

## 7.4. TEST RESULTS

(9KHz-30MHz)

|               |         |                    |         |
|---------------|---------|--------------------|---------|
| Temperature:  | 22.7°C  | Relative Humidity: | 61%     |
| Test Voltage: | DC 3.8V | Test Mode:         | 802.11b |

| Freq. | Reading  | Limit    | Margin | State | Test Result |
|-------|----------|----------|--------|-------|-------------|
| (MHz) | (dBuV/m) | (dBuV/m) | (dB)   | P/F   |             |
| --    | --       | --       | --     | --    | PASS        |
| --    | --       | --       | --     | --    | PASS        |

### Note:

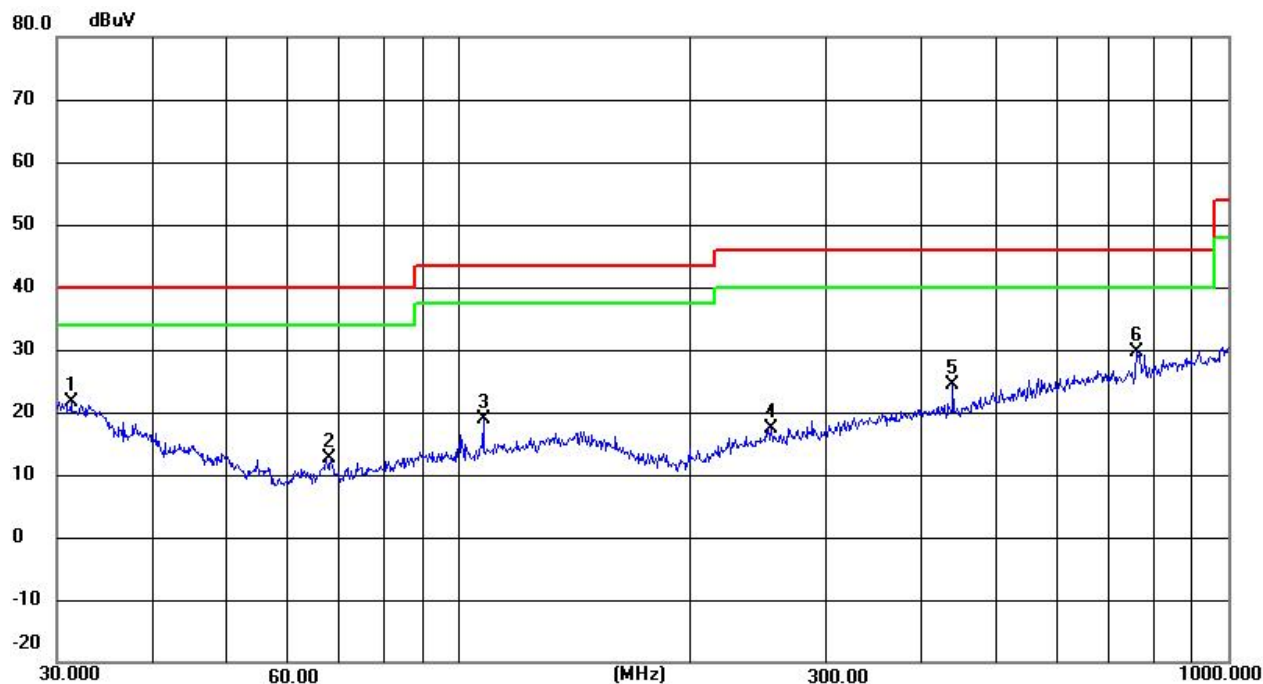
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =  $40 \log (\text{specific distance/test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

(30MHz-1000MHz)

|               |                |                    |            |
|---------------|----------------|--------------------|------------|
| Temperature:  | 24.7°C         | Relative Humidity: | 61%        |
| Test Voltage: | DC 3.8V        | Phase:             | Horizontal |
| Test Mode:    | 802.11b(worst) |                    |            |



