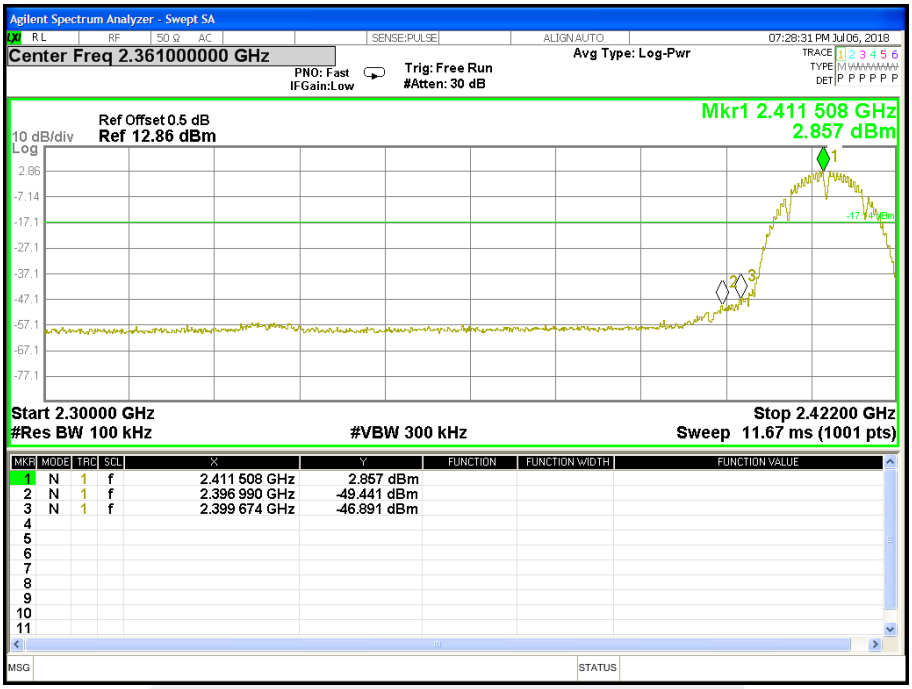
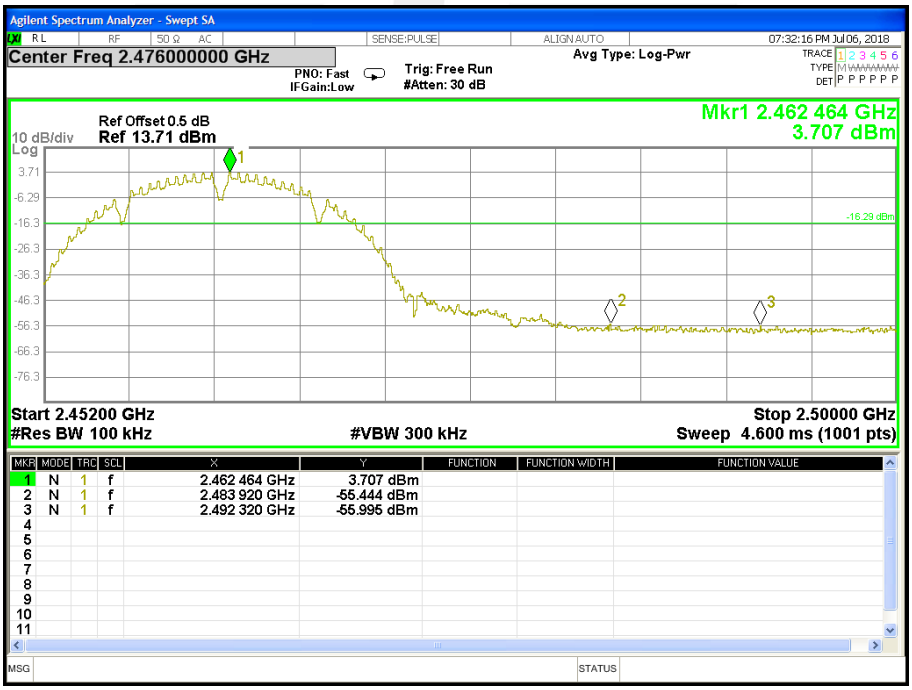
Band edge

CH 01

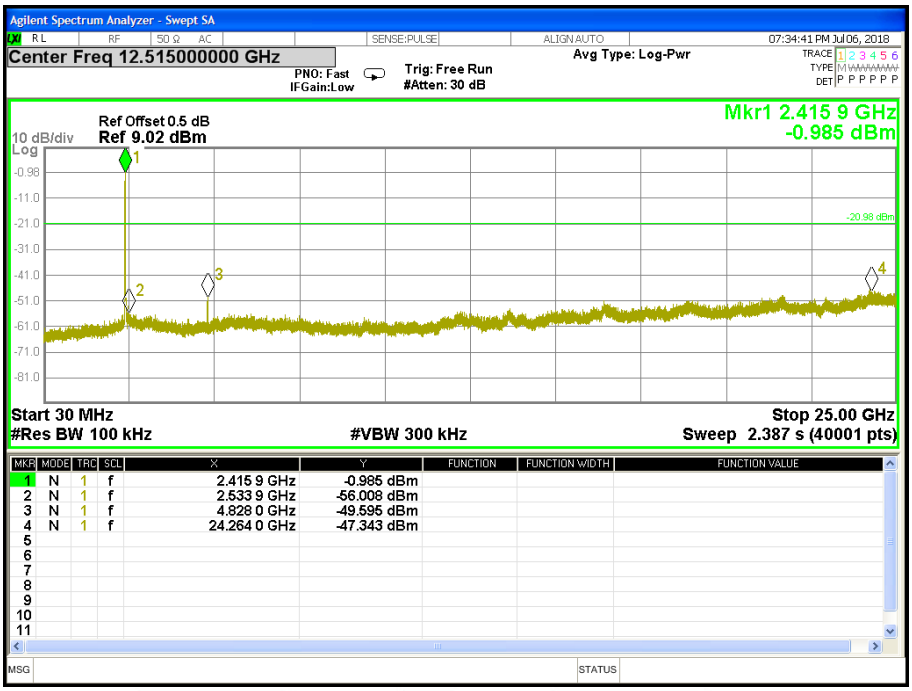


CH 11

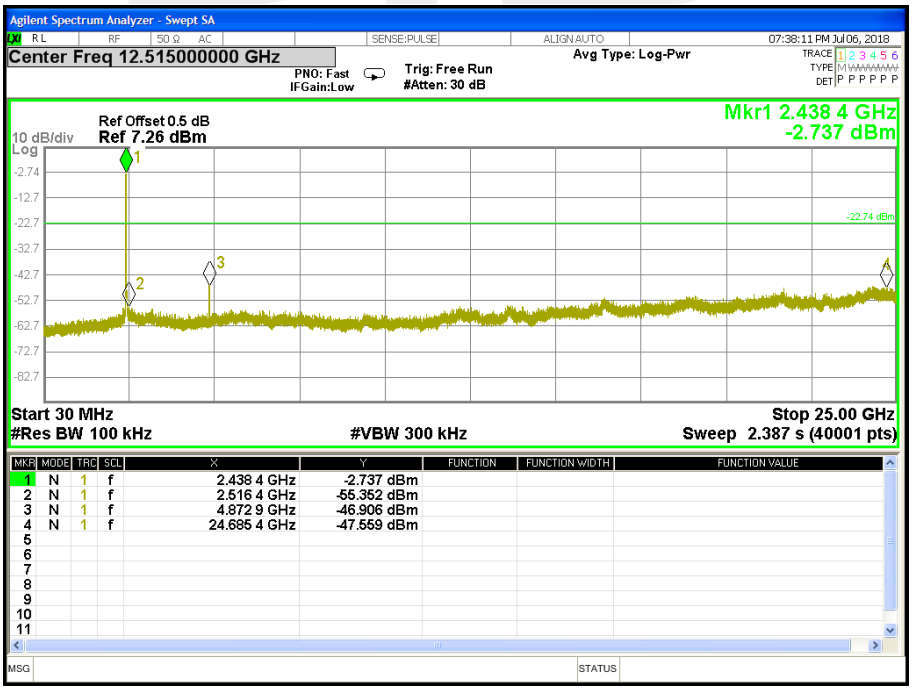


Temperature :	25 ℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX g Mode /CH01, CH06, CH11

