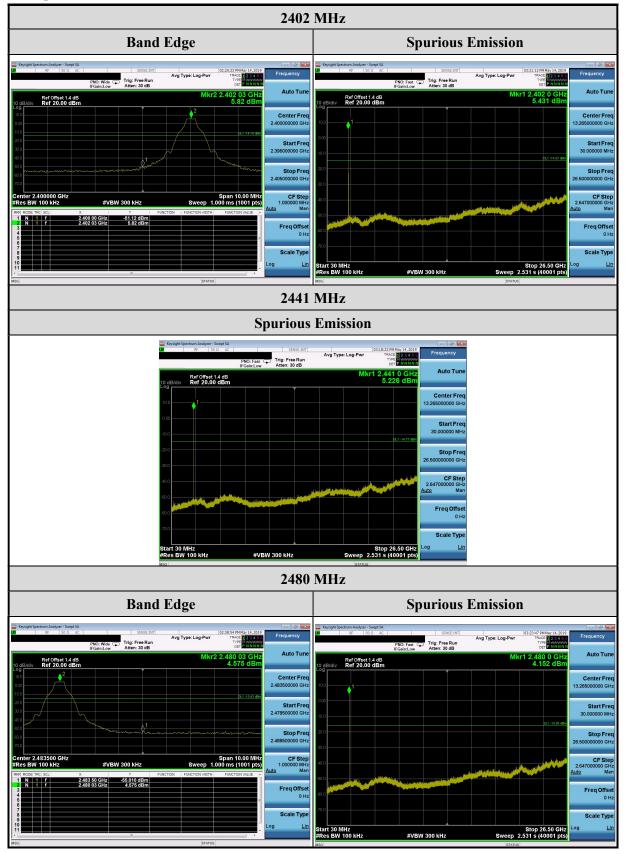


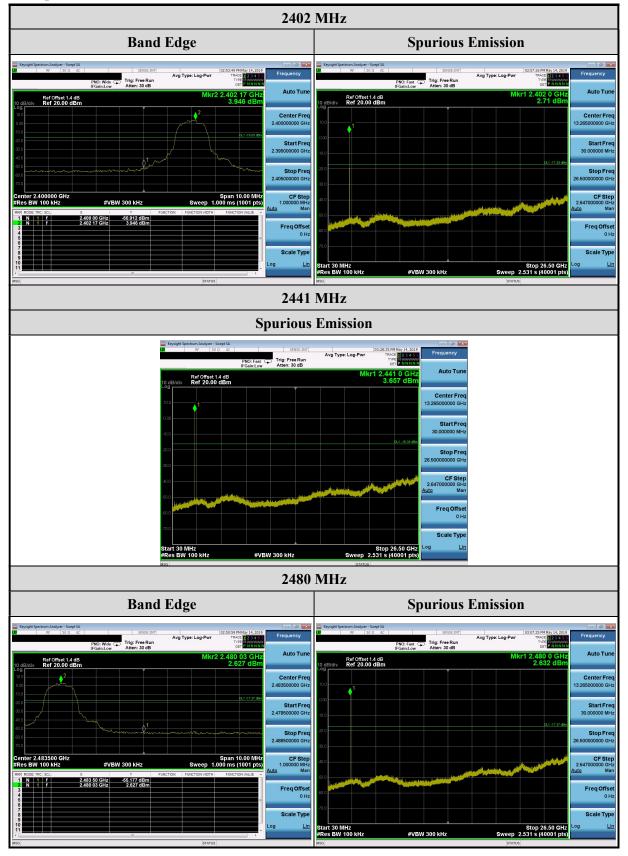
2.7.4 Test Result

1 Mbps-DH5

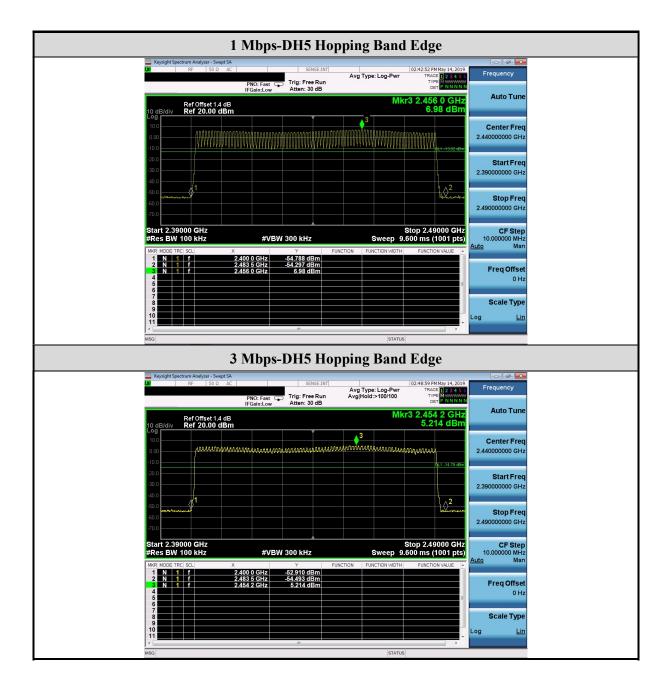




3 Mbps-DH5









2.8 Radiated Band Edges and Spurious Emission Measurement

2.8.1 Limit

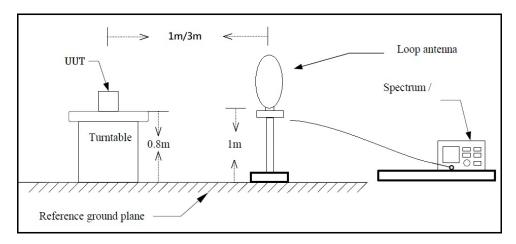
| Frequency (MHz) | Field Strength (μV/m) | Measurement Distance (m) |
|-----------------|-----------------------|--------------------------|
| 0.009 - 0.490 | 2400/F(kHz) | 300 |
| 0.490 - 1.705 | 24000/F(kHz) | 30 |
| 1.705 - 30.0 | 30 | 30 |
| 30 - 88 | 100 | 3 |
| 88 – 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

- 1. RF Voltage $(dBuV) = 20 \log RF Voltage(uV)$
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

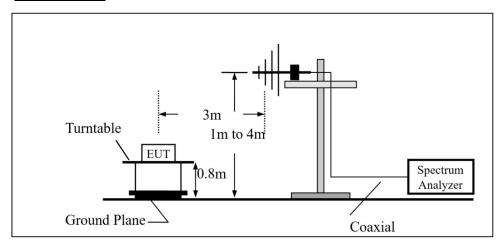


2.8.2 Test Setup

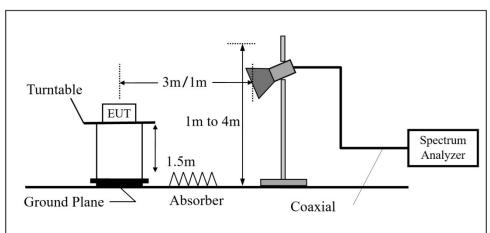
Below 30MHz



30MHz~1GHz



Above 1GHz





2.8.3 Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

For Radiated emission below 30MHz

- (1) The EUT was placed on the top of a rotating table 0.8 meters above the ground in a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- (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.
- (3) Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- (4) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- (5) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

For Radiated emission Above 30MHz

- (1) The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for the test. The table was rotated 360 degrees to determine the position of the highest radiation.
- (2) The EUT was set 3 meters away from the interference-receiving antenna, the height of the antenna is varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength.
