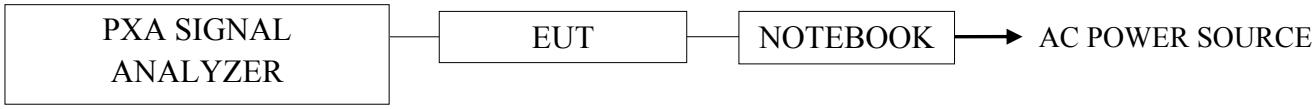
6. 6dB BANDWIDTH MEASUREMENT

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Period
1.	PXA signal analyzer	Agilent	N9030A	MY53120217	2023-03-25	1 Year

6.2. Block Diagram of Test Setup



—— : SIGNAL LINE

6.3. Specification Limits

The minimum 6dB bandwidth shall be at least 500kHz.

6.4. Test Procedure

Following measurement procedure is reference to KDB 558074 D01 DTS Meas Guidance v05:

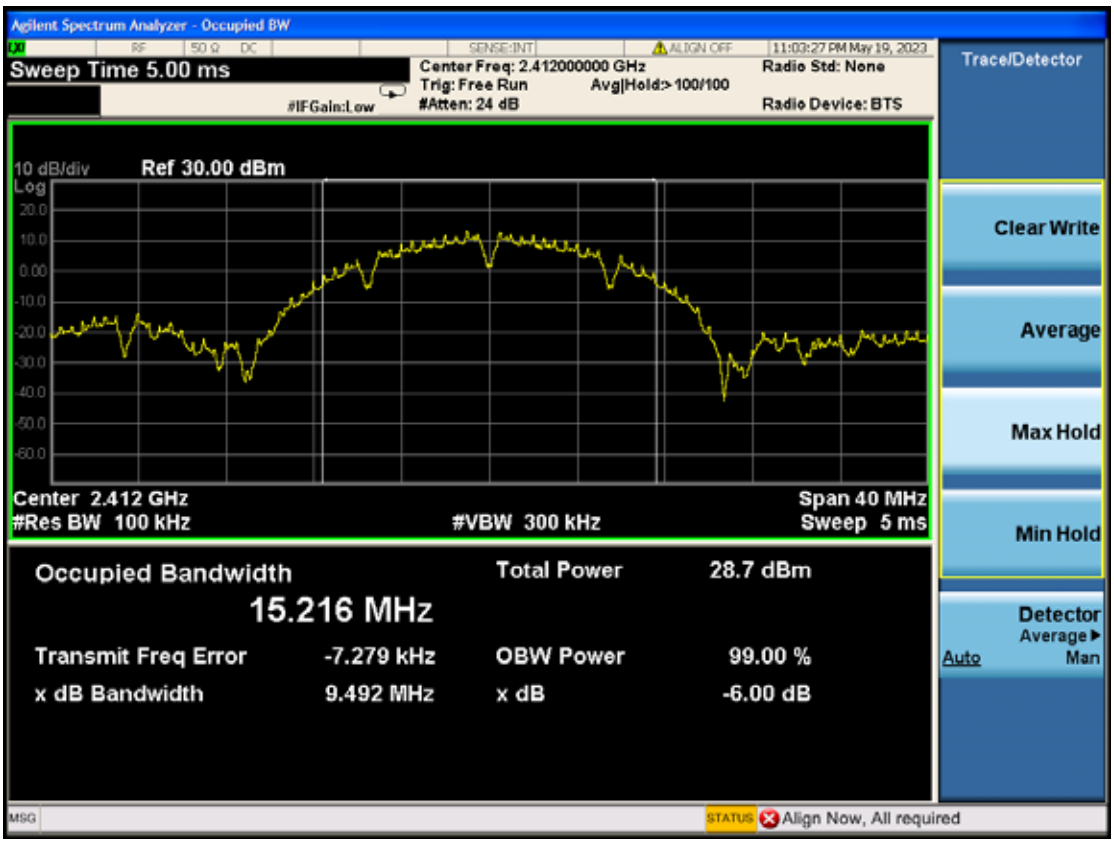
(1) Set RBW = 100 kHz.
(2) Set the video bandwidth (VBW) ≥ 3 × RBW.
(3) Detector = Peak.
(4) Trace mode = max hold.
(5) Sweep = auto couple.
(6) Allow the trace to stabilize.
(7) Setting channel bandwidth function x dB to -6 dB to record the final bandwidth.

6.5. Test Results

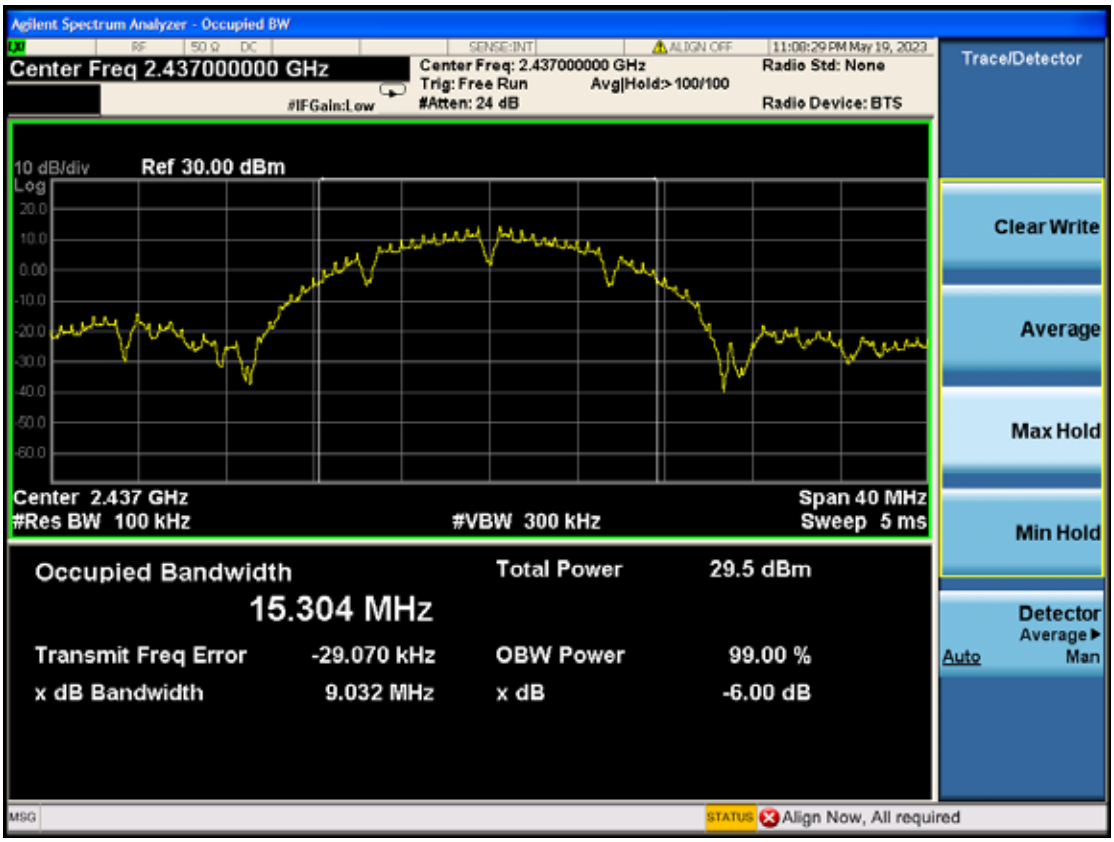
PASSED. All the test results are attached in next pages.

