



## Appendix A. Radiated Spurious Emission

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

| WIFI                         | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |   |
|------------------------------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|---|
| Ant.                         |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |   |
| 1                            |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |   |
| 802.11a<br>CH 149<br>5745MHz |      | 5714.12   | 64.95      | -9.05  | 74         | 54.15    | 35.77    | 7.15   | 32.12  | 100    | 2       | P     | H     |   |
|                              |      | 5724.76   | 78.02      | -0.28  | 78.3       | 67.2     | 35.78    | 7.16   | 32.12  | 100    | 2       | P     | H     |   |
|                              |      | 5707.16   | 50.8       | -3.2   | 54         | 40       | 35.77    | 7.15   | 32.12  | 100    | 2       | A     | H     |   |
|                              | *    | 5744      | 112.01     | -      | -          | 101.15   | 35.79    | 7.18   | 32.11  | 100    | 2       | P     | H     |   |
|                              | *    | 5744      | 101.9      | -      | -          | 91.04    | 35.79    | 7.18   | 32.11  | 100    | 2       | A     | H     |   |
|                              |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              |      |           | 5711.96    | 57.03  | -16.97     | 74       | 46.23    | 35.77  | 7.15   | 32.12  | 100     | 341   | P     | V |
|                              |      |           | 5724.76    | 64.94  | -13.36     | 78.3     | 54.12    | 35.78  | 7.16   | 32.12  | 100     | 341   | P     | V |
|                              |      |           | 5711.24    | 44.97  | -9.03      | 54       | 34.17    | 35.77  | 7.15   | 32.12  | 100     | 341   | A     | V |
|                              | *    |           | 5744       | 102.68 | -          | -        | 91.82    | 35.79  | 7.18   | 32.11  | 100     | 341   | P     | V |
|                              | *    |           | 5744       | 92.56  | -          | -        | 81.7     | 35.79  | 7.18   | 32.11  | 100     | 341   | A     | V |
|                              |      |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                              |      |           |            |        |            |          |          |        |        |        |         |       | V     |   |
|                              |      |           |            |        |            |          |          |        |        |        |         |       | V     |   |



| WIFI Ant.                    | Note    | Frequency ( MHz ) | Level ( dBμV/m ) | Over Limit ( dB ) | Limit Line ( dBμV/m ) | Read Level ( dBμV ) | Antenna Factor ( dB/m ) | Cable Loss ( dB ) | Preamp Factor ( dB ) | Ant Pos ( cm ) | Table Pos ( deg ) | Peak Avg. (P/A) | Pol. (H/V) |
|------------------------------|---------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|-------------------|----------------------|----------------|-------------------|-----------------|------------|
| 802.11a<br>CH 157<br>5785MHz |         | 5709.64           | 55.66            | -18.34            | 74                    | 44.86               | 35.77                   | 7.15              | 32.12                | 105            | 308               | P               | H          |
|                              |         | 5717              | 55.82            | -22.48            | 78.3                  | 45.01               | 35.77                   | 7.16              | 32.12                | 105            | 308               | P               | H          |
|                              |         | 5715              | 44.87            | -9.13             | 54                    | 34.07               | 35.77                   | 7.15              | 32.12                | 105            | 308               | A               | H          |
|                              | *       | 5786              | 101.12           | -                 | -                     | 90.19               | 35.83                   | 7.2               | 32.1                 | 105            | 308               | A               | H          |
|                              | *       | 5786              | 110.13           | -                 | -                     | 99.2                | 35.83                   | 7.2               | 32.1                 | 105            | 308               | P               | H          |
|                              |         | 5852              | 55.57            | -22.73            | 78.3                  | 44.51               | 35.88                   | 7.26              | 32.08                | 105            | 308               | P               | H          |
|                              |         | 5866.32           | 56.05            | -17.95            | 74                    | 44.95               | 35.89                   | 7.28              | 32.07                | 105            | 308               | P               | H          |
|                              |         | 5861.28           | 44.81            | -9.19             | 54                    | 33.71               | 35.89                   | 7.28              | 32.07                | 105            | 308               | A               | H          |
|                              |         | 5709.64           | 63.19            | -10.81            | 74                    | 52.39               | 35.77                   | 7.15              | 32.12                | 100            | 350               | P               | V          |
|                              |         | 5721.56           | 64.71            | -13.59            | 78.3                  | 53.89               | 35.78                   | 7.16              | 32.12                | 100            | 350               | P               | V          |
|                              |         | 5710.44           | 50.92            | -3.08             | 54                    | 40.12               | 35.77                   | 7.15              | 32.12                | 100            | 350               | A               | V          |
|                              | *       | 5783              | 109.31           | -                 | -                     | 98.39               | 35.82                   | 7.2               | 32.1                 | 100            | 350               | A               | V          |
|                              | *       | 5783              | 118.42           | -                 | -                     | 107.5               | 35.82                   | 7.2               | 32.1                 | 100            | 350               | P               | V          |
|                              |         | 5850.16           | 62.03            | -16.27            | 78.3                  | 50.97               | 35.88                   | 7.26              | 32.08                | 100            | 350               | P               | V          |
|                              |         | 5867.28           | 60.99            | -13.01            | 74                    | 49.89               | 35.89                   | 7.28              | 32.07                | 100            | 350               | P               | V          |
|                              | 5866.32 | 48.47             | -5.53            | 54                | 37.37                 | 35.89               | 7.28                    | 32.07             | 100                  | 350            | A                 | V               |            |



