

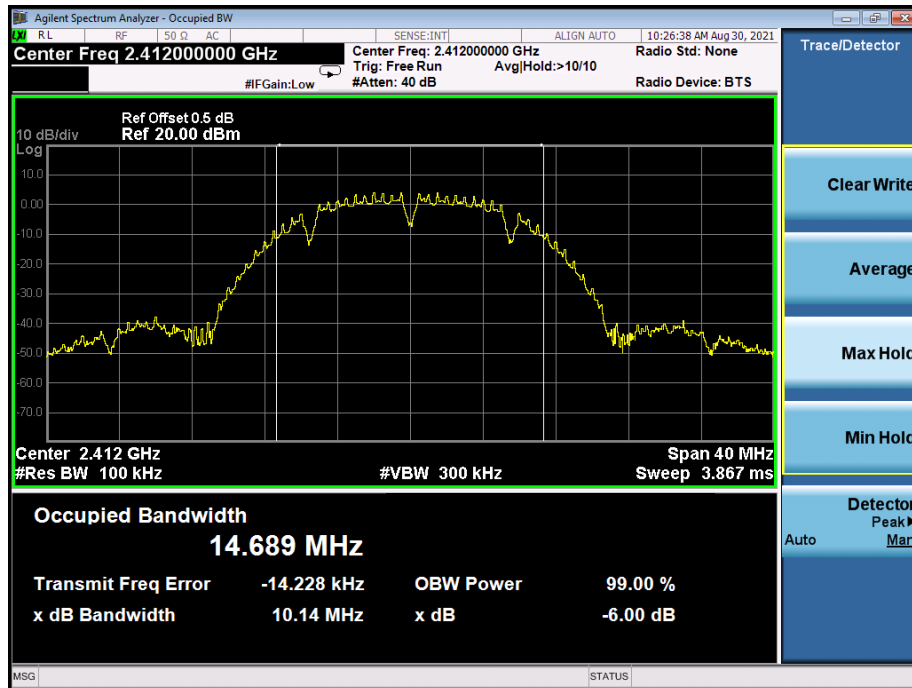
10.5 Test Result

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX b Mode		

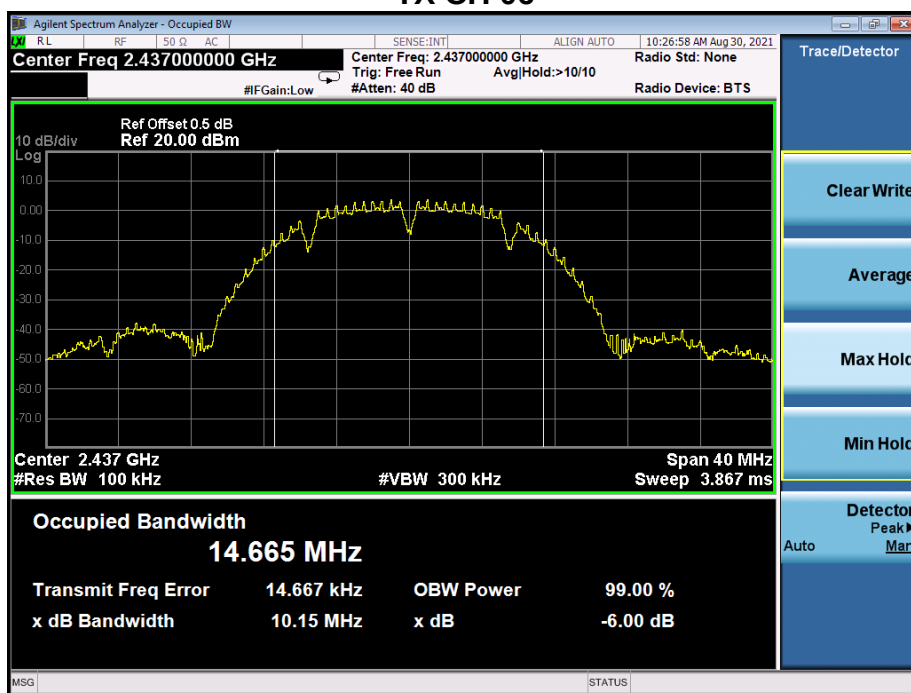
Frequency (MHz)	6dB bandwidth (MHz) ANTA	6dB bandwidth (MHz) ANTB	Limit (kHz)	Result
2412	10.14	10.14	500	Pass
2437	10.15	10.14	500	Pass
2462	10.14	10.15	500	Pass

