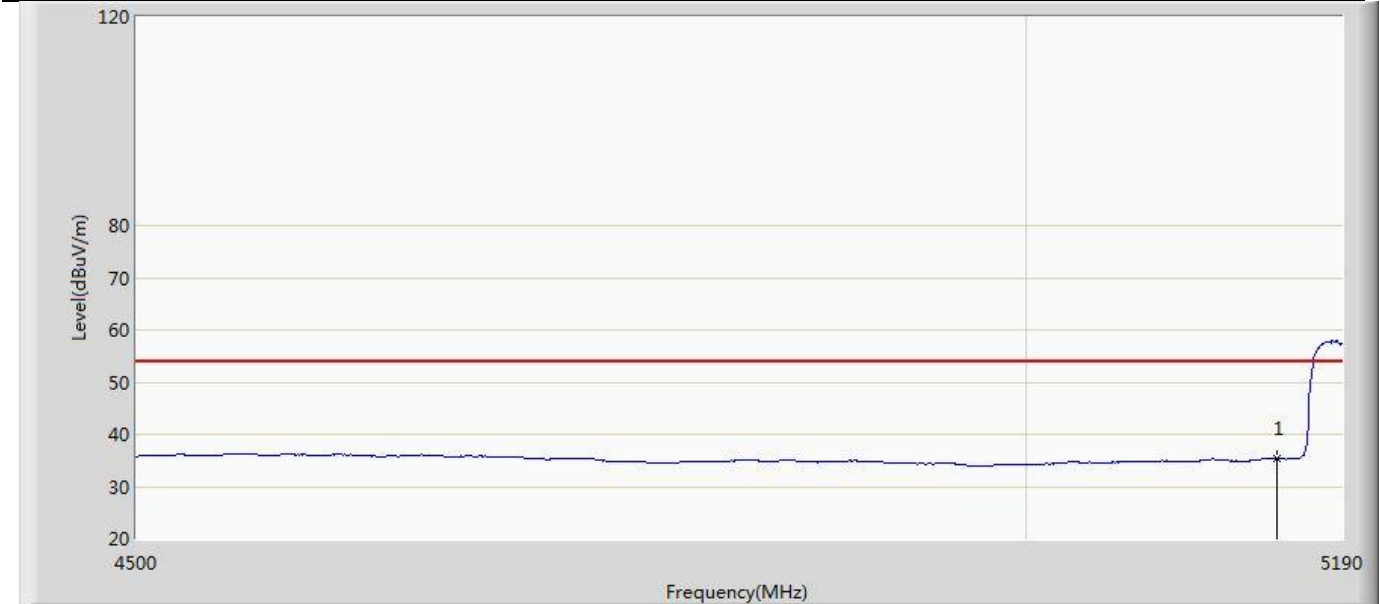


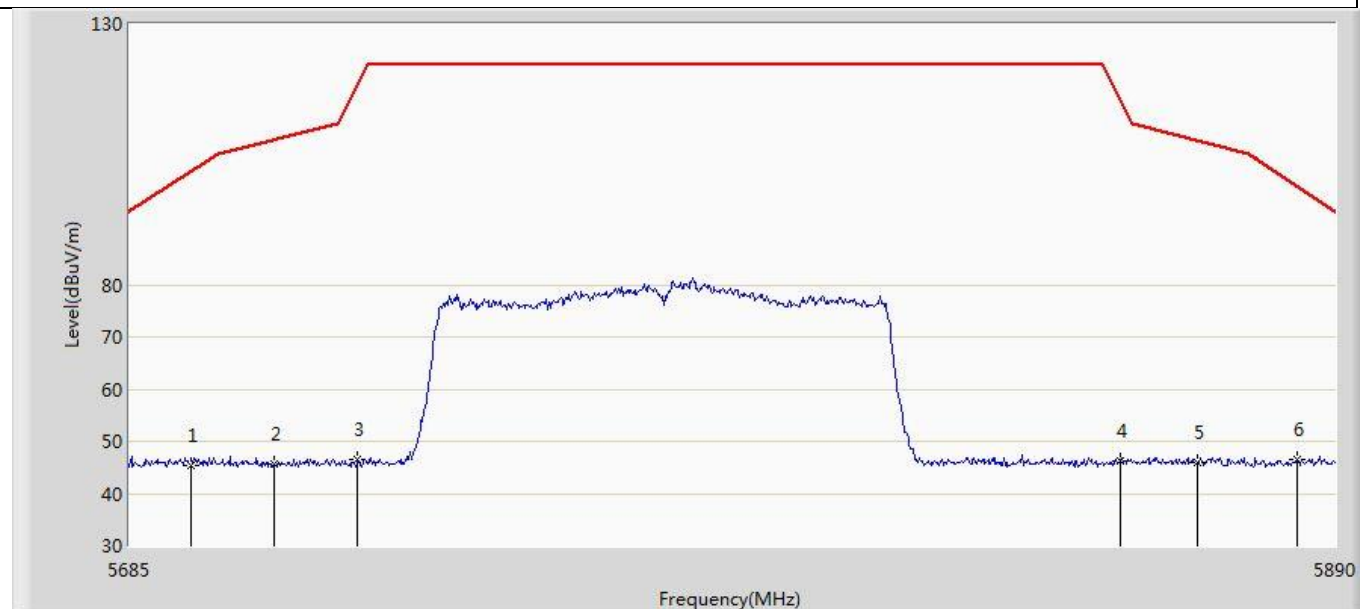


|                                           |                          |
|-------------------------------------------|--------------------------|
| Profile: 22A0738R                         | Page No.: 20             |
| Engineer: YuLiu                           |                          |
| Site: AC5                                 | Time: 2022/11/22 - 02:07 |
| Limit: FCC_Part15.209_RE(3m)              | Margin: 0                |
