

# 802.11ac(VHT40) UNII Band 802.11ac(VHT40) UNII Band Frequency Auto Ture Center Freq 8, 710000 GHz Freq Offset 11 6 db Freq Offset State Freq State BW 300 kHz State BW

F-TP22-03 (Rev.00) 1 2 4 / 193 **HCT CO.,LTD.** 



# 10.7.2 Output Power

| Mode            | Frequency<br>[MHz] | Channel | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Power(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|--------------------|---------|----------------------------|------------------------------|---|----------------|
| 802.11a         | 5720               | 144     | 6.82                       | 0.298                        | 7.12  | 22.91          |
| 802.11n(HT20)   | • • • •            |         | 6.62                       | 0.843                        | 7.46  | 22.91          |
| 802.11ac(VHT20) | (UNII 2C Band)     |         | 6.53                       | 0.602                        | 7.13  | 22.93          |
| 802.11a         | F720               |         | -0.42                      | 0.298                        | -0.12                                       | 30.00          |
| 802.11n(HT20)   | 5720               | 144     | -0.16                      | 0.843                        | 0.68  | 30.00          |
| 802.11ac(VHT20) | (UNII 3 Band)      | -       | -0.20                      | 0.602                        | 0.40  | 30.00          |

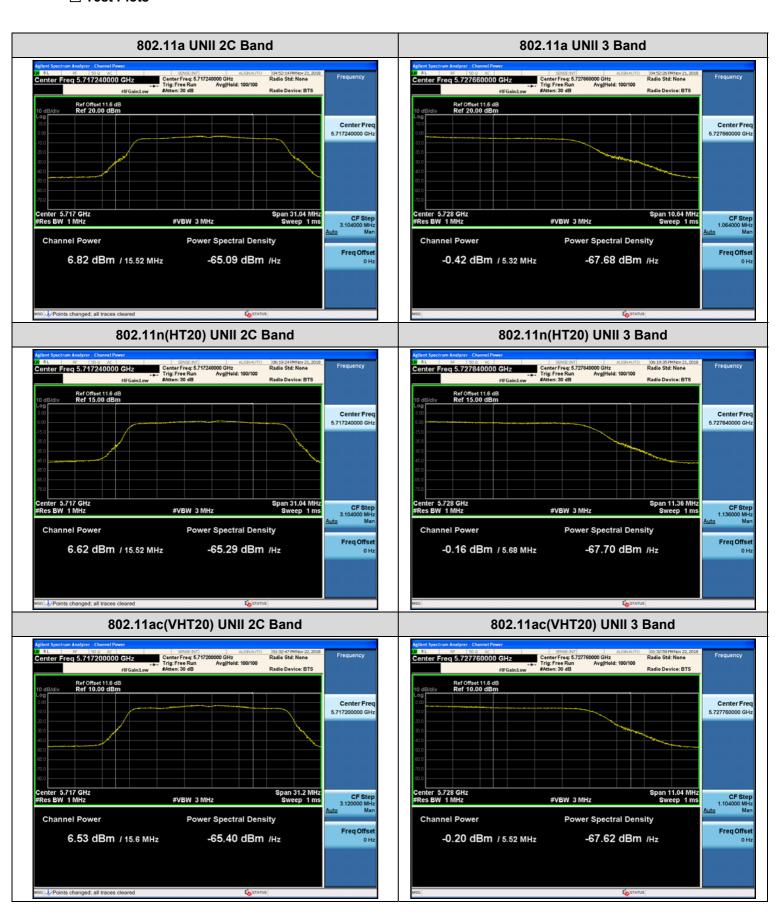
| Mode            | Frequency<br>[MHz] | Channel | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Power(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|--------------------|---------|----------------------------|------------------------------|---|----------------|
| 802.11n(HT40)   | 5710               | 142     | 5.54                       | 1.808                        | 7.35  | 24.00          |
| 802.11ac(VHT40) | (UNII 2C Band)     | 142     | 5.56                       | 1.775                        | 7.34  | 24.00          |
| 802.11n(HT40)   | 5710               | 142     | -5.77                      | 1.808                        | -3.96                                       | 30.00          |
| 802.11ac(VHT40) | (UNII 3 Band)      | 142     | -5.70                      | 1.775                        | -3.92                                       | 30.00          |

| Mode            | Frequency<br>[MHz]     | Channel | Measured<br>Power<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Power(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|------------------------|---------|----------------------------|------------------------------|---|----------------|
| 802.11ac(VHT80) | 5690<br>(UNII 2C Band) | 138     | 6.22                       | 1.868                        | 8.09  | 24.00          |
|                 | 5690<br>(UNII 3 Band)  | 138     | -8.78                      | 1.868                        | -6.91                                       | 30.00          |

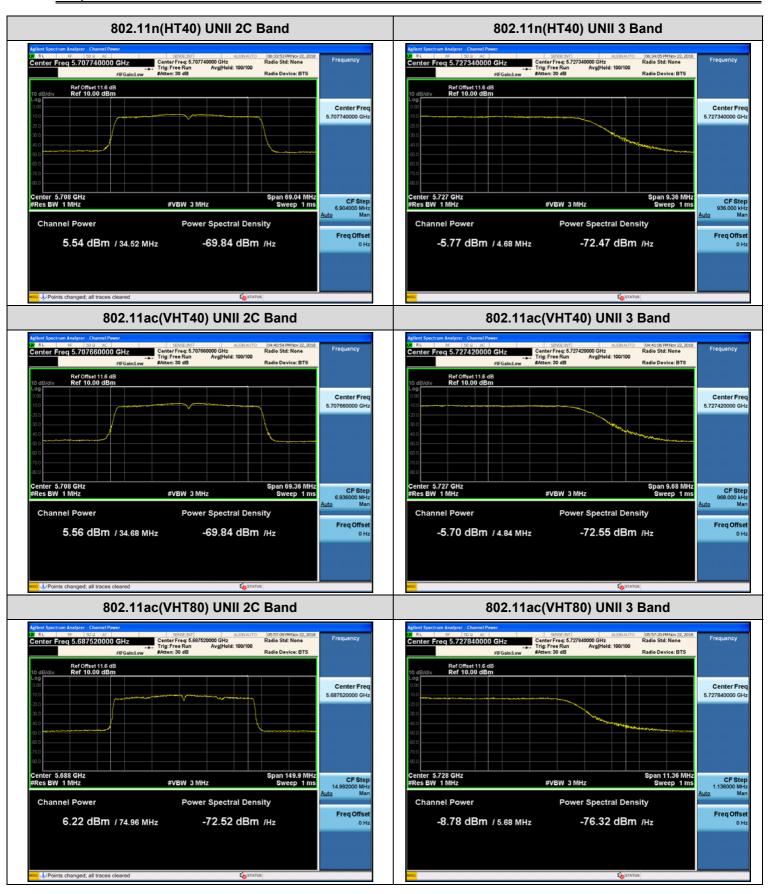
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### **■** Test Plots









# 10.7.3 Power Spectral Density

| Mode            | Frequency<br>[MHz]     | Channel | Measured<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Density(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|------------------------|---------|------------------------------|------------------------------|---|----------------|
| 802.11a         | 5700                   | 144     | -2.630                       | 0.298                        | -2.332  | 11.00          |
| 802.11n(HT20)   | 5720<br>(UNII 2C Band) |         | -2.383                       | 0.843                        | -1.540  | 11.00          |
| 802.11ac(VHT20) |                        |         | -3.184                       | 0.602                        | -2.582  | 11.00          |
| 802.11a         | E720                   |         | -7.444                       | 0.298                        | -7.146  | 30.00          |
| 802.11n(HT20)   | 5720<br>(UNII 3 Band)  | 144     | -7.553                       | 0.843                        | -6.710  | 30.00          |
| 802.11ac(VHT20) |                        |         | -8.076                       | 0.602                        | -7.474  | 30.00          |

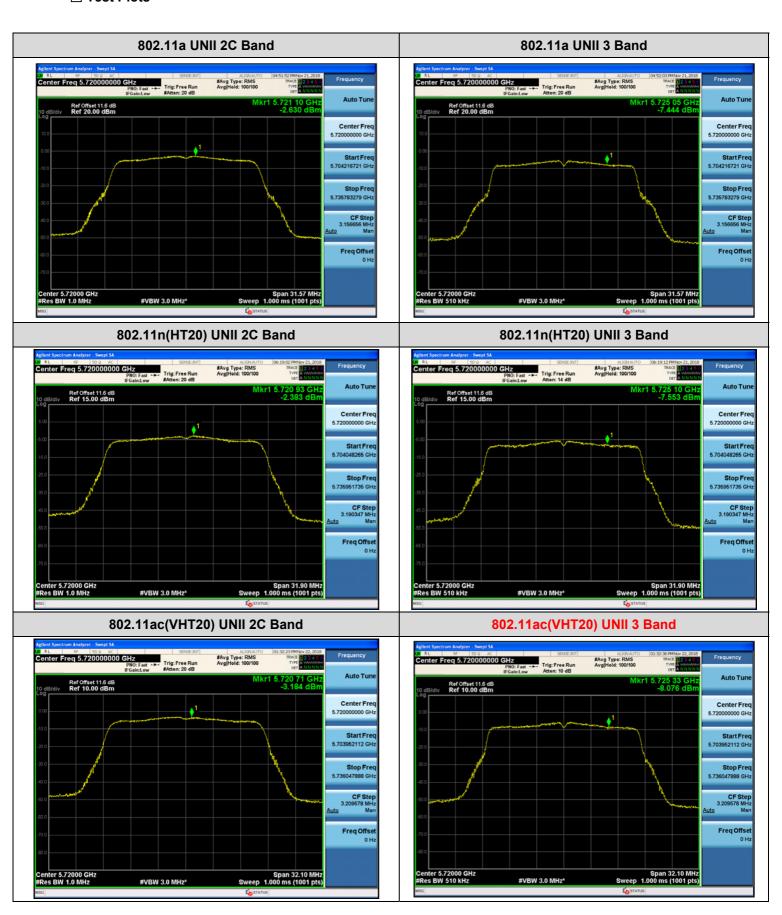
| Mode            | Frequency<br>[MHz] | Channel | Measured<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Density(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|--------------------|---------|------------------------------|------------------------------|---|----------------|
| 802.11n(HT40)   | 5710               | 142     | -6.907                       | 1.808                        | -5.099  | 11.00          |
| 802.11ac(VHT40) | (UNII 2C Band)     | 142     | -6.581                       | 1.775                        | -4.806  | 11.00          |
| 802.11n(HT40)   | 5710               | 142     | -12.737                      | 1.808                        | -10.929                                       | 30.00          |
| 802.11ac(VHT40) | (UNII 3 Band)      | 142     | -12.199                      | 1.775                        | -10.424                                       | 30.00          |

| Mode            | Frequency<br>[MHz]     | Channel | Measured<br>Density<br>(dBm) | Duty Cycle<br>Factor<br>(dB) | Measured Density(dBm) + Duty Cycle Factor(dB) | Limit<br>(dBm) |
|-----------------|------------------------|---------|------------------------------|------------------------------|---|----------------|
| 802.11ac(VHT80) | 5690<br>(UNII 2C Band) | 138     | -9.889                       | 1.868                        | -8.021  | 11.00          |
|                 | 5690<br>(UNII 3 Band)  | 138     | -15.616                      | 1.868                        | -13.748                                       | 30.00          |

