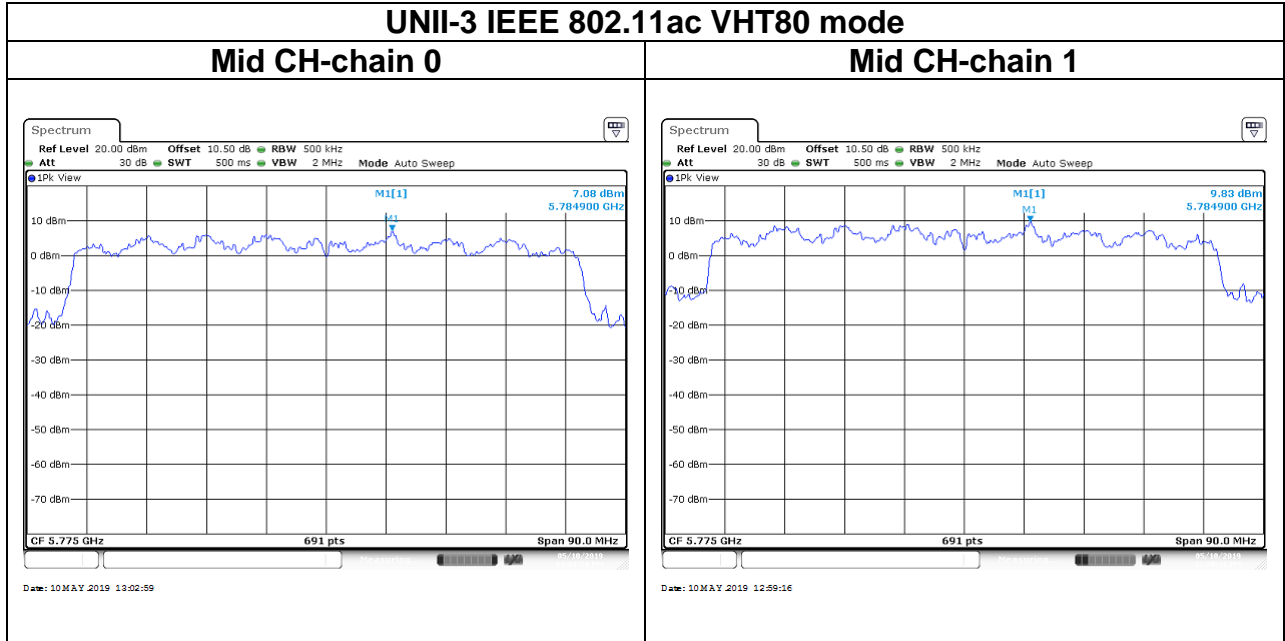
Date: 10 MAY 2019 10:00:23

High CH



Date: 10 MAY 2019 10:31:26





4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION

4.5.1 Test Limit

FCC according to §15.407, §15.209 and §15.205,

Below 30 MHz

| Frequency | Field Strength (microvolts/m) | Magnetic H-Field (microamperes/m) | Measurement Distance (metres) |
|---------------|-------------------------------|-----------------------------------|-------------------------------|
| 9-490 kHz | 2,400/F (F in kHz) | 2,400/F (F in kHz) | 300 |
| 490-1,705 kHz | 24,000/F (F in kHz) | 24,000/F (F in kHz) | 30 |
| 1.705-30 MHz | 30 | N/A | 30 |

Above 30 MHz

| Frequency (MHz) | Field Strength microvolts/m at 3 metres (watts, e.i.r.p.) | |
|-----------------|---|--------------|
| | Transmitters | Receivers |
| 30-88 | 100 (3 nW) | 100 (3 nW) |
| 88-216 | 150 (6.8 nW) | 150 (6.8 nW) |
| 216-960 | 200 (12 nW) | 200 (12 nW) |
| Above 960 | 500 (75 nW) | 500 (75 nW) |

UNII-1 :

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

UNII-3:

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p. For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz

4.5.2 Test Procedure

Test method Refer as KDB 789033 D02

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 30MHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.
4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)

Remark:

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

5. The SA setting following :

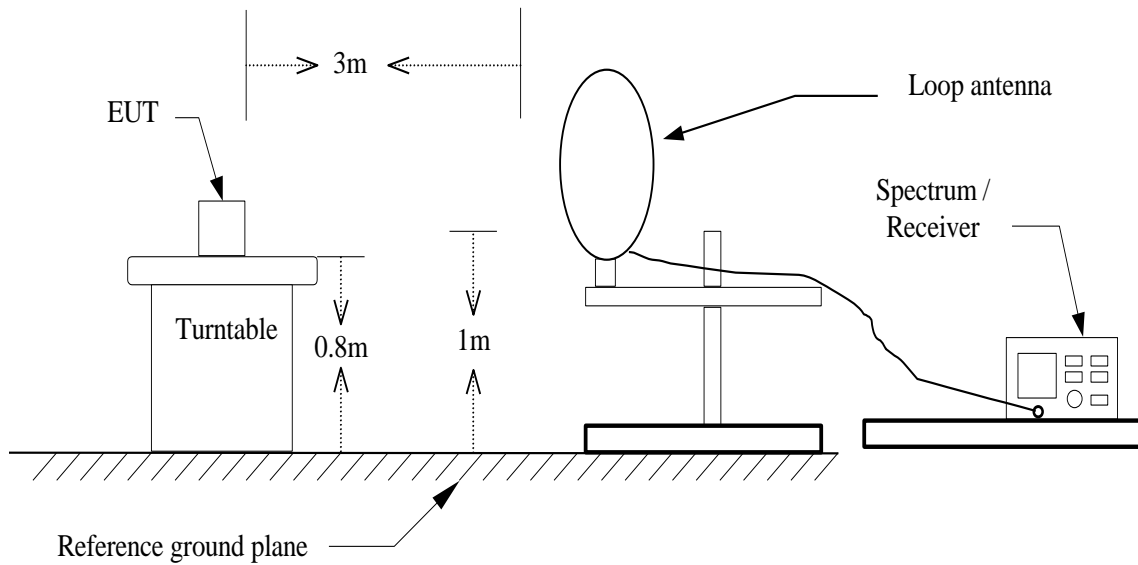
- (1) Below 1G : RBW = 100kHz, VBW $\geq 3 \times$ RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
- (2) Above 1G :
 - (2.1) For Peak measurement : RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW
 - If Duty Cycle $\geq 98\%$, VBW=10Hz.
 - If Duty Cycle $< 98\%$, VBW=1/T.

| Configuration | Duty Cycle (%) | VBW |
|----------------|----------------|--------|
| 802.11a | 95.70% | 510Hz |
| 802.11n HT20 | 88.64% | 1.1KHz |
| 802.11n HT40 | 69.67% | 2.2KHz |
| 802.11ac VHT80 | 39.35% | 12KHz |

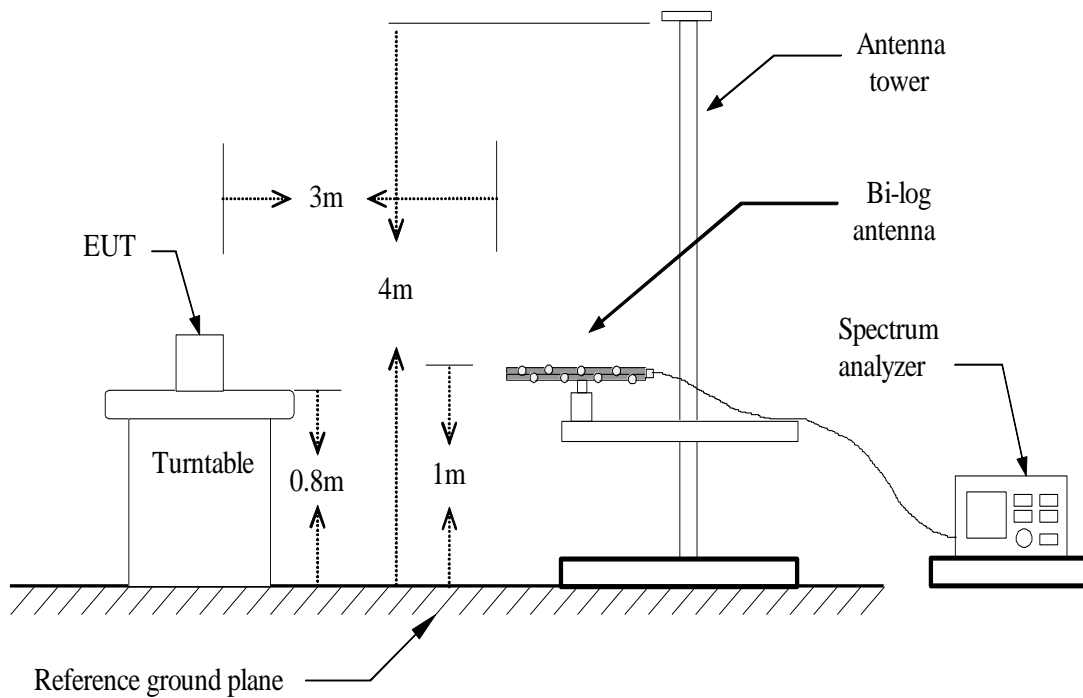
Report No.: T190503D08-RP1

4.5.3 Test Setup

9kHz ~ 30MHz

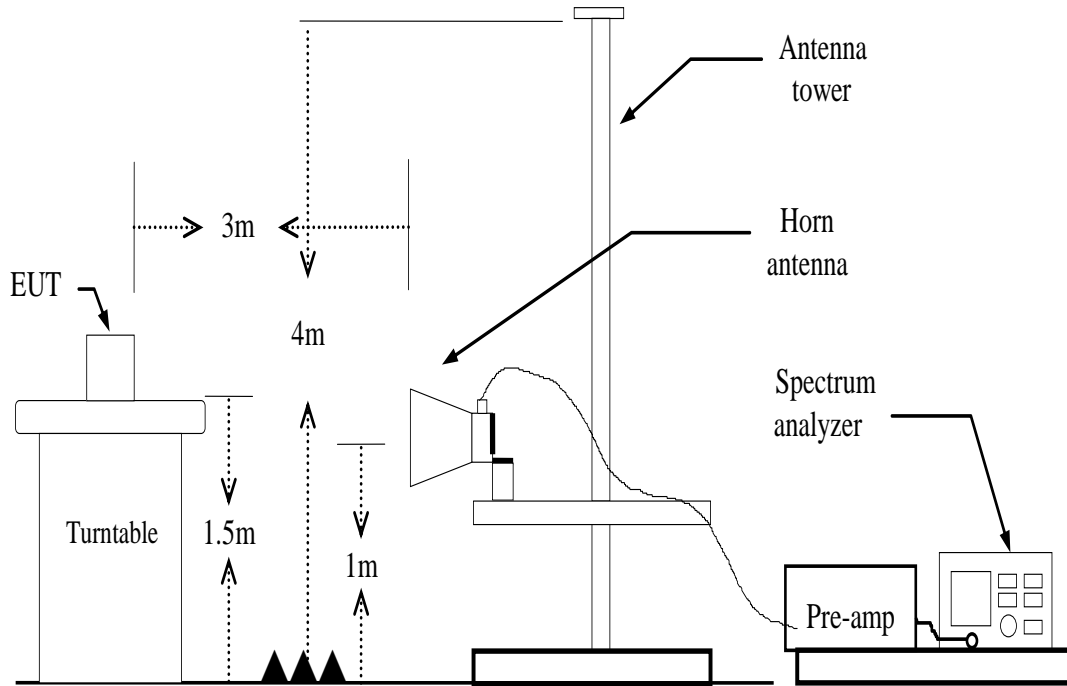


30MHz ~ 1GHz



Report No.: T190503D08-RP1

Above 1 GHz

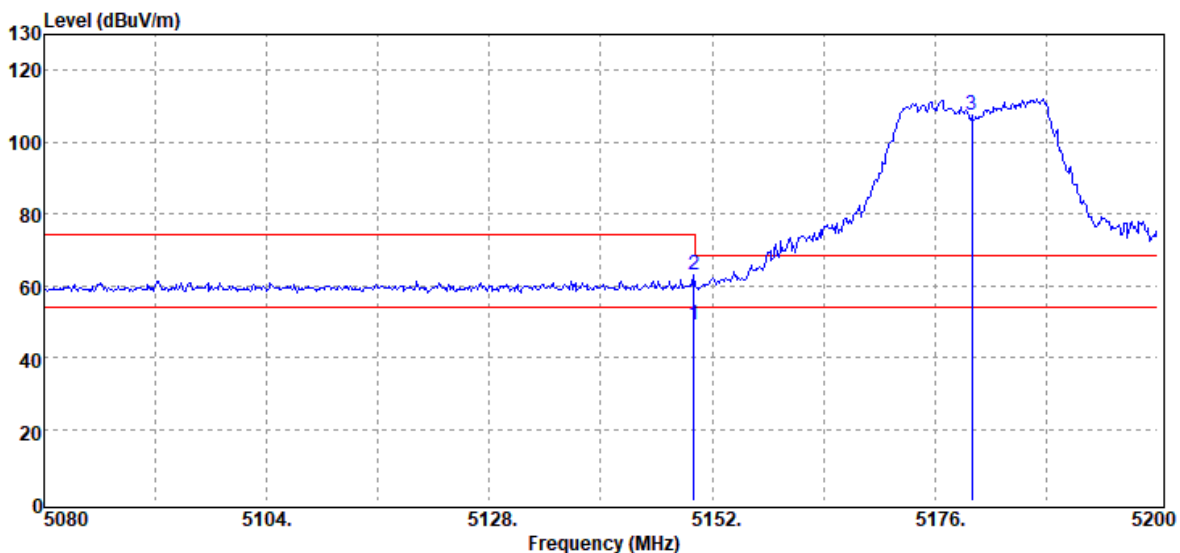


4.5.4 Test Result

Test Data

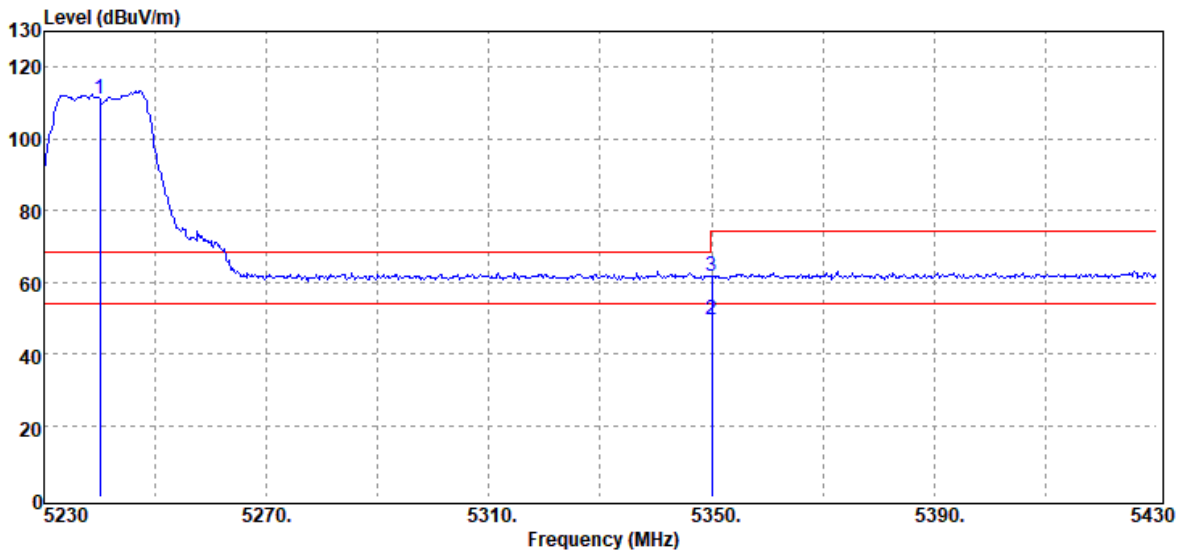
Band Edge Test Data for UNII-1

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



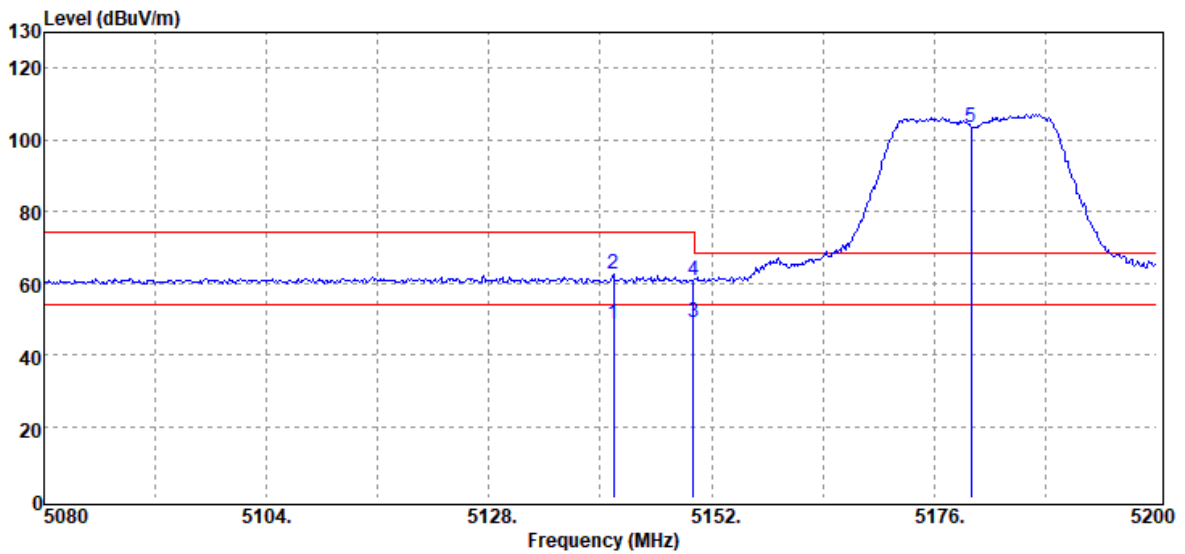
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5150.00 | 44.23 | 4.92 | 49.15 | 54.00 | -4.85 | Average |
| 5150.00 | 57.84 | 4.92 | 62.76 | 74.00 | -11.24 | Peak |
| 5180.00 | 102.78 | 4.95 | 107.73 | - | - | Peak |