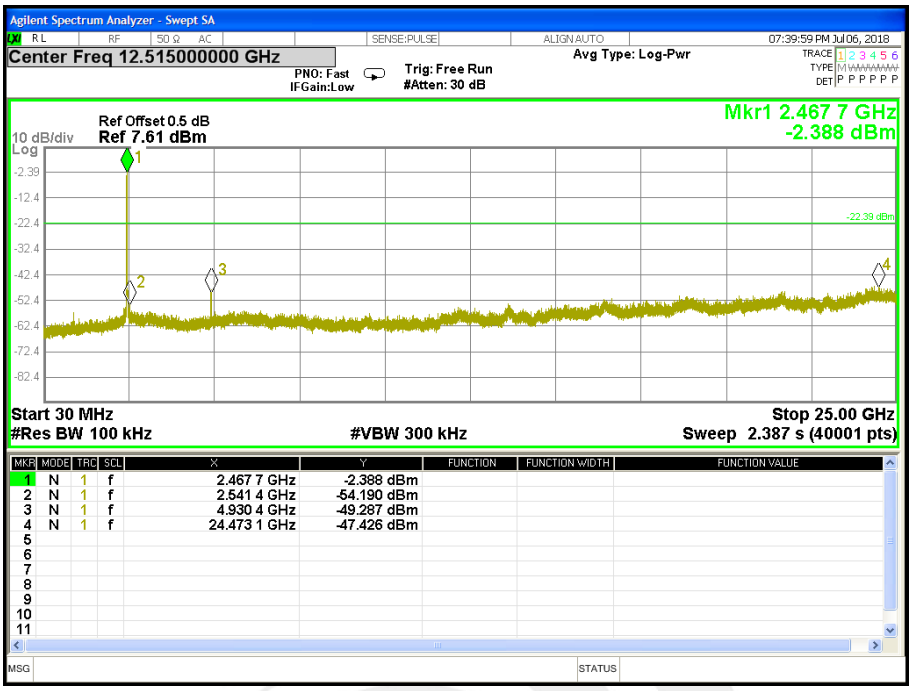
CH 01



CH06

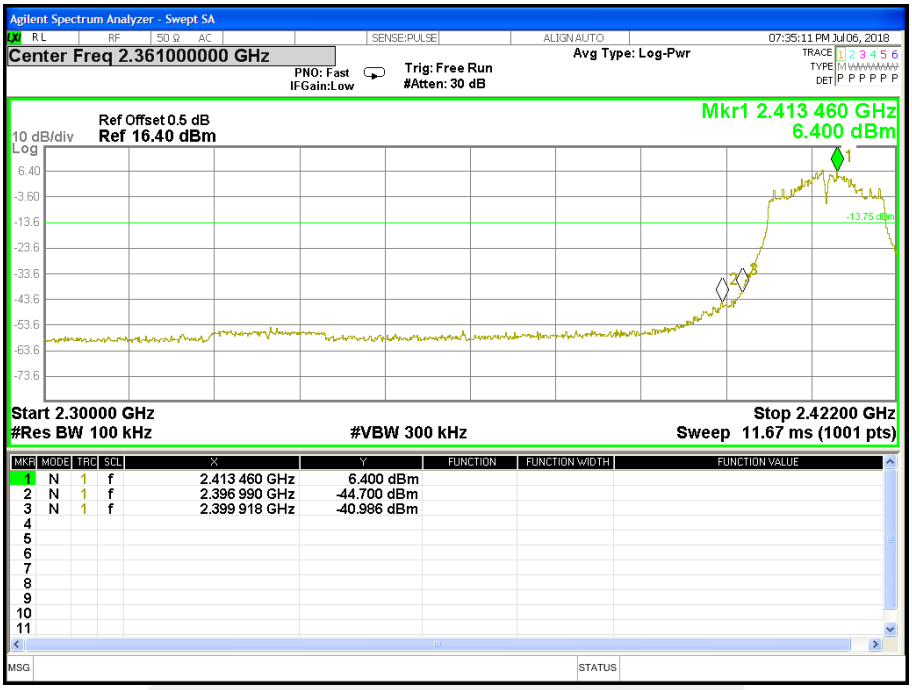


CH 11

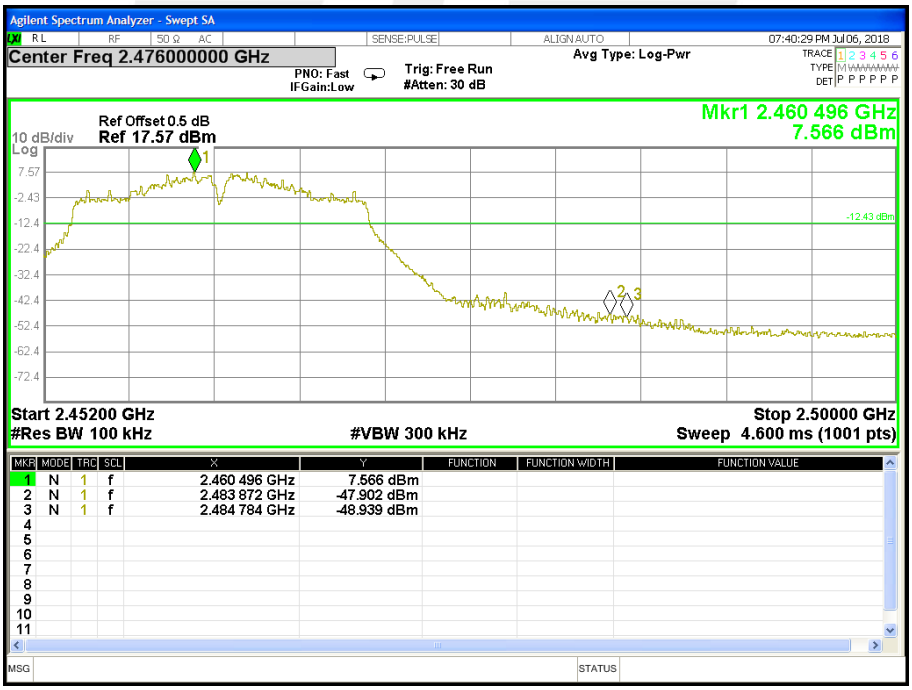

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
07:39:59 PM Jul 06, 2018
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P P
Ref Offset 0.5 dB
10 dB/div
Log
Ref 7.61 dBm
Mkr1 2.467 7 GHz
-2.388 dBm
-2.39
-12.4
-22.4
-32.4
-42.4
-52.4
-62.4
-72.4
-82.4
-22.39 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.467 7 GHz -2.388 dBm
2 N 1 f 2.541 4 GHz -54.190 dBm
3 N 1 f 4.930 4 GHz -49.287 dBm
4 N 1 f 24.473 1 GHz -47.426 dBm
5
6
7
8
9
10
11
MSG
STATUS