- (3) Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- (4) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- (5) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- (6) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets the average limit, measurement with the average detector is unnecessary.



2.8.4 Duty Cycle

| Mode | Data Rate (Mbps) | on time (ms) | on+off time (ms) | Duty cycle | Duty Factor (dB) | 1/T Minimum VBW (kHz) |
|------|---------------------|-----------------|---------------------|------------|------------------------|-----------------------------|
| ВТ | 1 | 2.933 | 3.758 | 0.780 | 1.076 | 0.341 |
| | 3 | 2.925 | 3.750 | 0.780 | 1.079 | 0.342 |

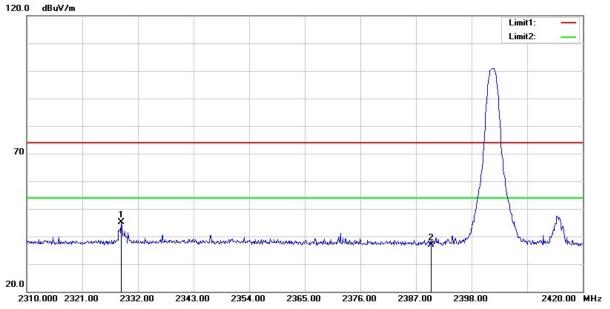
2.8.5 Test Result of Radiated Band Edge Measurement

The following tables for radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X axis) were recorded in this report.

| Test Frequency | | | | |
|----------------|--------------------|--|--|--|
| RF | BT 1 Mbps / 3 Mbps | | | |
| Tx | CH00 (2402 MHz) | | | |
| | CH78 (2480 MHz) | | | |



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/14 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization : | Horizontal | Relative Humidity: | 65 % |

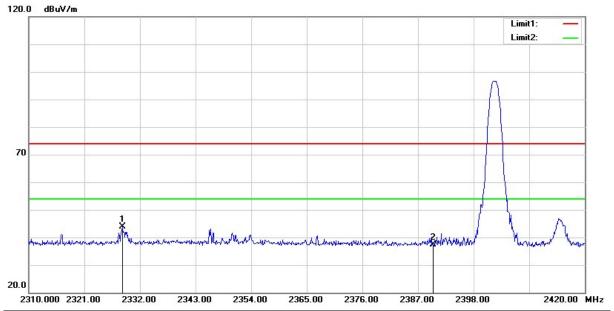


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2328.700 | 49.73 | -4.61 | 45.12 | 74.00 | -28.88 | peak |
| 2 | 2390.000 | 41.68 | -4.71 | 36.97 | 74.00 | -37.03 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/14 |
|---------------|-----------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

