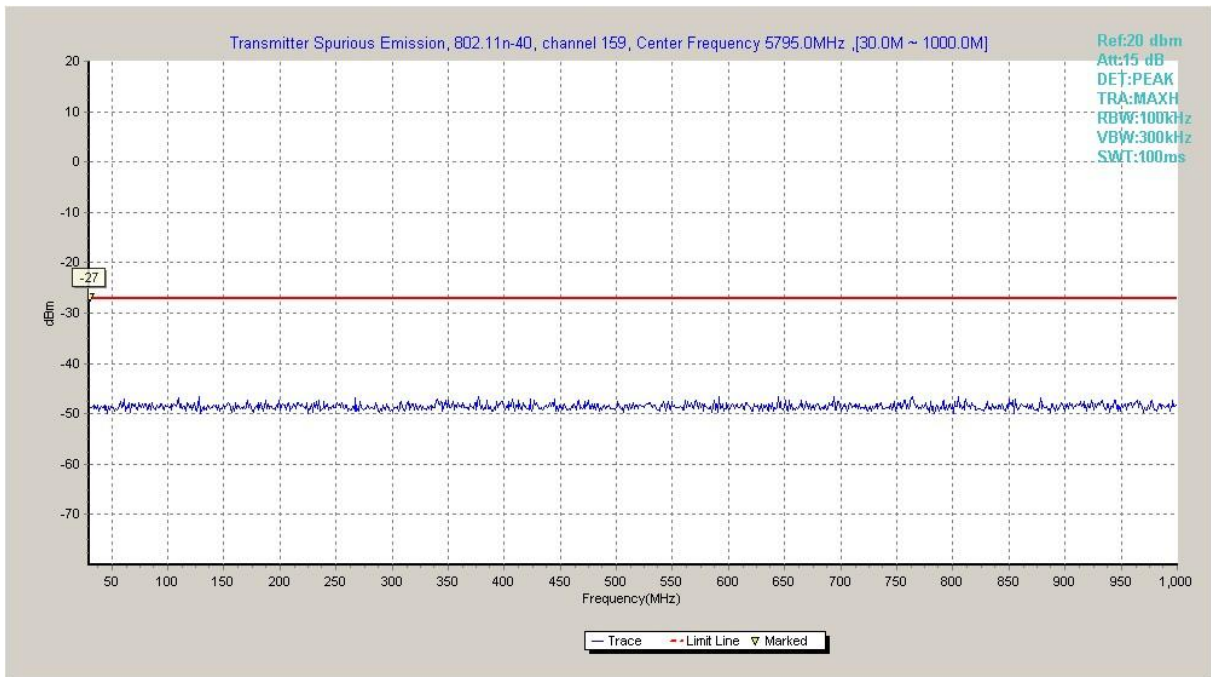
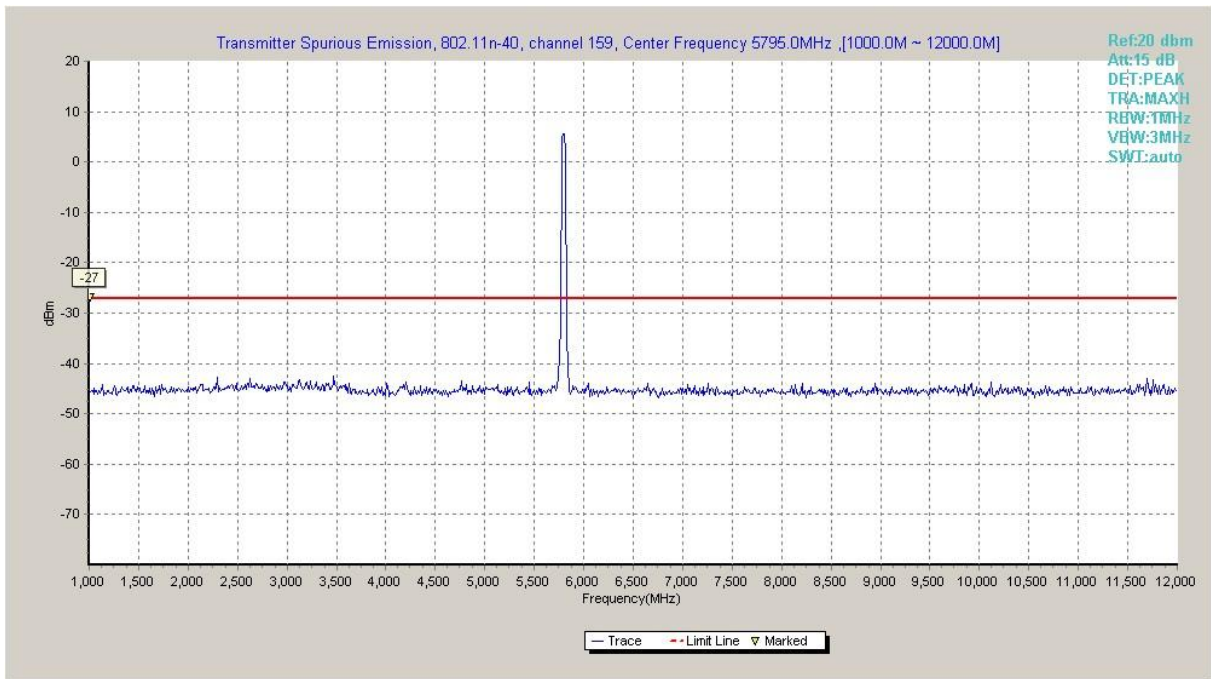


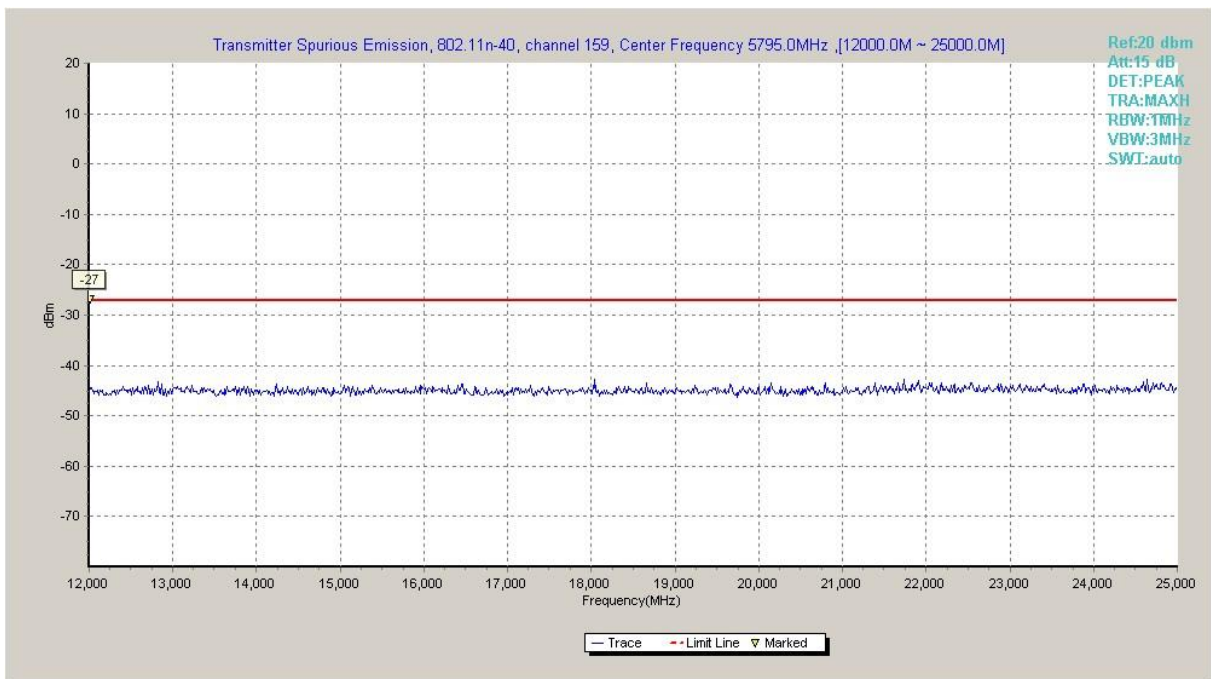
**Fig. 54 Conducted Spurious Emission (802.11n-HT40, Ch151, 25 GHz-40 GHz)**



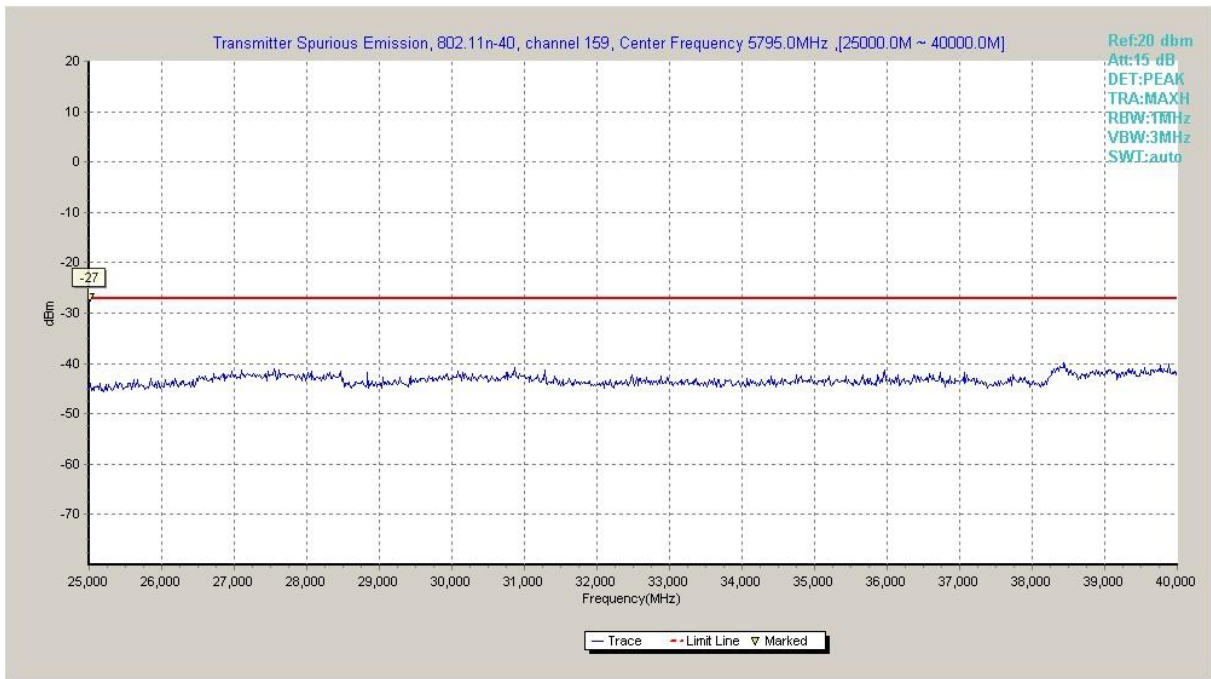
**Fig. 55 Conducted Spurious Emission (802.11n-HT40, Ch159, 30 MHz-1 GHz)**



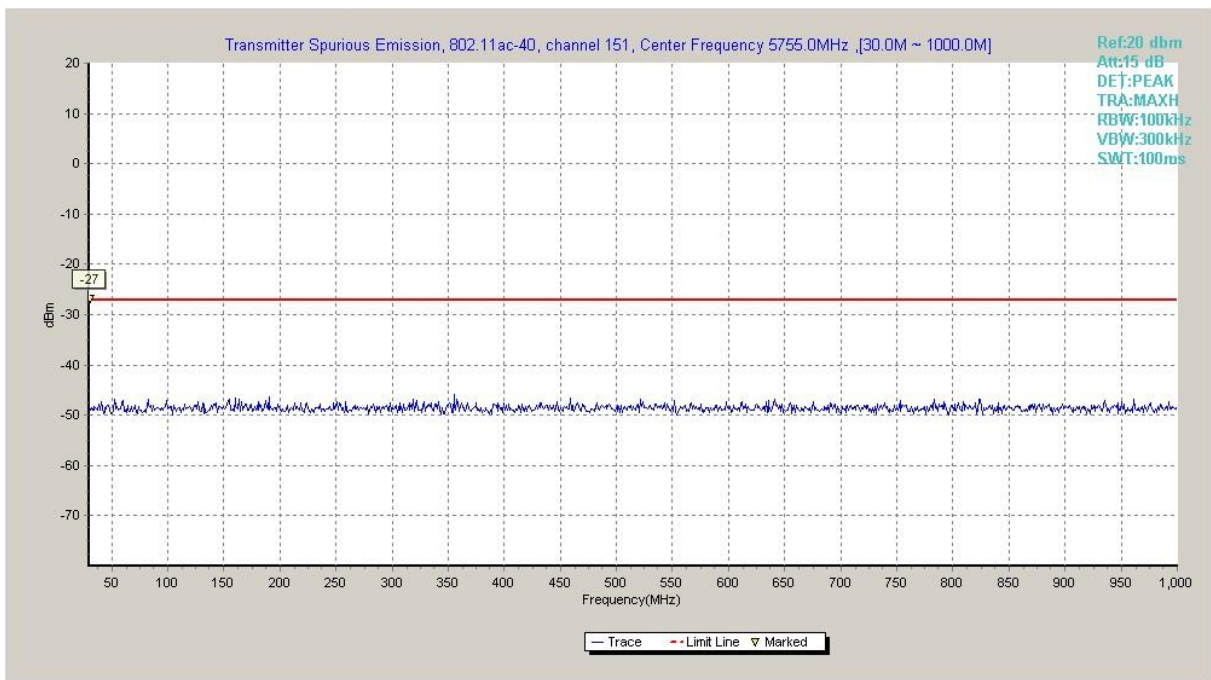
**Fig. 56 Conducted Spurious Emission (802.11n-HT40, Ch159, 1 GHz -12 GHz)**



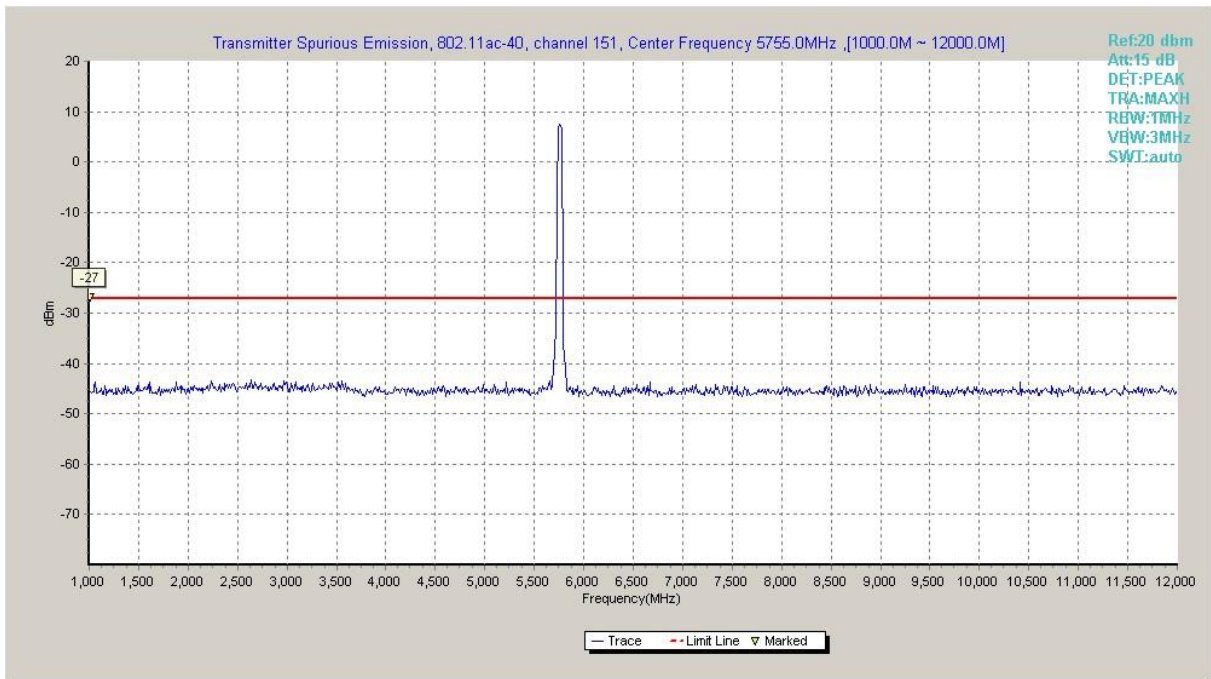
**Fig. 57 Conducted Spurious Emission (802.11n-HT40, Ch159, 12 GHz-25 GHz)**