Band edge

CH 01

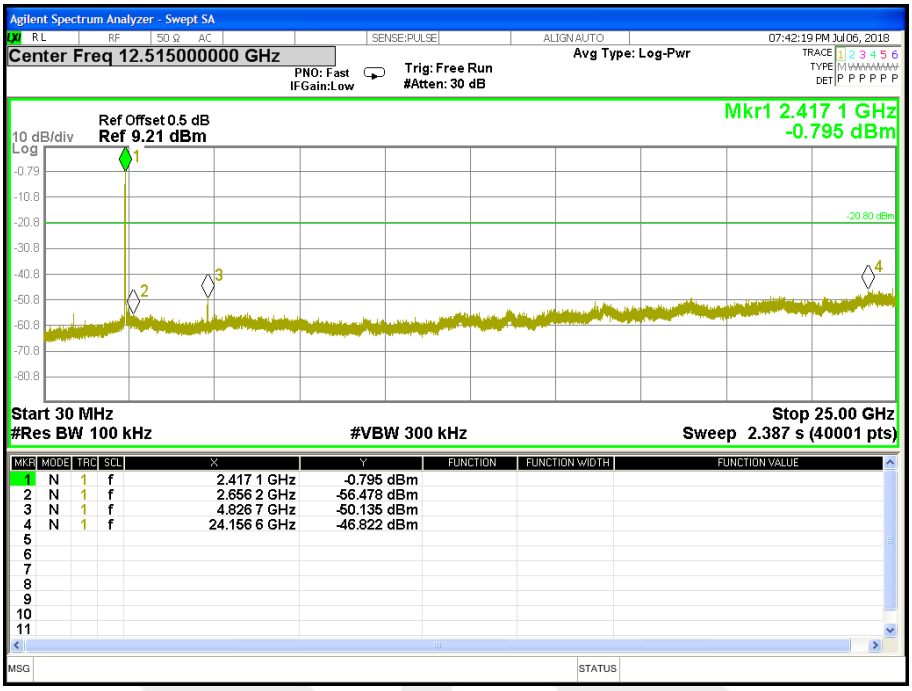


CH11

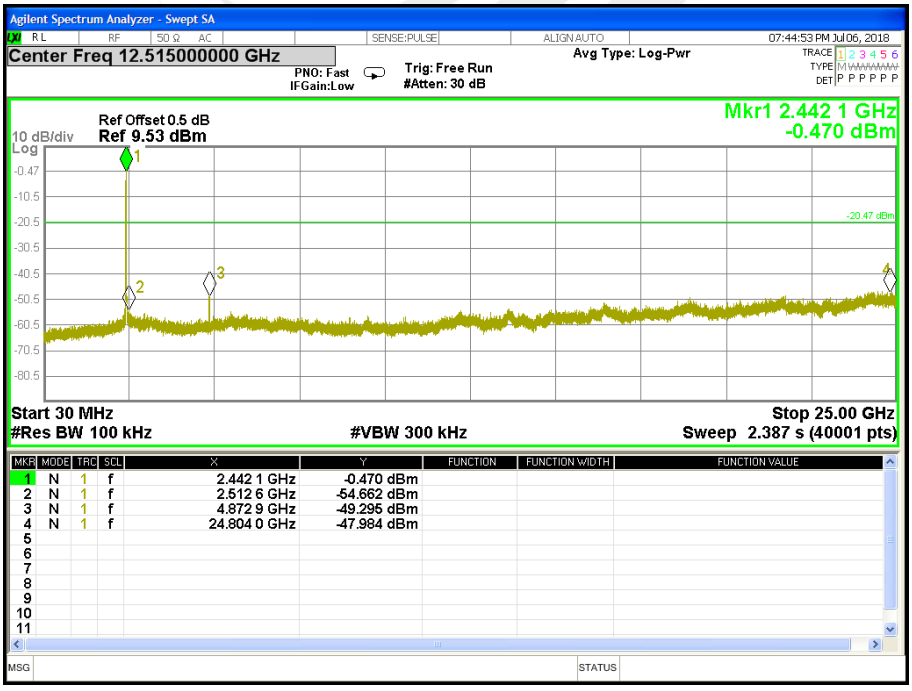


Temperature :	25 ℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz	Test Mode :	TX n Mode(20M) /CH01, CH06, CH11

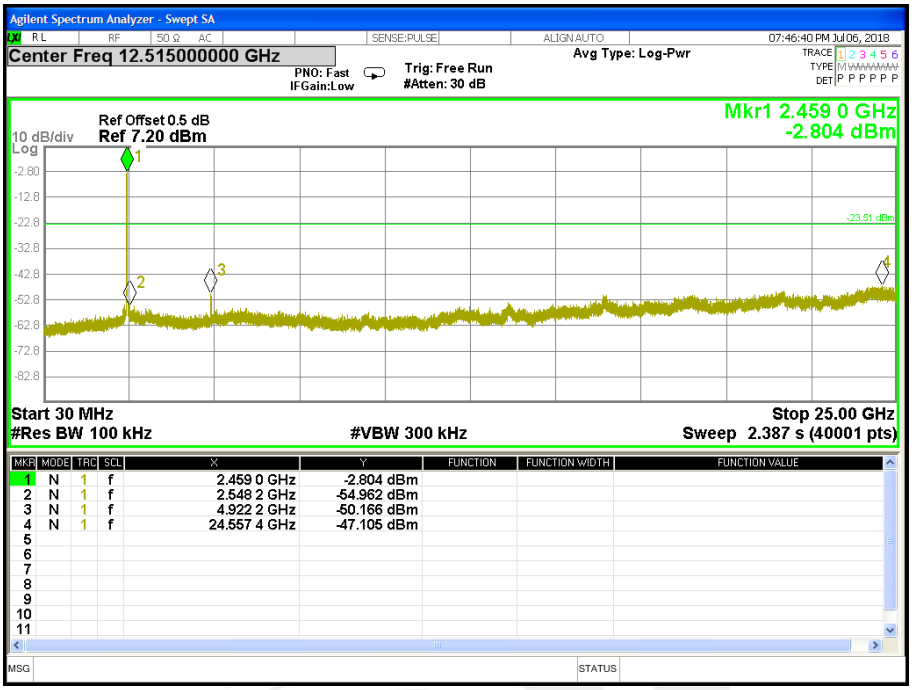
CH 01



CH 06

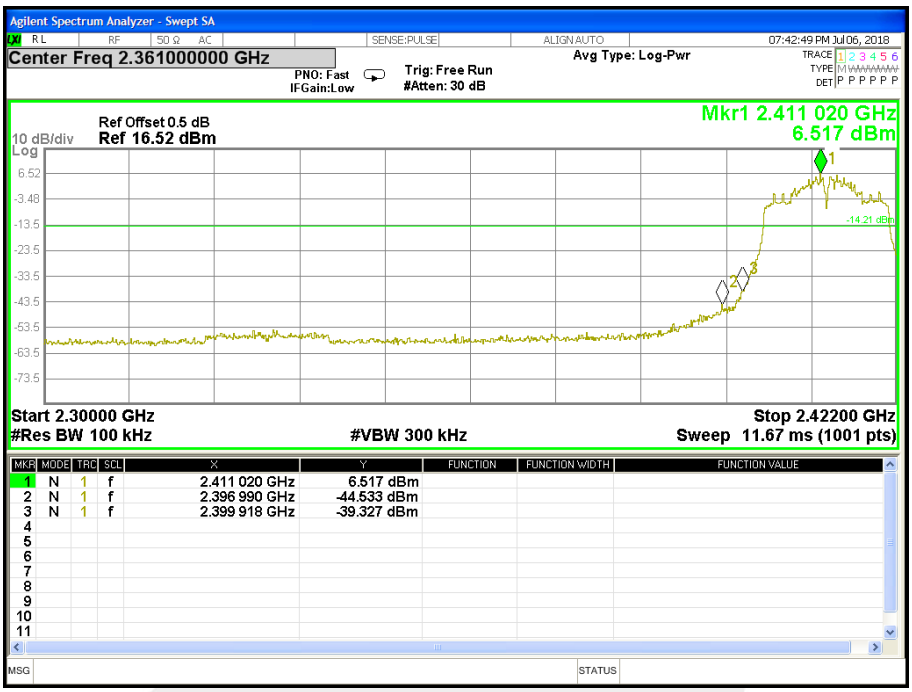


CH 11

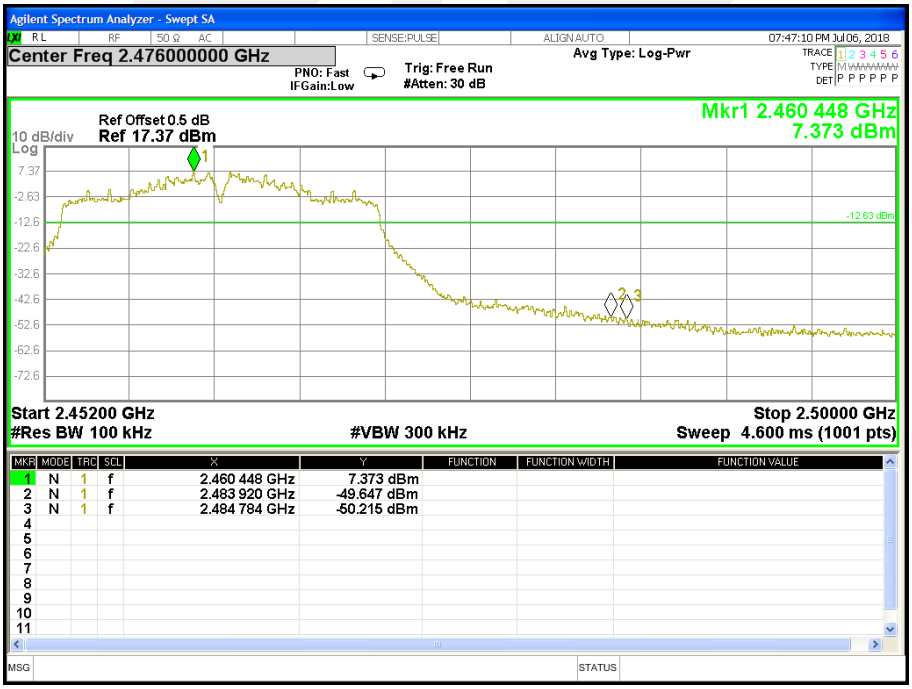

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
07:46:40 PM Jul 06, 2018
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 0.5 dB
10 dB/div
Log
Ref 7.20 dBm
Mkr1 2.459 0 GHz
-2.804 dBm
-23.51 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 2.459 0 GHz -2.804 dBm
2 N 1 f 2.548 2 GHz -54.962 dBm
3 N 1 f 4.922 2 GHz -50.166 dBm
4 N 1 f 24.557 4 GHz -47.105 dBm
MSG
STATUS

