







# **11 Power Spectral density**

Test Requirement	:	FCC CFR47 Part 15 Section 15.247	
Test Method	:	ANSI C63.10:2013	
Test Limit	:	Regulation 15.247(f) The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	

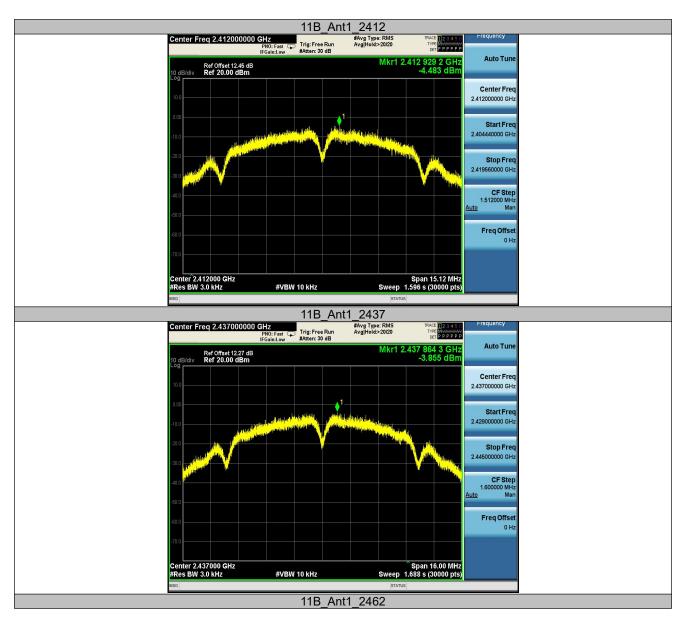
### **11.1 Test Procedure**

- 1. Connect the antenna port(s) to the spectrum analyzer input.
- Configure the spectrum analyzer as shown below: Center frequency=DTS channel center frequency Span = 1.5 times the DTS bandwidth RBW = 3KHz, VBW = 10KHz Sweep time = auto couple Detector = peak Trace mode =max hold
  Please the radio in continuous transmit mode, ellow to
- 3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
- 4. Use the peak marker function to determine the maximum amplitude level within the RBW.
- 5. If measured value exceeds limit, reduce RBW(no less than 3KHz) and repeat.

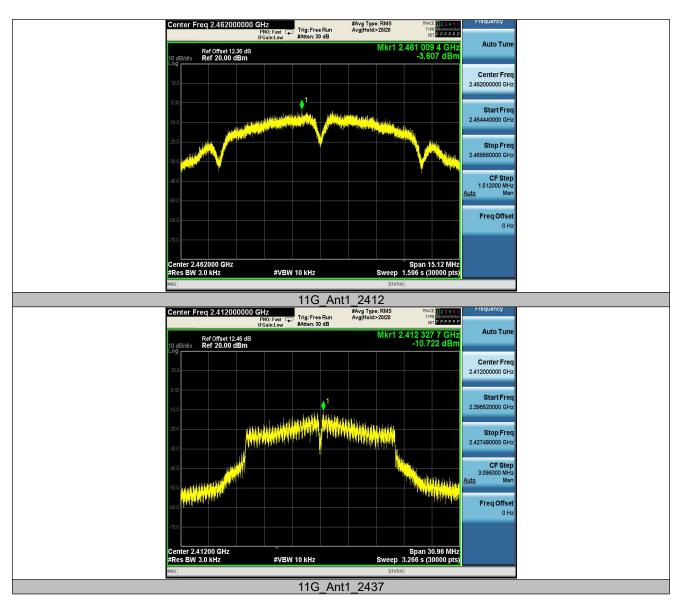
### 11.2 Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-4.48	≤8.00	PASS
		2437	-3.86	≤8.00	PASS
		2462	-3.61	≤8.00	PASS
11G	Ant1	2412	-10.72	≤8.00	PASS
		2437	-10.24	≤8.00	PASS
		2462	-9.92	≤8.00	PASS
11N20SISO	Ant1	2412	-10.31	≤8.00	PASS
		2437	-10.56	≤8.00	PASS
		2462	-9.3	≤8.00	PASS