| WIFI                         | Note  | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |   |
|------------------------------|---|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|---|
| Ant.                         |   |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |   |
| 1                            |   | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |   |
| 802.11a<br>CH 165<br>5825MHz | *   | 5825      | 113.97     | -      | -          | 102.96   | 35.86    | 7.24   | 32.09  | 170    | 353     | P     | H     |   |
|                              | *   | 5825      | 104.22     | -      | -          | 93.21    | 35.86    | 7.24   | 32.09  | 170    | 353     | A     | H     |   |
|                              |   | 5851.04   | 73.51      | -4.79  | 78.3       | 62.45    | 35.88    | 7.26   | 32.08  | 170    | 353     | P     | H     |   |
|                              |   | 5861.68   | 66.31      | -7.69  | 74         | 55.21    | 35.89    | 7.28   | 32.07  | 170    | 353     | P     | H     |   |
|                              |   | 5864.24   | 51.81      | -2.19  | 54         | 40.71    | 35.89    | 7.28   | 32.07  | 170    | 353     | A     | H     |   |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                              | *   | 5827      | 108.14     | -      | -          | 97.13    | 35.86    | 7.24   | 32.09  | 101    | 14      | P     | V     |   |
|                              | *   | 5827      | 97.88      | -      | -          | 86.87    | 35.86    | 7.24   | 32.09  | 101    | 14      | A     | V     |   |
|                              |   | 5851.76   | 66.75      | -11.55 | 78.3       | 55.69    | 35.88    | 7.26   | 32.08  | 101    | 14      | P     | V     |   |
|                              |   | 5864.4    | 61.76      | -12.24 | 74         | 50.66    | 35.89    | 7.28   | 32.07  | 101    | 14      | P     | V     |   |
|                              |   | 5866.8    | 47.31      | -6.69  | 54         | 36.21    | 35.89    | 7.28   | 32.07  | 101    | 14      | A     | V     |   |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                              |   |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                              |   |           |            |        |            |          |          |        |        |        |         |       | V     |   |
| <b>Remark</b>                | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |          |          |        |        |        |         |       |       |   |



Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

| WIFI                         | Note  | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak    | Pol.    |
|------------------------------|---|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant.                         |   |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 1                            |   | ( MHz )   | ( dBµV/m ) | ( dB ) | ( dBµV/m ) | ( dBµV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 802.11a<br>CH 149<br>5745MHz |   | 11490     | 43.26      | -30.74 | 74         | 50.85    | 38.99    | 10.33  | 56.91  | 100    | 0       | P       | H       |
|                              |   | 17235     | 47.18      | -26.82 | 74         | 50.23    | 42.01    | 12.65  | 57.71  | 100    | 0       | P       | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   | 11490     | 44.27      | -29.73 | 74         | 51.86    | 38.99    | 10.33  | 56.91  | 100    | 0       | P       | V       |
|                              |   | 17235     | 46.92      | -27.08 | 74         | 49.97    | 42.01    | 12.65  | 57.71  | 100    | 0       | P       | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
| 802.11a<br>CH 157<br>5785MHz |   | 11570     | 43.88      | -30.12 | 74         | 51.4     | 39.03    | 10.36  | 56.91  | 100    | 0       | P       | H       |
|                              |   | 17355     | 47.4       | -26.6  | 74         | 50.6     | 41.96    | 12.85  | 58.01  | 100    | 0       | P       | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   | 11570     | 43.77      | -30.23 | 74         | 51.29    | 39.03    | 10.36  | 56.91  | 100    | 0       | P       | V       |
|                              |   | 17355     | 47.12      | -26.88 | 74         | 50.32    | 41.96    | 12.85  | 58.01  | 100    | 0       | P       | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
| 802.11a<br>CH 165<br>5825MHz |   | 11650     | 43.94      | -30.06 | 74         | 51.4     | 39.06    | 10.41  | 56.93  | 100    | 0       | P       | H       |
|                              |   | 17475     | 47.77      | -26.23 | 74         | 51.13    | 41.91    | 13.04  | 58.31  | 100    | 0       | P       | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | H       |
|                              |   | 11650     | 43.37      | -30.63 | 74         | 50.83    | 39.06    | 10.41  | 56.93  | 100    | 0       | P       | V       |
|                              |   | 17475     | 48.44      | -25.56 | 74         | 51.8     | 41.91    | 13.04  | 58.31  | 100    | 0       | P       | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
|                              |   |           |            |        |            |          |          |        |        |        |         |         | V       |
| Remark                       | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |          |          |        |        |        |         |         |         |



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

| WIFI                                 | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |   |
|--------------------------------------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|---|
| Ant.                                 |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |   |
| 1                                    |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |   |
| 802.11n<br>HT20<br>CH 149<br>5745MHz |      | 5713.16   | 65.26      | -8.74  | 74         | 54.46    | 35.77    | 7.15   | 32.12  | 100    | 3       | P     | H     |   |
|                                      |      | 5724.76   | 76.47      | -1.83  | 78.3       | 65.65    | 35.78    | 7.16   | 32.12  | 100    | 3       | P     | H     |   |
|                                      |      | 5713.4    | 50.76      | -3.24  | 54         | 39.96    | 35.77    | 7.15   | 32.12  | 100    | 3       | A     | H     |   |
|                                      | *    | 5745      | 111.66     | -      | -          | 100.8    | 35.79    | 7.18   | 32.11  | 100    | 3       | P     | H     |   |
|                                      | *    | 5745      | 101.77     | -      | -          | 90.91    | 35.79    | 7.18   | 32.11  | 100    | 3       | A     | H     |   |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | H |
|                                      |      |           | 5713.48    | 59.31  | -14.69     | 74       | 48.51    | 35.77  | 7.15   | 32.12  | 116     | 254   | P     | V |
|                                      |      |           | 5724.44    | 72.31  | -5.99      | 78.3     | 61.49    | 35.78  | 7.16   | 32.12  | 116     | 254   | P     | V |
|                                      |      |           | 5714.36    | 46.51  | -7.49      | 54       | 35.71    | 35.77  | 7.15   | 32.12  | 116     | 254   | A     | V |
|                                      | *    |           | 5745       | 105.51 | -          | -        | 94.65    | 35.79  | 7.18   | 32.11  | 116     | 254   | P     | V |
|                                      | *    |           | 5745       | 96.22  | -          | -        | 85.36    | 35.79  | 7.18   | 32.11  | 116     | 254   | A     | V |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | V |
|                                      |      |           |            |        |            |          |          |        |        |        |         |       |       | V |



