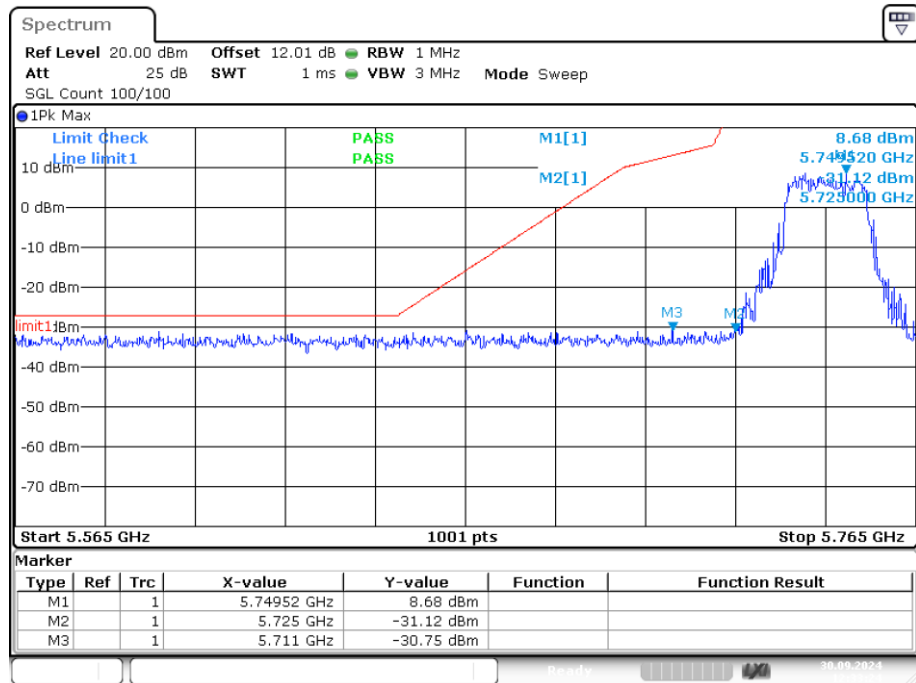
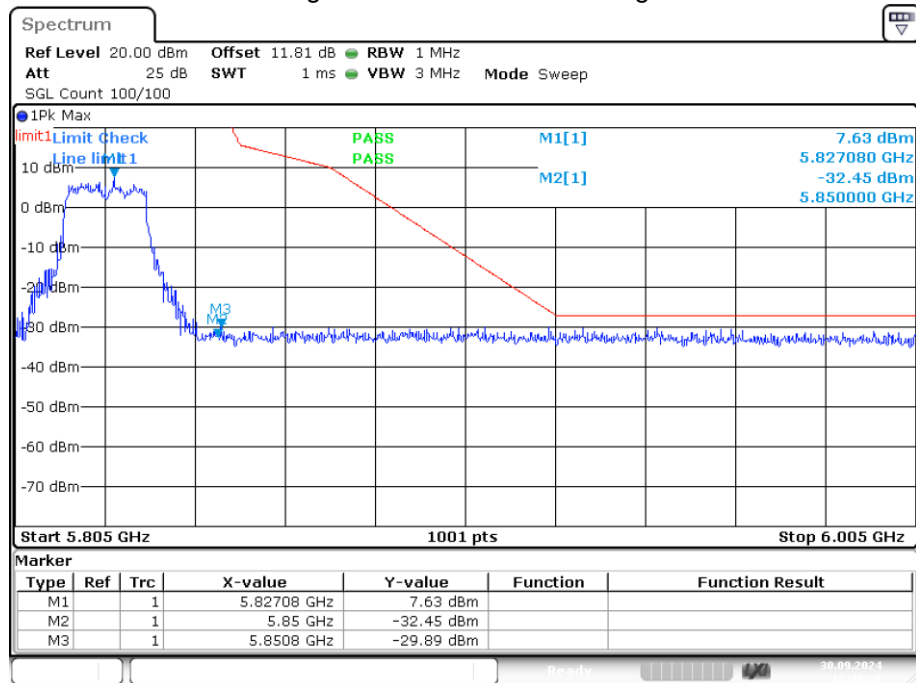
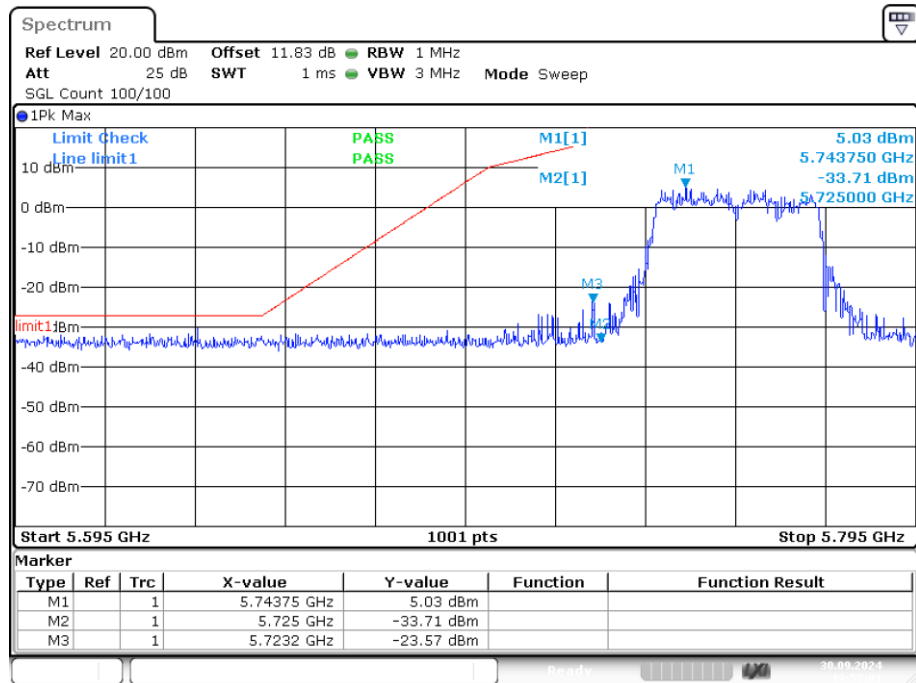




