



# CFR 47 FCC PART 15 SUBPART E ISED RSS-247 ISSUE 2

#### **CERTIFICATION TEST REPORT**

For

**Room Scheduling Panel** 

MODEL NUMBER: RoomPanel

FCC ID: T2C-ROOMPANEL

IC: 10741A-ROOMPANEL

REPORT NUMBER: 4789992710.1-3

ISSUE DATE: August 27, 2021

Prepared for

Yealink (XIAMEN) Network Technology Co Ltd Room 309, 3rd Floor, No.16, Yun Ding North Road, High Tech Park, Huli District, Xiamen, Fujian, China

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

> Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



REPORT NO.: 4789992710.1-3 Page 2 of 372

# **Revision History**

| Rev. | Issue Date | Revisions     | Revised By |
|------|------------|---------------|------------|
| V0   | 08/27/2021 | Initial Issue |            |



| Summary of Test Results |  |  |              |  |
|-------------------------|--|--|--------------|--|
| Clause                  | Test Items                                   | FCC/IC Rules   | Test Results |  |
| 1                       | 6dB/26dB Bandwidth                           | FCC 15.407 (a)&(e)<br>RSS-247 Clause 6.2   | PASS         |  |
| 2                       | 99% Occupied Bandwidth                       | RSS-Gen Clause 6.7   | PASS         |  |
| 3                       | Conducted Output Power                       | FCC 15.407 (a)<br>RSS-247 Clause 6.2   | PASS         |  |
| 4                       | Power Spectral Density                       | FCC 15.407 (a)<br>RSS-247 Clause 6.2   | PASS         |  |
| 5                       | Radiated Bandedge and Spurious<br>Emission   | FCC 15.407 (b)<br>FCC 15.209<br>FCC 15.205<br>RSS-247 Clause 6.2<br>RSS-GEN Clause 8.9 | PASS         |  |
| 6                       | Conducted Emission Test for AC<br>Power Port | FCC 15.207<br>RSS-GEN Clause 8.8   | PASS         |  |
| 7                       | Frequency Stability                          | FCC 15.407 (g)   | PASS         |  |
| 8                       | Dynamic Frequency Selection                  | FCC 15.407 (h)<br>RSS-247 Clause 6.3   | PASS         |  |
| 9                       | Antenna Requirement                          | FCC 15.203<br>RSS-GEN Clause 6.8   | PASS         |  |

## Note:

<sup>1.</sup> This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

<sup>2.</sup> The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART E >< ISED RSS-247 > when <Accuracy Method> decision rule is applied.



# **TABLE OF CONTENTS**

| 2. TEST METHODOLOGY       8         3. FACILITIES AND ACCREDITATION       8         4. CALIBRATION AND UNCERTAINTY       9         4.1. MEASURING INSTRUMENT CALIBRATION       9         4.2. MEASUREMENT UNCERTAINTY       9         5. EQUIPMENT UNDER TEST       10         5.1. DESCRIPTION OF EUT       10         5.2. MAXIMUM OUTPUT POWER       11         5.3. CHANNEL LIST       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS       13         5.5. THE WORSE CASE POWER SETTING PARAMETER       14         5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 MB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-2 BAND       34         UNII-2 BAND       44         UNII-2 BAND       48         UNI   | ١. | ΑT   | TESTATION OF TEST RESULTS   | 7                              |
|--|----|--|---|--------------------------------|
| 4.1. MEASURING INSTRUMENT CALIBRATION       9         4.2. MEASUREMENT UNCERTAINTY       9         5. EQUIPMENT UNDER TEST       10         5.1. DESCRIPTION OF EUT       10         5.2. MAXIMUM OUTPUT POWER       11         5.3. CHANNEL LIST       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS       13         5.5. THE WORSE CASE POWER SETTING PARAMETER       14         5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-12 BAND       37         UNII-2 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-12 BAND       45         UNII-13 BAND       46         UNII-12A BAND       55         UNII-12 BAND   | 2. | TE   | ST METHODOLOGY  | 8                              |
| 4.1. MEASURING INSTRUMENT CALIBRATION       9         4.2. MEASUREMENT UNCERTAINTY       9         5. EQUIPMENT UNDER TEST       10         5.1. DESCRIPTION OF EUT       10         5.2. MAXIMUM OUTPUT POWER       11         5.3. CHANNEL LIST       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS       13         5.5. THE WORSE CASE POWER SETTING PARAMETER       14         5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1 802.11a MIMO MODE       35         UNII-2 BAND       35         UNII-3 BAND       42         8.1.2 802.11ac VHT20 MIMO MODE       44         UNII-2 BAND       45         UNII-3 BAND       46         UNII-2 BAND       51         8.1.3. 802.11ac HT40 MIMO MOD   | 3. | FA   | CILITIES AND ACCREDITATION  | 8                              |
| 4.2. MEASUREMENT UNCERTAINTY.       9         5. EQUIPMENT UNDER TEST.       10         5.1. DESCRIPTION OF EUT.       10         5.2. MAXIMUM OUTPUT POWER.       11         5.3. CHANNEL LIST.       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS.       13         5.5. THE WORSE CASE POWER SETTING PARAMETER.       14         5.6. THE WORSE CASE CONFIGURATIONS.       16         5.7. DESCRIPTION OF TEST SETUP.       17         6. MEASURING INSTRUMENT AND SOFTWARE USED.       17         7. ANTENNA PORT TEST RESULTS.       20         7.1. ON TIME AND DUTY CYCLE.       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH.       21         7.3. CONDUCTED OUTPUT POWER.       23         7.4. POWER SPECTRAL DENSITY.       26         8. RADIATED TEST RESULTS.       28         8.1. RESTRICTED BANDEDGE.       35         8.1.1. 802.11a MIMO MODE.       35         UNII-2A BAND.       39         UNII-3 BAND.       42         8.1.2. 802.11ac VHT20 MIMO MODE.       44         UNII-2 BAND.       45         UNII-3 BAND.       46         UNII-2 BAND.       47         UNII-3 BAND.       48         UNII-2 BAND. <t< th=""><th>4.</th><th>CA</th><th>LIBRATION AND UNCERTAINTY</th><th>9</th></t<> | 4. | CA   | LIBRATION AND UNCERTAINTY   | 9                              |
| 5. EQUIPMENT UNDER TEST       10         5.1. DESCRIPTION OF EUT       10         5.2. MAXIMUM OUTPUT POWER       11         5.3. CHANNEL LIST       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS       13         5.5. THE WORSE CASE POWER SETTING PARAMETER       14         5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1 802.11a MIMO MODE       35         UNII-2A BAND       35         UNII-2B BAND       39         UNII-3 BAND       44         UNII-1 BAND       44         UNII-2A BAND       48         UNII-3 BAND       48         UNII-3 BAND       48         UNII-3 BAND       53         UNII-1 BAND       53         UNII-1 BAND       53         UNII-2 BAND       55   |    | 4.1.   | MEASURING INSTRUMENT CALIBRATION  | 9                              |
| 5.1. DESCRIPTION OF EUT  |    | 4.2.   | MEASUREMENT UNCERTAINTY   | 9                              |
| 5.2. MAXIMUM OUTPUT POWER.       11         5.3. CHANNEL LIST.       12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS.       13         5.5. THE WORSE CASE POWER SETTING PARAMETER.       14         5.6. THE WORSE CASE CONFIGURATIONS.       16         5.7. DESCRIPTION OF TEST SETUP.       17         6. MEASURING INSTRUMENT AND SOFTWARE USED.       17         7. ANTENNA PORT TEST RESULTS.       20         7.1. ON TIME AND DUTY CYCLE.       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH.       21         7.3. CONDUCTED OUTPUT POWER.       23         7.4. POWER SPECTRAL DENSITY.       26         8. RADIATED TEST RESULTS.       28         8.1. RESTRICTED BANDEDGE.       35         8.1.1. 802.11a MIMO MODE.       35         UNII-2A BAND.       39         UNII-2B BAND.       42         UNII-2B BAND.       44         UNII-2B BAND.       45         UNII-2B BAND.       46         UNII-1 BAND.       48         UNII-1 BAND.       46         UNII-1 BAND.       47         UNII-1 BAND.       48         UNII-1 BAND.       49         UNII-2A BAND.       51         UNII-1 BAND. <th>5.</th> <th>EQ</th> <th>UIPMENT UNDER TEST</th> <th>10</th>  | 5. | EQ   | UIPMENT UNDER TEST  | 10                             |
| 5.3. CHANNEL LIST       .12         5.4. DESCRIPTION OF AVAILABLE ANTENNAS       .13         5.5. THE WORSE CASE POWER SETTING PARAMETER       .14         5.6. THE WORSE CASE CONFIGURATIONS       .16         5.7. DESCRIPTION OF TEST SETUP       .17         6. MEASURING INSTRUMENT AND SOFTWARE USED       .17         7. ANTENNA PORT TEST RESULTS       .20         7.1. ON TIME AND DUTY CYCLE       .20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       .21         7.3. CONDUCTED OUTPUT POWER       .23         7.4. POWER SPECTRAL DENSITY       .26         8. RADIATED TEST RESULTS       .28         8.1. RESTRICTED BANDEDGE       .35         8.1.1. 802.11a MIMO MODE       .35         UNII-2A BAND       .37         UNII-2B BAND       .42         8.1.2. 802.11ac VHT20 MIMO MODE       .44         UNII-2B BAND       .44         UNII-2B BAND       .48         UNII-1 BAND       .48         UNII-1 BAND       .48         UNII-1 BAND       .53         UNII-1 BAND       .53         UNII-1 BAND       .53         UNII-1 BAND       .53         UNII-1 BAND       .55   | ,  | 5.1.   | DESCRIPTION OF EUT  | 10                             |
| 5.4. DESCRIPTION OF AVAILABLE ANTENNAS       .13         5.5. THE WORSE CASE POWER SETTING PARAMETER       .14         5.6. THE WORSE CASE CONFIGURATIONS       .16         5.7. DESCRIPTION OF TEST SETUP       .17         6. MEASURING INSTRUMENT AND SOFTWARE USED       .17         7. ANTENNA PORT TEST RESULTS       .20         7.1. ON TIME AND DUTY CYCLE       .20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       .21         7.3. CONDUCTED OUTPUT POWER       .23         7.4. POWER SPECTRAL DENSITY       .26         8. RADIATED TEST RESULTS       .28         8.1. RESTRICTED BANDEDGE       .35         8.1.1. 802.11a MIMO MODE       .35         UNII-2A BAND       .35         UNII-3 BAND       .42         8.1.2. 802.11ac VHT20 MIMO MODE       .44         UNII-2A BAND       .46         UNII-3 BAND       .46         UNII-1 BAND       .46         UNII-1 BAND       .48         UNII-1 BAND       .53         UNII-2A BAND       .53         UNII-1 BAND  |    | 5.2.   | MAXIMUM OUTPUT POWER  | 11                             |
| 5.4. DESCRIPTION OF AVAILABLE ANTENNAS       .13         5.5. THE WORSE CASE POWER SETTING PARAMETER       .14         5.6. THE WORSE CASE CONFIGURATIONS       .16         5.7. DESCRIPTION OF TEST SETUP       .17         6. MEASURING INSTRUMENT AND SOFTWARE USED       .17         7. ANTENNA PORT TEST RESULTS       .20         7.1. ON TIME AND DUTY CYCLE       .20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       .21         7.3. CONDUCTED OUTPUT POWER       .23         7.4. POWER SPECTRAL DENSITY       .26         8. RADIATED TEST RESULTS       .28         8.1. RESTRICTED BANDEDGE       .35         8.1.1. 802.11a MIMO MODE       .35         UNII-2A BAND       .35         UNII-3 BAND       .42         8.1.2. 802.11ac VHT20 MIMO MODE       .44         UNII-2A BAND       .46         UNII-3 BAND       .46         UNII-1 BAND       .46         UNII-1 BAND       .48         UNII-1 BAND       .53         UNII-2A BAND       .53         UNII-1 BAND  |    | 5.3.   | CHANNEL LIST  | 12                             |
| 5.5. THE WORSE CASE POWER SETTING PARAMETER       14         5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-2A BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2A BAND       46         UNII-3 BAND       46         UNII-3 BAND       48         UNII-1 BAND       48         UNII-1 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-1 BAND       53         UNII-2A BAND       55   |    |  |   |                                |
| 5.6. THE WORSE CASE CONFIGURATIONS       16         5.7. DESCRIPTION OF TEST SETUP       17         6. MEASURING INSTRUMENT AND SOFTWARE USED       17         7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-2A BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2A BAND       46         UNII-3 BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-1 BAND       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-1 BAND       53         UNII-1 BAND       53         UNII-2A BAND       55          40   |    |  |   |                                |
| 5.7. DESCRIPTION OF TEST SETUP   |    |  |   |                                |
| 7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2C BAND       46         UNII-3 BAND       46         UNII-3 BAND       45         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2 BAND       53         UNII-1 BAND       53         UNII-2 BAND       53         UNII-1 BAND       53         UNII-2 BAND       55<   |    |  |   |                                |
| 7. ANTENNA PORT TEST RESULTS       20         7.1. ON TIME AND DUTY CYCLE       20         7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2C BAND       46         UNII-3 BAND       46         UNII-3 BAND       45         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2 BAND       53         UNII-1 BAND       53         UNII-2 BAND       53         UNII-1 BAND       53         UNII-2 BAND       55<   | 6. | ME   | ASURING INSTRUMENT AND SOFTWARE USED  | 17                             |
| 7.1. ON TIME AND DUTY CYCLE  | 7  | ΑN   | TENNA PORT TEST RESULTS   | 20                             |
| 7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH       21         7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-2C BAND       39         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-2A BAND       46         UNII-3 BAND       48         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-2A BAND       55  | 1. |  |   | <b>Z</b> U                     |
| 7.3. CONDUCTED OUTPUT POWER       23         7.4. POWER SPECTRAL DENSITY       26         8. RADIATED TEST RESULTS       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-3 BAND       39         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-2A BAND       46         UNII-2B BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-2A BAND       55  |    |  |   |                                |
| 7.4. POWER SPECTRAL DENSITY.       26         8. RADIATED TEST RESULTS.       28         8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-3C BAND       39         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2C BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-2A BAND       55   |    | 7.1.   | ON TIME AND DUTY CYCLE  | 20                             |
| 8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2C BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2C BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-2A BAND       55  |    | 7.1.<br>7.2.   | ON TIME AND DUTY CYCLE  | 20<br>21                       |
| 8.1. RESTRICTED BANDEDGE       35         8.1.1. 802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2C BAND       37         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2C BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       53         UNII-2A BAND       55  |    | 7.1.<br>7.2.<br>7.3.   | ON TIME AND DUTY CYCLE  | 20<br>21<br>23                 |
| 8.1.1.       802.11a MIMO MODE       35         UNII-1 BAND       35         UNII-2A BAND       37         UNII-3 BAND       42         8.1.2.       802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2A BAND       46         UNII-3 BAND       48         UNII-3 BAND       51         8.1.3.       802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       55   |    | 7.1.<br>7.2.<br>7.3.<br>7.4.   | ON TIME AND DUTY CYCLE  | 20<br>21<br>23                 |
| UNII-2A BAND       37         UNII-2C BAND       39         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       44         UNII-2A BAND       46         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       55   | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br>RA   | ON TIME AND DUTY CYCLE  | 20212326                       |
| UNII-2C BAND       39         UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       46         UNII-2C BAND       48         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       55   | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>8.1.  | ON TIME AND DUTY CYCLE  | 202123262835                   |
| UNII-3 BAND       42         8.1.2. 802.11ac VHT20 MIMO MODE       44         UNII-1 BAND       46         UNII-2C BAND       48         UNII-3 BAND       51         8.1.3. 802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       55   | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>8.1   | ON TIME AND DUTY CYCLE  | 202123263535                   |
| UNII-1 BAND       44         UNII-2A BAND       46         UNII-2 BAND       48         UNII-3 BAND       51         8.1.3.       802.11ac HT40 MIMO MODE       53         UNII-1 BAND       53         UNII-2A BAND       55  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br>RA<br>8.1.<br>8.1<br>UN<br>UN                                      | ON TIME AND DUTY CYCLE  | 20212326353535                 |
| UNII-2A BAND       .46         UNII-2C BAND       .48         UNII-3 BAND       .51         8.1.3.       802.11ac HT40 MIMO MODE       .53         UNII-1 BAND       .53         UNII-2A BAND       .55  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>UN<br>UN<br>UN                                | ON TIME AND DUTY CYCLE  | 2021232635353535               |
| UNII-2C BAND       .48         UNII-3 BAND       .51         8.1.3. 802.11ac HT40 MIMO MODE       .53         UNII-1 BAND       .53         UNII-2A BAND       .55   | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>8.1<br>UN<br>UN<br>UN<br>UN<br>8.1            | ON TIME AND DUTY CYCLE  | 2021232635353535353434         |
| UNII-3 BAND  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>8.1<br>UN<br>UN<br>UN<br>8.1<br>UN            | ON TIME AND DUTY CYCLE  | 2021232635353537394244         |
| UNII-1 BAND53<br>UNII-2A BAND55  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br>8.1.<br>8.1<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN                    | ON TIME AND DUTY CYCLE  | 2021232635353537394244         |
| UNII-2A BAND55   | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br><b>RA</b><br>8.1.<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN        | ON TIME AND DUTY CYCLE  6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH  CONDUCTED OUTPUT POWER  | 2021232635353537394244444648   |
|  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br>8.1.<br>8.1.<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN | ON TIME AND DUTY CYCLE  6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH  CONDUCTED OUTPUT POWER  POWER SPECTRAL DENSITY  DIATED TEST RESULTS  RESTRICTED BANDEDGE  1. 802.11a MIMO MODE  II-2A BAND  II-2C BAND  II-3 BAND  2. 802.11ac VHT20 MIMO MODE  II-1 BAND  II-2A BAND  II-2A BAND  II-2A BAND  II-2B BAND  II-2B BAND  II-3 BAND | 202123263535353942444444464851 |
|  | 8. | 7.1.<br>7.2.<br>7.3.<br>7.4.<br>8.1.<br>8.1.<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN<br>UN | ON TIME AND DUTY CYCLE  | 202123263535353739424446485153 |



| UNII-3 BAND                                      |     |
|--|-----|
| 8.1.4. 802.11ac VHT80 MIMO MODE                  | _   |
| UNII-1 BAND                                      |     |
| UNII-2A BAND                                     | _   |
| UNII-2C BAND                                     |     |
| UNII-3 BAND                                      | 70  |
| 8.2. SPURIOUS EMISSIONS (1 GHz ~ 7 GHz)          | 71  |
| 8.2.1. 802.11ac VHT20 MIMO MODE                  |     |
| UNII-1 BAND                                      |     |
| UNII-2A BAND                                     | 77  |
| UNII-2C BAND                                     | 83  |
| STRADDLE CHANNEL 144                             |     |
| UNII-3 BAND                                      | 91  |
| 8.3. SPURIOUS EMISSIONS (7 GHz ~ 18 GHz)         | 97  |
| 8.3.1. 802.11a MIMO MODE                         |     |
| UNII-1 BAND                                      |     |
| UNII-2A BAND                                     |     |
| UNII-2C BAND                                     |     |
| STRADDLE CHANNEL 144                             |     |
| UNII-3 BAND                                      |     |
| 8.3.2. 802.11ac VHT20 MIMO MODE                  | 123 |
| UNII-1 BAND                                      | 123 |
| UNII-2A BAND                                     | 129 |
| UNII-2C BAND                                     |     |
| STRADDLE CHANNEL 144                             | 141 |
| UNII-3 BAND                                      |     |
| 8.3.3. 802.11ac VHT40 MIMO MODE                  |     |
| UNII-1 BAND                                      |     |
| UNII-2A BAND                                     |     |
| UNII-2C BAND                                     |     |
| STRADDLE CHANNEL 142                             |     |
| UNII-3 BAND                                      |     |
| 8.3.4. 802.11ac VHT80 MIMO MODE                  |     |
| UNII-1 BAND<br>UNII-2A BAND                      |     |
| UNII-2C BAND                                     |     |
| STRADDLE CHANNEL 138                             |     |
| UNII-3 BAND                                      |     |
|  |     |
| 8.1. SPURIOUS EMISSIONS FOR CO-LOCATION          |     |
| 8.1.1. BT 8DPSK MODE AND 802.11ac HT80 MIMO MODE | 181 |
| 8.2. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)        | 185 |
| 8.2.1. 802.11ac VHT80 MODE                       | 185 |
|  |     |
| 8.3. SPURIOUS EMISSIONS (26 GHz ~ 40 GHz)        | 187 |
| 8.3.1. 802.11ac VHT80 MODE                       |     |
| 8.4. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)         | 189 |
| 8.4.1. 802.11ac VHT80 MODE                       | 189 |
| 8.5. SPURIOUS EMISSIONS BELOW 30 MHz             | 101 |
| 8.5.1. 802.11ac VHT80 MODE                       |     |
|  |     |



| 9. AC POWER LINE CONDUCTED E     | MISSIONS                    | 194 |
|----------------------------------|-----------------------------|-----|
| 9.1.1. 802.11ac VHT80 MODE       |                             | 195 |
| 10. FREQUENCY STABILITY          |                             | 197 |
| 11. DYNAMIC FREQUENCY SELEC      | CTION                       | 199 |
| 12. ANTENNA REQUIREMENTS         |                             | 203 |
| 12.1. Appendix A1: Emission Band | dwidth                      | 204 |
| • •                              |                             |     |
| 12.1.2. Test Graphs              |                             | 207 |
| 12.2. Appendix A2: Occupied Cha  | nnnel Bandwidth             | 251 |
|                                  |                             |     |
|                                  |                             |     |
| 12.3. Appendix A3: Minimum Emis  | ssion Bandwidth             | 298 |
|                                  |                             |     |
| 12.3.2. Test Graphs              |                             | 299 |
| 12.4. Appendix B: Maximum Avera  | age Conducted Output Power  | 313 |
| 12.4.1. Test Result              | age conducted culput i ever | 313 |
| 12.5. Appendix C: Maximum Powe   | er Spectral Density         | 215 |
|                                  | er spectral bensity         |     |
|                                  |                             |     |
| ·                                |                             |     |
|                                  |                             |     |
|                                  |                             |     |
| '                                |                             |     |
| 12.7. Appendix E: Frequency Stab | bility                      | 368 |
| 12.8 Appendix F: Dynamic Freque  | ency Selection              | 370 |



REPORT NO.: 4789992710.1-3 Page 7 of 372

# 1. ATTESTATION OF TEST RESULTS

**Applicant Information** 

Company Name: Yealink (XIAMEN) Network Technology Co Ltd

Address: Room 309, 3rd Floor, No.16, Yun Ding North Road, High Tech

Park, Huli District, Xiamen, Fujian, China

**Manufacturer Information** 

Company Name: Yealink (XIAMEN) Network Technology Co Ltd

Address: Room 309, 3rd Floor, No.16, Yun Ding North Road, High Tech

Park, Huli District, Xiamen, Fujian, China

**EUT Information** 

Stephen Guo

Laboratory Manager

EUT Name: Room Scheduling Panel

Model: RoomPanel
Sample Received Date: June 28, 2021
Sample Status: Normal

Sample Status: Normal Sample ID: 4026875

Date of Tested: July 1, 2021 ~ August 27, 2021

| APPLICABLE STANDARDS         |              |  |
|------------------------------|--------------|--|
| STANDARD                     | TEST RESULTS |  |
| CFR 47 FCC PART 15 SUBPART E | PASS         |  |
| ISED RSS-247 Issue 2         | PASS         |  |
| ISED RSS-GEN Issue 5         | PASS         |  |

| Prepared By:  Downy Grany       | Checked By:                    |
|---------------------------------|--------------------------------|
| Denny Huang<br>Project Engineer | Shawn Wen<br>Laboratory Leader |
| Approved By:                    |                                |
| Lephenbur                       |                                |



# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, CFR 47 FCC Part 2, CFR 47 FCC Part 15, KDB 789033 D02 v02r01, RSS-GEN Issue 5, RSS-247 Issue 2, KDB414788 D01 Radiated Test Site v01, KDB 662911 D01 Multiple Transmitter Output v02r01, KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02, KDB 905462 D03 UNII clients without radar detection New Rules v01r02, KDB 905462 D04 Operational Modes for DFS Testing New Rules v01 and KDB 905462 D06 802 11 Channel Plans New Rules v02.

# 3. FACILITIES AND ACCREDITATION

|                                    | A2LA (Certificate No.: 4102.01)  |
|------------------------------------|--|
|                                    | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.  |
|                                    | has been assessed and proved to be in compliance with A2LA.            |
|                                    | FCC (FCC Designation No.: CN1187)                                      |
|                                    | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.  |
|                                    | Has been recognized to perform compliance testing on equipment subject |
|                                    | to the Commission's Delcaration of Conformity (DoC) and Certification  |
|                                    | rules  |
|                                    | ISED (Company No.: 21320)  |
| Accreditation                      | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.  |
| Certificate                        | has been registered and fully described in a report filed with ISED.   |
|                                    | The Company Number is 21320 and the test lab Conformity Assessment     |
| Body Identifier (CABID) is CN0046. |  |
|                                    | VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)         |
|                                    | UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.  |
|                                    | has been assessed and proved to be in compliance with VCCI, the        |
|                                    | Membership No. is 3793.  |
|                                    | Facility Name:   |
|                                    | Chamber D, the VCCI registration No. is G-20019 and R-20004            |
|                                    | Shielding Room B, the VCCI registration No. is C-20012 and T-20011     |

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.



# 4. CALIBRATION AND UNCERTAINTY

# 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

# 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Test Item   | Uncertainty             |
|---|-------------------------|
| Conduction emission   | 3.62 dB                 |
| Radiated Emission (Included Fundamental Emission) (9 kHz ~ 30 MHz)  | 2.2 dB                  |
| Radiated Emission (Included Fundamental Emission) (30 MHz ~ 1 GHz)  | 4.00 dB                 |
| D # 4 15 11   | 5.78 dB (1 GHz-18 GHz)  |
| Radiated Emission (Included Fundamental Emission) (1 GHz to 40 GHz) | 5.23dB (18 GHz-26 GHz)  |
| (   | 5.64 dB (26 GHz-40 GHz) |

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.



5. EQUIPMENT UNDER TEST

# 5.1. DESCRIPTION OF EUT

| EUT Name            | Room Scheduling Panel   |
|---------------------|---|
| Model               | RoomPanel   |
| Radio<br>Technology | WLAN (IEEE 802.11a 20/n HT20/n HT40/ac VHT20/VHT 40/VHT 80)   |
|                     | UNII-1: 5150 ~ 5250 MHz   |
| Operation           | UNII-2A: 5250 ~ 5350 MHz  |
| frequency           | UNII-2C: 5470 ~ 5725 MHz<br>UNII-3: 5725 ~ 5850 MHz   |
| Modulation          | IEEE 802.11a 20: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac VHT20: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac VHT40: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac VHT80: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) |
| Power Supply        | AC 120 V  |

REPORT NO.: 4789992710.1-3 Page 11 of 372

# 5.2. MAXIMUM OUTPUT POWER

# **UNII-1 BAND(FCC&ISED)**

| IEEE Std. 802.11 | Frequency<br>(MHz) | Maximum Average Conducted Power (dBm) | Max Average EIRP (dBm) |
|------------------|--------------------|---------------------------------------|------------------------|
| a 20             |                    | 14.25                                 | 17.25                  |
| n HT20           |                    | 14.19                                 | 17.19                  |
| n HT40           | 5150 ~ 5250        | 14.46                                 | 17.46                  |
| ac VHT20         | 3130 % 3230        | 14.39                                 | 17.39                  |
| ac VHT40         |                    | 16.96                                 | 19.96                  |
| ac VHT80         |                    | 16.97                                 | 19.97                  |

# **UNII-2A BAND(FCC&ISED)**

| IEEE Std. 802.11 | Frequency<br>(MHz) | Maximum Average Conducted Power (dBm) |
|------------------|--------------------|---------------------------------------|
| a 20             |                    | 14.12                                 |
| n HT20           | 5250 ~ 5350        | 14.94                                 |
| n HT40           |                    | 14.04                                 |
| ac VHT20         |                    | 15.09                                 |
| ac VHT40         |                    | 16.01                                 |
| ac VHT80         |                    | 16.52                                 |

# **UNII-2C BAND(FCC&ISED)**

| IEEE Std. 802.11 | Frequency<br>(MHz) | Maximum Average Conducted Power (dBm) |
|------------------|--------------------|---------------------------------------|
| a 20             |                    | 14.80                                 |
| n HT20           |                    | 16.01                                 |
| n HT40           | 5470 ~ 5725        | 14.86                                 |
| ac VHT20         | 3470 ~ 3723        | 16.09                                 |
| ac VHT40         |                    | 16.69                                 |
| ac VHT80         |                    | 18.09                                 |

# UNII-3 BAND(FCC&ISED)

| IEEE Std. 802.11 | Frequency<br>(MHz) | Maximum Average Conducted Power (dBm) |  |  |
|------------------|--------------------|---------------------------------------|--|--|
| a 20             |                    | 12.95                                 |  |  |
| n HT20           |                    | 13.55                                 |  |  |
| n HT40           | 5725 ~ 5850        | 13.35                                 |  |  |
| ac VHT20         | 3723 ~ 3030        | 14.31                                 |  |  |
| ac VHT40         |                    | 15.52                                 |  |  |
| ac VHT80         |                    | 16.30                                 |  |  |



# 5.3. CHANNEL LIST

| UNII-1   |                       | UNII-1                  |                       | UNII-1  |                    |
|----------|-----------------------|-------------------------|-----------------------|---------|--------------------|
| (For Bar | (For Bandwidth=20MHz) |                         | (For Bandwidth=40MHz) |         | dth=80MHz)         |
| Channel  | Frequency (MHz)       | Channel Frequency (MHz) |                       | Channel | Frequency<br>(MHz) |
| 36       | 5180                  | 38                      | 38 5190               |         | 5210               |
| 40       | 5200                  | 46                      | 5230                  |         |                    |
| 44       | 5220                  |                         |                       |         |                    |
| 48       | 5240                  |                         |                       |         |                    |

| UNII-2A      |                    | UNII-2A                 |      | UNII-2A     |                    |
|--------------|--------------------|-------------------------|------|-------------|--------------------|
| (For Bandwid | dth=20MHz)         | (For Bandwidth=40MHz)   |      | (For Bandwi | dth=80MHz)         |
| Channel      | Frequency<br>(MHz) | Channel Frequency (MHz) |      | Channel     | Frequency<br>(MHz) |
| 52           | 5260               | 54                      | 5270 | 58          | 5290               |
| 56           | 5280               | 62                      | 5310 |             |                    |
| 60           | 5300               |                         |      |             |                    |
| 64           | 5320               |                         |      |             |                    |

| UNII-2C               |                    | UNII-2C               |                    | UNI                   | I-2C               |
|-----------------------|--------------------|-----------------------|--------------------|-----------------------|--------------------|
| (For Bandwidth=20MHz) |                    | (For Bandwidth=40MHz) |                    | (For Bandwidth=80MHz) |                    |
| Channel               | Frequency<br>(MHz) | Channel               | Frequency<br>(MHz) | Channel               | Frequency<br>(MHz) |
| 100                   | 5500               | 102                   | 5510               | 106                   | 5530               |
| 104                   | 5520               | 110                   | 5550               | 122                   | 5610               |
| 108                   | 5540               | 118                   | 5590               | 138                   | 5690               |
| 112                   | 5560               | 126                   | 5630               |                       |                    |
| 116                   | 5580               | 134                   | 5670               |                       |                    |
| 120                   | 5600               | 142                   | 5710               |                       |                    |
| 124                   | 5620               |                       |                    |                       |                    |
| 128                   | 5640               |                       |                    |                       |                    |
| 132                   | 5660               |                       |                    |                       |                    |
| 136                   | 5680               |                       |                    |                       |                    |
| 140                   | 5700               |                       |                    |                       |                    |
| 144                   | 5720               |                       |                    |                       |                    |

| UNII-3  |                    | UNII-3  |                    | UNII-3  |                    |
|---------|--------------------|---------|--------------------|---------|--------------------|
| Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |
| 149     | 5745               | 151     | 5755               | 155     | 5775               |
| 153     | 5765               | 159     | 5795               |         |                    |
| 157     | 5785               |         |                    |         |                    |
| 161     | 5805               |         |                    |         |                    |
| 165     | 5825               |         |                    |         |                    |



REPORT NO.: 4789992710.1-3 Page 13 of 372

# 5.4. DESCRIPTION OF AVAILABLE ANTENNAS

| Antenna No. | Frequency Band                  | Antenna Type | Maximum Antenna Gain (dBi) |
|-------------|---------------------------------|--------------|----------------------------|
| 1           | UNII1&UNII-2A&<br>UNII-2C&UNII3 | PIFA antenna | 3                          |
| 2           | UNII1&UNII-2A&<br>UNII-2C&UNII3 | PIFA antenna | 3                          |

The EUT support Cyclic Shift Diversity (CDD) mode.