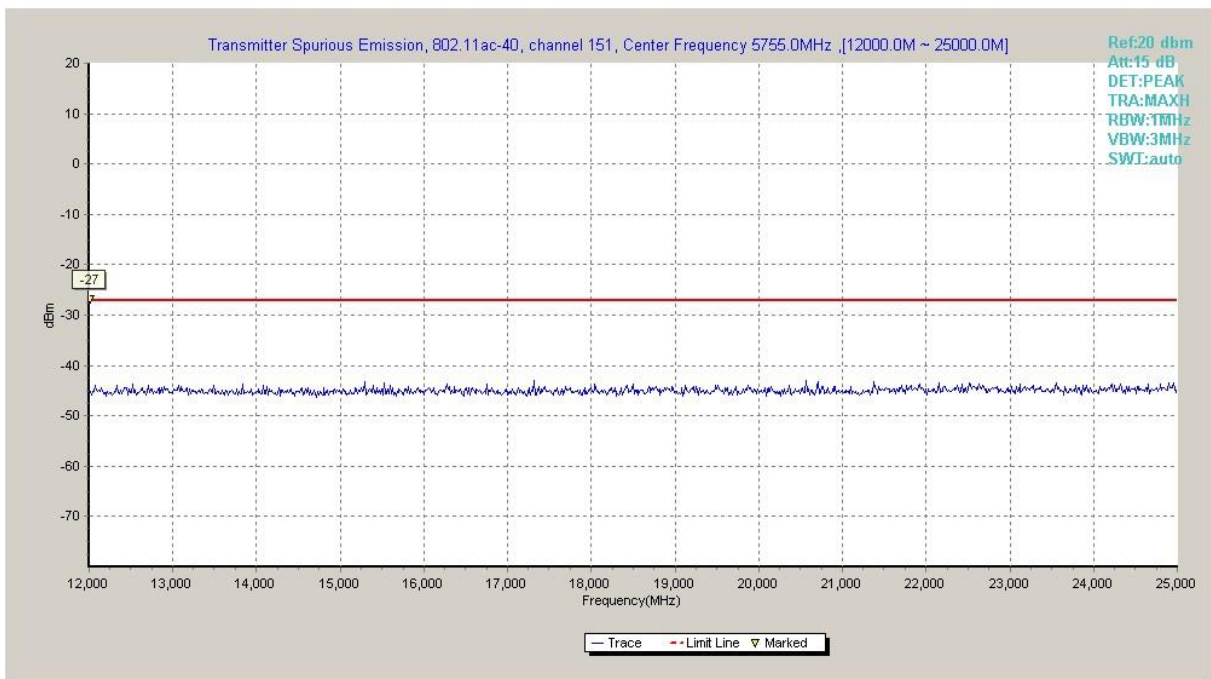
**Fig. 58 Conducted Spurious Emission (802.11n-HT40, Ch159, 25 GHz-40 GHz)**



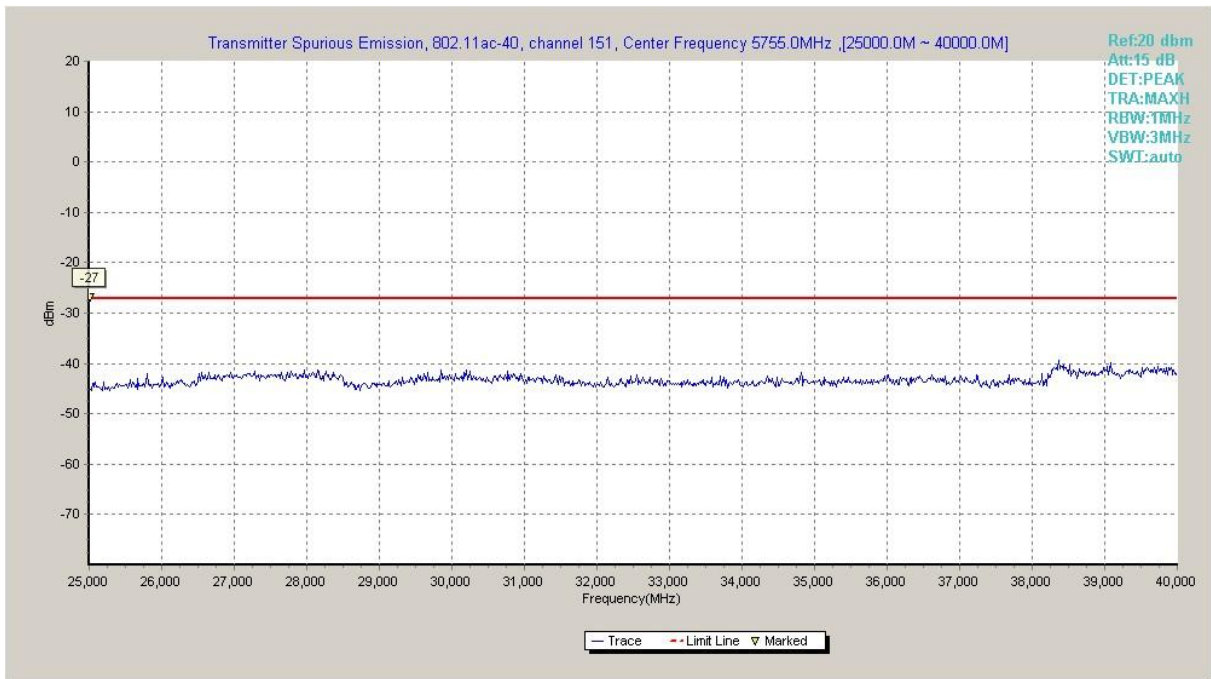
**Fig. 59 Conducted Spurious Emission (802.11ac-HT40, Ch151, 30 MHz-1 GHz)**



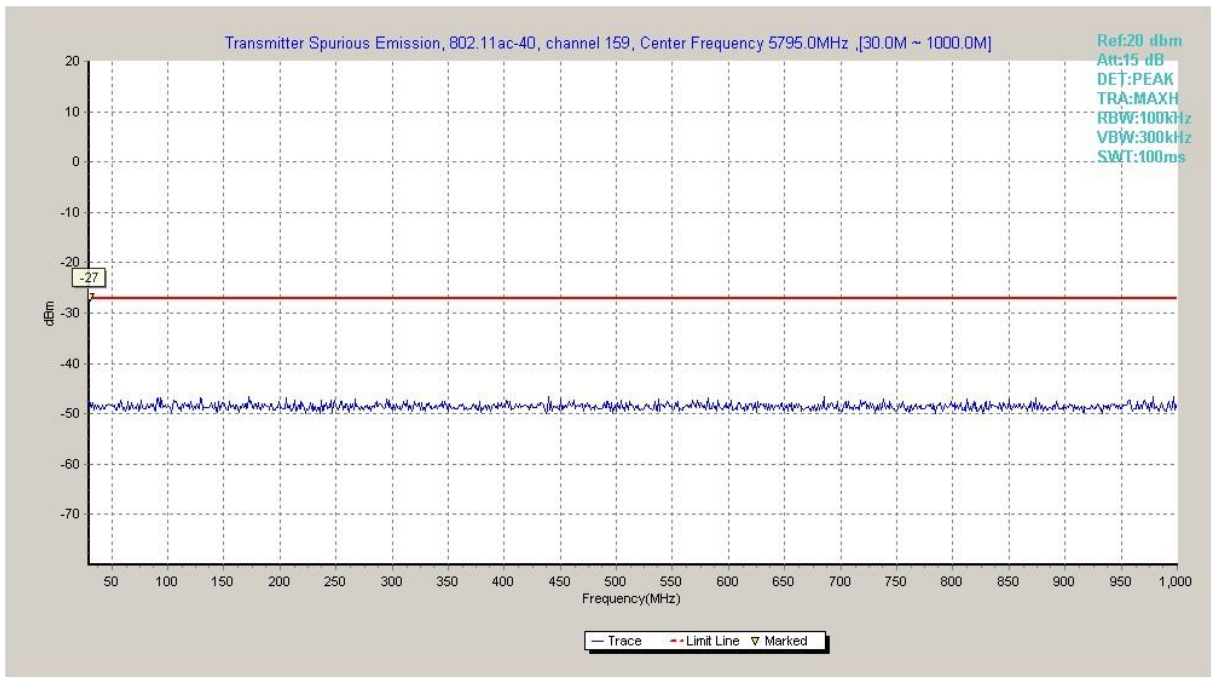
**Fig. 60 Conducted Spurious Emission (802.11ac-HT40, Ch151, 1 GHz -12 GHz)**



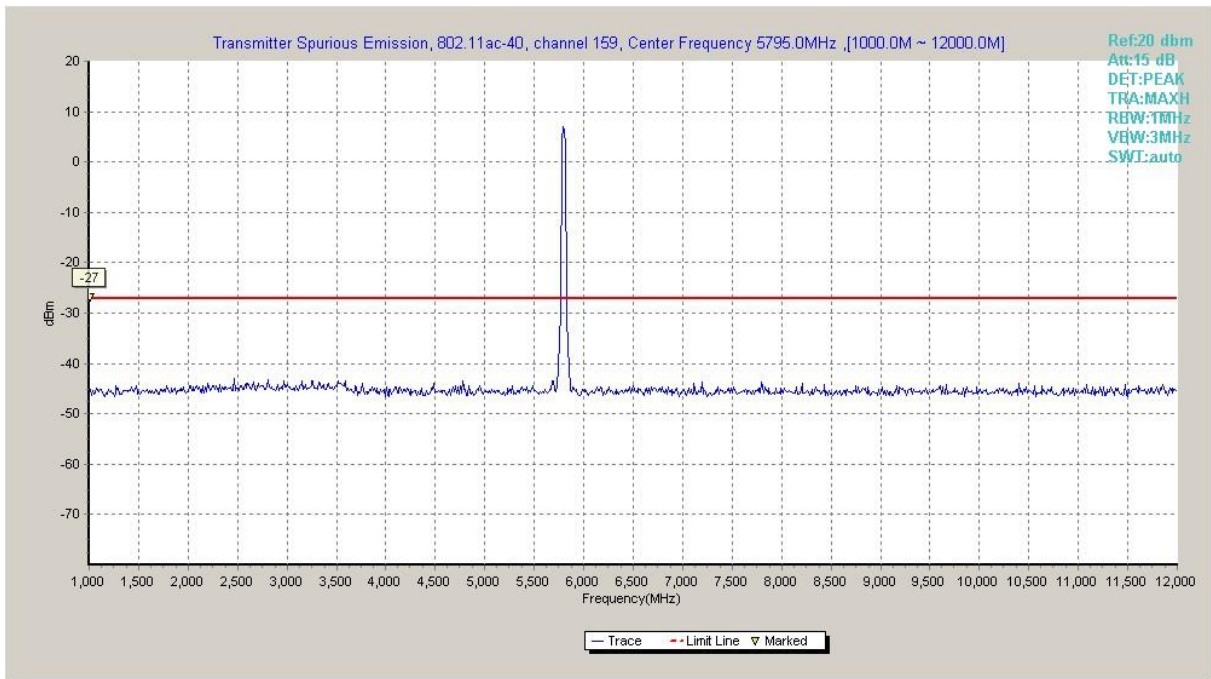
**Fig. 61 Conducted Spurious Emission (802.11ac-HT40, Ch151, 12 GHz-25 GHz)**



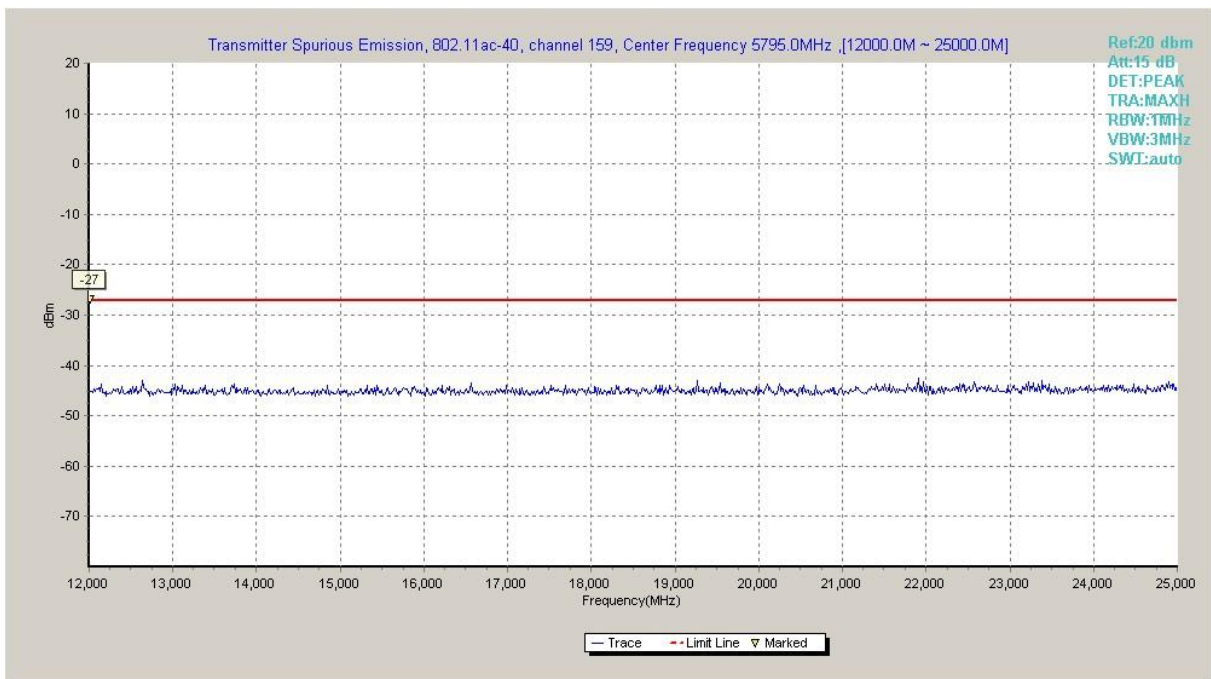
**Fig. 62 Conducted Spurious Emission (802.11ac-HT40, Ch151, 25 GHz-40 GHz)**



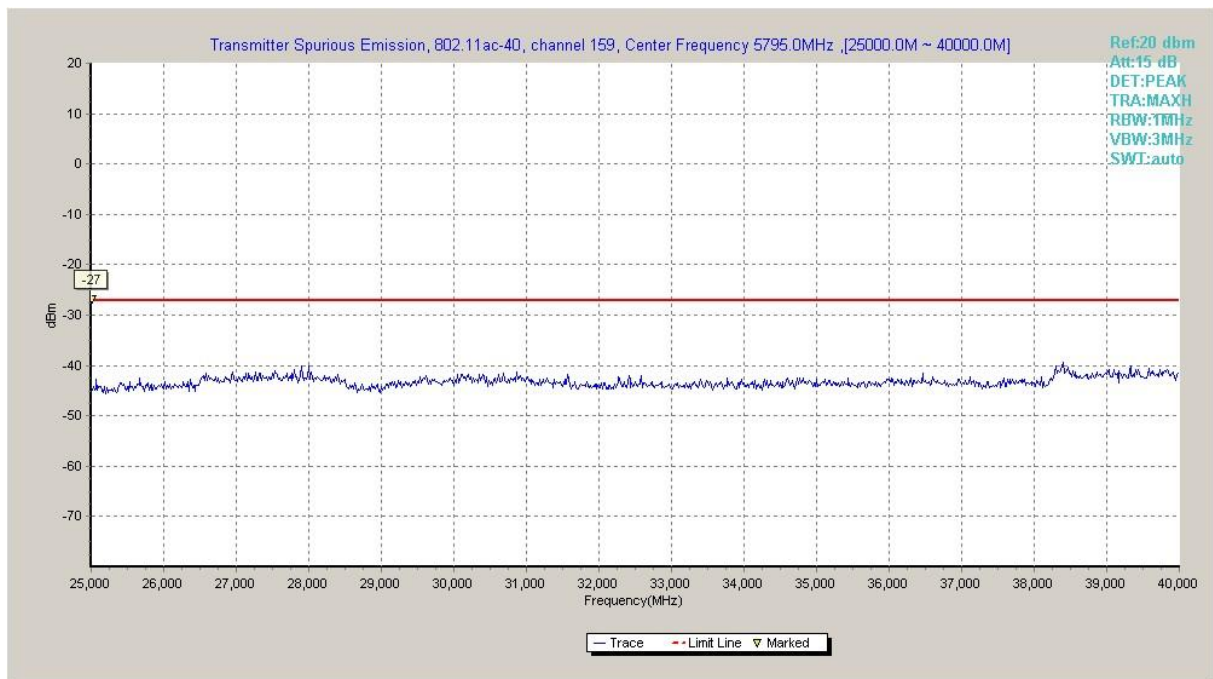
**Fig. 63 Conducted Spurious Emission (802.11ac-HT40, Ch159, 30 MHz-1 GHz)**