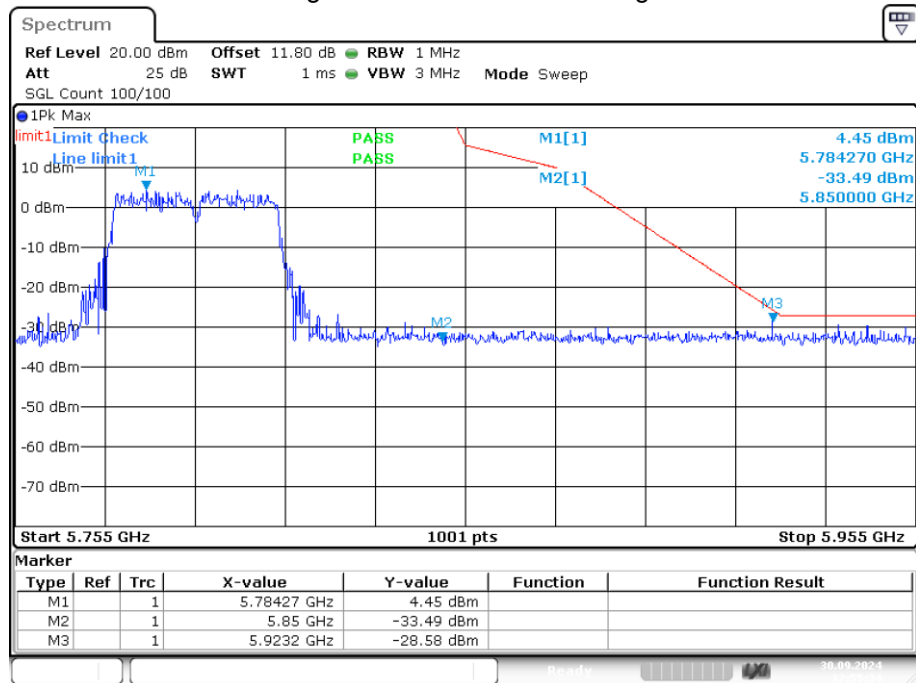
## Band Edge NVNT ac20 5825MHz High Ant1



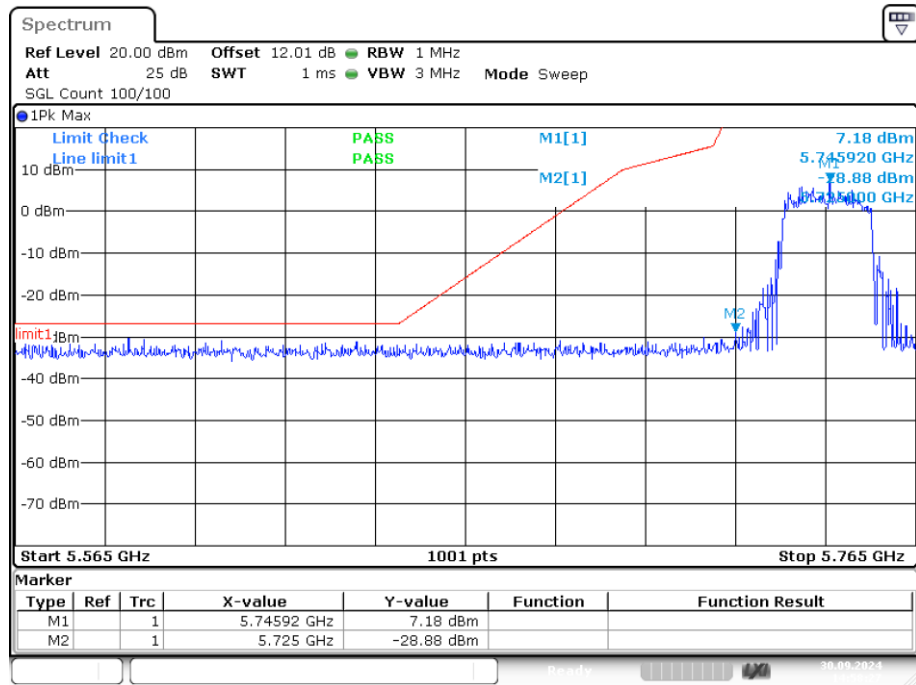
## Band Edge NVNT ac40 5755MHz Low Ant1



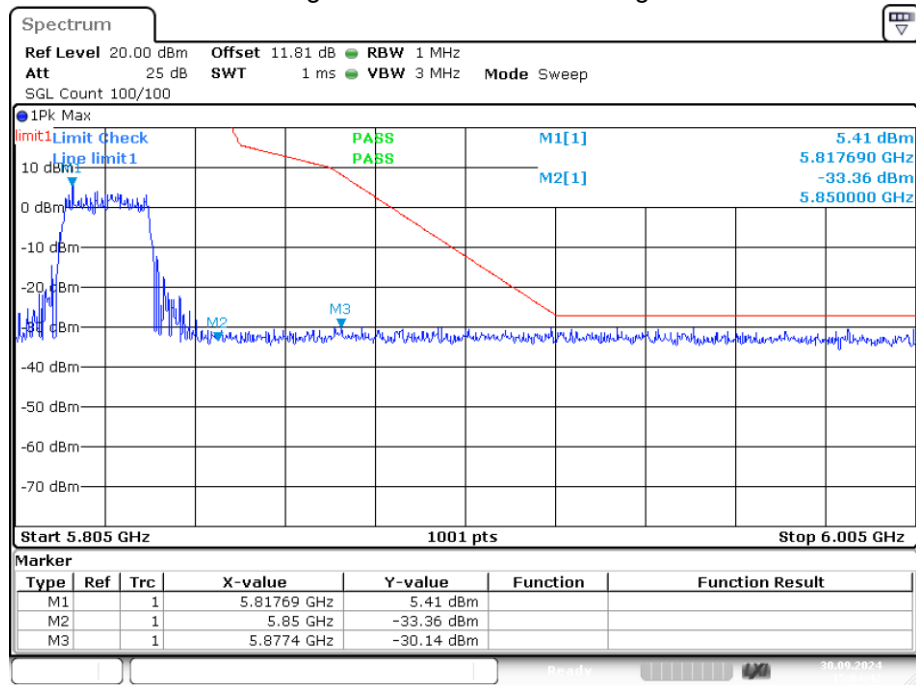
## Band Edge NVNT ac40 5795MHz High Ant1