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



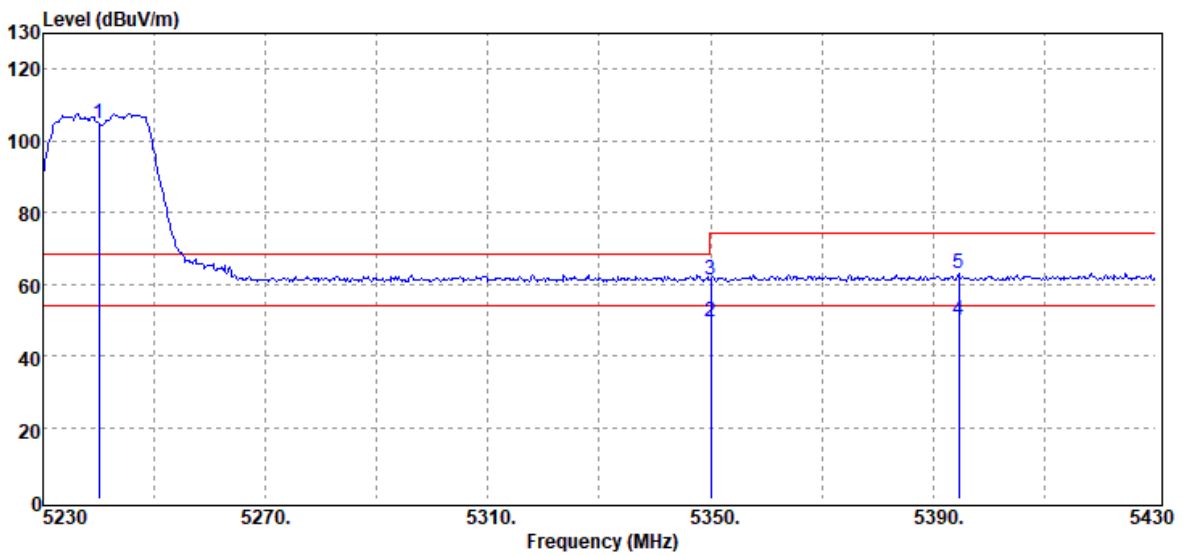
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5240.00 | 106.30 | 4.88 | 111.18 | - | - | Peak |
| 5350.00 | 44.24 | 5.21 | 49.45 | 54.00 | -4.55 | Average |
| 5350.00 | 56.26 | 5.21 | 61.47 | 74.00 | -12.53 | Peak |

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



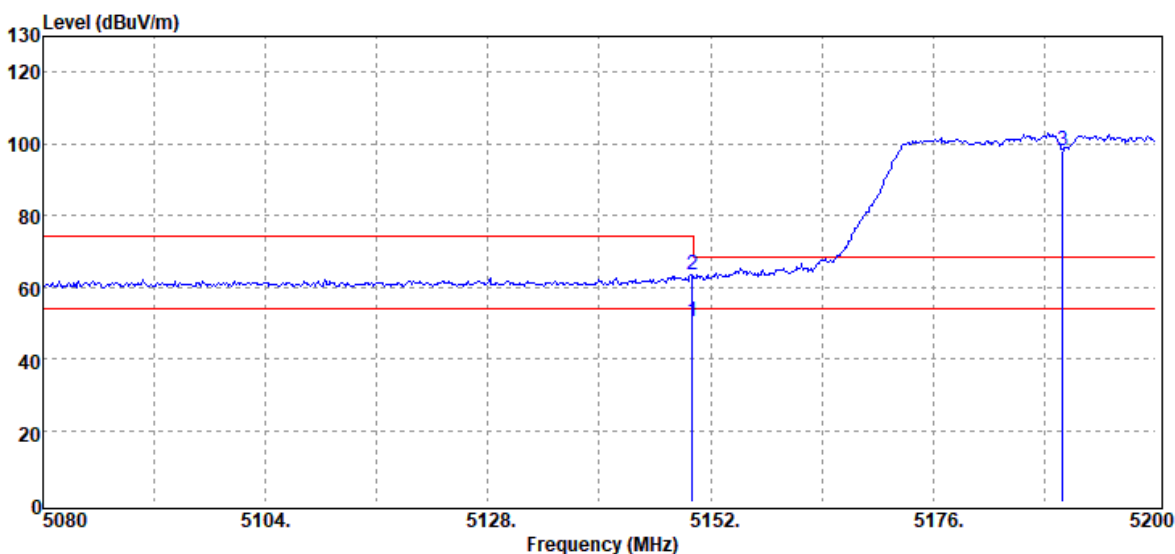
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5141.44 | 43.75 | 4.92 | 48.67 | 54.00 | -5.33 | Average |
| 5141.44 | 57.67 | 4.92 | 62.59 | 74.00 | -11.41 | Peak |
| 5150.00 | 44.13 | 4.92 | 49.05 | 54.00 | -4.95 | Average |
| 5150.00 | 55.95 | 4.92 | 60.87 | 74.00 | -13.13 | Peak |
| 5180.00 | 98.40 | 4.95 | 103.35 | - | - | Peak |

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



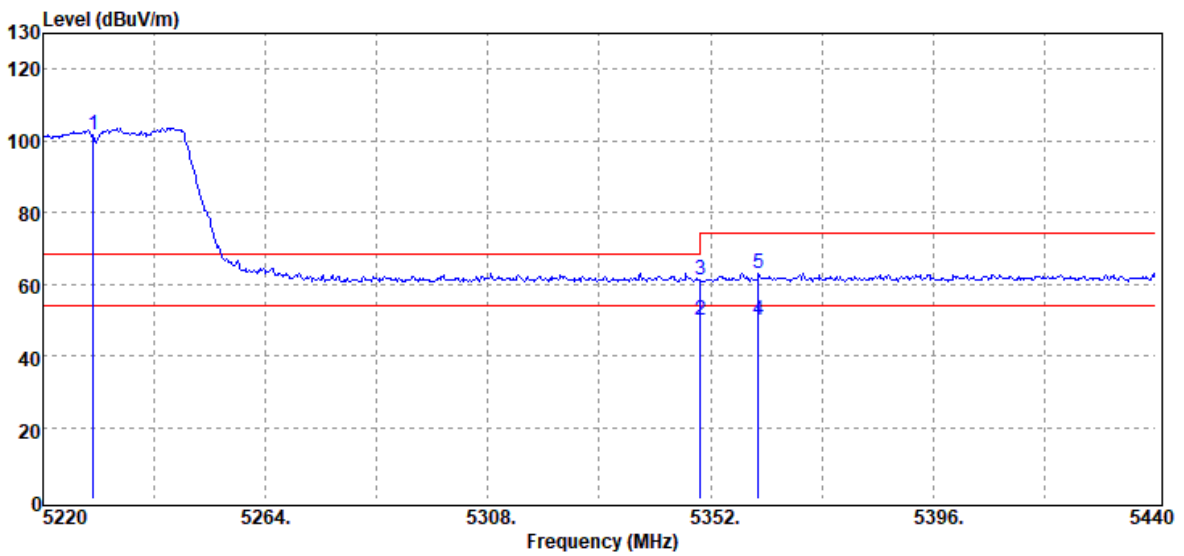
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5240.00 | 100.02 | 4.88 | 104.90 | - | - | Peak |
| 5350.00 | 44.12 | 5.21 | 49.33 | 54.00 | -4.67 | Average |
| 5350.00 | 55.94 | 5.21 | 61.15 | 74.00 | -12.85 | Peak |
| 5394.60 | 44.58 | 5.37 | 49.95 | 54.00 | -4.05 | Average |
| 5394.60 | 57.73 | 5.37 | 63.10 | 74.00 | -10.90 | Peak |

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



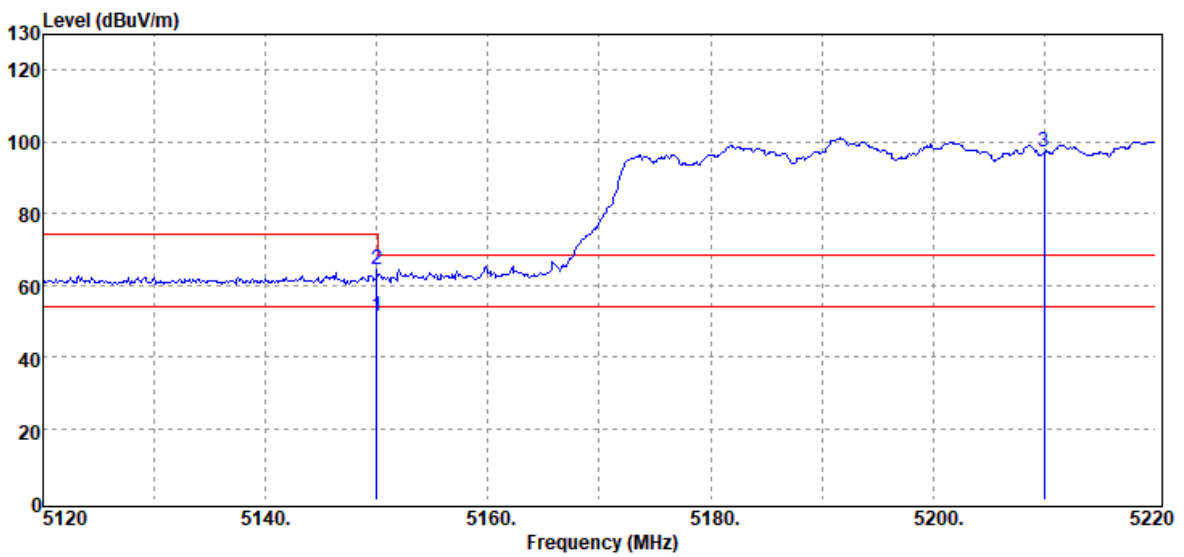
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5150.00 | 45.62 | 4.92 | 50.54 | 54.00 | -3.46 | Average |
| 5150.00 | 58.54 | 4.92 | 63.46 | 74.00 | -10.54 | Peak |
| 5190.00 | 93.19 | 4.95 | 98.14 | - | - | Peak |

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5230.00 | 96.57 | 4.90 | 101.47 | - | - | Peak |
| 5350.00 | 44.51 | 5.21 | 49.72 | 54.00 | -4.28 | Average |
| 5350.00 | 55.90 | 5.21 | 61.11 | 74.00 | -12.89 | Peak |
| 5361.46 | 44.74 | 5.27 | 50.01 | 54.00 | -3.99 | Average |
| 5361.46 | 57.92 | 5.27 | 63.19 | 74.00 | -10.81 | Peak |

| | | | |
|-----------|-------------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak / Average | | |

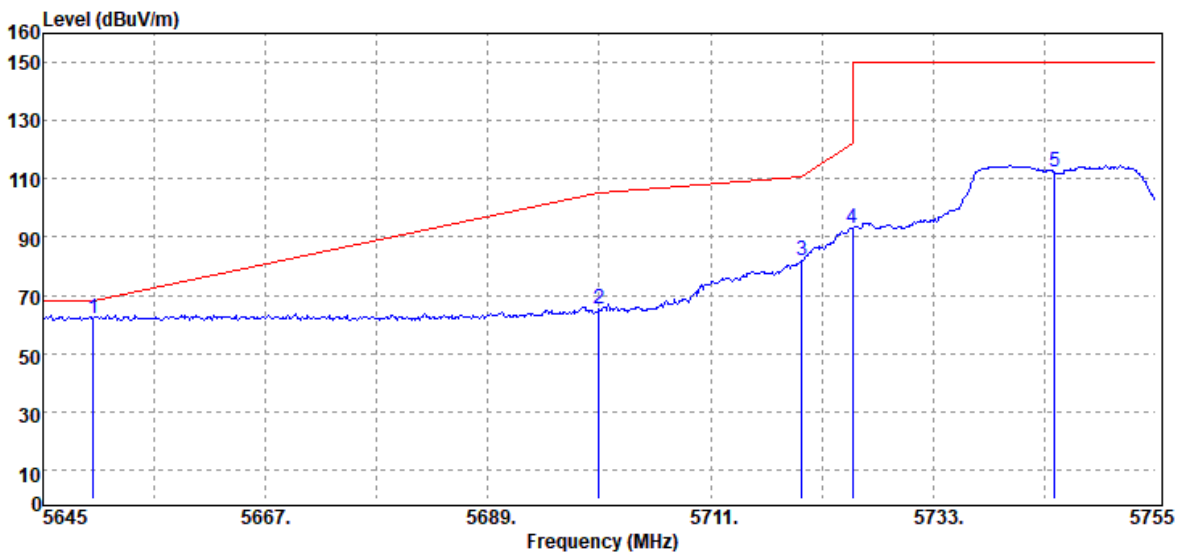


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|---------|
| 5150.00 | 46.26 | 4.92 | 51.18 | 54.00 | -2.82 | Average |
| 5150.00 | 59.19 | 4.92 | 64.11 | 74.00 | -9.89 | Peak |
| 5210.00 | 92.31 | 4.94 | 97.25 | - | - | Peak |

Test Data

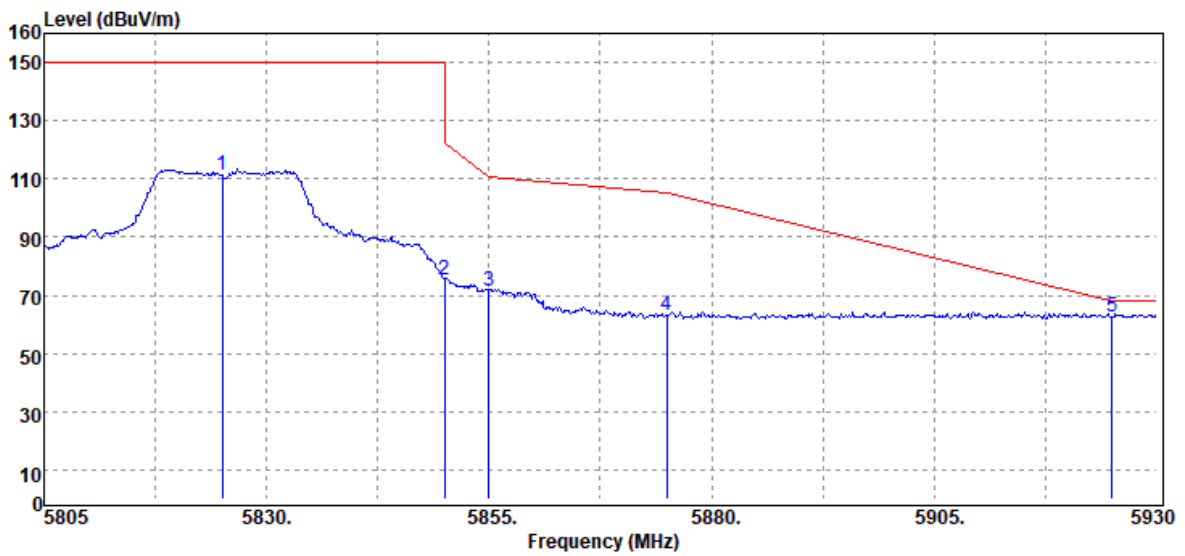
Band Edge Test Data for UNII-3

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



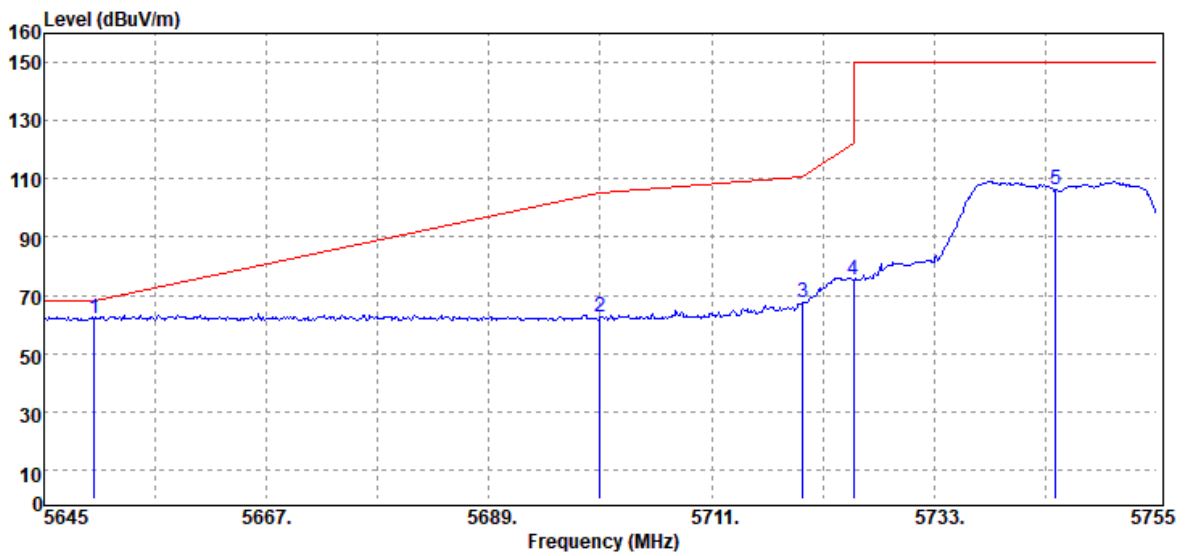
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5650.00 | 55.99 | 6.04 | 62.03 | 68.20 | -6.17 | Peak |
| 5700.00 | 58.85 | 6.32 | 65.17 | 105.20 | -40.03 | Peak |
| 5720.00 | 75.47 | 6.33 | 81.80 | 110.80 | -29.00 | Peak |
| 5725.00 | 86.62 | 6.34 | 92.96 | 122.20 | -29.24 | Peak |
| 5745.00 | 105.75 | 6.37 | 112.12 | 150.00 | -37.88 | Peak |