| WIFI Ant.                            | Note   | Frequency ( MHz ) | Level ( dBμV/m ) | Over Limit ( dB ) | Limit Line ( dBμV/m ) | Read Level ( dBμV ) | Antenna Factor ( dB/m ) | Cable Loss ( dB ) | Preamp Factor ( dB ) | Ant Pos ( cm ) | Table Pos ( deg ) | Peak Avg. ( P/A ) | Pol. ( H/V ) |
|--------------------------------------|--------|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|-------------------|----------------------|----------------|-------------------|-------------------|--------------|
| 802.11n<br>HT20<br>CH 157<br>5785MHz |        | 5709.32           | 53.66            | -20.34            | 74                    | 42.86               | 35.77                   | 7.15              | 32.12                | 104            | 309               | P                 | H            |
|                                      |        | 5724.92           | 53.74            | -24.56            | 78.3                  | 42.92               | 35.78                   | 7.16              | 32.12                | 104            | 309               | P                 | H            |
|                                      |        | 5714.36           | 43.69            | -10.31            | 54                    | 32.89               | 35.77                   | 7.15              | 32.12                | 104            | 309               | A                 | H            |
|                                      | *      | 5784              | 94.8             | -                 | -                     | 83.88               | 35.82                   | 7.2               | 32.1                 | 104            | 309               | A                 | H            |
|                                      | *      | 5784              | 104.33           | -                 | -                     | 93.41               | 35.82                   | 7.2               | 32.1                 | 104            | 309               | P                 | H            |
|                                      |        | 5859.04           | 54.03            | -24.27            | 78.3                  | 42.95               | 35.89                   | 7.26              | 32.07                | 104            | 309               | P                 | H            |
|                                      |        | 5861.44           | 53.95            | -20.05            | 74                    | 42.85               | 35.89                   | 7.28              | 32.07                | 104            | 309               | P                 | H            |
|                                      |        | 5862.08           | 43.74            | -10.26            | 54                    | 32.64               | 35.89                   | 7.28              | 32.07                | 104            | 309               | A                 | H            |
|                                      |        | 5690.28           | 58.45            | -15.55            | 74                    | 47.7                | 35.75                   | 7.13              | 32.13                | 100            | 350               | P                 | V            |
|                                      |        | 5722.28           | 60.45            | -17.85            | 78.3                  | 49.63               | 35.78                   | 7.16              | 32.12                | 100            | 350               | P                 | V            |
|                                      |        | 5707.96           | 46.76            | -7.24             | 54                    | 35.96               | 35.77                   | 7.15              | 32.12                | 100            | 350               | A                 | V            |
|                                      | *      | 5787              | 91.66            | -                 | -                     | 80.73               | 35.83                   | 7.2               | 32.1                 | 100            | 350               | A                 | V            |
|                                      | *      | 5787              | 111.34           | -                 | -                     | 100.41              | 35.83                   | 7.2               | 32.1                 | 100            | 350               | P                 | V            |
|                                      |        | 5853.44           | 58.42            | -19.88            | 78.3                  | 47.36               | 35.88                   | 7.26              | 32.08                | 100            | 350               | P                 | V            |
|                                      |        | 5869.92           | 57.36            | -16.64            | 74                    | 46.26               | 35.89                   | 7.28              | 32.07                | 100            | 350               | P                 | V            |
|                                      | 5866.8 | 45.8              | -8.2             | 54                | 34.7                  | 35.89               | 7.28                    | 32.07             | 100                  | 350            | A                 | V                 |              |