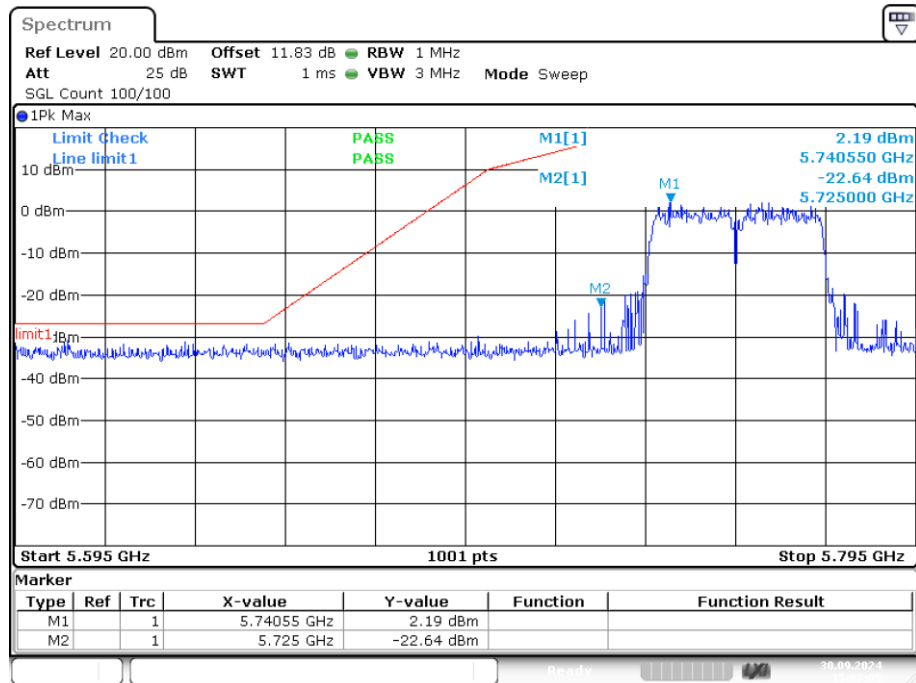
## Band Edge NVNT ax20 5745MHz Low Ant1



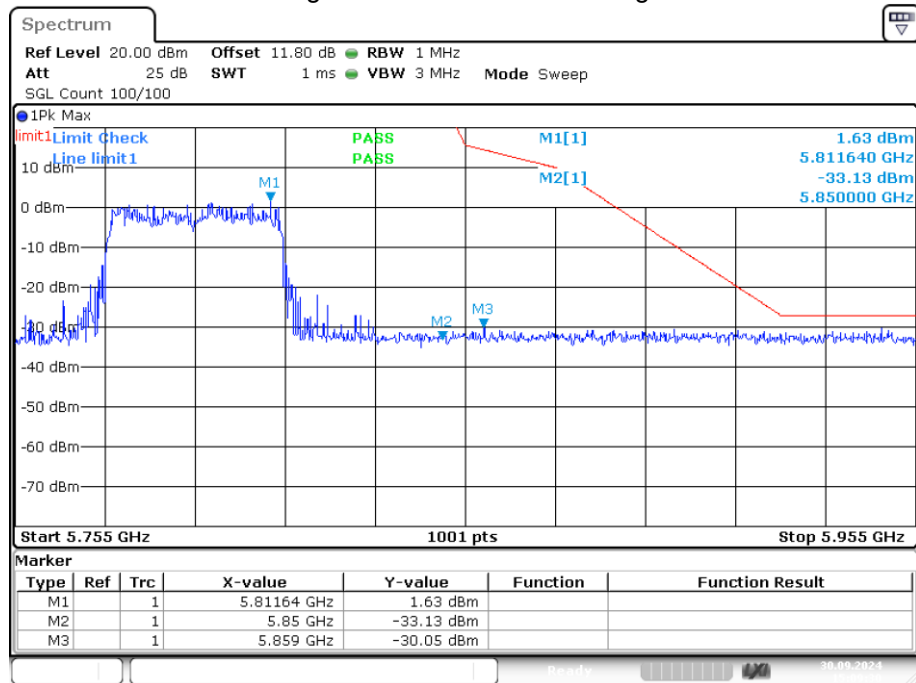
## Band Edge NVNT ax20 5825MHz High Ant1