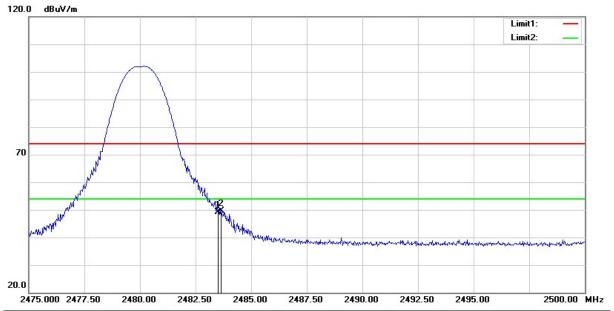


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|---------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2328.480 | 48.52 | -4.61 | 43.91 | 74.00 | -30.09 | peak |
| 2 | 2390.000 | 41.99 | -4.71 | 37.28 | 74.00 | -36.72 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/14 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

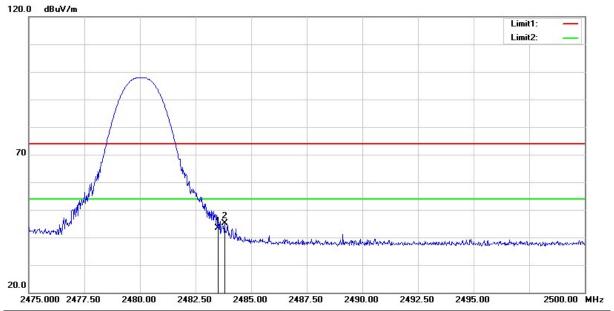


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|---------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2483.500 | 53.87 | -4.62 | 49.25 | 74.00 | -24.75 | peak |
| 2 | 2483.650 | 54.35 | -4.62 | 49.73 | 74.00 | -24.27 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/14 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

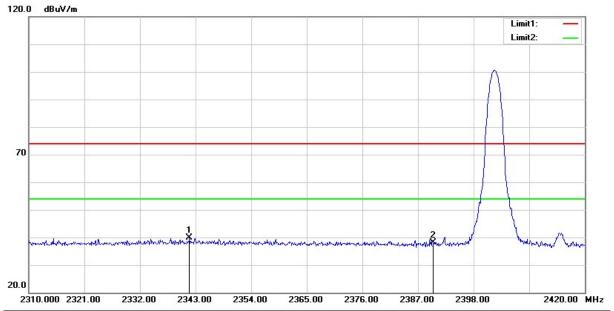


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2483.500 | 48.10 | -4.62 | 43.48 | 74.00 | -30.52 | peak |
| 2 | 2483.800 | 49.67 | -4.61 | 45.06 | 74.00 | -28.94 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/14 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

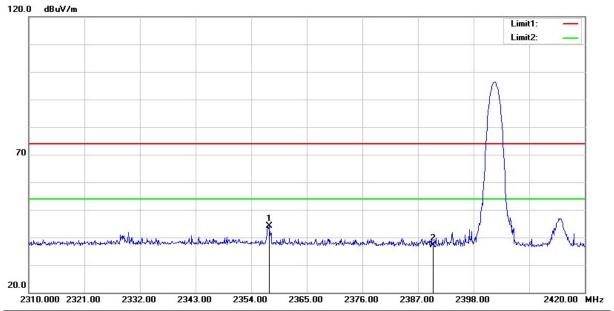


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|---------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2341.790 | 44.50 | -4.58 | 39.92 | 74.00 | -34.08 | peak |
| 2 | 2390.000 | 42.92 | -4.71 | 38.21 | 74.00 | -35.79 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/14 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

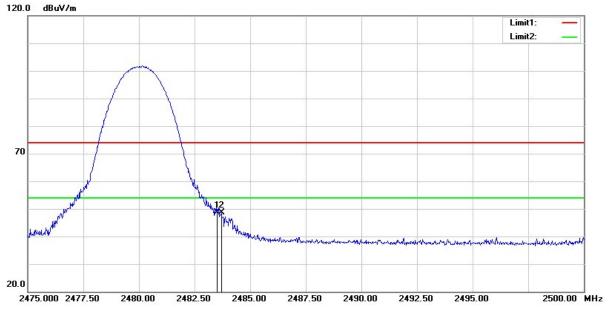


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|---------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2357.630 | 48.68 | -4.60 | 44.08 | 74.00 | -29.92 | peak |
| 2 | 2390.000 | 41.85 | -4.71 | 37.14 | 74.00 | -36.86 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/14 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

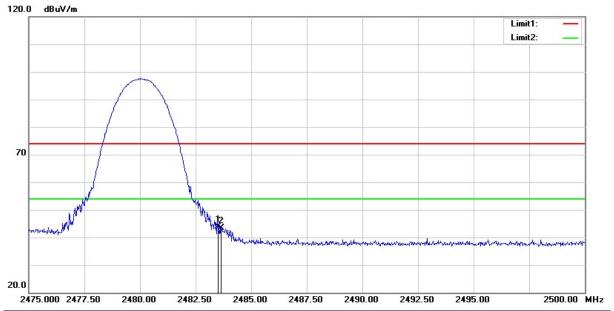


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2483.500 | 53.30 | -4.62 | 48.68 | 74.00 | -25.32 | peak |
| 2 | 2483.700 | 53.27 | -4.62 | 48.65 | 74.00 | -25.35 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/14 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|---------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 2483.500 | 48.60 | -4.62 | 43.98 | 74.00 | -30.02 | peak |
| 2 | 2483.650 | 47.89 | -4.62 | 43.27 | 74.00 | -30.73 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