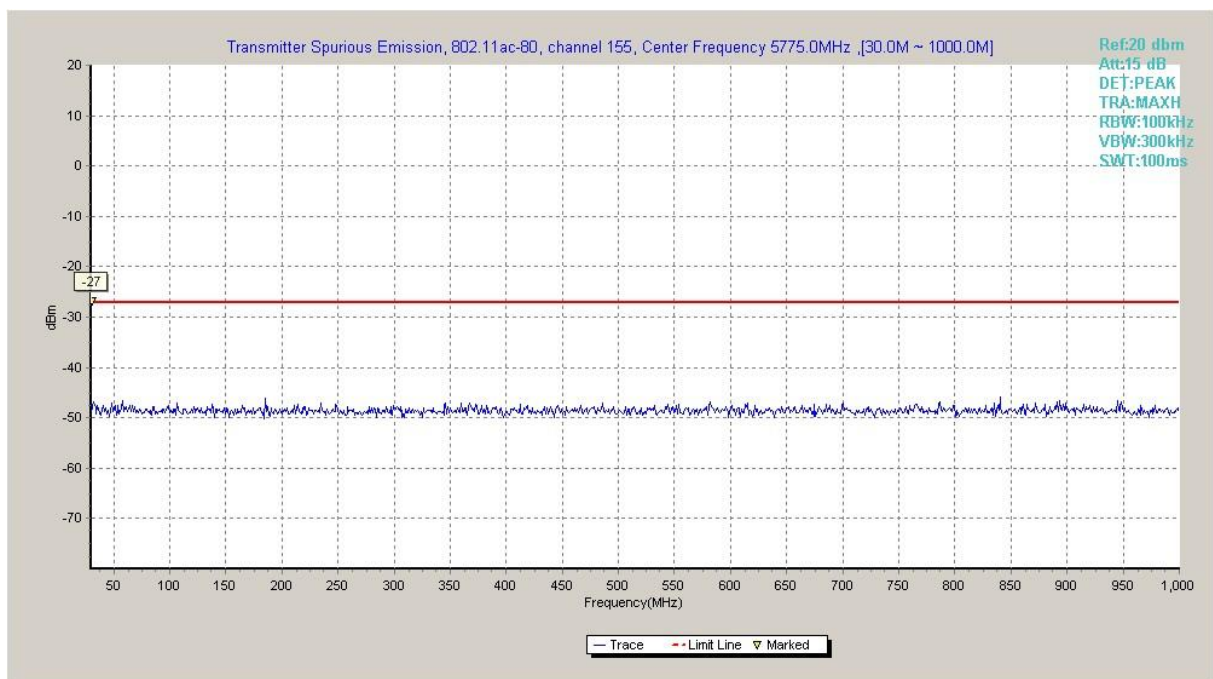
**Fig. 64 Conducted Spurious Emission (802.11ac-HT40, Ch159, 1 GHz -12 GHz)**



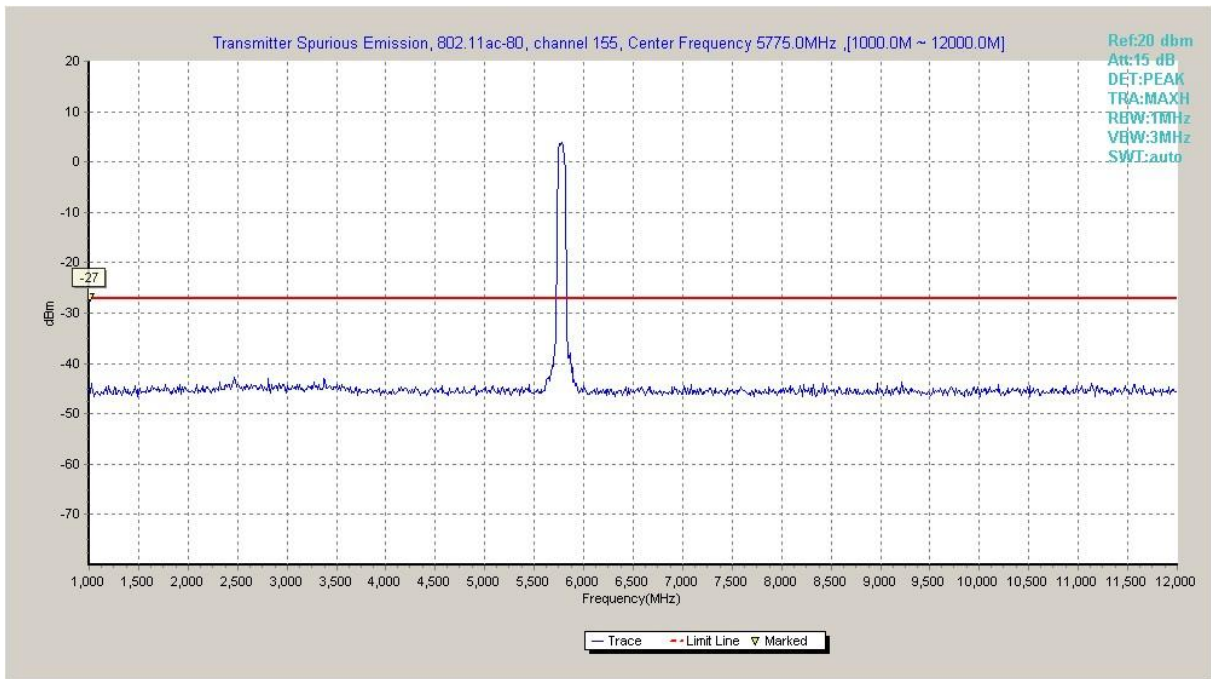
**Fig. 65 Conducted Spurious Emission (802.11ac-HT40, Ch159, 12 GHz-25 GHz)**



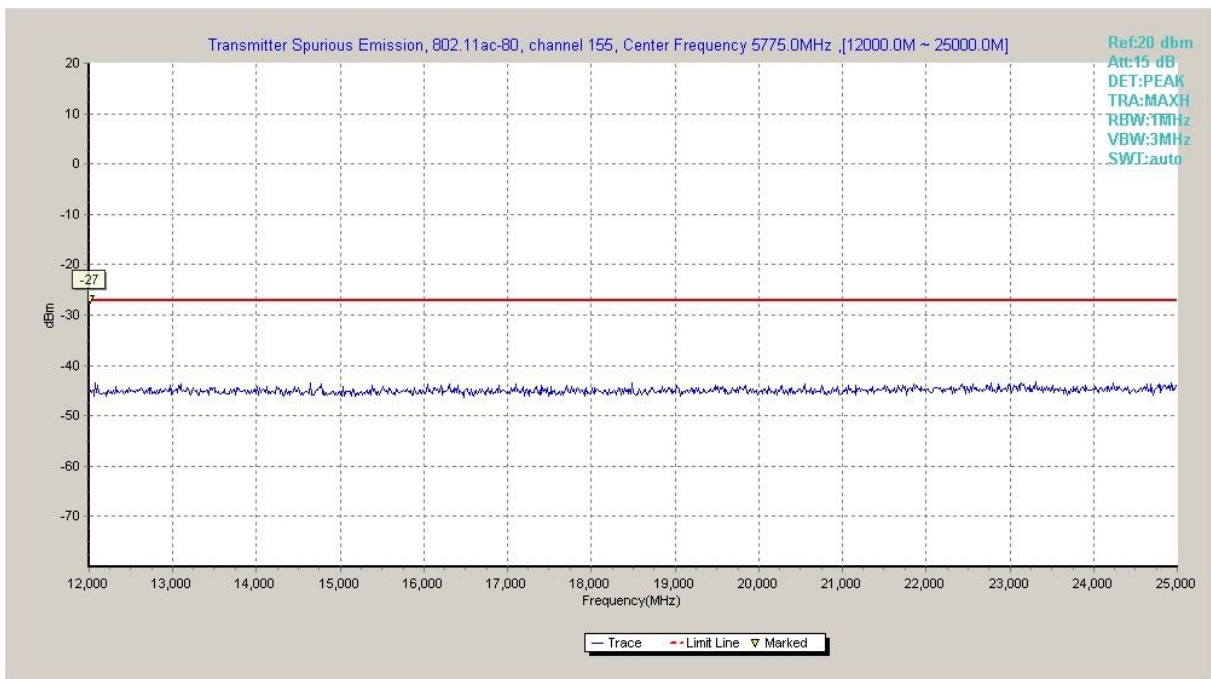
**Fig. 66 Conducted Spurious Emission (802.11ac-HT40, Ch159, 25 GHz-40 GHz)**



**Fig. 67 Conducted Spurious Emission (802.11ac-HT80, Ch155, 30 MHz-1 GHz)**

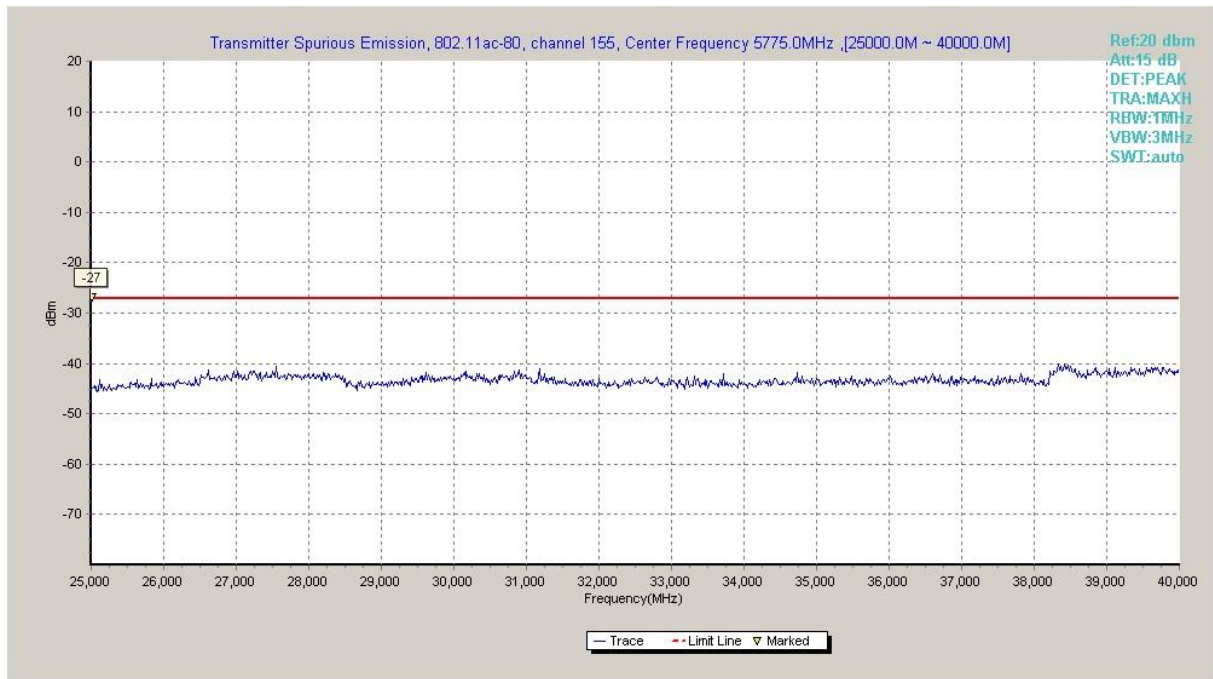


**Fig. 68 Conducted Spurious Emission (802.11ac-HT80, Ch155, 1 GHz -12 GHz)**



**Fig. 69 Conducted Spurious Emission (802.11ac-HT80, Ch155, 12 GHz-25 GHz)**





**Fig. 70 Conducted Spurious Emission (802.11ac-HT80, Ch155, 25 GHz-40 GHz)**

### A.5.2 Transmitter Spurious Emission - Radiated

#### Measurement Uncertainty:

| Frequency Range      | Uncertainty(dB) |
|----------------------|-----------------|
| $f \leq 1\text{GHz}$ | 4.86            |
| $f > 1\text{GHz}$    | 5.28            |

#### Measurement Results:

**Conclusion: PASS**

#### Note:

A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

$P_{Mea}$  is the field strength recorded from the instrument.

#### Average

#### 802.11a

#### Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | $P_{Mea}$ (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|--------------------|--------------|
| 5723.760       | 48.8            | -33.8          | 35.1           | 47.500             | H            |
| 17909.600      | 45.2            | -18.5          | 45.6           | 18.100             | H            |
| 17910.000      | 45.0            | -18.5          | 45.6           | 17.900             | H            |
| 17917.200      | 44.9            | -17.7          | 45.6           | 17.000             | H            |
| 17915.600      | 44.9            | -17.7          | 45.6           | 17.000             | H            |
| 17926.400      | 44.9            | -17.7          | 45.6           | 17.000             | H            |

#### Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | $P_{Mea}$ (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|--------------------|--------------|
| 17903.600      | 45.0            | -18.5          | 45.6           | 17.9               | H            |
| 17922.400      | 44.9            | -17.7          | 45.6           | 17.0               | H            |
| 17914.000      | 44.8            | -18.5          | 45.6           | 17.7               | H            |
| 17916.000      | 44.8            | -17.7          | 45.6           | 16.9               | H            |
| 17914.800      | 44.8            | -17.7          | 45.6           | 16.9               | H            |
| 17902.400      | 44.8            | -18.5          | 45.6           | 17.7               | H            |

#### Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | $P_{Mea}$ (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|--------------------|--------------|
| 5854.496       | 49.6            | -33.8          | 35.1           | 48.3               | H            |
| 11650.800      | 47.8            | -22.7          | 39.6           | 30.9               | V            |
| 11650.000      | 47.5            | -22.7          | 39.6           | 30.6               | V            |
| 11647.200      | 47.3            | -22.7          | 39.6           | 30.4               | V            |
| 11651.600      | 47.3            | -22.7          | 39.6           | 30.4               | V            |
| 11651.200      | 47.2            | -22.7          | 39.6           | 30.3               | V            |

**802.11n-HT20**

Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5717.648       | 48.6            | -33.8          | 35.1           | 47.3                      | H            |
| 17915.600      | 44.9            | -17.7          | 45.6           | 17.0                      | H            |
| 17914.400      | 44.8            | -17.7          | 45.6           | 16.9                      | H            |
| 17909.600      | 44.7            | -18.5          | 45.6           | 17.6                      | H            |
| 17903.600      | 44.7            | -18.5          | 45.6           | 17.6                      | H            |
| 17923.200      | 44.7            | -17.7          | 45.6           | 16.8                      | H            |

Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17900.400      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17903.200      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17919.600      | 44.8            | -17.7          | 45.6           | 16.9                      | H            |
| 17906.000      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17916.400      | 44.7            | -17.7          | 45.6           | 16.8                      | H            |
| 17906.400      | 44.7            | -18.5          | 45.6           | 17.6                      | H            |

Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5850.552       | 49.2            | -33.8          | 35.1           | 47.9                      | H            |
| 11650.800      | 46.9            | -22.7          | 39.6           | 30.0                      | H            |
| 11651.600      | 46.7            | -22.7          | 39.6           | 29.8                      | H            |
| 11650.000      | 46.7            | -22.7          | 39.6           | 29.8                      | H            |
| 11650.400      | 46.5            | -22.7          | 39.6           | 29.6                      | H            |
| 11648.800      | 46.3            | -22.7          | 39.6           | 29.4                      | H            |

**802.11n-HT40**

Ch151

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5723.240       | 48.9            | -33.8          | 35.1           | 47.6                      | H            |
| 17909.600      | 45.1            | -18.5          | 45.6           | 18.0                      | H            |
| 17915.600      | 45.1            | -17.7          | 45.6           | 17.2                      | H            |
| 17895.600      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17906.800      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17902.000      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |

Ch159

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5852.808       | 49.4            | -33.8          | 35.1           | 48.1                      | H            |
| 17906.400      | 45.0            | -18.5          | 45.6           | 17.9                      | H            |
| 17918.400      | 44.9            | -17.7          | 45.6           | 17.0                      | H            |
| 17911.600      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17915.600      | 44.8            | -17.7          | 45.6           | 16.9                      | H            |
| 17900.000      | 44.7            | -18.5          | 45.6           | 17.6                      | H            |

802.11ac-HT20

Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5721.552       | 48.7            | -33.8          | 35.1           | 47.4                      | H            |
| 17910.800      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17913.600      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17908.000      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17909.600      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17909.200      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |

Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17917.200      | 44.9            | -17.7          | 45.6           | 17.0                      | H            |
| 17912.800      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 11571.600      | 44.9            | -22.7          | 39.6           | 28.0                      | V            |
| 17903.600      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17920.400      | 44.8            | -17.7          | 45.6           | 16.9                      | H            |
| 17912.400      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |

Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5850.904       | 49.4            | -33.8          | 35.1           | 48.1                      | H            |
| 11650.400      | 45.6            | -22.7          | 39.6           | 28.7                      | H            |
| 11648.800      | 45.5            | -22.7          | 39.6           | 28.6                      | H            |
| 11651.600      | 45.2            | -22.7          | 39.6           | 28.3                      | H            |
| 11649.200      | 45.2            | -22.7          | 39.6           | 28.3                      | H            |
| 11651.200      | 45.1            | -22.7          | 39.6           | 28.2                      | H            |

**802.11ac-HT40**

Ch151

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5723.664       | 48.5            | -33.8          | 35.1           | 47.2                      | H            |
| 17892.800      | 45.1            | -18.5          | 45.6           | 18.0                      | H            |
| 17909.600      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17908.000      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17912.000      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17897.200      | 44.7            | -18.5          | 45.6           | 17.6                      | H            |

Ch159

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5850.816       | 49.2            | -33.8          | 35.1           | 47.9                      | H            |
| 17913.600      | 44.9            | -18.5          | 45.6           | 17.8                      | H            |
| 17910.000      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17902.800      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17906.800      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |
| 17901.600      | 44.8            | -18.5          | 45.6           | 17.7                      | H            |

**802.11ac-HT80**

Ch155

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17923.600      | 45.2            | -17.7          | 45.6           | 17.3                      | H            |
| 17912.800      | 45.1            | -18.5          | 45.6           | 18.0                      | H            |
| 17914.400      | 45.0            | -17.7          | 45.6           | 17.1                      | V            |
| 17920.800      | 45.0            | -17.7          | 45.6           | 17.1                      | H            |
| 17918.800      | 44.9            | -17.7          | 45.6           | 17.0                      | H            |
| 17914.800      | 44.9            | -17.7          | 45.6           | 17.0                      | H            |

**Peak**

**802.11a**

Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5723.725       | 60.9            | -33.8          | 35.1           | 59.600                    | H            |
| 17896.800      | 57.0            | -18.5          | 45.6           | 29.900                    | H            |
| 17892.800      | 56.8            | -18.5          | 45.6           | 29.700                    | H            |
| 17879.600      | 56.6            | -18.5          | 45.6           | 29.500                    | H            |
| 17875.200      | 56.5            | -18.5          | 45.6           | 29.400                    | H            |
| 17903.200      | 56.4            | -18.5          | 45.6           | 29.300                    | H            |

Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17933.200      | 57.0            | -17.7          | 45.6           | 29.1                      | H            |
| 11572.000      | 56.7            | -22.7          | 39.6           | 39.8                      | V            |
| 11572.800      | 56.7            | -22.7          | 39.6           | 39.8                      | V            |
| 17894.000      | 56.6            | -18.5          | 45.6           | 29.5                      | H            |
| 17919.600      | 56.6            | -17.7          | 45.6           | 28.7                      | H            |
| 11567.600      | 56.6            | -22.7          | 39.6           | 39.7                      | H            |

Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5854.224       | 63.3            | -33.8          | 35.1           | 62.0                      | H            |
| 11648.800      | 60.4            | -22.7          | 39.6           | 43.5                      | V            |
| 11655.600      | 59.9            | -22.7          | 39.6           | 43.0                      | V            |
| 11647.600      | 59.9            | -22.7          | 39.6           | 43.0                      | V            |
| 11652.400      | 59.8            | -22.7          | 39.6           | 42.9                      | V            |
| 11649.200      | 59.7            | -22.7          | 39.6           | 42.8                      | V            |

**802.11n-HT20**

Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5718.928       | 61.3            | -33.8          | 35.1           | 60.0                      | H            |
| 17913.600      | 56.9            | -18.5          | 45.6           | 29.8                      | H            |
| 17935.200      | 56.6            | -17.7          | 45.6           | 28.7                      | H            |
| 17922.400      | 56.5            | -17.7          | 45.6           | 28.6                      | H            |
| 17914.000      | 56.4            | -18.5          | 45.6           | 29.3                      | H            |
| 17909.600      | 56.4            | -18.5          | 45.6           | 29.3                      | H            |

Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 11569.200      | 57.1            | -22.7          | 39.6           | 40.2                      | H            |
| 17937.200      | 56.6            | -17.7          | 45.6           | 28.7                      | H            |
| 17818.800      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |
| 17957.600      | 56.4            | -17.7          | 45.6           | 28.5                      | H            |
| 17840.000      | 56.4            | -18.5          | 45.6           | 29.3                      | H            |
| 17918.000      | 56.4            | -17.7          | 45.6           | 28.5                      | H            |

Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5851.000       | 61.1            | -33.8          | 35.1           | 59.8                      | H            |
| 11654.800      | 59.1            | -22.7          | 39.6           | 42.2                      | H            |
| 11647.600      | 58.6            | -22.7          | 39.6           | 41.7                      | H            |
| 11650.000      | 58.5            | -22.7          | 39.6           | 41.6                      | H            |
| 11646.000      | 58.4            | -22.7          | 39.6           | 41.5                      | H            |
| 11648.800      | 58.4            | -22.7          | 39.6           | 41.5                      | H            |

**802.11n-HT40**

Ch151

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5719.344       | 61.7            | -33.8          | 35.1           | 60.4                      | H            |
| 17918.800      | 57.7            | -17.7          | 45.6           | 29.8                      | H            |
| 17910.400      | 57.4            | -18.5          | 45.6           | 30.3                      | H            |
| 17894.000      | 57.2            | -18.5          | 45.6           | 30.1                      | H            |
| 17932.400      | 56.7            | -17.7          | 45.6           | 28.8                      | H            |
| 17802.400      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |

Ch159

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5853.184       | 62.0            | -33.8          | 35.1           | 60.7                      | H            |
| 17929.200      | 56.7            | -17.7          | 45.6           | 28.8                      | H            |
| 17917.600      | 56.5            | -17.7          | 45.6           | 28.6                      | H            |
| 17945.600      | 56.4            | -17.7          | 45.6           | 28.5                      | H            |
| 17930.800      | 56.2            | -17.7          | 45.6           | 28.3                      | H            |
| 17944.800      | 56.2            | -17.7          | 45.6           | 28.3                      | H            |



**802.11ac-HT20**

Ch149

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5721.880       | 61.5            | -33.8          | 35.1           | 60.2                      | H            |
| 17994.000      | 57.2            | -17.7          | 45.6           | 29.3                      | H            |
| 17740.400      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |
| 17904.400      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |
| 17906.800      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |
| 17920.000      | 56.5            | -17.7          | 45.6           | 28.6                      | H            |

Ch157

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 11571.200      | 58.9            | -22.7          | 39.6           | 42.0                      | H            |
| 11568.000      | 57.1            | -22.7          | 39.6           | 40.2                      | H            |
| 17907.200      | 56.9            | -18.5          | 45.6           | 29.8                      | H            |
| 17912.000      | 56.9            | -18.5          | 45.6           | 29.8                      | H            |
| 11571.600      | 56.9            | -22.7          | 39.6           | 40.0                      | H            |
| 17918.800      | 56.9            | -17.7          | 45.6           | 29.0                      | H            |

Ch165

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5855.936       | 63.0            | -33.8          | 35.1           | 61.7                      | H            |
| 11651.600      | 59.7            | -22.7          | 39.6           | 42.8                      | H            |
| 11649.200      | 58.0            | -22.7          | 39.6           | 41.1                      | H            |
| 11647.600      | 57.5            | -22.7          | 39.6           | 40.6                      | H            |
| 11650.800      | 57.1            | -22.7          | 39.6           | 40.2                      | H            |
| 17910.400      | 57.0            | -18.5          | 45.6           | 29.9                      | H            |



**802.11ac-HT40**

Ch151

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5720.320       | 61.6            | -33.8          | 35.1           | 60.3                      | H            |
| 17976.000      | 57.0            | -17.7          | 45.6           | 29.1                      | H            |
| 17842.000      | 56.9            | -18.5          | 45.6           | 29.8                      | H            |
| 17902.000      | 56.7            | -18.5          | 45.6           | 29.6                      | H            |
| 17945.200      | 56.4            | -17.7          | 45.6           | 28.5                      | H            |
| 17912.000      | 56.4            | -18.5          | 45.6           | 29.3                      | H            |

Ch159

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 5850.776       | 62.2            | -33.8          | 35.1           | 60.9                      | H            |
| 17904.800      | 57.1            | -18.5          | 45.6           | 30.0                      | H            |
| 17986.400      | 56.8            | -17.7          | 45.6           | 28.9                      | H            |
| 17916.000      | 56.7            | -17.7          | 45.6           | 28.8                      | H            |
| 17908.400      | 56.5            | -18.5          | 45.6           | 29.4                      | H            |
| 17903.200      | 56.4            | -18.5          | 45.6           | 29.3                      | H            |

**802.11ac-HT80**

Ch155

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P <sub>Mea</sub> (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17921.600      | 58.1            | -17.7          | 45.6           | 30.2                      | H            |
| 17934.800      | 57.0            | -17.7          | 45.6           | 29.1                      | H            |
| 17945.200      | 56.9            | -17.7          | 45.6           | 29.0                      | V            |
| 17926.400      | 56.8            | -17.7          | 45.6           | 28.9                      | H            |
| 17886.000      | 56.7            | -18.5          | 45.6           | 29.6                      | H            |
| 17930.000      | 56.6            | -17.7          | 45.6           | 28.7                      | H            |

Sample calculation: 802.11ac 80MHz CH155–Peak, 17921.600MHz

Peak ERP(dBm) = P<sub>Mea</sub>(30.2 dBuV/m) + Cable Loss(-17.7) + Antenna Factor(45.6) = 58.1 dBuV/m

## A.6. Band Edges Compliance

### A6.1 Band Edges - conducted

#### Measurement Limit:

| Standard                     | Limit (dBm/MHz)   |
|------------------------------|---|
| FCC 47 CFR Part 15.407(b)(4) | All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. |

The measurement is made according to KDB 789033 D02

#### Measurement Uncertainty:

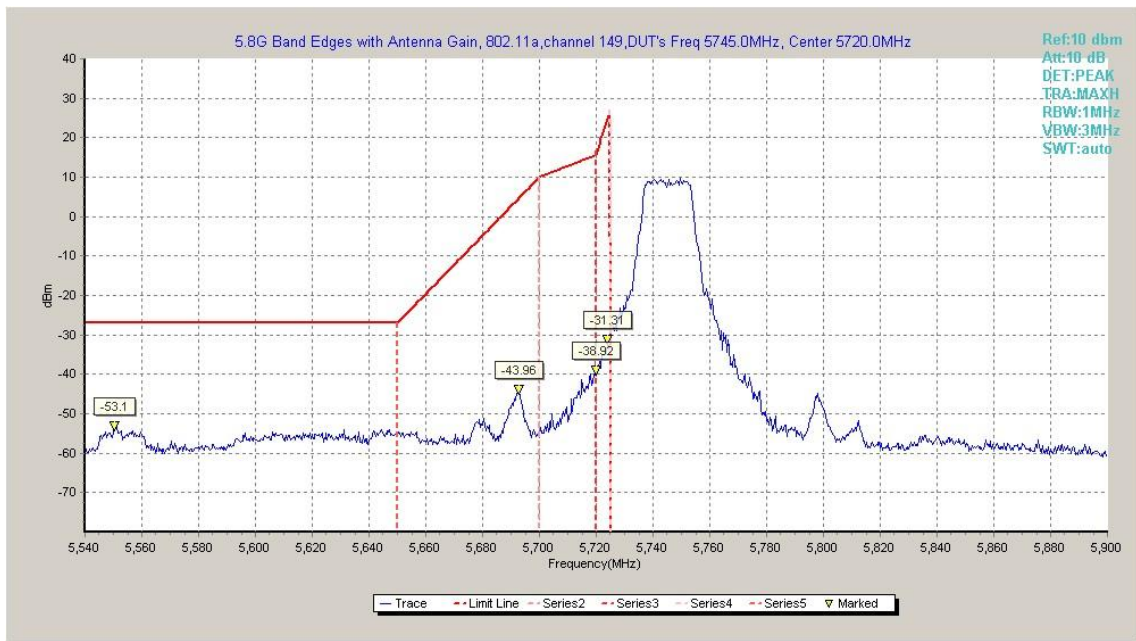
|                         |        |
|-------------------------|--------|
| Measurement Uncertainty | 0.75dB |
|-------------------------|--------|

#### Measurement Result:

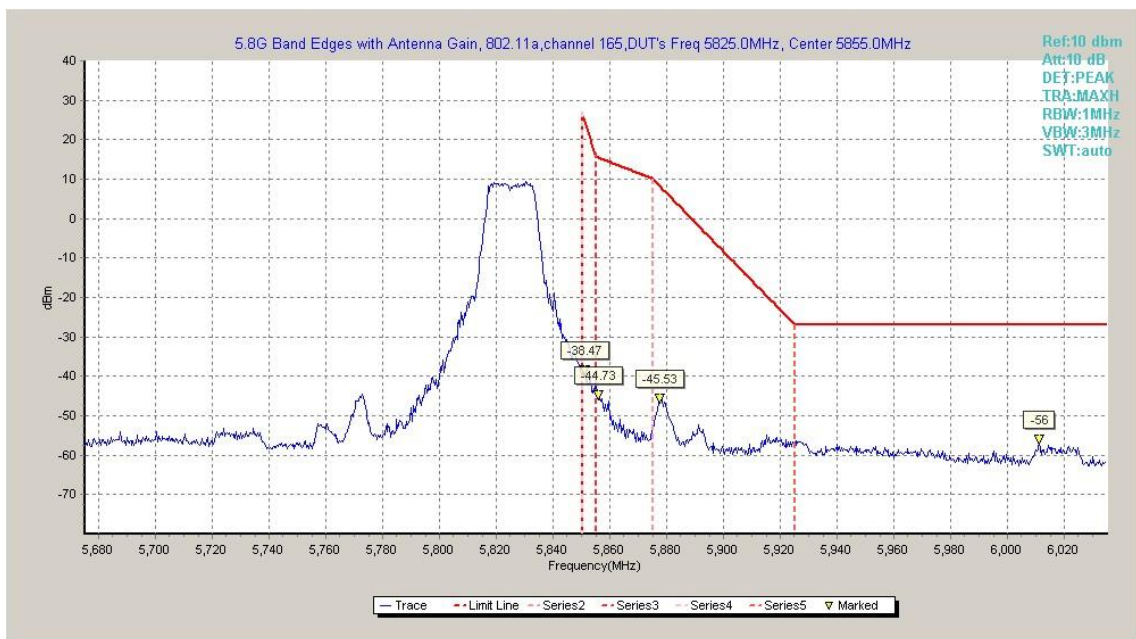
| Mode             | Channel  | Test Results | Conclusion |
|------------------|----------|--------------|------------|
| 802.11a          | 5745 MHz | Fig.71       | P          |
|                  | 5825 MHz | Fig.72       | P          |
| 802.11n<br>HT20  | 5745 MHz | Fig.73       | P          |
|                  | 5825 MHz | Fig.74       | P          |
| 802.11ac<br>HT20 | 5745 MHz | Fig.75       | P          |
|                  | 5825 MHz | Fig.76       | P          |
| 802.11n<br>HT40  | 5755 MHz | Fig.77       | P          |
|                  | 5795 MHz | Fig.78       | P          |
| 802.11ac<br>HT40 | 5755 MHz | Fig.79       | P          |
|                  | 5795 MHz | Fig.80       | P          |
| 802.11ac HT80    | 5775 MHz | Fig.81       | P          |
|                  | 5775 MHz | Fig.82       | P          |