Band edge

CH 01



CH 11



5 POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part 15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e))	Power Spectral Density	≤8 dBm (RBW ≥ 3KHz)	2400-2483.5	PASS

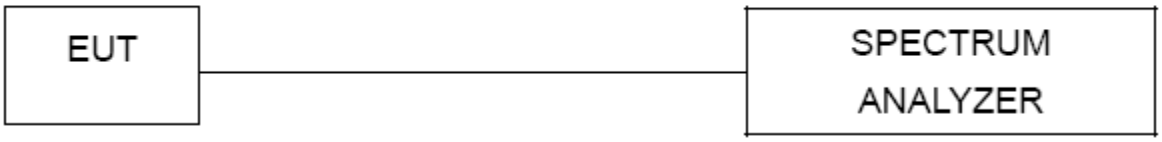
5.2 TEST PROCEDURE

1) Set analyzer center frequency to DTS channel center frequency.
2) Set the span to 1.5 times the DTS channel bandwidth.
3) Set the 100 kHz ≥ RBW ≥ 3 kHz.
4) Set the VBW ≥ 3 x 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.
10) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

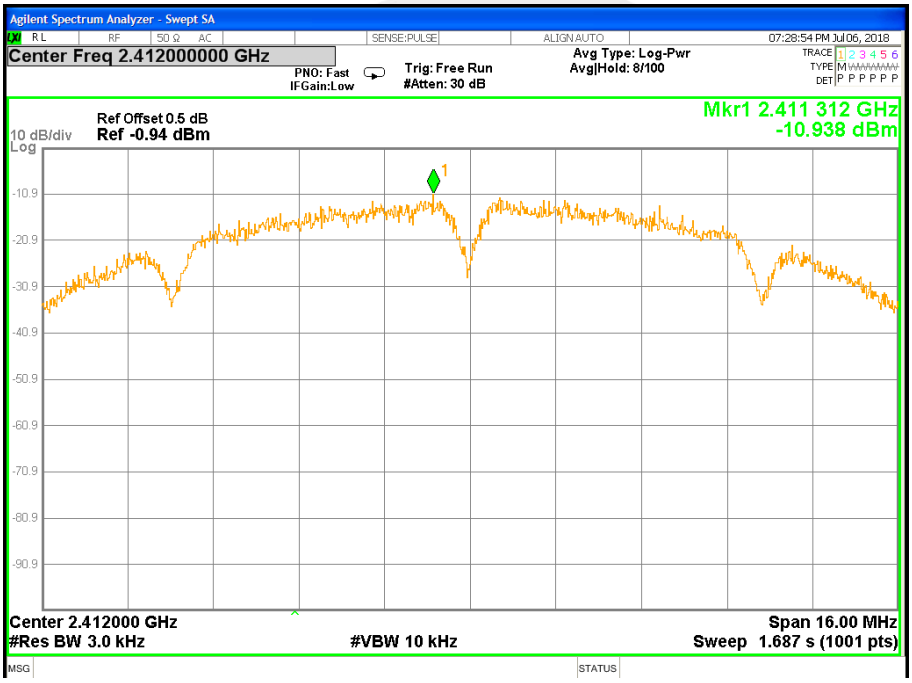
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

5.6 TEST RESULTS

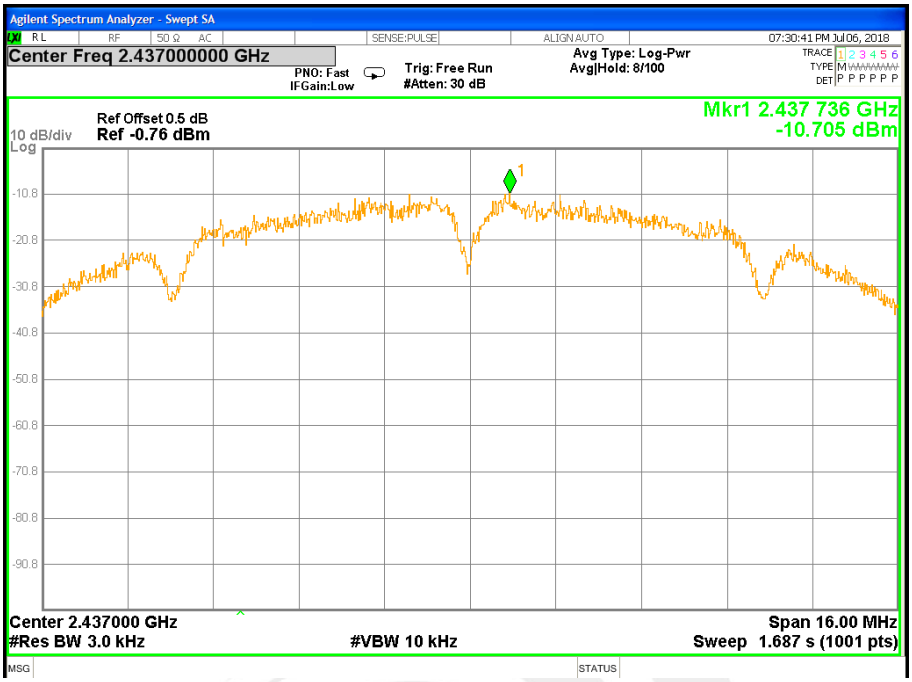
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX b Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
b mode (1 Mbps)	2412.00	-10.938	≤ 8.00	PASS
	2437.00	-10.705	≤ 8.00	PASS
	2462.00	-11.099	≤ 8.00	PASS

