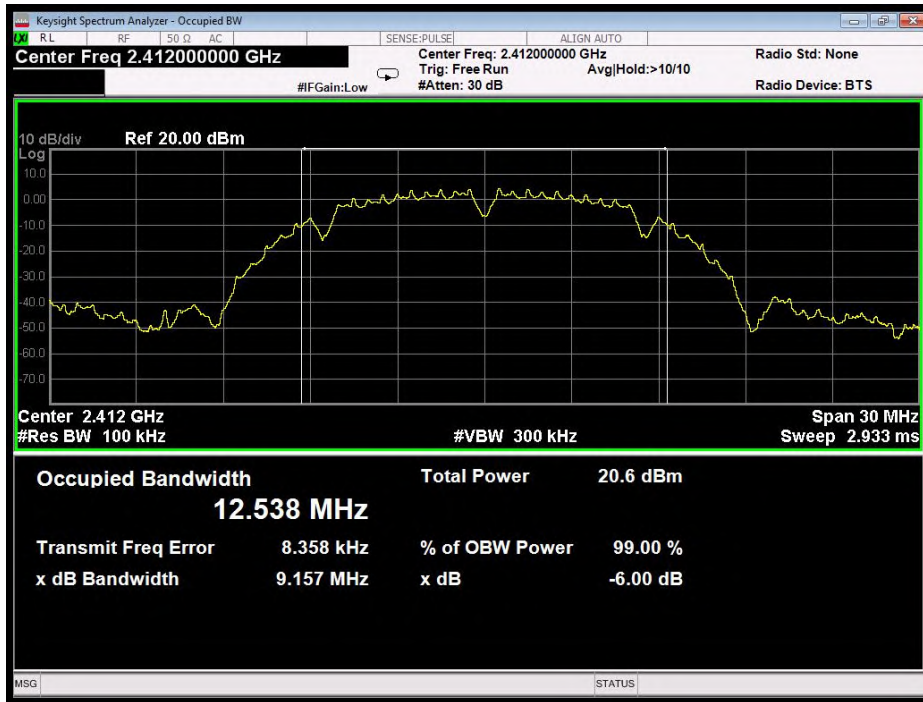
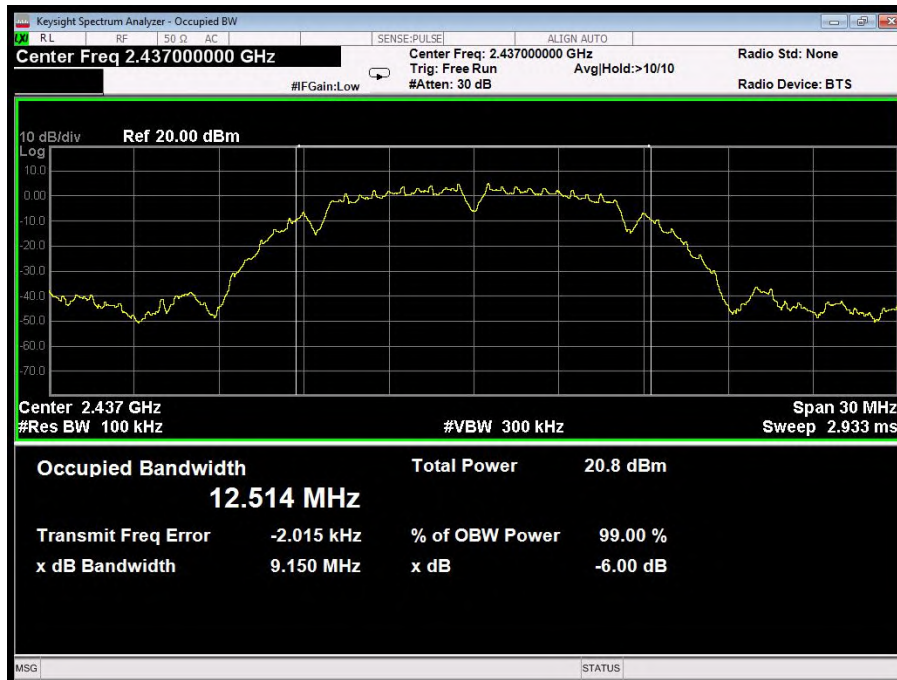




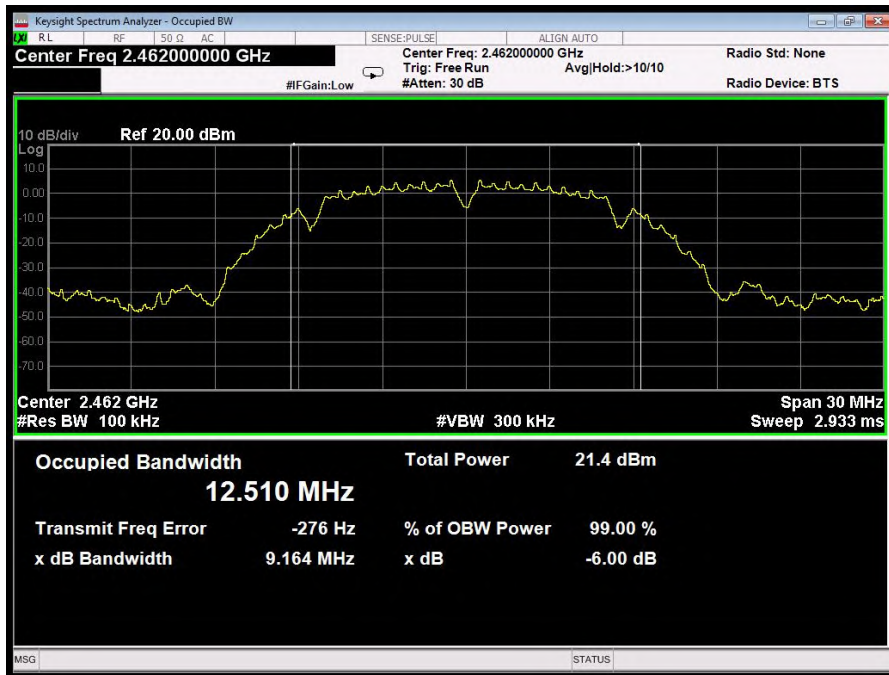
ANT B:



