

Fig.54 Band Edges (802.11a, 5500MHz)

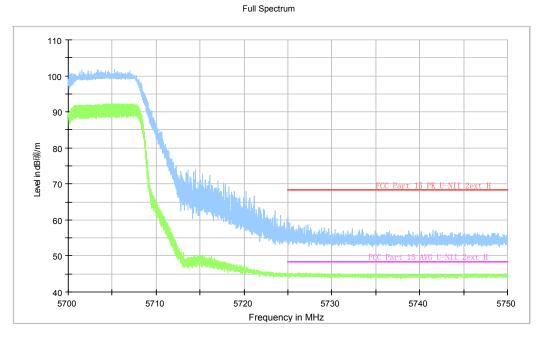


Fig.55 Band Edges (802.11a, 5700MHz)







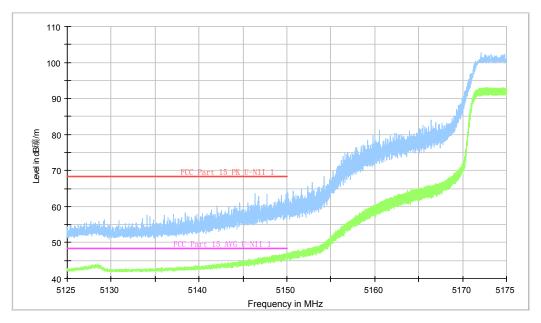


Fig.56 Band Edges (802.11n-HT20, 5180MHz)

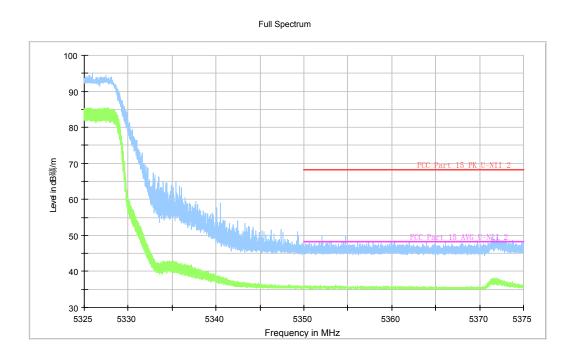


Fig.57 Band Edges (802.11n-HT20, 5320MHz)





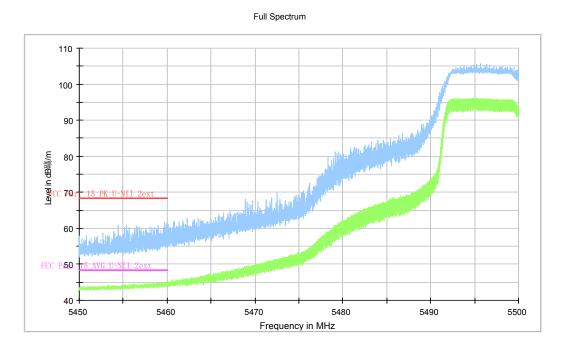


Fig.58 Band Edges (802.11n-HT20, 5500MHz)

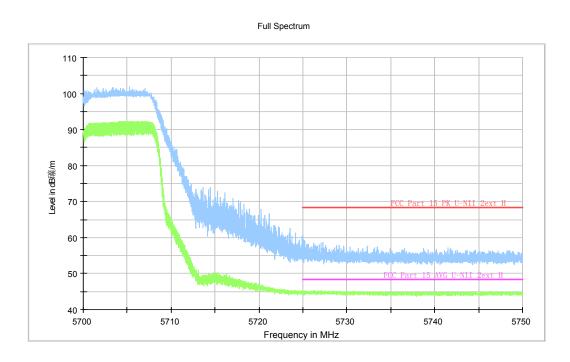


Fig.59 Band Edges (802.11n-HT20, 5700MHz)





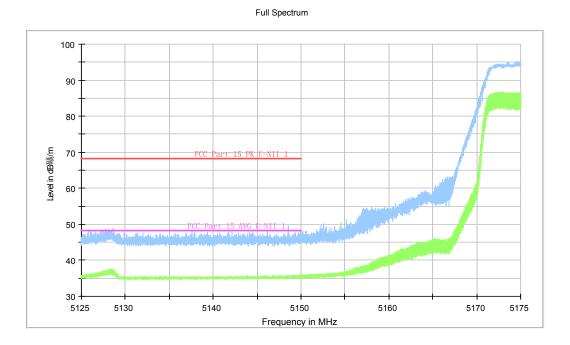


Fig.60 Band Edges (802.11ac-HT20, 5180MHz)

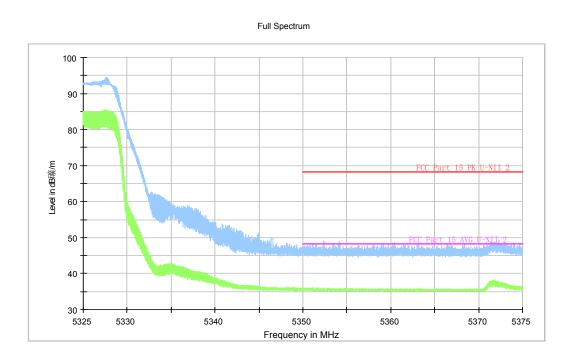


Fig.61 Band Edges (802.11ac-HT20, 5320MHz)





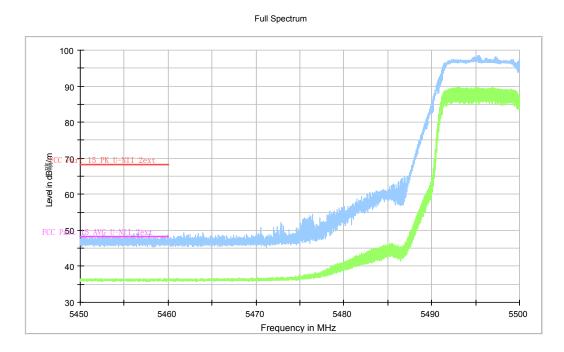


Fig.62 Band Edges (802.11ac-HT20, 5500MHz)

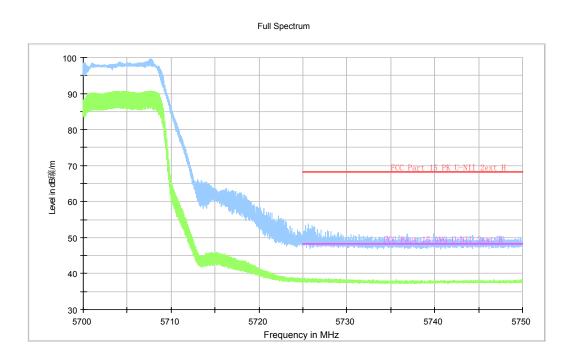


Fig.63 Band Edges (802.11ac-HT20, 5700MHz)





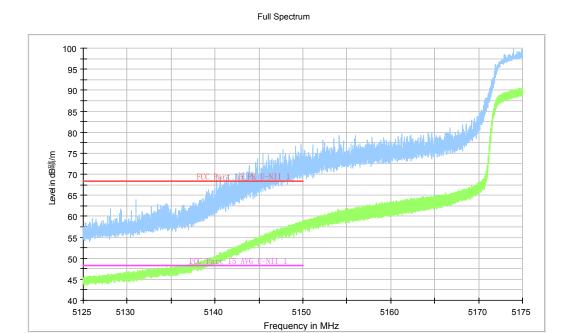


Fig.64 Band Edges (802.11n-HT40, 5190MHz)

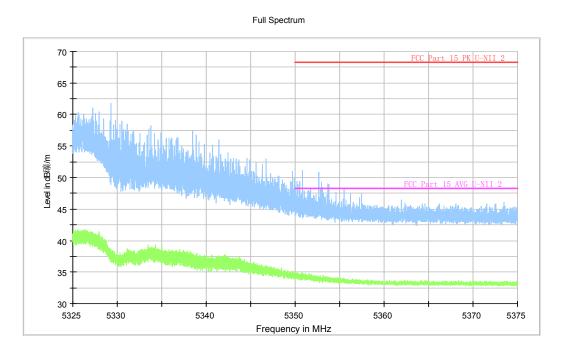


Fig.65 Band Edges (802.11n-HT40, 5310MHz)





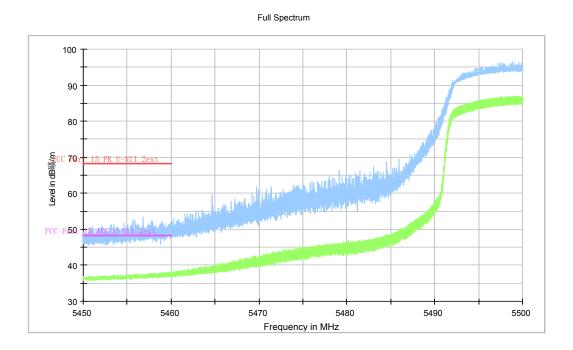
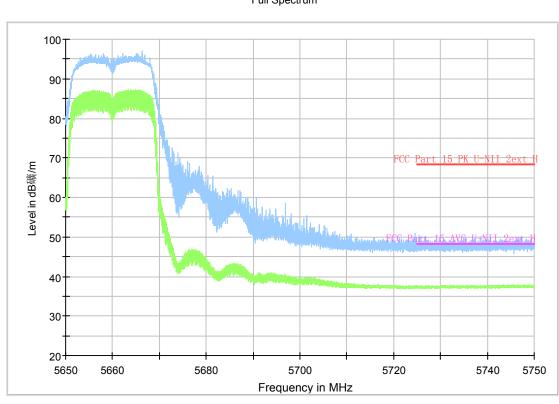


Fig.66 Band Edges (802.11n-HT40, 5510MHz)



Full Spectrum

Fig.67 Band Edges (802.11n-HT40, 5670MHz)







