

Fig. 66 Conducted Emission (802.11a, IDLE)
Final Result 1

| Frequency <br> $(\mathbf{M H z})$ | QuasiPeak <br> $(\mathbf{d B} \mu \mathbf{V})$ | Meas. <br> Time <br> $(\mathbf{m s})$ | Bandwidth <br> $(\mathbf{k H z})$ | Line | Corr. <br> $(\mathbf{d B})$ | Margin <br> $(\mathbf{d B})$ | Limit <br> $(\mathbf{d B} \mu \mathrm{V})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0.168000 | 39.2 | 2000. | 9.000 | Off | L1 | 19.7 | 25.8 |
| 0.186000 | 38.1 | 2000. | 9.000 | Off | L1 | 19.7 | 26.1 |
| 0.199500 | 38.1 | 2000. | 9.000 | Off | N | 19.7 | 25.6 |
| 0.217500 | 34.4 | 2000. | 9.000 | Off | N | 19.7 | 28.5 |
| 0.240000 | 33.4 | 2000. | 9.000 | Off | L1 | 19.6 | 28.7 |
| 0.357000 | 27.7 | 2000. | 9.000 | Off | L1 | 19.6 | 31.1 |

## Final Result 2

| Frequency <br> $(\mathbf{M H z})$ | Average <br> $(\mathbf{d B \mu} \mathbf{V})$ | Meas. <br> Time <br> $(\mathbf{m s})$ | Bandwidth <br> $(\mathbf{k H z})$ | Line | Corr. <br> $(\mathbf{d B})$ | Margin <br> $(\mathbf{d B})$ | Limit <br> $(\mathbf{d B \mu} \mathbf{V})$ |
| :--- | :--- | :---: | :--- | :--- | :--- | :--- | :--- |
| 0.168000 | 20.5 | 2000.0 | 9.000 | Off | L1 | 19.7 | 34.6 |
| 0.199500 | 22.2 | 2000.0 | 9.000 | Off | N | 19.7 | 31.5 |
| 0.235500 | 21.5 | 2000.0 | 9.000 | Off | N | 19.6 | 30.8 |
| 0.357000 | 20.1 | 2000.0 | 9.000 | Off | N | 19.6 | 28.7 |
| 1.059000 | 21.1 | 2000.0 | 9.000 | Off | N | 19.7 | 24.9 |
| 2.346000 | 21.1 | 2000.0 | 9.000 | Off | L 1 | 19.7 | 24.9 |

## A.8. 99\% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth ( 3 dB RBW) shall be in the range of $1 \%$ to $5 \%$ of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (O B W / R B W)]$ below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.
e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the $99 \%$ power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99\% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until $0.5 \%$ ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until $99.5 \%$ of the total is reached; that frequency is recorded as the upper frequency. The $99 \%$ power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

## Measurement Uncertainty:

| Measurement Uncertainty | 60.80 Hz |
| :---: | :---: |

## EUT ID: UT11a

Measurement Result:

| TestMode | Antenna | Frequency[MHz] | $\mathrm{OCB}[\mathrm{MHz}]$ | FL[MHz] | $\mathrm{FH}[\mathrm{MHz}]$ | Limit[MHz] | Verdict |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11A | Ant6 | 5180 | 16.795 | 5171.5829 | 5188.3775 | --- | --- |
|  |  | 5200 | 16.766 | 5191.5827 | 5208.3483 | --- | --- |
|  |  | 5240 | 16.775 | 5231.6171 | 5248.3924 | --- | --- |
|  |  | 5260 | 16.801 | 5251.5462 | 5268.3472 | --- | --- |
|  |  | 5280 | 16.84 | 5271.5490 | 5288.3890 | --- | --- |
|  |  | 5320 | 16.805 | 5311.5478 | 5328.3532 | --- | --- |
|  |  | 5500 | 16.82 | 5491.5935 | 5508.4137 | --- | --- |
|  |  | 5580 | 16.919 | 5571.5617 | 5588.4803 | --- | --- |
|  |  | 5700 | 16.769 | 5691.6025 | 5708.3714 | --- | --- |
|  |  | 5720 | 16.767 | 5711.6026 | 5728.3697 | --- | --- |