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

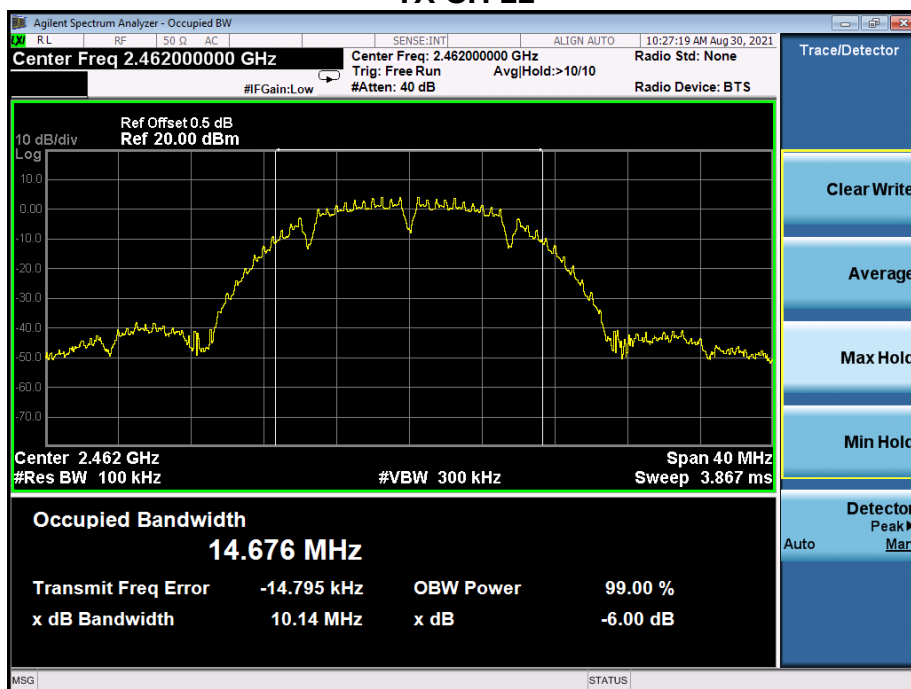
TX CH 01



TX CH 06



TX CH 11

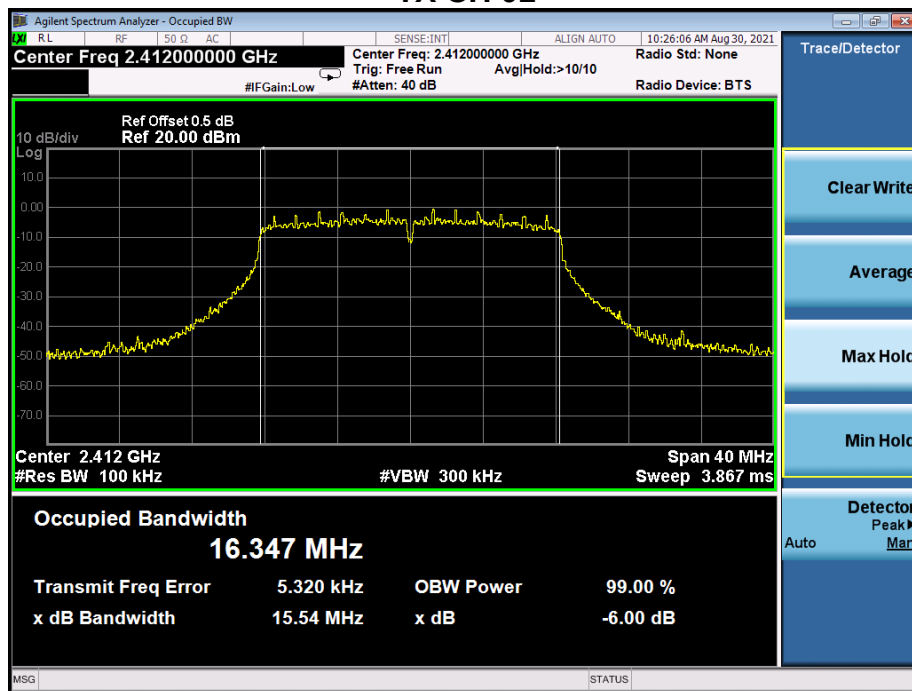


Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX g Mode		

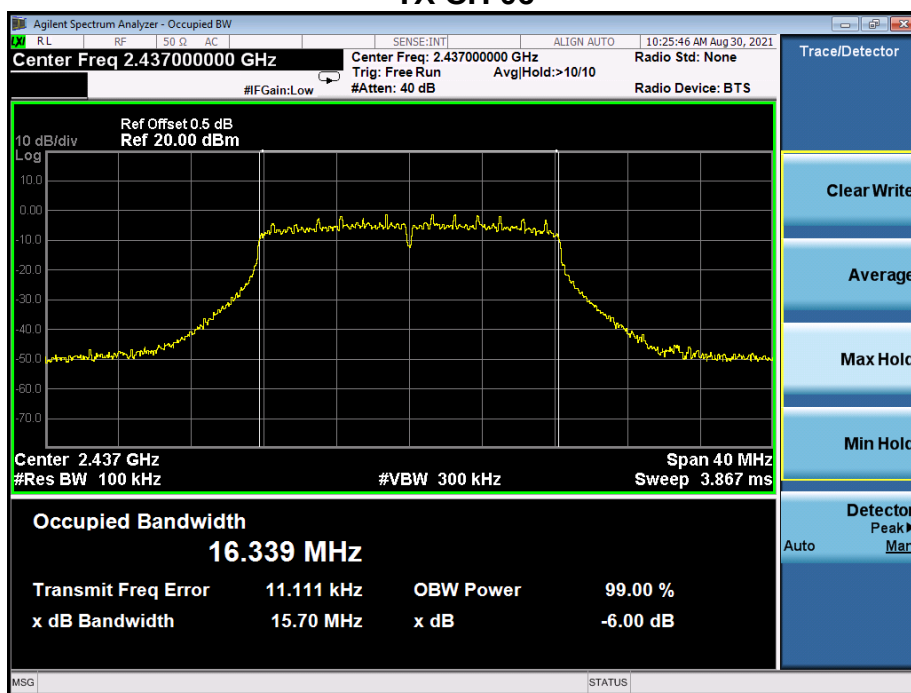
Frequency (MHz)	6dB bandwidth (MHz) ANTA	6dB bandwidth (MHz) ANTB	Limit (kHz)	Result
2412	15.54	15.77	500	Pass
2437	15.70	15.83	500	Pass
2462	15.76	15.51	500	Pass

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

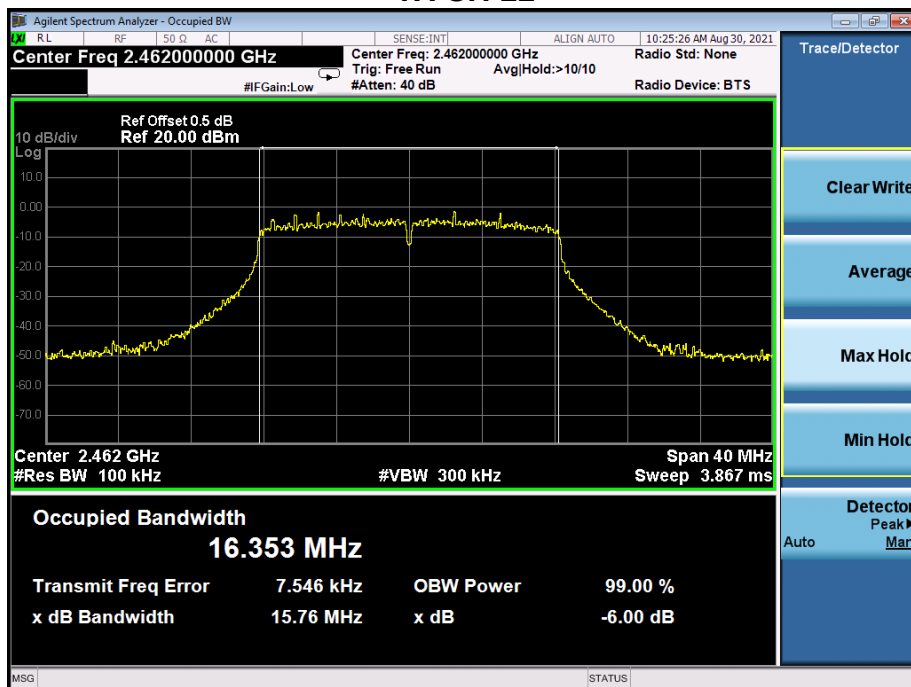
TX CH 01



TX CH 06



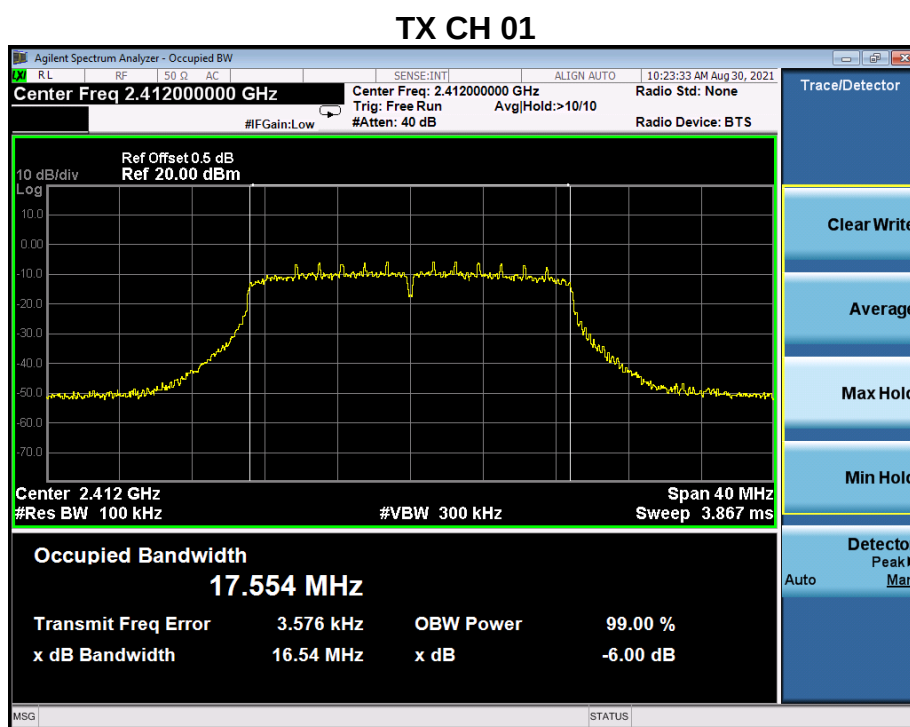
TX CH 11



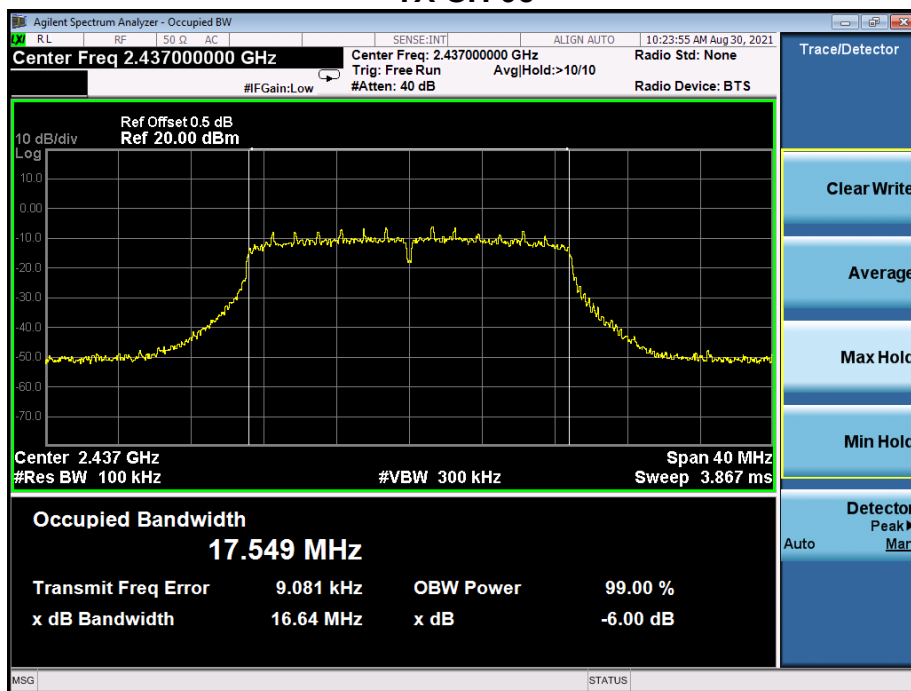
Temperature:	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(20M)		

Frequency (MHz)	6dB bandwidth (MHz) ANTA	6dB bandwidth (MHz) ANTB	Limit (kHz)	Result
2412	16.54	16.71	500	Pass
2437	16.64	16.32	500	Pass
2462	16.89	16.41	500	Pass

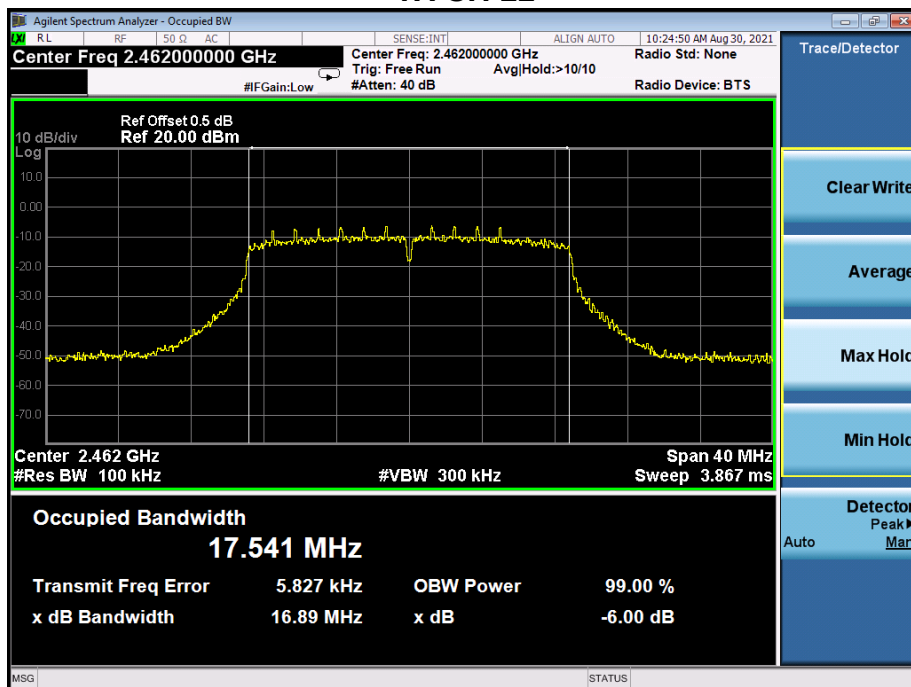
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.