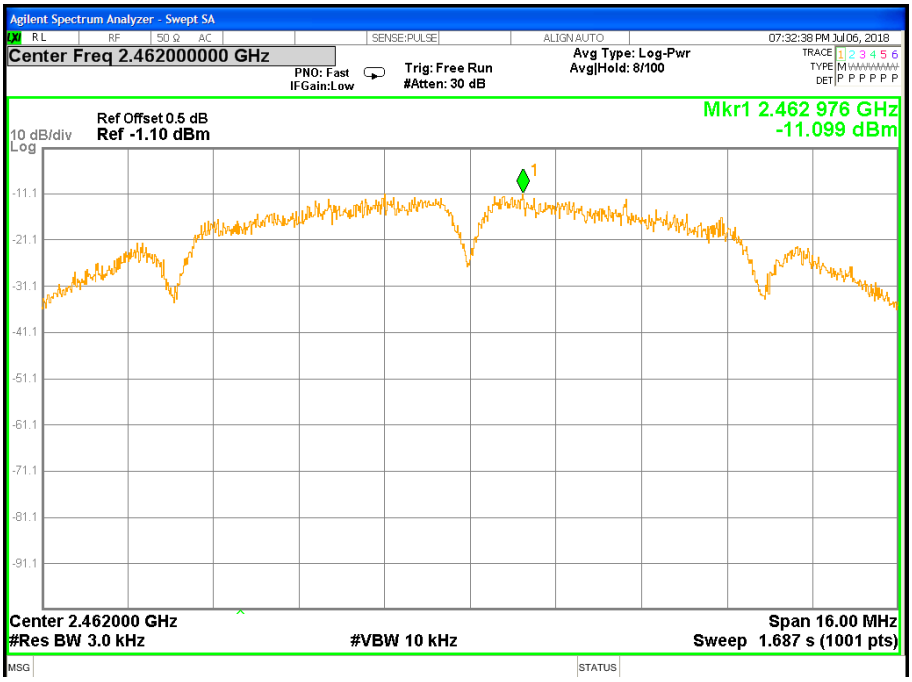
TX CH01



TX CH06



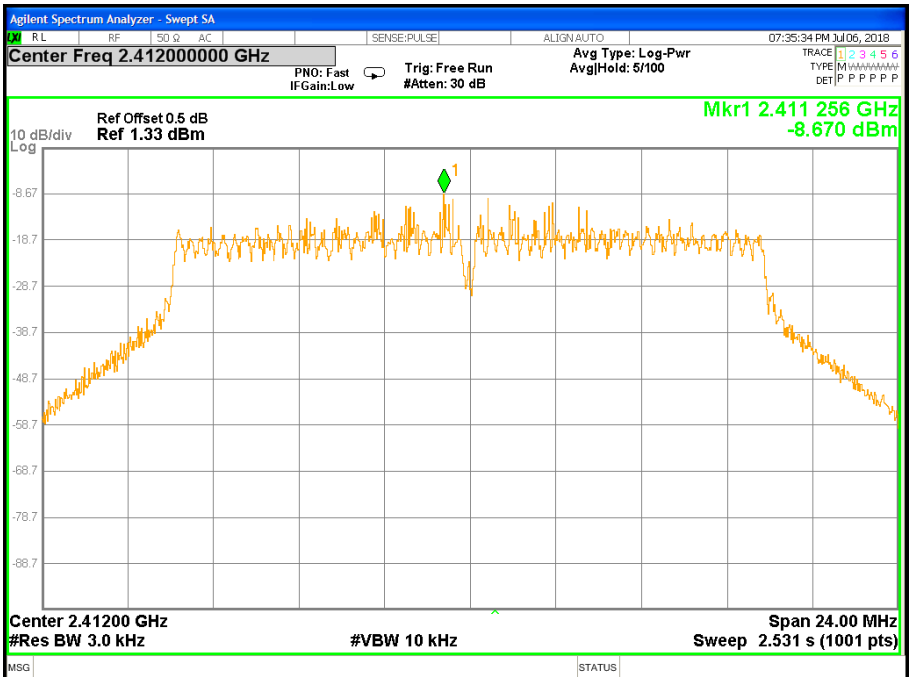
TX CH11



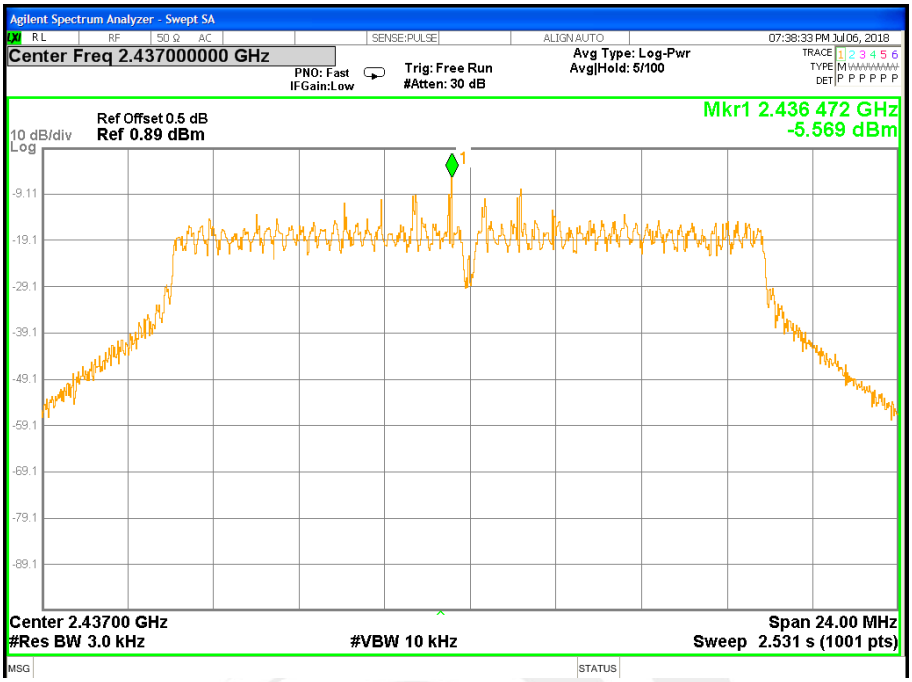
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
g mode (6 Mbps)	2412.00	-8.670	≤ 8.00	PASS
	2437.00	-5.569	≤ 8.00	PASS
	2462.00	-7.786	≤ 8.00	PASS