2.8.6 Test Result of Radiated Spurious Emission Measurement

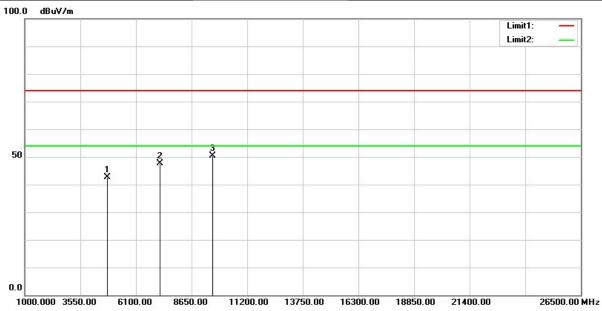
- (1) The radiation measurement frequency is 9kHz ~ 30MHz. The interference value of this frequency range is less than the limit value of 20 dB. It is considered that the background noise value is not recorded.
- (2) The following table shows the radiation measurement frequency from 30MHz to 26.5GHz, pre-scanning in the X, Y and Z axes. The worst case (X-axis) is documented in this report.

| | Test Frequency | | | | | | |
|----|--------------------|--|--|--|--|--|--|
| RF | BT 1 Mbps / 3 Mbps | | | | | | |
| | CH00 (2402 MHz) | | | | | | |
| Tx | CH39 (2441 MHz) | | | | | | |
| | CH78 (2480 MHz) | | | | | | |



Above 1GHz Data

| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/16 |
|---------------|-----------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

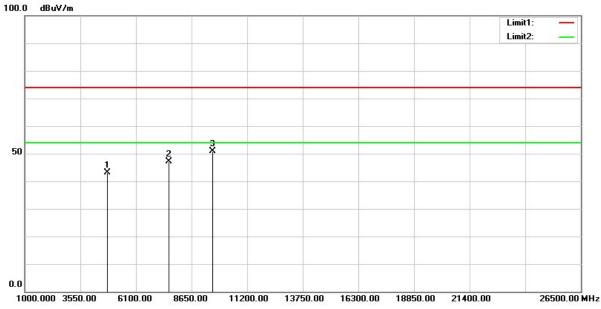


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|--------------------|-------------------|----------------|--------|
| 1 | 4804.000 | 52.51 | -9.82 | 42.69 | 74.00 | -31.31 | peak |
| 2 | 7206.000 | 51.35 | -3.68 | 47.67 | 74.00 | -26.33 | peak |
| 3 | 9608.000 | 50.49 | -0.09 | 50.40 | 74.00 | -23.60 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/16 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

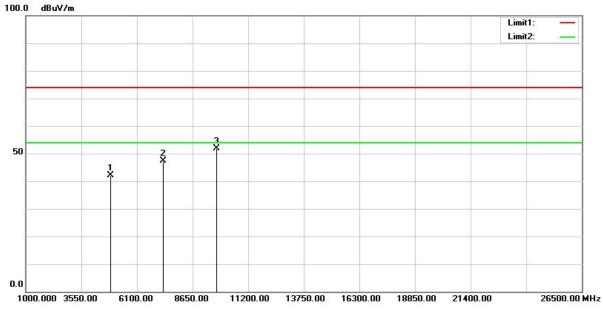


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4804.000 | 52.99 | -9.82 | 43.17 | 74.00 | -30.83 | peak |
| 2 | 7606.000 | 50.82 | -3.69 | 47.13 | 74.00 | -26.87 | peak |
| 3 | 9608.000 | 50.94 | -0.09 | 50.85 | 74.00 | -23.15 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | 2019/05/16 | |
|---------------------|-----------------------|--------------------|-------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

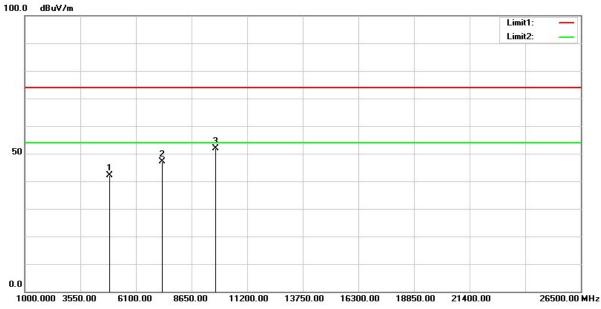


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|------------------|-----------------------|-----------------|-------------------|-------------|--------|
| 1 | 4882.000 | 52.07 | -9.96 | 42.11 | 74.00 | -31.89 | peak |
| 2 | 7323.000 | 51.33 | -3.85 | 47.48 | 74.00 | -26.52 | peak |
| 3 | 9764.000 | 51.08 | 0.86 | 51.94 | 74.00 | -22.06 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/16 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

