

**TXBF modes**

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$\text{DirectionalGain} = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

$N_{SS}$  = the number of independent spatial streams of data;

$N_{ANT}$  = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$  if the  $k$ th antenna is being fed by spatial stream  $j$ , or zero if it is not;  
 $G_k$  is the gain in dBi of the  $k$ th antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

|         |                 |                 | DG<br>for<br>Power | DG<br>for<br>PSD | Power<br>Limit<br>Reduction | PSD<br>Limit<br>Reduction |
|---------|-----------------|-----------------|--------------------|------------------|-----------------------------|---------------------------|
|         | Ant. 1<br>(dBi) | Ant. 2<br>(dBi) | Power<br>(dBi)     | PSD<br>(dBi)     | (dB)                        | (dB)                      |
| 2.4 GHz | 1.80            | 0.40            | 4.14               | 4.14             | 0.00                        | 0.00                      |

Power Limit Reduction = DG(Power) – 6dBi, ( min = 0 )

PSD Limit Reduction = DG(PSD) – 6dBi, ( min = 0 )



## 4 List of Measuring Equipment

| Instrument            | Manufacturer    | Model No.                | Serial No.        | Characteristics               | Calibration Date | Test Date                    | Due Date      | Remark                |
|-----------------------|-----------------|--------------------------|-------------------|-------------------------------|------------------|------------------------------|---------------|-----------------------|
| Power Meter           | Anritsu         | ML2495A                  | 1132003           | N/A                           | Aug. 16, 2018    | Apr. 10, 2019~May 03, 2019   | Aug. 15, 2019 | Conducted (TH05-HY)   |
| Power Sensor          | Anritsu         | MA2411B                  | 1126017           | 300MHz~40GHz                  | Aug. 16, 2018    | Apr. 10, 2019~May 03, 2019   | Aug. 15, 2019 | Conducted (TH05-HY)   |
| Signal Analyzer       | Rohde & Schwarz | FSV40                    | 101756            | 40GHz                         | Dec. 18, 2018    | Apr. 10, 2019~May 03, 2019   | Dec. 17, 2019 | Conducted (TH05-HY)   |
| Switch Box & RF Cable | Burgeon         | ETF-058                  | EC1208382         | N/A                           | Mar. 27, 2019    | Apr. 10, 2019~May 03, 2019   | Mar. 26, 2020 | Conducted (TH05-HY)   |
| AC Power Source       | ChainTek        | APC-1000W                | N/A               | N/A                           | N/A              | Feb. 27, 2019                | N/A           | Conduction (CO05-HY)  |
| EMI Test Receiver     | Rohde & Schwarz | ESR3                     | 102388            | 9KHz~3.6GHz                   | Nov. 12, 2018    | Feb. 27, 2019                | Nov. 11, 2019 | Conduction (CO05-HY)  |
| LISN                  | Rohde & Schwarz | ENV216                   | 100080            | 9kHz~30MHz                    | Nov. 14, 2018    | Feb. 27, 2019                | Nov. 13, 2019 | Conduction (CO05-HY)  |
| LISN                  | Rohde & Schwarz | ENV216                   | 100081            | 9kHz~30MHz                    | Nov. 09, 2018    | Feb. 27, 2019                | Nov. 08, 2019 | Conduction (CO05-HY)  |
| Software              | Rohde & Schwarz | EMC32 V10.30             | N/A               | N/A                           | N/A              | Feb. 27, 2019                | N/A           | Conduction (CO05-HY)  |
| RF Cable              | HUBER + SUHNER  | RG 214/U                 | 1358175           | 9kHz~30MHz                    | Sep. 14, 2018    | Feb. 27, 2019                | Sep. 13, 2019 | Conduction (CO05-HY)  |
| Pulse Limiter         | SCHWARZBECK     | VTSD 9561-F N            | 9561-F N00373     | 9kHz-200MHz                   | Nov. 08, 2018    | Feb. 27, 2019                | Nov. 07, 2019 | Conduction (CO05-HY)  |
| Loop Antenna          | Rohde & Schwarz | HFH2-Z2                  | 100315            | 9 kHz-30 MHz                  | Nov. 23, 2017    | Feb. 04, 2019~May 01, 2019   | Nov. 22, 2019 | Radiation (03CH16-HY) |
| Bilog Antenna         | TESEQ           | CBL6111D&0 0802N1D01N-06 | 47020&06          | 30MHz to 1GHz                 | Oct. 13, 2018    | Feb. 04, 2019~May 01, 2019   | Oct. 12, 2019 | Radiation (03CH16-HY) |
| Horn Antenna          | SCHWARZBECK     | BBHA 9120 D              | 9120D-1522        | 1G~18GHz                      | Sep. 07, 2018    | Feb. 04, 2019~May 01, 2019   | Sep. 06, 2019 | Radiation (03CH16-HY) |
| SHF-EHF Horn Antenna  | SCHWARZBECK     | BBHA 9170                | BBHA9170 576      | 18GHz ~ 40GHz                 | May 08, 2018     | Feb. 04, 2019~May 01, 2019   | May 07, 2019  | Radiation (03CH16-HY) |
| EMI Test Receiver     | Keysight        | N9038A (MXE)             | MY572901 11       | 3Hz~26.5GHz                   | Nov. 29, 2018    | Feb. 04, 2019~May 01, 2019   | Nov. 28, 2019 | Radiation (03CH16-HY) |
| Spectrum Analyzer     | Agilent         | N9010A                   | MY534701 18       | 10Hz~44GHz                    | Apr. 17, 2018    | Feb. 04, 2019~Apr. 14, 2019  | Apr. 16, 2019 | Radiation (03CH16-HY) |
| Spectrum Analyzer     | Agilent         | N9010A                   | MY534701 18       | 10Hz~44GHz                    | Apr. 18, 2019    | Apr. 26, 2019 ~ May 01, 2019 | Apr. 17, 2020 | Radiation (03CH16-HY) |
| Amplifier             | SONOMA          | 310N                     | 371607            | 9kHz~1000MHz                  | Oct. 02, 2018    | Feb. 04, 2019~May 01, 2019   | Oct. 01, 2019 | Radiation (03CH16-HY) |
| Preamplifier          | Jet-Power       | JPA0118-55-3 03          | 171000180 0054001 | 1GHz~18GHz                    | Apr. 16, 2018    | Feb. 04, 2019~Apr. 14, 2019  | Apr. 15, 2019 | Radiation (03CH16-HY) |
| Preamplifier          | Jet-Power       | JPA0118-55-3 03          | 171000180 0054001 | 1GHz~18GHz                    | Apr. 25, 2019    | Apr. 26, 2019 ~ May 01, 2019 | Apr. 24, 2020 | Radiation (03CH16-HY) |
| Preamplifier          | Keysight        | 83017A                   | MY532702 64       | 1GHz~26.5GHz                  | Dec. 12, 2018    | Feb. 04, 2019~May 01, 2019   | Dec. 11, 2019 | Radiation (03CH16-HY) |
| Amplifier             | MITEQ           | TTA1840-35-HG            | 1871923           | 18GHz~40GHz, VSWR : 2.5:1 max | Jul. 16, 2018    | Feb. 04, 2019~May 01, 2019   | Jul. 15, 2019 | Radiation (03CH16-HY) |

**FCC RADIO TEST REPORT**

Report No. : FR912813B

| Instrument | Manufacturer   | Model No.         | Serial No. | Characteristics | Calibration Date | Test Date                   | Due Date | Remark                |
|------------|----------------|-------------------|------------|-----------------|------------------|-----------------------------|----------|-----------------------|
| RF Cable   | HUBER + SUHNER | SUCOFLEX 126E     | 0058/126E  | 30M-18G         | N/A              | Feb. 04, 2019~ May 01, 2019 | N/A      | Radiation (03CH16-HY) |
| RF Cable   | HUBER + SUHNER | SUCOFLEX 104      | MY15539/4  | 30M-18G         | N/A              | Feb. 04, 2019~ May 01, 2019 | N/A      | Radiation (03CH16-HY) |
| RF Cable   | HUBER + SUHNER | SUCOFLEX 104      | MY36979/4  | 30M~18GHz       | N/A              | Feb. 04, 2019~ May 01, 2019 | N/A      | Radiation (03CH16-HY) |
| Software   | Audix          | E3<br>6.2009-8-24 | RK-001136  | N/A             | N/A              | Feb. 04, 2019~ May 01, 2019 | N/A      | Radiation (03CH16-HY) |



## 5 Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2U_{C(y)}$ ) | 2.20 |
|---|------|

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2U_{C(y)}$ ) | 4.90 |
|---|------|

### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2U_{C(y)}$ ) | 5.80 |
|---|------|

### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence<br>of 95% ( $U = 2U_{C(y)}$ ) | 3.90 |
|---|------|

## Appendix A. Test Result of Conducted Test Items

<CDD Mode>

|                |                  |                    |       |    |
|----------------|------------------|--------------------|-------|----|
| Test Engineer: | Eason Huang      | Temperature:       | 21~25 | °C |
| Test Date:     | 2019/04/10~05/03 | Relative Humidity: | 51~54 | %  |

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| 2.4GHz Band |           |                 |     |             |                       |       |              |       |                    |           |
|-------------|-----------|-----------------|-----|-------------|-----------------------|-------|--------------|-------|--------------------|-----------|
| Mod.        | Data Rate | N <sub>TX</sub> | CH. | Freq. (MHz) | 99% Occupied BW (MHz) |       | 6dB BW (MHz) |       | 6dB BW Limit (MHz) | Pass/Fail |
|             |           |                 |     |             | Ant 1                 | Ant 2 | Ant 1        | Ant 2 |                    |           |
| 11b         | 1Mbps     | 1               | 1   | 2412        | 9.54                  | -     | 6.05         | -     | 0.50               | Pass      |
| 11b         | 1Mbps     | 1               | 6   | 2437        | 10.04                 | -     | 6.53         | -     | 0.50               | Pass      |
| 11b         | 1Mbps     | 1               | 11  | 2462        | 10.04                 | -     | 6.55         | -     | 0.50               | Pass      |
| 11g         | 6Mbps     | 1               | 1   | 2412        | 16.93                 | -     | 16.32        | -     | 0.50               | Pass      |
| 11g         | 6Mbps     | 1               | 6   | 2437        | 17.48                 | -     | 16.28        | -     | 0.50               | Pass      |
| 11g         | 6Mbps     | 1               | 11  | 2462        | 16.93                 | -     | 16.30        | -     | 0.50               | Pass      |
| VHT20       | MCS0      | 1               | 1   | 2412        | 18.03                 | -     | 17.54        | -     | 0.50               | Pass      |
| VHT20       | MCS0      | 1               | 6   | 2437        | 18.48                 | -     | 17.28        | -     | 0.50               | Pass      |
| VHT20       | MCS0      | 1               | 11  | 2462        | 18.03                 | -     | 17.54        | -     | 0.50               | Pass      |
| VHT40       | MCS0      | 1               | 3   | 2422        | 36.66                 | -     | 36.04        | -     | 0.50               | Pass      |
| VHT40       | MCS0      | 1               | 6   | 2437        | 36.66                 | -     | 36.08        | -     | 0.50               | Pass      |
| VHT40       | MCS0      | 1               | 9   | 2452        | 36.86                 | -     | 36.08        | -     | 0.50               | Pass      |
| 11b         | 1Mbps     | 2               | 1   | 2412        | 9.59                  | 11.89 | 6.05         | 5.59  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2               | 6   | 2437        | 10.04                 | 10.04 | 6.05         | 6.05  | 0.50               | Pass      |
| 11b         | 1Mbps     | 2               | 11  | 2462        | 9.69                  | 9.74  | 6.07         | 7.07  | 0.50               | Pass      |
| 11g         | 6Mbps     | 2               | 1   | 2412        | 16.88                 | 16.78 | 16.30        | 16.34 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2               | 6   | 2437        | 17.48                 | 17.08 | 16.30        | 16.32 | 0.50               | Pass      |
| 11g         | 6Mbps     | 2               | 11  | 2462        | 16.88                 | 16.88 | 16.32        | 16.34 | 0.50               | Pass      |
| VHT20       | MCS0      | 2               | 1   | 2412        | 17.08                 | 17.63 | 15.17        | 15.58 | 0.50               | Pass      |
| VHT20       | MCS0      | 2               | 6   | 2437        | 17.28                 | 17.63 | 15.17        | 15.56 | 0.50               | Pass      |
| VHT20       | MCS0      | 2               | 11  | 2462        | 17.13                 | 17.58 | 15.17        | 15.58 | 0.50               | Pass      |
| VHT40       | MCS0      | 2               | 3   | 2422        | 36.46                 | 36.36 | 35.60        | 35.13 | 0.50               | Pass      |
| VHT40       | MCS0      | 2               | 6   | 2437        | 36.46                 | 36.36 | 35.17        | 35.13 | 0.50               | Pass      |
| VHT40       | MCS0      | 2               | 9   | 2452        | 36.46                 | 36.36 | 35.60        | 35.17 | 0.50               | Pass      |

**TEST RESULTS DATA**  
**Peak Power Spectral Density**

| 2.4GHz Band |           |     |     |             |                     |        |              |          |       |                           |       |           |
|-------------|-----------|-----|-----|-------------|---------------------|--------|--------------|----------|-------|---------------------------|-------|-----------|
| Mod.        | Data Rate | Ntx | CH. | Freq. (MHz) | Peak PSD (dBm/3kHz) |        |              | DG (dBi) |       | Peak PSD Limit (dBm/3kHz) |       | Pass/Fail |
|             |           |     |     |             | Ant 1               | Ant 2  | Worse + 3.01 | Ant 1    | Ant 2 | Ant 1                     | Ant 2 |           |
| 11b         | 1Mbps     | 1   | 1   | 2412        | -2.95               | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11b         | 1Mbps     | 1   | 6   | 2437        | 0.28                | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11b         | 1Mbps     | 1   | 11  | 2462        | 1.57                | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11g         | 6Mbps     | 1   | 1   | 2412        | -9.35               | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11g         | 6Mbps     | 1   | 6   | 2437        | -3.62               | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11g         | 6Mbps     | 1   | 11  | 2462        | -9.36               | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT20       | MCS0      | 1   | 1   | 2412        | -12.47              | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT20       | MCS0      | 1   | 6   | 2437        | -4.07               | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT20       | MCS0      | 1   | 11  | 2462        | -10.06              | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT40       | MCS0      | 1   | 3   | 2422        | -15.89              | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT40       | MCS0      | 1   | 6   | 2437        | -13.08              | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| VHT40       | MCS0      | 1   | 9   | 2452        | -13.29              | -      | -            | 1.80     | 0.40  | 8.00                      | 8.00  | Pass      |
| 11b         | 1Mbps     | 2   | 1   | 2412        | -3.00               | 2.19   | 5.20         | 4.14     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 6   | 2437        | -0.04               | 0.05   | 3.06         | 4.14     |       | 8.00                      |       | Pass      |
| 11b         | 1Mbps     | 2   | 11  | 2462        | -0.64               | -1.21  | 2.37         | 4.14     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 1   | 2412        | -11.26              | -10.25 | -7.24        | 4.14     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 6   | 2437        | -3.85               | -5.07  | -0.84        | 4.14     |       | 8.00                      |       | Pass      |
| 11g         | 6Mbps     | 2   | 11  | 2462        | -11.02              | -10.90 | -7.89        | 4.14     |       | 8.00                      |       | Pass      |
| VHT20       | MCS0      | 2   | 1   | 2412        | -14.02              | -10.07 | -7.06        | 4.14     |       | 8.00                      |       | Pass      |
| VHT20       | MCS0      | 2   | 6   | 2437        | -8.07               | -6.52  | -3.51        | 4.14     |       | 8.00                      |       | Pass      |
| VHT20       | MCS0      | 2   | 11  | 2462        | -12.41              | -9.56  | -6.55        | 4.14     |       | 8.00                      |       | Pass      |
| VHT40       | MCS0      | 2   | 3   | 2422        | -20.96              | -17.73 | -14.72       | 4.14     |       | 8.00                      |       | Pass      |
| VHT40       | MCS0      | 2   | 6   | 2437        | -17.75              | -15.13 | -12.12       | 4.14     |       | 8.00                      |       | Pass      |
| VHT40       | MCS0      | 2   | 9   | 2452        | -19.82              | -17.16 | -14.15       | 4.14     |       | 8.00                      |       | Pass      |

Measured power density (dBm) has offset with cable loss.

**TEST RESULTS DATA**  
**Average Output Power**

| Mod.  | Data Rate | Ntx | CH. | Freq. (MHz) | Average Conducted Power (dBm) |       |       | Conducted Power Limit (dBm) |       | DG (dBi) |       | EIRP Power (dBm) |       | EIRP Power Limit (dBm) |       | Pass /Fail |
|-------|-----------|-----|-----|-------------|-------------------------------|-------|-------|-----------------------------|-------|----------|-------|------------------|-------|------------------------|-------|------------|
|       |           |     |     |             | Ant 1                         | Ant 2 | SUM   | Ant 1                       | Ant 2 | Ant 1    | Ant 2 | Ant 1            | Ant 2 | Ant 1                  | Ant 2 |            |
| 11b   | 1Mbps     | 1   | 1   | 2412        | 18.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 20.30            | -     | 36.00                  | -     | Pass       |
| 11b   | 1Mbps     | 1   | 6   | 2437        | 22.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 24.30            | -     | 36.00                  | -     | Pass       |
| 11b   | 1Mbps     | 1   | 11  | 2462        | 22.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 24.30            | -     | 36.00                  | -     | Pass       |
| 11g   | 6Mbps     | 1   | 1   | 2412        | 15.70                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.50            | -     | 36.00                  | -     | Pass       |
| 11g   | 6Mbps     | 1   | 6   | 2437        | 20.60                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 22.40            | -     | 36.00                  | -     | Pass       |
| 11g   | 6Mbps     | 1   | 11  | 2462        | 15.60                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.40            | -     | 36.00                  | -     | Pass       |
| HT20  | MCS0      | 1   | 1   | 2412        | 13.90                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 15.70            | -     | 36.00                  | -     | Pass       |
| HT20  | MCS0      | 1   | 6   | 2437        | 21.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 23.30            | -     | 36.00                  | -     | Pass       |
| HT20  | MCS0      | 1   | 11  | 2462        | 15.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.30            | -     | 36.00                  | -     | Pass       |
| HT40  | MCS0      | 1   | 3   | 2422        | 12.50                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 14.30            | -     | 36.00                  | -     | Pass       |
| HT40  | MCS0      | 1   | 6   | 2437        | 15.90                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.70            | -     | 36.00                  | -     | Pass       |
| HT40  | MCS0      | 1   | 9   | 2452        | 14.80                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 16.60            | -     | 36.00                  | -     | Pass       |
| VHT20 | MCS0      | 1   | 1   | 2412        | 14.00                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 15.80            | -     | 36.00                  | -     | Pass       |
| VHT20 | MCS0      | 1   | 6   | 2437        | 21.60                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 23.40            | -     | 36.00                  | -     | Pass       |
| VHT20 | MCS0      | 1   | 11  | 2462        | 15.60                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.40            | -     | 36.00                  | -     | Pass       |
| VHT40 | MCS0      | 1   | 3   | 2422        | 12.60                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 14.40            | -     | 36.00                  | -     | Pass       |
| VHT40 | MCS0      | 1   | 6   | 2437        | 16.00                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 17.80            | -     | 36.00                  | -     | Pass       |
| VHT40 | MCS0      | 1   | 9   | 2452        | 14.90                         | -     |       | 30.00                       | -     | 1.80     | 0.40  | 16.70            | -     | 36.00                  | -     | Pass       |
| 11b   | 1Mbps     | 2   | 1   | 2412        | 19.20                         | 19.70 | 22.47 | 30.00                       |       | 1.80     |       | 24.27            |       | 36.00                  |       | Pass       |
| 11b   | 1Mbps     | 2   | 6   | 2437        | 22.30                         | 22.60 | 25.46 | 30.00                       |       | 1.80     |       | 27.26            |       | 36.00                  |       | Pass       |
| 11b   | 1Mbps     | 2   | 11  | 2462        | 20.50                         | 20.70 | 23.61 | 30.00                       |       | 1.80     |       | 25.41            |       | 36.00                  |       | Pass       |
| 11g   | 6Mbps     | 2   | 1   | 2412        | 14.70                         | 15.30 | 18.02 | 30.00                       |       | 1.80     |       | 19.82            |       | 36.00                  |       | Pass       |
| 11g   | 6Mbps     | 2   | 6   | 2437        | 21.40                         | 20.60 | 24.03 | 30.00                       |       | 1.80     |       | 25.83            |       | 36.00                  |       | Pass       |
| 11g   | 6Mbps     | 2   | 11  | 2462        | 15.40                         | 15.10 | 18.26 | 30.00                       |       | 1.80     |       | 20.06            |       | 36.00                  |       | Pass       |
| HT20  | MCS0      | 2   | 1   | 2412        | 12.40                         | 12.80 | 15.61 | 30.00                       |       | 1.80     |       | 17.41            |       | 36.00                  |       | Pass       |
| HT20  | MCS0      | 2   | 6   | 2437        | 21.20                         | 21.60 | 24.41 | 30.00                       |       | 1.80     |       | 26.21            |       | 36.00                  |       | Pass       |
| HT20  | MCS0      | 2   | 11  | 2462        | 14.00                         | 13.80 | 16.91 | 30.00                       |       | 1.80     |       | 18.71            |       | 36.00                  |       | Pass       |
| HT40  | MCS0      | 2   | 3   | 2422        | 11.50                         | 11.80 | 14.66 | 30.00                       |       | 1.80     |       | 16.46            |       | 36.00                  |       | Pass       |
| HT40  | MCS0      | 2   | 6   | 2437        | 15.50                         | 15.90 | 18.71 | 30.00                       |       | 1.80     |       | 20.51            |       | 36.00                  |       | Pass       |
| HT40  | MCS0      | 2   | 9   | 2452        | 14.10                         | 13.60 | 16.87 | 30.00                       |       | 1.80     |       | 18.67            |       | 36.00                  |       | Pass       |
| VHT20 | MCS0      | 2   | 1   | 2412        | 12.50                         | 13.00 | 15.77 | 30.00                       |       | 1.80     |       | 17.57            |       | 36.00                  |       | Pass       |
| VHT20 | MCS0      | 2   | 6   | 2437        | 21.40                         | 21.70 | 24.56 | 30.00                       |       | 1.80     |       | 26.36            |       | 36.00                  |       | Pass       |
| VHT20 | MCS0      | 2   | 11  | 2462        | 14.10                         | 13.90 | 17.01 | 30.00                       |       | 1.80     |       | 18.81            |       | 36.00                  |       | Pass       |
| VHT40 | MCS0      | 2   | 3   | 2422        | 11.60                         | 11.90 | 14.76 | 30.00                       |       | 1.80     |       | 16.56            |       | 36.00                  |       | Pass       |
| VHT40 | MCS0      | 2   | 6   | 2437        | 15.60                         | 16.00 | 18.81 | 30.00                       |       | 1.80     |       | 20.61            |       | 36.00                  |       | Pass       |
| VHT40 | MCS0      | 2   | 9   | 2452        | 14.20                         | 13.80 | 17.01 | 30.00                       |       | 1.80     |       | 18.81            |       | 36.00                  |       | Pass       |

Note: Measured power (dBm) has offset with cable loss.

**<TXBF Mode>**

|                |                       |                    |       |    |
|----------------|-----------------------|--------------------|-------|----|
| Test Engineer: | Eason Huang           | Temperature:       | 21~25 | °C |
| Test Date:     | 2019/04/11~2019/04/15 | Relative Humidity: | 51~54 | %  |

**TEST RESULTS DATA**  
**6dB and 99% Occupied Bandwidth**

| 2.4GHz Band |           |                 |     |                |                          |       |                 |       |                       |           |
|-------------|-----------|-----------------|-----|----------------|--------------------------|-------|-----------------|-------|-----------------------|-----------|
| Mod.        | Data Rate | N <sub>TX</sub> | CH. | Freq.<br>(MHz) | 99% Occupied BW<br>(MHz) |       | 6dB BW<br>(MHz) |       | 6dB BW Limit<br>(MHz) | Pass/Fail |
|             |           |                 |     |                | Ant 1                    | Ant 2 | Ant 1           | Ant 2 |                       |           |
| VHT20       | MCS0      | 2               | 1   | 2412           | 17.88                    | 17.93 | 17.68           | 17.76 | 0.50                  | Pass      |
| VHT20       | MCS0      | 2               | 6   | 2437           | 18.18                    | 18.43 | 17.72           | 17.68 | 0.50                  | Pass      |
| VHT20       | MCS0      | 2               | 11  | 2462           | 17.88                    | 17.88 | 17.66           | 17.70 | 0.50                  | Pass      |
| VHT40       | MCS0      | 2               | 3   | 2422           | 36.46                    | 36.36 | 35.17           | 35.17 | 0.50                  | Pass      |
| VHT40       | MCS0      | 2               | 6   | 2437           | 36.46                    | 36.46 | 35.13           | 35.13 | 0.50                  | Pass      |
| VHT40       | MCS0      | 2               | 9   | 2452           | 36.56                    | 36.46 | 35.17           | 35.17 | 0.50                  | Pass      |

**TEST RESULTS DATA**  
**Peak Power Spectral Density**

| 2.4GHz Band |           |                 |     |                |                        |        |                 |             |       |                                 |       |           |
|-------------|-----------|-----------------|-----|----------------|------------------------|--------|-----------------|-------------|-------|---------------------------------|-------|-----------|
| Mod.        | Data Rate | N <sub>TX</sub> | CH. | Freq.<br>(MHz) | Peak PSD<br>(dBm/3kHz) |        |                 | DG<br>(dBi) |       | Peak PSD<br>Limit<br>(dBm/3kHz) |       | Pass/Fail |
|             |           |                 |     |                | Ant 1                  | Ant 2  | Worse +<br>3.01 | Ant 1       | Ant 2 | Ant 1                           | Ant 2 |           |
| VHT20       | MCS0      | 2               | 1   | 2412           | -11.88                 | -11.76 | -8.75           | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |
| VHT20       | MCS0      | 2               | 6   | 2437           | -5.10                  | -3.86  | -0.85           | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |
| VHT20       | MCS0      | 2               | 11  | 2462           | -11.19                 | -8.58  | -5.57           | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |
| VHT40       | MCS0      | 2               | 3   | 2422           | -17.51                 | -14.32 | -11.31          | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |
| VHT40       | MCS0      | 2               | 6   | 2437           | -14.16                 | -12.11 | -9.10           | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |
| VHT40       | MCS0      | 2               | 9   | 2452           | -15.53                 | -12.63 | -9.62           | 4.14        | 4.14  | 8.00                            | 8.00  | Pass      |

Measured power density (dBm) has offset with cable loss.

**TEST RESULTS DATA**  
**Average Output Power**

| 2.4GHz Band |           |                 |     |             |                               |       |       |                             |       |          |       |                  |       |                        |       |            |
|-------------|-----------|-----------------|-----|-------------|-------------------------------|-------|-------|-----------------------------|-------|----------|-------|------------------|-------|------------------------|-------|------------|
| Mod.        | Data Rate | N <sub>Tx</sub> | CH. | Freq. (MHz) | Average Conducted Power (dBm) |       |       | Conducted Power Limit (dBm) |       | DG (dBi) |       | EIRP Power (dBm) |       | EIRP Power Limit (dBm) |       | Pass /Fail |
|             |           |                 |     |             | Ant 1                         | Ant 2 | SUM   | Ant 1                       | Ant 2 | Ant 1    | Ant 2 | Ant 1            | Ant 2 | Ant 1                  | Ant 2 |            |
| HT20        | MCS0      | 2               | 1   | 2412        | 16.00                         | 15.70 | 18.86 | 30.00                       | 30.00 | 4.14     | 23.00 | 36.00            | 36.00 | Pass                   |       |            |
| HT20        | MCS0      | 2               | 6   | 2437        | 21.00                         | 21.60 | 24.32 | 30.00                       | 30.00 | 4.14     | 28.46 | 36.00            | 36.00 | Pass                   |       |            |
| HT20        | MCS0      | 2               | 11  | 2462        | 16.10                         | 15.60 | 18.87 | 30.00                       | 30.00 | 4.14     | 23.01 | 36.00            | 36.00 | Pass                   |       |            |
| HT40        | MCS0      | 2               | 3   | 2422        | 10.30                         | 10.80 | 13.57 | 30.00                       | 30.00 | 4.14     | 17.71 | 36.00            | 36.00 | Pass                   |       |            |
| HT40        | MCS0      | 2               | 6   | 2437        | 13.10                         | 13.90 | 16.53 | 30.00                       | 30.00 | 4.14     | 20.67 | 36.00            | 36.00 | Pass                   |       |            |
| HT40        | MCS0      | 2               | 9   | 2452        | 13.90                         | 14.60 | 17.27 | 30.00                       | 30.00 | 4.14     | 21.41 | 36.00            | 36.00 | Pass                   |       |            |
| VHT20       | MCS0      | 2               | 1   | 2412        | 16.20                         | 15.90 | 19.06 | 30.00                       | 30.00 | 4.14     | 23.20 | 36.00            | 36.00 | Pass                   |       |            |
| VHT20       | MCS0      | 2               | 6   | 2437        | 21.30                         | 21.90 | 24.62 | 30.00                       | 30.00 | 4.14     | 28.76 | 36.00            | 36.00 | Pass                   |       |            |
| VHT20       | MCS0      | 2               | 11  | 2462        | 16.30                         | 15.80 | 19.07 | 30.00                       | 30.00 | 4.14     | 23.21 | 36.00            | 36.00 | Pass                   |       |            |
| VHT40       | MCS0      | 2               | 3   | 2422        | 10.50                         | 11.00 | 13.77 | 30.00                       | 30.00 | 4.14     | 17.91 | 36.00            | 36.00 | Pass                   |       |            |
| VHT40       | MCS0      | 2               | 6   | 2437        | 13.30                         | 14.00 | 16.67 | 30.00                       | 30.00 | 4.14     | 20.81 | 36.00            | 36.00 | Pass                   |       |            |
| VHT40       | MCS0      | 2               | 9   | 2452        | 14.10                         | 14.70 | 17.42 | 30.00                       | 30.00 | 4.14     | 21.56 | 36.00            | 36.00 | Pass                   |       |            |

Note: Measured power (dBm) has offset with cable loss.



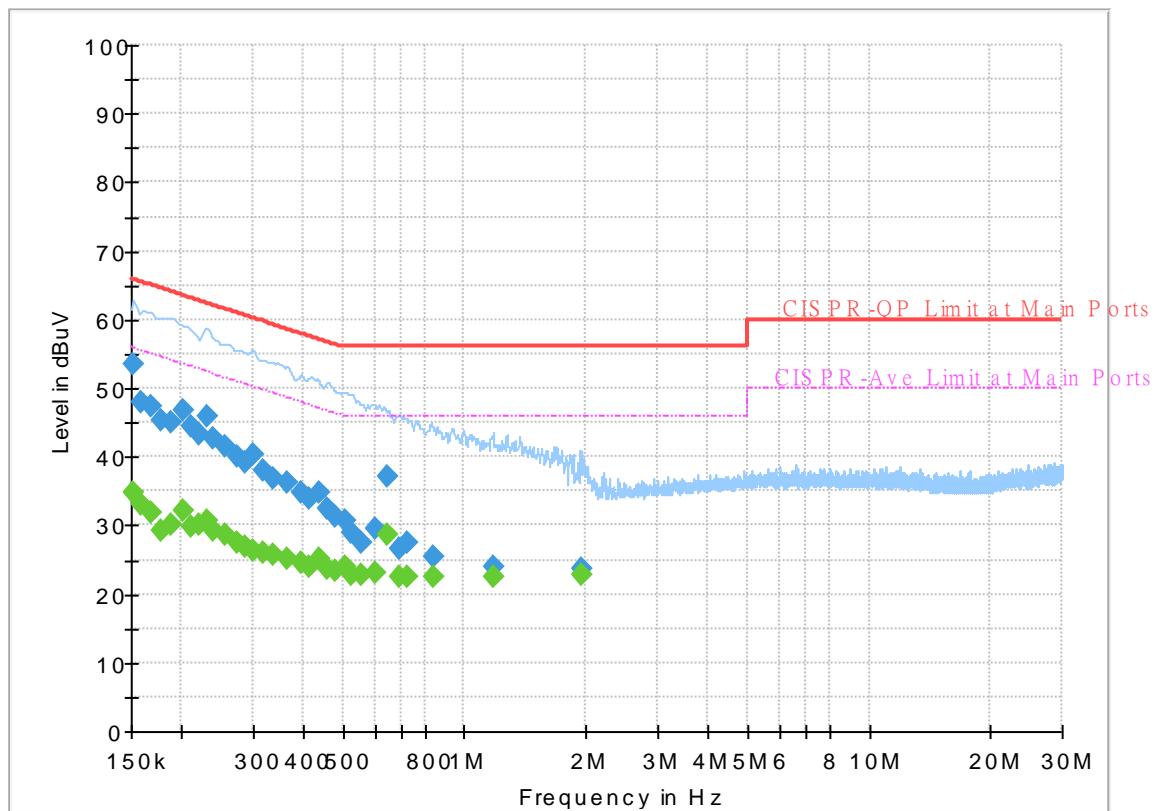
## Appendix B. AC Conducted Emission Test Results

|                        |          |                            |         |
|------------------------|----------|----------------------------|---------|
| <b>Test Engineer :</b> | Rick Lin | <b>Temperature :</b>       | 25~26°C |
|                        |          | <b>Relative Humidity :</b> | 52~54%  |

## EUT Information

Report NO : 912813  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Line

Full Spectrum



## Final Result

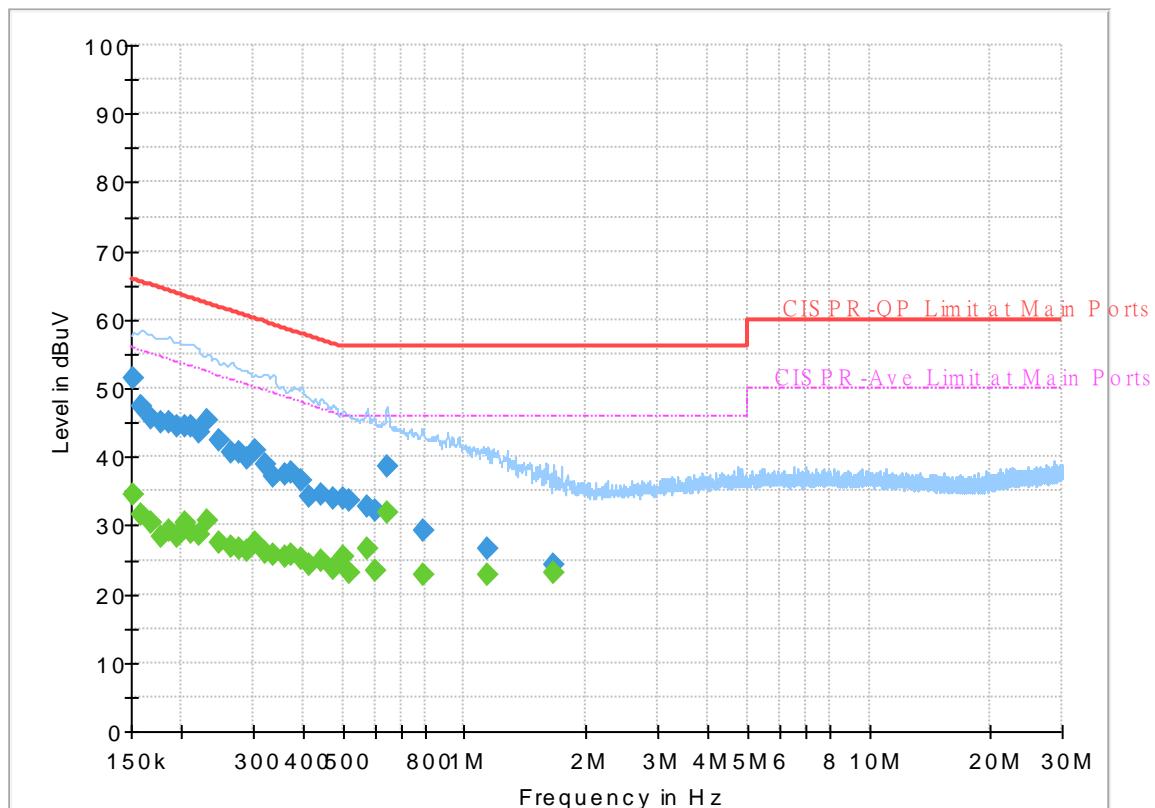
| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.152250        | ---              | 34.86           | 55.88        | 21.02       | L1   | OFF    | 19.5       |
| 0.152250        | 53.44            | ---             | 65.88        | 12.44       | L1   | OFF    | 19.5       |
| 0.159000        | ---              | 33.06           | 55.52        | 22.46       | L1   | OFF    | 19.5       |
| 0.159000        | 48.07            | ---             | 65.52        | 17.45       | L1   | OFF    | 19.5       |
| 0.168000        | ---              | 31.94           | 55.06        | 23.12       | L1   | OFF    | 19.5       |
| 0.168000        | 47.28            | ---             | 65.06        | 17.78       | L1   | OFF    | 19.5       |
| 0.177000        | ---              | 29.36           | 54.63        | 25.27       | L1   | OFF    | 19.5       |
| 0.177000        | 45.38            | ---             | 64.63        | 19.25       | L1   | OFF    | 19.5       |
| 0.188250        | ---              | 30.17           | 54.11        | 23.94       | L1   | OFF    | 19.5       |
| 0.188250        | 45.14            | ---             | 64.11        | 18.97       | L1   | OFF    | 19.5       |
| 0.201750        | ---              | 32.11           | 53.54        | 21.43       | L1   | OFF    | 19.5       |
| 0.201750        | 46.70            | ---             | 63.54        | 16.84       | L1   | OFF    | 19.5       |
| 0.210750        | ---              | 29.92           | 53.18        | 23.26       | L1   | OFF    | 19.5       |
| 0.210750        | 44.36            | ---             | 63.18        | 18.82       | L1   | OFF    | 19.5       |
| 0.219750        | ---              | 30.22           | 52.83        | 22.61       | L1   | OFF    | 19.5       |
| 0.219750        | 43.38            | ---             | 62.83        | 19.45       | L1   | OFF    | 19.5       |
| 0.231000        | ---              | 30.59           | 52.41        | 21.82       | L1   | OFF    | 19.5       |
| 0.231000        | 45.92            | ---             | 62.41        | 16.49       | L1   | OFF    | 19.5       |
| 0.240000        | ---              | 29.21           | 52.10        | 22.89       | L1   | OFF    | 19.5       |
| 0.240000        | 42.70            | ---             | 62.10        | 19.40       | L1   | OFF    | 19.5       |
| 0.255750        | ---              | 28.58           | 51.57        | 22.99       | L1   | OFF    | 19.5       |

|          |       |       |       |       |    |     |      |
|----------|-------|-------|-------|-------|----|-----|------|
| 0.255750 | 41.55 | ---   | 61.57 | 20.02 | L1 | OFF | 19.5 |
| 0.273750 | ---   | 27.46 | 51.00 | 23.54 | L1 | OFF | 19.5 |
| 0.273750 | 39.92 | ---   | 61.00 | 21.08 | L1 | OFF | 19.5 |
| 0.287250 | ---   | 26.79 | 50.60 | 23.81 | L1 | OFF | 19.5 |
| 0.287250 | 39.32 | ---   | 60.60 | 21.28 | L1 | OFF | 19.5 |
| 0.300750 | ---   | 26.43 | 50.22 | 23.79 | L1 | OFF | 19.5 |
| 0.300750 | 40.39 | ---   | 60.22 | 19.83 | L1 | OFF | 19.5 |
| 0.316500 | ---   | 26.08 | 49.80 | 23.72 | L1 | OFF | 19.5 |
| 0.316500 | 37.98 | ---   | 59.80 | 21.82 | L1 | OFF | 19.5 |
| 0.336750 | ---   | 25.77 | 49.28 | 23.51 | L1 | OFF | 19.5 |
| 0.336750 | 36.72 | ---   | 59.28 | 22.56 | L1 | OFF | 19.5 |
| 0.363750 | ---   | 25.14 | 48.64 | 23.50 | L1 | OFF | 19.5 |
| 0.363750 | 36.17 | ---   | 58.64 | 22.47 | L1 | OFF | 19.5 |
| 0.393000 | ---   | 24.67 | 48.00 | 23.33 | L1 | OFF | 19.5 |
| 0.393000 | 34.76 | ---   | 58.00 | 23.24 | L1 | OFF | 19.5 |
| 0.415500 | ---   | 23.95 | 47.54 | 23.59 | L1 | OFF | 19.5 |
| 0.415500 | 33.92 | ---   | 57.54 | 23.62 | L1 | OFF | 19.5 |
| 0.438000 | ---   | 25.00 | 47.10 | 22.10 | L1 | OFF | 19.5 |
| 0.438000 | 34.78 | ---   | 57.10 | 22.32 | L1 | OFF | 19.5 |
| 0.458250 | ---   | 23.67 | 46.72 | 23.05 | L1 | OFF | 19.5 |
| 0.458250 | 32.44 | ---   | 56.72 | 24.28 | L1 | OFF | 19.5 |
| 0.480750 | ---   | 23.32 | 46.33 | 23.01 | L1 | OFF | 19.5 |
| 0.480750 | 31.16 | ---   | 56.33 | 25.17 | L1 | OFF | 19.5 |
| 0.505500 | ---   | 24.04 | 46.00 | 21.96 | L1 | OFF | 19.5 |
| 0.505500 | 30.70 | ---   | 56.00 | 25.30 | L1 | OFF | 19.5 |
| 0.528000 | ---   | 22.73 | 46.00 | 23.27 | L1 | OFF | 19.5 |
| 0.528000 | 28.87 | ---   | 56.00 | 27.13 | L1 | OFF | 19.5 |
| 0.557250 | ---   | 22.88 | 46.00 | 23.12 | L1 | OFF | 19.5 |
| 0.557250 | 27.51 | ---   | 56.00 | 28.49 | L1 | OFF | 19.5 |
| 0.602250 | ---   | 23.17 | 46.00 | 22.83 | L1 | OFF | 19.6 |
| 0.602250 | 29.67 | ---   | 56.00 | 26.33 | L1 | OFF | 19.6 |
| 0.645000 | ---   | 28.52 | 46.00 | 17.48 | L1 | OFF | 19.6 |
| 0.645000 | 37.14 | ---   | 56.00 | 18.86 | L1 | OFF | 19.6 |
| 0.692250 | ---   | 22.66 | 46.00 | 23.34 | L1 | OFF | 19.6 |
| 0.692250 | 26.60 | ---   | 56.00 | 29.40 | L1 | OFF | 19.6 |
| 0.719250 | ---   | 22.64 | 46.00 | 23.36 | L1 | OFF | 19.6 |
| 0.719250 | 27.35 | ---   | 56.00 | 28.65 | L1 | OFF | 19.6 |
| 0.834000 | ---   | 22.55 | 46.00 | 23.45 | L1 | OFF | 19.6 |
| 0.834000 | 25.35 | ---   | 56.00 | 30.65 | L1 | OFF | 19.6 |
| 1.176000 | ---   | 22.42 | 46.00 | 23.58 | L1 | OFF | 19.6 |
| 1.176000 | 23.93 | ---   | 56.00 | 32.07 | L1 | OFF | 19.6 |
| 1.938750 | ---   | 22.84 | 46.00 | 23.16 | L1 | OFF | 19.6 |
| 1.938750 | 23.64 | ---   | 56.00 | 32.36 | L1 | OFF | 19.6 |

## EUT Information

Report NO : 912813  
 Test Mode : Mode 1  
 Test Voltage : 120Vac/60Hz  
 Phase : Neutral

Full Spectrum



## Final Result

| Frequency (MHz) | QuasiPeak (dBuV) | CAverage (dBuV) | Limit (dBuV) | Margin (dB) | Line | Filter | Corr. (dB) |
|-----------------|------------------|-----------------|--------------|-------------|------|--------|------------|
| 0.152250        | ---              | 34.59           | 55.88        | 21.29       | N    | OFF    | 19.5       |
| 0.152250        | 51.55            | ---             | 65.88        | 14.33       | N    | OFF    | 19.5       |
| 0.159000        | ---              | 31.50           | 55.52        | 24.02       | N    | OFF    | 19.5       |
| 0.159000        | 47.39            | ---             | 65.52        | 18.13       | N    | OFF    | 19.5       |
| 0.168000        | ---              | 30.46           | 55.06        | 24.60       | N    | OFF    | 19.5       |
| 0.168000        | 45.61            | ---             | 65.06        | 19.45       | N    | OFF    | 19.5       |
| 0.177000        | ---              | 28.38           | 54.63        | 26.25       | N    | OFF    | 19.5       |
| 0.177000        | 44.91            | ---             | 64.63        | 19.72       | N    | OFF    | 19.5       |
| 0.186000        | ---              | 29.12           | 54.21        | 25.09       | N    | OFF    | 19.5       |
| 0.186000        | 44.97            | ---             | 64.21        | 19.24       | N    | OFF    | 19.5       |
| 0.195000        | ---              | 28.40           | 53.82        | 25.42       | N    | OFF    | 19.5       |
| 0.195000        | 44.46            | ---             | 63.82        | 19.36       | N    | OFF    | 19.5       |
| 0.204000        | ---              | 30.48           | 53.45        | 22.97       | N    | OFF    | 19.5       |
| 0.204000        | 44.44            | ---             | 63.45        | 19.01       | N    | OFF    | 19.5       |
| 0.210750        | ---              | 29.02           | 53.18        | 24.16       | N    | OFF    | 19.5       |
| 0.210750        | 44.52            | ---             | 63.18        | 18.66       | N    | OFF    | 19.5       |
| 0.222000        | ---              | 28.80           | 52.74        | 23.94       | N    | OFF    | 19.5       |
| 0.222000        | 43.48            | ---             | 62.74        | 19.26       | N    | OFF    | 19.5       |
| 0.231000        | ---              | 30.57           | 52.41        | 21.84       | N    | OFF    | 19.5       |
| 0.231000        | 45.30            | ---             | 62.41        | 17.11       | N    | OFF    | 19.5       |
| 0.246750        | ---              | 27.39           | 51.87        | 24.48       | N    | OFF    | 19.5       |

|          |       |       |       |       |   |     |      |
|----------|-------|-------|-------|-------|---|-----|------|
| 0.246750 | 42.25 | ---   | 61.87 | 19.62 | N | OFF | 19.5 |
| 0.264750 | ---   | 26.79 | 51.28 | 24.49 | N | OFF | 19.5 |
| 0.264750 | 40.67 | ---   | 61.28 | 20.61 | N | OFF | 19.5 |
| 0.276000 | ---   | 26.61 | 50.94 | 24.33 | N | OFF | 19.5 |
| 0.276000 | 40.63 | ---   | 60.94 | 20.31 | N | OFF | 19.5 |
| 0.289500 | ---   | 26.24 | 50.54 | 24.30 | N | OFF | 19.5 |
| 0.289500 | 39.81 | ---   | 60.54 | 20.73 | N | OFF | 19.5 |
| 0.305250 | ---   | 27.34 | 50.10 | 22.76 | N | OFF | 19.5 |
| 0.305250 | 40.88 | ---   | 60.10 | 19.22 | N | OFF | 19.5 |
| 0.321000 | ---   | 26.10 | 49.68 | 23.58 | N | OFF | 19.5 |
| 0.321000 | 38.96 | ---   | 59.68 | 20.72 | N | OFF | 19.5 |
| 0.336750 | ---   | 25.85 | 49.28 | 23.43 | N | OFF | 19.5 |
| 0.336750 | 37.14 | ---   | 59.28 | 22.14 | N | OFF | 19.5 |
| 0.359250 | ---   | 25.34 | 48.75 | 23.41 | N | OFF | 19.5 |
| 0.359250 | 37.52 | ---   | 58.75 | 21.23 | N | OFF | 19.5 |
| 0.375000 | ---   | 25.59 | 48.39 | 22.80 | N | OFF | 19.5 |
| 0.375000 | 37.71 | ---   | 58.39 | 20.68 | N | OFF | 19.5 |
| 0.395250 | ---   | 25.20 | 47.95 | 22.75 | N | OFF | 19.5 |
| 0.395250 | 36.63 | ---   | 57.95 | 21.32 | N | OFF | 19.5 |
| 0.415500 | ---   | 24.41 | 47.54 | 23.13 | N | OFF | 19.5 |
| 0.415500 | 34.08 | ---   | 57.54 | 23.46 | N | OFF | 19.5 |
| 0.442500 | ---   | 24.99 | 47.02 | 22.03 | N | OFF | 19.5 |
| 0.442500 | 34.62 | ---   | 57.02 | 22.40 | N | OFF | 19.5 |
| 0.471750 | ---   | 23.54 | 46.48 | 22.94 | N | OFF | 19.5 |
| 0.471750 | 33.89 | ---   | 56.48 | 22.59 | N | OFF | 19.5 |
| 0.503250 | ---   | 25.32 | 46.00 | 20.68 | N | OFF | 19.5 |
| 0.503250 | 33.95 | ---   | 56.00 | 22.05 | N | OFF | 19.5 |
| 0.519000 | ---   | 23.05 | 46.00 | 22.95 | N | OFF | 19.5 |
| 0.519000 | 33.75 | ---   | 56.00 | 22.25 | N | OFF | 19.5 |
| 0.575250 | ---   | 26.51 | 46.00 | 19.49 | N | OFF | 19.5 |
| 0.575250 | 32.65 | ---   | 56.00 | 23.35 | N | OFF | 19.5 |
| 0.600000 | ---   | 23.27 | 46.00 | 22.73 | N | OFF | 19.6 |
| 0.600000 | 32.09 | ---   | 56.00 | 23.91 | N | OFF | 19.6 |
| 0.645000 | ---   | 31.76 | 46.00 | 14.24 | N | OFF | 19.6 |
| 0.645000 | 38.74 | ---   | 56.00 | 17.26 | N | OFF | 19.6 |
| 0.789000 | ---   | 22.82 | 46.00 | 23.18 | N | OFF | 19.6 |
| 0.789000 | 29.12 | ---   | 56.00 | 26.88 | N | OFF | 19.6 |
| 1.144500 | ---   | 22.81 | 46.00 | 23.19 | N | OFF | 19.6 |
| 1.144500 | 26.52 | ---   | 56.00 | 29.48 | N | OFF | 19.6 |
| 1.664250 | ---   | 22.98 | 46.00 | 23.02 | N | OFF | 19.6 |
| 1.664250 | 24.39 | ---   | 56.00 | 31.61 | N | OFF | 19.6 |



