

8.5 Test Result

	Polar (H/V)	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Measure- ment (dBuV/m)	Limits (dBuV/m)		Result
					PK	PK	AV	
802.11b	Low Channel 2412MHz							
	H	2390.00	57.08	-6.70	50.38	74.00	54.00	PASS
	H	2400.00	48.24	-6.71	41.53	74.00	54.00	PASS
	V	2390.00	57.89	-6.70	51.19	74.00	54.00	PASS
	V	2400.00	49.66	-6.71	42.95	74.00	54.00	PASS
	High Channel 2462MHz							
	H	2483.50	56.08	-6.79	49.29	74.00	54.00	PASS
	H	2485.00	49.48	-6.81	42.67	74.00	54.00	PASS
	V	2483.50	58.28	-6.79	51.49	74.00	54.00	PASS
	V	2485.00	50.58	-6.81	43.77	74.00	54.00	PASS
802.11g	Low Channel 2412MHz							
	H	2390.00	56.67	-6.70	49.97	74.00	54.00	PASS
	H	2400.00	48.38	-6.71	41.67	74.00	54.00	PASS
	V	2390.00	57.10	-6.70	50.40	74.00	54.00	PASS
	V	2400.00	49.99	-6.71	43.28	74.00	54.00	PASS
	High Channel 2462MHz							
	H	2483.50	56.96	-6.79	50.17	74.00	54.00	PASS
	H	2485.00	48.06	-6.81	41.25	74.00	54.00	PASS
	V	2483.50	56.72	-6.79	49.93	74.00	54.00	PASS
	V	2485.00	48.22	-6.81	41.41	74.00	54.00	PASS
Remark:								
1. Emission Level = Meter Reading + Factor, Factor = Antenna Factor + Cable Loss – Pre-amplifier. Over= Emission Level - Limit								
2. If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.								
3 In restricted bands of operation, The spurious emissions below the permissible value more than 20dB								
4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.								

	Polar (H/V)	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Measure- ment (dBuV/m)	Limits (dBuV/m)		Result
					PK	PK	AV	
802.11 n20	Low Channel 2412MHz							
	H	2390.00	56.84	-6.70	50.14	74.00	54.00	PASS
	H	2400.00	48.55	-6.71	41.84	74.00	54.00	PASS
	V	2390.00	57.34	-6.70	50.64	74.00	54.00	PASS
	V	2400.00	48.39	-6.71	41.68	74.00	54.00	PASS
	High Channel 2462MHz							
	H	2483.50	57.18	-6.79	50.39	74.00	54.00	PASS
	H	2500.00	48.84	-6.81	42.03	74.00	54.00	PASS
	V	2483.50	55.75	-6.79	48.96	74.00	54.00	PASS
	V	2500.00	47.22	-6.81	40.41	74.00	54.00	PASS
802.11 n40	Low Channel 2422MHz							
	H	2390.00	57.61	-6.70	50.91	74.00	54.00	PASS
	H	2400.00	49.80	-6.71	43.09	74.00	54.00	PASS
	V	2390.00	57.59	-6.70	50.89	74.00	54.00	PASS
	V	2400.00	49.51	-6.71	42.80	74.00	54.00	PASS
	High Channel 2452MHz							
	H	2483.50	57.79	-6.79	51.00	74.00	54.00	PASS
	H	2500.00	49.39	-6.81	42.58	74.00	54.00	PASS
	V	2483.50	55.76	-6.79	48.97	74.00	54.00	PASS
	V	2500.00	47.09	-6.81	40.28	74.00	54.00	PASS

Remark:

1. Emission Level = Meter Reading + Factor,
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Over= Emission Level - Limit

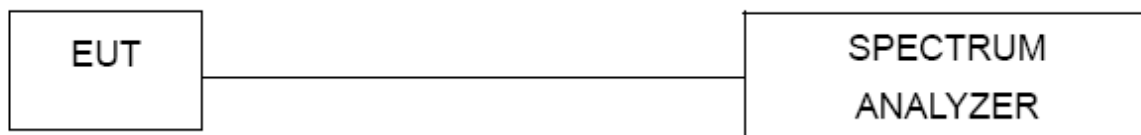
2. If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.

3 In restricted bands of operation, The spurious emissions below the permissible value more than 20dB

4. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

9. Power Spectral Density Test

9.1 Block Diagram Of Test Setup



9.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

9.3 Test Procedure

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: 3 kHz
4. Set the VBW $\geq 3 \times$ RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

9.4 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

9.5 Test Result

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

Frequency	Power Spectral Density(dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-9.873	8	PASS
2437 MHz	-10.342	8	PASS
2462 MHz	-11.309	8	PASS

TX CH01



TX CH06



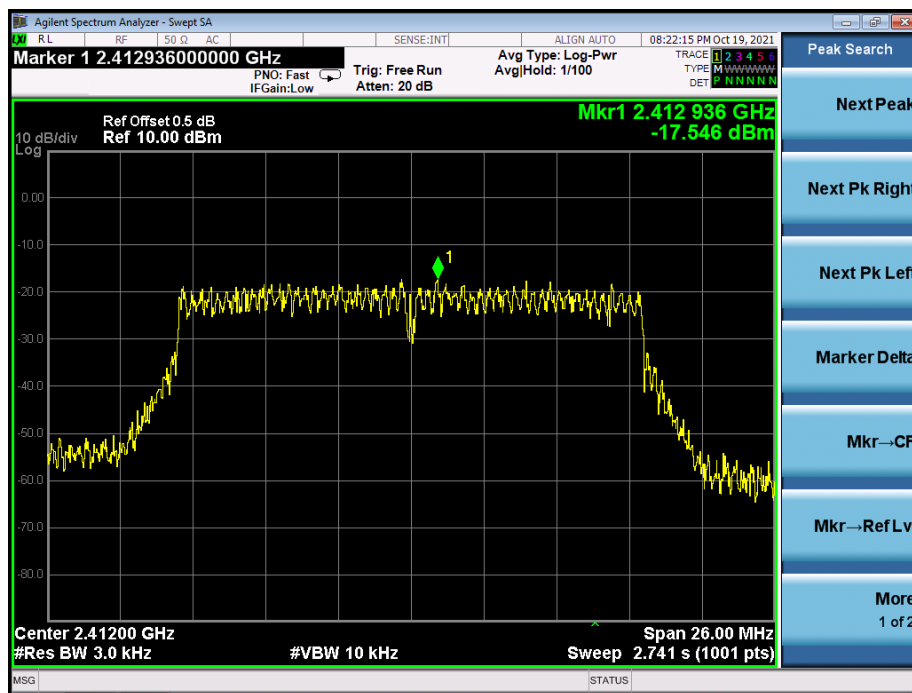
TX CH11



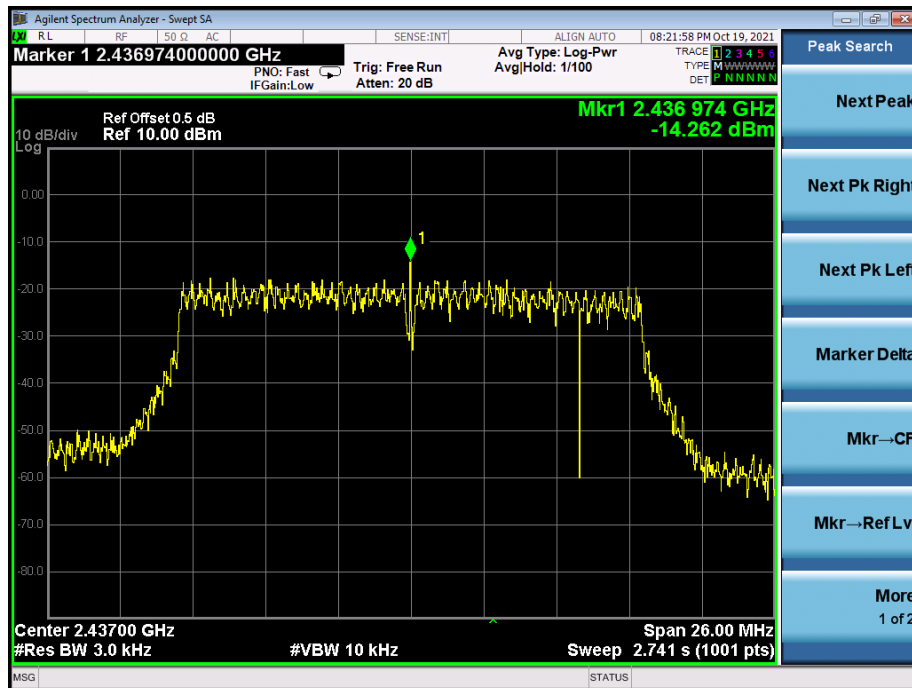
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX g Mode		