| WIFI                                 | Note  | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak    | Pol.    |   |
|--------------------------------------|---|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|---|
| Ant.                                 |   |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |   |
| 1                                    |   | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |   |
| 802.11n<br>HT20<br>CH 165<br>5825MHz | *   | 5825      | 111.49     | -      | -          | 100.48   | 35.86    | 7.24   | 32.09  | 100    | 319     | P       | H       |   |
|                                      | *   | 5825      | 101.96     | -      | -          | 90.95    | 35.86    | 7.24   | 32.09  | 100    | 319     | A       | H       |   |
|                                      |   | 5852.8    | 72.02      | -6.28  | 78.3       | 60.96    | 35.88    | 7.26   | 32.08  | 100    | 319     | P       | H       |   |
|                                      |   | 5860.48   | 63.42      | -10.58 | 74         | 52.32    | 35.89    | 7.28   | 32.07  | 100    | 319     | P       | H       |   |
|                                      |   | 5865.76   | 49.26      | -4.74  | 54         | 38.16    | 35.89    | 7.28   | 32.07  | 100    | 319     | A       | H       |   |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         |         | H |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         |         | H |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         |         | H |
|                                      | *   | 5825      | 109.08     | -      | -          | 98.07    | 35.86    | 7.24   | 32.09  | 101    | 257     | P       | V       |   |
|                                      | *   | 5825      | 100.13     | -      | -          | 89.12    | 35.86    | 7.24   | 32.09  | 101    | 257     | A       | V       |   |
|                                      |   | 5852.72   | 71.35      | -6.95  | 78.3       | 60.29    | 35.88    | 7.26   | 32.08  | 101    | 257     | P       | V       |   |
|                                      |   | 5861.12   | 61.92      | -12.08 | 74         | 50.82    | 35.89    | 7.28   | 32.07  | 101    | 257     | P       | V       |   |
|                                      |   | 5868.24   | 48.36      | -5.64  | 54         | 37.26    | 35.89    | 7.28   | 32.07  | 101    | 257     | A       | V       |   |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         |         | V |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         | V       |   |
|                                      |   |           |            |        |            |          |          |        |        |        |         |         | V       |   |
| Remark                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |          |          |        |        |        |         |         |         |   |



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

| WIFI                                 | Note   | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak    | Pol.    |
|--------------------------------------|--|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|---------|---------|
| Ant.                                 |  |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.    |         |
| 1                                    |  | ( MHz )   | ( dBµV/m ) | ( dB ) | ( dBµV/m ) | ( dBµV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | ( P/A ) | ( H/V ) |
| 802.11n<br>HT20<br>CH 149<br>5745MHz |  | 11490     | 43.18      | -30.82 | 74         | 50.77    | 38.99    | 10.33  | 56.91  | 100    | 0       | P       | H       |
|                                      |  | 17235     | 47.06      | -26.94 | 74         | 50.11    | 42.01    | 12.65  | 57.71  | 100    | 0       | P       | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  | 11490     | 43.74      | -30.26 | 74         | 51.33    | 38.99    | 10.33  | 56.91  | 100    | 0       | P       | V       |
|                                      |  | 17235     | 46.98      | -27.02 | 74         | 50.03    | 42.01    | 12.65  | 57.71  | 100    | 0       | P       | V       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | V       |
| 802.11n<br>HT20<br>CH 157<br>5785MHz |  | 11570     | 44.4       | -29.6  | 74         | 51.92    | 39.03    | 10.36  | 56.91  | 100    | 0       | P       | H       |
|                                      |  | 17355     | 47.01      | -26.99 | 74         | 50.21    | 41.96    | 12.85  | 58.01  | 100    | 0       | P       | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  | 11570     | 44.03      | -29.97 | 74         | 51.55    | 39.03    | 10.36  | 56.91  | 100    | 0       | P       | V       |
|                                      |  | 17355     | 46.62      | -27.38 | 74         | 49.82    | 41.96    | 12.85  | 58.01  | 100    | 0       | P       | V       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | V       |
| 802.11n<br>HT20<br>CH 165<br>5825MHz |  | 11650     | 44.62      | -29.38 | 74         | 52.08    | 39.06    | 10.41  | 56.93  | 100    | 0       | P       | H       |
|                                      |  | 17475     | 47.52      | -26.48 | 74         | 50.88    | 41.91    | 13.04  | 58.31  | 100    | 0       | P       | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | H       |
|                                      |  | 11650     | 43.82      | -30.18 | 74         | 51.28    | 39.06    | 10.41  | 56.93  | 100    | 0       | P       | V       |
|                                      |  | 17475     | 48.24      | -25.76 | 74         | 51.6     | 41.91    | 13.04  | 58.31  | 100    | 0       | P       | V       |
|                                      |  |           |            |        |            |          |          |        |        |        |         |         | V       |
| Remark                               | 1. No other spurious found.                                  |           |            |        |            |          |          |        |        |        |         |         |         |
|                                      | 2. All results are PASS against Peak and Average limit line. |           |            |        |            |          |          |        |        |        |         |         |         |





Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

| WIFI                                 | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                 |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1                                    |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 802.11n<br>HT40<br>CH 151<br>5755MHz |      | 5713.4    | 70.06      | -3.94  | 74         | 59.26    | 35.77    | 7.15   | 32.12  | 100    | 357     | P     | H     |
|                                      |      | 5724.76   | 74.83      | -3.47  | 78.3       | 64.01    | 35.78    | 7.16   | 32.12  | 100    | 357     | P     | H     |
|                                      |      | 5714.6    | 52.72      | -1.28  | 54         | 41.92    | 35.77    | 7.15   | 32.12  | 100    | 357     | A     | H     |
|                                      | *    | 5755      | 106.99     | -      | -          | 96.11    | 35.81    | 7.18   | 32.11  | 100    | 357     | P     | H     |
|                                      | *    | 5755      | 96.82      | -      | -          | 85.94    | 35.81    | 7.18   | 32.11  | 100    | 357     | A     | H     |
|                                      |      | 5852.56   | 54.47      | -23.83 | 78.3       | 43.41    | 35.88    | 7.26   | 32.08  | 100    | 357     | P     | H     |
|                                      |      | 5863.92   | 54.53      | -19.47 | 74         | 43.43    | 35.89    | 7.28   | 32.07  | 100    | 357     | P     | H     |
|                                      |      | 5860.64   | 44.05      | -9.95  | 54         | 32.95    | 35.89    | 7.28   | 32.07  | 100    | 357     | A     | H     |
|                                      |      | 5713.64   | 60.17      | -13.83 | 74         | 49.37    | 35.77    | 7.15   | 32.12  | 100    | 121     | P     | V     |
|                                      |      | 5723.96   | 63.95      | -14.35 | 78.3       | 53.13    | 35.78    | 7.16   | 32.12  | 100    | 121     | P     | V     |
|                                      |      | 5714.6    | 45.94      | -8.06  | 54         | 35.14    | 35.77    | 7.15   | 32.12  | 100    | 121     | A     | V     |
|                                      | *    | 5755      | 98.84      | -      | -          | 87.96    | 35.81    | 7.18   | 32.11  | 100    | 121     | P     | V     |
|                                      | *    | 5755      | 88.92      | -      | -          | 78.04    | 35.81    | 7.18   | 32.11  | 100    | 121     | A     | V     |
|                                      |      | 5854.72   | 53.65      | -24.65 | 78.3       | 42.57    | 35.89    | 7.26   | 32.07  | 100    | 121     | P     | V     |
|                                      |      | 5882.88   | 54         | -20    | 74         | 42.89    | 35.9     | 7.28   | 32.07  | 100    | 121     | P     | V     |
|                                      |      | 5878.32   | 43.65      | -10.35 | 54         | 32.54    | 35.9     | 7.28   | 32.07  | 100    | 121     | A     | V     |