| Probe: Horn_3117_00167055(1-18GHz)2022    | Polarity: Vertical       |
| EUT: INFOTAINMENT HEADUNIT                | Power: DC 12V            |
| Note: Mode6:Transmit at 5210MHz by 11ac80 |                          |



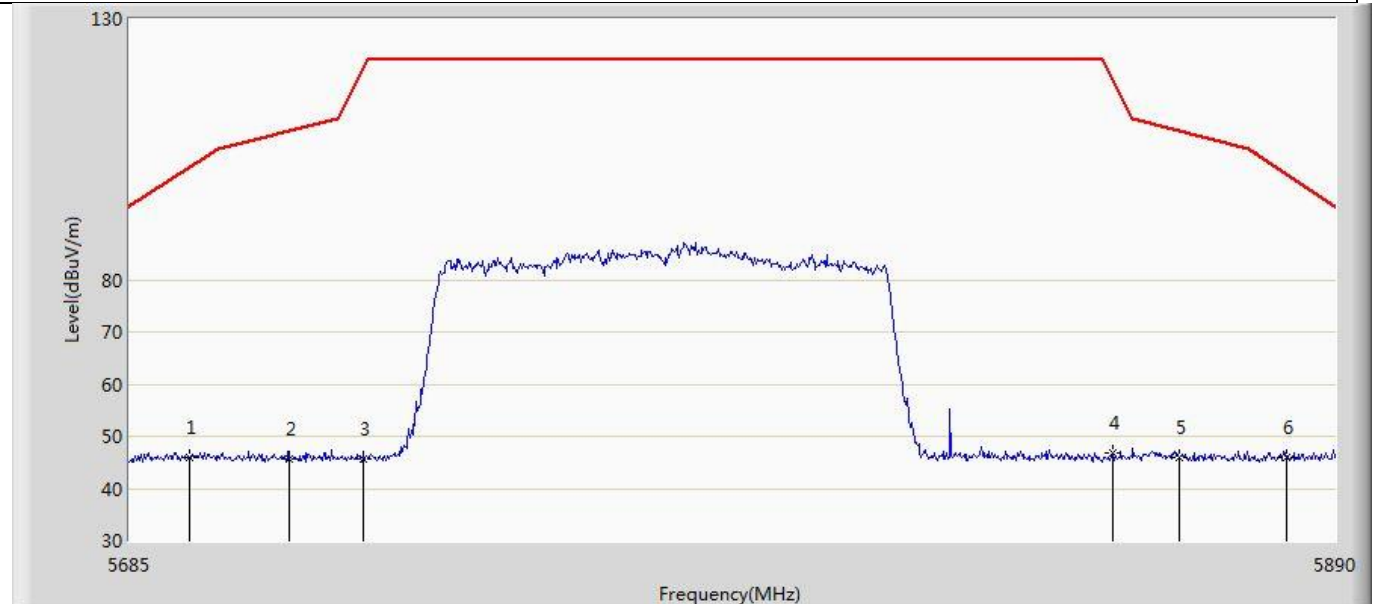
| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1  | *    | 5150.000        | 35.411                 | -1.817               | -18.589         | 54.000         | 37.228      | AV   |