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| 11N20SISO | Ant6 | 5180 | 17.996 | 5170.9975 | 5188.9938 | --- | --- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 5200 | 17.957 | 5190.9768 | 5208.9340 | --- | --- |
|  |  | 5240 | 17.95 | 5231.0233 | 5248.9732 | -- | - |
|  |  | 5260 | 18.009 | 5250.9320 | 5268.9411 | --- | --- |
|  |  | 5280 | 18.027 | 5270.9430 | 5288.9699 | --- | --- |
|  |  | 5320 | 17.967 | 5310.9643 | 5328.9308 | --- | --- |
|  |  | 5500 | 18.028 | 5491.0153 | 5509.0433 | --- | --- |
|  |  | 5580 | 17.962 | 5570.9783 | 5588.9405 | --- | --- |
|  |  | 5700 | 17.932 | 5691.0176 | 5708.9500 | --- | --- |
|  |  | 5720 | 20.468 | 5710.8065 | 5731.2750 | --- | --- |
| 11N40SISO | Ant6 | 5190 | 36.409 | 5171.7723 | 5208.1815 | --- | - |
|  |  | 5230 | 36.51 | 5211.6983 | 5248.2085 | --- | --- |
|  |  | 5270 | 36.547 | 5251.6600 | 5288.2068 | --- | --- |
|  |  | 5310 | 36.388 | 5291.7474 | 5328.1354 | --- | --- |
|  |  | 5510 | 36.425 | 5491.7497 | 5528.1746 | --- | - |
|  |  | 5550 | 36.488 | 5531.7558 | 5568.2439 | --- | --- |
|  |  | 5670 | 36.297 | 5651.8539 | 5688.1507 | --- | -- |
|  |  | 5710 | 36.327 | 5691.8182 | 5728.1457 | --- | --- |
| 11AC80SISO | Ant6 | 5210 | 76.117 | 5171.9293 | 5248.0459 | - | - |
|  |  | 5290 | 76.242 | 5251.7392 | 5327.9815 | --- | --- |
|  |  | 5530 | 76.163 | 5491.8910 | 5568.0544 | - | --- |
|  |  | 5610 | 76.237 | 5571.7917 | 5648.0286 | --- | --- |
|  |  | 5690 | 75.9 | 5652.0408 | 5727.9413 | - | --- |
| 11AX160SISO | Ant6 | 5250 | 157.531 | 5171.1293 | 5328.6603 | - | - |
|  |  | 5570 | 157.277 | 5490.9673 | 5648.2443 | --- | - |
| 11N20MIMO | Ant6 | 5180 | 17.997 | 5170.9995 | 5188.9962 | --- | - |
|  | Ant10 | 5180 | 17.862 | 5171.0777 | 5188.9399 | --- | --- |
|  | Ant6 | 5200 | 17.954 | 5190.9727 | 5208.9268 | --- | - |
|  | Ant10 | 5200 | 17.839 | 5191.0611 | 5208.9002 | --- | - |
|  | Ant6 | 5240 | 18.364 | 5230.8386 | 5249.2026 | --- | --- |
|  | Ant10 | 5240 | 18.279 | 5230.8575 | 5249.1363 | --- | --- |
|  | Ant6 | 5260 | 18.416 | 5250.7603 | 5269.1766 | --- | --- |
|  | Ant10 | 5260 | 18.332 | 5250.8846 | 5269.2165 | --- | - |
|  | Ant6 | 5280 | 18.469 | 5270.7728 | 5289.2415 | --- | --- |
|  | Ant10 | 5280 | 18.279 | 5270.8582 | 5289.1371 | --- | --- |
|  | Ant6 | 5320 | 18.433 | 5310.7520 | 5329.1852 | --- | --- |
|  | Ant10 | 5320 | 18.332 | 5310.8798 | 5329.2117 | --- | --- |
|  | Ant6 | 5500 | 18.507 | 5490.8101 | 5509.3172 | --- | --- |
|  | Ant10 | 5500 | 18.507 | 5490.7895 | 5509.2969 | --- | --- |
|  | Ant6 | 5580 | 18.445 | 5570.7863 | 5589.2317 | --- | --- |
|  | Ant10 | 5580 | 18.368 | 5570.8302 | 5589.1985 | --- | --- |