## Appendix C. Radiated Spurious Emission

|                 |                                    |                     |  |         |  |
|-----------------|------------------------------------|---------------------|--|---------|--|
| Test Engineer : | CR Liao, Austin Li, and Jacky Hung | Temperature :       |  | 23~25°C |  |
|                 |                                    | Relative Humidity : |  | 55~57%  |  |

&lt;CDD Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

| WIFI<br>Ant.                | Note | Frequency | Level            | Over<br>Limit | Limit<br>Line    | Read<br>Level  | Antenna<br>Factor | Path<br>Loss | Preamp<br>Factor | Ant<br>Pos | Table<br>Pos | Peak<br>Avg. | Pol.    |
|-----------------------------|------|-----------|------------------|---------------|------------------|----------------|-------------------|--------------|------------------|------------|--------------|--------------|---------|
| 1                           |      | ( MHz )   | ( dB $\mu$ V/m ) | ( dB )        | ( dB $\mu$ V/m ) | ( dB $\mu$ V ) | ( dB/m )          | ( dB )       | ( dB )           | ( cm )     | ( deg )      | ( P/A )      | ( H/V ) |
| 802.11b<br>CH 01<br>2412MHz |      | 2388.645  | 59.48            | -14.52        | 74               | 43.93          | 27.23             | 18.31        | 29.99            | 126        | 19           | P            | H       |
|                             |      | 2388.645  | 51.15            | -2.85         | 54               | 35.6           | 27.23             | 18.31        | 29.99            | 126        | 19           | A            | H       |
|                             | *    | 2412      | 113              | -             | -                | 97.36          | 27.29             | 18.34        | 29.99            | 126        | 19           | P            | H       |
|                             | *    | 2412      | 109.8            | -             | -                | 94.16          | 27.29             | 18.34        | 29.99            | 126        | 19           | A            | H       |
|                             |      |           |                  |               |                  |                |                   |              |                  |            |              |              | H       |
|                             |      |           |                  |               |                  |                |                   |              |                  |            |              |              | H       |
|                             |      | 2386.125  | 60.71            | -13.29        | 74               | 45.16          | 27.23             | 18.31        | 29.99            | 307        | 239          | P            | V       |
|                             |      | 2388.96   | 51.75            | -2.25         | 54               | 36.2           | 27.23             | 18.31        | 29.99            | 307        | 239          | A            | V       |
|                             | *    | 2412      | 114.86           | -             | -                | 99.22          | 27.29             | 18.34        | 29.99            | 307        | 239          | P            | V       |
|                             | *    | 2412      | 111.24           | -             | -                | 95.6           | 27.29             | 18.34        | 29.99            | 307        | 239          | A            | V       |
| 802.11b<br>CH 06<br>2437MHz |      |           |                  |               |                  |                |                   |              |                  |            |              |              | V       |
|                             |      | 2346.26   | 56.54            | -17.46        | 74               | 41.16          | 27.13             | 18.25        | 30               | 118        | 18           | P            | H       |
|                             |      | 2357.74   | 44.25            | -9.75         | 54               | 28.82          | 27.16             | 18.27        | 30               | 118        | 18           | A            | H       |
|                             | *    | 2437      | 113.84           | -             | -                | 98.12          | 27.35             | 18.35        | 29.98            | 118        | 18           | P            | H       |
|                             | *    | 2437      | 110.75           | -             | -                | 95.03          | 27.35             | 18.35        | 29.98            | 118        | 18           | A            | H       |
|                             |      | 2492.3    | 56.06            | -17.94        | 74               | 40.15          | 27.48             | 18.39        | 29.96            | 118        | 18           | P            | H       |
|                             |      | 2486.98   | 44.55            | -9.45         | 54               | 28.67          | 27.47             | 18.38        | 29.97            | 118        | 18           | A            | H       |
|                             |      | 2327.64   | 56.4             | -17.6         | 74               | 41.09          | 27.09             | 18.23        | 30.01            | 344        | 240          | P            | V       |
|                             |      | 2357.88   | 44.49            | -9.51         | 54               | 29.06          | 27.16             | 18.27        | 30               | 344        | 240          | A            | V       |
|                             | *    | 2437      | 113.99           | -             | -                | 98.27          | 27.35             | 18.35        | 29.98            | 344        | 240          | P            | V       |
|                             | *    | 2437      | 110.88           | -             | -                | 95.16          | 27.35             | 18.35        | 29.98            | 344        | 240          | A            | V       |
|                             |      | 2492.51   | 56.47            | -17.53        | 74               | 40.56          | 27.48             | 18.39        | 29.96            | 344        | 240          | P            | V       |
|                             |      | 2498.6    | 44.6             | -9.4          | 54               | 28.67          | 27.5              | 18.39        | 29.96            | 344        | 240          | A            | V       |



|                                      |   |         |        |        |    |       |       |       |       |     |     |   |   |
|--------------------------------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11b<br/>CH 11<br/>2462MHz</b> | *   | 2462    | 114.05 | -      | -  | 98.24 | 27.41 | 18.37 | 29.97 | 106 | 19  | P | H |
|                                      | *   | 2462    | 110.93 | -      | -  | 95.12 | 27.41 | 18.37 | 29.97 | 106 | 19  | A | H |
|                                      |   | 2485.16 | 65.07  | -8.93  | 74 | 49.2  | 27.46 | 18.38 | 29.97 | 106 | 19  | P | H |
|                                      |   | 2484.76 | 52.22  | -1.78  | 54 | 36.35 | 27.46 | 18.38 | 29.97 | 106 | 19  | A | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      | *   | 2462    | 114.77 | -      | -  | 98.96 | 27.41 | 18.37 | 29.97 | 343 | 237 | P | V |
|                                      | *   | 2462    | 111.58 | -      | -  | 95.77 | 27.41 | 18.37 | 29.97 | 343 | 237 | A | V |
|                                      |   | 2485.64 | 63.25  | -10.75 | 74 | 47.37 | 27.47 | 18.38 | 29.97 | 343 | 237 | P | V |
|                                      |   | 2484.88 | 51.88  | -2.12  | 54 | 36.01 | 27.46 | 18.38 | 29.97 | 343 | 237 | A | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11b (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1           | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-----------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11b<br>CH 01<br>2412MHz |   | 4874                 | 43.98                     | -30.02                  | 74                                | 59.62                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                             |   | 14472                | 54.76                     | -19.24                  | 74                                | 55.18                           | 41.17                         | 21.29                  | 62.88                      | 283                  | 82                      | P                     | H             |
|                             |   | 14472                | 49.85                     | -4.15                   | 54                                | 50.27                           | 41.17                         | 21.29                  | 62.88                      | 283                  | 82                      | A                     | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   | 4874                 | 43.83                     | -30.17                  | 74                                | 59.47                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                             |   | 14472                | 55.2                      | -18.8                   | 74                                | 55.62                           | 41.17                         | 21.29                  | 62.88                      | 294                  | 90                      | P                     | V             |
|                             |   | 14472                | 51.35                     | -2.65                   | 54                                | 51.77                           | 41.17                         | 21.29                  | 62.88                      | 294                  | 90                      | A                     | V             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 06<br>2437MHz |   | 4874                 | 47.62                     | -26.38                  | 74                                | 63.26                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                             |   | 7311                 | 47.26                     | -26.74                  | 74                                | 57.82                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                             |   | 17059                | 54.94                     | -19.06                  | 74                                | 51.56                           | 42.21                         | 23.43                  | 62.26                      | 159                  | 204                     | P                     | H             |
|                             |   | 17059                | 47.59                     | -6.41                   | 54                                | 44.21                           | 42.21                         | 23.43                  | 62.26                      | 159                  | 204                     | A                     | H             |
|                             |   | 4874                 | 47.6                      | -26.4                   | 74                                | 63.24                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                             |   | 7311                 | 46.55                     | -27.45                  | 74                                | 57.11                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                             |   | 12185                | 53.2                      | -20.8                   | 74                                | 58.53                           | 38.89                         | 19.31                  | 63.53                      | 243                  | 90                      | P                     | V             |
|                             |   | 12185                | 47.27                     | -6.73                   | 54                                | 52.6                            | 38.89                         | 19.31                  | 63.53                      | 243                  | 90                      | A                     | V             |
|                             |   | 17059                | 56.85                     | -17.15                  | 74                                | 53.47                           | 42.21                         | 23.43                  | 62.26                      | 171                  | 44                      | P                     | V             |
|                             |   | 17059                | 50.22                     | -3.78                   | 54                                | 46.84                           | 42.21                         | 23.43                  | 62.26                      | 171                  | 44                      | A                     | V             |
| 802.11b<br>CH 11<br>2462MHz |   | 4924                 | 46.97                     | -27.03                  | 74                                | 62.43                           | 32.65                         | 14.01                  | 62.12                      | 100                  | 0                       | P                     | H             |
|                             |   | 7386                 | 46.31                     | -27.69                  | 74                                | 56.82                           | 37.34                         | 15.17                  | 63.02                      | 100                  | 0                       | P                     | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   | 4924                 | 47.28                     | -26.72                  | 74                                | 62.74                           | 32.65                         | 14.01                  | 62.12                      | 100                  | 0                       | P                     | V             |
|                             |   | 7386                 | 46.11                     | -27.89                  | 74                                | 56.62                           | 37.34                         | 15.17                  | 63.02                      | 100                  | 0                       | P                     | V             |
|                             |   | 12310                | 53.91                     | -20.09                  | 74                                | 59.02                           | 38.81                         | 19.44                  | 63.36                      | 246                  | 93                      | P                     | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Band Edge @ 3m)**

| WIFI<br>Ant.<br>1                   | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br><br>CH 01<br><br>2412MHz |      | 2390                 | 64.39                     | -9.61                   | 74                                | 48.82                           | 27.24                         | 18.32                  | 29.99                      | 123                  | 20                      | P                     | H             |
|                                     |      | 2390                 | 51.89                     | -2.11                   | 54                                | 36.32                           | 27.24                         | 18.32                  | 29.99                      | 123                  | 20                      | A                     | H             |
|                                     | *    | 2412                 | 107.86                    | -                       | -                                 | 92.22                           | 27.29                         | 18.34                  | 29.99                      | 123                  | 20                      | P                     | H             |
|                                     | *    | 2412                 | 99.88                     | -                       | -                                 | 84.24                           | 27.29                         | 18.34                  | 29.99                      | 123                  | 20                      | A                     | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      | 2389.695             | 64.87                     | -9.13                   | 74                                | 49.3                            | 27.24                         | 18.32                  | 29.99                      | 331                  | 240                     | P                     | V             |
|                                     |      | 2389.8               | 52.5                      | -1.5                    | 54                                | 36.93                           | 27.24                         | 18.32                  | 29.99                      | 331                  | 240                     | A                     | V             |
|                                     | *    | 2412                 | 108.99                    | -                       | -                                 | 93.35                           | 27.29                         | 18.34                  | 29.99                      | 331                  | 240                     | P                     | V             |
|                                     | *    | 2412                 | 101.64                    | -                       | -                                 | 86                              | 27.29                         | 18.34                  | 29.99                      | 331                  | 240                     | A                     | V             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br><br>CH 06<br><br>2437MHz |      | 2389.1               | 59.36                     | -14.64                  | 74                                | 43.81                           | 27.23                         | 18.31                  | 29.99                      | 116                  | 18                      | P                     | H             |
|                                     |      | 2389.8               | 47.57                     | -6.43                   | 54                                | 32                              | 27.24                         | 18.32                  | 29.99                      | 116                  | 18                      | A                     | H             |
|                                     | *    | 2437                 | 114.38                    | -                       | -                                 | 98.66                           | 27.35                         | 18.35                  | 29.98                      | 116                  | 18                      | P                     | H             |
|                                     | *    | 2437                 | 106.7                     | -                       | -                                 | 90.98                           | 27.35                         | 18.35                  | 29.98                      | 116                  | 18                      | A                     | H             |
|                                     |      | 2492.3               | 57.32                     | -16.68                  | 74                                | 41.41                           | 27.48                         | 18.39                  | 29.96                      | 116                  | 18                      | P                     | H             |
|                                     |      | 2483.62              | 46.8                      | -7.2                    | 54                                | 30.93                           | 27.46                         | 18.38                  | 29.97                      | 116                  | 18                      | A                     | H             |
|                                     |      | 2389.38              | 59.85                     | -14.15                  | 74                                | 44.3                            | 27.23                         | 18.31                  | 29.99                      | 312                  | 239                     | P                     | V             |
|                                     |      | 2389.66              | 47.24                     | -6.76                   | 54                                | 31.67                           | 27.24                         | 18.32                  | 29.99                      | 312                  | 239                     | A                     | V             |
|                                     | *    | 2437                 | 115.39                    | -                       | -                                 | 99.67                           | 27.35                         | 18.35                  | 29.98                      | 312                  | 239                     | P                     | V             |
|                                     | *    | 2437                 | 107.85                    | -                       | -                                 | 92.13                           | 27.35                         | 18.35                  | 29.98                      | 312                  | 239                     | A                     | V             |
|                                     |      | 2487.82              | 57.01                     | -16.99                  | 74                                | 41.13                           | 27.47                         | 18.38                  | 29.97                      | 312                  | 239                     | P                     | V             |
|                                     |      | 2485.02              | 46.52                     | -7.48                   | 54                                | 30.65                           | 27.46                         | 18.38                  | 29.97                      | 312                  | 239                     | A                     | V             |



|                                      |   |         |        |        |    |       |       |       |       |     |     |   |   |
|--------------------------------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11g<br/>CH 11<br/>2462MHz</b> | *   | 2462    | 107.57 | -      | -  | 91.86 | 27.6  | 18.37 | 30.26 | 136 | 9   | P | H |
|                                      | *   | 2462    | 99.94  | -      | -  | 84.23 | 27.6  | 18.37 | 30.26 | 136 | 9   | A | H |
|                                      |   | 2483.52 | 60.73  | -13.27 | 74 | 44.94 | 27.66 | 18.38 | 30.25 | 136 | 9   | P | H |
|                                      |   | 2483.52 | 50.75  | -3.25  | 54 | 34.96 | 27.66 | 18.38 | 30.25 | 136 | 9   | A | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      | *   | 2462    | 108.13 | -      | -  | 92.42 | 27.6  | 18.37 | 30.26 | 298 | 251 | P | V |
|                                      | *   | 2462    | 100.65 | -      | -  | 84.94 | 27.6  | 18.37 | 30.26 | 298 | 251 | A | V |
|                                      |   | 2483.72 | 61.09  | -12.91 | 74 | 45.3  | 27.66 | 18.38 | 30.25 | 298 | 251 | P | V |
|                                      |   | 2483.64 | 50.8   | -3.2   | 54 | 35.01 | 27.66 | 18.38 | 30.25 | 298 | 251 | A | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1           | Note   | Frequency<br>( MHz )  | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-----------------------------|--------|---|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br>CH 01<br>2412MHz |        | 4824  | 39.76                     | -34.24                  | 74                                | 53.29                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | H             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |        | 4824  | 39.07                     | -34.93                  | 74                                | 52.6                            | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 06<br>2437MHz |        | 4874  | 45.4                      | -28.6                   | 74                                | 58.74                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | H             |
|                             |        | 7311  | 42.4                      | -31.6                   | 74                                | 50.08                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | H             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |        | 4874  | 43.68                     | -30.32                  | 74                                | 57.02                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | V             |
|                             |        | 7311  | 43.66                     | -30.34                  | 74                                | 51.34                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br>CH 11<br>2462MHz |        | 4924  | 40.21                     | -33.79                  | 74                                | 53.36                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                             |        | 7386  | 42.87                     | -31.13                  | 74                                | 50.34                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | H             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |        | 4924  | 39.42                     | -34.58                  | 74                                | 52.57                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                             |        | 7386  | 42.35                     | -31.65                  | 74                                | 49.82                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                             | Remark | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |      | 2389.8               | 61.04                     | -12.96                  | 74                                | 45.59                           | 27.41                         | 18.32                  | 30.28                      | 130                  | 12                      | P                     | H             |
|                                       |      | 2389.8               | 50.97                     | -3.03                   | 54                                | 35.52                           | 27.41                         | 18.32                  | 30.28                      | 130                  | 12                      | A                     | H             |
|                                       | *    | 2412                 | 105.37                    | -                       | -                                 | 89.84                           | 27.47                         | 18.34                  | 30.28                      | 130                  | 12                      | P                     | H             |
|                                       | *    | 2412                 | 98.13                     | -                       | -                                 | 82.6                            | 27.47                         | 18.34                  | 30.28                      | 130                  | 12                      | A                     | H             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |      | 2389.695             | 63.04                     | -10.96                  | 74                                | 47.59                           | 27.41                         | 18.32                  | 30.28                      | 307                  | 252                     | P                     | V             |
|                                       |      | 2389.59              | 52.95                     | -1.05                   | 54                                | 37.51                           | 27.41                         | 18.31                  | 30.28                      | 307                  | 252                     | A                     | V             |
|                                       | *    | 2412                 | 108.43                    | -                       | -                                 | 92.9                            | 27.47                         | 18.34                  | 30.28                      | 307                  | 252                     | P                     | V             |
|                                       | *    | 2412                 | 100.69                    | -                       | -                                 | 85.16                           | 27.47                         | 18.34                  | 30.28                      | 307                  | 252                     | A                     | V             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |      | 2389.52              | 59.11                     | -14.89                  | 74                                | 43.56                           | 27.23                         | 18.31                  | 29.99                      | 122                  | 19                      | P                     | H             |
|                                       |      | 2389.94              | 48.02                     | -5.98                   | 54                                | 32.45                           | 27.24                         | 18.32                  | 29.99                      | 122                  | 19                      | A                     | H             |
|                                       | *    | 2437                 | 113.74                    | -                       | -                                 | 98.02                           | 27.35                         | 18.35                  | 29.98                      | 122                  | 19                      | P                     | H             |
|                                       | *    | 2437                 | 105.83                    | -                       | -                                 | 90.11                           | 27.35                         | 18.35                  | 29.98                      | 122                  | 19                      | A                     | H             |
|                                       |      | 2484.11              | 59.54                     | -14.46                  | 74                                | 43.67                           | 27.46                         | 18.38                  | 29.97                      | 122                  | 19                      | P                     | H             |
|                                       |      | 2483.76              | 46.8                      | -7.2                    | 54                                | 30.93                           | 27.46                         | 18.38                  | 29.97                      | 122                  | 19                      | A                     | H             |
|                                       |      | 2378.6               | 58.62                     | -15.38                  | 74                                | 43.1                            | 27.21                         | 18.3                   | 29.99                      | 303                  | 240                     | P                     | V             |
|                                       |      | 2389.8               | 48.55                     | -5.45                   | 54                                | 32.98                           | 27.24                         | 18.32                  | 29.99                      | 303                  | 240                     | A                     | V             |
|                                       | *    | 2437                 | 114.96                    | -                       | -                                 | 99.24                           | 27.35                         | 18.35                  | 29.98                      | 303                  | 240                     | P                     | V             |
|                                       | *    | 2437                 | 107.38                    | -                       | -                                 | 91.66                           | 27.35                         | 18.35                  | 29.98                      | 303                  | 240                     | A                     | V             |
|                                       |      | 2486.84              | 57.15                     | -16.85                  | 74                                | 41.27                           | 27.47                         | 18.38                  | 29.97                      | 303                  | 240                     | P                     | V             |
|                                       |      | 2483.83              | 46.25                     | -7.75                   | 54                                | 30.38                           | 27.46                         | 18.38                  | 29.97                      | 303                  | 240                     | A                     | V             |



|                 |   |         |        |        |    |       |       |       |       |     |     |   |   |
|-----------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
|                 | *   | 2462    | 107.35 | -      | -  | 91.64 | 27.6  | 18.37 | 30.26 | 134 | 19  | P | H |
|                 | *   | 2462    | 99.68  | -      | -  | 83.97 | 27.6  | 18.37 | 30.26 | 134 | 19  | A | H |
|                 |   | 2483.52 | 63.72  | -10.28 | 74 | 47.93 | 27.66 | 18.38 | 30.25 | 134 | 19  | P | H |
|                 |   | 2483.64 | 51.13  | -2.87  | 54 | 35.34 | 27.66 | 18.38 | 30.25 | 134 | 19  | A | H |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | H |
| <b>802.11ac</b> |   |         |        |        |    |       |       |       |       |     |     |   |   |
| <b>VHT20</b>    |   |         |        |        |    |       |       |       |       |     |     |   |   |
| <b>CH 11</b>    | *   | 2462    | 109.05 | -      | -  | 93.34 | 27.6  | 18.37 | 30.26 | 296 | 251 | P | V |
| <b>2462MHz</b>  | *   | 2462    | 100.12 | -      | -  | 84.41 | 27.6  | 18.37 | 30.26 | 296 | 251 | A | V |
|                 |   | 2484.2  | 64.23  | -9.77  | 74 | 48.44 | 27.66 | 18.38 | 30.25 | 296 | 251 | P | V |
|                 |   | 2483.68 | 51.42  | -2.58  | 54 | 35.63 | 27.66 | 18.38 | 30.25 | 296 | 251 | A | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>   | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |   | 4824                 | 41.42                     | -32.58                  | 74                                | 54.95                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4824                 | 39.81                     | -34.19                  | 74                                | 53.34                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |   | 4874                 | 45.89                     | -28.11                  | 74                                | 61.53                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 47.87                     | -26.13                  | 74                                | 58.43                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 47.46                     | -26.54                  | 74                                | 63.1                            | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 46.77                     | -27.23                  | 74                                | 57.33                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 11<br>2462MHz |   | 4924                 | 39.59                     | -34.41                  | 74                                | 52.74                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7386                 | 42.88                     | -31.12                  | 74                                | 50.35                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4924                 | 39.07                     | -34.93                  | 74                                | 52.22                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7386                 | 43.01                     | -30.99                  | 74                                | 50.48                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1                     | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |      | 2389.38              | 60.58                     | -13.42                  | 74                                | 45.14                           | 27.41                         | 18.31                  | 30.28                      | 131                  | 19                      | P                     | H             |
|                                       |      | 2389.8               | 51.24                     | -2.76                   | 54                                | 35.79                           | 27.41                         | 18.32                  | 30.28                      | 131                  | 19                      | A                     | H             |
|                                       | *    | 2422                 | 101.37                    | -                       | -                                 | 85.8                            | 27.5                          | 18.34                  | 30.27                      | 131                  | 19                      | P                     | H             |
|                                       | *    | 2422                 | 93.56                     | -                       | -                                 | 77.99                           | 27.5                          | 18.34                  | 30.27                      | 131                  | 19                      | A                     | H             |
|                                       |      | 2488.66              | 57.55                     | -16.45                  | 74                                | 41.75                           | 27.67                         | 18.38                  | 30.25                      | 131                  | 19                      | P                     | H             |
|                                       |      | 2484.46              | 46.93                     | -7.07                   | 54                                | 31.14                           | 27.66                         | 18.38                  | 30.25                      | 131                  | 19                      | A                     | H             |
|                                       |      | 2387.28              | 60.21                     | -13.79                  | 74                                | 44.77                           | 27.41                         | 18.31                  | 30.28                      | 239                  | 250                     | P                     | V             |
|                                       |      | 2389.94              | 51.61                     | -2.39                   | 54                                | 36.16                           | 27.41                         | 18.32                  | 30.28                      | 239                  | 250                     | A                     | V             |
|                                       | *    | 2422                 | 102.99                    | -                       | -                                 | 87.42                           | 27.5                          | 18.34                  | 30.27                      | 239                  | 250                     | P                     | V             |
|                                       | *    | 2422                 | 94.64                     | -                       | -                                 | 79.07                           | 27.5                          | 18.34                  | 30.27                      | 239                  | 250                     | A                     | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |      | 2496.71              | 56.64                     | -17.36                  | 74                                | 40.81                           | 27.69                         | 18.39                  | 30.25                      | 239                  | 250                     | P                     | V             |
|                                       |      | 2483.5               | 46.97                     | -7.03                   | 54                                | 31.18                           | 27.66                         | 18.38                  | 30.25                      | 239                  | 250                     | A                     | V             |
|                                       |      | 2386.86              | 62.45                     | -11.55                  | 74                                | 46.9                            | 27.23                         | 18.31                  | 29.99                      | 124                  | 18                      | P                     | H             |
|                                       |      | 2388.54              | 51.83                     | -2.17                   | 54                                | 36.28                           | 27.23                         | 18.31                  | 29.99                      | 124                  | 18                      | A                     | H             |
|                                       | *    | 2437                 | 105.37                    | -                       | -                                 | 89.65                           | 27.35                         | 18.35                  | 29.98                      | 124                  | 18                      | P                     | H             |
|                                       | *    | 2437                 | 97.32                     | -                       | -                                 | 81.6                            | 27.35                         | 18.35                  | 29.98                      | 124                  | 18                      | A                     | H             |
|                                       |      | 2485.37              | 59.96                     | -14.04                  | 74                                | 44.09                           | 27.46                         | 18.38                  | 29.97                      | 124                  | 18                      | P                     | H             |
|                                       |      | 2483.5               | 50.21                     | -3.79                   | 54                                | 34.34                           | 27.46                         | 18.38                  | 29.97                      | 124                  | 18                      | A                     | H             |
|                                       |      | 2387.98              | 62.53                     | -11.47                  | 74                                | 46.98                           | 27.23                         | 18.31                  | 29.99                      | 304                  | 240                     | P                     | V             |
|                                       |      | 2388.96              | 52.16                     | -1.84                   | 54                                | 36.61                           | 27.23                         | 18.31                  | 29.99                      | 304                  | 240                     | A                     | V             |



|        |         | 2382.66   | 57.69   | -16.31 | 74     | 42.29 | 27.39 | 18.3  | 30.29 | 100   | 16  | P   | H |   |
|--------|---------|---|---------|--------|--------|-------|-------|-------|-------|-------|-----|-----|---|---|
|        |         | 2386.3  | 47.75   | -6.25  | 54     | 32.32 | 27.4  | 18.31 | 30.28 | 100   | 16  | A   | H |   |
|        | *       | 2452  | 103.74  | -      | -      | 88.06 | 27.58 | 18.36 | 30.26 | 100   | 16  | P   | H |   |
|        | *       | 2452  | 96.07   | -      | -      | 80.39 | 27.58 | 18.36 | 30.26 | 100   | 16  | A   | H |   |
|        |         | 2484.74   | 63.76   | -10.24 | 74     | 47.97 | 27.66 | 18.38 | 30.25 | 100   | 16  | P   | H |   |
|        | VHT40   | 2484.88   | 52.17   | -1.83  | 54     | 36.38 | 27.66 | 18.38 | 30.25 | 100   | 16  | A   | H |   |
|        | CH 09   | 2383.08   | 57.73   | -16.27 | 74     | 42.31 | 27.4  | 18.31 | 30.29 | 299   | 251 | P   | V |   |
|        | 2452MHz | 2388.4  | 48.33   | -5.67  | 54     | 32.89 | 27.41 | 18.31 | 30.28 | 299   | 251 | A   | V |   |
|        |         | *   | 2452    | 106.54 | -      | -     | 90.86 | 27.58 | 18.36 | 30.26 | 299 | 251 | P | V |
|        |         | *   | 2452    | 98.38  | -      | -     | 82.7  | 27.58 | 18.36 | 30.26 | 299 | 251 | A | V |
|        |         |   | 2483.9  | 63.39  | -10.61 | 74    | 47.6  | 27.66 | 18.38 | 30.25 | 299 | 251 | P | V |
|        |         |   | 2483.55 | 52.85  | -1.15  | 54    | 37.06 | 27.66 | 18.38 | 30.25 | 299 | 251 | A | V |
| Remark |         | <p>1. No other spurious found.<br/>2. All results are PASS against Peak and Average limit line.</p> |         |        |        |       |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1                     | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |   | 4844                 | 38.66                     | -35.34                  | 74                                | 52.11                           | 31.29                         | 13.79                  | 58.53                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7266                 | 42.82                     | -31.18                  | 74                                | 50.63                           | 35.94                         | 15.26                  | 59.01                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4844                 | 38.88                     | -35.12                  | 74                                | 52.33                           | 31.29                         | 13.79                  | 58.53                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7266                 | 42.74                     | -31.26                  | 74                                | 50.55                           | 35.94                         | 15.26                  | 59.01                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |   | 4874                 | 44.03                     | -29.97                  | 74                                | 59.67                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 47.34                     | -26.66                  | 74                                | 57.9                            | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 43.54                     | -30.46                  | 74                                | 59.18                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 46.33                     | -27.67                  | 74                                | 56.89                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 09<br>2452MHz |   | 4904                 | 39.1                      | -34.9                   | 74                                | 52.32                           | 31.41                         | 13.89                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7356                 | 42.78                     | -31.22                  | 74                                | 50.33                           | 36.2                          | 15.18                  | 58.93                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4904                 | 38.79                     | -35.21                  | 74                                | 52.01                           | 31.41                         | 13.89                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7356                 | 43.43                     | -30.57                  | 74                                | 50.98                           | 36.2                          | 15.18                  | 58.93                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



**Emission below 1GHz  
2.4GHz WIFI 802.11ac VHT40 (LF)**



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11b (Band Edge @ 3m)**

| WIFI<br>Ant.<br>1+2                 | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11b<br><br>CH 01<br><br>2412MHz |      | 2387.385             | 58.1                      | -15.9                   | 74                                | 42.66                           | 27.41                         | 8.39                   | 30.28                      | 217                  | 310                     | P                     | H             |
|                                     |      | 2386.965             | 47.21                     | -6.79                   | 54                                | 31.77                           | 27.41                         | 8.39                   | 30.28                      | 217                  | 310                     | A                     | H             |
|                                     |      | 2412                 | 107.44                    | -                       | -                                 | 91.91                           | 27.47                         | 8.42                   | 30.28                      | 217                  | 310                     | P                     | H             |
|                                     |      | 2412                 | 104.21                    | -                       | -                                 | 88.68                           | 27.47                         | 8.42                   | 30.28                      | 217                  | 310                     | A                     | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      | 2387.175             | 58.44                     | -15.56                  | 74                                | 43                              | 27.41                         | 8.39                   | 30.28                      | 310                  | 248                     | P                     | V             |
|                                     |      | 2390                 | 47.91                     | -6.09                   | 54                                | 32.46                           | 27.41                         | 8.4                    | 30.28                      | 310                  | 248                     | A                     | V             |
|                                     |      | 2412                 | 110.83                    | -                       | -                                 | 95.3                            | 27.47                         | 8.42                   | 30.28                      | 310                  | 248                     | P                     | V             |
|                                     |      | 2412                 | 107.58                    | -                       | -                                 | 92.05                           | 27.47                         | 8.42                   | 30.28                      | 310                  | 248                     | A                     | V             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br><br>CH 06<br><br>2437MHz |      | 2346.26              | 56.54                     | -17.46                  | 74                                | 41.16                           | 27.13                         | 18.25                  | 30                         | 118                  | 18                      | P                     | H             |
|                                     |      | 2357.74              | 44.25                     | -9.75                   | 54                                | 28.82                           | 27.16                         | 18.27                  | 30                         | 118                  | 18                      | A                     | H             |
|                                     | *    | 2437                 | 113.84                    | -                       | -                                 | 98.12                           | 27.35                         | 18.35                  | 29.98                      | 118                  | 18                      | P                     | H             |
|                                     | *    | 2437                 | 110.75                    | -                       | -                                 | 95.03                           | 27.35                         | 18.35                  | 29.98                      | 118                  | 18                      | A                     | H             |
|                                     |      | 2492.3               | 56.06                     | -17.94                  | 74                                | 40.15                           | 27.48                         | 18.39                  | 29.96                      | 118                  | 18                      | P                     | H             |
|                                     |      | 2486.98              | 44.55                     | -9.45                   | 54                                | 28.67                           | 27.47                         | 18.38                  | 29.97                      | 118                  | 18                      | A                     | H             |
|                                     |      | 2327.64              | 56.4                      | -17.6                   | 74                                | 41.09                           | 27.09                         | 18.23                  | 30.01                      | 344                  | 240                     | P                     | V             |
|                                     |      | 2357.88              | 44.49                     | -9.51                   | 54                                | 29.06                           | 27.16                         | 18.27                  | 30                         | 344                  | 240                     | A                     | V             |
|                                     | *    | 2437                 | 113.99                    | -                       | -                                 | 98.27                           | 27.35                         | 18.35                  | 29.98                      | 344                  | 240                     | P                     | V             |
|                                     | *    | 2437                 | 110.88                    | -                       | -                                 | 95.16                           | 27.35                         | 18.35                  | 29.98                      | 344                  | 240                     | A                     | V             |
|                                     |      | 2492.51              | 56.47                     | -17.53                  | 74                                | 40.56                           | 27.48                         | 18.39                  | 29.96                      | 344                  | 240                     | P                     | V             |
|                                     |      | 2498.6               | 44.6                      | -9.4                    | 54                                | 28.67                           | 27.5                          | 18.39                  | 29.96                      | 344                  | 240                     | A                     | V             |



|                                      |   |         |        |        |    |       |       |       |       |     |     |   |   |
|--------------------------------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
| <b>802.11b<br/>CH 11<br/>2462MHz</b> | *   | 2462    | 114.05 | -      | -  | 98.24 | 27.41 | 18.37 | 29.97 | 106 | 19  | P | H |
|                                      | *   | 2462    | 110.93 | -      | -  | 95.12 | 27.41 | 18.37 | 29.97 | 106 | 19  | A | H |
|                                      |   | 2485.16 | 65.07  | -8.93  | 74 | 49.2  | 27.46 | 18.38 | 29.97 | 106 | 19  | P | H |
|                                      |   | 2484.76 | 52.22  | -1.78  | 54 | 36.35 | 27.46 | 18.38 | 29.97 | 106 | 19  | A | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | H |
|                                      | *   | 2462    | 114.77 | -      | -  | 98.96 | 27.41 | 18.37 | 29.97 | 343 | 237 | P | V |
|                                      | *   | 2462    | 111.58 | -      | -  | 95.77 | 27.41 | 18.37 | 29.97 | 343 | 237 | A | V |
|                                      |   | 2485.64 | 63.25  | -10.75 | 74 | 47.37 | 27.47 | 18.38 | 29.97 | 343 | 237 | P | V |
|                                      |   | 2484.88 | 51.88  | -2.12  | 54 | 36.01 | 27.46 | 18.38 | 29.97 | 343 | 237 | A | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                                      |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11b (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1+2         | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-----------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11b<br>CH 01<br>2412MHz |   | 4824                 | 44.06                     | -29.94                  | 74                                | 59.87                           | 32.45                         | 13.23                  | 62.1                       | 100                  | 0                       | P                     | H             |
|                             |   | 14472                | 54.75                     | -19.25                  | 74                                | 55.17                           | 41.17                         | 20.59                  | 62.88                      | 307                  | 128                     | P                     | H             |
|                             |   | 14472                | 49.75                     | -4.25                   | 54                                | 50.17                           | 41.17                         | 20.59                  | 62.88                      | 307                  | 128                     | A                     | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   | 4824                 | 43.73                     | -30.27                  | 74                                | 59.54                           | 32.45                         | 13.23                  | 62.1                       | 100                  | 0                       | P                     | V             |
|                             |   | 14472                | 55.48                     | -18.52                  | 74                                | 55.9                            | 41.17                         | 20.59                  | 62.88                      | 164                  | 100                     | P                     | V             |
|                             |   | 14472                | 51.27                     | -2.73                   | 54                                | 51.69                           | 41.17                         | 20.59                  | 62.88                      | 164                  | 100                     | A                     | V             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11b<br>CH 06<br>2437MHz |   | 4874                 | 47.62                     | -26.38                  | 74                                | 63.26                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                             |   | 7311                 | 47.26                     | -26.74                  | 74                                | 57.82                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                             |   | 17059                | 54.94                     | -19.06                  | 74                                | 51.56                           | 42.21                         | 23.43                  | 62.26                      | 159                  | 204                     | P                     | H             |
|                             |   | 17059                | 47.59                     | -6.41                   | 54                                | 44.21                           | 42.21                         | 23.43                  | 62.26                      | 159                  | 204                     | A                     | H             |
|                             |   | 4874                 | 47.6                      | -26.4                   | 74                                | 63.24                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                             |   | 7311                 | 46.55                     | -27.45                  | 74                                | 57.11                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                             |   | 12185                | 53.2                      | -20.8                   | 74                                | 58.53                           | 38.89                         | 19.31                  | 63.53                      | 243                  | 90                      | P                     | V             |
|                             |   | 12185                | 47.27                     | -6.73                   | 54                                | 52.6                            | 38.89                         | 19.31                  | 63.53                      | 243                  | 90                      | A                     | V             |
| 802.11b<br>CH 11<br>2462MHz |   | 4924                 | 46.97                     | -27.03                  | 74                                | 62.43                           | 32.65                         | 14.01                  | 62.12                      | 100                  | 0                       | P                     | H             |
|                             |   | 7386                 | 46.31                     | -27.69                  | 74                                | 56.82                           | 37.34                         | 15.17                  | 63.02                      | 100                  | 0                       | P                     | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                             |   | 4924                 | 47.28                     | -26.72                  | 74                                | 62.74                           | 32.65                         | 14.01                  | 62.12                      | 100                  | 0                       | P                     | V             |
|                             |   | 7386                 | 46.11                     | -27.89                  | 74                                | 56.62                           | 37.34                         | 15.17                  | 63.02                      | 100                  | 0                       | P                     | V             |
|                             |   | 12310                | 53.91                     | -20.09                  | 74                                | 59.02                           | 38.81                         | 19.44                  | 63.36                      | 246                  | 93                      | P                     | V             |
|                             |   | 12310                | 47.96                     | -6.04                   | 54                                | 53.07                           | 38.81                         | 19.44                  | 63.36                      | 246                  | 93                      | A                     | V             |
| Remark                      | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Band Edge @ 3m)**

| WIFI<br>Ant.<br>1+2                 | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br><br>CH 01<br><br>2412MHz |      | 2390                 | 64.39                     | -9.61                   | 74                                | 48.82                           | 27.24                         | 18.32                  | 29.99                      | 123                  | 20                      | P                     | H             |
|                                     |      | 2390                 | 51.89                     | -2.11                   | 54                                | 36.32                           | 27.24                         | 18.32                  | 29.99                      | 123                  | 20                      | A                     | H             |
|                                     | *    | 2412                 | 107.86                    | -                       | -                                 | 92.22                           | 27.29                         | 18.34                  | 29.99                      | 123                  | 20                      | P                     | H             |
|                                     | *    | 2412                 | 99.88                     | -                       | -                                 | 84.24                           | 27.29                         | 18.34                  | 29.99                      | 123                  | 20                      | A                     | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |      | 2389.695             | 64.87                     | -9.13                   | 74                                | 49.3                            | 27.24                         | 18.32                  | 29.99                      | 331                  | 240                     | P                     | V             |
|                                     |      | 2389.8               | 52.5                      | -1.5                    | 54                                | 36.93                           | 27.24                         | 18.32                  | 29.99                      | 331                  | 240                     | A                     | V             |
|                                     | *    | 2412                 | 108.99                    | -                       | -                                 | 93.35                           | 27.29                         | 18.34                  | 29.99                      | 331                  | 240                     | P                     | V             |
|                                     | *    | 2412                 | 101.64                    | -                       | -                                 | 86                              | 27.29                         | 18.34                  | 29.99                      | 331                  | 240                     | A                     | V             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br><br>CH 06<br><br>2437MHz |      | 2389.1               | 59.36                     | -14.64                  | 74                                | 43.81                           | 27.23                         | 18.31                  | 29.99                      | 116                  | 18                      | P                     | H             |
|                                     |      | 2389.8               | 47.57                     | -6.43                   | 54                                | 32                              | 27.24                         | 18.32                  | 29.99                      | 116                  | 18                      | A                     | H             |
|                                     | *    | 2437                 | 114.38                    | -                       | -                                 | 98.66                           | 27.35                         | 18.35                  | 29.98                      | 116                  | 18                      | P                     | H             |
|                                     | *    | 2437                 | 106.7                     | -                       | -                                 | 90.98                           | 27.35                         | 18.35                  | 29.98                      | 116                  | 18                      | A                     | H             |
|                                     |      | 2492.3               | 57.32                     | -16.68                  | 74                                | 41.41                           | 27.48                         | 18.39                  | 29.96                      | 116                  | 18                      | P                     | H             |
|                                     |      | 2483.62              | 46.8                      | -7.2                    | 54                                | 30.93                           | 27.46                         | 18.38                  | 29.97                      | 116                  | 18                      | A                     | H             |
|                                     |      | 2389.38              | 59.85                     | -14.15                  | 74                                | 44.3                            | 27.23                         | 18.31                  | 29.99                      | 312                  | 239                     | P                     | V             |
|                                     |      | 2389.66              | 47.24                     | -6.76                   | 54                                | 31.67                           | 27.24                         | 18.32                  | 29.99                      | 312                  | 239                     | A                     | V             |
|                                     | *    | 2437                 | 115.39                    | -                       | -                                 | 99.67                           | 27.35                         | 18.35                  | 29.98                      | 312                  | 239                     | P                     | V             |
|                                     | *    | 2437                 | 107.85                    | -                       | -                                 | 92.13                           | 27.35                         | 18.35                  | 29.98                      | 312                  | 239                     | A                     | V             |
|                                     |      | 2487.82              | 57.01                     | -16.99                  | 74                                | 41.13                           | 27.47                         | 18.38                  | 29.97                      | 312                  | 239                     | P                     | V             |
|                                     |      | 2485.02              | 46.52                     | -7.48                   | 54                                | 30.65                           | 27.46                         | 18.38                  | 29.97                      | 312                  | 239                     | A                     | V             |



|                                      |   |         |        |        |    |       |       |      |       |     |     |   |   |
|--------------------------------------|---|---------|--------|--------|----|-------|-------|------|-------|-----|-----|---|---|
| <b>802.11g<br/>CH 11<br/>2462MHz</b> | *   | 2462    | 106.63 | -      | -  | 90.92 | 27.6  | 8.45 | 30.26 | 124 | 307 | P | H |
|                                      | *   | 2462    | 99.14  | -      | -  | 83.43 | 27.6  | 8.45 | 30.26 | 124 | 307 | A | H |
|                                      |   | 2483.52 | 59.35  | -14.65 | 74 | 43.56 | 27.66 | 8.46 | 30.25 | 124 | 307 | P | H |
|                                      |   | 2483.52 | 49.53  | -4.47  | 54 | 33.74 | 27.66 | 8.46 | 30.25 | 124 | 307 | A | H |
|                                      |   |         |        |        |    |       |       |      |       |     |     |   | H |
|                                      |   |         |        |        |    |       |       |      |       |     |     |   | H |
|                                      | *   | 2462    | 109.17 | -      | -  | 93.46 | 27.6  | 8.45 | 30.26 | 297 | 252 | P | V |
|                                      | *   | 2462    | 101.03 | -      | -  | 85.32 | 27.6  | 8.45 | 30.26 | 297 | 252 | A | V |
|                                      |   | 2484.4  | 61.24  | -12.76 | 74 | 45.45 | 27.66 | 8.46 | 30.25 | 297 | 252 | P | V |
|                                      |   | 2483.52 | 50.6   | -3.4   | 54 | 34.81 | 27.66 | 8.46 | 30.25 | 297 | 252 | A | V |
|                                      |   |         |        |        |    |       |       |      |       |     |     |   | V |
|                                      |   |         |        |        |    |       |       |      |       |     |     |   | V |
| <b>Remark</b>                        | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |      |       |     |     |   |   |