|                                           |                          |
|-------------------------------------------|--------------------------|
| Profile: 22A0738R                         | Page No.: 77             |
| Engineer: YuLiu                           |                          |
| Site: AC5                                 | Time: 2022/11/29 - 21:14 |
| Limit: FCC-15.407                         | Margin: 0                |
| Probe: Horn_3117_00167055(1-18GHz)2022    | Polarity: Horizontal     |
| EUT: INFOTAINMENT HEADUNIT                | Power: DC 12V            |
| Note: Mode6:Transmit at 5775MHz by 11ac80 |                          |



| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1  |      | 5695.455        | 45.431                 | 7.337                | -56.419         | 101.850        | 38.094      | PK   |
| 2  |      | 5709.395        | 45.733                 | 7.776                | -62.100         | 107.833        | 37.957      | PK   |
| 3  |      | 5723.335        | 46.525                 | 8.348                | -71.880         | 118.405        | 38.177      | PK   |
| 4  |      | 5852.895        | 46.212                 | 7.977                | -69.386         | 115.598        | 38.235      | PK   |
| 5  |      | 5866.220        | 45.844                 | 7.561                | -61.812         | 107.656        | 38.283      | PK   |
| 6  | *    | 5883.440        | 46.601                 | 8.386                | -52.332         | 98.932         | 38.214      | PK   |

|                                           |                          |
|-------------------------------------------|--------------------------|
| Profile: 22A0738R                         | Page No.: 78             |
| Engineer: YuLiu                           |                          |
| Site: AC5                                 | Time: 2022/11/29 - 21:17 |
| Limit: FCC-15.407                         | Margin: 0                |
| Probe: Horn_3117_00167055(1-18GHz)2022    | Polarity: Vertical       |
| EUT: INFOTAINMENT HEADUNIT                | Power: DC 12V            |
| Note: Mode6:Transmit at 5775MHz by 11ac80 |                          |