Item	Channel	Test Frequency (MHz)	6dB Bandwidth (MHz)
802.11b	1	2412	9.492
	6	2437	9.032
	11	2462	9.056
802.11g	1	2412	15.12
	6	2437	15.08
	11	2462	15.04
802.11 nHT20	1	2412	15.36
	6	2437	15.10
	11	2462	15.71

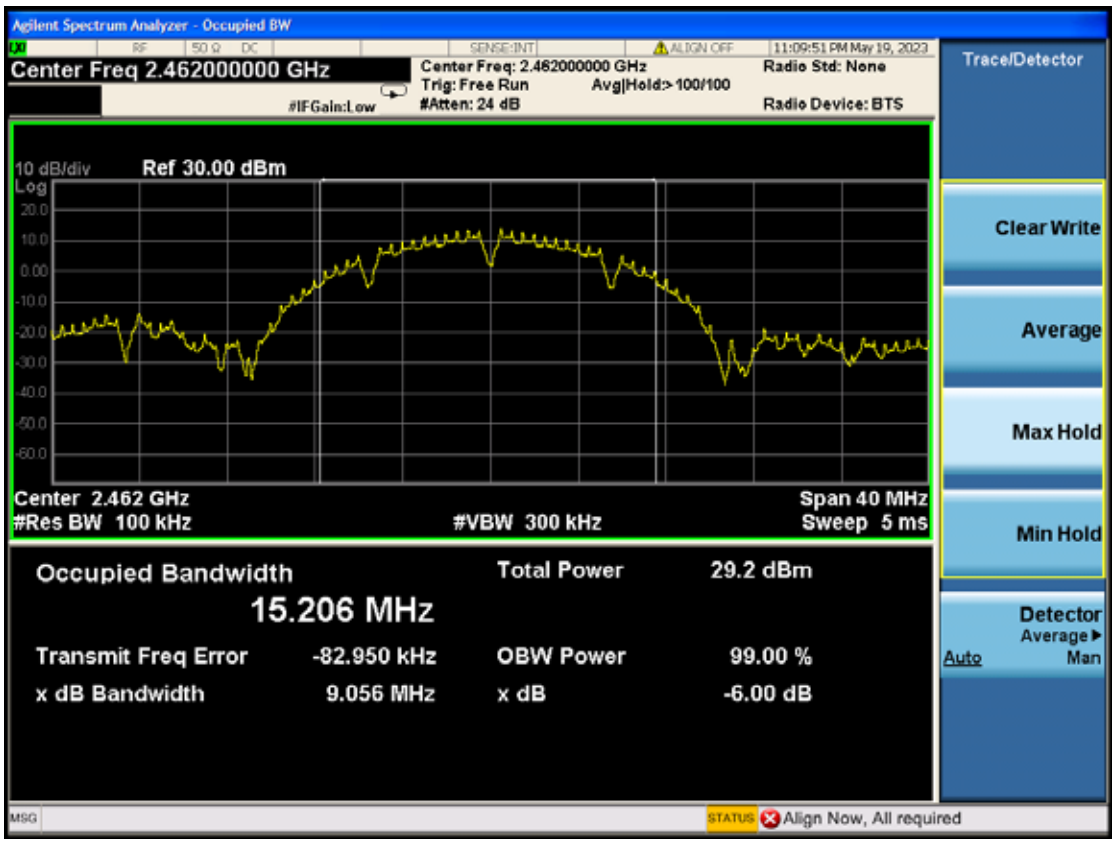
802.11b CH1



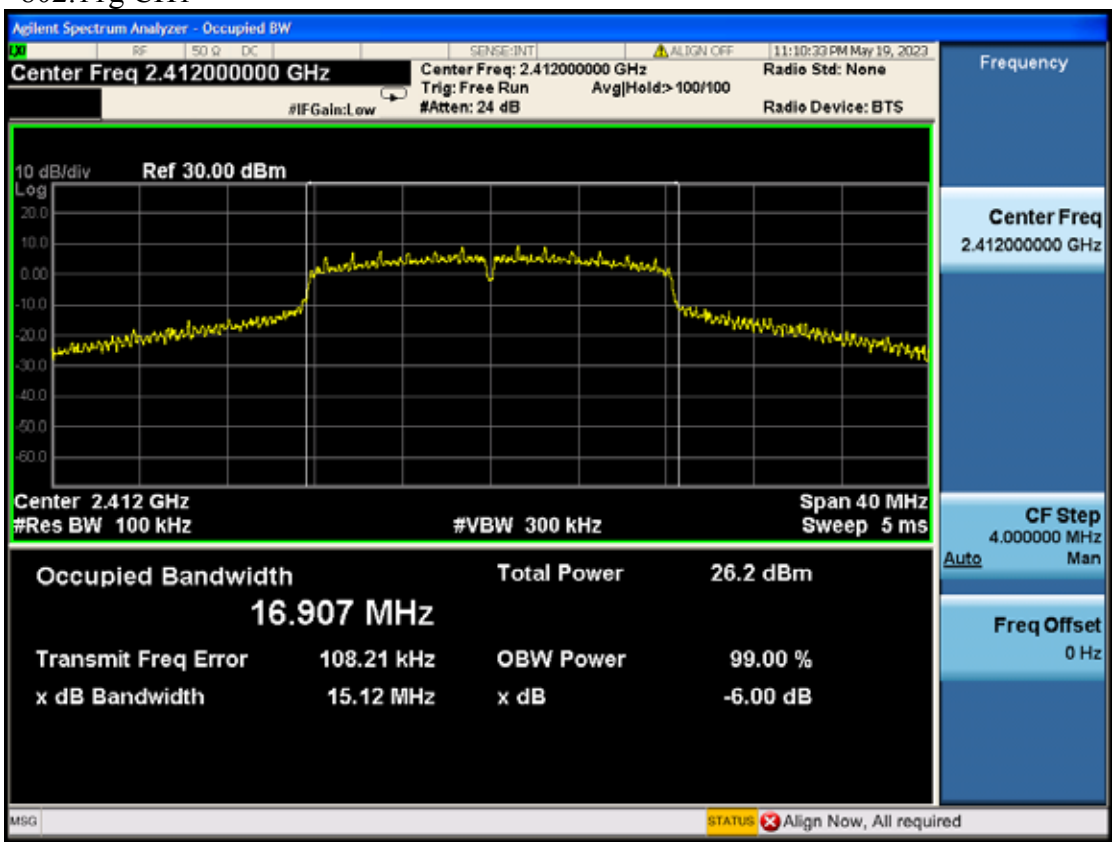
802.11b CH6



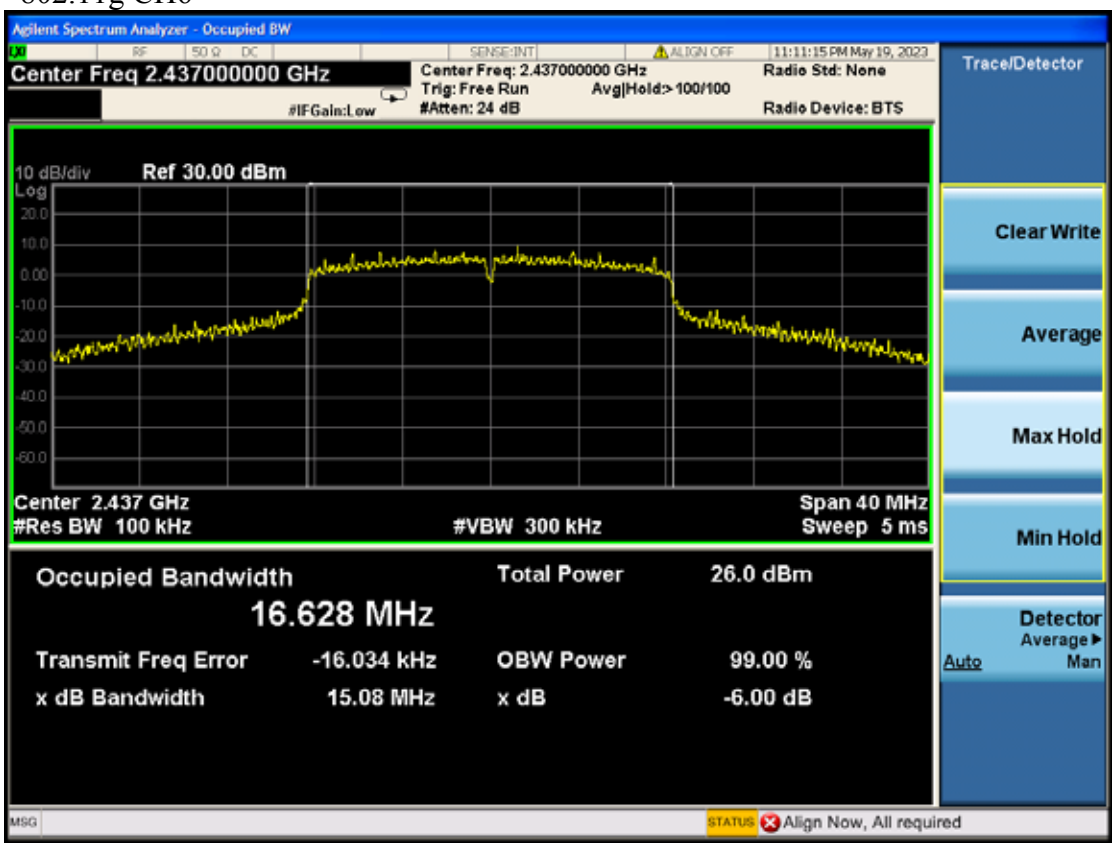
802.11b CH11