MIMO output power port and MIMO PSD port summing was performed in accordance with KDB 662911 D01. For the CDD results the Directional Gain was calculated in accordance with the following mothed.

For output power measurements:

Directional gain=  $G_{ANT}$  + Array Gain = 3 dBi

G<sub>ANT</sub>: equal to the gain of the antenna having the highest gain

Array Gain = 0 dB (i.e., no array gain) for  $N_{ANT} \le 4$ 

For power spectral density (PSD) measurements:

Directional gain= G<sub>ANT</sub> + Array Gain = 6.01 dBi

Array Gain =  $10 \log (N_{ANT}/N_{SS}) dB$ .  $N_{ANT}$ : number of transmit antennas

 $N_{SS}$ : number of spatial streams, the worst case directional gain will occur when  $N_{SS} = 1$ 

| IEEE Std. 802.11 | Transmit and Receive Mode | Description   |  |
|------------------|---------------------------|---|--|
| a 20             | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |
| n HT20           | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |
| n HT40           | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |
| ac VHT20         | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |
| ac VHT40         | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |
| ac VHT80         | ⊠2TX, 2RX                 | ANT 1, 2 can be used as transmitting/receiving antenna. |  |

Note: The value of the antenna gain was declared by customer.



# 5.5. THE WORSE CASE POWER SETTING PARAMETER

| The Worse Case Power Setting Parameter |      |  |
|--|------|--|
| Test Software                          | QRCT |  |

## UNII-1

|            | UNII-  |         | Software Se | tting Value |
|------------|--------|---------|-------------|-------------|
| Mode       | Rate   | Channel | ANT 1       | ANT 2       |
|            |        | 36      | 10          | 10          |
| 11a 20     | 6M     | 40      | 10          | 10          |
|            |        | 48      | 10          | 10          |
|            |        | 36      | 10          | 10          |
| 11n HT20   | MCS0   | 40      | 10          | 10          |
|            |        | 48      | 10          | 10          |
| 11n HT40   | MCS0   | 38      | 10          | 10          |
| 111111140  |        | 46      | 10          | 10          |
|            | MCS0   | 36      | 10          | 10          |
| 11ac VHT20 |        | 40      | 10          | 10          |
|            |        | 48      | 10          | 10          |
| 11ac VHT40 | MCS0   | 38      | 12          | 12          |
|            | IVICOU | 46      | 12          | 12          |
| 11ac VHT80 | MCS0   | 42      | 13          | 13          |

# UNII-2A

| Mode        | Doto | Channal | Software S | Software Setting Value |  |
|-------------|------|---------|------------|------------------------|--|
| Mode        | Rate | Channel | ANT 1      | ANT 2                  |  |
|             |      | 52      | 10         | 10                     |  |
| 11a 20      | 6M   | 56      | 10         | 10                     |  |
|             |      | 64      | 10         | 10                     |  |
|             |      | 52      | 11         | 11                     |  |
| 11n HT20    | MCS0 | 56      | 11         | 11                     |  |
|             |      | 64      | 11         | 11                     |  |
| 11n HT40    | MCS0 | 54      | 10         | 10                     |  |
| 111111140   |      | 62      | 10         | 10                     |  |
|             | MCS0 | 52      | 11         | 11                     |  |
| 11ac VHT20  |      | 56      | 11         | 11                     |  |
|             |      | 64      | 11         | 11                     |  |
| 11ac VHT40  | MCS0 | 54      | 12         | 12                     |  |
| TIAC VIII40 |      | 62      | 12         | 12                     |  |
| 11ac VHT80  | MCS0 | 58      | 13         | 13                     |  |



REPORT NO.: 4789992710.1-3 Page 15 of 372

# UNII-2C

| Mode        | Rate   | Channel | Software Setting Value |       |
|-------------|--------|---------|------------------------|-------|
| lviode      | Nale   | Chamei  | ANT 1                  | ANT 2 |
|             |        | 100     | 10                     | 10    |
| 11a 20      | 6M     | 116     | 10                     | 10    |
|             |        | 140     | 10                     | 10    |
|             |        | 100     | 11                     | 11    |
| 11n HT20    | MCS0   | 116     | 11                     | 11    |
|             |        | 140     | 11                     | 11    |
|             | MCS0   | 102     | 10                     | 10    |
| 11n HT40    |        | 118     | 10                     | 10    |
|             |        | 134     | 10                     | 10    |
|             | MCS0   | 100     | 11                     | 11    |
| 11ac VHT20  |        | 116     | 11                     | 11    |
|             |        | 140     | 11                     | 11    |
| 11ac VHT40  | MCS0   | 102     | 12                     | 12    |
|             |        | 118     | 12                     | 12    |
| 11ac VHT80  | MCS0   | 106     | 13                     | 13    |
| Trac VIIIOU | IVICSU | 122     | 13                     | 13    |

# UNII-3

| Mode        | Rate   | Channel | Software So | etting Value |
|-------------|--------|---------|-------------|--------------|
| Mode        | Rale   | Channel | ANT 1       | ANT 2        |
|             |        | 149     | 10          | 10           |
| 11a 20      | 6M     | 157     | 10          | 10           |
|             |        | 165     | 10          | 10           |
|             |        | 149     | 11          | 11           |
| 11n HT20    | MCS0   | 157     | 11          | 11           |
|             |        | 165     | 11          | 11           |
| 11n HT40    | MCS0   | 151     | 10          | 10           |
| 111111140   | IVICSU | 159     | 10          | 10           |
|             |        | 149     | 11          | 11           |
| 11ac VHT20  | MCS0   | 157     | 11          | 11           |
|             |        | 165     | 11          | 11           |
| 11ac VHT40  | MCS0   | 151     | 12          | 12           |
| TIAC VITT40 |        | 159     | 12          | 12           |
| 11ac VHT80  | MCS0   | 155     | 13          | 13           |

REPORT NO.: 4789992710.1-3 Page 16 of 372

#### 5.6. THE WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.3.

Maximum power setting referring to section 5.5.

Worst case Data Rates declared by the customer:

802.11a 20 mode: 6 Mbps 802.11n HT20 mode: MCS0 802.11n HT40 mode: MCS0 802.11ac VHT20 mode: MCS0 802.11ac VHT40 mode: MCS0 802.11ac VHT80 mode: MCS0

802.11ac VHT20 and VHT40 mode are different from 802.11n HT20 and HT40 only in control messages, so for these 4 modes, only 802.11ac VHT20 and 802.11ac VHT40 worst case power modes radiated emission test data are recorded in the report.

SISO mode and MIMO mode have the same power setting, so only the worst case power mode (MIMO) will be record in the report.

The EUT has 2 separate antennas which correspond to 2 separate antenna ports. Core 1 and Core 2 correspond to antenna 0 and antenna respectively.

Antenna 0 and Antenna 1 have the same power setting, but the power test data are different. (Declared by customer.)

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.

The EUT support Cyclic Shift Diversity (CDD), Space Time Coding (STBC), Spartial Division Multiplexing (SDM) modes. They use the same conducted power per chain in any given mode, CDD mode have the maximum power setting, so we only chose the worst case mode CDD for final testing.



# 5.7. DESCRIPTION OF TEST SETUP

# **SUPPORT EQUIPMENT**

|   | Item | Equipment | Brand Name | Model Name | Remarks |
|---|------|-----------|------------|------------|---------|
| Ī | 1    | PC        | Lenovo     | E480       | /       |
| ſ | 2    | Router    | TP-LINK    | TL-WDR5620 | /       |

## **I/O CABLES**

| Cable<br>No | Port | Connector Type | Cable Type | Cable Length(m) | Remarks |
|-------------|------|----------------|------------|-----------------|---------|
| 1           | DC   | /              | Unshielded | 1.0             | /       |
| 2           | RJ45 | /              | Unshielded | 1.0             | /       |
| 3           | USB  | Type C         | Unshielded | 1.0             | /       |

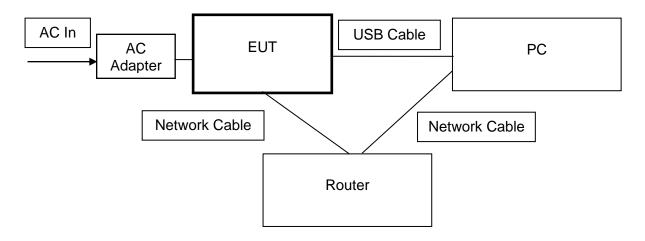
# **ACCESSORIES**

| Item | Accessory     | Brand Name | Model Name      | Description   |
|------|---------------|------------|-----------------|---|
| 1    | AC<br>Adapter | Yealink    | YLPS121250C1-US | Input: AC 100-240 V, 50/60Hz, 0.5 A<br>Output: DC 12 V, 1.5 A |

# **TEST SETUP**

The EUT can work in engineering mode with a software.

# **SETUP DIAGRAM FOR TESTS**





# 6. MEASURING INSTRUMENT AND SOFTWARE USED

|                                       | Conducted Emissions |           |              |               |               |  |
|---------------------------------------|---------------------|-----------|--------------|---------------|---------------|--|
| Equipment                             | Manufacturer        | Model No. | Serial No.   | Last Cal.     | Due Date      |  |
| EMI Test<br>Receiver                  | R&S                 | ESR3      | 101961       | Nov. 12, 2020 | Nov. 11, 2021 |  |
| Two-Line V-<br>Network                | R&S                 | ENV216    | 101983       | Nov. 12, 2020 | Nov. 11, 2021 |  |
|                                       | Software            |           |              |               |               |  |
| Description                           |                     |           | Manufacturer | Name          | Version       |  |
| Test Software for Conducted Emissions |                     |           | Farad        | EZ-EMC        | Ver. UL-3A1   |  |

|                                | Radiated Emissions |  |                   |                |                |  |  |
|--------------------------------|--------------------|--|-------------------|----------------|----------------|--|--|
| Equipment                      | Manufacturer       | Model No.                                    | Serial No.        | Last Cal.      | Due Date       |  |  |
| MXE EMI<br>Receiver            | KESIGHT            | N9038A                                       | MY56400036        | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Hybrid Log<br>Periodic Antenna | TDK                | HLP-3003C                                    | 130960            | Aug. 2, 2021   | Aug. 1, 2023   |  |  |
| Preamplifier                   | HP                 | 8447D  | 2944A09099        | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| EMI<br>Measurement<br>Receiver | R&S                | ESR26  | 101377            | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Horn Antenna                   | TDK                | HRN-0118                                     | 130939            | Sept. 17, 2018 | Sept. 17, 2021 |  |  |
| Preamplifier                   | TDK                | PA-02-0118                                   | TRS-305-<br>00067 | Nov. 20, 2020  | Nov. 19, 2021  |  |  |
| Horn Antenna                   | Schwarzbeck        | BBHA9170                                     | #691              | Jul. 20, 2021  | Jul. 20, 2023  |  |  |
| Preamplifier                   | TDK                | PA-02-2                                      | TRS-307-<br>00003 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Preamplifier                   | TDK                | PA-02-3                                      | TRS-308-<br>00002 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Loop antenna                   | Schwarzbeck        | 1519B  | 80000             | Jan.17, 2019   | Jan.17,2022    |  |  |
| Preamplifier                   | TDK                | PA-02-001-<br>3000                           | TRS-302-<br>00050 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Preamplifier                   | Mini-Circuits      | ZX60-83LN-<br>S+                             | SUP01201941       | Nov. 20, 2020  | Nov. 19, 2021  |  |  |
| Highpass Filter                | Wainwright         | WHKX10-<br>5850-6500-<br>1800-40SS           | 4                 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Band Reject<br>Filter          | Wainwright         | WRCJV12-<br>5695-5725-<br>5850-5880-<br>40SS | 4                 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |
| Band Reject<br>Filter          | Wainwright         | WRCJV20-<br>5120-5150-<br>5350-5380-<br>60SS | 2                 | Nov. 12, 2020  | Nov. 11, 2021  |  |  |



REPORT NO.: 4789992710.1-3 Page 19 of 372

| Band Reject<br>Filter                | Wainwright | WRCJV20-<br>5440-5470-<br>5725-5755-<br>60SS | 1            | Nov. 12, 2020 | Nov. 11, 2021 |  |
|--------------------------------------|------------|--|--------------|---------------|---------------|--|
|                                      | Software   |  |              |               |               |  |
| Description                          |            |  | Manufacturer | Name          | Version       |  |
| Test Software for Radiated Emissions |            |  | Farad        | EZ-EMC        | Ver. UL-3A1   |  |

|  | Tonse        | end I              | RF Test S | ystem          |       |             |             |
|--|--------------|--------------------|-----------|----------------|-------|-------------|-------------|
| Equipment                              | Manufacturer | Мо                 | odel No.  | Serial No.     | Last  | Cal.        | Due. Date   |
| Wideband Radio<br>Communication Tester | R&S          | R&S CMW            |           | 155523         | Nov.2 | 0,2020      | Nov.19,2021 |
| PXA Signal Analyzer                    | Keysight     | Ν                  | 19030A    | MY55410512     | Nov.2 | 0,2020      | Nov.19,2021 |
| MXG Vector Signal<br>Generator         | Keysight     | Keysight N51       |           | MY56200284     | Nov.2 | 0,2020      | Nov.19,2021 |
| MXG Vector Signal<br>Generator         | Keysight     | Keysight N         |           | MY56200301     | Nov.2 | 0,2020      | Nov.19,2021 |
| DC power supply                        | Keysight     | Е                  | 3642A     | MY55159130     | Nov.2 | 4,2020      | Nov.23,2021 |
| Temperature & Humidity Chamber         | SANMOOD      | SANMOOD SG-80-CC-2 |           | 2088           | Nov.2 | 0,2020      | Nov.19,2021 |
| Software                               |              |                    |           |                |       |             |             |
| Description                            | Manufactu    | Manufacturer       |           | Name           |       | Version     |             |
| Tonsend SRD Test System                | m Tonsend    | t                  | JS1120    | -3 RF Test Sys | stem  | 2.6.77.0518 |             |

|                             | Other Instruments |                                    |            |               |               |  |
|-----------------------------|-------------------|------------------------------------|------------|---------------|---------------|--|
| Equipment                   | Manufacturer      | Model No.                          | Serial No. | Last Cal.     | Next Cal.     |  |
| Dual Channel<br>Power Meter | Keysight          | N1912A                             | MY55416024 | Nov. 20, 2020 | Nov. 19, 2021 |  |
| Power Sensor                | Keysight          | USB<br>Wideband<br>Power<br>Sensor | MY5100022  | Nov. 20, 2020 | Nov. 19, 2021 |  |

REPORT NO.: 4789992710.1-3 Page 20 of 372

7. ANTENNA PORT TEST RESULTS

# 7.1. ON TIME AND DUTY CYCLE

# **LIMITS**

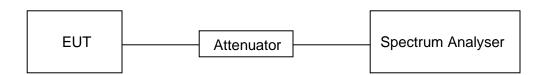
None; for reporting purposes only.

#### **PROCEDURE**

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.B.

The zero-span mode on a spectrum analyzer or EMI receiver, if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW  $\geq$  EBW if possible; otherwise, set RBW to the largest available value. Set VBW  $\geq$  RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T  $\leq$  16.7 microseconds.)

#### **TEST SETUP**



## **TEST ENVIRONMENT**

| Temperature         | 26.0 °C | Relative Humidity | 55.3 %         |
|---------------------|---------|-------------------|----------------|
| Atmosphere Pressure | 101 kPa | Test Voltage      | AC 120 V/60 Hz |

## **RESULTS**

Please refer to appendix D.



# 7.2. 6/26 dB EMISSION BANDWIDTH AND 99 % OCCUPIED BANDWIDTH

# **LIMITS**

| CFR 47 FCC Part15, Subpart E<br>ISED RSS-247 ISSUE 2 |   |   |  |  |  |
|--|---|---|--|--|--|
| Test Item  | Limit   | Frequency Range<br>(MHz)  |  |  |  |
| 26 dB Emission Bandwidth                             | For reporting purposes only.                          | 5150 ~ 5250   |  |  |  |
| 26 dB Emission Bandwidth                             | For reporting purposes only.                          | 5250 ~ 5350   |  |  |  |
| 26 dB Emission Bandwidth                             | For reporting purposes only.                          | 5470 ~ 5725 (For FCC)<br>5470 ~ 5600 (For ISED)<br>5650 ~ 5725 (For ISED) |  |  |  |
| 6 dB Emission Bandwidth                              | The minimum 6 dB emission bandwidth shall be 500 kHz. | 5725 ~ 5850   |  |  |  |
| 99 % Occupied Bandwidth                              | For reporting purposes only.                          | 5150 ~ 5825 (For ISED)  |  |  |  |

#### **TEST PROCEDURE**

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.C1. for 26 dB Emission Bandwidth; section II.C2. for 6 dB Emission Bandwidth; section II.D. for 99 % Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

| Center Frequency | The center frequency of the channel under test  |
|------------------|---|
| Detector         | Peak  |
| RBW              | For 6 dB Emission Bandwidth: RBW=100 kHz For 26 dB Emission bandwidth: approximately 1 % of the EBW. For 99 % Occupied Bandwidth: approximately 1 % ~ 5 % of the OBW. |
| VBW              | For 6 dB Bandwidth: ≥ 3*RBW For 26 dB Bandwidth: >3*RBW For 99 % Bandwidth: >3*RBW  |
| Trace            | Max hold  |
| Sweep            | Auto couple   |

- a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.
- b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6/26 dB relative to the maximum level measured in the fundamental emission.

## Calculation for 99 % Bandwidth of UNII-2C and UNII-3 Straddle Channel:

For Example: Fundamental Frequency: 5720 MHz

99 % OBW: 21.00 MHz



REPORT NO.: 4789992710.1-3 Page 22 of 372

Turning Frequency: 5725 MHz

99 % Bandwidth of UNII-2C Band Portion = (5725-(5720-(21.00/2)) = 15.50 MHz

99 % Bandwidth of UNII-3 Band Portion = (5720+(21.00/2)-5725) = 5.50 MHz

#### Calculation for 26 dB Bandwidth of UNII-2C Straddle Channel:

For Example: Fundamental frequency: 5720 MHz

26 dB BW: 20.00 MHz

FL: 5710.16 MHz FH: 5730.16 MHz

Turning Frequency: 5725 MHz

26 dB Bandwidth of UNII-2C Band Portion = 5725-5710.16=14.84 MHz

## Calculation for 6dB Bandwidth of UNII-3 Straddle Channel:

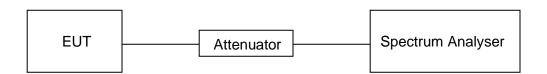
For Example: Fundamental frequency: 5720 MHz

6 dB BW: 16.44 MHz FL: 5711.76 MHz FH: 5728.2 MHz

Turning Frequency: 5725 MHz

6 dB Bandwidth of UNII-3 band Portion = 5728.2-5725=3.2 MHz

#### **TEST SETUP**



#### **TEST ENVIRONMENT**

| Temperature         | 26.0 °C | Relative Humidity | 55.3 %         |
|---------------------|---------|-------------------|----------------|
| Atmosphere Pressure | 101 kPa | Test Voltage      | AC 120 V/60 Hz |

#### **RESULTS**

Please refer to Appendix A1&A2&A3.

REPORT NO.: 4789992710.1-3 Page 23 of 372

# 7.3. CONDUCTED OUTPUT POWER

# **LIMITS**

| CFR 47 FCC Part15, Subpart E |   |                            |
|------------------------------|---|----------------------------|
| Test Item                    | Limit   | Frequency Range<br>(MHz)   |
| Conducted                    | ☐ Outdoor Access Point: 1 W (30 dBm) ☐ Indoor Access Point: 1 W (30 dBm) ☐ Fixed Point-To-Point Access Points: 1 W (30 dBm) ☐ Client Devices: 250 mW (24 dBm) | 5150 ~ 5250                |
| Output<br>Power              | Shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.                                     | 5250 ~ 5350<br>5470 ~ 5725 |
|                              | Shall not exceed 1 Watt (30 dBm).   | 5725 ~ 5850                |

|  | ISED RSS-247 ISSUE 2   |   |  |
|--|--|---|--|
| Test Item                                      | Limit  | Frequency Range<br>(MHz)                  |  |
|  | The maximum e.i.r.p. shall not exceed 200 mW (23 dBm) or 10 + 10 log <sub>10</sub> B, dBm, whichever power is less. B is the 99 % emission bandwidth in megahertz.   | 5150 ~ 5250                               |  |
| Conducted<br>Output<br>Power<br>or<br>e.i.r.p. | a. The maximum conducted output power shall not exceed 250 mW (24 dBm) or 11 + 10 log <sub>10</sub> B dBm, whichever is less.  b. The maximum e.i.r.p. shall not exceed 1.0 W (30 dBm) or 17 + 10 log <sub>10</sub> B dBm, whichever is less. B is the 99 % emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W. | 5250 ~ 5350<br>5470 ~ 5600<br>5650 ~ 5725 |  |
|  | Shall not exceed 1 Watt (30 dBm). The e.i.r.p. shall not exceed 4 W  | 5725 ~ 5850                               |  |

#### Note:

The above limits are based upon the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

REPORT NO.: 4789992710.1-3 Page 24 of 372

#### **TEST PROCEDURE**

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.E.

# Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep):

- (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- (ii) Set RBW = 1 MHz.
- (iii) Set VBW ≥ 3 MHz.
- (iv) Number of points in sweep  $\geq 2 \times \text{span} / \text{RBW}$ . (This ensures that bin-to-bin spacing is  $\leq \text{RBW}/2$ , so that narrowband signals are not lost between frequency bins.)
- (v) Sweep time = auto.
- (vi) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle <  $98^{\circ}$ %, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq 98^{\circ}$ %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
- (viii) Trace average at least 100 traces in power averaging (rms) mode.
- (ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

# Method PM (Measurement using an RF average power meter):

- (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
- a. The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
- b. At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
- c. The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in II.B.
- (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
- (iv) Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle (e.g., 10 log (1/0.25) if the duty cycle is 25 %).

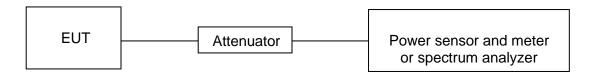
## Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Straddle channel power was measured using spectrum analyzer.



# **TEST SETUP**



# **TEST ENVIRONMENT**

| Temperature         | 26.0 °C | Relative Humidity | 55.3 %         |
|---------------------|---------|-------------------|----------------|
| Atmosphere Pressure | 101 kPa | Test Voltage      | AC 120 V/60 Hz |

# **RESULTS**

Please refer to Appendix B.



REPORT NO.: 4789992710.1-3 Page 26 of 372

# 7.4. POWER SPECTRAL DENSITY

## **LIMITS**

| CFR 47 FCC Part15, Subpart E |  |                            |
|------------------------------|--|----------------------------|
| Test Item                    | Limit  | Frequency Range<br>(MHz)   |
| Power Spectral<br>Density    | ☐ Outdoor Access Point: 17 dBm/MHz ☐ Indoor Access Point: 17 dBm/MHz ☐ Fixed Point-To-Point Access Points: 17 dBm/MHz ☐ Client Devices: 11 dBm/MHz | 5150 ~ 5250                |
| Bonony                       | 11 dBm/MHz   | 5250 ~ 5350<br>5470 ~ 5725 |
|                              | 30 dBm/500kHz  | 5725 ~ 5850                |

| ISED RSS-247 ISSUE 2      |  |   |
|---------------------------|--|---|
| Test Item                 | Limit  | Frequency Range<br>(MHz)                  |
|                           | The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band. | 5150 ~ 5250                               |
| Power Spectral<br>Density | The power spectral density shall not exceed 11 dBm inany 1.0 MHz band.     | 5250 ~ 5350<br>5470 ~ 5600<br>5650 ~ 5725 |
|                           | 30 dBm / 500 kHz   | 5725 ~ 5850                               |

# Note:

The above limits are based upon the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

## **TEST PROCEDURE**

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.F.



REPORT NO.: 4789992710.1-3 Page 27 of 372

Connect the EUT to the spectrum analyser and use the following settings:

## For U-NII-1, U-NII-2A and U-NII-2C band:

| 101011111111111111111111111111111111111 | of o thirty o this 2 tand o this 20 bands                    |  |  |
|---|--|--|--|
| Center Frequency                        | The center frequency of the channel under test               |  |  |
| Detector                                | RMS  |  |  |
| RBW                                     | 1 MHz  |  |  |
| VBW                                     | ≥3 × RBW   |  |  |
| Span                                    | Encompass the entire emissions bandwidth (EBW) of the signal |  |  |
| Trace                                   | Max hold   |  |  |
| Sweep time                              | Auto   |  |  |

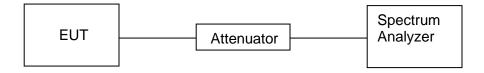
#### For U-NII-3:

| Center Frequency | The center frequency of the channel under test               |
|------------------|--|
| Detector         | RMS  |
| RBW              | 500 kHz  |
| VBW              | ≥3 × RBW   |
| Span             | Encompass the entire emissions bandwidth (EBW) of the signal |
| Trace            | Max hold   |
| Sweep time       | Auto   |

Allow trace to fully stabilize and Use the peak search function on the instrument to find the peak of the spectrum and record its value.

Add 10 log (1/x), where x is the duty cycle, to the peak of the spectrum, the result is the Maximum PSD over 1 MHz / 500 kHz reference bandwidth.

# **TEST SETUP**



## **TEST ENVIRONMENT**

| Temperature         | 26.0 °C | Relative Humidity | 55.3 %         |
|---------------------|---------|-------------------|----------------|
| Atmosphere Pressure | 101 kPa | Test Voltage      | AC 120 V/60 Hz |

# **RESULTS**

Please refer to Appendix C.



# 8. RADIATED TEST RESULTS

# **LIMITS**

Refer to CFR 47 FCC §15.205, §15.209 and §15.407 (b).