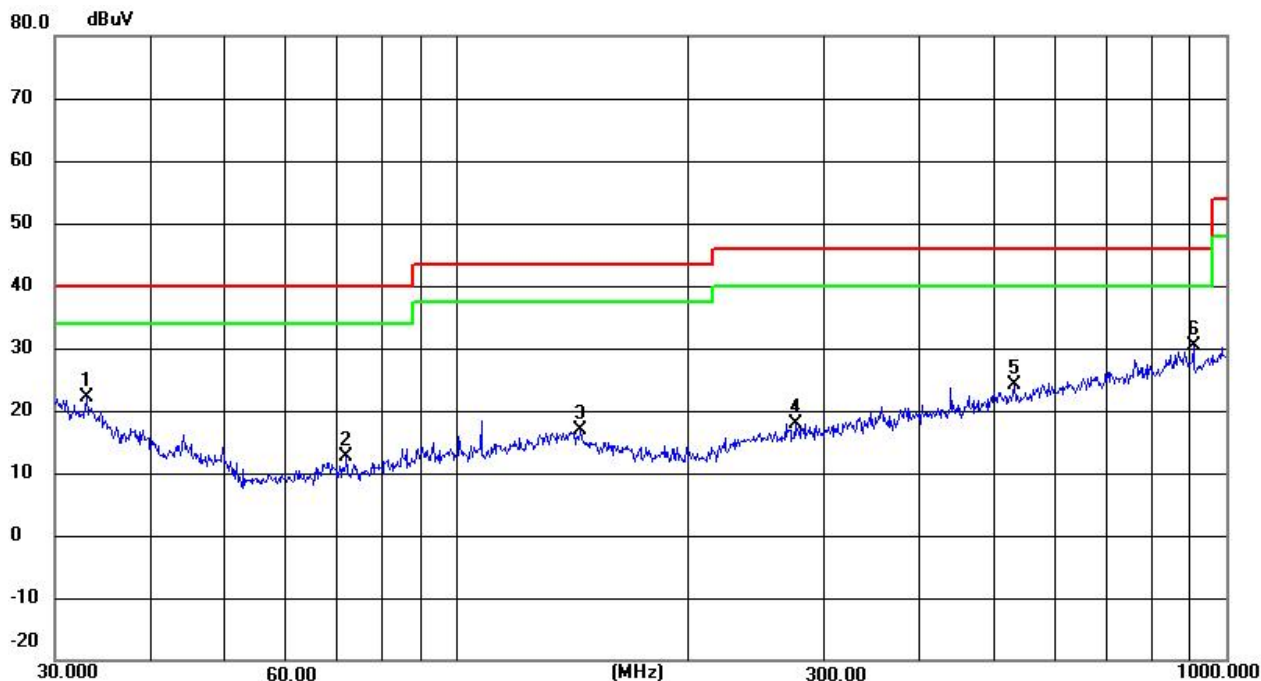
| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|
| 1   | 31.2893            | 29.13             | -8.04                   | 21.09              | 40.00             | -18.91         | QP     |
| 2   | 54.6429            | 31.29             | -19.51                  | 11.78              | 40.00             | -28.22         | QP     |
| 3   | 107.5101           | 50.47             | -32.19                  | 18.28              | 43.50             | -25.22         | QP     |
| 4   | 224.5193           | 47.45             | -32.01                  | 15.44              | 46.00             | -30.56         | QP     |
| 5   | 438.6554           | 55.39             | -31.48                  | 23.91              | 46.00             | -22.09         | QP     |
| 6   | 760.7036           | 59.95             | -30.87                  | 29.08              | 46.00             | 16.92          | QP     |

Note: 1. Margin = Result (Result =Reading + Factor )–Limit

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

|               |                |                    |          |
|---------------|----------------|--------------------|----------|
| Temperature:  | 22.7°C         | Relative Humidity: | 61%      |
| Test Voltage: | DC 3.8V        | Phase:             | Vertical |
| Test Mode:    | 802.11b(worst) |                    |          |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|
| 1   | 32.9791            | 30.86             | -9.19                   | 21.67              | 40.00             | -18.33         | QP     |
| 2   | 62.4314            | 30.22             | -20.87                  | 9.35               | 40.00             | -30.65         | QP     |
| 3   | 107.5101           | 49.99             | -32.19                  | 17.80              | 43.50             | -25.70         | QP     |
| 4   | 222.9502           | 46.68             | -32.02                  | 14.66              | 46.00             | -31.34         | QP     |
| 5   | 438.6554           | 54.72             | -31.48                  | 23.24              | 46.00             | -22.76         | QP     |
| 6   | 906.4824           | 60.48             | -30.69                  | 29.79              | 46.00             | 16.21          | QP     |