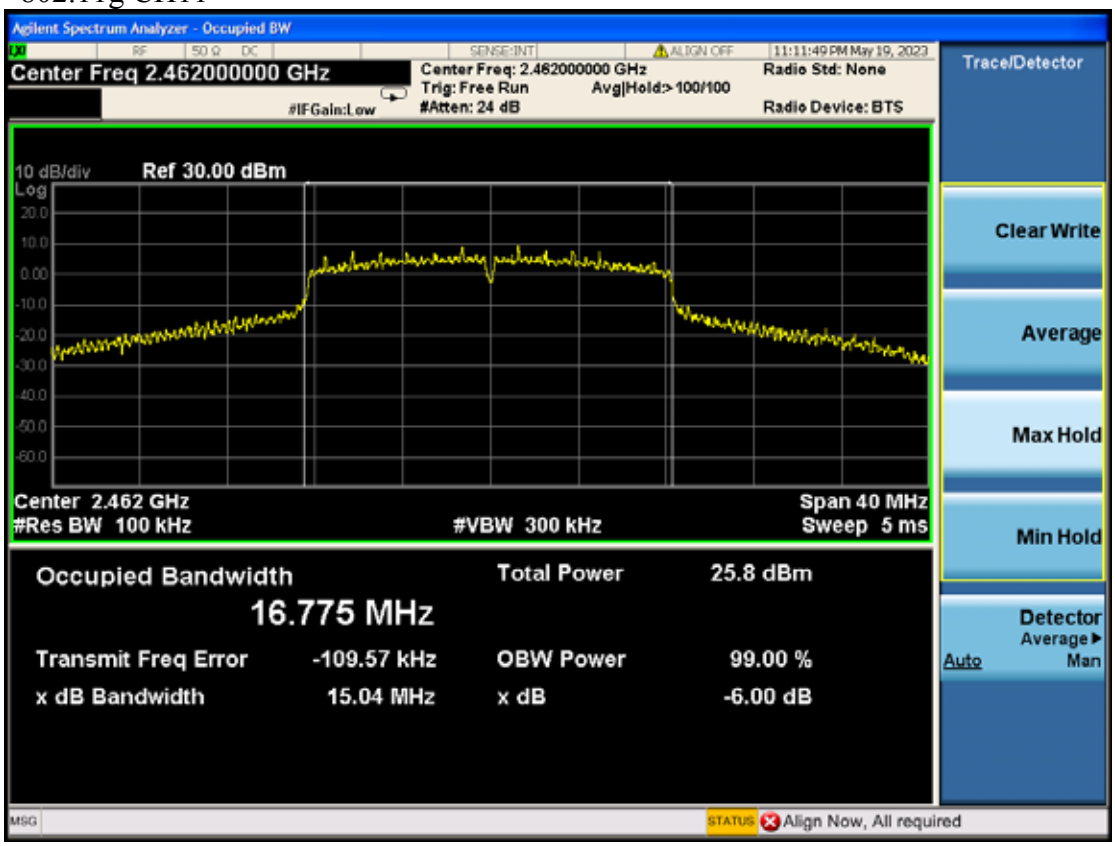
802.11g CH1



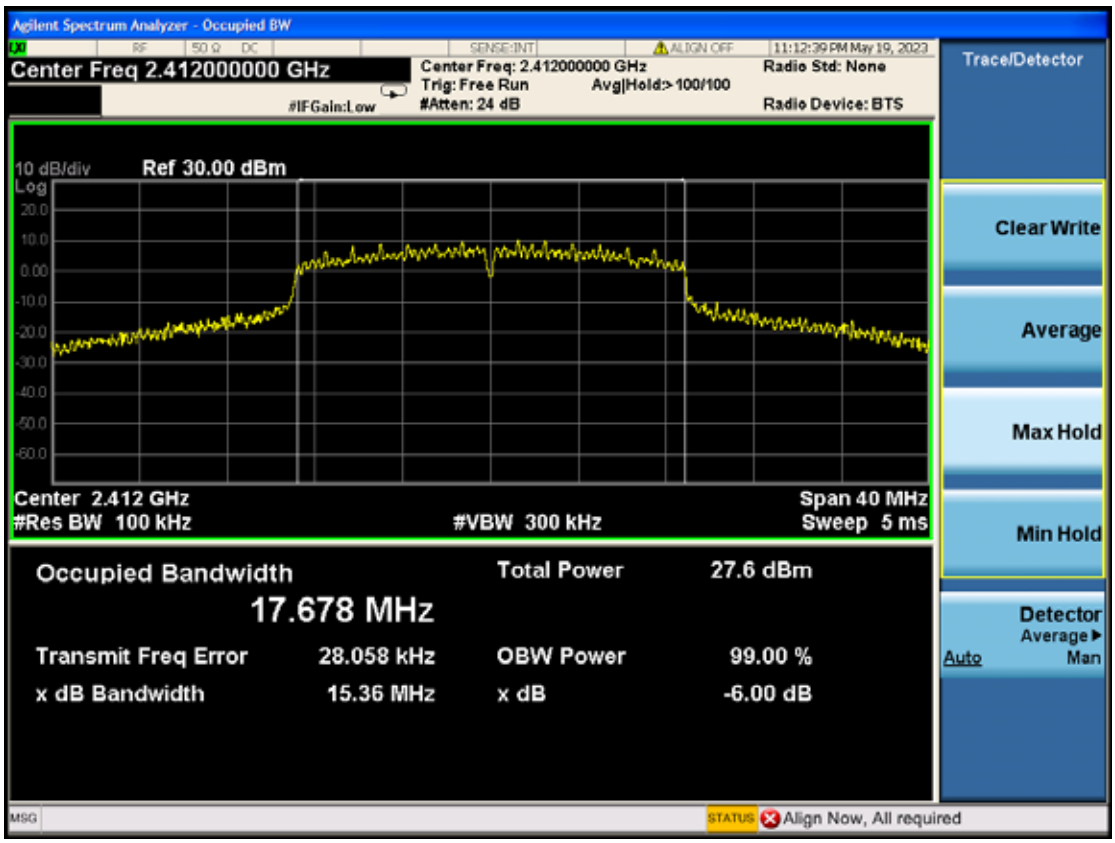
802.11g CH6



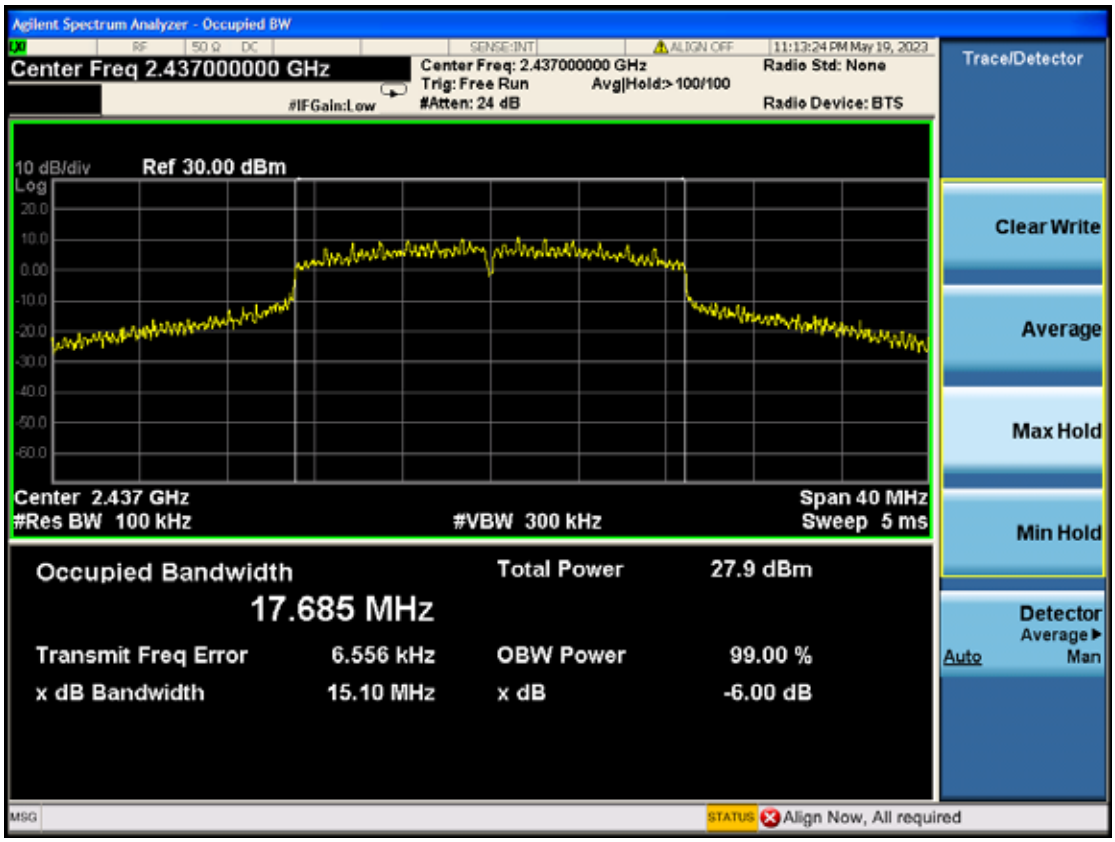
802.11g CH11



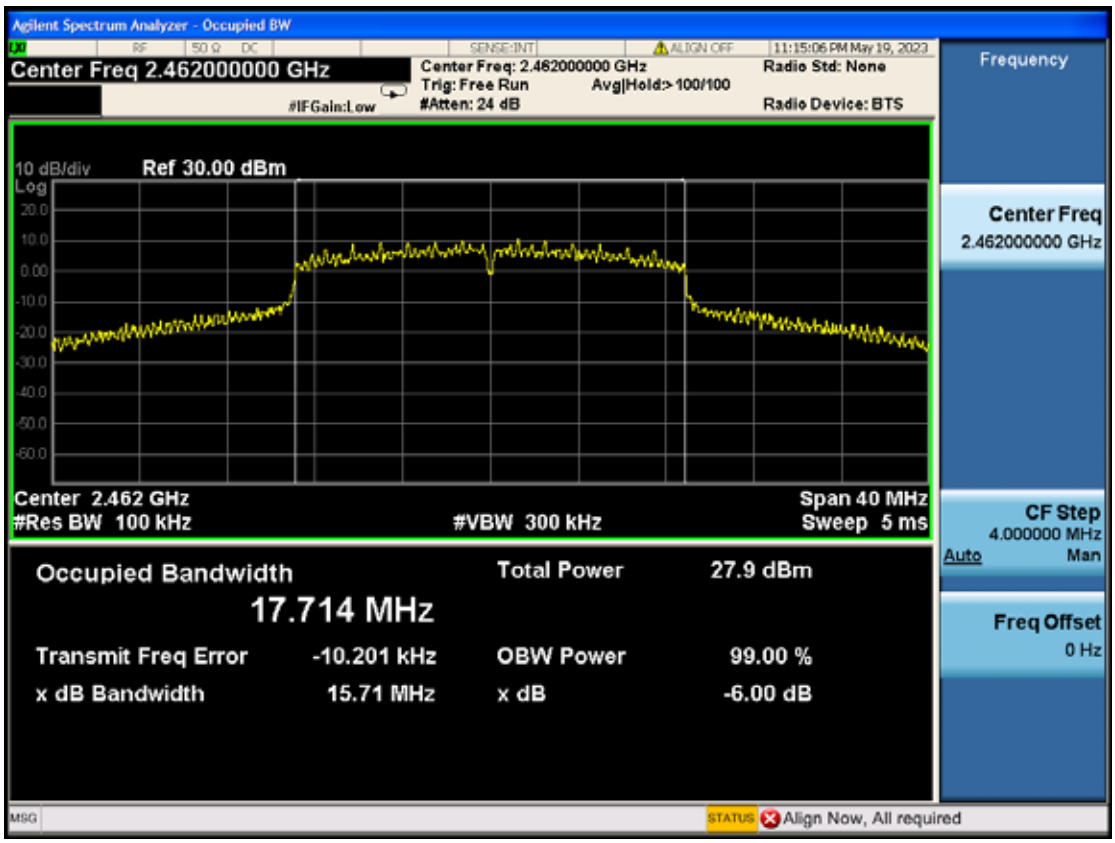
802.11nHT20 CH1



802.11nHT20 CH6



802.11nHT20 CH11

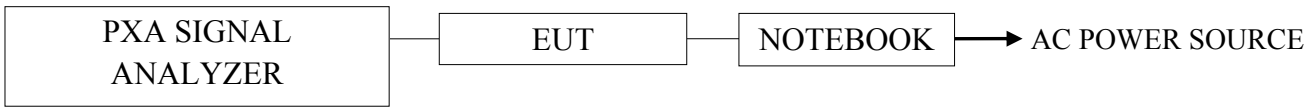


7. OUTPUT POWER MEASUREMENT

7.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Period