Frequency	Power Spectral Density(dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-17.546	8	PASS
2437 MHz	-14.262	8	PASS
2462 MHz	-18.016	8	PASS

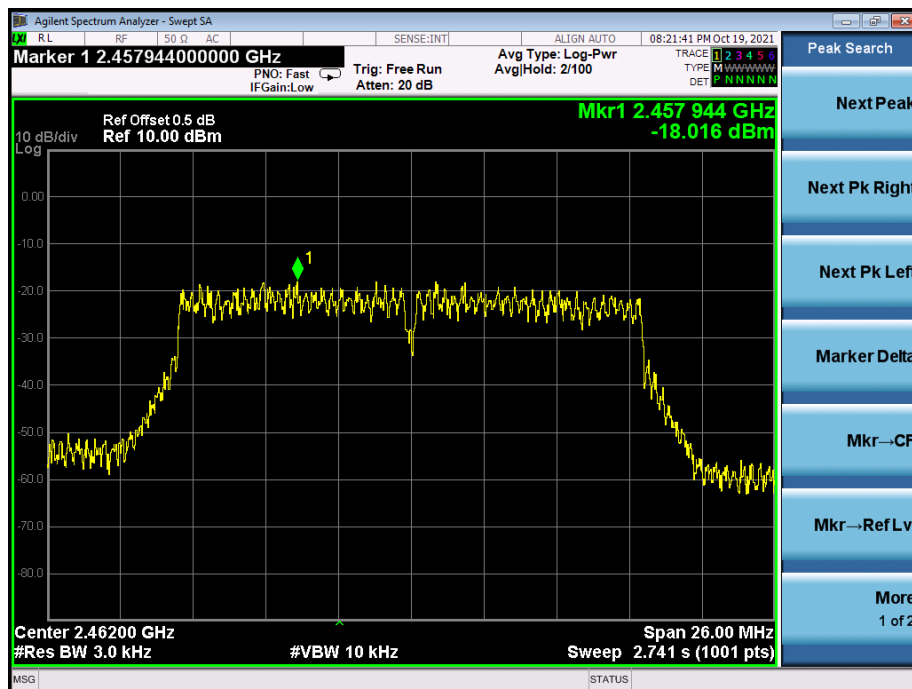
TX CH01



TX CH06



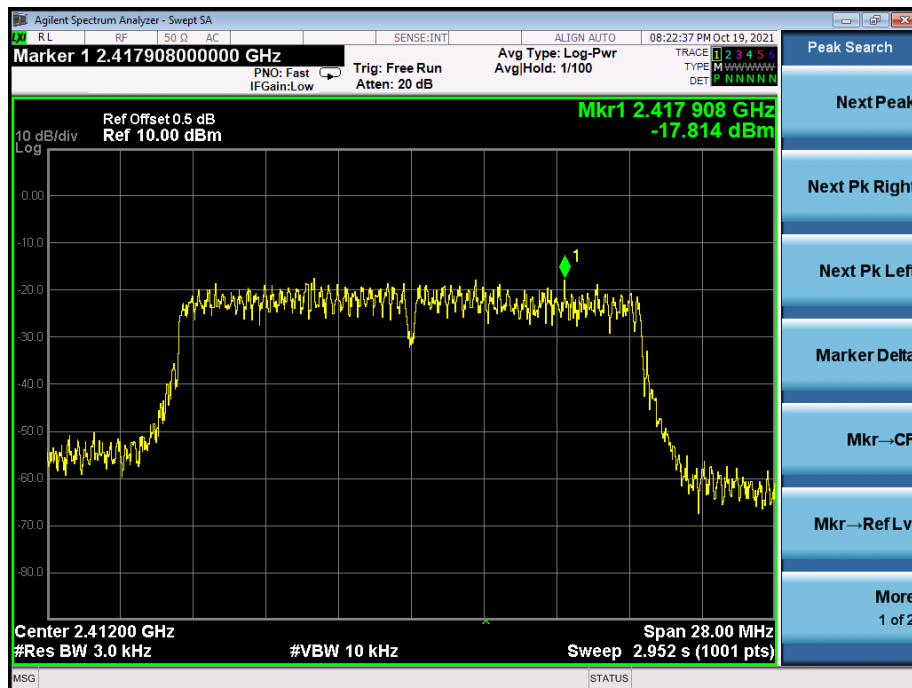
TX CH11



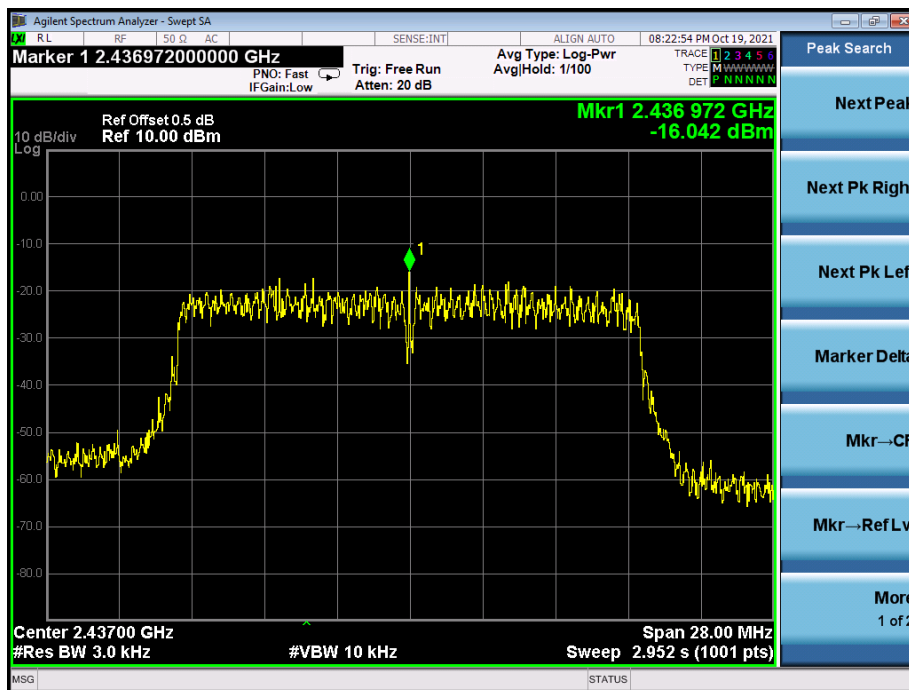
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(20M)		

Frequency	Power Spectral Density(dBm/3kHz)	Limit (dBm/3kHz)	Result
2412 MHz	-17.814	8	PASS
2437 MHz	-16.042	8	PASS
2462 MHz	-18.180	8	PASS