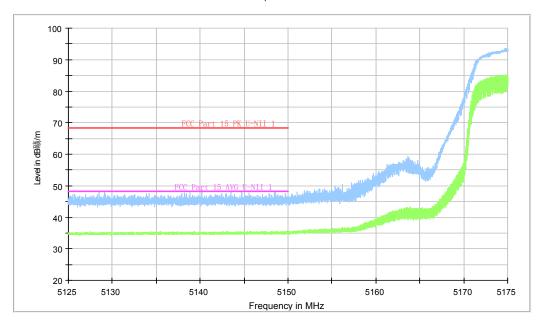


Fig.68 Band Edges (802.11ac-HT40, 5190MHz)

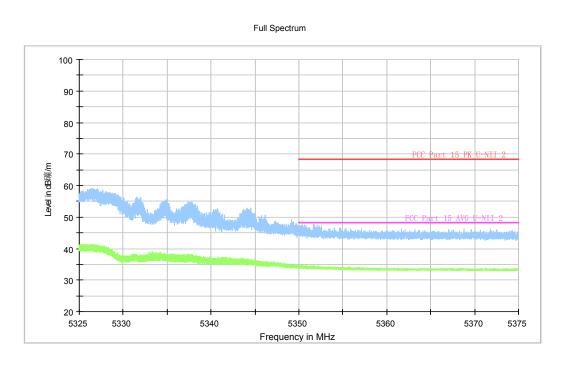


Fig.69 Band Edges (802.11ac-HT40, 5310MHz)





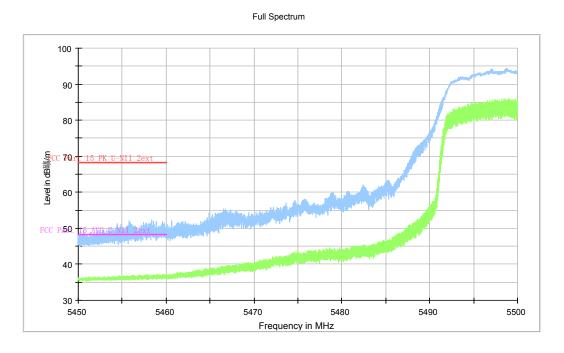


Fig.70 Band Edges (802.11ac-HT40, 5510MHz)

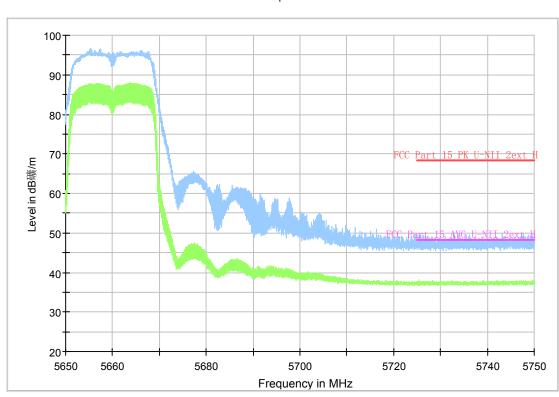


Fig.71 Band Edges (802.11ac-HT40, 5670MHz)





#### Full Spectrum

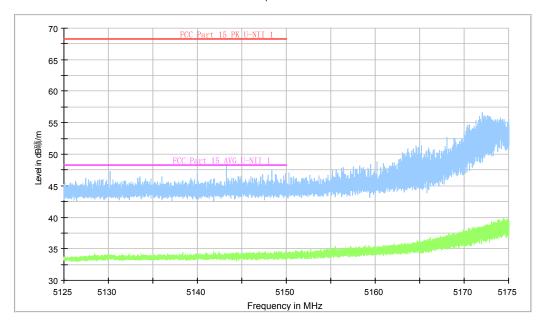


Fig.72 Band Edges (802.11ac-HT80, 5210MHz)



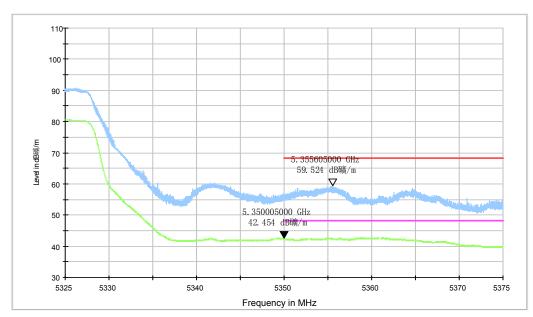


Fig.73 Band Edges (802.11ac-HT80, 5290MHz)





#### Full Spectrum

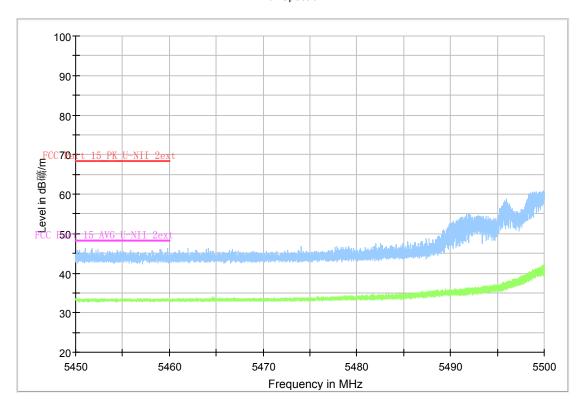


Fig.74 Band Edges (802.11ac-HT80, 5530MHz)





# A.6. Transmitter Spurious Emission

#### **Measurement Limit:**

| Standard               | Limit       |
|------------------------|-------------|
| FCC 47 CFR Part 15.407 | -27 dBm/MHz |

The measurement is made according to KDB 789033

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### Limit in restricted band:

| Frequency of emission (MHz) | Field strength(dBµV/m) | Measurement distance(m) |  |  |
|-----------------------------|------------------------|-------------------------|--|--|
| 30-88                       | 40.0                   | 3                       |  |  |
| 88-216                      | 43.5                   | 3                       |  |  |
| 216-960                     | 46.0                   | 3                       |  |  |
| Above 960                   | 54.0                   | 3                       |  |  |

Note: for frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m

#### **Measurement Results:**

**Conclusion: PASS** 

Note:

P<sub>Mea</sub> is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= P<sub>Mea</sub> + Cable Loss + Antenna Factor

Where:

P<sub>Mea</sub> field strength recorded from the instrument





# Average 802.11a

## Channel 36

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10359.400          | 35.0                        | -33.7                 | 37.9                        | 30.8                          | 48.3              | 13.3           | V                        |
| 17997.800          | 34.8                        | -25.5                 | 43.4                        | 16.9                          | 48.3              | 13.5           | Н                        |
| 10360.500          | 34.6                        | -33.7                 | 37.9                        | 30.4                          | 48.3              | 13.7           | V                        |
| 17943.900          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17993.400          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | V                        |
| 5149.700           | 46.0                        | -17.0                 | 33.4                        | 29.6                          | 48.3              | 2.3            | V                        |

#### Channel 40

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10400.100          | 34.8                        | -33.2                 | 37.9                        | 30.1                          | 48.3              | 13.5           | V                        |
| 17982.400          | 34.8                        | -25.5                 | 43.4                        | 16.9                          | 48.3              | 13.5           | Н                        |
| 17986.800          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17997.800          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17937.300          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |
| 17974.700          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17975.800          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17981.300          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17982.400          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17993.400          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |
| 17978.000          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |
| 17980.200          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10520.000 | 35.6    | -33.0 | 38.0    | 30.6   | 48.3   | 12.7  | V       |
| 17990.100 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17965.900 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17995.600 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | V       |
| 17969.200 | 34.2    | -25.5 | 43.4    | 16.3   | 48.3   | 14.1  | Н       |
| 17974.700 | 34.2    | -25.5 | 43.4    | 16.3   | 48.3   | 14.1  | V       |

## Channel 56

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17956.000 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17976.900 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | H       |
| 17987.900 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |
| 17997.800 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |
| 17957.100 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | V       |
| 17992.300 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10639.900 | 35.6    | -32.8 | 38.0    | 30.4   | 48.3   | 12.7  | Н       |
| 10641.000 | 35.1    | -32.8 | 38.0    | 29.9   | 48.3   | 13.2  | Н       |
| 10638.800 | 34.7    | -32.8 | 38.0    | 29.5   | 48.3   | 13.6  | Н       |
| 15959.500 | 34.7    | -27.4 | 37.8    | 24.3   | 48.3   | 13.6  | V       |
| 10643.200 | 34.6    | -32.8 | 38.0    | 29.4   | 48.3   | 13.7  | Н       |
| 5372.400  | 37.7    | -16.9 | 33.4    | 21.2   | 48.3   | 10.6  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10999.600 | 42.5    | -32.8 | 38.2    | 37.1   | 48.3   | 5.8   | Н       |
| 10998.500 | 42.0    | -32.8 | 38.2    | 36.6   | 48.3   | 6.3   | Н       |
| 11000.700 | 42.0    | -32.8 | 38.2    | 36.6   | 48.3   | 6.3   | Н       |
| 11001.800 | 41.8    | -32.5 | 38.2    | 36.1   | 48.3   | 6.5   | Н       |
| 11002.900 | 41.8    | -32.5 | 38.2    | 36.1   | 48.3   | 6.5   | Н       |
| 5459.900  | 45.2    | -16.8 | 33.4    | 28.6   | 48.3   | 3.1   | Н       |