| WIFI Ant.                            | Note  | Frequency ( MHz ) | Level ( dBµV/m ) | Over Limit ( dB ) | Limit Line ( dBµV/m ) | Read Level ( dBµV ) | Antenna Factor ( dB/m ) | Cable Loss ( dB ) | Preamp Factor ( dB ) | Ant Pos ( cm ) | Table Pos ( deg ) | Peak Avg. (P/A) | Pol. (H/V) |
|--------------------------------------|---|-------------------|------------------|-------------------|-----------------------|---------------------|-------------------------|-------------------|----------------------|----------------|-------------------|-----------------|------------|
| 802.11n<br>HT40<br>CH 159<br>5795MHz |   | 5711.56           | 59.93            | -14.07            | 74                    | 49.13               | 35.77                   | 7.15              | 32.12                | 175            | 354               | P               | H          |
|                                      |   | 5724.12           | 62.47            | -15.83            | 78.3                  | 51.65               | 35.78                   | 7.16              | 32.12                | 175            | 354               | P               | H          |
|                                      |   | 5712.2            | 47.48            | -6.52             | 54                    | 36.68               | 35.77                   | 7.15              | 32.12                | 175            | 354               | A               | H          |
|                                      | *   | 5795              | 109.54           | -                 | -                     | 98.59               | 35.83                   | 7.22              | 32.1                 | 175            | 354               | P               | H          |
|                                      | *   | 5795              | 99.34            | -                 | -                     | 88.39               | 35.83                   | 7.22              | 32.1                 | 175            | 354               | A               | H          |
|                                      |   | 5855.84           | 61.2             | -17.1             | 78.3                  | 50.12               | 35.89                   | 7.26              | 32.07                | 175            | 354               | P               | H          |
|                                      |   | 5866.16           | 61.23            | -12.77            | 74                    | 50.13               | 35.89                   | 7.28              | 32.07                | 175            | 354               | P               | H          |
|                                      |   | 5861.92           | 47.59            | -6.41             | 54                    | 36.49               | 35.89                   | 7.28              | 32.07                | 175            | 354               | A               | H          |
|                                      |   | 5714.84           | 55.21            | -18.79            | 74                    | 44.41               | 35.77                   | 7.15              | 32.12                | 102            | 251               | P               | V          |
|                                      |   | 5724.92           | 57.69            | -20.61            | 78.3                  | 46.87               | 35.78                   | 7.16              | 32.12                | 102            | 251               | P               | V          |
|                                      |   | 5712.52           | 44.38            | -9.62             | 54                    | 33.58               | 35.77                   | 7.15              | 32.12                | 102            | 251               | A               | V          |
|                                      | *   | 5795              | 104.35           | -                 | -                     | 93.4                | 35.83                   | 7.22              | 32.1                 | 102            | 251               | P               | V          |
|                                      | *   | 5795              | 94.36            | -                 | -                     | 83.41               | 35.83                   | 7.22              | 32.1                 | 102            | 251               | A               | V          |
|                                      |   | 5850              | 59.9             | -18.4             | 78.3                  | 48.84               | 35.88                   | 7.26              | 32.08                | 102            | 251               | P               | V          |
|                                      |   | 5862.4            | 57.05            | -16.95            | 74                    | 45.95               | 35.89                   | 7.28              | 32.07                | 102            | 251               | P               | V          |
|                                      | 5860.64   | 44.72             | -9.28            | 54                | 33.62                 | 35.89               | 7.28                    | 32.07             | 102                  | 251            | A                 | V               |            |
| Remark                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |                   |                  |                   |                       |                     |                         |                   |                      |                |                   |                 |            |



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

| WIFI                                 | Note  | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |
|--------------------------------------|---|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                                 |   |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1                                    |   | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 802.11n<br>HT40<br>CH 151<br>5755MHz |   | 11510     | 43.76      | -30.24 | 74         | 51.32    | 39       | 10.34  | 56.9   | 100    | 0       | P     | H     |
|                                      |   | 17265     | 47.85      | -26.15 | 74         | 50.92    | 41.99    | 12.73  | 57.79  | 100    | 0       | P     | H     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | H     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | H     |
| 802.11n<br>HT40<br>CH 159<br>5795MHz |   | 11510     | 43.22      | -30.78 | 74         | 50.78    | 39       | 10.34  | 56.9   | 100    | 0       | P     | V     |
|                                      |   | 17268     | 47.42      | -26.58 | 74         | 50.49    | 41.99    | 12.73  | 57.79  | 100    | 0       | P     | V     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | V     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | V     |
| 802.11n<br>HT40<br>CH 159<br>5795MHz |   | 11590     | 43.45      | -30.55 | 74         | 50.96    | 39.03    | 10.38  | 56.92  | 100    | 0       | P     | H     |
|                                      |   | 17385     | 47.27      | -26.73 | 74         | 50.49    | 41.95    | 12.93  | 58.1   | 100    | 0       | P     | H     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | H     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | H     |
| 802.11n<br>HT40<br>CH 159<br>5795MHz |   | 11590     | 43.29      | -30.71 | 74         | 50.8     | 39.03    | 10.38  | 56.92  | 100    | 0       | P     | V     |
|                                      |   | 17385     | 48.3       | -25.7  | 74         | 51.52    | 41.95    | 12.93  | 58.1   | 100    | 0       | P     | V     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | V     |
|                                      |   |           |            |        |            |          |          |        |        |        |         |       | V     |
| Remark                               | 1. No other spurious found.<br>2. All results are PASS against Peak and Average limit line. |           |            |        |            |          |          |        |        |        |         |       |       |