1.	PXA signal analyzer	Agilent	N9030A	MY53120217	2023-03-25	1 Year

7.2. Block Diagram of Test Setup



—— : SIGNAL LINE

7.3. Specification Limits (§15.247(b)(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5MHz is : 1Watt. (30dBm), and E.I.R.P.: 4Watt (36dBm)

7.4. Test Procedure

Following measurement procedure is reference to KDB 558074 D01 DTS Meas Guidance v05:

☐**Method AVGSA-2 (Spectrum channel power)**

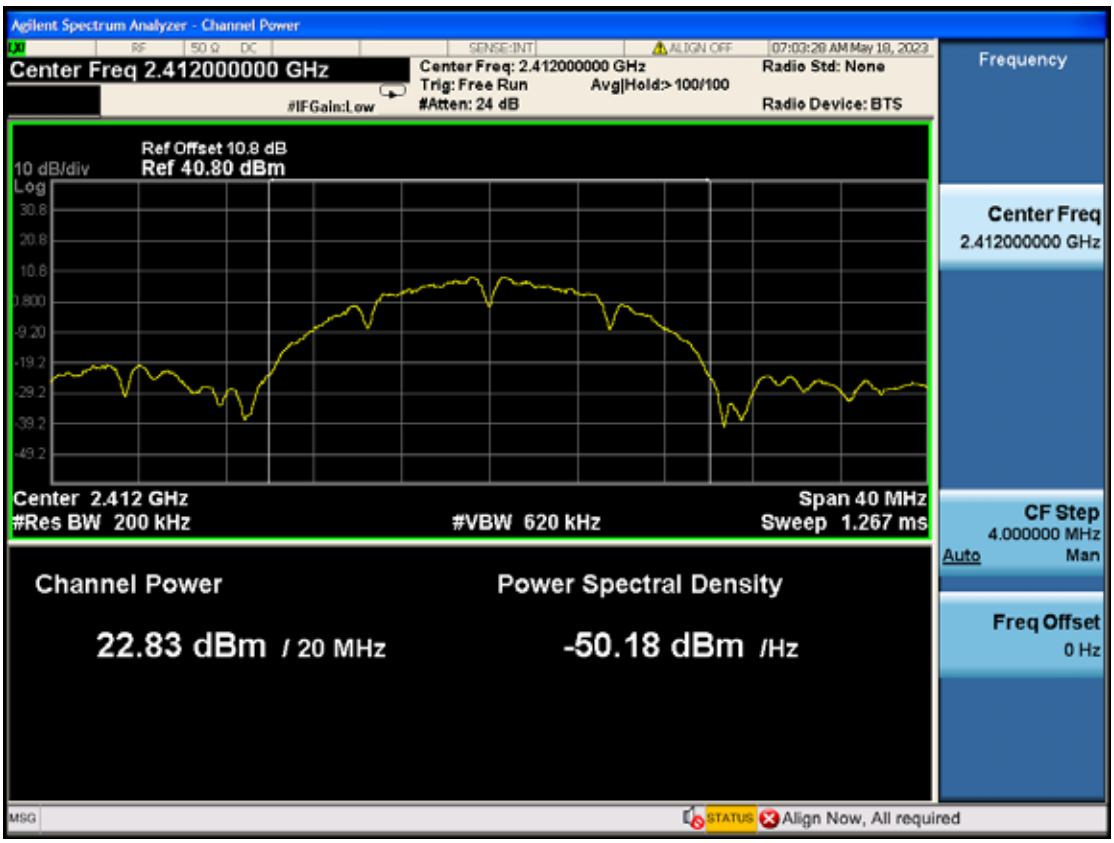
(1) Set span to at least 1.5 times the OBW
(2) Set RBW = 1 -5% of OBW
(3) Set the video bandwidth (VBW) ≥ 3 × RBW.
(4) Detector = RMS.
(5) Trace mode = trace average at least 100 traces
(6) Sweep = auto couple.
(7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
(8) Duty cycle factor is added when duty cycle presented in chapter3.5 is < 98%.