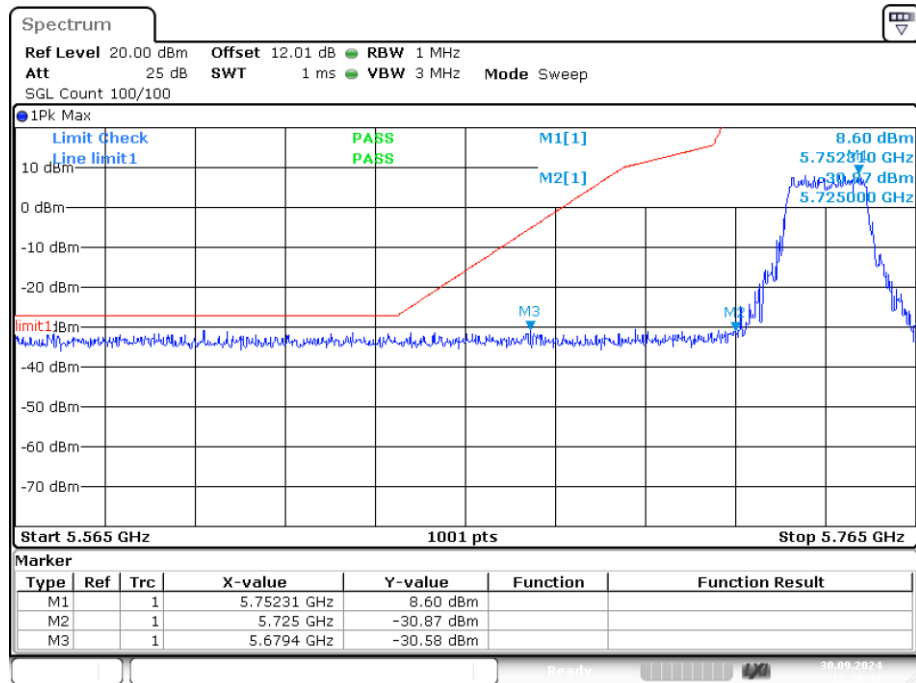
## Band Edge NVNT ax40 5755MHz Low Ant1



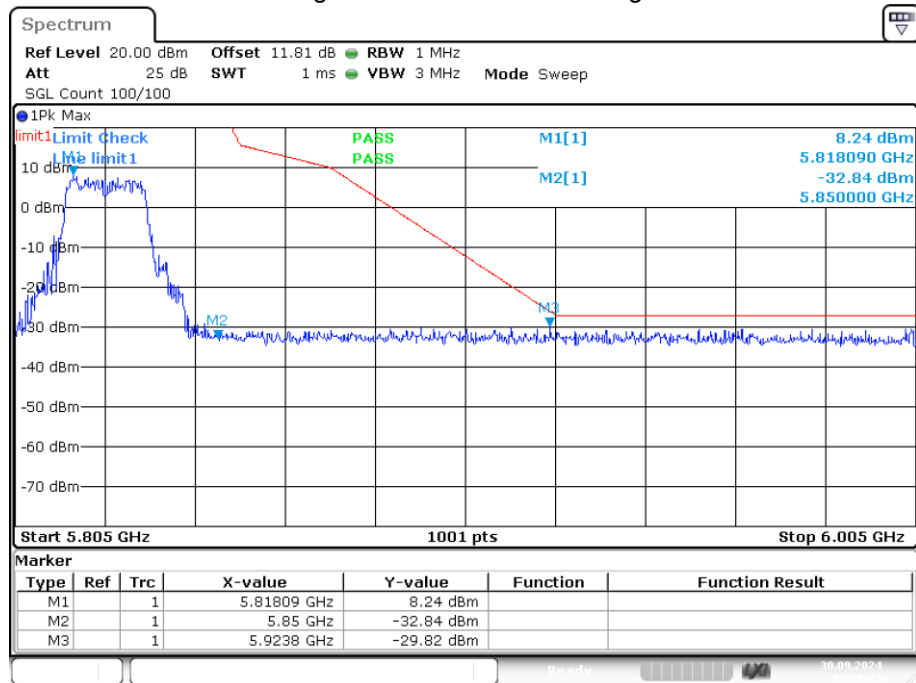
## Band Edge NVNT ax40 5795MHz High Ant1