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



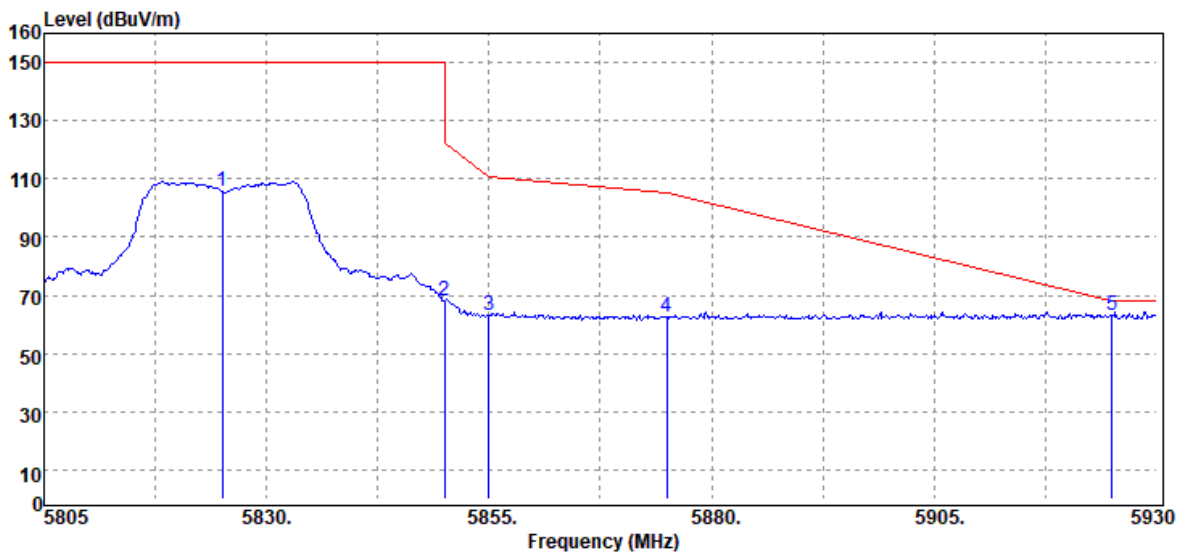
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5825.00 | 104.83 | 6.32 | 111.15 | 150.00 | -38.85 | Peak |
| 5850.00 | 69.13 | 6.39 | 75.52 | 122.20 | -46.68 | Peak |
| 5855.00 | 65.25 | 6.38 | 71.63 | 110.80 | -39.17 | Peak |
| 5875.00 | 56.87 | 6.37 | 63.24 | 105.20 | -41.96 | Peak |
| 5925.00 | 56.21 | 6.42 | 62.63 | 68.20 | -5.57 | Peak |

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



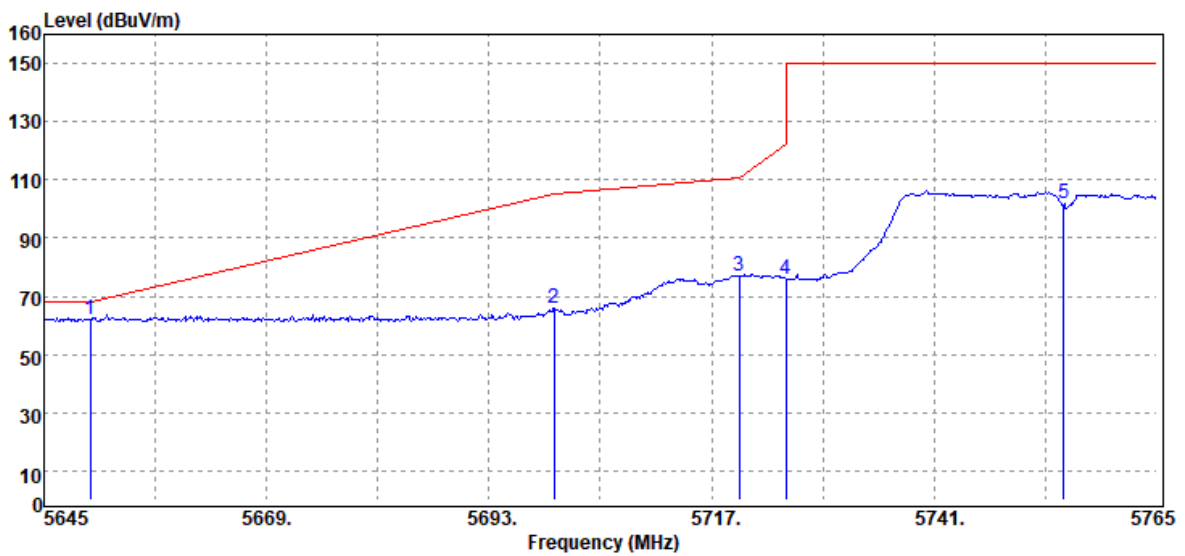
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5650.00 | 55.76 | 6.04 | 61.80 | 68.20 | -6.40 | Peak |
| 5700.00 | 56.22 | 6.32 | 62.54 | 105.20 | -42.66 | Peak |
| 5720.00 | 61.17 | 6.33 | 67.50 | 110.80 | -43.30 | Peak |
| 5725.00 | 68.86 | 6.34 | 75.20 | 122.20 | -47.00 | Peak |
| 5745.00 | 99.67 | 6.37 | 106.04 | 150.00 | -43.96 | Peak |

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



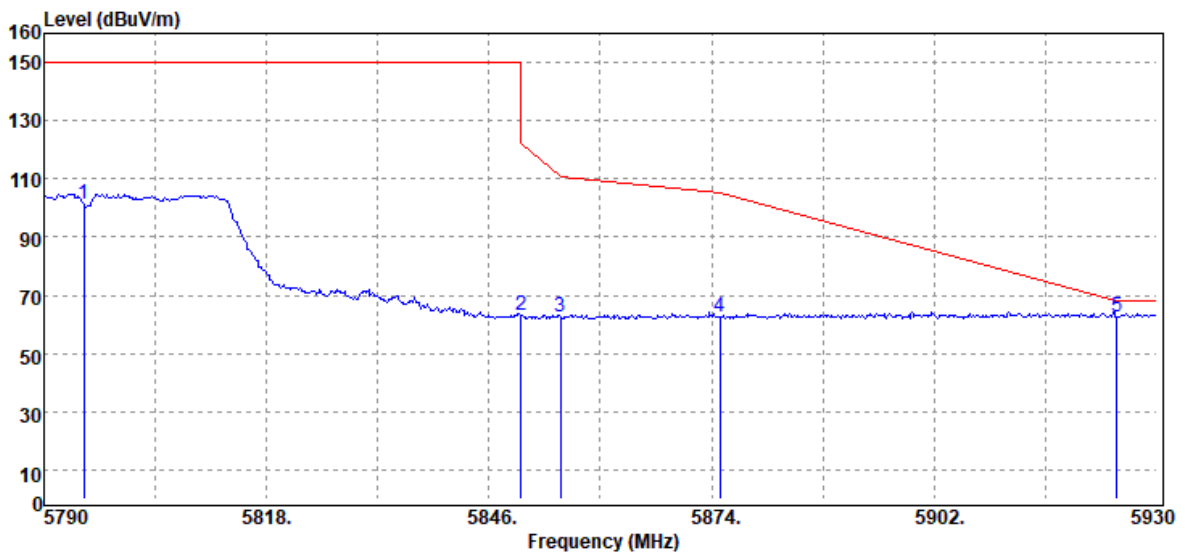
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5825.00 | 99.22 | 6.32 | 105.54 | 150.00 | -44.46 | Peak |
| 5850.00 | 61.59 | 6.39 | 67.98 | 122.20 | -54.22 | Peak |
| 5855.00 | 56.51 | 6.38 | 62.89 | 110.80 | -47.91 | Peak |
| 5875.00 | 56.34 | 6.37 | 62.71 | 105.20 | -42.49 | Peak |
| 5925.00 | 56.74 | 6.42 | 63.16 | 68.20 | -5.04 | Peak |

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



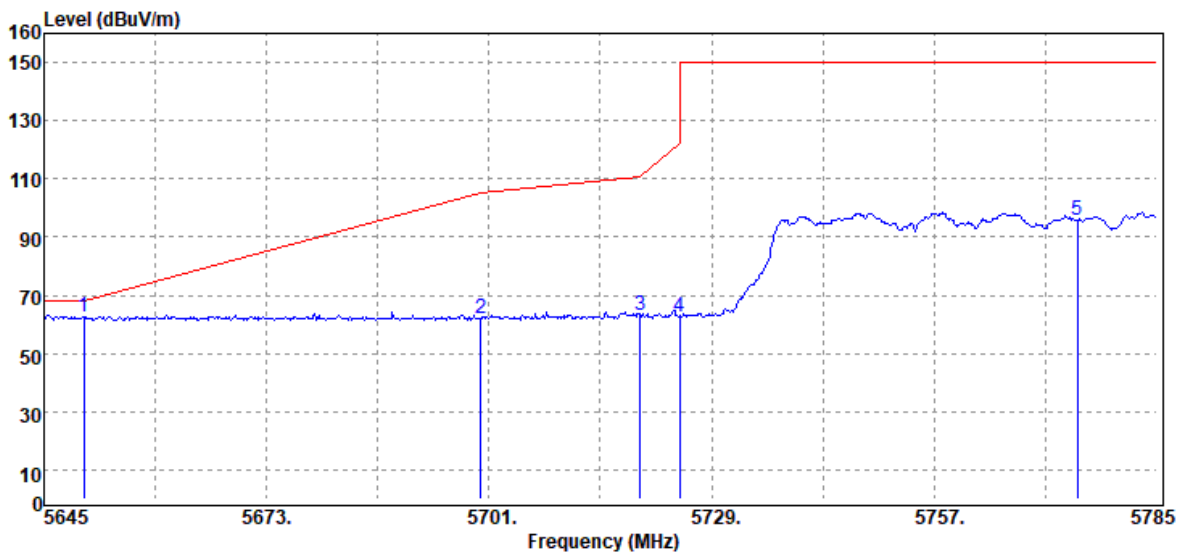
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5650.00 | 56.18 | 6.04 | 62.22 | 68.20 | -5.98 | Peak |
| 5700.00 | 59.41 | 6.32 | 65.73 | 105.20 | -39.47 | Peak |
| 5720.00 | 70.39 | 6.33 | 76.72 | 110.80 | -34.08 | Peak |
| 5725.00 | 69.55 | 6.34 | 75.89 | 122.20 | -46.31 | Peak |
| 5755.00 | 95.33 | 6.37 | 101.70 | 150.00 | -48.30 | Peak |

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5795.00 | 94.95 | 6.28 | 101.23 | 150.00 | -48.77 | Peak |
| 5850.00 | 56.73 | 6.39 | 63.12 | 122.20 | -59.08 | Peak |
| 5855.00 | 56.17 | 6.38 | 62.55 | 110.80 | -48.25 | Peak |
| 5875.00 | 56.22 | 6.37 | 62.59 | 105.20 | -42.61 | Peak |
| 5925.00 | 56.27 | 6.42 | 62.69 | 68.20 | -5.51 | Peak |

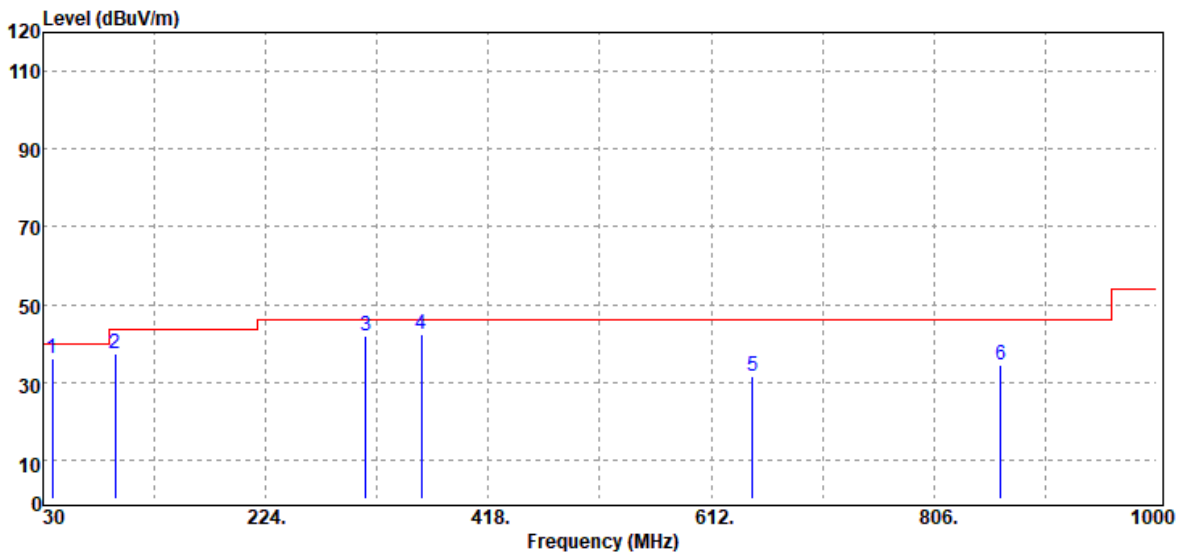
| | | | |
|-----------|-------------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Band Edge | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 5650.00 | 56.51 | 6.04 | 62.55 | 68.20 | -5.65 | Peak |
| 5700.00 | 55.80 | 6.32 | 62.12 | 105.20 | -43.08 | Peak |
| 5720.00 | 56.90 | 6.33 | 63.23 | 110.80 | -47.57 | Peak |
| 5725.00 | 56.48 | 6.34 | 62.82 | 122.20 | -59.38 | Peak |
| 5775.00 | 89.68 | 6.33 | 96.01 | 150.00 | -53.99 | Peak |

Below 1G Test Data

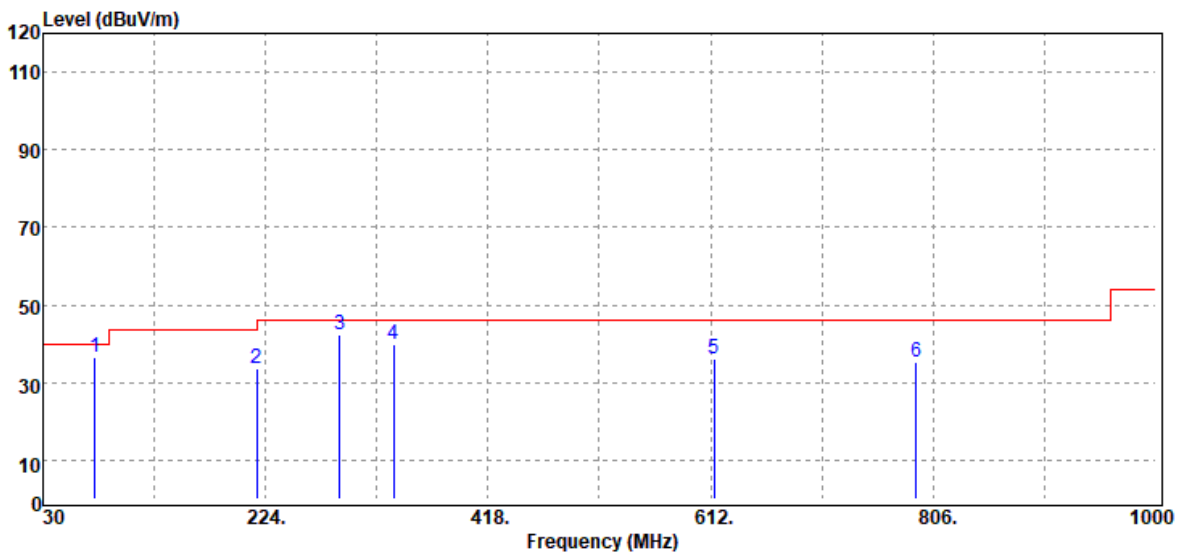
| | | | |
|-----------|------------|---------------|---------------|
| Test Mode | Mode 1 | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | 30MHz-1GHz | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 37.76 | 43.96 | -7.85 | 36.11 | 40.00 | -3.89 | Peak |
| 93.05 | 52.00 | -14.62 | 37.38 | 43.50 | -6.12 | Peak |
| 311.30 | 49.62 | -7.86 | 41.76 | 46.00 | -4.24 | Peak |
| 359.80 | 49.11 | -6.59 | 42.52 | 46.00 | -3.48 | Peak |
| 647.89 | 31.48 | -0.06 | 31.42 | 46.00 | -14.58 | Peak |
| 864.20 | 31.60 | 2.96 | 34.56 | 46.00 | -11.44 | Peak |

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

| | | | |
|-----------|------------|---------------|---------------|
| Test Mode | Mode 1 | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | 30MHz-1GHz | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