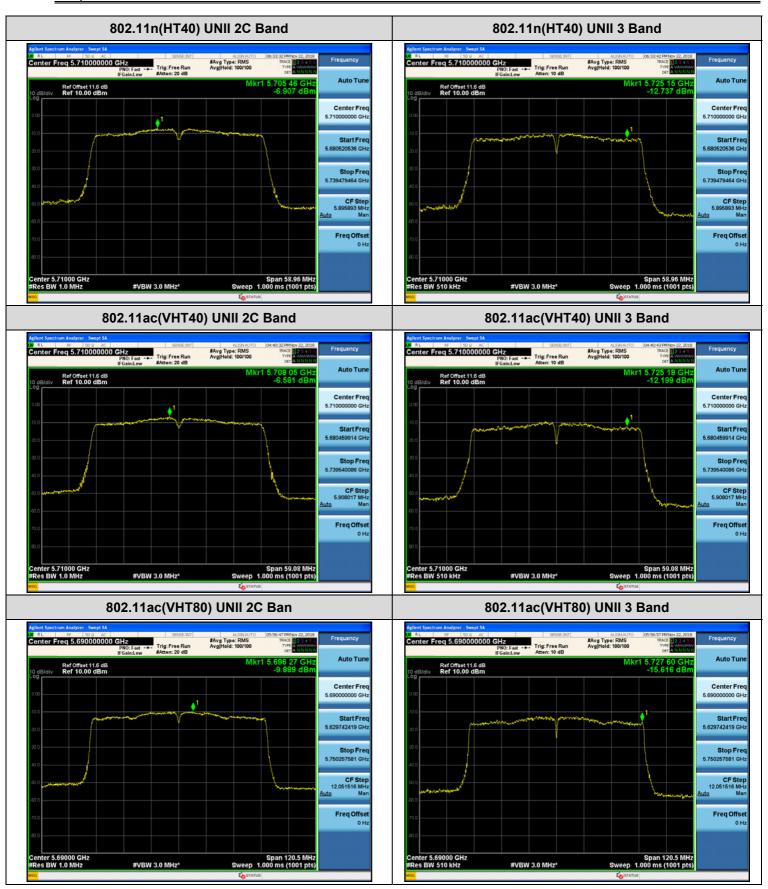
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### **■ Test Plots**









### **10.8 RADIATED SPURIOUS EMISSIONS**

Frequency Range: 9 kHz - 30MHz

| Frequency               | Reading | Ant. factor | Cable loss | Ant. POL | Total  | Limit  | Margin |  |  |
|-------------------------|---------|-------------|------------|----------|--------|--------|--------|--|--|
| MHz                     | dBuV/m  | dBm/m       | dBm        | (H/V)    | dBuV/m | dBuV/m | dB     |  |  |
| No Critical peaks found |         |             |            |          |        |        |        |  |  |

### Note:

- 1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- 2. Distance extrapolation factor = 40\*log (specific distance / test distance) (dB)
- 3. Limit line = specific Limits (dBuV) + Distance extrapolation factor
- 4. The test results for below 30 MHz is correlated to an open site.

The result on open field site is about 2 dB higher than semi-anechoic chamber(10 m chamber)

Frequency Range: Below 1 GHz

| Frequency               | Reading | Ant. factor | Cable loss | Ant. POL | Total  | Limit  | Margin |  |  |
|-------------------------|---------|-------------|------------|----------|--------|--------|--------|--|--|
| MHz                     | dBuV/m  | dBm/m       | dBm        | (H/V)    | dBuV/m | dBuV/m | dB     |  |  |
| No Critical peaks found |         |             |            |          |        |        |        |  |  |

## Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

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Frequency Range : Above 1 GHz

Band: UNII 1

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5180 MHz

Channel No. 36 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10360     | 49.89   | 4.47             | ٧        | 54.36    | 68.20    | 13.84  | PK          |
| 15540     | 51.94   | 1.80             | V        | 53.74    | 73.98    | 20.24  | PK          |
| 15540     | 36.96   | 1.80             | V        | 38.76    | 53.98    | 15.22  | AV          |
| 10360     | 49.55   | 4.47             | Н        | 54.02    | 68.20    | 14.18  | PK          |
| 15540     | 51.64   | 1.80             | Н        | 53.44    | 73.98    | 20.54  | PK          |
| 15540     | 36.85   | 1.80             | Н        | 38.65    | 53.98    | 15.33  | AV          |

Band: UNII 1

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5200 MHz

Channel No. 40 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10400     | 49.05   | 3.22             | V        | 52.27    | 68.20    | 15.93  | PK          |
| 15600     | 50.91   | 1.06             | V        | 51.97    | 73.98    | 22.01  | PK          |
| 15600     | 36.11   | 1.06             | V        | 37.17    | 53.98    | 16.81  | AV          |
| 10400     | 49.10   | 3.22             | Н        | 52.32    | 68.20    | 15.88  | PK          |
| 15600     | 50.84   | 1.06             | Н        | 51.90    | 73.98    | 22.08  | PK          |
| 15600     | 35.89   | 1.06             | Н        | 36.95    | 53.98    | 17.03  | AV          |

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Band: UNII 1

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5240 MHz

Channel No. 48 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10480     | 48.96   | 3.53             | V        | 52.49    | 68.20    | 15.71  | PK          |
| 15720     | 50.36   | 1.54             | V        | 51.90    | 73.98    | 22.08  | PK          |
| 15720     | 36.23   | 1.54             | V        | 37.77    | 53.98    | 16.21  | AV          |
| 10480     | 48.79   | 3.53             | Н        | 52.32    | 68.20    | 15.88  | PK          |
| 15720     | 50.12   | 1.54             | Н        | 51.66    | 73.98    | 22.32  | PK          |
| 15720     | 36.09   | 1.54             | Н        | 37.63    | 53.98    | 16.35  | AV          |

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Band: UNII 1

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5180 MHz

Channel No. 36 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10360     | 49.95   | 4.47             | V        | 54.42    | 68.20    | 13.78  | PK          |
| 15540     | 51.97   | 1.80             | V        | 53.77    | 73.98    | 20.21  | PK          |
| 15540     | 37.02   | 1.80             | V        | 38.82    | 53.98    | 15.16  | AV          |
| 10360     | 49.75   | 4.47             | Н        | 54.22    | 68.20    | 13.98  | PK          |
| 15540     | 51.78   | 1.80             | Н        | 53.58    | 73.98    | 20.40  | PK          |
| 15540     | 36.96   | 1.80             | Н        | 38.76    | 53.98    | 15.22  | AV          |

Band: UNII 1

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5200 MHz

Channel No. 40 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10400     | 49.10   | 3.22             | V        | 52.32    | 68.20    | 15.88  | PK          |
| 15600     | 50.56   | 1.06             | V        | 51.62    | 73.98    | 22.36  | PK          |
| 15600     | 36.31   | 1.06             | V        | 37.37    | 53.98    | 16.61  | AV          |
| 10400     | 49.05   | 3.22             | Н        | 52.27    | 68.20    | 15.93  | PK          |
| 15600     | 50.39   | 1.06             | Н        | 51.45    | 73.98    | 22.53  | PK          |
| 15600     | 36.28   | 1.06             | Н        | 37.34    | 53.98    | 16.64  | AV          |

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Band: UNII 1

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5240 MHz

Channel No. 48 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10480     | 48.86   | 3.53             | V        | 52.39    | 68.20    | 15.81  | PK          |
| 15720     | 50.31   | 1.54             | V        | 51.85    | 73.98    | 22.13  | PK          |
| 15720     | 36.21   | 1.54             | V        | 37.75    | 53.98    | 16.23  | AV          |
| 10480     | 48.81   | 3.53             | Н        | 52.34    | 68.20    | 15.86  | PK          |
| 15720     | 50.26   | 1.54             | Н        | 51.80    | 73.98    | 22.18  | PK          |
| 15720     | 36.18   | 1.54             | Н        | 37.72    | 53.98    | 16.26  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5180 MHz

Channel No. 36 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10360     | 49.84   | 4.47             | V        | 54.31    | 68.20    | 13.89  | PK          |
| 15540     | 51.68   | 1.80             | V        | 53.48    | 73.98    | 20.50  | PK          |
| 15540     | 36.94   | 1.80             | V        | 38.74    | 53.98    | 15.24  | AV          |
| 10360     | 49.68   | 4.47             | Н        | 54.15    | 68.20    | 14.05  | PK          |
| 15540     | 51.55   | 1.80             | Н        | 53.35    | 73.98    | 20.63  | PK          |
| 15540     | 36.72   | 1.80             | Н        | 38.52    | 53.98    | 15.46  | AV          |

Band: UNII 1

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5200 MHz

Channel No. 40 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10400     | 49.23   | 3.22             | V        | 52.45    | 68.20    | 15.75  | PK          |
| 15600     | 50.90   | 1.06             | V        | 51.96    | 73.98    | 22.02  | PK          |
| 15600     | 36.51   | 1.06             | V        | 37.57    | 53.98    | 16.41  | AV          |
| 10400     | 49.16   | 3.22             | Н        | 52.38    | 68.20    | 15.82  | PK          |
| 15600     | 50.46   | 1.06             | Н        | 51.52    | 73.98    | 22.46  | PK          |
| 15600     | 36.48   | 1.06             | Н        | 37.54    | 53.98    | 16.44  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5240 MHz

Channel No. 48 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10480     | 48.96   | 3.53             | V        | 52.49    | 68.20    | 15.71  | PK          |
| 15720     | 51.00   | 1.54             | V        | 52.54    | 73.98    | 21.44  | PK          |
| 15720     | 36.34   | 1.54             | V        | 37.88    | 53.98    | 16.10  | AV          |
| 10480     | 48.86   | 3.53             | Н        | 52.39    | 68.20    | 15.81  | PK          |
| 15720     | 50.86   | 1.54             | Н        | 52.40    | 73.98    | 21.58  | PK          |
| 15720     | 35.88   | 1.54             | Н        | 37.42    | 53.98    | 16.56  | AV          |

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Band: UNII 1

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10380     | 49.85   | 2.88             | V        | 52.73    | 68.20    | 15.47  | PK          |
| 15570     | 49.36   | 1.57             | V        | 50.93    | 73.98    | 23.05  | PK          |
| 15570     | 35.88   | 1.57             | V        | 37.45    | 53.98    | 16.53  | AV          |
| 10380     | 49.56   | 2.88             | Н        | 52.44    | 68.20    | 15.76  | PK          |
| 15570     | 49.21   | 1.57             | Н        | 50.78    | 73.98    | 23.20  | PK          |
| 15570     | 35.48   | 1.57             | Н        | 37.05    | 53.98    | 16.93  | AV          |