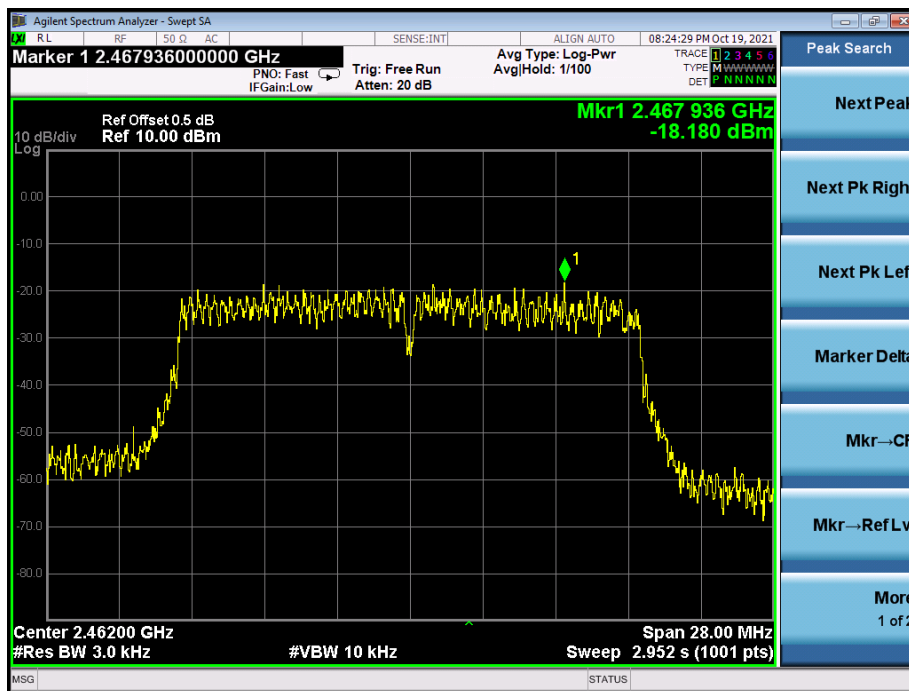
TX CH01



TX CH06



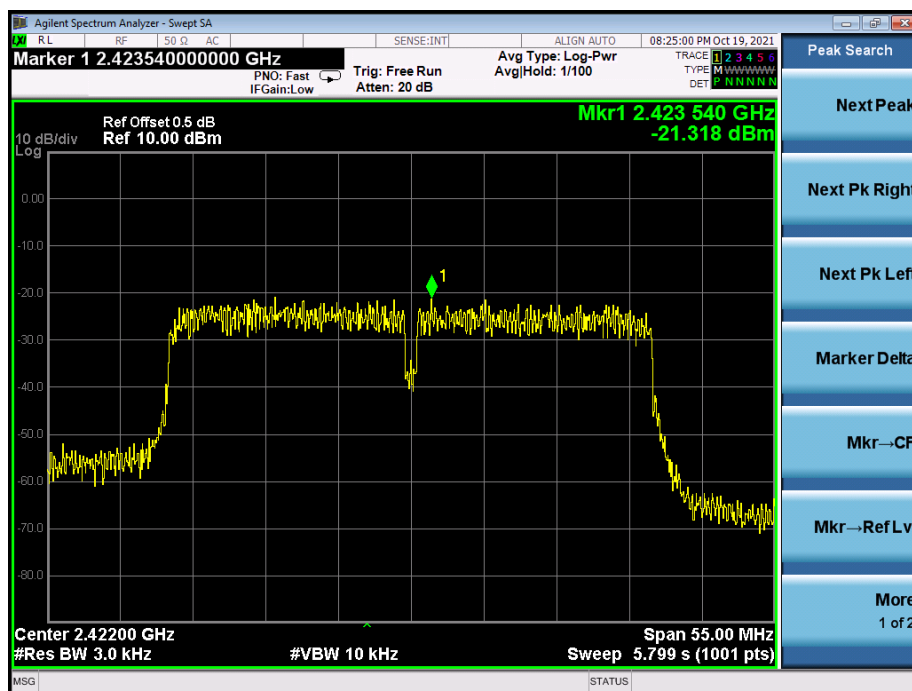
TX CH11



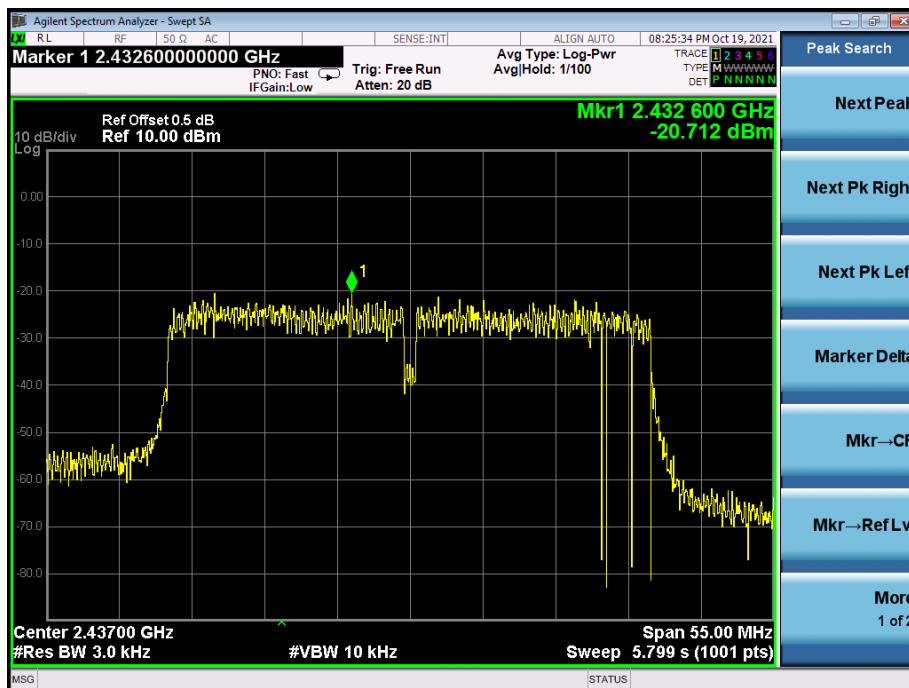
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(40M)		

Frequency	Power Spectral Density(dBm)	Limit (dBm)	Result
2422 MHz	-21.318	8	PASS
2437 MHz	-20.712	8	PASS
2452 MHz	-21.160	8	PASS