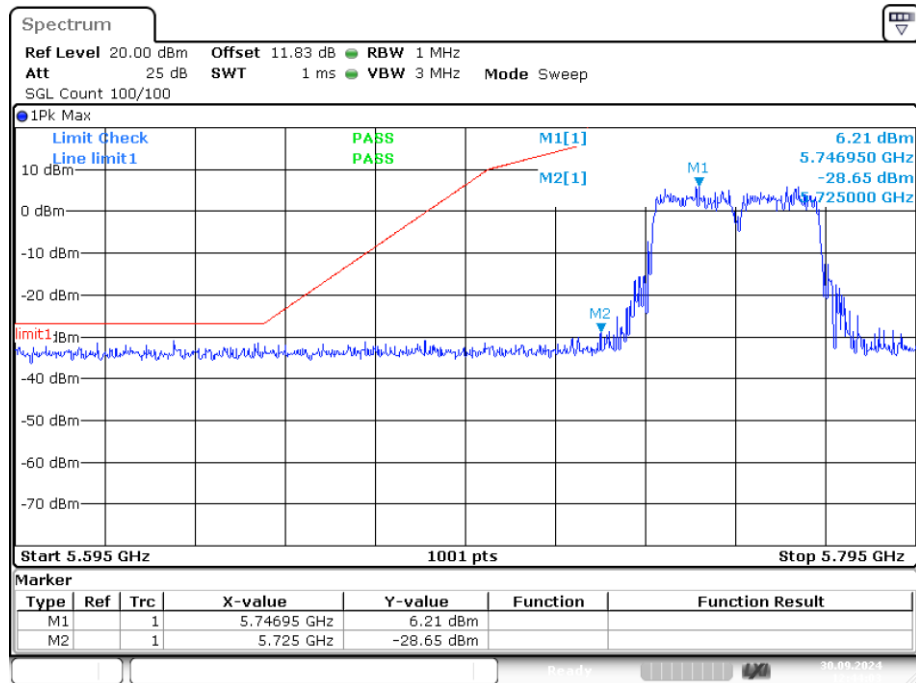
## Band Edge NVNT n20 5745MHz Low Ant1



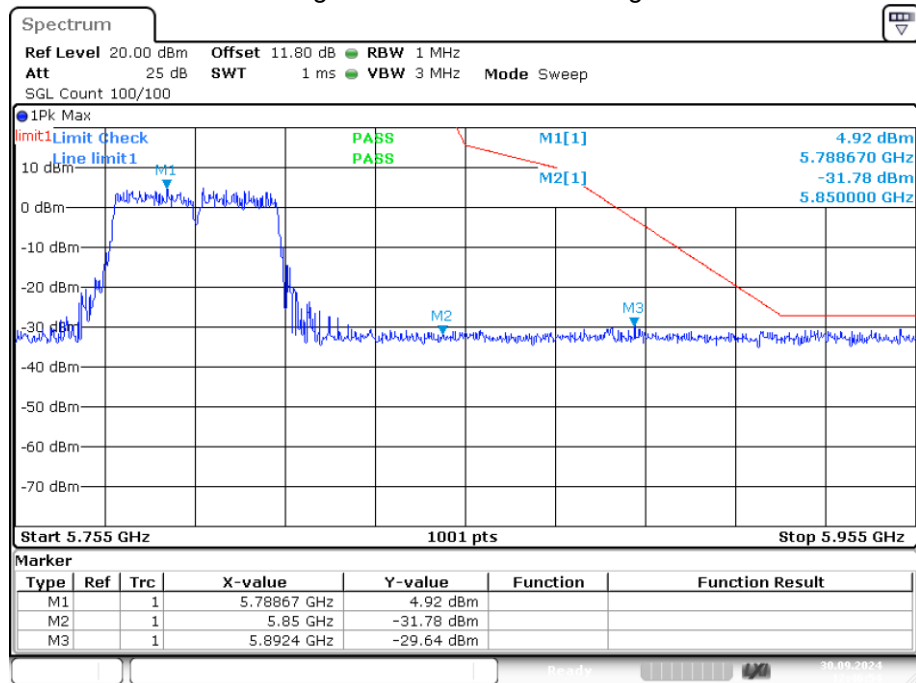
## Band Edge NVNT n20 5825MHz High Ant1



## Band Edge NVNT n40 5755MHz Low Ant1

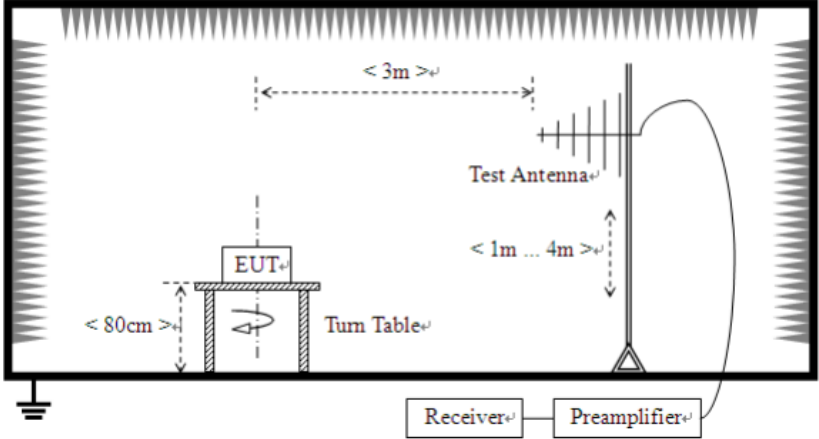


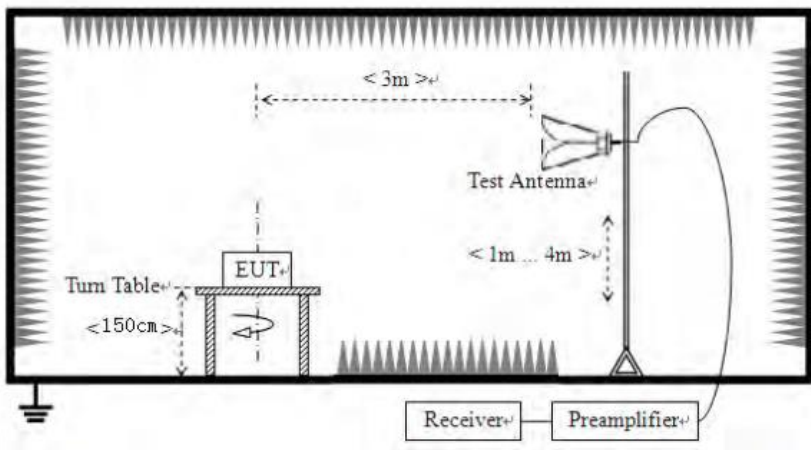
## Band Edge NVNT n40 5795MHz High Ant1



#### 4.7 Radiated Emission

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                    |        |                  |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------|--------|------------------|
| Test Requirement:     | FCC Part15 C Section 15.209 and 15.205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |                    |        |                  |
| Test Method:          | ANSI C63.10:2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                    |        |                  |
| Test Frequency Range: | 30MHz to 40GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                    |        |                  |
| Test site:            | Measurement Distance: 3m (Semi-Anechoic Chamber)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                    |        |                  |
| Receiver setup:       | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Detector   | RBW                | VBW    | Value            |
|                       | 30MHz-1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quasi-peak | 100KHz             | 300KHz | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Peak       | 1MHz               | 3MHz   | Peak Value       |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AV         | 1MHz               | 3MHz   | Average Value    |
| Limit:                | Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            | Limit (dBuV/m @3m) |        | Remark           |
|                       | 30MHz-88MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 40.0               |        | Quasi-peak Value |
|                       | 88MHz-216MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            | 43.5               |        | Quasi-peak Value |
|                       | 216MHz-960MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            | 46.0               |        | Quasi-peak Value |
|                       | 960MHz-1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | 54.0               |        | Quasi-peak Value |
|                       | Above 1GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            | 74.0               |        | Peak Value       |
|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            | 54.0               |        | Average Value    |
| Test Procedure:       | <p>Substitution method was performed to determine the actual ERP emission levels of the EUT.</p> <p>The following test procedure as below:</p> <p>1&gt;.Below 1GHz test procedure:</p> <ol style="list-style-type: none"><li>1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li><li>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li><li>3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li><li>4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</li><li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li><li>6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li></ol> <p>2&gt;.Above 1GHz test procedure:</p> <ol style="list-style-type: none"><li>1. On the test site as test setup graph above, the EUT shall be placed at the 1.5m support on the turntable and in the position closest to normal use as declared by the provider.</li><li>2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter. The output of the test antenna shall be connected to the measuring receiver.</li><li>3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test.</li></ol> |            |                    |        |                  |

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | <ol style="list-style-type: none"> <li>4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.</li> <li>5. Repeat step 4 for test frequency with the test antenna polarized horizontally.</li> <li>6. Remove the transmitter and replace it with a substitution antenna</li> <li>7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.</li> <li>8. Repeat step 7 with both antennas horizontally polarized for each test frequency.</li> <li>9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:<br/> <math display="block">\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}</math>           where:<br/>           Pg is the generator output power into the substitution antenna.</li> </ol> |
| Test setup: | <p>Below 1GHz</p>  <p>Above 1GHz</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
|                   |  |
| Test Instruments: | Refer to section 5.10 for details                                                  |
| Test mode:        | Refer to section 5.3 for details                                                   |
| Test results:     | Pass                                                                               |