Band: UNII 1

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5230 MHz

Channel No. 46 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10460     | 48.31   | 3.56             | V        | 51.87    | 68.20    | 16.33  | PK          |
| 15690     | 48.60   | 1.38             | V        | 49.98    | 73.98    | 24.00  | PK          |
| 15690     | 34.81   | 1.38             | V        | 36.19    | 53.98    | 17.79  | AV          |
| 10460     | 48.48   | 3.56             | Н        | 52.04    | 68.20    | 16.16  | PK          |
| 15690     | 48.59   | 1.38             | Н        | 49.97    | 73.98    | 24.01  | PK          |
| 15690     | 34.77   | 1.38             | Н        | 36.15    | 53.98    | 17.83  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10380     | 49.65   | 2.88             | V        | 52.53    | 68.20    | 15.67  | PK          |
| 15570     | 49.30   | 1.57             | V        | 50.87    | 73.98    | 23.11  | PK          |
| 15570     | 35.71   | 1.57             | V        | 37.28    | 53.98    | 16.70  | AV          |
| 10380     | 49.55   | 2.88             | Н        | 52.43    | 68.20    | 15.77  | PK          |
| 15570     | 49.12   | 1.57             | Н        | 50.69    | 73.98    | 23.29  | PK          |
| 15570     | 35.68   | 1.57             | Н        | 37.25    | 53.98    | 16.73  | AV          |

Band: UNII 1

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5230 MHz

Channel No. 46 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10460     | 48.22   | 3.56             | V        | 51.78    | 68.20    | 16.42  | PK          |
| 15690     | 48.36   | 1.38             | V        | 49.74    | 73.98    | 24.24  | PK          |
| 15690     | 34.73   | 1.38             | V        | 36.11    | 53.98    | 17.87  | AV          |
| 10460     | 48.15   | 3.56             | Н        | 51.71    | 68.20    | 16.49  | PK          |
| 15690     | 48.20   | 1.38             | Н        | 49.58    | 73.98    | 24.40  | PK          |
| 15690     | 34.59   | 1.38             | Н        | 35.97    | 53.98    | 18.01  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac(VHT80)

Transfer MCS Index: 0

Operating Frequency 5210 MHz

Channel No. 42 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10420     | 48.87   | 2.64             | V        | 51.51    | 68.20    | 16.69  | PK          |
| 15630     | 48.08   | 1.84             | V        | 49.92    | 73.98    | 24.06  | PK          |
| 15630     | 35.23   | 1.84             | V        | 37.07    | 53.98    | 16.91  | AV          |
| 10420     | 48.58   | 2.64             | Н        | 51.22    | 68.20    | 16.98  | PK          |
| 15630     | 48.05   | 1.84             | Н        | 49.89    | 73.98    | 24.09  | PK          |
| 15630     | 35.16   | 1.84             | Н        | 37.00    | 53.98    | 16.98  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5260 MHz

Channel No. 52 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10520     | 49.58   | 2.35             | V        | 51.93    | 68.20    | 16.27  | PK          |
| 15780     | 50.57   | 2.07             | V        | 52.64    | 73.98    | 21.34  | PK          |
| 15780     | 35.77   | 2.07             | V        | 37.84    | 53.98    | 16.14  | AV          |
| 10520     | 49.51   | 2.35             | Н        | 51.86    | 68.20    | 16.34  | PK          |
| 15780     | 50.48   | 2.07             | Н        | 52.55    | 73.98    | 21.43  | PK          |
| 15780     | 35.69   | 2.07             | Н        | 37.76    | 53.98    | 16.22  | AV          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2A

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5300 MHz

Channel No. 60 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10600     | 49.87   | 3.16             | V        | 53.03    | 73.98    | 20.95  | PK          |
| 10600     | 38.15   | 3.16             | V        | 41.31    | 53.98    | 12.67  | AV          |
| 15900     | 53.24   | 1.23             | V        | 54.47    | 73.98    | 19.51  | PK          |
| 15900     | 37.02   | 1.23             | V        | 38.25    | 53.98    | 15.73  | AV          |
| 10600     | 49.75   | 3.16             | Н        | 52.91    | 73.98    | 21.07  | PK          |
| 10600     | 38.06   | 3.16             | Н        | 41.22    | 53.98    | 12.76  | AV          |
| 15900     | 53.12   | 1.23             | Н        | 54.35    | 73.98    | 19.63  | PK          |
| 15900     | 36.85   | 1.23             | Н        | 38.08    | 53.98    | 15.90  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5320 MHz

Channel No. 64 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10640     | 49.90   | 3.07             | V        | 52.97    | 73.98    | 21.01  | PK          |
| 10640     | 37.53   | 3.07             | V        | 40.60    | 53.98    | 13.38  | AV          |
| 15960     | 53.29   | 2.06             | V        | 55.35    | 73.98    | 18.63  | PK          |
| 15960     | 36.85   | 2.06             | V        | 38.91    | 53.98    | 15.07  | AV          |
| 10640     | 49.63   | 3.07             | Н        | 52.70    | 73.98    | 21.28  | PK          |
| 10640     | 37.46   | 3.07             | Н        | 40.53    | 53.98    | 13.45  | AV          |
| 15960     | 52.98   | 2.06             | Н        | 55.04    | 73.98    | 18.94  | PK          |
| 15960     | 36.48   | 2.06             | Н        | 38.54    | 53.98    | 15.44  | AV          |

FCC ID: TQ8-ATC40DWAN

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Band: UNII 2A

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5260 MHz

Channel No. 52 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10520     | 49.51   | 2.35             | V        | 51.86    | 68.20    | 16.34  | PK          |
| 15780     | 50.45   | 2.07             | V        | 52.52    | 73.98    | 21.46  | PK          |
| 15780     | 35.89   | 2.07             | V        | 37.96    | 53.98    | 16.02  | AV          |
| 10520     | 49.28   | 2.35             | Н        | 51.63    | 68.20    | 16.57  | PK          |
| 15780     | 50.36   | 2.07             | Н        | 52.43    | 73.98    | 21.55  | PK          |
| 15780     | 35.77   | 2.07             | Н        | 37.84    | 53.98    | 16.14  | AV          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2A

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5300 MHz

Channel No. 60 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10600     | 49.79   | 3.16             | V        | 52.95    | 73.98    | 21.03  | PK          |
| 10600     | 38.11   | 3.16             | V        | 41.27    | 53.98    | 12.71  | AV          |
| 15900     | 53.15   | 1.23             | V        | 54.38    | 73.98    | 19.60  | PK          |
| 15900     | 37.05   | 1.23             | V        | 38.28    | 53.98    | 15.70  | AV          |
| 10600     | 49.69   | 3.16             | Н        | 52.85    | 73.98    | 21.13  | PK          |
| 10600     | 38.05   | 3.16             | Н        | 41.21    | 53.98    | 12.77  | AV          |
| 15900     | 52.98   | 1.23             | Н        | 54.21    | 73.98    | 19.77  | PK          |
| 15900     | 36.98   | 1.23             | Н        | 38.21    | 53.98    | 15.77  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5320 MHz

Channel No. 64 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10640     | 49.84   | 3.07             | V        | 52.91    | 73.98    | 21.07  | PK          |
| 10640     | 37.42   | 3.07             | V        | 40.49    | 53.98    | 13.49  | AV          |
| 15960     | 53.15   | 2.06             | V        | 55.21    | 73.98    | 18.77  | PK          |
| 15960     | 36.65   | 2.06             | V        | 38.71    | 53.98    | 15.27  | AV          |
| 10640     | 49.58   | 3.07             | Н        | 52.65    | 73.98    | 21.33  | PK          |
| 10640     | 37.39   | 3.07             | Н        | 40.46    | 53.98    | 13.52  | AV          |
| 15960     | 52.94   | 2.06             | Н        | 55.00    | 73.98    | 18.98  | PK          |
| 15960     | 36.29   | 2.06             | Н        | 38.35    | 53.98    | 15.63  | AV          |

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Band:

Report No.: HCT-RF-1902-FC003

UNII 2A

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5260MHz

Channel No. 52 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10520     | 49.64   | 2.35             | V        | 51.99    | 68.20    | 16.21  | PK          |
| 15780     | 50.31   | 2.07             | V        | 52.38    | 73.98    | 21.60  | PK          |
| 15780     | 35.74   | 2.07             | V        | 37.81    | 53.98    | 16.17  | AV          |
| 10520     | 49.57   | 2.35             | Н        | 51.92    | 68.20    | 16.28  | PK          |
| 15780     | 49.86   | 2.07             | Н        | 51.93    | 73.98    | 22.05  | PK          |
| 15780     | 35.48   | 2.07             | Н        | 37.55    | 53.98    | 16.43  | AV          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2A

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5300 MHz

Channel No. 60 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10600     | 49.56   | 3.16             | V        | 52.72    | 73.98    | 21.26  | PK          |
| 10600     | 38.05   | 3.16             | V        | 41.21    | 53.98    | 12.77  | AV          |
| 15900     | 53.04   | 1.23             | V        | 54.27    | 73.98    | 19.71  | PK          |
| 15900     | 36.77   | 1.23             | V        | 38.00    | 53.98    | 15.98  | AV          |
| 10600     | 49.36   | 3.16             | Н        | 52.52    | 73.98    | 21.46  | PK          |
| 10600     | 37.84   | 3.16             | Н        | 41.00    | 53.98    | 12.98  | AV          |
| 15900     | 52.95   | 1.23             | Н        | 54.18    | 73.98    | 19.80  | PK          |
| 15900     | 36.56   | 1.23             | Н        | 37.79    | 53.98    | 16.19  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5320 MHz

Channel No. 64 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10640     | 49.54   | 3.07             | V        | 52.61    | 73.98    | 21.37  | PK          |
| 10640     | 37.16   | 3.07             | V        | 40.23    | 53.98    | 13.75  | AV          |
| 15960     | 52.88   | 2.06             | V        | 54.94    | 73.98    | 19.04  | PK          |
| 15960     | 36.48   | 2.06             | ٧        | 38.54    | 53.98    | 15.44  | AV          |
| 10640     | 49.48   | 3.07             | Н        | 52.55    | 73.98    | 21.43  | PK          |
| 10640     | 37.05   | 3.07             | Н        | 40.12    | 53.98    | 13.86  | AV          |
| 15960     | 52.75   | 2.06             | Н        | 54.81    | 73.98    | 19.17  | PK          |
| 15960     | 36.29   | 2.06             | Н        | 38.35    | 53.98    | 15.63  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5270 MHz