## Channel 120

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11199.800 | 43.5    | -32.6 | 38.2    | 37.9   | 48.3   | 4.8   | V       |
| 11200.900 | 43.4    | -32.6 | 38.2    | 37.8   | 48.3   | 4.9   | V       |
| 11202.000 | 43.4    | -32.6 | 38.2    | 37.8   | 48.3   | 4.9   | V       |
| 11198.700 | 43.3    | -32.6 | 38.2    | 37.7   | 48.3   | 5.0   | V       |
| 11197.600 | 43.2    | -32.6 | 38.2    | 37.6   | 48.3   | 5.1   | V       |
| 11195.400 | 42.1    | -32.6 | 38.2    | 36.5   | 48.3   | 6.2   | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11401.100 | 44.7    | -32.4 | 38.2    | 38.9   | 48.3   | 3.6   | V       |
| 11400.000 | 44.3    | -32.4 | 38.2    | 38.5   | 48.3   | 4.0   | V       |
| 11396.700 | 44.2    | -32.4 | 38.2    | 38.4   | 48.3   | 4.1   | V       |
| 11404.400 | 44.2    | -32.4 | 38.2    | 38.4   | 48.3   | 4.1   | V       |
| 11402.200 | 43.9    | -32.4 | 38.2    | 38.1   | 48.3   | 4.4   | V       |
| 5726.200  | 45.3    | -16.3 | 34.2    | 27.4   | 48.3   | 3.0   | Н       |





# 802.11n-HT20

## Channel 36

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10359.400          | 35.2                        | -33.7                 | 37.9                        | 31.0                          | 48.3              | 13.1           | V                        |
| 10360.500          | 34.8                        | -33.7                 | 37.9                        | 30.6                          | 48.3              | 13.5           | V                        |
| 17952.700          | 34.8                        | -25.5                 | 43.4                        | 16.9                          | 48.3              | 13.5           | Н                        |
| 17980.200          | 34.8                        | -25.5                 | 43.4                        | 16.9                          | 48.3              | 13.5           | Н                        |
| 17951.600          | 34.7                        | -25.5                 | 43.4                        | 16.8                          | 48.3              | 13.6           | Н                        |
| 5149.900           | 46.9                        | -17.0                 | 33.4                        | 30.5                          | 48.3              | 1.4            | V                        |

## Channel 40

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10400.100          | 34.7                        | -33.2                 | 37.9                        | 30.0                          | 48.3              | 13.6           | V                        |
| 17981.300          | 34.7                        | -25.5                 | 43.4                        | 16.8                          | 48.3              | 13.6           | Н                        |
| 17974.700          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17976.900          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17994.500          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17961.500          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | V                        |

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17997.800          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | V                        |
| 17976.900          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17986.800          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |
| 17990.100          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17969.200          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | V                        |
| 17991.200          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |





|           |          |       |         | Receiv |        |       |         |
|-----------|----------|-------|---------|--------|--------|-------|---------|
|           | Measure  |       |         | er     |        |       |         |
|           | ment     | Cable | Antenna | Readin | Limit  | Margi | Antenna |
| Frequency | Result   | loss  | Factor  | g      | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBµV/m) | (dB)  | (dB/m)  | (dBµV) | m)     | (dB)  | (H/V)   |
| 10520.000 | 35.6     | -33.0 | 38.0    | 30.6   | 48.3   | 12.7  | V       |
| 17964.800 | 34.4     | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17980.200 | 34.4     | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |
| 17956.000 | 34.2     | -25.5 | 43.4    | 16.3   | 48.3   | 14.1  | Н       |
| 17971.400 | 34.2     | -25.5 | 43.4    | 16.3   | 48.3   | 14.1  | V       |
| 17974.700 | 34.2     | -25.5 | 43.4    | 16.3   | 48.3   | 14.1  | Н       |

## Channel 56

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10559.600 | 36.4    | -33.0 | 38.0    | 31.4   | 48.3   | 11.9  | V       |
| 17985.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17989.000 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 10558.500 | 34.3    | -33.0 | 38.0    | 29.3   | 48.3   | 14.0  | Н       |
| 17956.000 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17978.000 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10641.000 | 35.5    | -32.8 | 38.0    | 30.3   | 48.3   | 12.8  | H       |
| 10639.900 | 35.4    | -32.8 | 38.0    | 30.2   | 48.3   | 12.9  | ٧       |
| 10637.700 | 35.0    | -32.8 | 38.0    | 29.8   | 48.3   | 13.3  | Н       |
| 15962.800 | 34.9    | -27.4 | 37.8    | 24.5   | 48.3   | 13.4  | V       |
| 15957.300 | 34.8    | -27.4 | 37.8    | 24.4   | 48.3   | 13.5  | V       |
| 5371.500  | 38.1    | -16.9 | 33.4    | 21.6   | 48.3   | 10.2  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10999.600 | 42.7    | -32.8 | 38.2    | 37.3   | 48.3   | 5.6   | Н       |
| 11000.700 | 42.3    | -32.8 | 38.2    | 36.9   | 48.3   | 6.0   | Н       |
| 10998.500 | 41.9    | -32.8 | 38.2    | 36.5   | 48.3   | 6.4   | Н       |
| 11001.800 | 41.8    | -32.5 | 38.2    | 36.1   | 48.3   | 6.5   | Н       |
| 10997.400 | 41.5    | -32.8 | 38.2    | 36.1   | 48.3   | 6.8   | Н       |
| 5453.100  | 43.4    | -16.8 | 33.4    | 26.8   | 48.3   | 4.9   | Н       |

## Channel 120

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11200.900 | 42.5    | -32.6 | 38.2    | 36.9   | 54.0   | 5.8   | V       |
| 11199.800 | 42.3    | -32.6 | 38.2    | 36.7   | 54.0   | 6.0   | Н       |
| 11198.700 | 42.1    | -32.6 | 38.2    | 36.5   | 54.0   | 6.2   | V       |
| 11197.600 | 42.0    | -32.6 | 38.2    | 36.4   | 54.0   | 6.3   | V       |
| 11205.300 | 42.0    | -32.6 | 38.2    | 36.4   | 54.0   | 6.3   | V       |
| 11203.100 | 41.9    | -32.6 | 38.2    | 36.3   | 54.0   | 6.4   | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11398.900 | 44.9    | -32.4 | 38.2    | 39.1   | 54.0   | 3.4   | V       |
| 11400.000 | 44.9    | -32.4 | 38.2    | 39.1   | 54.0   | 3.4   | V       |
| 11397.800 | 44.5    | -32.4 | 38.2    | 38.7   | 54.0   | 3.8   | V       |
| 11403.300 | 44.5    | -32.4 | 38.2    | 38.7   | 54.0   | 3.8   | V       |
| 11404.400 | 44.4    | -32.4 | 38.2    | 38.6   | 54.0   | 3.9   | V       |
| 5725.500  | 45.6    | -16.3 | 34.2    | 27.7   | 54.0   | 2.7   | Н       |





# 802.11n-HT40

## Channel 38

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17956.000          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17971.400          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17996.700          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17993.400          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17950.500          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |
| 5145.800           | 42.8                        | -17.0                 | 33.4                        | 26.4                          | 48.3              | 5.5            | Н                        |

## Channel 46

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17959.300          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17984.600          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17962.600          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |
| 17969.200          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |
| 17972.500          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17976.900          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17996.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17965.900 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17981.300 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |
| 17993.400 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17973.600 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17984.600 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 5351.140  | 34.8    | -34.8 | 34.6    | 35.0   | 48.3   | 13.5  | Н       |
| 17982.400 | 34.6    | -17.7 | 45.6    | 6.7    | 48.3   | 13.7  | Н       |
| 17980.200 | 34.5    | -17.7 | 45.6    | 6.6    | 48.3   | 13.8  | V       |
| 17975.800 | 34.4    | -17.7 | 45.6    | 6.5    | 48.3   | 13.9  | Н       |
| 17973.600 | 34.3    | -17.7 | 45.6    | 6.4    | 48.3   | 14.0  | Н       |
| 17989.000 | 34.3    | -17.7 | 45.6    | 6.4    | 48.3   | 14.0  | Н       |

## Channel 102

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17962.600 | 34.7    | -25.5 | 43.4    | 16.8   | 48.3   | 13.6  | V       |
| 17976.900 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17992.300 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17965.900 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17973.600 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 5459.900  | 38.2    | -16.8 | 33.4    | 21.6   | 48.3   | 10.1  | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17964.800 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17972.500 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17973.600 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17981.300 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17984.600 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17985.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17987.900 | 34.9    | -25.5 | 43.4    | 17.0   | 48.3   | 13.4  | Н       |
| 17970.300 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17974.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17980.200 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17986.800 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 5745.200  | 37.9    | -16.3 | 34.2    | 20.0   | 48.3   | 10.4  | Н       |

#### 802.11ac-HT20

## Channel 36

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10400.100          | 35.0                        | -33.2                 | 37.9                        | 30.3                          | 48.3              | 13.3           | V                        |
| 17992.300          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17995.600          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | V                        |
| 17961.500          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17965.900          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |
| 17968.100          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 10400.100          | 35.0                        | -33.2                 | 37.9                        | 30.3                          | 48.3              | 13.3           | V                        |
| 17992.300          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17995.600          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | V                        |
| 17961.500          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17965.900          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |
| 17968.100          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |





| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17991.200          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17970.300          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17979.100          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17968.100          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | Н                        |
| 17971.400          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17965.900          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |

## Channel 52

| Ondrine 02         |         |       |         |        |        |       |         |
|--------------------|---------|-------|---------|--------|--------|-------|---------|
|                    | Measure |       |         | Receiv |        |       |         |
| Fraguesa           | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency<br>(MHz) | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (171112)           | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|                    | )       |       |         | (dBµV) |        |       |         |
| 17969.200          | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17990.100          | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17979.100          | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17960.400          | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17978.000          | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | V       |
| 17995.600          | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10559.600 | 36.1    | -33.0 | 38.0    | 31.1   | 48.3   | 12.2  | V       |
| 17964.800 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17980.200 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 10560.700 | 34.3    | -33.0 | 38.0    | 29.3   | 48.3   | 14.0  | V       |
| 15840.700 | 34.3    | -27.0 | 38.4    | 22.9   | 48.3   | 14.0  | V       |
| 17973.600 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10639.900 | 35.9    | -32.8 | 38.0    | 30.7   | 48.3   | 12.4  | Н       |
| 10641.000 | 35.4    | -32.8 | 38.0    | 30.2   | 48.3   | 12.9  | Н       |
| 15962.800 | 35.2    | -27.4 | 37.8    | 24.8   | 48.3   | 13.1  | V       |
| 15961.700 | 35.1    | -27.4 | 37.8    | 24.7   | 48.3   | 13.2  | V       |
| 15959.500 | 35.0    | -27.4 | 37.8    | 24.6   | 48.3   | 13.3  | V       |
| 5371.900  | 38.3    | -16.9 | 33.4    | 21.8   | 48.3   | 10.0  | V       |

