

## Appendix A:Test Data

| Duty cycle   |                 |              |                  |                |                  |                       |
|--------------|-----------------|--------------|------------------|----------------|------------------|-----------------------|
| Mode         | Frequency (MHz) | on time (ms) | on+off time (ms) | Duty cycle (%) | Duty Factor (dB) | 1/T Minimun VBW (kHz) |
| 802.11a      | 5180            | 1.424        | 1.592            | 89.447         | 0.484            | 0.702                 |
| 802.11n HT20 | 5180            | 1.336        | 1.504            | 88.830         | 0.514            | 0.749                 |
| 802.11n HT40 | 5190            | 0.670        | 0.840            | 79.762         | 0.982            | 1.493                 |

RF power setting in Test SW

| Mode         | CH  | Frequency (MHz) | Ant-0 | Ant-1 | Ant-2 | Ant-3 | Test SW Version |
|--------------|-----|-----------------|-------|-------|-------|-------|-----------------|
| 802.11a      | 36  | 5180            | 18000 | 18000 | -     | -     | TeraTerm        |
|              | 40  | 5200            | 20000 | 20000 | -     | -     |                 |
|              | 48  | 5240            | 19500 | 19500 | -     | -     |                 |
|              | 149 | 5745            | 20000 | 20000 | -     | -     |                 |
|              | 157 | 5785            | 20000 | 20000 | -     | -     |                 |
|              | 165 | 5825            | 20000 | 20000 | -     | -     |                 |
| 802.11n HT20 | 36  | 5180            | 18000 | 18000 | -     | -     | TeraTerm        |
|              | 40  | 5200            | 20000 | 20000 | -     | -     |                 |
|              | 48  | 5240            | 19500 | 19500 | -     | -     |                 |
|              | 149 | 5745            | 20000 | 20000 | -     | -     |                 |
|              | 157 | 5785            | 20000 | 20000 | -     | -     |                 |
|              | 165 | 5825            | 20000 | 20000 | -     | -     |                 |
| 802.11n HT40 | 38  | 5190            | 13000 | 13000 | -     | -     | TeraTerm        |
|              | 46  | 5230            | 20000 | 20000 | -     | -     |                 |
|              | 151 | 5755            | 20000 | 20000 | -     | -     |                 |
|              | 159 | 5795            | 20000 | 20000 | -     | -     |                 |

## Maximum Conducted Output Power Measurement

| Mode         | Data Rate<br>or<br>Sub-test | CH  | Frequency<br>(MHz) | Average<br>power |       |       |       |       | Limit |
|--------------|-----------------------------|-----|--------------------|------------------|-------|-------|-------|-------|-------|
|              |                             |     |                    | Ant-0            | Ant-1 | Ant-2 | Ant-3 | Total |       |
|              |                             |     |                    | dBm              | dBm   | dBm   | dBm   | dBm   |       |
| 802.11a      | 6M                          | 36  | 5180               | 12.55            | 14.04 | -     | -     | -     | 30.00 |
|              |                             | 40  | 5200               | 14.42            | 15.81 | -     | -     | -     | 30.00 |
|              |                             | 48  | 5240               | 13.35            | 14.93 | -     | -     | -     | 30.00 |
|              |                             | 149 | 5745               | 12.17            | 12.34 | -     | -     | -     | 30.00 |
|              |                             | 157 | 5785               | 11.29            | 11.09 | -     | -     | -     | 30.00 |
|              |                             | 165 | 5825               | 10.60            | 10.19 | -     | -     | -     | 30.00 |
| 802.11n HT20 | 6.5M                        | 36  | 5180               | 12.72            | 14.14 | -     | -     | -     | 30.00 |
|              |                             | 40  | 5200               | 14.13            | 15.42 | -     | -     | -     | 30.00 |
|              |                             | 48  | 5240               | 13.22            | 14.78 | -     | -     | -     | 30.00 |
|              |                             | 149 | 5745               | 11.97            | 12.04 | -     | -     | -     | 30.00 |
|              |                             | 157 | 5785               | 11.01            | 10.81 | -     | -     | -     | 30.00 |
|              |                             | 165 | 5825               | 10.49            | 9.94  | -     | -     | -     | 30.00 |
| 802.11n HT40 | 13.5M                       | 38  | 5190               | 7.74             | 9.03  | -     | -     | -     | 30.00 |
|              |                             | 46  | 5230               | 11.71            | 13.32 | -     | -     | -     | 30.00 |
|              |                             | 151 | 5755               | 10.17            | 10.31 | -     | -     | -     | 30.00 |
|              |                             | 159 | 5795               | 9.29             | 9.10  | -     | -     | -     | 30.00 |