Channel No. 54 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10540     | 49.74   | 3.85             | V        | 53.59    | 68.20    | 14.61  | PK          |
| 15810     | 47.94   | 2.79             | V        | 50.73    | 73.98    | 23.25  | PK          |
| 15810     | 34.67   | 2.79             | V        | 37.46    | 53.98    | 16.52  | AV          |
| 10540     | 49.61   | 3.85             | Н        | 53.46    | 68.20    | 14.74  | PK          |
| 15810     | 47.44   | 2.79             | Н        | 50.23    | 73.98    | 23.75  | PK          |
| 15810     | 34.50   | 2.79             | Н        | 37.29    | 53.98    | 16.69  | AV          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2A

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10620     | 49.81   | 2.96             | V        | 52.77    | 73.98    | 21.21  | PK          |
| 10620     | 36.47   | 2.96             | V        | 39.43    | 53.98    | 14.55  | AV          |
| 15930     | 49.05   | 1.43             | V        | 50.48    | 73.98    | 23.50  | PK          |
| 15930     | 35.40   | 1.43             | V        | 36.83    | 53.98    | 17.15  | AV          |
| 10620     | 49.84   | 2.96             | Н        | 52.80    | 73.98    | 21.18  | PK          |
| 10620     | 36.48   | 2.96             | Н        | 39.44    | 53.98    | 14.54  | AV          |
| 15930     | 48.91   | 1.43             | Н        | 50.34    | 73.98    | 23.64  | PK          |
| 15930     | 35.34   | 1.43             | Н        | 36.77    | 53.98    | 17.21  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5270 MHz

Channel No. 54 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10540     | 49.59   | 3.85             | V        | 53.44    | 68.20    | 14.76  | PK          |
| 15810     | 47.87   | 2.79             | V        | 50.66    | 73.98    | 23.32  | PK          |
| 15810     | 34.58   | 2.79             | V        | 37.37    | 53.98    | 16.61  | AV          |
| 10540     | 49.53   | 3.85             | Н        | 53.38    | 68.20    | 14.82  | PK          |
| 15810     | 47.39   | 2.79             | Н        | 50.18    | 73.98    | 23.80  | PK          |
| 15810     | 34.29   | 2.79             | Н        | 37.08    | 53.98    | 16.90  | AV          |

Band: UNII 2A

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10620     | 49.67   | 2.96             | V        | 52.63    | 73.98    | 21.35  | PK          |
| 10620     | 36.42   | 2.96             | V        | 39.38    | 53.98    | 14.60  | AV          |
| 15930     | 49.04   | 1.43             | V        | 50.47    | 73.98    | 23.51  | PK          |
| 15930     | 35.33   | 1.43             | V        | 36.76    | 53.98    | 17.22  | AV          |
| 10620     | 49.69   | 2.96             | Н        | 52.65    | 73.98    | 21.33  | PK          |
| 10620     | 36.50   | 2.96             | Н        | 39.46    | 53.98    | 14.52  | AV          |
| 15930     | 48.88   | 1.43             | Н        | 50.31    | 73.98    | 23.67  | PK          |
| 15930     | 35.24   | 1.43             | Н        | 36.67    | 53.98    | 17.31  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 ac(VHT80)

Transfer MCS Index: 0

Operating Frequency 5290 MHz

Channel No. 58 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 10580     | 49.26   | 2.79             | V        | 52.05    | 68.20    | 16.15  | PK          |
| 15870     | 47.98   | 2.47             | V        | 50.45    | 73.98    | 23.53  | PK          |
| 15870     | 34.63   | 2.47             | V        | 37.10    | 53.98    | 16.88  | AV          |
| 10580     | 49.14   | 2.79             | Н        | 51.93    | 68.20    | 16.27  | PK          |
| 15870     | 47.84   | 2.47             | Н        | 50.31    | 73.98    | 23.67  | PK          |
| 15870     | 34.58   | 2.47             | Н        | 37.05    | 53.98    | 16.93  | AV          |

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Band: UNII 2C

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5500 MHz

Channel No. 100 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11000     | 51.44   | 3.36             | V        | 54.80    | 73.98    | 19.18  | PK          |
| 11000     | 37.82   | 3.36             | V        | 41.18    | 53.98    | 12.80  | AV          |
| 16500     | 56.02   | 5.07             | V        | 61.09    | 68.20    | 7.11   | PK          |
| 11000     | 51.20   | 3.36             | Н        | 54.56    | 73.98    | 19.42  | PK          |
| 11000     | 37.46   | 3.36             | Н        | 40.82    | 53.98    | 13.16  | AV          |
| 16500     | 55.84   | 5.07             | Н        | 60.91    | 68.20    | 7.29   | PK          |

Band: UNII 2C

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5580 MHz

Channel No. 116 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11160     | 50.22   | 4.07             | V        | 54.29    | 73.98    | 19.69  | PK          |
| 11160     | 37.13   | 4.07             | V        | 41.20    | 53.98    | 12.78  | AV          |
| 16740     | 53.42   | 4.79             | V        | 58.21    | 68.20    | 9.99   | PK          |
| 11160     | 50.10   | 4.07             | Н        | 54.17    | 73.98    | 19.81  | PK          |
| 11160     | 36.94   | 4.07             | Н        | 41.01    | 53.98    | 12.97  | AV          |
| 16740     | 52.82   | 4.79             | Н        | 57.61    | 68.20    | 10.59  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5720 MHz

Channel No. 144 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11440     | 50.34   | 3.57             | V        | 53.91    | 73.98    | 20.07  | PK          |
| 11440     | 36.47   | 3.57             | V        | 40.04    | 53.98    | 13.94  | AV          |
| 17160     | 52.27   | 5.24             | V        | 57.51    | 68.20    | 10.69  | PK          |
| 11440     | 50.16   | 3.57             | Н        | 53.73    | 73.98    | 20.25  | PK          |
| 11440     | 36.26   | 3.57             | Н        | 39.83    | 53.98    | 14.15  | AV          |
| 17160     | 52.16   | 5.24             | Н        | 57.40    | 68.20    | 10.80  | PK          |

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Band:

Report No.: HCT-RF-1902-FC003

UNII 2C

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5500 MHz

Channel No. 100 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11000     | 51.68   | 3.36             | V        | 55.04    | 73.98    | 18.94  | PK          |
| 11000     | 37.96   | 3.36             | V        | 41.32    | 53.98    | 12.66  | AV          |
| 16500     | 57.54   | 5.07             | V        | 62.61    | 68.20    | 5.59   | PK          |
| 11000     | 51.42   | 3.36             | Н        | 54.78    | 73.98    | 19.20  | PK          |
| 11000     | 37.35   | 3.36             | Н        | 40.71    | 53.98    | 13.27  | AV          |
| 16500     | 56.92   | 5.07             | Н        | 61.99    | 68.20    | 6.21   | PK          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2C

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5580 MHz

Channel No. 116 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11160     | 51.24   | 4.07             | V        | 55.31    | 73.98    | 18.67  | PK          |
| 11160     | 37.56   | 4.07             | V        | 41.63    | 53.98    | 12.35  | AV          |
| 16740     | 53.99   | 4.79             | V        | 58.78    | 68.20    | 9.42   | PK          |
| 11160     | 51.18   | 4.07             | Н        | 55.25    | 73.98    | 18.73  | PK          |
| 11160     | 37.42   | 4.07             | Н        | 41.49    | 53.98    | 12.49  | AV          |
| 16740     | 52.86   | 4.79             | Н        | 57.65    | 68.20    | 10.55  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5720 MHz

Channel No. 144 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11440     | 51.05   | 3.57             | V        | 54.62    | 73.98    | 19.36  | PK          |
| 11440     | 36.87   | 3.57             | V        | 40.44    | 53.98    | 13.54  | AV          |
| 17160     | 52.40   | 5.24             | V        | 57.64    | 68.20    | 10.56  | PK          |
| 11440     | 51.01   | 3.57             | Н        | 54.58    | 73.98    | 19.40  | PK          |
| 11440     | 36.57   | 3.57             | Н        | 40.14    | 53.98    | 13.84  | AV          |
| 17160     | 52.11   | 5.24             | Н        | 57.35    | 68.20    | 10.85  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5500 MHz

Channel No. 100 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11000     | 51.55   | 3.36             | ٧        | 54.91    | 73.98    | 19.07  | PK          |
| 11000     | 37.56   | 3.36             | V        | 40.92    | 53.98    | 13.06  | AV          |
| 16500     | 57.26   | 5.07             | V        | 62.33    | 68.20    | 5.87   | PK          |
| 11000     | 51.29   | 3.36             | Н        | 54.65    | 73.98    | 19.33  | PK          |
| 11000     | 37.46   | 3.36             | Н        | 40.82    | 53.98    | 13.16  | AV          |
| 16500     | 57.18   | 5.07             | Н        | 62.25    | 68.20    | 5.95   | PK          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2C

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5580 MHz

Channel No. 116 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11160     | 51.30   | 4.07             | V        | 55.37    | 73.98    | 18.61  | PK          |
| 11160     | 37.48   | 4.07             | V        | 41.55    | 53.98    | 12.43  | AV          |
| 16740     | 53.18   | 4.79             | V        | 57.97    | 68.20    | 10.23  | PK          |
| 11160     | 51.24   | 4.07             | Н        | 55.31    | 73.98    | 18.67  | PK          |
| 11160     | 37.37   | 4.07             | Н        | 41.44    | 53.98    | 12.54  | AV          |
| 16740     | 52.86   | 4.79             | Н        | 57.65    | 68.20    | 10.55  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5720 MHz

Channel No. 144 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11440     | 51.10   | 3.57             | V        | 54.67    | 73.98    | 19.31  | PK          |
| 11440     | 36.78   | 3.57             | V        | 40.35    | 53.98    | 13.63  | AV          |
| 17160     | 52.36   | 5.24             | V        | 57.60    | 68.20    | 10.60  | PK          |
| 11440     | 50.86   | 3.57             | Н        | 54.43    | 73.98    | 19.55  | PK          |
| 11440     | 36.61   | 3.57             | Н        | 40.18    | 53.98    | 13.80  | AV          |
| 17160     | 52.18   | 5.24             | Н        | 57.42    | 68.20    | 10.78  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11020     | 50.12   | 2.97             | V        | 53.09    | 73.98    | 20.89  | PK          |
| 11020     | 36.50   | 2.97             | V        | 39.47    | 53.98    | 14.51  | AV          |
| 16530     | 53.81   | 4.15             | V        | 57.96    | 68.20    | 10.24  | PK          |
| 11020     | 50.05   | 2.97             | Н        | 53.02    | 73.98    | 20.96  | PK          |
| 11020     | 36.42   | 2.97             | Н        | 39.39    | 53.98    | 14.59  | AV          |
| 16530     | 53.55   | 4.15             | Н        | 57.70    | 68.20    | 10.50  | PK          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 2C