Note: 1. Margin = Result (Result =Reading + Factor )-Limit

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

## (1GHz~25GHz) Restricted band and Spurious emission Requirements

## 802.11b(Worst)-Low

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4824.00         | 40.17             | 31.79                 | 8.62            | 32.10                    | 48.48          | 74.00               | -25.52          | Vertical     |
| 7236.00         | 34.14             | 36.19                 | 11.68           | 31.97                    | 50.04          | 74.00               | -23.96          | Vertical     |
| 9648.00         | 32.66             | 38.07                 | 14.16           | 31.56                    | 53.33          | 74.00               | -20.67          | Vertical     |
| 12060.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 14472.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 4824.00         | 38.85             | 31.79                 | 8.62            | 32.10                    | 47.16          | 74.00               | -26.84          | Horizontal   |
| 7236.00         | 33.90             | 36.19                 | 11.68           | 31.97                    | 49.80          | 74.00               | -24.20          | Horizontal   |
| 9648.00         | 32.24             | 38.07                 | 14.16           | 31.56                    | 52.91          | 74.00               | -21.09          | Horizontal   |
| 12060.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 14472.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4824.00         | 29.26             | 31.79                 | 8.62            | 32.10                    | 37.57          | 54.00               | -16.43          | Vertical     |
| 7236.00         | 23.01             | 36.19                 | 11.68           | 31.97                    | 38.91          | 54.00               | -15.09          | Vertical     |
| 9648.00         | 23.00             | 38.07                 | 14.16           | 31.56                    | 43.67          | 54.00               | -10.33          | Vertical     |
| 12060.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 14472.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 16884.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 4824.00         | 28.40             | 31.79                 | 8.62            | 32.10                    | 36.71          | 54.00               | -17.29          | Horizontal   |
| 7236.00         | 22.48             | 36.19                 | 11.68           | 31.97                    | 38.38          | 54.00               | -15.62          | Horizontal   |
| 9648.00         | 21.99             | 38.07                 | 14.16           | 31.56                    | 42.66          | 54.00               | -11.34          | Horizontal   |
| 12060.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 14472.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 16884.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |

**Remark:**

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *"\*", means this data is the too weak instrument of signal is unable to test.*

## 802.11b(Worst)-Middle

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4874.00         | 39.24             | 31.85                 | 8.66            | 32.12                    | 47.63          | 74.00               | -26.37          | Vertical     |
| 7311.00         | 34.22             | 36.37                 | 11.71           | 31.91                    | 50.39          | 74.00               | -23.61          | Vertical     |
| 9748.00         | 33.68             | 38.27                 | 14.25           | 31.56                    | 54.64          | 74.00               | -19.36          | Vertical     |
| 12185.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 14622.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 4874.00         | 39.74             | 31.85                 | 8.66            | 32.12                    | 48.13          | 74.00               | -25.87          | Horizontal   |
| 7311.00         | 32.87             | 36.37                 | 11.71           | 31.91                    | 49.04          | 74.00               | -24.96          | Horizontal   |
| 9748.00         | 33.58             | 38.27                 | 14.25           | 31.56                    | 54.54          | 74.00               | -19.46          | Horizontal   |
| 12185.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 14622.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4874.00         | 30.11             | 31.85                 | 8.66            | 32.12                    | 38.50          | 54.00               | -15.50          | Vertical     |
| 7311.00         | 22.54             | 36.37                 | 11.71           | 31.91                    | 38.71          | 54.00               | -15.29          | Vertical     |
| 9748.00         | 22.94             | 38.27                 | 14.25           | 31.56                    | 43.90          | 54.00               | -10.10          | Vertical     |
| 12185.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 14622.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 17059.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 4874.00         | 29.86             | 31.85                 | 8.66            | 32.12                    | 38.25          | 54.00               | -15.75          | Horizontal   |
| 7311.00         | 21.96             | 36.37                 | 11.71           | 31.91                    | 38.13          | 54.00               | -15.87          | Horizontal   |
| 9748.00         | 23.29             | 38.27                 | 14.25           | 31.56                    | 44.25          | 54.00               | -9.75           | Horizontal   |
| 12185.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 14622.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 17059.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |

**Remark:**

1. *Final Level* = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is too weak instrument of signal is unable to test.