TX CH 06



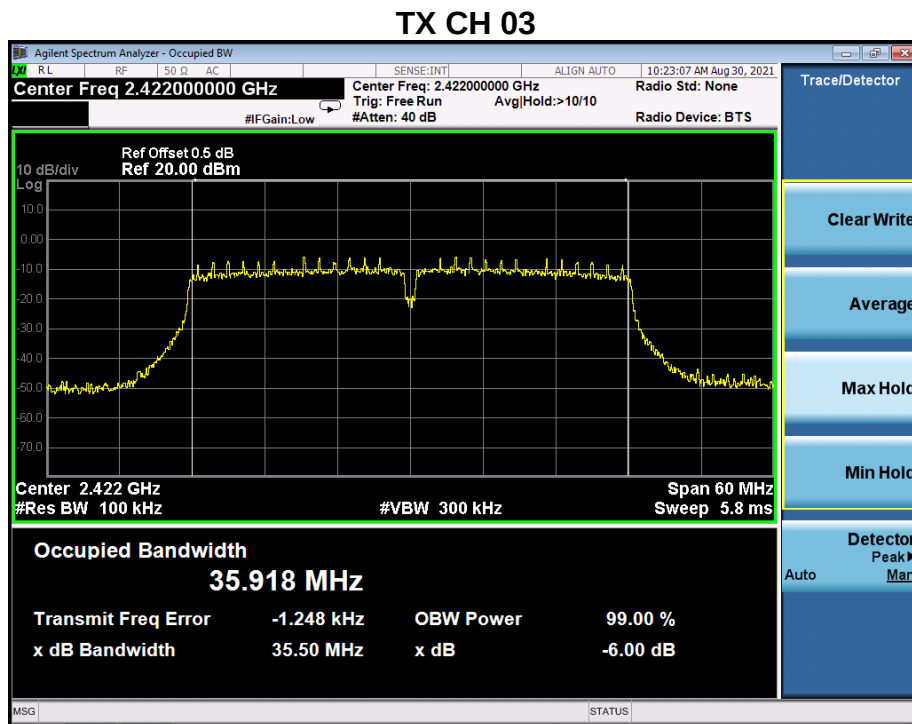
TX CH 11



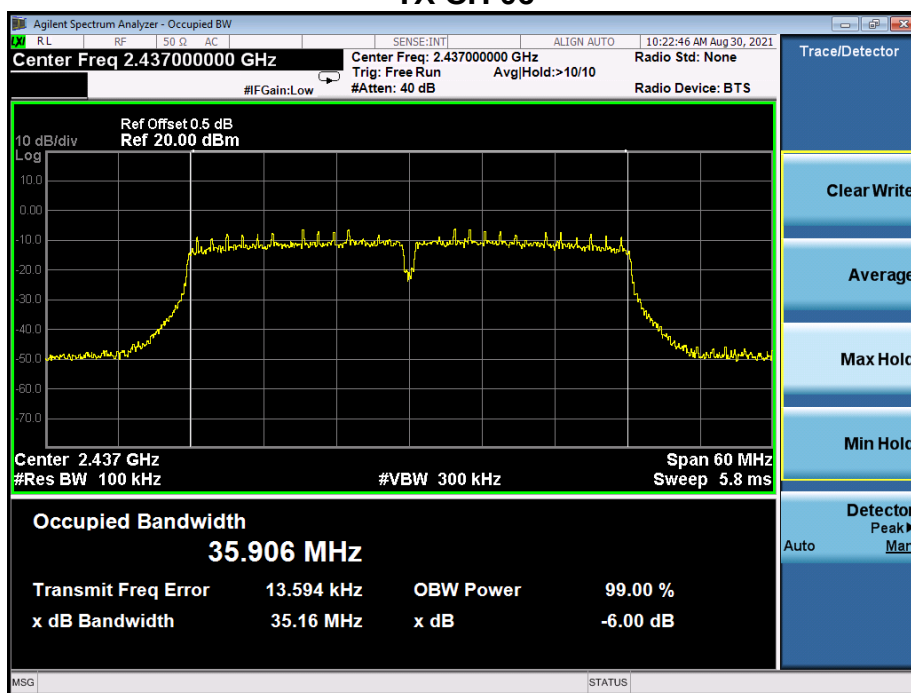
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(40M)		

Frequency (MHz)	6dB bandwidth (MHz) ANTA	6dB bandwidth (MHz) ANTB	Limit (kHz)	Result
2422	35.50	35.22	500	Pass
2437	35.16	35.18	500	Pass
2452	35.22	35.50	500	Pass

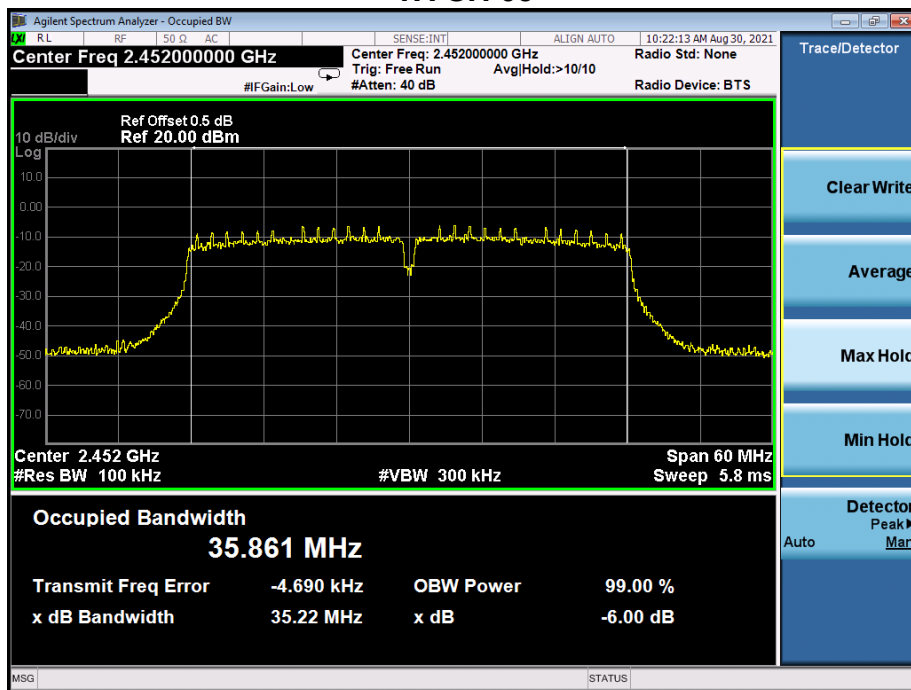
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.



TX CH 06



TX CH 09



11. PEAK OUTPUT POWER TEST

11.1 Block Diagram Of Test Setup



11.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

11.3 Test procedure

- The EUT was directly connected to the Power meter

11.4 EUT operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Note: Power Spectral Density(dBm)=Reading+Cable Loss

11.5 Test Result

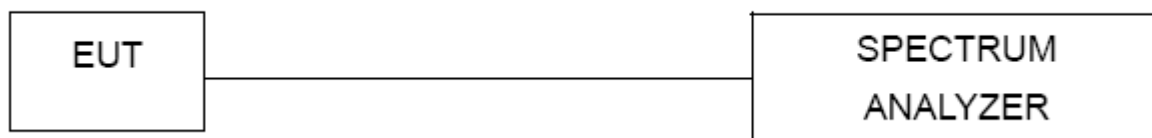
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz

Note: Antenna A gain: 2Bi, Antenna B gain: 2dBi, The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 2dBi

Test Mode	Frequency	Maximum Conducted Output Power(PK) ANTA	Maximum Conducted Output Power(PK) ANTB	Total Power Conducted Output Power(PK)	LIMIT
	(MHz)	(dBm)	(dBm)	(dBm)	dBm
802.11b	2412	14.189	13.429	/	30
	2437	14.348	12.050	/	30
	2462	14.441	12.081	/	30
802.11g	2412	13.397	12.436	/	30
	2437	12.797	11.765	/	30
	2462	12.932	11.281	/	30
802.11n20	2412	8.745	7.867	11.338	30
	2437	8.125	7.124	10.664	30
	2462	8.172	6.727	10.520	30
802.11n40	2422	7.458	6.306	9.930	30
	2437	6.991	5.862	9.473	30
	2452	7.116	5.691	9.472	30

12. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

12.1 Block Diagram Of Test Setup



12.2 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

12.3 Test procedure

Using the following spectrum analyzer setting:

- Set the RBW = 100KHz.
- Set the VBW = 300KHz.
- Sweep time = auto couple.
- Detector function = peak.
- Trace mode = max hold.
- Allow trace to fully stabilize..