**Measurement Data:****Below 1GHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 34.43           | 47.71             | 11.25                 | 0.59            | 30.08                    | 29.47          | 40                  | -10.53          | Vertical     |
| 53.36           | 40.97             | 11.93                 | 0.81            | 29.96                    | 23.75          | 40                  | -16.25          | Vertical     |
| 120.69          | 46.75             | 9.4                   | 1.36            | 29.57                    | 27.94          | 43.5                | -15.56          | Vertical     |
| 171.46          | 43.41             | 8.5                   | 1.7             | 29.31                    | 24.30          | 43.5                | -19.20          | Vertical     |
| 442.16          | 37.31             | 16.29                 | 3.05            | 29.41                    | 27.24          | 46                  | -18.76          | Vertical     |
| 862.52          | 33.31             | 21.83                 | 4.69            | 29.14                    | 30.69          | 46                  | -15.31          | Vertical     |
| 64.91           | 35.89             | 8.73                  | 0.9             | 29.89                    | 15.63          | 40                  | -24.37          | Horizontal   |
| 99.28           | 33.79             | 11.73                 | 1.19            | 29.7                     | 17.01          | 43.5                | -26.49          | Horizontal   |
| 270.12          | 45.48             | 12.53                 | 2.22            | 29.79                    | 30.44          | 46                  | -15.56          | Horizontal   |
| 349.54          | 37.06             | 14.5                  | 2.62            | 29.73                    | 24.45          | 46                  | -21.55          | Horizontal   |
| 629.81          | 35.75             | 19.43                 | 3.83            | 29.27                    | 29.74          | 46                  | -16.26          | Horizontal   |
| 957.94          | 40.63             | 22.54                 | 5.06            | 29.1                     | 39.13          | 46                  | -6.87           | Horizontal   |

**Above 1GHz:****802.11a (HT20) 5180MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10360.31        | 26.16             | 16.29                 | 14.62           | 32.65                    | 24.42          | 74.00               | -49.58          | Vertical     |
| 15540.30        | 29.01             | 21.83                 | 17.66           | 34.46                    | 34.04          | 74.00               | -39.96          | Vertical     |
| 10360.30        | 30.82             | 8.73                  | 14.62           | 32.65                    | 21.52          | 74.00               | -52.48          | Horizontal   |
| 15540.06        | 31.79             | 11.73                 | 17.66           | 34.46                    | 26.72          | 74.00               | -47.28          | Horizontal   |

**802.11a (HT20) 5200MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10400.13        | 28.08             | 16.29                 | 14.62           | 32.65                    | 26.34          | 74.00               | -47.66          | Vertical     |
| 15600.24        | 28.67             | 21.83                 | 17.66           | 34.46                    | 33.70          | 74.00               | -40.30          | Vertical     |
| 10400.14        | 30.50             | 8.73                  | 14.62           | 32.65                    | 21.20          | 74.00               | -52.80          | Horizontal   |
| 15600.21        | 31.36             | 11.73                 | 17.66           | 34.46                    | 26.29          | 74.00               | -47.71          | Horizontal   |

**802.11a (HT20) 5240MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10480.11        | 27.45             | 16.29                 | 14.62           | 32.65                    | 25.71          | 74.00               | -48.29          | Vertical     |
| 15720.29        | 29.57             | 21.83                 | 17.66           | 34.46                    | 34.60          | 74.00               | -39.40          | Vertical     |
| 10480.21        | 30.89             | 8.73                  | 14.62           | 32.65                    | 21.59          | 74.00               | -52.41          | Horizontal   |
| 15720.13        | 32.00             | 11.73                 | 17.66           | 34.46                    | 26.93          | 74.00               | -47.07          | Horizontal   |

**802.11n (HT20) 5180MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10360.10        | 25.34             | 16.29                 | 14.62           | 32.65                    | 23.60          | 74.00               | -50.40          | Vertical     |
| 15540.09        | 30.63             | 21.83                 | 17.66           | 34.46                    | 35.66          | 74.00               | -38.34          | Vertical     |
| 10360.11        | 28.67             | 8.73                  | 14.62           | 32.65                    | 19.37          | 74.00               | -54.63          | Horizontal   |
| 15540.02        | 33.44             | 11.73                 | 17.66           | 34.46                    | 28.37          | 74.00               | -45.63          | Horizontal   |

**802.11n (HT20) 5200MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10400.05        | 24.58             | 16.29                 | 14.62           | 32.65                    | 22.84          | 74.00               | -51.16          | Vertical     |
| 15600.05        | 27.38             | 21.83                 | 17.66           | 34.46                    | 32.41          | 74.00               | -41.59          | Vertical     |
| 10400.23        | 29.86             | 8.73                  | 14.62           | 32.65                    | 20.56          | 74.00               | -53.44          | Horizontal   |
| 15600.14        | 32.90             | 11.73                 | 17.66           | 34.46                    | 27.83          | 74.00               | -46.17          | Horizontal   |

**802.11n (HT20) 5240MHz**

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 10480.28        | 27.10             | 16.29                 | 14.62           | 32.65                    | 25.36          | 74.00               | -48.64          | Vertical     |
| 15720.08        | 30.42             | 21.83                 | 17.66           | 34.46                    | 35.45          | 74.00               | -38.55          | Vertical     |
| 10480.15        | 32.19             | 8.73                  | 14.62           | 32.65                    | 22.89          | 74.00               | -51.11          | Horizontal   |
| 15720.09        | 31.62             | 11.73                 | 17.66           | 34.46                    | 26.55          | 74.00               | -47.45          | Horizontal   |

## 802.11ac (HT20) 5180MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10360.32        | 25.23             | 16.29                 | 14.62           | 32.65              | 23.49          | 74.00               | -50.51          | Vertical     |
| 15540.11        | 30.06             | 21.83                 | 17.66           | 34.46              | 35.09          | 74.00               | -38.91          | Vertical     |
| 10360.07        | 29.34             | 8.73                  | 14.62           | 32.65              | 20.04          | 74.00               | -53.96          | Horizontal   |
| 15540.08        | 34.46             | 11.73                 | 17.66           | 34.46              | 29.39          | 74.00               | -44.61          | Horizontal   |

## 802.11ac (HT20) 5200MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10400.23        | 27.62             | 16.29                 | 14.62           | 32.65              | 25.88          | 74.00               | -48.12          | Vertical     |
| 15600.17        | 29.32             | 21.83                 | 17.66           | 34.46              | 34.35          | 74.00               | -39.65          | Vertical     |
| 10400.17        | 31.80             | 8.73                  | 14.62           | 32.65              | 22.50          | 74.00               | -51.50          | Horizontal   |
| 15600.28        | 34.12             | 11.73                 | 17.66           | 34.46              | 29.05          | 74.00               | -44.95          | Horizontal   |