### 802.11b(Worst)-High

#### Peak value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4924.00         | 44.70             | 31.90                 | 8.70            | 32.15                    | 53.15          | 74.00               | -20.85          | Vertical     |
| 7386.00         | 34.85             | 36.49                 | 11.76           | 31.83                    | 51.27          | 74.00               | -22.73          | Vertical     |
| 9848.00         | 36.95             | 38.62                 | 14.31           | 31.77                    | 58.11          | 74.00               | -15.89          | Vertical     |
| 12310.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 14772.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                          |                | 74.00               |                 | Vertical     |
| 4924.00         | 44.03             | 31.90                 | 8.70            | 32.15                    | 52.48          | 74.00               | -21.52          | Horizontal   |
| 7386.00         | 33.76             | 36.49                 | 11.76           | 31.83                    | 50.18          | 74.00               | -23.82          | Horizontal   |
| 9848.00         | 33.12             | 38.62                 | 14.31           | 31.77                    | 54.28          | 74.00               | -19.72          | Horizontal   |
| 12310.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 14772.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                          |                | 74.00               |                 | Horizontal   |

#### Average value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 4924.00         | 35.63             | 31.90                 | 8.70            | 32.15                    | 44.08          | 54.00               | -9.92           | Vertical     |
| 7386.00         | 24.77             | 36.49                 | 11.76           | 31.83                    | 41.19          | 54.00               | -12.81          | Vertical     |
| 9848.00         | 25.45             | 38.62                 | 14.31           | 31.77                    | 46.61          | 54.00               | -7.39           | Vertical     |
| 12310.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 14772.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 17234.00        | *                 |                       |                 |                          |                | 54.00               |                 | Vertical     |
| 4924.00         | 34.40             | 31.90                 | 8.70            | 32.15                    | 42.85          | 54.00               | -11.15          | Horizontal   |
| 7386.00         | 23.16             | 36.49                 | 11.76           | 31.83                    | 39.58          | 54.00               | -14.42          | Horizontal   |
| 9848.00         | 22.39             | 38.62                 | 14.31           | 31.77                    | 43.55          | 54.00               | -10.45          | Horizontal   |
| 12310.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 14772.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |
| 17234.00        | *                 |                       |                 |                          |                | 54.00               |                 | Horizontal   |

#### Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. “\*”, means this data is the too weak instrument of signal is unable to test.

1. Notes: emissions are attenuated 20dB below the limits, so it does not record.

## 802.11 b low CH

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 34.68             | 27.91                 | 5.30            | 24.64                    | 43.25          | 74.00               | -30.75          | Horizontal   |
| 2390.00         | 36.15             | 27.59                 | 5.38            | 24.71                    | 44.41          | 74.00               | -29.59          | Horizontal   |
| 2310.00         | 33.58             | 27.91                 | 5.30            | 24.64                    | 42.15          | 74.00               | -31.85          | Vertical     |
| 2390.00         | 36.52             | 27.59                 | 5.38            | 24.71                    | 44.78          | 74.00               | -29.22          | Vertical     |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 28.12             | 27.91                 | 5.30            | 24.64                    | 36.69          | 54.00               | -17.31          | Horizontal   |
| 2390.00         | 35.37             | 27.59                 | 5.38            | 24.71                    | 43.63          | 54.00               | -10.37          | Horizontal   |
| 2310.00         | 28.72             | 27.91                 | 5.30            | 24.64                    | 37.29          | 54.00               | -16.71          | Vertical     |
| 2390.00         | 32.36             | 27.59                 | 5.38            | 24.71                    | 40.62          | 54.00               | -13.38          | Vertical     |

## 802.11 b High CH

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 50.89             | 27.53                 | 5.47            | 33.92                    | 49.97          | 74.00               | -24.03          | Horizontal   |
| 2500.00         | 47.04             | 27.55                 | 5.49            | 29.93                    | 50.15          | 74.00               | -23.85          | Horizontal   |
| 2483.50         | 52.95             | 27.53                 | 5.47            | 33.92                    | 52.03          | 74.00               | -21.97          | Vertical     |
| 2500.00         | 49.36             | 27.55                 | 5.49            | 29.93                    | 52.47          | 74.00               | -21.53          | Vertical     |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 37.92             | 27.53                 | 5.47            | 33.92                    | 37.00          | 54.00               | -17.00          | Horizontal   |
| 2500.00         | 34.21             | 27.55                 | 5.49            | 29.93                    | 37.32          | 54.00               | -16.68          | Horizontal   |
| 2483.50         | 39.78             | 27.53                 | 5.47            | 33.92                    | 38.86          | 54.00               | -15.14          | Vertical     |
| 2500.00         | 36.05             | 27.55                 | 5.49            | 29.93                    | 39.16          | 54.00               | -14.84          | Vertical     |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