**Conclusion: PASS**

Test graphs as below:



**Fig. 71 Band Edges (802.11a, 5745MHz)**



**Fig. 72 Band Edges (802.11a, 5825MHz)**

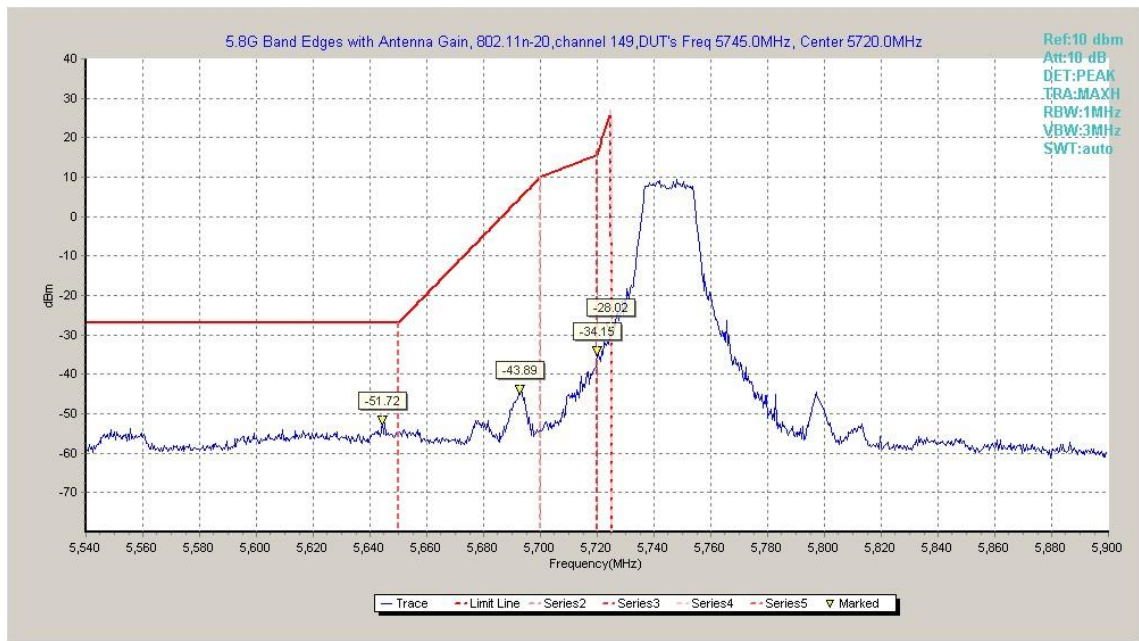
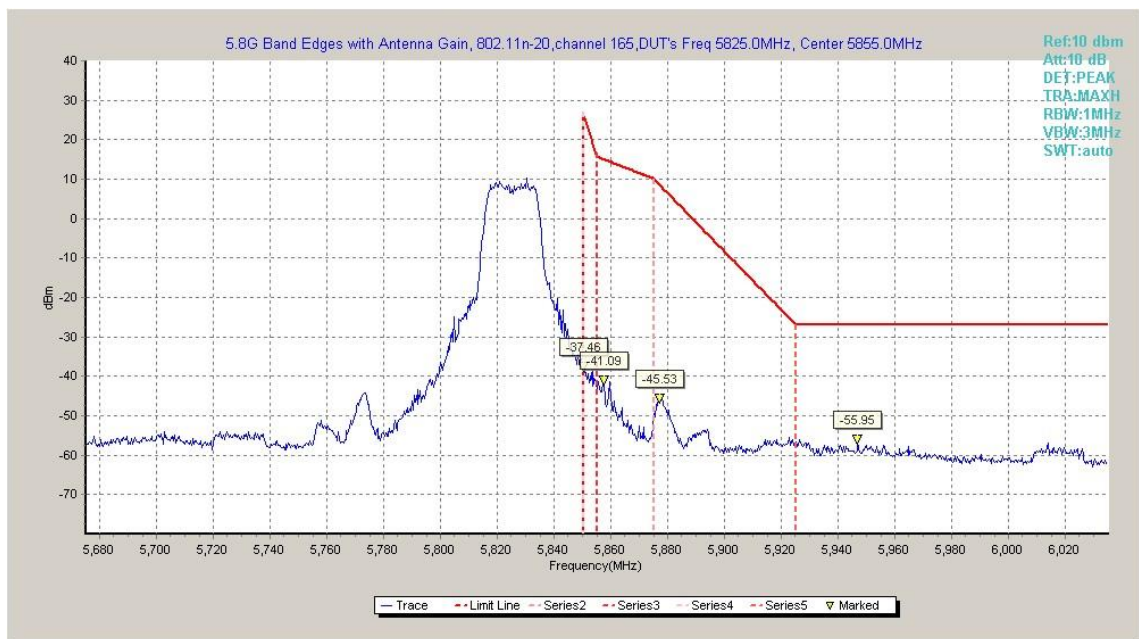
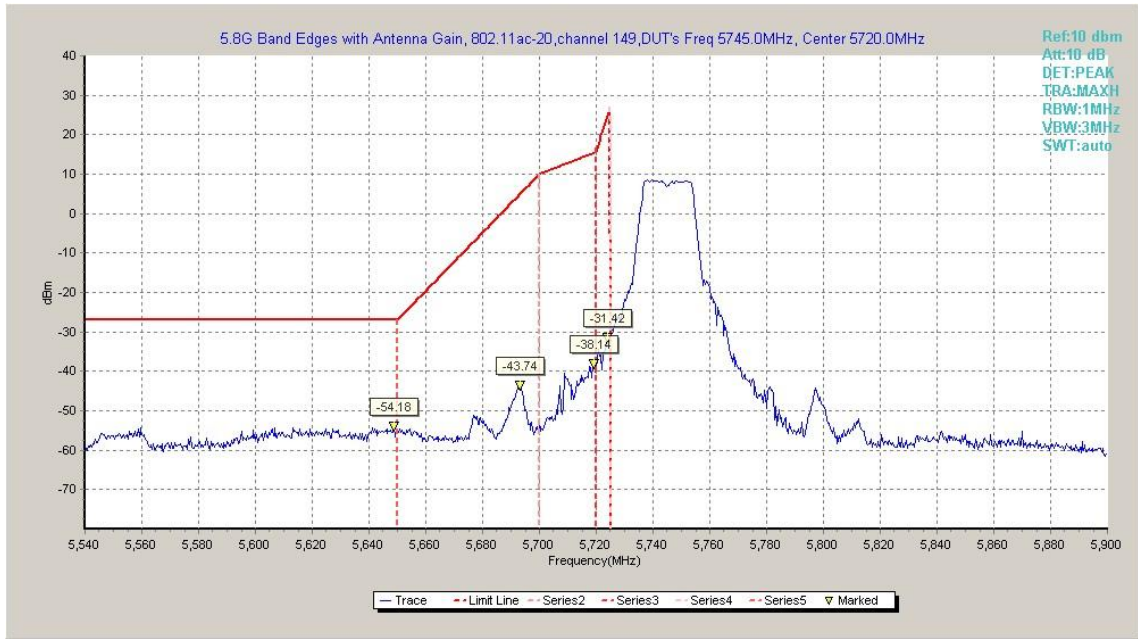


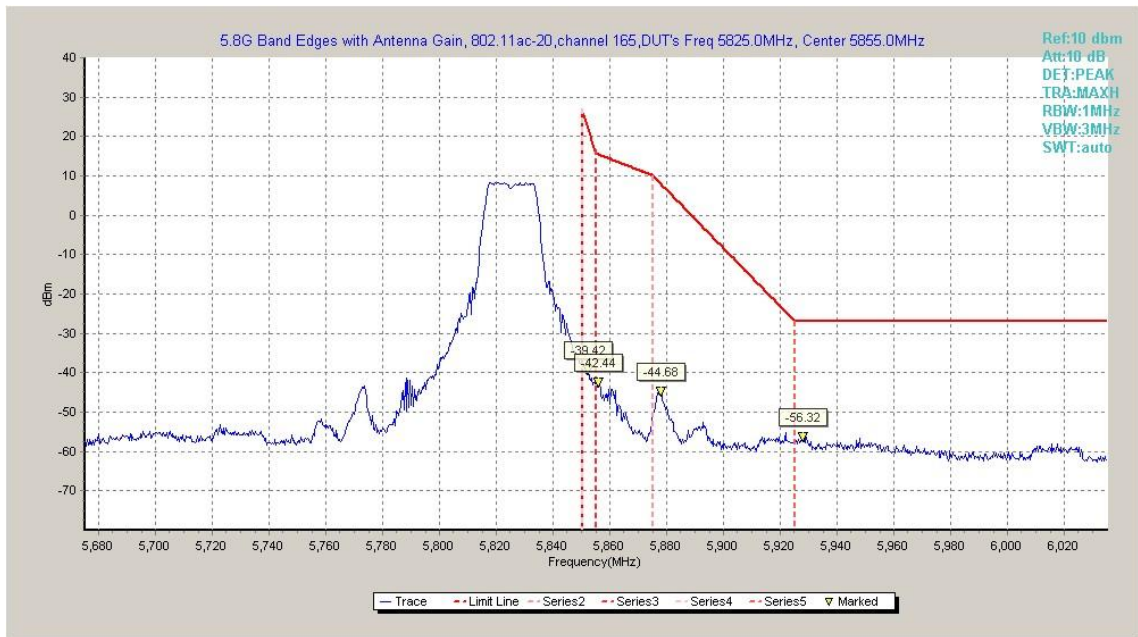
Fig. 73 Band Edges (802.11n-HT20, 5745MHz)



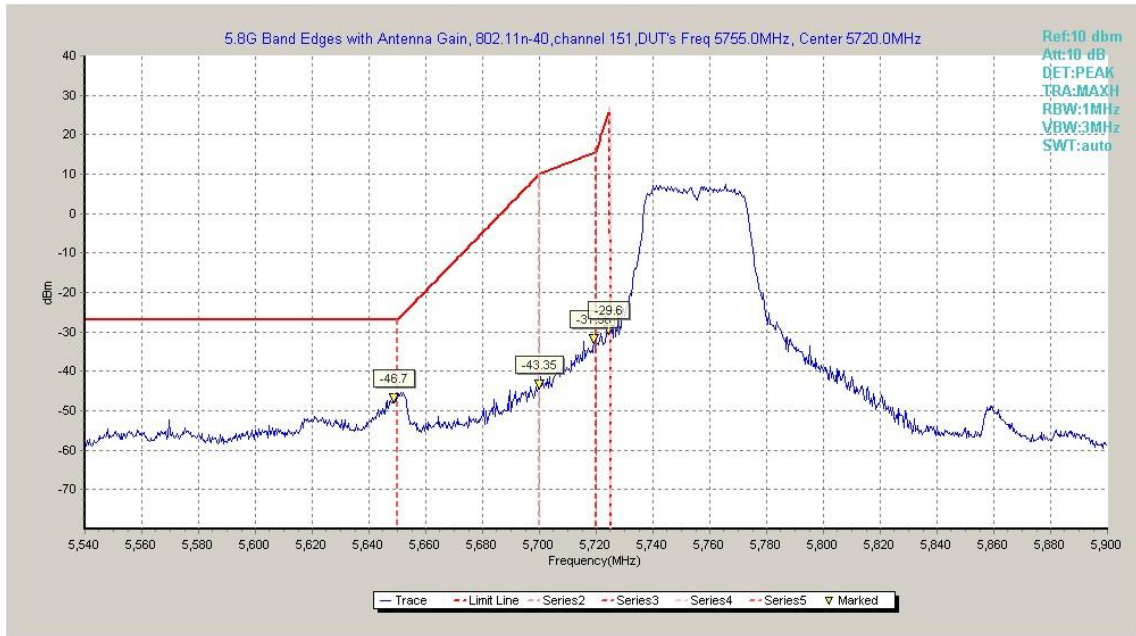
**Fig. 74 Band Edges (802.11n-HT20, 5825MHz)**



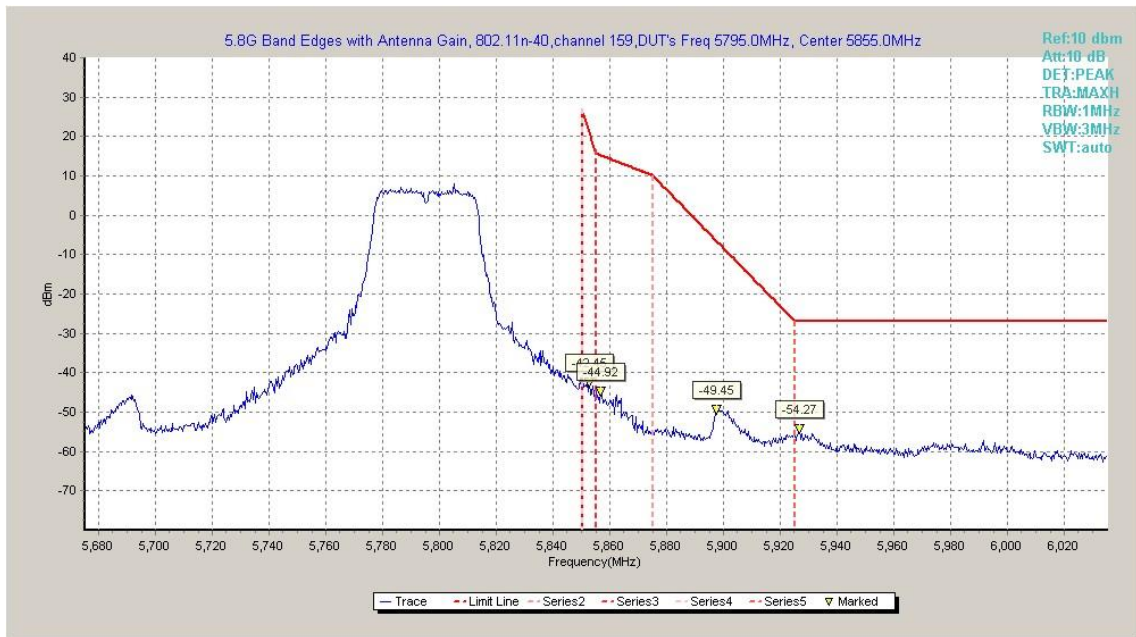
**Fig. 75 Band Edges (802.11ac-HT20, 5745MHz)**



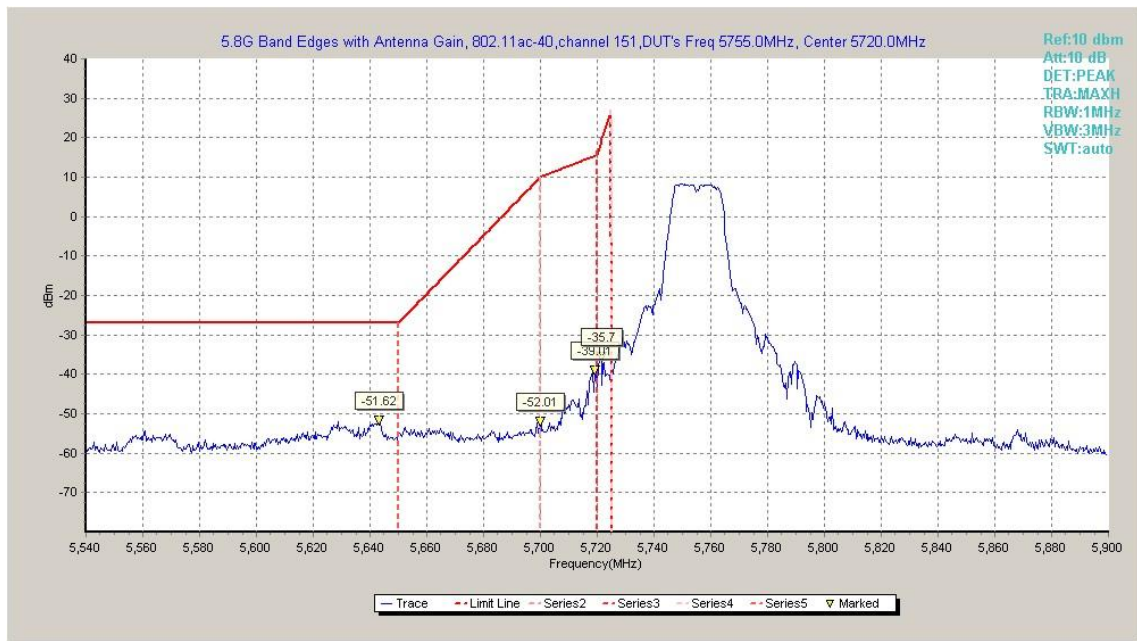
**Fig. 76 Band Edges (802.11ac-HT20, 5825MHz)**