## 802.11ac (HT20) 5240MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10480.12        | 27.60             | 16.29                 | 14.62           | 32.65              | 25.86          | 74.00               | -48.14          | Vertical     |
| 15720.05        | 29.15             | 21.83                 | 17.66           | 34.46              | 34.18          | 74.00               | -39.82          | Vertical     |
| 10480.17        | 29.94             | 8.73                  | 14.62           | 32.65              | 20.64          | 74.00               | -53.36          | Horizontal   |
| 15720.26        | 31.65             | 11.73                 | 17.66           | 34.46              | 26.58          | 74.00               | -47.42          | Horizontal   |

## 802.11ax20 5180MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10360.21        | 24.89             | 16.29                 | 14.62           | 32.65              | 23.15          | 74.00               | -50.85          | Vertical     |
| 15540.14        | 27.96             | 21.83                 | 17.66           | 34.46              | 32.99          | 74.00               | -41.01          | Vertical     |
| 10360.05        | 28.79             | 8.73                  | 14.62           | 32.65              | 19.49          | 74.00               | -54.51          | Horizontal   |
| 15540.31        | 33.91             | 11.73                 | 17.66           | 34.46              | 28.84          | 74.00               | -45.16          | Horizontal   |

## 802.11ax20 5200MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10400.00        | 25.74             | 16.29                 | 14.62           | 32.65              | 24.00          | 74.00               | -50.00          | Vertical     |
| 15600.04        | 28.46             | 21.83                 | 17.66           | 34.46              | 33.49          | 74.00               | -40.51          | Vertical     |
| 10400.04        | 31.14             | 8.73                  | 14.62           | 32.65              | 21.84          | 74.00               | -52.16          | Horizontal   |
| 15600.24        | 30.91             | 11.73                 | 17.66           | 34.46              | 25.84          | 74.00               | -48.16          | Horizontal   |

## 802.11ax20 5240MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10480.31        | 24.82             | 16.29                 | 14.62           | 32.65              | 23.08          | 74.00               | -50.92          | Vertical     |
| 15720.06        | 29.13             | 21.83                 | 17.66           | 34.46              | 34.16          | 74.00               | -39.84          | Vertical     |
| 10480.06        | 29.87             | 8.73                  | 14.62           | 32.65              | 20.57          | 74.00               | -53.43          | Horizontal   |
| 15720.25        | 34.57             | 11.73                 | 17.66           | 34.46              | 29.50          | 74.00               | -44.50          | Horizontal   |

## 802.11n (HT40) 5190MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10380.07        | 28.04             | 16.29                 | 14.62           | 32.65              | 26.30          | 74.00               | -47.70          | Vertical     |
| 15570.32        | 29.17             | 21.83                 | 17.66           | 34.46              | 34.20          | 74.00               | -39.80          | Vertical     |
| 10380.19        | 30.27             | 8.73                  | 14.62           | 32.65              | 20.97          | 74.00               | -53.03          | Horizontal   |
| 15570.03        | 32.83             | 11.73                 | 17.66           | 34.46              | 27.76          | 74.00               | -46.24          | Horizontal   |

## 802.11n (HT40) 5230MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10460.31        | 27.35             | 16.29                 | 14.62           | 32.65              | 25.61          | 74.00               | -48.39          | Vertical     |
| 15690.01        | 27.12             | 21.83                 | 17.66           | 34.46              | 32.15          | 74.00               | -41.85          | Vertical     |
| 10460.03        | 31.92             | 8.73                  | 14.62           | 32.65              | 22.62          | 74.00               | -51.38          | Horizontal   |
| 15690.25        | 31.21             | 11.73                 | 17.66           | 34.46              | 26.14          | 74.00               | -47.86          | Horizontal   |

## 802.11ac (HT40) 5190MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10380.02        | 27.38             | 16.29                 | 14.62           | 32.65              | 25.64          | 74.00               | -48.36          | Vertical     |
| 15570.21        | 27.12             | 21.83                 | 17.66           | 34.46              | 32.15          | 74.00               | -41.85          | Vertical     |
| 10380.26        | 30.11             | 8.73                  | 14.62           | 32.65              | 20.81          | 74.00               | -53.19          | Horizontal   |
| 15570.25        | 33.99             | 11.73                 | 17.66           | 34.46              | 28.92          | 74.00               | -45.08          | Horizontal   |

## 802.11ac (HT40) 5230MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10460.24        | 27.31             | 16.29                 | 14.62           | 32.65              | 25.57          | 74.00               | -48.43          | Vertical     |
| 15690.10        | 29.39             | 21.83                 | 17.66           | 34.46              | 34.42          | 74.00               | -39.58          | Vertical     |
| 10460.30        | 29.72             | 8.73                  | 14.62           | 32.65              | 20.42          | 74.00               | -53.58          | Horizontal   |
| 15690.12        | 32.68             | 11.73                 | 17.66           | 34.46              | 27.61          | 74.00               | -46.39          | Horizontal   |

## 802.11ax40 5190MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10380.05        | 28.08             | 16.29                 | 14.62           | 32.65              | 26.34          | 74.00               | -47.66          | Vertical     |
| 15570.29        | 30.78             | 21.83                 | 17.66           | 34.46              | 35.81          | 74.00               | -38.19          | Vertical     |
| 10380.18        | 29.06             | 8.73                  | 14.62           | 32.65              | 19.76          | 74.00               | -54.24          | Horizontal   |
| 15570.29        | 34.73             | 11.73                 | 17.66           | 34.46              | 29.66          | 74.00               | -44.34          | Horizontal   |

## 802.11ax40 5230MHz

| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | polarization |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 10460.20        | 26.23             | 16.29                 | 14.62           | 32.65              | 24.49          | 74.00               | -49.51          | Vertical     |
| 15690.14        | 30.31             | 21.83                 | 17.66           | 34.46              | 35.34          | 74.00               | -38.66          | Vertical     |
| 10460.16        | 29.72             | 8.73                  | 14.62           | 32.65              | 20.42          | 74.00               | -53.58          | Horizontal   |
| 15690.05        | 33.04             | 11.73                 | 17.66           | 34.46              | 27.97          | 74.00               | -46.03          | Horizontal   |

Note:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
4. This Report only show the test plots of the worst case (U-NII-1).