### 802.11 g Low CH

#### Peak value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 40.69             | 27.91                 | 5.30            | 24.64                    | 49.26          | 74.00               | -24.74          | Horizontal   |
| 2390.00         | 46.06             | 27.59                 | 5.38            | 24.71                    | 54.32          | 74.00               | -19.68          | Horizontal   |
| 2310.00         | 43.03             | 27.91                 | 5.30            | 24.64                    | 51.60          | 74.00               | -22.40          | Vertical     |
| 2390.00         | 40.52             | 27.59                 | 5.38            | 24.71                    | 48.78          | 74.00               | -25.22          | Vertical     |

#### Average value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 28.13             | 27.91                 | 5.30            | 24.64                    | 36.70          | 54.00               | -17.30          | Horizontal   |
| 2390.00         | 33.42             | 27.59                 | 5.38            | 24.71                    | 41.68          | 54.00               | -12.32          | Horizontal   |
| 2310.00         | 29.91             | 27.91                 | 5.30            | 24.64                    | 38.48          | 54.00               | -15.52          | Vertical     |
| 2390.00         | 30.82             | 27.59                 | 5.38            | 24.71                    | 39.08          | 54.00               | -14.92          | Vertical     |

### 802.11 g High CH

#### Peak value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 50.25             | 27.53                 | 5.47            | 33.92                    | 49.33          | 74.00               | -24.67          | Horizontal   |
| 2500.00         | 46.54             | 27.55                 | 5.49            | 29.93                    | 49.65          | 74.00               | -24.35          | Horizontal   |
| 2483.50         | 52.22             | 27.53                 | 5.47            | 33.92                    | 51.30          | 74.00               | -22.70          | Vertical     |
| 2500.00         | 48.78             | 27.55                 | 5.49            | 29.93                    | 51.89          | 74.00               | -22.11          | Vertical     |

#### Average value:

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 37.53             | 27.53                 | 5.47            | 33.92                    | 36.61          | 54.00               | -17.39          | Horizontal   |
| 2500.00         | 33.91             | 27.55                 | 5.49            | 29.93                    | 37.02          | 54.00               | -16.98          | Horizontal   |
| 2483.50         | 39.35             | 27.53                 | 5.47            | 33.92                    | 38.43          | 54.00               | -15.57          | Vertical     |
| 2500.00         | 35.73             | 27.55                 | 5.49            | 29.93                    | 38.84          | 54.00               | -15.16          | Vertical     |

#### Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

## 802.11 N 20 Low CH

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 36.56             | 27.91                 | 5.30            | 24.64              | 45.13          | 74.00               | -28.87          | Horizontal   |
| 2390.00         | 42.18             | 27.59                 | 5.38            | 24.71              | 50.44          | 74.00               | -23.56          | Horizontal   |
| 2310.00         | 39.43             | 27.91                 | 5.30            | 24.64              | 48.00          | 74.00               | -26.00          | Vertical     |
| 2390.00         | 42.82             | 27.59                 | 5.38            | 24.71              | 51.08          | 74.00               | -22.92          | Vertical     |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 2310.00         | 27.90             | 27.91                 | 5.30            | 24.64              | 36.47          | 54.00               | -17.53          | Horizontal   |
| 2390.00         | 34.68             | 27.59                 | 5.38            | 24.71              | 42.94          | 54.00               | -11.06          | Horizontal   |
| 2310.00         | 28.64             | 27.91                 | 5.30            | 24.64              | 37.21          | 54.00               | -16.79          | Vertical     |
| 2390.00         | 35.60             | 27.59                 | 5.38            | 24.71              | 43.86          | 54.00               | -10.14          | Vertical     |

## 802.11 N 20 High CH

**Peak value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 50.20             | 27.53                 | 5.47            | 33.92              | 49.28          | 74.00               | -24.72          | Horizontal   |
| 2500.00         | 46.50             | 27.55                 | 5.49            | 29.93              | 49.61          | 74.00               | -24.39          | Horizontal   |
| 2483.50         | 52.16             | 27.53                 | 5.47            | 33.92              | 51.24          | 74.00               | -22.76          | Vertical     |
| 2500.00         | 48.73             | 27.55                 | 5.49            | 29.93              | 51.84          | 74.00               | -22.16          | Vertical     |