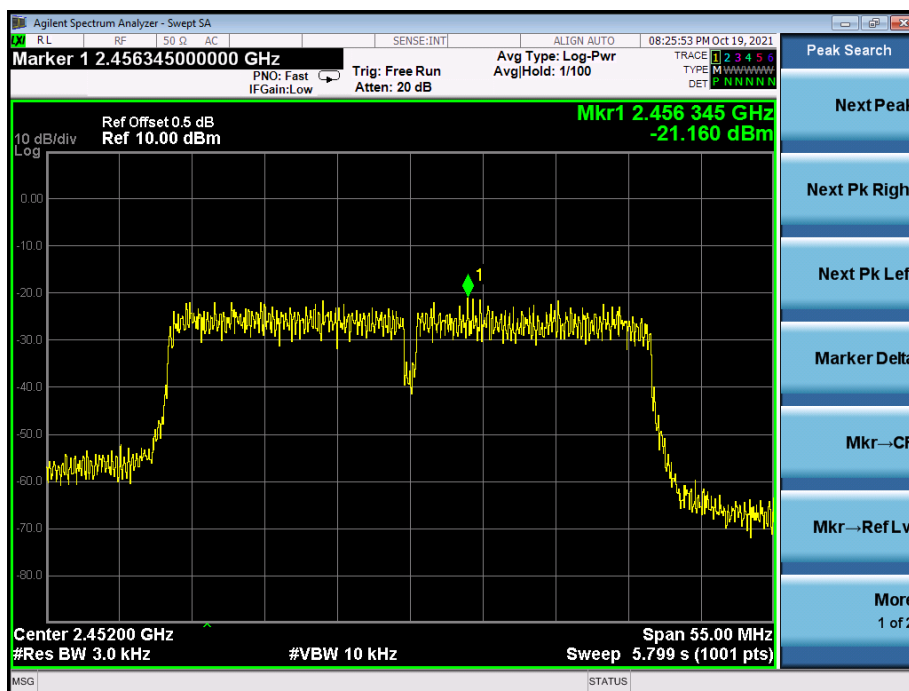
TX CH03



TX CH06



TX CH09



10. Bandwidth Test

10.1 Block Diagram Of Test Setup



10.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

10.3 Test Procedure

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

10.4 EUT Operating Conditions

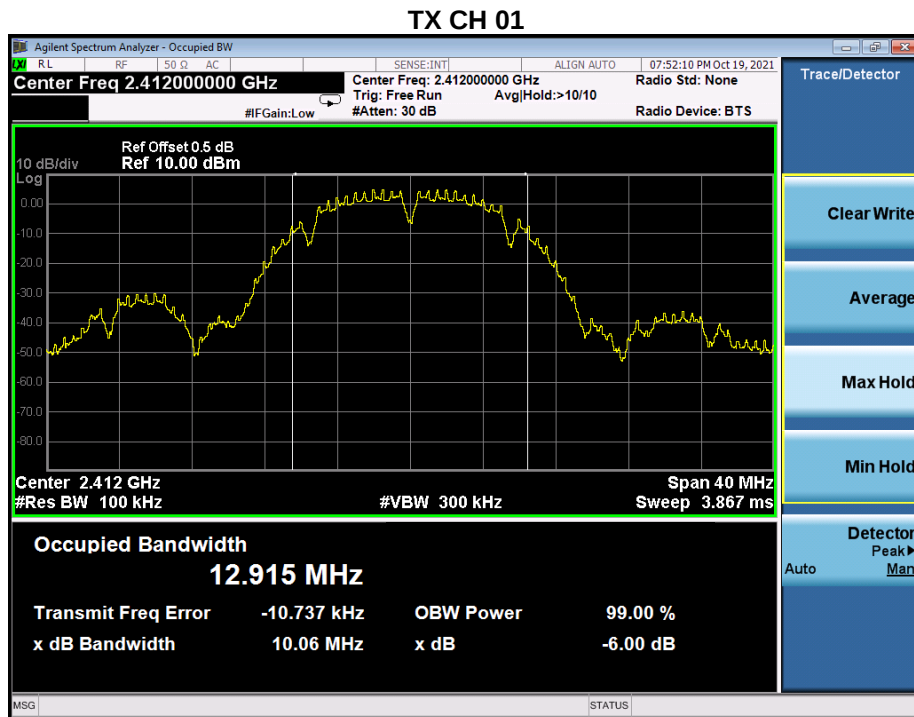
The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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

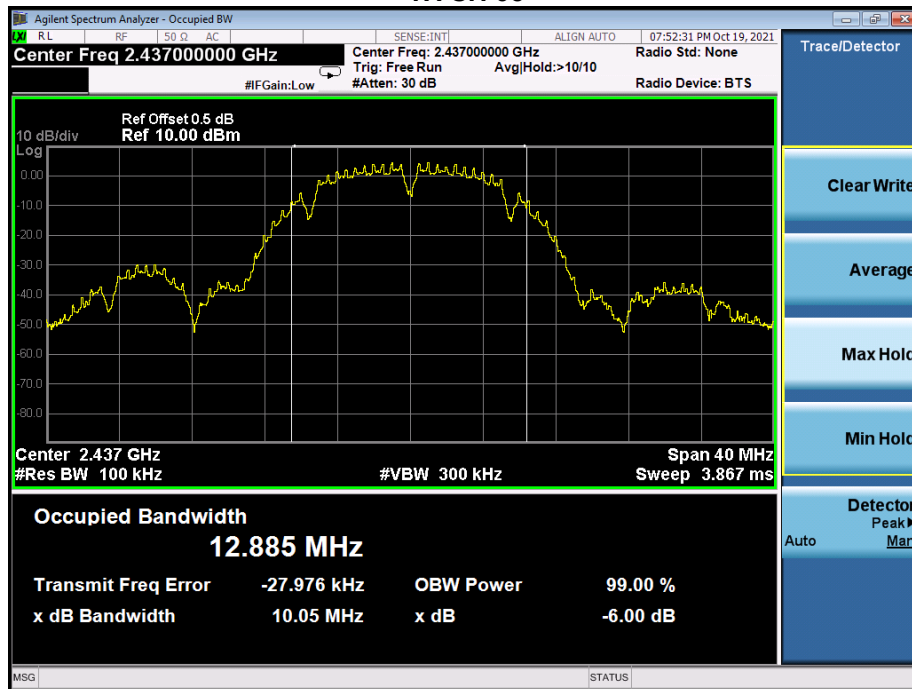
10.5 Test Result

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

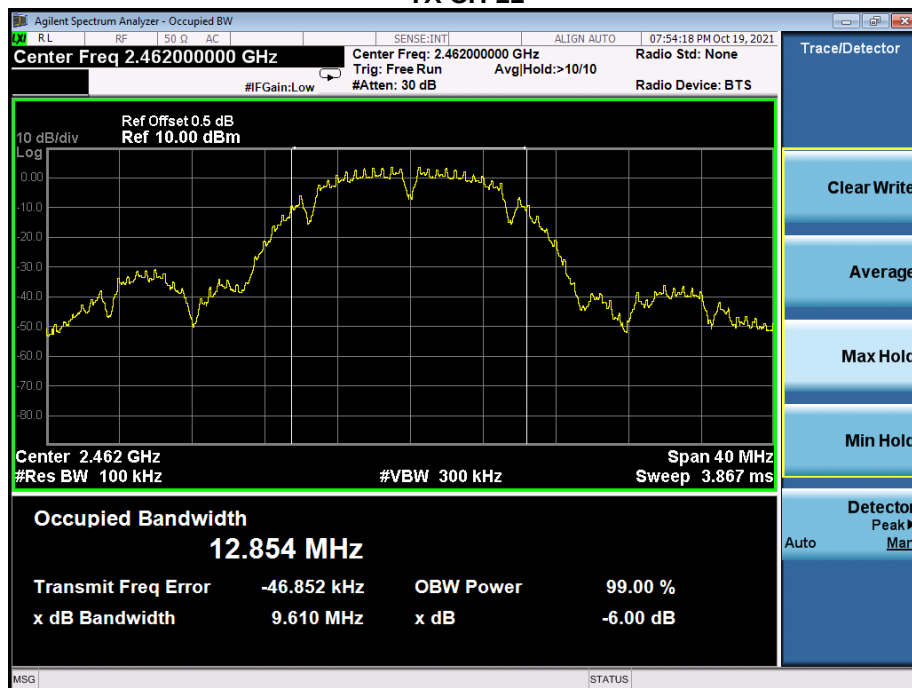
Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	10.06	500	Pass
2437	10.05	500	Pass
2462	9.61	500	Pass