Refer to ISED RSS-GEN Clause 8.9, Clause 8.10 and ISED RSS-247 6.2.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

| Emissions radiated outside of the specified frequency bands above 30 MHz |                                       |                         |         |
|--|---------------------------------------|-------------------------|---------|
| Frequency Range<br>(MHz)   | Field Strength Limit<br>(uV/m) at 3 m | Field Stren<br>(dBuV/m) |         |
|  |                                       | Quasi-Peak              |         |
| 30 - 88  | 100                                   | 40                      |         |
| 88 - 216   | 150                                   | 43.5                    |         |
| 216 - 960  | 200                                   | 46                      |         |
| Above 960  | 500                                   | 54                      |         |
| Above 1000   | 500                                   | Peak                    | Average |
|  |                                       | 74                      | 54      |

| FCC Emissions radiated outside of the specified frequency bands below 30 MHz    |              |     |  |
|---|--------------|-----|--|
| Frequency (MHz) Field strength (microvolts/meter) Measurement distance (meters) |              |     |  |
| 0.009-0.490   | 2400/F(kHz)  | 300 |  |
| 0.490-1.705   | 24000/F(kHz) | 30  |  |
| 1.705-30.0  | 30           | 30  |  |

# ISED General field strength limits at frequencies below 30 MHz

| Table 6 – General field strength limits at frequencies below 30 MHz |  |                          |
|---|--|--------------------------|
| Frequency   | Magnetic field strength (H-Field) (μA/m) | Measurement distance (m) |
| 9 - 490 kHz <sup>Note 1</sup>                                       | 6.37/F (F in kHz)                        | 300                      |
| 490 - 1705 kHz  | 63.7/F (F in kHz)                        | 30                       |
| 1.705 - 30 MHz  | 0.08                                     | 30                       |

**Note 1:** The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.



# ISED Restricted bands refer to ISED RSS-GEN Clause 8.10

| MHz                 | MHz                   | GHz           |  |  |
|---------------------|-----------------------|---------------|--|--|
| 0.090 - 0.110       | 149.9 - 150.05        | 9.0 - 9.2     |  |  |
| 0.495 - 0.505       | 158.52475 - 158.52525 | 9.3 - 9.5     |  |  |
| 2.1735 - 2.1905     | 156.7 - 156.9         | 10.6 - 12.7   |  |  |
| 3.020 - 3.028       | 162.0125 - 167.17     | 13.25 - 13.4  |  |  |
| 4.125 - 4.128       | 167.72 - 173.2        | 14.47 - 14.5  |  |  |
| 4.17725 - 4.17775   | 240 – 285             | 15.35 - 16.2  |  |  |
| 4.20725 - 4.20775   | 322 - 335.4           | 17.7 - 21.4   |  |  |
| 5.677 - 5.683       | 399.9 - 410           | 22.01 - 23.12 |  |  |
| 8.215 - 6.218       | 608 - 614             | 23.6 - 24.0   |  |  |
| 8.26775 - 6.26825   | 960 - 1427            | 31.2 - 31.8   |  |  |
| 8.31175 - 6.31225   | 1435 - 1626.5         | 36.43 - 36.5  |  |  |
| 8.291 - 8.294       | 1645.5 - 1646.5       | Above 38.6    |  |  |
| 8.362 - 8.366       | 1680 - 1710           |               |  |  |
| 8.37625 - 8.38675   | 1718.8 - 1722.2       |               |  |  |
| 8.41425 - 8.41475   | 2200 - 2300           |               |  |  |
| 12.29 - 12.293      | 2310 - 2390           |               |  |  |
| 12.51975 - 12.52025 | 2483.5 - 2500         |               |  |  |
| 12.57675 - 12.57725 | 2655 - 2900           |               |  |  |
| 13.36 - 13.41       | 3260 - 3267           |               |  |  |
| 16.42 - 16.423      | 3332 - 3339           |               |  |  |
| 16.69475 - 16.69525 | 3345.8 - 3358         |               |  |  |
| 16.80425 - 16.80475 | 3500 - 4400           |               |  |  |
| 25.5 - 25.67        | 4500 - 5150           |               |  |  |
| 37.5 - 38.25        | 5350 - 5460           |               |  |  |
| 73 - 74.6           | 7250 - 7750           |               |  |  |
| 74.8 - 75.2         | 8025 - 8500           |               |  |  |
| 108 – 138           |                       |               |  |  |
|                     |                       |               |  |  |

# FCC Restricted bands of operation refer to FCC §15.205 (a):

| MHz                      | MHz                 | MHz           | GHz              |  |
|--------------------------|---------------------|---------------|------------------|--|
| 0.090-0.110              | 16.42-16.423        | 399.9-410     | 4.5-5.15         |  |
| <sup>1</sup> 0.495-0.505 | 16.69475-16.69525   | 608-614       | 5.35-5.46        |  |
| 2.1735-2.1905            | 16.80425-16.80475   | 960-1240      | 7.25-7.75        |  |
| 4.125-4.128              | 25.5-25.67          | 1300-1427     | 8.025-8.5        |  |
| 4.17725-4.17775          | 37.5-38.25          | 1435-1626.5   | 9.0-9.2          |  |
| 4.20725-4.20775          | 73-74.6             | 1645.5-1646.5 | 9.3-9.5          |  |
| 6.215-6.218              | 74.8-75.2           | 1660-1710     | 10.6-12.7        |  |
| 6.26775-6.26825          | 108-121.94          | 1718.8-1722.2 | 13.25-13.4       |  |
| 6.31175-6.31225          | 123-138             | 2200-2300     | 14.47-14.5       |  |
| 8.291-8.294              | 149.9-150.05        | 2310-2390     | 15.35-16.2       |  |
| 8.362-8.366              | 156.52475-156.52525 | 2483.5-2500   | 17.7-21.4        |  |
| 8.37625-8.38675          | 156.7-156.9         | 2690-2900     | 22.01-23.12      |  |
| 8.41425-8.41475          | 162.0125-167.17     | 3260-3267     | 23.6-24.0        |  |
| 12.29-12.293             | 167.72-173.2        | 3332-3339     | 31.2-31.8        |  |
| 12.51975-12.52025        | 240-285             | 3345.8-3358   | 36.43-36.5       |  |
| 12.57675-12.57725        | 322-335.4           | 3600-4400     | ( <sup>2</sup> ) |  |
| 13.36-13.41              |                     |               |                  |  |

Note:  $^1$ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.  $^2$ Above 38.6c



REPORT NO.: 4789992710.1-3 Page 30 of 372

Limits of unwanted/undesirable emission out of the restricted bands refer to CFR 47 FCC §15.407 (b) and ISED RSS-247 6.2.

| LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1GHz) |                       |                       |  |  |  |
|--|-----------------------|-----------------------|--|--|--|
| Frequency Range                                      | EIRP Limit            | Field Strength Limit  |  |  |  |
| (MHz)  | EIRP LIIIII           | (dBuV/m) at 3 m       |  |  |  |
| 5150~5250 MHz  |                       |                       |  |  |  |
| 5250~5350 MHz  | PK: -27 (dBm/MHz)     | PK:68.2(dBμV/m)       |  |  |  |
| 5470~5725 MHz  |                       |                       |  |  |  |
|  | PK: -27 (dBm/MHz) *1  | PK: 68.2(dBµV/m) *1   |  |  |  |
| 5725~5850 MHz  | PK: 10 (dBm/MHz) *2   | PK: 105.2 (dBµV/m) *2 |  |  |  |
|  | PK: 15.6 (dBm/MHz) *3 | PK: 110.8(dBµV/m) *3  |  |  |  |
|  | PK: 27 (dBm/MHz) *4   | PK: 122.2 (dBµV/m) *4 |  |  |  |

## Note:

<sup>\*1</sup> beyond 75 MHz or more above of the band edge.

<sup>\*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

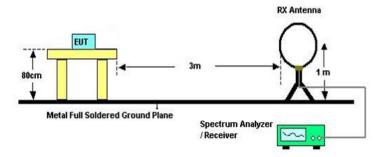
<sup>\*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

<sup>\*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.



# **TEST SETUP AND PROCEDURE**

Below 30 MHz



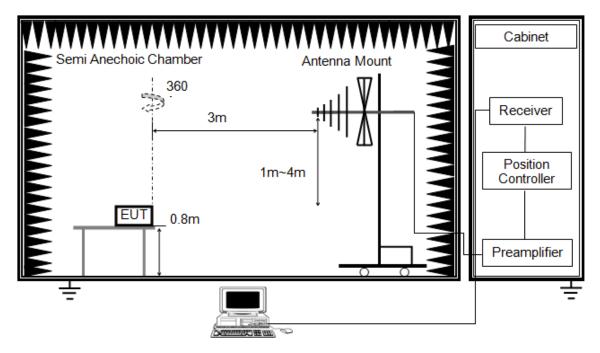
The setting of the spectrum analyser

| RBW   | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
|-------|--|
| VBW   | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
| Sweep | Auto   |
| Trace | Max hold   |

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11 & 11.12.
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
- 5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- 6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
- 7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
- 8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377  $\Omega$ . For example, the measurement frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



Below 1 GHz and above 30 MHz



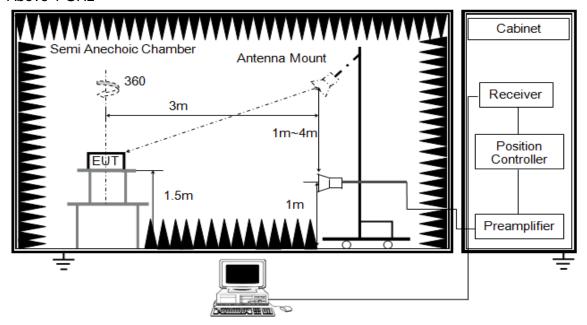
The setting of the spectrum analyser

| RBW      | 120 kHz  |
|----------|----------|
| VBW      | 300 kHz  |
| Sweep    | Auto     |
| Detector | Peak/QP  |
| Trace    | Max hold |

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 11.11.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.



#### Above 1 GHz



The setting of the spectrum analyser

| RBW      | 1 MHz                          |
|----------|--------------------------------|
| IV/BW    | PEAK: 3 MHz<br>AVG: see note 6 |
| Sweep    | Auto                           |
| Detector | Peak                           |
| Trace    | Max hold                       |

- 1. The testing follows the guidelines in KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.G.3 ~ II.G.6.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (1.5 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 1.5 m above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
- 6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

REPORT NO.: 4789992710.1-3 Page 34 of 372

Note 1: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

Note 2: Co-Location had been evaluated with the 5 GHz WLAN / 2.4 GHz WLAN and BT / BLE transmitter and has no additional or worse emissions found. Only the worst data was recorded in the test report.

Note 3: For Co-Location about NFC and other transmitting, pre-scan had been done and no additional or worse emissions found, do not report.

#### **TEST ENVIRONMENT**

| Temperature         | emperature 26.1 °C |              | 45 %           |
|---------------------|--------------------|--------------|----------------|
| Atmosphere Pressure | 101 kPa            | Test Voltage | AC 120 V/60 Hz |

## **RESULTS**



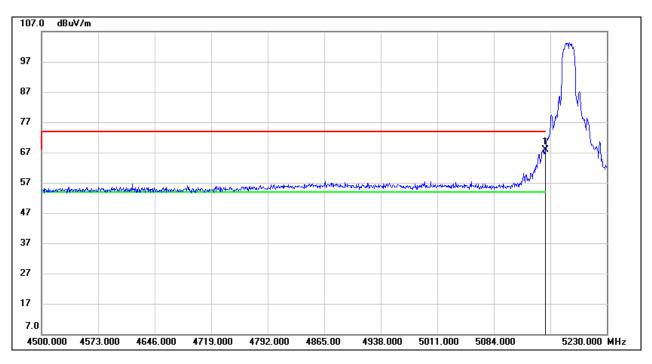
# 8.1. RESTRICTED BANDEDGE

# 8.1.1. 802.11a MIMO MODE

# **UNII-1 BAND**

# RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

# **PEAK**



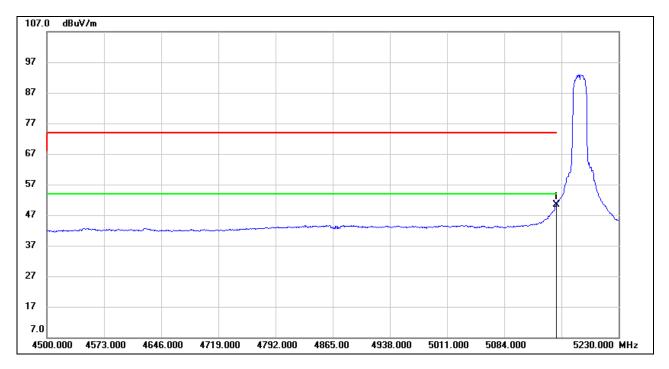
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 26.79   | 41.19   | 67.98    | 74.00    | -6.02  | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



# **AVG**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 9.08    | 41.19   | 50.27    | 54.00    | -3.73  | AVG    |

Note: 1. Measurement = Reading Level + Correct Factor.

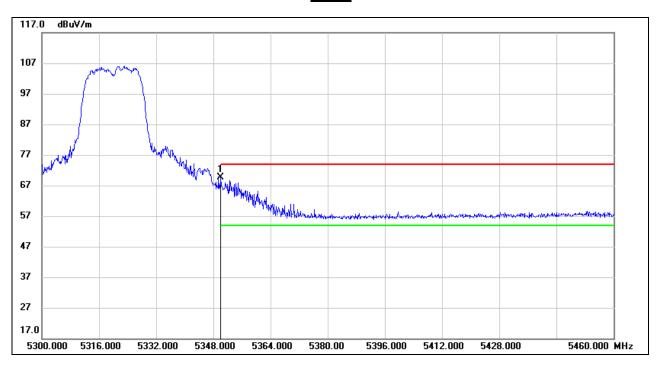
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-2A BAND**

# RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

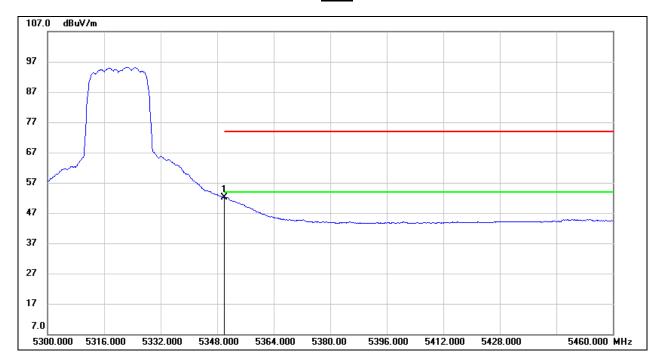
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 28.45   | 41.20   | 69.65    | 74.00    | -4.35  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 10.92   | 41.20   | 52.12    | 54.00    | -1.88  | AVG    |

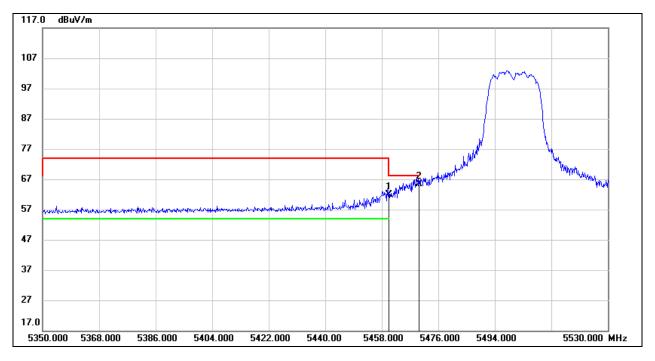
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-2C BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

### **PEAK**

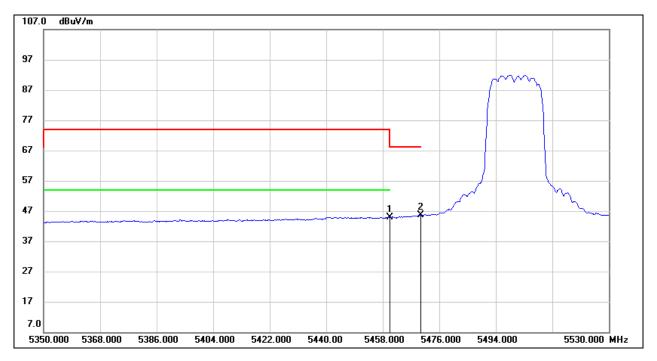


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 20.15   | 41.82   | 61.97    | 68.20    | -6.23  | peak   |
| 2   | 5470.000  | 23.42   | 41.87   | 65.29    | 68.20    | -2.91  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### <u>AVG</u>

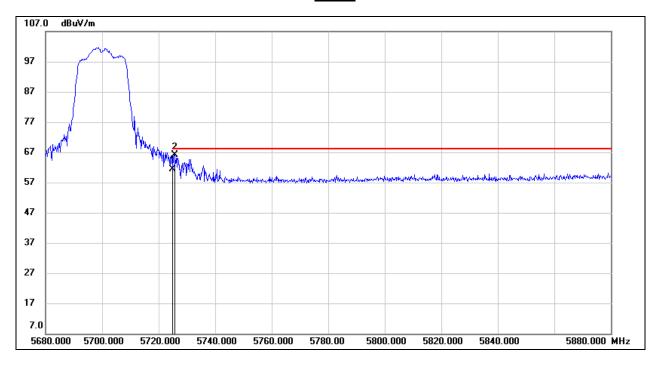


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 2.94    | 41.82   | 44.76    | 54.00    | -9.24  | AVG    |
| 2   | 5470.000  | 3.67    | 41.87   | 45.54    | 1        | /      | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5725.000  | 19.69   | 41.67   | 61.36    | 68.20    | -6.84  | peak   |
| 2   | 5725.600  | 24.44   | 41.67   | 66.11    | 68.20    | -2.09  | peak   |

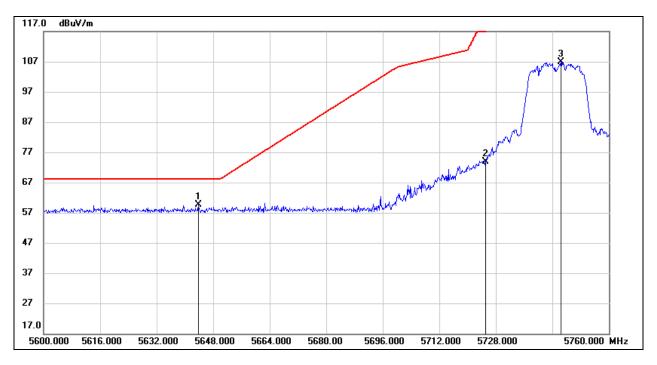
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-3 BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

### **PEAK**

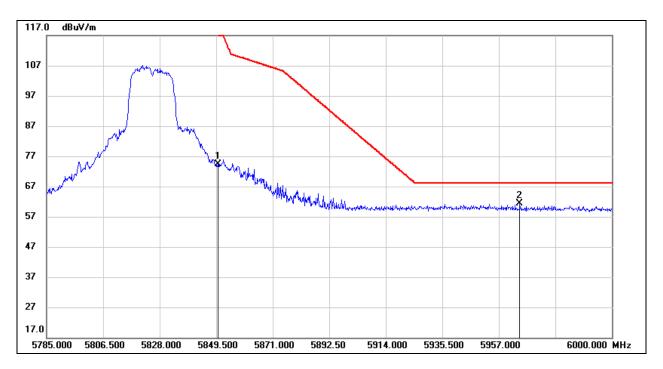


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark      |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1   | 5643.840  | 17.99   | 41.65   | 59.64    | 68.20    | -8.56  | peak        |
| 2   | 5725.000  | 32.26   | 41.67   | 73.93    | 122.20   | -48.27 | peak        |
| 3   | 5746.400  | 65.11   | 41.77   | 106.88   | /        | /      | Fundamental |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5850.000  | 31.76   | 42.52   | 74.28    | 122.20   | -47.92 | peak   |
| 2   | 5964.955  | 18.73   | 42.73   | 61.46    | 68.20    | -6.74  | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the polarities (Vertical & Horizontal) had been tested, only the worst data was recorded in the report.

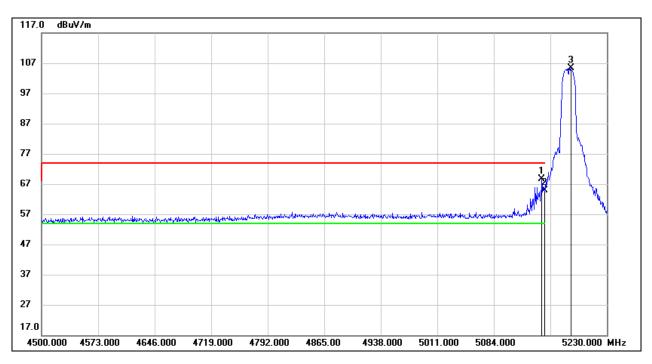


### 8.1.2. 802.11ac VHT20 MIMO MODE

#### **UNII-1 BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

### **PEAK**

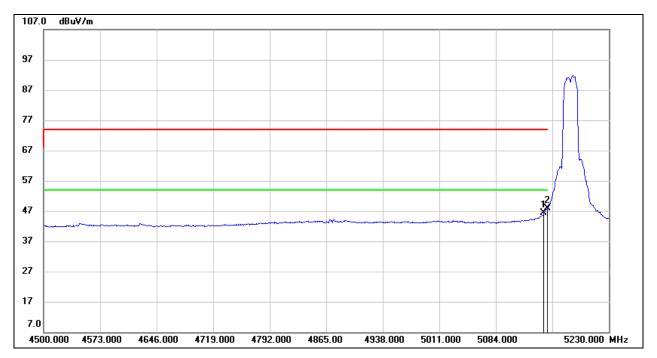


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark      |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1   | 5146.050  | 27.45   | 41.16   | 68.61    | 74.00    | -5.39  | peak        |
| 2   | 5150.000  | 23.59   | 41.19   | 64.78    | 74.00    | -9.22  | peak        |
| 3   | 5183.280  | 64.03   | 41.47   | 105.50   | /        | /      | Fundamental |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



# <u>AVG</u>



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5146.050  | 5.17    | 41.16   | 46.33    | 54.00    | -7.67  | AVG    |
| 2   | 5150.000  | 6.78    | 41.19   | 47.97    | 54.00    | -6.03  | AVG    |

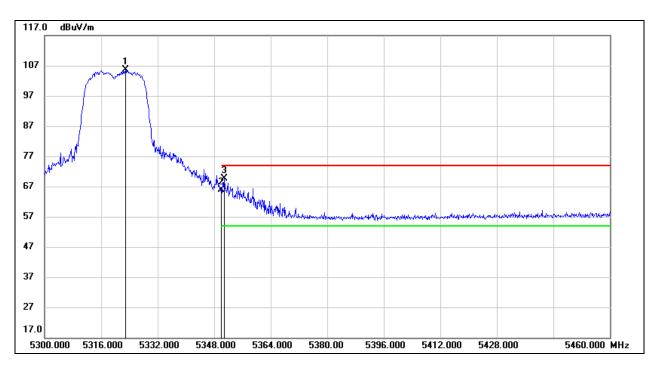
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### **UNII-2A BAND**

#### RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

#### **PEAK**

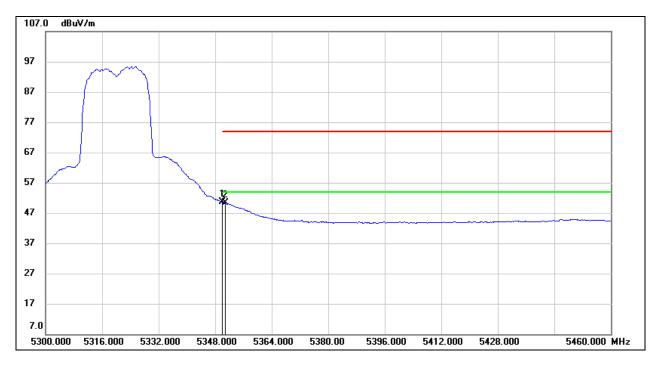


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark      |
|-----|-----------|---------|---------|----------|----------|--------|-------------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |             |
| 1   | 5322.880  | 64.60   | 41.06   | 105.66   | /        | /      | Fundamental |
| 2   | 5350.000  | 24.80   | 41.20   | 66.00    | 74.00    | -8.00  | peak        |
| 3   | 5350.880  | 28.48   | 41.21   | 69.69    | 74.00    | -4.31  | peak        |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### <u>AVG</u>



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 9.40    | 41.20   | 50.60    | 54.00    | -3.40  | AVG    |
| 2   | 5350.880  | 9.10    | 41.21   | 50.31    | 54.00    | -3.69  | AVG    |

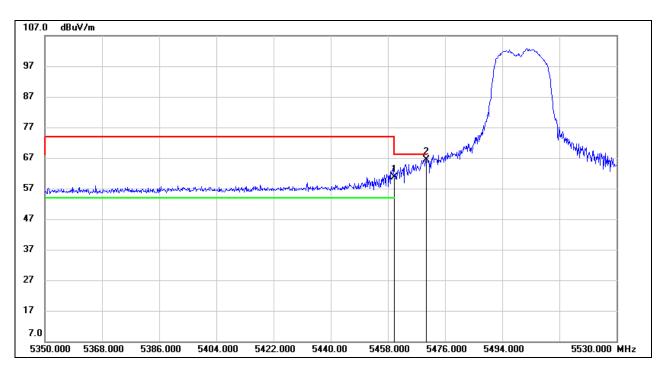
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-2C BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

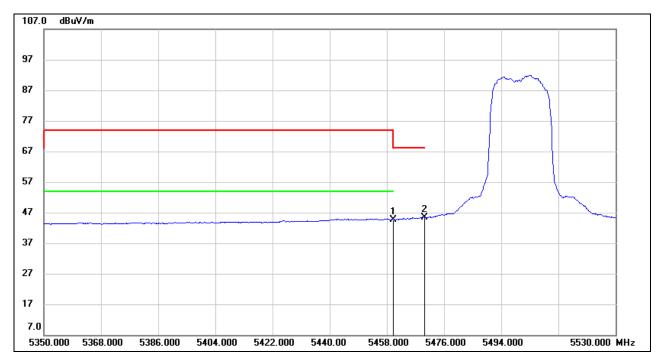
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 18.87   | 41.82   | 60.69    | 68.20    | -7.51  | peak   |
| 2   | 5470.000  | 24.43   | 41.87   | 66.30    | 68.20    | -1.90  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



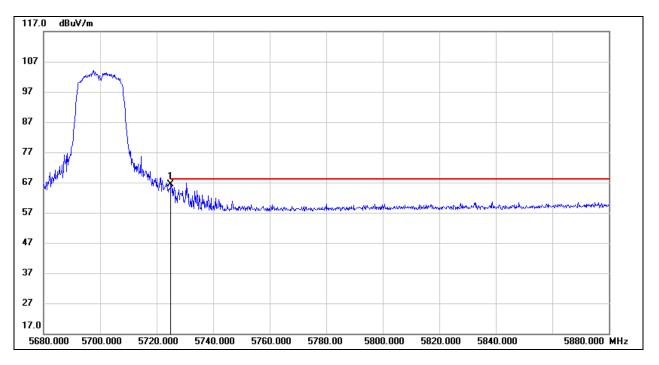


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 2.90    | 41.82   | 44.72    | 54.00    | -9.28  | AVG    |
| 2   | 5470.000  | 3.55    | 41.87   | 45.42    | /        | /      | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5725.000  | 24.80   | 41.67   | 66.47    | 68.20    | -1.73  | peak   |

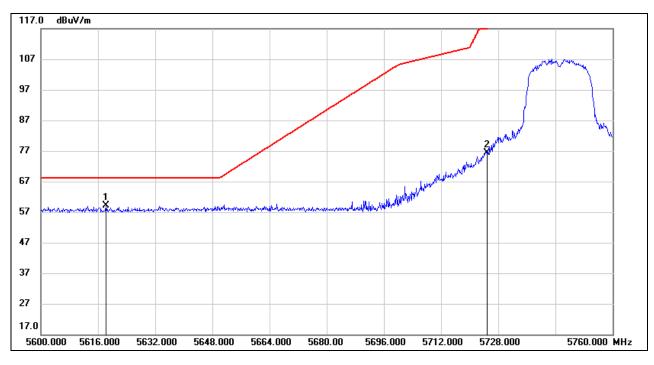
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### **UNII-3 BAND**

# **RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

### **PEAK**

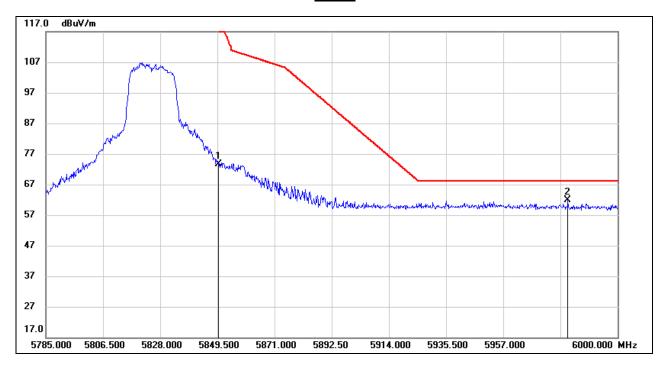


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5618.240  | 17.55   | 41.70   | 59.25    | 68.20    | -8.95  | peak   |
| 2   | 5725.000  | 34.61   | 41.67   | 76.28    | 122.20   | -45.92 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5850.000  | 31.07   | 42.52   | 73.59    | 122.20   | -48.61 | peak   |
| 2   | 5981.295  | 19.20   | 42.65   | 61.85    | 68.20    | -6.35  | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the polarities (Vertical & Horizontal) had been tested, only the worst data was recorded in the report.