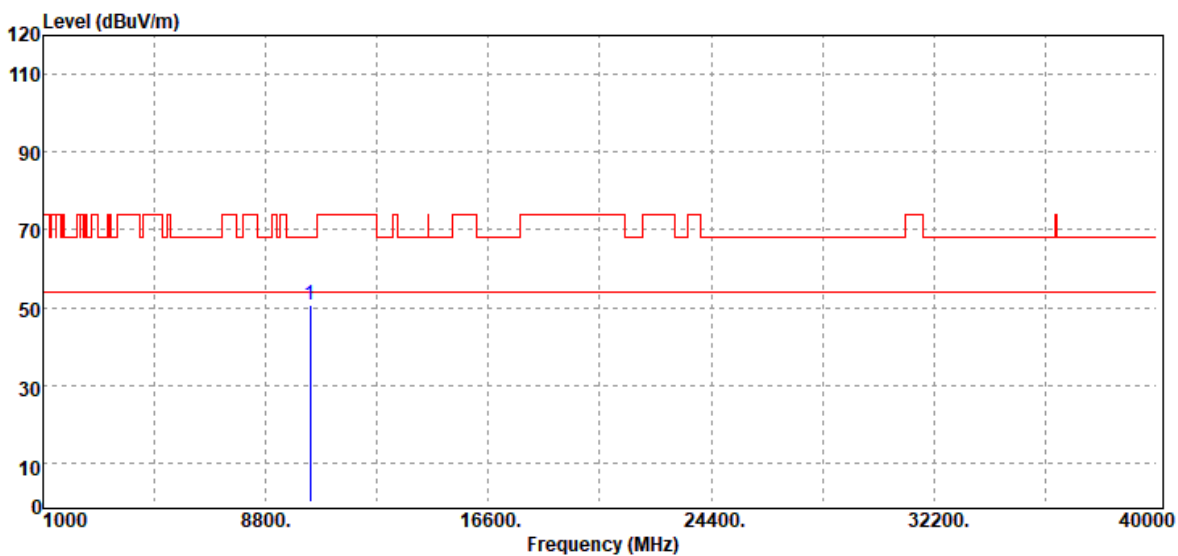


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 75.59 | 51.22 | -14.79 | 36.43 | 40.00 | -3.57 | Peak |
| 216.24 | 45.02 | -11.45 | 33.57 | 46.00 | -12.43 | Peak |
| 288.99 | 50.57 | -8.36 | 42.21 | 46.00 | -3.79 | Peak |
| 335.55 | 46.95 | -7.18 | 39.77 | 46.00 | -6.23 | Peak |
| 614.91 | 37.37 | -1.18 | 36.19 | 46.00 | -9.81 | Peak |
| 791.45 | 34.31 | 1.01 | 35.32 | 46.00 | -10.68 | Peak |

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

Above 1G Test Data for UNII-1

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

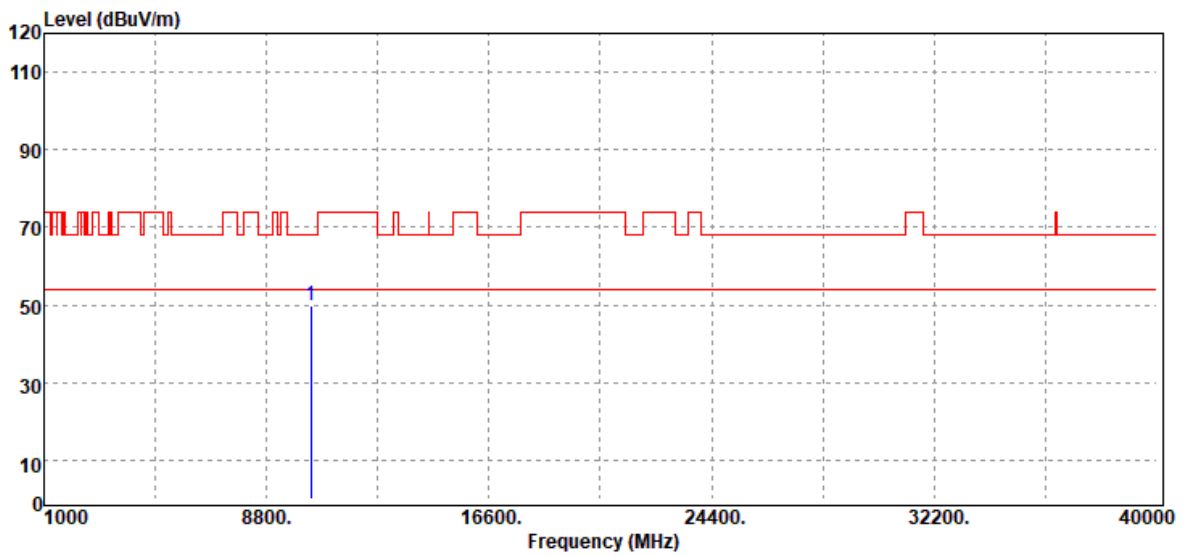


| Frequency (MHz) | Reading (dBUV) | Correct Factor (dB/m) | Result (dBUV/m) | Limit (dBUV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10360.00 | 36.66 | 14.12 | 50.78 | 68.20 | -17.42 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

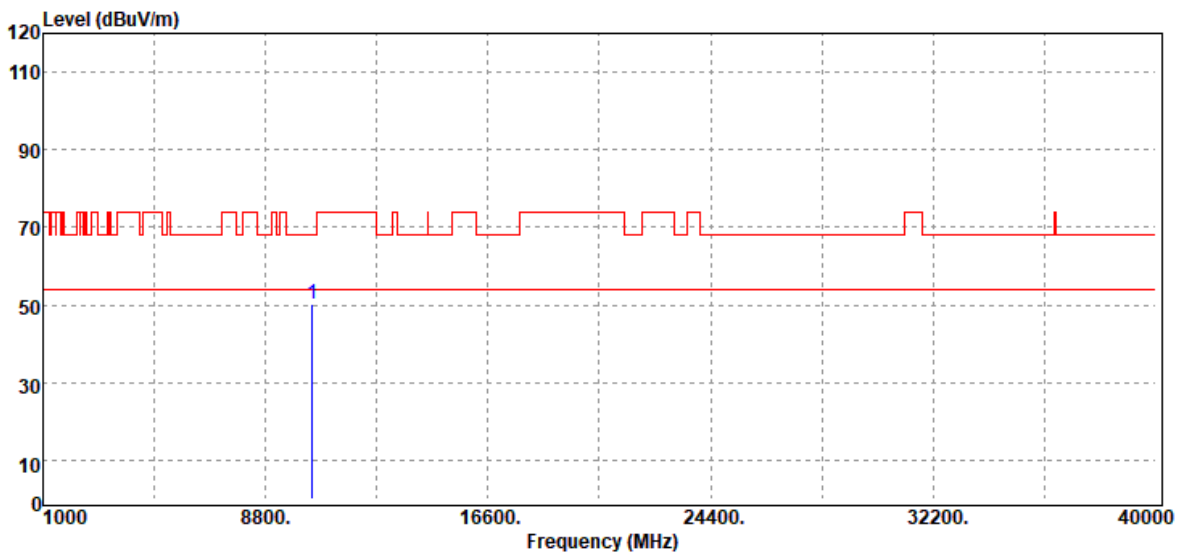


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10360.00 | 35.62 | 14.12 | 49.74 | 68.20 | -18.46 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

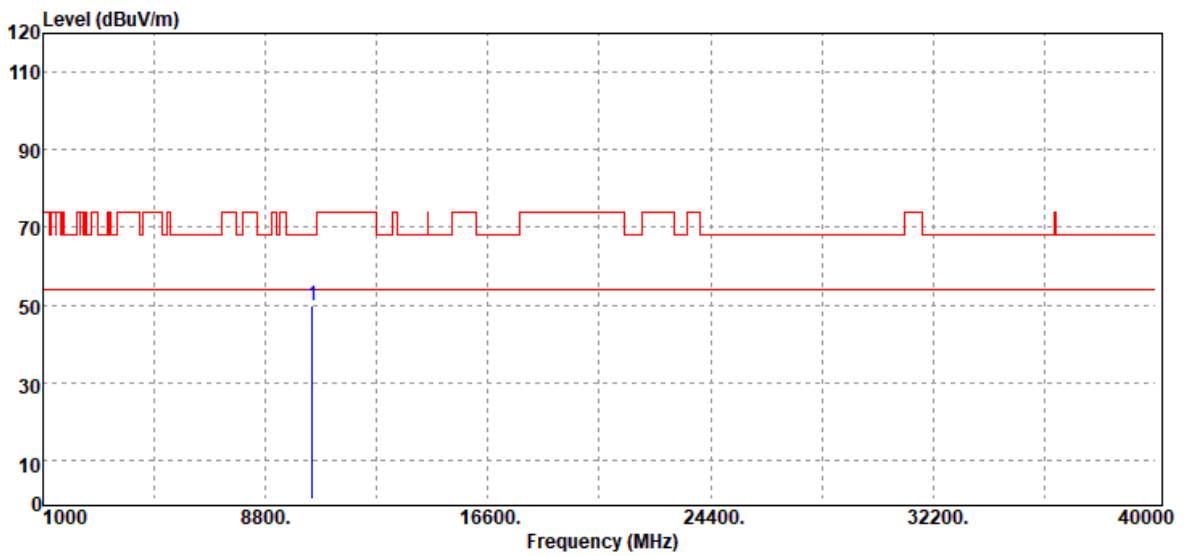


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10440.00 | 35.00 | 15.21 | 50.21 | 68.20 | -17.99 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

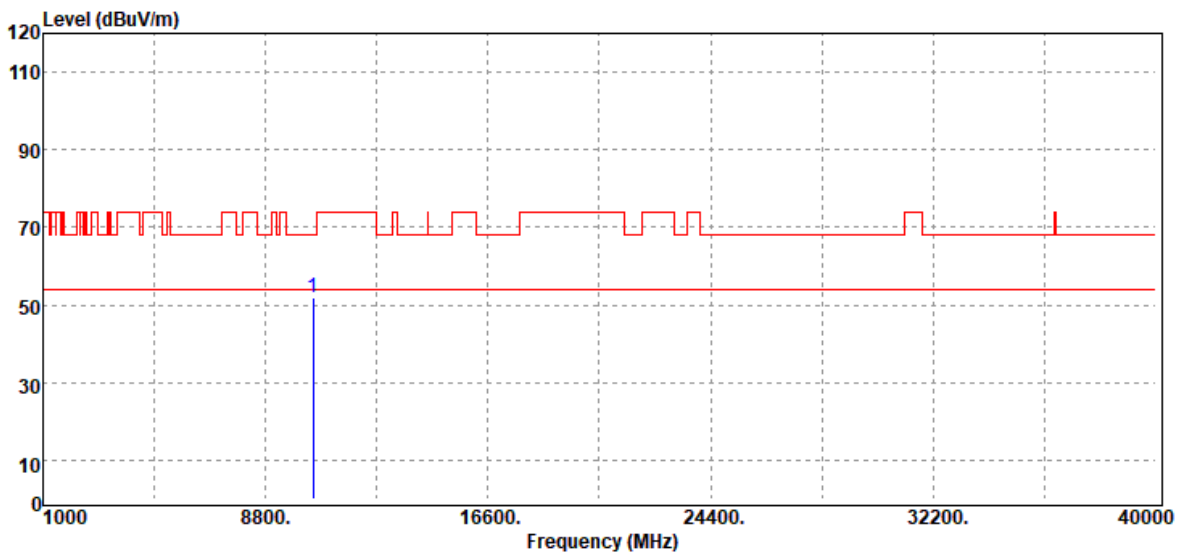


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10440.00 | 34.76 | 15.21 | 49.97 | 68.20 | -18.23 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

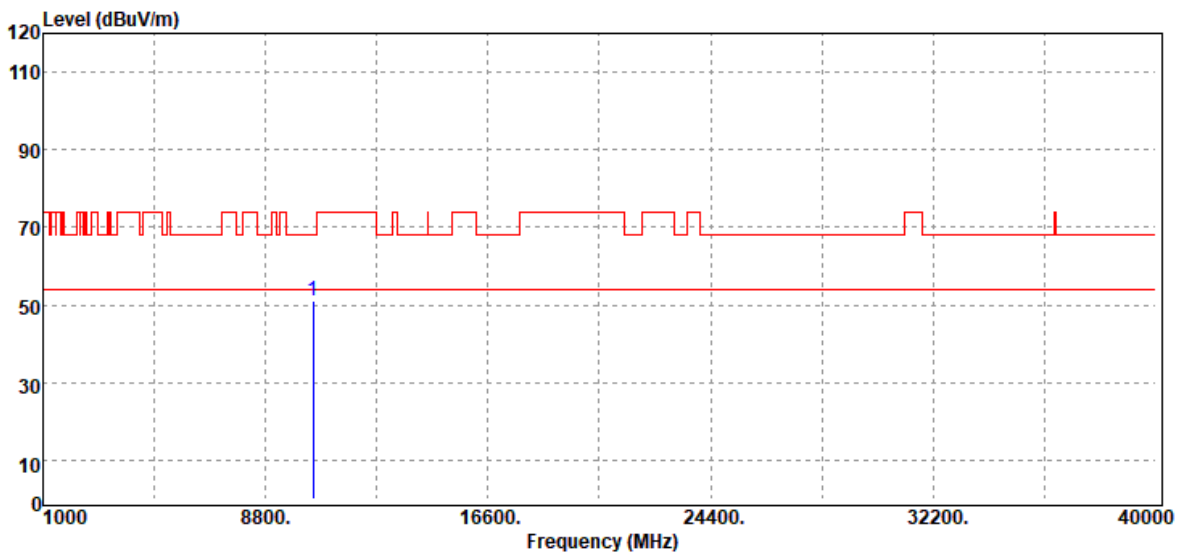


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10480.00 | 35.70 | 16.09 | 51.79 | 68.20 | -16.41 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

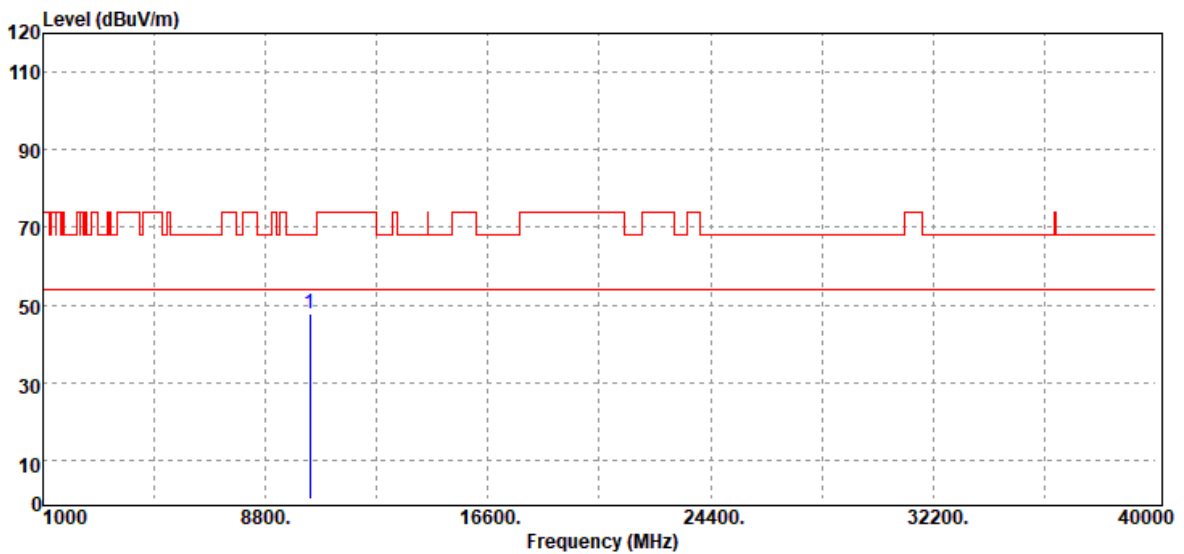


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10480.00 | 35.04 | 16.09 | 51.13 | 68.20 | -17.07 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

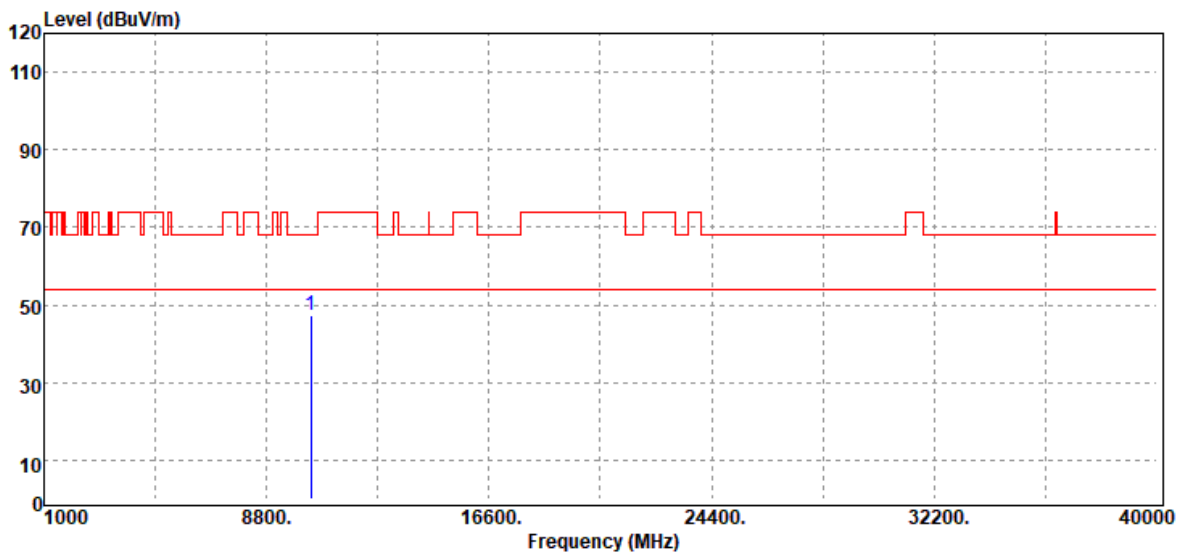


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10360.00 | 33.55 | 14.12 | 47.67 | 68.20 | -20.53 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