TX CH 06



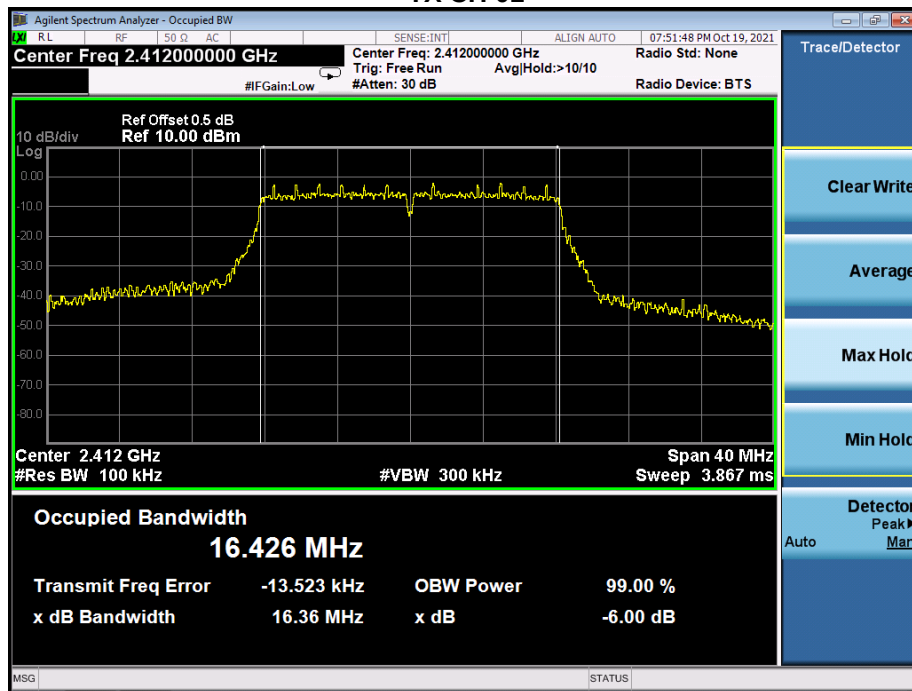
TX CH 11



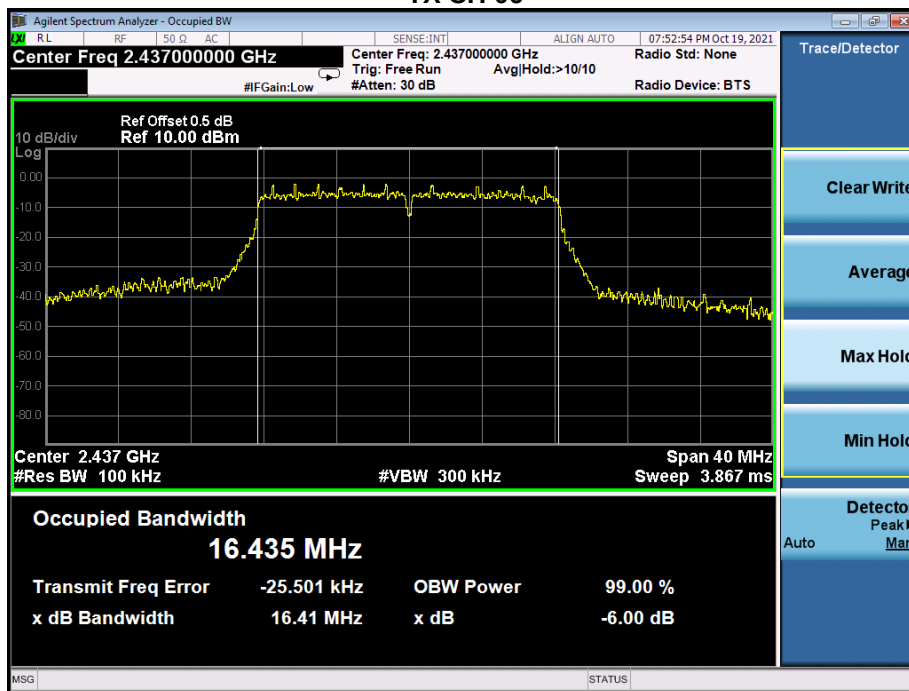
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX g Mode		

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	16.36	500	Pass
2437	16.41	500	Pass
2462	16.38	500	Pass

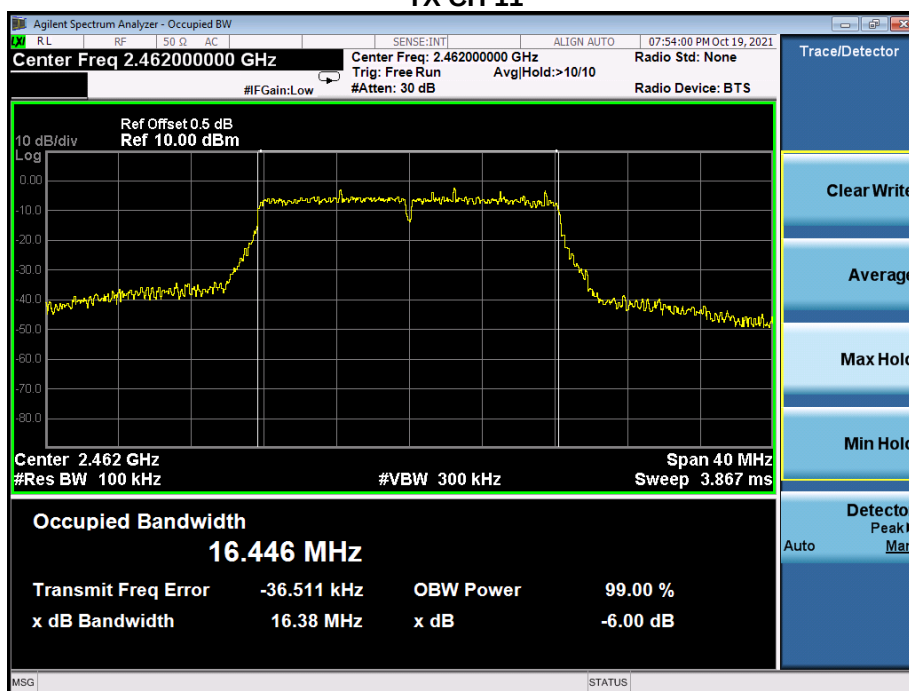
TX CH 01



TX CH 06



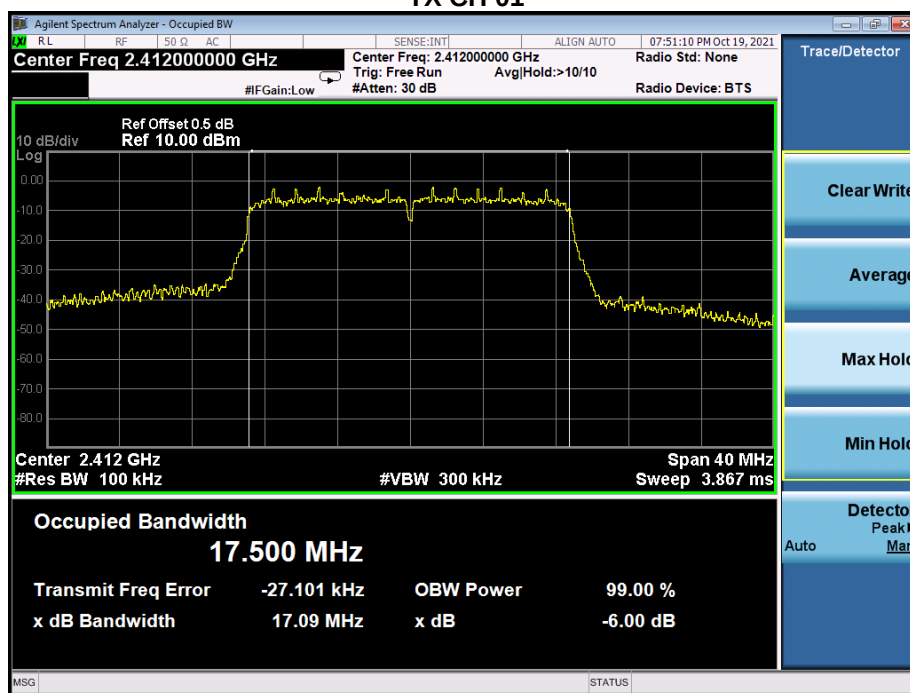
TX CH 11



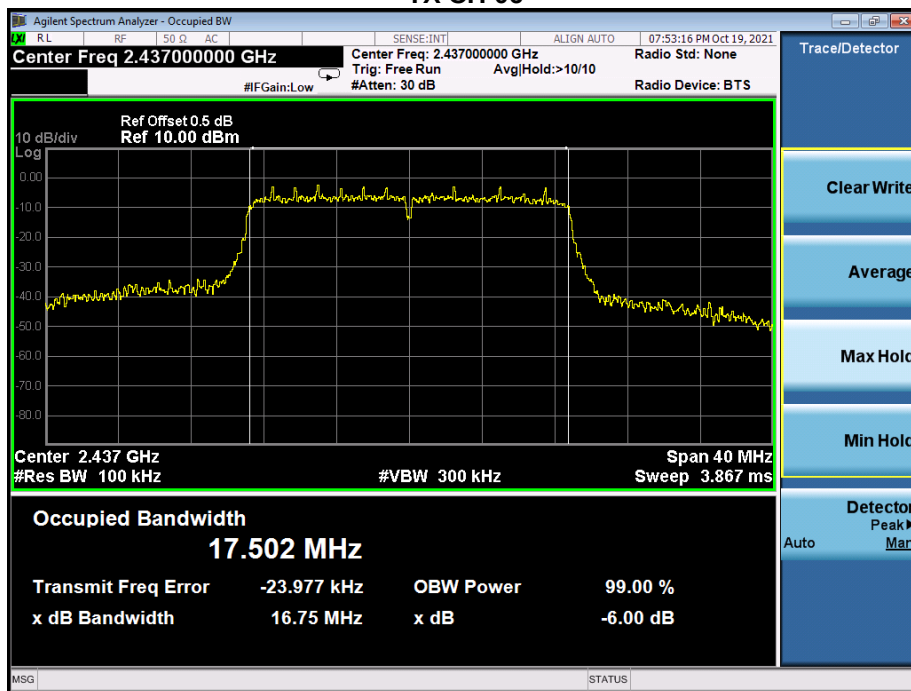
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(20M)		