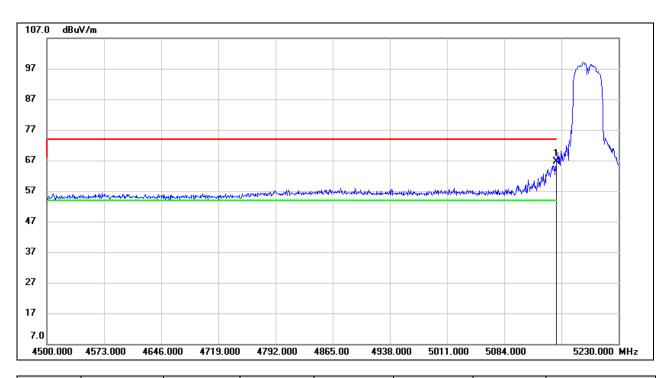


#### 8.1.3. 802.11ac HT40 MIMO MODE

# **UNII-1 BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

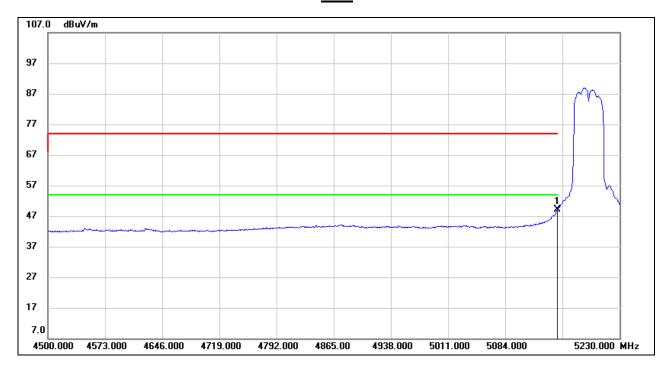
### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 25.34   | 41.19   | 66.53    | 74.00    | -7.47  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 7.86    | 41.19   | 49.05    | 54.00    | -4.95  | AVG    |

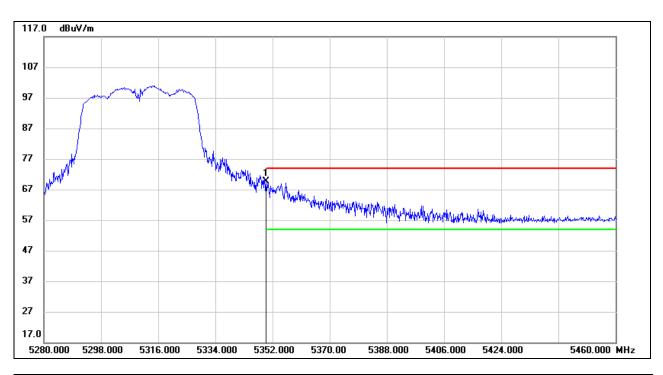
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### **UNII-2A BAND**

#### RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

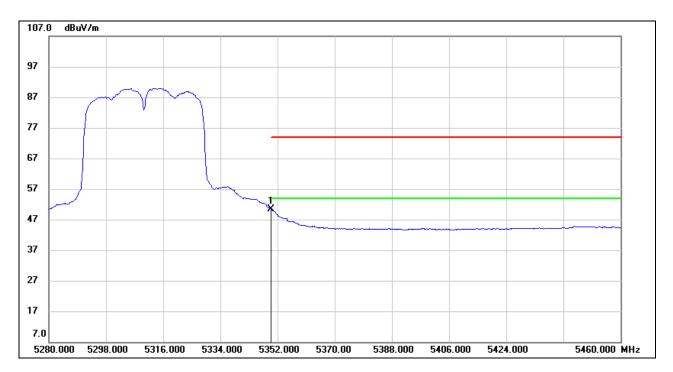
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 28.50   | 41.20   | 69.70    | 74.00    | -4.30  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 9.19    | 41.20   | 50.39    | 54.00    | -3.61  | AVG    |

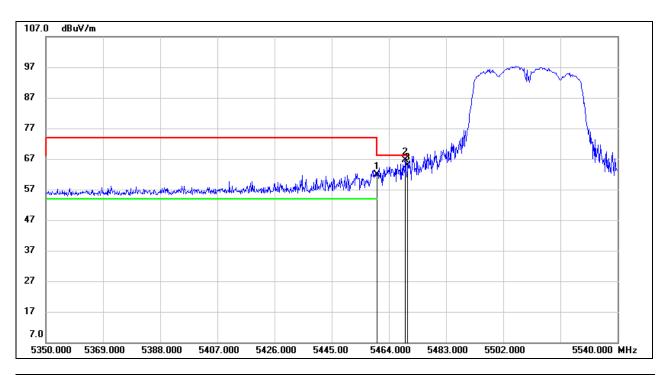
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-2C BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

#### **PEAK**

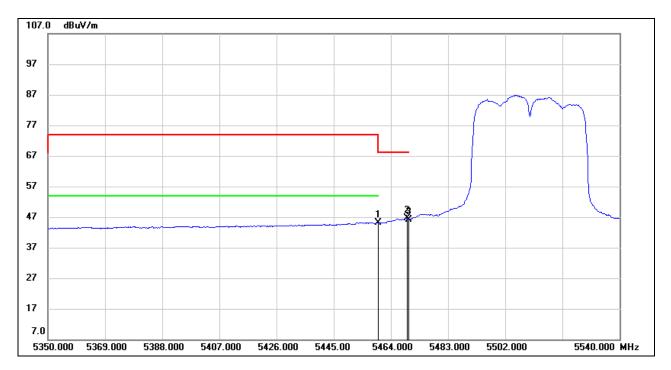


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 19.96   | 41.82   | 61.78    | 68.20    | -6.42  | peak   |
| 2   | 5469.510  | 24.88   | 41.87   | 66.75    | 68.20    | -1.45  | peak   |
| 3   | 5470.000  | 22.94   | 41.87   | 64.81    | 68.20    | -3.39  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### <u>AVG</u>

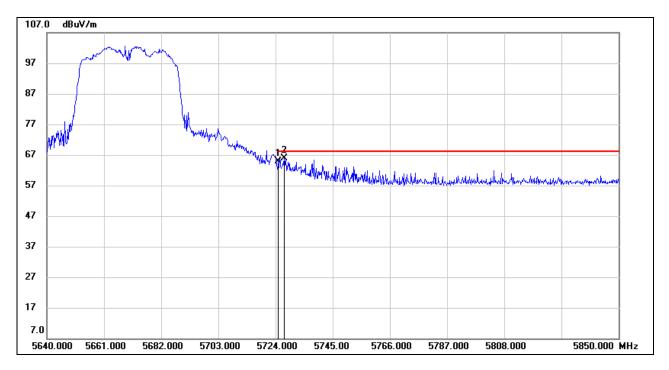


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 3.32    | 41.82   | 45.14    | 54.00    | -8.86  | AVG    |
| 2   | 5469.510  | 4.71    | 41.87   | 46.58    | 1        | /      | AVG    |
| 3   | 5470.000  | 4.37    | 41.87   | 46.24    | /        | /      | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5725.000  | 23.19   | 41.67   | 64.86    | 68.20    | -3.34  | peak   |
| 2   | 5727.150  | 24.16   | 41.67   | 65.83    | 68.20    | -2.37  | peak   |

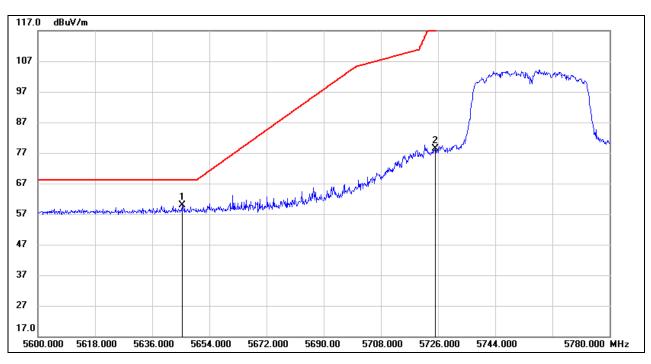
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



### **UNII-3 BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

### **PEAK**

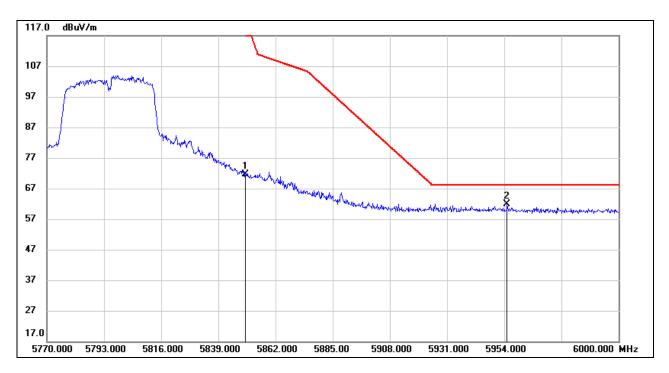


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5645.360  | 18.32   | 41.64   | 59.96    | 68.20    | -8.24  | peak   |
| 2   | 5725.000  | 36.75   | 41.67   | 78.42    | 122.20   | -43.78 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5850.000  | 29.23   | 42.52   | 71.75    | 122.20   | -50.45 | peak   |
| 2   | 5955.150  | 19.07   | 42.77   | 61.84    | 68.20    | -6.36  | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the polarities (Vertical & Horizontal) had been tested, only the worst data was recorded in the report.

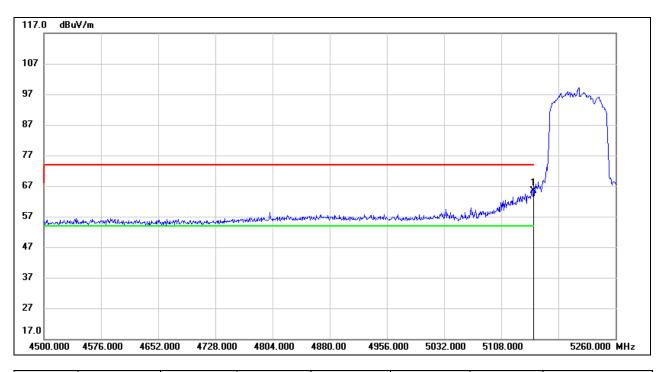


### 8.1.4. 802.11ac VHT80 MIMO MODE

#### **UNII-1 BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

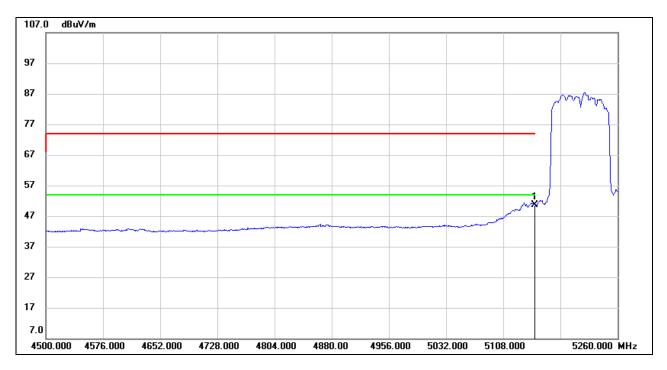
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 24.22   | 41.19   | 65.41    | 74.00    | -8.59  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5150.000  | 9.41    | 41.19   | 50.60    | 54.00    | -3.40  | AVG    |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

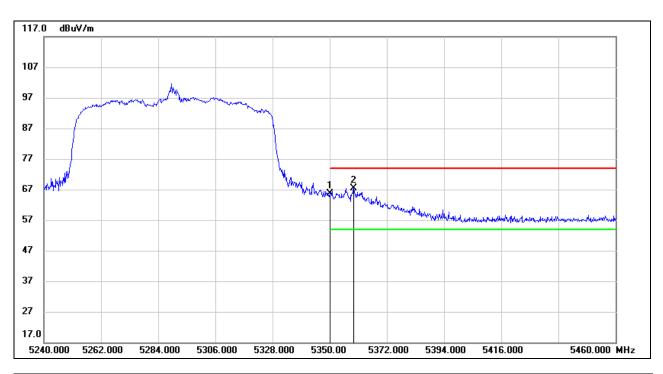
.



#### **UNII-2A BAND**

#### RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

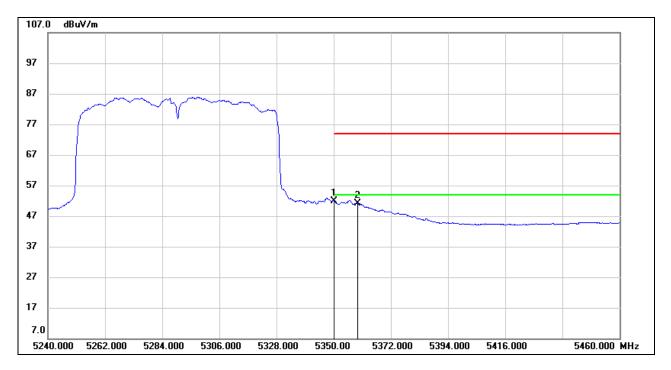
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 24.44   | 41.20   | 65.64    | 74.00    | -8.36  | peak   |
| 2   | 5359.240  | 26.25   | 41.25   | 67.50    | 74.00    | -6.50  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5350.000  | 10.78   | 41.20   | 51.98    | 54.00    | -2.02  | AVG    |
| 2   | 5359.240  | 9.78    | 41.25   | 51.03    | 54.00    | -2.97  | AVG    |

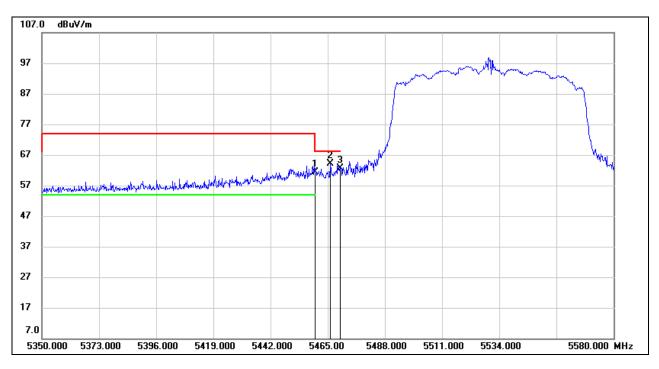
- 2. AVG: VBW=1/Ton where: ton is transmit duration.
- 3. For duty cycle, please refer to clause 7.1.
- 4. Only the worst case emission will be recorder, if it complies with the limit, the other emissions deemed to comply with the limit.



#### **UNII-2C BAND**

# **RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

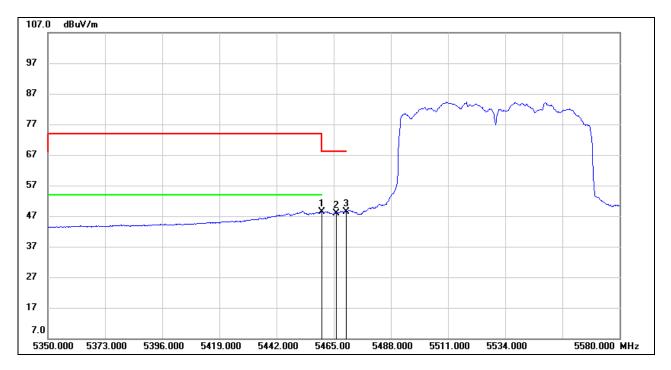
#### **PEAK**



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 19.59   | 41.82   | 61.41    | 68.20    | -6.79  | peak   |
| 2   | 5466.150  | 22.20   | 41.86   | 64.06    | 68.20    | -4.14  | peak   |
| 3   | 5470.000  | 20.71   | 41.87   | 62.58    | 68.20    | -5.62  | peak   |

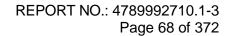
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5460.000  | 6.66    | 41.82   | 48.48    | 54.00    | -5.52  | AVG    |
| 2   | 5466.150  | 6.07    | 41.86   | 47.93    | 1        | /      | AVG    |
| 3   | 5470.000  | 6.62    | 41.87   | 48.49    | /        | /      | AVG    |

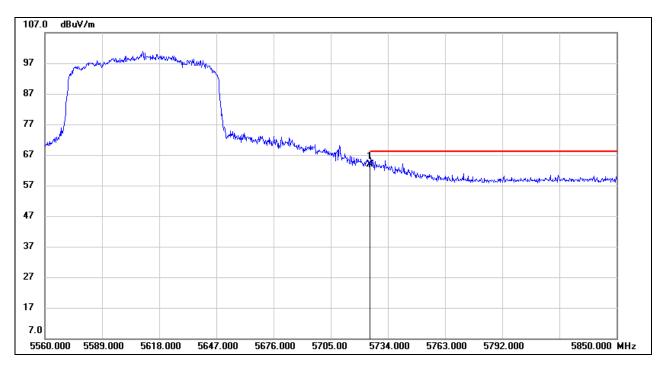
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 4. For the transmitting duration, please refer to clause 7.1.
- 5. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.







#### **PEAK**



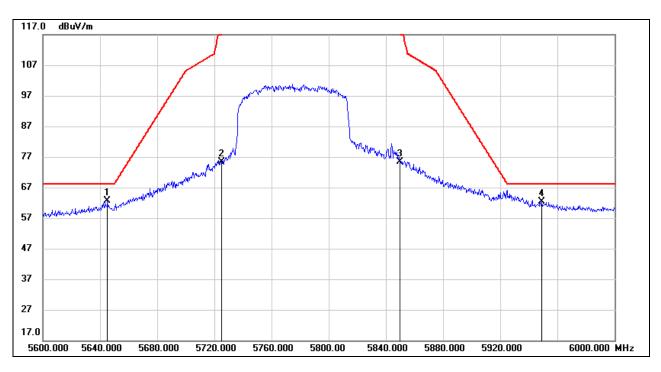
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5725.000  | 22.31   | 41.67   | 63.98    | 68.20    | -4.22  | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



# **UNII-3 BAND**

# RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 5645.200  | 20.97   | 41.64   | 62.61    | 68.20    | -5.59  | peak   |
| 2   | 5725.000  | 33.81   | 41.67   | 75.48    | 122.20   | -46.72 | peak   |
| 3   | 5850.000  | 32.74   | 42.52   | 75.26    | 122.20   | -46.94 | peak   |
| 4   | 5949.200  | 19.51   | 42.80   | 62.31    | 68.20    | -5.89  | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: All the polarities (Vertical & Horizontal) had been tested, only the worst data was recorded in the report.

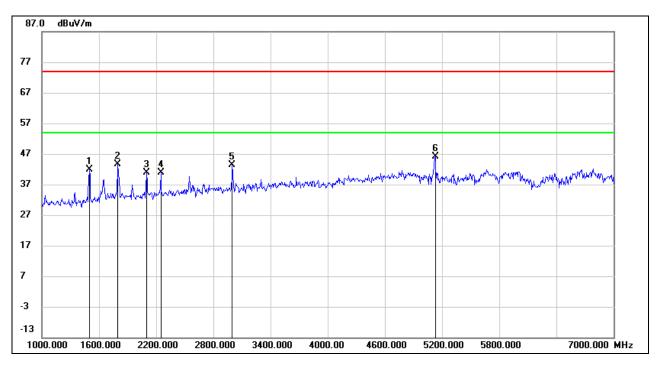


# 8.2. SPURIOUS EMISSIONS (1 GHz ~ 7 GHz)

#### 8.2.1. 802.11ac VHT20 MIMO MODE

#### **UNII-1 BAND**

#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

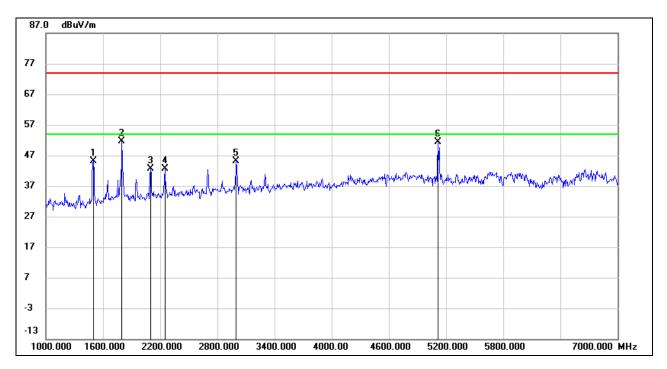


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 54.16   | -12.23  | 41.93    | 74.00    | -32.07 | peak   |
| 2   | 1798.000  | 53.66   | -10.07  | 43.59    | 74.00    | -30.41 | peak   |
| 3   | 2098.000  | 50.41   | -9.63   | 40.78    | 74.00    | -33.22 | peak   |
| 4   | 2248.000  | 49.70   | -8.89   | 40.81    | 74.00    | -33.19 | peak   |
| 5   | 2998.000  | 48.94   | -5.60   | 43.34    | 74.00    | -30.66 | peak   |
| 6   | 5128.000  | 44.36   | 1.67    | 46.03    | 74.00    | -27.97 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

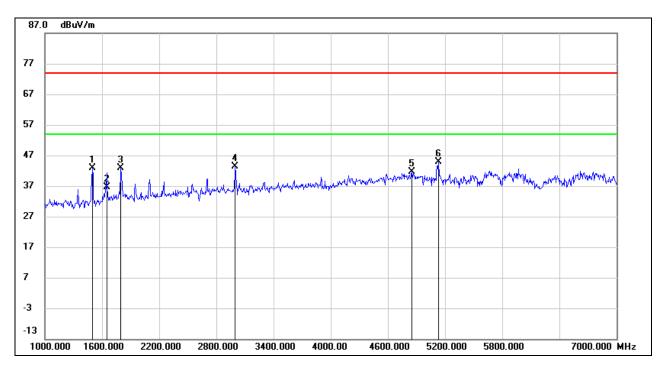


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 57.32   | -12.23  | 45.09    | 74.00    | -28.91 | peak   |
| 2   | 1798.000  | 61.67   | -10.07  | 51.60    | 74.00    | -22.40 | peak   |
| 3   | 2098.000  | 52.23   | -9.63   | 42.60    | 74.00    | -31.40 | peak   |
| 4   | 2248.000  | 51.43   | -8.89   | 42.54    | 74.00    | -31.46 | peak   |
| 5   | 2998.000  | 50.68   | -5.60   | 45.08    | 74.00    | -28.92 | peak   |
| 6   | 5116.000  | 49.69   | 1.60    | 51.29    | 74.00    | -22.71 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

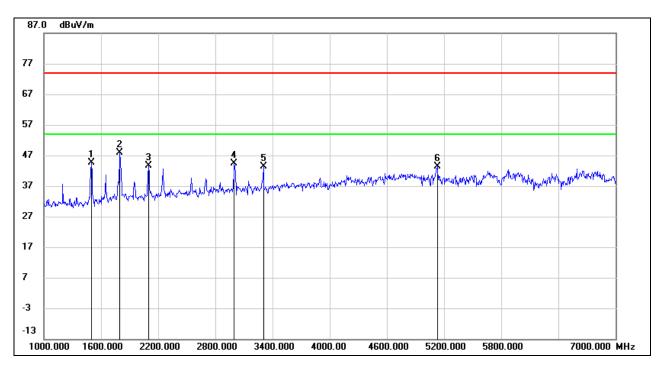


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 55.20   | -12.23  | 42.97    | 74.00    | -31.03 | peak   |
| 2   | 1654.000  | 47.86   | -11.15  | 36.71    | 74.00    | -37.29 | peak   |
| 3   | 1798.000  | 52.90   | -10.07  | 42.83    | 74.00    | -31.17 | peak   |
| 4   | 2998.000  | 48.97   | -5.60   | 43.37    | 74.00    | -30.63 | peak   |
| 5   | 4852.000  | 40.90   | 0.67    | 41.57    | 74.00    | -32.43 | peak   |
| 6   | 5134.000  | 43.14   | 1.70    | 44.84    | 74.00    | -29.16 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

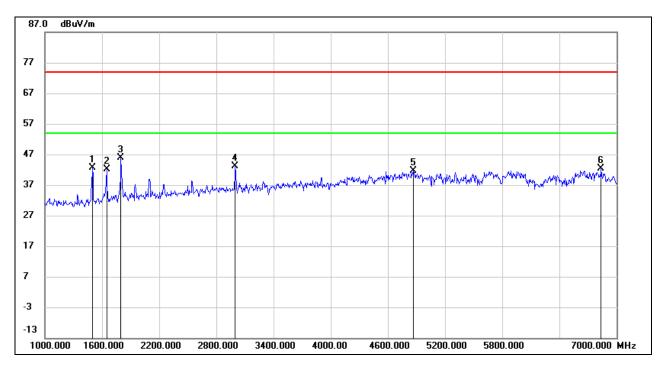


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.89   | -12.23  | 44.66    | 74.00    | -29.34 | peak   |
| 2   | 1798.000  | 57.94   | -10.07  | 47.87    | 74.00    | -26.13 | peak   |
| 3   | 2098.000  | 53.26   | -9.63   | 43.63    | 74.00    | -30.37 | peak   |
| 4   | 2998.000  | 49.95   | -5.60   | 44.35    | 74.00    | -29.65 | peak   |
| 5   | 3304.000  | 48.59   | -5.18   | 43.41    | 74.00    | -30.59 | peak   |
| 6   | 5128.000  | 41.63   | 1.67    | 43.30    | 74.00    | -30.70 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

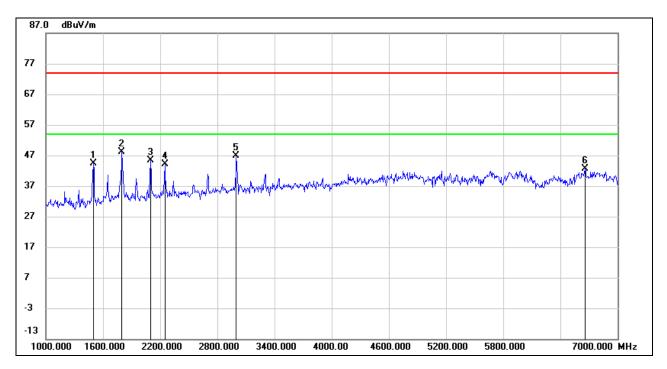


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 54.87   | -12.23  | 42.64    | 74.00    | -31.36 | peak   |
| 2   | 1648.000  | 53.34   | -11.20  | 42.14    | 74.00    | -31.86 | peak   |
| 3   | 1798.000  | 55.92   | -10.07  | 45.85    | 74.00    | -28.15 | peak   |
| 4   | 2998.000  | 48.72   | -5.60   | 43.12    | 74.00    | -30.88 | peak   |
| 5   | 4864.000  | 40.84   | 0.69    | 41.53    | 74.00    | -32.47 | peak   |
| 6   | 6838.000  | 36.73   | 5.69    | 42.42    | 74.00    | -31.58 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



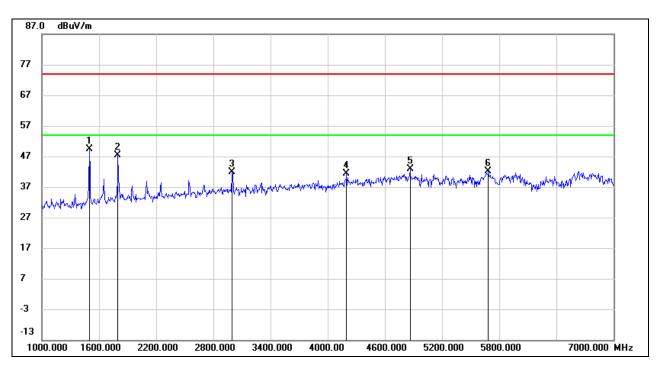
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.65   | -12.23  | 44.42    | 74.00    | -29.58 | peak   |
| 2   | 1798.000  | 58.09   | -10.07  | 48.02    | 74.00    | -25.98 | peak   |
| 3   | 2098.000  | 55.01   | -9.63   | 45.38    | 74.00    | -28.62 | peak   |
| 4   | 2248.000  | 52.92   | -8.89   | 44.03    | 74.00    | -29.97 | peak   |
| 5   | 2998.000  | 52.50   | -5.60   | 46.90    | 74.00    | -27.10 | peak   |
| 6   | 6658.000  | 37.01   | 5.51    | 42.52    | 74.00    | -31.48 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **UNII-2A BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

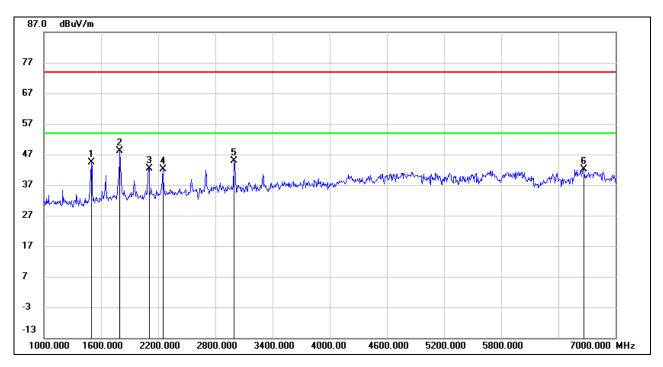


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 61.66   | -12.23  | 49.43    | 74.00    | -24.57 | peak   |
| 2   | 1798.000  | 57.47   | -10.07  | 47.40    | 74.00    | -26.60 | peak   |
| 3   | 2998.000  | 47.49   | -5.60   | 41.89    | 74.00    | -32.11 | peak   |
| 4   | 4198.000  | 43.15   | -1.68   | 41.47    | 74.00    | -32.53 | peak   |
| 5   | 4864.000  | 42.30   | 0.69    | 42.99    | 74.00    | -31.01 | peak   |
| 6   | 5686.000  | 39.55   | 2.47    | 42.02    | 74.00    | -31.98 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

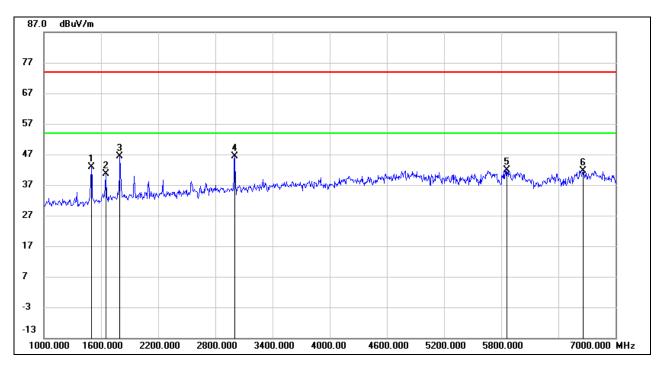


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.69   | -12.23  | 44.46    | 74.00    | -29.54 | peak   |
| 2   | 1798.000  | 58.22   | -10.07  | 48.15    | 74.00    | -25.85 | peak   |
| 3   | 2104.000  | 51.92   | -9.59   | 42.33    | 74.00    | -31.67 | peak   |
| 4   | 2248.000  | 51.05   | -8.89   | 42.16    | 74.00    | -31.84 | peak   |
| 5   | 2998.000  | 50.58   | -5.60   | 44.98    | 74.00    | -29.02 | peak   |
| 6   | 6664.000  | 36.56   | 5.53    | 42.09    | 74.00    | -31.91 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