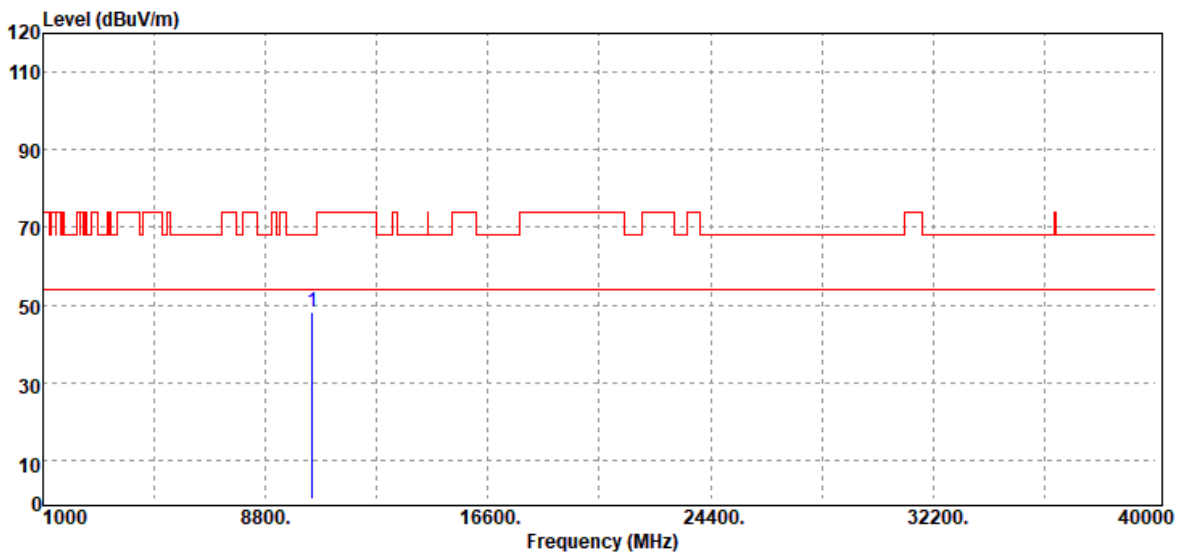


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10360.00 | 33.22 | 14.12 | 47.34 | 68.20 | -20.86 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

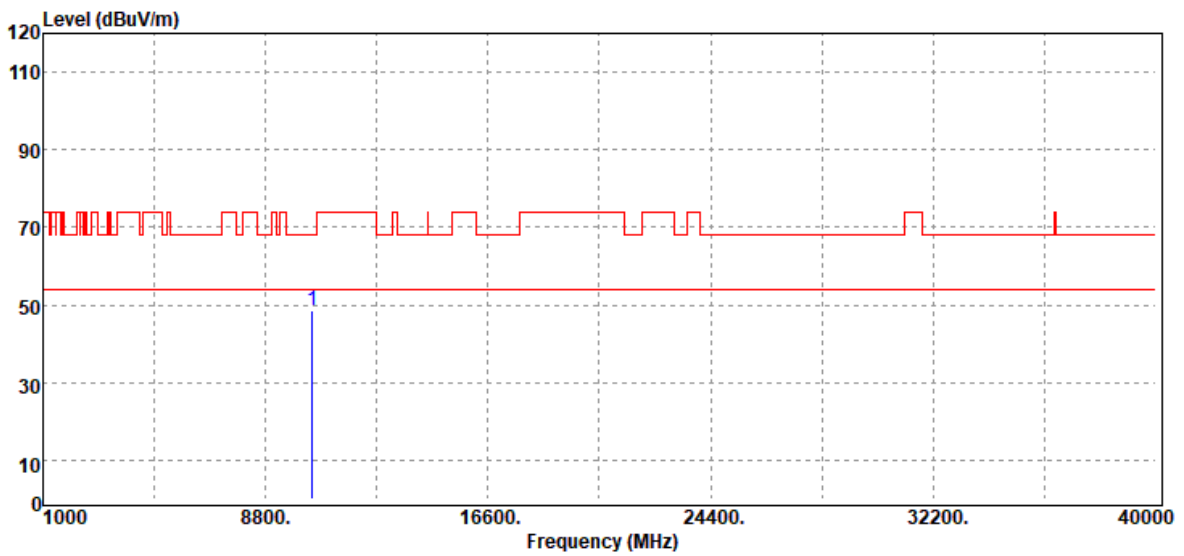


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10440.00 | 33.03 | 15.21 | 48.24 | 68.20 | -19.96 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

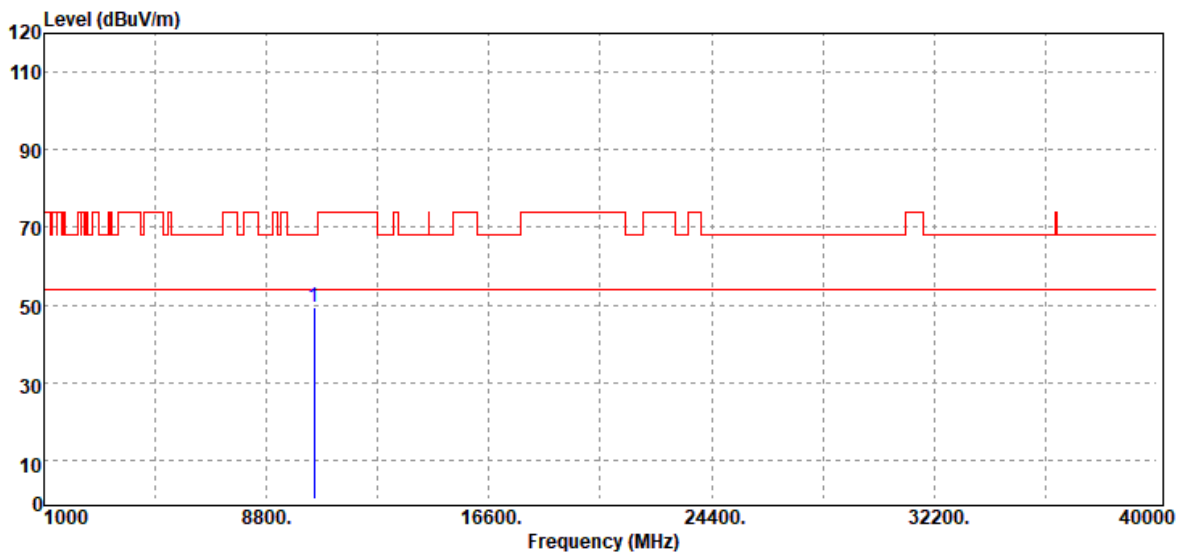


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10440.00 | 33.42 | 15.21 | 48.63 | 68.20 | -19.57 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

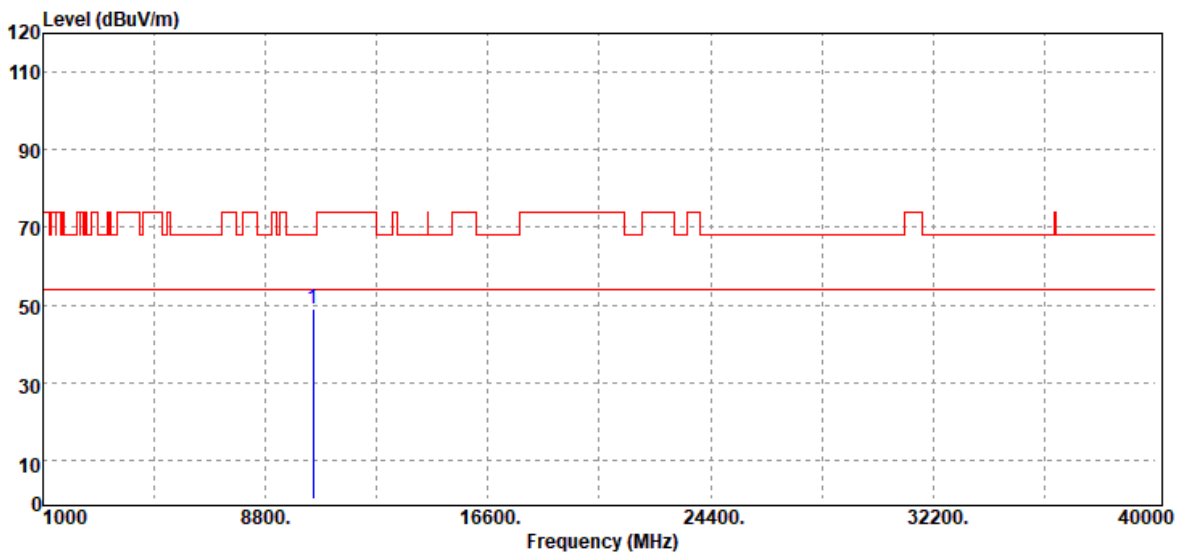


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10480.00 | 33.23 | 16.09 | 49.32 | 68.20 | -18.88 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

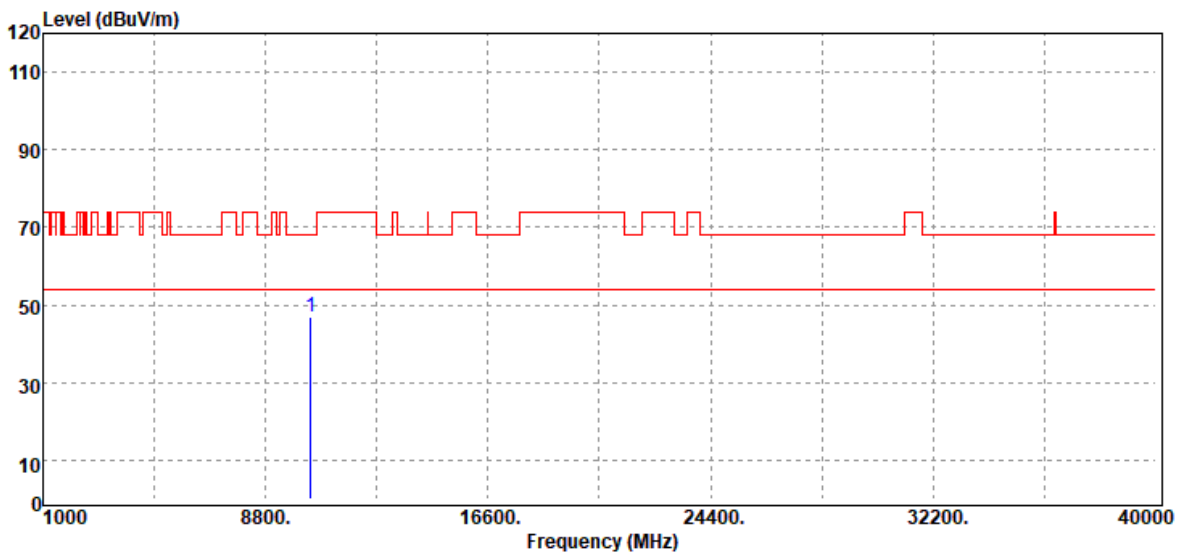


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10480.00 | 32.94 | 16.09 | 49.03 | 68.20 | -19.17 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

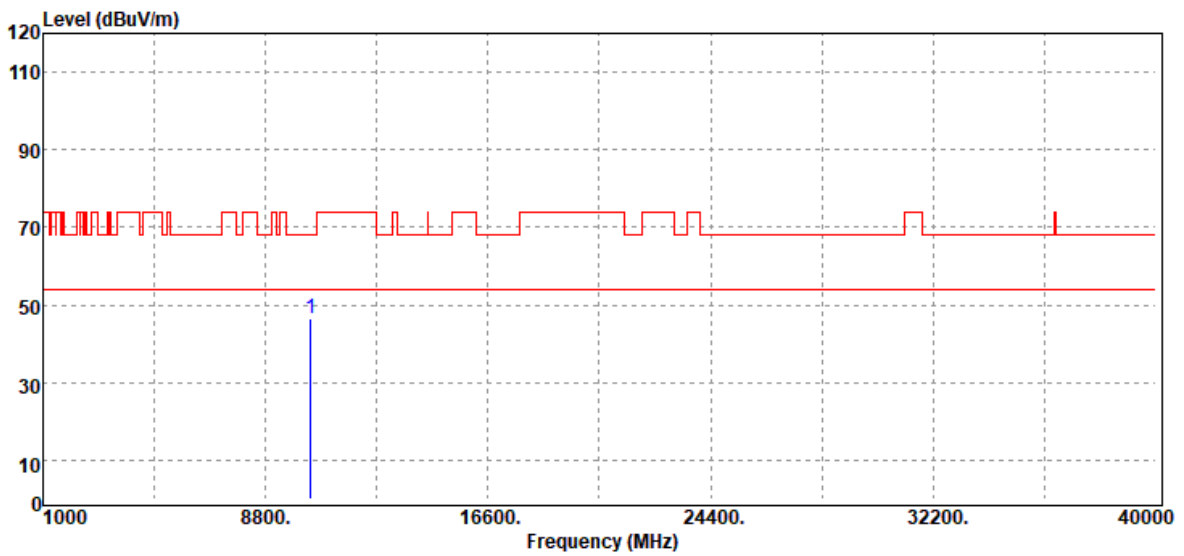


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10380.00 | 32.84 | 14.23 | 47.07 | 68.20 | -21.13 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

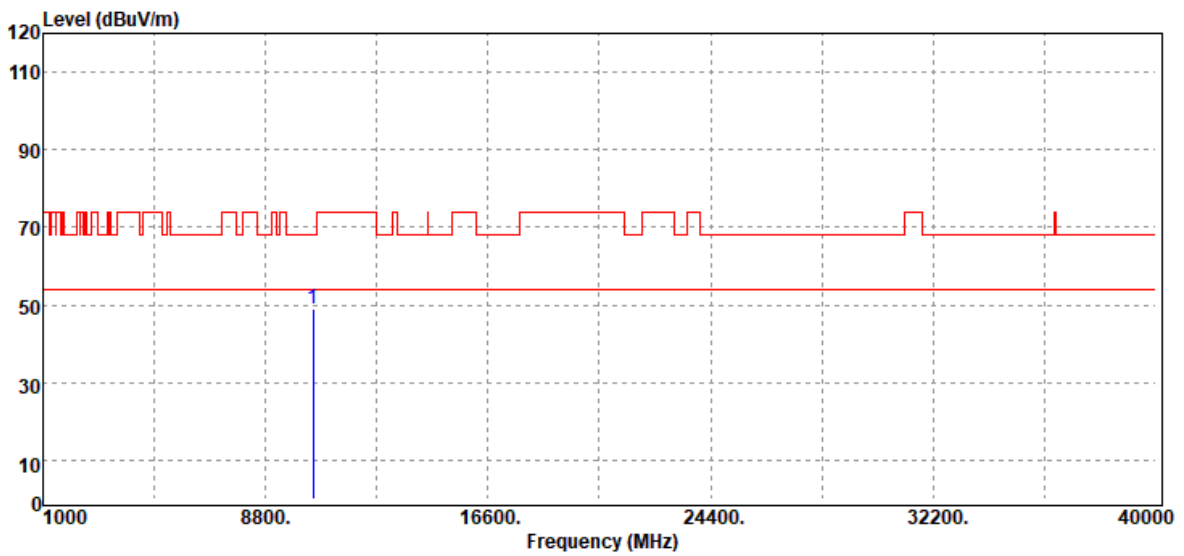


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10380.00 | 32.09 | 14.23 | 46.32 | 68.20 | -21.88 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

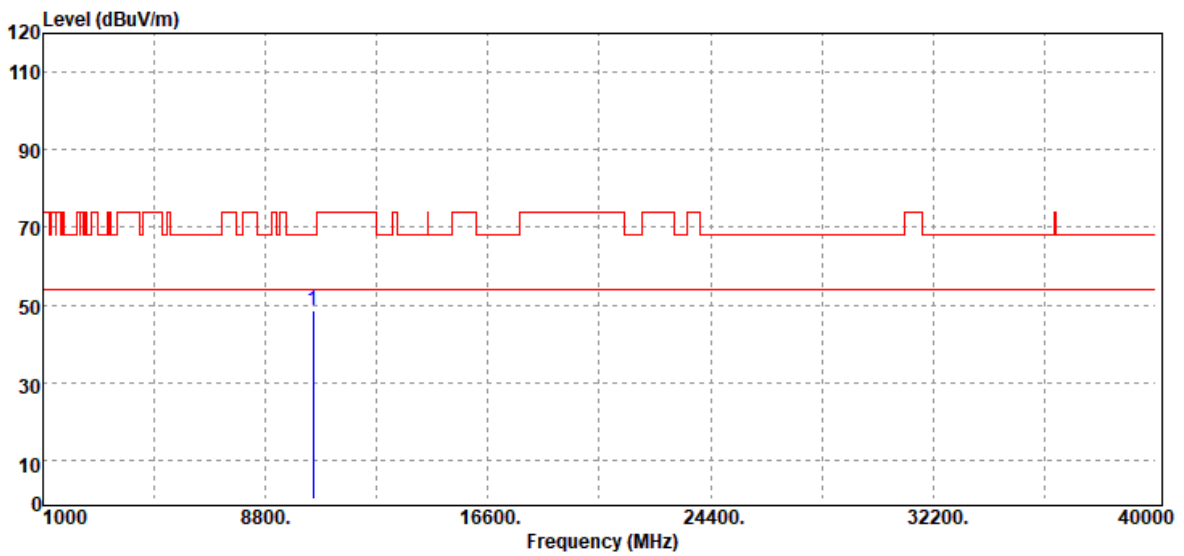


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10460.00 | 33.51 | 15.65 | 49.16 | 68.20 | -19.04 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