**2.4GHz 2400~2483.5MHz**  
**WIFI 802.11g (Harmonic @ 3m)**

| WIFI<br>Ant.<br>1+2                 | Note   | Frequency<br>( MHz )  | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|-------------------------------------|--------|---|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11g<br><br>CH 01<br><br>2412MHz |        | 4824  | 39.76                     | -34.24                  | 74                                | 53.29                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | H             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |        | 4824  | 39.07                     | -34.93                  | 74                                | 52.6                            | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br><br>CH 06<br><br>2437MHz |        | 4874  | 45.4                      | -28.6                   | 74                                | 58.74                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | H             |
|                                     |        | 7311  | 42.4                      | -31.6                   | 74                                | 50.08                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | H             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |        | 4874  | 43.68                     | -30.32                  | 74                                | 57.02                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | V             |
|                                     |        | 7311  | 43.66                     | -30.34                  | 74                                | 51.34                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11g<br><br>CH 11<br><br>2462MHz |        | 4924  | 40.21                     | -33.79                  | 74                                | 53.36                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                                     |        | 7386  | 42.87                     | -31.13                  | 74                                | 50.34                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | H             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                     |        | 4924  | 39.42                     | -34.58                  | 74                                | 52.57                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                                     |        | 7386  | 42.35                     | -31.65                  | 74                                | 49.82                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     |        |   |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                     | Remark | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |      | 2389.8               | 61.04                     | -12.96                  | 74                                | 45.59                           | 27.41                         | 18.32                  | 30.28                      | 130                  | 12                      | P                     | H             |
|                                       |      | 2389.8               | 50.97                     | -3.03                   | 54                                | 35.52                           | 27.41                         | 18.32                  | 30.28                      | 130                  | 12                      | A                     | H             |
|                                       | *    | 2412                 | 105.37                    | -                       | -                                 | 89.84                           | 27.47                         | 18.34                  | 30.28                      | 130                  | 12                      | P                     | H             |
|                                       | *    | 2412                 | 98.13                     | -                       | -                                 | 82.6                            | 27.47                         | 18.34                  | 30.28                      | 130                  | 12                      | A                     | H             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |      | 2389.695             | 63.04                     | -10.96                  | 74                                | 47.59                           | 27.41                         | 18.32                  | 30.28                      | 307                  | 252                     | P                     | V             |
|                                       |      | 2389.59              | 52.95                     | -1.05                   | 54                                | 37.51                           | 27.41                         | 18.31                  | 30.28                      | 307                  | 252                     | A                     | V             |
|                                       | *    | 2412                 | 108.43                    | -                       | -                                 | 92.9                            | 27.47                         | 18.34                  | 30.28                      | 307                  | 252                     | P                     | V             |
|                                       | *    | 2412                 | 100.69                    | -                       | -                                 | 85.16                           | 27.47                         | 18.34                  | 30.28                      | 307                  | 252                     | A                     | V             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |      |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |      | 2389.52              | 59.11                     | -14.89                  | 74                                | 43.56                           | 27.23                         | 18.31                  | 29.99                      | 122                  | 19                      | P                     | H             |
|                                       |      | 2389.94              | 48.02                     | -5.98                   | 54                                | 32.45                           | 27.24                         | 18.32                  | 29.99                      | 122                  | 19                      | A                     | H             |
|                                       | *    | 2437                 | 113.74                    | -                       | -                                 | 98.02                           | 27.35                         | 18.35                  | 29.98                      | 122                  | 19                      | P                     | H             |
|                                       | *    | 2437                 | 105.83                    | -                       | -                                 | 90.11                           | 27.35                         | 18.35                  | 29.98                      | 122                  | 19                      | A                     | H             |
|                                       |      | 2484.11              | 59.54                     | -14.46                  | 74                                | 43.67                           | 27.46                         | 18.38                  | 29.97                      | 122                  | 19                      | P                     | H             |
|                                       |      | 2483.76              | 46.8                      | -7.2                    | 54                                | 30.93                           | 27.46                         | 18.38                  | 29.97                      | 122                  | 19                      | A                     | H             |
|                                       |      | 2378.6               | 58.62                     | -15.38                  | 74                                | 43.1                            | 27.21                         | 18.3                   | 29.99                      | 303                  | 240                     | P                     | V             |
|                                       |      | 2389.8               | 48.55                     | -5.45                   | 54                                | 32.98                           | 27.24                         | 18.32                  | 29.99                      | 303                  | 240                     | A                     | V             |
|                                       | *    | 2437                 | 114.96                    | -                       | -                                 | 99.24                           | 27.35                         | 18.35                  | 29.98                      | 303                  | 240                     | P                     | V             |
|                                       | *    | 2437                 | 107.38                    | -                       | -                                 | 91.66                           | 27.35                         | 18.35                  | 29.98                      | 303                  | 240                     | A                     | V             |
|                                       |      | 2486.84              | 57.15                     | -16.85                  | 74                                | 41.27                           | 27.47                         | 18.38                  | 29.97                      | 303                  | 240                     | P                     | V             |
|                                       |      | 2483.83              | 46.25                     | -7.75                   | 54                                | 30.38                           | 27.46                         | 18.38                  | 29.97                      | 303                  | 240                     | A                     | V             |



|                 |   |         |        |        |    |       |       |       |       |     |     |   |   |
|-----------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
|                 | *   | 2462    | 107.35 | -      | -  | 91.64 | 27.6  | 18.37 | 30.26 | 134 | 19  | P | H |
|                 | *   | 2462    | 99.68  | -      | -  | 83.97 | 27.6  | 18.37 | 30.26 | 134 | 19  | A | H |
|                 |   | 2483.52 | 63.72  | -10.28 | 74 | 47.93 | 27.66 | 18.38 | 30.25 | 134 | 19  | P | H |
|                 |   | 2483.64 | 51.13  | -2.87  | 54 | 35.34 | 27.66 | 18.38 | 30.25 | 134 | 19  | A | H |
| <b>802.11ac</b> |   |         |        |        |    |       |       |       |       |     |     |   | H |
| <b>VHT20</b>    |   |         |        |        |    |       |       |       |       |     |     |   | H |
| <b>CH 11</b>    | *   | 2462    | 109.05 | -      | -  | 93.34 | 27.6  | 18.37 | 30.26 | 296 | 251 | P | V |
| <b>2462MHz</b>  | *   | 2462    | 100.12 | -      | -  | 84.41 | 27.6  | 18.37 | 30.26 | 296 | 251 | A | V |
|                 |   | 2484.2  | 64.23  | -9.77  | 74 | 48.44 | 27.66 | 18.38 | 30.25 | 296 | 251 | P | V |
|                 |   | 2483.68 | 51.42  | -2.58  | 54 | 35.63 | 27.66 | 18.38 | 30.25 | 296 | 251 | A | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>   | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |   | 4824                 | 41.42                     | -32.58                  | 74                                | 54.95                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4824                 | 39.81                     | -34.19                  | 74                                | 53.34                           | 31.25                         | 13.76                  | 58.54                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |   | 4874                 | 45.89                     | -28.11                  | 74                                | 61.53                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 47.87                     | -26.13                  | 74                                | 58.43                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 47.46                     | -26.54                  | 74                                | 63.1                            | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 46.77                     | -27.23                  | 74                                | 57.33                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 11<br>2462MHz |   | 4924                 | 39.59                     | -34.41                  | 74                                | 52.74                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7386                 | 42.88                     | -31.12                  | 74                                | 50.35                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4924                 | 39.07                     | -34.93                  | 74                                | 52.22                           | 31.45                         | 13.92                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7386                 | 43.01                     | -30.99                  | 74                                | 50.48                           | 36.28                         | 15.15                  | 58.9                       | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |      | 2389.38              | 60.58                     | -13.42                  | 74                                | 45.14                           | 27.41                         | 18.31                  | 30.28                      | 131                  | 19                      | P                     | H             |
|                                       |      | 2389.8               | 51.24                     | -2.76                   | 54                                | 35.79                           | 27.41                         | 18.32                  | 30.28                      | 131                  | 19                      | A                     | H             |
|                                       | *    | 2422                 | 101.37                    | -                       | -                                 | 85.8                            | 27.5                          | 18.34                  | 30.27                      | 131                  | 19                      | P                     | H             |
|                                       | *    | 2422                 | 93.56                     | -                       | -                                 | 77.99                           | 27.5                          | 18.34                  | 30.27                      | 131                  | 19                      | A                     | H             |
|                                       |      | 2488.66              | 57.55                     | -16.45                  | 74                                | 41.75                           | 27.67                         | 18.38                  | 30.25                      | 131                  | 19                      | P                     | H             |
|                                       |      | 2484.46              | 46.93                     | -7.07                   | 54                                | 31.14                           | 27.66                         | 18.38                  | 30.25                      | 131                  | 19                      | A                     | H             |
|                                       |      | 2387.28              | 60.21                     | -13.79                  | 74                                | 44.77                           | 27.41                         | 18.31                  | 30.28                      | 239                  | 250                     | P                     | V             |
|                                       |      | 2389.94              | 51.61                     | -2.39                   | 54                                | 36.16                           | 27.41                         | 18.32                  | 30.28                      | 239                  | 250                     | A                     | V             |
|                                       | *    | 2422                 | 102.99                    | -                       | -                                 | 87.42                           | 27.5                          | 18.34                  | 30.27                      | 239                  | 250                     | P                     | V             |
|                                       | *    | 2422                 | 94.64                     | -                       | -                                 | 79.07                           | 27.5                          | 18.34                  | 30.27                      | 239                  | 250                     | A                     | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |      | 2496.71              | 56.64                     | -17.36                  | 74                                | 40.81                           | 27.69                         | 18.39                  | 30.25                      | 239                  | 250                     | P                     | V             |
|                                       |      | 2483.5               | 46.97                     | -7.03                   | 54                                | 31.18                           | 27.66                         | 18.38                  | 30.25                      | 239                  | 250                     | A                     | V             |
|                                       |      | 2386.86              | 62.45                     | -11.55                  | 74                                | 46.9                            | 27.23                         | 18.31                  | 29.99                      | 124                  | 18                      | P                     | H             |
|                                       |      | 2388.54              | 51.83                     | -2.17                   | 54                                | 36.28                           | 27.23                         | 18.31                  | 29.99                      | 124                  | 18                      | A                     | H             |
|                                       | *    | 2437                 | 105.37                    | -                       | -                                 | 89.65                           | 27.35                         | 18.35                  | 29.98                      | 124                  | 18                      | P                     | H             |
|                                       | *    | 2437                 | 97.32                     | -                       | -                                 | 81.6                            | 27.35                         | 18.35                  | 29.98                      | 124                  | 18                      | A                     | H             |
|                                       |      | 2485.37              | 59.96                     | -14.04                  | 74                                | 44.09                           | 27.46                         | 18.38                  | 29.97                      | 124                  | 18                      | P                     | H             |
|                                       |      | 2483.5               | 50.21                     | -3.79                   | 54                                | 34.34                           | 27.46                         | 18.38                  | 29.97                      | 124                  | 18                      | A                     | H             |
|                                       |      | 2387.98              | 62.53                     | -11.47                  | 74                                | 46.98                           | 27.23                         | 18.31                  | 29.99                      | 304                  | 240                     | P                     | V             |
|                                       |      | 2388.96              | 52.16                     | -1.84                   | 54                                | 36.61                           | 27.23                         | 18.31                  | 29.99                      | 304                  | 240                     | A                     | V             |



|          |   |         |        |        |    |       |       |       |       |     |     |   |   |
|----------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
|          |   | 2382.66 | 57.69  | -16.31 | 74 | 42.29 | 27.39 | 18.3  | 30.29 | 100 | 16  | P | H |
|          |   | 2386.3  | 47.75  | -6.25  | 54 | 32.32 | 27.4  | 18.31 | 30.28 | 100 | 16  | A | H |
|          | *   | 2452    | 103.74 | -      | -  | 88.06 | 27.58 | 18.36 | 30.26 | 100 | 16  | P | H |
|          | *   | 2452    | 96.07  | -      | -  | 80.39 | 27.58 | 18.36 | 30.26 | 100 | 16  | A | H |
| 802.11ac |   | 2484.74 | 63.76  | -10.24 | 74 | 47.97 | 27.66 | 18.38 | 30.25 | 100 | 16  | P | H |
| VHT40    |   | 2484.88 | 52.17  | -1.83  | 54 | 36.38 | 27.66 | 18.38 | 30.25 | 100 | 16  | A | H |
| CH 09    |   | 2383.08 | 57.73  | -16.27 | 74 | 42.31 | 27.4  | 18.31 | 30.29 | 299 | 251 | P | V |
| 2452MHz  |   | 2388.4  | 48.33  | -5.67  | 54 | 32.89 | 27.41 | 18.31 | 30.28 | 299 | 251 | A | V |
|          | *   | 2452    | 106.54 | -      | -  | 90.86 | 27.58 | 18.36 | 30.26 | 299 | 251 | P | V |
|          | *   | 2452    | 98.38  | -      | -  | 82.7  | 27.58 | 18.36 | 30.26 | 299 | 251 | A | V |
|          |   | 2483.9  | 63.39  | -10.61 | 74 | 47.6  | 27.66 | 18.38 | 30.25 | 299 | 251 | P | V |
|          |   | 2483.55 | 52.85  | -1.15  | 54 | 37.06 | 27.66 | 18.38 | 30.25 | 299 | 251 | A | V |
| Remark   | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |   | 4844                 | 38.66                     | -35.34                  | 74                                | 52.11                           | 31.29                         | 13.79                  | 58.53                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7266                 | 42.82                     | -31.18                  | 74                                | 50.63                           | 35.94                         | 15.26                  | 59.01                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4844                 | 38.88                     | -35.12                  | 74                                | 52.33                           | 31.29                         | 13.79                  | 58.53                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7266                 | 42.74                     | -31.26                  | 74                                | 50.55                           | 35.94                         | 15.26                  | 59.01                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |   | 4874                 | 44.03                     | -29.97                  | 74                                | 59.67                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 47.34                     | -26.66                  | 74                                | 57.9                            | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 43.54                     | -30.46                  | 74                                | 59.18                           | 32.55                         | 13.92                  | 62.11                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 46.33                     | -27.67                  | 74                                | 56.89                           | 37.24                         | 15.25                  | 63.05                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 09<br>2452MHz |   | 4904                 | 39.1                      | -34.9                   | 74                                | 52.32                           | 31.41                         | 13.89                  | 58.52                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7356                 | 42.78                     | -31.22                  | 74                                | 50.33                           | 36.2                          | 15.18                  | 58.93                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4904                 | 38.79                     | -35.21                  | 74                                | 52.01                           | 31.41                         | 13.89                  | 58.52                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7356                 | 43.43                     | -30.57                  | 74                                | 50.98                           | 36.2                          | 15.18                  | 58.93                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## &lt;TXBF Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

| WIFI                                  | Note | Frequency | Level            | Over   | Limit            | Read           | Antenna  | Path   | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------------------------------------|------|-----------|------------------|--------|------------------|----------------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                  |      |           |                  | Limit  | Line             | Level          | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1+2                                   |      | ( MHz )   | ( dB $\mu$ V/m ) | ( dB ) | ( dB $\mu$ V/m ) | ( dB $\mu$ V ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |      | 2388.015  | 60.09            | -13.91 | 74               | 44.54          | 27.23    | 18.31  | 29.99  | 251    | 0       | P     | H     |
|                                       |      | 2390      | 51               | -3     | 54               | 35.43          | 27.24    | 18.32  | 29.99  | 251    | 0       | A     | H     |
|                                       | *    | 2412      | 109.7            | -      | -                | 94.06          | 27.29    | 18.34  | 29.99  | 251    | 0       | P     | H     |
|                                       | *    | 2412      | 98.3             | -      | -                | 82.66          | 27.29    | 18.34  | 29.99  | 251    | 0       | A     | H     |
|                                       |      |           |                  |        |                  |                |          |        |        |        |         |       | H     |
|                                       |      |           |                  |        |                  |                |          |        |        |        |         |       | H     |
|                                       |      | 2390      | 65.14            | -8.86  | 74               | 49.57          | 27.24    | 18.32  | 29.99  | 315    | 273     | P     | V     |
|                                       |      | 2389.8    | 52.31            | -1.69  | 54               | 36.74          | 27.24    | 18.32  | 29.99  | 315    | 273     | A     | V     |
|                                       | *    | 2412      | 111.68           | -      | -                | 96.04          | 27.29    | 18.34  | 29.99  | 315    | 273     | P     | V     |
|                                       | *    | 2412      | 100.18           | -      | -                | 84.54          | 27.29    | 18.34  | 29.99  | 315    | 273     | A     | V     |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |      | 2386.58   | 58.96            | -15.04 | 74               | 43.41          | 27.23    | 18.31  | 29.99  | 279    | 6       | P     | H     |
|                                       |      | 2388.82   | 48.52            | -5.48  | 54               | 32.97          | 27.23    | 18.31  | 29.99  | 279    | 6       | A     | H     |
|                                       | *    | 2437      | 115.75           | -      | -                | 100.03         | 27.35    | 18.35  | 29.98  | 279    | 6       | P     | H     |
|                                       | *    | 2437      | 105.75           | -      | -                | 90.03          | 27.35    | 18.35  | 29.98  | 279    | 6       | A     | H     |
|                                       |      | 2491.11   | 57.31            | -16.69 | 74               | 41.42          | 27.48    | 18.38  | 29.97  | 279    | 6       | P     | H     |
|                                       |      | 2486.21   | 47.76            | -6.24  | 54               | 31.88          | 27.47    | 18.38  | 29.97  | 279    | 6       | A     | H     |
|                                       |      | 2388.96   | 58.58            | -15.42 | 74               | 43.03          | 27.23    | 18.31  | 29.99  | 268    | 261     | P     | V     |
|                                       |      | 2389.66   | 49.36            | -4.64  | 54               | 33.79          | 27.24    | 18.32  | 29.99  | 268    | 261     | A     | V     |
|                                       | *    | 2437      | 116.84           | -      | -                | 101.12         | 27.35    | 18.35  | 29.98  | 268    | 261     | P     | V     |
|                                       | *    | 2437      | 113.95           | -      | -                | 98.23          | 27.35    | 18.35  | 29.98  | 268    | 261     | A     | V     |
|                                       |      | 2485.23   | 58.53            | -15.47 | 74               | 42.66          | 27.46    | 18.38  | 29.97  | 268    | 261     | P     | V     |
|                                       |      | 2484.74   | 48.22            | -5.78  | 54               | 32.35          | 27.46    | 18.38  | 29.97  | 268    | 261     | A     | V     |



|                 |   |         |        |        |    |       |       |       |       |     |     |   |   |
|-----------------|---|---------|--------|--------|----|-------|-------|-------|-------|-----|-----|---|---|
|                 | *   | 2462    | 110.52 | -      | -  | 94.71 | 27.41 | 18.37 | 29.97 | 270 | 1   | P | H |
|                 | *   | 2464    | 98.86  | -      | -  | 83.05 | 27.41 | 18.37 | 29.97 | 270 | 1   | A | H |
|                 |   | 2483.76 | 61.66  | -12.34 | 74 | 45.79 | 27.46 | 18.38 | 29.97 | 270 | 1   | P | H |
|                 |   | 2483.72 | 50.97  | -3.03  | 54 | 35.1  | 27.46 | 18.38 | 29.97 | 270 | 1   | A | H |
| <b>802.11ac</b> |   |         |        |        |    |       |       |       |       |     |     |   | H |
| <b>VHT20</b>    |   |         |        |        |    |       |       |       |       |     |     |   | H |
| <b>CH 11</b>    | *   | 2462    | 112.43 | -      | -  | 96.62 | 27.41 | 18.37 | 29.97 | 261 | 257 | P | V |
| <b>2462MHz</b>  | *   | 2462    | 100.37 | -      | -  | 84.56 | 27.41 | 18.37 | 29.97 | 261 | 257 | A | V |
|                 |   | 2484.56 | 61.23  | -12.77 | 74 | 45.36 | 27.46 | 18.38 | 29.97 | 261 | 257 | P | V |
|                 |   | 2483.8  | 51.35  | -2.65  | 54 | 35.48 | 27.46 | 18.38 | 29.97 | 261 | 257 | A | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
|                 |   |         |        |        |    |       |       |       |       |     |     |   | V |
| <b>Remark</b>   | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |         |        |        |    |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT20<br>CH 01<br>2412MHz |   | 4824                 | 41.45                     | -32.55                  | 74                                | 53.01                           | 31.25                         | 13.76                  | 56.57                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4824                 | 37.88                     | -36.12                  | 74                                | 49.44                           | 31.25                         | 13.76                  | 56.57                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 06<br>2437MHz |   | 4874                 | 48.09                     | -25.91                  | 74                                | 59.45                           | 31.35                         | 13.84                  | 56.55                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 41.86                     | -32.14                  | 74                                | 46.8                            | 36.07                         | 15.22                  | 56.23                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 44.71                     | -29.29                  | 74                                | 56.07                           | 31.35                         | 13.84                  | 56.55                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 43.83                     | -30.17                  | 74                                | 48.77                           | 36.07                         | 15.22                  | 56.23                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT20<br>CH 11<br>2462MHz |   | 4924                 | 37.45                     | -36.55                  | 74                                | 48.61                           | 31.45                         | 13.92                  | 56.53                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7386                 | 40.85                     | -33.15                  | 74                                | 45.56                           | 36.28                         | 15.15                  | 56.14                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4924                 | 37.41                     | -36.59                  | 74                                | 48.57                           | 31.45                         | 13.92                  | 56.53                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7386                 | 41.05                     | -32.95                  | 74                                | 45.76                           | 36.28                         | 15.15                  | 56.14                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|------|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |      | 2383.36              | 61.03                     | -12.97                  | 74                                | 45.49                           | 27.22                         | 18.31                  | 29.99                      | 106                  | 235                     | P                     | H             |
|                                       |      | 2389.52              | 51.43                     | -2.57                   | 54                                | 35.88                           | 27.23                         | 18.31                  | 29.99                      | 106                  | 235                     | A                     | H             |
|                                       | *    | 2422                 | 105.36                    | -                       | -                                 | 89.69                           | 27.31                         | 18.34                  | 29.98                      | 106                  | 235                     | P                     | H             |
|                                       | *    | 2422                 | 94.45                     | -                       | -                                 | 78.78                           | 27.31                         | 18.34                  | 29.98                      | 106                  | 235                     | A                     | H             |
|                                       |      | 2488.59              | 57.6                      | -16.4                   | 74                                | 41.72                           | 27.47                         | 18.38                  | 29.97                      | 106                  | 235                     | P                     | H             |
|                                       |      | 2484.53              | 47.13                     | -6.87                   | 54                                | 31.26                           | 27.46                         | 18.38                  | 29.97                      | 106                  | 235                     | A                     | H             |
|                                       |      | 2389.1               | 58.81                     | -15.19                  | 74                                | 43.26                           | 27.23                         | 18.31                  | 29.99                      | 365                  | 279                     | P                     | V             |
|                                       |      | 2389.52              | 50.85                     | -3.15                   | 54                                | 35.3                            | 27.23                         | 18.31                  | 29.99                      | 365                  | 279                     | A                     | V             |
|                                       | *    | 2422                 | 103.7                     | -                       | -                                 | 88.03                           | 27.31                         | 18.34                  | 29.98                      | 365                  | 279                     | P                     | V             |
|                                       | *    | 2422                 | 93.25                     | -                       | -                                 | 77.58                           | 27.31                         | 18.34                  | 29.98                      | 365                  | 279                     | A                     | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |      | 2485.3               | 57.21                     | -16.79                  | 74                                | 41.34                           | 27.46                         | 18.38                  | 29.97                      | 365                  | 279                     | P                     | V             |
|                                       |      | 2493.91              | 46.67                     | -7.33                   | 54                                | 30.75                           | 27.49                         | 18.39                  | 29.96                      | 365                  | 279                     | A                     | V             |
|                                       |      | 2386.3               | 59.77                     | -14.23                  | 74                                | 44.22                           | 27.23                         | 18.31                  | 29.99                      | 104                  | 239                     | P                     | H             |
|                                       |      | 2386.72              | 52                        | -2                      | 54                                | 36.45                           | 27.23                         | 18.31                  | 29.99                      | 104                  | 239                     | A                     | H             |
|                                       | *    | 2437                 | 108.16                    | -                       | -                                 | 92.44                           | 27.35                         | 18.35                  | 29.98                      | 104                  | 239                     | P                     | H             |
|                                       | *    | 2437                 | 96.86                     | -                       | -                                 | 81.14                           | 27.35                         | 18.35                  | 29.98                      | 104                  | 239                     | A                     | H             |
|                                       |      | 2487.47              | 59.09                     | -14.91                  | 74                                | 43.21                           | 27.47                         | 18.38                  | 29.97                      | 104                  | 239                     | P                     | H             |
|                                       |      | 2485.02              | 48.85                     | -5.15                   | 54                                | 32.98                           | 27.46                         | 18.38                  | 29.97                      | 104                  | 239                     | A                     | H             |
|                                       |      | 2386.58              | 57.51                     | -16.49                  | 74                                | 41.96                           | 27.23                         | 18.31                  | 29.99                      | 356                  | 276                     | P                     | V             |
|                                       |      | 2389.1               | 47.43                     | -6.57                   | 54                                | 31.88                           | 27.23                         | 18.31                  | 29.99                      | 356                  | 276                     | A                     | V             |



|  |       |         |        |        |       |       |       |       |       |     |     |   |   |
|--|-------|---------|--------|--------|-------|-------|-------|-------|-------|-----|-----|---|---|
| 802.11ac   |       | 2387.42 | 56.73  | -17.27 | 74    | 41.18 | 27.23 | 18.31 | 29.99 | 103 | 273 | P | H |
|  |       | 2387    | 47.12  | -6.88  | 54    | 31.57 | 27.23 | 18.31 | 29.99 | 103 | 273 | A | H |
|  | *     | 2452    | 105.02 | -      | -     | 89.25 | 27.38 | 18.36 | 29.97 | 103 | 273 | P | H |
|  | *     | 2452    | 94.74  | -      | -     | 78.97 | 27.38 | 18.36 | 29.97 | 103 | 273 | A | H |
|  |       | 2486.98 | 64.4   | -9.6   | 74    | 48.52 | 27.47 | 18.38 | 29.97 | 103 | 273 | P | H |
|  | VHT40 | 2484.67 | 50.89  | -3.11  | 54    | 35.02 | 27.46 | 18.38 | 29.97 | 103 | 273 | A | H |
| CH 09  |       | 2389.8  | 56.48  | -17.52 | 74    | 40.91 | 27.24 | 18.32 | 29.99 | 400 | 301 | P | V |
| 2452MHz  |       | 2387.84 | 47.27  | -6.73  | 54    | 31.72 | 27.23 | 18.31 | 29.99 | 400 | 301 | A | V |
| *  | 2440  | 105.55  | -      | -      | 89.82 | 27.36 | 18.35 | 29.98 | 400   | 301 | P   | V |   |
| *  | 2436  | 94.87   | -      | -      | 79.15 | 27.35 | 18.35 | 29.98 | 400   | 301 | A   | V |   |
| <b>Remark</b>  |       |         |        |        |       |       |       |       |       |     |     |   |   |
| 1. No other spurious found.                                  |       |         |        |        |       |       |       |       |       |     |     |   |   |
| 2. All results are PASS against Peak and Average limit line. |       |         |        |        |       |       |       |       |       |     |     |   |   |



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

| WIFI<br>Ant.<br>1+2                   | Note  | Frequency<br>( MHz ) | Level<br>( dB $\mu$ V/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dB $\mu$ V/m ) | Read<br>Level<br>( dB $\mu$ V ) | Antenna<br>Factor<br>( dB/m ) | Path<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Peak<br>Avg.<br>(P/A) | Pol.<br>(H/V) |
|---------------------------------------|---|----------------------|---------------------------|-------------------------|-----------------------------------|---------------------------------|-------------------------------|------------------------|----------------------------|----------------------|-------------------------|-----------------------|---------------|
| 802.11ac<br>VHT40<br>CH 03<br>2422MHz |   | 4844                 | 38.37                     | -35.63                  | 74                                | 49.85                           | 31.29                         | 13.79                  | 56.56                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7266                 | 41.08                     | -32.92                  | 74                                | 46.16                           | 35.94                         | 15.26                  | 56.28                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4844                 | 37.03                     | -36.97                  | 74                                | 48.51                           | 31.29                         | 13.79                  | 56.56                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7266                 | 40.78                     | -33.22                  | 74                                | 45.86                           | 35.94                         | 15.26                  | 56.28                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 06<br>2437MHz |   | 4874                 | 39.44                     | -34.56                  | 74                                | 52.78                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7311                 | 41.86                     | -32.14                  | 74                                | 49.54                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4874                 | 39.03                     | -34.97                  | 74                                | 52.37                           | 31.35                         | 13.84                  | 58.53                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7311                 | 41.67                     | -32.33                  | 74                                | 49.35                           | 36.07                         | 15.22                  | 58.97                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| 802.11ac<br>VHT40<br>CH 09<br>2452MHz |   | 4904                 | 38.6                      | -35.4                   | 74                                | 49.84                           | 31.41                         | 13.89                  | 56.54                      | 100                  | 0                       | P                     | H             |
|                                       |   | 7356                 | 41.52                     | -32.48                  | 74                                | 46.31                           | 36.2                          | 15.18                  | 56.17                      | 100                  | 0                       | P                     | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | H             |
|                                       |   | 4904                 | 37.6                      | -36.4                   | 74                                | 48.84                           | 31.41                         | 13.89                  | 56.54                      | 100                  | 0                       | P                     | V             |
|                                       |   | 7356                 | 41.92                     | -32.08                  | 74                                | 46.71                           | 36.2                          | 15.18                  | 56.17                      | 100                  | 0                       | P                     | V             |
|                                       |   |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       | V             |
| Remark                                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                      |                           |                         |                                   |                                 |                               |                        |                            |                      |                         |                       |               |

**Note symbol**

|     |  |
|-----|--|
| *   | <b>Fundamental Frequency</b> which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency. |
| !   | Test result is <b>over limit</b> line.   |
| P/A | <b>Peak or Average</b>   |
| H/V | <b>Horizontal or Vertical</b>  |



A calculation example for radiated spurious emission is shown as below:

| WIFI    | Note | Frequency | Level            | Over   | Limit            | Read           | Antenna  | Path   | Preamp | Ant    | Table   | Peak    | Pol.    |
|---------|------|-----------|------------------|--------|------------------|----------------|----------|--------|--------|--------|---------|---------|---------|
| Ant.    |      |           |                  | Limit  | Line             | Level          | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 1       |      | ( MHz )   | ( dB $\mu$ V/m ) | ( dB ) | ( dB $\mu$ V/m ) | ( dB $\mu$ V ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 802.11b |      | 2390      | 55.45            | -18.55 | 74               | 54.51          | 32.22    | 4.58   | 35.86  | 103    | 308     | P       | H       |
| CH 01   |      |           |                  |        |                  |                |          |        |        |        |         |         |         |
| 2412MHz |      | 2390      | 43.54            | -10.46 | 54               | 42.6           | 32.22    | 4.58   | 35.86  | 103    | 308     | A       | H       |

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)

2. Level(dB $\mu$ V/m) =

Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)

3. Over Limit(dB) = Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

#### For Peak Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dB $\mu$ V) – 35.86 (dB)

= 55.45 (dB $\mu$ V/m)

2. Over Limit(dB)

= Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

= 55.45(dB $\mu$ V/m) – 74(dB $\mu$ V/m)

= -18.55(dB)

#### For Average Limit @ 2390MHz:

1. Level(dB $\mu$ V/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dB $\mu$ V) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dB $\mu$ V) – 35.86 (dB)

= 43.54 (dB $\mu$ V/m)

2. Over Limit(dB)

= Level(dB $\mu$ V/m) – Limit Line(dB $\mu$ V/m)

= 43.54(dB $\mu$ V/m) – 54(dB $\mu$ V/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.



## Appendix D. Radiated Spurious Emission Plots

|                        |                                    |                            |         |
|------------------------|------------------------------------|----------------------------|---------|
| <b>Test Engineer :</b> | CR Liao, Austin Li, and Jacky Hung | <b>Temperature :</b>       | 23~25°C |
|                        |                                    | <b>Relative Humidity :</b> | 55~57%  |

### Note symbol

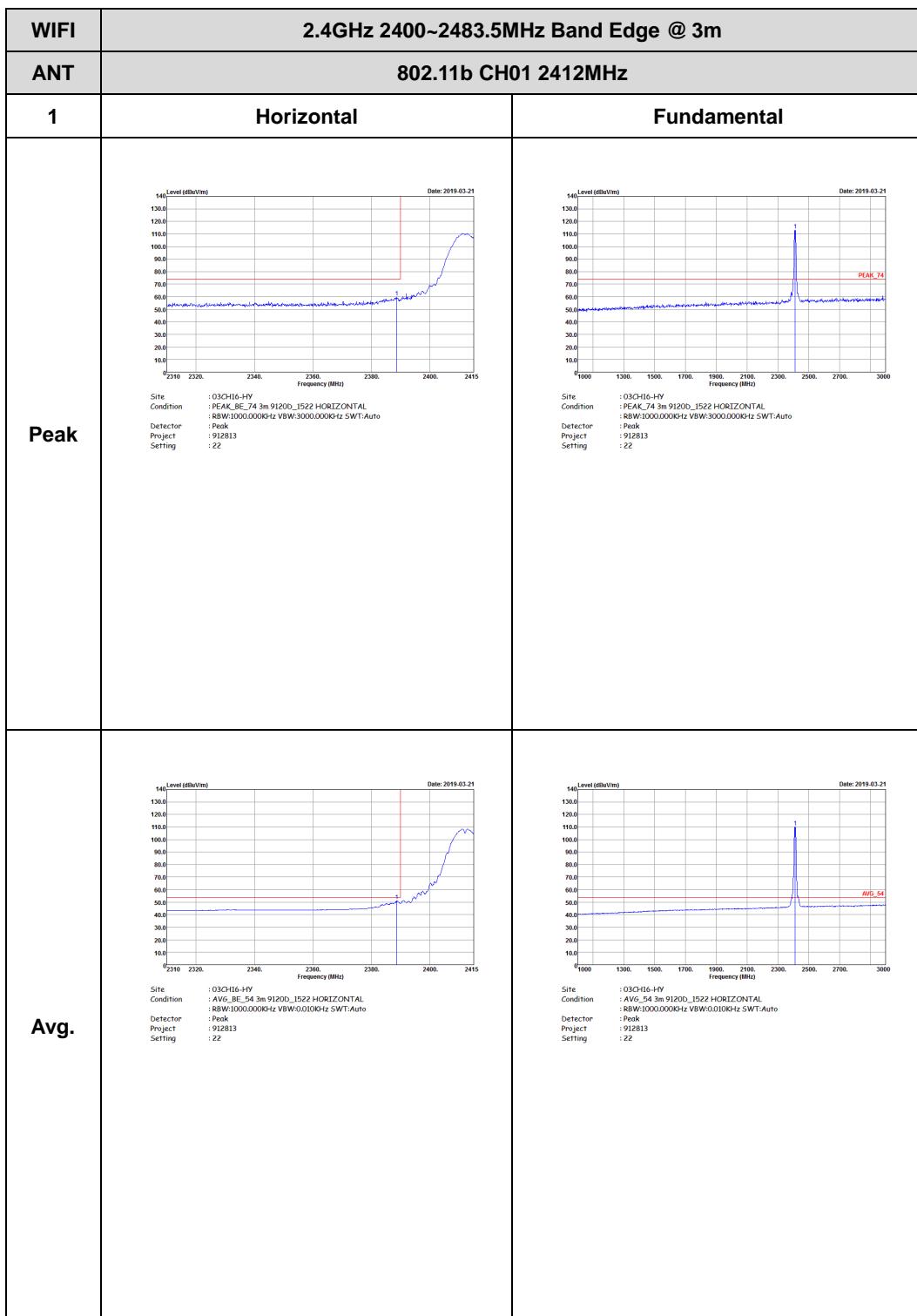
|    |                              |
|----|------------------------------|
| -L | <b>Low channel location</b>  |
| -R | <b>High channel location</b> |

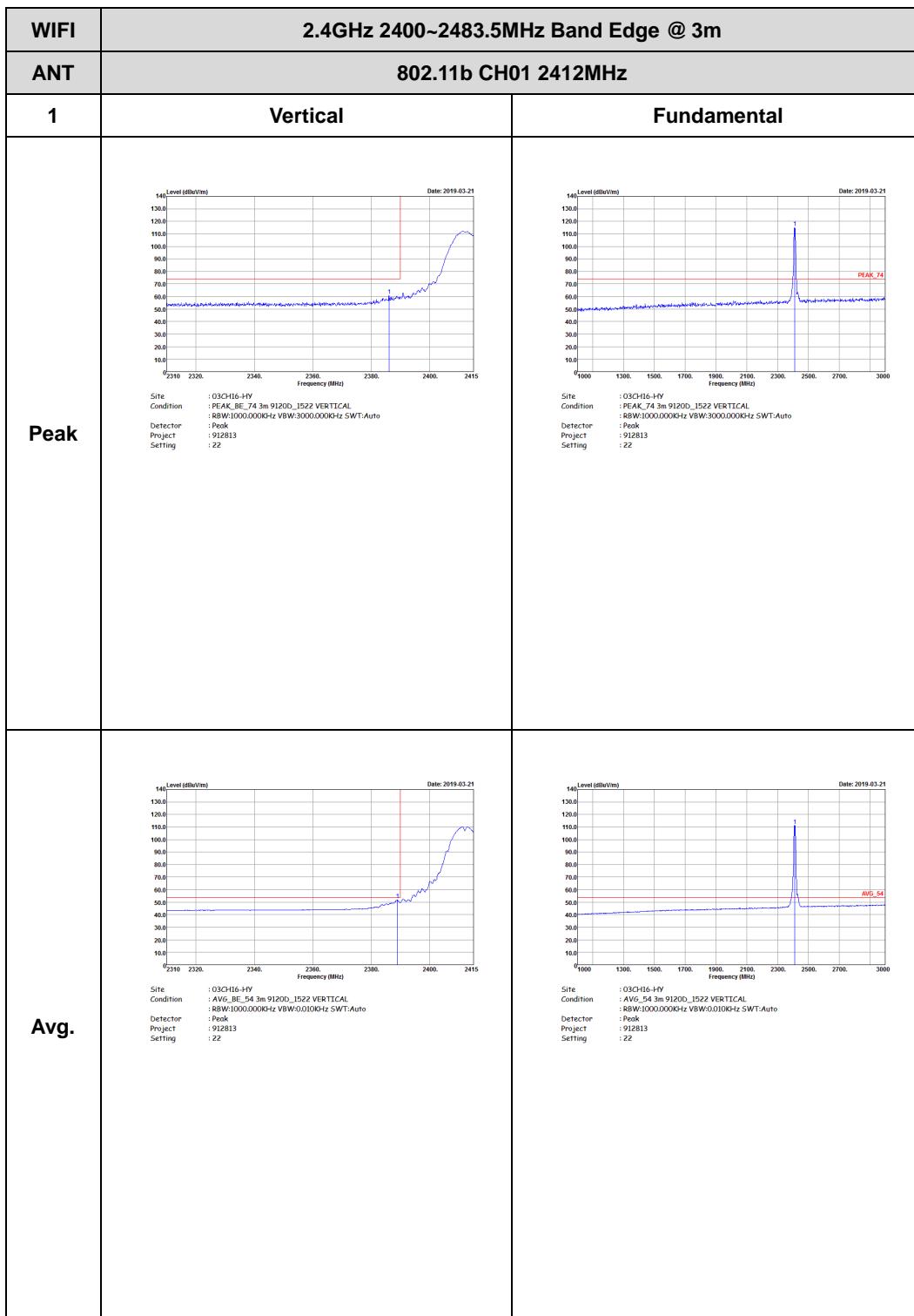


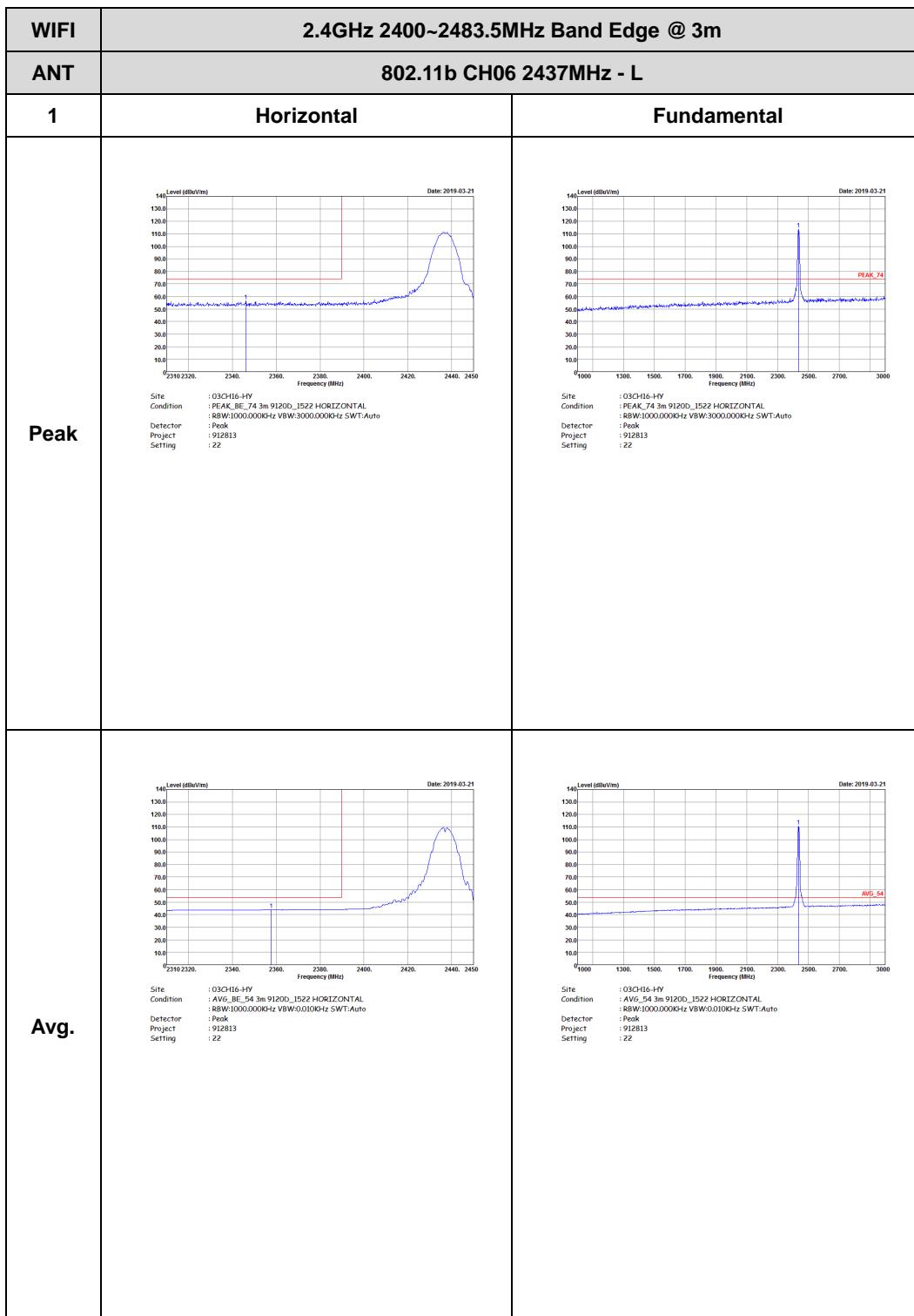
## &lt;CDD Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

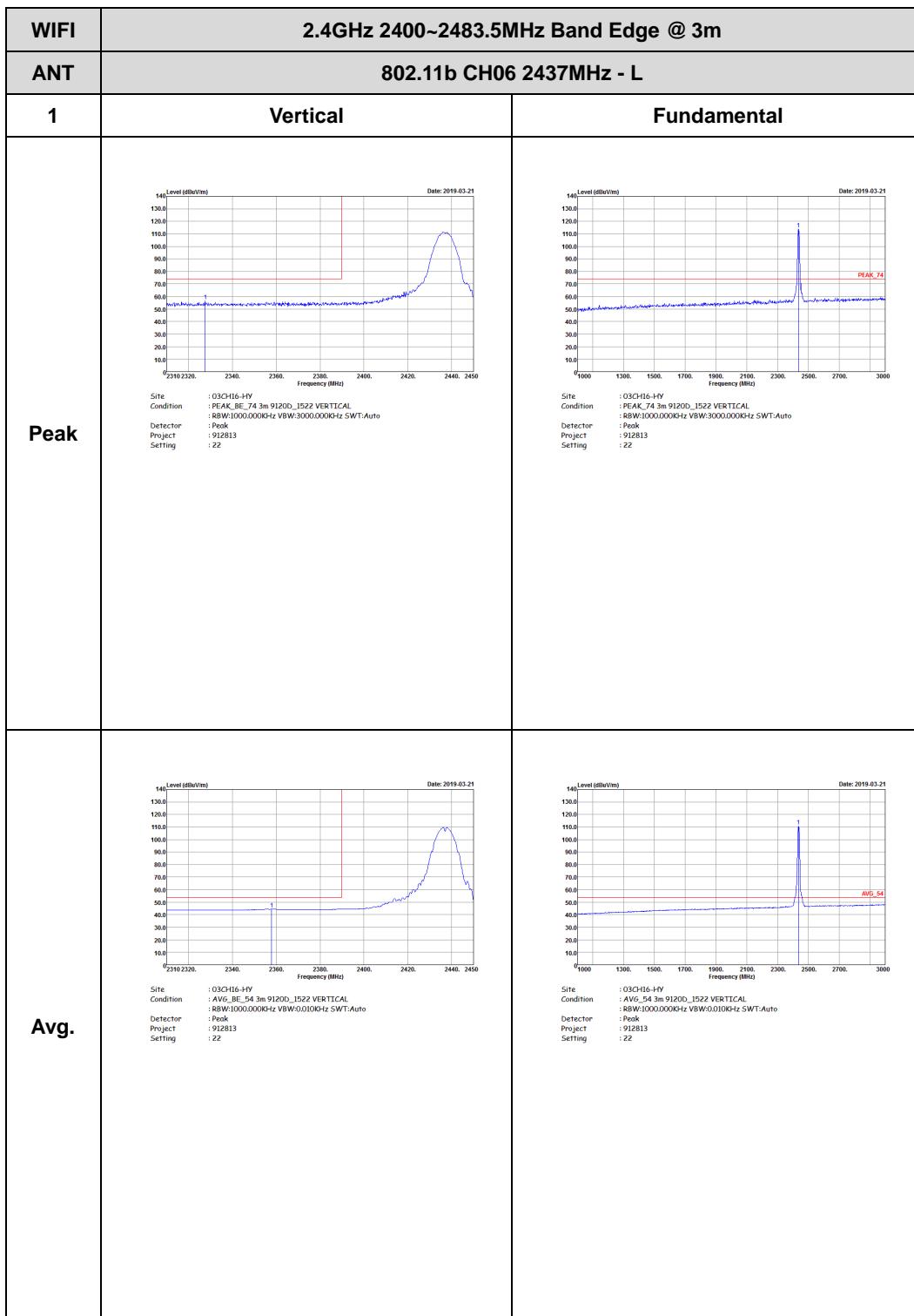




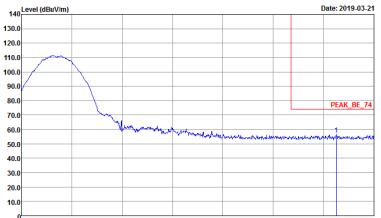


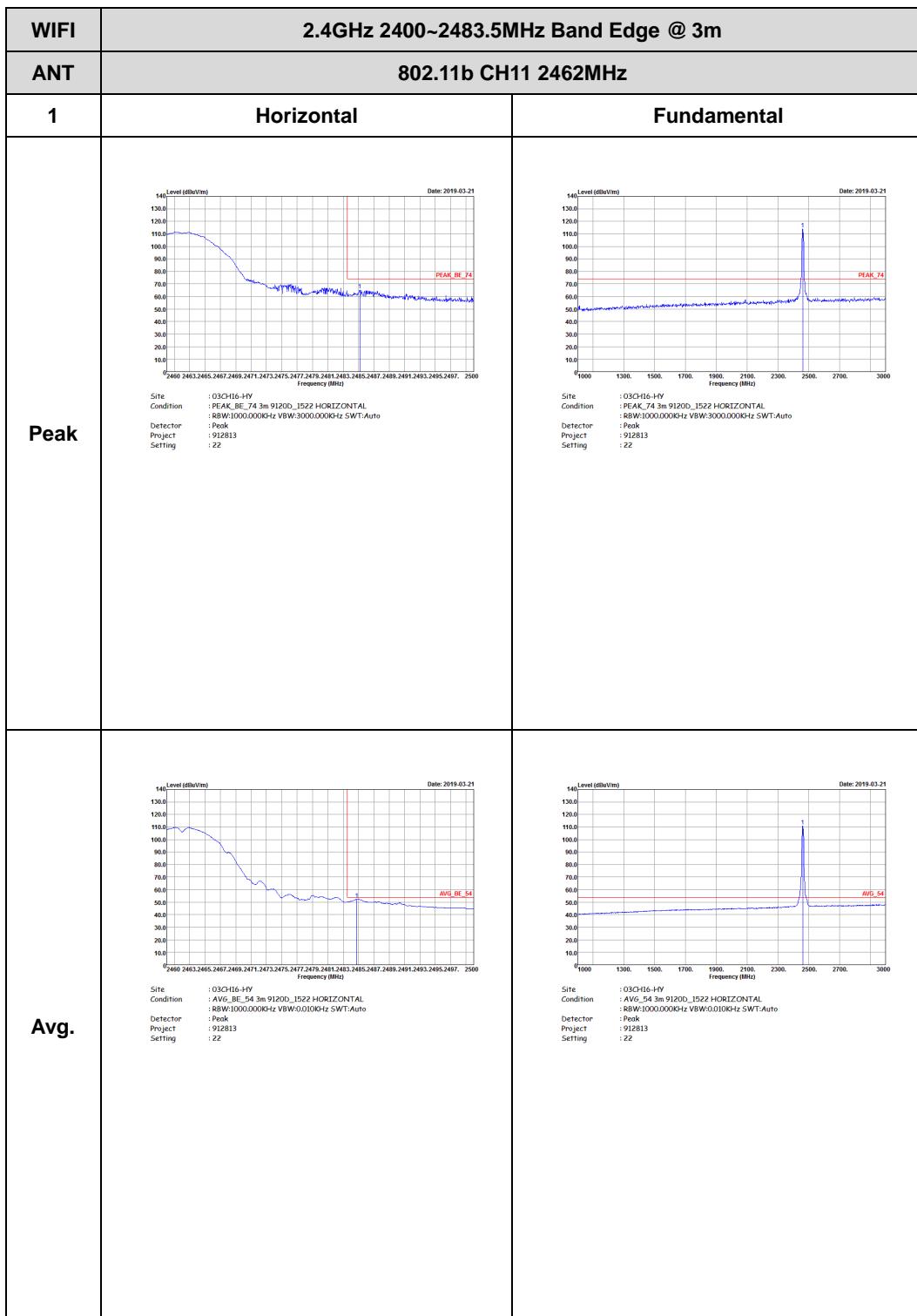


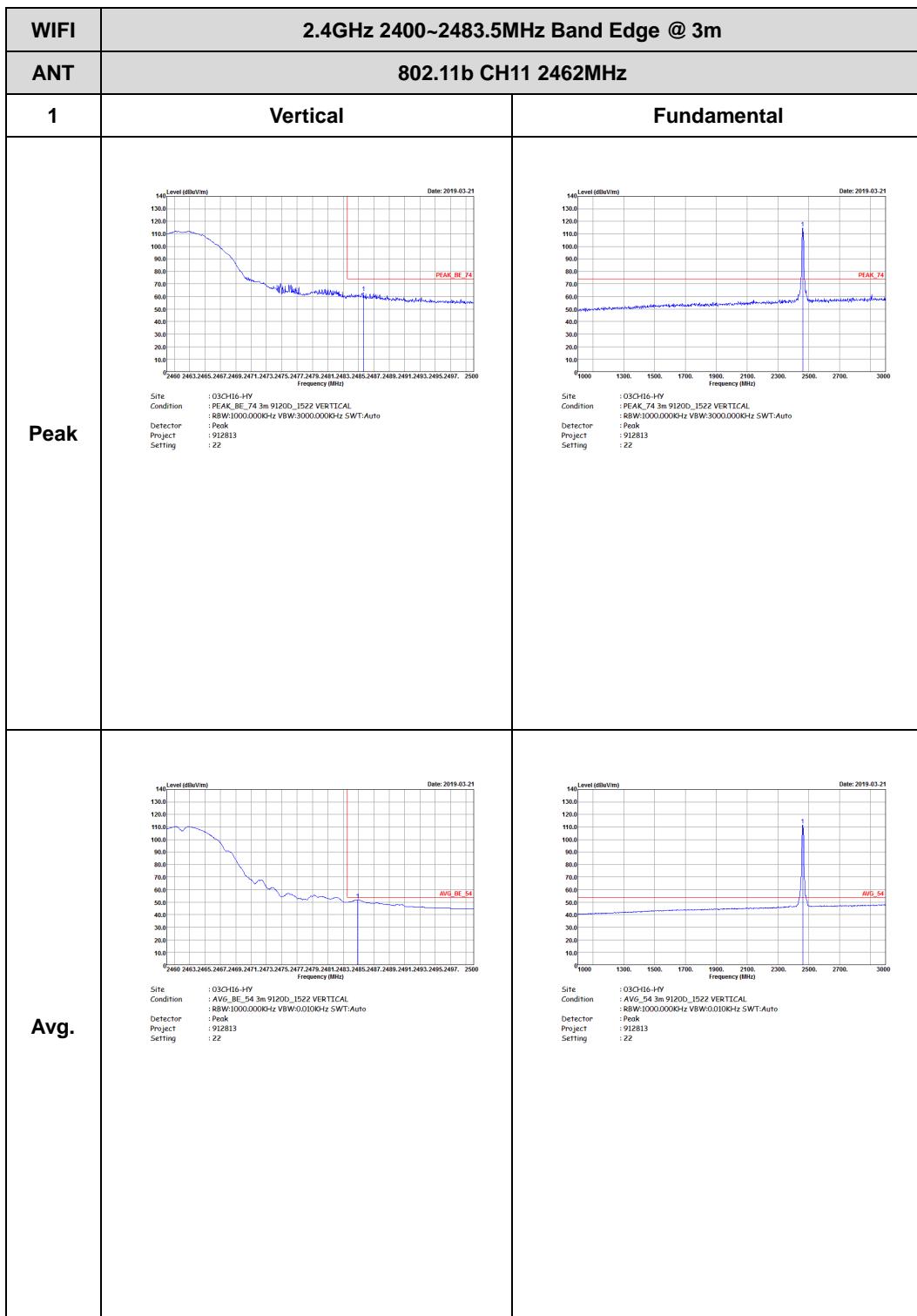
|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11b CH06 2437MHz - R   |             |
| 1    | Horizontal   | Fundamental |
| Peak | <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. | <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p>     | Left blank  |





|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11b CH06 2437MHz - R  |             |
| 1    | Vertical  | Fundamental |
| Peak |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The graph shows a sharp peak labeled 'PEAK_BE_74' at approximately 2437MHz with a level of about 110 dBc/Vm. The background noise floor is around 55 dBc/Vm.</p> <p>Date: 2019-03-21</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>              | Left blank  |
| Avg. |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The graph shows a broad average power envelope labeled 'AVG_BE_54' centered around 2437MHz with a level of about 55 dBc/Vm. The background noise floor is around 50 dBc/Vm.</p> <p>Date: 2019-03-21</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |



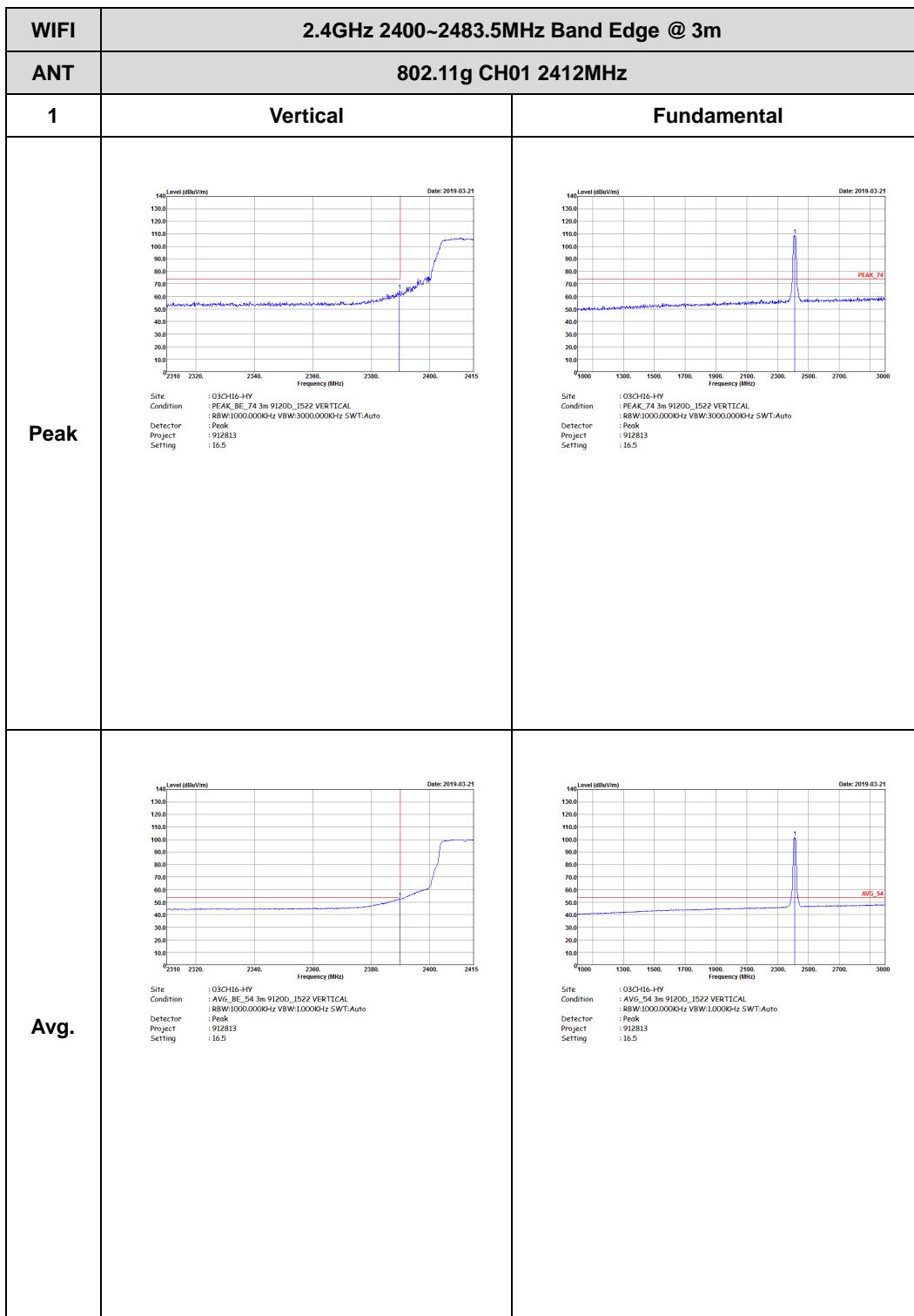


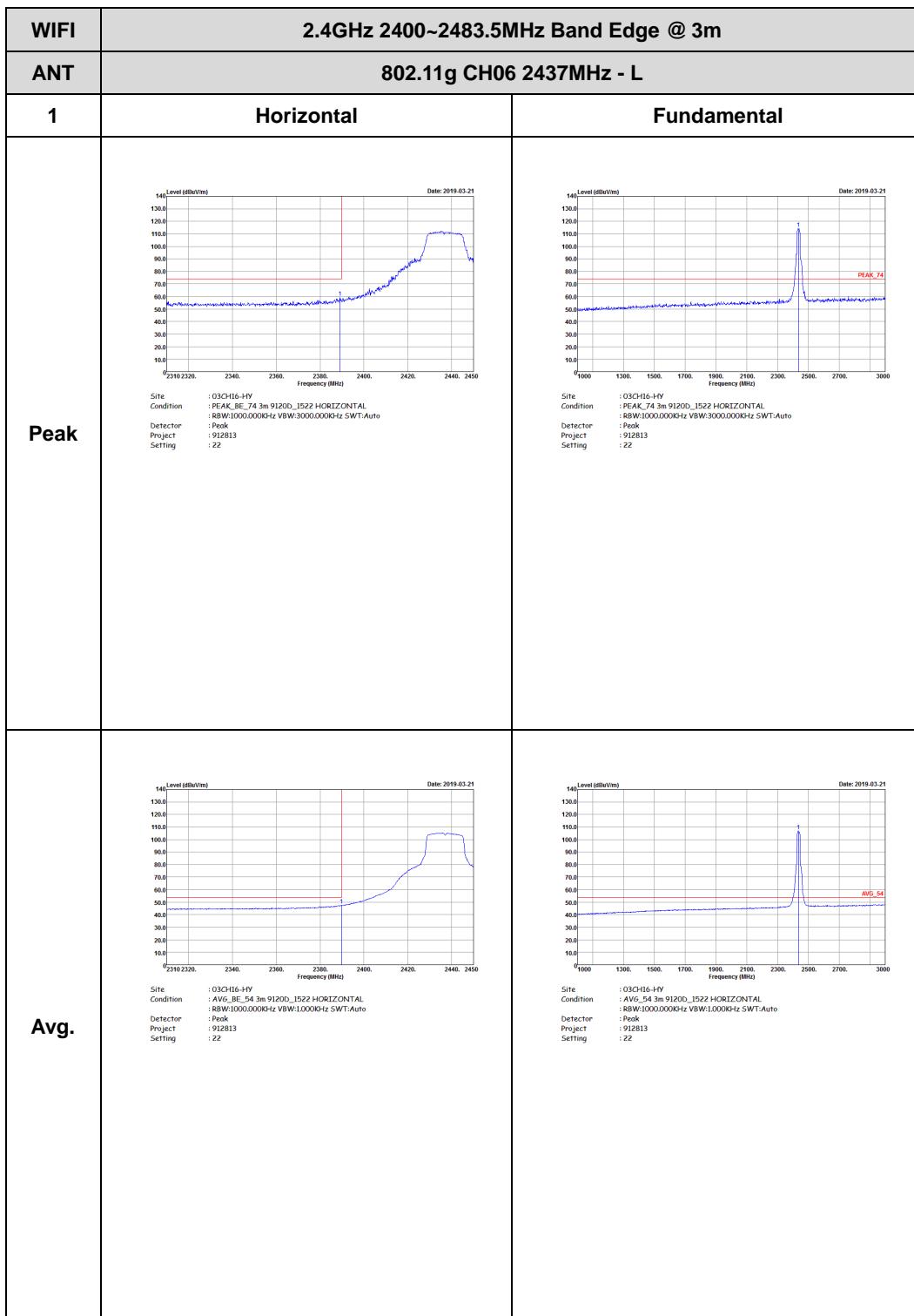


## 2.4GHz 2400~2483.5MHz

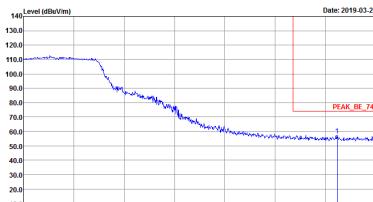
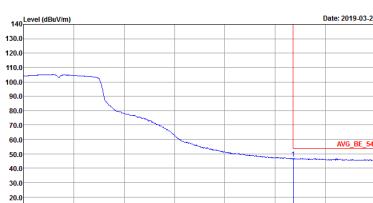
## WIFI 802.11g (Band Edge @ 3m)

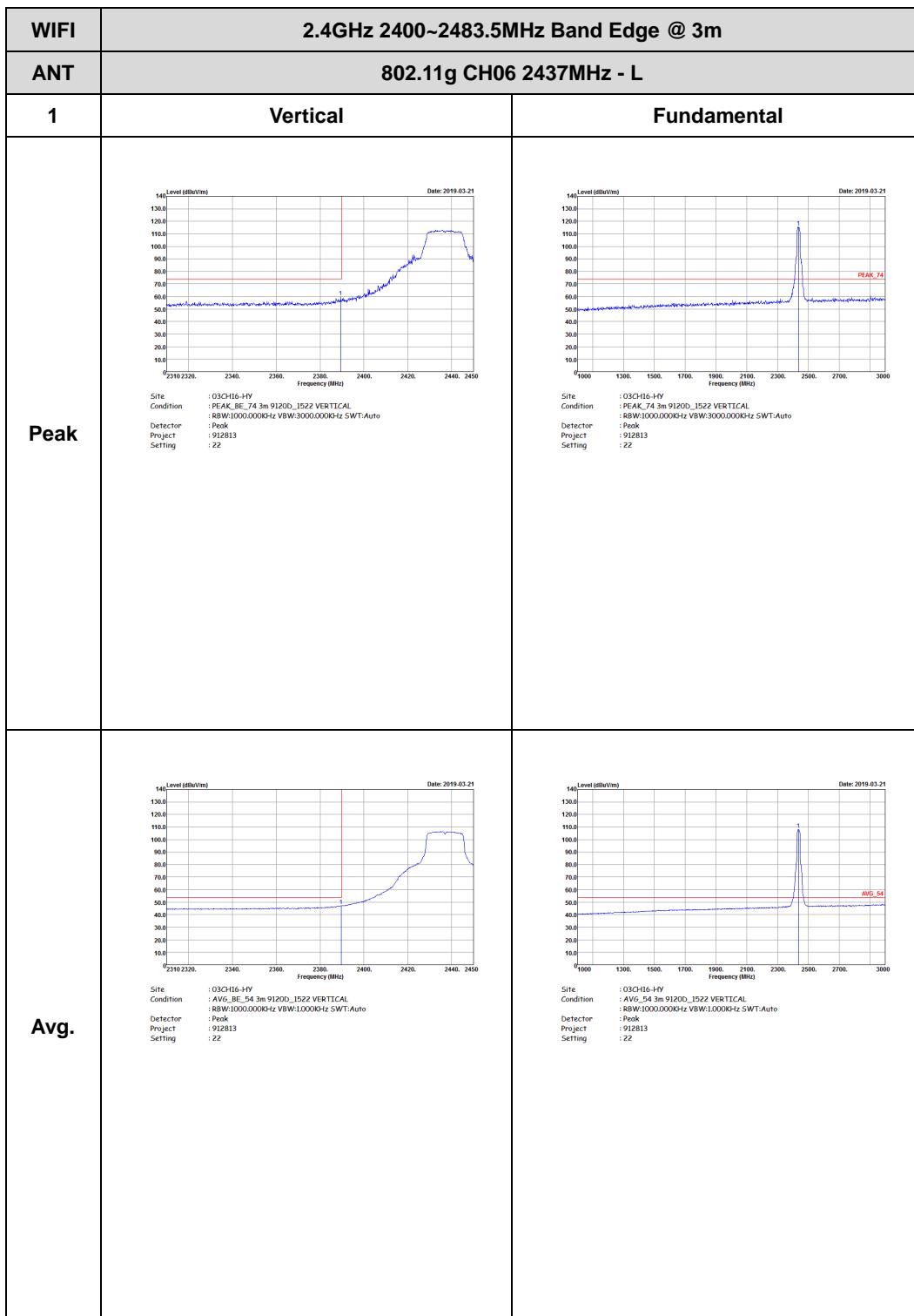
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |  |
|------|---|--|
| ANT  | 802.11g CH01 2412MHz  |  |
| 1    | Horizontal  | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 91200_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 16.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 91200_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 16.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 91200_1522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 16.5                                     | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 91200_1522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 16.5                                     |





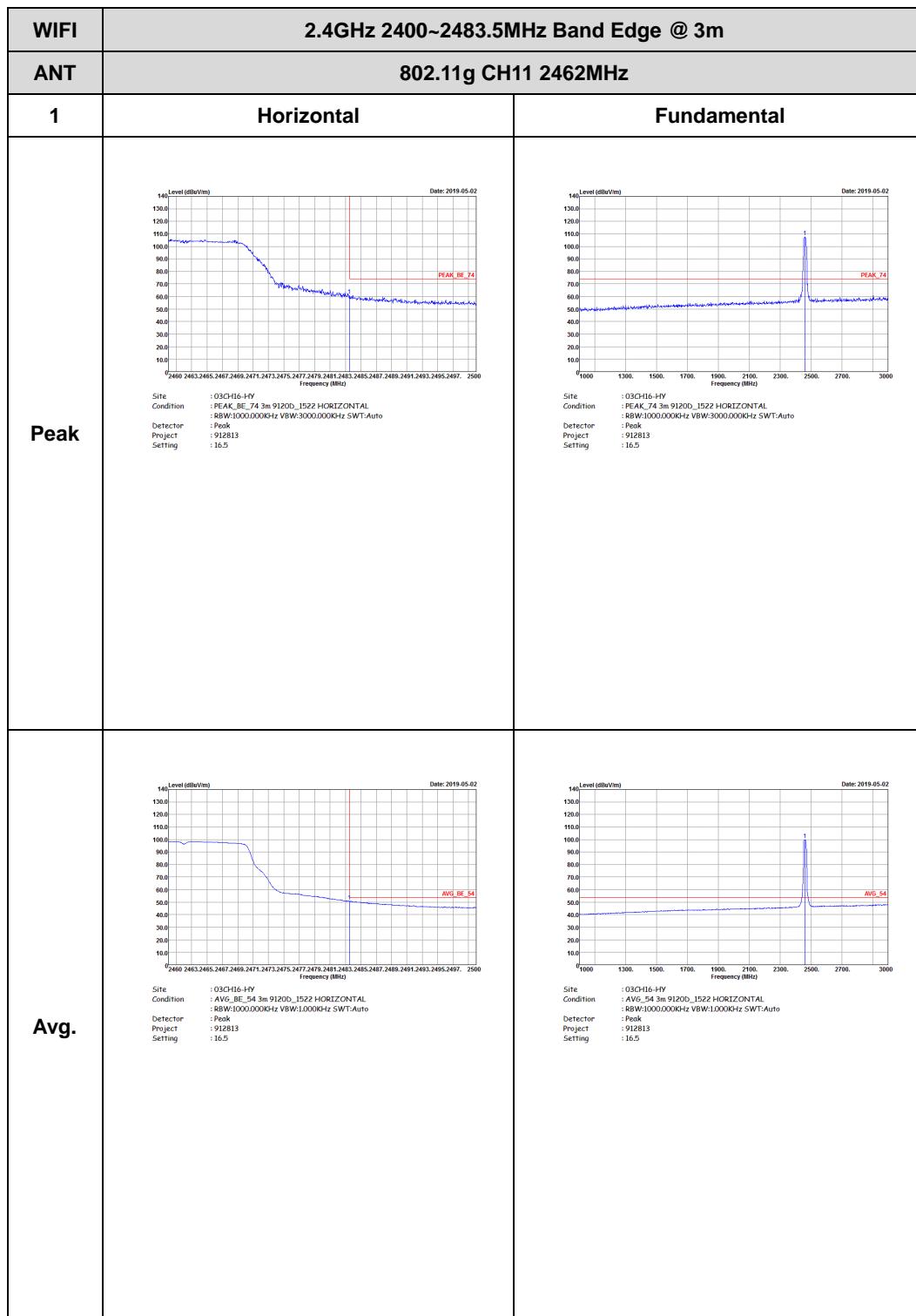


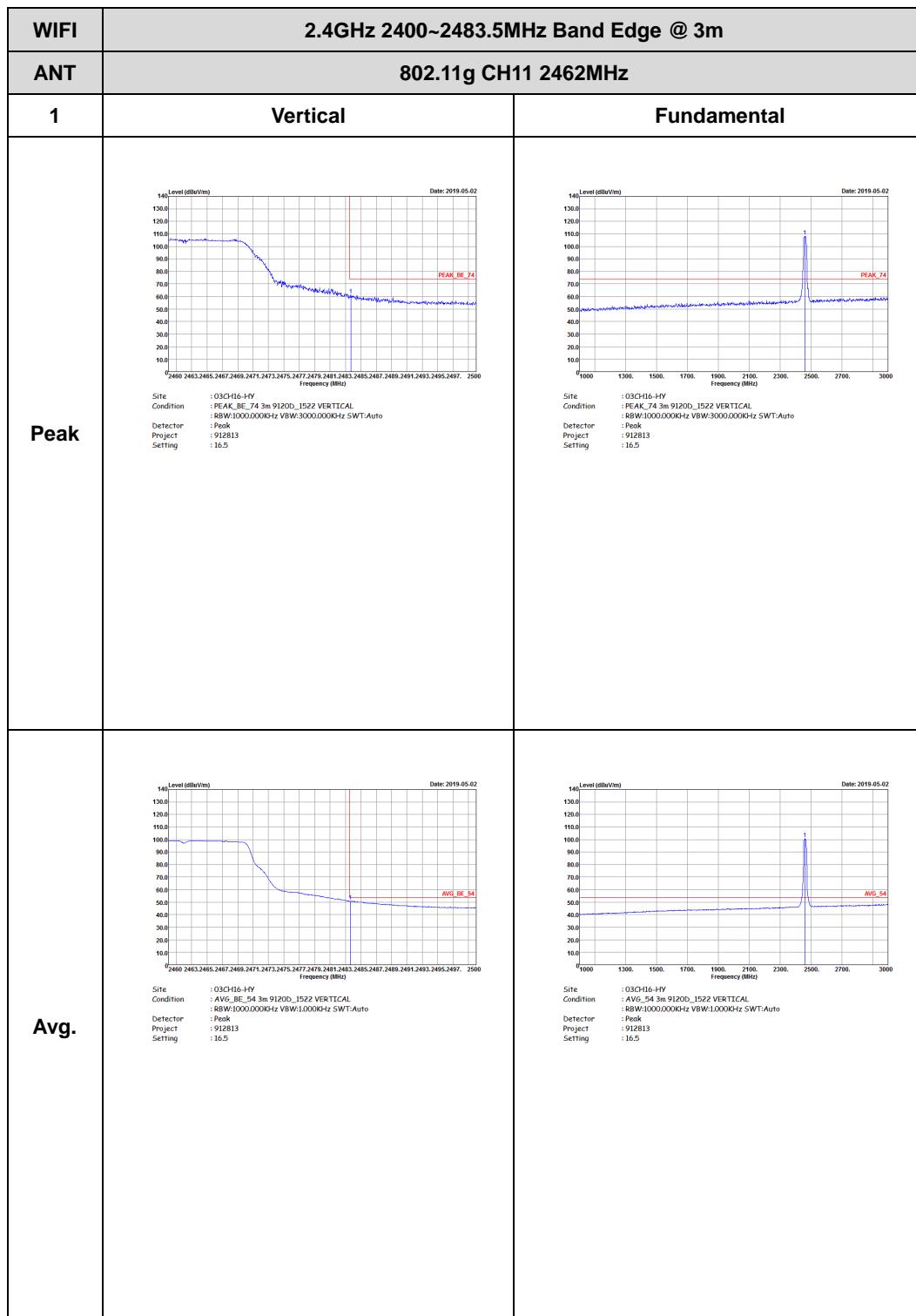
|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11g CH06 2437MHz - R  |             |
| 1    | Horizontal  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>Detector : RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>   | Left blank  |





|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11g CH06 2437MHz - R   |             |
| 1    | Vertical   | Fundamental |
| Peak | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-21</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left Blank  |
| Avg. | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-21</p> <p>Avg_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>      | Left Blank  |



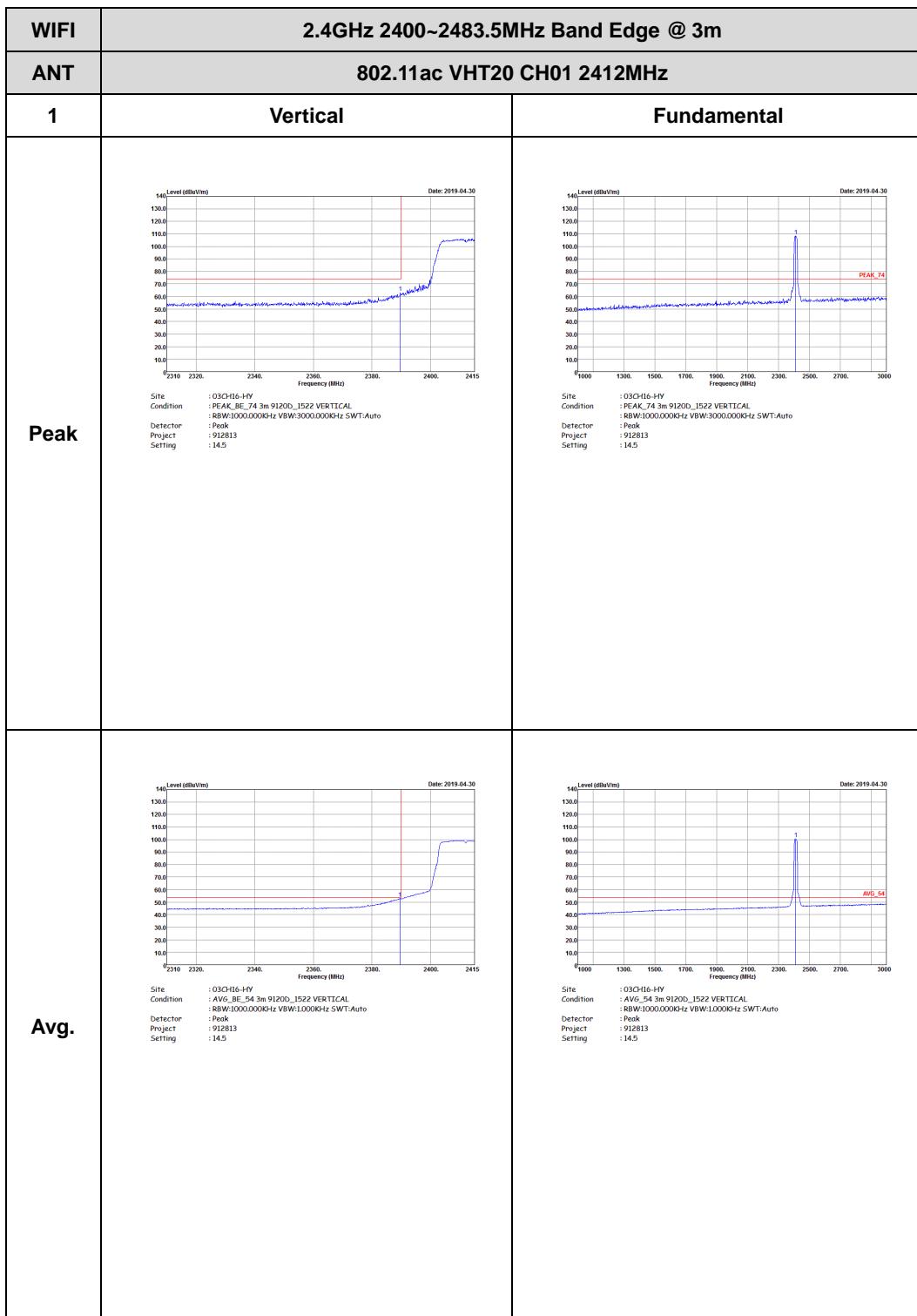


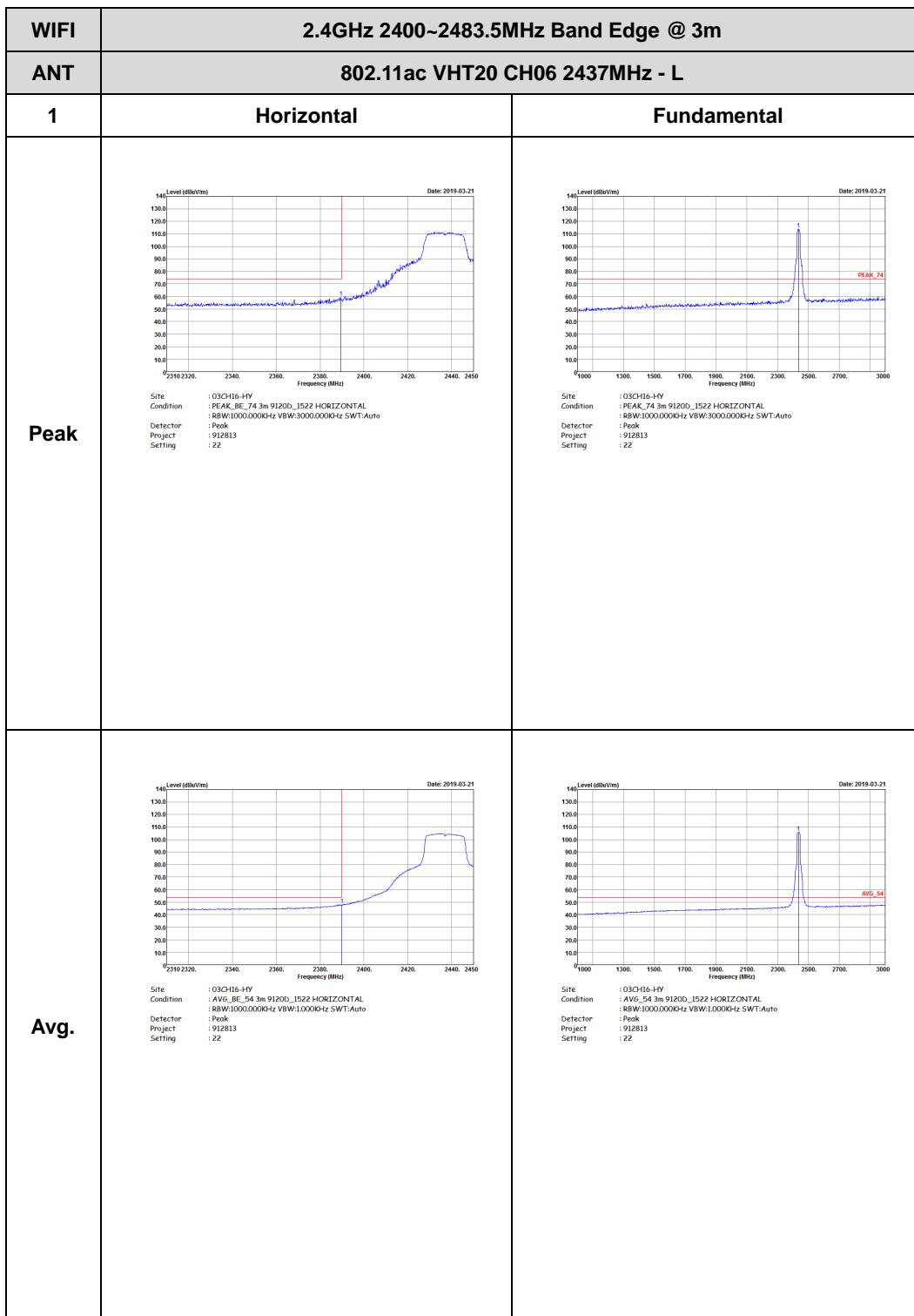


2.4GHz 2400~2483.5MHz

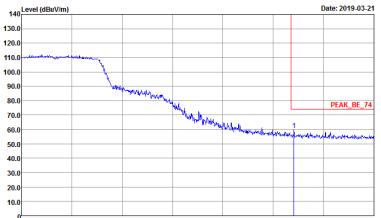
## WIFI 802.11ac VHT20 (Band Edge @ 3m)

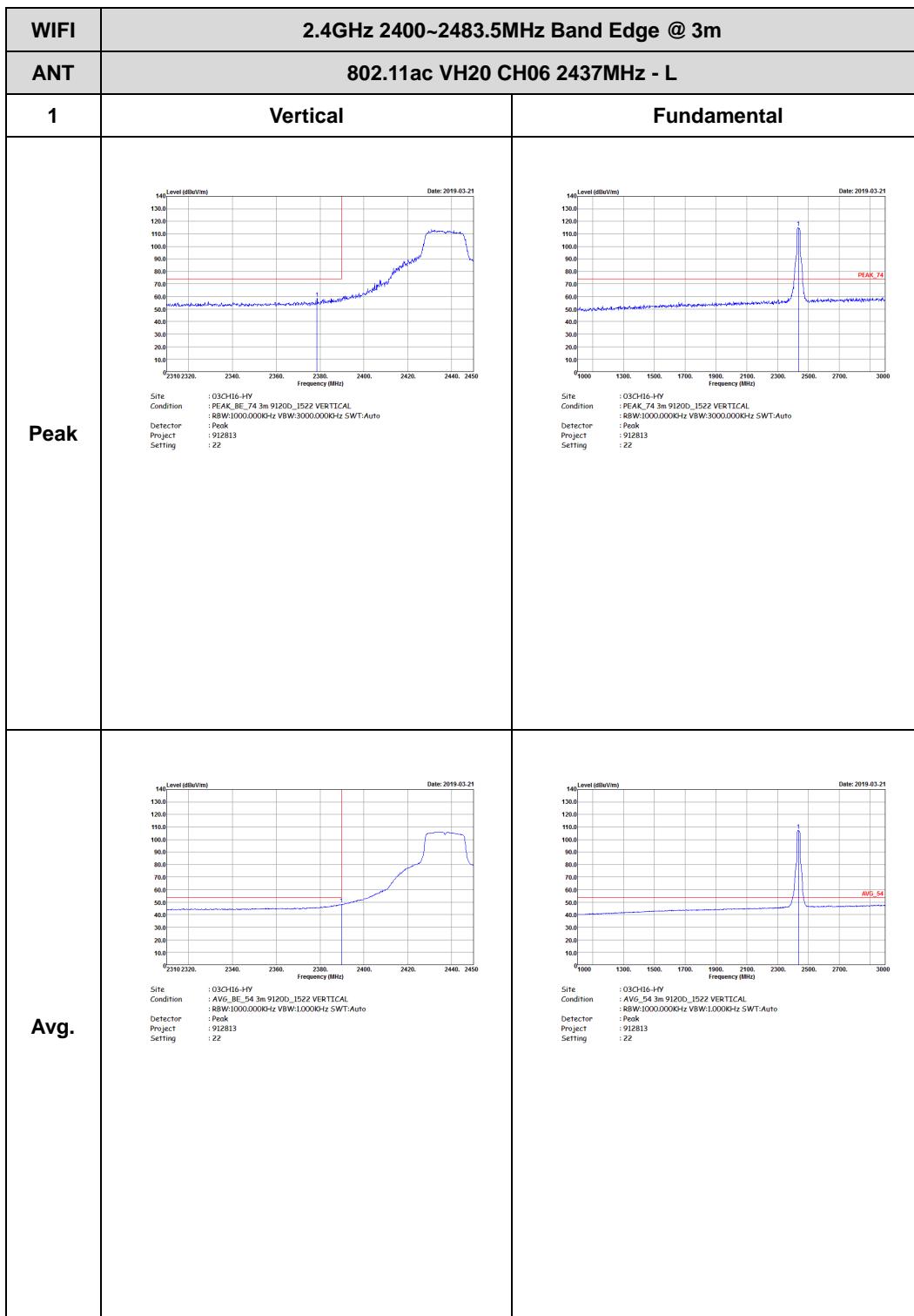
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |   |
|------|--|---|
| ANT  | 802.11ac VHT20 CH01 2412MHz  |   |
| 1    | Horizontal   | Fundamental   |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 14.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 14.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 14.5  | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 14.5  |



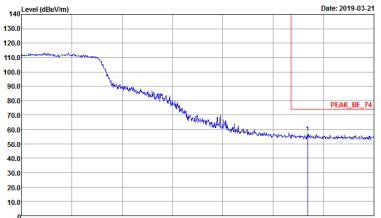


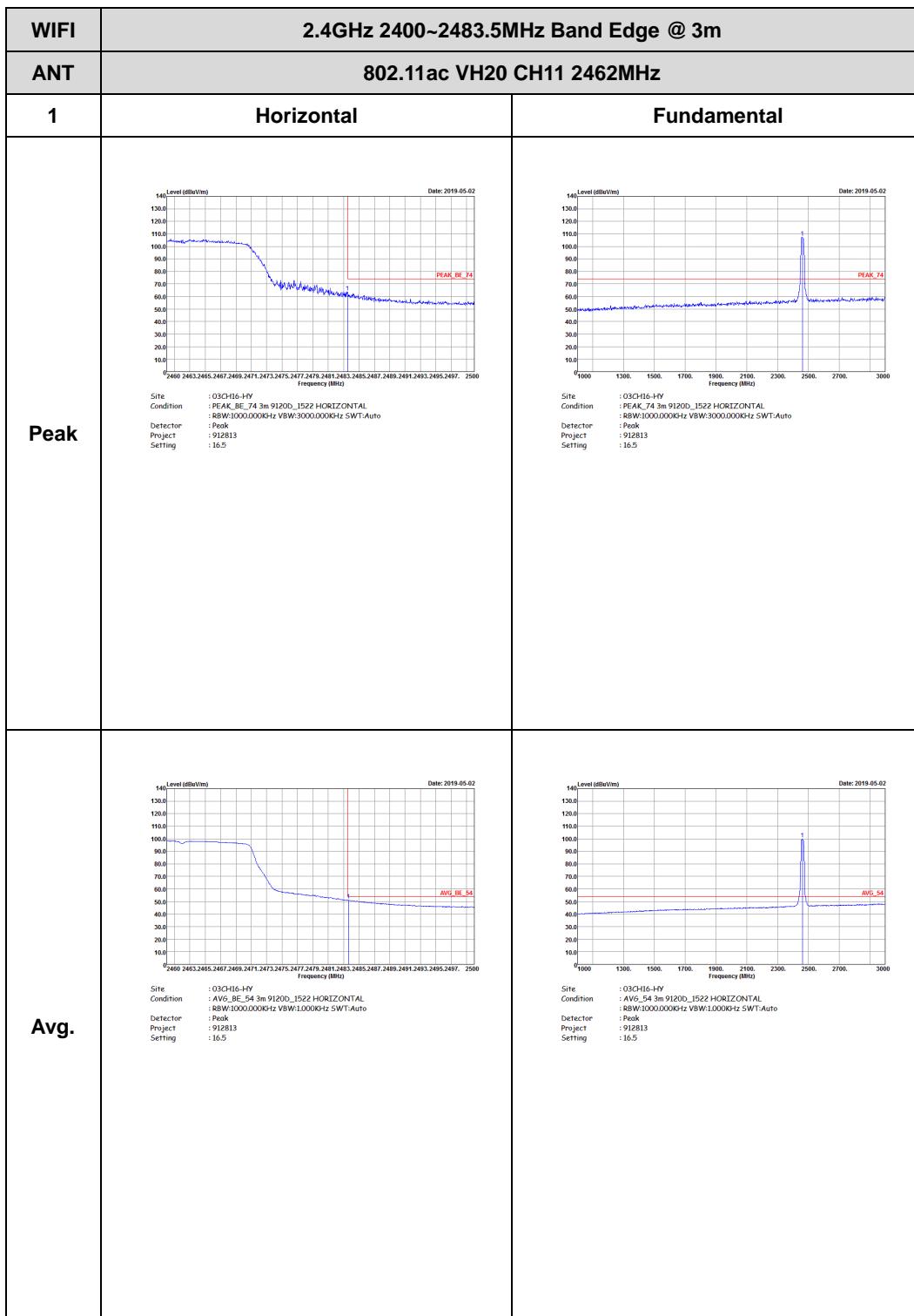


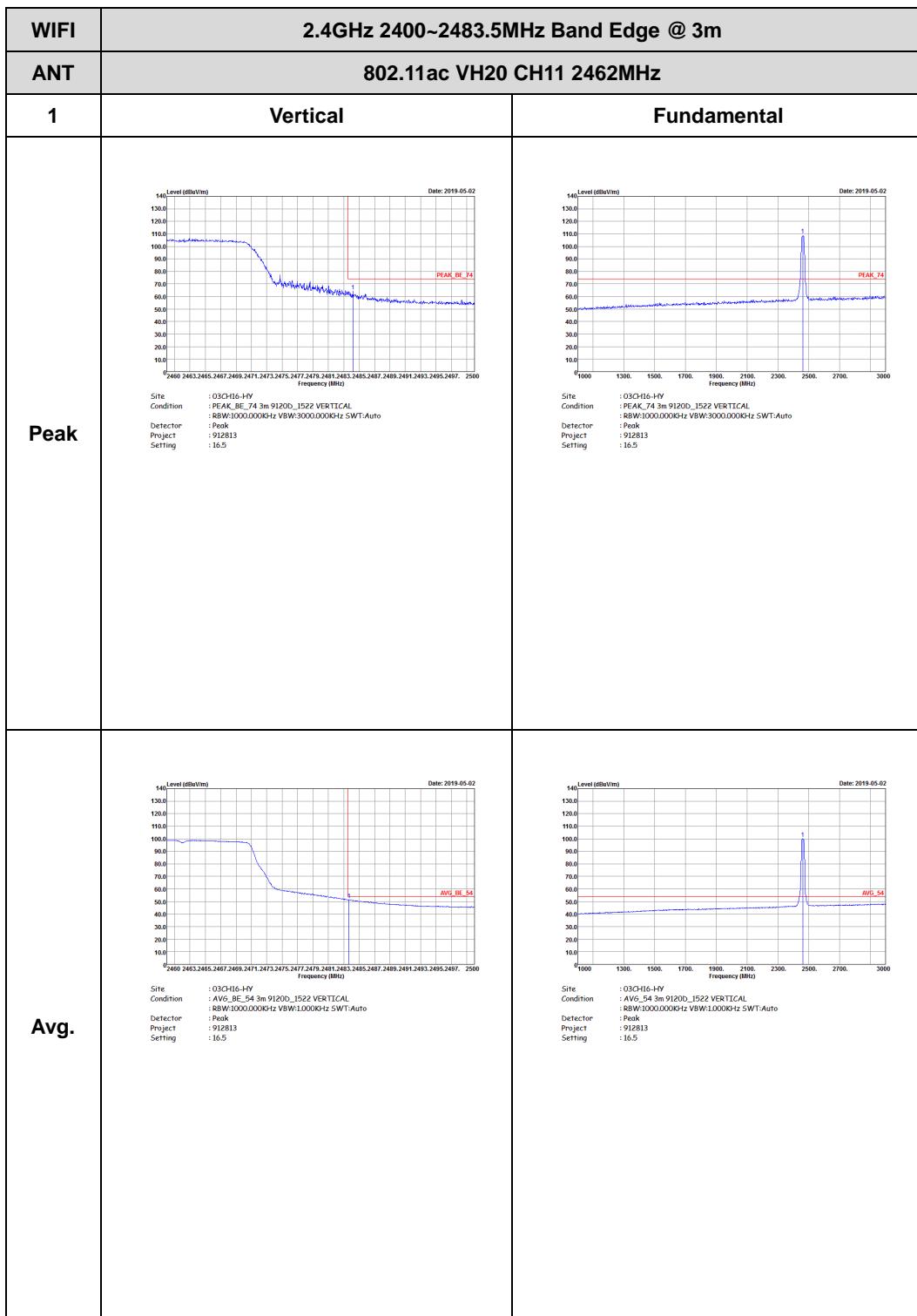
|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R   |             |
| 1    | Horizontal   | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p>   | Left blank  |





|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R  |             |
| 1    | Vertical  | Fundamental |
| Peak |  <p>Level (dBm/Vm)</p> <p>Date: 2019-03-21</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. |  <p>Level (dBm/Vm)</p> <p>Date: 2019-03-21</p> <p>Avg_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>    | Left blank  |

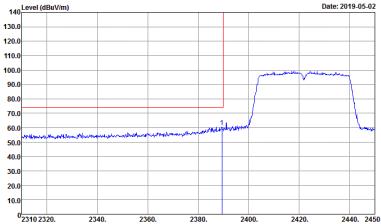
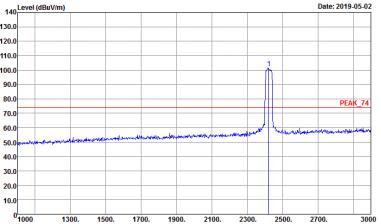
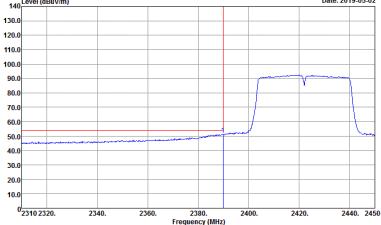
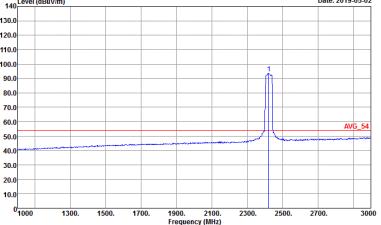






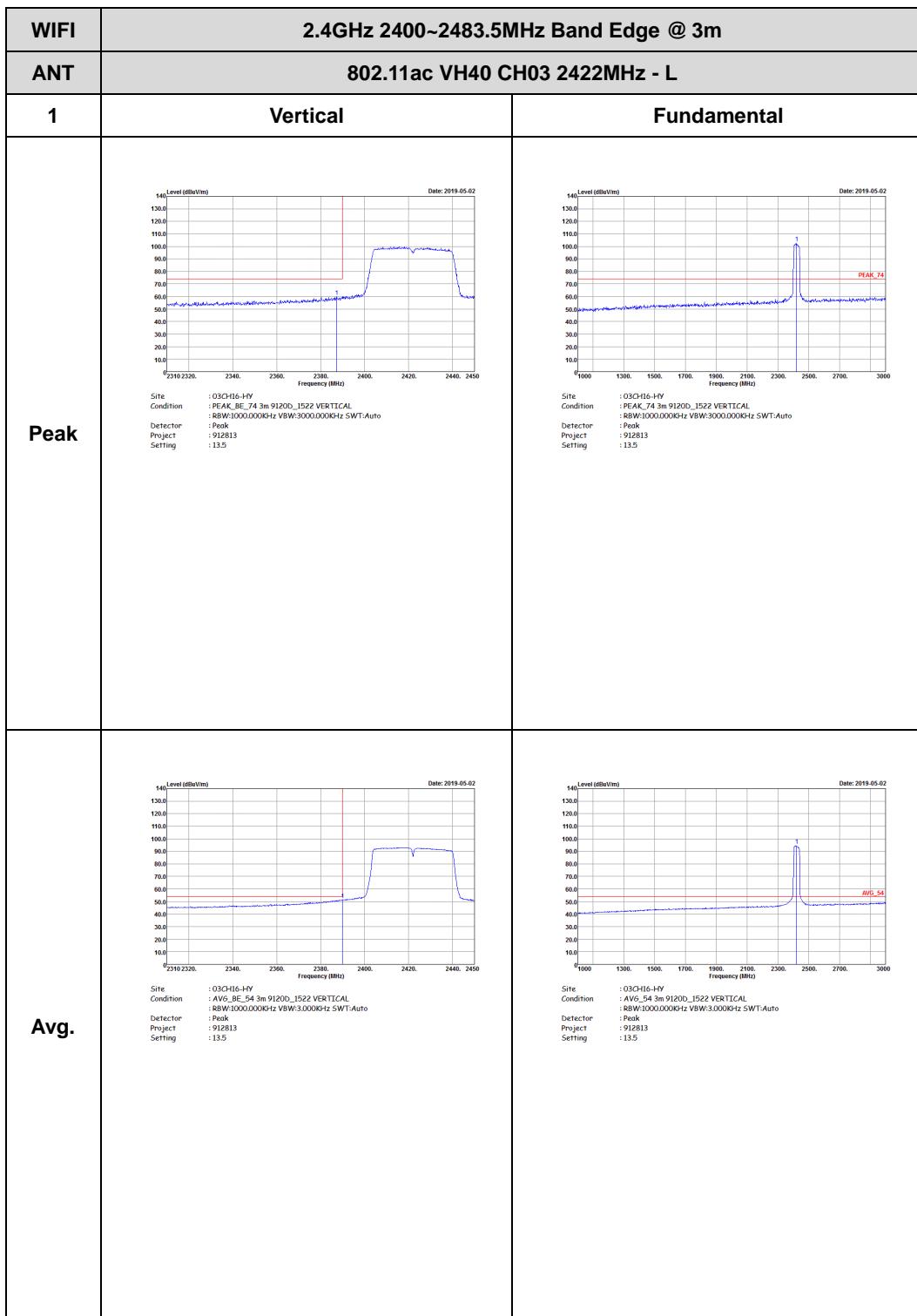
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |  |
|------|--|--|
| ANT  | 802.11ac VH40 CH03 2422MHz - L   |  |
| 1    | Horizontal   | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_I522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_I522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 13.5                                   | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_I522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 13.5                                   |