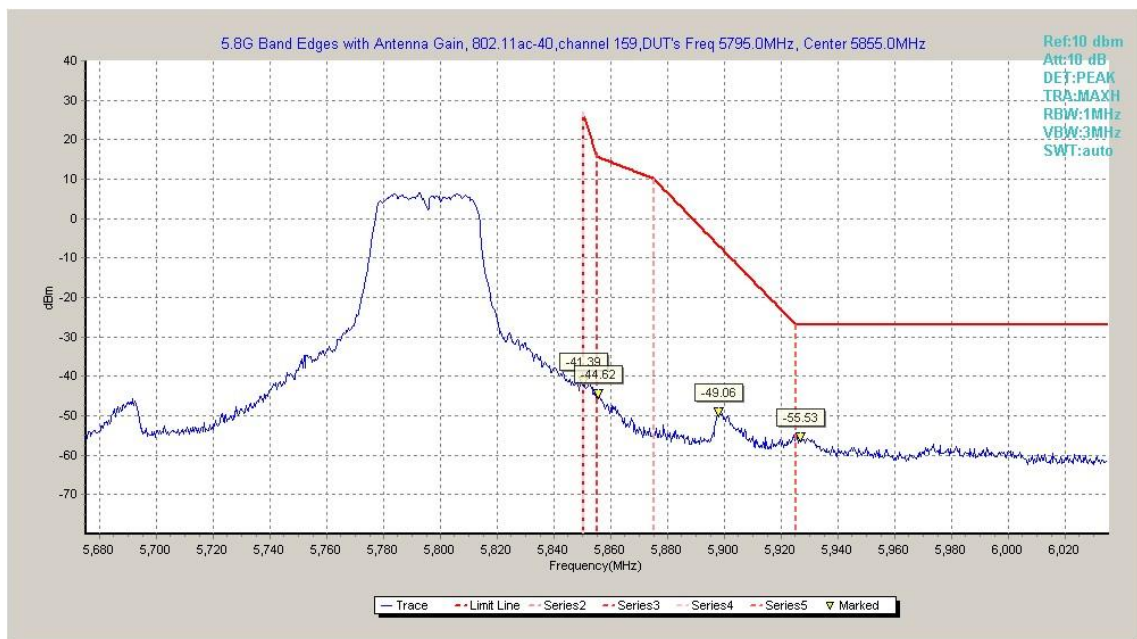
**Fig. 77 Band Edges (802.11n-HT40, 5755MHz)**



**Fig. 78 Band Edges (802.11n-HT40, 5795MHz)**



**Fig. 79 Band Edges (802.11ac-HT40, 5755MHz)**



**Fig. 80 Band Edges (802.11ac-HT40, 5795MHz)**



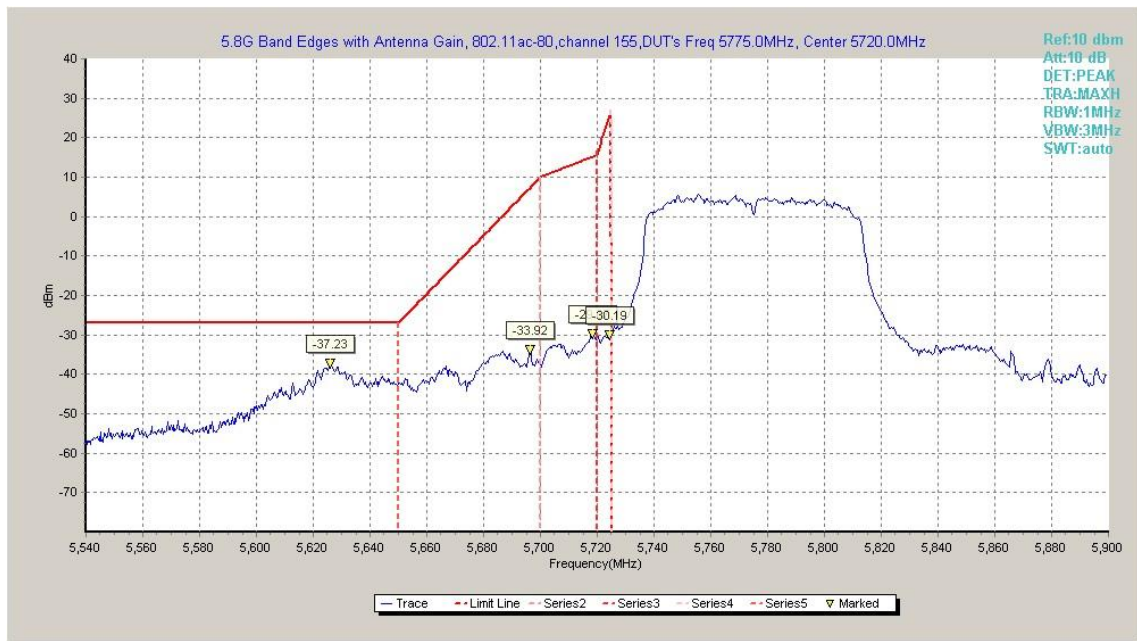


Fig. 81 Band Edges (802.11ac-HT80, 5775MHz)

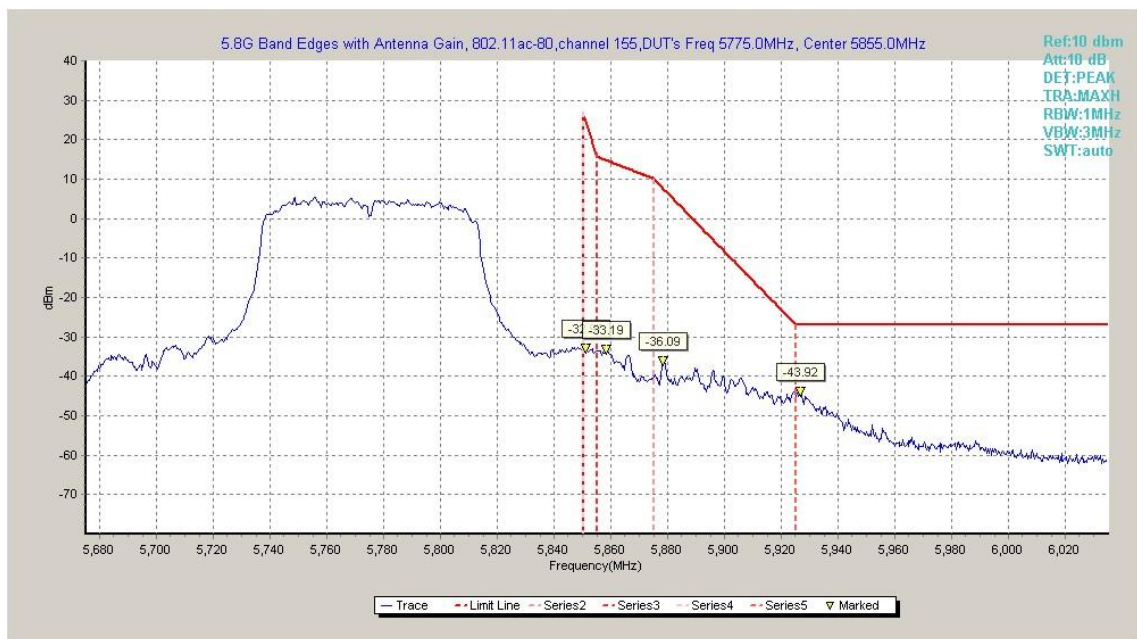


Fig. 82 Band Edges (802.11ac-HT80, 5775MHz)

## A6.2 Band Edges - Radiated

### Measurement Limit:

| Standard                  | Limit (dBm/MHz)                                |      |
|---------------------------|--|------|
| FCC 47 CFR<br>Part 15.407 | at the band edge                               | 27   |
|                           | at 5 MHz above or below the band edge          | 15.6 |
|                           | at 25 MHz above or below the band edge         | 10   |
|                           | at 75 MHz or more above or below the band edge | -27  |
|                           | Note: increasing linearly from point to point. |      |

The measurement is made according to KDB 789033 D02

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)).

### Measurement Result:

| Mode             | Channel  | Test Results | Conclusion |
|------------------|----------|--------------|------------|
| 802.11a          | 5745 MHz | Fig.83       | P          |
|                  | 5825 MHz | Fig.84       | P          |
| 802.11n<br>HT20  | 5745 MHz | Fig.85       | P          |
|                  | 5825 MHz | Fig.86       | P          |
| 802.11n<br>HT40  | 5755 MHz | Fig.87       | P          |
|                  | 5795 MHz | Fig.88       | P          |
| 802.11ac<br>HT20 | 5745 MHz | Fig.89       | P          |
|                  | 5825 MHz | Fig.90       | P          |
| 802.11ac<br>HT40 | 5755 MHz | Fig.91       | P          |
|                  | 5795 MHz | Fig.92       | P          |

**Conclusion: PASS**

Test graphs as below:

Full Spectrum

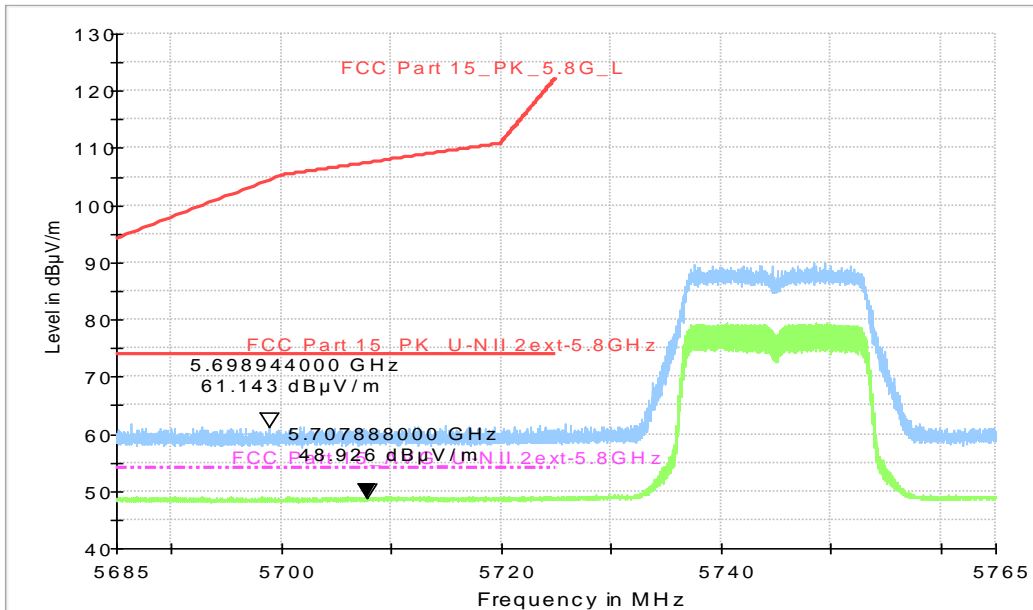


Fig. 83 Band Edges (802.11a, 5745MHz)

Full Spectrum

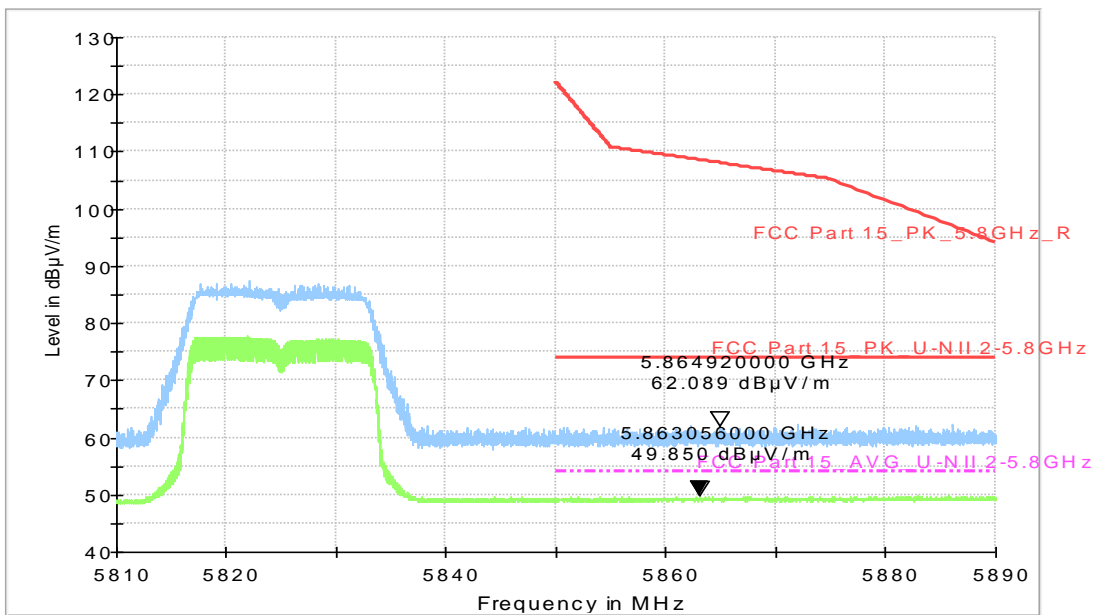


Fig. 84 Band Edges (802.11a, 5825MHz)

Full Spectrum

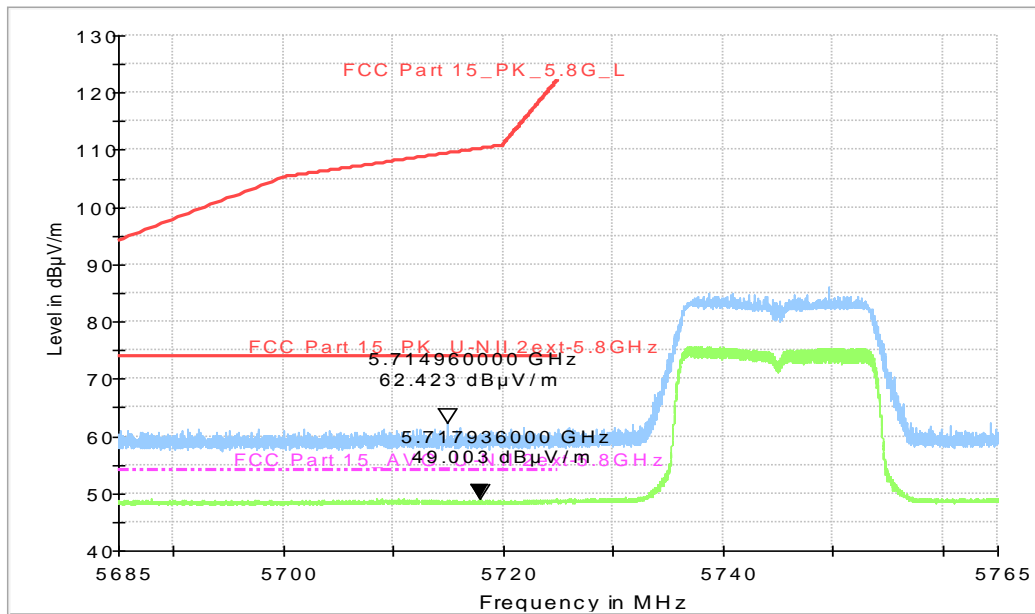


Fig. 85 Band Edges (802.11n-HT20, 5745MHz)