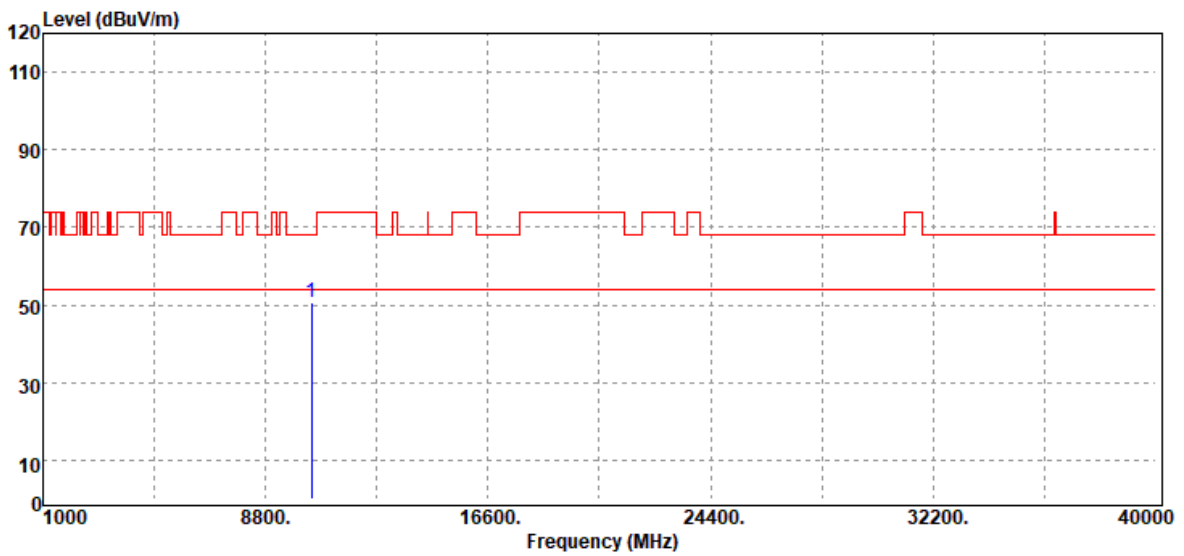


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10460.00 | 33.08 | 15.65 | 48.73 | 68.20 | -19.47 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

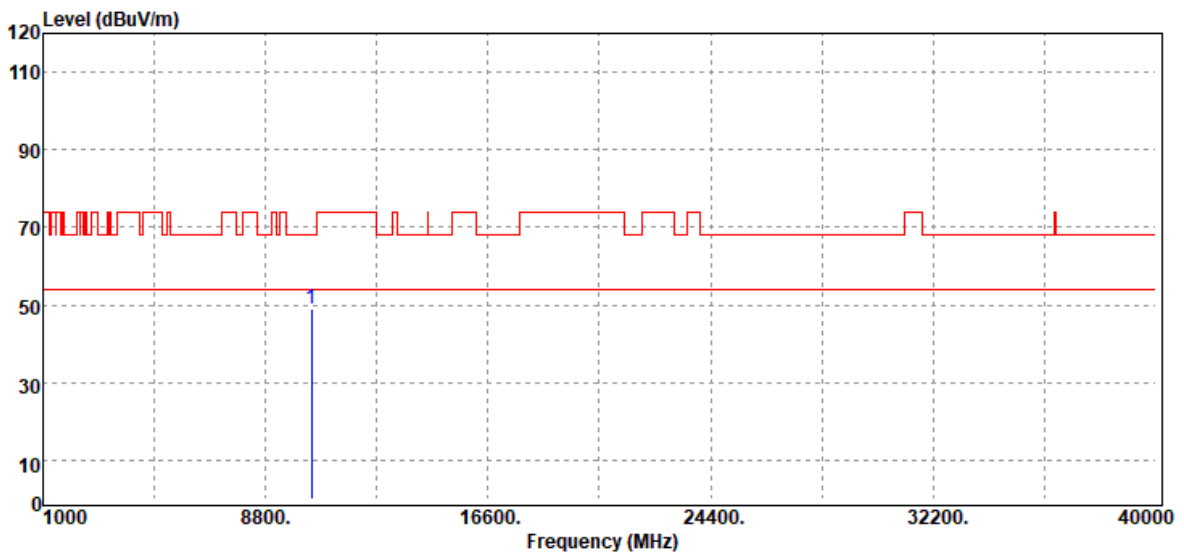


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10420.00 | 35.73 | 14.78 | 50.51 | 68.20 | -17.69 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |



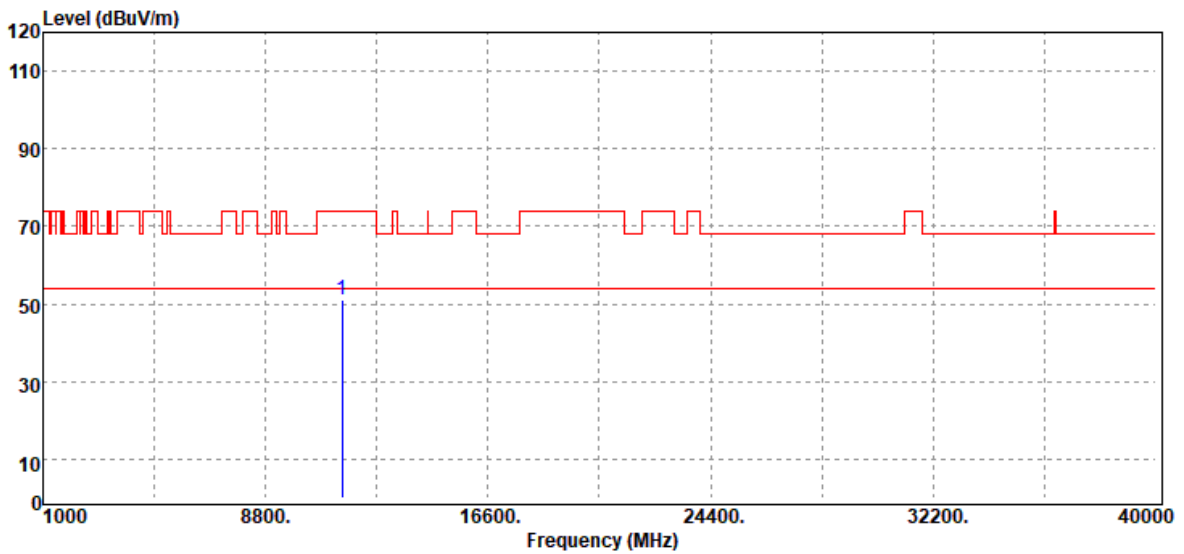
| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 10420.00 | 34.16 | 14.78 | 48.94 | 68.20 | -19.26 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Above 1G Test Data for UNII-3

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

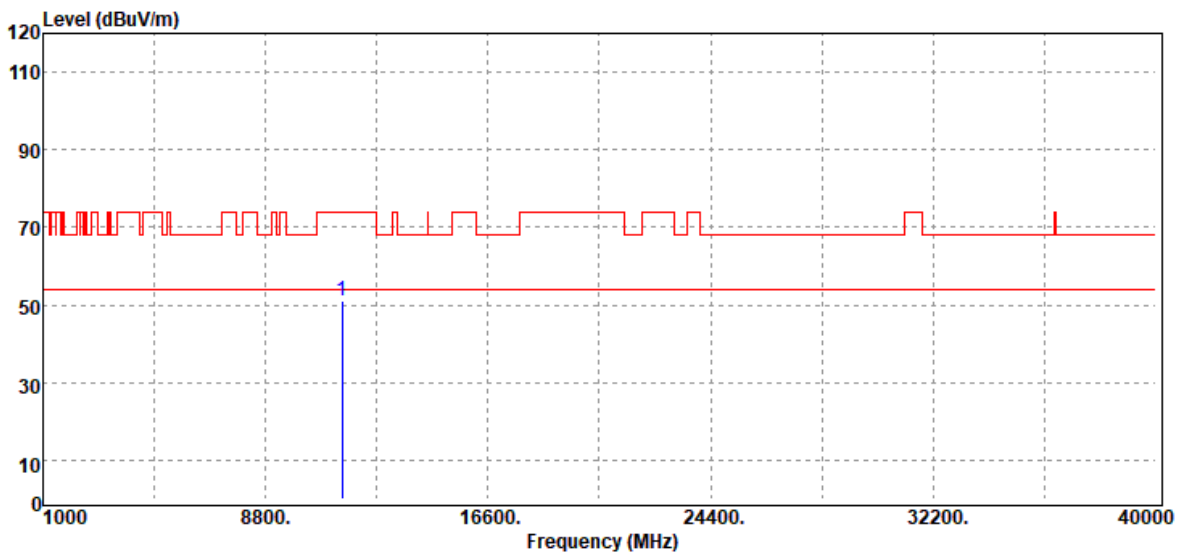


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11490.00 | 35.53 | 15.57 | 51.10 | 74.00 | -22.90 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

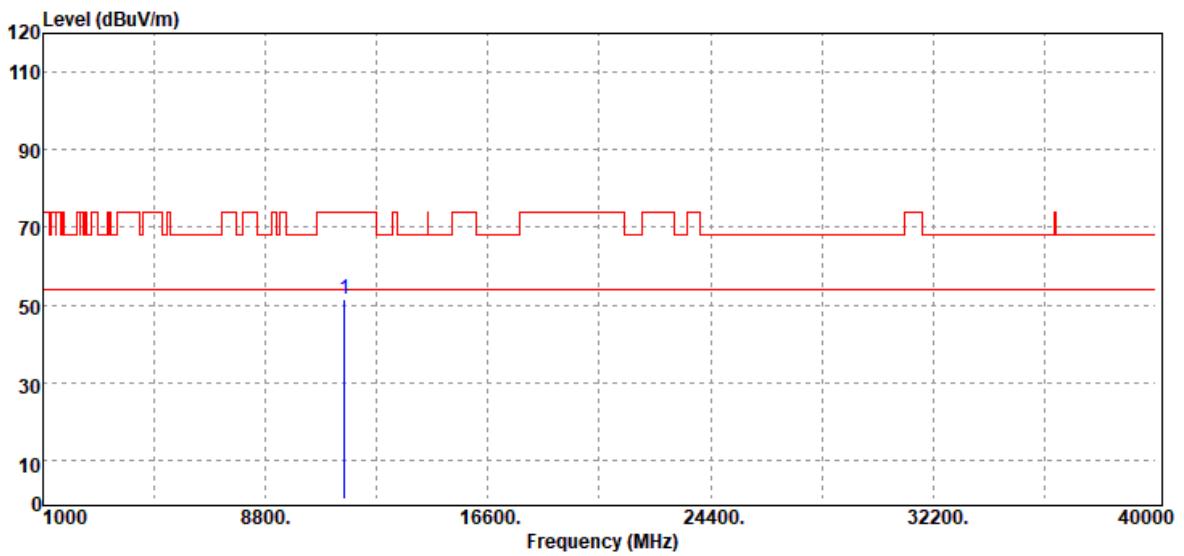


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11490.00 | 35.44 | 15.57 | 51.01 | 74.00 | -22.99 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

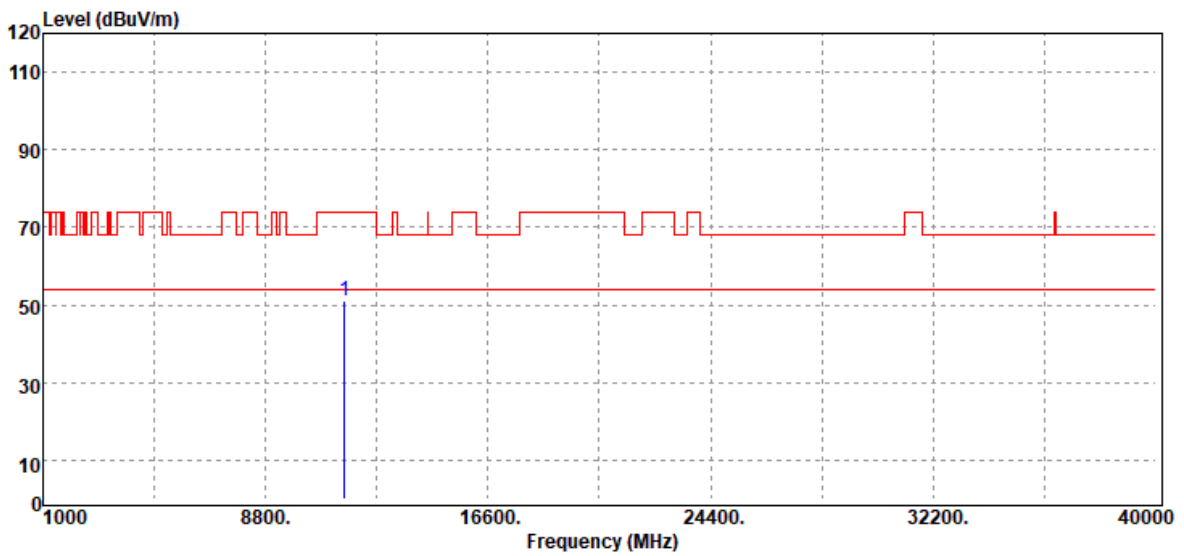


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11570.00 | 35.89 | 15.50 | 51.39 | 74.00 | -22.61 | Peak |
| N/A | | | | | | |
| | | | | | | |
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Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------|---------------|---------------|
| Test Mode | IEEE 802.11a Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

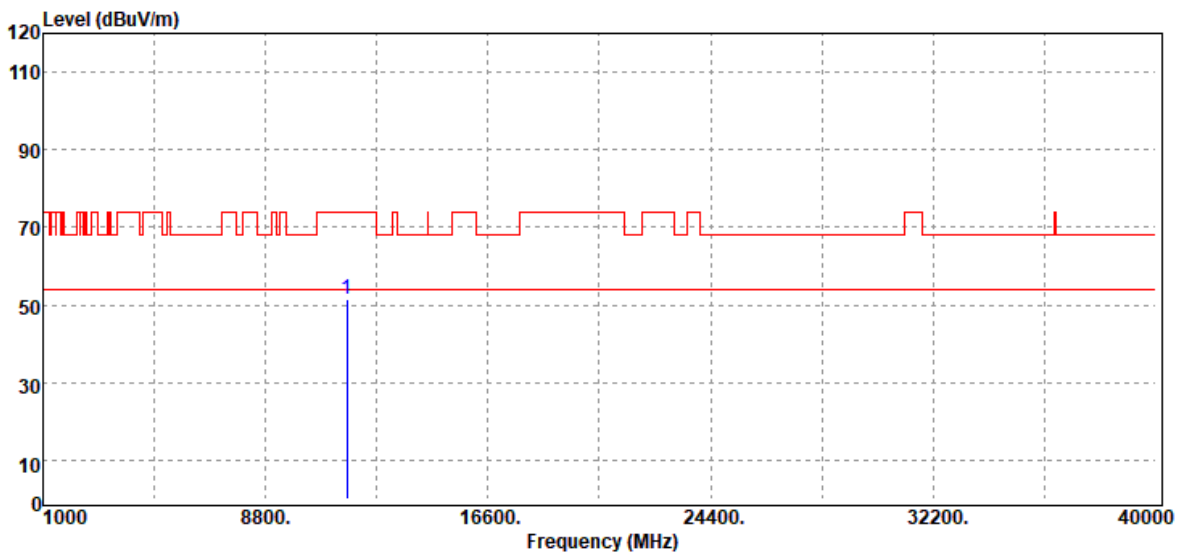


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11570.00 | 35.44 | 15.50 | 50.94 | 74.00 | -23.06 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

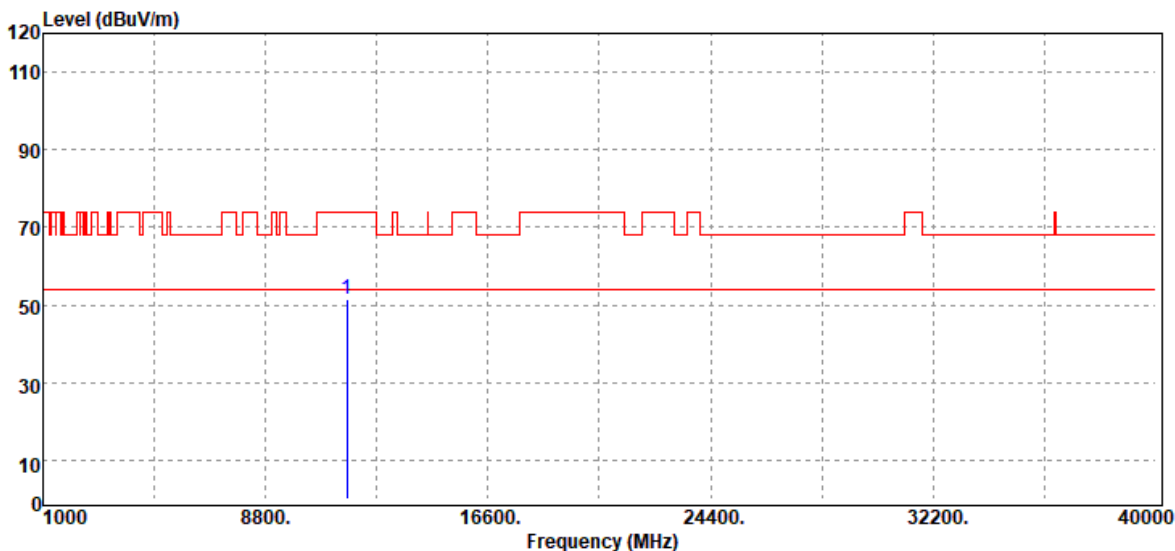


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11650.00 | 36.03 | 15.53 | 51.56 | 74.00 | -22.44 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------|---------------|---------------|
| Test Mode | IEEE 802.11a High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