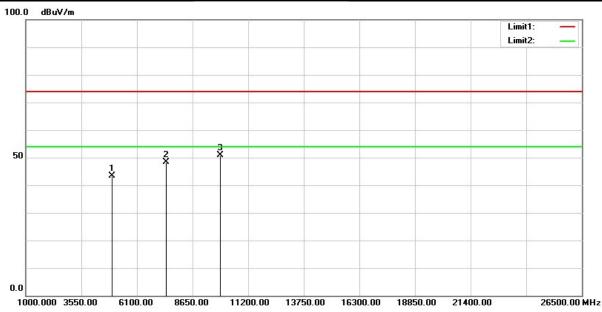


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4882.000 | 51.99 | -9.96 | 42.03 | 74.00 | -31.97 | peak |
| 2 | 7323.000 | 50.96 | -3.85 | 47.11 | 74.00 | -26.89 | peak |
| 3 | 9764.000 | 50.96 | 0.86 | 51.82 | 74.00 | -22.18 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | 2019/05/16 | |
|---------------------|-----------------------|--------------------|-------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

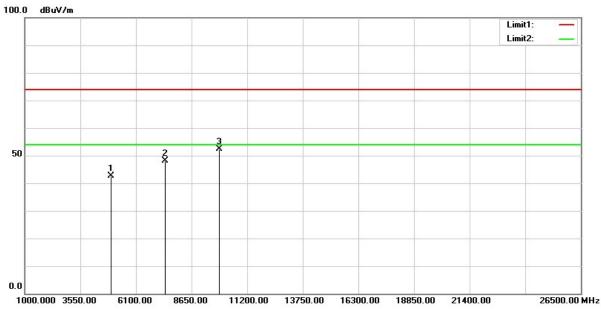


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4960.000 | 52.84 | -9.54 | 43.30 | 74.00 | -30.70 | peak |
| 2 | 7440.000 | 52.22 | -3.81 | 48.41 | 74.00 | -25.59 | peak |
| 3 | 9920.000 | 49.60 | 1.34 | 50.94 | 74.00 | -23.06 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/05/16 |
|---------------------|-----------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

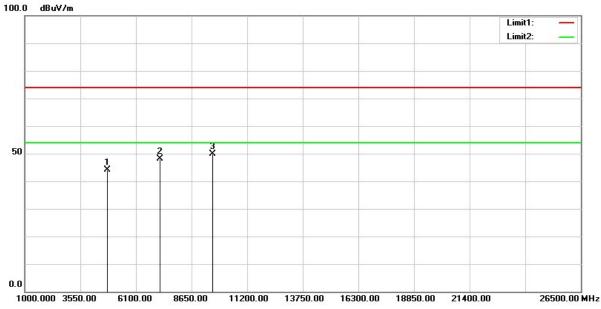


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4960.000 | 52.19 | -9.54 | 42.65 | 74.00 | -31.35 | peak |
| 2 | 7440.000 | 51.88 | -3.81 | 48.07 | 74.00 | -25.93 | peak |
| 3 | 9920.000 | 51.11 | 1.34 | 52.45 | 74.00 | -21.55 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/16 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

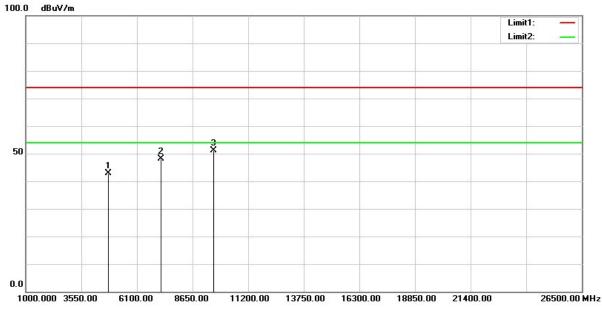


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4804.000 | 53.95 | -9.82 | 44.13 | 74.00 | -29.87 | peak |
| 2 | 7206.000 | 51.72 | -3.68 | 48.04 | 74.00 | -25.96 | peak |
| 3 | 9608.000 | 49.94 | -0.09 | 49.85 | 74.00 | -24.15 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | 2019/05/16 | |
|---------------------|------------------------|--------------------|-------|
| Test Channel | CH00 (2402 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

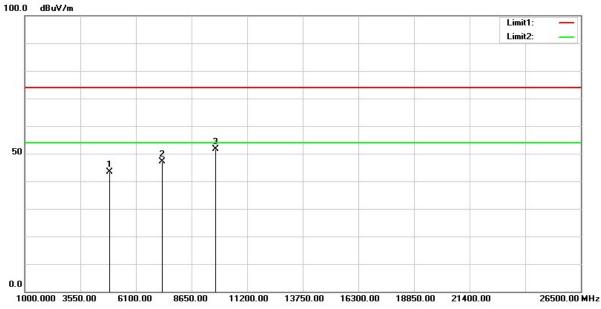


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4804.000 | 52.81 | -9.82 | 42.99 | 74.00 | -31.01 | peak |
| 2 | 7206.000 | 51.83 | -3.68 | 48.15 | 74.00 | -25.85 | peak |
| 3 | 9608.000 | 51.32 | -0.09 | 51.23 | 74.00 | -22.77 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/16 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