12.4 EUT operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

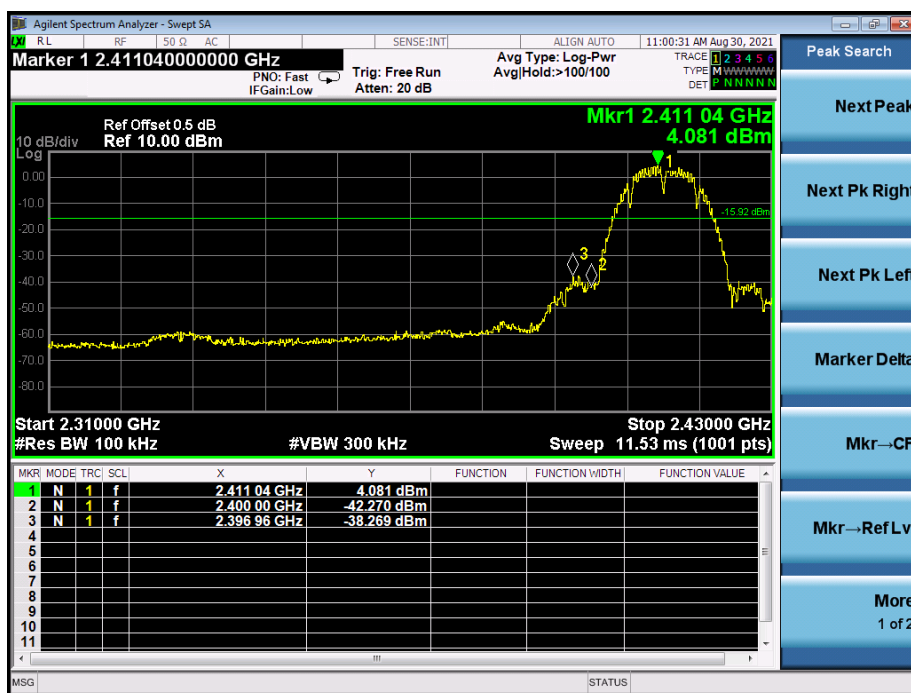
Note: Power Spectral Density(dBm)=Reading+Cable Loss