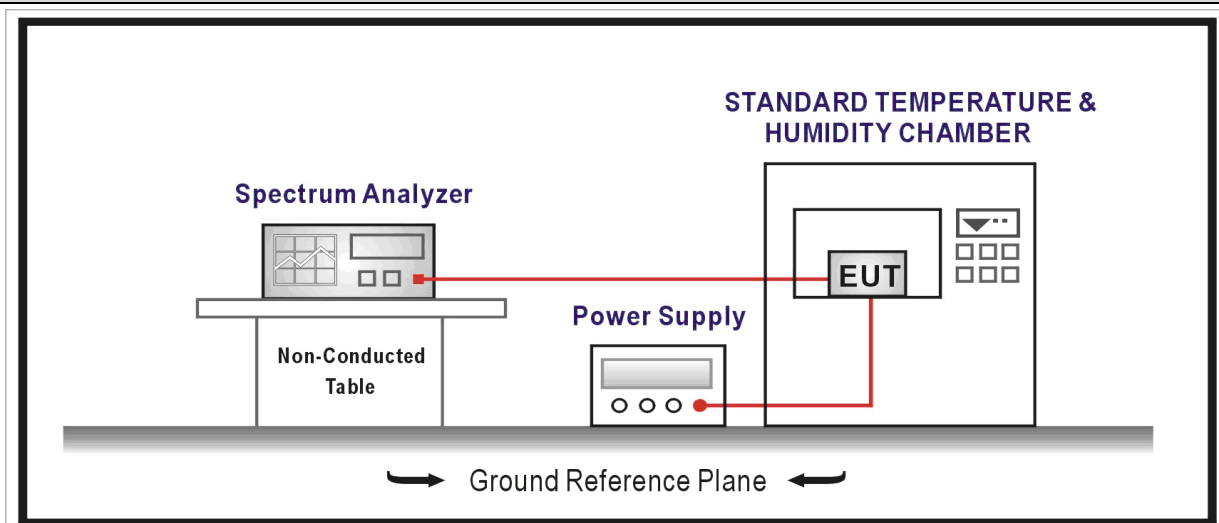


| No | Mark | Frequency (MHz) | Measure Level (dBuV/m) | Reading Level (dBuV) | Over Limit (dB) | Limit (dBuV/m) | Factor (dB) | Type |
|----|------|-----------------|------------------------|----------------------|-----------------|----------------|-------------|------|
| 1  |      | 5695.045        | 46.074                 | 7.975                | -55.474         | 101.548        | 38.098      | PK   |
| 2  |      | 5711.855        | 45.688                 | 7.692                | -62.834         | 108.522        | 37.996      | PK   |
| 3  |      | 5724.155        | 45.718                 | 7.528                | -74.556         | 120.274        | 38.190      | PK   |
| 4  |      | 5851.665        | 46.676                 | 8.450                | -71.727         | 118.403        | 38.225      | PK   |
| 5  |      | 5863.145        | 45.850                 | 7.551                | -62.667         | 108.517        | 38.299      | PK   |
| 6  | *    | 5881.595        | 45.806                 | 7.590                | -54.496         | 100.302        | 38.216      | PK   |

**4.9 Frequency Stability****VERDICT: PASS****4.9.1 Limit:**

In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be  $\pm 20$  ppm maximum for the 5 GHz band and  $\pm 25$  ppm maximum for the 2.4 GHz band.

**4.9.2 Test Setup****4.9.3 Test Procedure**

|                                     | References Rule                     |             | Chapter | Description                                             |
|-------------------------------------|-------------------------------------|-------------|---------|---------------------------------------------------------|
| <input checked="" type="checkbox"/> | ANSI C63.10                         |             | 6.8     | Frequency stability tests                               |
|                                     | <input checked="" type="checkbox"/> | ANSI C63.10 | 6.8.1   | Frequency stability with respect to ambient temperature |
|                                     | <input checked="" type="checkbox"/> | ANSI C63.10 | 6.8.2   | Frequency stability when varying supply voltage         |

**4.9.4 Test Data**

## Frequency Stability under Temperature at 0min

| Temperature Interval (°C) | Test Frequency (MHz) | Deviation (Hz) | Limit | Result |
|---------------------------|----------------------|----------------|-------|--------|
| -30                       | 5220.000             | 156            | ±20   | Pass   |
| -20                       | 5220.000             | -181           | ±20   | Pass   |
| -10                       | 5220.000             | -143           | ±20   | Pass   |
| 0                         | 5220.000             | -36            | ±20   | Pass   |
| 10                        | 5220.000             | 126            | ±20   | Pass   |
| 20                        | 5220.000             | 52             | ±20   | Pass   |
| 30                        | 5220.000             | -151           | ±20   | Pass   |
| 40                        | 5220.000             | 152            | ±20   | Pass   |
| 50                        | 5220.000             | 132            | ±20   | Pass   |