## Channel 100

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11000.700 | 42.6    | -32.8 | 38.2    | 37.2   | 48.3   | 5.7   | Н       |
| 10998.500 | 41.9    | -32.8 | 38.2    | 36.5   | 48.3   | 6.4   | H       |
| 10999.600 | 41.8    | -32.8 | 38.2    | 36.4   | 48.3   | 6.5   | Н       |
| 11001.800 | 41.8    | -32.5 | 38.2    | 36.1   | 48.3   | 6.5   | Н       |
| 10997.400 | 41.6    | -32.8 | 38.2    | 36.2   | 48.3   | 6.7   | Н       |
| 5450.300  | 36.5    | -16.8 | 33.4    | 19.9   | 48.3   | 11.8  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11199.800 | 42.7    | -32.6 | 38.2    | 37.1   | 48.3   | 5.6   | V       |
| 11198.700 | 42.5    | -32.6 | 38.2    | 36.9   | 48.3   | 5.8   | V       |
| 11200.900 | 42.3    | -32.6 | 38.2    | 36.7   | 48.3   | 6.0   | V       |
| 11197.600 | 42.2    | -32.6 | 38.2    | 36.6   | 48.3   | 6.1   | V       |
| 11202.000 | 42.0    | -32.6 | 38.2    | 36.4   | 48.3   | 6.3   | V       |
| 11204.200 | 41.8    | -32.6 | 38.2    | 36.2   | 48.3   | 6.5   | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11400.000 | 44.8    | -32.4 | 38.2    | 39.0   | 48.3   | 3.5   | V       |
| 11398.900 | 44.3    | -32.4 | 38.2    | 38.5   | 48.3   | 4.0   | V       |
| 11401.100 | 44.2    | -32.4 | 38.2    | 38.4   | 48.3   | 4.1   | V       |
| 11405.500 | 43.9    | -32.4 | 38.2    | 38.1   | 48.3   | 4.4   | V       |
| 11397.800 | 43.6    | -32.4 | 38.2    | 37.8   | 48.3   | 4.7   | V       |
| 5725.200  | 38.9    | -16.3 | 34.2    | 21.0   | 48.3   | 9.4   | Н       |

#### 802.11ac-HT40

#### Channel 38

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17956.000          | 34.5                        | -25.5                 | 43.4                        | 16.6                          | 48.3              | 13.8           | Н                        |
| 17971.400          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17996.700          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17993.400          | 34.3                        | -25.5                 | 43.4                        | 16.4                          | 48.3              | 14.0           | V                        |
| 17950.500          | 34.2                        | -25.5                 | 43.4                        | 16.3                          | 48.3              | 14.1           | Н                        |
| 5145.800           | 42.8                        | -17.0                 | 33.4                        | 26.4                          | 48.3              | 5.5            | Н                        |

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17962.600          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17964.800          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |
| 17978.000          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17982.400          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |
| 17993.400          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17996.700          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | V                        |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17990.100 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17971.400 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |
| 17981.300 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17960.400 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17967.000 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |
| 17970.300 | 34.3    | -25.5 | 43.4    | 16.4   | 48.3   | 14.0  | Н       |

## Channel 62

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 5351.560  | 34.3    | -34.8 | 34.6    | 34.5   | 48.3   | 14.0  | Н       |
| 17980.200 | 34.5    | -17.7 | 45.6    | 6.6    | 48.3   | 13.8  | Н       |
| 17995.600 | 34.5    | -17.7 | 45.6    | 6.6    | 48.3   | 13.8  | V       |
| 17979.100 | 34.4    | -17.7 | 45.6    | 6.5    | 48.3   | 13.9  | Н       |
| 17996.700 | 34.4    | -17.7 | 45.6    | 6.5    | 48.3   | 13.9  | Н       |
| 17994.500 | 34.3    | -17.7 | 45.6    | 6.4    | 48.3   | 14.0  | Н       |

|              | Measure |       |         | Receiv |        |       |         |
|--------------|---------|-------|---------|--------|--------|-------|---------|
| Fue accessor | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency    | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)        | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|              | )       |       |         | (dBµV) |        |       |         |
| 17978.000    | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17996.700    | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17982.400    | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17986.800    | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17980.200    | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 5459.800     | 37.3    | -16.8 | 33.4    | 20.7   | 48.3   | 11.0  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17994.500 | 34.7    | -25.5 | 43.4    | 16.8   | 48.3   | 13.6  | V       |
| 17982.400 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17968.100 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | H       |
| 17980.200 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17961.500 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17964.800 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |

## Channel 134

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17974.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17987.900 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17994.500 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17983.500 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17992.300 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 5725.400  | 38.1    | -16.3 | 34.2    | 20.2   | 48.3   | 10.2  | Н       |

## 802.11ac-HT80

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17975.800          | 34.8                        | -25.5                 | 43.4                        | 16.9                          | 48.3              | 13.5           | V                        |
| 17995.600          | 34.7                        | -25.5                 | 43.4                        | 16.8                          | 48.3              | 13.6           | Н                        |
| 17997.800          | 34.6                        | -25.5                 | 43.4                        | 16.7                          | 48.3              | 13.7           | Н                        |
| 17945.000          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 17958.200          | 34.4                        | -25.5                 | 43.4                        | 16.5                          | 48.3              | 13.9           | Н                        |
| 5141.800           | 34.6                        | -17.0                 | 33.4                        | 18.2                          | 48.3              | 13.7           | V                        |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17989.000 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | V       |
| 17991.200 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17995.600 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | Н       |
| 17982.400 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17974.700 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17979.100 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | V       |

## Channel 106

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17994.500 | 34.6    | -25.5 | 43.4    | 16.7   | 48.3   | 13.7  | V       |
| 17962.600 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | Н       |
| 17974.700 | 34.5    | -25.5 | 43.4    | 16.6   | 48.3   | 13.8  | V       |
| 17964.800 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 17967.000 | 34.4    | -25.5 | 43.4    | 16.5   | 48.3   | 13.9  | Н       |
| 5457.300  | 33.5    | -16.8 | 33.4    | 16.9   | 48.3   | 14.8  | Н       |

# Peak 802.11a

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17974.700          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | V                        |
| 17978.000          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |
| 17939.500          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | Н                        |
| 17884.500          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | V                        |
| 17921.900          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | Н                        |
| 5148.700           | 64.3                        | -17.0                 | 33.4                        | 47.9                          | 68.3              | 4.0            | V                        |





| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17879.000          | 47.0                        | -25.5                 | 43.4                        | 29.1                          | 68.3              | 21.3           | Н                        |
| 17951.600          | 46.9                        | -25.5                 | 43.4                        | 29.0                          | 68.3              | 21.4           | V                        |
| 17970.300          | 46.8                        | -25.5                 | 43.4                        | 28.9                          | 68.3              | 21.5           | V                        |
| 17968.100          | 46.5                        | -25.5                 | 43.4                        | 28.6                          | 68.3              | 21.8           | Н                        |
| 17969.200          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | V                        |
| 17981.300          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | V                        |

## Channel 48

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17985.700          | 46.7                        | -25.5                 | 43.4                        | 28.8                          | 68.3              | 21.6           | V                        |
| 17896.600          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | V                        |
| 17958.200          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | Н                        |
| 17961.500          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | V                        |
| 17983.500          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | Н                        |
| 17960.400          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | Н                        |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17987.900 | 47.1    | -25.5 | 43.4    | 29.2   | 68.3   | 21.2  | V       |
| 17990.100 | 46.9    | -25.5 | 43.4    | 29.0   | 68.3   | 21.4  | Н       |
| 17952.700 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | V       |
| 17909.800 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | V       |
| 17993.400 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | V       |
| 17976.900 | 45.6    | -25.5 | 43.4    | 27.7   | 68.3   | 22.7  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguesa  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17892.200 | 47.1    | -25.5 | 43.4    | 29.2   | 68.3   | 21.2  | V       |
| 10559.600 | 46.5    | -33.0 | 38.0    | 41.5   | 68.3   | 21.8  | Н       |
| 15850.600 | 46.3    | -27.0 | 38.4    | 34.9   | 68.3   | 22.0  | V       |
| 17906.500 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | V       |
| 17987.900 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | V       |
| 17827.300 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | Н       |

## Channel 64

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10639.900 | 47.0    | -32.8 | 38.0    | 41.8   | 68.3   | 21.3  | Н       |
| 15957.300 | 46.7    | -27.4 | 37.8    | 36.3   | 68.3   | 21.6  | V       |
| 17979.100 | 46.4    | -25.5 | 43.4    | 28.5   | 68.3   | 21.9  | Н       |
| 17936.200 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | V       |
| 17903.200 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 5372.600  | 49.0    | -16.9 | 33.4    | 32.5   | 68.3   | 19.3  | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10999.600 | 53.7    | -32.8 | 38.2    | 48.3   | 68.3   | 14.6  | H       |
| 11002.900 | 53.3    | -32.5 | 38.2    | 47.6   | 68.3   | 15.0  | H       |
| 10991.900 | 52.9    | -32.8 | 38.2    | 47.5   | 68.3   | 15.4  | Н       |
| 10998.500 | 52.3    | -32.8 | 38.2    | 46.9   | 68.3   | 16.0  | Н       |
| 11000.700 | 51.9    | -32.8 | 38.2    | 46.5   | 68.3   | 16.4  | Н       |
| 5459.700  | 61.8    | -16.8 | 33.4    | 45.2   | 68.3   | 6.5   | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11199.800 | 54.5    | -32.6 | 38.2    | 48.9   | 68.3   | 13.8  | V       |
| 11198.700 | 53.5    | -32.6 | 38.2    | 47.9   | 68.3   | 14.8  | V       |
| 11200.900 | 53.3    | -32.6 | 38.2    | 47.7   | 68.3   | 15.0  | V       |
| 11197.600 | 53.2    | -32.6 | 38.2    | 47.6   | 68.3   | 15.1  | V       |
| 11195.400 | 53.0    | -32.6 | 38.2    | 47.4   | 68.3   | 15.3  | V       |
| 11202.000 | 52.9    | -32.6 | 38.2    | 47.3   | 68.3   | 15.4  | V       |