Full Spectrum

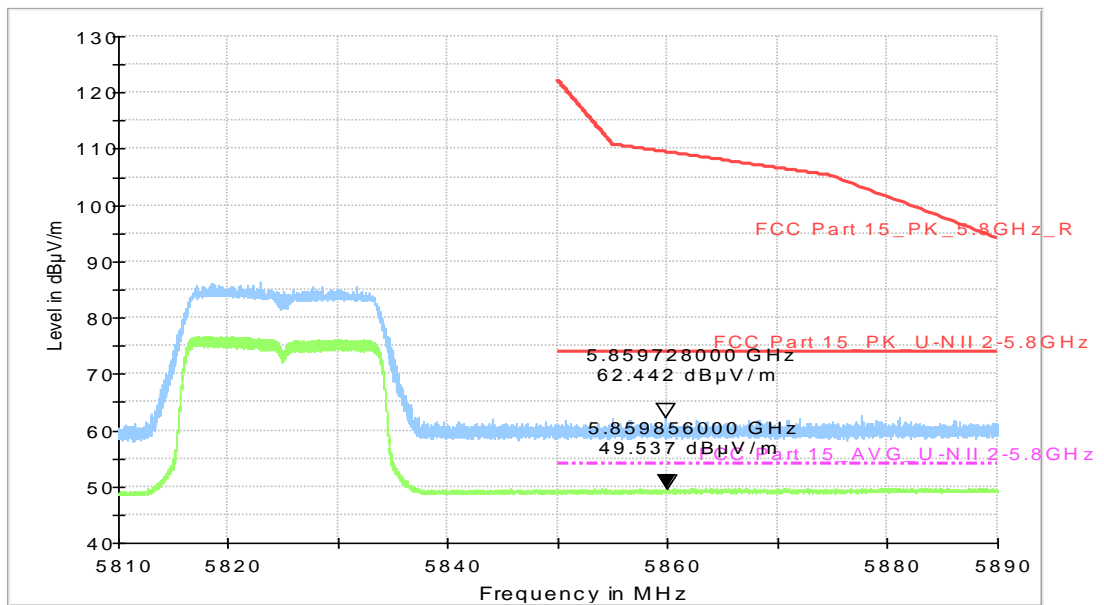
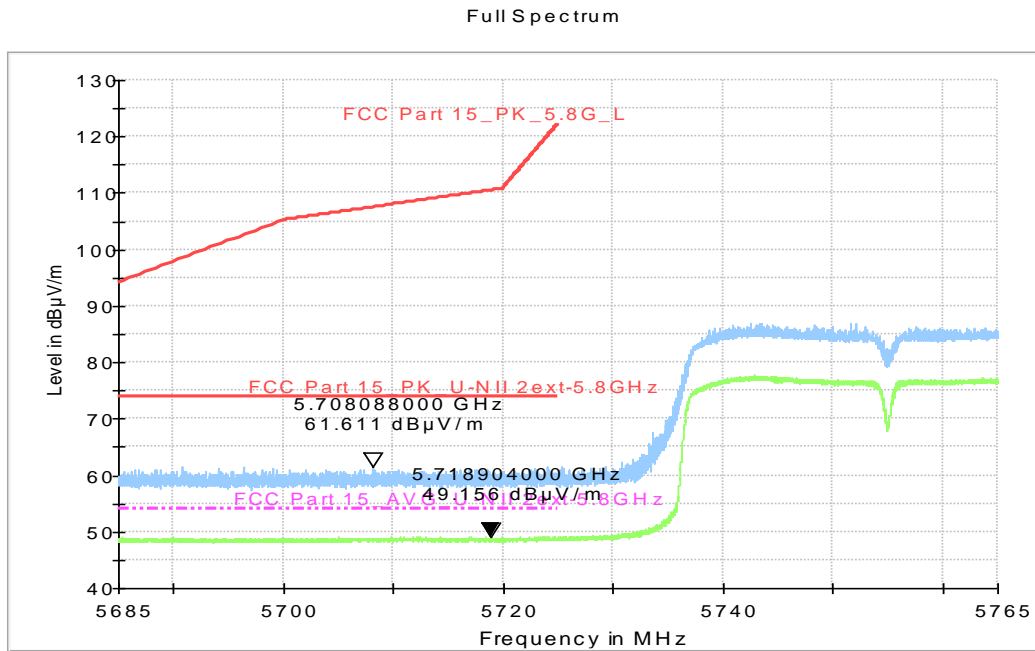
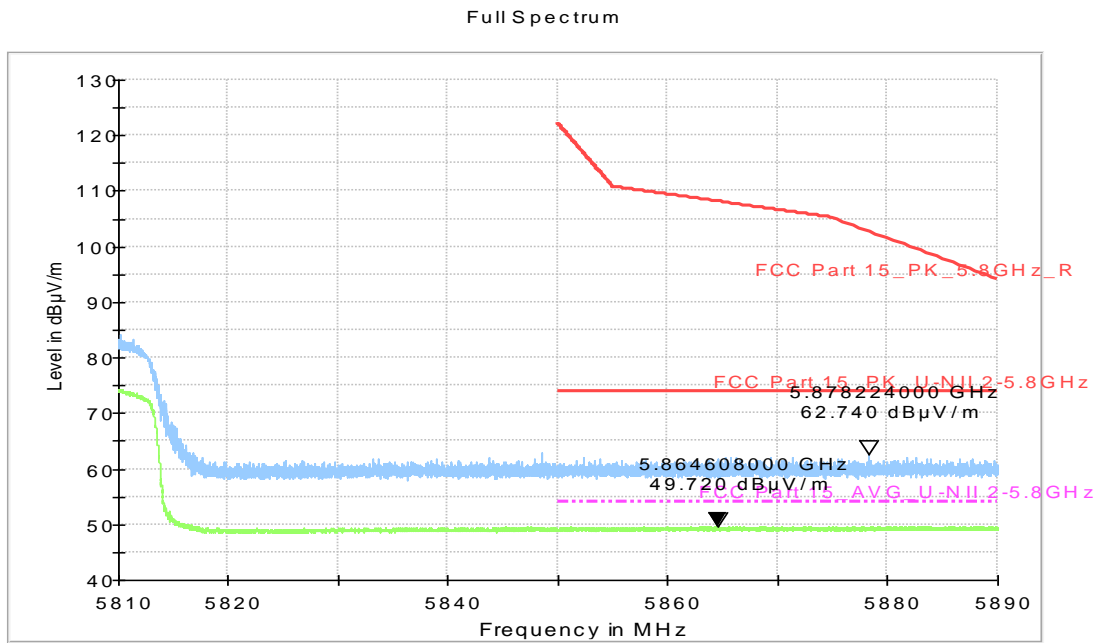


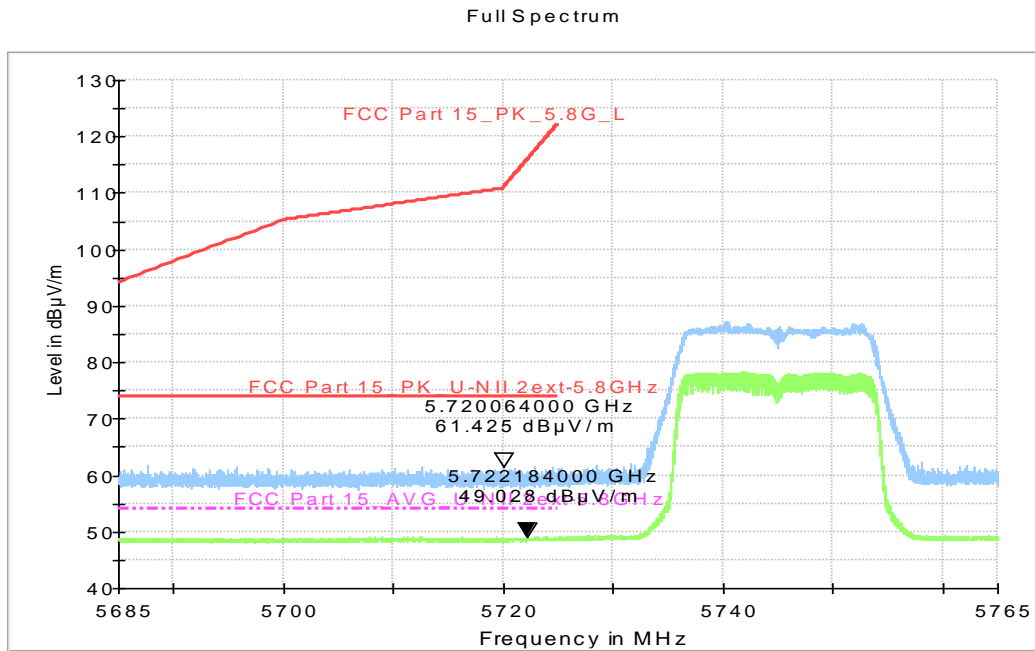
Fig. 86 Band Edges (802.11n-HT20, 5825MHz)



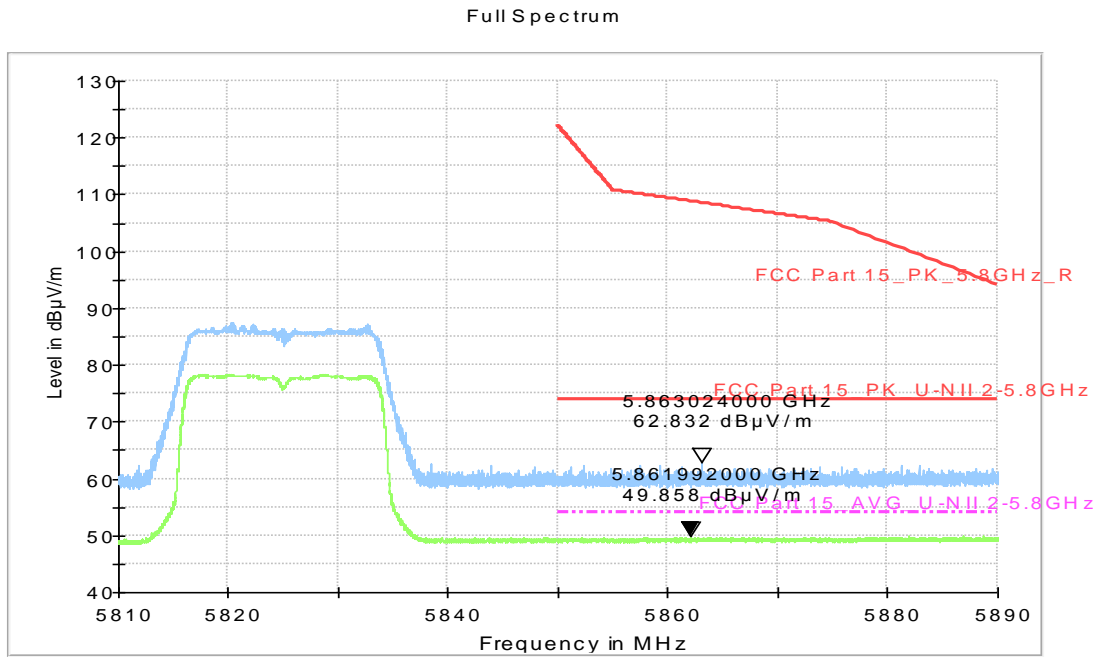
**Fig. 87 Band Edges (802.11n-HT40, 5755MHz)**



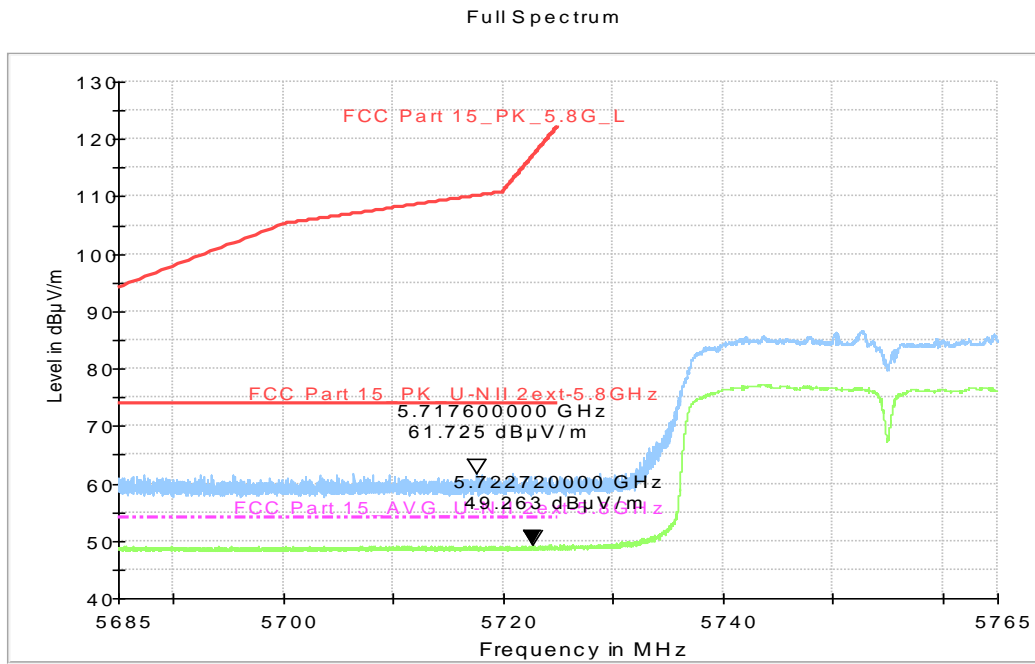
**Fig. 88 Band Edges (802.11n-HT40, 5795MHz)**



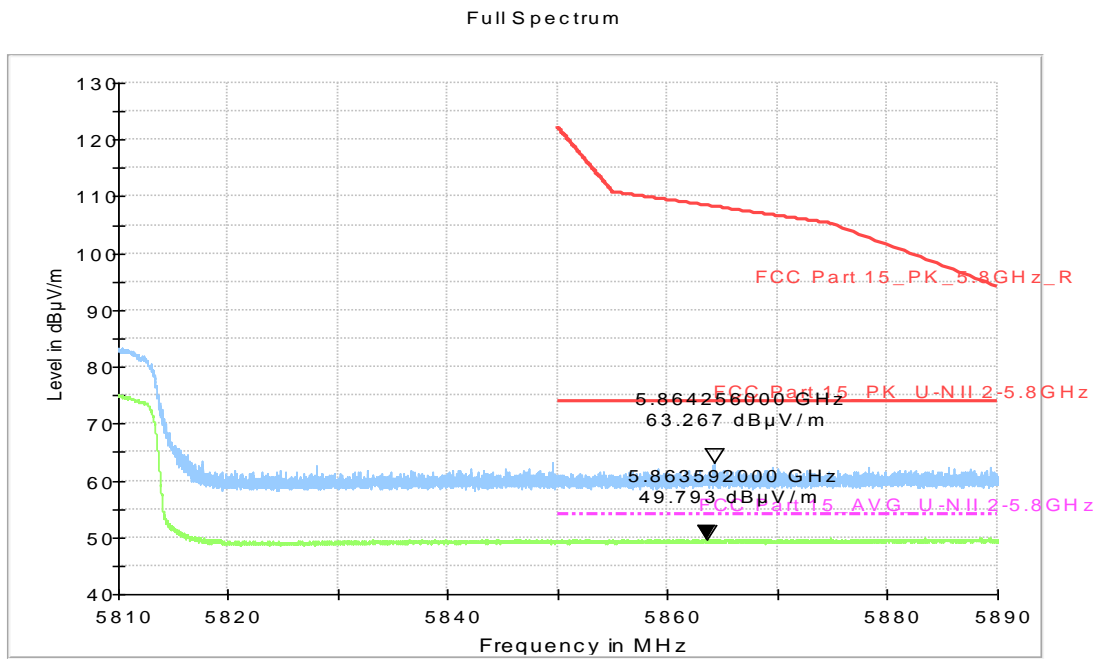
**Fig. 89 Band Edges (802.11ac-HT20, 5745MHz)**



**Fig. 90 Band Edges (802.11ac-HT20, 5825MHz)**



**Fig. 91 Band Edges (802.11ac-HT40, 5755MHz)**



**Fig. 92 Band Edges (802.11ac-HT40, 5795MHz)**

### A.7. AC Powerline Conducted Emission

**Test Condition:**

| Voltage (V) | Frequency (Hz) |
|-------------|----------------|
| 110         | 60             |

**Measurement uncertainty:**

Expanded measurement uncertainty for this test item is U = 3.2dB, k=2.