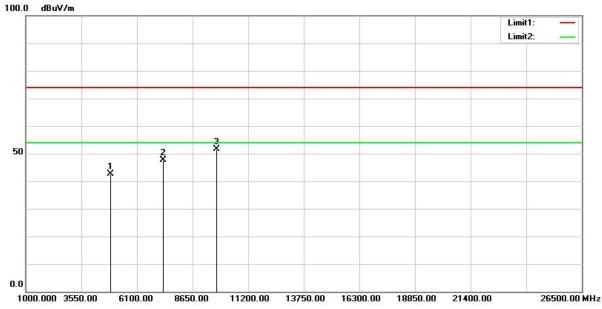


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|-------------|--------|
| 1 | 4882.000 | 53.24 | -9.96 | 43.28 | 74.00 | -30.72 | peak |
| 2 | 7323.000 | 51.05 | -3.85 | 47.20 | 74.00 | -26.80 | peak |
| 3 | 9764.000 | 50.68 | 0.86 | 51.54 | 74.00 | -22.46 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/16 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |

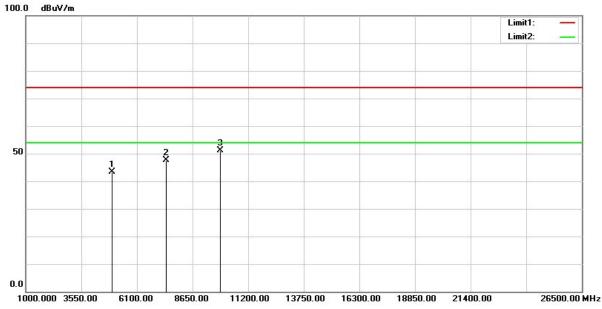


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4882.000 | 52.49 | -9.96 | 42.53 | 74.00 | -31.47 | peak |
| 2 | 7323.000 | 51.42 | -3.85 | 47.57 | 74.00 | -26.43 | peak |
| 3 | 9764.000 | 50.75 | 0.86 | 51.61 | 74.00 | -22.39 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/16 |
|---------------------|------------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Horizontal | Relative Humidity: | 65 % |

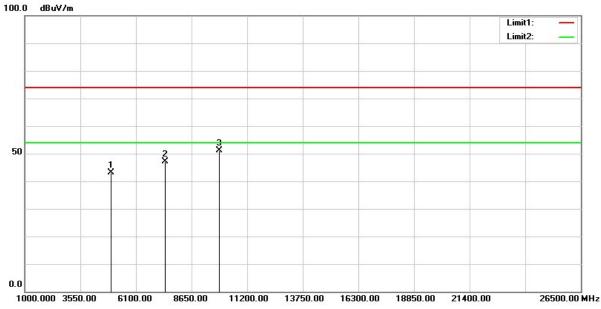


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 4960.000 | 52.80 | -9.54 | 43.26 | 74.00 | -30.74 | peak |
| 2 | 7440.000 | 51.43 | -3.81 | 47.62 | 74.00 | -26.38 | peak |
| 3 | 9920.000 | 49.79 | 1.34 | 51.13 | 74.00 | -22.87 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-EDR(3Mbps) | Test Date : | 2019/05/16 |
|---------------|------------------------|--------------------|------------|
| Test Channel | CH78 (2480 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity: | 65 % |



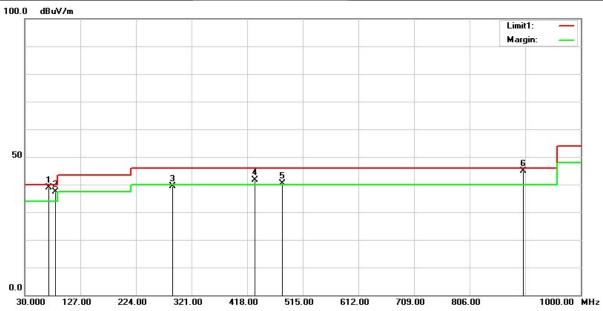
| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|-------------|--------|
| 1 | 4960.000 | 52.79 | -9.54 | 43.25 | 74.00 | -30.75 | peak |
| 2 | 7440.000 | 51.05 | -3.81 | 47.24 | 74.00 | -26.76 | peak |
| 3 | 9920.000 | 49.71 | 1.34 | 51.05 | 74.00 | -22.95 | peak |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



Below 1GHz Data

| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/06/19 |
|----------------|-----------------------|--------------------|------------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization : | Horizontal | Relative Humidity: | 65 % |