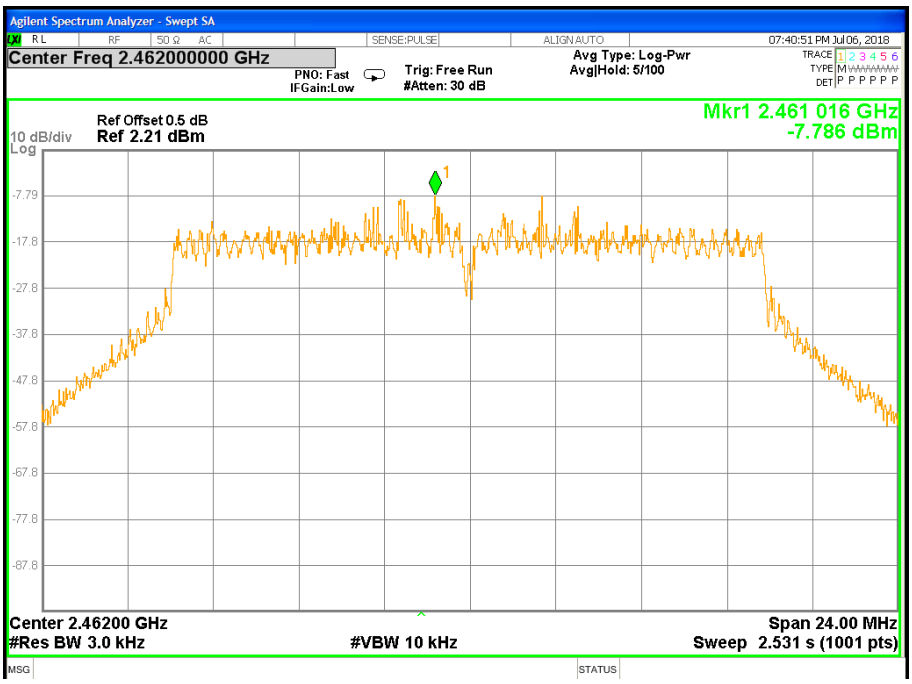
TX CH01



TX CH06



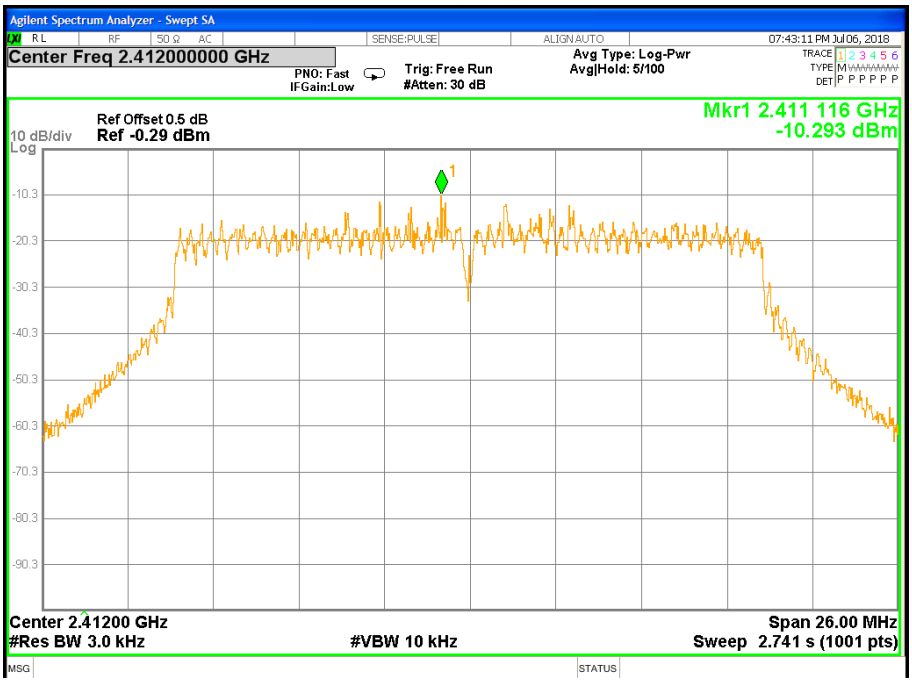
TX CH11



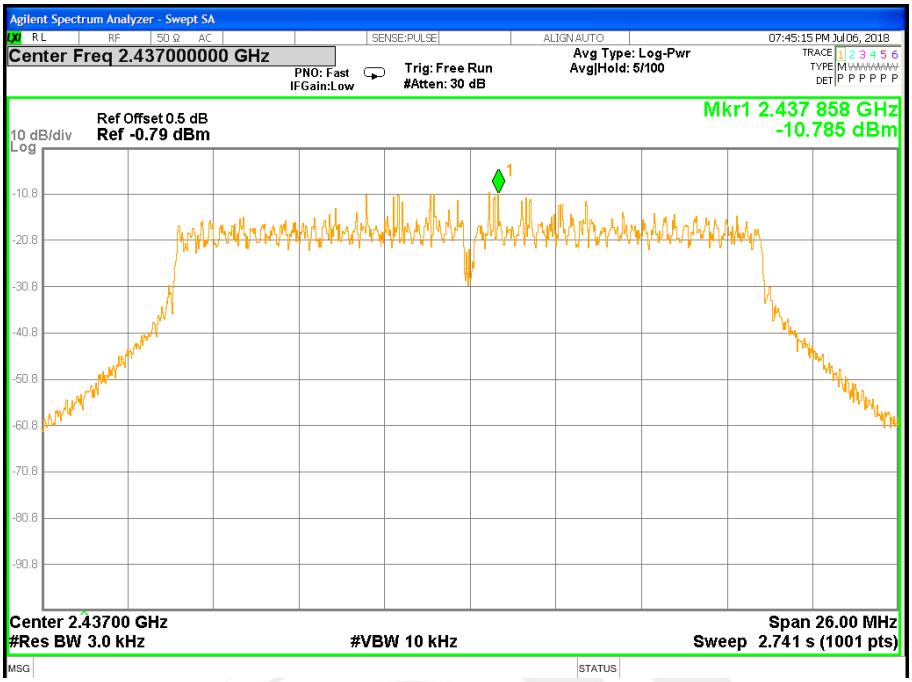
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

Test Mode	Frequency (MHz)	Power Density (dBm/3kHz)	Limit (dBm/3KHz)	Result
n(HT20) mode (MCS0)	2412.00	-10.293	≤ 8.00	PASS
	2437.00	-11.01	≤ 8.00	PASS
	2462.00	-10.785	≤ 8.00	PASS

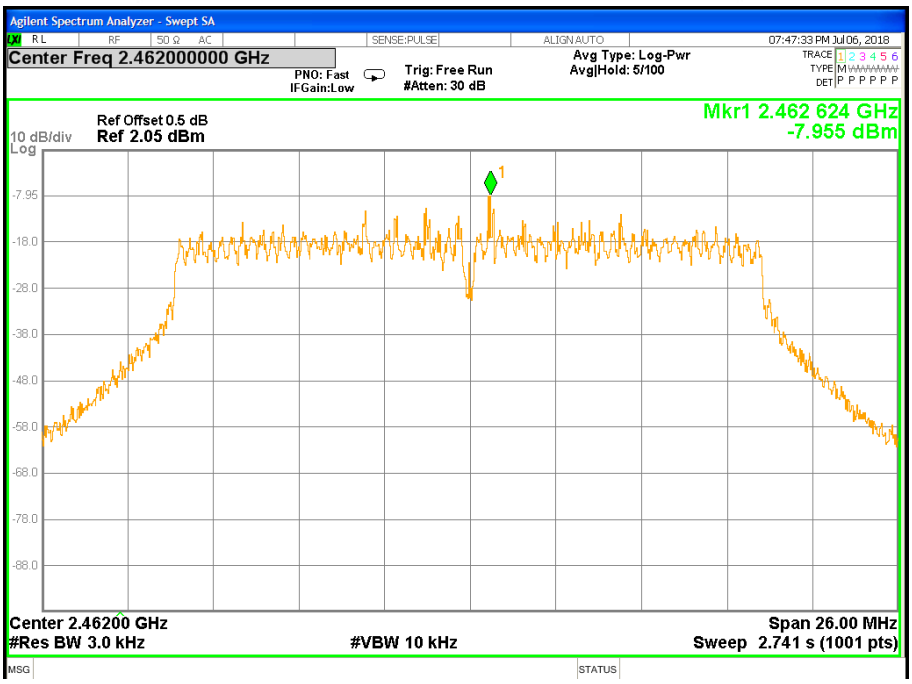
TX CH01



TX CH06



TX CH11



6 BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part 15.247,Subpart C				
Section	**Test Item**	**Limit**	**Frequency Range (MHz)**	**Result**
15.247(a)(2)	6dB Bandwidth	≥ 500KHz	2400-2483.5	PASS

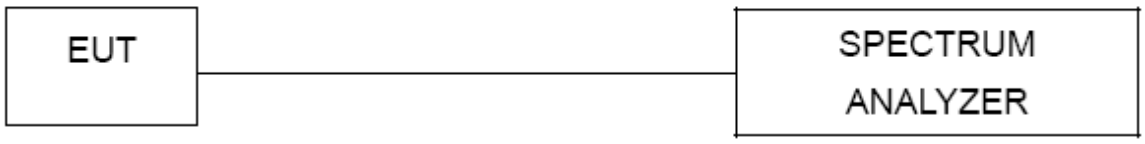
6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW≥3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be≥6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

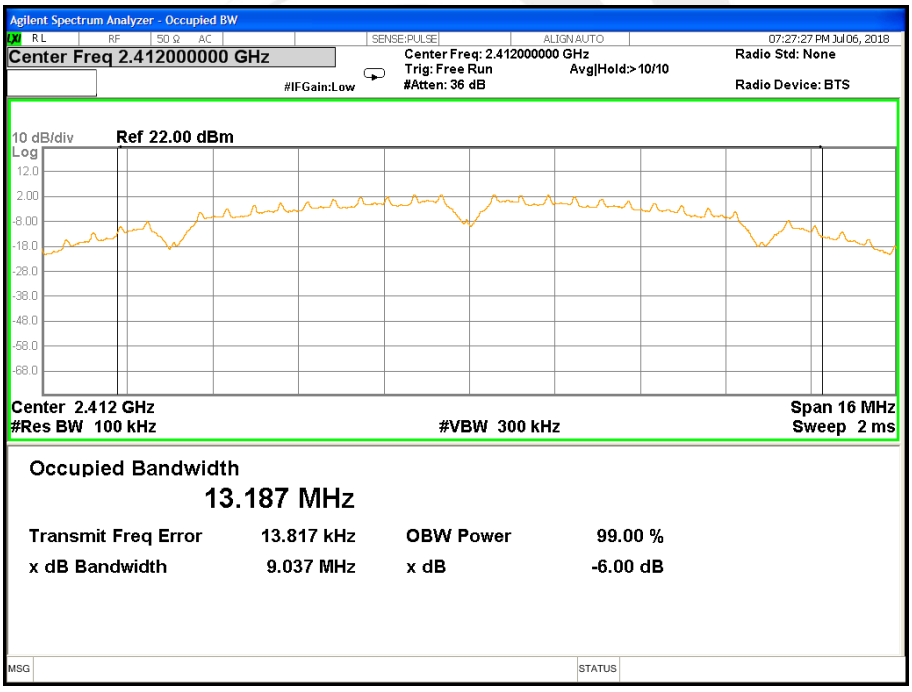
6.6 TEST RESULTS

Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX b Mode /CH01, CH06, CH11

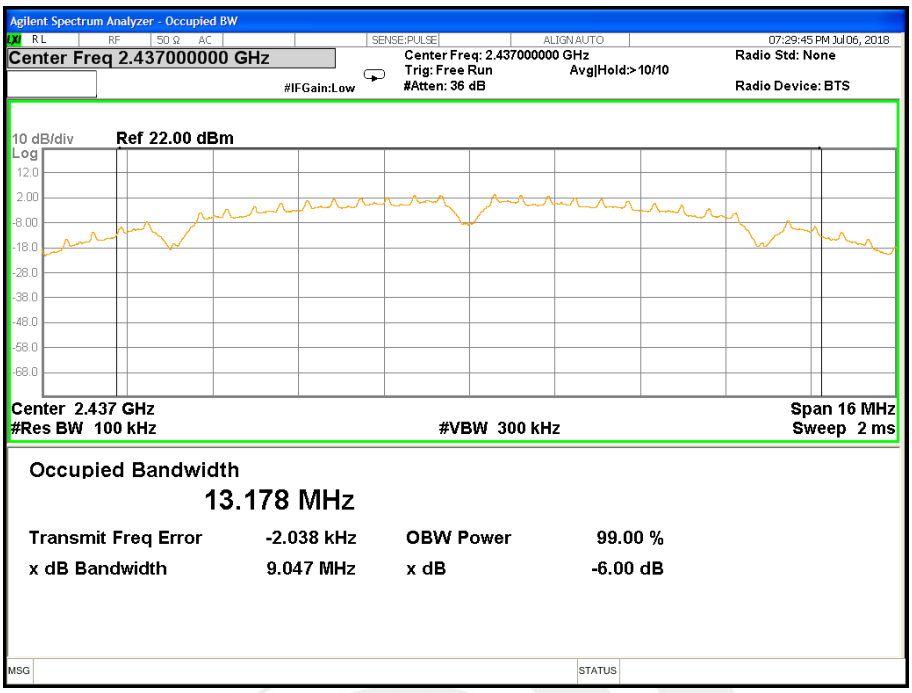
Remark: PEAK DETECTOR IS USED

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
b mode (1 Mbps)	2412.00	9.037	13.187	≥ 0.50	PASS
	2437.00	9.047	13.178	≥ 0.50	PASS
	2462.00	9.035	13.154	≥ 0.50	PASS