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5550 MHz

Channel No. 110 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11100     | 49.23   | 2.79             | V        | 52.02    | 73.98    | 21.96  | PK          |
| 11100     | 36.55   | 2.79             | V        | 39.34    | 53.98    | 14.64  | AV          |
| 16650     | 53.66   | 7.19             | V        | 60.85    | 68.20    | 7.35   | PK          |
| 11100     | 49.15   | 2.79             | Н        | 51.94    | 73.98    | 22.04  | PK          |
| 11100     | 36.49   | 2.79             | Н        | 39.28    | 53.98    | 14.70  | AV          |
| 16650     | 53.46   | 7.19             | Н        | 60.65    | 68.20    | 7.55   | PK          |

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Band: UNII 2C

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5710 MHz

Channel No. 142 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11420     | 49.88   | 3.36             | V        | 53.24    | 73.98    | 20.74  | PK          |
| 11420     | 37.31   | 3.36             | V        | 40.67    | 53.98    | 13.31  | AV          |
| 17130     | 49.14   | 7.02             | V        | 56.16    | 68.20    | 12.04  | PK          |
| 11420     | 49.72   | 3.36             | Н        | 53.08    | 73.98    | 20.90  | PK          |
| 11420     | 37.22   | 3.36             | Н        | 40.58    | 53.98    | 13.40  | AV          |
| 17130     | 49.05   | 7.02             | Н        | 56.07    | 68.20    | 12.13  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11020     | 49.35   | 2.97             | V        | 52.32    | 73.98    | 21.66  | PK          |
| 11020     | 36.13   | 2.97             | V        | 39.10    | 53.98    | 14.88  | AV          |
| 16530     | 52.23   | 4.15             | V        | 56.38    | 68.20    | 11.82  | PK          |
| 11020     | 49.21   | 2.97             | Н        | 52.18    | 73.98    | 21.80  | PK          |
| 11020     | 36.05   | 2.97             | Н        | 39.02    | 53.98    | 14.96  | AV          |
| 16530     | 52.18   | 4.15             | Н        | 56.33    | 68.20    | 11.87  | PK          |

Band: UNII 2C

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5550 MHz

Channel No. 110 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11100     | 48.76   | 2.79             | V        | 51.55    | 73.98    | 22.43  | PK          |
| 11100     | 36.24   | 2.79             | V        | 39.03    | 53.98    | 14.95  | AV          |
| 16650     | 51.98   | 7.19             | V        | 59.17    | 68.20    | 9.03   | PK          |
| 11100     | 48.69   | 2.79             | Н        | 51.48    | 73.98    | 22.50  | PK          |
| 11100     | 36.11   | 2.79             | Н        | 38.90    | 53.98    | 15.08  | AV          |
| 16650     | 51.58   | 7.19             | Н        | 58.77    | 68.20    | 9.43   | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5710 MHz

Channel No. 142 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11420     | 49.71   | 3.36             | V        | 53.07    | 73.98    | 20.91  | PK          |
| 11420     | 36.84   | 3.36             | V        | 40.20    | 53.98    | 13.78  | AV          |
| 17130     | 48.17   | 7.02             | V        | 55.19    | 68.20    | 13.01  | PK          |
| 11420     | 49.58   | 3.36             | Н        | 52.94    | 73.98    | 21.04  | PK          |
| 11420     | 36.74   | 3.36             | Н        | 40.10    | 53.98    | 13.88  | AV          |
| 17130     | 48.20   | 7.02             | Н        | 55.22    | 68.20    | 12.98  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac(VHT80)

Transfer MCS Index: 0

Operating Frequency 5530 MHz

Channel No. 106 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11060     | 48.76   | 3.46             | V        | 52.22    | 73.98    | 21.76  | PK          |
| 11060     | 35.73   | 3.46             | V        | 39.19    | 53.98    | 14.79  | AV          |
| 16590     | 48.33   | 4.11             | V        | 52.44    | 68.20    | 15.76  | PK          |
| 11060     | 48.91   | 3.46             | Н        | 52.37    | 73.98    | 21.61  | PK          |
| 11060     | 35.69   | 3.46             | Н        | 39.15    | 53.98    | 14.83  | AV          |
| 16590     | 48.26   | 4.11             | Н        | 52.37    | 68.20    | 15.83  | PK          |

Band: UNII 2C

Operation Mode: 802.11 ac(VHT80)

Transfer MCS Index: 0

Operating Frequency 5690 MHz

Channel No. 138 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11380     | 49.06   | 3.41             | V        | 52.47    | 73.98    | 21.51  | PK          |
| 11380     | 36.36   | 3.41             | V        | 39.77    | 53.98    | 14.21  | AV          |
| 17070     | 47.11   | 5.78             | V        | 52.89    | 68.20    | 15.31  | PK          |
| 11380     | 48.50   | 3.41             | Н        | 51.91    | 73.98    | 22.07  | PK          |
| 11380     | 36.21   | 3.41             | Н        | 39.62    | 53.98    | 14.36  | AV          |
| 17070     | 4.06    | 5.78             | Н        | 9.84     | 68.20    | 58.36  | PK          |

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Band:

Report No.: HCT-RF-1902-FC003

UNII 3

Operation Mode:

802.11 a

Transfer Rate:

6 Mbps

Operating Frequency

5745MHz

Channel No.

149 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11490     | 49.18   | 2.87             | V        | 52.05    | 73.98    | 21.93  | PK          |
| 11490     | 37.46   | 2.87             | V        | 40.33    | 53.98    | 13.65  | AV          |
| 17235     | 47.85   | 7.44             | V        | 55.29    | 68.20    | 12.92  | PK          |
| 11490     | 49.27   | 2.51             | Н        | 51.78    | 73.98    | 22.20  | PK          |
| 11490     | 37.92   | 2.51             | Н        | 40.43    | 53.98    | 13.55  | AV          |
| 17235     | 47.72   | 7.44             | Н        | 55.16    | 68.20    | 13.05  | PK          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 3

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5785 MHz

Channel No. 157 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11570     | 48.54   | 2.48             | V        | 51.02    | 73.98    | 22.96  | PK          |
| 11570     | 36.85   | 2.48             | V        | 39.33    | 53.98    | 14.65  | AV          |
| 17355     | 47.54   | 7.86             | V        | 55.40    | 68.20    | 12.81  | PK          |
| 11570     | 48.83   | 2.48             | Н        | 51.31    | 73.98    | 22.67  | PK          |
| 11570     | 36.99   | 2.48             | Н        | 39.47    | 53.98    | 14.51  | AV          |
| 17355     | 47.63   | 7.86             | Н        | 55.49    | 68.20    | 12.72  | PK          |

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Band: UNII 3

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5825 MHz

Channel No. 165 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11650     | 49.57   | 3.24             | V        | 52.81    | 73.98    | 21.17  | PK          |
| 11650     | 38.15   | 3.24             | V        | 41.39    | 53.98    | 12.59  | AV          |
| 17475     | 50.58   | 8.14             | V        | 58.72    | 68.20    | 9.49   | PK          |
| 11650     | 49.74   | 3.24             | Н        | 52.98    | 73.98    | 21.00  | PK          |
| 11650     | 38.85   | 3.24             | Н        | 42.09    | 53.98    | 11.89  | AV          |
| 17475     | 50.86   | 8.14             | Н        | 59.00    | 68.20    | 9.21   | PK          |

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Band: UNII 3

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5745MHz

Channel No. 149 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11490     | 50.14   | 2.87             | V        | 53.01    | 73.98    | 20.97  | PK          |
| 11490     | 37.95   | 2.87             | V        | 40.82    | 53.98    | 13.16  | AV          |
| 17235     | 47.84   | 7.44             | V        | 55.28    | 68.20    | 12.93  | PK          |
| 11490     | 50.50   | 2.51             | Н        | 53.01    | 73.98    | 20.97  | PK          |
| 11490     | 38.02   | 2.51             | Н        | 40.53    | 53.98    | 13.45  | AV          |
| 17235     | 47.66   | 7.44             | Н        | 55.10    | 68.20    | 13.11  | PK          |

Band: UNII 3

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5785 MHz

Channel No. 157 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11570     | 48.68   | 2.48             | V        | 51.16    | 73.98    | 22.82  | PK          |
| 11570     | 37.05   | 2.48             | V        | 39.53    | 53.98    | 14.45  | AV          |
| 17355     | 47.88   | 7.86             | V        | 55.74    | 68.20    | 12.47  | PK          |
| 11570     | 48.54   | 2.48             | Н        | 51.02    | 73.98    | 22.96  | PK          |
| 11570     | 37.10   | 2.48             | Н        | 39.58    | 53.98    | 14.40  | AV          |
| 17355     | 47.79   | 7.86             | Н        | 55.65    | 68.20    | 12.56  | PK          |

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Band: UNII 3

Operation Mode: 802.11 n(HT20)

Transfer MCS Index: MCS0

Operating Frequency 5825 MHz

Channel No. 165 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11650     | 50.11   | 3.24             | V        | 53.35    | 73.98    | 20.63  | PK          |
| 11650     | 38.86   | 3.24             | V        | 42.10    | 53.98    | 11.88  | AV          |
| 17475     | 50.74   | 8.14             | V        | 58.88    | 68.20    | 9.33   | PK          |
| 11650     | 50.25   | 3.24             | Н        | 53.49    | 73.98    | 20.49  | PK          |
| 11650     | 39.09   | 3.24             | Н        | 42.33    | 53.98    | 11.65  | AV          |
| 17475     | 50.95   | 8.14             | Н        | 59.09    | 68.20    | 9.12   | PK          |

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Band: UNII 3

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5745MHz

Channel No. 149 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11490     | 49.57   | 2.87             | V        | 52.44    | 73.98    | 21.54  | PK          |
| 11490     | 37.46   | 2.87             | V        | 40.33    | 53.98    | 13.65  | AV          |
| 17235     | 47.44   | 7.44             | V        | 54.88    | 68.20    | 13.33  | PK          |
| 11490     | 50.10   | 2.51             | Н        | 52.61    | 73.98    | 21.37  | PK          |
| 11490     | 37.54   | 2.51             | Н        | 40.05    | 53.98    | 13.93  | AV          |
| 17235     | 47.54   | 7.44             | Н        | 54.98    | 68.20    | 13.23  | PK          |

Band: UNII 3

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5785 MHz

Channel No. 157 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11570     | 48.56   | 2.48             | V        | 51.04    | 73.98    | 22.94  | PK          |
| 11570     | 36.89   | 2.48             | V        | 39.37    | 53.98    | 14.61  | AV          |
| 17355     | 47.69   | 7.86             | V        | 55.55    | 68.20    | 12.66  | PK          |
| 11570     | 48.69   | 2.48             | Н        | 51.17    | 73.98    | 22.81  | PK          |
| 11570     | 37.05   | 2.48             | Н        | 39.53    | 53.98    | 14.45  | AV          |
| 17355     | 47.85   | 7.86             | Н        | 55.71    | 68.20    | 12.50  | PK          |

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Band: UNII 3

Operation Mode: 802.11 ac(VHT20)