12.5 Test Result

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

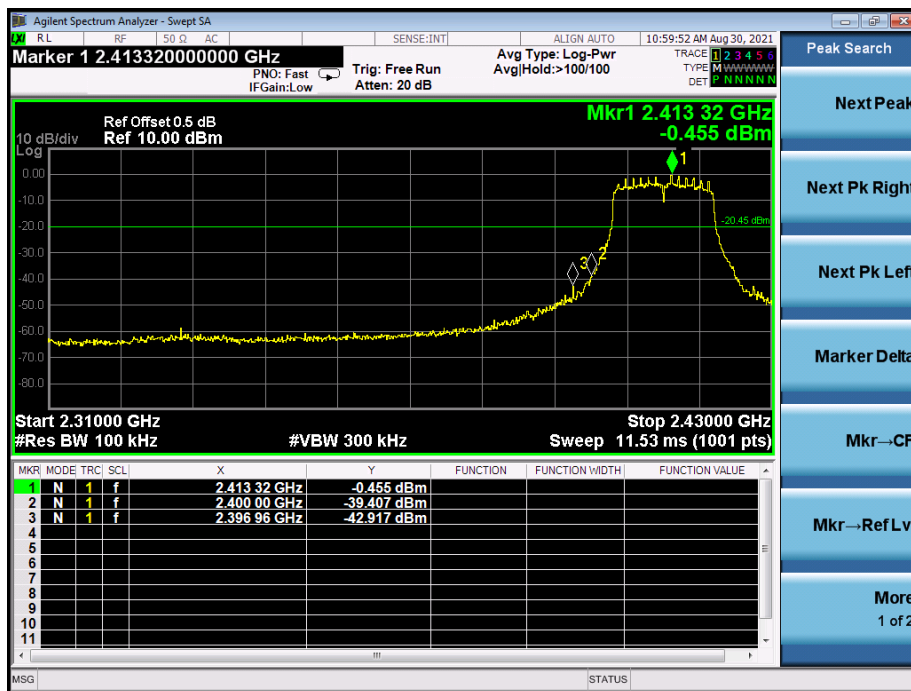
802.11b: Band Edge, Left Side



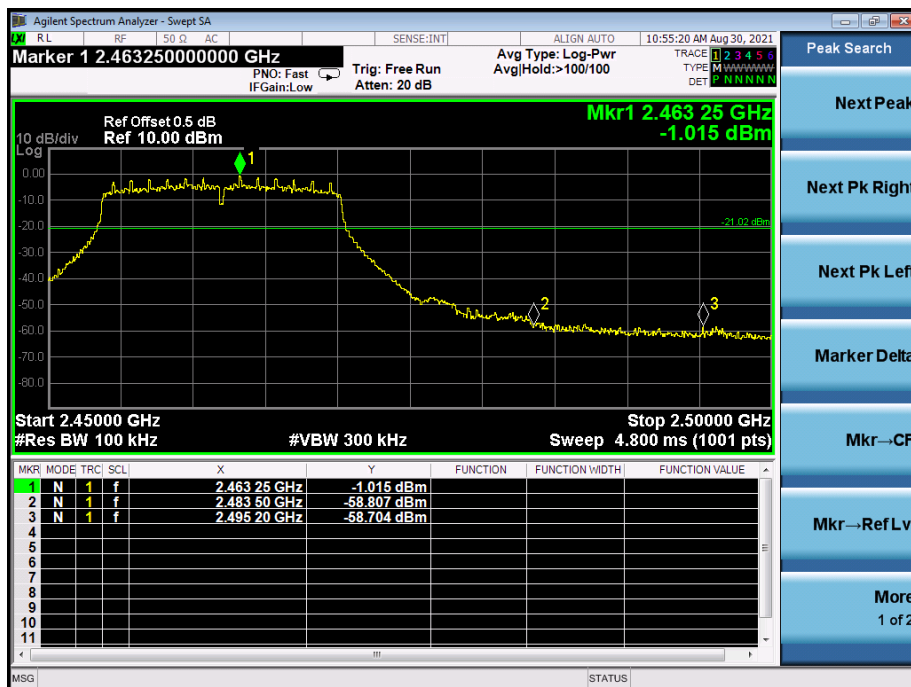
802.11b: Band Edge, Right Side



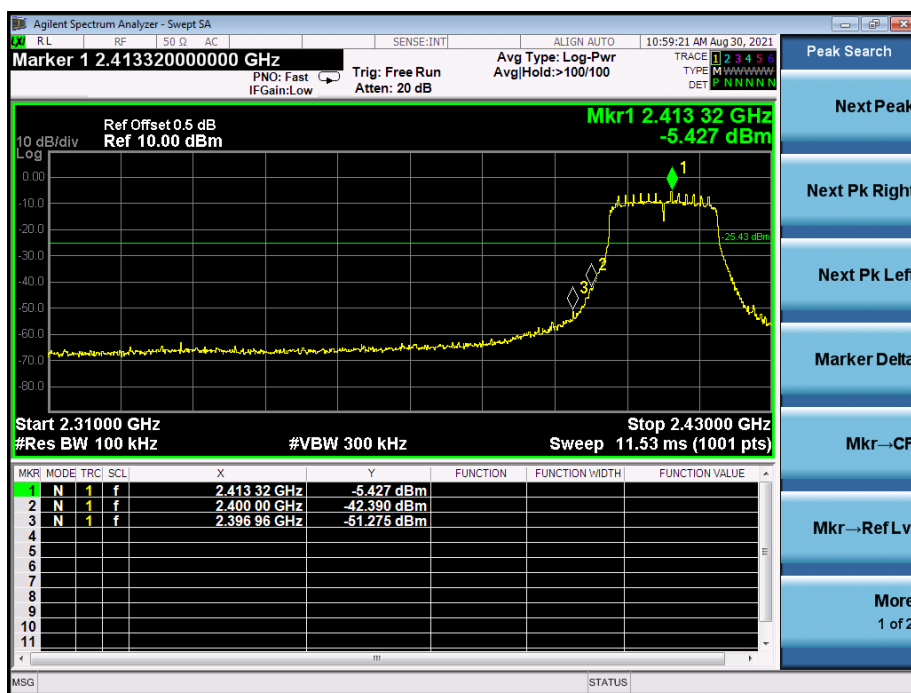
802.11g: Band Edge, Left Side



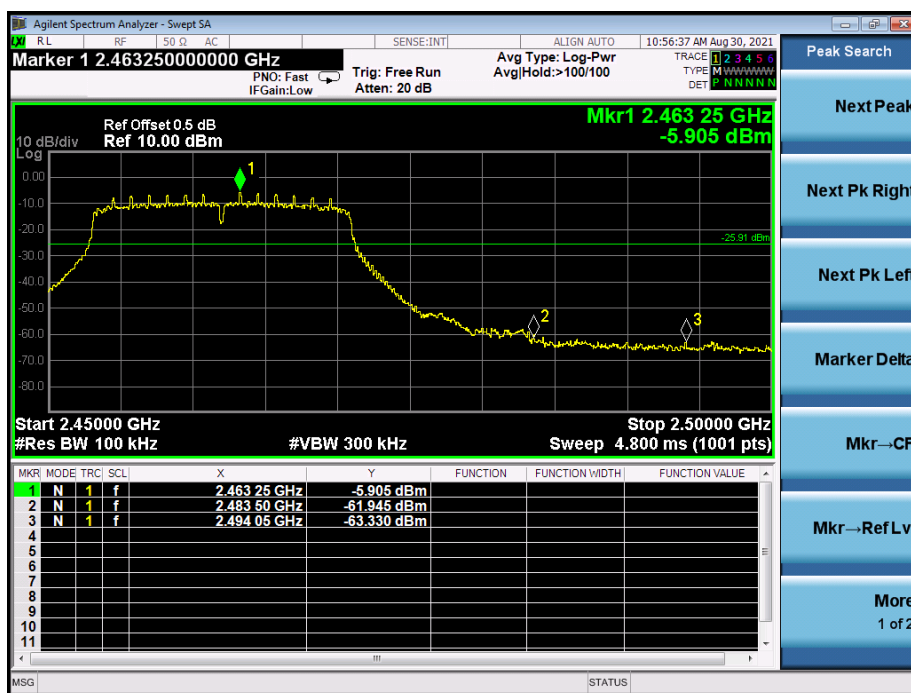
802.11g: Band Edge, Right Side



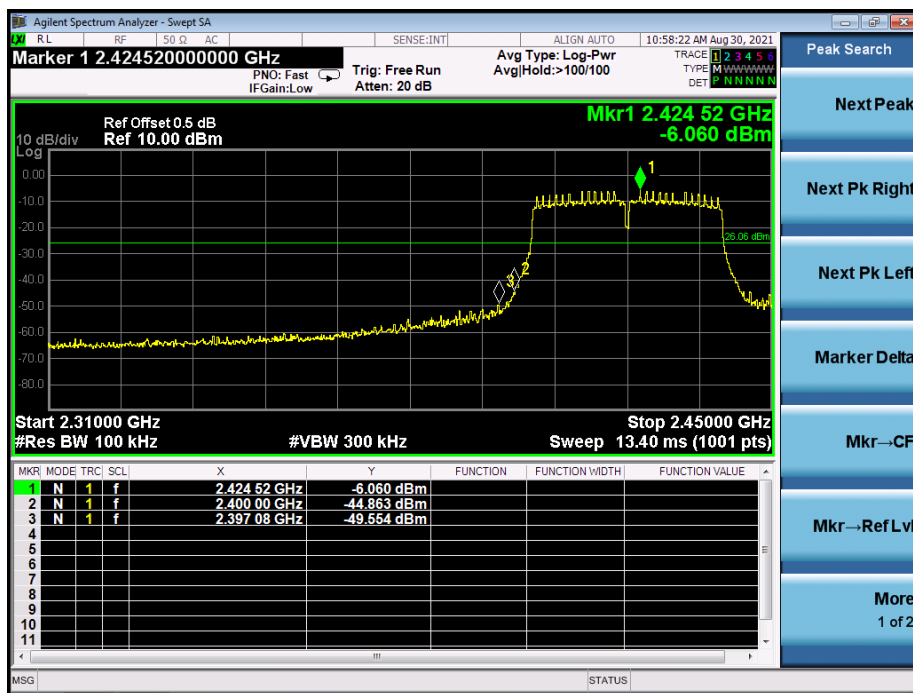
802.11n-HT20: Band Edge, Left Side



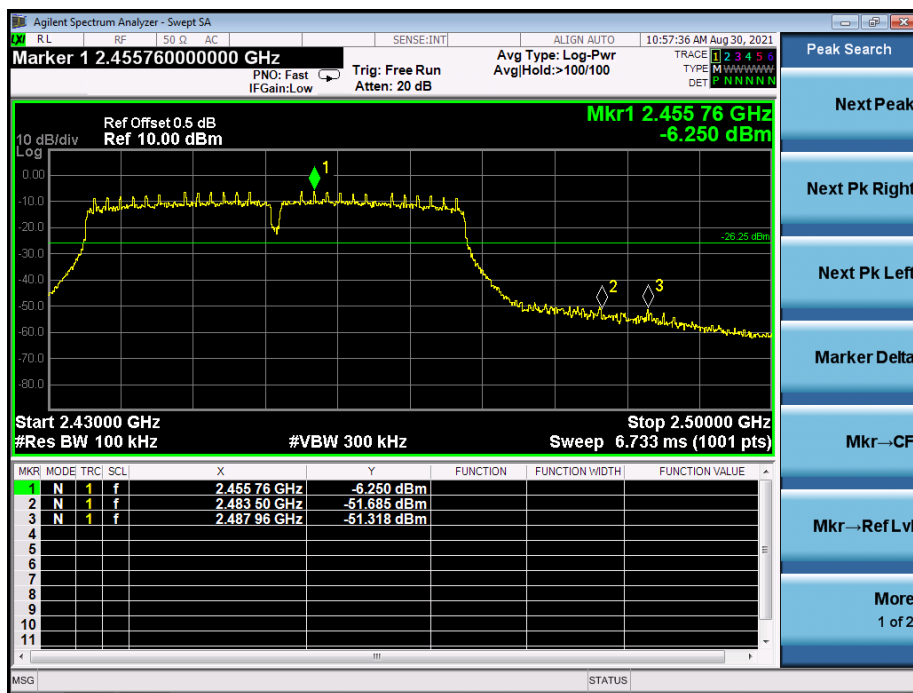
802.11n-HT20: Band Edge, Right Side



802.11n-HT40: Band Edge, Left Side



802.11n-HT40: Band Edge, Right Side

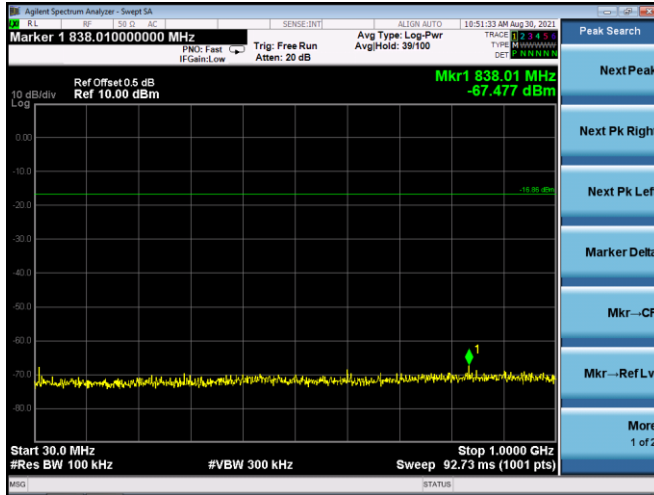


CONDUCTED EMISSION MEASUREMENT

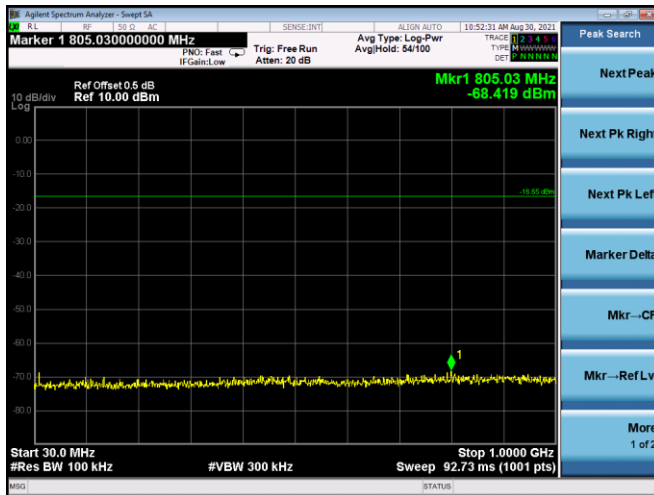
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A Plot.