| 26 dB & 99 % RF Bandwidth Measurement |    |                |                   |        |       |       |                    |        |       |       |
|---------------------------------------|----|----------------|-------------------|--------|-------|-------|--------------------|--------|-------|-------|
| Mode                                  | CH | Freq.<br>(MHz) | 99 %<br>Bandwidth |        |       |       | 26 dB<br>Bandwidth |        |       |       |
|                                       |    |                | Ant-0             | Ant-1  | Ant-2 | Ant-3 | Ant-0              | Ant-1  | Ant-2 | Ant-3 |
|                                       |    |                | MHz               | MHz    | MHz   | MHz   | MHz                | MHz    | MHz   | MHz   |
| 802.11a                               | 36 | 5180           | -                 | 17.557 | -     | -     | -                  | 30.950 | -     | -     |
|                                       | 40 | 5200           | -                 | 20.365 | -     | -     | -                  | 36.530 | -     | -     |
|                                       | 48 | 5240           | -                 | 19.099 | -     | -     | -                  | 34.120 | -     | -     |
| 802.11n HT20                          | 36 | 5180           | -                 | 18.573 | -     | -     | -                  | 31.110 | -     | -     |
|                                       | 40 | 5200           | -                 | 20.292 | -     | -     | -                  | 35.530 | -     | -     |
|                                       | 48 | 5240           | -                 | 19.283 | -     | -     | -                  | 31.290 | -     | -     |
| 802.11n HT40                          | 38 | 5190           | -                 | 36.262 | -     | -     | -                  | 45.380 | -     | -     |
|                                       | 46 | 5230           | -                 | 36.799 | -     | -     | -                  | 69.670 | -     | -     |

| Band III + IV_6 dB & 99 % RF Bandwidth Measurement |     |                |                   |        |       |       |                   |       |       |       |
|----------------------------------------------------|-----|----------------|-------------------|--------|-------|-------|-------------------|-------|-------|-------|
| Mode                                               | CH  | Freq.<br>(MHz) | 99 %<br>Bandwidth |        |       |       | 6 dB<br>Bandwidth |       |       |       |
|                                                    |     |                | Ant-0             | Ant-1  | Ant-2 | Ant-3 | Ant-0             | Ant-1 | Ant-2 | Ant-3 |
|                                                    |     |                | MHz               | MHz    | MHz   | MHz   | kHz               | kHz   | kHz   | kHz   |
| 802.11a                                            | 149 | 5745           | -                 | 19.556 | -     | -     | -                 | 15120 | -     | -     |
|                                                    | 157 | 5785           | -                 | 19.496 | -     | -     | -                 | 15120 | -     | -     |
|                                                    | 165 | 5825           | -                 | 19.425 | -     | -     | -                 | 15120 | -     | -     |
| 802.11n HT20                                       | 149 | 5745           | -                 | 19.939 | -     | -     | -                 | 15120 | -     | -     |
|                                                    | 157 | 5785           | -                 | 20.088 | -     | -     | -                 | 15120 | -     | -     |
|                                                    | 165 | 5825           | -                 | 19.827 | -     | -     | -                 | 15120 | -     | -     |
| 802.11n HT40                                       | 151 | 5755           | -                 | 36.906 | -     | -     | -                 | 33850 | -     | -     |
|                                                    | 159 | 5795           | -                 | 36.836 | -     | -     | -                 | 33850 | -     | -     |