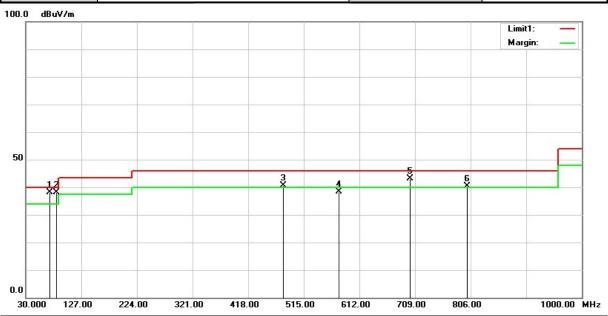


| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 72.0007 | 51.49 | -12.61 | 38.88 | 40.00 | -1.12 | QP |
| 2 | 83.9933 | 52.58 | -15.27 | 37.31 | 40.00 | -2.69 | QP |
| 3 | 287.9777 | 48.69 | -9.38 | 39.31 | 46.00 | -6.69 | QP |
| 4 | 432.0030 | 47.35 | -5.64 | 41.71 | 46.00 | -4.29 | QP |
| 5 | 479.9990 | 45.10 | -4.77 | 40.33 | 46.00 | -5.67 | QP |
| 6 | 900.0270 | 42.85 | 2.11 | 44.96 | 46.00 | -1.04 | QP |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



| Test Mode: | Transmit BT-BR(1Mbps) | Test Date : | 2019/06/19 |
|---------------|-----------------------|---------------------|------------|
| Test Channel | CH39 (2441 MHz) | Temperature : | 25 °C |
| Polarization: | Vertical | Relative Humidity : | 65 % |



| No. | Frequency (MHz) | Reading (dBuV/m) | Correct Factor (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|--------------------|------------------|-----------------------|-----------------|-------------------|----------------|--------|
| 1 | 72.0006 | 50.83 | -12.61 | 38.22 | 40.00 | -1.78 | QP |
| 2 | 84.0084 | 53.35 | -15.27 | 38.08 | 40.00 | -1.92 | QP |
| 3 | 479.9980 | 45.34 | -4.77 | 40.57 | 46.00 | -5.43 | QP |
| 4 | 575.9956 | 41.08 | -2.68 | 38.40 | 46.00 | -7.60 | QP |
| 5 | 700.0223 | 43.79 | -0.68 | 43.11 | 46.00 | -2.89 | QP |
| 6 | 800.0242 | 40.44 | 0.00 | 40.44 | 46.00 | -5.56 | QP |

- 1. Correction Factor = Antenna factor + Cable loss Amplifier gain
- 2. Result Value = Reading Level + Correct Factor
- 3. Margin Level = Result Value Limit Value
- 4. The other emission levels were very low against the limit



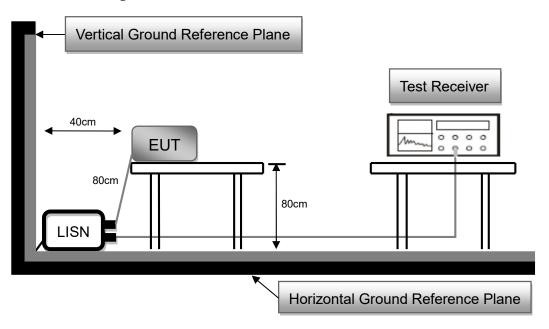
2.9 AC Conducted Emissions Measurement

2.9.1 Limit

| Frequency | FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit | | |
|-------------|---|-----------|--|
| (MHz) | Quasi-peak | Average | |
| 0.15 to 0.5 | 66 to 56* | 56 to 46* | |
| 0.50 to 5.0 | 56 | 46 | |
| 5.0 to 30.0 | 60 | 50 | |

^{*}Decreases with the logarithm of the frequency

2.9.2 Test Setup





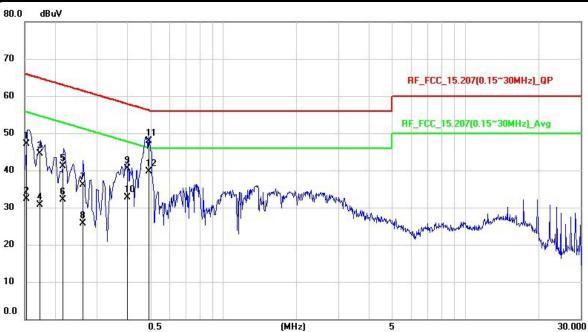
2.9.3 Test Procedure

- 1. The EUT was placed 0.8 meter height wooden table from the horizontal ground plane with EUT being connected to power source through a line impedance stabilization network (LISN). The LISN at least be 80 cm from nearest chassis of EUT.
- 2. The line impedance stabilization network (LISN) provides 50 ohm/50uH of coupling impedance for the measuring instrument. All other support equipments powered from additional LISN(s).
- 3. Interrelating cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle. All I/O cables were positioned to simulate typical usage.
- 4. All I/O cables that are not connected to a peripheral shall be bundle in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 5. The EMI test receiver connected to LISN powering the EUT. The actual test configuration, please refer to EUT test photos.
- 6. The receiver scanned from 150kHz to 30MHz for emissions in each of test modes. A scan was taken on both power lines, Line and Neutral, recording at least six highest emissions.
- 7. The EUT and cable configuration of the above highest emission levels were recorded. The test data of the worst case was recorded.



