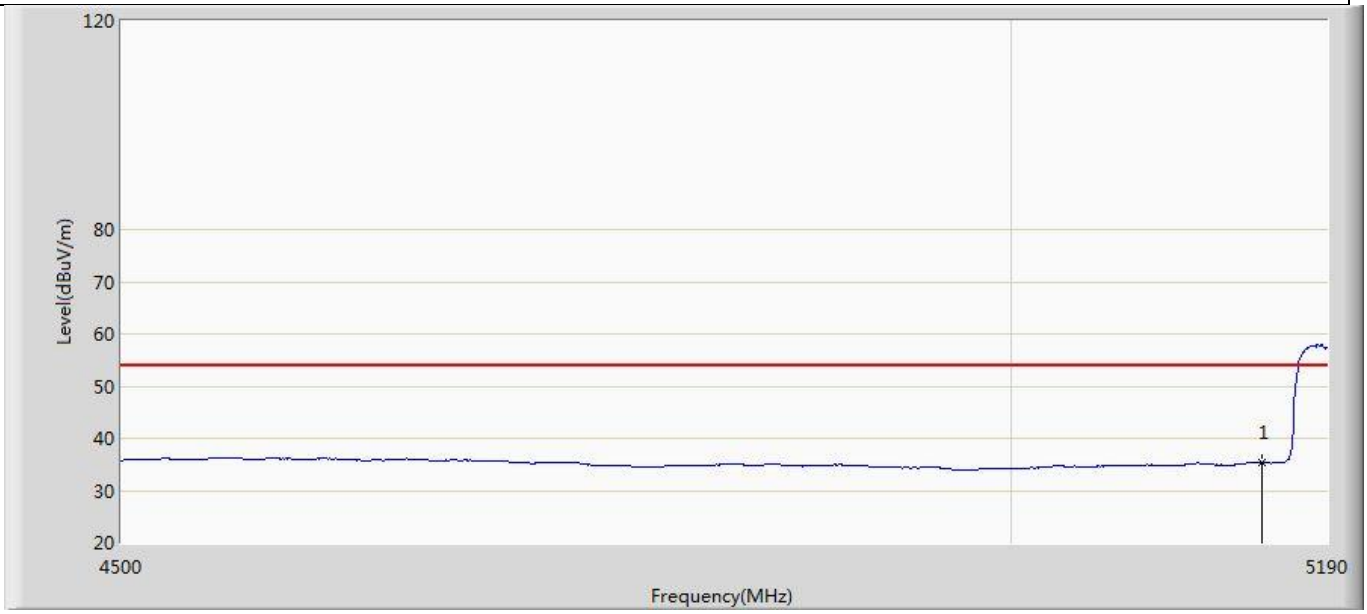
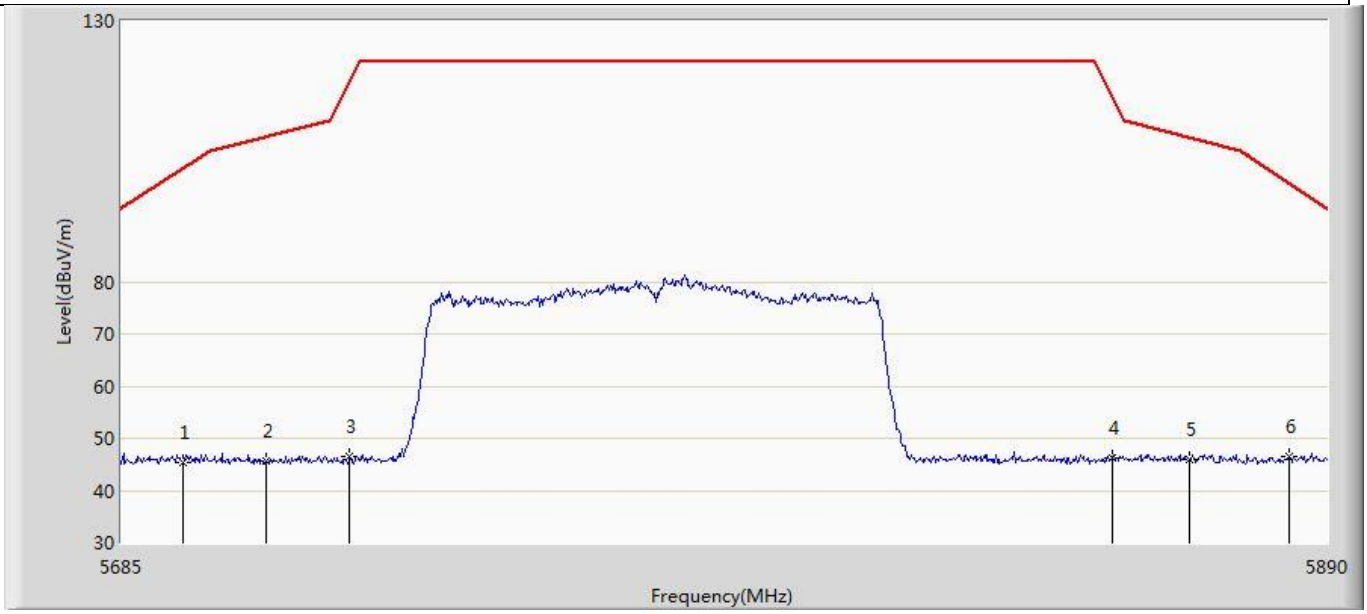
Profile: 22A0738R	Page No.: 20
Engineer: YuLiu	
Site: AC5	Time: 2022/11/22 - 02:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode6:Transmit at 5210MHz by 11ac80	