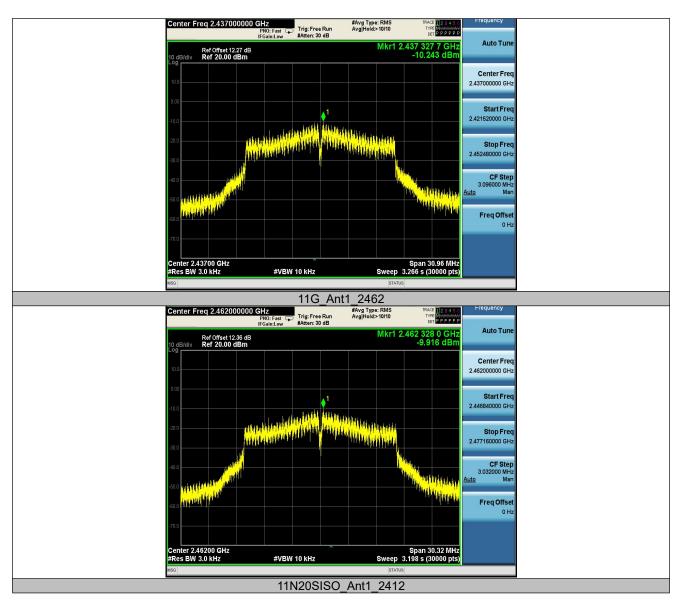




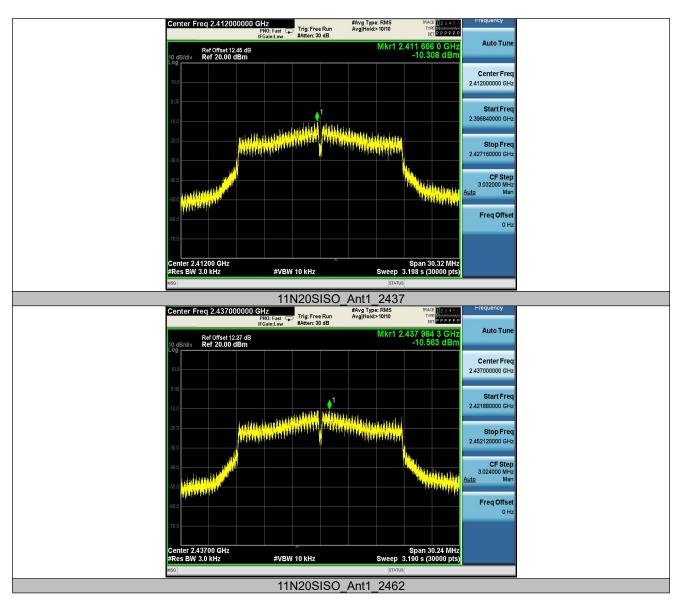


















# **12 Antenna Application**

## 12.1 Antenna 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.

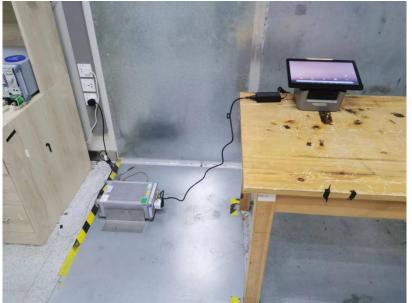
## 12.2 Result

The EUT'S antenna, permanent attached antenna, is IFA antenna. The antenna's gain is 1.2 dBi and meets the requirement.



# 13 Test Setup

**Conducted Emissions** 

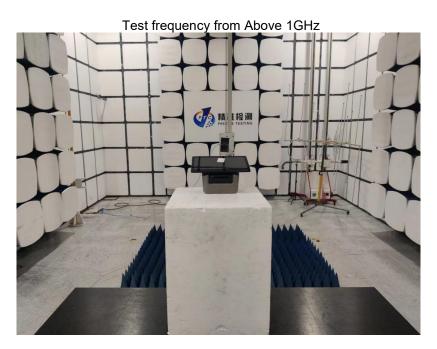


Radiated Spurious Emissions From 30MHz-1000MHz



Page 62 of 70





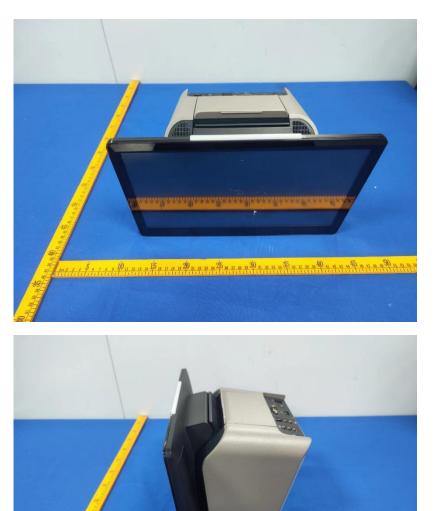


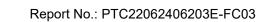
# **14 EUT PHOTOS**











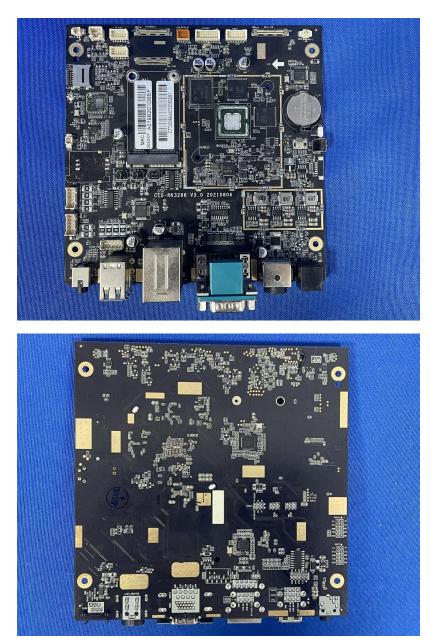




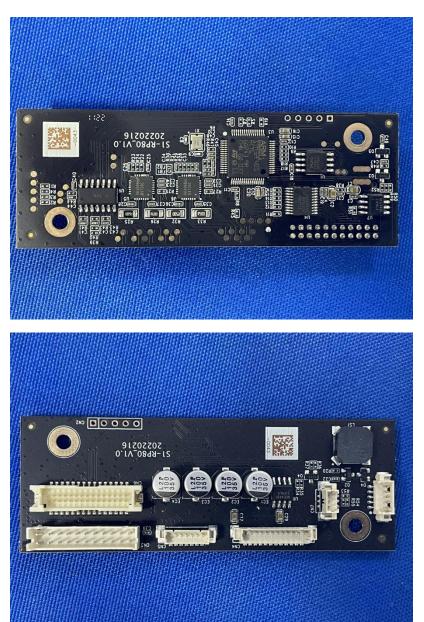






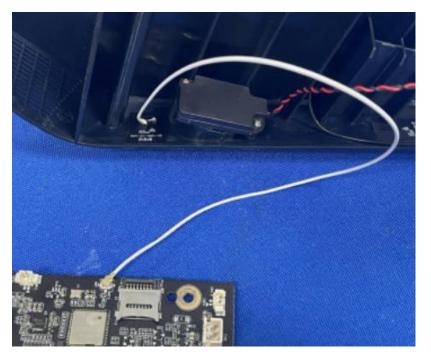






Page 69 of 70





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

Page 70 of 70