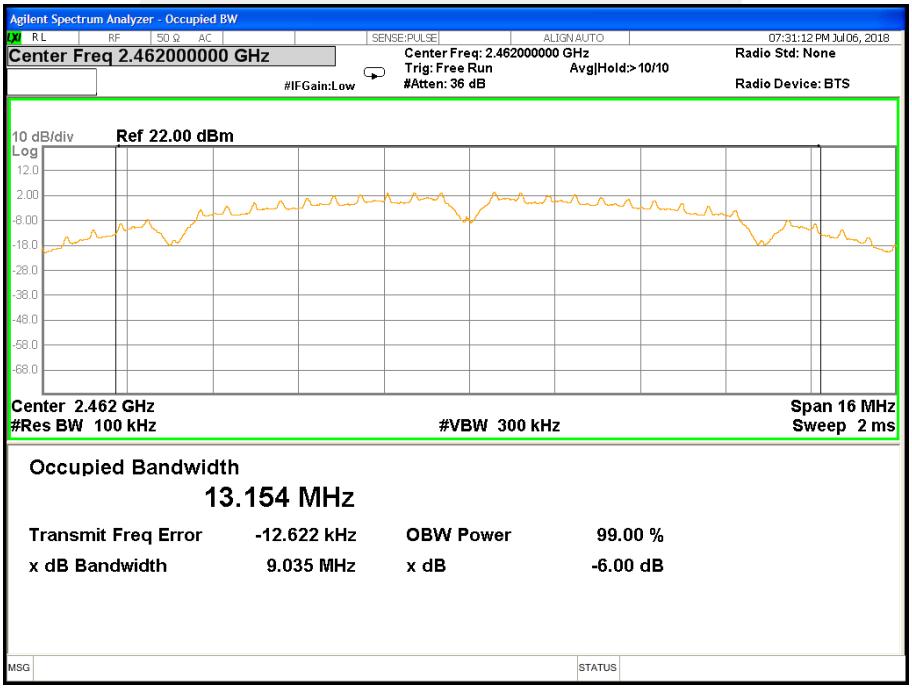
TX CH 01



TX CH 06



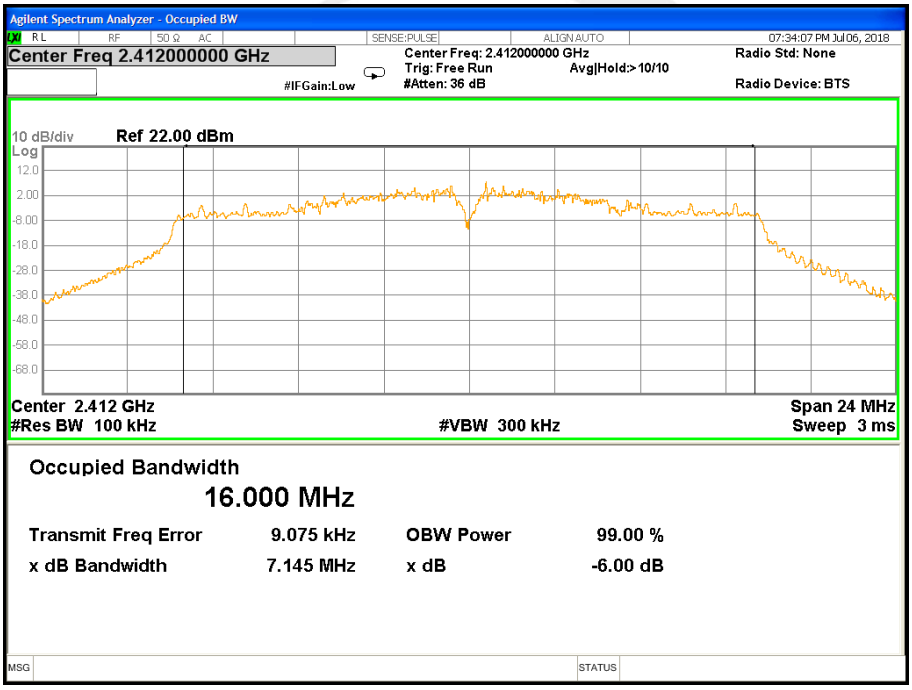
TX CH 11



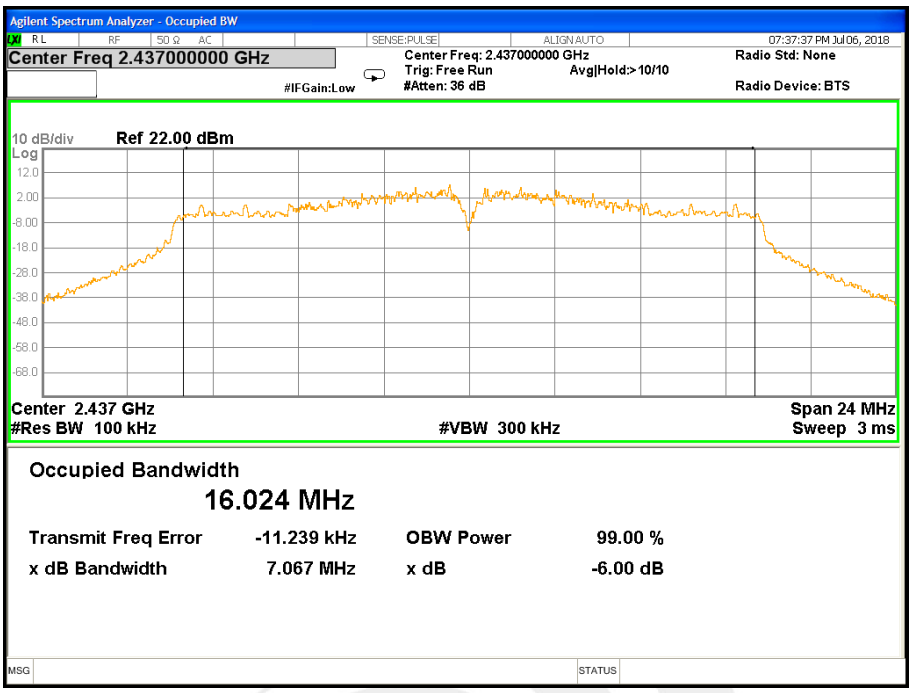
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
g mode (6 Mbps)	2412.00	7.145	16.000	≥ 0.50	PASS
	2437.00	7.067	16.024	≥ 0.50	PASS
	2462.00	7.524	16.058	≥ 0.50	PASS