#### 4.8 Frequency stability

|               |                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test limit    | Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual. |
| Test results: | Pass                                                                                                                                                                                                                         |

##### Measurement Data:

| Mode                       | Voltage (V) | FHL (5180MHz) | Deviation (KHz) | FHH (5240MHz) | Deviation (KHz) |
|----------------------------|-------------|---------------|-----------------|---------------|-----------------|
| Band 1<br>(5150-5250 MHz ) | DC 2.97V    | 5179.995      | 5               | 5239.990      | 10              |
|                            | DC 3.3V     | 5179.987      | 13              | 5239.989      | 11              |
|                            | DC 3.63V    | 5179.993      | 7               | 5239.993      | 7               |
| Mode                       | Voltage (V) | FHL (5260MHz) | Deviation (KHz) | FHH (5320MHz) | Deviation (KHz) |
| Band 2<br>(5250-5350 MHz ) | DC 2.97V    | 5259.995      | 5               | 5319.989      | 11              |
|                            | DC 3.3V     | 5259.990      | 10              | 5319.990      | 10              |
|                            | DC 3.63V    | 5259.992      | 8               | 5319.995      | 5               |
| Mode                       | Voltage (V) | FHL (5500MHz) | Deviation (KHz) | FHH (5700MHz) | Deviation (KHz) |
| Band 3<br>(5470-5725 MHz ) | DC 2.97V    | 5499.992      | 8               | 5699.990      | 10              |
|                            | DC 3.3V     | 5499.991      | 9               | 5699.987      | 13              |
|                            | DC 3.63V    | 5499.994      | 6               | 5699.993      | 7               |
| Mode                       | Voltage (V) | FHL (5745MHz) | Deviation (KHz) | FHH (5825MHz) | Deviation (KHz) |
| Band 4<br>(5725-5850 MHz)  | DC 2.97V    | 5744.992      | 8               | 5824.990      | 10              |
|                            | DC 3.3V     | 5744.990      | 10              | 5824.989      | 11              |
|                            | DC 3.63V    | 5744.994      | 6               | 5824.991      | 9               |

| Mode                       | Temperature (°C) | FHL (5180MHz) | Deviation (KHz) | FHH (5240MHz) | Deviation (KHz) |
|----------------------------|------------------|---------------|-----------------|---------------|-----------------|
| Band 1<br>(5150-5250 MHz ) | -20°C            | 5809.995      | 5               | 5239.990      | 10              |
|                            | -10°C            | 5809.992      | 8               | 5239.988      | 12              |
|                            | -5°C             | 5809.992      | 8               | 5239.994      | 6               |
|                            | 0°C              | 5809.990      | 10              | 5239.989      | 11              |
|                            | +10°C            | 5809.991      | 9               | 5239.991      | 9               |
|                            | +20°C            | 5809.990      | 10              | 5239.994      | 6               |
|                            | +30°C            | 5809.989      | 11              | 5239.985      | 15              |
|                            | +40°C            | 5809.988      | 12              | 5239.988      | 12              |
|                            | +50°C            | 5809.990      | 10              | 5239.989      | 11              |
| Mode                       | Temperature (°C) | FHL (5260MHz) | Deviation (KHz) | FHH (5320MHz) | Deviation (KHz) |
| Band 2<br>(5250-5350 MHz ) | -20°C            | 5259.995      | 5               | 5319.991      | 9               |
|                            | -10°C            | 5259.990      | 10              | 5319.990      | 10              |
|                            | -5°C             | 5259.993      | 7               | 5319.994      | 6               |
|                            | 0°C              | 5259.993      | 7               | 5319.990      | 10              |
|                            | +10°C            | 5259.993      | 7               | 5319.994      | 6               |
|                            | +20°C            | 5259.993      | 7               | 5319.989      | 11              |
|                            | +30°C            | 5259.991      | 9               | 5319.986      | 14              |
|                            | +40°C            | 5259.989      | 11              | 5319.989      | 11              |
|                            | +50°C            | 5259.992      | 8               | 5319.987      | 13              |
| Mode                       | Temperature (°C) | FHL (5500MHz) | Deviation (KHz) | FHH (5700MHz) | Deviation (KHz) |
| Band 3<br>(5470-5725 MHz ) | -20°C            | 5499.991      | 9               | 5699.993      | 7               |
|                            | -10°C            | 5499.992      | 8               | 5699.992      | 8               |
|                            | -5°C             | 5499.994      | 6               | 5699.991      | 9               |
|                            | 0°C              | 5499.994      | 6               | 5699.989      | 11              |
|                            | +10°C            | 5499.993      | 7               | 5699.991      | 9               |
|                            | +20°C            | 5499.992      | 8               | 5699.989      | 11              |
|                            | +30°C            | 5499.987      | 13              | 5699.990      | 10              |
|                            | +40°C            | 5499.987      | 13              | 5699.992      | 8               |
|                            | +50°C            | 5499.990      | 10              | 5699.989      | 11              |
| Mode                       | Temperature (°C) | FHL (5745MHz) | Deviation (KHz) | FHH (5825MHz) | Deviation (KHz) |
| Band 4<br>(5725-5850 MHz)  | -20°C            | 5744.990      | 10              | 5824.994      | 6               |
|                            | -10°C            | 5744.987      | 13              | 5824.990      | 10              |
|                            | -5°C             | 5744.994      | 6               | 5824.992      | 8               |
|                            | 0°C              | 5744.991      | 9               | 5824.995      | 5               |
|                            | +10°C            | 5744.992      | 8               | 5824.992      | 8               |
|                            | +20°C            | 5744.989      | 11              | 5824.992      | 8               |
|                            | +30°C            | 5744.987      | 13              | 5824.990      | 10              |
|                            | +40°C            | 5744.990      | 10              | 5824.988      | 12              |
|                            | +50°C            | 5744.987      | 13              | 5824.989      | 11              |

-----END OF REPORT-----