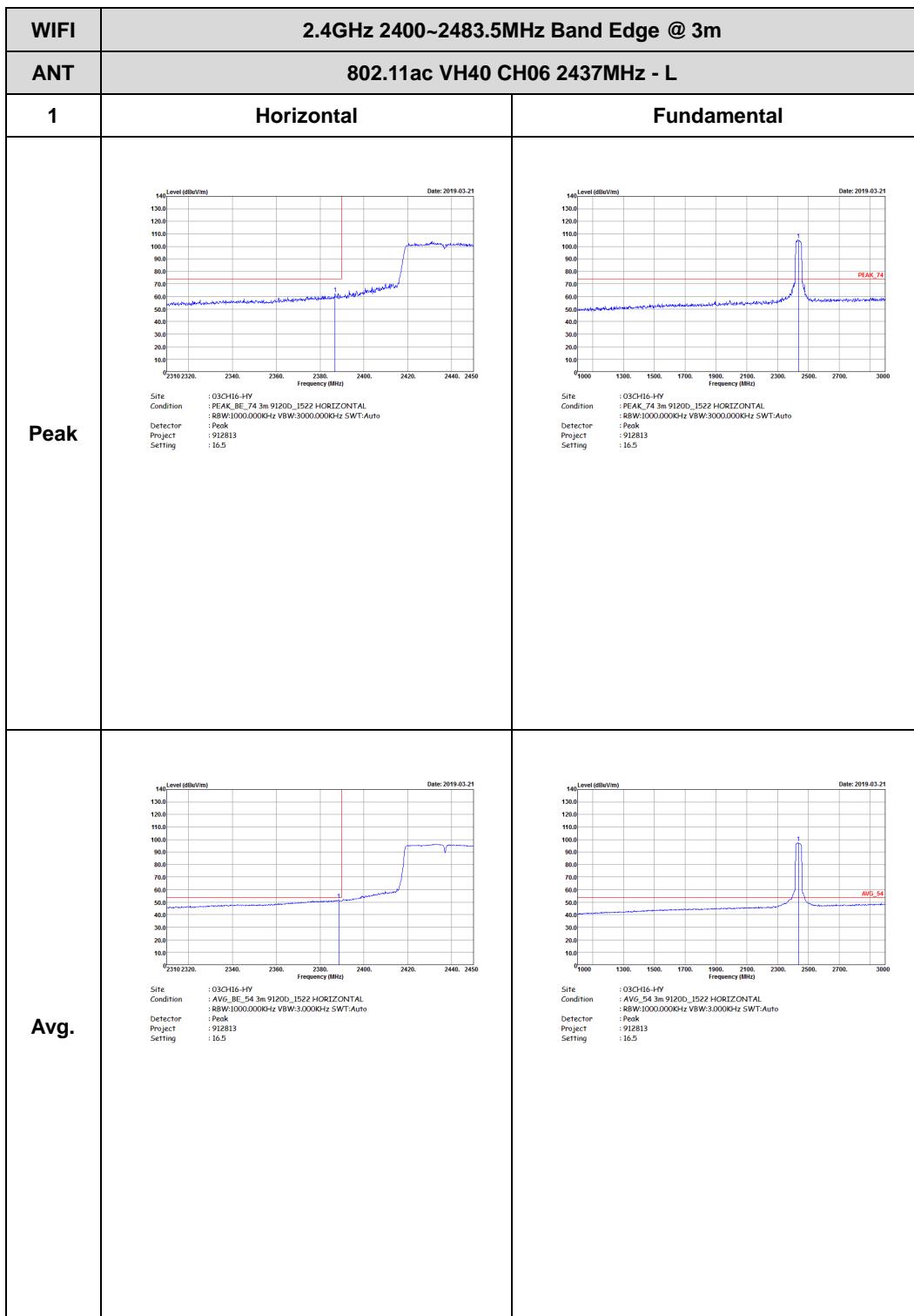


|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R   |             |
| 1    | Horizontal   | Fundamental |
| Peak | <p>Level (dBm/Vm)</p> <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p> | Left blank  |
| Avg. | <p>Level (dBm/Vm)</p> <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p>     | Left blank  |

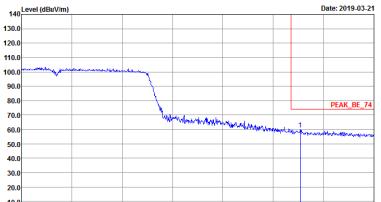


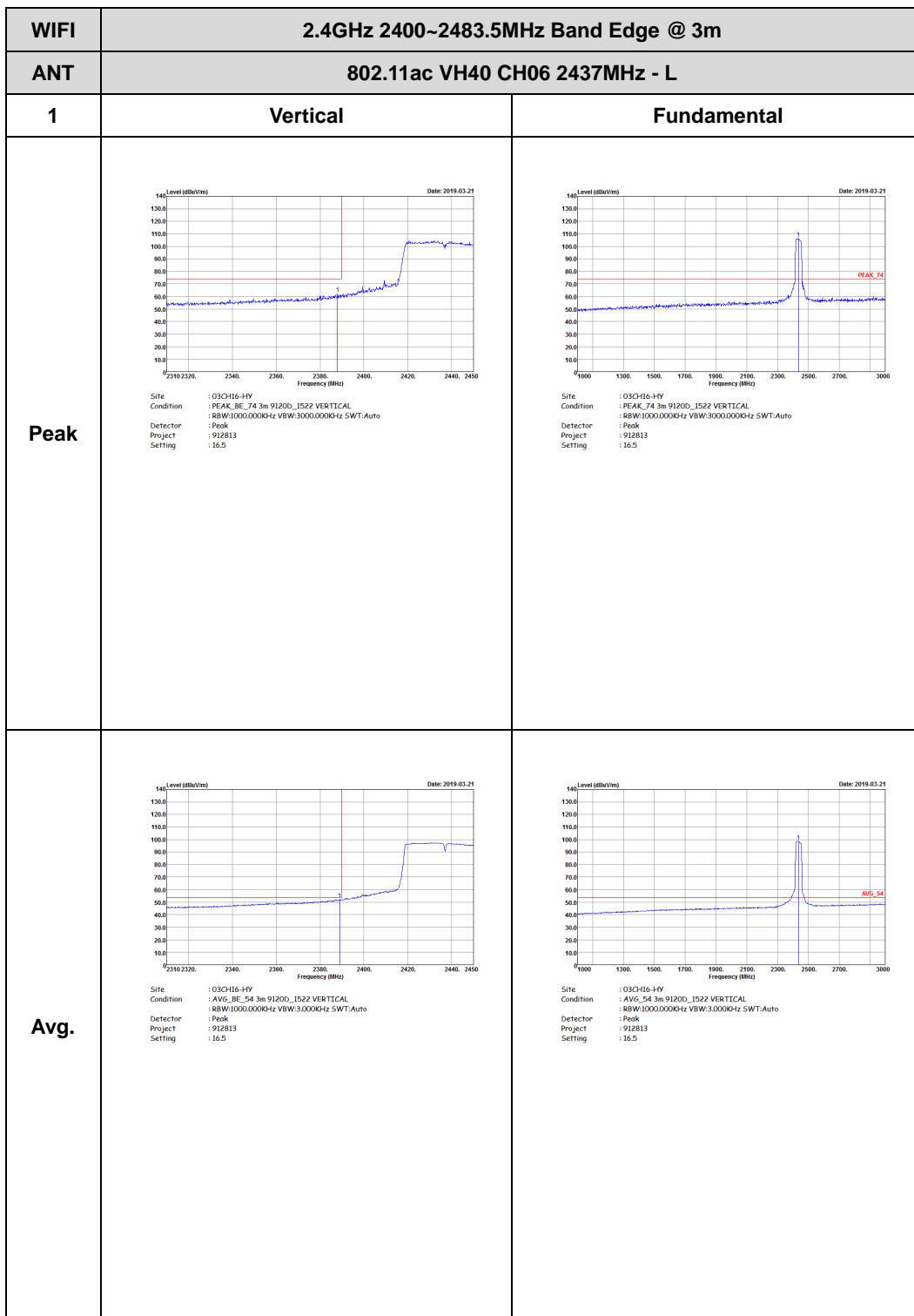


|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R   |             |
| 1    | Vertical   | Fundamental |
| Peak | <p>Level (dBmV/m)</p> <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_J522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p> | Left blank  |
| Avg. | <p>Level (dBmV/m)</p> <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_J522 VERTICAL<br/>: RBW:1000.000KHz VBW:3.0000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p>    | Left blank  |

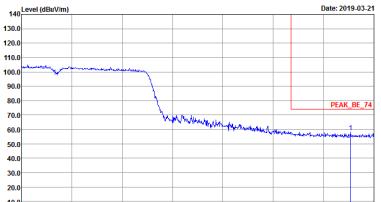
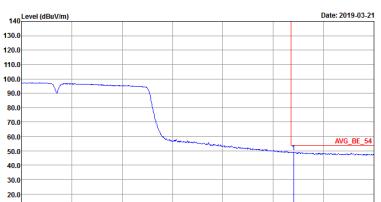


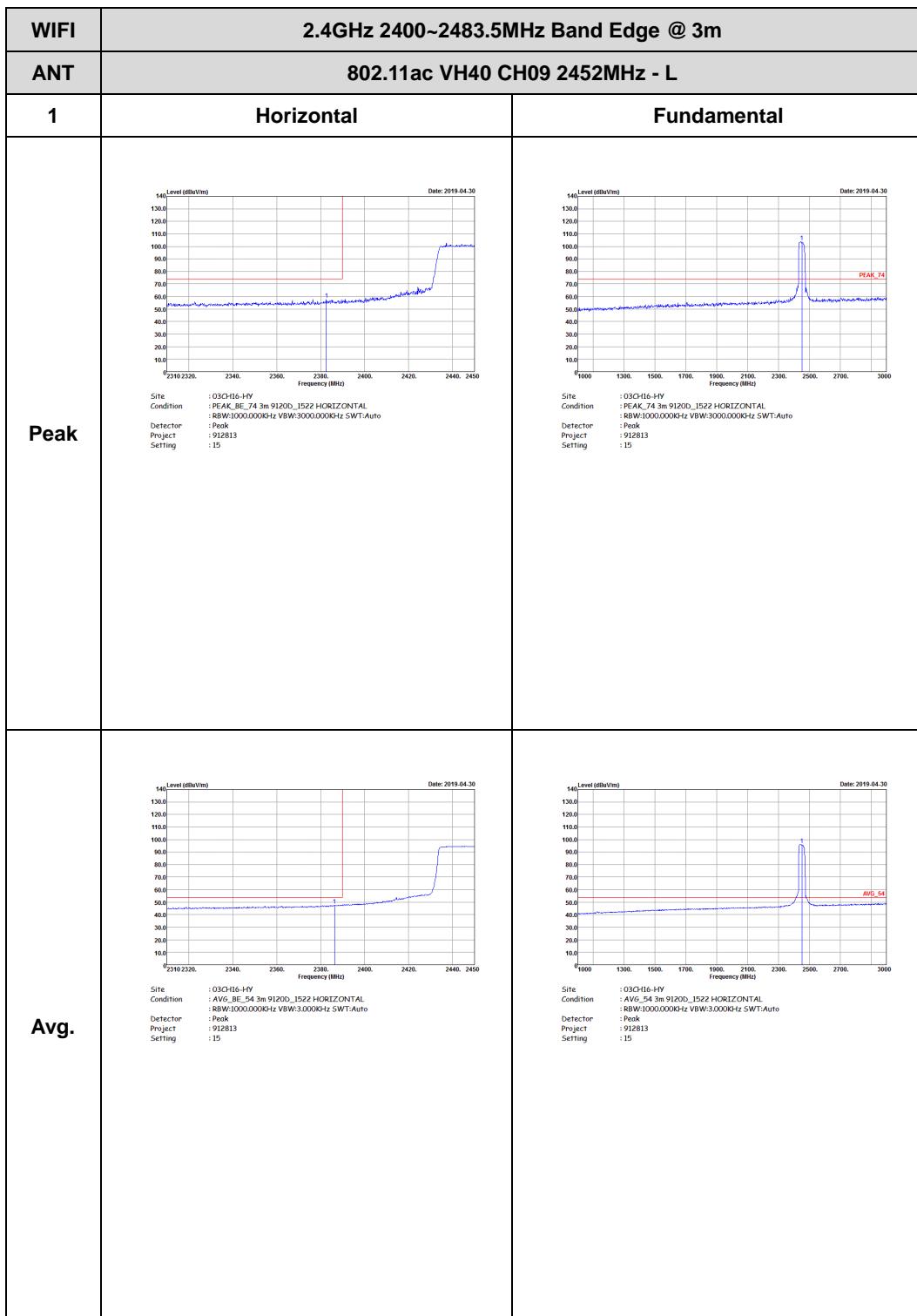


|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH40 CH06 2437MHz - R   |             |
| 1    | Horizontal   | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p> | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p>   | Left blank  |



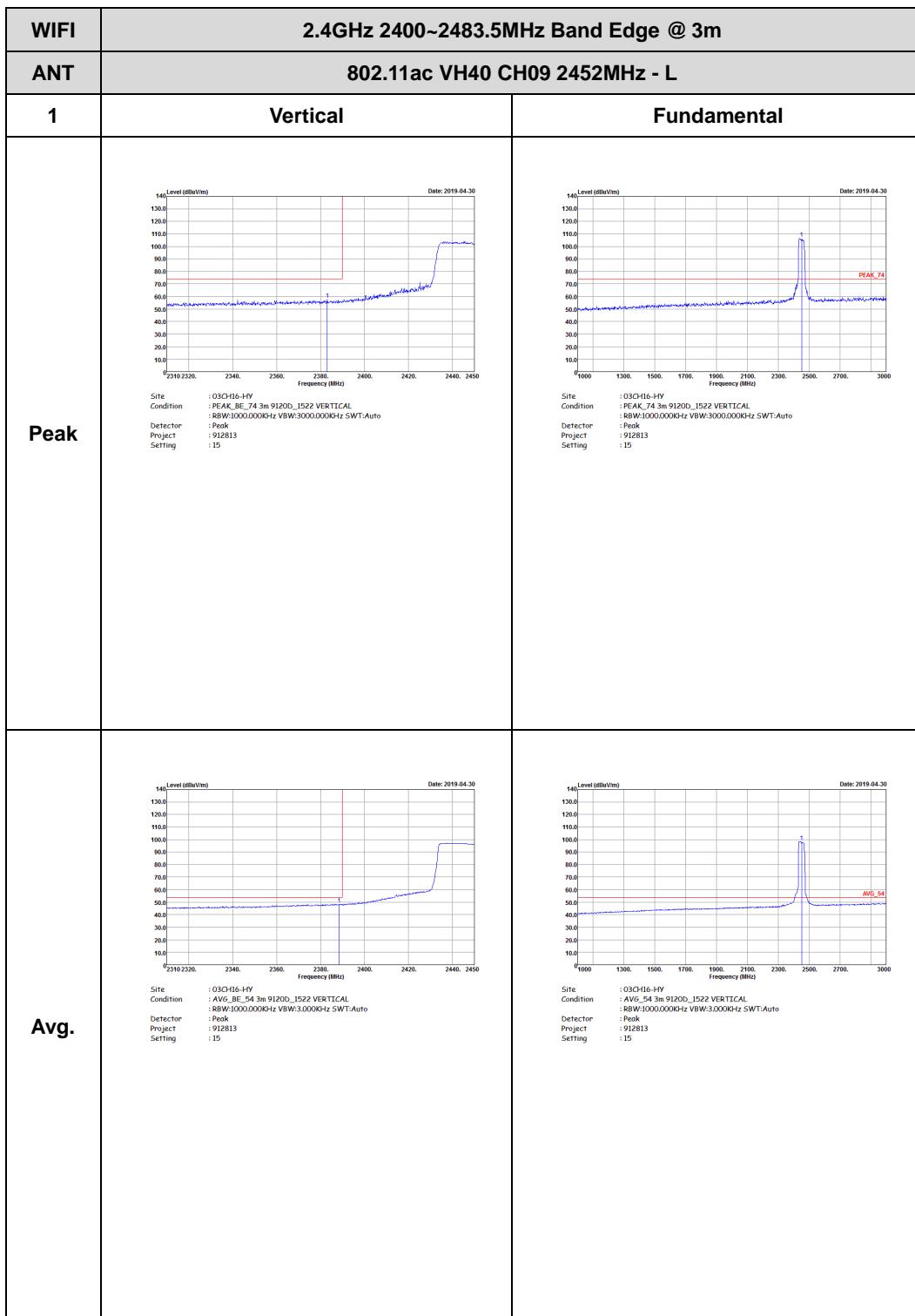


|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH06 2437MHz - R  |             |
| 1    | Vertical  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p> | Left blank  |





|             |  |                    |
|-------------|--|--------------------|
| <b>WIFI</b> | <b>2.4GHz 2400~2483.5MHz Band Edge @ 3m</b>  |                    |
| <b>ANT</b>  | <b>802.11ac VH40 CH09 2452MHz - R</b>  |                    |
| <b>1</b>    | <b>Horizontal</b>  | <b>Fundamental</b> |
| <b>Peak</b> | <p>Date: 2019.04.30</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 15</p> | Left blank         |
| <b>Avg.</b> | <p>Date: 2019.04.30</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3.0000Hz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 15</p>     | Left blank         |





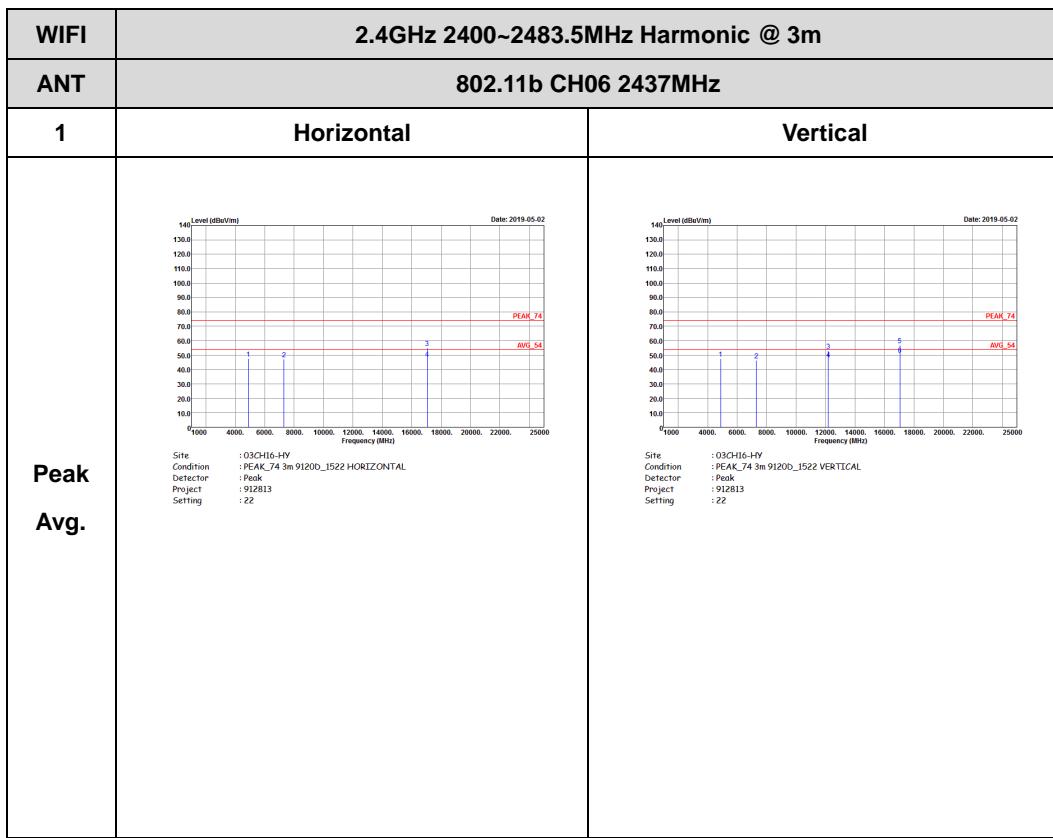
|      |                                      |             |
|------|--------------------------------------|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m |             |
| ANT  | 802.11ac VH40 CH09 2452MHz - R       |             |
| 1    | Vertical                             | Fundamental |
| Peak | <p>Left blank</p>                    |             |
| Avg. | <p>Left blank</p>                    |             |

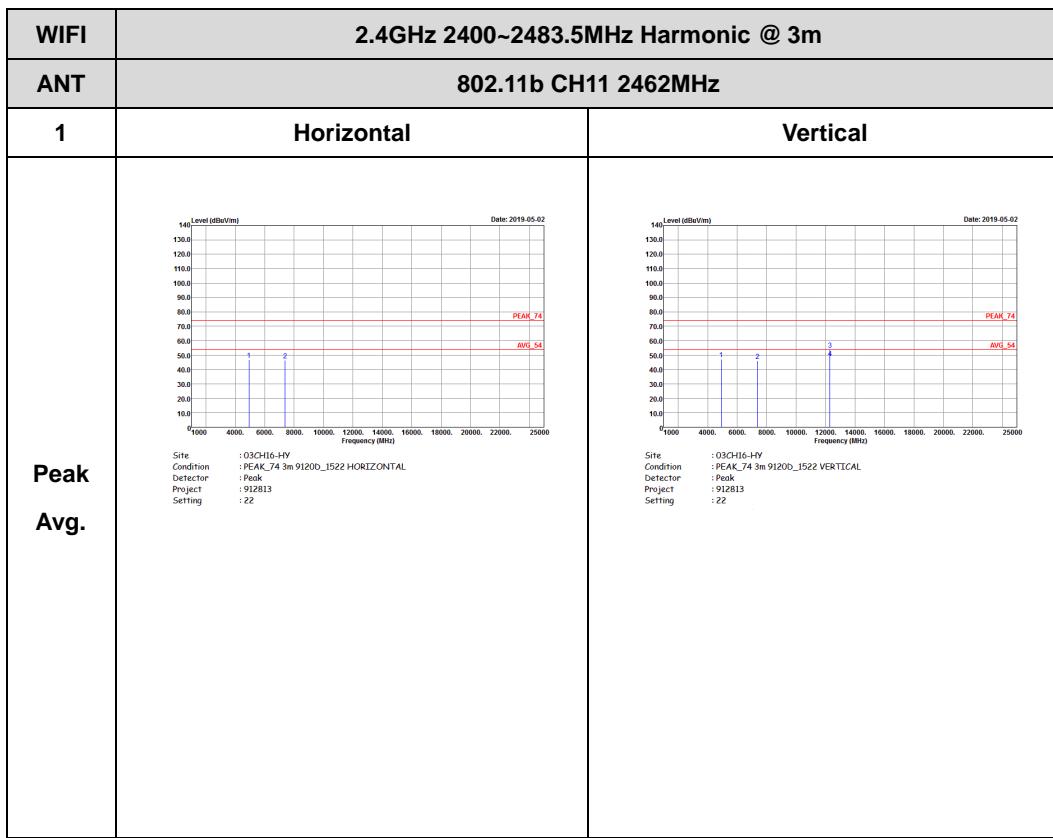


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Harmonic @ 3m  |  |
|------|--|--|
| ANT  | 802.11b CH01 2412MHz   |  |
| 1    | Horizontal   | Vertical   |
| Peak | <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 18.5</p> | <p>Date: 2019-05-02</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 18.5</p> |
| Avg. |  |  |



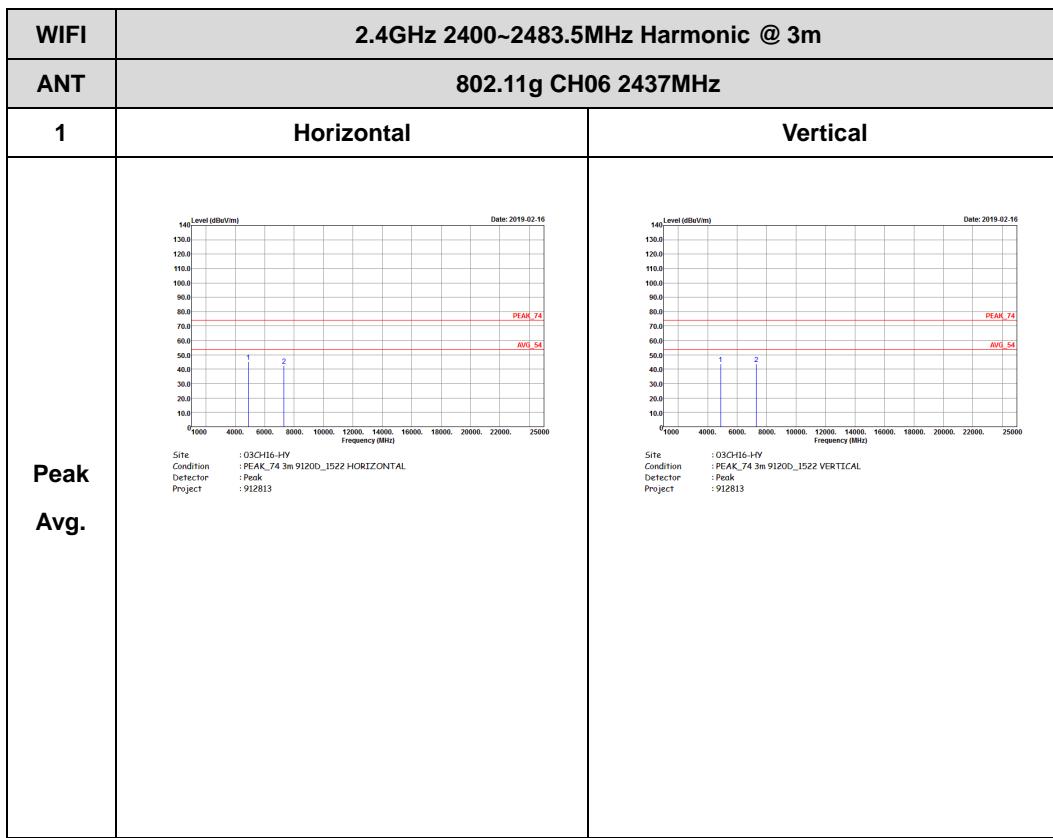


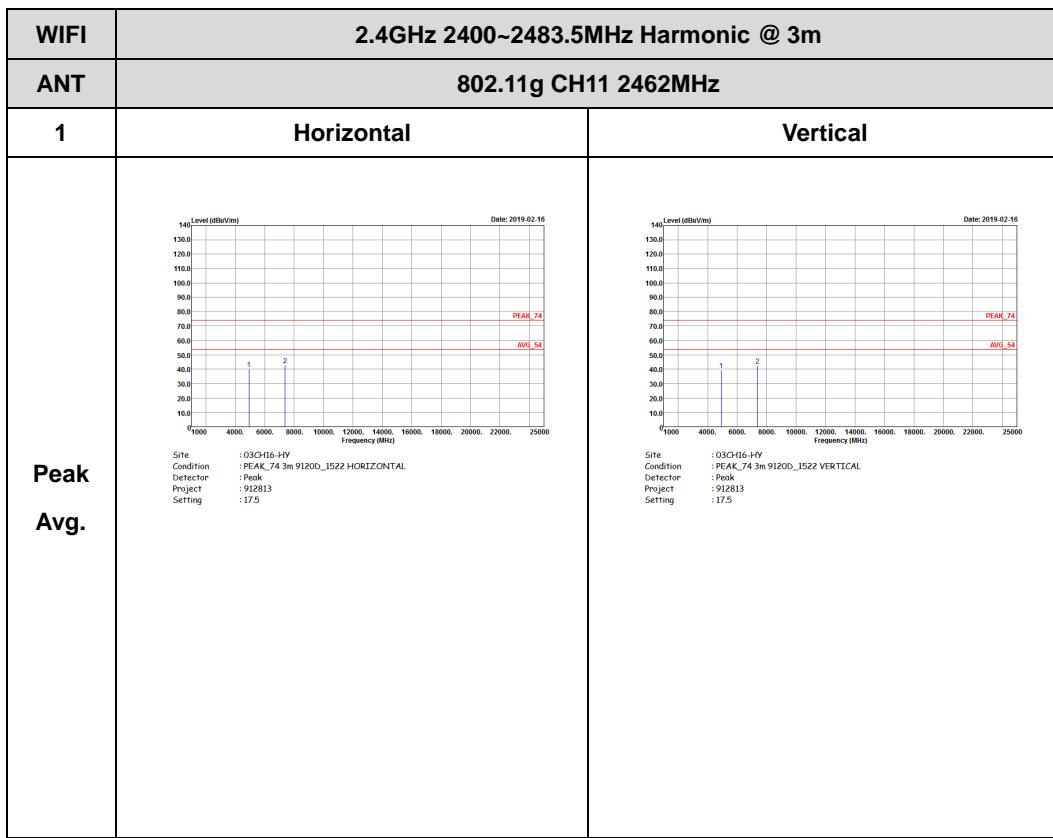


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Harmonic @ 3m   |   |
|------|---|---|
| ANT  | 802.11g CH01 2412MHz  |   |
| 1    | Horizontal  | Vertical  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 16.0 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br>Detector : Peak<br>Project : 912813<br>Setting : 16.0 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_1522 HORIZONTAL<br>Detector : Avg<br>Project : 912813<br>Setting : 16.0   | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_1522 VERTICAL<br>Detector : Avg<br>Project : 912813<br>Setting : 16.0   |



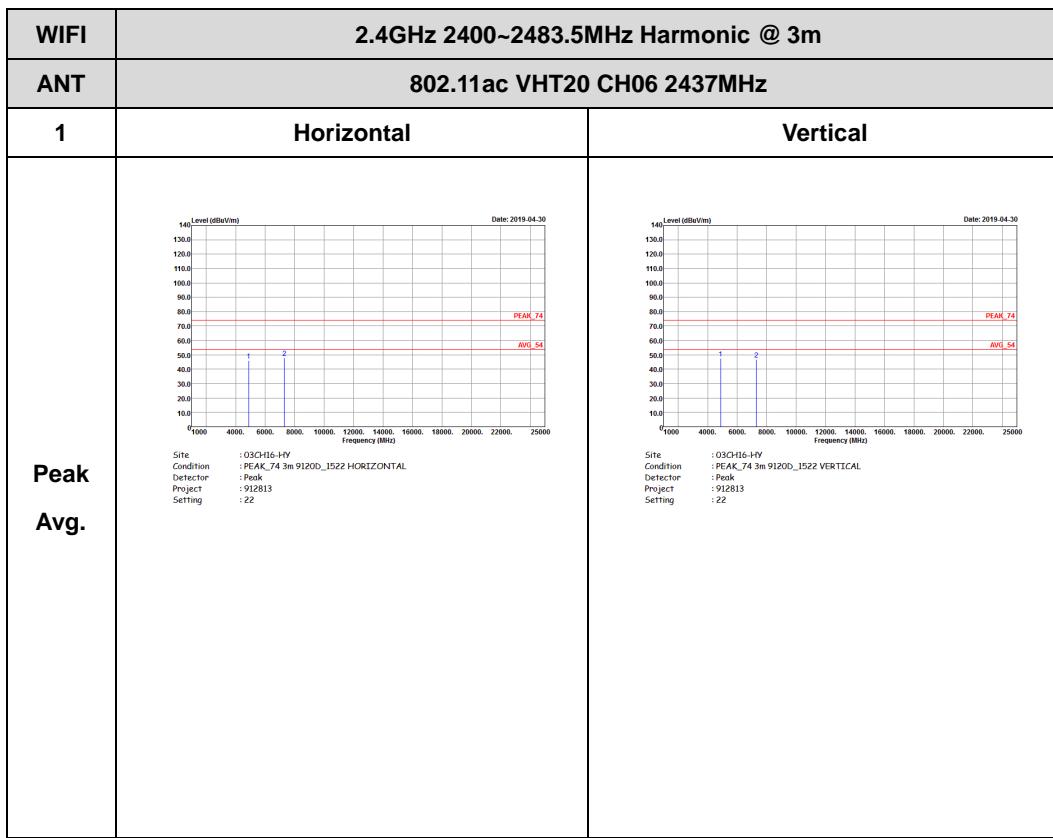


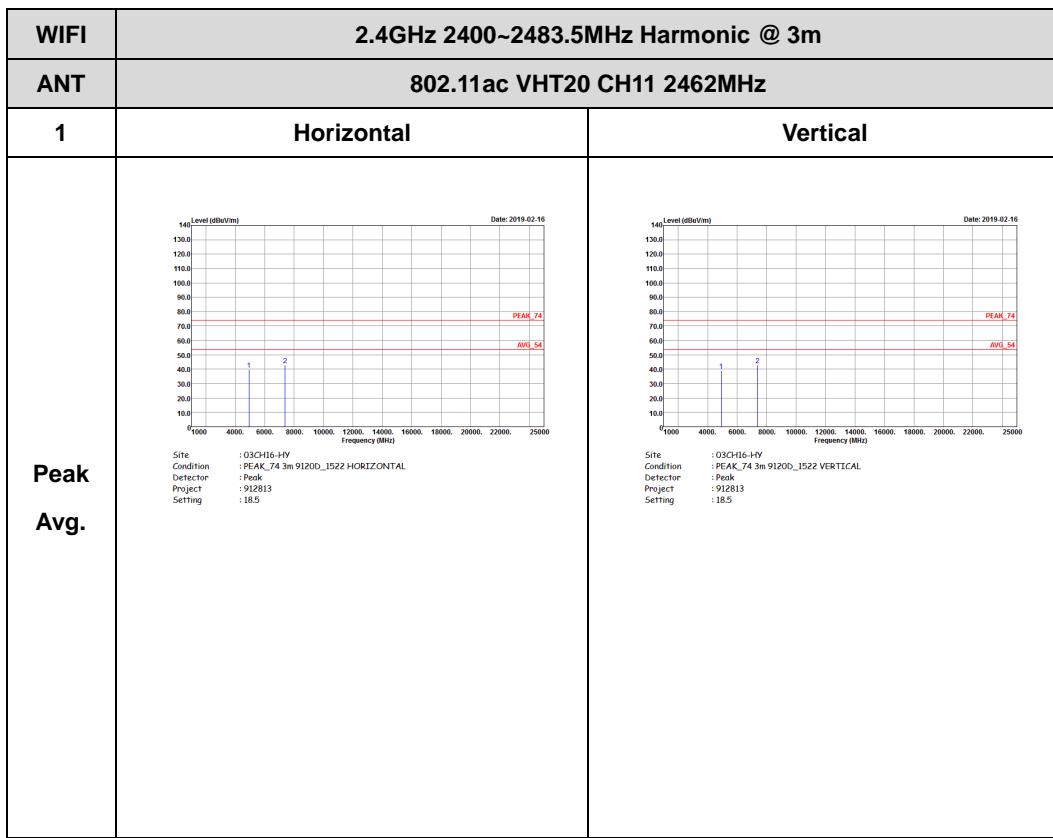


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m   |   |
|--------------|---|---|
| ANT          | 802.11ac VHT20 CH01 2412MHz   |   |
| 1            | Horizontal  | Vertical  |
| Peak<br>Avg. | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 18.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br>Detector : Peak<br>Project : 912813<br>Setting : 18.5 |



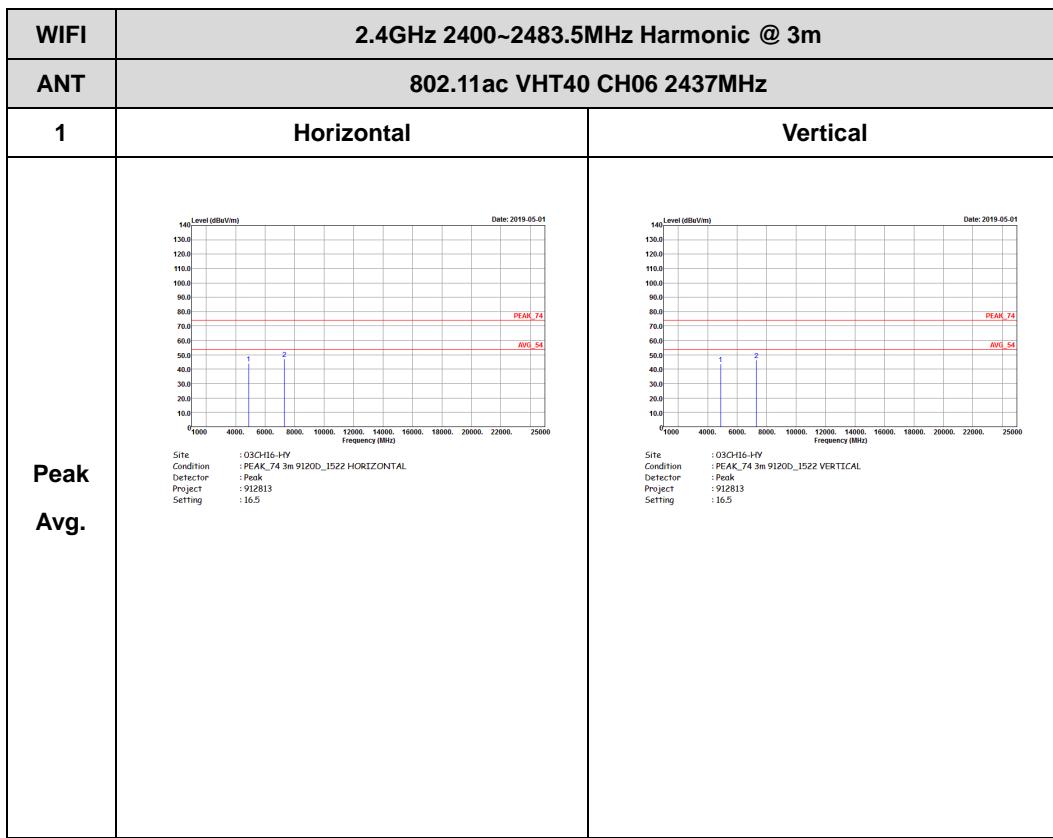


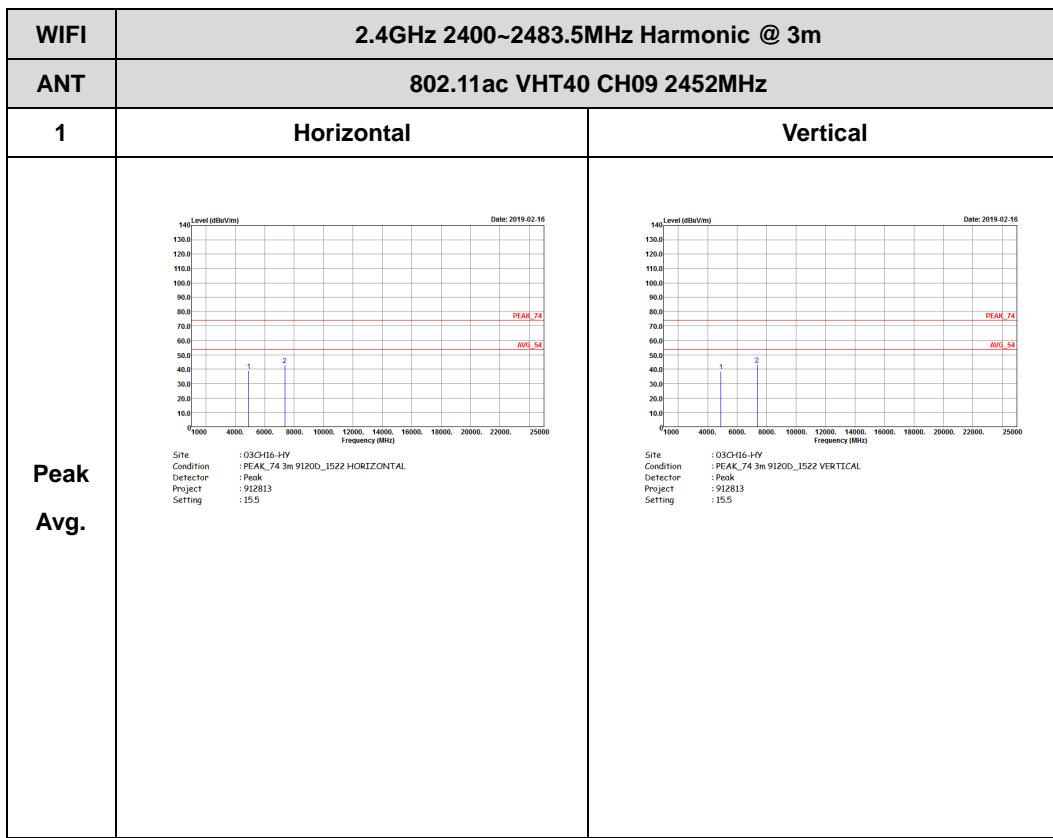


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

| WIFI         | 2.4GHz 2400~2483.5MHz Harmonic @ 3m   |   |
|--------------|---|---|
| ANT          | 802.11ac VHT40 CH03 2422MHz   |   |
| 1            | Horizontal  | Vertical  |
| Peak<br>Avg. | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>Detector : Peak<br>Project : 912813<br>Setting : 11 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br>Detector : Peak<br>Project : 912813<br>Setting : 11 |

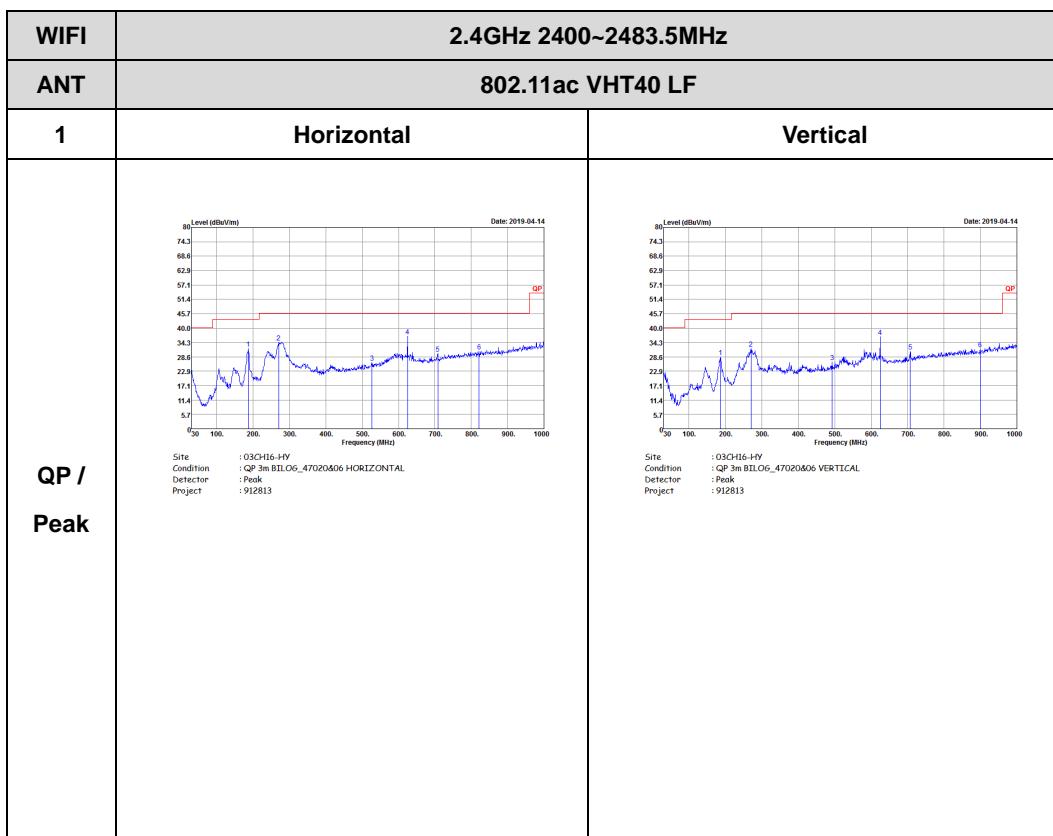






## Emission below 1GHz

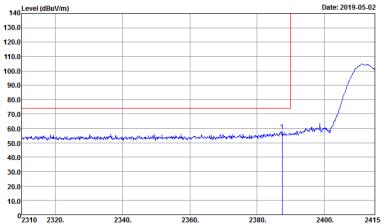
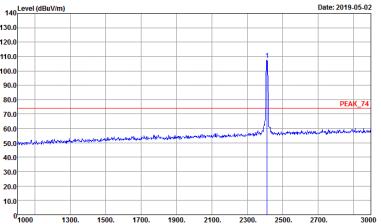
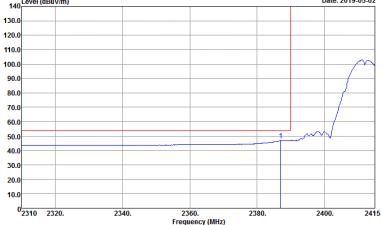
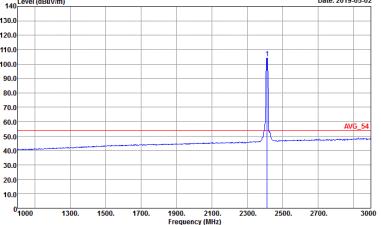
## 2.4GHz WIFI 802.11ac VHT40 (LF)

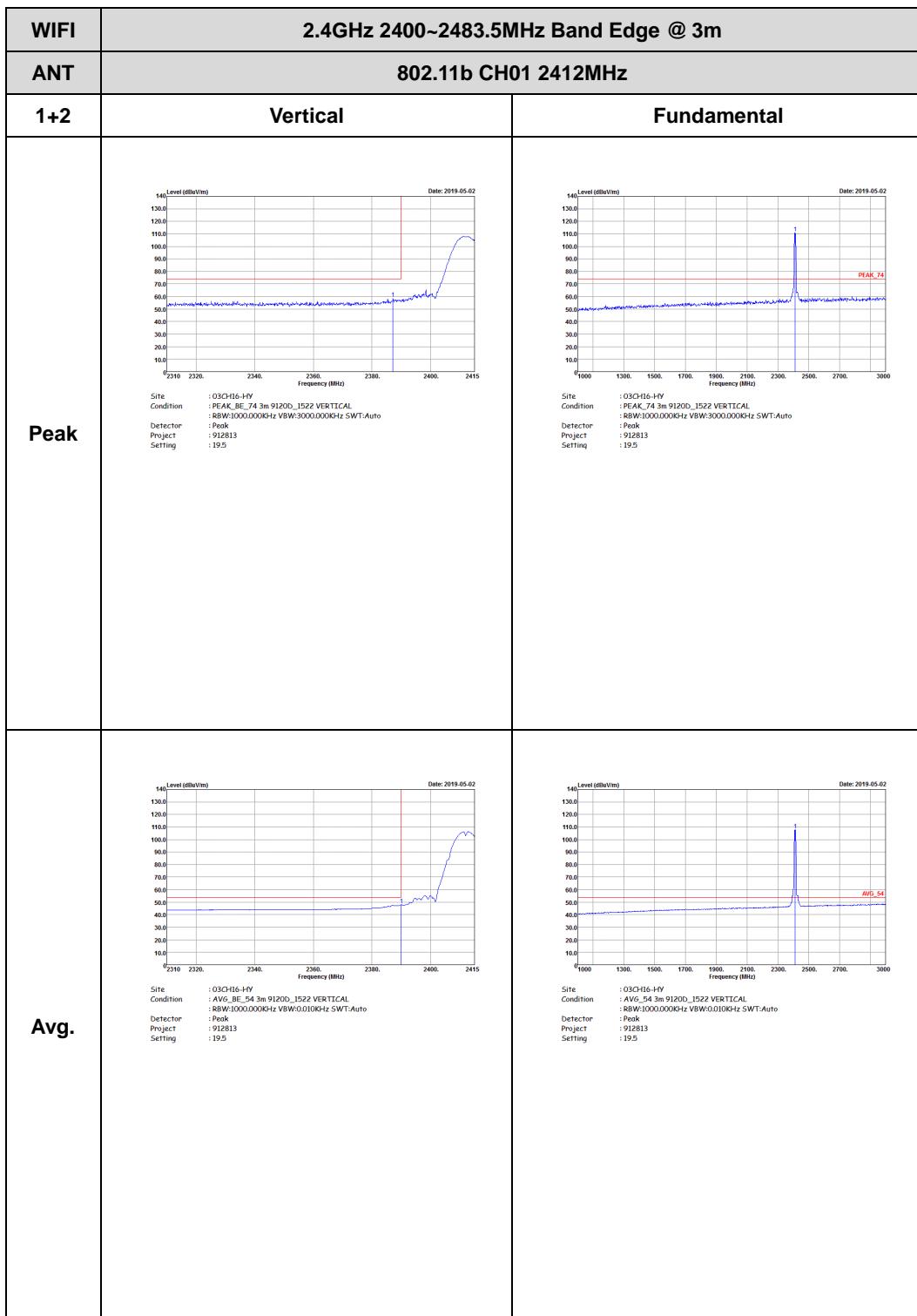


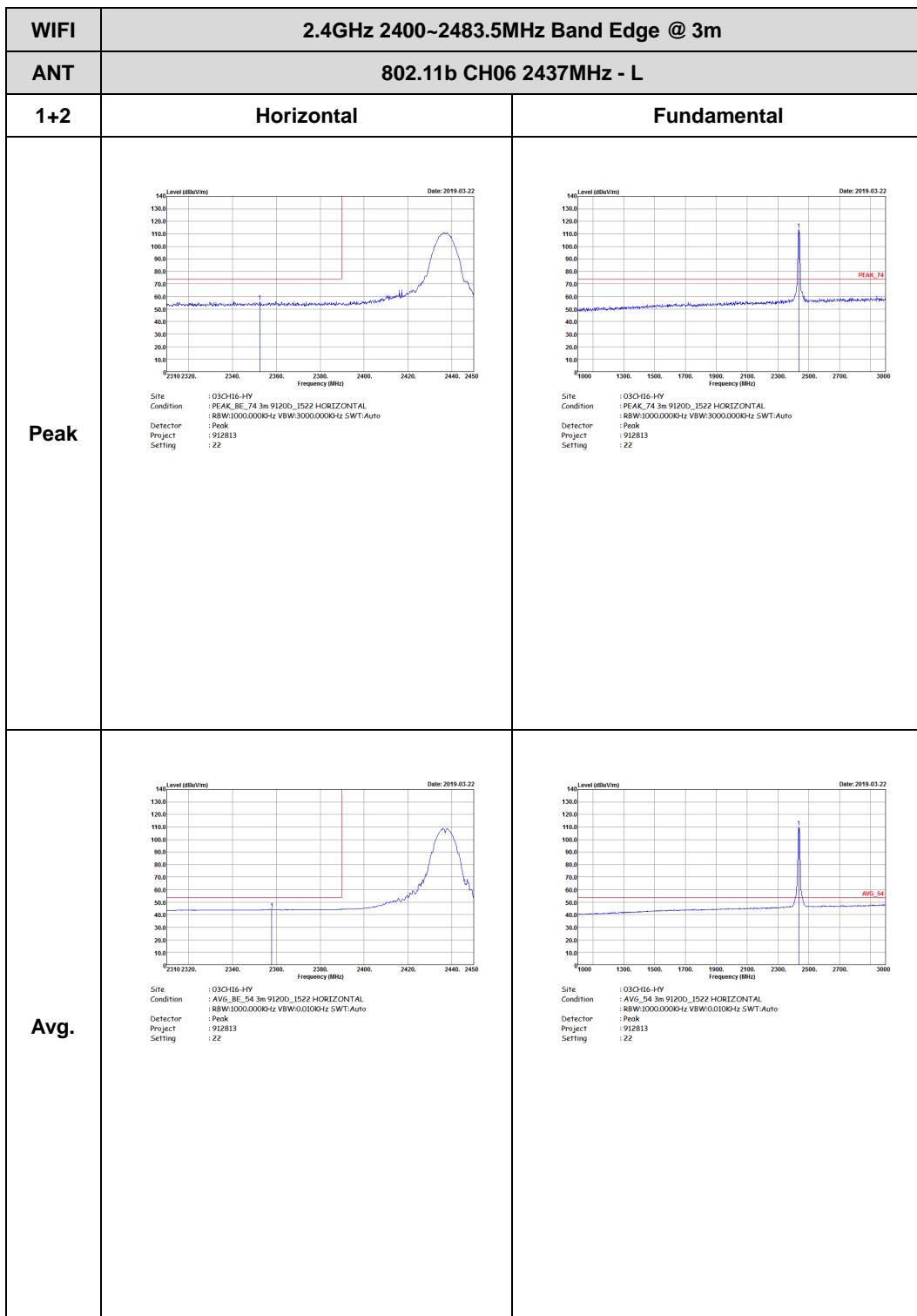


## 2.4GHz 2400~2483.5MHz

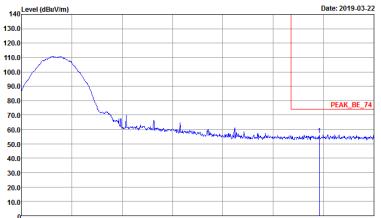
## WIFI 802.11b (Band Edge @ 3m)