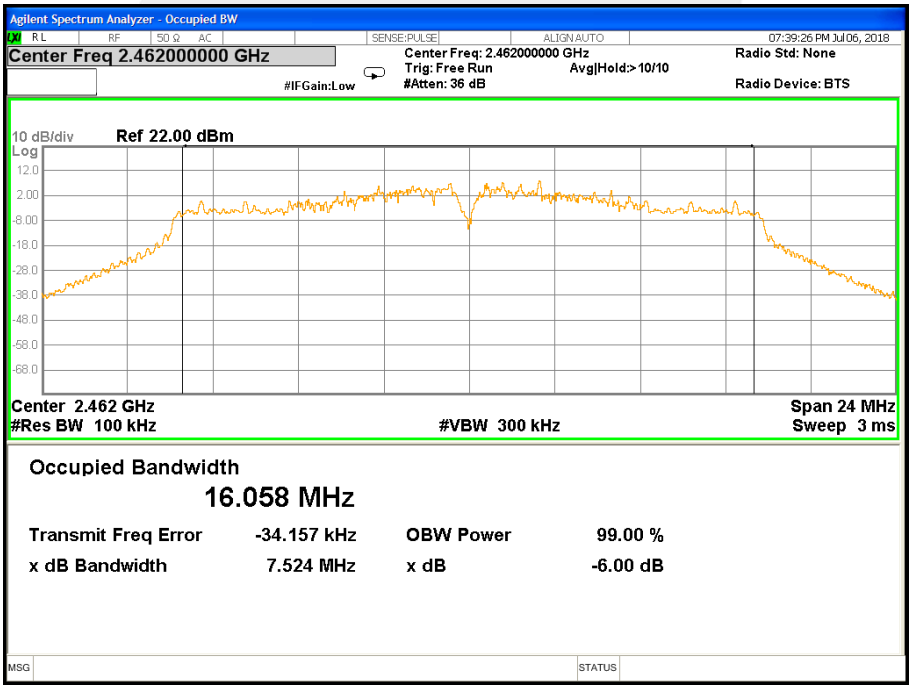
TX CH 01



TX CH 06



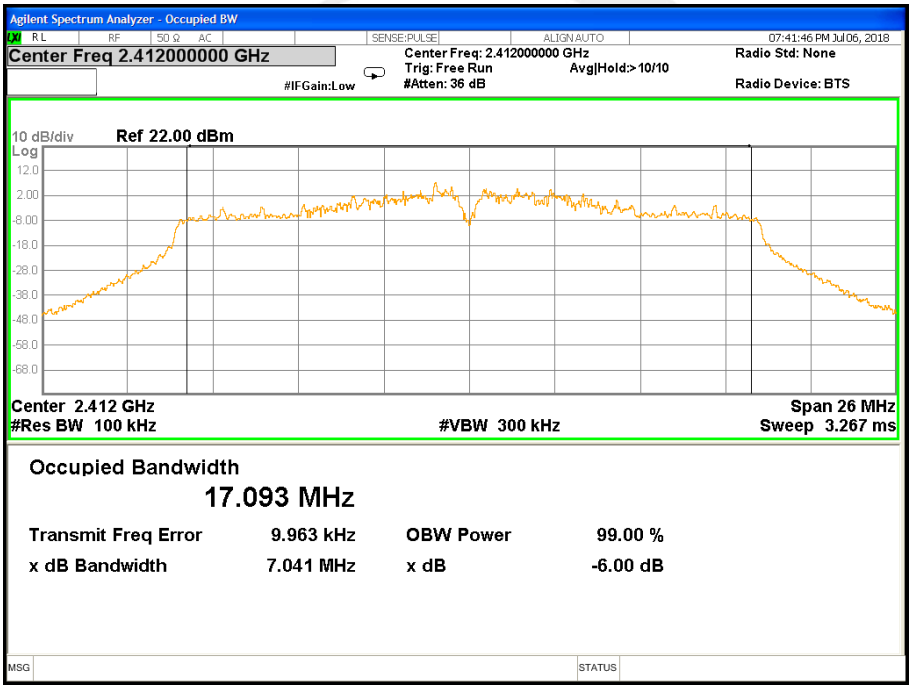
TX CH 11



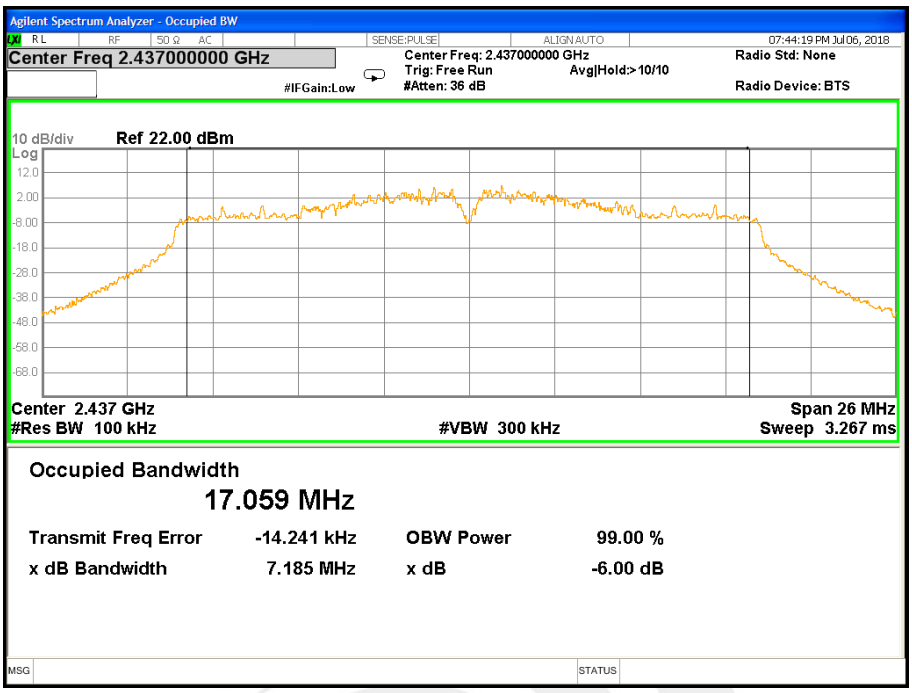
Temperature:	25 ℃	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit of 6dB Bandwidth (MHz)	Result
n(HT20) mode (MCS0)	2412.00	7.041	17.093	≥ 0.50	PASS
	2437.00	7.185	17.059	≥ 0.50	PASS
	2462.00	8.552	16.075	≥ 0.50	PASS

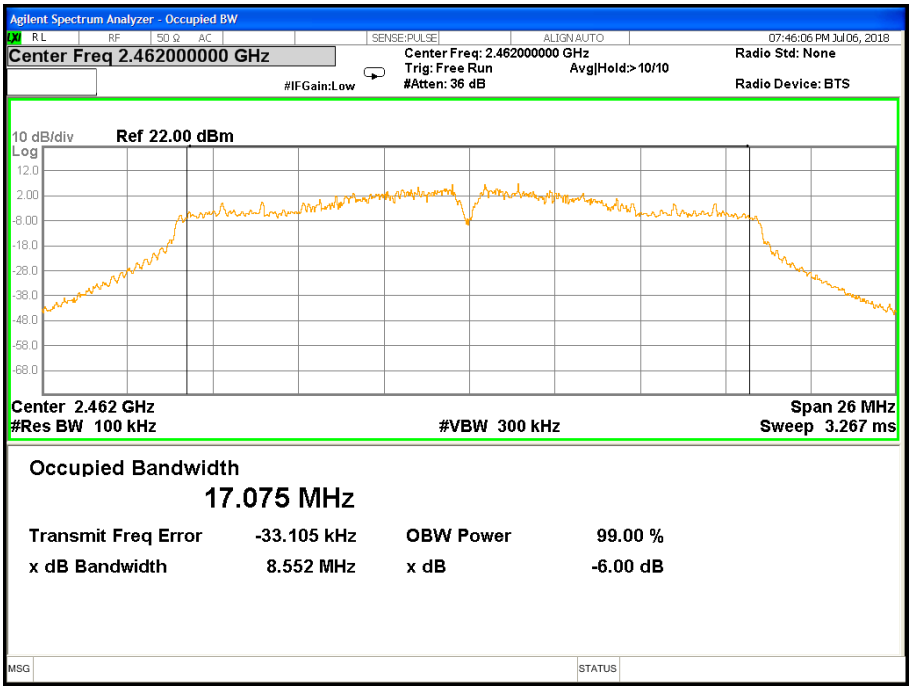
TX CH 01



TX CH 06



TX CH 11



7 PEAK OUTPUT POWER TEST

7.1 APPLIED PROCEDURES / LIMIT

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

7.2 TEST PROCEDURE

a. The EUT was directly connected to the Power Meter

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP

7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

7.6 TEST RESULTS

Temperature :	25 ℃	Relative Humidity :	60%
Test Voltage :	AC 120V/60Hz		

TX 802.11 b mode (1 Mbps)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	11.68	10.69	30.00
CH06	2437.00	11.47	10.49	30.00
CH11	2462.00	11.25	10.27	30.00

TX 802.11 g mode (6 Mbps)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	10.14	9.15	30.00
CH06	2437.00	11.58	10.57	30.00
CH11	2462.00	11.78	10.78	30.00

TX 802.11 n(HT20) mode (MCS0)				
Test Channel	Frequency (MHz)	Conducted Output Power		Limit (dBm)
		Peak(dBm)	AVG(dBm)	
CH01	2412.00	12.25	10.25	30.00
CH06	2437.00	10.66	8.66	30.00
CH11	2462.00	10.99	8.99	30.00

8 ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

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.

8.2 EUT ANTENNA

The EUT antenna is External Antenna use RP-SMA Connector. It comply with the standard requirement.