Transfer MCS Index: MCS0

Operating Frequency 5825 MHz

Channel No. 165 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11650     | 49.71   | 3.24             | V        | 52.95    | 73.98    | 21.03  | PK          |
| 11650     | 38.48   | 3.24             | V        | 41.72    | 53.98    | 12.26  | AV          |
| 17475     | 50.69   | 8.14             | V        | 58.83    | 68.20    | 9.38   | PK          |
| 11650     | 49.87   | 3.24             | Н        | 53.11    | 73.98    | 20.87  | PK          |
| 11650     | 38.84   | 3.24             | Н        | 42.08    | 53.98    | 11.90  | AV          |
| 17475     | 50.71   | 8.14             | Н        | 58.85    | 68.20    | 9.36   | PK          |

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Band: UNII 3

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5755 MHz

Channel No. 151 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11510     | 49.32   | 2.90             | V        | 52.22    | 73.98    | 21.76  | PK          |
| 11510     | 36.05   | 2.90             | V        | 38.95    | 53.98    | 15.03  | AV          |
| 17265     | 47.88   | 6.80             | V        | 54.68    | 68.20    | 13.52  | PK          |
| 11510     | 49.25   | 2.90             | Н        | 52.15    | 73.98    | 21.83  | PK          |
| 11510     | 35.95   | 2.90             | Н        | 38.85    | 53.98    | 15.13  | AV          |
| 17265     | 47.86   | 6.80             | Н        | 54.66    | 68.20    | 13.54  | PK          |

FCC ID: TQ8-ATC40DWAN

Band: UNII 3

Operation Mode: 802.11 n(HT40)

Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11590     | 49.41   | 3.72             | V        | 53.13    | 73.98    | 20.85  | PK          |
| 11590     | 38.14   | 3.72             | V        | 41.86    | 53.98    | 12.12  | AV          |
| 17385     | 48.23   | 7.21             | V        | 55.44    | 68.20    | 12.77  | PK          |
| 11590     | 49.35   | 3.72             | Н        | 53.07    | 73.98    | 20.91  | PK          |
| 11590     | 38.11   | 3.72             | Н        | 41.83    | 53.98    | 12.15  | AV          |
| 17385     | 48.16   | 7.21             | Н        | 55.37    | 68.20    | 12.84  | PK          |

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Band: UNII 3

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5755 MHz

Channel No. 151 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11510     | 48.95   | 2.90             | V        | 51.85    | 73.98    | 22.13  | PK          |
| 11510     | 36.14   | 2.90             | V        | 39.04    | 53.98    | 14.94  | AV          |
| 17265     | 47.61   | 6.80             | V        | 54.41    | 68.20    | 13.79  | PK          |
| 11510     | 48.87   | 2.90             | Н        | 51.77    | 73.98    | 22.21  | PK          |
| 11510     | 36.02   | 2.90             | Н        | 38.92    | 53.98    | 15.06  | AV          |
| 17265     | 47.39   | 6.80             | Н        | 54.19    | 68.20    | 14.01  | PK          |

Band: UNII 3

Operation Mode: 802.11 ac(VHT40)

Transfer MCS Index: 0

Operating Frequency 5795 MHz

Channel No. 159 Ch

| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11590     | 48.87   | 3.72             | V        | 52.59    | 73.98    | 21.39  | PK          |
| 11590     | 37.36   | 3.72             | V        | 41.08    | 53.98    | 12.90  | AV          |
| 17385     | 48.47   | 7.21             | V        | 55.68    | 68.20    | 12.53  | PK          |
| 11590     | 48.76   | 3.72             | Н        | 52.48    | 73.98    | 21.50  | PK          |
| 11590     | 37.18   | 3.72             | Н        | 40.90    | 53.98    | 13.08  | AV          |
| 17385     | 48.28   | 7.21             | Н        | 55.49    | 68.20    | 12.72  | PK          |

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Band: UNII 3

Operation Mode: 802.11 ac(VHT80)

Transfer MCS Index: 0

Operating Frequency 5775 MHz

Channel No. 155 Ch

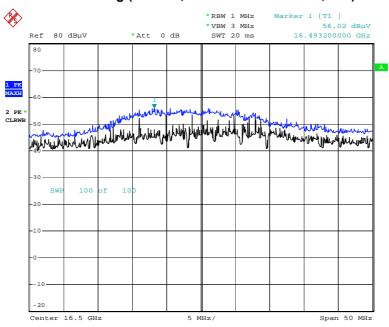
| Frequency | Reading | A.F.+C.LA.G+D.F. | ANT. POL | Total    | Limit    | Margin | Measurement |
|-----------|---------|------------------|----------|----------|----------|--------|-------------|
| [MHz]     | [dBuV]  | [dB]             | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 11550     | 49.57   | 3.32             | V        | 52.89    | 73.98    | 21.09  | PK          |
| 11550     | 35.60   | 3.32             | V        | 38.92    | 53.98    | 15.06  | AV          |
| 17325     | 48.49   | 8.09             | V        | 56.58    | 68.20    | 11.63  | PK          |
| 11550     | 49.26   | 3.32             | Н        | 52.58    | 73.98    | 21.40  | PK          |
| 11550     | 35.45   | 3.32             | Н        | 38.77    | 53.98    | 15.21  | AV          |
| 17325     | 48.22   | 8.09             | Н        | 56.31    | 68.20    | 11.90  | PK          |

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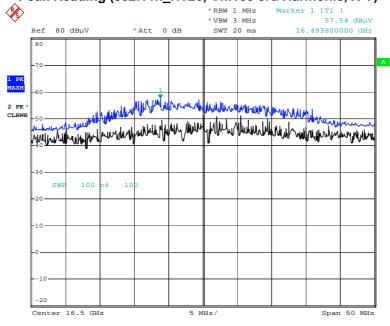
#### **■ Test Plots**

#### Peak Reading (802.11a, Ch.100 3rd Harmonic, X-V)



Date: 13.NOV.2018 12:51:55

#### Peak Reading (802.11n\_HT20, Ch.100 3rd Harmonic, X-V)

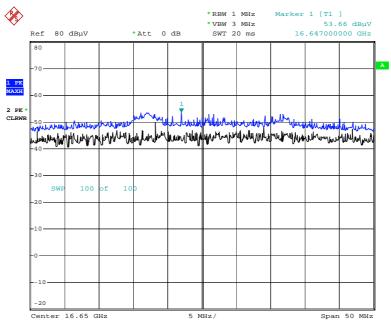


Date: 13.NOV.2018 13:15:08

F-TP22-03 (Rev.00) 1 7 0 / 193 **HCT CO.,LTD.** 

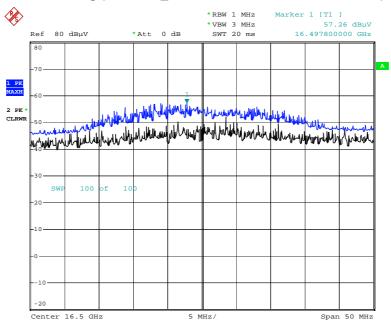


#### Peak Reading (802.11n\_HT40, Ch.110 3rd Harmonic, X-V)



Date: 13.NOV.2018 13:26:54

#### Peak Reading (802.11ac\_VHT20, Ch.100 3rd Harmonic, X-V)

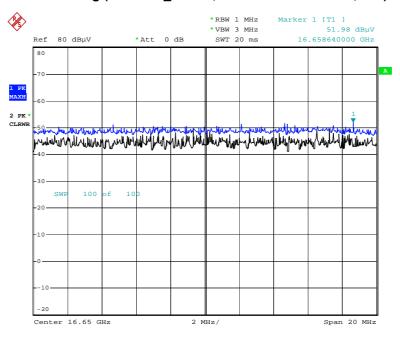


Date: 13.NOV.2018 13:17:06

F-TP22-03 (Rev.00) 1 7 1 / 193 **HCT CO.,LTD.** 

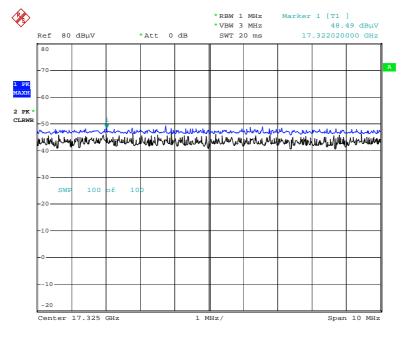


## Peak Reading (802.11ac\_VHT40, Ch.110 3rd Harmonic, X-V)



Date: 13.NOV.2018 13:24:58

## Peak Reading (802.11ac\_VHT80, Ch.155 3rd Harmonic, X-V)



Date: 13.NOV.2018 13:33:19

Note: Only the worst case plots for Radiated Spurious Emissions.

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## 10.9 RADIATED RESTRICTED BAND EDGE

Band: UNII 1

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5180 MHz

Channel No. 36 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 52.99   | 3.07            | Н        | 56.06    | 73.98    | 17.92  | PK          |
| 5150      | 40.04   | 3.07            | Н        | 43.11    | 53.98    | 10.87  | AV          |
| 5150      | 52.79   | 3.07            | V        | 55.86    | 73.98    | 18.12  | PK          |
| 5150      | 39.95   | 3.07            | V        | 43.02    | 53.98    | 10.96  | AV          |

Band: UNII 1

Operation Mode: 802.11 n\_HT20

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 53.06   | 3.07            | Н        | 56.13    | 73.98    | 17.85  | PK          |
| 5150      | 40.00   | 3.07            | Н        | 43.07    | 53.98    | 10.91  | AV          |
| 5150      | 52.96   | 3.07            | V        | 56.03    | 73.98    | 17.95  | PK          |
| 5150      | 39.85   | 3.07            | V        | 42.92    | 53.98    | 11.06  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac\_VHT20

Transfer MCS Index: 0

Operating Frequency 5180 MHz

Channel No. 36 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 52.12   | 3.07            | Н        | 55.19    | 73.98    | 18.79  | PK          |
| 5150      | 40.33   | 3.07            | Н        | 43.4     | 53.98    | 10.58  | AV          |
| 5150      | 51.98   | 3.07            | V        | 55.05    | 73.98    | 18.93  | PK          |
| 5150      | 40.21   | 3.07            | V        | 43.28    | 53.98    | 10.70  | AV          |

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Band: UNII 1

Operation Mode: 802.11 n\_HT40

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 51.88   | 3.07            | Н        | 54.95    | 73.98    | 19.03  | PK          |
| 5150      | 39.46   | 3.07            | Н        | 42.53    | 53.98    | 11.45  | AV          |
| 5150      | 51.69   | 3.07            | V        | 54.76    | 73.98    | 19.22  | PK          |
| 5150      | 39.26   | 3.07            | V        | 42.33    | 53.98    | 11.65  | AV          |