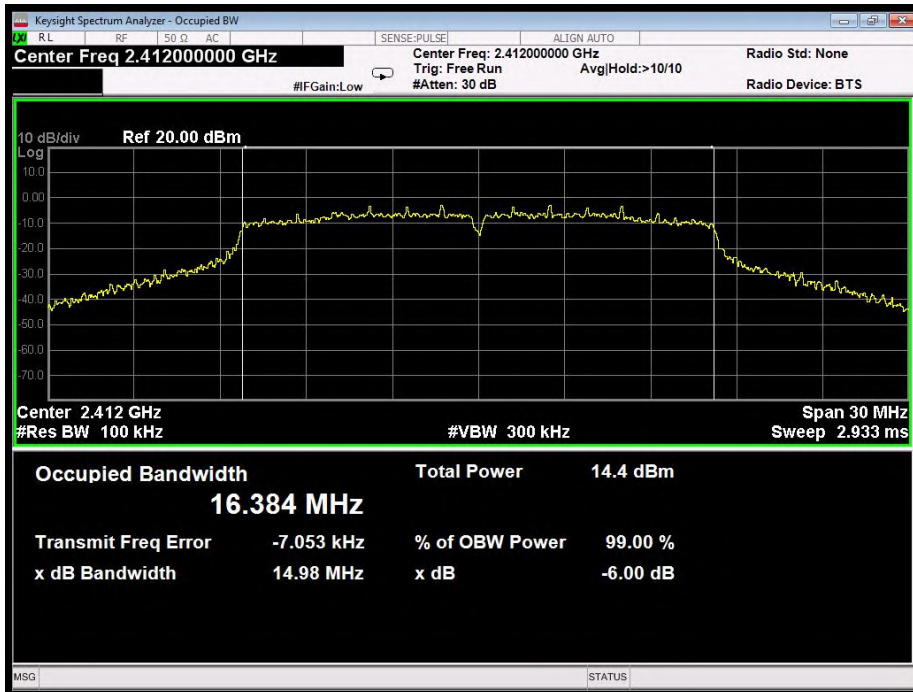
802.11b mode : Lowest



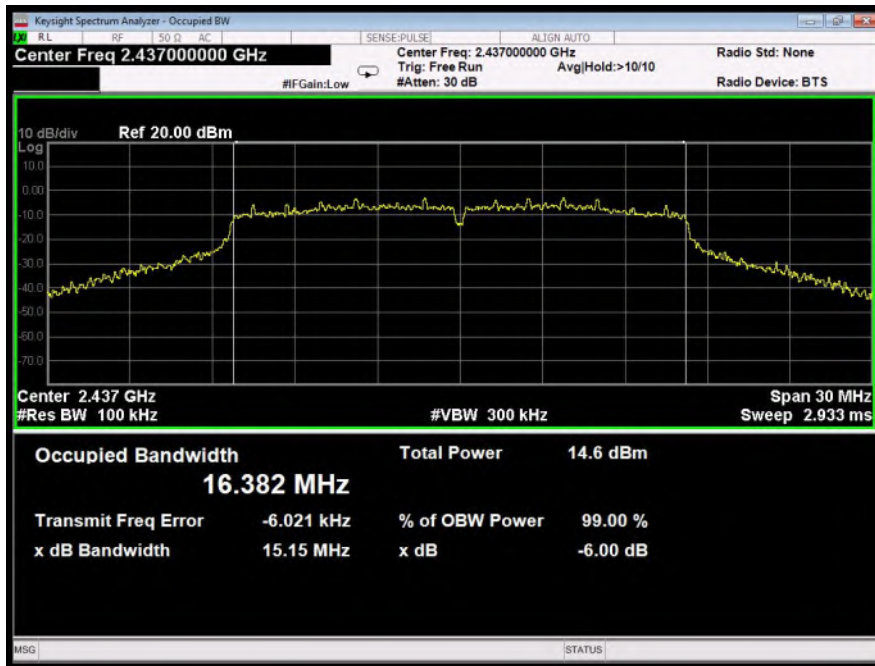
802.11b mode : Middle



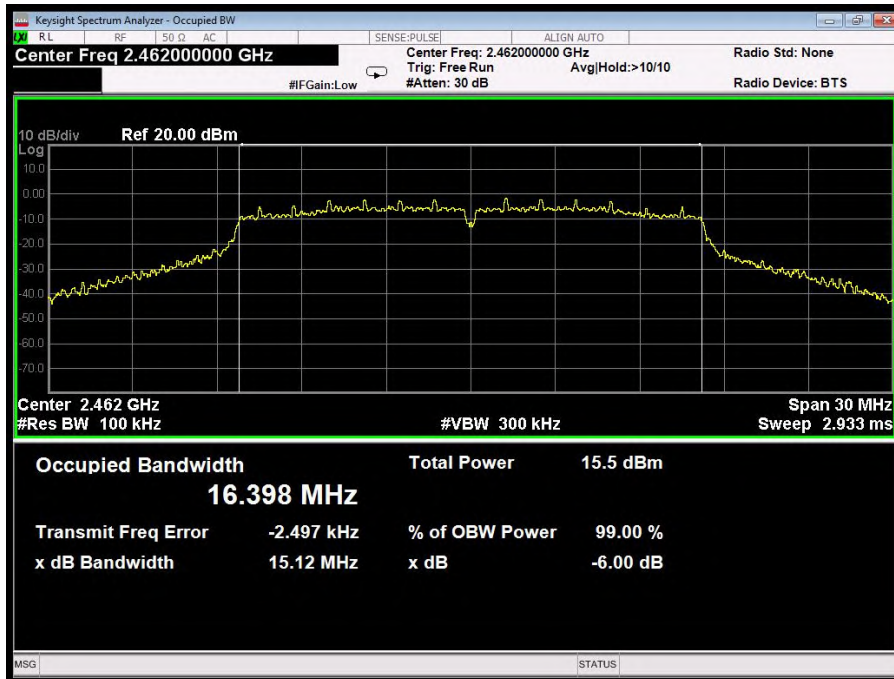
802.11b mode : Highest



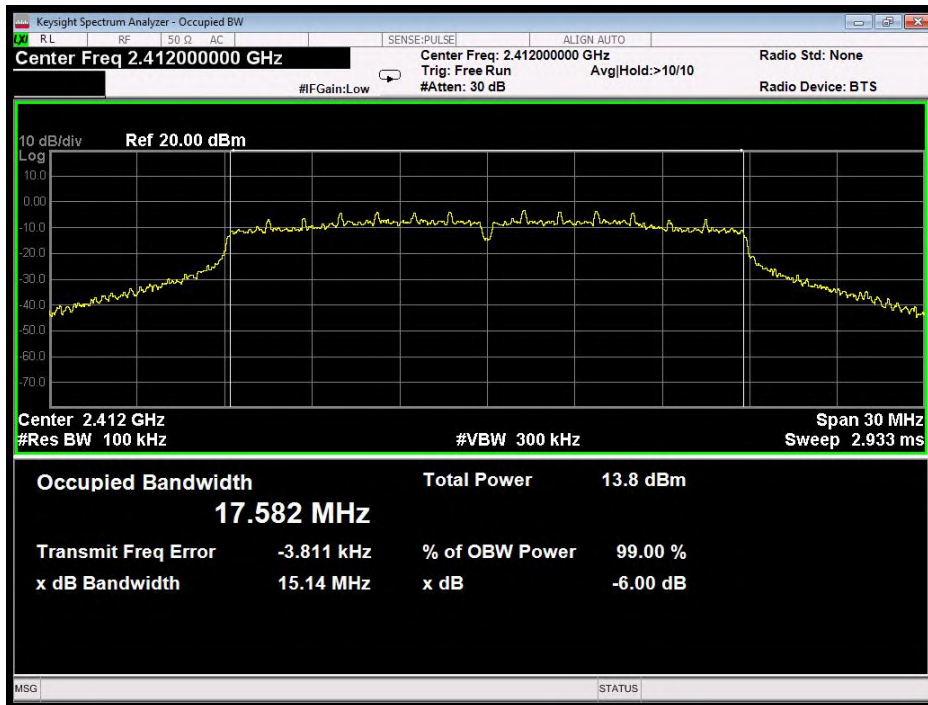
802.11g mode : Lowest



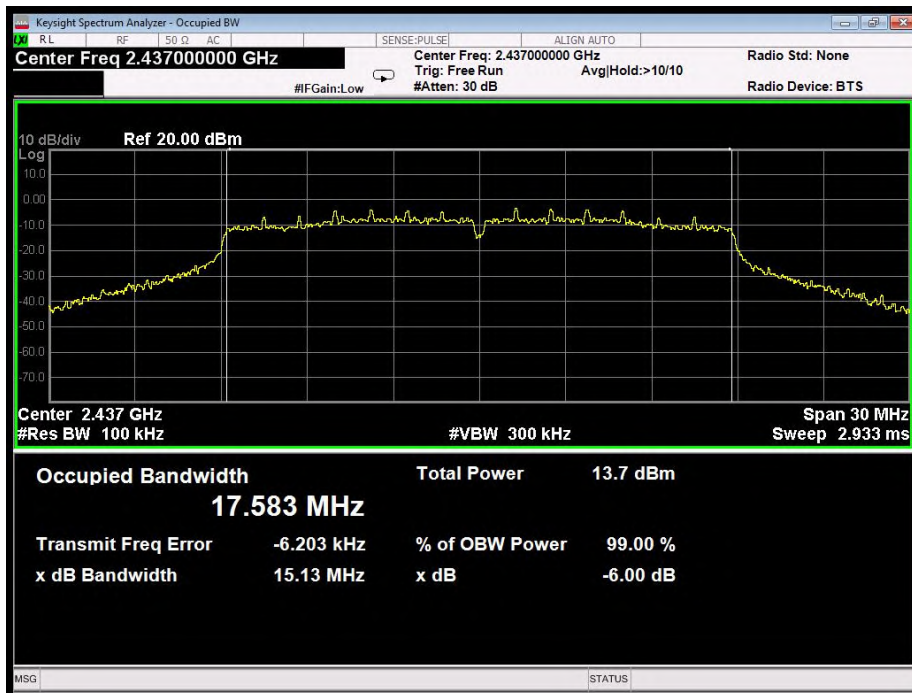
802.11g mode : Middle



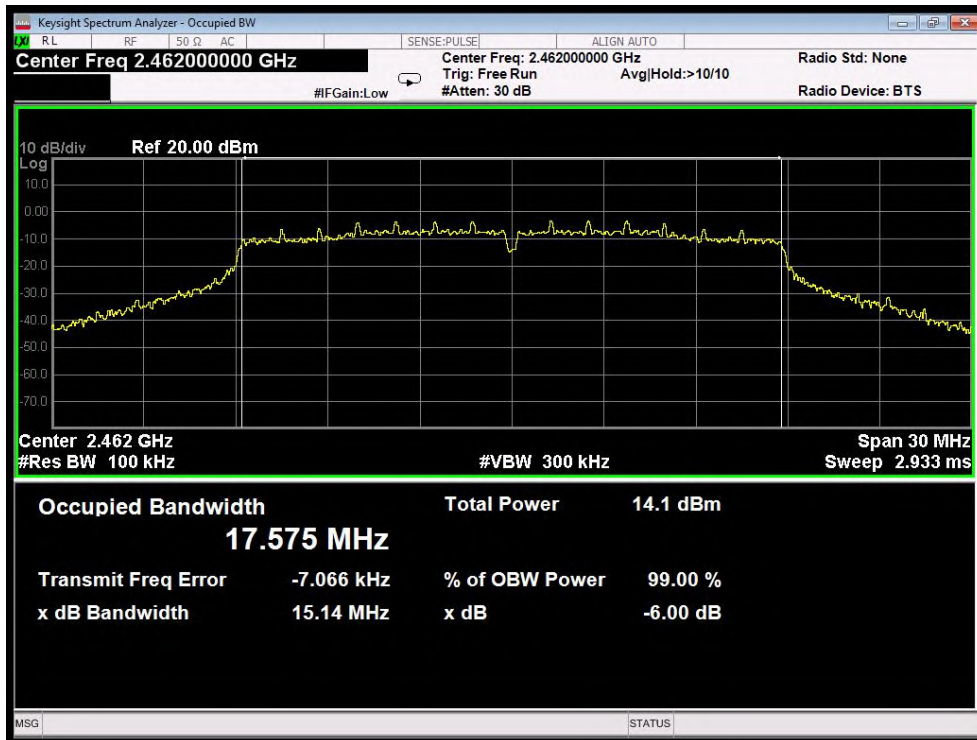
802.11g mode : Highest



802.11n20 mode : Lowest



802.11n20 mode : Middle



802.11n20 mode : Highest

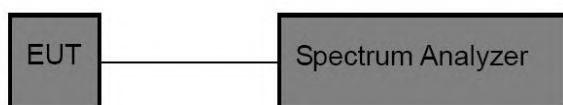


9 . Power Spectral Density Test

9.1 Test Standard and Limit

Test Standard	FCC Part15 C Section
Test Limit	8dBm/3KHz

9.2 Test Setup



9.3 Test Procedure

1. Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 1.5xDTS BW
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

9.4 Test Data

Test Item	: Power Spectral Density	Test Mode	: CH Low ~ CH High
Test Voltage	: DC 29V 1.5A	Temperature	: 24.5°C
Test Result	: PASS	Humidity	: 52%RH



ANT A:

Mode	Channel	Frequency (MHz)	PSD (dBm/3KHz)	Limit (dBm/3KHz)	Results
802.11b	Low	2412	-11.399	8.00	PASS
	Middle	2437	-10.631	8.00	PASS
	High	2462	-10.098	8.00	PASS
802.11g	Low	2412	-17.475	8.00	PASS
	Middle	2437	-17.722	8.00	PASS
	High	2462	-16.995	8.00	PASS
802.11n20	Low	2412	-17.125	8.00	PASS
	Middle	2437	-19.437	8.00	PASS
	High	2462	-18.291	8.00	PASS

ANT B:

Mode	Channel	Frequency (MHz)	PSD (dBm/3KHz)	Limit (dBm/3KHz)	Results
802.11b	Low	2412	-11.474	8.00	PASS
	Middle	2437	-10.909	8.00	PASS
	High	2462	-9.831	8.00	PASS
802.11g	Low	2412	-16.549	8.00	PASS
	Middle	2437	-17.557	8.00	PASS
	High	2462	-16.858	8.00	PASS
802.11n20	Low	2412	-19.222	8.00	PASS
	Middle	2437	-19.658	8.00	PASS
	High	2462	-17.619	8.00	PASS



ANT A+ANT B:

Mode	Channel	Frequency (MHz)	PSD (dBm/3KHz)	Limit (dBm/3KHz)	Results
802.11n20	Low	2412	-15.04	8.00	PASS
	Middle	2437	-16.54	8.00	PASS
	High	2462	-14.93	8.00	PASS



ANT A:



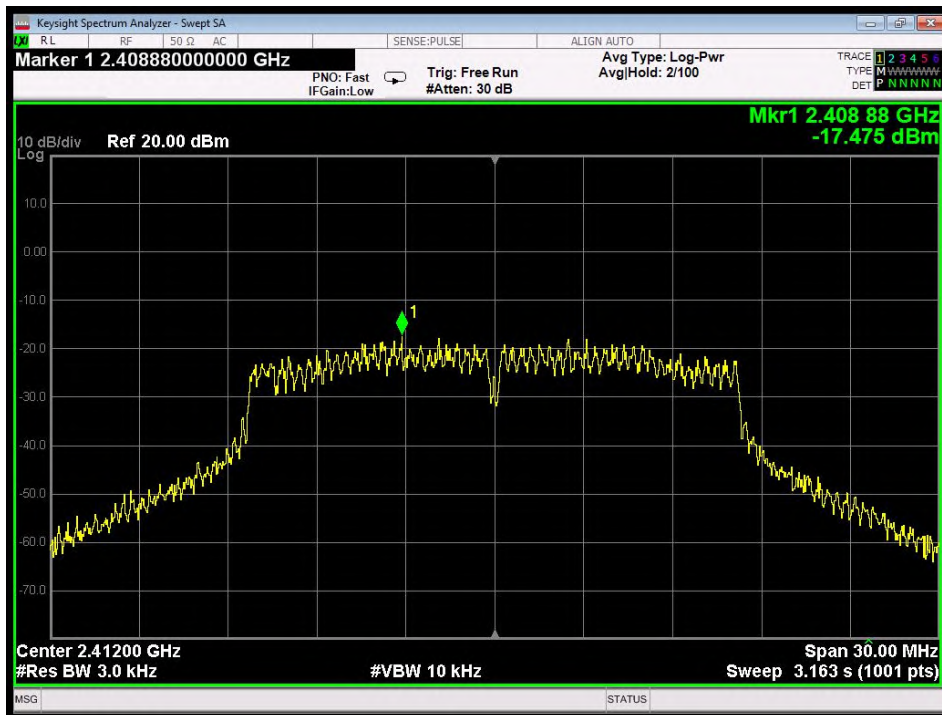
802.11b mode : Lowest



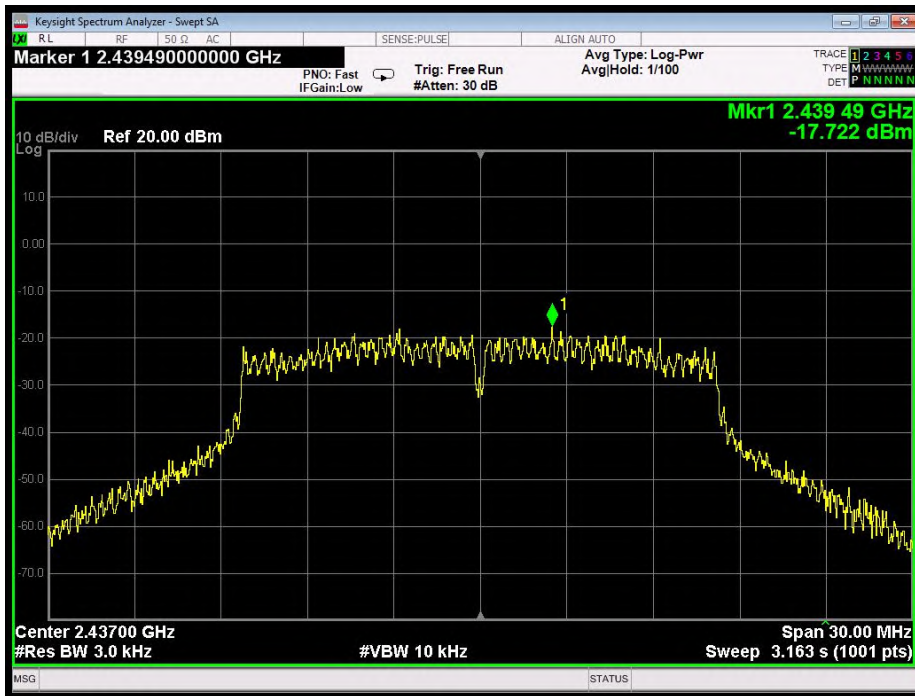
802.11b mode : Middle



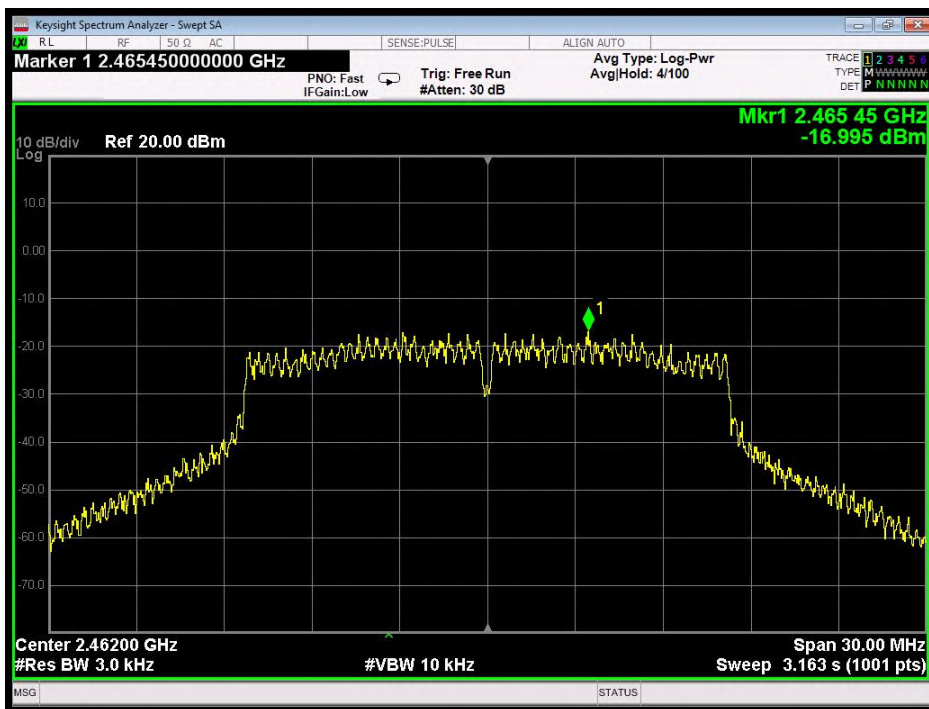
802.11b mode : Highest



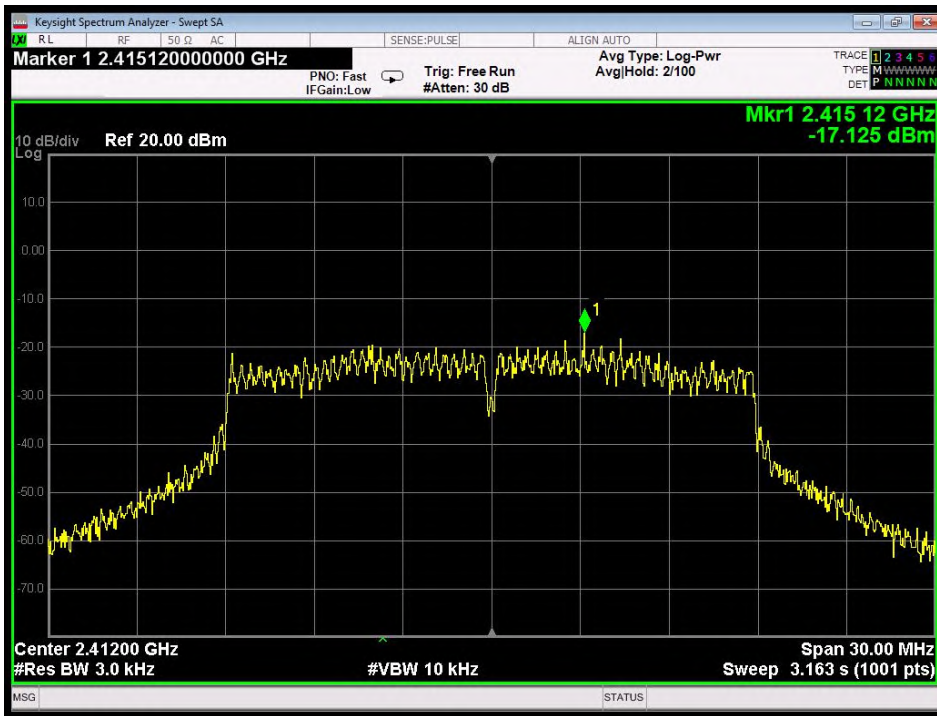
802.11g mode : Lowest



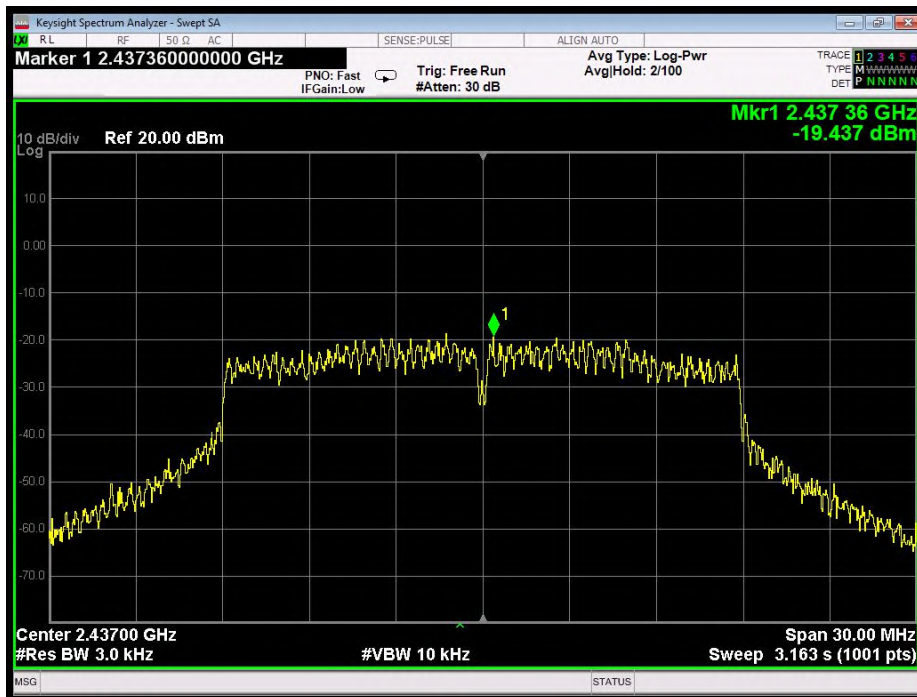
802.11g mode : Middle



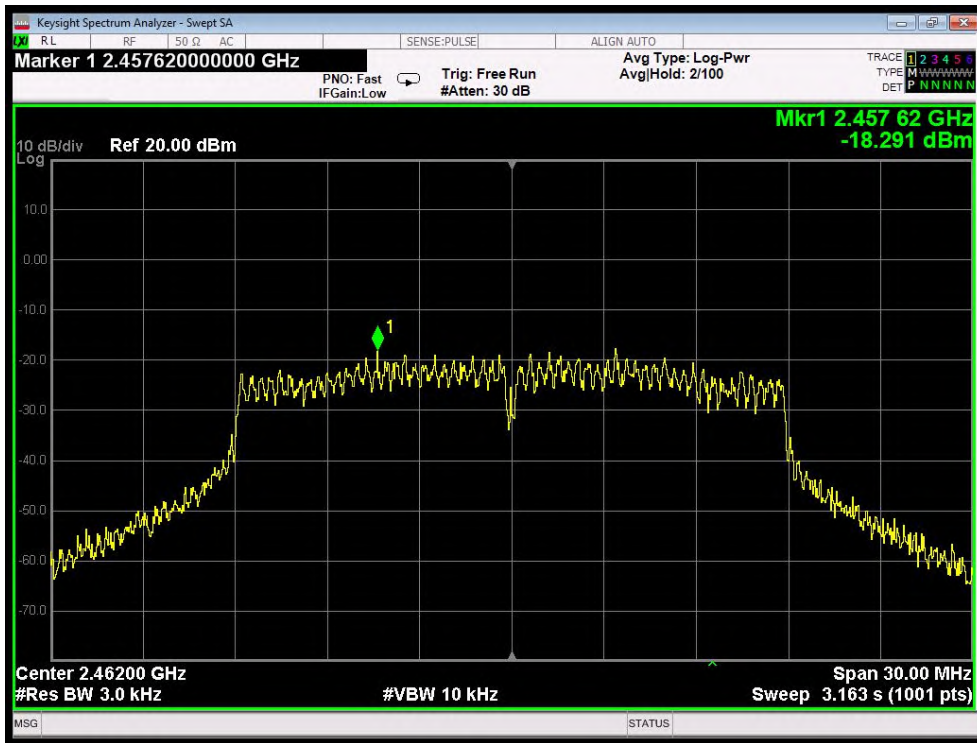
802.11g mode : Highest



802.11n20 mode : Lowest



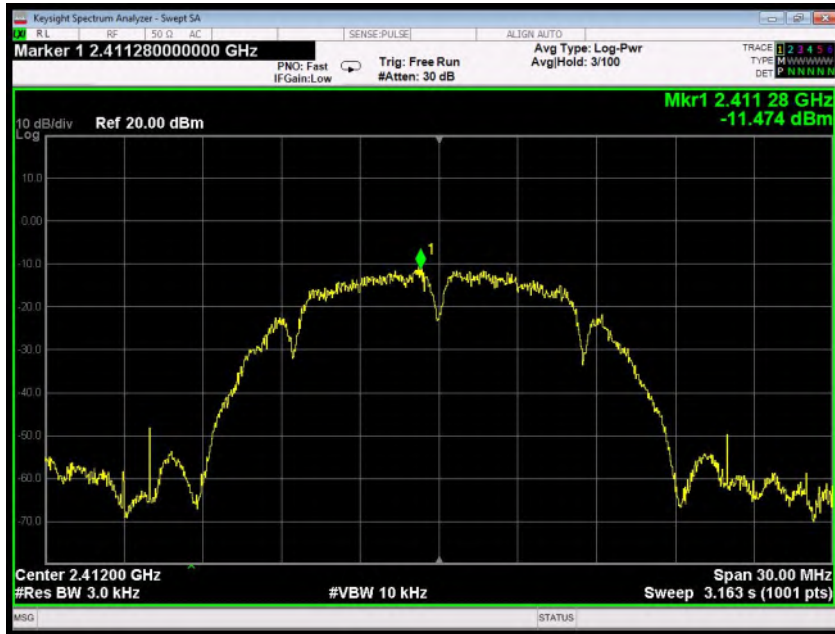
802.11n20 mode : Middle



802.11n20 mode : Highest



ANT B:



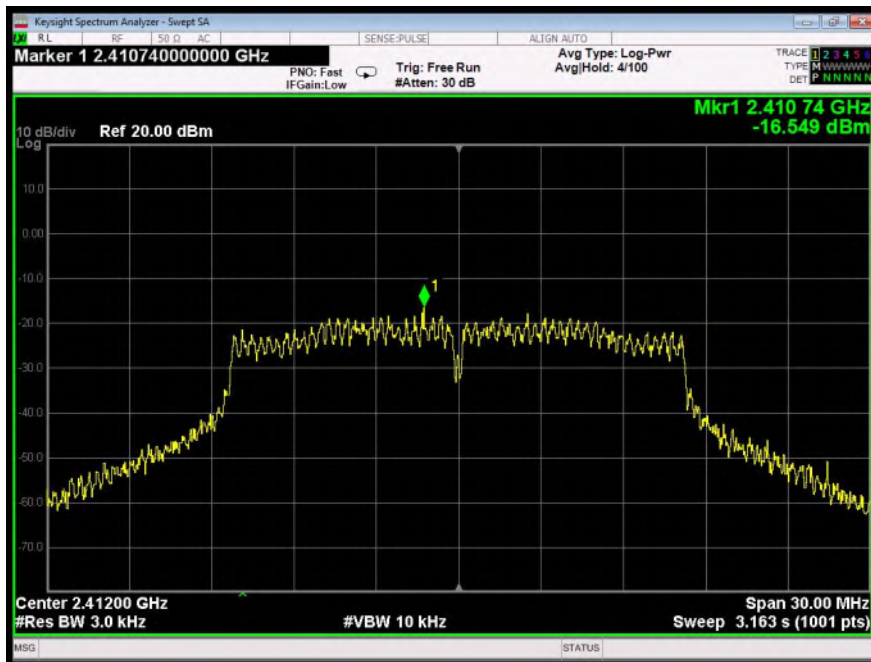
802.11b mode : Lowest



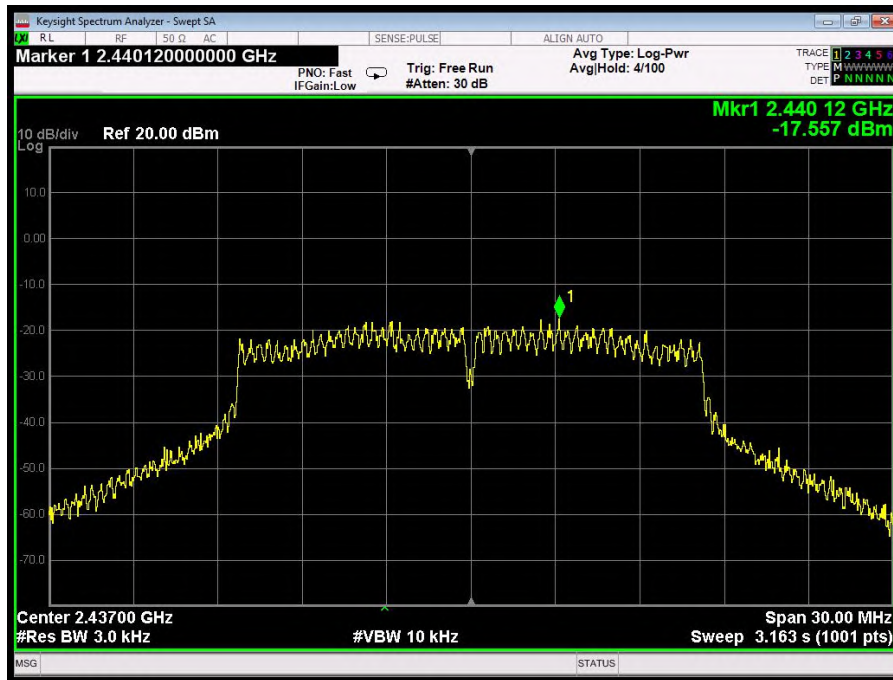
802.11b mode : Middle



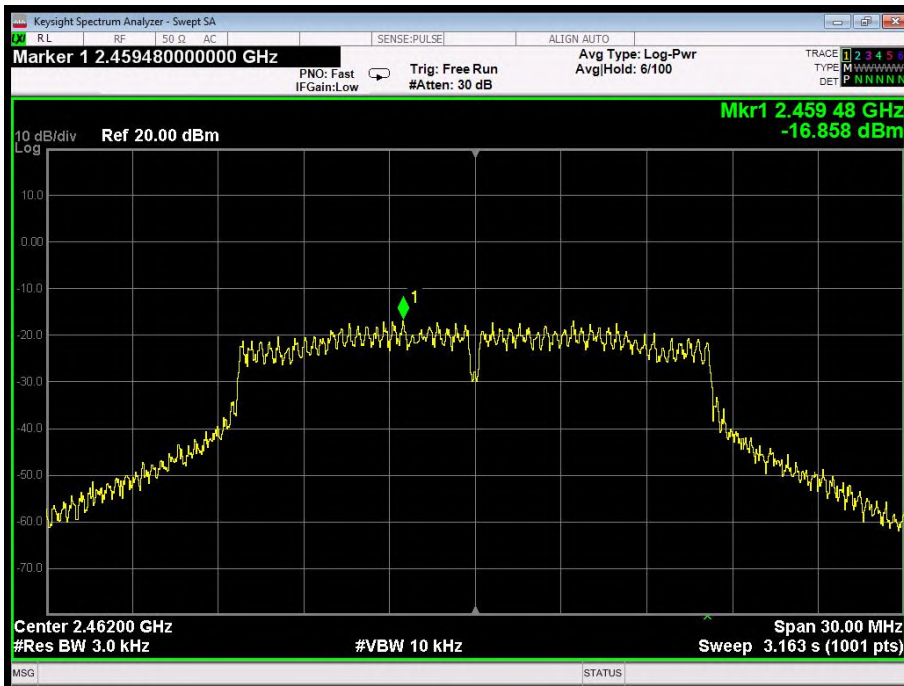
802.11b mode : Highest



802.11g mode : Lowest



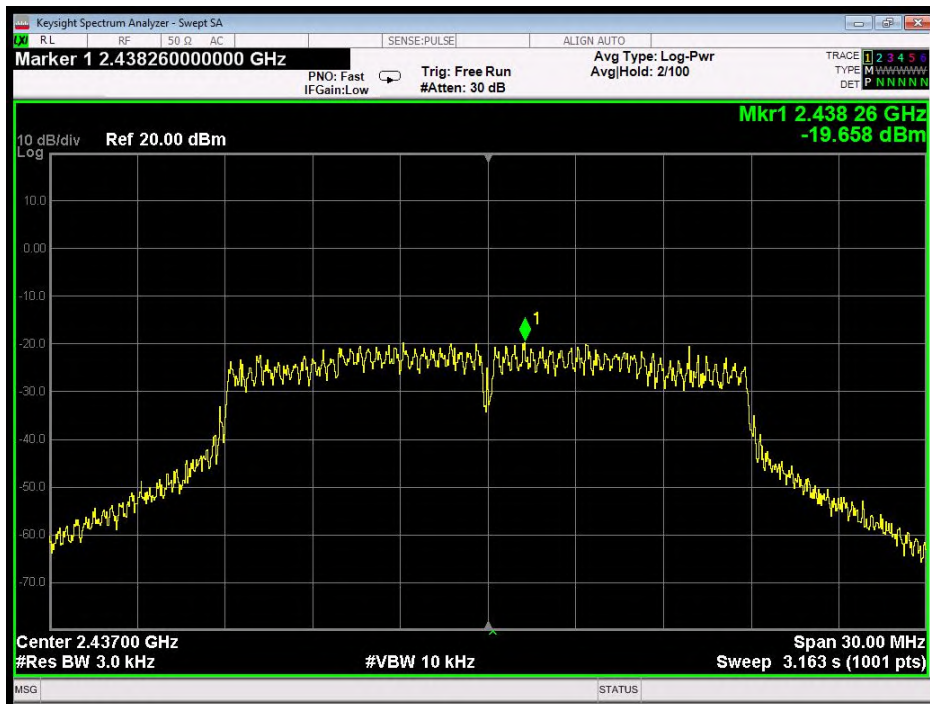
802.11g mode : Middle



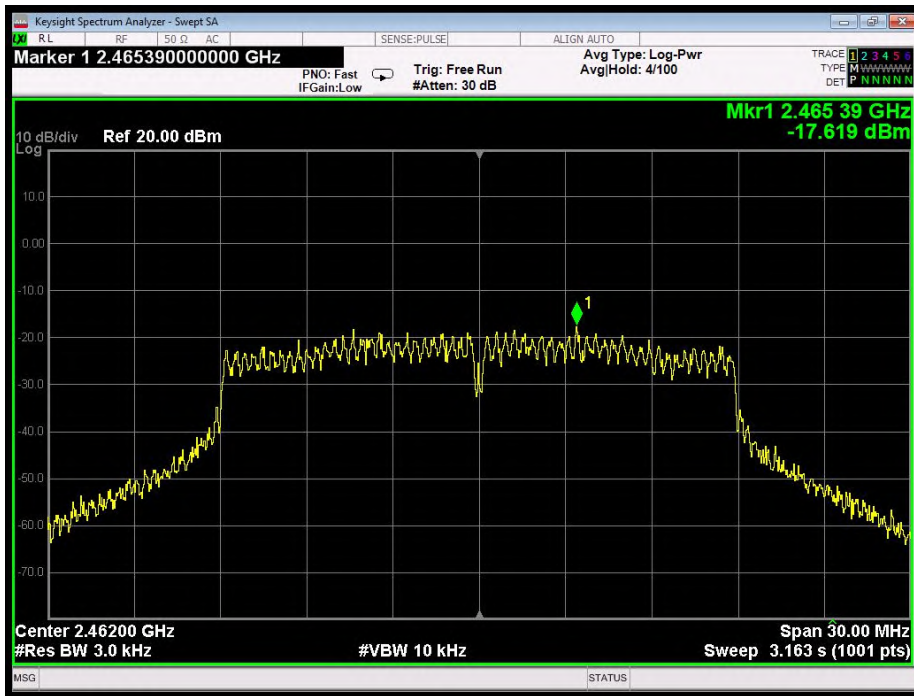
802.11g mode : Highest



802.11n20 mode : Lowest



802.11n20 mode : Middle



802.11n20 mode : Highest

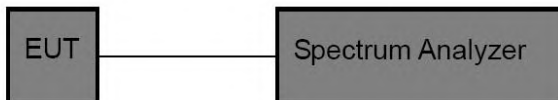


10 100kHz Bandwidth of Frequency Band Edge Requirement

10.1 Test Standard and Limit

Test Standard	FCC Part15 C Section 15.247 (d)
Test Limit	in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

10.2 Test Setup



10.3 Test Procedure

Using the following spectrum analyzer setting:

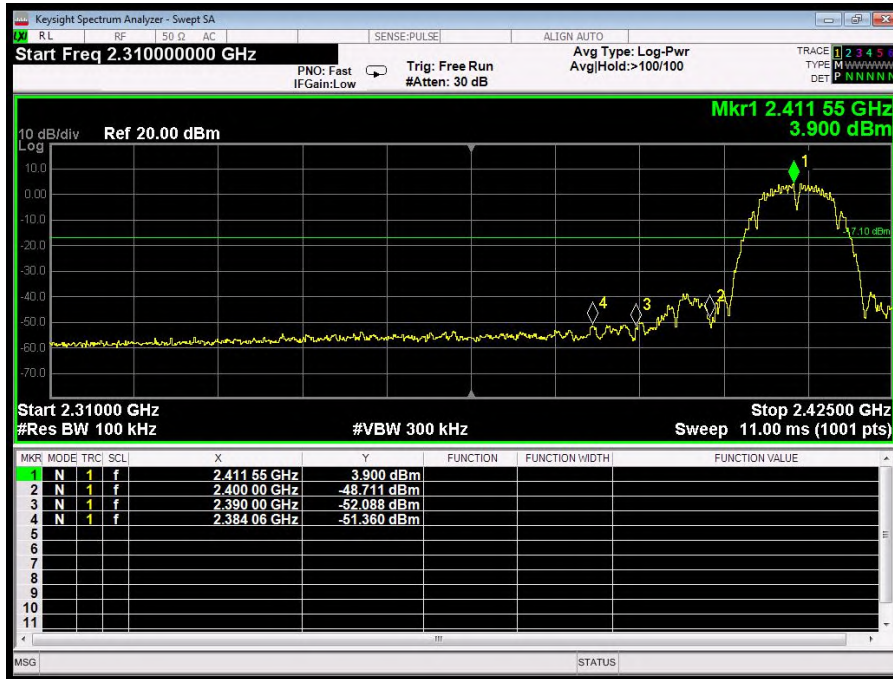
1. Set the RBW = 100KHz.
2. Set the VBW = 300KHz.
3. Sweep time = auto couple.
4. Detector function = peak.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.