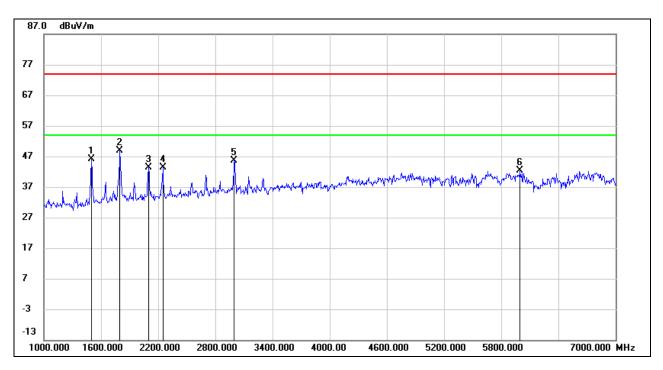


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 55.03   | -12.23  | 42.80    | 74.00    | -31.20 | peak   |
| 2   | 1648.000  | 51.86   | -11.20  | 40.66    | 74.00    | -33.34 | peak   |
| 3   | 1798.000  | 56.37   | -10.07  | 46.30    | 74.00    | -27.70 | peak   |
| 4   | 3004.000  | 51.99   | -5.59   | 46.40    | 74.00    | -27.60 | peak   |
| 5   | 5860.000  | 39.24   | 2.75    | 41.99    | 74.00    | -32.01 | peak   |
| 6   | 6658.000  | 36.08   | 5.51    | 41.59    | 74.00    | -32.41 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

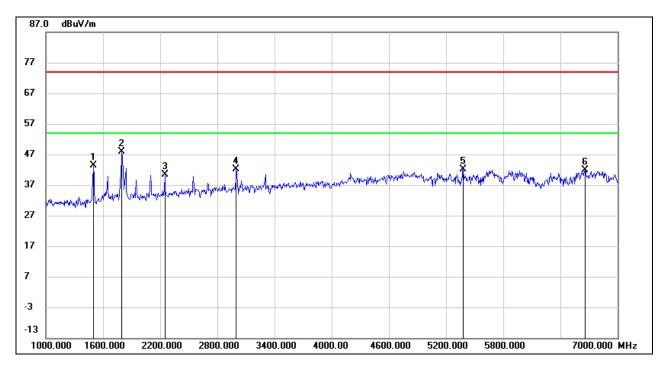


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 58.38   | -12.23  | 46.15    | 74.00    | -27.85 | peak   |
| 2   | 1798.000  | 59.07   | -10.07  | 49.00    | 74.00    | -25.00 | peak   |
| 3   | 2098.000  | 52.94   | -9.63   | 43.31    | 74.00    | -30.69 | peak   |
| 4   | 2248.000  | 52.22   | -8.89   | 43.33    | 74.00    | -30.67 | peak   |
| 5   | 2998.000  | 51.28   | -5.60   | 45.68    | 74.00    | -28.32 | peak   |
| 6   | 5998.000  | 39.17   | 3.30    | 42.47    | 74.00    | -31.53 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

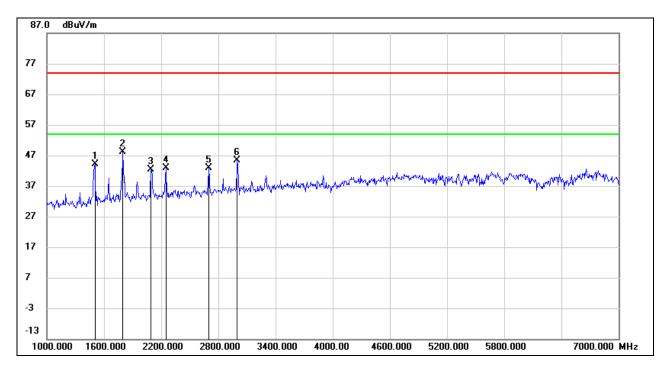


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 55.72   | -12.23  | 43.49    | 74.00    | -30.51 | peak   |
| 2   | 1798.000  | 57.87   | -10.07  | 47.80    | 74.00    | -26.20 | peak   |
| 3   | 2248.000  | 49.24   | -8.89   | 40.35    | 74.00    | -33.65 | peak   |
| 4   | 2998.000  | 47.81   | -5.60   | 42.21    | 74.00    | -31.79 | peak   |
| 5   | 5380.000  | 40.26   | 1.90    | 42.16    | 74.00    | -31.84 | peak   |
| 6   | 6658.000  | 36.46   | 5.51    | 41.97    | 74.00    | -32.03 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



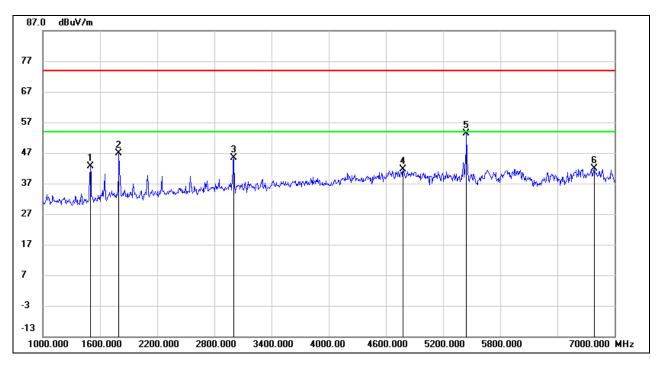
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1504.000  | 56.37   | -12.20  | 44.17    | 74.00    | -29.83 | peak   |
| 2   | 1798.000  | 58.23   | -10.07  | 48.16    | 74.00    | -25.84 | peak   |
| 3   | 2092.000  | 51.98   | -9.66   | 42.32    | 74.00    | -31.68 | peak   |
| 4   | 2248.000  | 51.88   | -8.89   | 42.99    | 74.00    | -31.01 | peak   |
| 5   | 2698.000  | 50.17   | -7.22   | 42.95    | 74.00    | -31.05 | peak   |
| 6   | 2998.000  | 51.07   | -5.60   | 45.47    | 74.00    | -28.53 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **UNII-2C BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

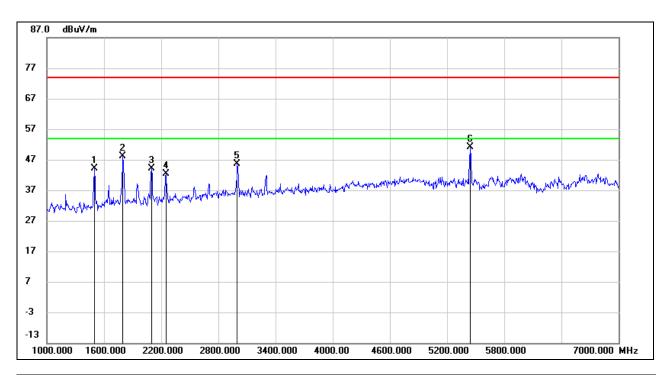


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 54.98   | -12.23  | 42.75    | 74.00    | -31.25 | peak   |
| 2   | 1798.000  | 57.02   | -10.07  | 46.95    | 74.00    | -27.05 | peak   |
| 3   | 3004.000  | 50.86   | -5.59   | 45.27    | 74.00    | -28.73 | peak   |
| 4   | 4780.000  | 41.10   | 0.48    | 41.58    | 74.00    | -32.42 | peak   |
| 5   | 5446.000  | 51.35   | 2.01    | 53.36    | 74.00    | -20.64 | peak   |
| 6   | 6784.000  | 36.38   | 5.56    | 41.94    | 74.00    | -32.06 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

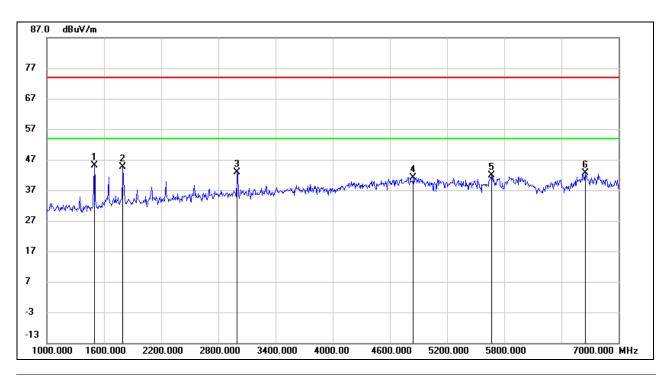


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.41   | -12.23  | 44.18    | 74.00    | -29.82 | peak   |
| 2   | 1798.000  | 58.16   | -10.07  | 48.09    | 74.00    | -25.91 | peak   |
| 3   | 2098.000  | 53.85   | -9.63   | 44.22    | 74.00    | -29.78 | peak   |
| 4   | 2248.000  | 51.32   | -8.89   | 42.43    | 74.00    | -31.57 | peak   |
| 5   | 2998.000  | 51.15   | -5.60   | 45.55    | 74.00    | -28.45 | peak   |
| 6   | 5446.000  | 49.05   | 2.01    | 51.06    | 74.00    | -22.94 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

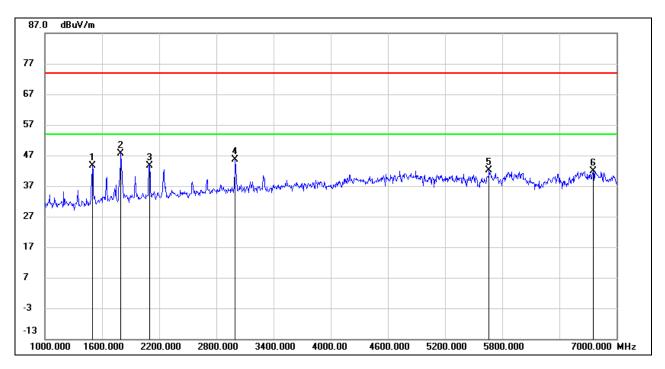


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 57.43   | -12.23  | 45.20    | 74.00    | -28.80 | peak   |
| 2   | 1798.000  | 54.75   | -10.07  | 44.68    | 74.00    | -29.32 | peak   |
| 3   | 2998.000  | 48.43   | -5.60   | 42.83    | 74.00    | -31.17 | peak   |
| 4   | 4846.000  | 40.58   | 0.66    | 41.24    | 74.00    | -32.76 | peak   |
| 5   | 5668.000  | 39.38   | 2.47    | 41.85    | 74.00    | -32.15 | peak   |
| 6   | 6652.000  | 37.10   | 5.52    | 42.62    | 74.00    | -31.38 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)**

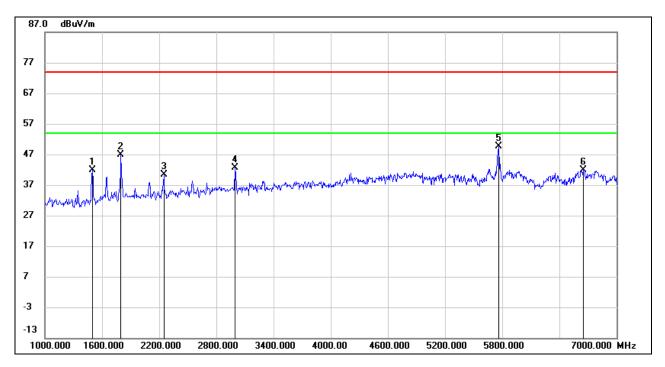


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 55.98   | -12.23  | 43.75    | 74.00    | -30.25 | peak   |
| 2   | 1798.000  | 57.79   | -10.07  | 47.72    | 74.00    | -26.28 | peak   |
| 3   | 2098.000  | 53.29   | -9.63   | 43.66    | 74.00    | -30.34 | peak   |
| 4   | 2998.000  | 51.26   | -5.60   | 45.66    | 74.00    | -28.34 | peak   |
| 5   | 5662.000  | 39.58   | 2.47    | 42.05    | 74.00    | -31.95 | peak   |
| 6   | 6754.000  | 36.42   | 5.56    | 41.98    | 74.00    | -32.02 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

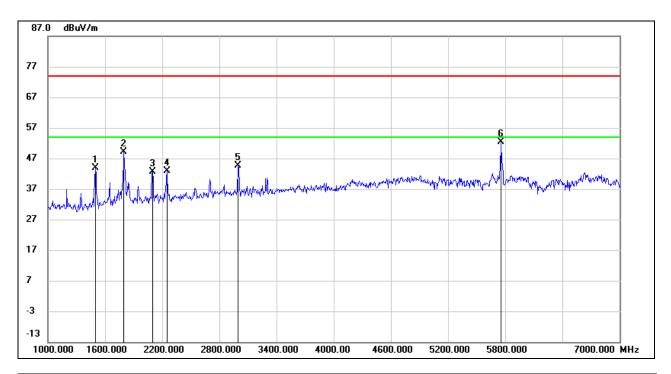


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 54.15   | -12.23  | 41.92    | 74.00    | -32.08 | peak   |
| 2   | 1798.000  | 56.87   | -10.07  | 46.80    | 74.00    | -27.20 | peak   |
| 3   | 2248.000  | 49.17   | -8.89   | 40.28    | 74.00    | -33.72 | peak   |
| 4   | 2992.000  | 48.27   | -5.63   | 42.64    | 74.00    | -31.36 | peak   |
| 5   | 5764.000  | 47.16   | 2.50    | 49.66    | 74.00    | -24.34 | peak   |
| 6   | 6652.000  | 36.43   | 5.52    | 41.95    | 74.00    | -32.05 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.15   | -12.23  | 43.92    | 74.00    | -30.08 | peak   |
| 2   | 1798.000  | 59.19   | -10.07  | 49.12    | 74.00    | -24.88 | peak   |
| 3   | 2098.000  | 52.27   | -9.63   | 42.64    | 74.00    | -31.36 | peak   |
| 4   | 2248.000  | 51.70   | -8.89   | 42.81    | 74.00    | -31.19 | peak   |
| 5   | 2998.000  | 50.16   | -5.60   | 44.56    | 74.00    | -29.44 | peak   |
| 6   | 5758.000  | 49.91   | 2.50    | 52.41    | 74.00    | -21.59 | peak   |

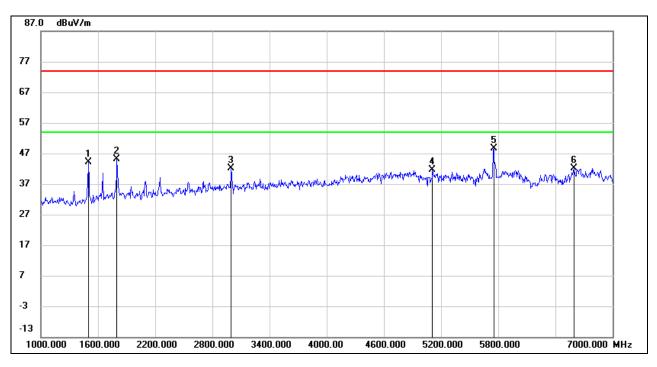
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **STRADDLE CHANNEL 144**

# MIMO MODE TEST RESULTS (WORST CASE)

## **HARMONICS AND SPURIOUS EMISSIONS (HORIZONTAL)**

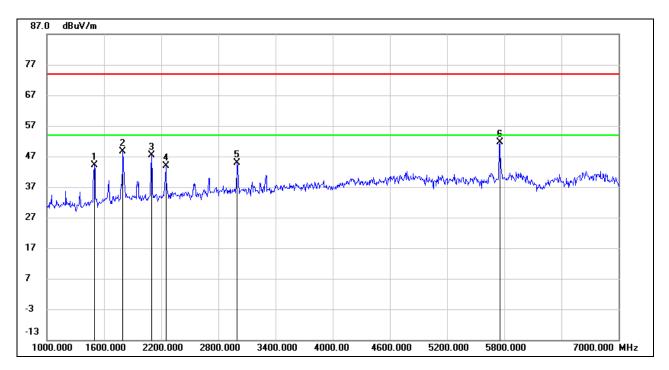


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.32   | -12.23  | 44.09    | 74.00    | -29.91 | peak   |
| 2   | 1798.000  | 55.15   | -10.07  | 45.08    | 74.00    | -28.92 | peak   |
| 3   | 2998.000  | 47.69   | -5.60   | 42.09    | 74.00    | -31.91 | peak   |
| 4   | 5110.000  | 40.13   | 1.55    | 41.68    | 74.00    | -32.32 | peak   |
| 5   | 5752.000  | 46.21   | 2.49    | 48.70    | 74.00    | -25.30 | peak   |
| 6   | 6592.000  | 36.74   | 5.45    | 42.19    | 74.00    | -31.81 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **HARMONICS AND SPURIOUS EMISSIONS (VERTICAL)**



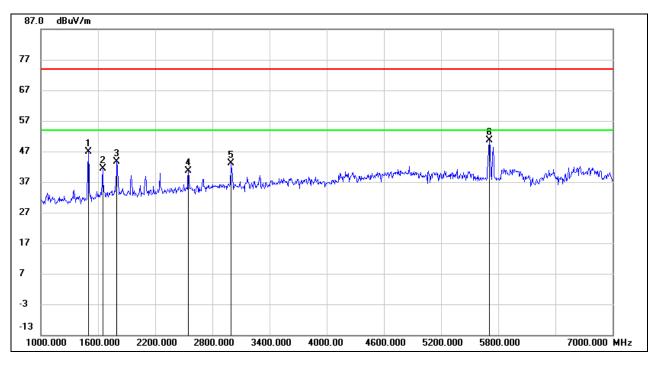
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.25   | -12.23  | 44.02    | 74.00    | -29.98 | peak   |
| 2   | 1798.000  | 58.68   | -10.07  | 48.61    | 74.00    | -25.39 | peak   |
| 3   | 2098.000  | 57.01   | -9.63   | 47.38    | 74.00    | -26.62 | peak   |
| 4   | 2248.000  | 52.70   | -8.89   | 43.81    | 74.00    | -30.19 | peak   |
| 5   | 2998.000  | 50.45   | -5.60   | 44.85    | 74.00    | -29.15 | peak   |
| 6   | 5752.000  | 49.15   | 2.49    | 51.64    | 74.00    | -22.36 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# **UNII-3 BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

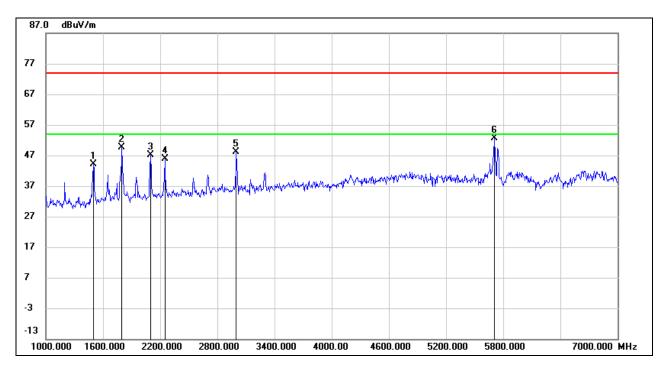


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 59.10   | -12.23  | 46.87    | 74.00    | -27.13 | peak   |
| 2   | 1648.000  | 52.55   | -11.20  | 41.35    | 74.00    | -32.65 | peak   |
| 3   | 1798.000  | 53.81   | -10.07  | 43.74    | 74.00    | -30.26 | peak   |
| 4   | 2548.000  | 48.66   | -8.05   | 40.61    | 74.00    | -33.39 | peak   |
| 5   | 2998.000  | 48.77   | -5.60   | 43.17    | 74.00    | -30.83 | peak   |
| 6   | 5710.000  | 48.19   | 2.48    | 50.67    | 74.00    | -23.33 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

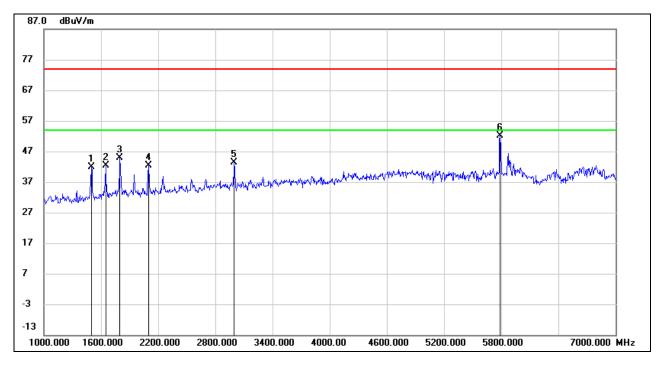


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.35   | -12.23  | 44.12    | 74.00    | -29.88 | peak   |
| 2   | 1798.000  | 59.62   | -10.07  | 49.55    | 74.00    | -24.45 | peak   |
| 3   | 2098.000  | 56.78   | -9.63   | 47.15    | 74.00    | -26.85 | peak   |
| 4   | 2248.000  | 54.88   | -8.89   | 45.99    | 74.00    | -28.01 | peak   |
| 5   | 2998.000  | 53.65   | -5.60   | 48.05    | 74.00    | -25.95 | peak   |
| 6   | 5704.000  | 50.05   | 2.48    | 52.53    | 74.00    | -21.47 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

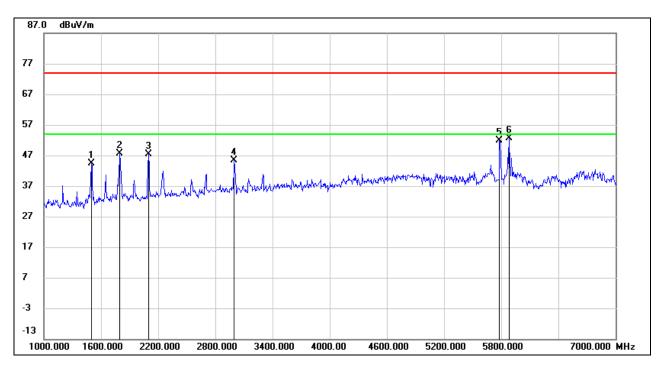


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 54.18   | -12.23  | 41.95    | 74.00    | -32.05 | peak   |
| 2   | 1648.000  | 53.68   | -11.20  | 42.48    | 74.00    | -31.52 | peak   |
| 3   | 1798.000  | 54.89   | -10.07  | 44.82    | 74.00    | -29.18 | peak   |
| 4   | 2098.000  | 52.13   | -9.63   | 42.50    | 74.00    | -31.50 | peak   |
| 5   | 2998.000  | 48.96   | -5.60   | 43.36    | 74.00    | -30.64 | peak   |
| 6   | 5785.000  | 49.63   | 2.50    | 52.13    | 74.00    | -21.87 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

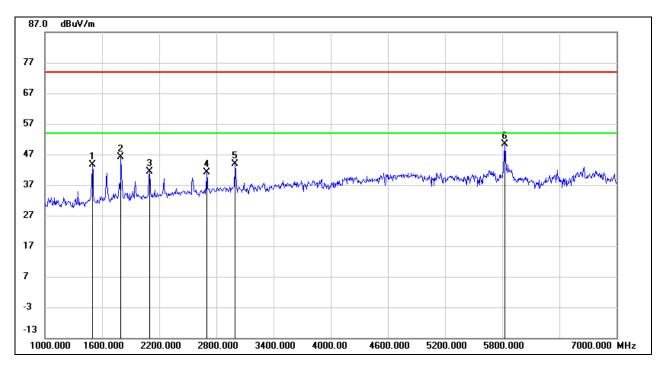


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.56   | -12.23  | 44.33    | 74.00    | -29.67 | peak   |
| 2   | 1798.000  | 57.78   | -10.07  | 47.71    | 74.00    | -26.29 | peak   |
| 3   | 2098.000  | 57.13   | -9.63   | 47.50    | 74.00    | -26.50 | peak   |
| 4   | 2998.000  | 50.89   | -5.60   | 45.29    | 74.00    | -28.71 | peak   |
| 5   | 5785.000  | 49.41   | 2.50    | 51.91    | 74.00    | -22.09 | peak   |
| 6   | 5884.000  | 49.85   | 2.84    | 52.69    | 74.00    | -21.31 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

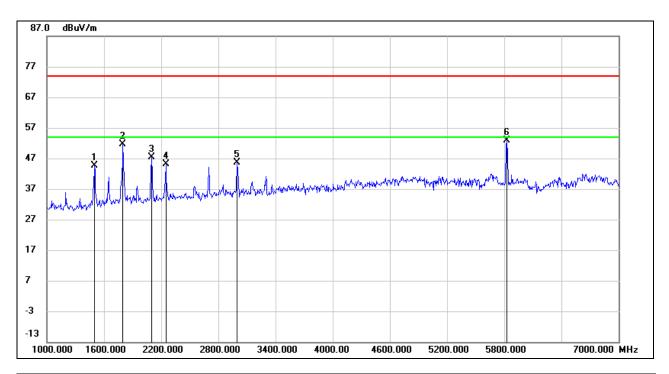


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 55.80   | -12.23  | 43.57    | 74.00    | -30.43 | peak   |
| 2   | 1798.000  | 56.24   | -10.07  | 46.17    | 74.00    | -27.83 | peak   |
| 3   | 2098.000  | 51.10   | -9.63   | 41.47    | 74.00    | -32.53 | peak   |
| 4   | 2698.000  | 48.28   | -7.22   | 41.06    | 74.00    | -32.94 | peak   |
| 5   | 2998.000  | 49.58   | -5.60   | 43.98    | 74.00    | -30.02 | peak   |
| 6   | 5830.000  | 47.86   | 2.63    | 50.49    | 74.00    | -23.51 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 1498.000  | 56.79   | -12.23  | 44.56    | 74.00    | -29.44 | peak   |
| 2   | 1798.000  | 61.70   | -10.07  | 51.63    | 74.00    | -22.37 | peak   |
| 3   | 2098.000  | 56.92   | -9.63   | 47.29    | 74.00    | -26.71 | peak   |
| 4   | 2248.000  | 54.02   | -8.89   | 45.13    | 74.00    | -28.87 | peak   |
| 5   | 2992.000  | 51.24   | -5.63   | 45.61    | 74.00    | -28.39 | peak   |
| 6   | 5830.000  | 50.24   | 2.63    | 52.87    | 74.00    | -21.13 | peak   |

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.

Note: All the modes and bands had been tested, but only the worst data was recorded in the report.