802.11b

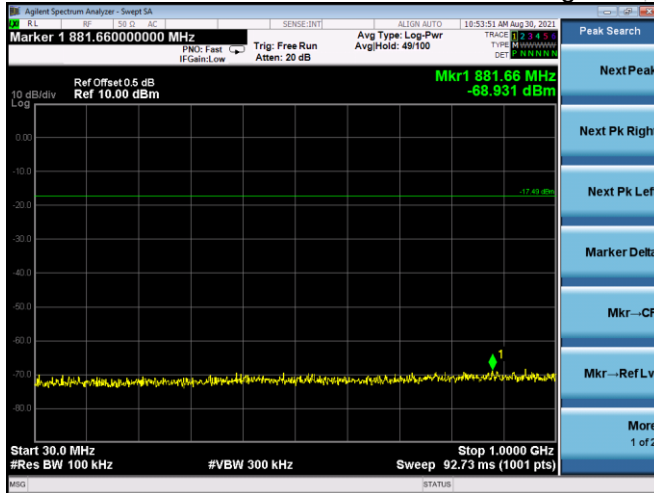
Low Channel 2412MHz



Middle Channel 2437MHz

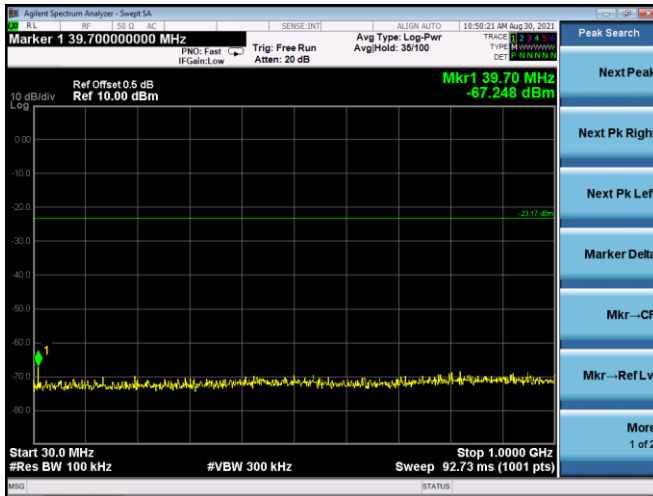


High Channel 2462MHz

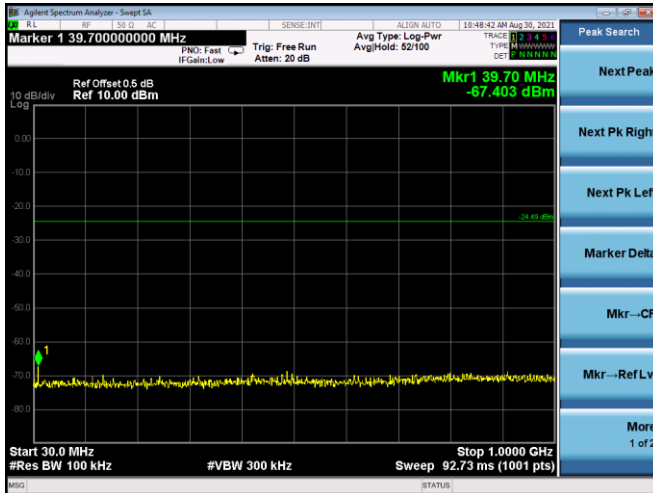


802.11g

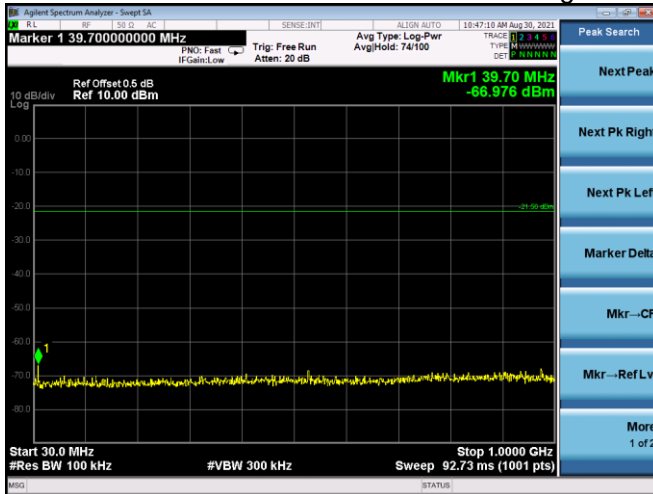
Low Channel 2412MHz



Middle Channel 2437MHz

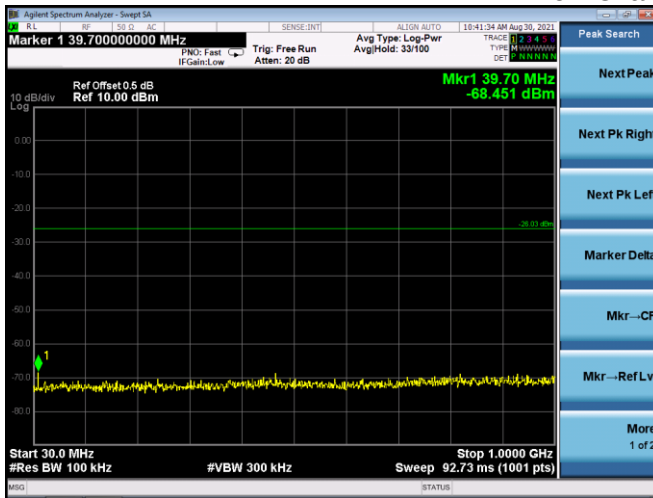


High Channel 2462MHz

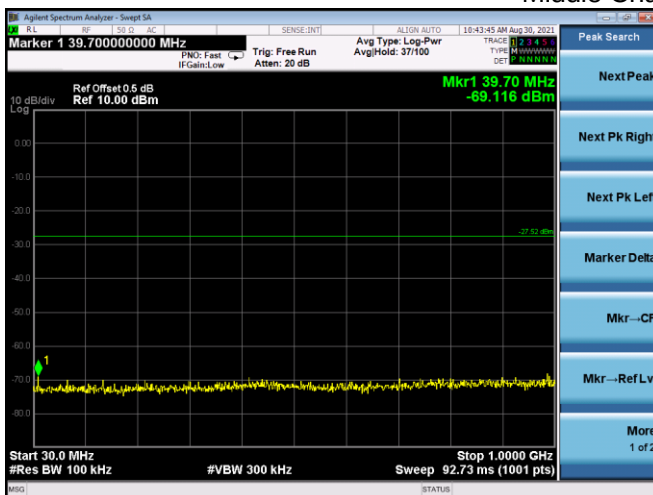


802.11n20

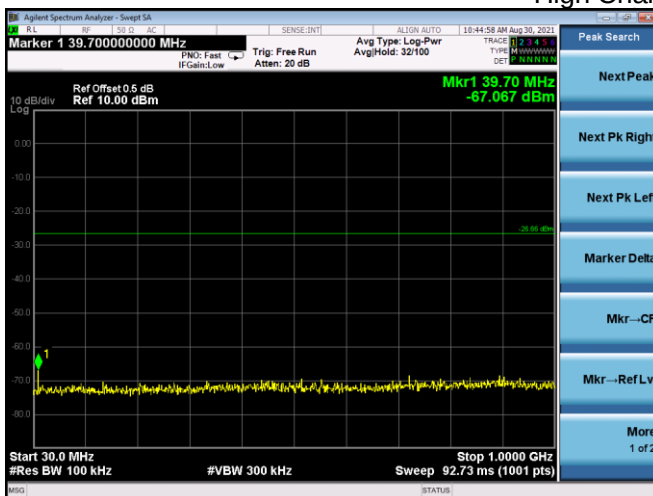
Low Channel 2412MHz



Middle Channel 2437MHz

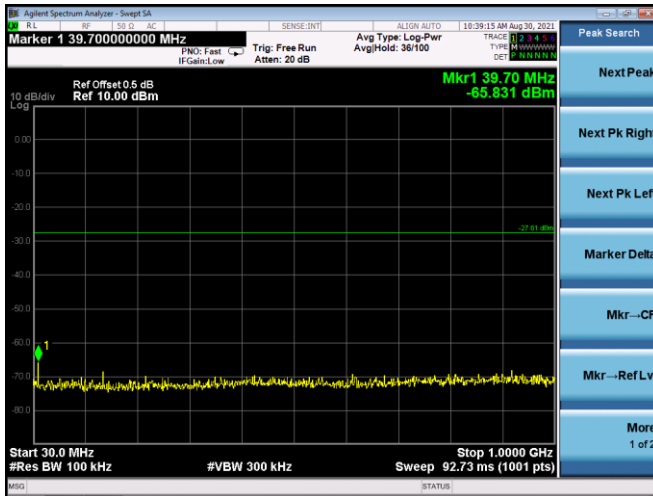


High Channel 2462MHz

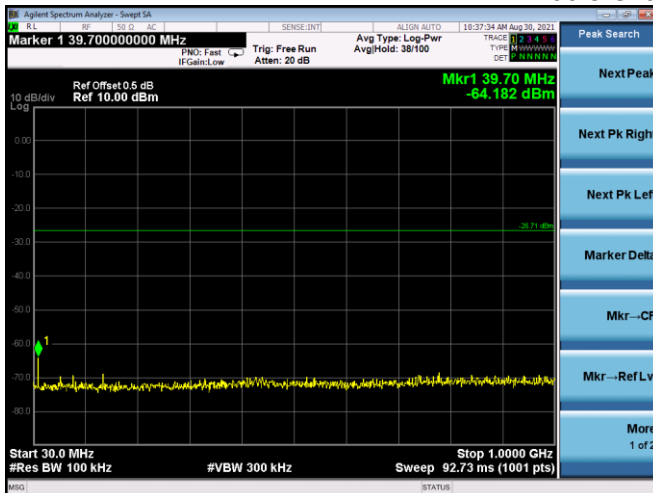


802.11n40

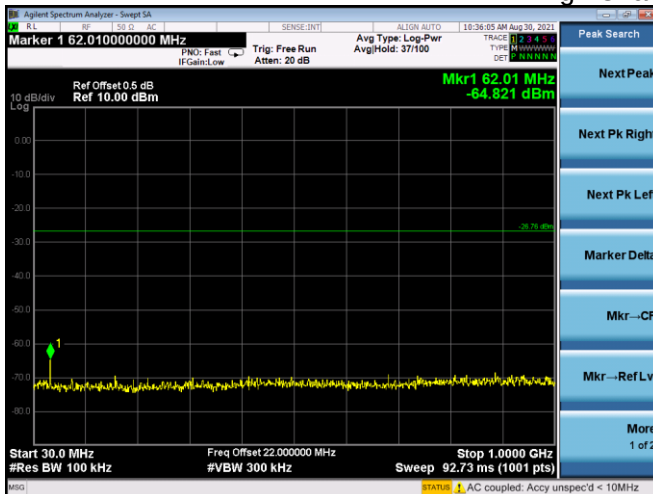
Low Channel 2422MHz



Middle Channel 2437MHz



High Channel 2452MHz



13. DUTY CYCLE OF TEST SIGNAL

13.1 Standard requirement