10.4 Test Data

Test Item	: Band edge	Test Mode	: CH Low ~ CH High
Test Voltage	: DC 29V 1.5A	Temperature	: 24.5°C
Test Result	: PASS	Humidity	: 52%RH



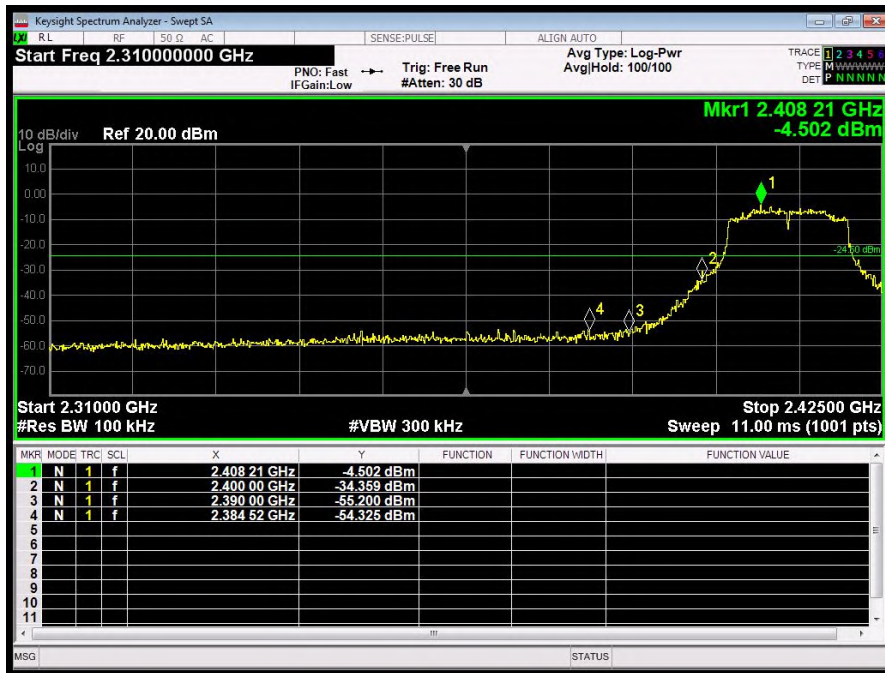
ANT A:



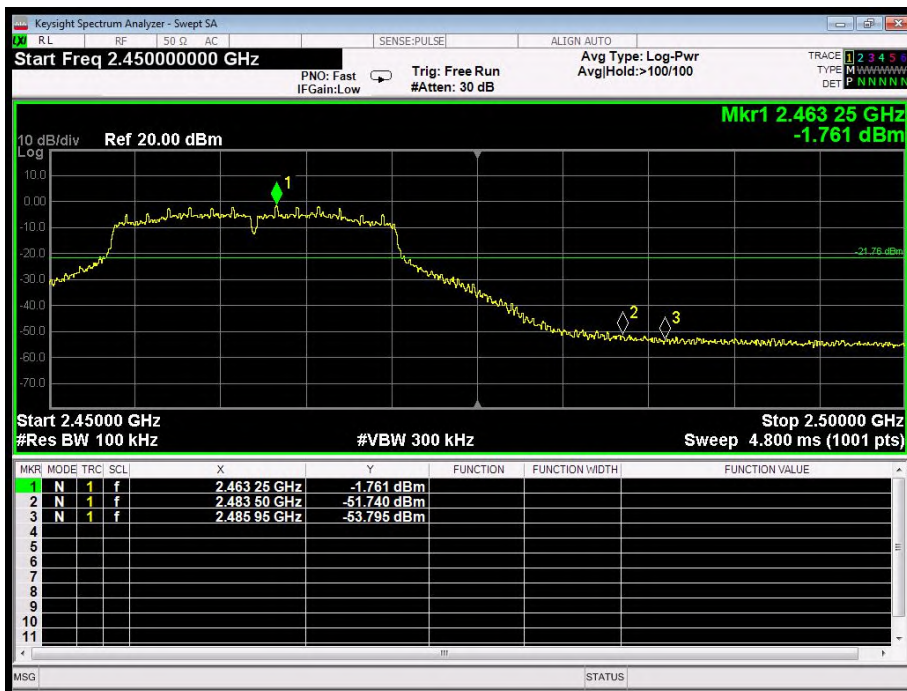
802.11b mode : Lowest



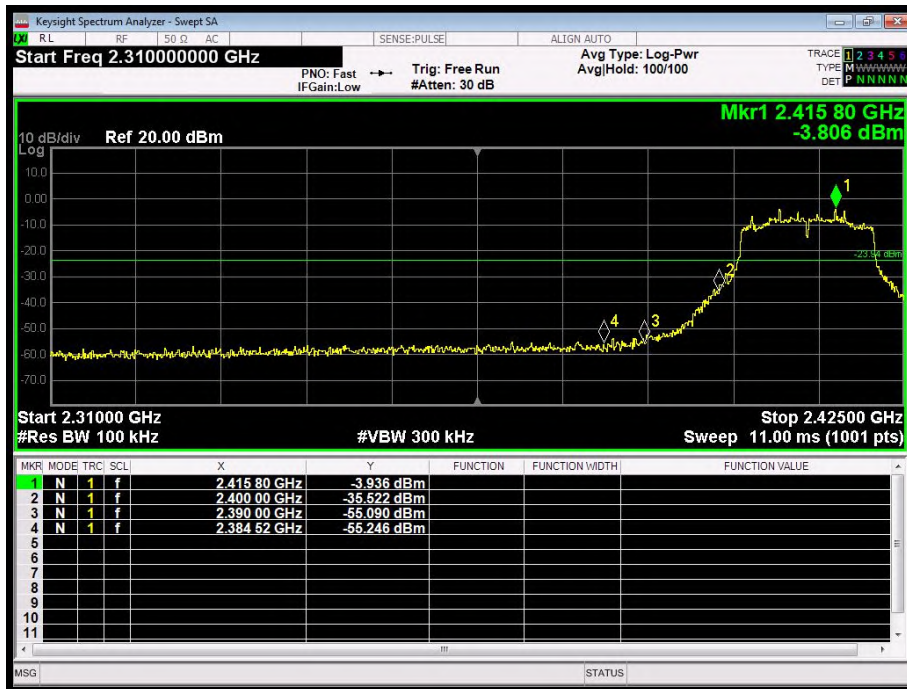
802.11b mode : Highest



802.11g mode : Lowest



802.11g mode : Highest



802.11n20 mode : Lowest



802.11n20 mode : Highest



Conducted Emission Method



802.11b mode : Lowest



802.11b mode : Middle



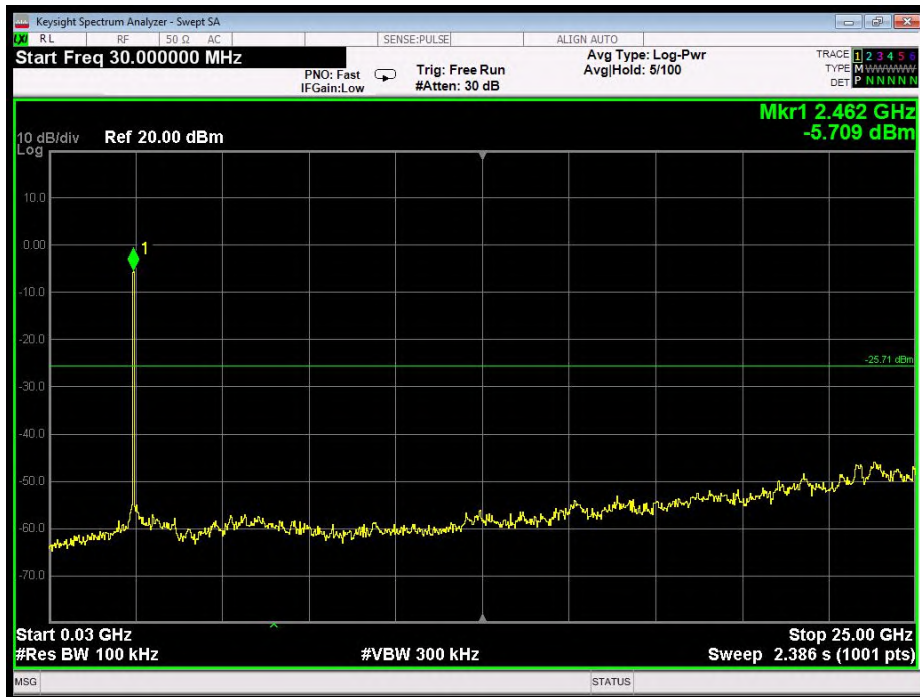
802.11b mode : Highest



802.11g mode : Lowest



802.11g mode : Middle



802.11g mode : Highest



802.11n20 mode : Lowest



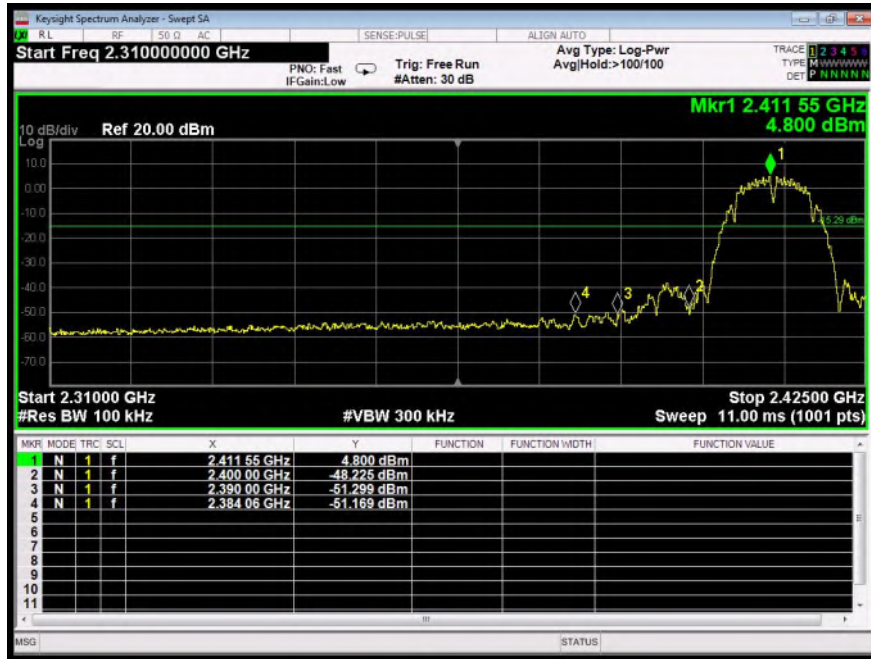
802.11n20 mode : Middle



802.11n20 mode : Highest



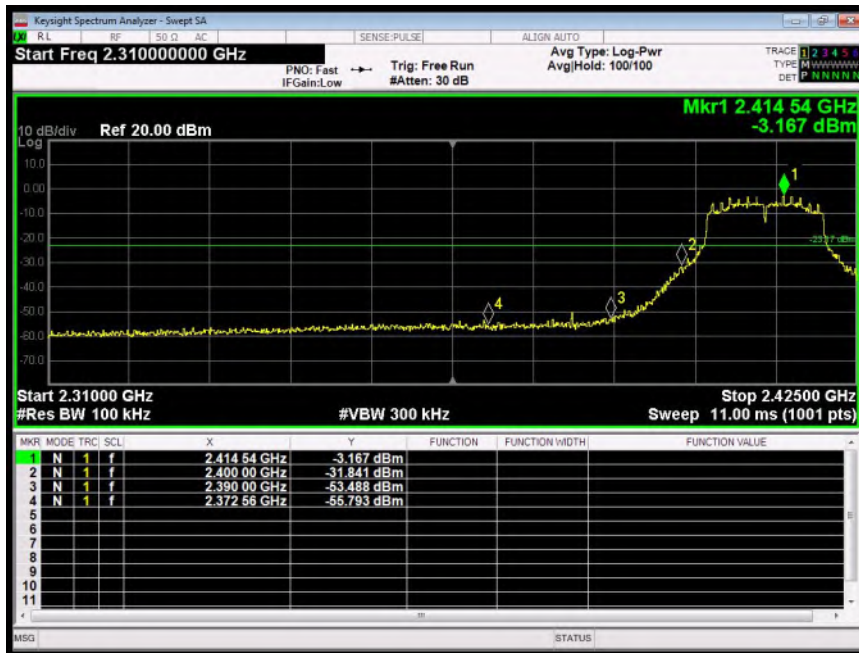
ANT B:



802.11b mode : Lowest



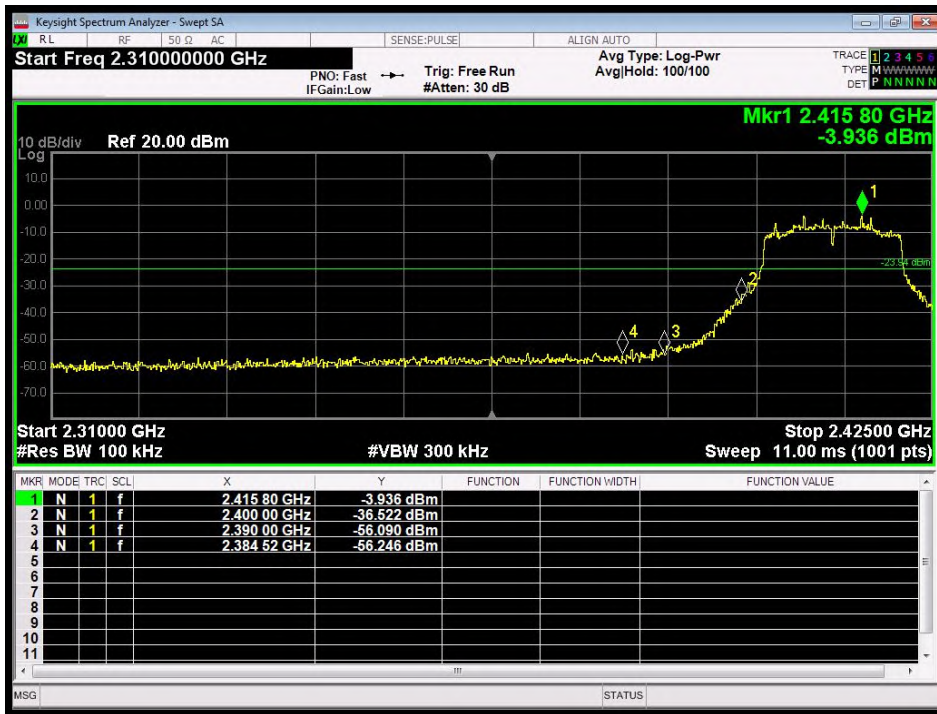
802.11b mode : Highest



802.11g mode : Lowest



802.11g mode : Highest



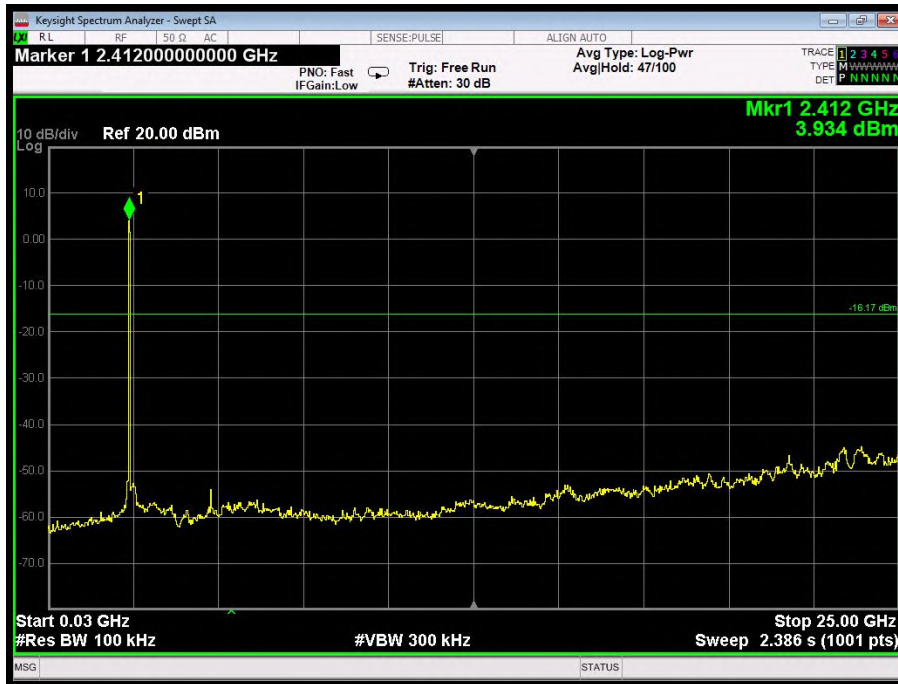
802.11n20 mode : Lowest



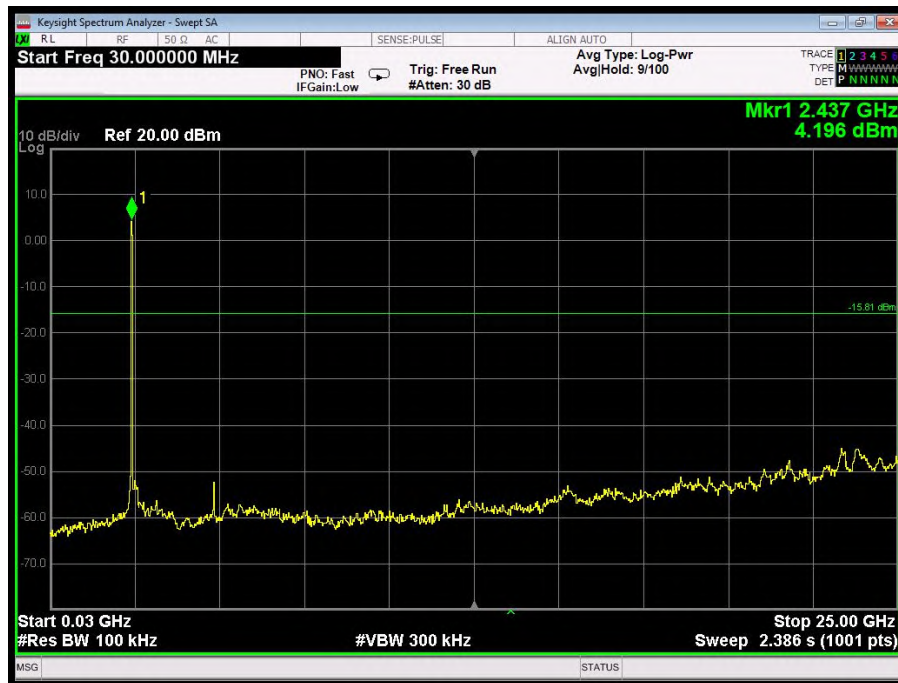
802.11n20 mode : Highest



Conducted Emission Method



802.11b mode : Lowest



802.11b mode : Middle



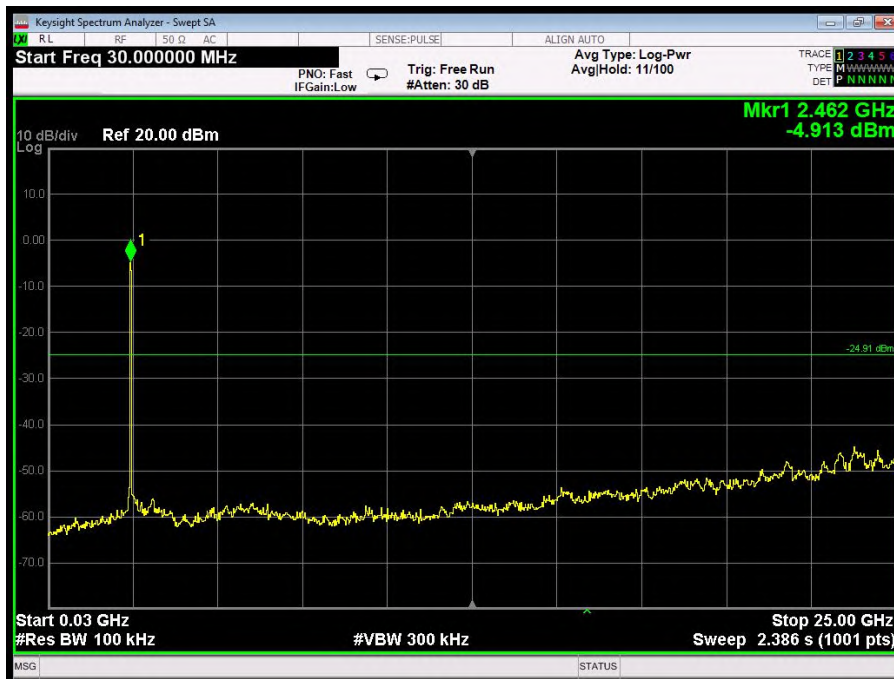
802.11b mode : Highest



802.11g mode : Lowest



802.11g mode : Middle



802.11g mode : Highest



802.11n20 mode : Lowest



802.11n20 mode : Middle



802.11n20 mode : Highest

11 . Antenna Requirement

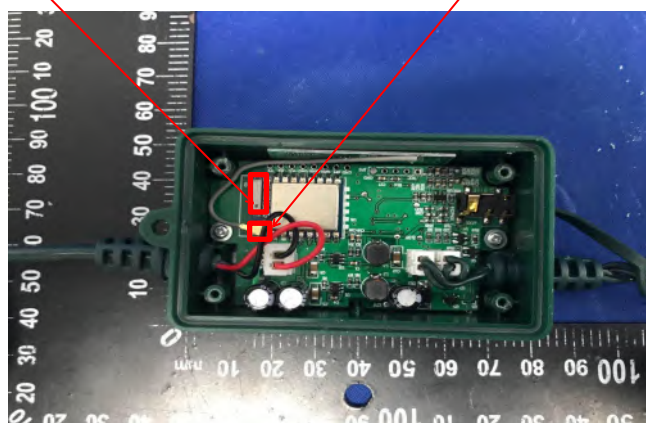
11.1 Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203 /247(c)
Requirement	<p>1) 15.203 requirement:</p> <p>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, 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.</p> <p>2) 15.247(c) (1)(i) requirement:</p> <p>Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.</p>

11.2 Antenna Connected Construction

and the best case gain of the antenna is 1 dBi. It complies with the standard requirement.

WiFi Antenna B **WiFi Antenna A**



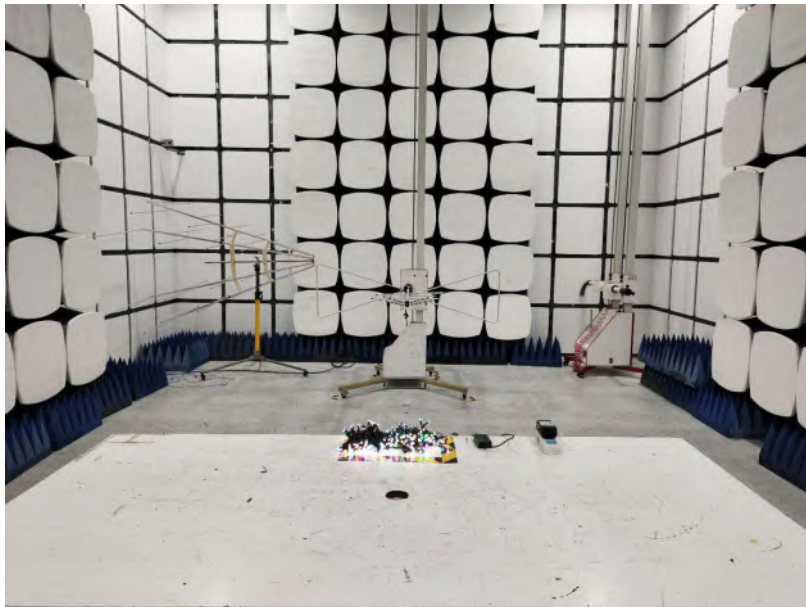
APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of Conducted Emission Measurement