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2412	17.09	500	Pass
2437	16.75	500	Pass
2462	17.00	500	Pass

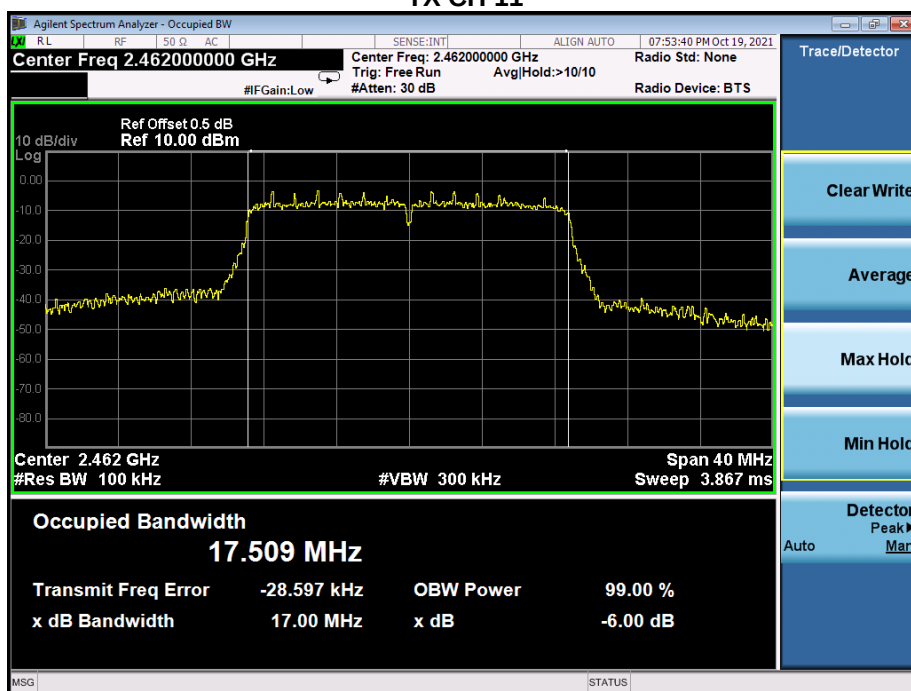
TX CH 01



TX CH 06



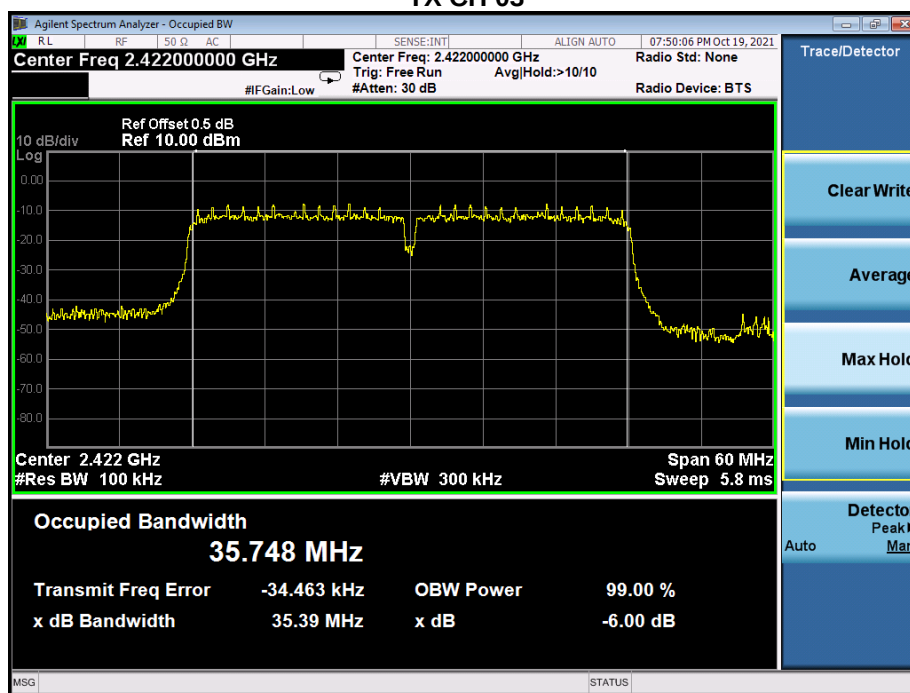
TX CH 11



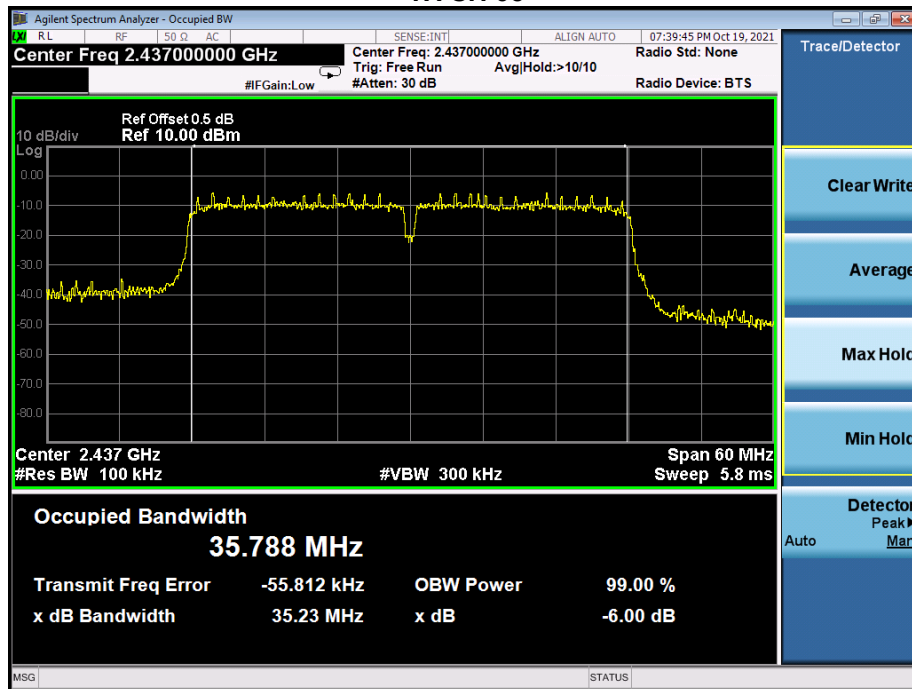
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz
Test Mode :	TX n Mode(40M)		

Frequency (MHz)	6dB bandwidth (MHz)	Limit (kHz)	Result
2422	35.39	500	Pass
2437	35.23	500	Pass
2452	35.20	500	Pass

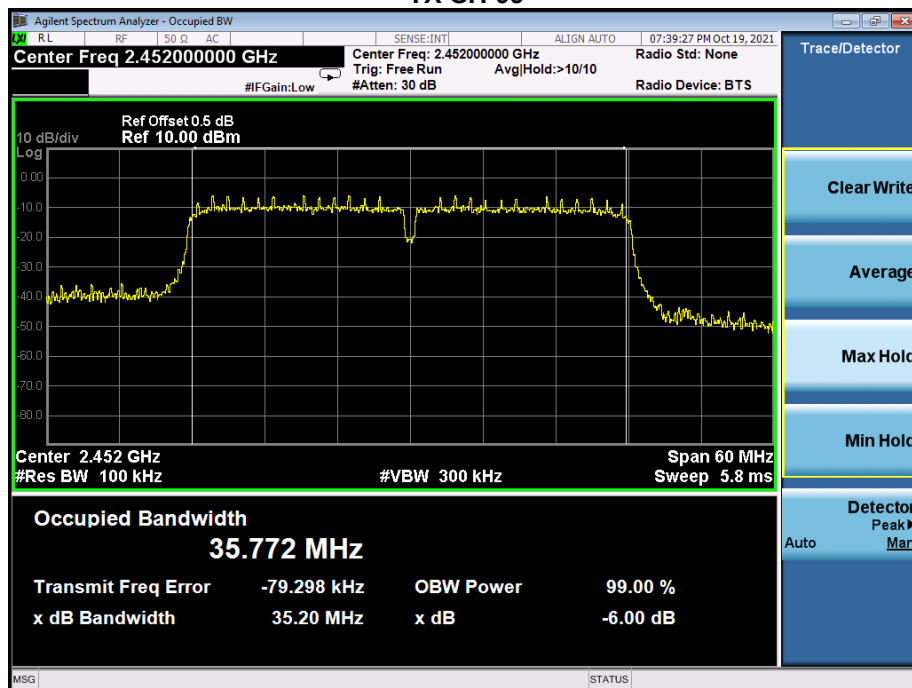
TX CH 03



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℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V/60Hz