2.9.4 Test Result

| Test Voltage: | 120Vac, 60Hz | Frequency Range: | 0.15-30 MHz |
|---------------|--------------|------------------|-------------|
| Test Mode: | Normal Link | 6dB Bandwidth: | 9 kHz |
| Test Date: | 2019/06/05 | Phase: | L |
| Temperature: | 25°C | Humidity: | 65 % |

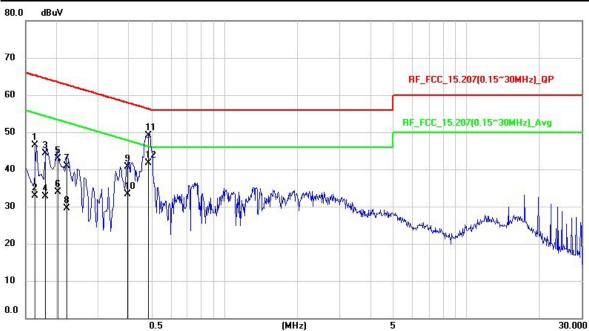


| No. | Frequency (MHz) | Reading Level (dBuV) | Correct Factor (dB) | Measurement (dBuV) | Limit (dBuV) | Margin (dB) | Detector |
|-----|-----------------|----------------------|---------------------|--------------------|-----------------|----------------|----------|
| 1 | 0.1521 | 37.3 | 9.84 | 47.14 | 65.88 | -18.74 | QP |
| 2 | 0.1521 | 22.38 | 9.84 | 32.22 | 55.88 | -23.66 | AVG |
| 3 | 0.1728 | 34.67 | 9.84 | 44.51 | 64.82 | -20.31 | QP |
| 4 | 0.1728 | 20.94 | 9.84 | 30.78 | 54.82 | -24.04 | AVG |
| 5 | 0.2154 | 31.27 | 9.83 | 41.1 | 62.99 | -21.89 | QP |
| 6 | 0.2154 | 22.35 | 9.83 | 32.18 | 52.99 | -20.81 | AVG |
| 7 | 0.2609 | 26.24 | 9.83 | 36.07 | 61.4 | -25.33 | QP |
| 8 | 0.2609 | 15.93 | 9.83 | 25.76 | 51.4 | -25.64 | AVG |
| 9 | 0.3996 | 30.73 | 9.84 | 40.57 | 57.86 | -17.29 | QP |
| 10 | 0.3996 | 22.79 | 9.84 | 32.63 | 47.86 | -15.23 | AVG |
| 11 | 0.4891 | 38.09 | 9.84 | 47.93 | 56.18 | -8.25 | QP |
| 12 | 0.4891 | 29.91 | 9.84 | 39.75 | 46.18 | -6.43 | AVG |

- 1. QP = Quasi Peak, AVG = Average
- 2. Correction Factor = Insertion loss of LISN + Cable loss
- 3. Measurement Value = Reading Level + Correct Factor
- 4. Margin Level = Result Value Limit Value



| Test Voltage : | 120Vac, 60Hz | Frequency Range: | 0.15-30 MHz |
|---------------------|--------------|------------------|-------------|
| Test Mode: | Normal Link | 6dB Bandwidth: | 9 kHz |
| Test Date: | 2019/06/05 | Phase: | N |
| Temperature: | 25°C | Humidity: | 65 % |



| No. | Frequency (MHz) | Reading Level (dBuV) | Correct Factor (dB) | Measurement (dBuV) | Limit (dBuV) | Margin (dB) | Detector |
|-----|--------------------|----------------------|---------------------|--------------------|-----------------|----------------|----------|
| 1 | 0.163 | 36.6 | 9.83 | 46.43 | 65.31 | -18.88 | QP |
| 2 | 0.163 | 22.98 | 9.83 | 32.81 | 55.31 | -22.5 | AVG |
| 3 | 0.1799 | 34.39 | 9.82 | 44.21 | 64.49 | -20.28 | QP |
| 4 | 0.1799 | 22.86 | 9.82 | 32.68 | 54.49 | -21.81 | AVG |
| 5 | 0.2057 | 32.99 | 9.82 | 42.81 | 63.38 | -20.57 | QP |
| 6 | 0.2057 | 24.15 | 9.82 | 33.97 | 53.38 | -19.41 | AVG |
| 7 | 0.221 | 31.11 | 9.82 | 40.93 | 62.78 | -21.85 | QP |
| 8 | 0.221 | 19.73 | 9.82 | 29.55 | 52.78 | -23.23 | AVG |
| 9 | 0.3954 | 30.93 | 9.84 | 40.77 | 57.95 | -17.18 | QP |
| 10 | 0.3954 | 23.42 | 9.84 | 33.26 | 47.95 | -14.69 | AVG |
| 11 | 0.4834 | 39.19 | 9.84 | 49.03 | 56.28 | -7.25 | QP |
| 12 | 0.4834 | 31.83 | 9.84 | 41.67 | 46.28 | -4.61 | AVG |

- 1. QP = Quasi Peak, AVG = Average
- 2. Correction Factor = Insertion loss of LISN + Cable loss
- 3. Measurement Value = Reading Level + Correct Factor
- 4. Margin Level = Result Value Limit Value