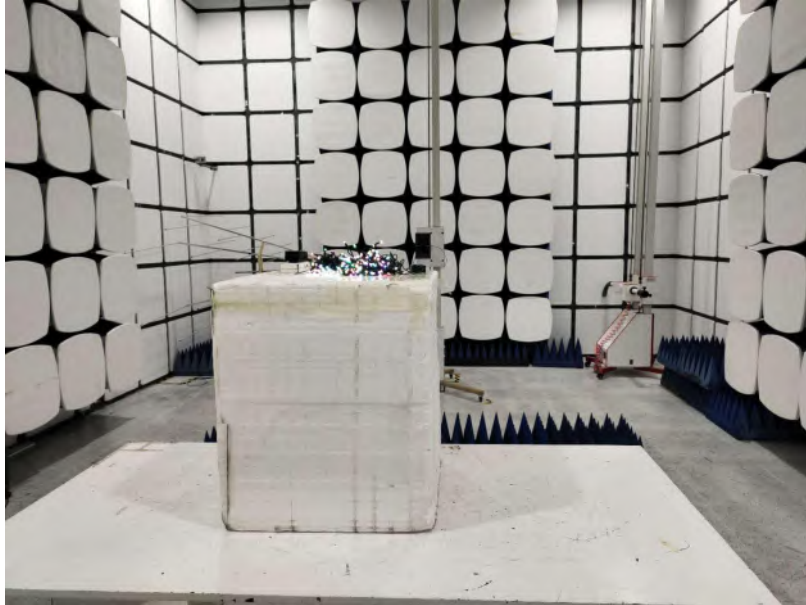


Photo of Radiation Emission Test

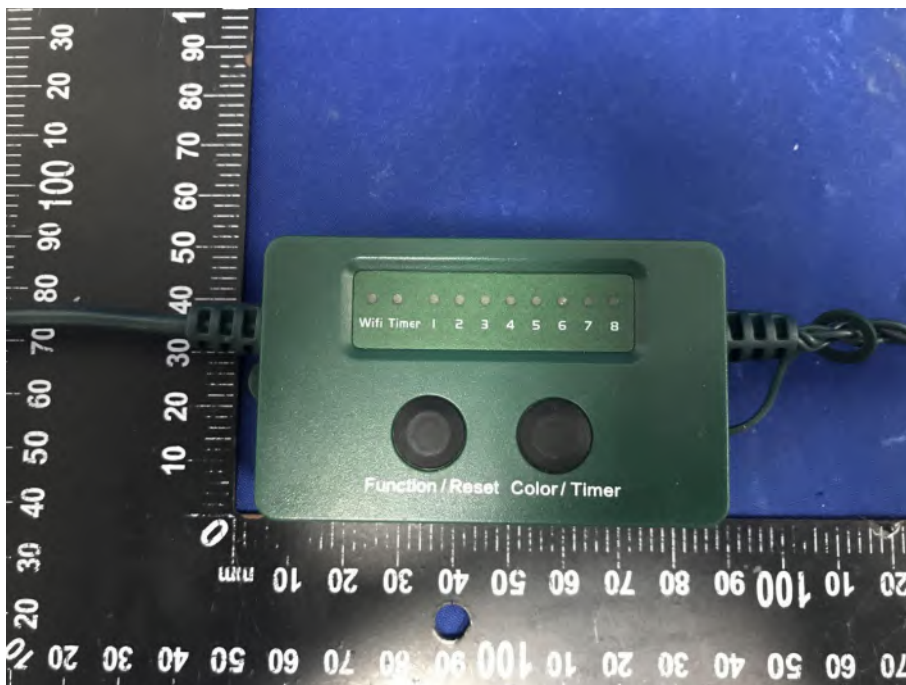
From 30MHz-1000MHz

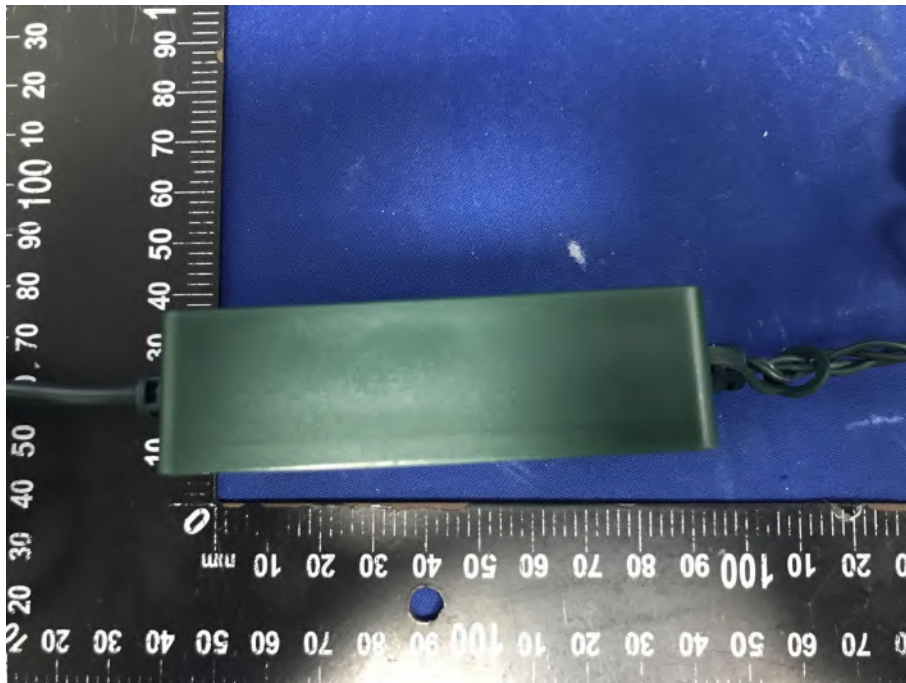


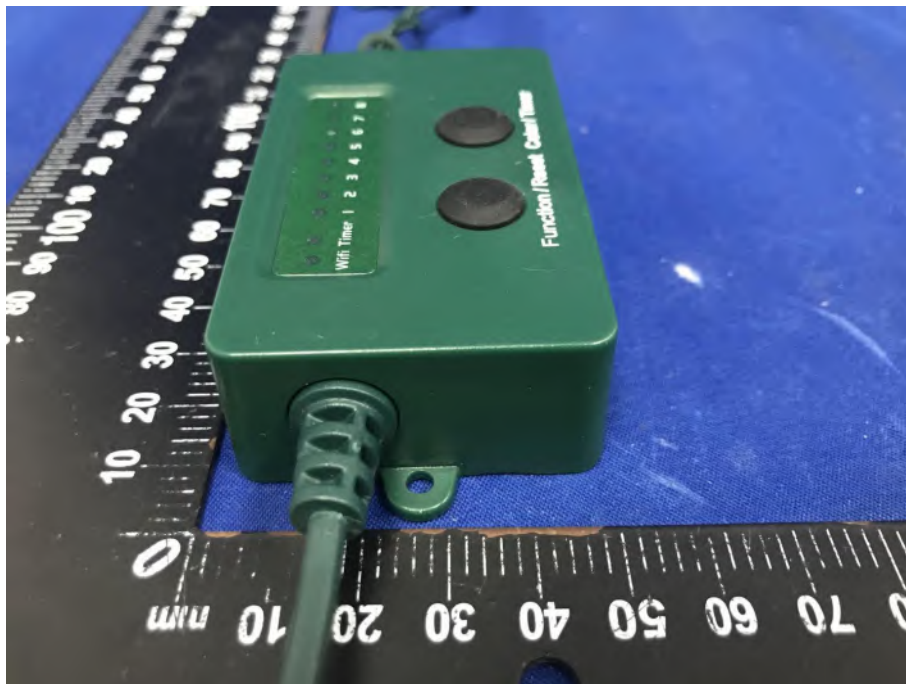
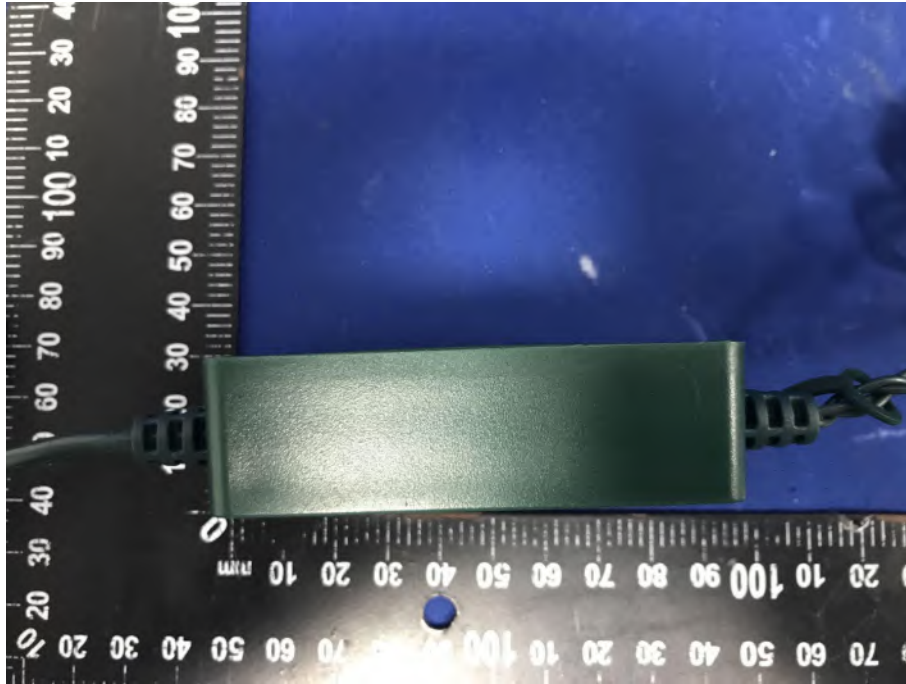
Above 1GHz



APPENDIX II -- EXTERNAL PHOTOGRAPH

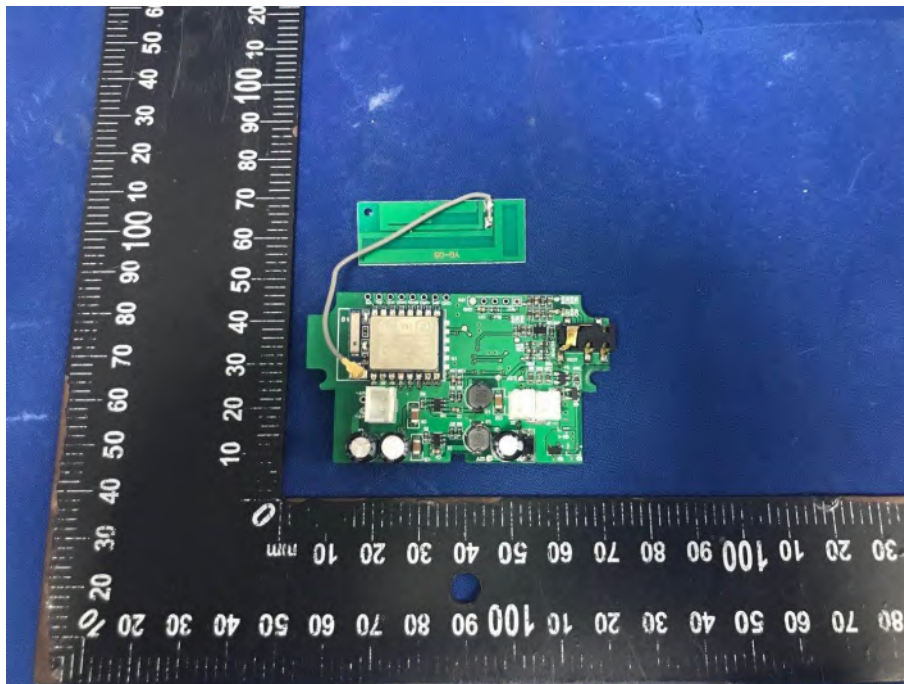
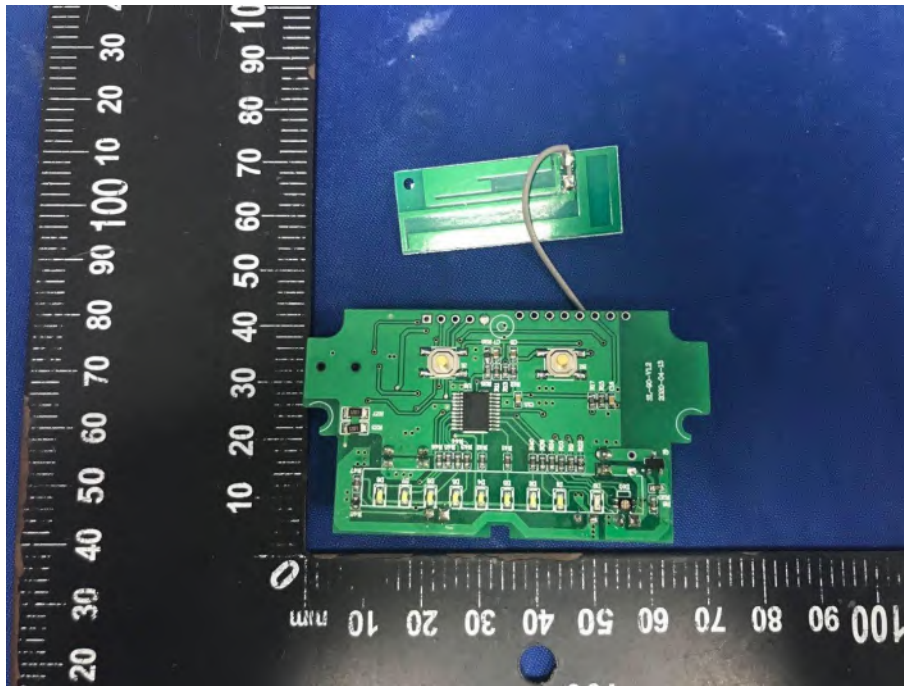