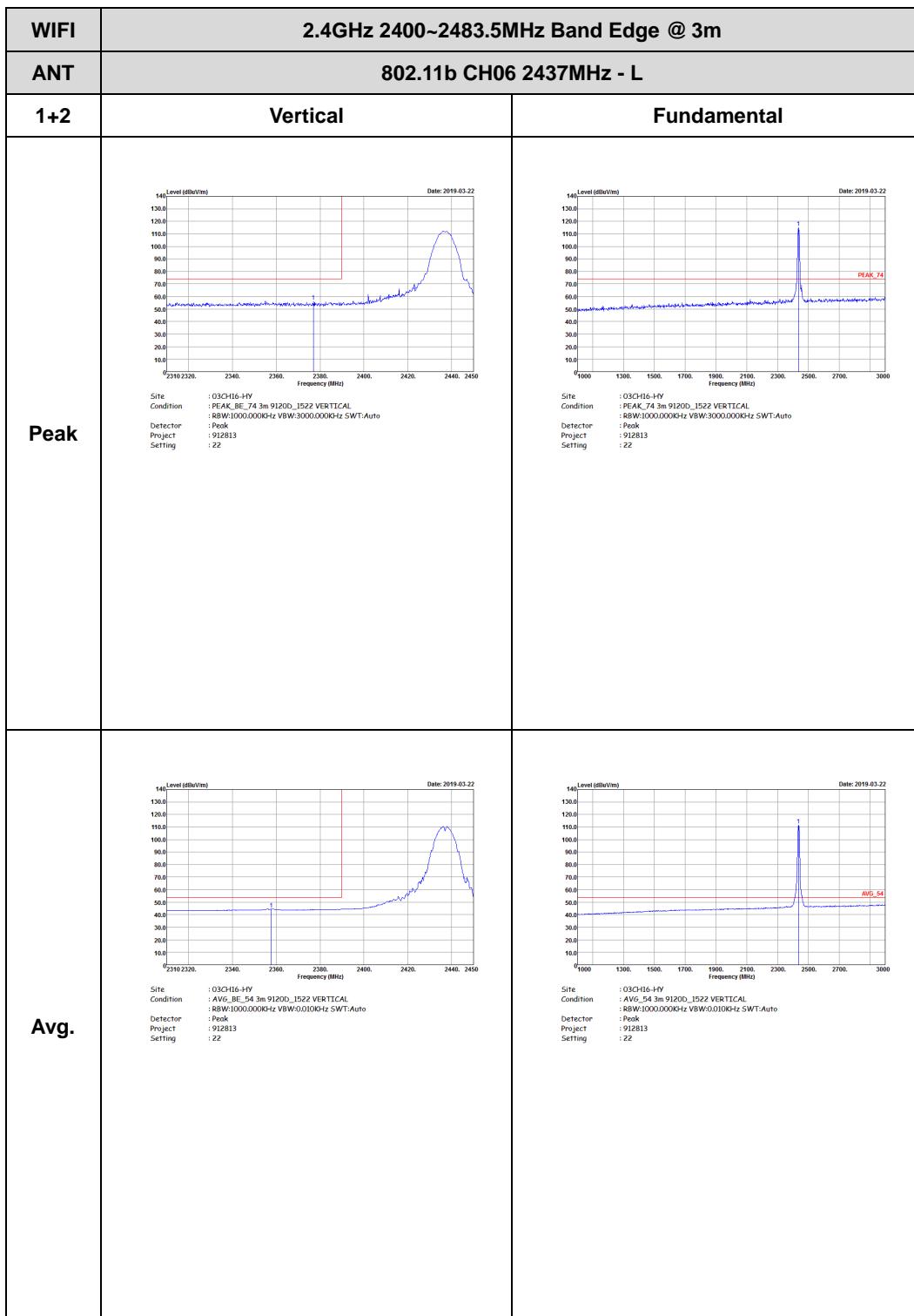
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |   |
|------|--|---|
| ANT  | 802.11b CH01 2412MHz   |   |
| 1+2  | Horizontal   | Fundamental   |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 19.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 19.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:0.010KHz SWT:Auto<br>Project : 912813<br>Setting : 19.5  | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:0.010KHz SWT:Auto<br>Project : 912813<br>Setting : 19.5  |



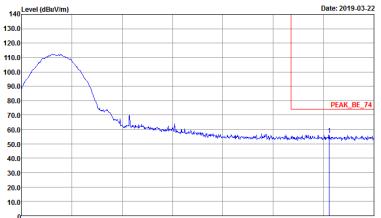


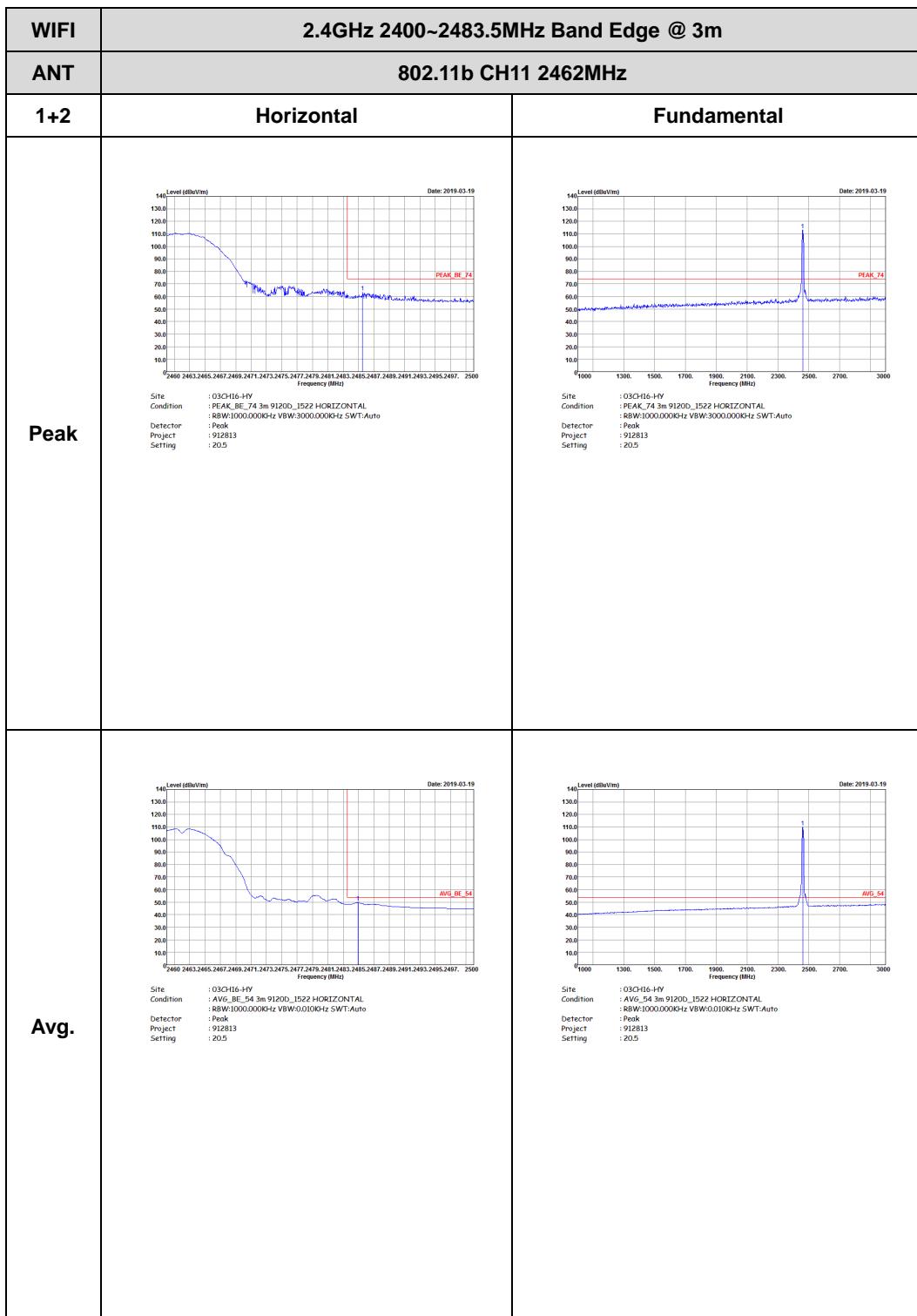


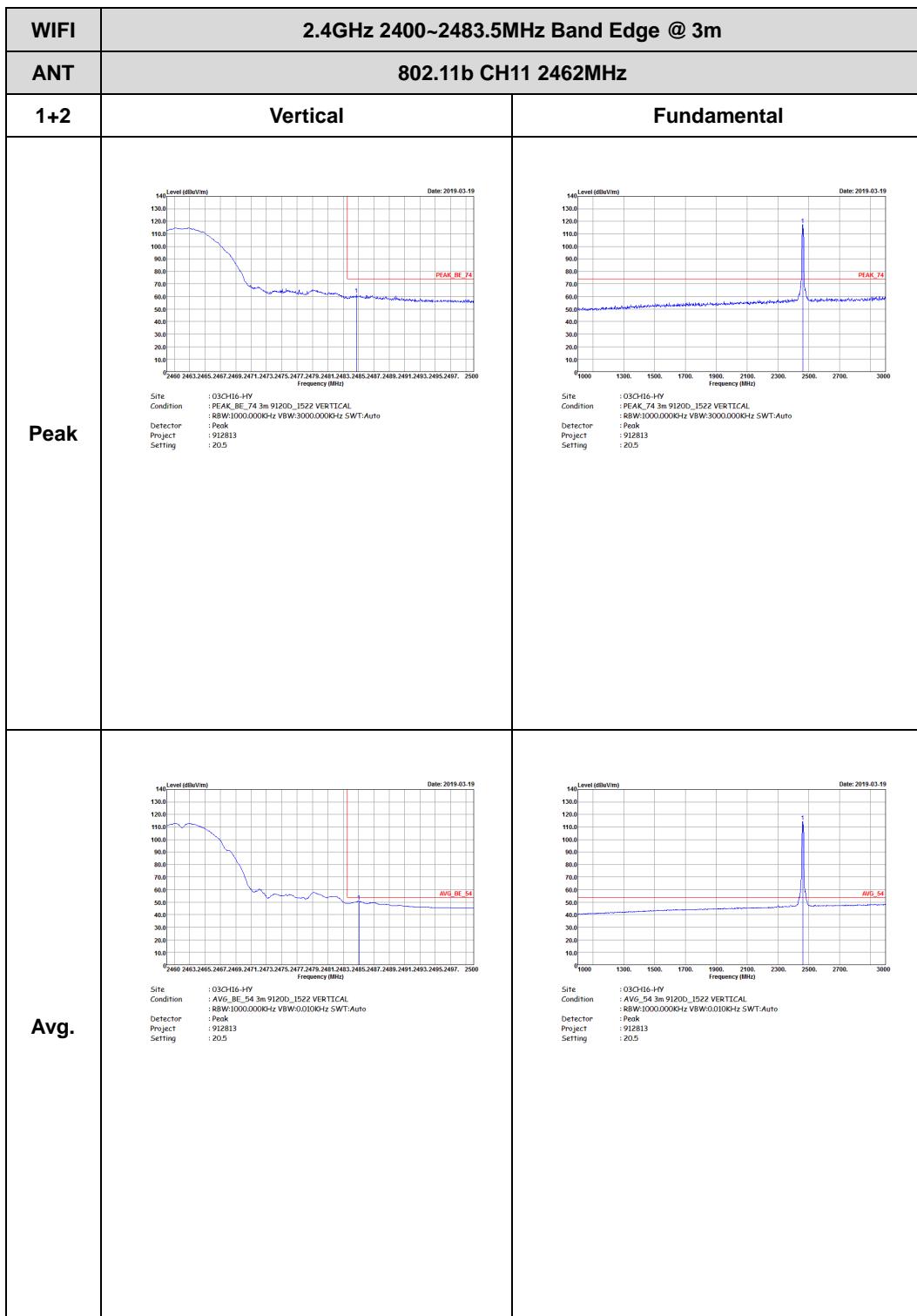
|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11b CH06 2437MHz - R   |             |
| 1+2  | Horizontal   | Fundamental |
| Peak |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. A sharp peak is labeled PEAK_BE_74 at approximately 2437MHz.</p> <p>Date: 2019-03-22</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p>    | Left blank  |
| Avg. |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. A horizontal line indicates the average level, labeled AVG_BE_54.</p> <p>Date: 2019-03-22</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:0.010KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |





|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11b CH06 2437MHz - R   |             |
| 1+2  | Vertical   | Fundamental |
| Peak |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The plot shows a sharp peak labeled 'PEAK_BE_74' at approximately 2437MHz with a value around 110 dBc/Vm. The background noise floor is around 55 dBc/Vm.</p> <p>Date: 2019-03-22</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>        | Left blank  |
| Avg. |  <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The plot shows a broad average envelope labeled 'AVG_BE_54' starting around 2437MHz with a value around 55 dBc/Vm. The background noise floor is around 55 dBc/Vm.</p> <p>Date: 2019-03-22</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:0.010KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |

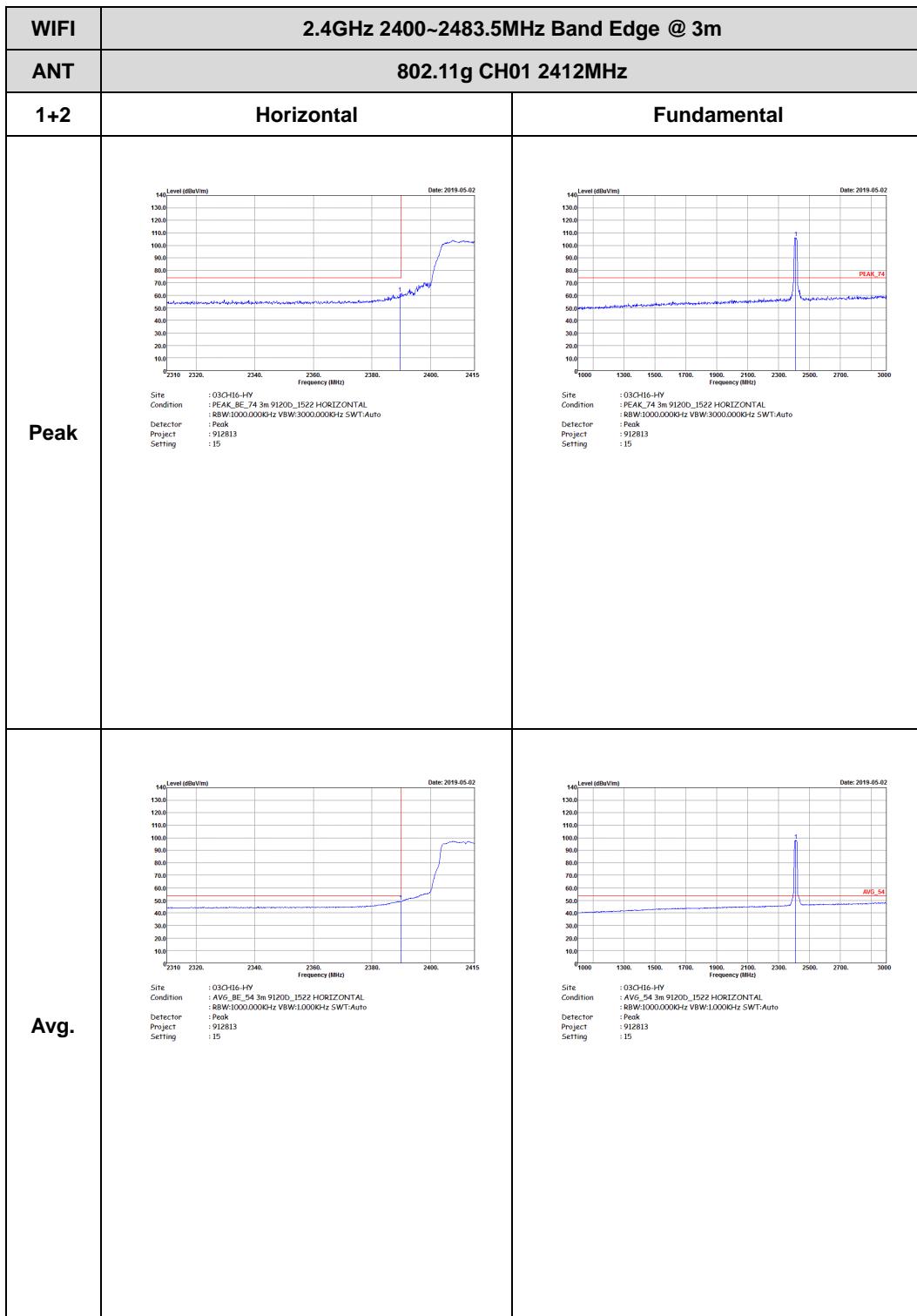


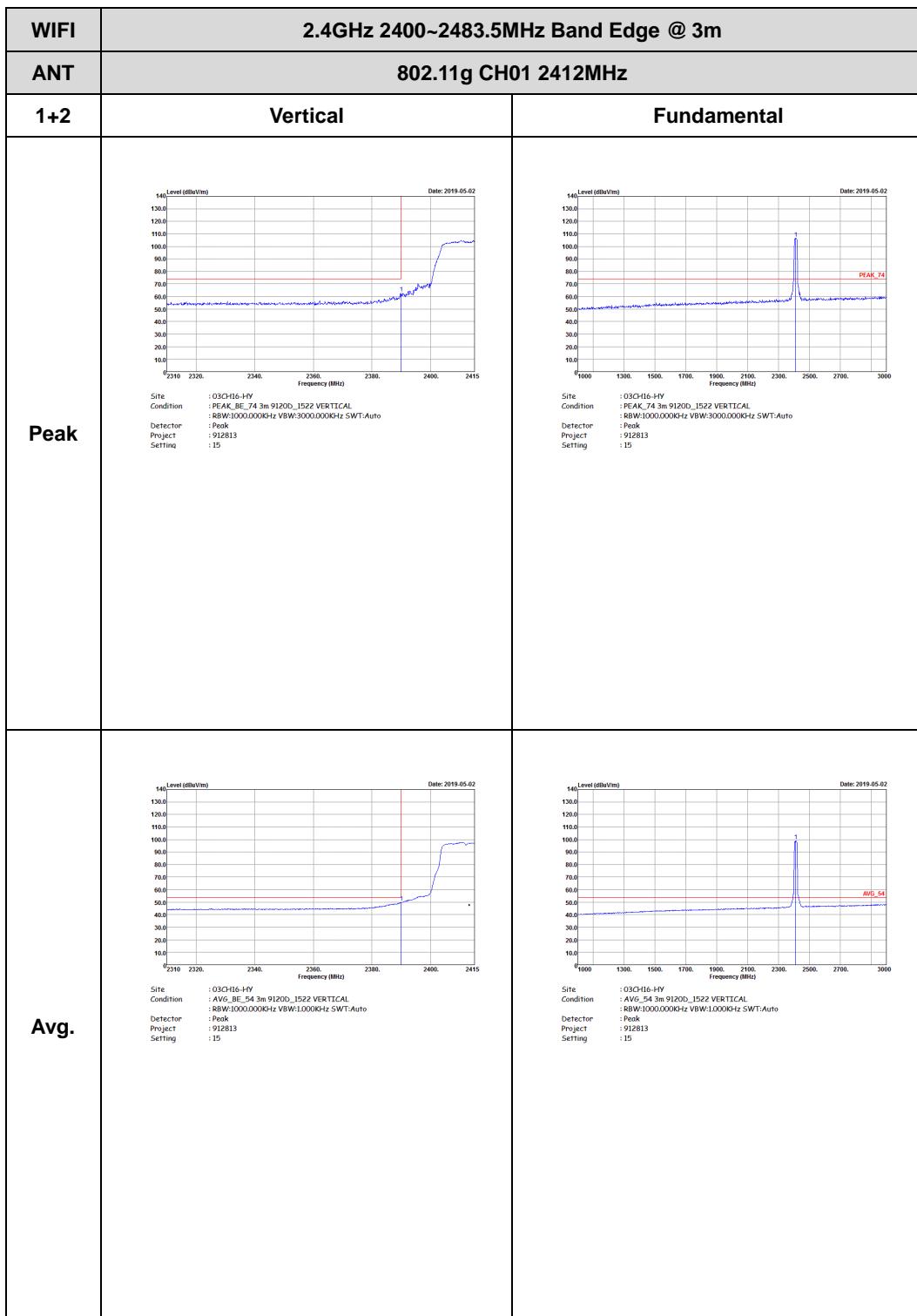


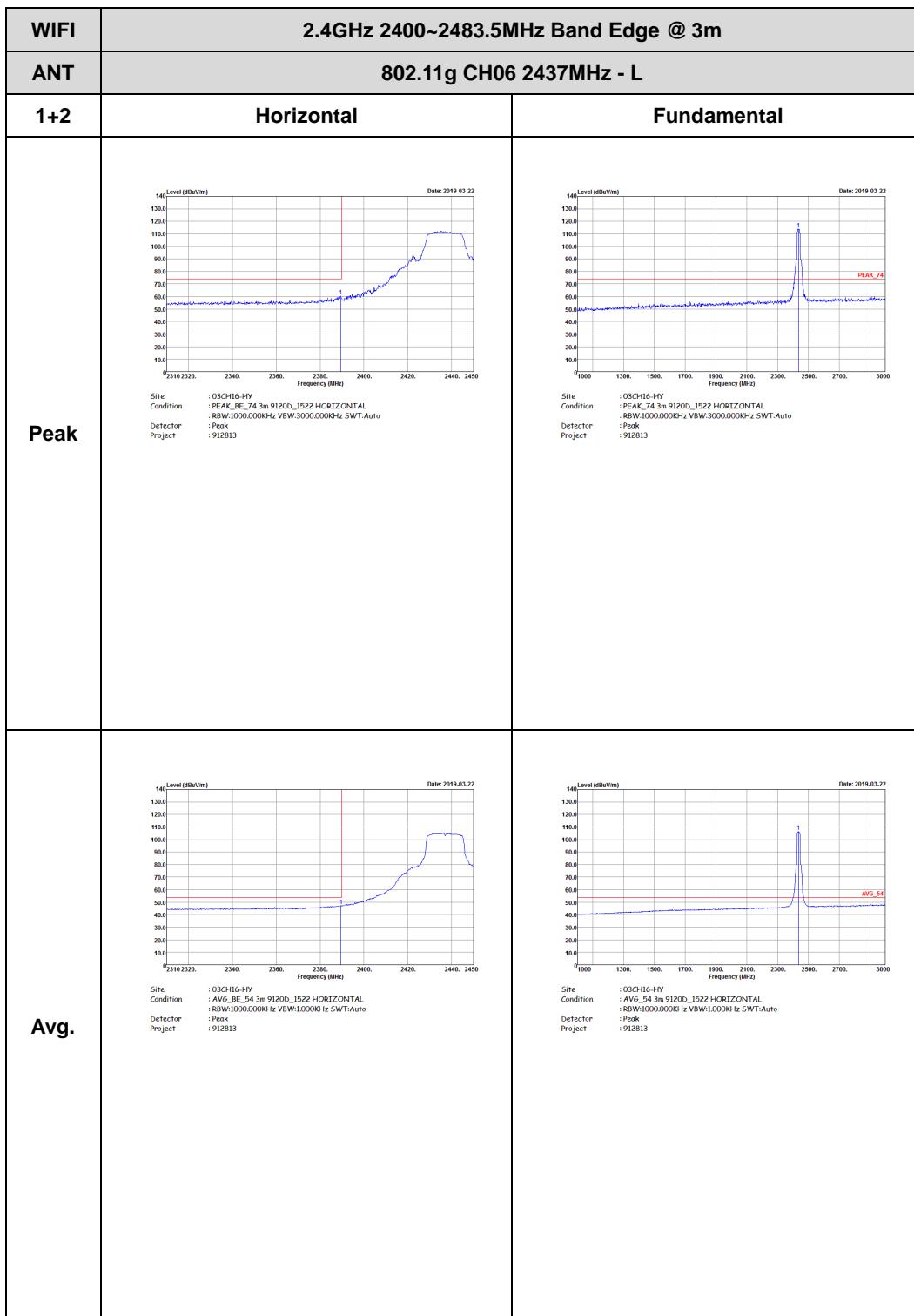


## 2.4GHz 2400~2483.5MHz

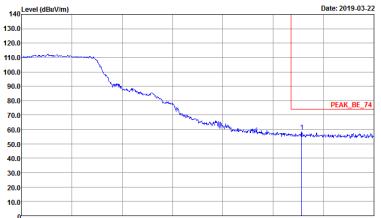
## WIFI 802.11g (Band Edge @ 3m)

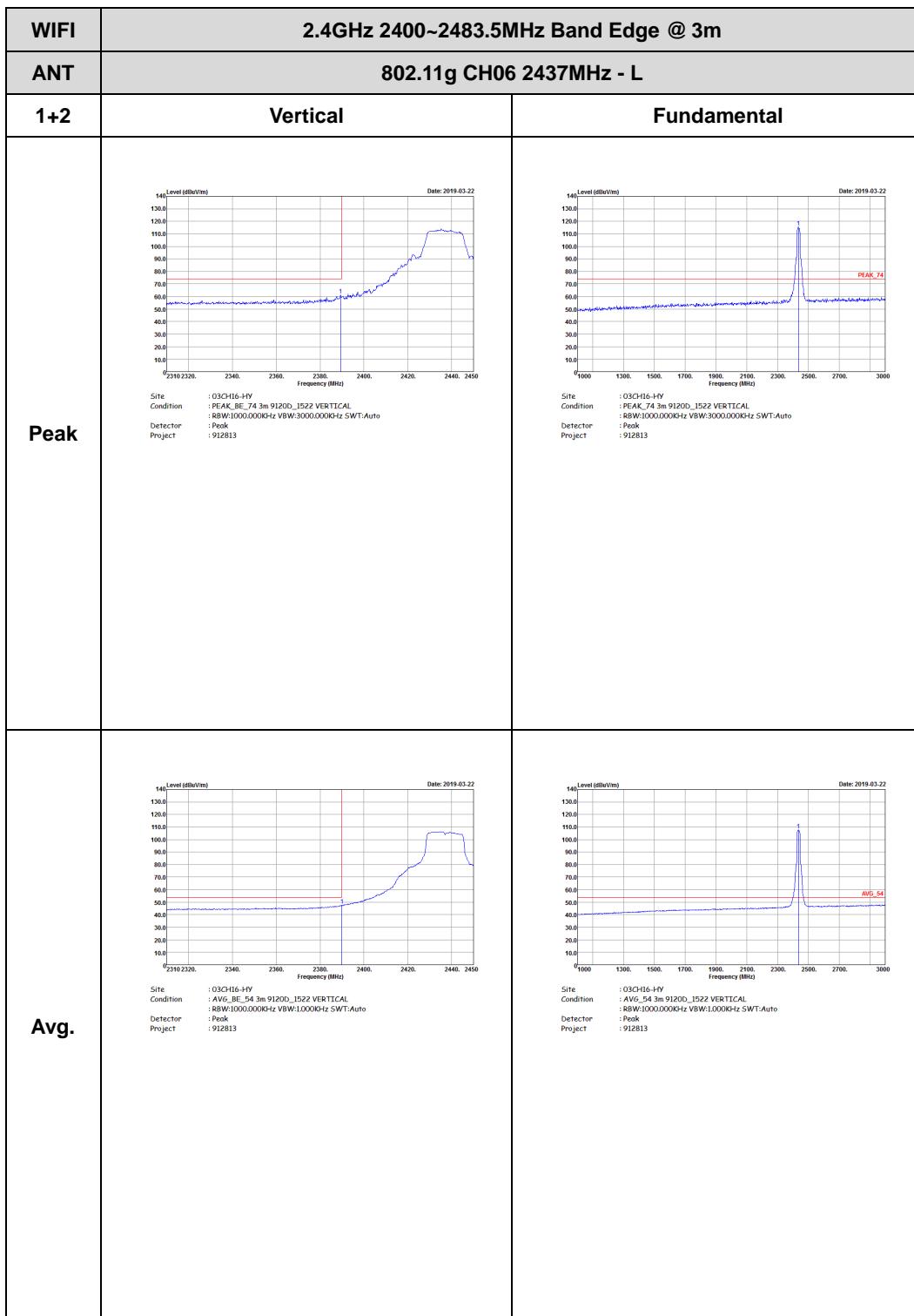






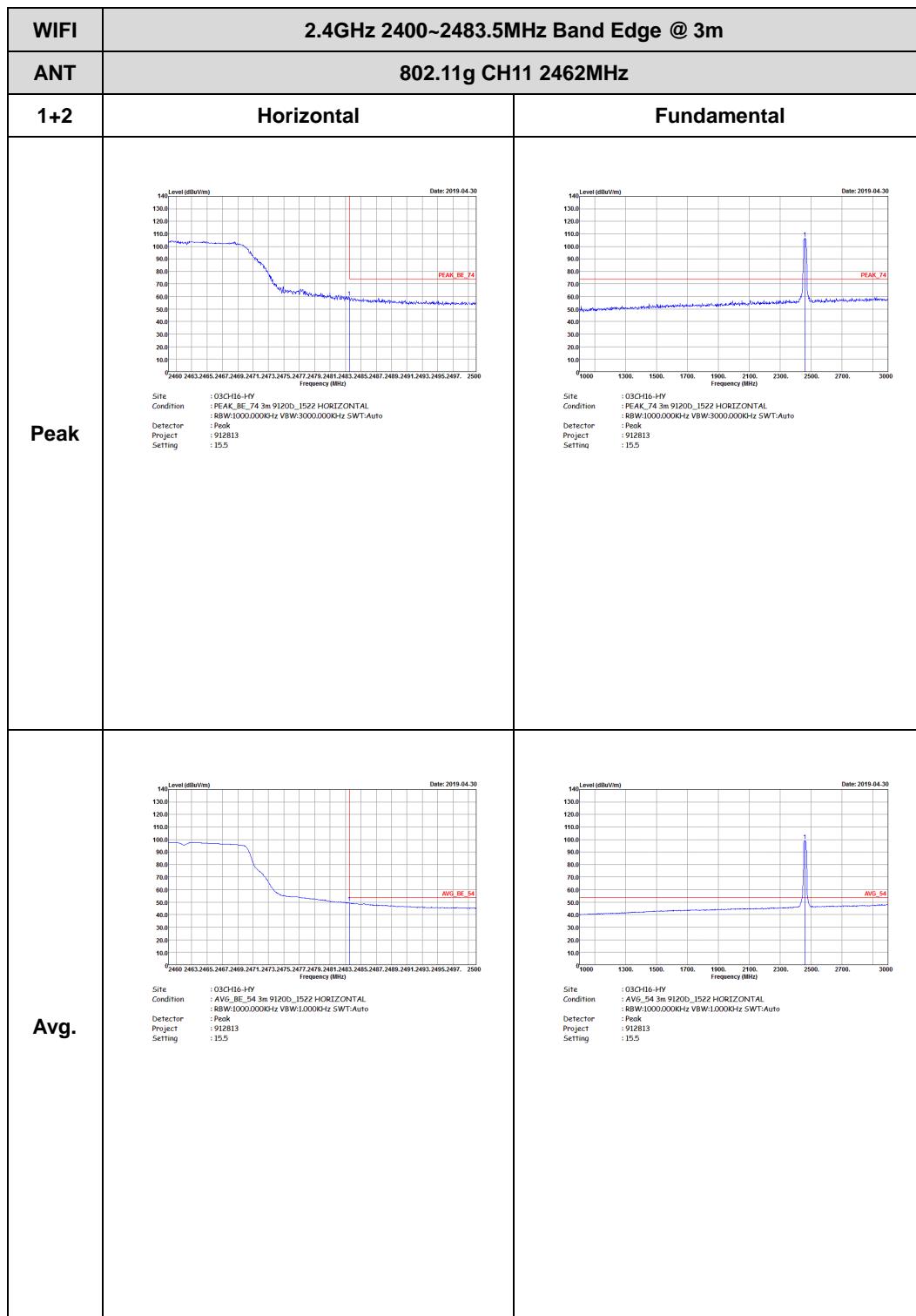


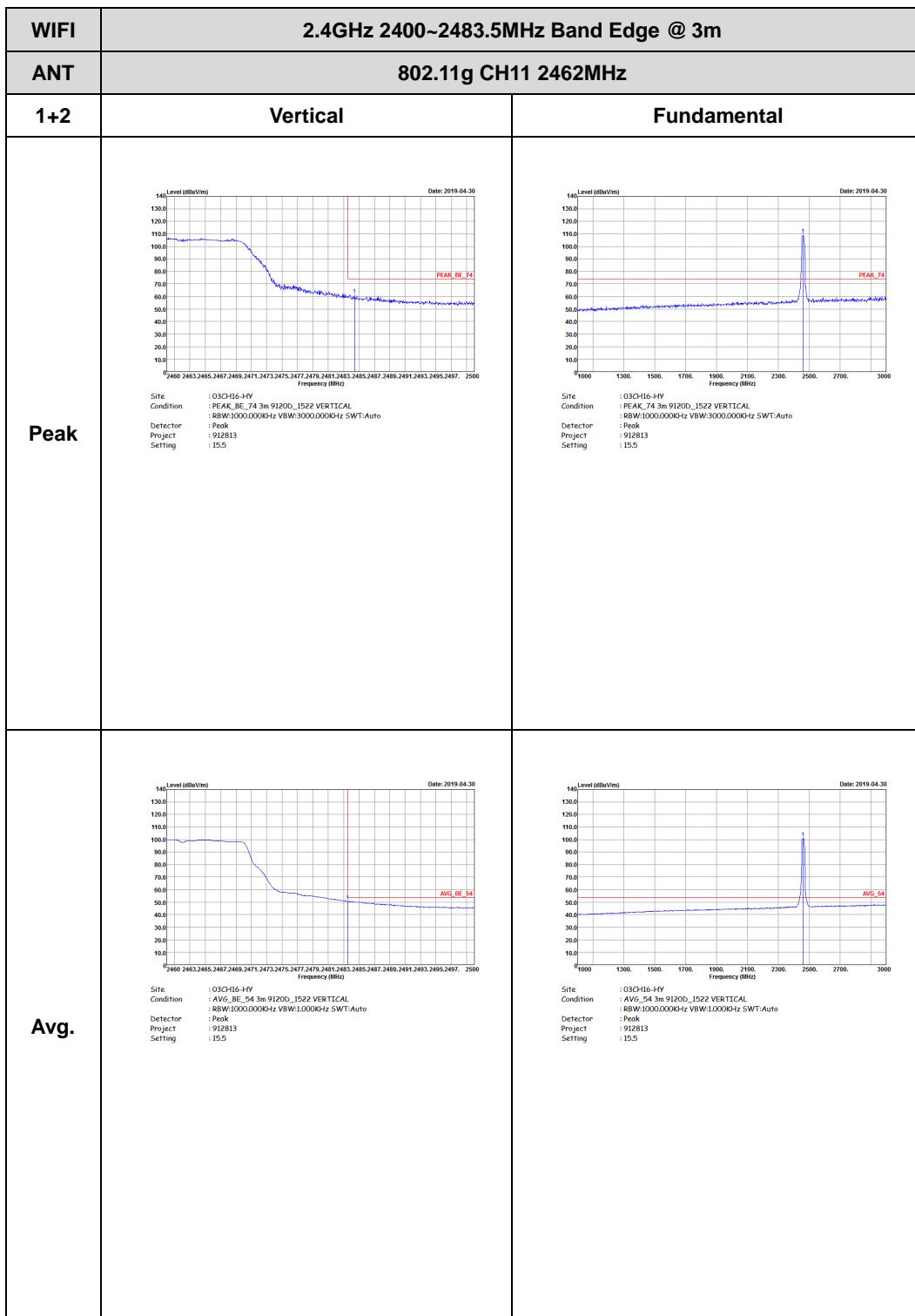
|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11g CH06 2437MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813</p> | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813</p>   | Left blank  |





|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11g CH06 2437MHz - R   |             |
| 1+2  | Vertical   | Fundamental |
| Peak | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-22</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : Peak<br/>: 912813</p> | Left Blank  |
| Avg. | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-22</p> <p>AVG_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:1.000KHz SWT:Auto<br/>Project : Peak<br/>: 912813</p>      | Left Blank  |

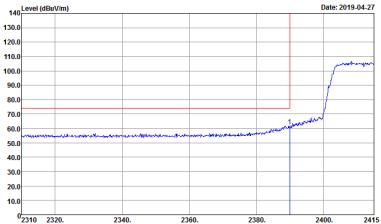
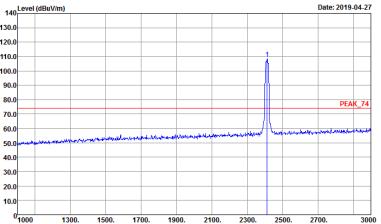
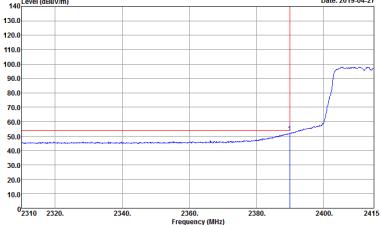
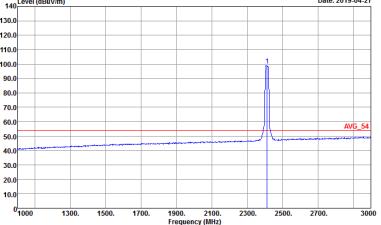


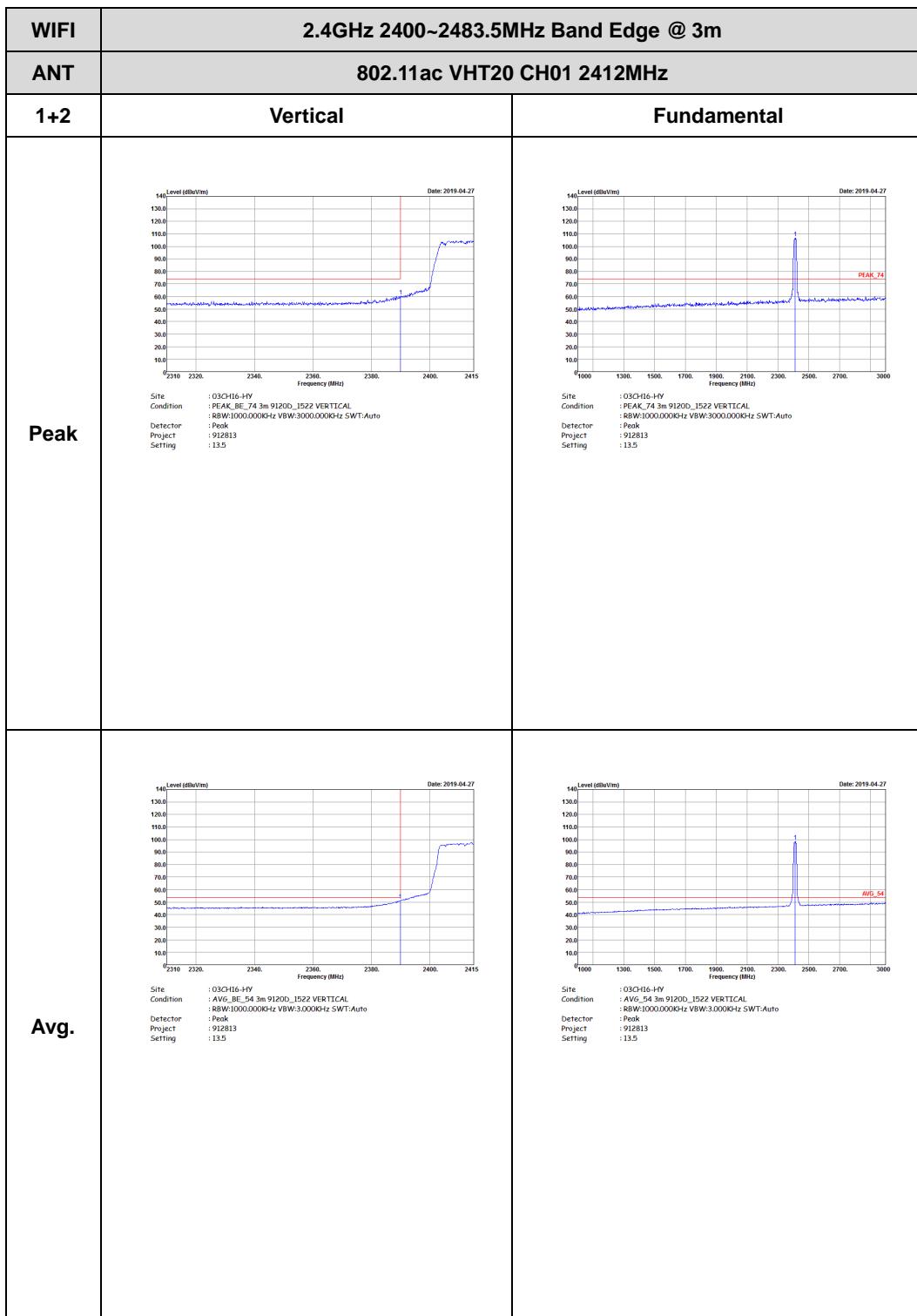


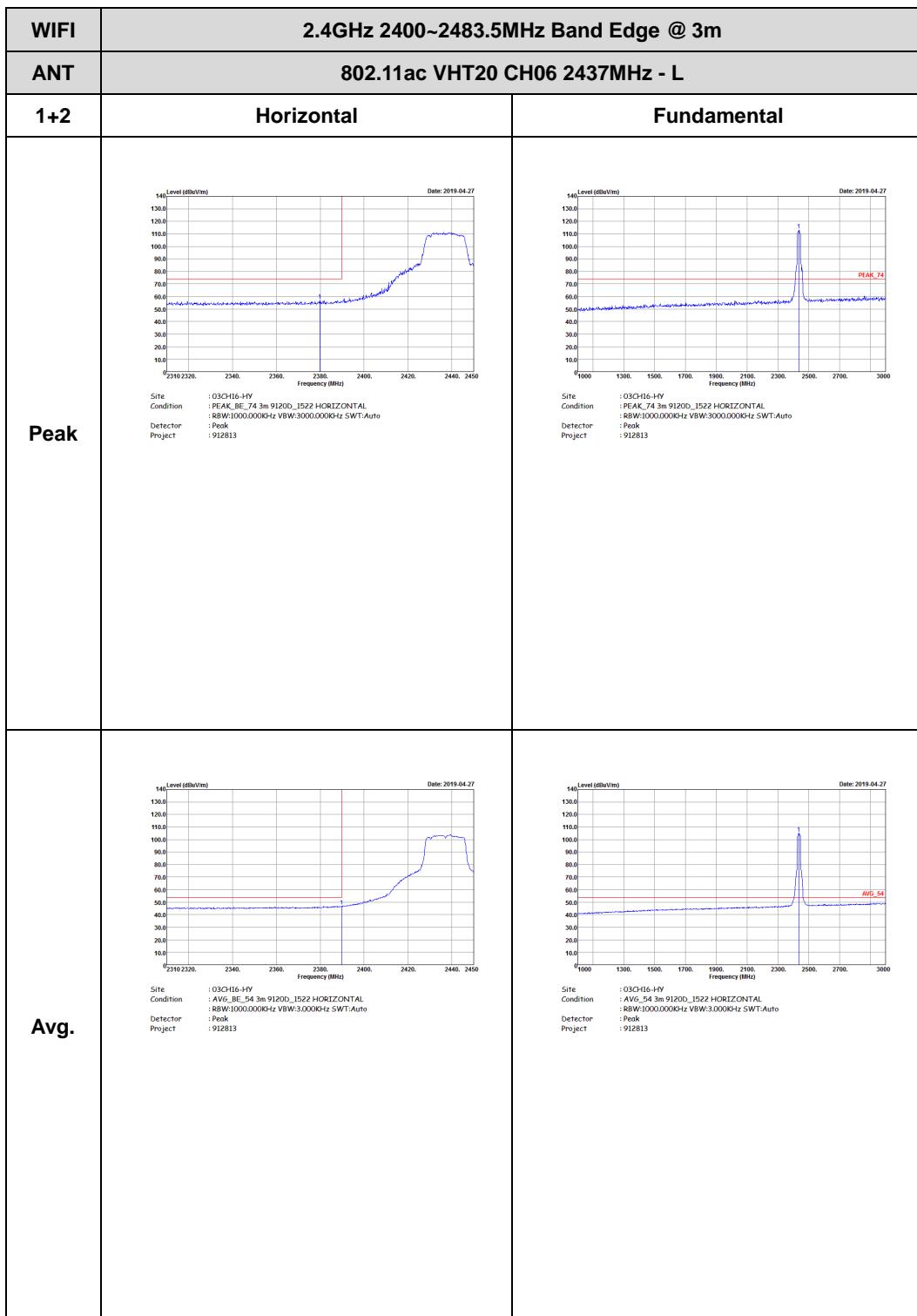


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Band Edge @ 3m)