Band: UNII 1

Operation Mode: 802.11 ac\_VHT40

Transfer MCS Index: 0

Operating Frequency 5190 MHz

Channel No. 38 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 52.10   | 3.07            | Н        | 55.17    | 73.98    | 18.81  | PK          |
| 5150      | 39.56   | 3.07            | Н        | 42.63    | 53.98    | 11.35  | AV          |
| 5150      | 51.98   | 3.07            | V        | 55.05    | 73.98    | 18.93  | PK          |
| 5150      | 39.23   | 3.07            | V        | 42.3     | 53.98    | 11.68  | AV          |

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Band: UNII 1

Operation Mode: 802.11 ac\_VHT80

Transfer MCS Index: 0

Operating Frequency 5210 MHz

Channel No. 42 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5150      | 51.97   | 3.07            | Н        | 55.04    | 73.98    | 18.94  | PK          |
| 5150      | 39.01   | 3.07            | Н        | 42.08    | 53.98    | 11.90  | AV          |
| 5150      | 51.76   | 3.07            | V        | 54.83    | 73.98    | 19.15  | PK          |
| 5150      | 38.86   | 3.07            | V        | 41.93    | 53.98    | 12.05  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5320 MHz

Channel No. 64 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 53.78   | 2.59            | Н        | 56.37    | 73.98    | 17.61  | PK          |
| 5350      | 40.58   | 2.59            | Н        | 43.17    | 53.98    | 10.81  | AV          |
| 5350      | 53.99   | 2.59            | V        | 56.58    | 73.98    | 17.40  | PK          |
| 5350      | 40.68   | 2.59            | V        | 43.27    | 53.98    | 10.71  | AV          |

Band: UNII 2A

Operation Mode: 802.11 n\_HT20

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 53.28   | 2.59            | Н        | 55.87    | 73.98    | 18.11  | PK          |
| 5350      | 40.27   | 2.59            | Н        | 42.86    | 53.98    | 11.12  | AV          |
| 5350      | 53.38   | 2.59            | V        | 55.97    | 73.98    | 18.01  | PK          |
| 5350      | 40.32   | 2.59            | V        | 42.91    | 53.98    | 11.07  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 ac\_VHT20

Transfer MCS Index: 0

Operating Frequency 5320 MHz

Channel No. 64 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 52.89   | 2.59            | Н        | 55.48    | 73.98    | 18.50  | PK          |
| 5350      | 40.12   | 2.59            | Н        | 42.71    | 53.98    | 11.27  | AV          |
| 5350      | 53.11   | 2.59            | V        | 55.7     | 73.98    | 18.28  | PK          |
| 5350      | 40.23   | 2.59            | V        | 42.82    | 53.98    | 11.16  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 n\_HT40

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 53.67   | 2.59            | Н        | 56.26    | 73.98    | 17.72  | PK          |
| 5350      | 40.31   | 2.59            | Н        | 42.9     | 53.98    | 11.08  | AV          |
| 5350      | 53.72   | 2.59            | V        | 56.31    | 73.98    | 17.67  | PK          |
| 5350      | 40.50   | 2.59            | V        | 43.09    | 53.98    | 10.89  | AV          |

Band: UNII 2A

Operation Mode: 802.11 ac\_VHT40

Transfer MCS Index: 0

Operating Frequency 5310 MHz

Channel No. 62 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 53.24   | 2.59            | Н        | 55.83    | 73.98    | 18.15  | PK          |
| 5350      | 40.16   | 2.59            | Н        | 42.75    | 53.98    | 11.23  | AV          |
| 5350      | 53.79   | 2.59            | V        | 56.38    | 73.98    | 17.60  | PK          |
| 5350      | 40.44   | 2.59            | V        | 43.03    | 53.98    | 10.95  | AV          |

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Band: UNII 2A

Operation Mode: 802.11 ac\_VHT80

Transfer MCS Index: 0

Operating Frequency 5290 MHz

Channel No. 58 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | dBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5350      | 54.36   | 2.59            | Н        | 56.95    | 73.98    | 17.03  | PK          |
| 5350      | 40.85   | 2.59            | Н        | 43.44    | 53.98    | 10.54  | AV          |
| 5350      | 54.68   | 2.59            | V        | 57.27    | 73.98    | 16.71  | PK          |
| 5350      | 41.10   | 2.59            | V        | 43.69    | 53.98    | 10.29  | AV          |

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Band: UNII 2C

Operation Mode: 802.11 a

Transfer Rate: 6 Mbps

Operating Frequency 5500 MHz

Channel No. 100 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5460      | 53.15   | 3.13            | Н        | 56.28    | 73.98    | 17.70  | PK          |
| 5460      | 40.28   | 3.13            | Н        | 43.41    | 53.98    | 10.57  | AV          |
| 5470      | 55.75   | 3.40            | Н        | 59.15    | 68.20    | 9.05   | PK          |
| 5460      | 53.69   | 3.13            | V        | 56.82    | 73.98    | 17.16  | PK          |
| 5460      | 40.47   | 3.13            | V        | 43.6     | 53.98    | 10.38  | AV          |
| 5470      | 55.99   | 3.40            | V        | 59.39    | 68.20    | 8.81   | PK          |

Band: UNII 2C

Operation Mode: 802.11 n\_HT20

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5460      | 53.29   | 3.13            | Н        | 56.42    | 73.98    | 17.56  | PK          |
| 5460      | 40.52   | 3.13            | Н        | 43.65    | 53.98    | 10.33  | AV          |
| 5470      | 54.21   | 3.40            | Н        | 57.61    | 68.20    | 10.59  | PK          |
| 5460      | 53.39   | 3.13            | V        | 56.52    | 73.98    | 17.46  | PK          |
| 5460      | 40.60   | 3.13            | V        | 43.73    | 53.98    | 10.25  | AV          |
| 5470      | 54.32   | 3.40            | V        | 57.72    | 68.20    | 10.48  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac\_VHT20

Transfer MCS Index: 0

Operating Frequency 5500 MHz

Channel No. 100 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5460      | 52.98   | 3.13            | Н        | 56.11    | 73.98    | 17.87  | PK          |
| 5460      | 40.23   | 3.13            | Н        | 43.36    | 53.98    | 10.62  | AV          |
| 5470      | 54.28   | 3.40            | Н        | 57.68    | 68.20    | 10.52  | PK          |
| 5460      | 53.57   | 3.13            | V        | 56.7     | 73.98    | 17.28  | PK          |
| 5460      | 40.45   | 3.13            | V        | 43.58    | 53.98    | 10.40  | AV          |
| 5470      | 54.49   | 3.40            | V        | 57.89    | 68.20    | 10.31  | PK          |

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Band: UNII 2C

Operation Mode: 802.11 n\_HT40

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5460      | 59.33   | 5.72            | Н        | 65.05    | 73.98    | 8.93   | PK          |
| 5460      | 52.74   | 3.13            | Н        | 55.87    | 73.98    | 18.11  | PK          |
| 5460      | 40.52   | 3.13            | Н        | 43.65    | 53.98    | 10.33  | AV          |
| 5470      | 56.52   | 3.40            | Н        | 59.92    | 68.20    | 8.28   | PK          |
| 5460      | 52.90   | 3.13            | V        | 56.03    | 73.98    | 17.95  | PK          |
| 5460      | 40.70   | 3.13            | V        | 43.83    | 53.98    | 10.15  | AV          |
| 5470      | 57.05   | 3.40            | V        | 60.45    | 68.20    | 7.75   | PK          |

Band: UNII 2C

Operation Mode: 802.11 ac\_VHT40

Transfer MCS Index: 0

Operating Frequency 5510 MHz

Channel No. 102 Ch

|           |         | AN.+CL+AMP+ATT. |          |          |          |               |             |
|-----------|---------|-----------------|----------|----------|----------|---------------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin        | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dBuV/m] [dB] |             |
| 5460      | 52.98   | 3.13            | Н        | 56.11    | 73.98    | 17.87         | PK          |
| 5460      | 40.34   | 3.13            | Н        | 43.47    | 53.98    | 10.51         | AV          |
| 5470      | 56.36   | 3.40            | Н        | 59.76    | 68.20    | 8.44          | PK          |
| 5460      | 53.17   | 3.13            | V        | 56.3     | 73.98    | 17.68         | PK          |
| 5460      | 40.62   | 3.13            | V        | 43.75    | 53.98    | 10.23         | AV          |
| 5470      | 57.22   | 3.40            | V        | 60.62    | 68.20    | 7.58          | PK          |

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Band: UNII 2C

Operation Mode: 802.11 ac\_VHT80

Transfer MCS Index: 0

Operating Frequency 5530 MHz

Channel No. 106 Ch

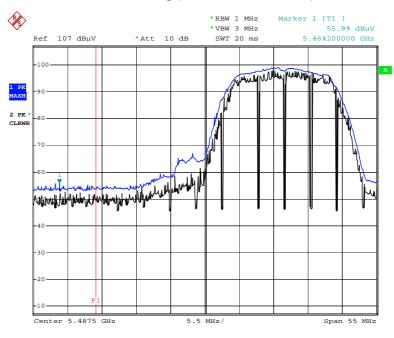
|           |         | AN.+CL+AMP+ATT. |          |          |          |        |             |
|-----------|---------|-----------------|----------|----------|----------|--------|-------------|
| Frequency | Reading | +D.F.           | ANT. POL | Total    | Limit    | Margin | Measurement |
| [MHz]     | DBuV    | [dB]            | [H/V]    | [dBuV/m] | [dBuV/m] | [dB]   | Туре        |
| 5460      | 54.86   | 3.13            | Н        | 57.99    | 73.98    | 15.99  | PK          |
| 5460      | 42.65   | 3.13            | Н        | 45.78    | 53.98    | 8.20   | AV          |
| 5470      | 56.11   | 3.40            | Н        | 59.51    | 68.20    | 8.69   | PK          |
| 5460      | 55.14   | 3.13            | V        | 58.27    | 73.98    | 15.71  | PK          |
| 5460      | 42.71   | 3.13            | V        | 45.84    | 53.98    | 8.14   | AV          |
| 5470      | 57.00   | 3.40            | V        | 60.4     | 68.20    | 7.80   | PK          |

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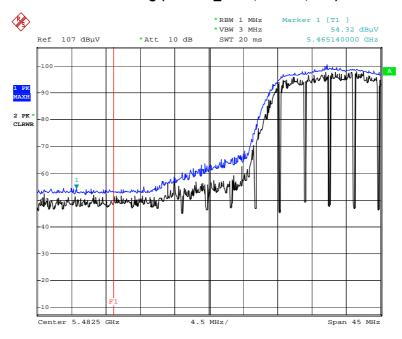
## ■ Test Plots(UNII 1, 2A, 2C)