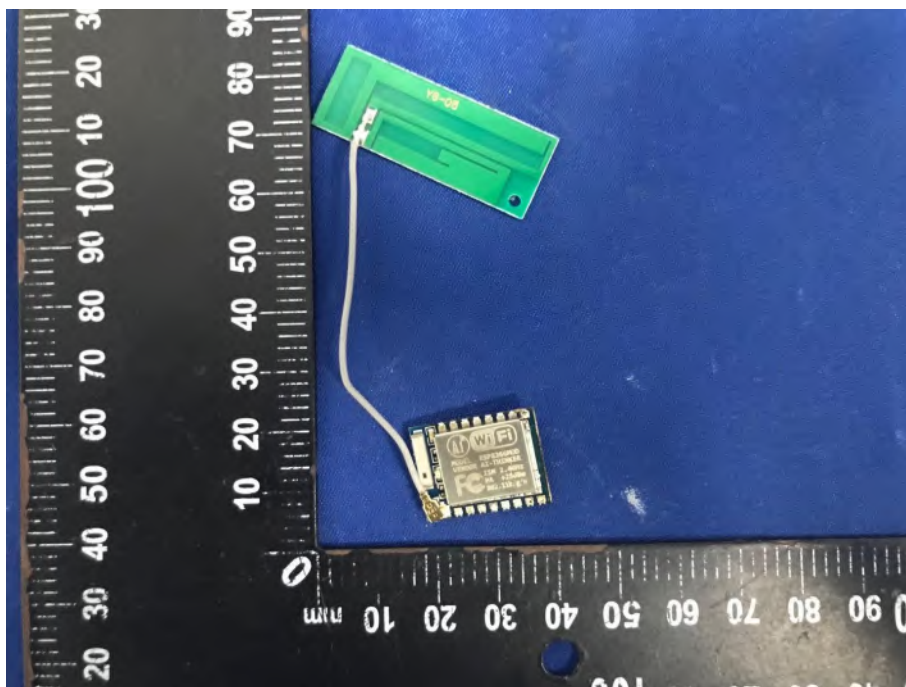
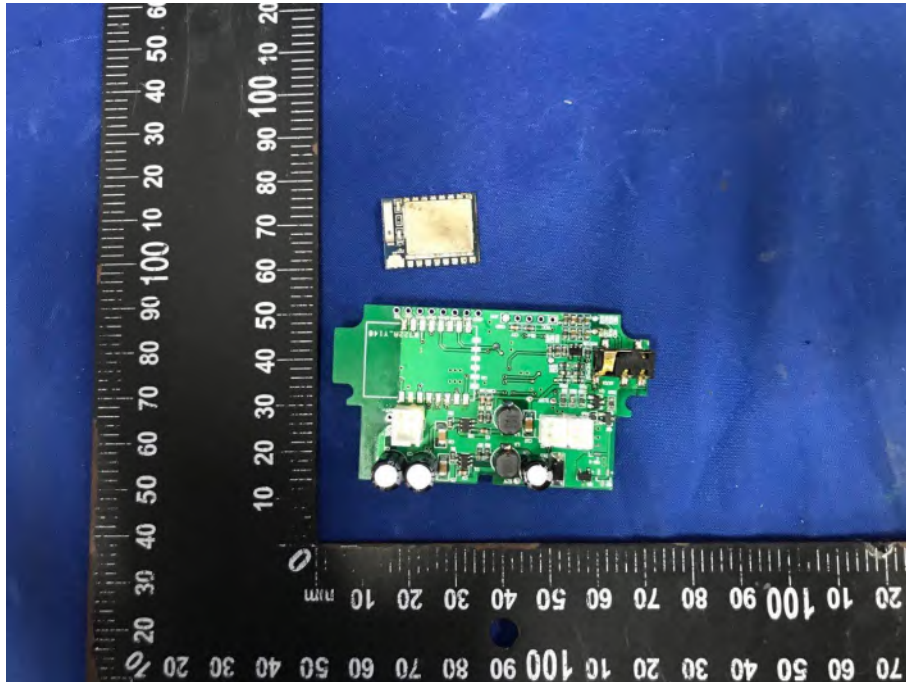


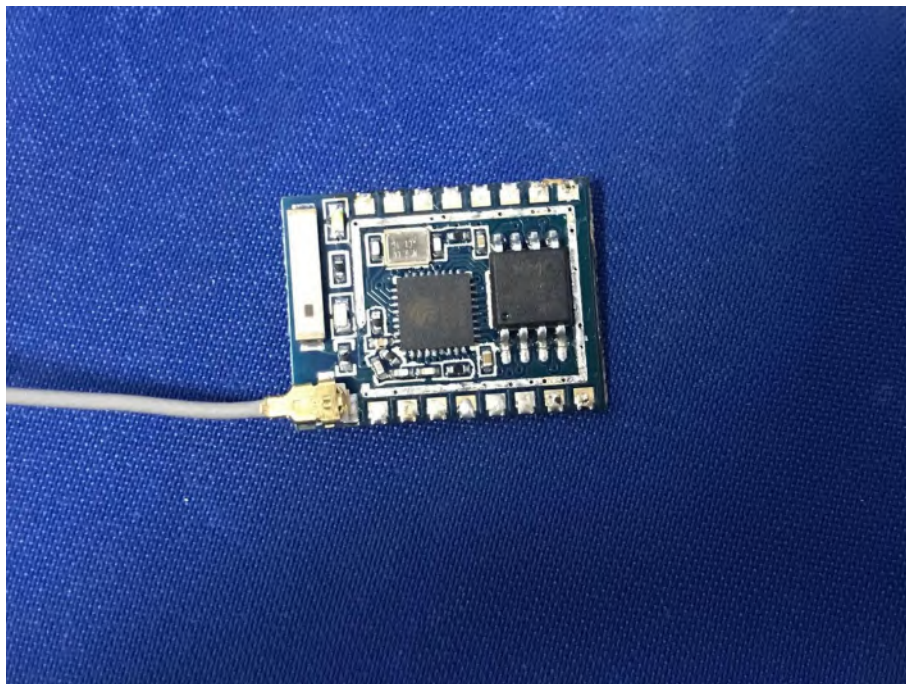
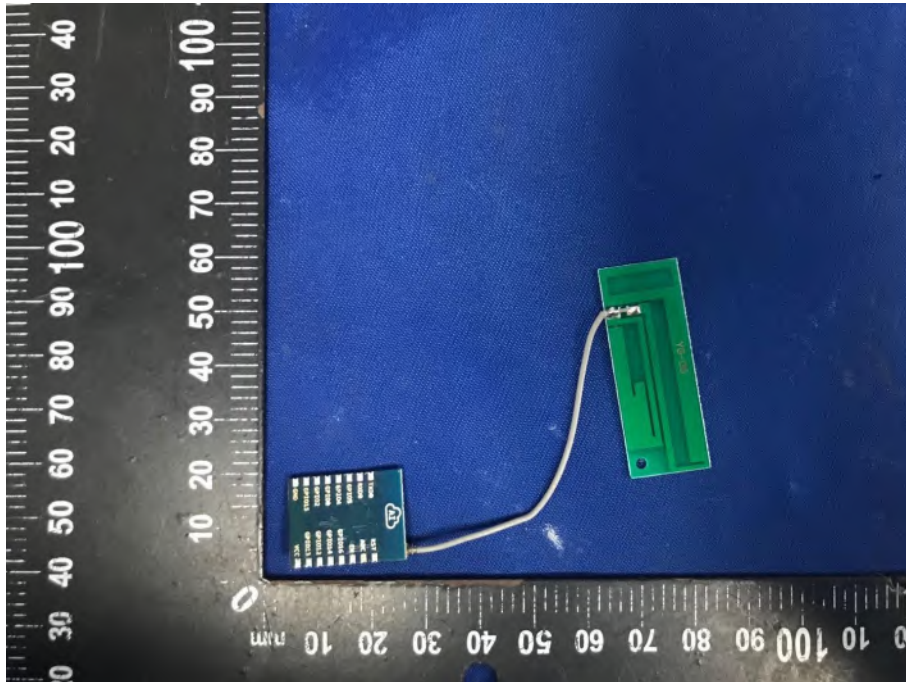


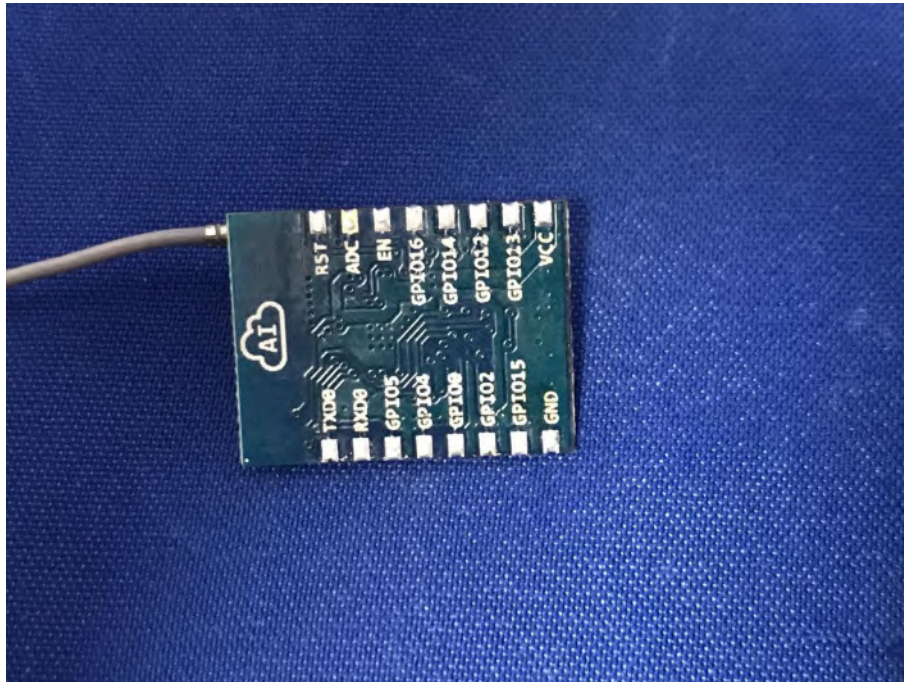


APPENDIX III -- INTERNAL PHOTOGRAPH



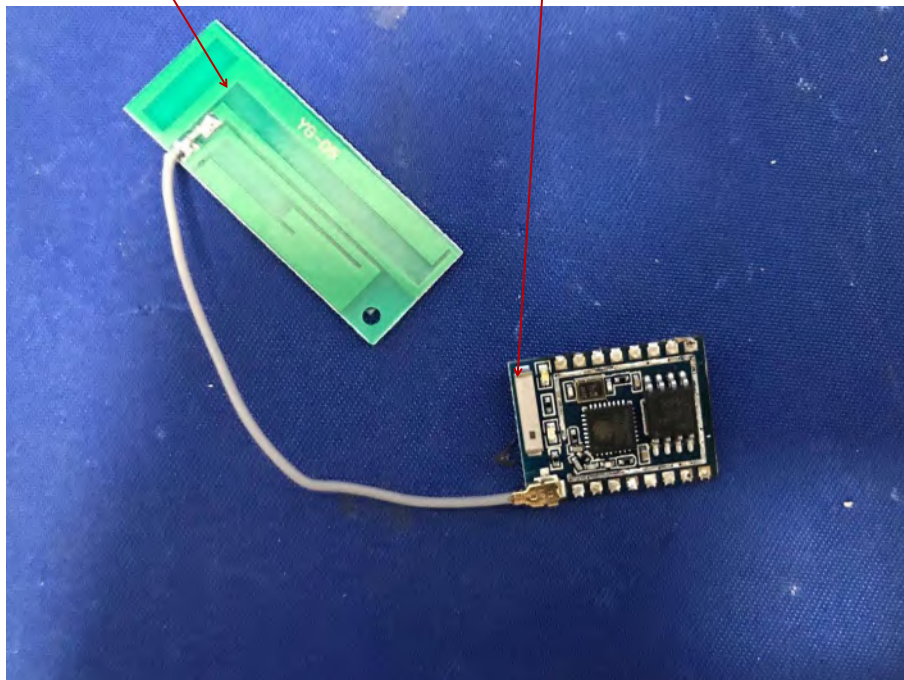






WIFI:ANT A

WIFI:ANT B





----- End of Report -----