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

13.2 Formula

Duty Cycle = $T_{on} / (T_{on} + T_{off})$

13.3 Test procedure

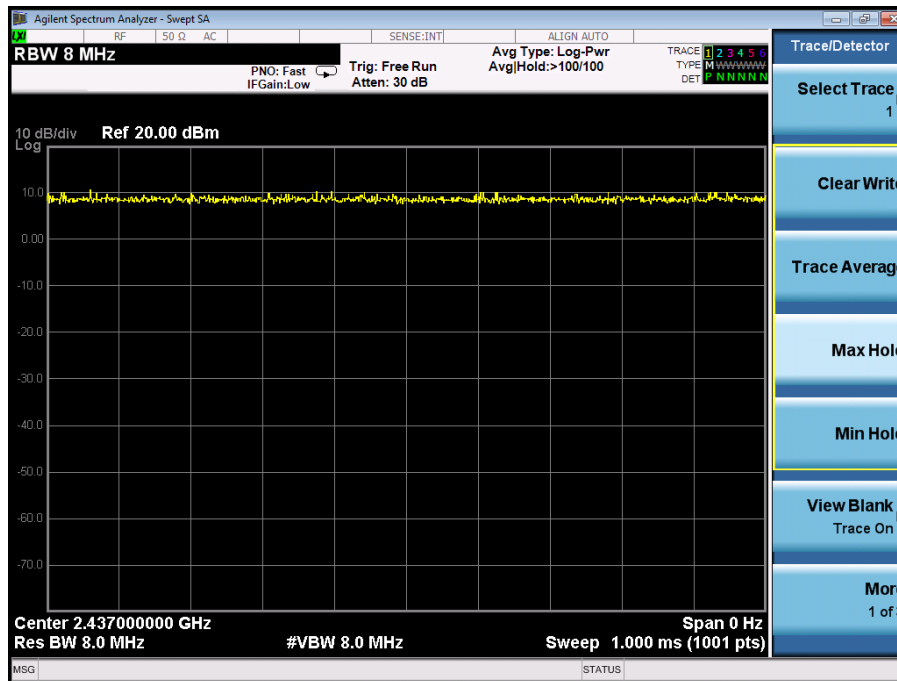
1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

13.4 Test Result

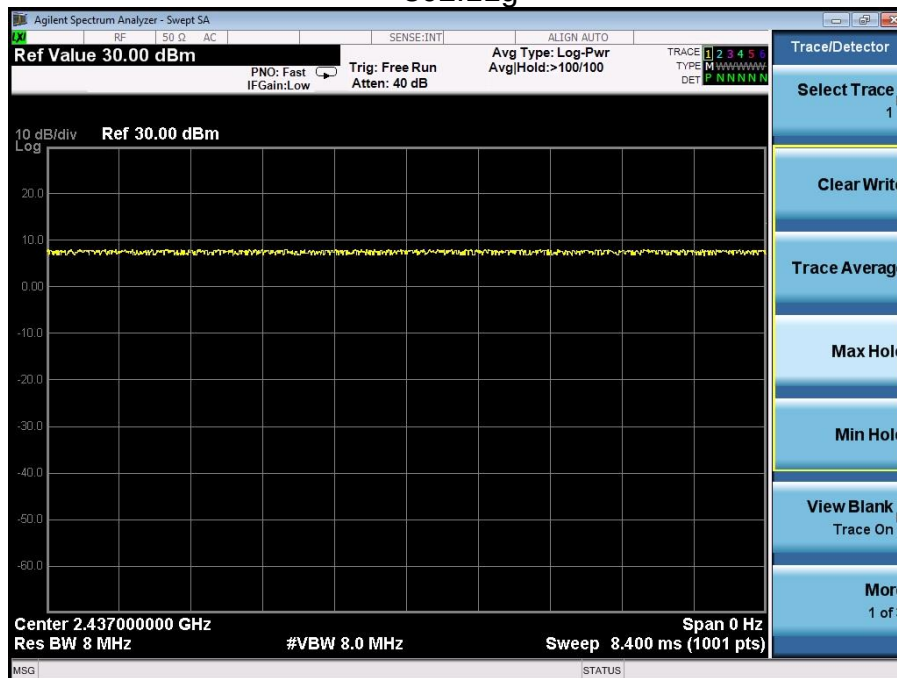
	Duty Cycle	Duty Fator (dB)
802.11b	1	0
802.11g	1	0
802.11n(HT20)	1	0
802.11n(HT40)	1	0

Note: A(B) Represent the value of antenna A and B, The worst data is Antenna B, only shown Antenna B Plot.

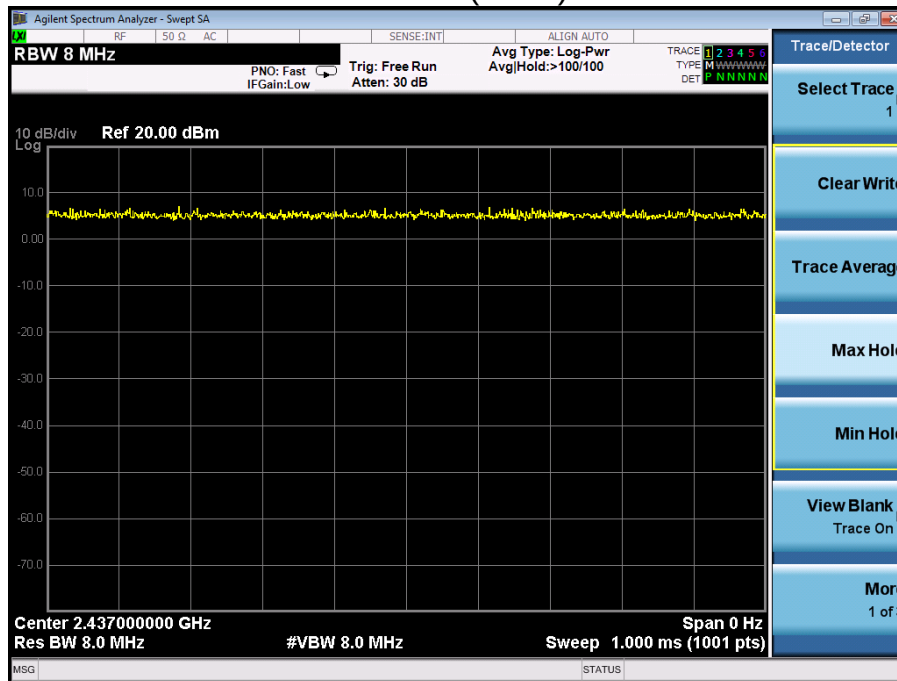
802.11b



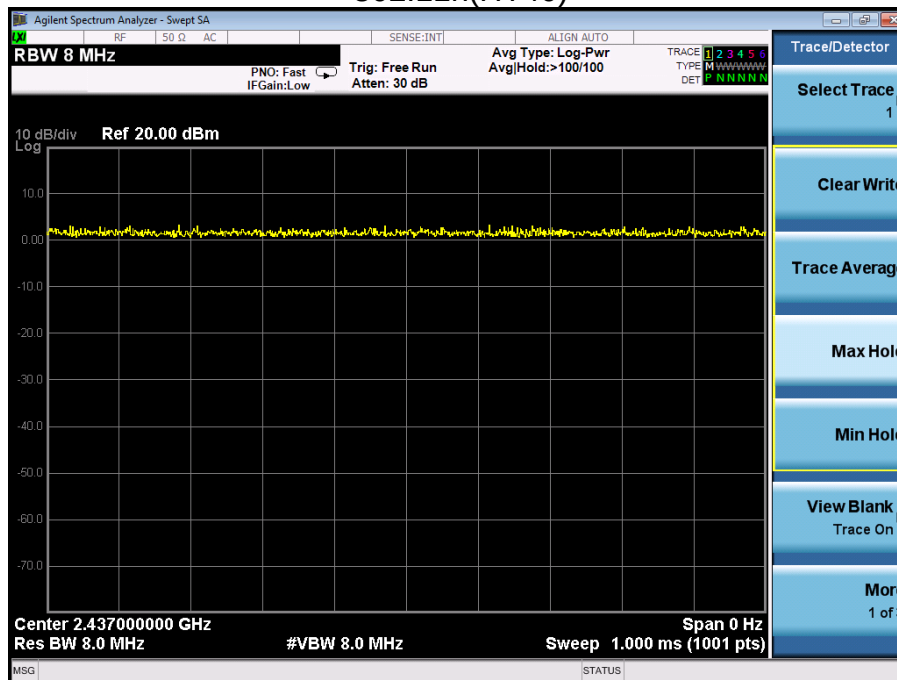
802.11g



802.11n(HT20)



802.11n(HT40)



14. ANTENNA REQUIREMENT

14.1 Limit

15.203 requirement: For intentional device, according to 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.