7.5. Test Results

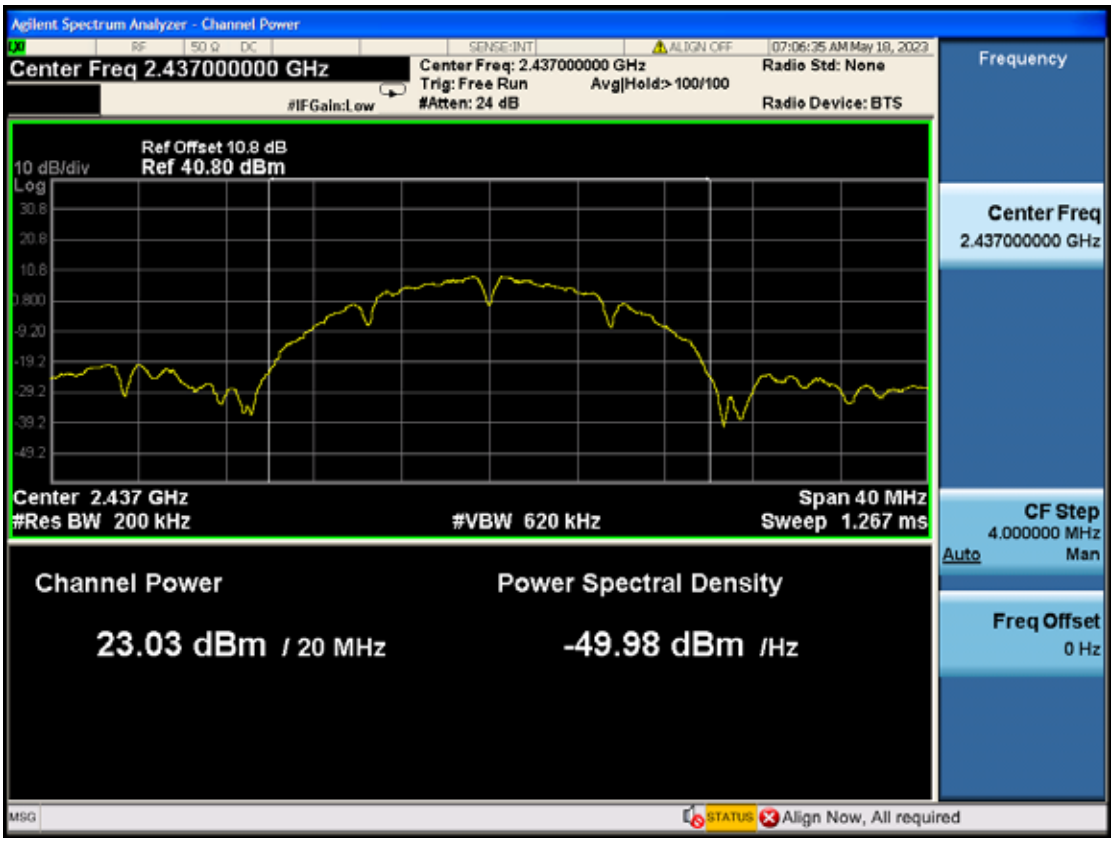
PASSED.

Mode	Frequency	Power setting	Duty Cycle Factor	Reading (dBm)	Average Output Power (dBm)	Limit (dBm)
11b	2412	22	0.12	22.83	22.95	30
	2437	22		23.03	23.15	
	2462	22		22.63	22.75	
11g	2412	21	0.22	20.24	20.46	
	2437	21		19.88	20.1	
	2462	21		19.75	19.97	
11n-HT20	2412	22	0.43	18.12	18.55	
	2437	22		18.27	18.7	
	2462	22		18.08	18.51	