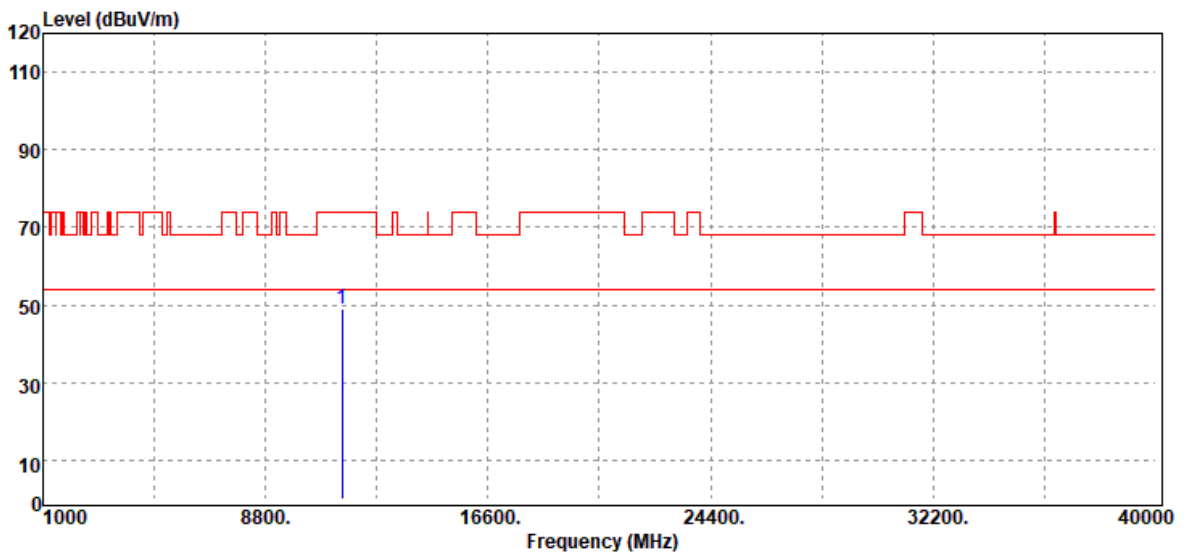


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11650.00 | 36.14 | 15.53 | 51.67 | 74.00 | -22.33 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

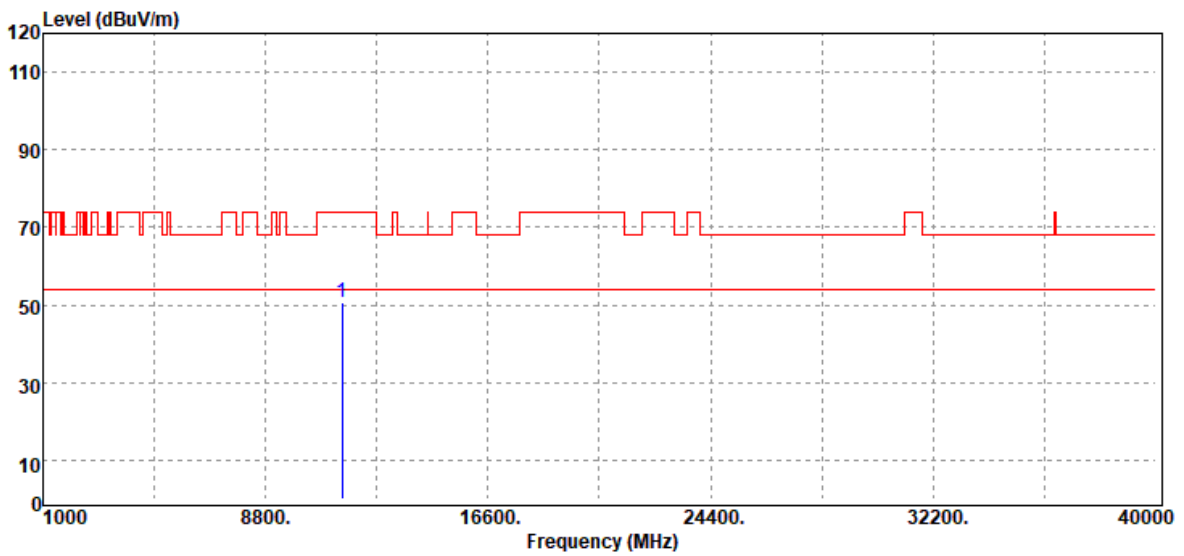


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11490.00 | 33.61 | 15.57 | 49.18 | 74.00 | -24.82 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

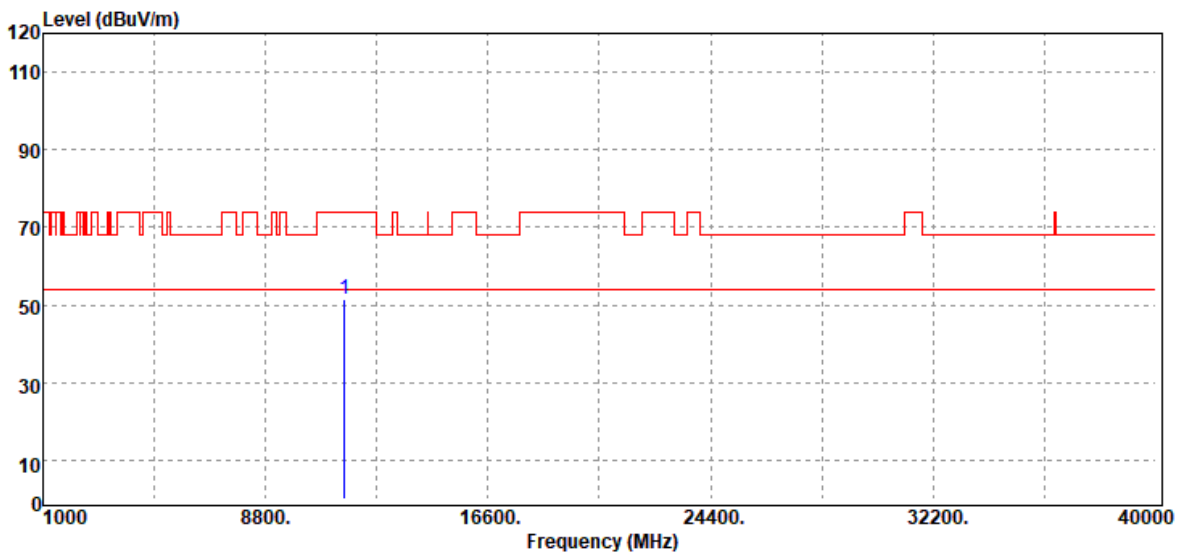


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11490.00 | 35.10 | 15.57 | 50.67 | 74.00 | -23.33 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

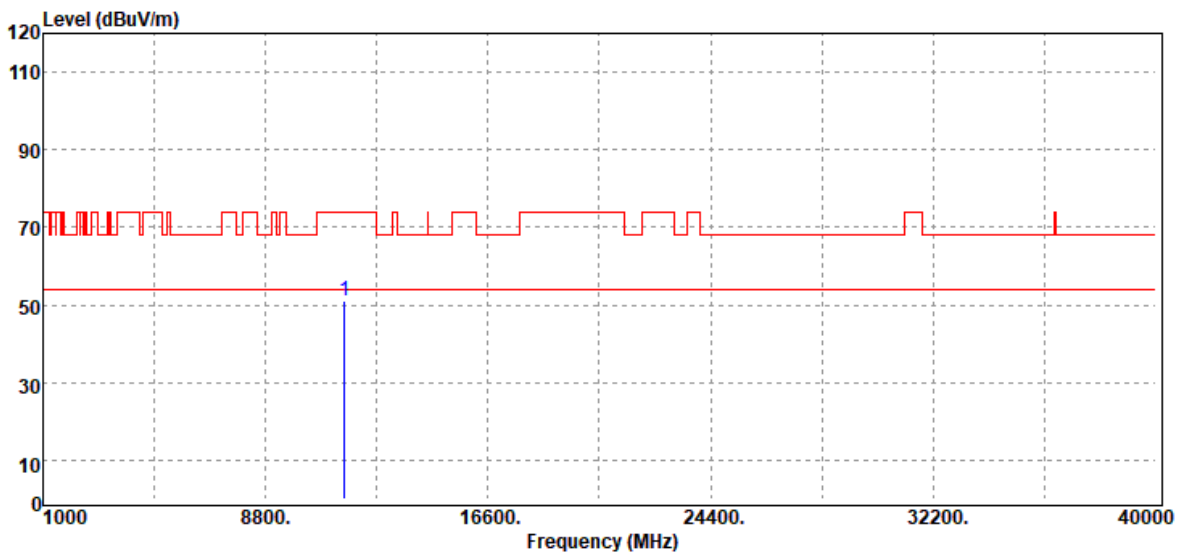


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11570.00 | 35.87 | 15.50 | 51.37 | 74.00 | -22.63 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11570.00 | 35.70 | 15.50 | 51.20 | 74.00 | -22.80 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

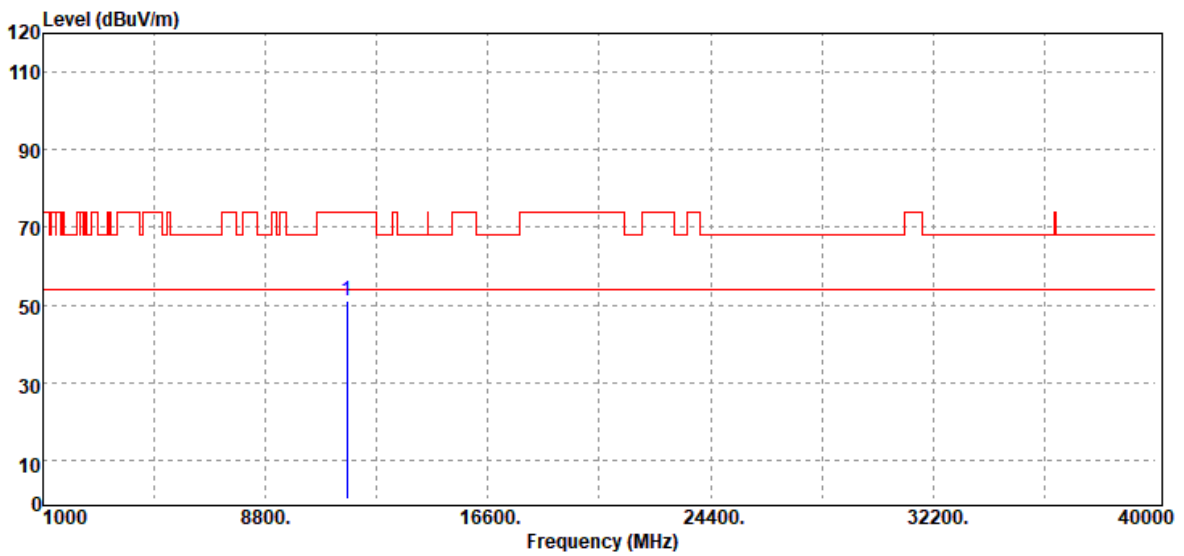


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11650.00 | 35.23 | 15.53 | 50.76 | 74.00 | -23.24 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT20 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

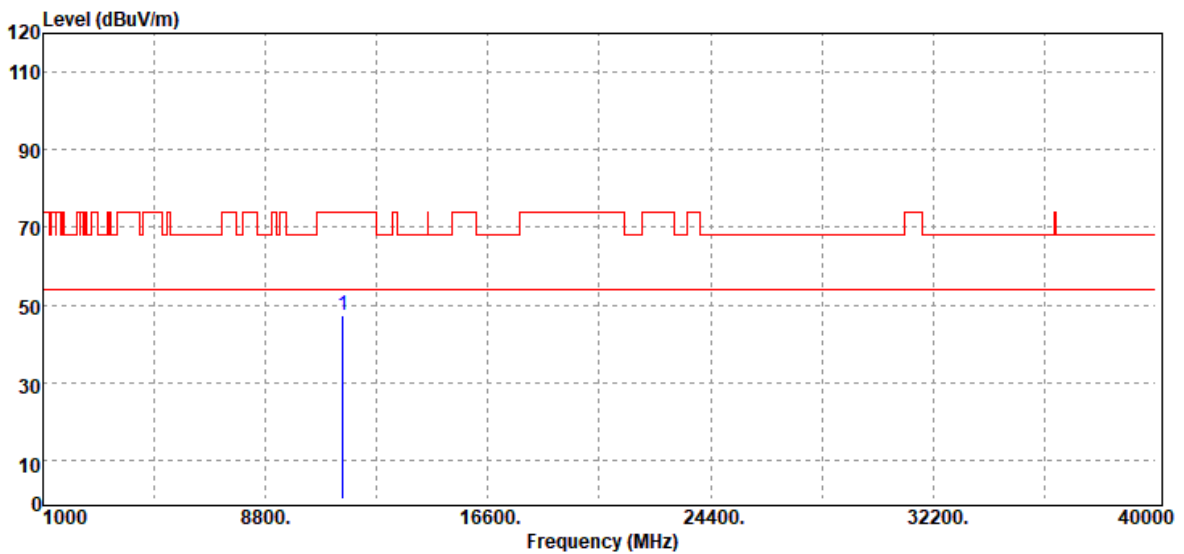


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11650.00 | 35.45 | 15.53 | 50.98 | 74.00 | -23.02 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

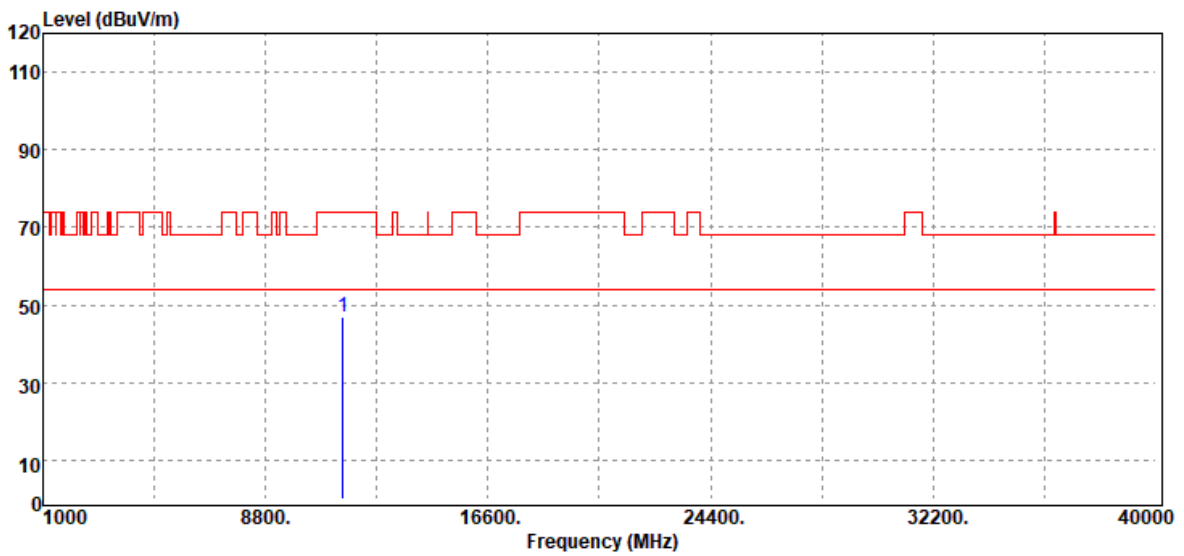


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11510.00 | 32.08 | 15.35 | 47.43 | 74.00 | -26.57 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|--------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 Low CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

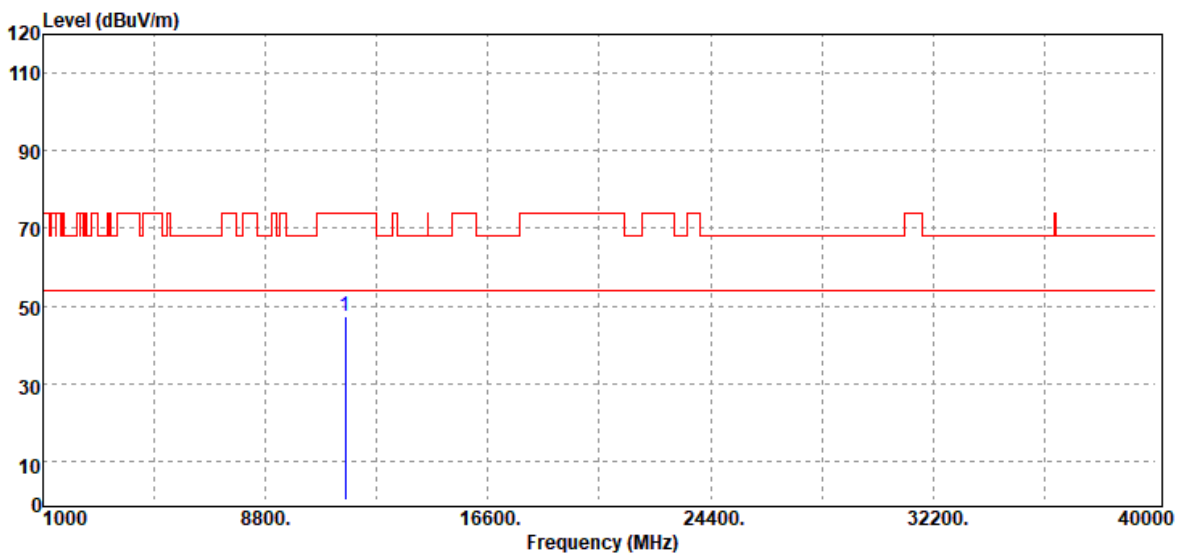


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11510.00 | 31.65 | 15.35 | 47.00 | 74.00 | -27.00 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11590.00 | 31.70 | 15.62 | 47.32 | 74.00 | -26.68 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|---------------------------|---------------|---------------|
| Test Mode | IEEE 802.11n HT40 High CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |