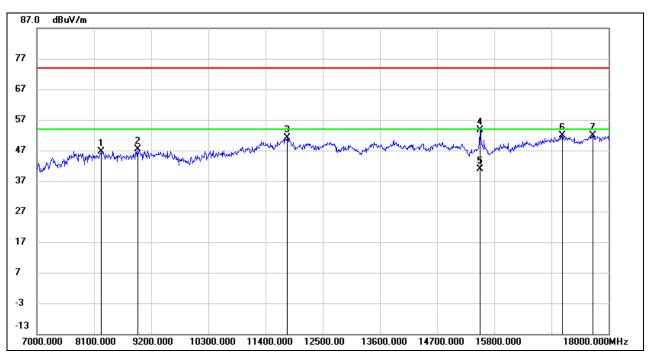


# 8.3. SPURIOUS EMISSIONS (7 GHz ~ 18 GHz)

#### 8.3.1. 802.11a MIMO MODE

#### **UNII-1 BAND**

## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

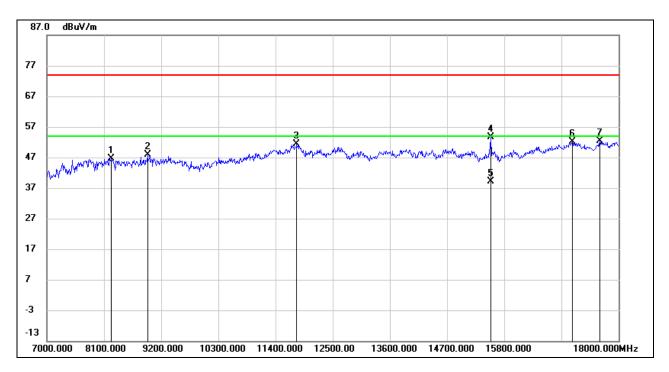


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8236.400  | 37.38   | 9.22    | 46.60    | 74.00    | -27.40 | peak   |
| 2   | 8943.700  | 37.30   | 10.03   | 47.33    | 74.00    | -26.67 | peak   |
| 3   | 11819.100 | 35.59   | 15.58   | 51.17    | 74.00    | -22.83 | peak   |
| 4   | 15529.400 | 37.20   | 16.53   | 53.73    | 74.00    | -20.27 | peak   |
| 5   | 15529.400 | 24.30   | 16.53   | 40.83    | 54.00    | -13.17 | AVG    |
| 6   | 17109.000 | 31.22   | 20.67   | 51.89    | 74.00    | -22.11 | peak   |
| 7   | 17709.600 | 29.97   | 22.01   | 51.98    | 74.00    | -22.02 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

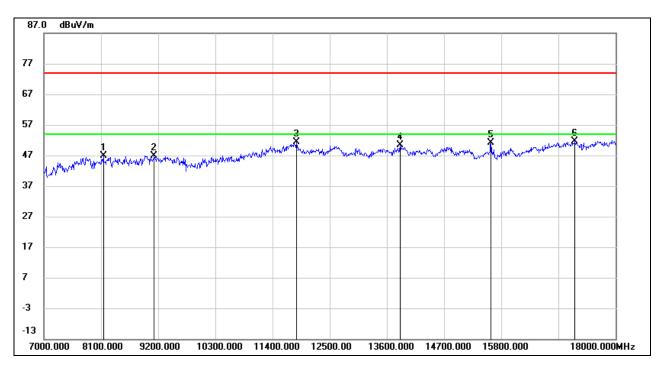


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8235.300  | 37.35   | 9.22    | 46.57    | 74.00    | -27.43 | peak   |
| 2   | 8940.400  | 37.82   | 10.00   | 47.82    | 74.00    | -26.18 | peak   |
| 3   | 11814.700 | 35.75   | 15.58   | 51.33    | 74.00    | -22.67 | peak   |
| 4   | 15547.000 | 37.05   | 16.58   | 53.63    | 74.00    | -20.37 | peak   |
| 5   | 15547.000 | 22.55   | 16.58   | 39.13    | 54.00    | -14.87 | AVG    |
| 6   | 17113.400 | 31.48   | 20.69   | 52.17    | 74.00    | -21.83 | peak   |
| 7   | 17645.800 | 30.97   | 21.53   | 52.50    | 74.00    | -21.50 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

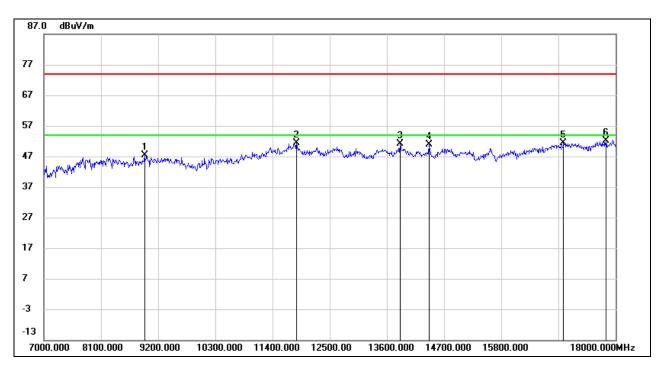


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8146.200  | 37.93   | 8.90    | 46.83    | 74.00    | -27.17 | peak   |
| 2   | 9126.300  | 37.13   | 9.78    | 46.91    | 74.00    | -27.09 | peak   |
| 3   | 11868.600 | 35.98   | 15.52   | 51.50    | 74.00    | -22.50 | peak   |
| 4   | 13858.500 | 33.41   | 16.92   | 50.33    | 74.00    | -23.67 | peak   |
| 5   | 15607.500 | 34.45   | 16.70   | 51.15    | 74.00    | -22.85 | peak   |
| 6   | 17225.600 | 30.64   | 21.00   | 51.64    | 74.00    | -22.36 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

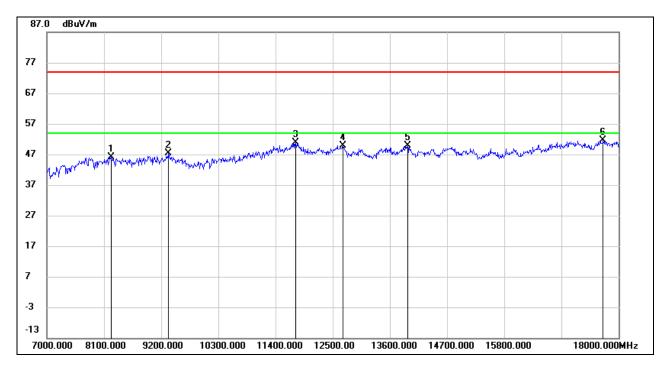


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8941.500  | 37.25   | 10.01   | 47.26    | 74.00    | -26.74 | peak   |
| 2   | 11868.600 | 35.78   | 15.52   | 51.30    | 74.00    | -22.70 | peak   |
| 3   | 13861.800 | 34.24   | 16.92   | 51.16    | 74.00    | -22.84 | peak   |
| 4   | 14418.400 | 34.14   | 16.82   | 50.96    | 74.00    | -23.04 | peak   |
| 5   | 17000.100 | 31.13   | 20.23   | 51.36    | 74.00    | -22.64 | peak   |
| 6   | 17820.700 | 29.39   | 22.72   | 52.11    | 74.00    | -21.89 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

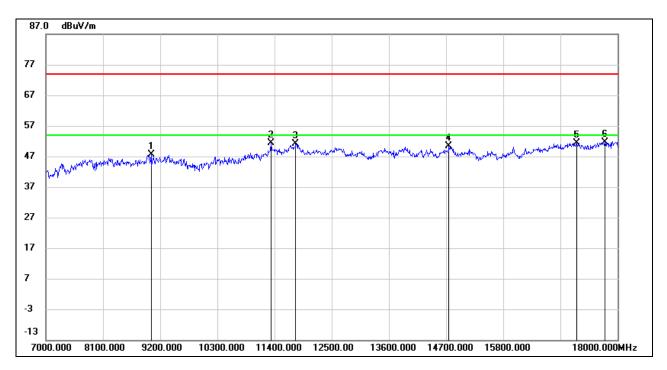


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8238.600  | 37.03   | 9.21    | 46.24    | 74.00    | -27.76 | peak   |
| 2   | 9349.600  | 37.29   | 10.05   | 47.34    | 74.00    | -26.66 | peak   |
| 3   | 11788.300 | 35.35   | 15.54   | 50.89    | 74.00    | -23.11 | peak   |
| 4   | 12703.500 | 34.37   | 15.48   | 49.85    | 74.00    | -24.15 | peak   |
| 5   | 13942.100 | 32.94   | 16.89   | 49.83    | 74.00    | -24.17 | peak   |
| 6   | 17711.800 | 29.72   | 22.03   | 51.75    | 74.00    | -22.25 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



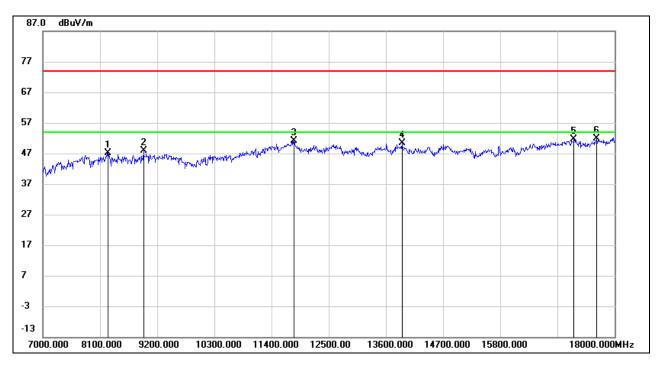
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 9026.200  | 37.22   | 10.46   | 47.68    | 74.00    | -26.32 | peak   |
| 2   | 11342.800 | 37.22   | 14.05   | 51.27    | 74.00    | -22.73 | peak   |
| 3   | 11812.500 | 35.60   | 15.59   | 51.19    | 74.00    | -22.81 | peak   |
| 4   | 14755.000 | 33.73   | 16.72   | 50.45    | 74.00    | -23.55 | peak   |
| 5   | 17213.500 | 30.42   | 21.02   | 51.44    | 74.00    | -22.56 | peak   |
| 6   | 17762.400 | 29.17   | 22.43   | 51.60    | 74.00    | -22.40 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **UNII-2A BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

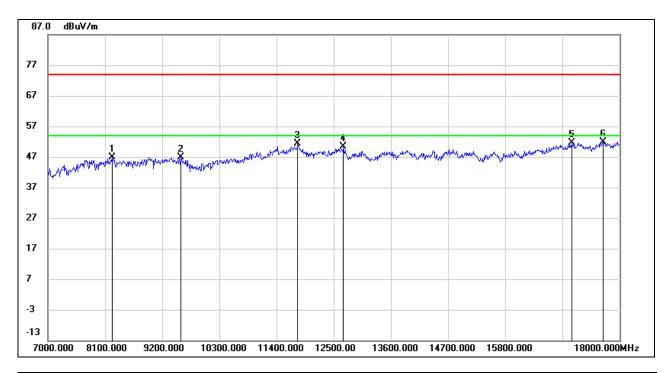


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8263.900  | 37.95   | 9.12    | 47.07    | 74.00    | -26.93 | peak   |
| 2   | 8941.500  | 37.91   | 10.01   | 47.92    | 74.00    | -26.08 | peak   |
| 3   | 11835.600 | 35.57   | 15.56   | 51.13    | 74.00    | -22.87 | peak   |
| 4   | 13912.400 | 33.51   | 16.90   | 50.41    | 74.00    | -23.59 | peak   |
| 5   | 17220.100 | 30.67   | 21.01   | 51.68    | 74.00    | -22.32 | peak   |
| 6   | 17665.600 | 30.24   | 21.68   | 51.92    | 74.00    | -22.08 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

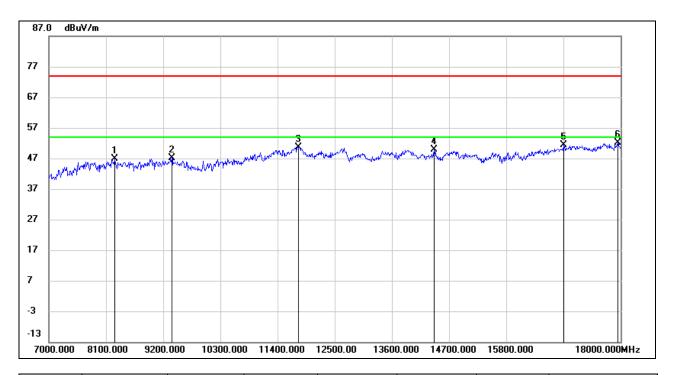


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8238.600  | 37.60   | 9.21    | 46.81    | 74.00    | -27.19 | peak   |
| 2   | 9570.700  | 36.48   | 10.46   | 46.94    | 74.00    | -27.06 | peak   |
| 3   | 11812.500 | 35.74   | 15.59   | 51.33    | 74.00    | -22.67 | peak   |
| 4   | 12692.500 | 34.83   | 15.45   | 50.28    | 74.00    | -23.72 | peak   |
| 5   | 17090.300 | 31.13   | 20.59   | 51.72    | 74.00    | -22.28 | peak   |
| 6   | 17683.200 | 29.95   | 21.81   | 51.76    | 74.00    | -22.24 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# **HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)**

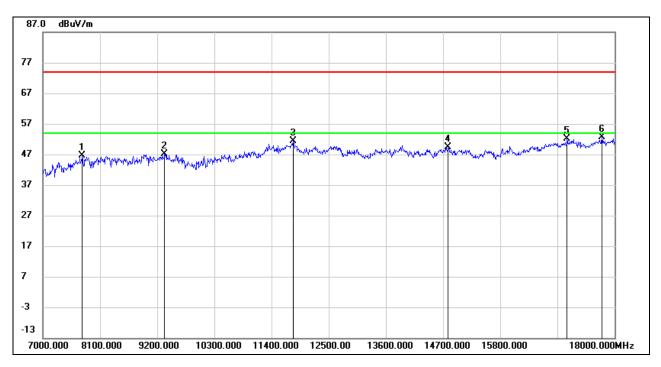


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8270.500  | 37.78   | 9.09    | 46.87    | 74.00    | -27.13 | peak   |
| 2   | 9367.200  | 37.10   | 10.14   | 47.24    | 74.00    | -26.76 | peak   |
| 3   | 11811.400 | 35.11   | 15.59   | 50.70    | 74.00    | -23.30 | peak   |
| 4   | 14421.700 | 32.98   | 16.82   | 49.80    | 74.00    | -24.20 | peak   |
| 5   | 16903.300 | 31.36   | 20.00   | 51.36    | 74.00    | -22.64 | peak   |
| 6   | 17952.700 | 29.38   | 22.68   | 52.06    | 74.00    | -21.94 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

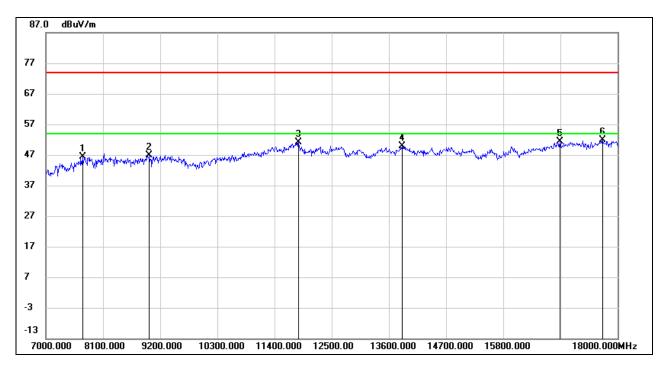


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7768.900  | 38.49   | 8.14    | 46.63    | 74.00    | -27.37 | peak   |
| 2   | 9351.800  | 37.02   | 10.06   | 47.08    | 74.00    | -26.92 | peak   |
| 3   | 11822.400 | 35.73   | 15.58   | 51.31    | 74.00    | -22.69 | peak   |
| 4   | 14805.600 | 32.56   | 16.80   | 49.36    | 74.00    | -24.64 | peak   |
| 5   | 17092.500 | 31.44   | 20.60   | 52.04    | 74.00    | -21.96 | peak   |
| 6   | 17759.100 | 30.26   | 22.41   | 52.67    | 74.00    | -21.33 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)**

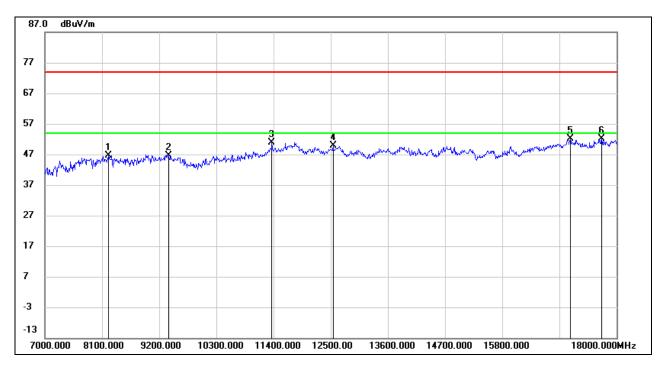


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7711.700  | 38.48   | 7.90    | 46.38    | 74.00    | -27.62 | peak   |
| 2   | 8993.200  | 36.44   | 10.55   | 46.99    | 74.00    | -27.01 | peak   |
| 3   | 11868.600 | 35.69   | 15.52   | 51.21    | 74.00    | -22.79 | peak   |
| 4   | 13854.100 | 32.92   | 16.93   | 49.85    | 74.00    | -24.15 | peak   |
| 5   | 16890.100 | 31.41   | 19.96   | 51.37    | 74.00    | -22.63 | peak   |
| 6   | 17720.600 | 29.81   | 22.10   | 51.91    | 74.00    | -22.09 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



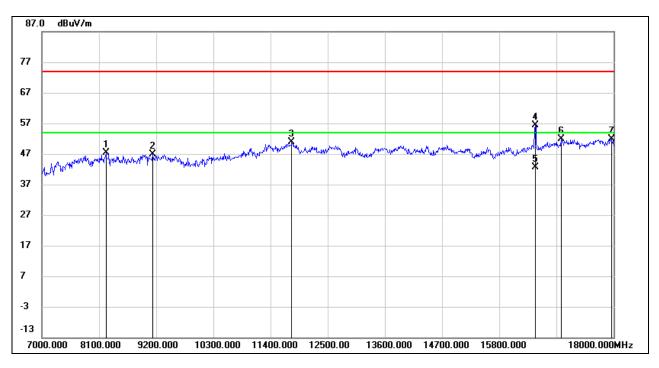
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8225.400  | 37.37   | 9.26    | 46.63    | 74.00    | -27.37 | peak   |
| 2   | 9385.900  | 36.43   | 10.24   | 46.67    | 74.00    | -27.33 | peak   |
| 3   | 11373.600 | 36.79   | 14.14   | 50.93    | 74.00    | -23.07 | peak   |
| 4   | 12546.200 | 34.49   | 15.33   | 49.82    | 74.00    | -24.18 | peak   |
| 5   | 17113.400 | 31.33   | 20.69   | 52.02    | 74.00    | -21.98 | peak   |
| 6   | 17715.100 | 30.09   | 22.06   | 52.15    | 74.00    | -21.85 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



#### **UNII-2C BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

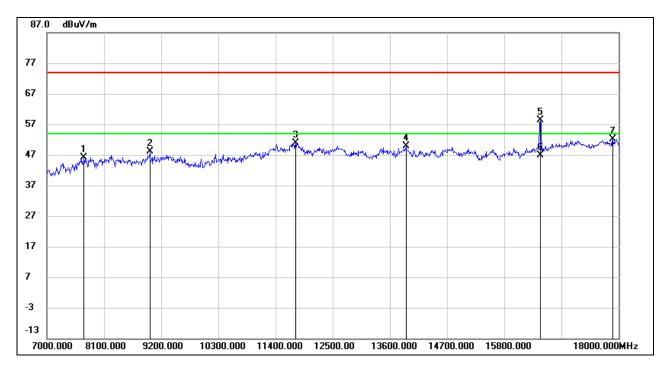


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8232.000  | 38.03   | 9.23    | 47.26    | 74.00    | -26.74 | peak   |
| 2   | 9134.000  | 37.06   | 9.73    | 46.79    | 74.00    | -27.21 | peak   |
| 3   | 11815.800 | 35.32   | 15.59   | 50.91    | 74.00    | -23.09 | peak   |
| 4   | 16495.200 | 37.18   | 19.11   | 56.29    | 74.00    | -17.71 | peak   |
| 5   | 16495.200 | 23.42   | 19.11   | 42.53    | 54.00    | -11.47 | AVG    |
| 6   | 16995.700 | 31.55   | 20.22   | 51.77    | 74.00    | -22.23 | peak   |
| 7   | 17965.900 | 29.19   | 22.68   | 51.87    | 74.00    | -22.13 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

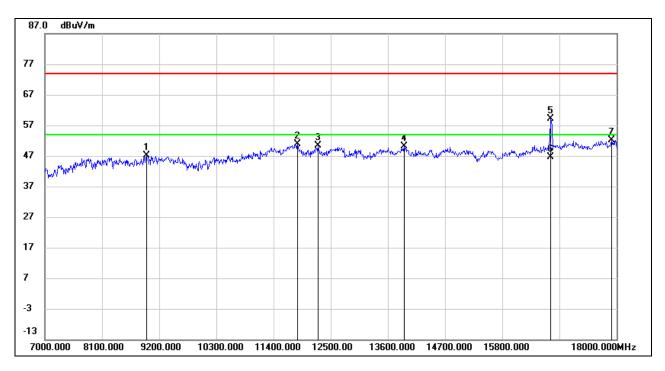


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7715.000  | 38.17   | 7.92    | 46.09    | 74.00    | -27.91 | peak   |
| 2   | 8983.300  | 37.76   | 10.46   | 48.22    | 74.00    | -25.78 | peak   |
| 3   | 11794.900 | 35.33   | 15.58   | 50.91    | 74.00    | -23.09 | peak   |
| 4   | 13917.900 | 32.87   | 16.89   | 49.76    | 74.00    | -24.24 | peak   |
| 5   | 16493.000 | 39.30   | 19.09   | 58.39    | 74.00    | -15.61 | peak   |
| 6   | 16493.000 | 27.74   | 19.09   | 46.83    | 54.00    | -7.17  | AVG    |
| 7   | 17898.800 | 29.47   | 22.70   | 52.17    | 74.00    | -21.83 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

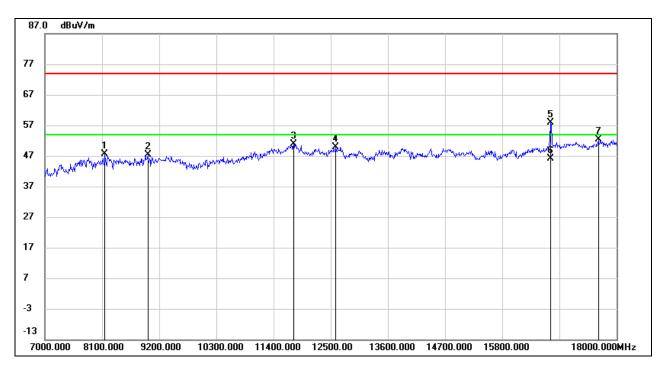


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8967.900  | 36.86   | 10.29   | 47.15    | 74.00    | -26.85 | peak   |
| 2   | 11869.700 | 35.31   | 15.51   | 50.82    | 74.00    | -23.18 | peak   |
| 3   | 12266.800 | 35.23   | 15.23   | 50.46    | 74.00    | -23.54 | peak   |
| 4   | 13913.500 | 33.12   | 16.90   | 50.02    | 74.00    | -23.98 | peak   |
| 5   | 16739.400 | 39.49   | 19.66   | 59.15    | 74.00    | -14.85 | peak   |
| 6   | 16739.400 | 26.86   | 19.66   | 46.52    | 54.00    | -7.48  | AVG    |
| 7   | 17907.600 | 29.54   | 22.69   | 52.23    | 74.00    | -21.77 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

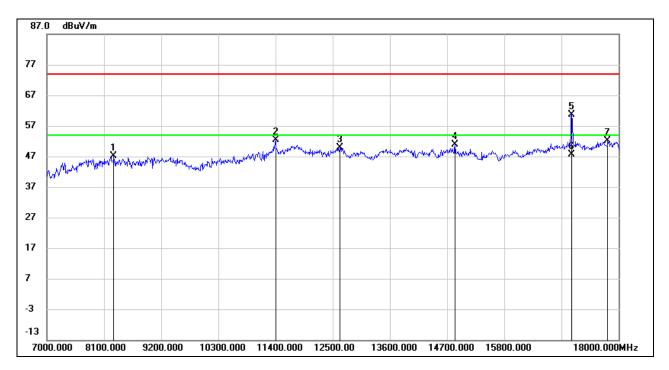


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8160.500  | 38.58   | 9.03    | 47.61    | 74.00    | -26.39 | peak   |
| 2   | 8988.800  | 36.85   | 10.51   | 47.36    | 74.00    | -26.64 | peak   |
| 3   | 11790.500 | 35.27   | 15.56   | 50.83    | 74.00    | -23.17 | peak   |
| 4   | 12603.400 | 34.58   | 15.29   | 49.87    | 74.00    | -24.13 | peak   |
| 5   | 16740.500 | 38.23   | 19.67   | 57.90    | 74.00    | -16.10 | peak   |
| 6   | 16740.500 | 26.52   | 19.67   | 46.19    | 54.00    | -7.81  | AVG    |
| 7   | 17649.100 | 30.87   | 21.55   | 52.42    | 74.00    | -21.58 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)**

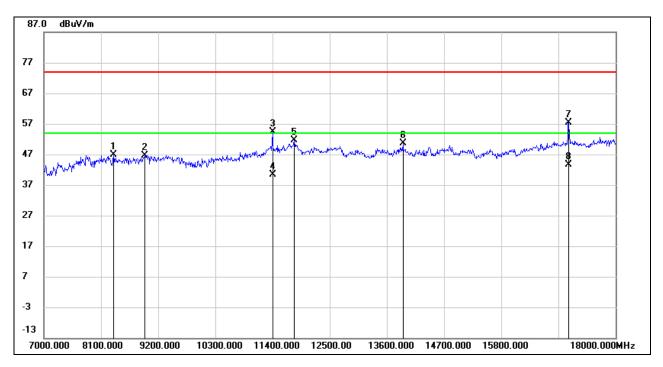


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8287.000  | 38.07   | 9.02    | 47.09    | 74.00    | -26.91 | peak   |
| 2   | 11401.100 | 38.26   | 14.22   | 52.48    | 74.00    | -21.52 | peak   |
| 3   | 12632.000 | 34.53   | 15.35   | 49.88    | 74.00    | -24.12 | peak   |
| 4   | 14859.500 | 34.03   | 16.83   | 50.86    | 74.00    | -23.14 | peak   |
| 5   | 17099.100 | 39.95   | 20.63   | 60.58    | 74.00    | -13.42 | peak   |
| 6   | 17099.100 | 26.90   | 20.63   | 47.53    | 54.00    | -6.47  | AVG    |
| 7   | 17795.400 | 29.42   | 22.69   | 52.11    | 74.00    | -21.89 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



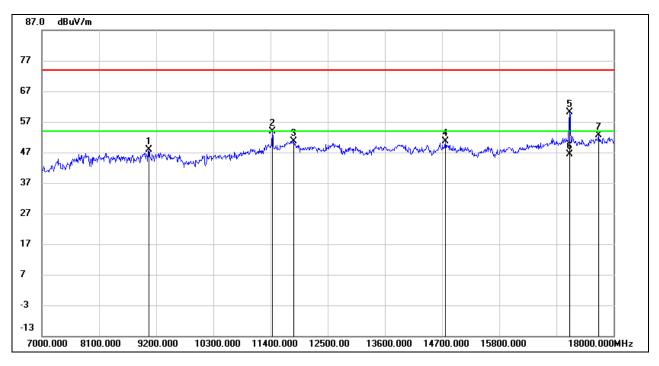
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8345.300  | 38.12   | 8.80    | 46.92    | 74.00    | -27.08 | peak   |
| 2   | 8949.200  | 36.66   | 10.09   | 46.75    | 74.00    | -27.25 | peak   |
| 3   | 11401.100 | 40.27   | 14.22   | 54.49    | 74.00    | -19.51 | peak   |
| 4   | 11401.100 | 26.13   | 14.22   | 40.35    | 54.00    | -13.65 | AVG    |
| 5   | 11826.800 | 36.03   | 15.58   | 51.61    | 74.00    | -22.39 | peak   |
| 6   | 13915.700 | 33.62   | 16.89   | 50.51    | 74.00    | -23.49 | peak   |
| 7   | 17100.200 | 36.85   | 20.64   | 57.49    | 74.00    | -16.51 | peak   |
| 8   | 17100.200 | 23.04   | 20.64   | 43.68    | 54.00    | -10.32 | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **STRADDLE CHANNEL 144**

## <u>HARMONICS AND SPURIOUS EMISSIONS (HORIZONTAL)</u>

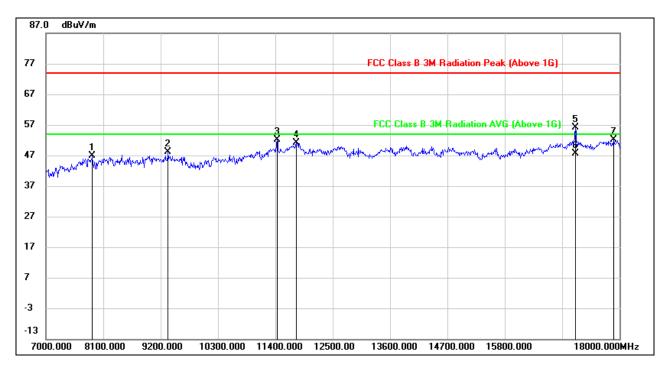


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 9066.900  | 37.80   | 10.17   | 47.97    | 74.00    | -26.03 | peak   |
| 2   | 11433.000 | 39.50   | 14.27   | 53.77    | 74.00    | -20.23 | peak   |
| 3   | 11857.600 | 35.20   | 15.53   | 50.73    | 74.00    | -23.27 | peak   |
| 4   | 14775.900 | 33.84   | 16.76   | 50.60    | 74.00    | -23.40 | peak   |
| 5   | 17159.600 | 39.29   | 20.88   | 60.17    | 74.00    | -13.83 | peak   |
| 6   | 17159.600 | 25.54   | 20.88   | 46.42    | 54.00    | -7.58  | AVG    |
| 7   | 17719.500 | 30.54   | 22.09   | 52.63    | 74.00    | -21.37 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# **HARMONICS AND SPURIOUS EMISSIONS (VERTICAL)**



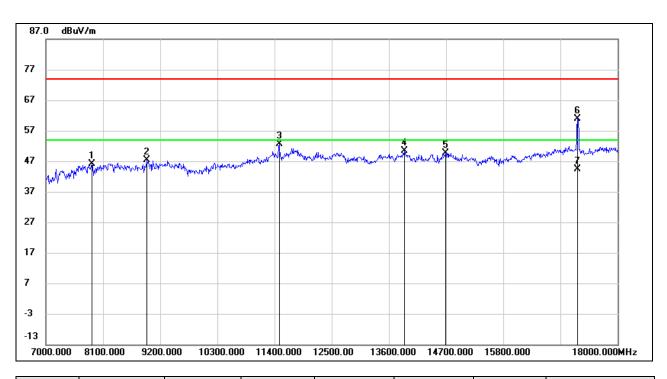
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7896.500  | 38.90   | 7.97    | 46.87    | 74.00    | -27.13 | peak   |
| 2   | 9345.200  | 37.97   | 10.04   | 48.01    | 74.00    | -25.99 | peak   |
| 3   | 11434.100 | 37.75   | 14.27   | 52.02    | 74.00    | -21.98 | peak   |
| 4   | 11802.600 | 35.56   | 15.60   | 51.16    | 74.00    | -22.84 | peak   |
| 5   | 17159.600 | 35.17   | 20.88   | 56.05    | 74.00    | -17.95 | peak   |
| 6   | 17159.600 | 26.64   | 20.88   | 47.52    | 54.00    | -6.48  | AVG    |
| 7   | 17893.300 | 29.38   | 22.70   | 52.08    | 74.00    | -21.92 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# **UNII-3 BAND**

## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

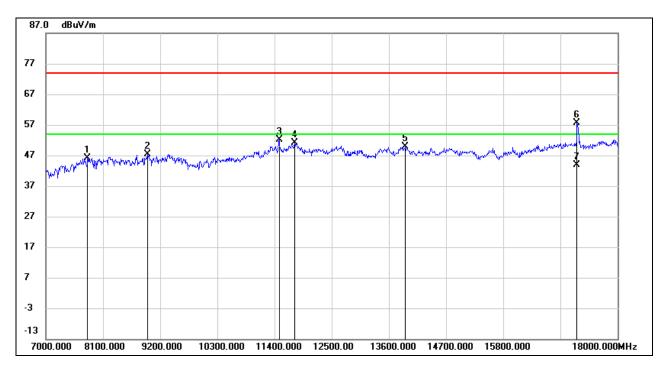


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7896.500  | 38.04   | 7.97    | 46.01    | 74.00    | -27.99 | peak   |
| 2   | 8938.200  | 37.37   | 9.98    | 47.35    | 74.00    | -26.65 | peak   |
| 3   | 11497.900 | 38.30   | 14.36   | 52.66    | 74.00    | -21.34 | peak   |
| 4   | 13904.700 | 33.53   | 16.91   | 50.44    | 74.00    | -23.56 | peak   |
| 5   | 14692.300 | 33.04   | 16.62   | 49.66    | 74.00    | -24.34 | peak   |
| 6   | 17231.100 | 39.93   | 20.99   | 60.92    | 74.00    | -13.08 | peak   |
| 7   | 17231.100 | 23.47   | 20.99   | 44.46    | 54.00    | -9.54  | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