## Channel 140

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11401.100 | 55.9    | -32.4 | 38.2    | 50.1   | 68.3   | 12.4  | V       |
| 11402.200 | 55.6    | -32.4 | 38.2    | 49.8   | 68.3   | 12.7  | V       |
| 11403.300 | 55.6    | -32.4 | 38.2    | 49.8   | 68.3   | 12.7  | V       |
| 11407.700 | 55.4    | -32.4 | 38.2    | 49.6   | 68.3   | 12.9  | V       |
| 11400.000 | 55.3    | -32.4 | 38.2    | 49.5   | 68.3   | 13.0  | V       |
| 5725.100  | 60.7    | -16.3 | 34.2    | 42.8   | 68.3   | 7.6   | Н       |

#### 802.11n-HT20

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17995.600          | 47.0                        | -25.5                 | 43.4                        | 29.1                          | 68.3              | 21.3           | V                        |
| 17949.400          | 46.7                        | -25.5                 | 43.4                        | 28.8                          | 68.3              | 21.6           | Н                        |
| 17934.000          | 46.6                        | -25.5                 | 43.4                        | 28.7                          | 68.3              | 21.7           | Н                        |
| 17848.200          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |
| 17881.200          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |
| 5146.400           | 63.5                        | -17.0                 | 33.4                        | 47.1                          | 68.3              | 4.8            | V                        |





| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17992.300          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |
| 17936.200          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | Н                        |
| 17958.200          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | Н                        |
| 17973.600          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | Н                        |
| 17995.600          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | V                        |
| 17923.000          | 45.8                        | -25.5                 | 43.4                        | 27.9                          | 68.3              | 22.5           | Н                        |

## Channel 48

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17950.500          | 46.8                        | -25.5                 | 43.4                        | 28.9                          | 68.3              | 21.5           | Н                        |
| 17936.200          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | V                        |
| 17815.200          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | Н                        |
| 17994.500          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 22.4           | Н                        |
| 17899.900          | 45.8                        | -25.5                 | 43.4                        | 27.9                          | 68.3              | 22.5           | Н                        |
| 17894.400          | 45.7                        | -25.5                 | 43.4                        | 27.8                          | 68.3              | 22.6           | V                        |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17924.100 | 47.6    | -25.5 | 43.4    | 29.7   | 68.3   | 20.7  | V       |
| 17972.500 | 47.0    | -25.5 | 43.4    | 29.1   | 68.3   | 21.3  | Н       |
| 17957.100 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | V       |
| 17973.600 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |
| 17975.800 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | V       |
| 17979.100 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 15835.200 | 47.3    | -27.0 | 38.4    | 35.9   | 68.3   | 21.0  | V       |
| 10559.600 | 46.8    | -33.0 | 38.0    | 41.8   | 68.3   | 21.5  | V       |
| 17979.100 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17916.400 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |
| 17984.600 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |
| 17958.200 | 45.6    | -25.5 | 43.4    | 27.7   | 68.3   | 22.7  | V       |

## Channel 64

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 15958.400 | 47.4    | -27.4 | 37.8    | 37.0   | 68.3   | 20.9  | V       |
| 17901.000 | 47.1    | -25.5 | 43.4    | 29.2   | 68.3   | 21.2  | Н       |
| 17982.400 | 47.0    | -25.5 | 43.4    | 29.1   | 68.3   | 21.3  | Н       |
| 15955.100 | 46.8    | -27.4 | 37.8    | 36.4   | 68.3   | 21.5  | V       |
| 15961.700 | 46.8    | -27.4 | 37.8    | 36.4   | 68.3   | 21.5  | V       |
| 5352.100  | 49.8    | -16.9 | 33.4    | 33.3   | 68.3   | 18.5  | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10999.600 | 53.1    | -32.8 | 38.2    | 47.7   | 68.3   | 15.2  | Н       |
| 10991.900 | 52.8    | -32.8 | 38.2    | 47.4   | 68.3   | 15.5  | Н       |
| 11002.900 | 52.6    | -32.5 | 38.2    | 46.9   | 68.3   | 15.7  | Н       |
| 11000.700 | 52.5    | -32.8 | 38.2    | 47.1   | 68.3   | 15.8  | Н       |
| 10998.500 | 52.3    | -32.8 | 38.2    | 46.9   | 68.3   | 16.0  | Н       |
| 5456.100  | 56.0    | -16.8 | 33.4    | 39.4   | 68.3   | 12.3  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11202.000 | 54.3    | -32.6 | 38.2    | 48.7   | 68.3   | 14.0  | Н       |
| 11209.700 | 54.3    | -32.6 | 38.2    | 48.7   | 68.3   | 14.0  | V       |
| 11196.500 | 53.7    | -32.6 | 38.2    | 48.1   | 68.3   | 14.6  | V       |
| 11198.700 | 53.3    | -32.6 | 38.2    | 47.7   | 68.3   | 15.0  | V       |
| 11208.600 | 53.1    | -32.6 | 38.2    | 47.5   | 68.3   | 15.2  | V       |
| 11200.900 | 52.6    | -32.6 | 38.2    | 47.0   | 68.3   | 15.7  | V       |

## Channel 140

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11402.200 | 56.7    | -32.4 | 38.2    | 50.9   | 68.3   | 11.6  | V       |
| 11400.000 | 56.4    | -32.4 | 38.2    | 50.6   | 68.3   | 11.9  | ٧       |
| 11401.100 | 55.7    | -32.4 | 38.2    | 49.9   | 68.3   | 12.6  | V       |
| 11405.500 | 55.5    | -32.4 | 38.2    | 49.7   | 68.3   | 12.8  | V       |
| 11395.600 | 55.3    | -32.4 | 38.2    | 49.5   | 68.3   | 13.0  | V       |
| 5725.100  | 60.0    | -16.3 | 34.2    | 42.1   | 68.3   | 8.3   | Н       |

#### 802.11n-HT40

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBµV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17979.100          | 46.5                        | -25.5                 | 43.4                        | 28.6                          | 68.3              | 21.8           | V                        |
| 17962.600          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | Н                        |
| 17956.000          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | Н                        |
| 17918.600          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | V                        |
| 17954.900          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | V                        |
| 5146.400           | 55.8                        | -17.0                 | 33.4                        | 39.4                          | 68.3              | 12.5           | Н                        |





| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17986.800          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 1.9            | Н                        |
| 17890.000          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 2.3            | Н                        |
| 17976.900          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 2.3            | Н                        |
| 17884.500          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 2.4            | Н                        |
| 17995.600          | 45.8                        | -25.5                 | 43.4                        | 27.9                          | 68.3              | 2.5            | V                        |
| 17983.500          | 45.7                        | -25.5                 | 43.4                        | 27.8                          | 68.3              | 2.6            | V                        |

## Channel 54

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| _         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17764.600 | 46.8    | -25.5 | 43.4    | 28.9   | 68.3   | 21.5  | V       |
| 17918.600 | 46.6    | -25.5 | 43.4    | 28.7   | 68.3   | 21.7  | Н       |
| 17884.500 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | Н       |
| 17948.300 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | V       |
| 17972.500 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | V       |
| 17985.700 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | V       |

| Frequency<br>(MHz) | Measure<br>ment<br>Result<br>(dBµV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiv<br>er<br>Readin<br>g<br>(dBµV) | Limit<br>(dBµV/<br>m) | Margi<br>n<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|---------------------------------------|-----------------------|-----------------------------|---------------------------------------|-----------------------|--------------------|--------------------------|
| 5350.860           | 51.1                                  | -34.8                 | 34.6                        | 51.3                                  | 68.3                  | 17.2               | Н                        |
| 17920.800          | 46.8                                  | -17.7                 | 45.6                        | 18.9                                  | 68.3                  | 21.5               | Н                        |
| 17916.400          | 46.8                                  | -17.7                 | 45.6                        | 18.9                                  | 68.3                  | 21.5               | V                        |
| 17932.900          | 46.6                                  | -17.7                 | 45.6                        | 18.7                                  | 68.3                  | 21.7               | Н                        |
| 17993.400          | 46.2                                  | -17.7                 | 45.6                        | 18.3                                  | 68.3                  | 22.1               | Н                        |
| 17907.600          | 46.0                                  | -18.5                 | 45.6                        | 18.9                                  | 68.3                  | 22.3               | Н                        |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17908.700 | 47.2    | -25.5 | 43.4    | 29.3   | 68.3   | 21.1  | Н       |
| 17984.600 | 46.6    | -25.5 | 43.4    | 28.7   | 68.3   | 21.7  | Н       |
| 17953.800 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | H       |
| 17840.500 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | V       |
| 17990.100 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | Н       |
| 5456.800  | 53.3    | -16.8 | 33.4    | 36.7   | 68.3   | 15.0  | V       |