	Frequency	Maximum Conducted Output Power(PK)	LIMIT
	(MHz)	(dBm)	dBm
802.11b	2412	14.427	30
	2437	14.805	30
	2462	13.919	30
802.11g	2412	13.682	30
	2437	12.906	30
	2462	12.224	30
802.11n20	2412	11.798	30
	2437	11.229	30
	2462	11.061	30
802.11n40	2422	9.493	30
	2437	7.733	30
	2452	8.099	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:

- a) Set the RBW = 100KHz.
- b) Set the VBW = 300KHz.
- c) Sweep time = auto couple.
- d) Detector function = peak.
- e) Trace mode = max hold.
- f) 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

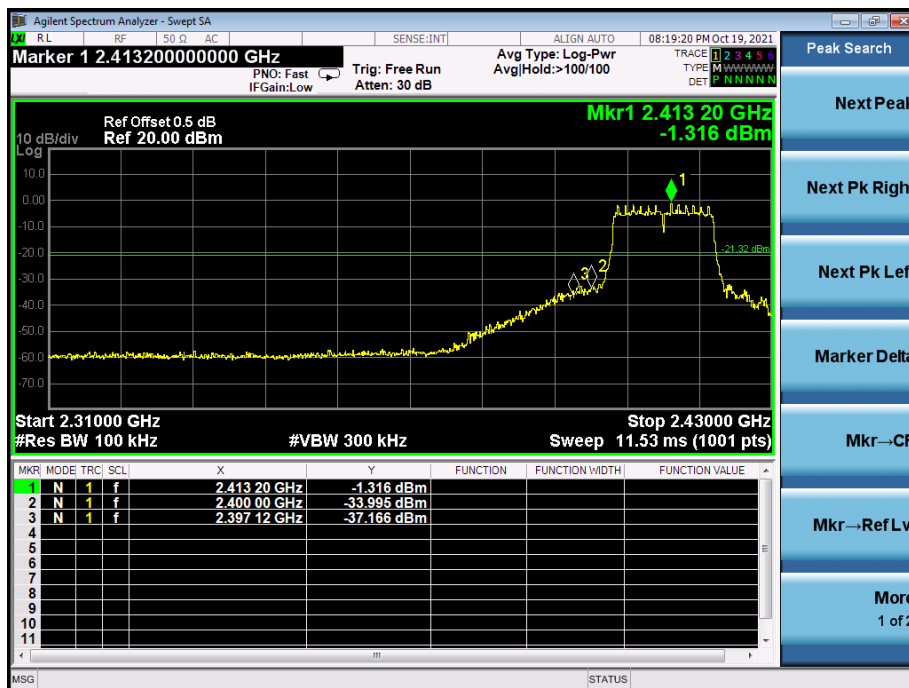
802.11b: Band Edge, Left Side