## Peak Reading (802.11a, Ch.100, X-V)



Date: 12.NOV.2018 11:42:42

## Peak Reading (802.11n\_HT20, Ch.100, X-V)

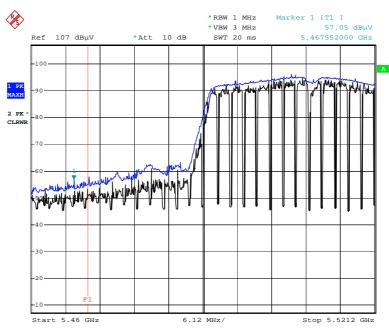


Date: 12.NOV.2018 11:47:29

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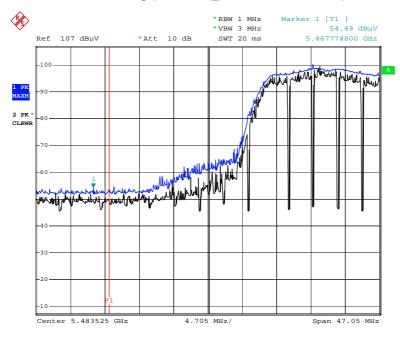


## Peak Reading (802.11n\_HT40, Ch.102, X-V)



Date: 12.NOV.2018 11:54:22

## Peak Reading (802.11ac\_VHT20, Ch.100, X-V)

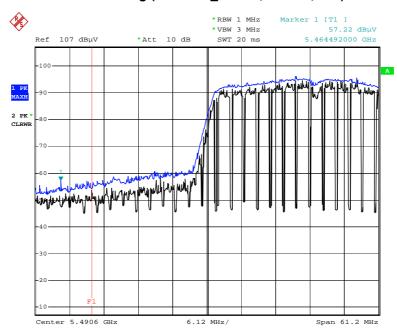


Date: 12.NOV.2018 11:48:51

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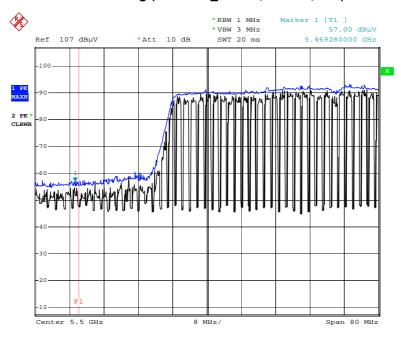


## Peak Reading (802.11ac\_VHT40, Ch.102, X-V)



Date: 12.NOV.2018 11:56:06

## Peak Reading (802.11ac\_VHT80, Ch.106, X-V)

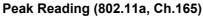


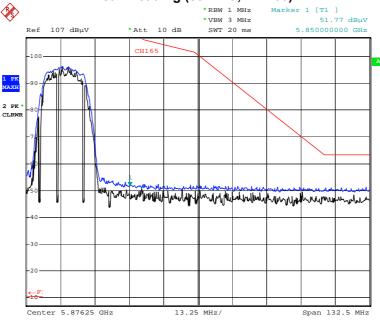
Date: 12.NOV.2018 11:59:39

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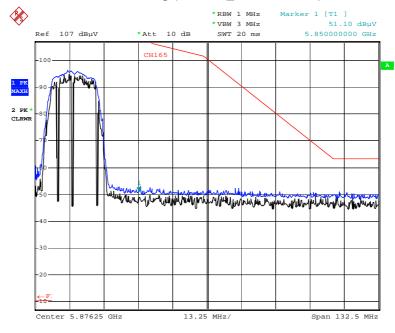
# ■ Test Plots(UNII 3)





Date: 12.NOV.2018 12:02:40

## Peak Reading (802.11n\_HT20, Ch.165)

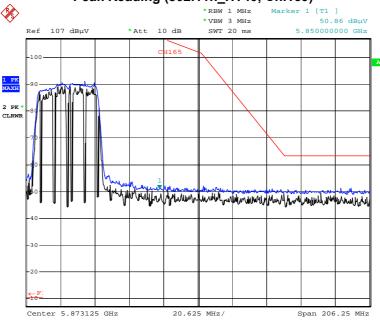


Date: 12.NOV.2018 12:03:28

F-TP22-03 (Rev.00) 1 8 8 / 193 **HCT CO.,LTD.** 

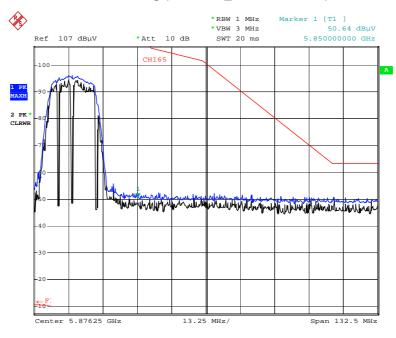






Date: 12.NOV.2018 12:09:26

# Peak Reading (802.11ac\_VHT20, Ch.165)

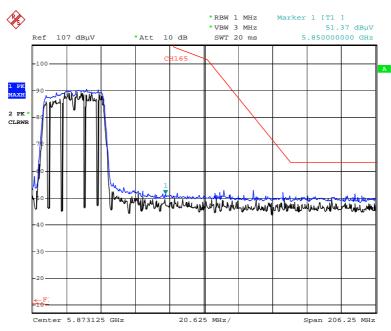


Date: 12.NOV.2018 12:03:54

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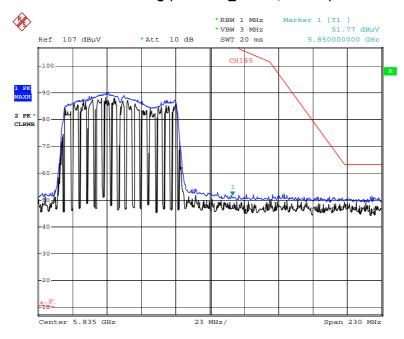


## Peak Reading (802.11ac\_VHT40, Ch.159)



Date: 12.NOV.2018 12:10:13

## Peak Reading (802.11ac\_VHT80, Ch.155)



Date: 12.NOV.2018 12:12:32

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# 11. LIST OF TEST EQUIPMENT

## **Conducted Test**

| Manufacturer    | Model / Equipment                            | Calibration<br>Date | Calibration<br>Interval | Serial No. |
|-----------------|--|---------------------|-------------------------|------------|
| Rohde & Schwarz | ENV216 / LISN                                | 12/12/2018          | Annual                  | 102245     |
| Rohde & Schwarz | ESCI / Test Receiver                         | 06/27/2018          | Annual                  | 100033     |
| ESPAC           | SU-642 /Temperature Chamber                  | 03/30/2018          | Annual                  | 0093008124 |
| Agilent         | N9020A / Signal Analyzer                     | 06/08/2018          | Annual                  | MY51110085 |
| Agilent         | N9030A / Signal Analyzer                     | 11/20/2018          | Annual                  | MY49431210 |
| Rohde & Schwarz | OSP 120 / Power Measurement Set              | 07/26/2018          | Annual                  | 101231     |
| Agilent         | N1911A / Power Meter                         | 04/16/2018          | Annual                  | MY45100523 |
| Agilent         | N1921A / Power Sensor                        | 04/16/2018          | Annual                  | MY52260025 |
| Agilent         | 87300B / Directional Coupler                 | 11/20/2018          | Annual                  | 3116A03621 |
| Hewlett Packard | 11667B / Power Splitter                      | 06/07/2018          | Annual                  | 05001      |
| Hewlett Packard | E3632A / DC Power Supply                     | 06/26/2018          | Annual                  | KR75303960 |
| Agilent         | 8493C / Attenuator(10 dB)                    | 07/10/2018          | Annual                  | 07560      |
| Rohde & Schwarz | EMC32 / Software                             | N/A                 | N/A                     | N/A        |
| HCT CO., LTD.   | FCC WLAN&BT&BLE Conducted Test Software v3.0 | N/A                 | N/A                     | N/A        |
| Rohde & Schwarz | CBT / Bluetooth Tester                       | 05/17/2018          | Annual                  | 100422     |

#### Note:

- 1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
- 2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

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# **Radiated Test**

| Manufacturer           | Model / Equipment  | Calibration | Calibration | Serial No.  |
|------------------------|--|-------------|-------------|-------------|
|                        |  | Date        | Interval    |             |
| Innco system           | CO3000 / Controller(Antenna mast)                          | N/A         | N/A         | CO3000-4p   |
| Innco system           | MA4640/800-XP-EP / Antenna Position Tower                  | N/A         | N/A         | N/A         |
| Audix                  | EM1000 / Controller  | N/A         | N/A         | 060520      |
| Audix                  | Turn Table   | N/A         | N/A         | N/A         |
| Rohde & Schwarz        | Loop Antenna   | 08/23/2018  | Biennial    | 1513-175    |
| Schwarzbeck            | VULB 9160 / Hybrid Antenna                                 | 08/09/2018  | Biennial    | 3368        |
| Schwarzbeck            | BBHA 9120D / Horn Antenna                                  | 11/21/2017  | Biennial    | 9120D-1191  |
| Schwarzbeck            | BBHA9170 /<br>Horn Antenna(15 GHz ~ 40 GHz)                | 12/04/2017  | Biennial    | BBHA9170541 |
| Rohde & Schwarz        | FSP(9 kHz ~ 30 GHz) / Spectrum Analyzer                    | 09/19/2018  | Annual      | 836650/016  |
| Rohde & Schwarz        | FSV40-N / Spectrum Analyzer                                | 09/19/2018  | Annual      | 101068-SZ   |
| Wainwright Instruments | WHKX10-2700-3000-18000-40SS / High Pass Filter             | 07/16/2018  | Annual      | 4           |
| Wainwright Instruments | WHKX8-6090-7000-18000-40SS / High Pass Filter              | 07/10/2018  | Annual      | 5           |
| Wainwright Instruments | WRCJV2400/2483.5-2370/2520-60/12SS /<br>Band Reject Filter | 06/29/2018  | Annual      | 2           |
| Wainwright Instruments | WRCJV5100/5850-40/50-8EEK /<br>Band Reject Filter          | 01/03/2019  | Annual      | 2           |
| Api tech.              | 18B-03 / Attenuator (3 dB)                                 | 06/07/2018  | Annual      | 2           |
| WEINSCHEL              | 56-10 / Attenuator(10 dB)                                  | 10/10/2018  | Annual      | 72316       |
| CERNEX                 | CBLU1183540 / Broadband Low Noise Amplifier                | 01/03/2018  | Annual      | 24613       |
| CERNEX                 | CBL06185030 / Broadband Low Noise Amplifier                | 01/03/2018  | Annual      | 24615       |
| CERNEX                 | CBL18265035 / Power Amplifier                              | 01/10/2018  | Annual      | 22966       |
| CERNEX                 | CBL26405040 / Power Amplifier                              | 06/29/2018  | Annual      | 25956       |
| TESCOM                 | TC-3000C / Bluetooth Tester                                | 03/27/2018  | Annual      | 3000C000276 |

FCC ID: TQ8-ATC40DWAN

## Note:

- 1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
- 2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

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# 12. ANNEX A\_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

| No. | Description         |
|-----|---------------------|
| 1   | HCT-RF-1902-FC001-P |
| 2   | HCT-RF-1902-FC002-P |
| 3   | HCT-RF-1902-FC003-P |
| 4   | HCT-RF-1902-FC004-P |

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