**Average value:**

| 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 |
|-----------------|-------------------|-----------------------|-----------------|--------------------|----------------|---------------------|-----------------|--------------|
| 2483.50         | 37.50             | 27.53                 | 5.47            | 33.92              | 36.58          | 54.00               | -17.42          | Horizontal   |
| 2500.00         | 33.89             | 27.55                 | 5.49            | 29.93              | 37.00          | 54.00               | -17.00          | Horizontal   |
| 2483.50         | 39.32             | 27.53                 | 5.47            | 33.92              | 38.40          | 54.00               | -15.60          | Vertical     |
| 2500.00         | 35.71             | 27.55                 | 5.49            | 29.93              | 38.82          | 54.00               | -15.18          | Vertical     |

**Remark:**

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

## 8 CONDUCTED EMISSION TEST

### 8.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 207(a) limit in the table below has to be followed.

| FREQUENCY (MHz) | Conducted Emissionlimit (dBuV) |           |
|-----------------|--------------------------------|-----------|
|                 | Quasi-peak                     | Average   |
| 0.15 -0.5       | 66 - 56 *                      | 56 - 46 * |
| 0.50 -5.0       | 56.00                          | 46.00     |
| 5.0 -30.0       | 60.00                          | 50.00     |

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

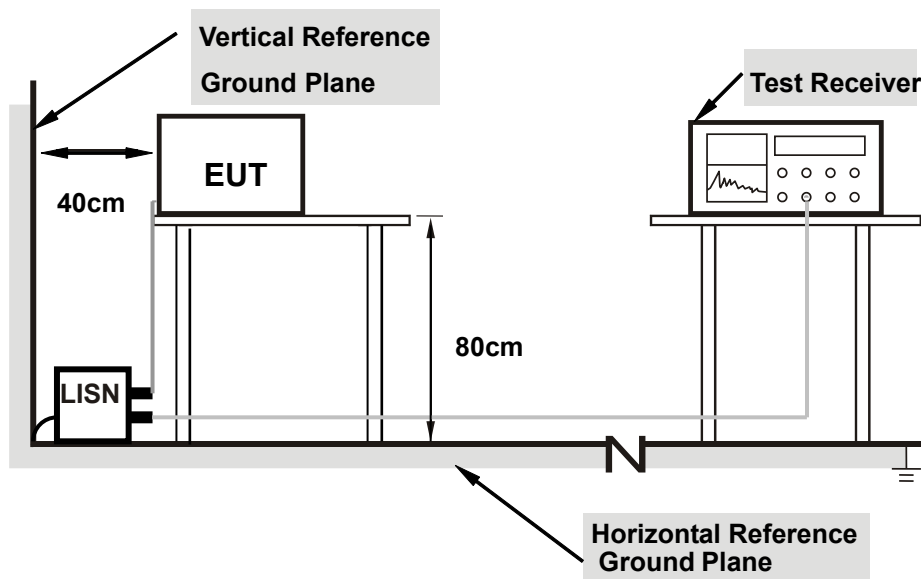
The following table is the setting of the receiver

| Receiver Parameters | Setting  |
|---------------------|----------|
| Attenuation         | 10 dB    |
| Start Frequency     | 0.15 MHz |
| Stop Frequency      | 30 MHz   |
| IF Bandwidth        | 9 kHz    |

### 8.1.2 TEST PROCEDURE

- The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled 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.
- LISN at least 80 cm from nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 8.1.3 TEST SETUP