## Channel 118

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17997.800 | 47.3    | -25.5 | 43.4    | 29.4   | 68.3   | 21.0  | Н       |
| 17973.600 | 46.5    | -25.5 | 43.4    | 28.6   | 68.3   | 21.8  | Н       |
| 17976.900 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | V       |
| 17995.600 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | V       |
| 17953.800 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17984.600 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| F         | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17965.900 | 46.5    | -25.5 | 43.4    | 28.6   | 68.3   | 21.8  | V       |
| 17983.500 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | V       |
| 17946.100 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | Н       |
| 17949.400 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | V       |
| 17962.600 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | V       |
| 5725.300  | 50.5    | -16.3 | 34.2    | 32.6   | 68.3   | 17.8  | V       |





# 802.11ac-HT20

## Channel 36

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17897.700          | 47.3                        | -25.5                 | 43.4                        | 29.4                          | 68.3              | 21.0           | Н                        |
| 17973.600          | 46.5                        | -25.5                 | 43.4                        | 28.6                          | 68.3              | 21.8           | Н                        |
| 17978.000          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | V                        |
| 17984.600          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |
| 17989.000          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | V                        |
| 5148.500           | 49.5                        | -17.0                 | 33.4                        | 33.1                          | 68.3              | 18.8           | V                        |

## Channel 40

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17978.000          | 46.8                        | -25.5                 | 43.4                        | 28.9                          | 68.3              | 21.5           | Н                        |
| 17975.800          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | V                        |
| 17961.500          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | Н                        |
| 17970.300          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | Н                        |
| 17995.600          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | V                        |
| 17959.300          | 46.2                        | -25.5                 | 43.4                        | 28.3                          | 68.3              | 22.1           | Н                        |

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17811.900          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | V                        |
| 17826.200          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | V                        |
| 17958.200          | 45.6                        | -25.5                 | 43.4                        | 27.7                          | 68.3              | 22.7           | Н                        |
| 17974.700          | 45.6                        | -25.5                 | 43.4                        | 27.7                          | 68.3              | 22.7           | V                        |
| 17991.200          | 45.6                        | -25.5                 | 43.4                        | 27.7                          | 68.3              | 22.7           | Н                        |
| 17971.400          | 45.5                        | -25.5                 | 43.4                        | 27.6                          | 68.3              | 22.8           | V                        |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17963.700 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17968.100 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17864.700 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | V       |
| 17981.300 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |
| 17991.200 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | V       |
| 17995.600 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |

## Channel 56

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17739.300 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17898.800 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | H       |
| 17974.700 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | Н       |
| 10560.700 | 45.9    | -33.0 | 38.0    | 40.9   | 68.3   | 22.4  | V       |
| 17894.400 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | Н       |
| 17941.700 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | Н       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 15962.800 | 47.7    | -27.4 | 37.8    | 37.3   | 68.3   | 20.6  | V       |
| 15965.000 | 47.5    | -27.4 | 37.8    | 37.1   | 68.3   | 20.8  | V       |
| 10639.900 | 46.7    | -32.8 | 38.0    | 41.5   | 68.3   | 21.6  | Н       |
| 17948.300 | 46.7    | -25.5 | 43.4    | 28.8   | 68.3   | 21.6  | V       |
| 15968.300 | 46.2    | -27.4 | 37.8    | 35.8   | 68.3   | 22.1  | V       |
| 5372.400  | 49.2    | -16.9 | 33.4    | 32.7   | 68.3   | 19.1  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 10991.900 | 53.1    | -32.8 | 38.2    | 47.7   | 68.3   | 15.2  | Н       |
| 10998.500 | 53.0    | -32.8 | 38.2    | 47.6   | 68.3   | 15.3  | Н       |
| 10993.000 | 52.5    | -32.8 | 38.2    | 47.1   | 68.3   | 15.8  | Н       |
| 11004.000 | 52.5    | -32.5 | 38.2    | 46.8   | 68.3   | 15.8  | Н       |
| 10997.400 | 52.3    | -32.8 | 38.2    | 46.9   | 68.3   | 16.0  | Н       |
| 5456.700  | 49.4    | -16.8 | 33.4    | 32.8   | 68.3   | 18.9  | V       |

## Channel 120

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11198.700 | 54.2    | -32.6 | 38.2    | 48.6   | 68.3   | 14.1  | V       |
| 11196.500 | 53.9    | -32.6 | 38.2    | 48.3   | 68.3   | 14.4  | ٧       |
| 11202.000 | 53.6    | -32.6 | 38.2    | 48.0   | 68.3   | 14.7  | V       |
| 11199.800 | 53.4    | -32.6 | 38.2    | 47.8   | 68.3   | 14.9  | V       |
| 11195.400 | 52.8    | -32.6 | 38.2    | 47.2   | 68.3   | 15.5  | Н       |
| 11208.600 | 52.7    | -32.6 | 38.2    | 47.1   | 68.3   | 15.6  | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 11397.800 | 55.9    | -32.4 | 38.2    | 50.1   | 68.3   | 12.4  | V       |
| 11401.100 | 55.9    | -32.4 | 38.2    | 50.1   | 68.3   | 12.4  | V       |
| 11396.700 | 55.4    | -32.4 | 38.2    | 49.6   | 68.3   | 12.9  | V       |
| 11405.500 | 55.0    | -32.4 | 38.2    | 49.2   | 68.3   | 13.3  | V       |
| 11400.000 | 54.9    | -32.4 | 38.2    | 49.1   | 68.3   | 13.4  | V       |
| 5725.700  | 53.7    | -16.3 | 34.2    | 35.8   | 68.3   | 14.6  | Н       |





## 802.11ac-HT40

## Channel 38

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17892.200          | 46.4                        | -25.5                 | 43.4                        | 28.5                          | 68.3              | 21.9           | Н                        |
| 17885.600          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | Н                        |
| 17950.500          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 22.3           | Н                        |
| 17983.500          | 45.7                        | -25.5                 | 43.4                        | 27.8                          | 68.3              | 22.6           | Н                        |
| 17875.700          | 45.6                        | -25.5                 | 43.4                        | 27.7                          | 68.3              | 22.7           | V                        |
| 5140.200           | 48.7                        | -17.0                 | 33.4                        | 32.3                          | 68.3              | 19.6           | V                        |

## Channel 46

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17953.800          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 2.3            | Н                        |
| 17974.700          | 46.0                        | -25.5                 | 43.4                        | 28.1                          | 68.3              | 2.3            | V                        |
| 17861.400          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 2.4            | Н                        |
| 17972.500          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 2.4            | V                        |
| 17979.100          | 45.9                        | -25.5                 | 43.4                        | 28.0                          | 68.3              | 2.4            | Н                        |
| 17983.500          | 45.8                        | -25.5                 | 43.4                        | 27.9                          | 68.3              | 2.5            | Н                        |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguena  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17959.300 | 46.7    | -25.5 | 43.4    | 28.8   | 68.3   | 21.6  | V       |
| 17891.100 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | V       |
| 17880.100 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | Н       |
| 17796.500 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |
| 17886.700 | 45.6    | -25.5 | 43.4    | 27.7   | 68.3   | 22.7  | V       |
| 17990.100 | 45.6    | -25.5 | 43.4    | 27.7   | 68.3   | 22.7  | Н       |





|           | Measure        |       |         | Receiv |        |       |         |
|-----------|----------------|-------|---------|--------|--------|-------|---------|
| Fraguency |                | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | ment<br>Result | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     |                | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | (dBµV/m)       |       |         | (dBµV) |        |       |         |
| 5351.610  | 47.6           | -34.8 | 34.6    | 47.8   | 68.3   | 20.7  | Н       |
| 17969.200 | 46.7           | -17.7 | 45.6    | 18.8   | 68.3   | 21.6  | Н       |
| 17843.800 | 46.5           | -18.5 | 45.6    | 19.4   | 68.3   | 21.8  | V       |
| 17909.800 | 46.5           | -18.5 | 45.6    | 19.4   | 68.3   | 21.8  | Н       |
| 17882.300 | 46.1           | -18.5 | 45.6    | 19.0   | 68.3   | 22.2  | Н       |
| 17962.600 | 46.0           | -17.7 | 45.6    | 18.1   | 68.3   | 22.3  | Н       |

## Channel 102

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguana  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBµV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17963.700 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | V       |
| 17984.600 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | ٧       |
| 17912.000 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |
| 17940.600 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |
| 17859.200 | 45.8    | -25.5 | 43.4    | 27.9   | 68.3   | 22.5  | Н       |
| 5458.400  | 52.4    | -16.8 | 33.4    | 35.8   | 68.3   | 15.9  | V       |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17997.800 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | V       |
| 17901.000 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | V       |
| 17972.500 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |
| 17896.600 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | V       |
| 17943.900 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |
| 17960.400 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | Н       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguesa  | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17948.300 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | V       |
| 17971.400 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | Н       |
| 17972.500 | 46.3    | -25.5 | 43.4    | 28.4   | 68.3   | 22.0  | Н       |
| 17939.500 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | V       |
| 17973.600 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 5732.800  | 50.0    | -16.3 | 34.2    | 32.1   | 68.3   | 18.3  | Н       |