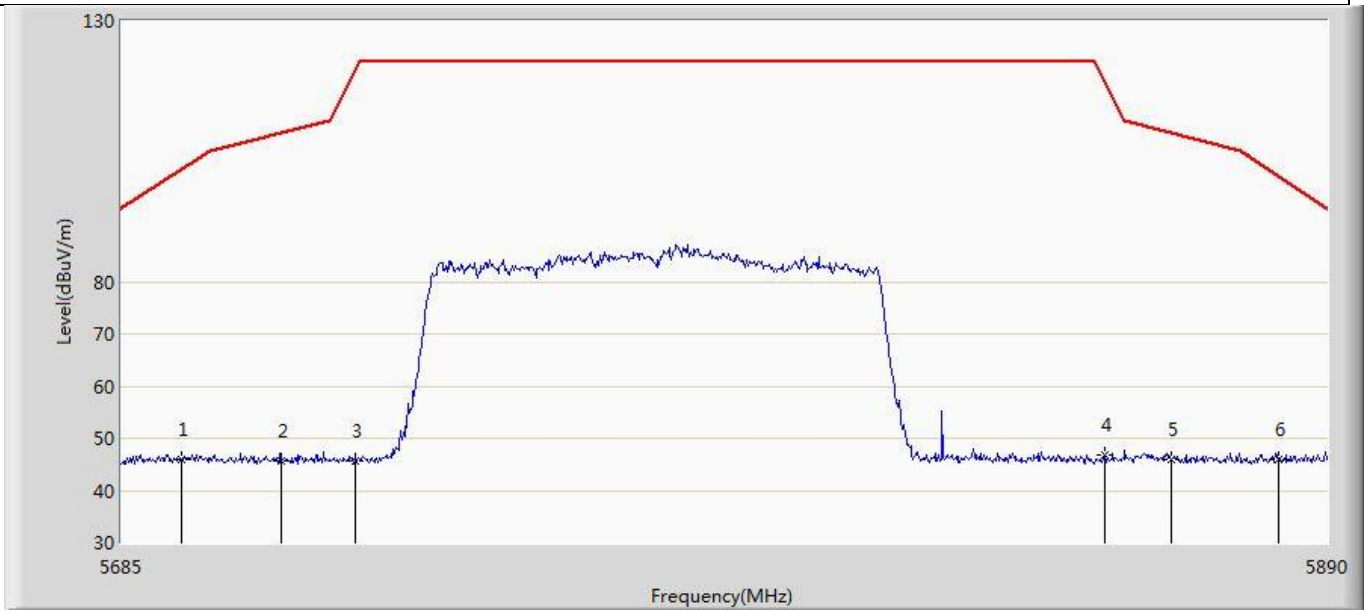
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	5150.000	35.411	-1.817	-18.589	54.000	37.228	AV

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	



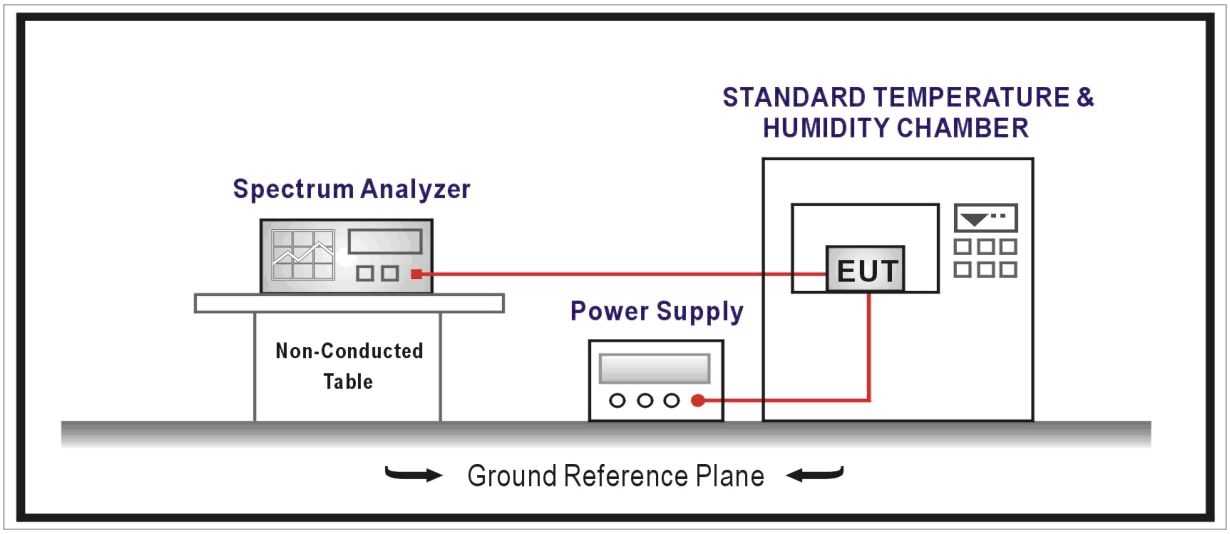
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		5695.045	46.074	7.975	-55.474	101.548	38.098	PK
2		5711.855	45.688	7.692	-62.834	108.522	37.996	PK
3		5724.155	45.718	7.528	-74.556	120.274	38.190	PK
4		5851.665	46.676	8.450	-71.727	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 ± 20 ppm maximum for the 5 GHz band and ± 25ppm maximum for the 2.4 GHz band.

4.9.2 Test Setup



4.9.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		6.8	Frequency stability tests
	☒	ANSI C63.10	6.8.1	Frequency stability with respect to ambient temperature
	☒	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 (℃)	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 (℃)	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 (℃)	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 (℃)	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:	
☒	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☐	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