14.1 Test Result

The EUT antenna is External antenna, antenna gain (A): 2dBi; antenna gain (B): 2dBi) fulfill the requirement of this section.

15. EUT PHOTOGRAPHS

EUT Photo 1



EUT Photo 2



16. EUT TEST SETUP PHOTOGRAPHS

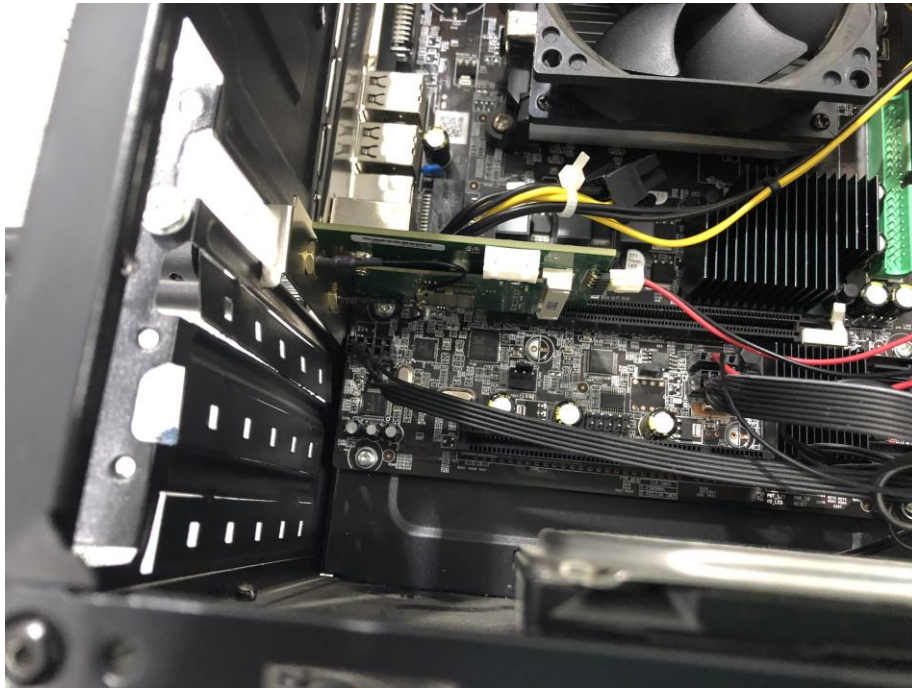
Conducted Emission

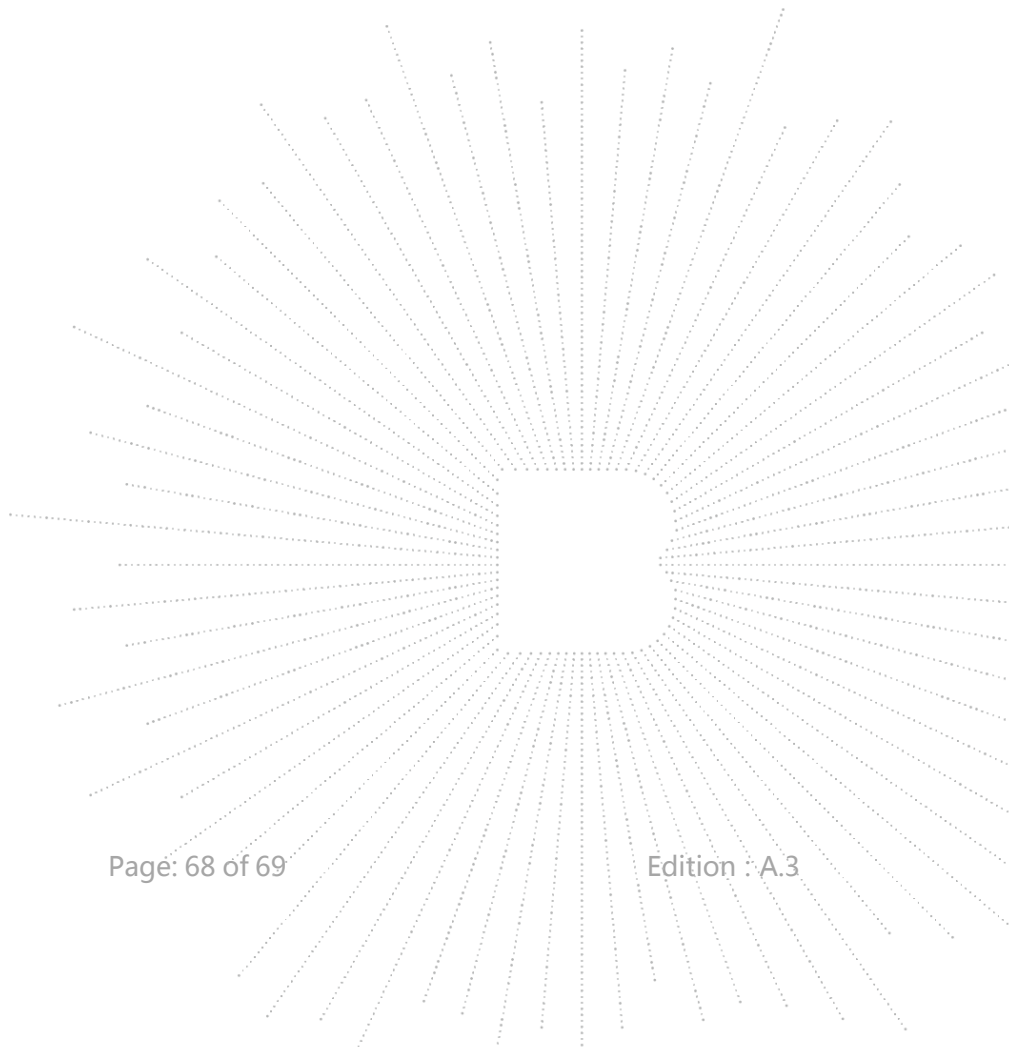
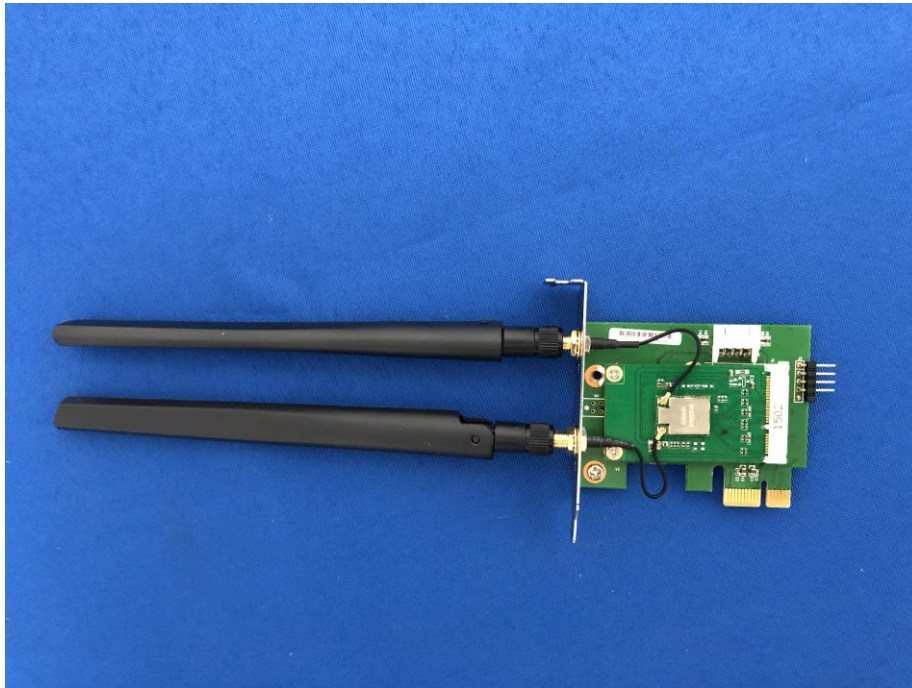


Radiated Measurement Photos









STATEMENT

- 1.The equipment lists are traceable to the national reference standards.
- 2.The test report can not be partially copied unless prior written approval is issued from our lab.
- 3.The test report is invalid without stamp of laboratory.
- 4.The test report is invalid without signature of person(s) testing and authorizing.
- 5.The test process and test result is only related to the Unit Under Test.
- 6.The quality system of our laboratory is in accordance with ISO/IEC17025.
- 7.If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL : 400-788-9558

P.C.: 518103

FAX : 0755-33229357

Website : <http://www.chnbctc.com>

E-Mail : bctc@bctc-lab.com.cn

***** END *****