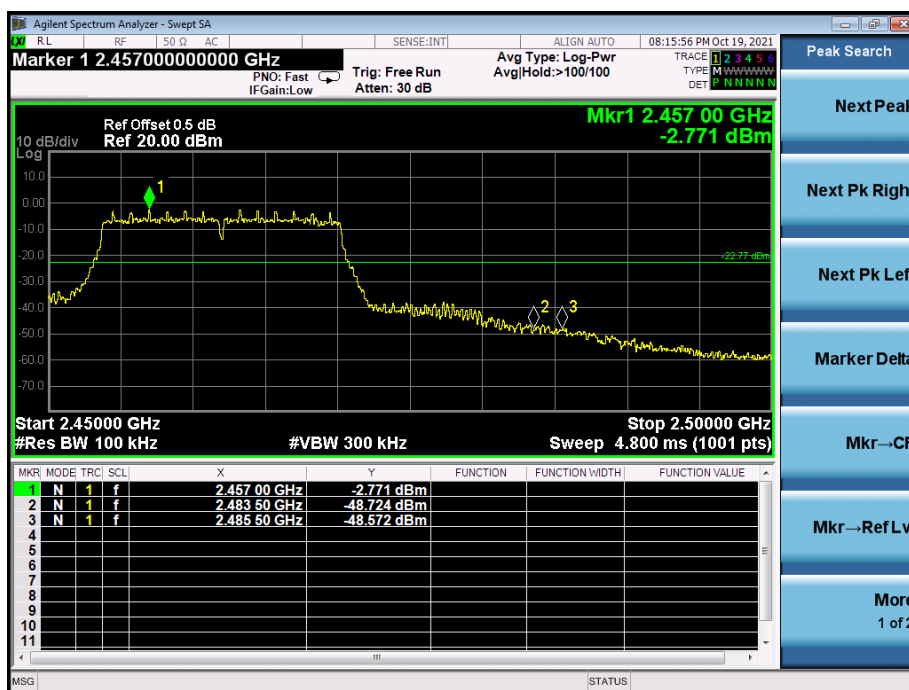
802.11b: Band Edge, Right Side



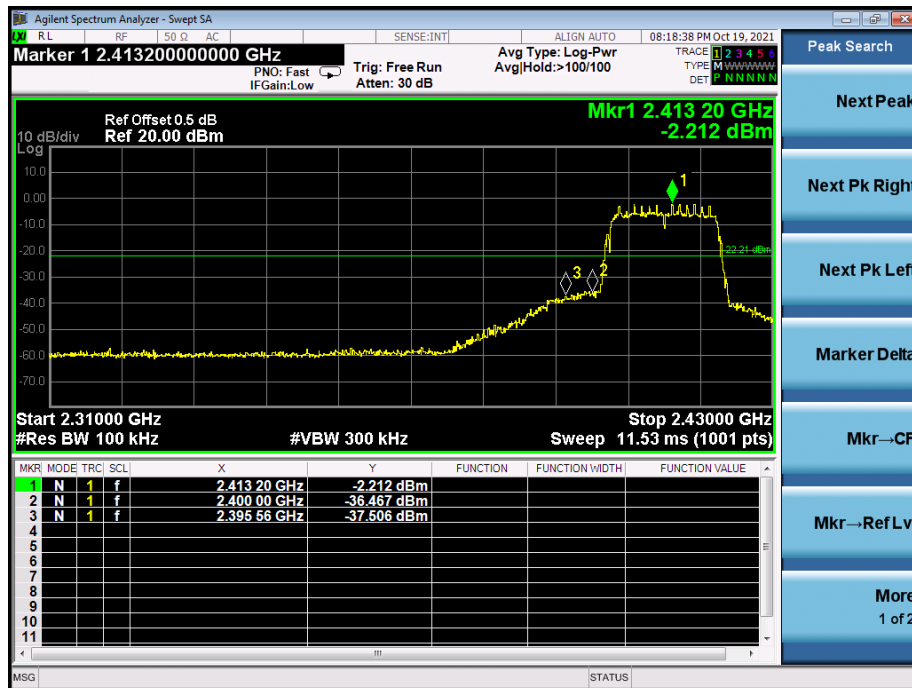
802.11g: Band Edge, Left Side



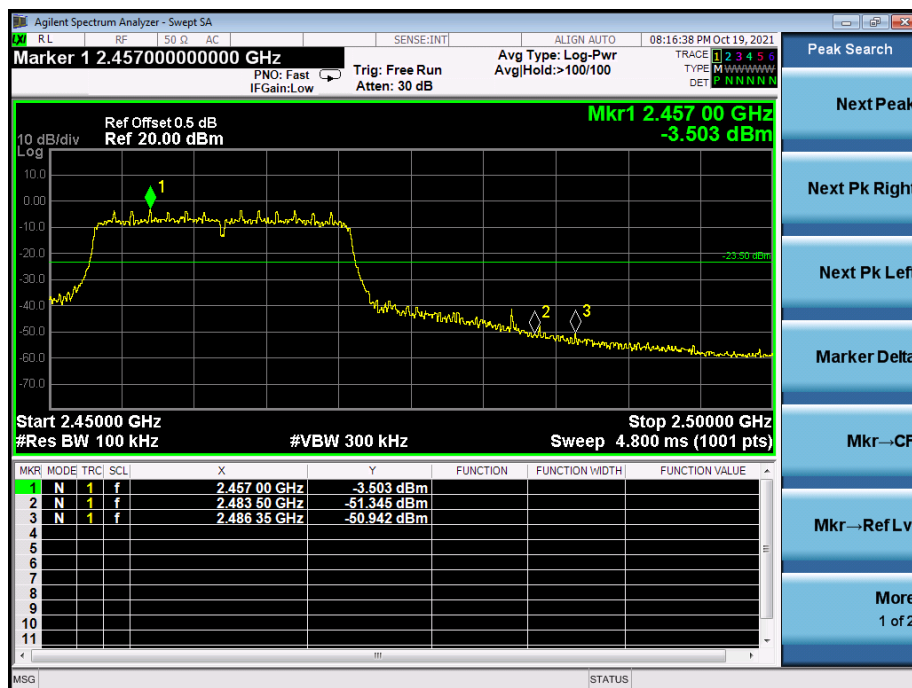
802.11g: Band Edge, Right Side



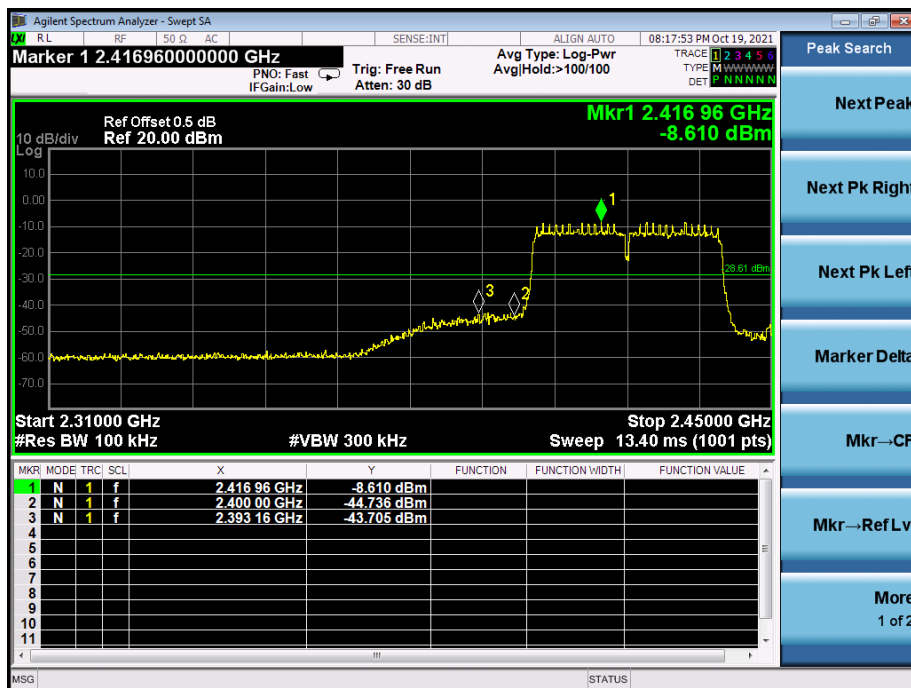
802.11n-HT20: Band Edge, Left Side



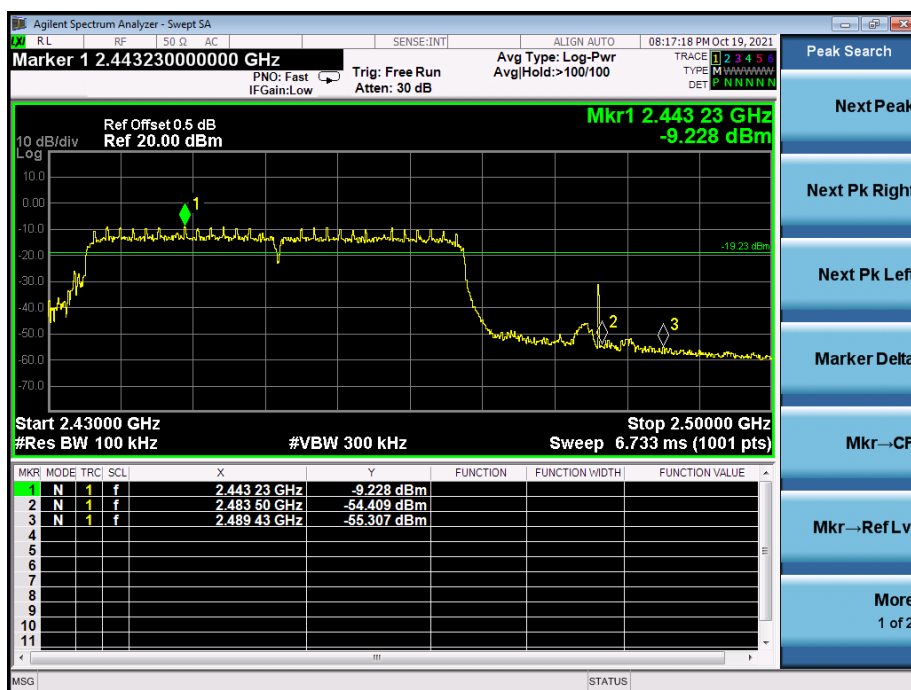
802.11n-HT20: Band Edge, Right Side



802.11n-HT40: Band Edge, Left Side



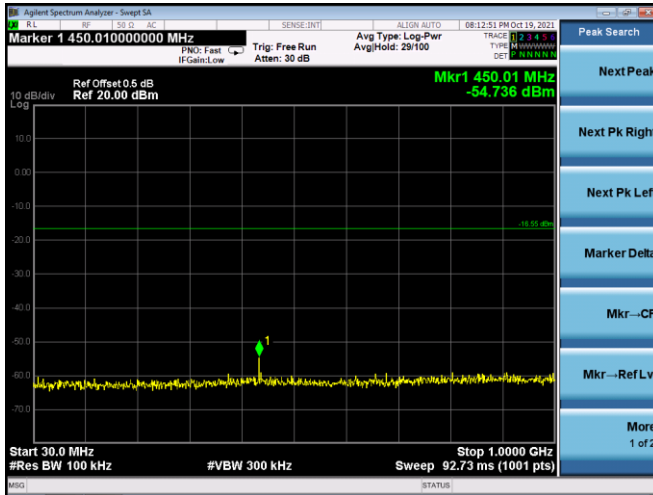
802.11n-HT40: Band Edge, Right Side



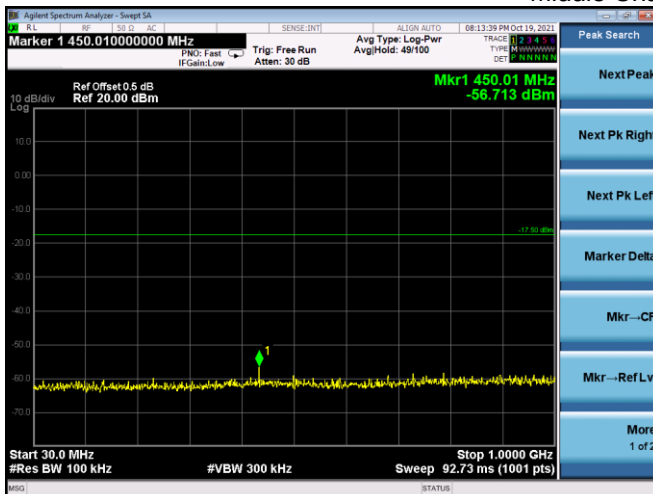
CONDUCTED EMISSION MEASUREMENT

802.11b

Low Channel 2412MHz



Middle Channel 2437MHz



High Channel 2462MHz