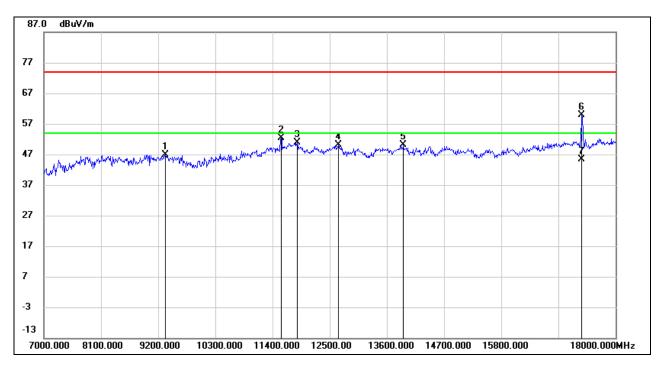


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7809.600  | 38.01   | 8.22    | 46.23    | 74.00    | -27.77 | peak   |
| 2   | 8967.900  | 37.19   | 10.29   | 47.48    | 74.00    | -26.52 | peak   |
| 3   | 11492.400 | 37.66   | 14.35   | 52.01    | 74.00    | -21.99 | peak   |
| 4   | 11786.100 | 35.66   | 15.54   | 51.20    | 74.00    | -22.80 | peak   |
| 5   | 13924.500 | 32.94   | 16.89   | 49.83    | 74.00    | -24.17 | peak   |
| 6   | 17226.700 | 36.55   | 21.00   | 57.55    | 74.00    | -16.45 | peak   |
| 7   | 17226.700 | 22.76   | 21.00   | 43.76    | 54.00    | -10.24 | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# **HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)**

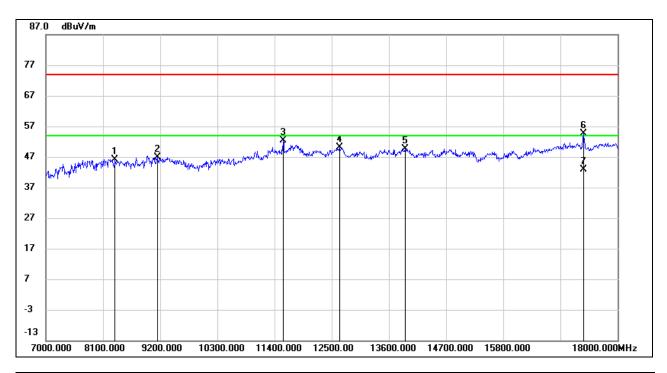


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 9352.900  | 36.72   | 10.07   | 46.79    | 74.00    | -27.21 | peak   |
| 2   | 11566.100 | 37.99   | 14.46   | 52.45    | 74.00    | -21.55 | peak   |
| 3   | 11880.700 | 35.46   | 15.49   | 50.95    | 74.00    | -23.05 | peak   |
| 4   | 12670.500 | 34.79   | 15.42   | 50.21    | 74.00    | -23.79 | peak   |
| 5   | 13921.200 | 33.19   | 16.89   | 50.08    | 74.00    | -23.92 | peak   |
| 6   | 17355.400 | 39.02   | 20.80   | 59.82    | 74.00    | -14.18 | peak   |
| 7   | 17355.400 | 24.46   | 20.80   | 45.26    | 54.00    | -8.74  | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

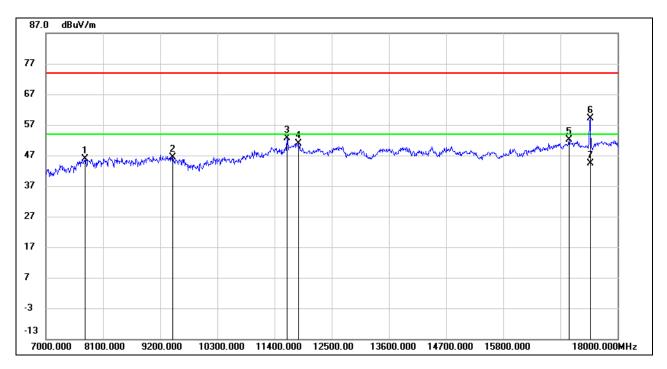


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8335.400  | 37.33   | 8.84    | 46.17    | 74.00    | -27.83 | peak   |
| 2   | 9149.400  | 37.22   | 9.62    | 46.84    | 74.00    | -27.16 | peak   |
| 3   | 11566.100 | 37.82   | 14.46   | 52.28    | 74.00    | -21.72 | peak   |
| 4   | 12655.100 | 34.74   | 15.38   | 50.12    | 74.00    | -23.88 | peak   |
| 5   | 13913.500 | 32.71   | 16.90   | 49.61    | 74.00    | -24.39 | peak   |
| 6   | 17343.300 | 33.76   | 20.82   | 54.58    | 74.00    | -19.42 | peak   |
| 7   | 17343.300 | 22.12   | 20.82   | 42.94    | 54.00    | -11.06 | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

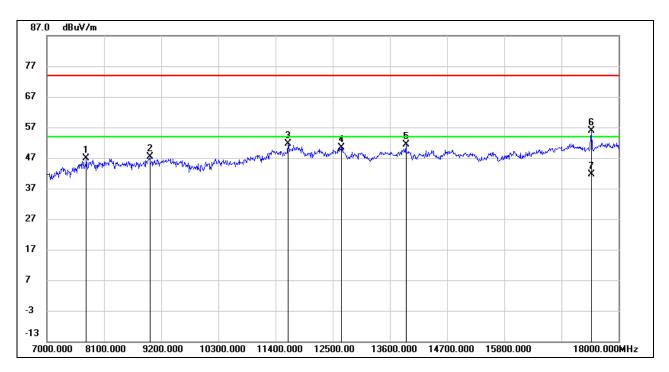


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7766.700  | 37.85   | 8.12    | 45.97    | 74.00    | -28.03 | peak   |
| 2   | 9443.100  | 36.03   | 10.37   | 46.40    | 74.00    | -27.60 | peak   |
| 3   | 11643.100 | 37.90   | 14.75   | 52.65    | 74.00    | -21.35 | peak   |
| 4   | 11867.500 | 35.42   | 15.52   | 50.94    | 74.00    | -23.06 | peak   |
| 5   | 17067.200 | 31.74   | 20.50   | 52.24    | 74.00    | -21.76 | peak   |
| 6   | 17481.900 | 38.40   | 20.82   | 59.22    | 74.00    | -14.78 | peak   |
| 7   | 17481.900 | 23.44   | 20.82   | 44.26    | 54.00    | -9.74  | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7766.700  | 38.69   | 8.12    | 46.81    | 74.00    | -27.19 | peak   |
| 2   | 8981.100  | 36.84   | 10.43   | 47.27    | 74.00    | -26.73 | peak   |
| 3   | 11648.600 | 36.75   | 14.79   | 51.54    | 74.00    | -22.46 | peak   |
| 4   | 12674.900 | 34.94   | 15.42   | 50.36    | 74.00    | -23.64 | peak   |
| 5   | 13913.500 | 34.56   | 16.90   | 51.46    | 74.00    | -22.54 | peak   |
| 6   | 17484.100 | 34.96   | 20.82   | 55.78    | 74.00    | -18.22 | peak   |
| 7   | 17484.100 | 20.70   | 20.82   | 41.52    | 54.00    | -12.48 | AVG    |

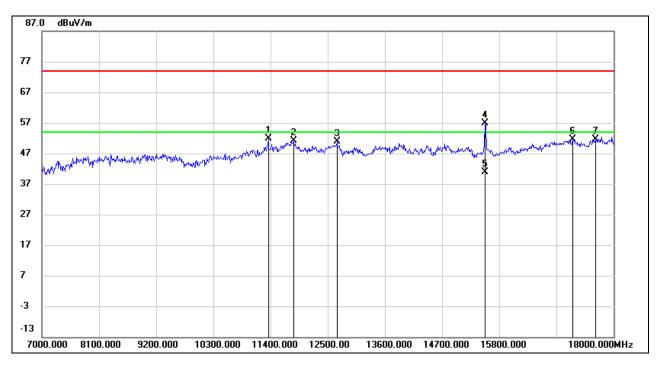
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## 8.3.2. 802.11ac VHT20 MIMO MODE

#### **UNII-1 BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

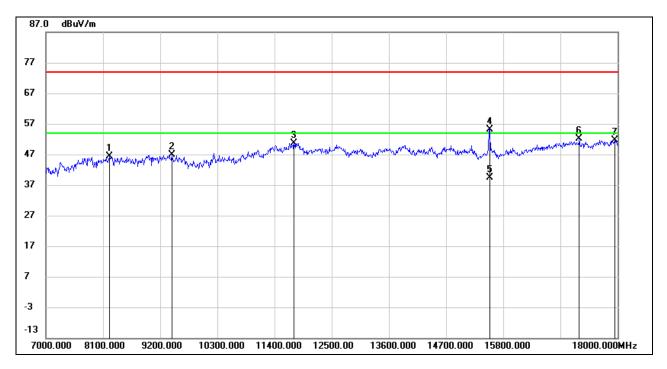


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 11365.900 | 37.82   | 14.11   | 51.93    | 74.00    | -22.07 | peak   |
| 2   | 11844.400 | 35.59   | 15.54   | 51.13    | 74.00    | -22.87 | peak   |
| 3   | 12677.100 | 35.50   | 15.43   | 50.93    | 74.00    | -23.07 | peak   |
| 4   | 15527.200 | 40.46   | 16.53   | 56.99    | 74.00    | -17.01 | peak   |
| 5   | 15527.200 | 24.46   | 16.53   | 40.99    | 54.00    | -13.01 | AVG    |
| 6   | 17217.900 | 30.57   | 21.01   | 51.58    | 74.00    | -22.42 | peak   |
| 7   | 17665.600 | 29.91   | 21.68   | 51.59    | 74.00    | -22.41 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

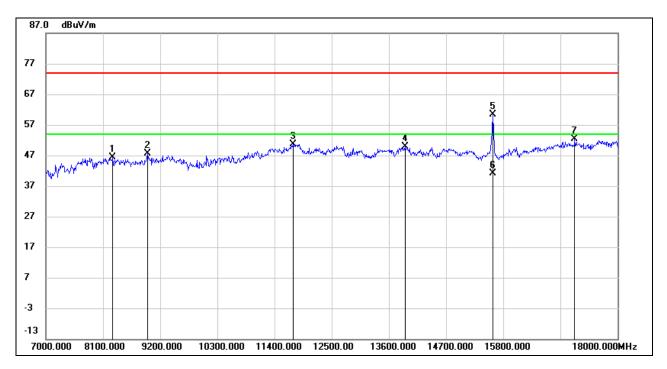


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8223.200  | 36.99   | 9.28    | 46.27    | 74.00    | -27.73 | peak   |
| 2   | 9429.900  | 36.53   | 10.35   | 46.88    | 74.00    | -27.12 | peak   |
| 3   | 11783.900 | 35.10   | 15.52   | 50.62    | 74.00    | -23.38 | peak   |
| 4   | 15545.900 | 38.54   | 16.57   | 55.11    | 74.00    | -18.89 | peak   |
| 5   | 15545.900 | 22.84   | 16.57   | 39.41    | 54.00    | -14.59 | AVG    |
| 6   | 17268.500 | 31.31   | 20.94   | 52.25    | 74.00    | -21.75 | peak   |
| 7   | 17953.800 | 28.98   | 22.68   | 51.66    | 74.00    | -22.34 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

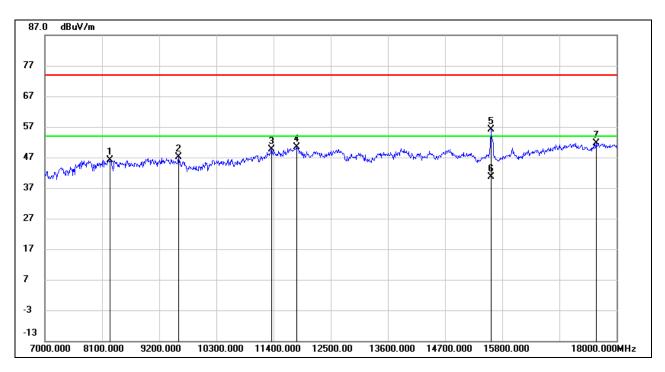


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8287.000  | 37.40   | 9.02    | 46.42    | 74.00    | -27.58 | peak   |
| 2   | 8966.800  | 37.44   | 10.28   | 47.72    | 74.00    | -26.28 | peak   |
| 3   | 11757.500 | 35.37   | 15.38   | 50.75    | 74.00    | -23.25 | peak   |
| 4   | 13914.600 | 33.05   | 16.90   | 49.95    | 74.00    | -24.05 | peak   |
| 5   | 15607.500 | 43.76   | 16.70   | 60.46    | 74.00    | -13.54 | peak   |
| 6   | 15607.500 | 24.43   | 16.70   | 41.13    | 54.00    | -12.87 | AVG    |
| 7   | 17180.500 | 31.46   | 20.96   | 52.42    | 74.00    | -21.58 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

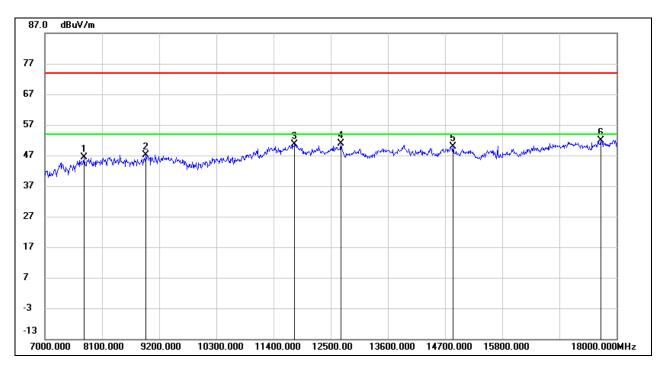


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8257.300  | 37.09   | 9.14    | 46.23    | 74.00    | -27.77 | peak   |
| 2   | 9579.500  | 36.69   | 10.47   | 47.16    | 74.00    | -26.84 | peak   |
| 3   | 11363.700 | 35.64   | 14.11   | 49.75    | 74.00    | -24.25 | peak   |
| 4   | 11840.000 | 34.83   | 15.56   | 50.39    | 74.00    | -23.61 | peak   |
| 5   | 15589.900 | 39.34   | 16.68   | 56.02    | 74.00    | -17.98 | peak   |
| 6   | 15589.900 | 23.97   | 16.68   | 40.65    | 54.00    | -13.35 | AVG    |
| 7   | 17611.700 | 30.42   | 21.26   | 51.68    | 74.00    | -22.32 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

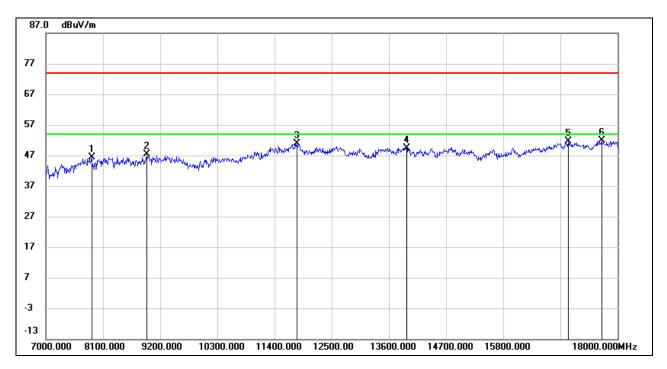


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7756.800  | 38.23   | 8.08    | 46.31    | 74.00    | -27.69 | peak   |
| 2   | 8956.900  | 36.98   | 10.18   | 47.16    | 74.00    | -26.84 | peak   |
| 3   | 11814.700 | 35.14   | 15.58   | 50.72    | 74.00    | -23.28 | peak   |
| 4   | 12699.100 | 35.48   | 15.47   | 50.95    | 74.00    | -23.05 | peak   |
| 5   | 14861.700 | 32.98   | 16.83   | 49.81    | 74.00    | -24.19 | peak   |
| 6   | 17701.900 | 30.01   | 21.96   | 51.97    | 74.00    | -22.03 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



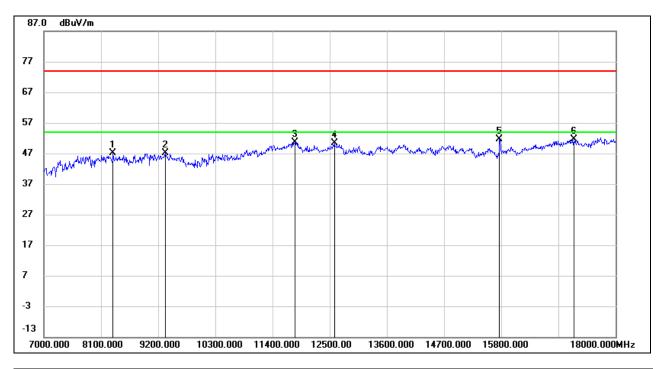
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7883.300  | 38.41   | 8.00    | 46.41    | 74.00    | -27.59 | peak   |
| 2   | 8938.200  | 37.31   | 9.98    | 47.29    | 74.00    | -26.71 | peak   |
| 3   | 11837.800 | 35.30   | 15.56   | 50.86    | 74.00    | -23.14 | peak   |
| 4   | 13947.600 | 32.62   | 16.88   | 49.50    | 74.00    | -24.50 | peak   |
| 5   | 17061.700 | 31.10   | 20.48   | 51.58    | 74.00    | -22.42 | peak   |
| 6   | 17692.000 | 30.04   | 21.87   | 51.91    | 74.00    | -22.09 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **UNII-2A BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

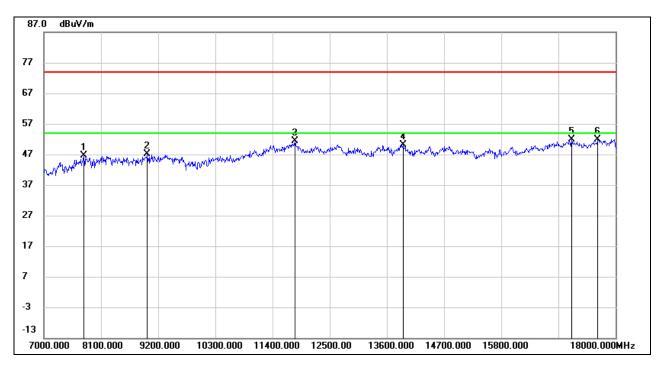


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8336.500  | 38.23   | 8.83    | 47.06    | 74.00    | -26.94 | peak   |
| 2   | 9333.100  | 37.10   | 9.97    | 47.07    | 74.00    | -26.93 | peak   |
| 3   | 11831.200 | 35.17   | 15.56   | 50.73    | 74.00    | -23.27 | peak   |
| 4   | 12593.500 | 35.04   | 15.29   | 50.33    | 74.00    | -23.67 | peak   |
| 5   | 15775.800 | 34.77   | 16.82   | 51.59    | 74.00    | -22.41 | peak   |
| 6   | 17205.800 | 30.60   | 21.03   | 51.63    | 74.00    | -22.37 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

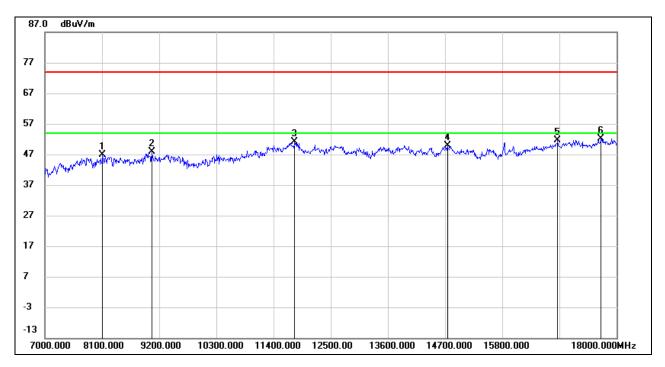


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7773.300  | 38.56   | 8.15    | 46.71    | 74.00    | -27.29 | peak   |
| 2   | 8993.200  | 36.69   | 10.55   | 47.24    | 74.00    | -26.76 | peak   |
| 3   | 11835.600 | 35.83   | 15.56   | 51.39    | 74.00    | -22.61 | peak   |
| 4   | 13914.600 | 33.18   | 16.90   | 50.08    | 74.00    | -23.92 | peak   |
| 5   | 17161.800 | 31.05   | 20.89   | 51.94    | 74.00    | -22.06 | peak   |
| 6   | 17660.100 | 30.20   | 21.63   | 51.83    | 74.00    | -22.17 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

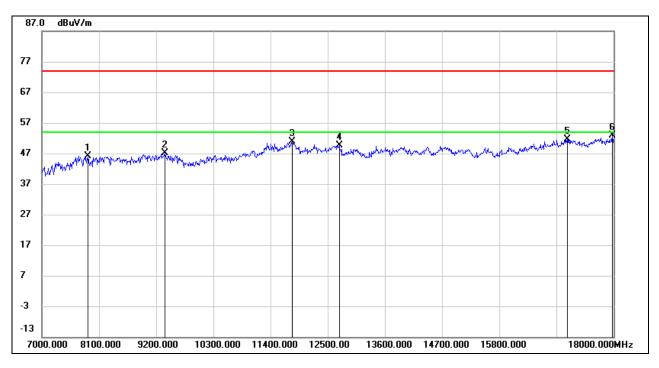


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8115.400  | 38.13   | 8.64    | 46.77    | 74.00    | -27.23 | peak   |
| 2   | 9064.700  | 37.58   | 10.19   | 47.77    | 74.00    | -26.23 | peak   |
| 3   | 11811.400 | 35.66   | 15.59   | 51.25    | 74.00    | -22.75 | peak   |
| 4   | 14748.400 | 33.27   | 16.71   | 49.98    | 74.00    | -24.02 | peak   |
| 5   | 16870.300 | 31.64   | 19.91   | 51.55    | 74.00    | -22.45 | peak   |
| 6   | 17703.000 | 30.27   | 21.96   | 52.23    | 74.00    | -21.77 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

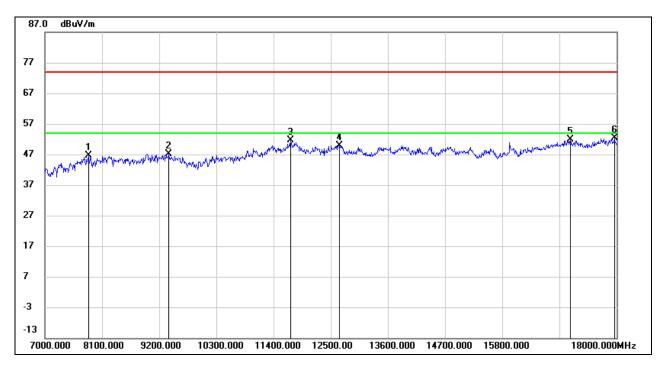


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7892.100  | 38.25   | 7.98    | 46.23    | 74.00    | -27.77 | peak   |
| 2   | 9365.000  | 36.90   | 10.13   | 47.03    | 74.00    | -26.97 | peak   |
| 3   | 11827.900 | 35.30   | 15.57   | 50.87    | 74.00    | -23.13 | peak   |
| 4   | 12724.400 | 34.03   | 15.52   | 49.55    | 74.00    | -24.45 | peak   |
| 5   | 17110.100 | 30.99   | 20.68   | 51.67    | 74.00    | -22.33 | peak   |
| 6   | 17981.300 | 30.24   | 22.67   | 52.91    | 74.00    | -21.09 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

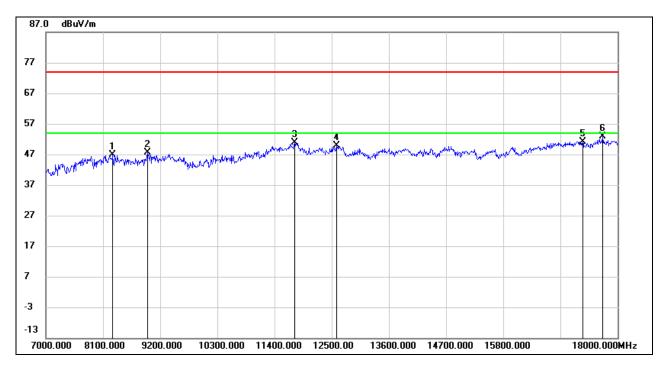


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7843.700  | 38.57   | 8.13    | 46.70    | 74.00    | -27.30 | peak   |
| 2   | 9395.800  | 36.89   | 10.29   | 47.18    | 74.00    | -26.82 | peak   |
| 3   | 11732.200 | 36.29   | 15.24   | 51.53    | 74.00    | -22.47 | peak   |
| 4   | 12671.600 | 34.55   | 15.42   | 49.97    | 74.00    | -24.03 | peak   |
| 5   | 17109.000 | 31.24   | 20.67   | 51.91    | 74.00    | -22.09 | peak   |
| 6   | 17963.700 | 29.58   | 22.68   | 52.26    | 74.00    | -21.74 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



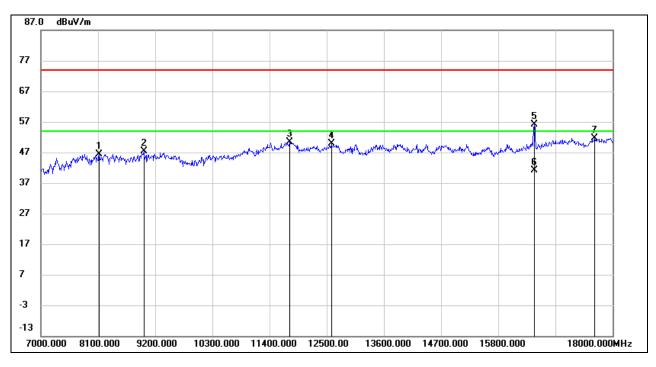
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8296.900  | 37.87   | 8.99    | 46.86    | 74.00    | -27.14 | peak   |
| 2   | 8959.100  | 37.36   | 10.20   | 47.56    | 74.00    | -26.44 | peak   |
| 3   | 11790.500 | 35.44   | 15.56   | 51.00    | 74.00    | -23.00 | peak   |
| 4   | 12588.000 | 34.58   | 15.29   | 49.87    | 74.00    | -24.13 | peak   |
| 5   | 17337.800 | 30.39   | 20.83   | 51.22    | 74.00    | -22.78 | peak   |
| 6   | 17719.500 | 30.82   | 22.09   | 52.91    | 74.00    | -21.09 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **UNII-2C BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

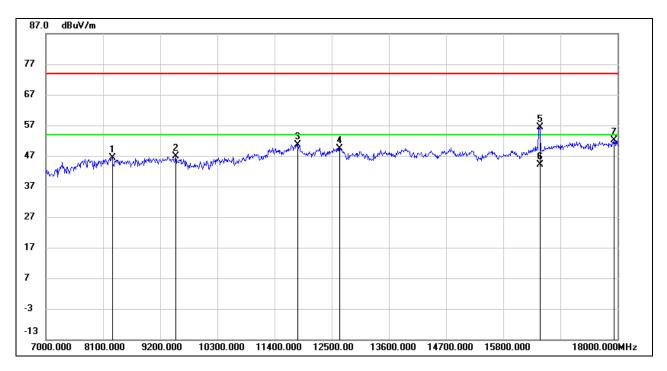


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8127.500  | 37.75   | 8.74    | 46.49    | 74.00    | -27.51 | peak   |
| 2   | 8988.800  | 36.76   | 10.51   | 47.27    | 74.00    | -26.73 | peak   |
| 3   | 11791.600 | 34.76   | 15.57   | 50.33    | 74.00    | -23.67 | peak   |
| 4   | 12591.300 | 34.49   | 15.29   | 49.78    | 74.00    | -24.22 | peak   |
| 5   | 16496.300 | 37.00   | 19.11   | 56.11    | 74.00    | -17.89 | peak   |
| 6   | 16496.300 | 22.02   | 19.11   | 41.13    | 54.00    | -12.87 | AVG    |
| 7   | 17666.700 | 30.05   | 21.68   | 51.73    | 74.00    | -22.27 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

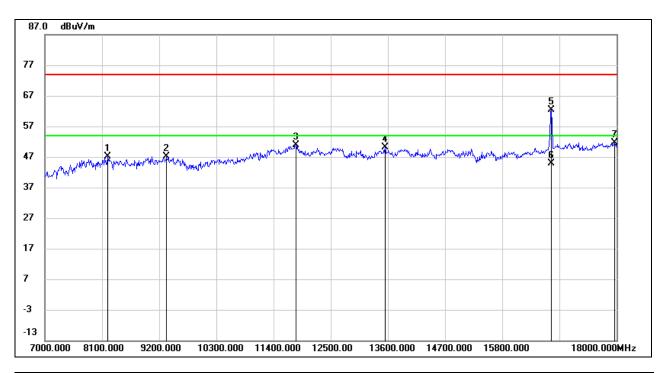


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8283.700  | 37.28   | 9.03    | 46.31    | 74.00    | -27.69 | peak   |
| 2   | 9505.800  | 36.50   | 10.45   | 46.95    | 74.00    | -27.05 | peak   |
| 3   | 11860.900 | 35.23   | 15.52   | 50.75    | 74.00    | -23.25 | peak   |
| 4   | 12656.200 | 34.11   | 15.38   | 49.49    | 74.00    | -24.51 | peak   |
| 5   | 16504.000 | 37.18   | 19.14   | 56.32    | 74.00    | -17.68 | peak   |
| 6   | 16504.000 | 24.99   | 19.14   | 44.13    | 54.00    | -9.87  | AVG    |
| 7   | 17943.900 | 29.45   | 22.68   | 52.13    | 74.00    | -21.87 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