|  | Ant6 | 5700 | 18.389 | 5690.8558 | 5709.2448 | --- | --- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ant10 | 5700 | 18.267 | 5690.8487 | 5709.1155 | --- | --- |
|  | Ant6 | 5720 | 18.395 | 5710.8436 | 5729.2387 | --- | --- |
|  | Ant10 | 5720 | 18.277 | 5710.8438 | 5729.1205 | --- | - |
| 11N40MIMO | Ant6 | 5190 | 36.37 | 5171.7865 | 5208.1567 | --- | - |
|  | Ant10 | 5190 | 36.218 | 5171.9043 | 5208.1218 | --- | --- |
|  | Ant6 | 5230 | 36.436 | 5211.7410 | 5248.1775 | --- | - |
|  | Ant10 | 5230 | 36.275 | 5211.8362 | 5248.1111 | --- | - |
|  | Ant6 | 5270 | 36.456 | 5251.7121 | 5288.1685 | --- | - |
|  | Ant10 | 5270 | 36.172 | 5251.9004 | 5288.0726 | --- | - |
|  | Ant6 | 5310 | 36.392 | 5291.7225 | 5328.1143 | --- | --- |
|  | Ant10 | 5310 | 36.245 | 5291.9108 | 5328.1560 | --- | --- |
|  | Ant6 | 5510 | 36.411 | 5491.7355 | 5528.1470 | --- | --- |
|  | Ant10 | 5510 | 36.223 | 5491.8560 | 5528.0795 | --- | --- |
|  | Ant6 | 5550 | 36.447 | 5531.7129 | 5568.1604 | --- | --- |
|  | Ant10 | 5550 | 36.239 | 5531.8229 | 5568.0620 | --- | --- |
|  | Ant6 | 5670 | 36.223 | 5651.8893 | 5688.1126 | --- | -- |
|  | Ant10 | 5670 | 36.242 | 5651.8460 | 5688.0875 | --- | --- |
|  | Ant6 | 5710 | 36.262 | 5691.8583 | 5728.1208 | --- | --- |
|  | Ant10 | 5710 | 36.248 | 5691.8177 | 5728.0661 | --- | --- |
| 11AC80MIMO | Ant6 | 5210 | 76.048 | 5171.9655 | 5248.0139 | --- | --- |
|  | Ant10 | 5210 | 75.52 | 5172.3024 | 5247.8227 | --- | --- |
|  | Ant6 | 5290 | 76.082 | 5251.8557 | 5327.9375 | --- | --- |
|  | Ant10 | 5290 | 75.656 | 5252.2530 | 5327.9091 | --- | --- |
|  | Ant6 | 5530 | 76.058 | 5491.8370 | 5567.8948 | --- | --- |
|  | Ant10 | 5530 | 75.564 | 5492.1071 | 5567.6711 | --- | --- |
|  | Ant6 | 5610 | 75.978 | 5571.9128 | 5647.8908 | --- | --- |
|  | Ant10 | 5610 | 75.576 | 5572.0531 | 5647.6295 | --- | --- |
|  | Ant6 | 5690 | 75.795 | 5652.1448 | 5727.9397 | --- | --- |
|  | Ant10 | 5690 | 75.651 | 5652.0566 | 5727.7077 | --- | --- |
| 11AX160MIMO | Ant6 | 5250 | 157.524 | 5171.2049 | 5328.7288 | --- | --- |
|  | Ant10 | 5250 | 157.299 | 5171.6345 | 5328.9330 | --- | --- |
|  | Ant6 | 5570 | 157.453 | 5490.9638 | 5648.4166 | --- | --- |
|  | Ant10 | 5570 | 156.633 | 5491.0669 | 5647.7003 | --- | --- |

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Test graphs as below:


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