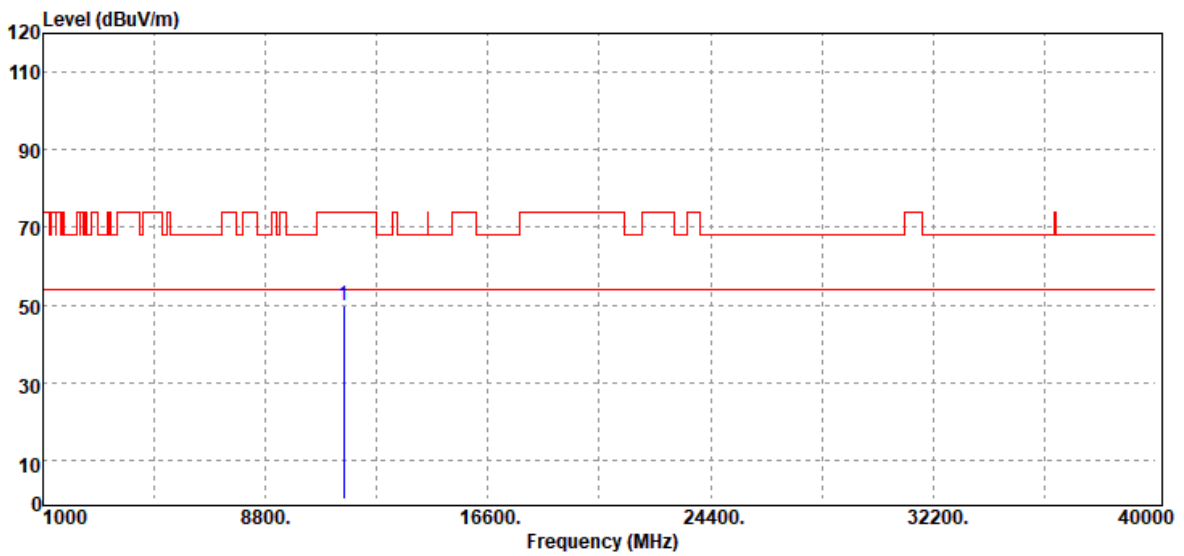


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11590.00 | 31.99 | 15.62 | 47.61 | 74.00 | -26.39 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Vertical | Test Engineer | Dally Hong |
| Detector | Peak | | |

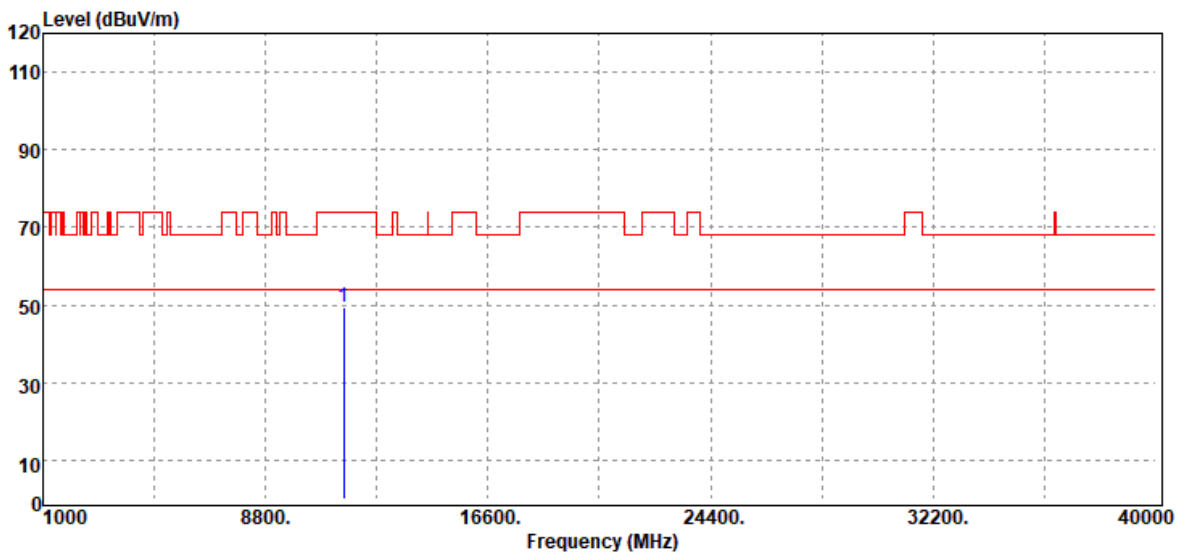


| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11550.00 | 34.55 | 15.39 | 49.94 | 74.00 | -24.06 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

| | | | |
|-----------|----------------------------|---------------|---------------|
| Test Mode | IEEE 802.11ac VHT80 Mid CH | Temp/Hum | 21(°C)/ 52%RH |
| Test Item | Harmonic | Test Date | May 14, 2019 |
| Polarize | Horizontal | Test Engineer | Dally Hong |
| Detector | Peak | | |



| Frequency (MHz) | Reading (dBuV) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----------------|----------------|-----------------------|-----------------|----------------|-------------|--------|
| 11550.00 | 34.17 | 15.39 | 49.56 | 74.00 | -24.44 | Peak |
| N/A | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

4.6 FREQUENCY STABILITY

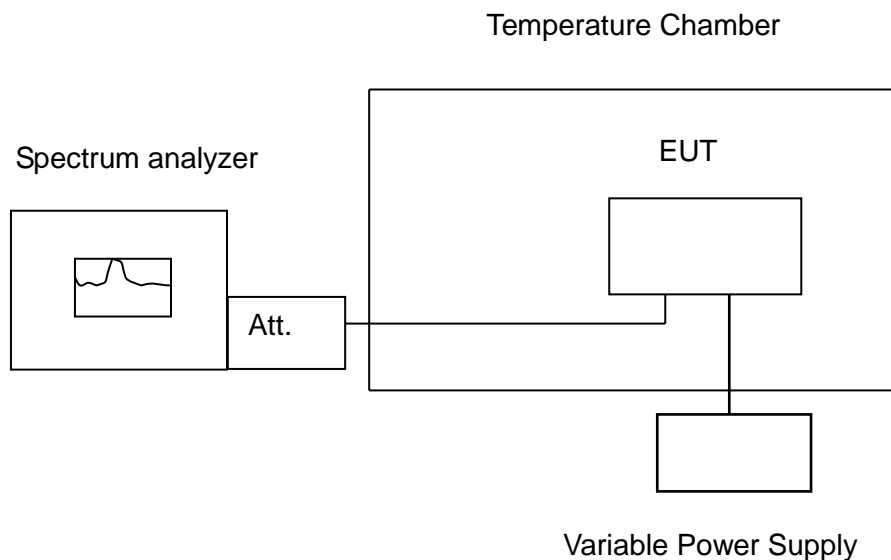
4.6.1 Test Limit

According to §15.407(g) manufacturers 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 operational description.

4.6.2 Test Procedure

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 -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +55°C reached.

4.6.3 Test Setup



4.6.4 Test Result

1TX

| Temp. (°C) | Voltage (V) | Measured Frequency | 5180 | | | | Limit | | | | Result |
|----------------------|-------------|--------------------|------------|------------|------------|---------|----------|----------|---------|------|--------|
| | | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 55 | 120 | 5180.03517 | 5180.03690 | 5180.03821 | 5180.03951 | 6.7896 | 7.1236 | 7.3764 | 7.6274 | Pass | |
| 50 | 120 | 5180.02388 | 5180.03082 | 5180.03300 | 5180.03430 | 4.6100 | 5.9498 | 6.3707 | 6.6216 | Pass | |
| 40 | 120 | 5179.99175 | 5179.92620 | 5179.99522 | 5179.99653 | -1.5927 | -14.2471 | -0.9228 | -0.6699 | Pass | |
| 30 | 120 | 5179.98220 | 5179.98350 | 5179.98741 | 5179.98828 | -3.4363 | -3.1853 | -2.4305 | -2.2625 | Pass | |
| 25 | 120 | 5179.97786 | 5179.97829 | 5179.97873 | 5179.97916 | -4.2741 | -4.1911 | -4.1062 | -4.0232 | Pass | |
| 10 | 120 | 5179.97569 | 5179.97699 | 5179.77420 | 5179.97786 | -4.6931 | -4.4421 | -43.5907 | -4.2741 | Pass | |
| 0 | 120 | 5180.00651 | 5180.00608 | 5180.00564 | 5180.00521 | 1.2568 | 1.1737 | 1.0888 | 1.0058 | Pass | |
| -10 | 120 | 5179.99262 | 5179.99570 | 5180.00043 | 5180.00174 | -1.4247 | -0.8301 | 0.0830 | 0.3359 | Pass | |
| -20 | 120 | 5179.98698 | 5179.98741 | 5179.98828 | 5179.98915 | -2.5135 | -2.4305 | -2.2625 | -2.0946 | Pass | |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5180 | | | | Limit | | | | Result |
| | | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 25 | 108 | 5179.97916 | 5179.97959 | 5179.97959 | 5179.97959 | -4.0232 | -3.9402 | -3.9402 | -3.9402 | Pass | |
| 25 | 120 | 5179.980030 | 5179.97959 | 5179.97003 | 5179.97003 | -3.8552 | -3.9402 | -5.7857 | -5.7857 | Pass | |
| 25 | 132 | 5179.97003 | 5179.97003 | 5179.98046 | 5179.98003 | -5.7857 | -5.7857 | -3.7722 | -3.8552 | Pass | |

| Temp. (°C) | Voltage (V) | Measured Frequency | 5260 | | | | Limit | | | | Result |
|----------------------|-------------|--------------------|------------|------------|------------|---------|---------|---------|---------|--------|--------|
| | | | (MHz) | | | | 20ppm | | | | |
| Operating Frequency: | | Time (min) | | | | | | | | Result | |
| | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 55 | 120 | 5745.02214 | 5745.02475 | 5745.02735 | 5745.02952 | 3.8538 | 4.3081 | 4.7607 | 5.1384 | Pass | |
| 50 | 120 | 5745.01216 | 5745.01563 | 5745.01737 | 5745.01997 | 2.1166 | 2.7206 | 3.0235 | 3.4761 | Pass | |
| 40 | 120 | 5745.00000 | 5745.00434 | 5745.00695 | 5745.00955 | 0.0000 | 0.7554 | 1.2097 | 1.6623 | Pass | |
| 30 | 120 | 5744.98524 | 5744.98480 | 5744.98524 | 5744.98480 | -2.5692 | -2.6458 | -2.5692 | -2.6458 | Pass | |
| 25 | 120 | 5744.97525 | 5744.97569 | 5744.97512 | 5744.97569 | -4.3081 | -4.2315 | -4.3307 | -4.2315 | Pass | |
| 10 | 120 | 5744.97612 | 5744.97525 | 5744.97525 | 5744.97482 | -4.1567 | -4.3081 | -4.3081 | -4.3829 | Pass | |
| 0 | 120 | 5744.98741 | 5744.98090 | 5744.97916 | 5744.97742 | -2.1915 | -3.3246 | -3.6275 | -3.9304 | Pass | |
| -10 | 120 | 5744.99826 | 5744.99653 | 5744.99566 | 5744.99479 | -0.3029 | -0.6040 | -0.7554 | -0.9069 | Pass | |
| -20 | 120 | 5745.00564 | 5745.00651 | 5745.01085 | 5745.00825 | 0.9817 | 1.1332 | 1.8886 | 1.4360 | Pass | |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5260 | | | | Limit | | | | Result |
| | | | (MHz) | | | | 20ppm | | | | |
| Operating Frequency: | | Time (min) | | | | | | | | Result | |
| | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 25 | 108 | 5744.97352 | 5744.97482 | 5744.97569 | 5744.97699 | -4.6092 | -4.3829 | -4.2315 | -4.0052 | Pass | |
| 25 | 120 | 5744.97742 | 5744.97829 | 5744.97916 | 5744.98437 | -3.9304 | -3.7789 | -3.6275 | -2.7206 | Pass | |
| 25 | 132 | 5744.98437 | 5744.98480 | 5744.98480 | 5744.98480 | -2.7206 | -2.6458 | -2.6458 | -2.6458 | Pass | |

2TX

| Temp. (°C) | Voltage (V) | Measured Frequency | 5500 | | | | Limit | | | | Result |
|----------------------|-------------|--------------------|------------|------------|------------|---------|----------|--------------|---------|------|--------|
| | | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 55 | 120 | 5180.03517 | 5180.03690 | 5180.03821 | 5180.03951 | 6.7896 | 7.1236 | 7.3764 | 7.6274 | Pass | |
| 50 | 120 | 5180.02388 | 5180.03082 | 5180.03300 | 5180.03430 | 4.6100 | 5.9498 | 6.3707 | 6.6216 | Pass | |
| 40 | 120 | 5179.99175 | 5179.92620 | 5179.99522 | 5179.99653 | -1.5927 | -14.2471 | -0.9228 | -0.6699 | Pass | |
| 30 | 120 | 5179.98220 | 5179.98350 | 5179.98741 | 5179.98828 | -3.4363 | -3.1853 | -2.4305 | -2.2625 | Pass | |
| 25 | 120 | 5179.97786 | 5179.97829 | 5179.97873 | 5179.97916 | -4.2741 | -4.1911 | -4.1062 | -4.0232 | Pass | |
| 10 | 120 | 5179.97569 | 5179.97699 | 5179.77420 | 5179.97786 | -4.6931 | -4.4421 | -43.590 7 | -4.2741 | Pass | |
| 0 | 120 | 5180.00651 | 5180.00608 | 5180.00564 | 5180.00521 | 1.2568 | 1.1737 | 1.0888 | 1.0058 | Pass | |
| -10 | 120 | 5179.99262 | 5179.99570 | 5180.00043 | 5180.00174 | -1.4247 | -0.8301 | 0.0830 | 0.3359 | Pass | |
| -20 | 120 | 5179.98698 | 5179.98741 | 5179.98828 | 5179.98915 | -2.5135 | -2.4305 | -2.2625 | -2.0946 | Pass | |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5500 | | | | Limit | | | | Result |
| | | | Time (min) | | | | 20ppm | | | | |
| Operating Frequency: | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 25 | 108 | 5179.97916 | 5179.97959 | 5179.97959 | 5179.97959 | -4.0232 | -3.9402 | -3.9402 | -3.9402 | Pass | |
| 25 | 120 | 5179.980030 | 5179.97959 | 5179.97003 | 5179.97003 | -3.8552 | -3.9402 | -5.7857 | -5.7857 | Pass | |
| 25 | 132 | 5179.97003 | 5179.97003 | 5179.98046 | 5179.98003 | -5.7857 | -5.7857 | -3.7722 | -3.8552 | Pass | |

| Temp. (°C) | Voltage (V) | Measured Frequency | 5745 | | | | Limit | | | | Result |
|----------------------|-------------|--------------------|------------|------------|------------|---------|---------|---------|---------|--------|--------|
| | | | (MHz) | | | | 20ppm | | | | |
| Operating Frequency: | | Time (min) | | | | | | | | Result | |
| | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 55 | 120 | 5745.02214 | 5745.02475 | 5745.02735 | 5745.02952 | 3.8538 | 4.3081 | 4.7607 | 5.1384 | Pass | |
| 50 | 120 | 5745.00000 | 5745.00434 | 5745.00695 | 5745.00955 | 0.0000 | 0.7554 | 1.2097 | 1.6623 | Pass | |
| 40 | 120 | 5744.98524 | 5744.98480 | 5744.98524 | 5744.98480 | -2.5692 | -2.6458 | -2.5692 | -2.6458 | Pass | |
| 30 | 120 | 5744.97525 | 5744.97569 | 5744.97512 | 5744.97569 | -4.3081 | -4.2315 | -4.3307 | -4.2315 | Pass | |
| 25 | 120 | 5744.97612 | 5744.97525 | 5744.97525 | 5744.97482 | -4.1567 | -4.3081 | -4.3081 | -4.3829 | Pass | |
| 10 | 120 | 5744.98741 | 5744.98090 | 5744.97916 | 5744.97742 | -2.1915 | -3.3246 | -3.6275 | -3.9304 | Pass | |
| 0 | 120 | 5744.99826 | 5744.99653 | 5744.99566 | 5744.99479 | -0.3029 | -0.6040 | -0.7554 | -0.9069 | Pass | |
| -10 | 120 | 5745.02214 | 5745.02475 | 5745.02735 | 5745.02952 | 3.8538 | 4.3081 | 4.7607 | 5.1384 | Pass | |
| -20 | 120 | 5745.00000 | 5745.00434 | 5745.00695 | 5745.00955 | 0.0000 | 0.7554 | 1.2097 | 1.6623 | Pass | |
| Temp. (°C) | Voltage (V) | Measured Frequency | 5745 | | | | Limit | | | | Result |
| | | | (MHz) | | | | 20ppm | | | | |
| Operating Frequency: | | Time (min) | | | | | | | | Result | |
| | | 0 min | 2 min | 5 min | 10 min | 0 min | 2 min | 5 min | 10 min | | |
| 25 | 108 | 5744.97352 | 5744.97482 | 5744.97569 | 5744.97699 | -4.6092 | -4.3829 | -4.2315 | -4.0052 | Pass | |
| 25 | 120 | 5744.97742 | 5744.97829 | 5744.97916 | 5744.98437 | -3.9304 | -3.7789 | -3.6275 | -2.7206 | Pass | |
| 25 | 132 | 5744.98437 | 5744.98480 | 5744.98480 | 5744.98480 | -2.7206 | -2.6458 | -2.6458 | -2.6458 | Pass | |

--End Report--