Emission below 1GHz

5GHz WIFI 802.11a (LF @ 3m)

| WIFI                  | Note   | Frequency | Level      | Over   | Limit      | Read   | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |
|-----------------------|--|-----------|------------|--------|------------|--------|----------|--------|--------|--------|---------|-------|-------|
| Ant.                  |  |           |            | Limit  | Line       | Level  | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1                     |  | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | (dBμV) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 5GHz<br>802.11a<br>LF |  | 91.02     | 30.12      | -13.38 | 43.5       | 51.97  | 8.88     | 1.05   | 31.78  |        |         | P     | H     |
|                       | !  | 243.3     | 41.35      | -4.65  | 46         | 59.8   | 11.7     | 1.62   | 31.77  | 135    | 208     | P     | H     |
|                       | !  | 253.02    | 40.13      | -5.87  | 46         | 57.4   | 12.85    | 1.65   | 31.77  |        |         | P     | H     |
|                       |  | 325.9     | 34.13      | -11.87 | 46         | 50.42  | 13.64    | 1.84   | 31.77  |        |         | P     | H     |
|                       |  | 342       | 33.16      | -12.84 | 46         | 48.9   | 14.16    | 1.88   | 31.78  |        |         | P     | H     |
|                       |  | 731.9     | 31.26      | -14.74 | 46         | 38.59  | 21.96    | 2.71   | 32     |        |         | P     | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | H     |
|                       | !  | 30.54     | 36.12      | -3.88  | 40         | 48.85  | 18.38    | 0.71   | 31.82  | 147    | 258     | P     | V     |
|                       |  | 240.06    | 37.12      | -8.88  | 46         | 55.88  | 11.4     | 1.61   | 31.77  |        |         | P     | V     |
|                       |  | 249.78    | 38.94      | -7.06  | 46         | 56.67  | 12.4     | 1.64   | 31.77  |        |         | P     | V     |
|                       |  | 323.1     | 31.64      | -14.36 | 46         | 48.05  | 13.52    | 1.84   | 31.77  |        |         | P     | V     |
|                       |  | 675.9     | 33.2       | -12.8  | 46         | 42.27  | 20.36    | 2.61   | 32.04  |        |         | P     | V     |
|                       |  | 731.9     | 36.59      | -9.41  | 46         | 43.92  | 21.96    | 2.71   | 32     |        |         | P     | V     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | V     |
|                       |  |           |            |        |            |        |          |        |        |        |         |       | V     |
|                       |  |           |            |        |            |        |          |        |        |        |         | V     |       |
|                       |  |           |            |        |            |        |          |        |        |        |         | V     |       |
|                       |  |           |            |        |            |        |          |        |        |        |         | V     |       |
|                       |  |           |            |        |            |        |          |        |        |        |         | V     |       |
| Remark                | 1. No other spurious found.<br>2. All results are PASS against limit line. |           |            |        |            |        |          |        |        |        |         |       |       |



**Note symbol**

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



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

| WIFI    | Note | Frequency | Level      | Over   | Limit      | Read     | Antenna  | Cable  | Preamp | Ant    | Table   | Peak  | Pol.  |
|---------|------|-----------|------------|--------|------------|----------|----------|--------|--------|--------|---------|-------|-------|
| Ant.    |      |           |            | Limit  | Line       | Level    | Factor   | Loss   | Factor | Pos    | Pos     | Avg.  |       |
| 1+2     |      | ( MHz )   | ( dBμV/m ) | ( dB ) | ( dBμV/m ) | ( dBμV ) | ( dB/m ) | ( dB ) | ( dB ) | ( cm ) | ( deg ) | (P/A) | (H/V) |
| 802.11b |      | 2390      | 55.45      | -18.55 | 74         | 54.51    | 32.22    | 4.58   | 35.86  | 103    | 308     | P     | H     |
| CH 01   |      |           |            |        |            |          |          |        |        |        |         |       |       |
| 2412MHz |      | 2390      | 43.54      | -10.46 | 54         | 42.6     | 32.22    | 4.58   | 35.86  | 103    | 308     | A     | H     |

- Level(dBμV/m) =  
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)  
= 55.45 (dBμV/m)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)  
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)  
= 43.54 (dBμV/m)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

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