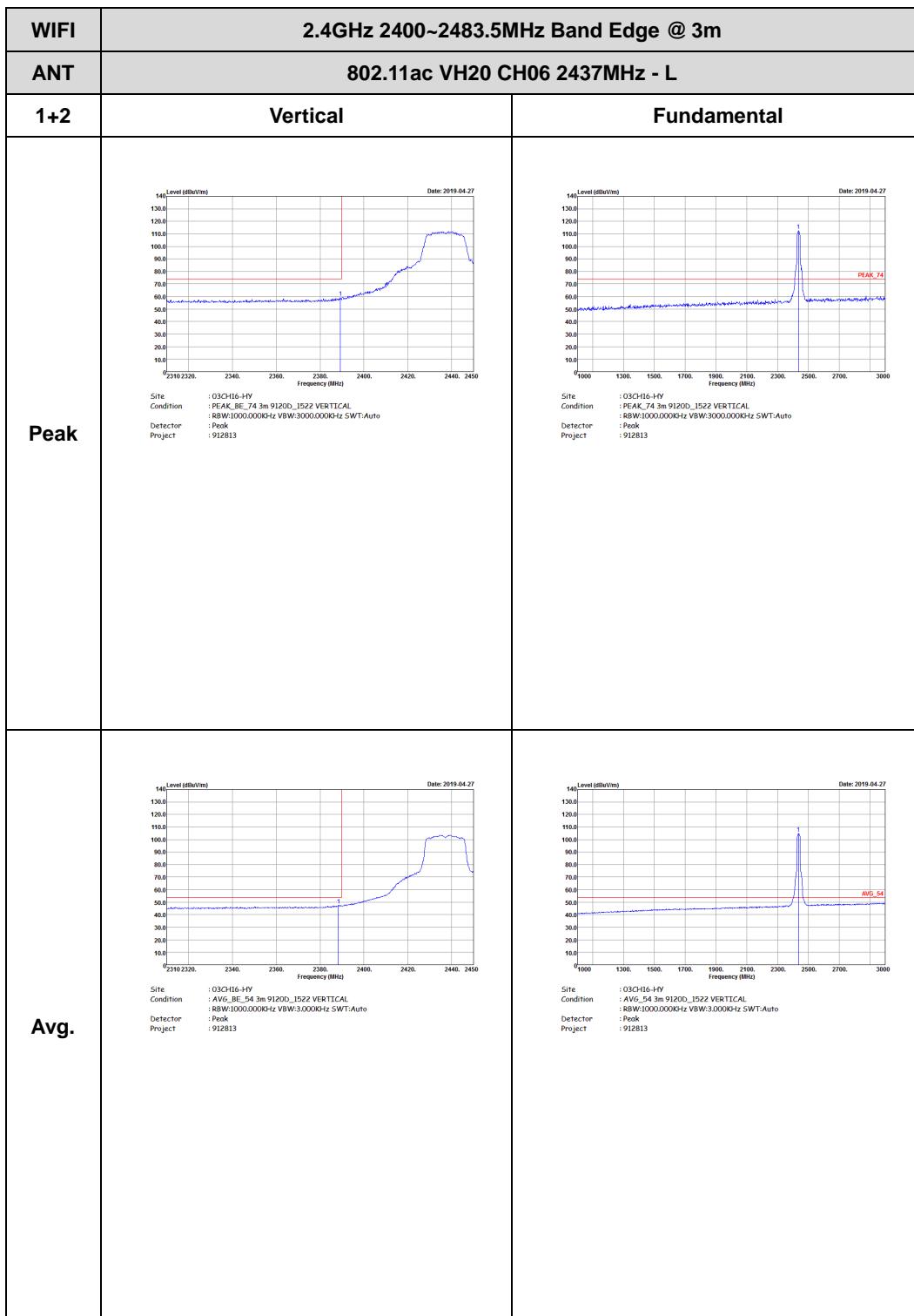
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |  |
|------|--|--|
| ANT  | 802.11ac VHT20 CH01 2412MHz  |  |
| 1+2  | Horizontal   | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5   | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3.000Hz SWT:Auto<br>Project : 912813<br>Setting : 13.5   |



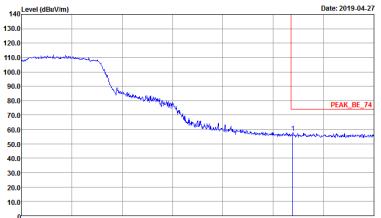


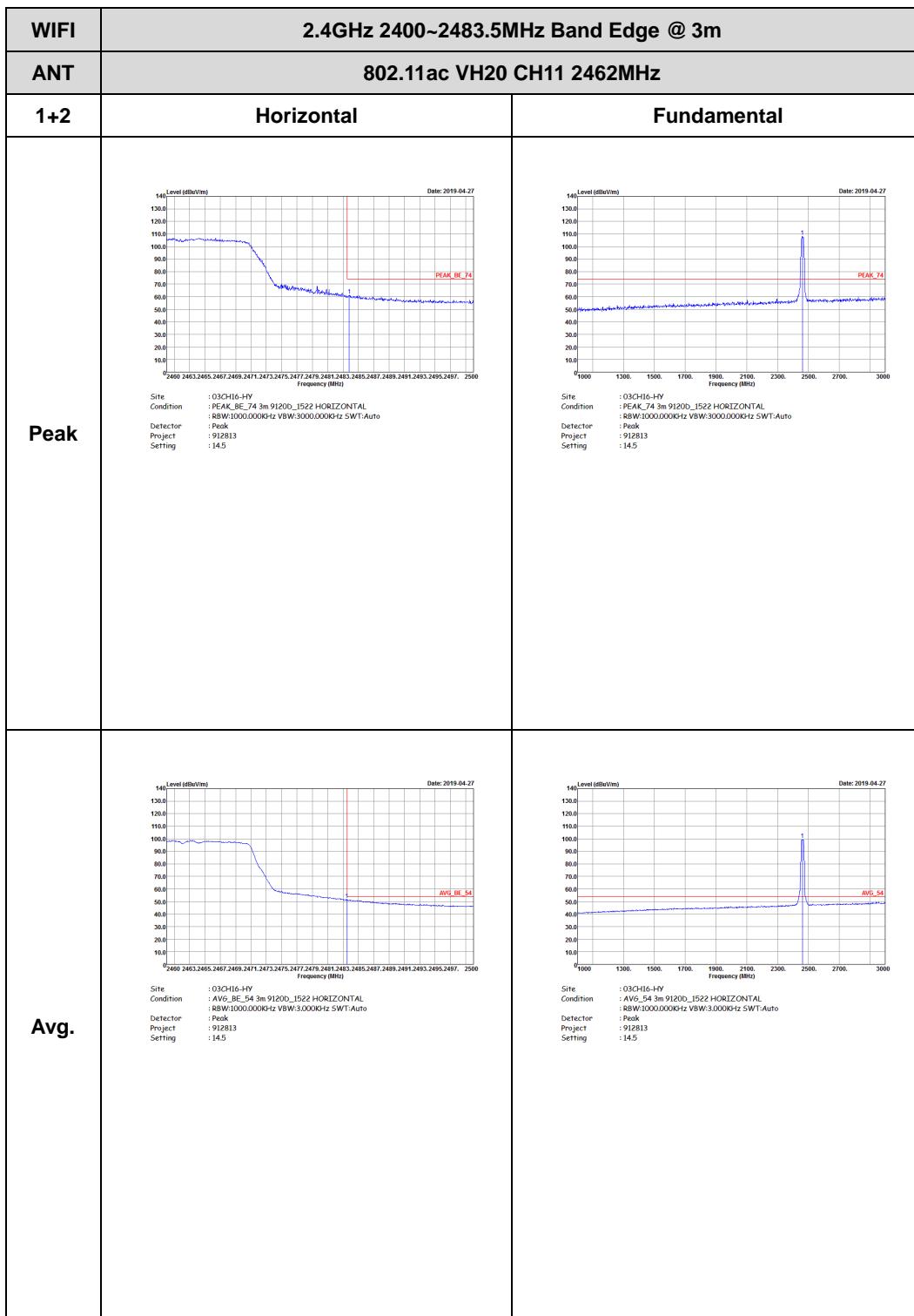


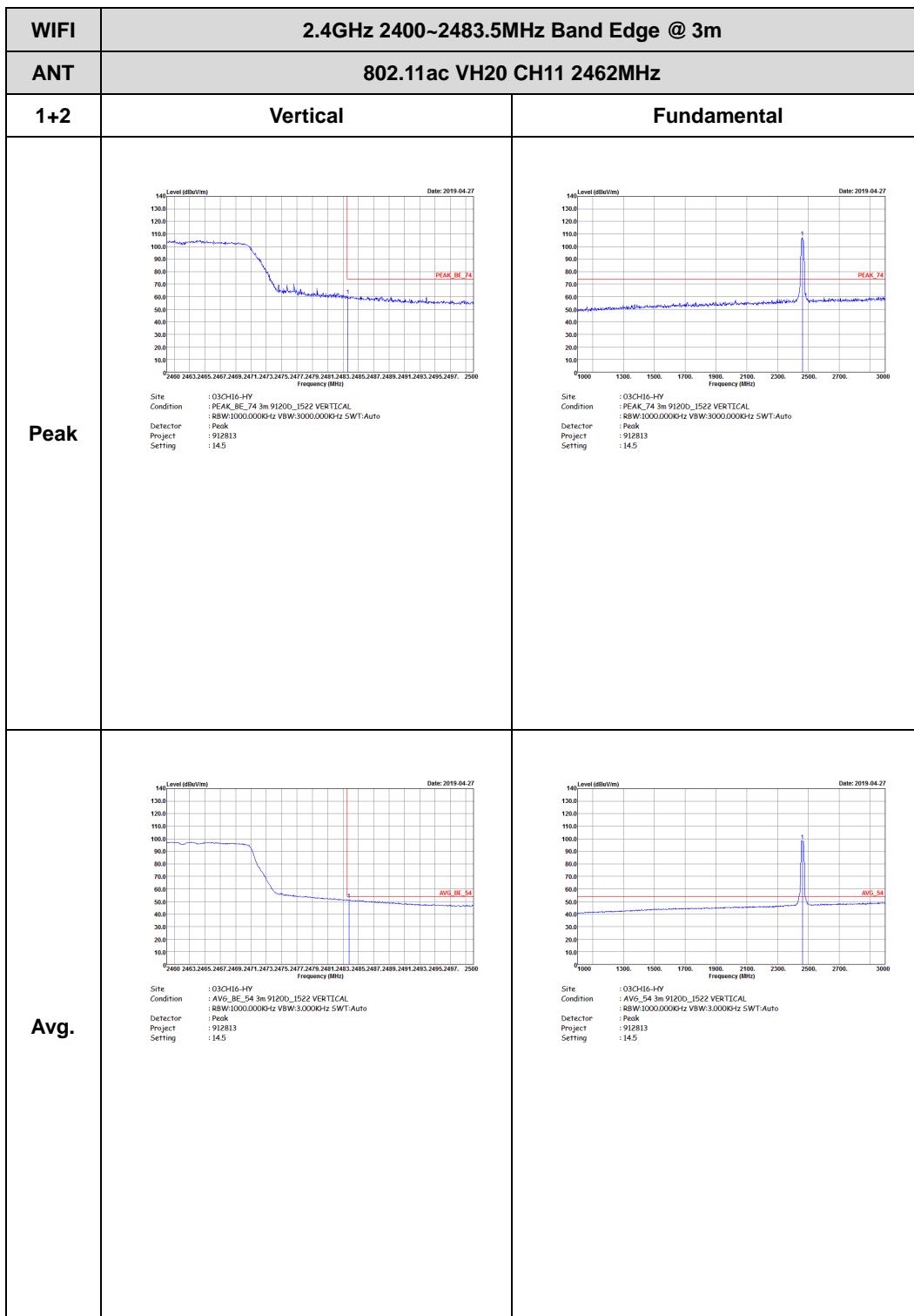
|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak | <p>Level (dBc/Vm)</p> <p>Date: 2019-04-27</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813</p> | Left blank  |
| Avg. | <p>Level (dBc/Vm)</p> <p>Date: 2019-04-27</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813</p>     | Left blank  |





|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R   |             |
| 1+2  | Vertical   | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : Peak<br/>: 912813</p>  | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : Peak<br/>: 912813</p> | Left blank  |

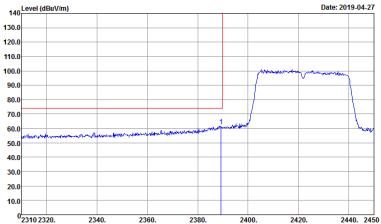
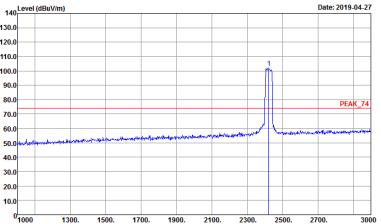
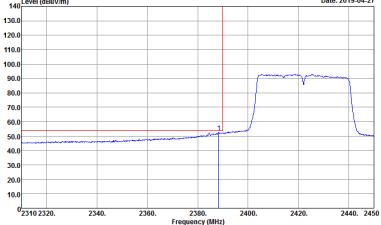
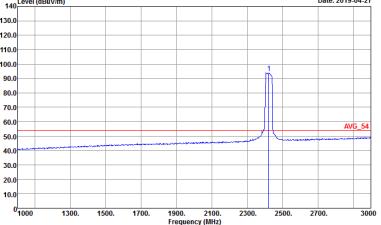






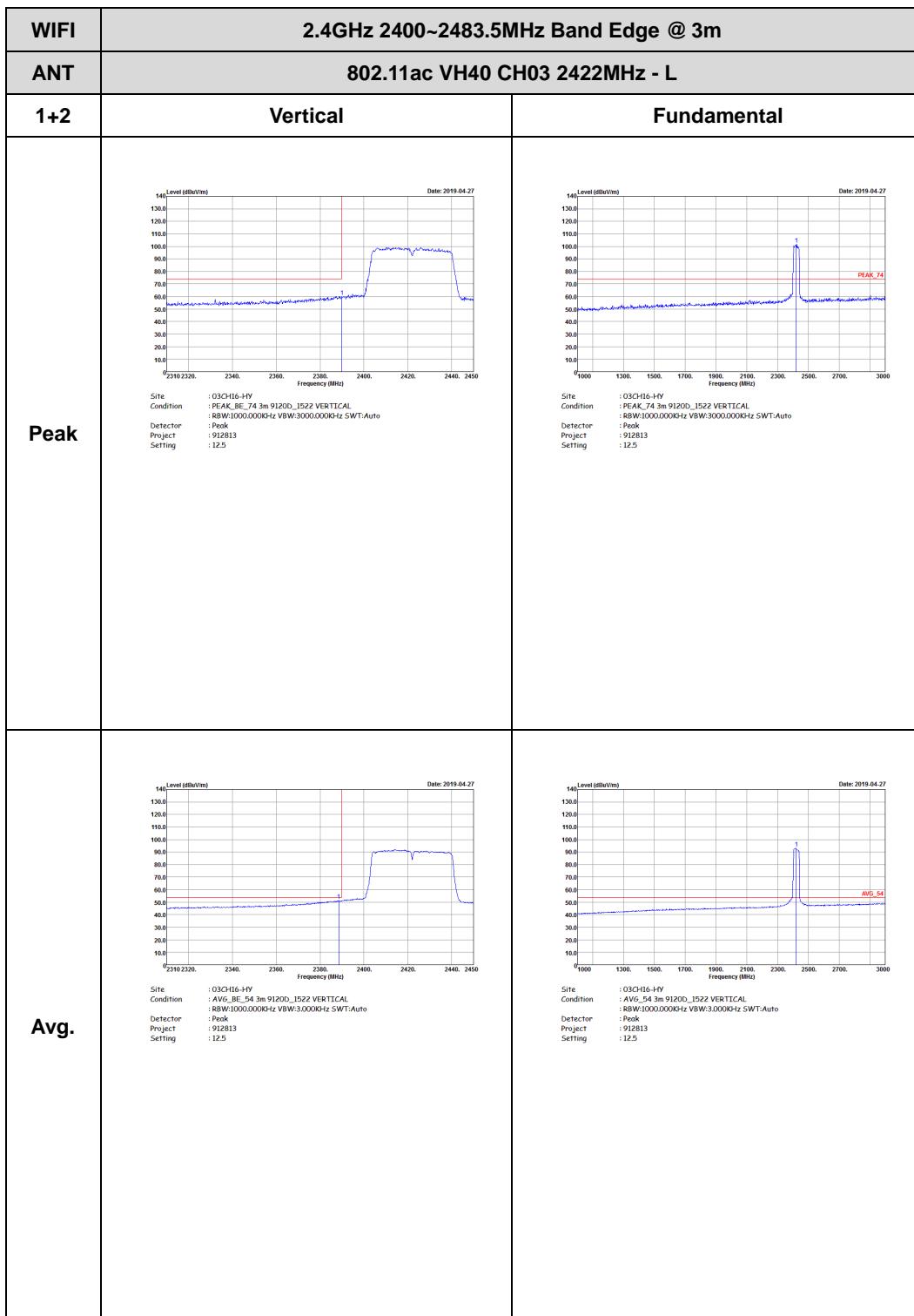
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |  |
|------|--|--|
| ANT  | 802.11ac VH40 CH03 2422MHz - L   |  |
| 1+2  | Horizontal   | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 12.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 12.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3.0000Hz SWT:Auto<br>Project : 912813<br>Setting : 12.5  | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_1522 HORIZONTAL<br>Detector : R8W:1000.000KHz VBW:3.0000Hz SWT:Auto<br>Project : 912813<br>Setting : 12.5  |

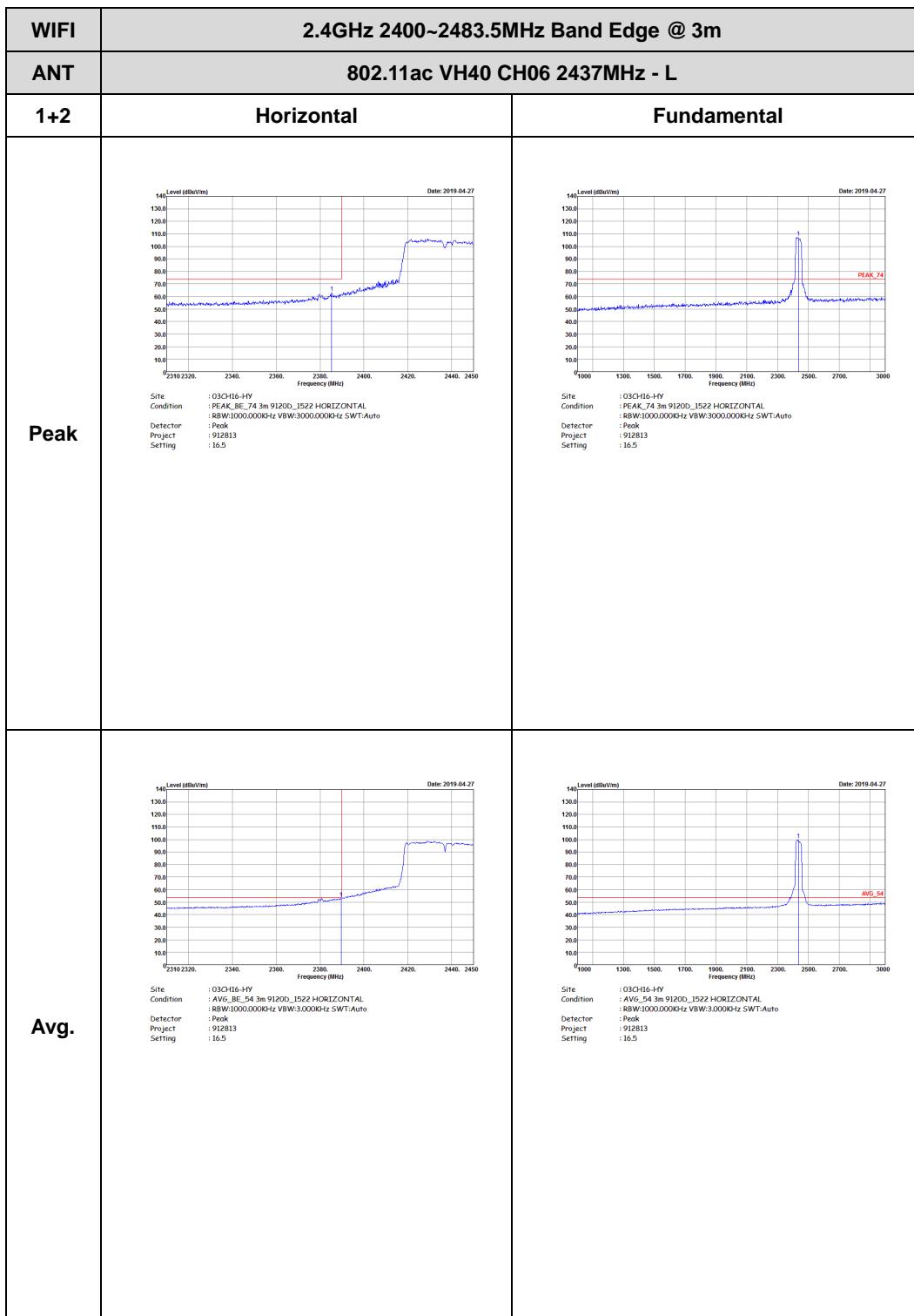


|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak | <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The graph shows a sharp drop from ~95 dBc/Vm at 2422 MHz to ~55 dBc/Vm at 2420 MHz. A red vertical line marks the peak at 2422 MHz, labeled "PEAK_BE_74".</p> <p>Date: 2019-04-27</p> <p>Site: 03CH16-HY<br/>Condition: PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>:RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector: Peak<br/>Project: 912813<br/>Setting: 12.5</p>        | Left blank  |
| Avg. | <p>Level (dBc/Vm) vs Frequency (MHz) from 2430 to 2500. The graph shows a sharp drop from ~90 dBc/Vm at 2422 MHz to ~50 dBc/Vm at 2420 MHz. A red vertical line marks the average level at 2422 MHz, labeled "AVG_BE_54".</p> <p>Date: 2019-04-27</p> <p>Site: 03CH16-HY<br/>Condition: AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>:RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector: Peak<br/>Project: 912813<br/>Setting: 12.5</p> | Left blank  |

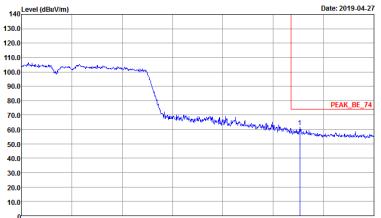
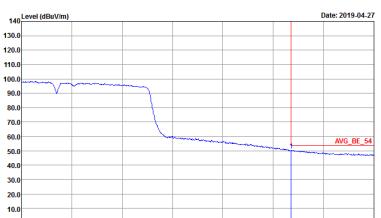


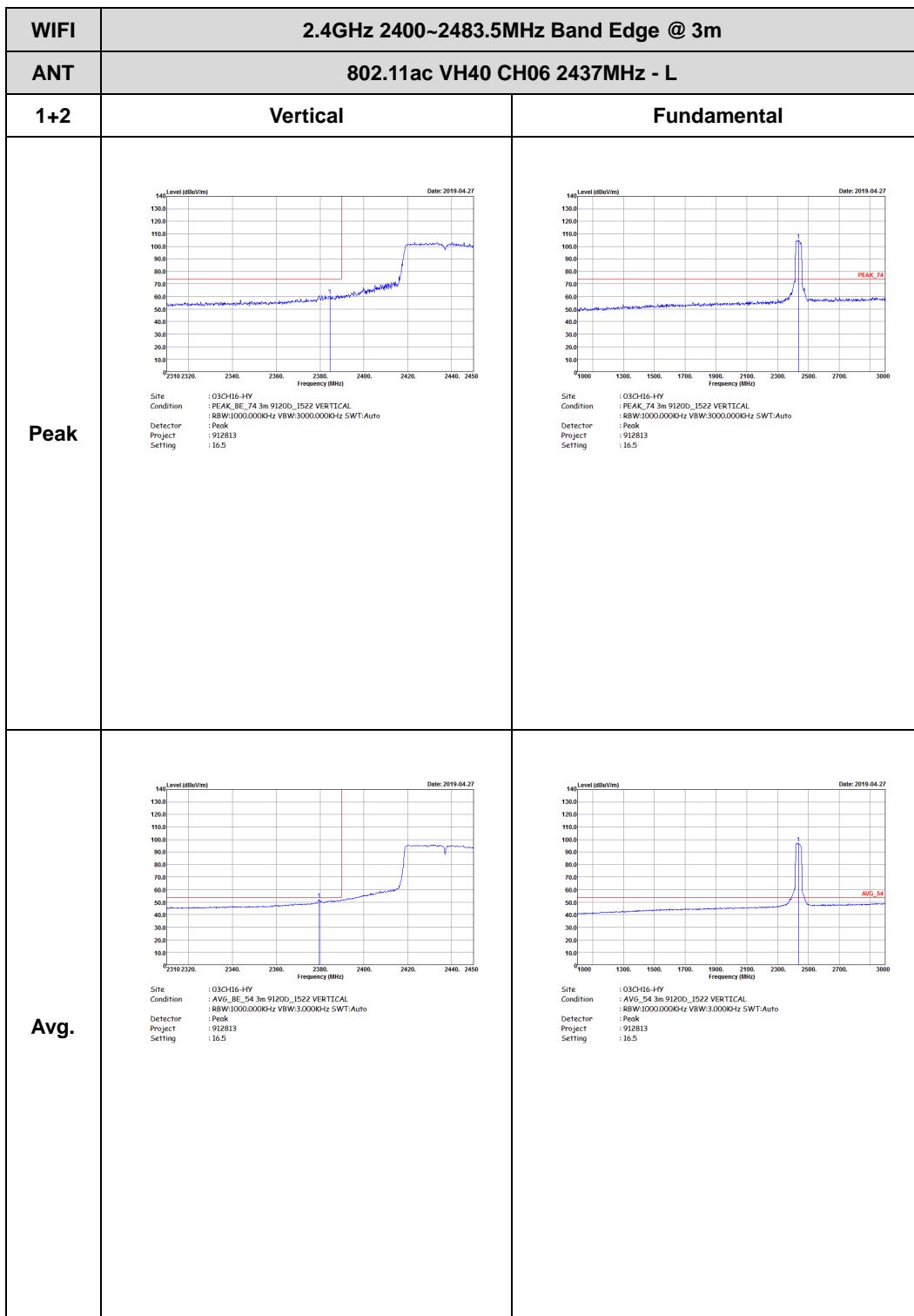


|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R   |             |
| 1+2  | Vertical   | Fundamental |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 12.5 | Left blank  |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br>: RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 12.5     | Left blank  |

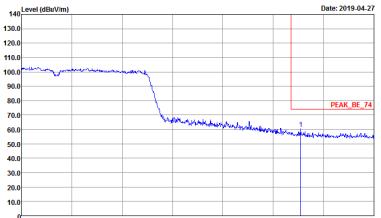


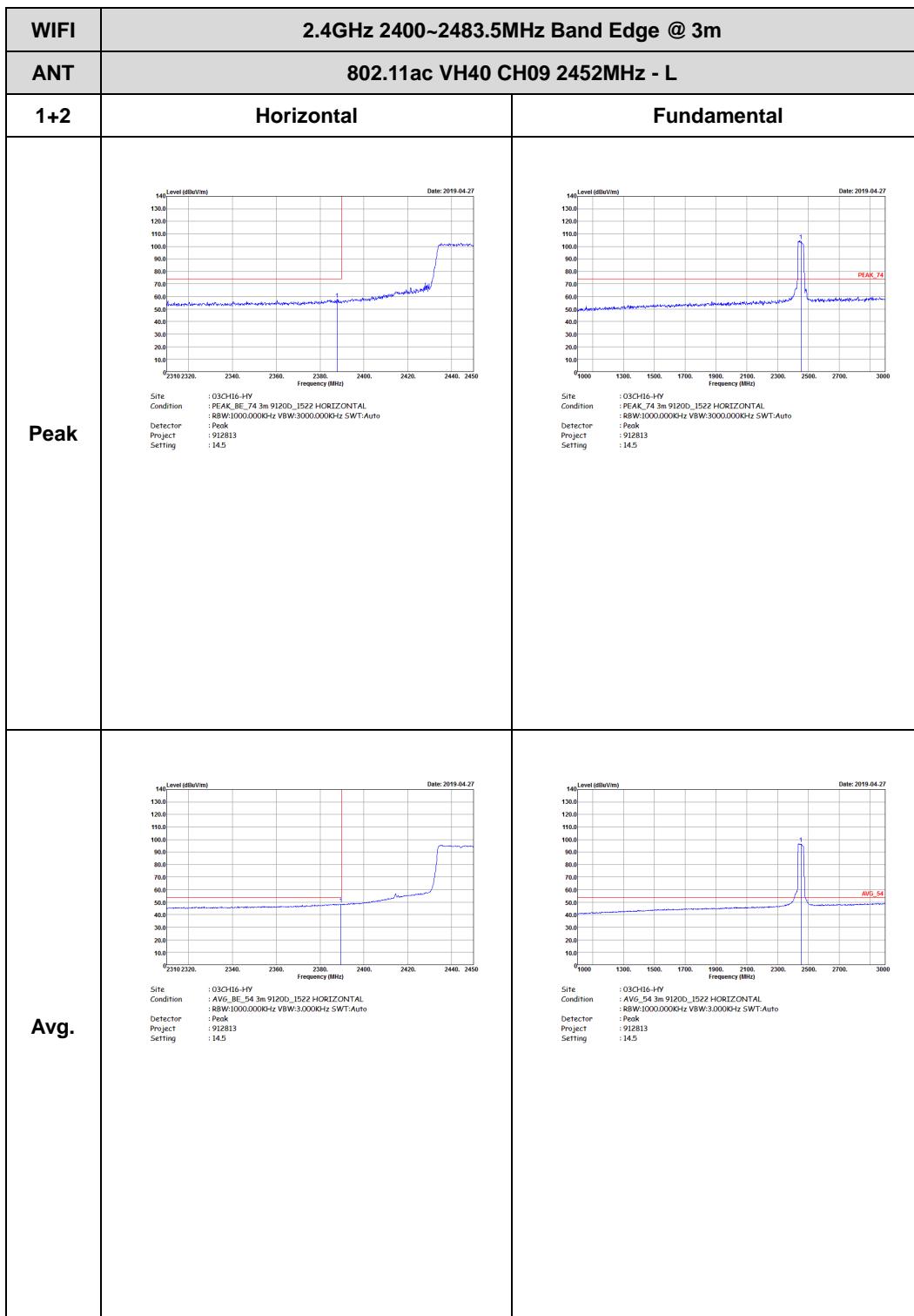


|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH06 2437MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p> | Left blank  |



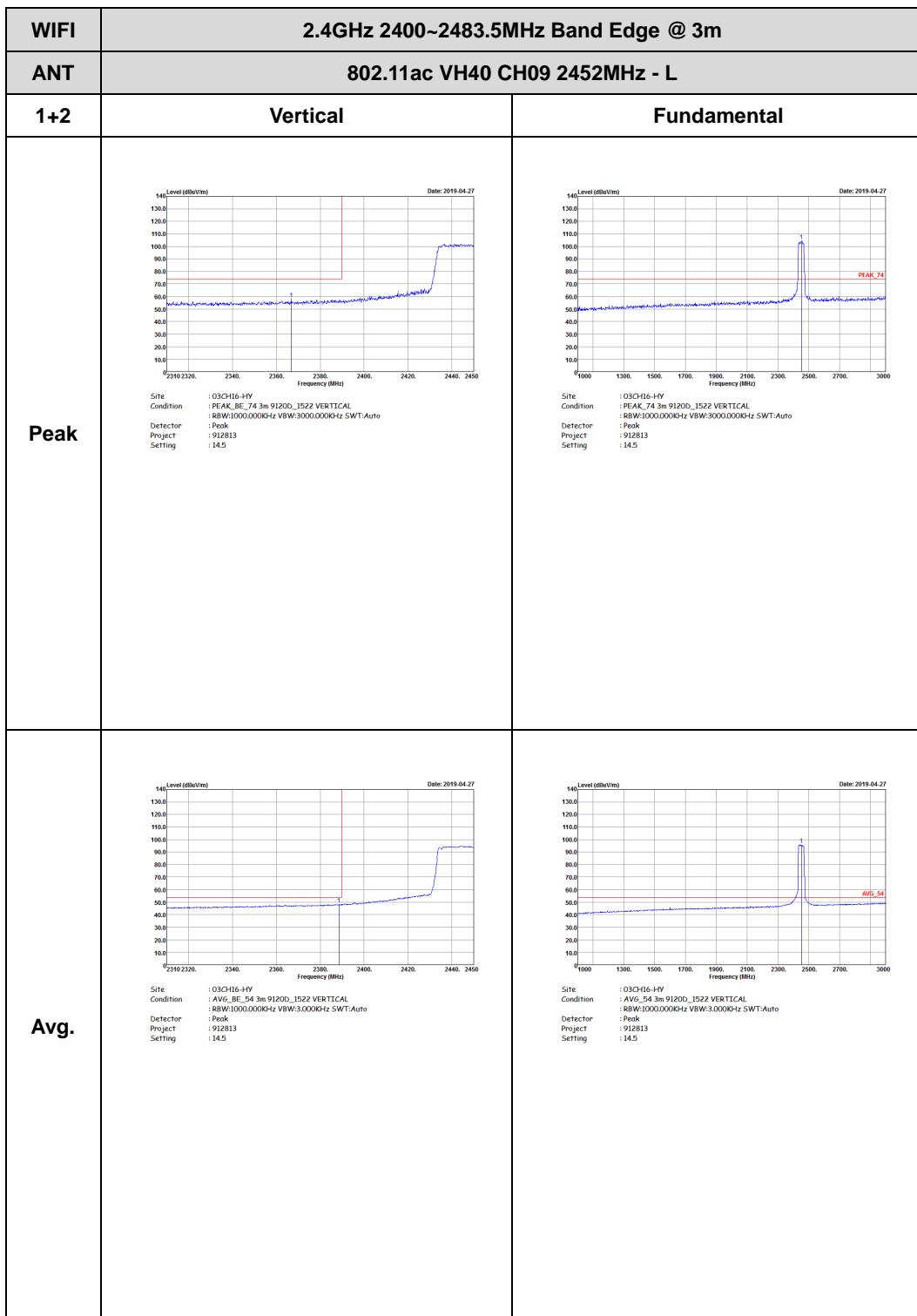


|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH06 2437MHz - R  |             |
| 1+2  | Vertical  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 16.5</p> | Left blank  |

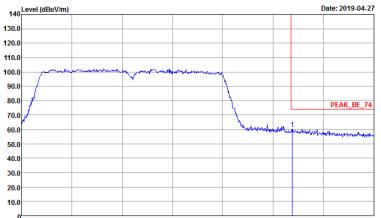
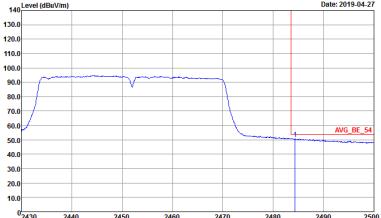




|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH09 2452MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak | <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 14.5</p> | Left blank  |
| Avg. | <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>Detector : R8W:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 14.5</p>     | Left blank  |



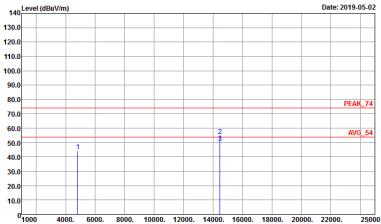
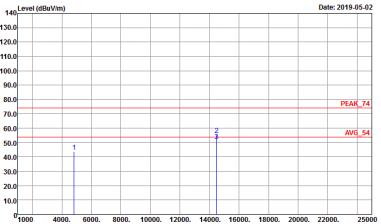


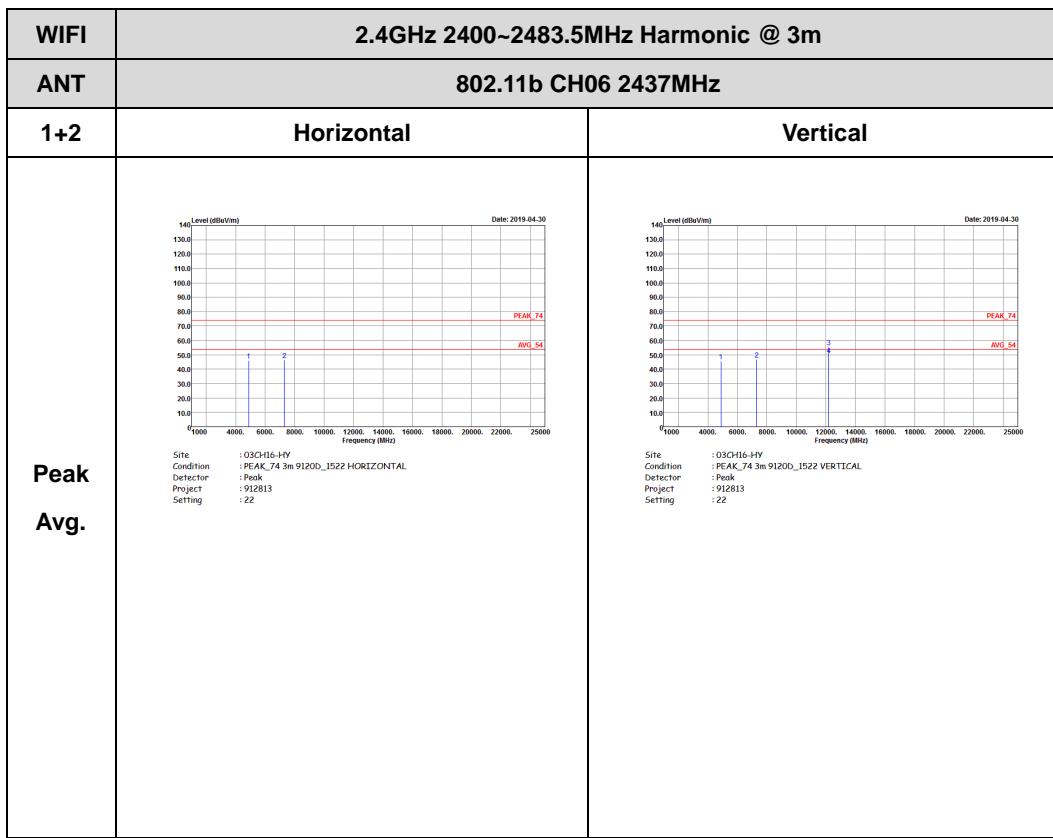
|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH09 2452MHz - R  |             |
| 1+2  | Vertical  | Fundamental |
| Peak |  <p>Level (dBc/Vm) vs Frequency (MHz) Date: 2019-04-27</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 14.5</p>  | Left blank  |
| Avg. |  <p>Level (dBc/Vm) vs Frequency (MHz) Date: 2019-04-27</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 14.5</p> | Left blank  |

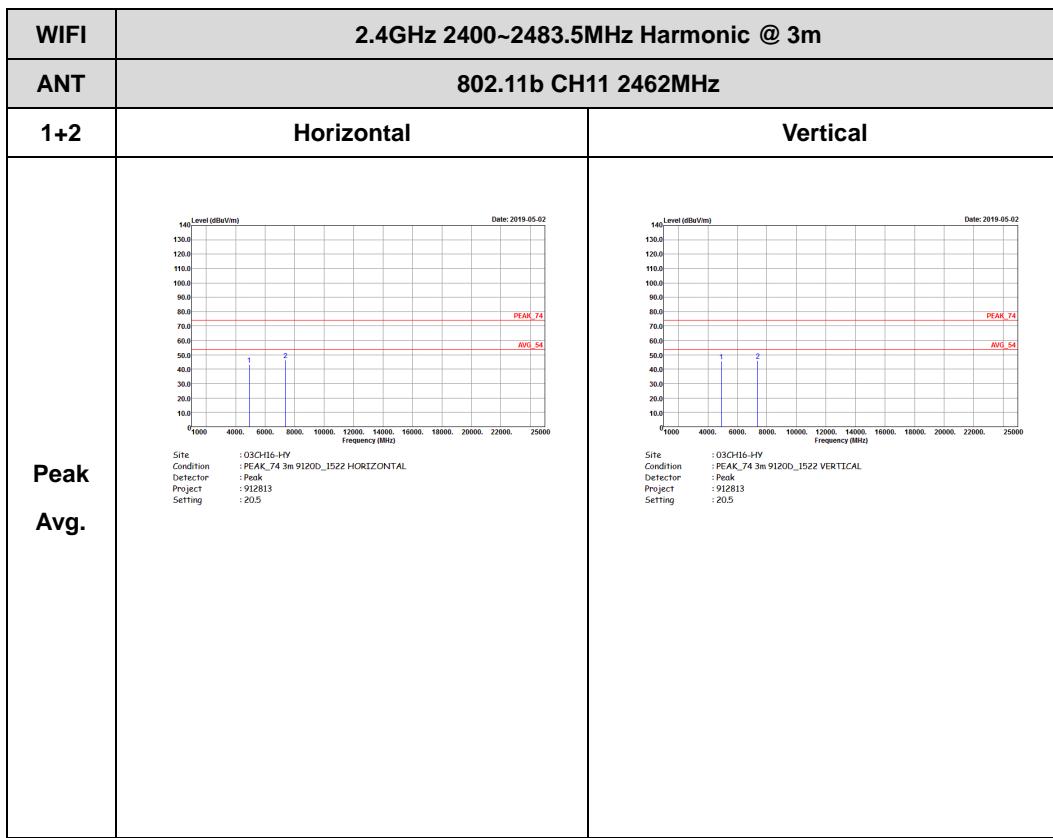


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Harmonic @ 3m  |   |
|------|--|---|
| ANT  | 802.11b CH01 2412MHz   |   |
| 1+2  | Horizontal   | Vertical  |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 19.5</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 19.5</p> |
| Avg. |  |   |

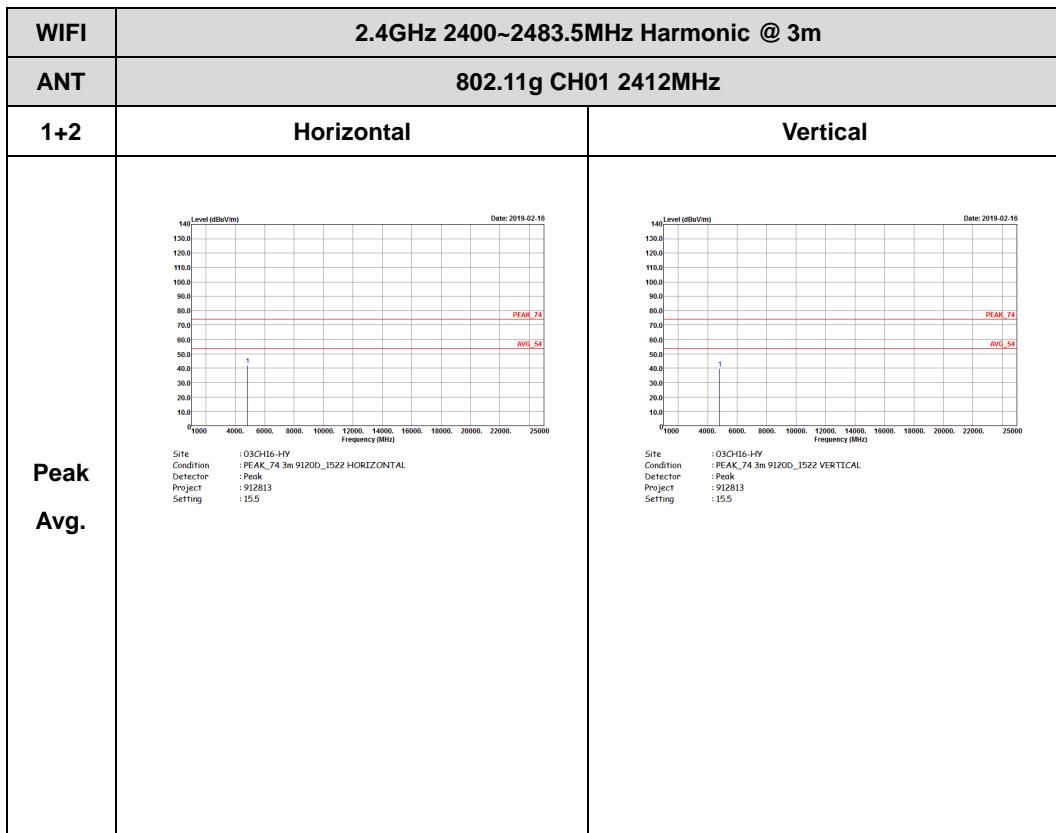


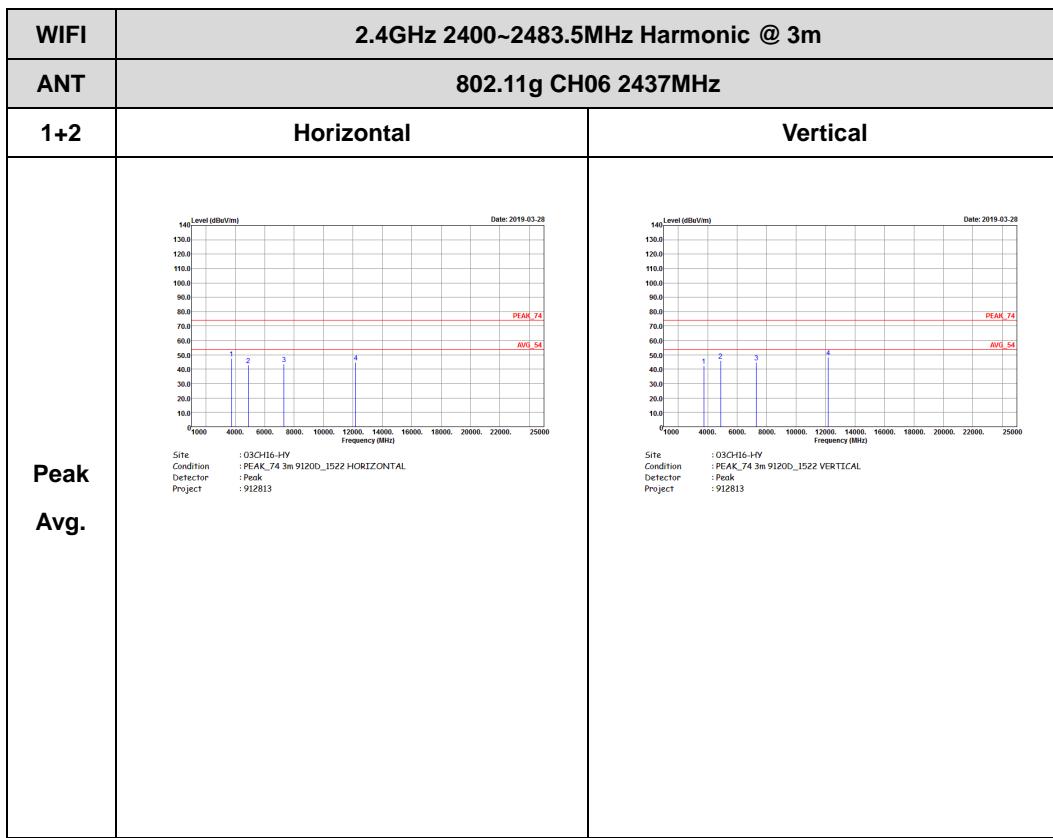


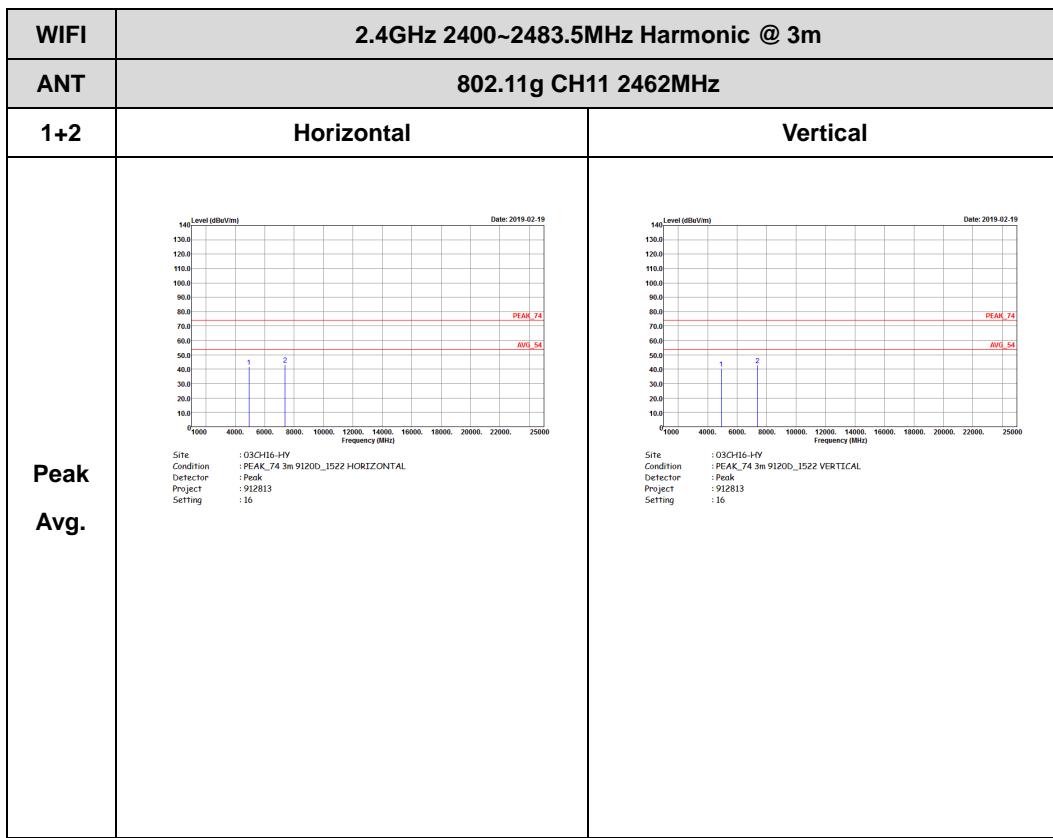


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)