## 802.11ac-HT80

## Channel 42

| Frequency<br>(MHz) | Meas.<br>Result<br>(dBμV/m) | Cable<br>loss<br>(dB) | Antenna<br>Factor<br>(dB/m) | Receiver<br>Reading<br>(dBµV) | Limit<br>(dBμV/m) | Margin<br>(dB) | Antenna<br>Pol.<br>(H/V) |
|--------------------|-----------------------------|-----------------------|-----------------------------|-------------------------------|-------------------|----------------|--------------------------|
| 17983.500          | 46.8                        | -25.5                 | 43.4                        | 28.9                          | 68.3              | 21.5           | V                        |
| 17989.000          | 46.7                        | -25.5                 | 43.4                        | 28.8                          | 68.3              | 21.6           | Н                        |
| 17968.100          | 46.5                        | -25.5                 | 43.4                        | 28.6                          | 68.3              | 21.8           | V                        |
| 17945.000          | 46.3                        | -25.5                 | 43.4                        | 28.4                          | 68.3              | 22.0           | Н                        |
| 17991.200          | 46.1                        | -25.5                 | 43.4                        | 28.2                          | 68.3              | 22.2           | V                        |
| 5143.300           | 48.4                        | -17.0                 | 33.4                        | 32.0                          | 68.3              | 19.9           | V                        |

|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17973.600 | 46.1    | -25.5 | 43.4    | 28.2   | 68.3   | 22.2  | Н       |
| 17970.300 | 46.0    | -25.5 | 43.4    | 28.1   | 68.3   | 22.3  | Н       |
| 17972.500 | 45.9    | -25.5 | 43.4    | 28.0   | 68.3   | 22.4  | Н       |
| 17655.700 | 45.7    | -25.7 | 43.4    | 28.0   | 68.3   | 22.6  | V       |
| 17997.800 | 45.7    | -25.5 | 43.4    | 27.8   | 68.3   | 22.6  | V       |
| 17863.600 | 45.5    | -25.5 | 43.4    | 27.6   | 68.3   | 22.8  | V       |





|           | Measure |       |         | Receiv |        |       |         |
|-----------|---------|-------|---------|--------|--------|-------|---------|
| Fraguency | ment    | Cable | Antenna | er     | Limit  | Margi | Antenna |
| Frequency | Result  | loss  | Factor  | Readin | (dBμV/ | n     | Pol.    |
| (MHz)     | (dBμV/m | (dB)  | (dB/m)  | g      | m)     | (dB)  | (H/V)   |
|           | )       |       |         | (dBµV) |        |       |         |
| 17974.700 | 46.6    | -25.5 | 43.4    | 28.7   | 68.3   | 21.7  | V       |
| 17975.800 | 46.5    | -25.5 | 43.4    | 28.6   | 68.3   | 21.8  | V       |
| 17964.800 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | Н       |
| 17979.100 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | V       |
| 17980.200 | 46.2    | -25.5 | 43.4    | 28.3   | 68.3   | 22.1  | Н       |
| 5451.000  | 46.3    | -16.8 | 33.4    | 29.7   | 68.3   | 22.0  | Н       |

## Sample:

17974.700MHz

Result (46.6 dB $\mu$ V/m)= P<sub>Mea</sub>(28.7dB $\mu$ V/m)+ Cable Loss(-25.5 dB) + Antenna Factor(43.4 dB/m)





## A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

#### **Test Condition:**

| Voltage (V) | Frequency (Hz) |
|-------------|----------------|
| 120         | 60             |

#### **Measurement Result and limit:**

WLAN (Quasi-peak Limit)

| Frequency range | Quasi-peak   | Result (<br>With ch | Conclusion |   |
|-----------------|--------------|---------------------|------------|---|
| (MHz)           | Limit (dBμV) | 11a mode            | ldle       |   |
| 0.15 to 0.5     | 66 to 56     |                     |            |   |
| 0.5 to 5        | 56           | Fig.87              | Fig.88     | Р |
| 5 to 30         | 60           |                     |            |   |

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

## WLAN (Average Limit)

| Frequency range (MHz) | Average Limit | Result (<br>With ch | Conclusion |   |
|-----------------------|---------------|---------------------|------------|---|
| (IVITIZ)              | (dBμV)        | 11a mode            | ldle       |   |
| 0.15 to 0.5           | 56 to 46      |                     |            |   |
| 0.5 to 5              | 46            | Fig.87              | Fig.88     | Р |
| 5 to 30               | 50            |                     |            |   |

NOTE: The limit decreases linearly with the logarithm of the frequency in the range  $0.15\,\mathrm{MHz}$  to  $0.5\,\mathrm{MHz}$ .

Conclusion: PASS
Test graphs as below:
Result for Traffic:





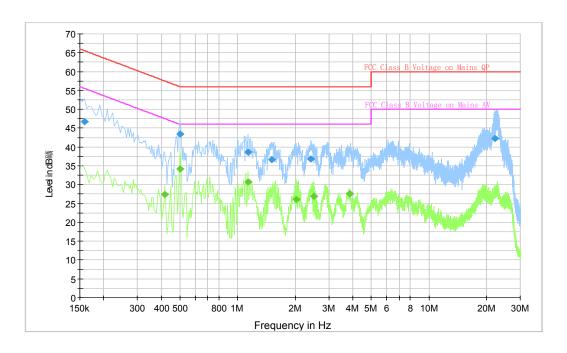


Fig.87 Conducted Emission (802.11a, Ch40, TX)

## **Final Result 1**

| mai Rocan i |           |      |        |        |  |
|-------------|-----------|------|--------|--------|--|
| Frequency   | QuasiPeak | Line | Margin | Limit  |  |
| (MHz)       | (dBµV)    |      | (dB)   | (dBµV) |  |
|             |           |      |        |        |  |
| 0.159000    | 46.7      | L1   | 18.8   | 65.5   |  |
| 0.501000    | 43.4      | L1   | 12.6   | 56.0   |  |
| 1.131000    | 38.7      | L1   | 17.3   | 56.0   |  |
| 1.509000    | 36.7      | L1   | 19.3   | 56.0   |  |
| 2.422500    | 36.8      | L1   | 19.2   | 56.0   |  |
| 22.159500   | 42.3      | N    | 17.7   | 60.0   |  |

# Final Result 2

| Frequency<br>(MHz) | Average<br>(dBµV) | Line | Margin<br>(dB) | Limit<br>(dBµV) |
|--------------------|-------------------|------|----------------|-----------------|
|                    |                   |      |                |                 |
| 0.415500           | 27.4              | L1   | 20.2           | 47.5            |
| 0.501000           | 34.2              | L1   | 11.8           | 46.0            |
| 1.131000           | 30.7              | L1   | 15.3           | 46.0            |
| 2.022000           | 26.1              | L1   | 19.9           | 46.0            |
| 2.499000           | 26.9              | L1   | 19.1           | 46.0            |
| 3.840000           | 27.6              | L1   | 18.4           | 46.0            |





## **Result for Idle:**

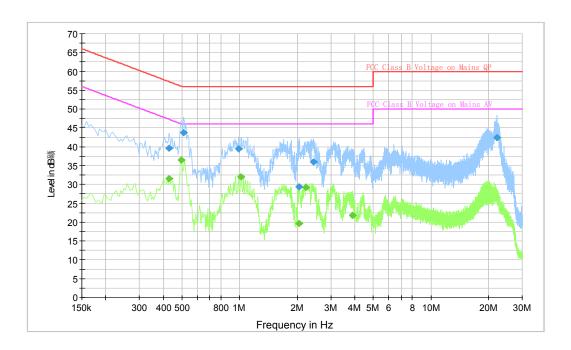


Fig.88 Conducted Emission (802.11a, IDLE)

## **Final Result 1**

| Frequency | QuasiPeak | Line | Margin | Limit  |
|-----------|-----------|------|--------|--------|
| (MHz)     | (dBµV)    |      | (dB)   | (dBµV) |
|           |           |      |        |        |
| 0.429000  | 39.6      | L1   | 17.6   | 57.3   |
| 0.510000  | 43.7      | L1   | 12.3   | 56.0   |
| 0.991500  | 39.4      | L1   | 16.6   | 56.0   |
| 2.053500  | 29.3      | L1   | 26.7   | 56.0   |
| 2.445000  | 36.0      | L1   | 20.0   | 56.0   |
| 22.240500 | 42.5      | N    | 17.5   | 60.0   |

## Final Result 2

| Frequency | Average | Line | Margin | Limit  |
|-----------|---------|------|--------|--------|
| (MHz)     | (dBµV)  |      | (dB)   | (dBµV) |
|           |         |      |        |        |
| 0.429000  | 31.6    | L1   | 15.7   | 47.3   |
| 0.496500  | 36.5    | L1   | 9.6    | 46.1   |
| 1.018500  | 32.0    | L1   | 14.0   | 46.0   |
| 2.053500  | 19.6    | L1   | 26.4   | 46.0   |
| 2.215500  | 29.3    | L1   | 16.7   | 46.0   |
| 3.880500  | 21.9    | L1   | 24.1   | 46.0   |





## 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 (OBW/RBW)] 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 | 60.80Hz |
|-------------------------|---------|
|-------------------------|---------|

#### **Measurement Result:**

| Mode             | Frequency | 99% Occupied bandwidth ( MHz) |       | conclusion |
|------------------|-----------|-------------------------------|-------|------------|
| 802.11a          | 5180 MHz  | Fig.89                        | 18.08 | Р          |
|                  | 5200 MHz  | Fig.90                        | 18.12 | Р          |
|                  | 5240 MHz  | Fig.91                        | 18.04 | Р          |
| 802.11n<br>HT20  | 5180 MHz  | Fig.92                        | 18.88 | Р          |
|                  | 5200 MHz  | Fig.93                        | 18.88 | Р          |
|                  | 5240 MHz  | Fig.94                        | 18.80 | Р          |
| 802.11ac<br>HT20 | 5180 MHz  | Fig.95                        | 18.68 | Р          |
|                  | 5200 MHz  | Fig.96                        | 18.72 | Р          |
|                  | 5240 MHz  | Fig.97                        | 18.68 | Р          |
| 802.11n          | 5190 MHz  | Fig.98                        | 36.48 | Р          |
| HT40             | 5230 MHz  | Fig.99                        | 36.48 | Р          |
| 802.11ac         | 5190 MHz  | Fig.100                       | 36.56 | Р          |





| HT40     | 5230 MHz | Fig.101 | 36.40 | Р |
|----------|----------|---------|-------|---|
| 802.11ac | 5210 MHz | Fig.102 | 74.72 | Р |
| HT80     |          |         |       |   |

Conclusion: PASS
Test graphs as below:

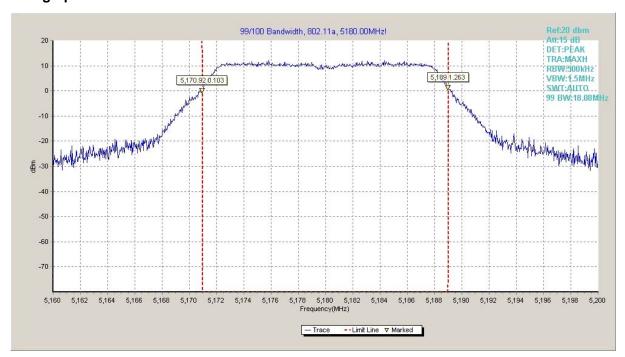


Fig.89 99% Occupied bandwidth (802.11a, 5180MHz)



Fig.90 99% Occupied bandwidth (802.11a, 5200MHz)





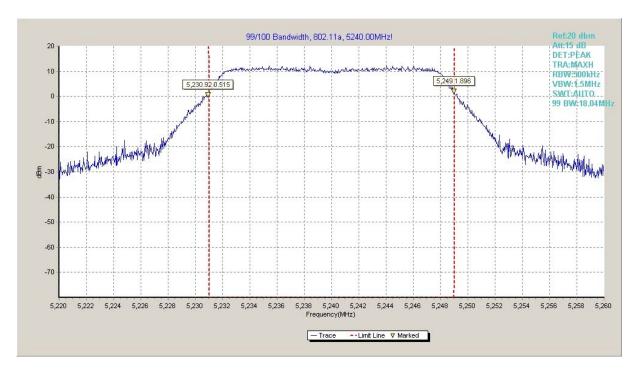


Fig.91 99% Occupied bandwidth (802.11a, 5240MHz)

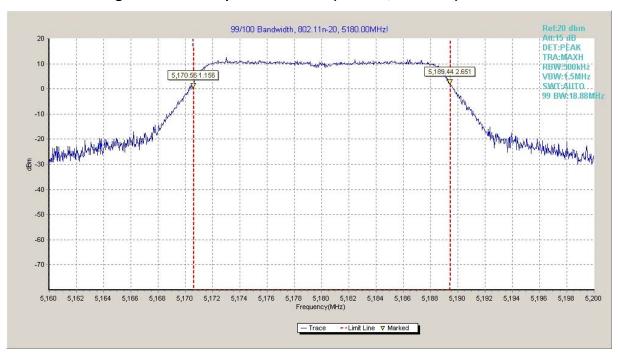


Fig.92 99% Occupied bandwidth (802.11n-HT20, 5180MHz)





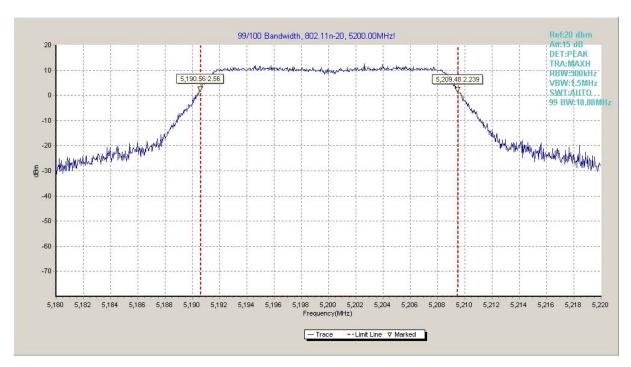


Fig.93 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

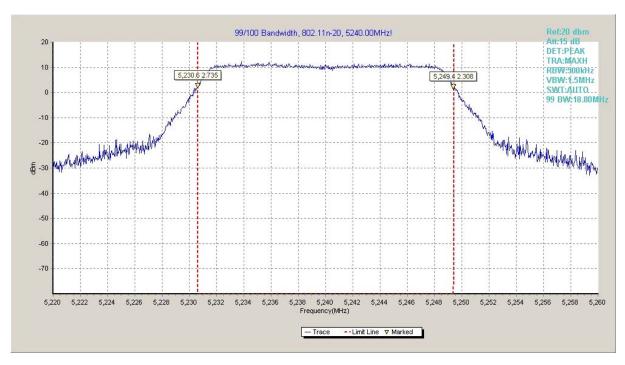


Fig.94 99% Occupied bandwidth (802.11n-HT20, 5240MHz)





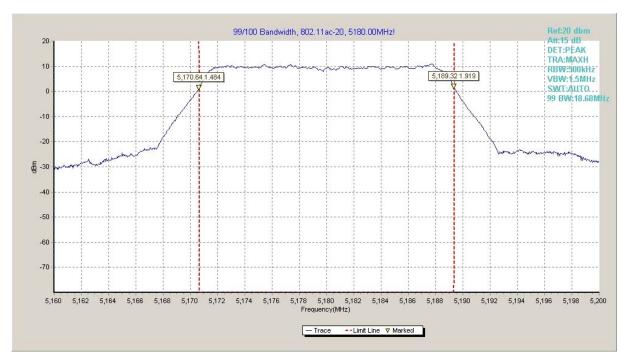


Fig.95 99% Occupied bandwidth (802.11ac-HT20, 5180MHz)

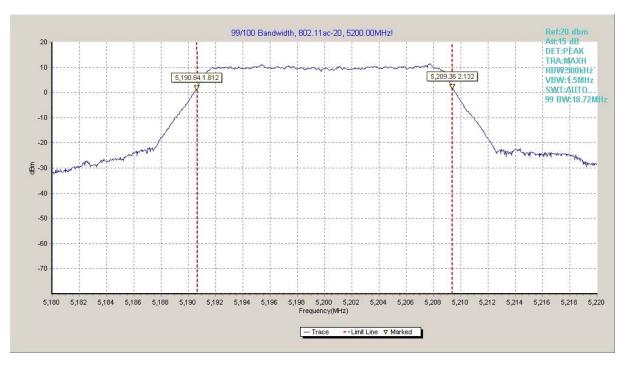


Fig.96 99% Occupied bandwidth (802.11ac-HT20, 5200MHz)





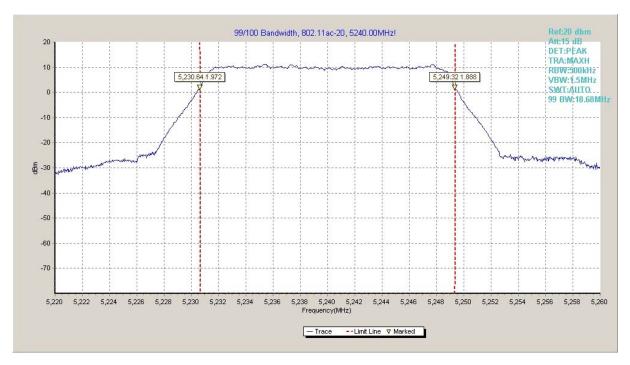


Fig.97 99% Occupied bandwidth (802.11ac-HT20, 5240MHz)



Fig.98 99% Occupied bandwidth (802.11n-HT40, 5190MHz)





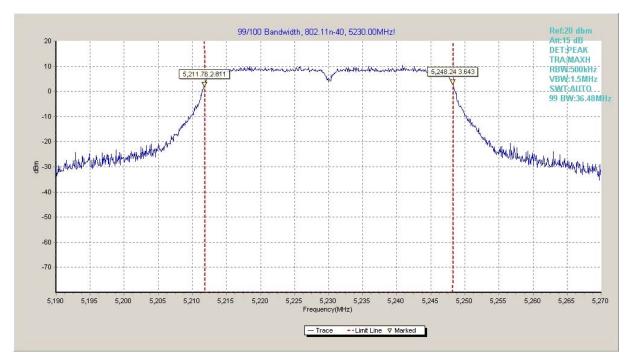


Fig.99 99% Occupied bandwidth (802.11n-HT40, 5230MHz)

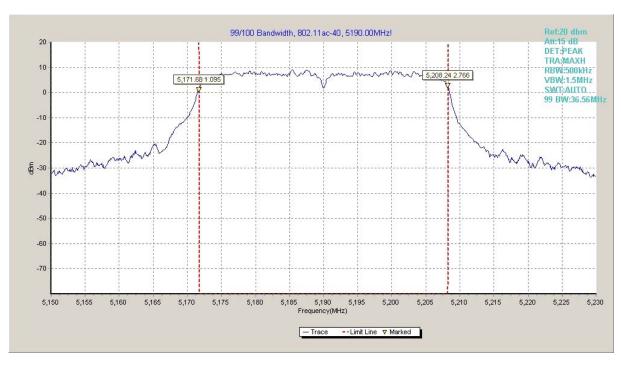


Fig.100 99% Occupied bandwidth (802.11ac-HT40, 5190MHz)





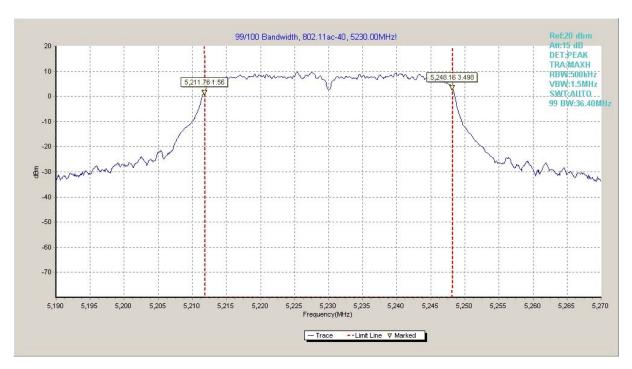


Fig.101 99% Occupied bandwidth (802.11ac-HT40, 5230MHz)



Fig.102 99% Occupied bandwidth (802.11ac-HT80, 5210MHz)

#### A.9. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).





## **ANNEX B: Accreditation Certificate**

United States Department of Commerce National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

## Telecommunication Technology Labs, CAICT

Beijing China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

#### **Electromagnetic Compatibility & Telecommunications**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2019-09-26 through 2020-09-30

Effective Dates

STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

\*\*\* END OF REPORT BODY \*\*\*