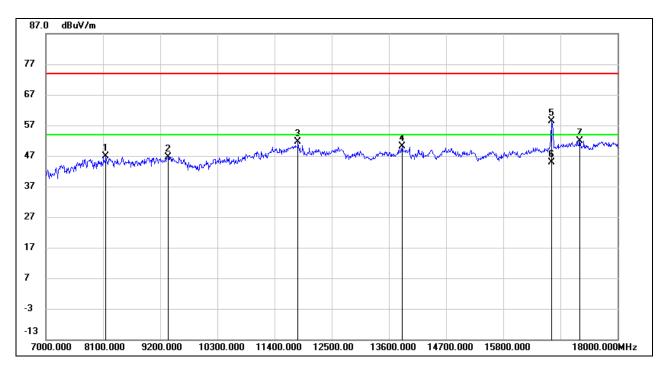


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8219.900  | 37.75   | 9.29    | 47.04    | 74.00    | -26.96 | peak   |
| 2   | 9352.900  | 37.11   | 10.07   | 47.18    | 74.00    | -26.82 | peak   |
| 3   | 11836.700 | 35.30   | 15.57   | 50.87    | 74.00    | -23.13 | peak   |
| 4   | 13547.200 | 33.66   | 16.42   | 50.08    | 74.00    | -23.92 | peak   |
| 5   | 16747.100 | 42.64   | 19.67   | 62.31    | 74.00    | -11.69 | peak   |
| 6   | 16747.100 | 25.25   | 19.67   | 44.92    | 54.00    | -9.08  | AVG    |
| 7   | 17971.400 | 28.99   | 22.68   | 51.67    | 74.00    | -22.33 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

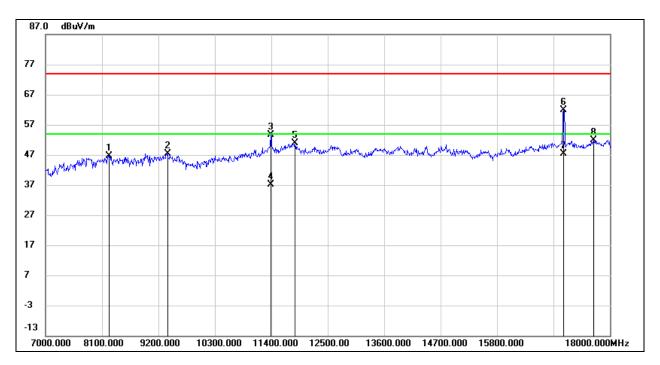


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8161.600  | 37.93   | 9.04    | 46.97    | 74.00    | -27.03 | peak   |
| 2   | 9355.100  | 36.56   | 10.07   | 46.63    | 74.00    | -27.37 | peak   |
| 3   | 11857.600 | 36.04   | 15.53   | 51.57    | 74.00    | -22.43 | peak   |
| 4   | 13861.800 | 33.16   | 16.92   | 50.08    | 74.00    | -23.92 | peak   |
| 5   | 16730.600 | 38.70   | 19.66   | 58.36    | 74.00    | -15.64 | peak   |
| 6   | 16730.600 | 25.16   | 19.66   | 44.82    | 54.00    | -9.18  | AVG    |
| 7   | 17274.000 | 31.02   | 20.93   | 51.95    | 74.00    | -22.05 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

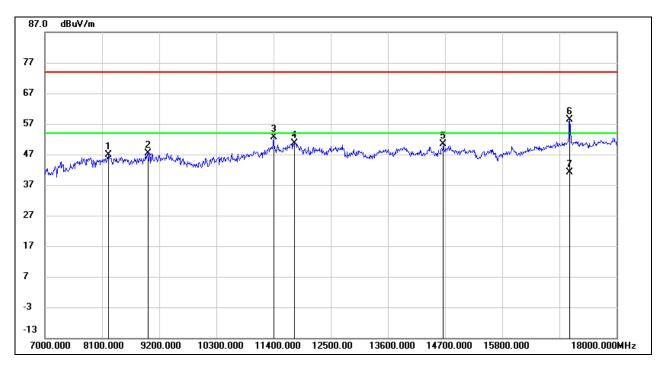


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8245.200  | 37.57   | 9.18    | 46.75    | 74.00    | -27.25 | peak   |
| 2   | 9382.600  | 37.26   | 10.23   | 47.49    | 74.00    | -26.51 | peak   |
| 3   | 11389.000 | 39.38   | 14.18   | 53.56    | 74.00    | -20.44 | peak   |
| 4   | 11389.000 | 22.95   | 14.18   | 37.13    | 54.00    | -16.87 | AVG    |
| 5   | 11862.000 | 35.41   | 15.52   | 50.93    | 74.00    | -23.07 | peak   |
| 6   | 17107.900 | 41.25   | 20.67   | 61.92    | 74.00    | -12.08 | peak   |
| 7   | 17107.900 | 26.82   | 20.67   | 47.49    | 54.00    | -6.51  | AVG    |
| 8   | 17687.600 | 29.99   | 21.84   | 51.83    | 74.00    | -22.17 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



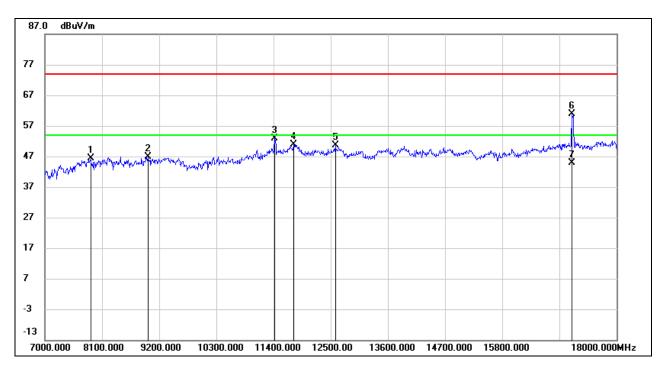
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8226.500  | 37.75   | 9.25    | 47.00    | 74.00    | -27.00 | peak   |
| 2   | 8982.200  | 36.97   | 10.45   | 47.42    | 74.00    | -26.58 | peak   |
| 3   | 11401.100 | 38.53   | 14.22   | 52.75    | 74.00    | -21.25 | peak   |
| 4   | 11796.000 | 35.02   | 15.59   | 50.61    | 74.00    | -23.39 | peak   |
| 5   | 14671.400 | 33.69   | 16.59   | 50.28    | 74.00    | -23.72 | peak   |
| 6   | 17107.900 | 37.66   | 20.67   | 58.33    | 74.00    | -15.67 | peak   |
| 7   | 17107.900 | 20.46   | 20.67   | 41.13    | 54.00    | -12.87 | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **STRADDLE CHANNEL 144**

# HARMONICS AND SPURIOUS EMISSIONS (HORIZONTAL)

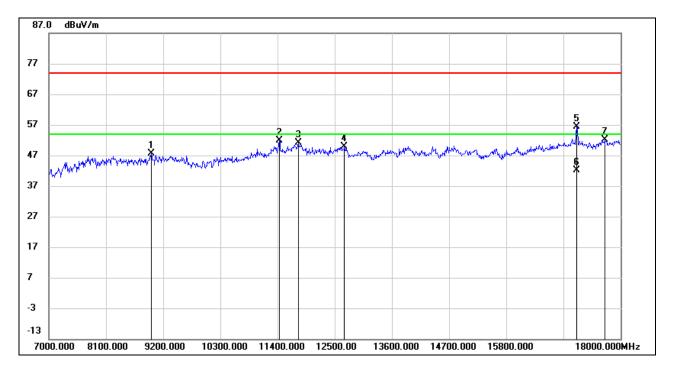


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7886.600  | 38.40   | 7.99    | 46.39    | 74.00    | -27.61 | peak   |
| 2   | 8982.200  | 36.51   | 10.45   | 46.96    | 74.00    | -27.04 | peak   |
| 3   | 11431.900 | 38.67   | 14.27   | 52.94    | 74.00    | -21.06 | peak   |
| 4   | 11787.200 | 35.33   | 15.54   | 50.87    | 74.00    | -23.13 | peak   |
| 5   | 12589.100 | 35.41   | 15.29   | 50.70    | 74.00    | -23.30 | peak   |
| 6   | 17149.700 | 40.09   | 20.84   | 60.93    | 74.00    | -13.07 | peak   |
| 7   | 17149.700 | 24.10   | 20.84   | 44.94    | 54.00    | -9.06  | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **HARMONICS AND SPURIOUS EMISSIONS (VERTICAL)**



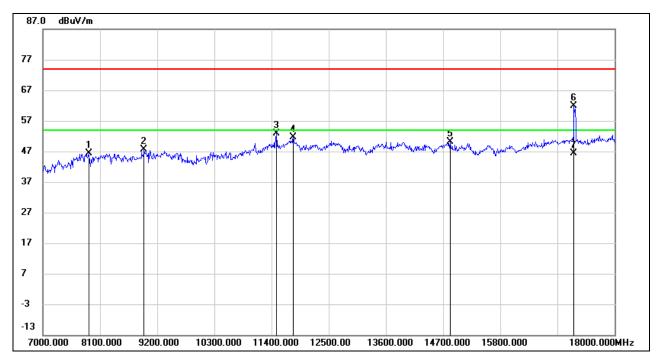
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8970.100  | 37.35   | 10.32   | 47.67    | 74.00    | -26.33 | peak   |
| 2   | 11441.800 | 37.58   | 14.27   | 51.85    | 74.00    | -22.15 | peak   |
| 3   | 11797.100 | 35.41   | 15.60   | 51.01    | 74.00    | -22.99 | peak   |
| 4   | 12691.400 | 34.41   | 15.46   | 49.87    | 74.00    | -24.13 | peak   |
| 5   | 17156.300 | 35.55   | 20.86   | 56.41    | 74.00    | -17.59 | peak   |
| 6   | 17156.300 | 21.27   | 20.86   | 42.13    | 54.00    | -11.87 | AVG    |
| 7   | 17703.000 | 30.24   | 21.96   | 52.20    | 74.00    | -21.80 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### **UNII-3 BAND**

## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

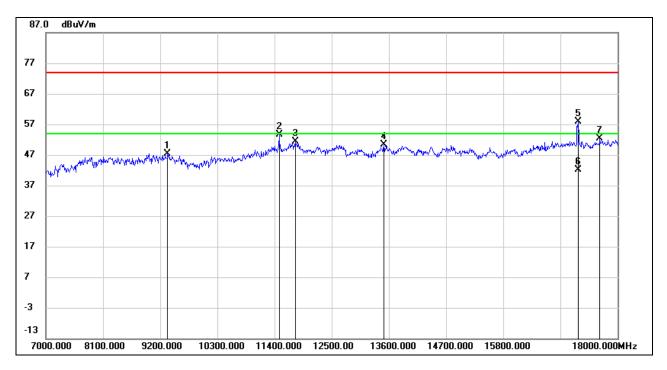


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7883.300  | 38.47   | 8.00    | 46.47    | 74.00    | -27.53 | peak   |
| 2   | 8948.100  | 37.50   | 10.08   | 47.58    | 74.00    | -26.42 | peak   |
| 3   | 11499.000 | 38.50   | 14.36   | 52.86    | 74.00    | -21.14 | peak   |
| 4   | 11822.400 | 35.96   | 15.58   | 51.54    | 74.00    | -22.46 | peak   |
| 5   | 14832.000 | 33.22   | 16.82   | 50.04    | 74.00    | -23.96 | peak   |
| 6   | 17226.700 | 40.98   | 21.00   | 61.98    | 74.00    | -12.02 | peak   |
| 7   | 17226.700 | 25.43   | 21.00   | 46.43    | 54.00    | -7.57  | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

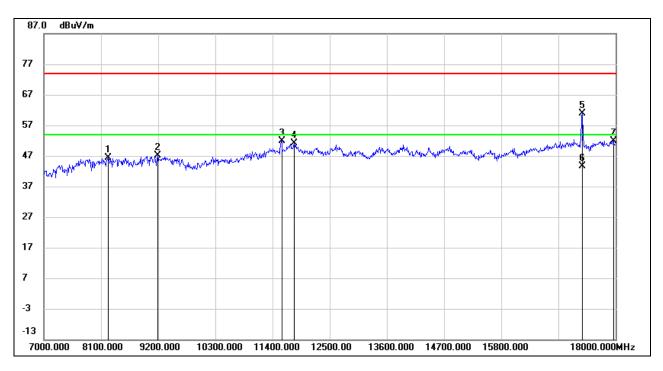


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 9350.700  | 37.41   | 10.06   | 47.47    | 74.00    | -26.53 | peak   |
| 2   | 11493.500 | 39.20   | 14.35   | 53.55    | 74.00    | -20.45 | peak   |
| 3   | 11805.900 | 35.66   | 15.61   | 51.27    | 74.00    | -22.73 | peak   |
| 4   | 13510.900 | 33.89   | 16.41   | 50.30    | 74.00    | -23.70 | peak   |
| 5   | 17243.200 | 36.89   | 20.97   | 57.86    | 74.00    | -16.14 | peak   |
| 6   | 17243.200 | 21.26   | 20.97   | 42.23    | 54.00    | -11.77 | AVG    |
| 7   | 17660.100 | 30.73   | 21.63   | 52.36    | 74.00    | -21.64 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

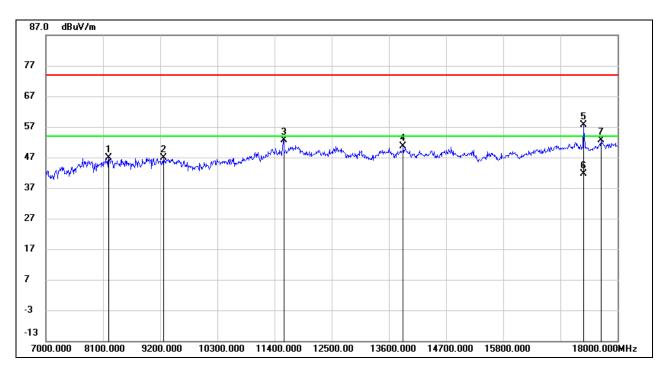


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8235.300  | 37.23   | 9.22    | 46.45    | 74.00    | -27.55 | peak   |
| 2   | 9198.900  | 37.88   | 9.30    | 47.18    | 74.00    | -26.82 | peak   |
| 3   | 11576.000 | 37.52   | 14.48   | 52.00    | 74.00    | -22.00 | peak   |
| 4   | 11827.900 | 35.61   | 15.57   | 51.18    | 74.00    | -22.82 | peak   |
| 5   | 17362.000 | 40.18   | 20.79   | 60.97    | 74.00    | -13.03 | peak   |
| 6   | 17362.000 | 22.86   | 20.79   | 43.65    | 54.00    | -10.35 | AVG    |
| 7   | 17964.800 | 29.32   | 22.68   | 52.00    | 74.00    | -22.00 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

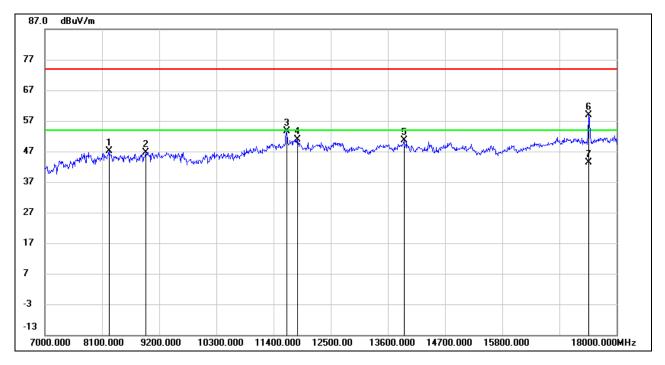


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8215.500  | 37.48   | 9.30    | 46.78    | 74.00    | -27.22 | peak   |
| 2   | 9269.300  | 37.28   | 9.65    | 46.93    | 74.00    | -27.07 | peak   |
| 3   | 11577.100 | 38.08   | 14.48   | 52.56    | 74.00    | -21.44 | peak   |
| 4   | 13880.500 | 33.65   | 16.92   | 50.57    | 74.00    | -23.43 | peak   |
| 5   | 17344.400 | 36.89   | 20.82   | 57.71    | 74.00    | -16.29 | peak   |
| 6   | 17344.400 | 20.90   | 20.82   | 41.72    | 54.00    | -12.28 | AVG    |
| 7   | 17681.000 | 30.78   | 21.79   | 52.57    | 74.00    | -21.43 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

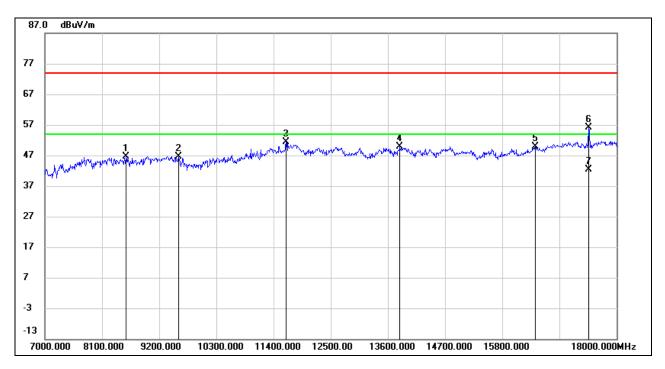


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8233.100  | 38.00   | 9.23    | 47.23    | 74.00    | -26.77 | peak   |
| 2   | 8948.100  | 36.64   | 10.08   | 46.72    | 74.00    | -27.28 | peak   |
| 3   | 11659.600 | 38.75   | 14.84   | 53.59    | 74.00    | -20.41 | peak   |
| 4   | 11869.700 | 35.25   | 15.51   | 50.76    | 74.00    | -23.24 | peak   |
| 5   | 13917.900 | 33.66   | 16.89   | 50.55    | 74.00    | -23.45 | peak   |
| 6   | 17470.900 | 38.04   | 20.80   | 58.84    | 74.00    | -15.16 | peak   |
| 7   | 17470.900 | 22.55   | 20.80   | 43.35    | 54.00    | -10.65 | AVG    |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8571.900  | 38.00   | 8.55    | 46.55    | 74.00    | -27.45 | peak   |
| 2   | 9574.000  | 36.29   | 10.46   | 46.75    | 74.00    | -27.25 | peak   |
| 3   | 11649.700 | 36.50   | 14.79   | 51.29    | 74.00    | -22.71 | peak   |
| 4   | 13837.600 | 32.86   | 16.94   | 49.80    | 74.00    | -24.20 | peak   |
| 5   | 16438.000 | 31.13   | 18.86   | 49.99    | 74.00    | -24.01 | peak   |
| 6   | 17464.300 | 35.43   | 20.79   | 56.22    | 74.00    | -17.78 | peak   |
| 7   | 17464.300 | 21.47   | 20.79   | 42.26    | 54.00    | -11.74 | AVG    |

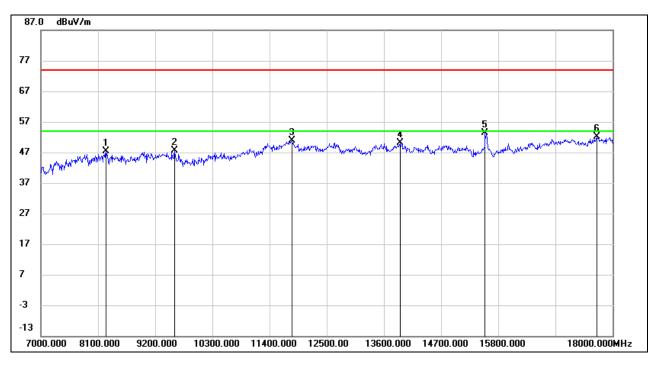
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.
- 5. For the transmitting duration, please refer to clause 7.1.
- 6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 8. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# 8.3.3. 802.11ac VHT40 MIMO MODE

#### **UNII-1 BAND**

## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

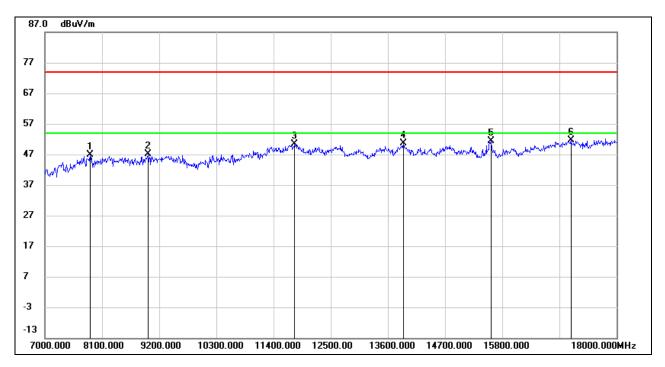


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8260.600  | 38.17   | 9.13    | 47.30    | 74.00    | -26.70 | peak   |
| 2   | 9574.000  | 37.25   | 10.46   | 47.71    | 74.00    | -26.29 | peak   |
| 3   | 11831.200 | 35.43   | 15.56   | 50.99    | 74.00    | -23.01 | peak   |
| 4   | 13909.100 | 33.26   | 16.90   | 50.16    | 74.00    | -23.84 | peak   |
| 5   | 15554.700 | 36.72   | 16.59   | 53.31    | 74.00    | -20.69 | peak   |
| 6   | 17695.300 | 30.15   | 21.90   | 52.05    | 74.00    | -21.95 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

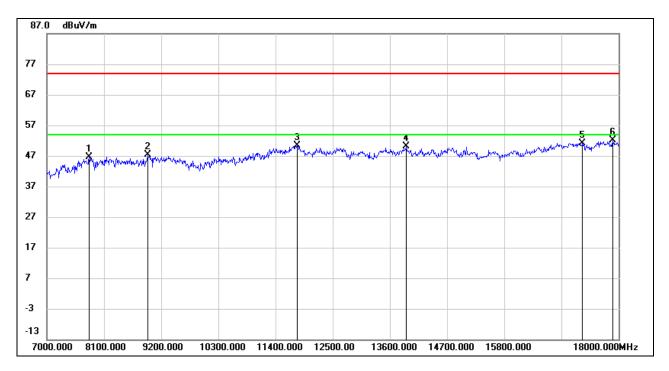


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7878.900  | 38.95   | 8.01    | 46.96    | 74.00    | -27.04 | peak   |
| 2   | 8992.100  | 36.52   | 10.54   | 47.06    | 74.00    | -26.94 | peak   |
| 3   | 11814.700 | 34.90   | 15.58   | 50.48    | 74.00    | -23.52 | peak   |
| 4   | 13906.900 | 33.65   | 16.90   | 50.55    | 74.00    | -23.45 | peak   |
| 5   | 15592.100 | 34.72   | 16.68   | 51.40    | 74.00    | -22.60 | peak   |
| 6   | 17121.100 | 31.03   | 20.72   | 51.75    | 74.00    | -22.25 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



# HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

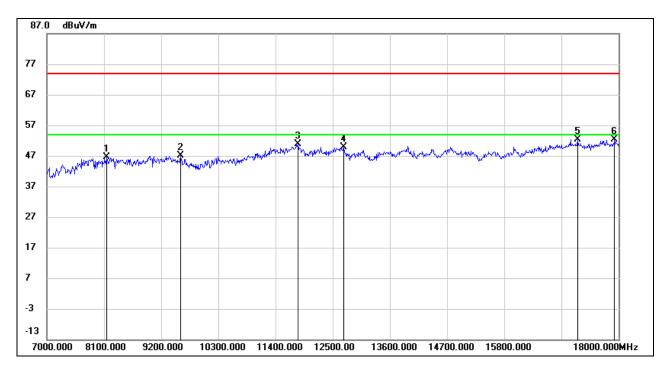


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 7817.300  | 38.49   | 8.20    | 46.69    | 74.00    | -27.31 | peak   |
| 2   | 8939.300  | 37.44   | 9.99    | 47.43    | 74.00    | -26.57 | peak   |
| 3   | 11825.700 | 34.89   | 15.58   | 50.47    | 74.00    | -23.53 | peak   |
| 4   | 13923.400 | 33.18   | 16.89   | 50.07    | 74.00    | -23.93 | peak   |
| 5   | 17309.200 | 30.36   | 20.88   | 51.24    | 74.00    | -22.76 | peak   |
| 6   | 17896.600 | 29.42   | 22.70   | 52.12    | 74.00    | -21.88 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



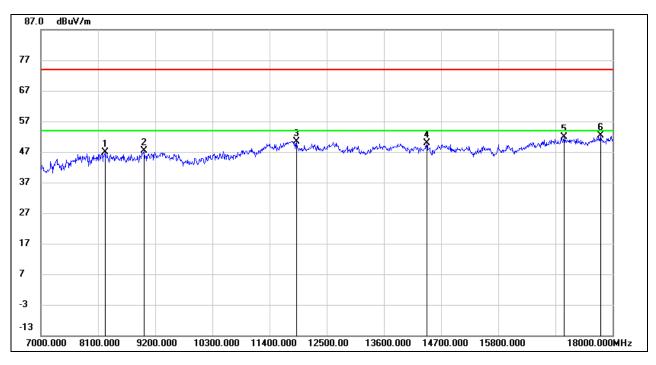
| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8146.200  | 37.70   | 8.90    | 46.60    | 74.00    | -27.40 | peak   |
| 2   | 9578.400  | 36.66   | 10.46   | 47.12    | 74.00    | -26.88 | peak   |
| 3   | 11838.900 | 35.30   | 15.56   | 50.86    | 74.00    | -23.14 | peak   |
| 4   | 12712.300 | 34.46   | 15.50   | 49.96    | 74.00    | -24.04 | peak   |
| 5   | 17215.700 | 31.49   | 21.01   | 52.50    | 74.00    | -21.50 | peak   |
| 6   | 17927.400 | 29.74   | 22.69   | 52.43    | 74.00    | -21.57 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## **UNII-2A BAND**

# HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

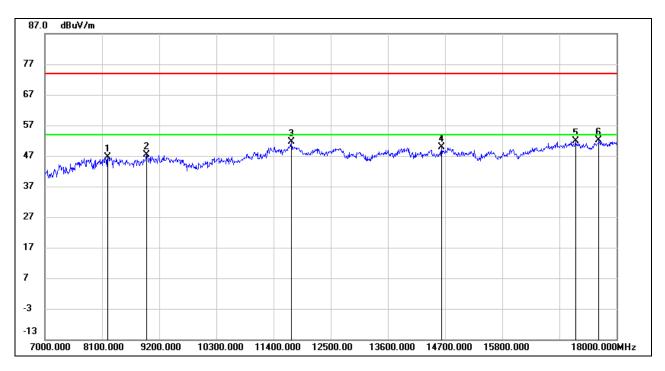


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8241.900  | 37.72   | 9.20    | 46.92    | 74.00    | -27.08 | peak   |
| 2   | 8985.500  | 36.79   | 10.48   | 47.27    | 74.00    | -26.73 | peak   |
| 3   | 11920.300 | 35.01   | 15.44   | 50.45    | 74.00    | -23.55 | peak   |
| 4   | 14430.500 | 32.99   | 16.80   | 49.79    | 74.00    | -24.21 | peak   |
| 5   | 17073.800 | 31.26   | 20.53   | 51.79    | 74.00    | -22.21 | peak   |
| 6   | 17771.200 | 29.78   | 22.50   | 52.28    | 74.00    | -21.72 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

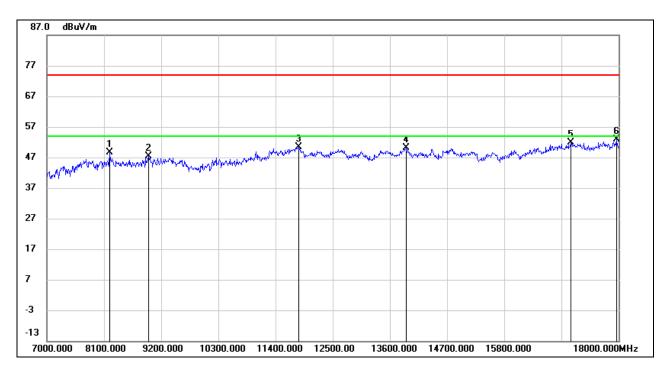


| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8213.300  | 37.33   | 9.31    | 46.64    | 74.00    | -27.36 | peak   |
| 2   | 8965.700  | 37.22   | 10.27   | 47.49    | 74.00    | -26.51 | peak   |
| 3   | 11741.000 | 36.47   | 15.28   | 51.75    | 74.00    | -22.25 | peak   |
| 4   | 14643.900 | 33.38   | 16.54   | 49.92    | 74.00    | -24.08 | peak   |
| 5   | 17215.700 | 30.81   | 21.01   | 51.82    | 74.00    | -22.18 | peak   |
| 6   | 17662.300 | 30.58   | 21.65   | 52.23    | 74.00    | -21.77 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.



## HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



| No. | Frequency | Reading | Correct | Result   | Limit    | Margin | Remark |
|-----|-----------|---------|---------|----------|----------|--------|--------|
|     | (MHz)     | (dBuV)  | (dB/m)  | (dBuV/m) | (dBuV/m) | (dB)   |        |
| 1   | 8216.600  | 39.28   | 9.30    | 48.58    | 74.00    | -25.42 | peak   |
| 2   | 8963.500  | 37.03   | 10.24   | 47.27    | 74.00    | -26.73 | peak   |
| 3   | 11840.000 | 34.94   | 15.56   | 50.50    | 74.00    | -23.50 | peak   |
| 4   | 13910.200 | 33.18   | 16.90   | 50.08    | 74.00    | -23.92 | peak   |
| 5   | 17076.000 | 31.35   | 20.54   | 51.89    | 74.00    | -22.11 | peak   |
| 6   | 17957.100 | 30.08   | 22.68   | 52.76    | 74.00    | -21.24 | peak   |

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.
  - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.
- 6. Since non-restricted band peak emissions are less than the average limit, they also comply with the -27dBm/MHz (68.2dBuV/m) limit.