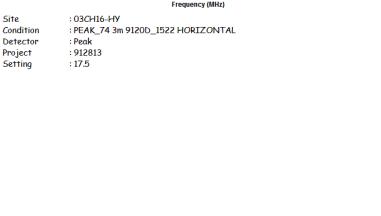
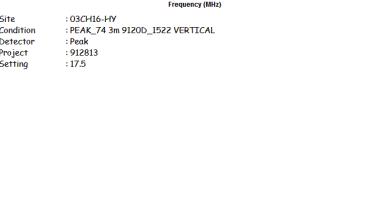


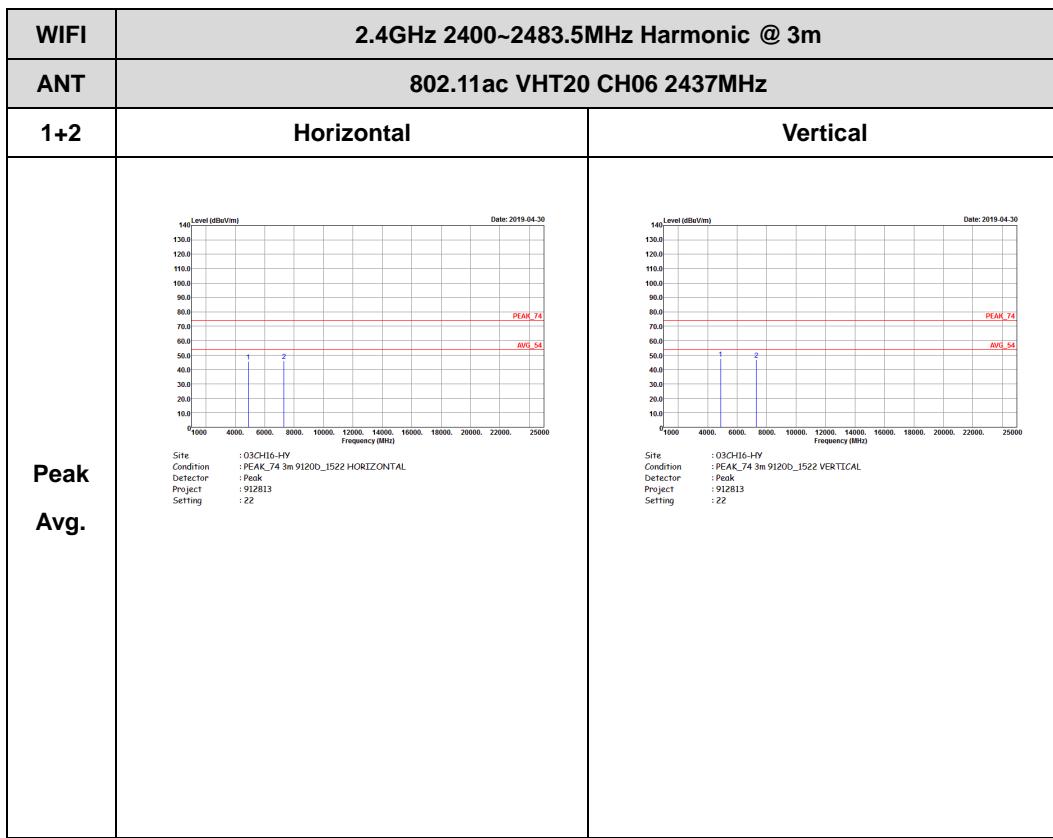


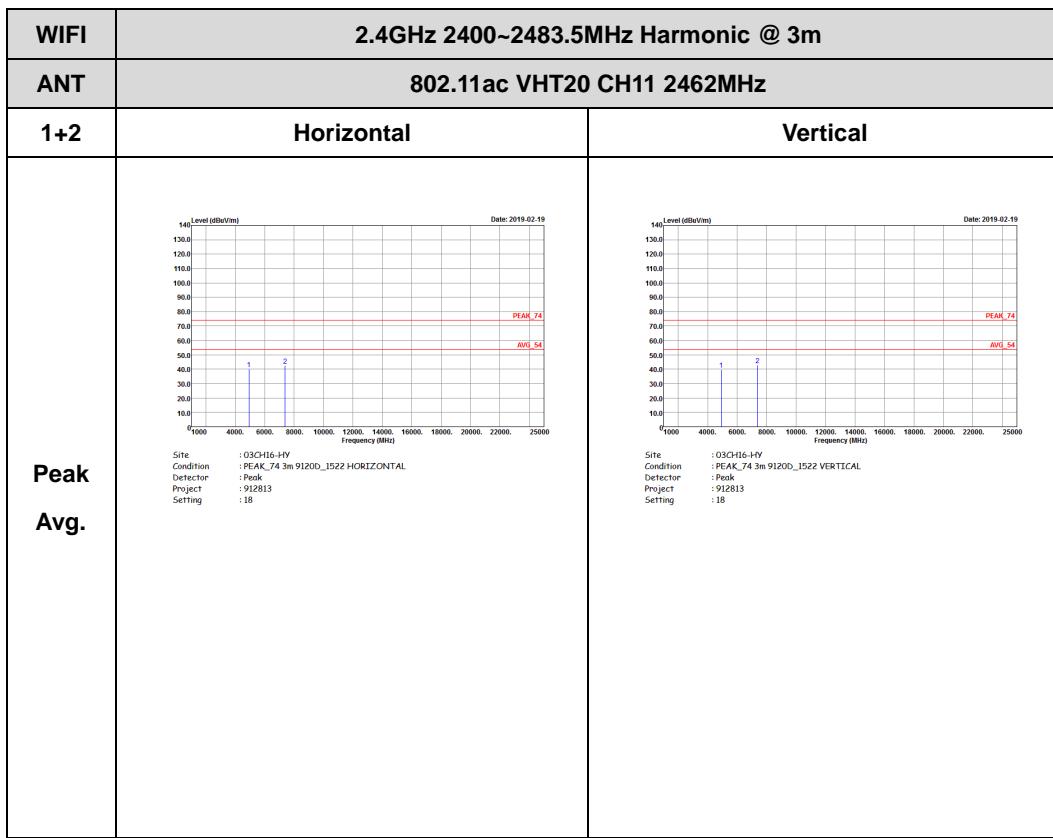


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Harmonic @ 3m  |   |
|------|--|---|
| ANT  | 802.11ac VHT20 CH01 2412MHz  |   |
| 1+2  | Horizontal   | Vertical  |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 17.5</p> |  <p>Site : 03CH16-HY<br/>Condition : PEAK_74 3m 9120D_1522 VERTICAL<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 17.5</p> |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 9120D_1522 HORIZONTAL<br/>Detector : Avg<br/>Project : 912813<br/>Setting : 17.5</p>  |  <p>Site : 03CH16-HY<br/>Condition : AVG_54 3m 9120D_1522 VERTICAL<br/>Detector : Avg<br/>Project : 912813<br/>Setting : 17.5</p>  |

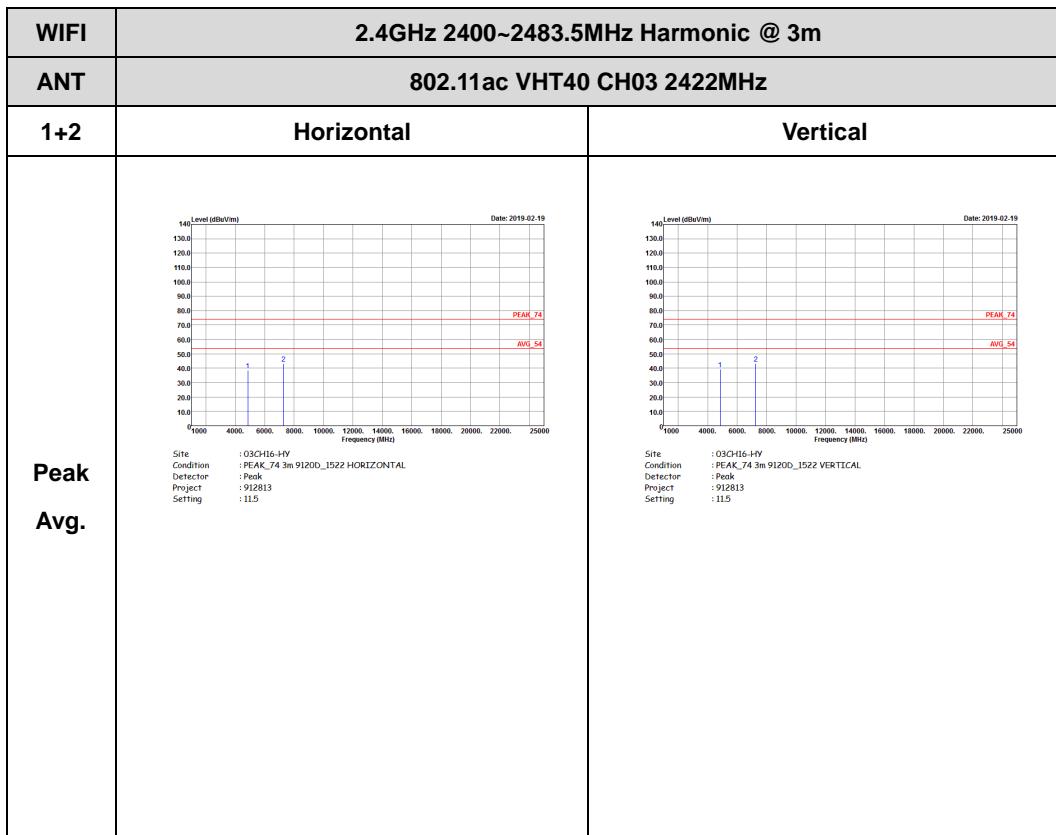


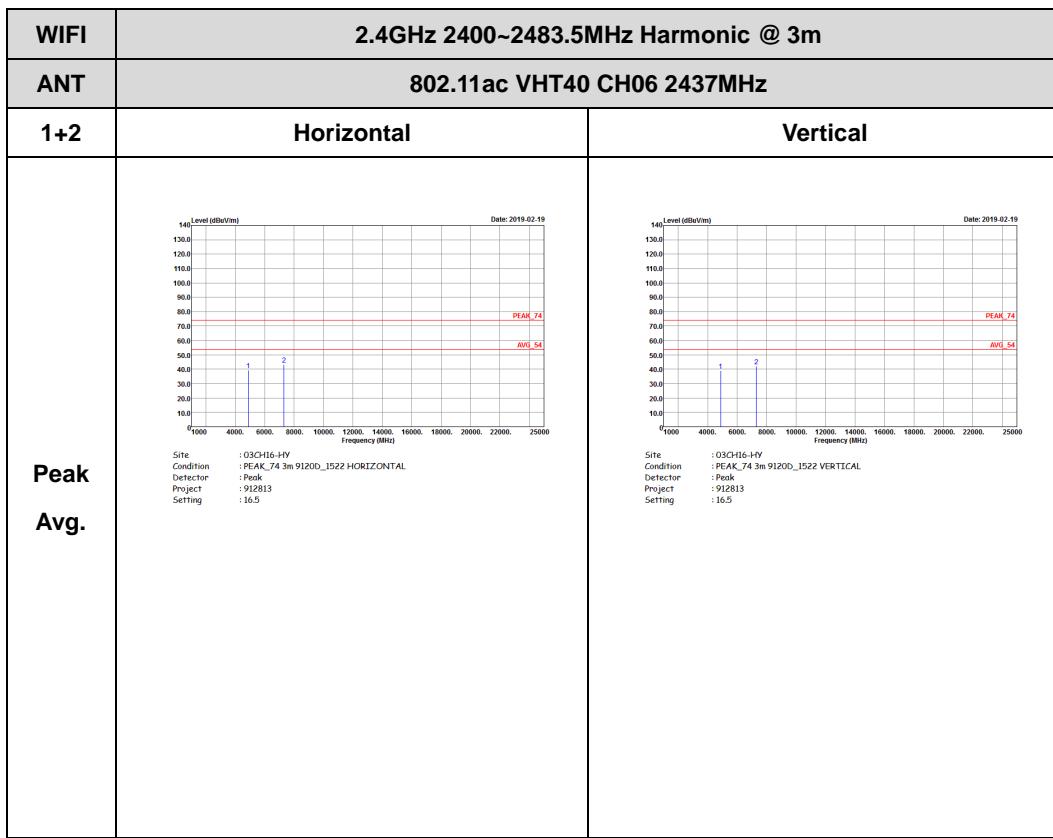


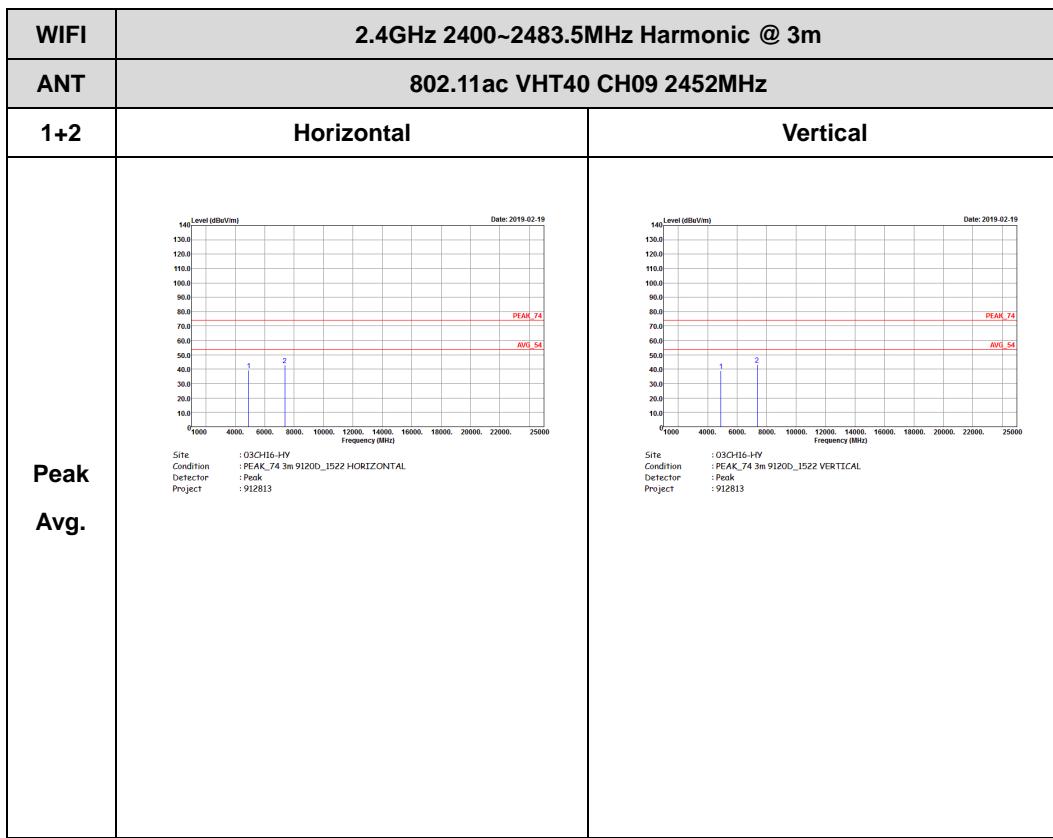


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)





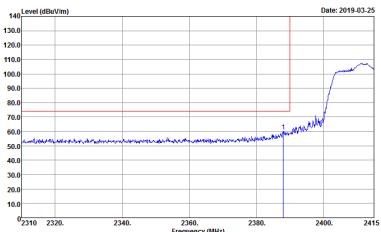
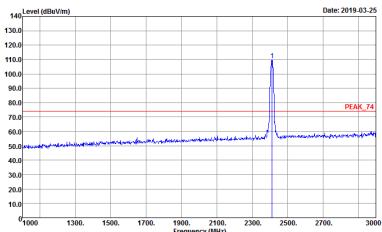
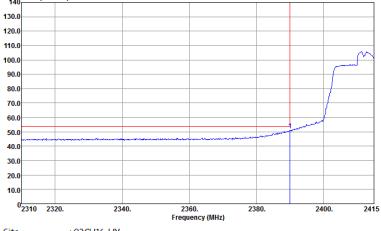
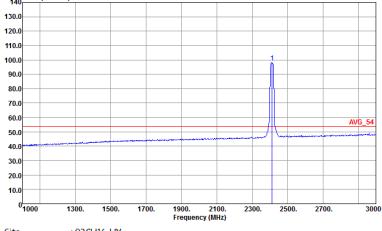


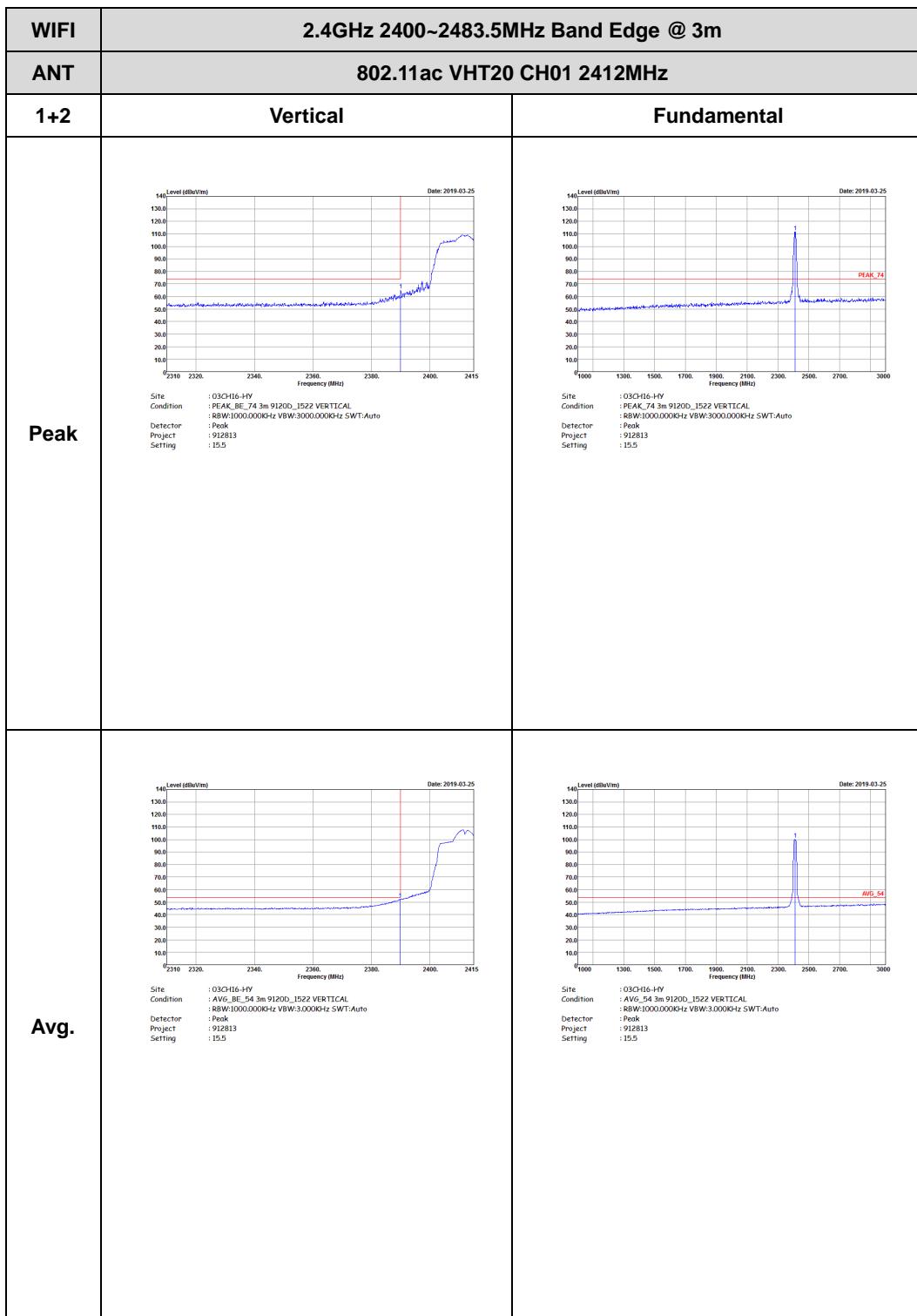


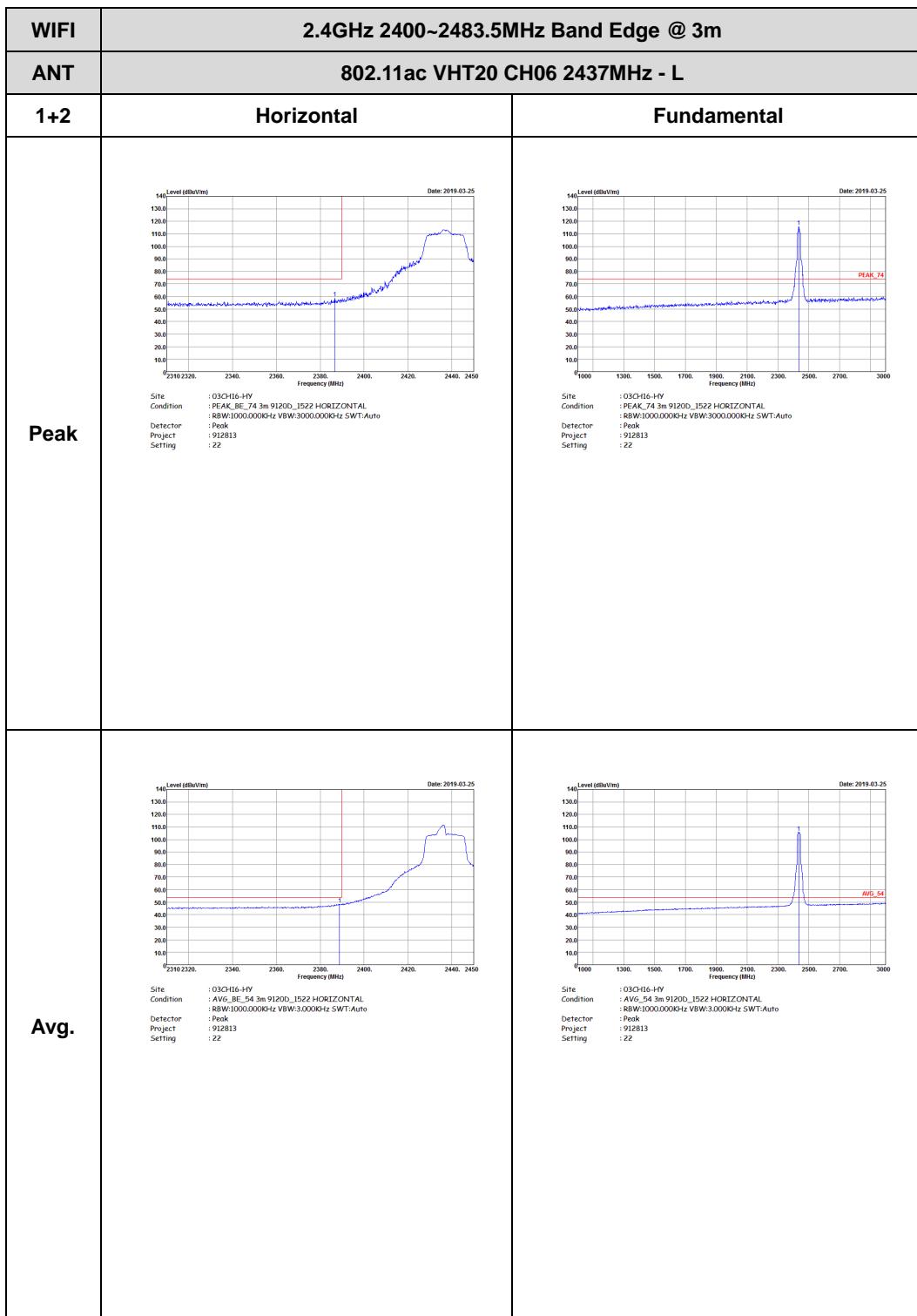
## &lt;TXBF Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

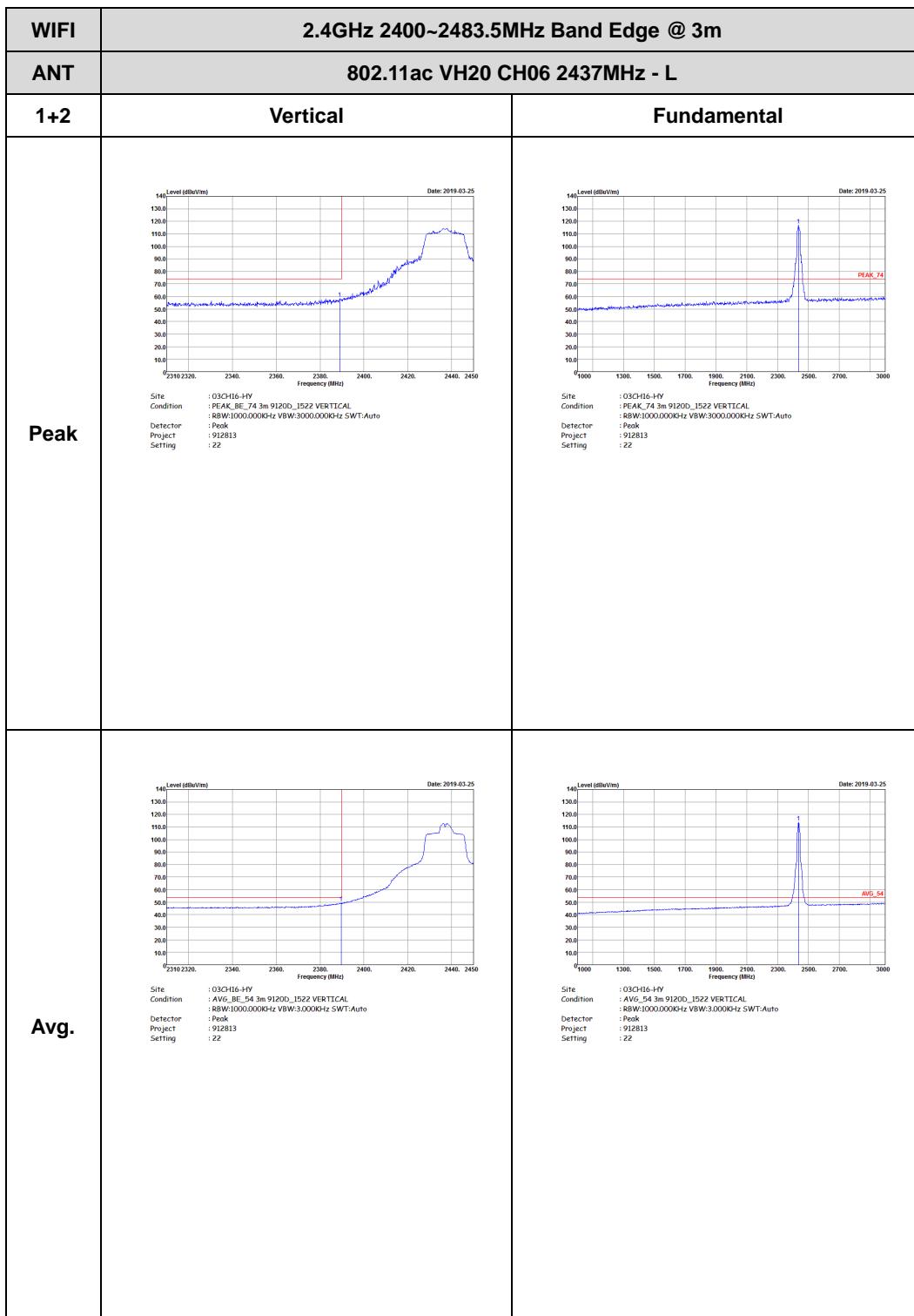
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |  |
|------|--|--|
| ANT  | 802.11ac VHT20 CH01 2412MHz  |  |
| 1+2  | Horizontal   | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 91200_I522 HORIZONTAL<br>Detector : 80MHz/1000000Hz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 15.5 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 91200_I522 HORIZONTAL<br>Detector : 80MHz/1000000Hz VBW:3000.000Hz SWT:Auto<br>Project : 912813<br>Setting : 15.5 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 91200_I522 HORIZONTAL<br>Detector : 80MHz/1000000Hz VBW:3.000KHz SWT:Auto<br>Project : 912813<br>Setting : 15.5  | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 91200_I522 HORIZONTAL<br>Detector : 80MHz/1000000Hz VBW:3.000KHz SWT:Auto<br>Project : 912813<br>Setting : 15.5  |





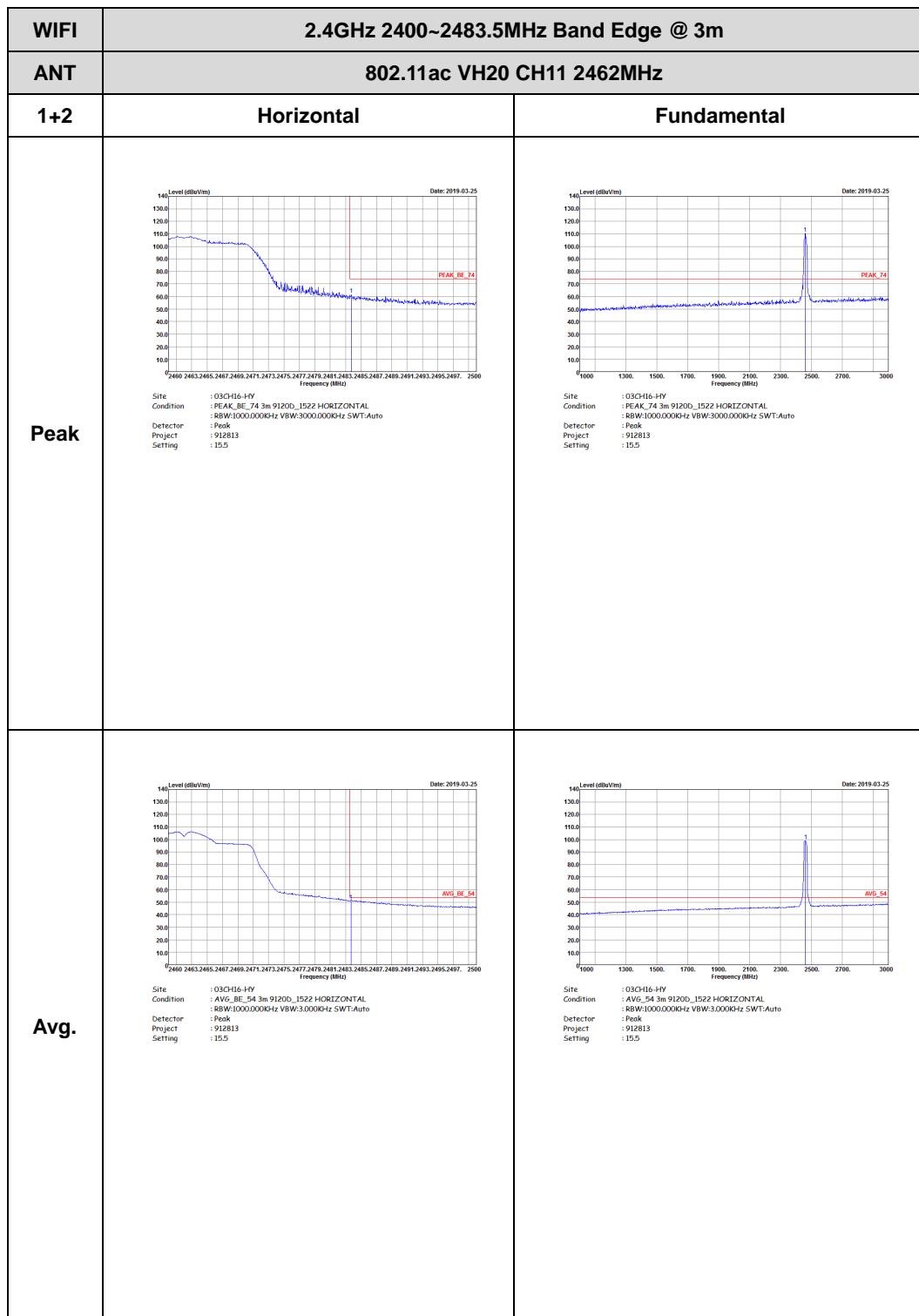


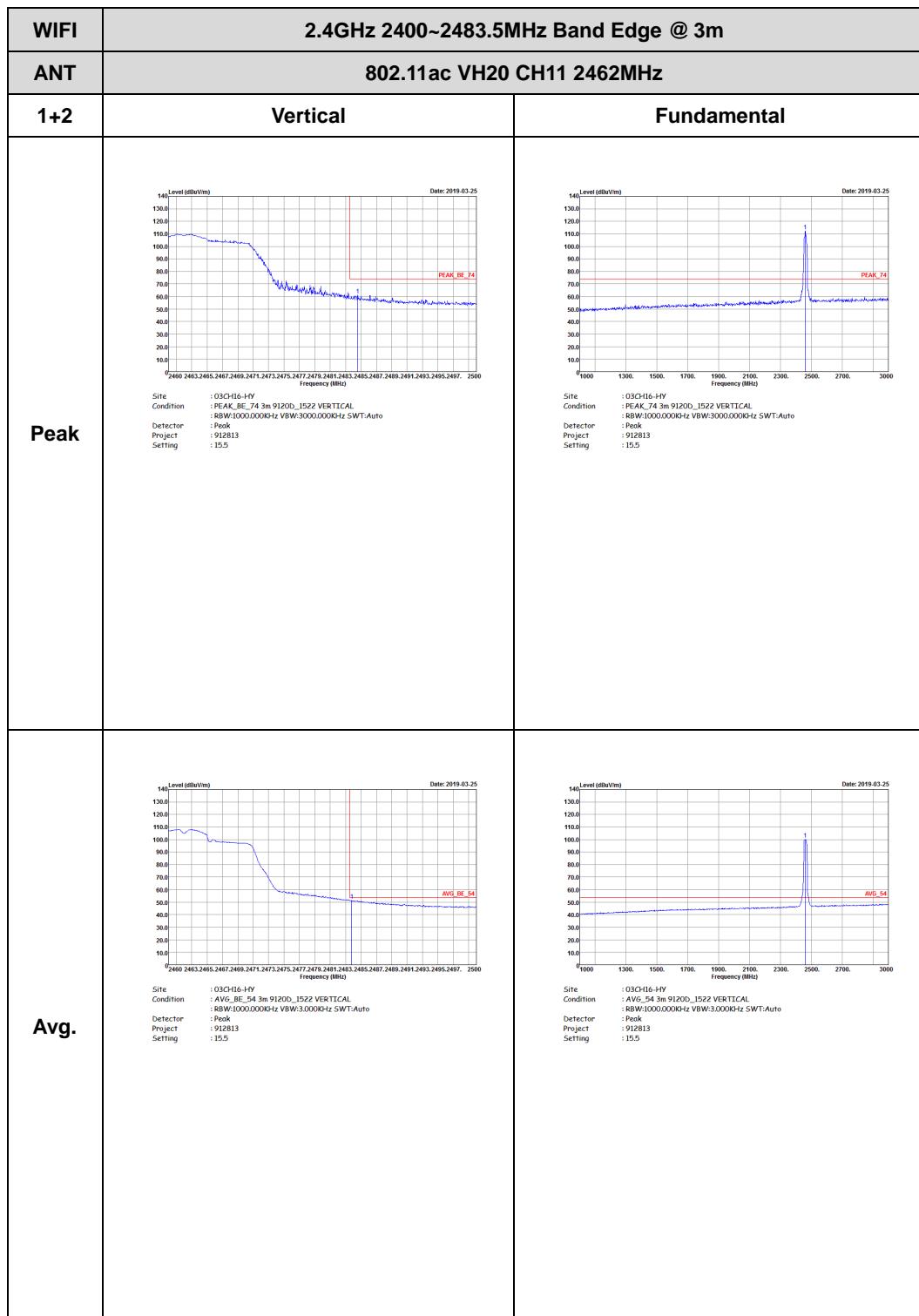
|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak | <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. | <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>     | Left blank  |





|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH20 CH06 2437MHz - R   |             |
| 1+2  | Vertical   | Fundamental |
| Peak | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-25</p> <p>PEAK_BE_74</p> <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p> | Left blank  |
| Avg. | <p>Level (dBc/Vm)</p> <p>Frequency (MHz)</p> <p>Date: 2019-03-25</p> <p>Avg_BE_54</p> <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 22</p>   | Left blank  |

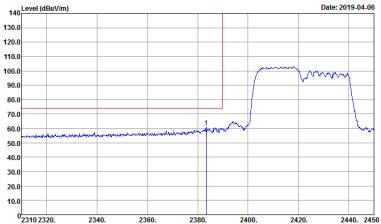
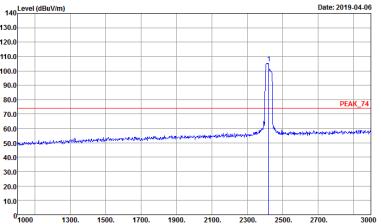
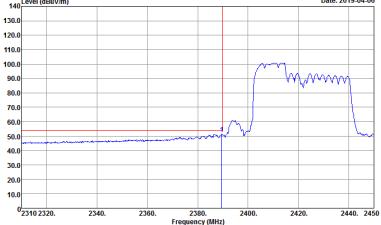
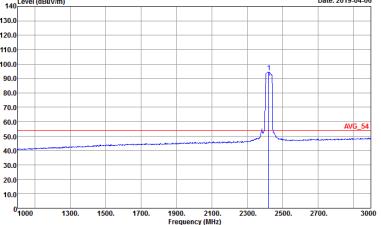






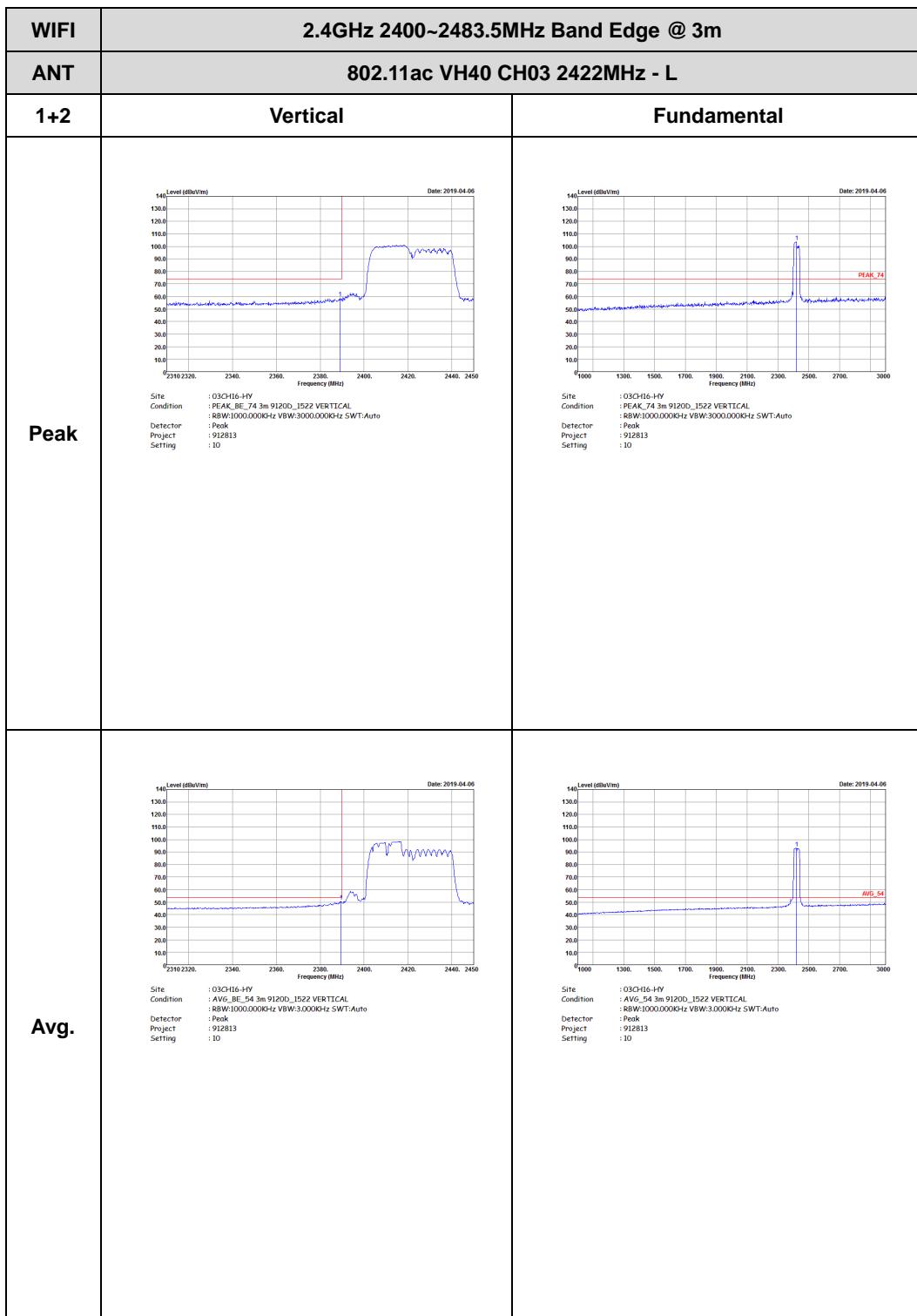
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |  |
|------|--|--|
| ANT  | 802.11ac VH40 CH03 2422MHz - L   |  |
| 1+2  | Horizontal   | Fundamental  |
| Peak | <br>Site : 03CH16-HY<br>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br>: RBW:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 10 | <br>Site : 03CH16-HY<br>Condition : PEAK_74 3m 9120D_1522 HORIZONTAL<br>: RBW:1000.000KHz VBW:3000.000Hz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 10 |
| Avg. | <br>Site : 03CH16-HY<br>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br>: RBW:1000.000KHz VBW:3.0000Hz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 10  | <br>Site : 03CH16-HY<br>Condition : AVG_54 3m 9120D_1522 HORIZONTAL<br>: RBW:1000.000KHz VBW:3.0000Hz SWT:Auto<br>Detector : Peak<br>Project : 912813<br>Setting : 10  |

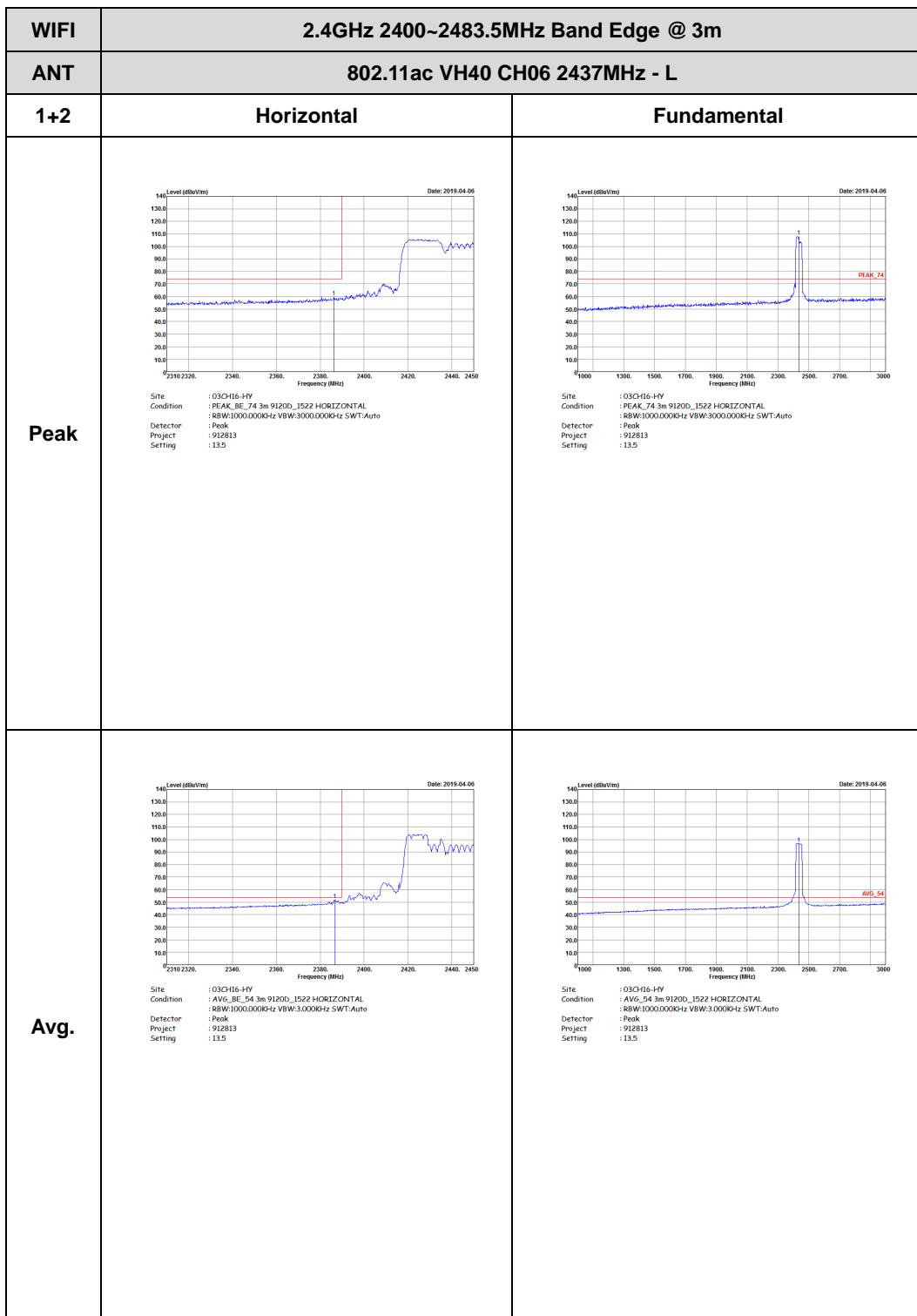


|      |  |             |
|------|--|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m   |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R   |             |
| 1+2  | Horizontal   | Fundamental |
| Peak | <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 10</p> | Left blank  |
| Avg. | <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 10</p>     | Left blank  |

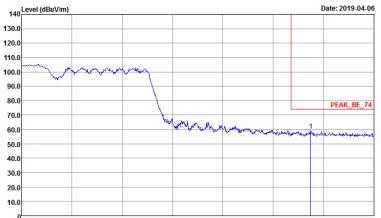
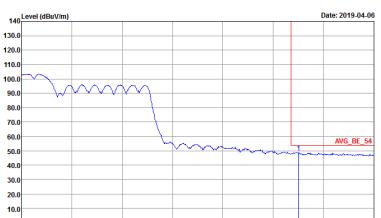




|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH03 2422MHz - R  |             |
| 1+2  | Vertical  | Fundamental |
| Peak | <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 10</p> | Left blank  |
| Avg. | <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 VERTICAL<br/>Detector : RBW:1000.000KHz VBW:3.000KHz SWT:Auto<br/>Project : 912813<br/>Setting : 10</p>     | Left blank  |





|      |   |             |
|------|---|-------------|
| WIFI | 2.4GHz 2400~2483.5MHz Band Edge @ 3m  |             |
| ANT  | 802.11ac VH40 CH06 2437MHz - R  |             |
| 1+2  | Horizontal  | Fundamental |
| Peak |  <p>Site : 03CH16-HY<br/>Condition : PEAK_BE_74 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p>  | Left blank  |
| Avg. |  <p>Site : 03CH16-HY<br/>Condition : AVG_BE_54 3m 9120D_1522 HORIZONTAL<br/>: RBW:1000.000KHz VBW:3000.000KHz SWT:Auto<br/>Detector : Peak<br/>Project : 912813<br/>Setting : 13.5</p> | Left blank  |