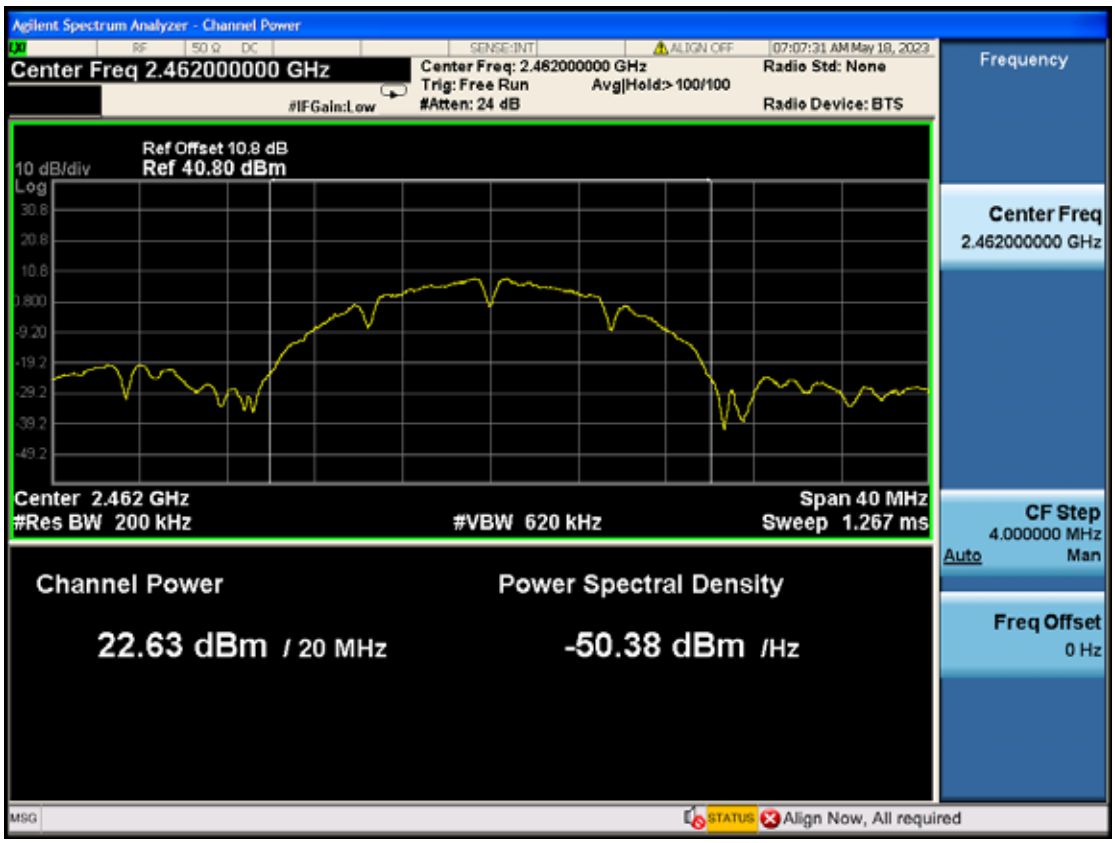
802.11b CH1



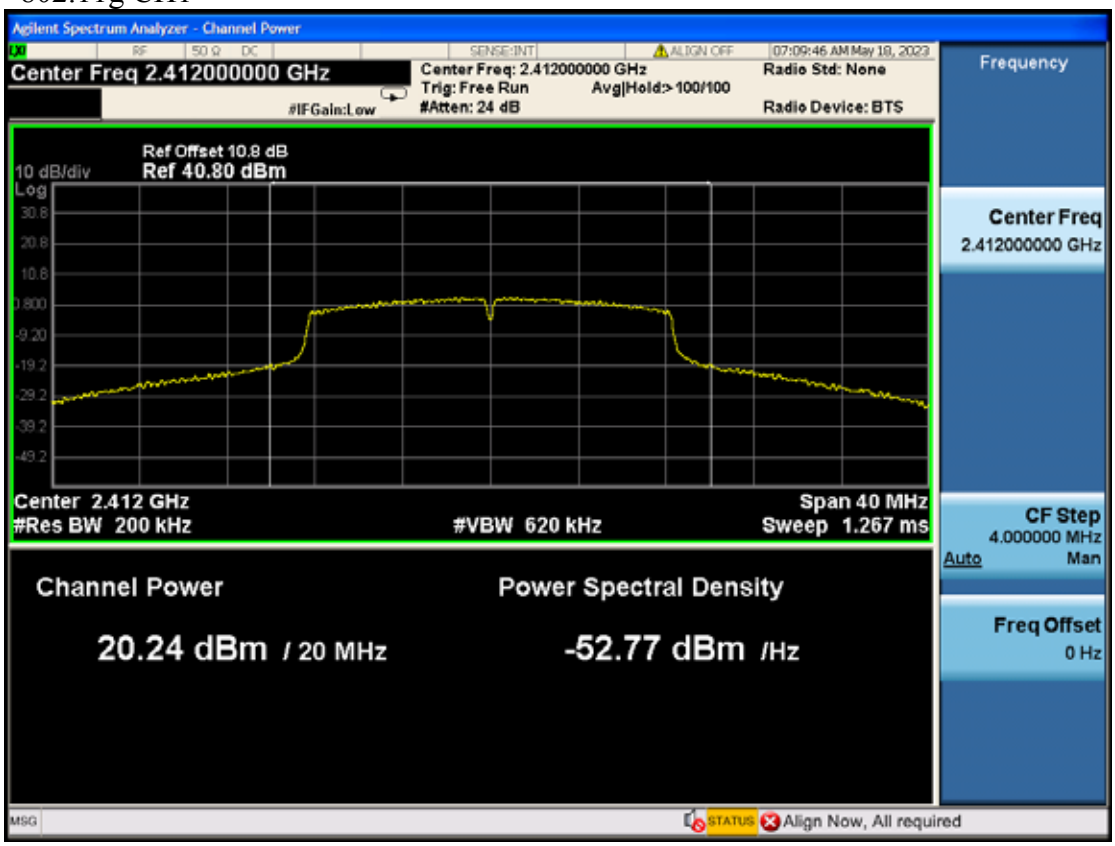
802.11b CH6



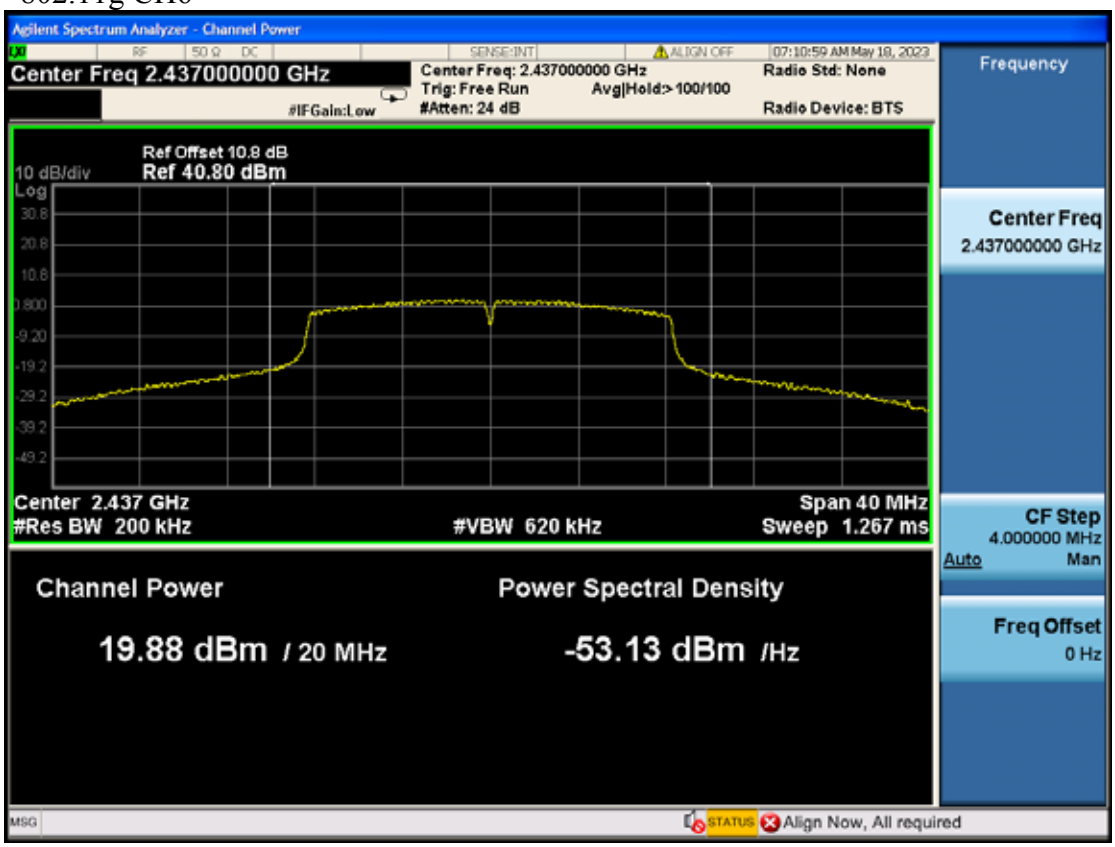