| Power Spectral Density Measurement |    |                 |             |         |         |         |             |            |         |
|------------------------------------|----|-----------------|-------------|---------|---------|---------|-------------|------------|---------|
| Mode                               | CH | Frequency (MHz) | Measurement |         |         |         | Duty Factor | Calculated | Limit   |
|                                    |    |                 | Ant-0       | Ant-1   | Ant-2   | Ant-3   |             | Total      |         |
|                                    |    |                 | dBm/MHz     | dBm/MHz | dBm/MHz | dBm/MHz | dB          | dBm/MHz    | dBm/MHz |
| 802.11a                            | 36 | 5180            | -           | 3.148   | -       | -       | 0.484       | 3.632      | 17.000  |
|                                    | 40 | 5200            | -           | 4.736   | -       | -       | 0.484       | 5.220      | 17.000  |
|                                    | 48 | 5240            | -           | 3.799   | -       | -       | 0.484       | 4.283      | 17.000  |
| 802.11n HT20                       | 36 | 5180            | -           | 3.083   | -       | -       | 0.514       | 3.597      | 17.000  |
|                                    | 40 | 5200            | -           | 4.640   | -       | -       | 0.514       | 5.154      | 17.000  |
|                                    | 48 | 5240            | -           | 3.318   | -       | -       | 0.514       | 3.832      | 17.000  |
| 802.11n HT40                       | 38 | 5190            | -           | -5.342  | -       | -       | 0.982       | -4.360     | 17.000  |
|                                    | 46 | 5230            | -           | -0.696  | -       | -       | 0.982       | 0.286      | 17.000  |

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.

| Band III_ Power Spectral Density Measurement |     |                 |             |             |             |             |             |             |             |             |             |             |           |
|----------------------------------------------|-----|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|
| Mode                                         | CH  | Frequency (MHz) | Measurement |             |             |             |             |             |             |             | Calculated  | Limit       | PASS/FAIL |
|                                              |     |                 | Ant-0       |             | Ant-1       |             | Ant-2       |             | Ant-3       |             | Total       |             |           |
|                                              |     |                 | dBm/100 kHz | dBm/500 kHz | dBm/100 kHz | dBm/500 kHz | dBm/100 kHz | dBm/500 kHz | dBm/100 kHz | dBm/500 kHz | dBm/500 kHz | dBm/500 kHz |           |
| 802.11a                                      | 149 | 5745            | -           | -           | -7.354      | 0.120       | -           | -           | -           | -           | -           | 30.00       | PASS      |
|                                              | 157 | 5785            | -           | -           | -8.357      | -0.883      | -           | -           | -           | -           | -           | 30.00       | PASS      |
|                                              | 165 | 5825            | -           | -           | -9.644      | -2.170      | -           | -           | -           | -           | -           | 30.00       | PASS      |
| 802.11n HT20                                 | 149 | 5745            | -           | -           | -7.679      | -0.175      | -           | -           | -           | -           | -           | 30.00       | PASS      |
|                                              | 157 | 5785            | -           | -           | -8.863      | -1.359      | -           | -           | -           | -           | -           | 30.00       | PASS      |
|                                              | 165 | 5825            | -           | -           | -9.680      | -2.176      | -           | -           | -           | -           | -           | 30.00       | PASS      |
| 802.11n HT40                                 | 151 | 5755            | -           | -           | -13.009     | -5.037      | -           | -           | -           | -           | -           | 30.00       | PASS      |
|                                              | 159 | 5795            | -           | -           | -14.475     | -6.503      | -           | -           | -           | -           | -           | 30.00       | PASS      |

Note: Power Density = measured result + 10 log (1/duty cycle) + Conversion ratio = measured result + duty factory.  
 Conversion ration = 10\*Log(500 k/100 k)