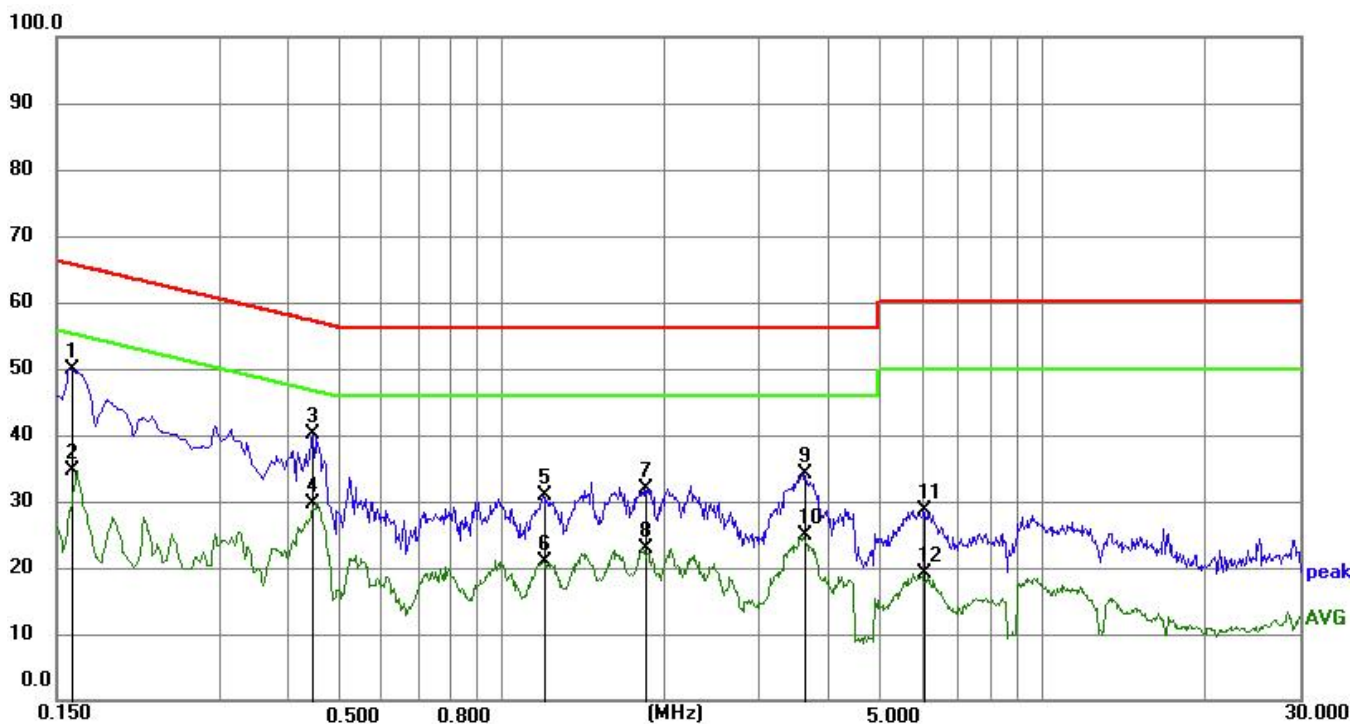


**Note: 1.Support units were connected to second LISN.**

**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

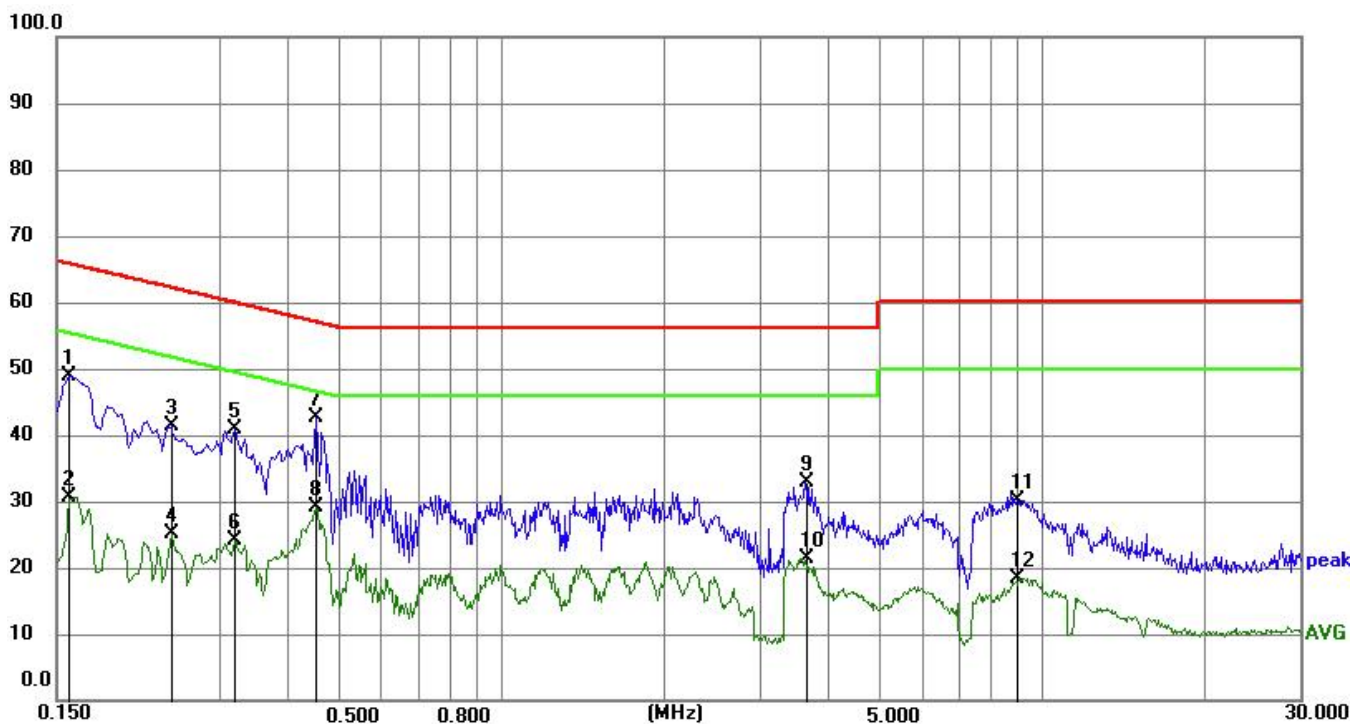
### 8.1.4 TEST RESULT

|               |                |                    |     |
|---------------|----------------|--------------------|-----|
| Temperature:  | 22.1 °C        | Relative Humidity: | 56% |
| Test Voltage: | AC 120V        | Phase:             | L   |
| Test Mode:    | 802.11b(worst) |                    |     |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|
| 1   | 0.1598             | 39.80             | 10.07                   | 49.87              | 65.47             | 15.60          | QP     |
| 2   | 0.1598             | 24.47             | 10.07                   | 34.54              | 55.47             | 20.93          | AVG    |
| 3   | 0.4470             | 30.02             | 10.00                   | 40.02              | 56.93             | 16.91          | QP     |
| 4   | 0.4470             | 19.63             | 10.00                   | 29.63              | 46.93             | 17.30          | AVG    |
| 5   | 1.1940             | 20.93             | 9.98                    | 30.91              | 56.00             | 25.09          | QP     |
| 6   | 1.1940             | 10.81             | 9.98                    | 20.79              | 46.00             | 25.21          | AVG    |
| 7   | 1.8420             | 22.01             | 9.96                    | 31.97              | 56.00             | 24.03          | QP     |
| 8   | 1.8420             | 12.84             | 9.96                    | 22.80              | 46.00             | 23.20          | AVG    |
| 9   | 3.6285             | 24.25             | 9.92                    | 34.17              | 56.00             | 21.83          | QP     |
| 10  | 3.6285             | 14.85             | 9.92                    | 24.77              | 46.00             | 21.23          | AVG    |
| 11  | 6.0360             | 18.89             | 9.85                    | 28.74              | 60.00             | 31.26          | QP     |
| 12  | 6.0360             | 9.40              | 9.85                    | 19.25              | 50.00             | 30.75          | AVG    |

|               |                |                    |     |