## Frequency Stability under Temperature at 2min

| Temperature Interval (°C) | Test Frequency (MHz) | Deviation (Hz) | Limit | Result |
|---------------------------|----------------------|----------------|-------|--------|
| -30                       | 5220.000             | -36            | ±20   | Pass   |
| -20                       | 5220.000             | 152            | ±20   | Pass   |
| -10                       | 5220.000             | 133            | ±20   | Pass   |
| 0                         | 5220.000             | -121           | ±20   | Pass   |
| 10                        | 5220.000             | 52             | ±20   | Pass   |
| 20                        | 5220.000             | 121            | ±20   | Pass   |
| 30                        | 5220.000             | -101           | ±20   | Pass   |
| 40                        | 5220.000             | 113            | ±20   | Pass   |
| 50                        | 5220.000             | -29            | ±20   | Pass   |

## Frequency Stability under Temperature at 5min

| Temperature Interval (°C) | Test Frequency (MHz) | Deviation (Hz) | Limit | Result |
|---------------------------|----------------------|----------------|-------|--------|
| -30                       | 5220.000             | 125            | ±20   | Pass   |
| -20                       | 5220.000             | 151            | ±20   | Pass   |
| -10                       | 5220.000             | 59             | ±20   | Pass   |
| 0                         | 5220.000             | 73             | ±20   | Pass   |
| 10                        | 5220.000             | 92             | ±20   | Pass   |
| 20                        | 5220.000             | -61            | ±20   | Pass   |
| 30                        | 5220.000             | 112            | ±20   | Pass   |
| 40                        | 5220.000             | 96             | ±20   | Pass   |
| 50                        | 5220.000             | -76            | ±20   | Pass   |

## Frequency Stability under Temperature at 10min

| Temperature Interval (°C) | Test Frequency (MHz) | Deviation (Hz) | Limit | Result |
|---------------------------|----------------------|----------------|-------|--------|
| -30                       | 5220.000             | -93            | ±20   | Pass   |
| -20                       | 5220.000             | -101           | ±20   | Pass   |
| -10                       | 5220.000             | 86             | ±20   | Pass   |
| 0                         | 5220.000             | 125            | ±20   | Pass   |
| 10                        | 5220.000             | 79             | ±20   | Pass   |
| 20                        | 5220.000             | 98             | ±20   | Pass   |
| 30                        | 5220.000             | -82            | ±20   | Pass   |
| 40                        | 5220.000             | 122            | ±20   | Pass   |
| 50                        | 5220.000             | -106           | ±20   | Pass   |

## Frequency Stability under Voltage

| DC Voltage (V) | Test Frequency (MHz) | Deviation (Hz) | Limit | Result |
|----------------|----------------------|----------------|-------|--------|
| 10.8           | 5220.000             | -59            | ±20   | Pass   |
| 12.0           | 5220.000             | -103           | ±20   | Pass   |
| 13.2           | 5220.000             | 91             | ±20   | Pass   |

**4.10 Antenna Requirement****VERDICT: PASS****4.10.1 Limit:**

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

**4.10.2 Antenna Connector Construction:**

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | The use of a permanently attached antenna                        |
| <input type="checkbox"/>            | The antenna use of a unique coupling to the intentional radiator |
| <input type="checkbox"/>            | The use of a nonstandard antenna jack or electrical connector    |

Please refer to the attached document "Internal Photograph" to show the antenna connector.

#### 4.11 Test setup photo and EUT Photo

Remark: The test setup photo and EUT Photo please see appendix.

\_\_\_\_\_ The End \_\_\_\_\_