**Measurement Result and limit:**

WLAN (Quasi-peak Limit)

| Frequency range (MHz) | Quasi-peak Limit (dB $\mu$ V) | Result (dB $\mu$ V) |        | Conclusion |
|-----------------------|-------------------------------|---------------------|--------|------------|
|                       |                               | With charger        |        |            |
|                       |                               | 802.11a             | Idle   |            |
| 0.15 to 0.5           | 66 to 56                      | Fig.93              | Fig.94 | P          |
| 0.5 to 5              | 56                            | Fig.95              |        |            |
| 5 to 30               | 60                            | Fig.96              |        |            |

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 (dB $\mu$ V) | Result (dB $\mu$ V) |        | Conclusion |
|-----------------------|----------------------------|---------------------|--------|------------|
|                       |                            | With charger        |        |            |
|                       |                            | 802.11a             | Idle   |            |
| 0.15 to 0.5           | 56 to 46                   | Fig.93              | Fig.94 | P          |
| 0.5 to 5              | 46                         | Fig.95              |        |            |
| 5 to 30               | 50                         | Fig.96              |        |            |

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

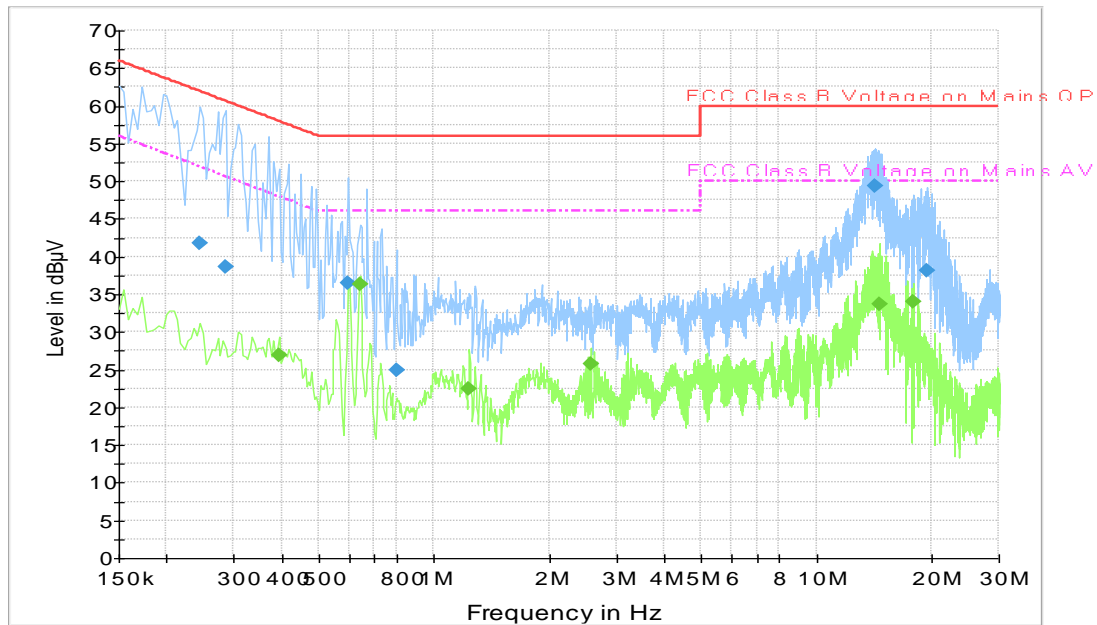
The measurement is made according to ANSI C63.10 .

**Conclusion: PASS**

**Test graphs as below:**



CBA0060AGHC1



**Fig. 93 AC Powerline Conducted Emission-802.11a**

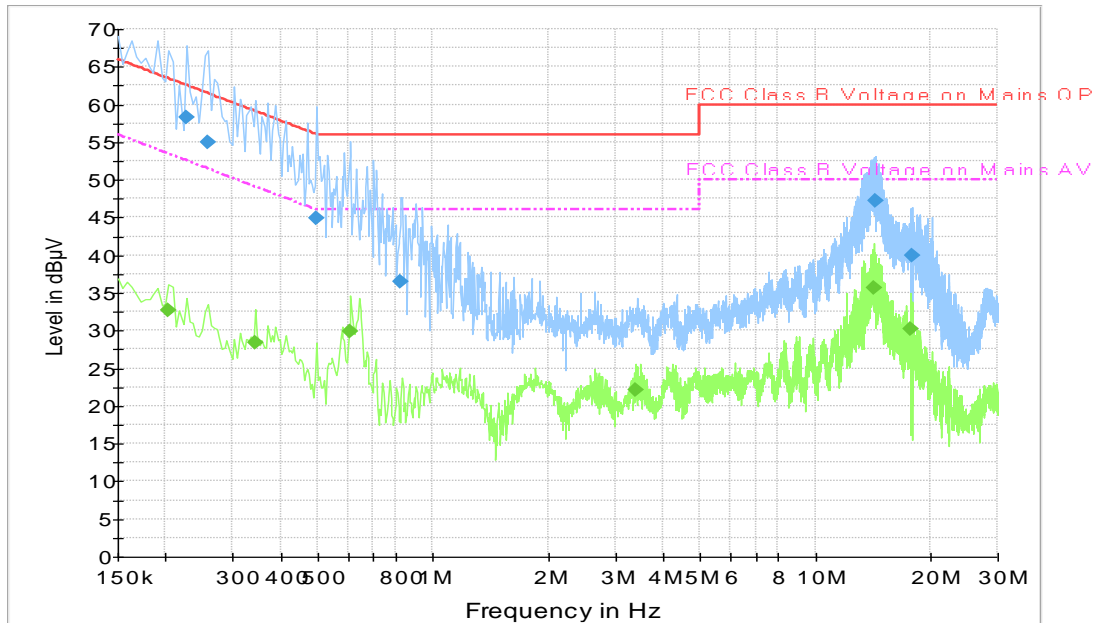
Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.244500        | 41.7             | 2000.0     | 9.000           | On     | L1   | 19.8       | 20.2        | 61.9         |
| 0.285000        | 38.7             | 2000.0     | 9.000           | On     | L1   | 19.8       | 22.0        | 60.7         |
| 0.595500        | 36.4             | 2000.0     | 9.000           | On     | L1   | 19.8       | 19.6        | 56.0         |
| 0.798000        | 24.9             | 2000.0     | 9.000           | On     | L1   | 19.8       | 31.1        | 56.0         |
| 14.239500       | 49.3             | 2000.0     | 9.000           | On     | N    | 19.8       | 10.7        | 60.0         |
| 19.441500       | 38.2             | 2000.0     | 9.000           | On     | N    | 19.9       | 21.8        | 60.0         |

Final Result 2

| Frequency (MHz) | Average (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.393000        | 26.9           | 2000.0     | 9.000           | On     | L1   | 19.9       | 21.1        | 48.0         |
| 0.640500        | 36.4           | 2000.0     | 9.000           | On     | L1   | 19.8       | 9.6         | 46.0         |
| 1.234500        | 22.5           | 2000.0     | 9.000           | On     | L1   | 19.7       | 23.5        | 46.0         |
| 2.575500        | 25.8           | 2000.0     | 9.000           | On     | N    | 19.0       | 20.2        | 46.0         |
| 14.685000       | 33.7           | 2000.0     | 9.000           | On     | L1   | 19.8       | 16.3        | 50.0         |
| 17.848500       | 34.0           | 2000.0     | 9.000           | On     | N    | 19.9       | 16.0        | 50.0         |

CBA0060AGHC1



**Fig. 94 AC Powerline Conducted Emission-Idle**

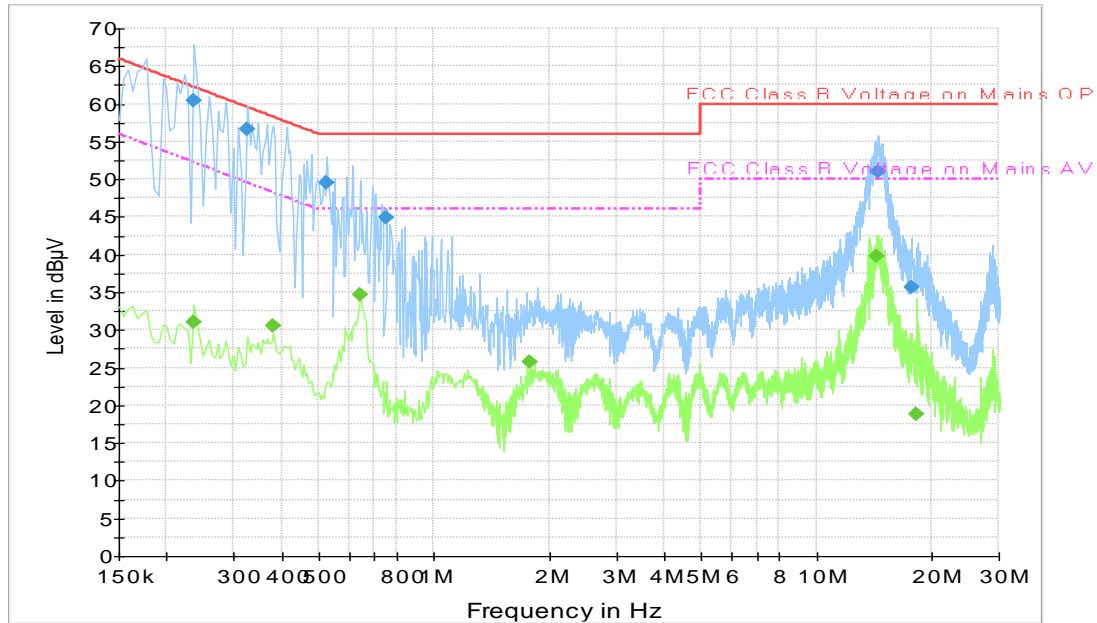
Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.226500        | 58.2             | 2000.0     | 9.000           | On     | L1   | 19.8       | 4.3         | 62.6         |
| 0.258000        | 54.9             | 2000.0     | 9.000           | On     | L1   | 19.8       | 6.5         | 61.5         |
| 0.496500        | 44.9             | 2000.0     | 9.000           | On     | L1   | 19.9       | 11.2        | 56.1         |
| 0.825000        | 36.5             | 2000.0     | 9.000           | On     | L1   | 19.8       | 19.5        | 56.0         |
| 14.334000       | 47.1             | 2000.0     | 9.000           | On     | L1   | 19.8       | 12.9        | 60.0         |
| 17.848500       | 40.0             | 2000.0     | 9.000           | On     | L1   | 19.9       | 20.0        | 60.0         |

Final Result 2

| Frequency (MHz) | Average (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.204000        | 32.6           | 2000.0     | 9.000           | On     | L1   | 19.8       | 20.8        | 53.4         |
| 0.343500        | 28.3           | 2000.0     | 9.000           | On     | L1   | 19.9       | 20.8        | 49.1         |
| 0.609000        | 29.9           | 2000.0     | 9.000           | On     | L1   | 19.8       | 16.1        | 46.0         |
| 3.390000        | 22.2           | 2000.0     | 9.000           | On     | L1   | 19.4       | 23.8        | 46.0         |
| 14.275500       | 35.6           | 2000.0     | 9.000           | On     | L1   | 19.8       | 14.4        | 50.0         |
| 17.821500       | 30.2           | 2000.0     | 9.000           | On     | N    | 19.9       | 19.8        | 50.0         |

CBA0060ACHC1



**Fig. 95 AC Powerline Conducted Emission-802.11a**

Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.235500        | 60.4             | 2000.0     | 9.000           | On     | L1   | 19.8       | 1.9         | 62.3         |
| 0.325500        | 56.5             | 2000.0     | 9.000           | On     | L1   | 19.8       | 3.0         | 59.6         |
| 0.523500        | 49.6             | 2000.0     | 9.000           | On     | N    | 19.9       | 6.4         | 56.0         |
| 0.753000        | 44.9             | 2000.0     | 9.000           | On     | N    | 19.8       | 11.1        | 56.0         |
| 14.500500       | 51.0             | 2000.0     | 9.000           | On     | L1   | 19.8       | 9.0         | 60.0         |
| 17.790000       | 35.7             | 2000.0     | 9.000           | On     | N    | 19.9       | 24.3        | 60.0         |

Final Result 2

| Frequency (MHz) | Average (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.235500        | 31.1           | 2000.0     | 9.000           | On     | L1   | 19.8       | 21.1        | 52.3         |
| 0.379500        | 30.5           | 2000.0     | 9.000           | On     | N    | 19.9       | 17.8        | 48.3         |
| 0.640500        | 34.6           | 2000.0     | 9.000           | On     | N    | 19.8       | 11.4        | 46.0         |
| 1.779000        | 25.8           | 2000.0     | 9.000           | On     | N    | 19.7       | 20.2        | 46.0         |
| 14.428500       | 39.8           | 2000.0     | 9.000           | On     | N    | 19.8       | 10.2        | 50.0         |
| 18.316500       | 18.8           | 2000.0     | 9.000           | On     | L1   | 19.9       | 31.2        | 50.0         |

CBA0060AJHC1

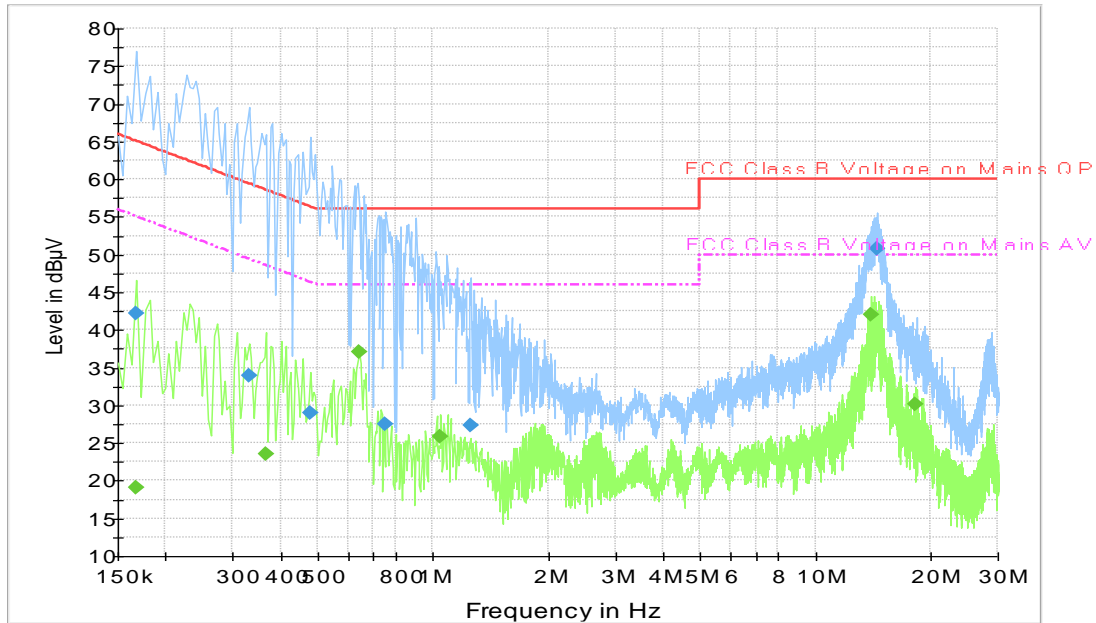


Fig. 96 AC Powerline Conducted Emission-802.11a

Final Result 1

| Frequency (MHz) | QuasiPeak (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|------------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.168000        | 42.2             | 2000.0     | 9.000           | On     | L1   | 19.9       | 22.9        | 65.1         |
| 0.330000        | 34.0             | 2000.0     | 9.000           | On     | L1   | 19.8       | 25.5        | 59.5         |
| 0.478500        | 29.0             | 2000.0     | 9.000           | On     | L1   | 19.9       | 27.3        | 56.4         |
| 0.753000        | 27.5             | 2000.0     | 9.000           | On     | L1   | 19.8       | 28.5        | 56.0         |
| 1.261500        | 27.3             | 2000.0     | 9.000           | On     | L1   | 19.7       | 28.7        | 56.0         |
| 14.509500       | 50.8             | 2000.0     | 9.000           | On     | L1   | 19.8       | 9.2         | 60.0         |

Final Result 2

| Frequency (MHz) | Average (dBµV) | Meas. Time | Bandwidth (kHz) | Filter | Line | Corr. (dB) | Margin (dB) | Limit (dBµV) |
|-----------------|----------------|------------|-----------------|--------|------|------------|-------------|--------------|
| 0.168000        | 19.0           | 2000.0     | 9.000           | On     | L1   | 19.9       | 36.0        | 55.1         |
| 0.366000        | 23.5           | 2000.0     | 9.000           | On     | L1   | 19.8       | 25.1        | 48.6         |
| 0.640500        | 37.1           | 2000.0     | 9.000           | On     | N    | 19.8       | 8.9         | 46.0         |
| 1.045500        | 25.9           | 2000.0     | 9.000           | On     | N    | 19.7       | 20.1        | 46.0         |
| 14.032500       | 42.0           | 2000.0     | 9.000           | On     | N    | 19.8       | 8.0         | 50.0         |
| 18.204000       | 30.2           | 2000.0     | 9.000           | On     | N    | 19.9       | 19.8        | 50.0         |

## 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

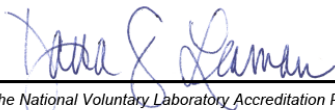
*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

**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).*

2016-09-29 through 2017-09-30  
Effective Dates



  
For the National Voluntary Laboratory Accreditation Program

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