|---------------|----------------|--------------------|-----|
| Temperature:  | 22.1 °C        | Relative Humidity: | 56% |
| Test Voltage: | AC 120V        | Phase:             | N   |
| Test Mode:    | 802.11b(worst) |                    |     |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>Factor(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|
| 1   | 0.1590             | 38.77             | 10.13                   | 48.90              | 65.52             | 16.62          | QP     |
| 2   | 0.1590             | 20.56             | 10.13                   | 30.69              | 55.52             | 24.83          | AVG    |
| 3   | 0.2445             | 31.24             | 10.05                   | 41.29              | 61.94             | 20.65          | QP     |
| 4   | 0.2445             | 15.16             | 10.05                   | 25.21              | 51.94             | 26.73          | AVG    |
| 5   | 0.3209             | 30.76             | 10.02                   | 40.78              | 59.68             | 18.90          | QP     |
| 6   | 0.3209             | 14.22             | 10.02                   | 24.24              | 49.68             | 25.44          | AVG    |
| 7   | 0.4560             | 32.59             | 10.02                   | 42.61              | 56.77             | 14.16          | QP     |
| 8   | 0.4560             | 19.06             | 10.02                   | 29.08              | 46.77             | 17.69          | AVG    |
| 9   | 3.6510             | 22.91             | 9.92                    | 32.83              | 56.00             | 23.17          | QP     |
| 10  | 3.6510             | 11.51             | 9.92                    | 21.43              | 46.00             | 24.57          | AVG    |
| 11  | 9.0195             | 20.40             | 9.81                    | 30.21              | 60.00             | 29.79          | QP     |
| 12  | 9.0195             | 8.55              | 9.81                    | 18.36              | 50.00             | 31.64          | AVG    |

## 9. ANTENNA REQUIREMENT

### 9.1 STANDARD REQUIREMENT

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 9.2 RESULT

The antennas used for this product are Internal antenna and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 0.65dBi.

\*\*\*\*\*END OF THE REPORT\*\*\*\*\*