802.11b CH11



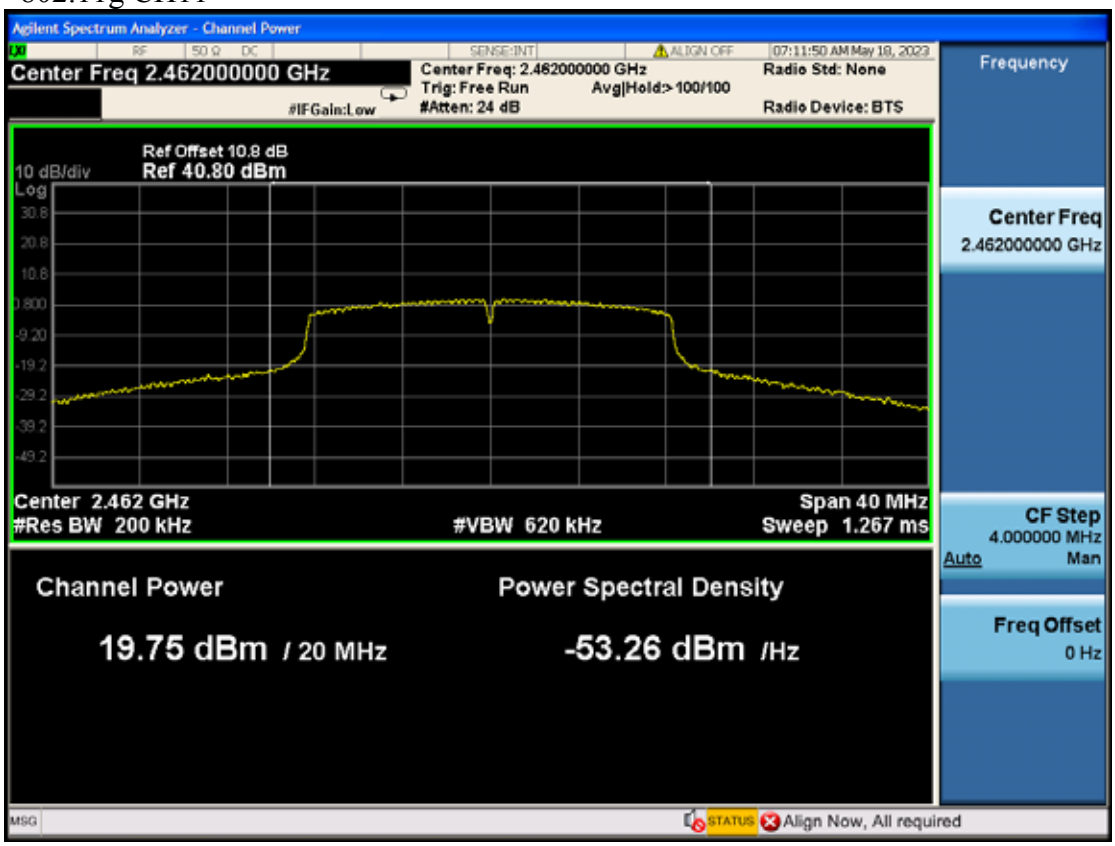
802.11g CH1



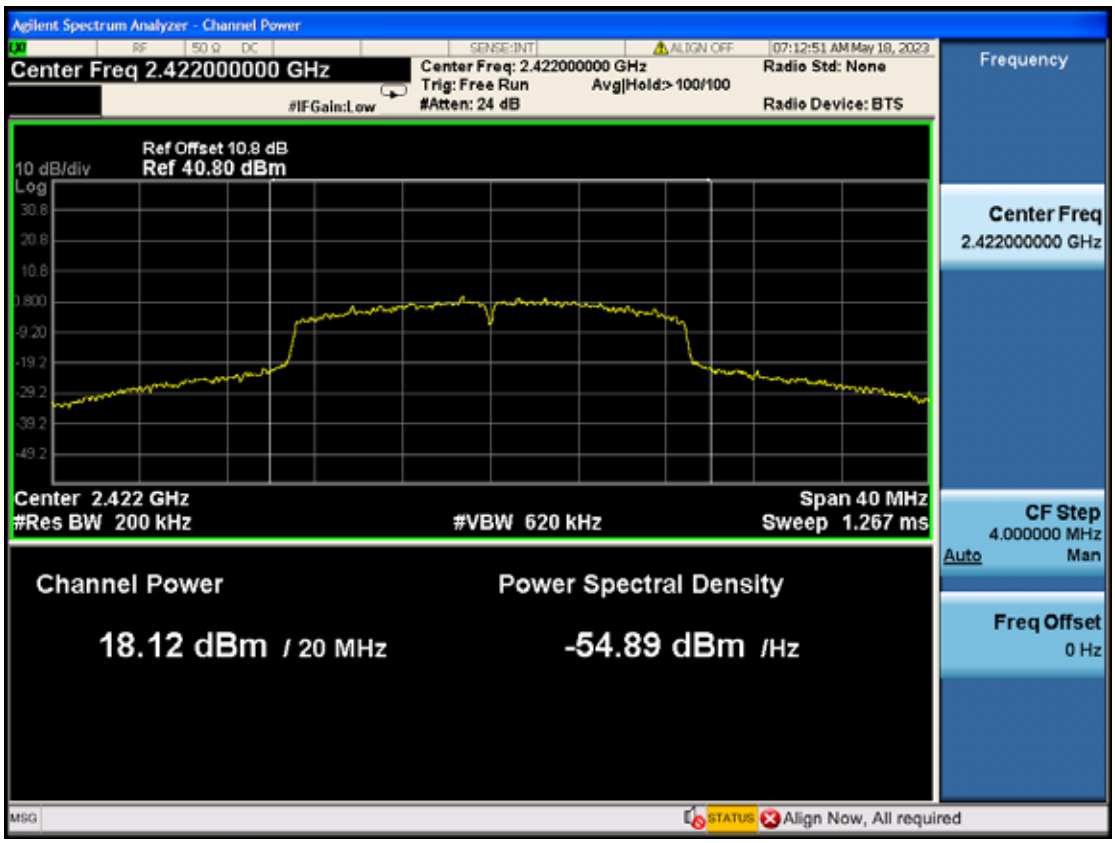
802.11g CH6



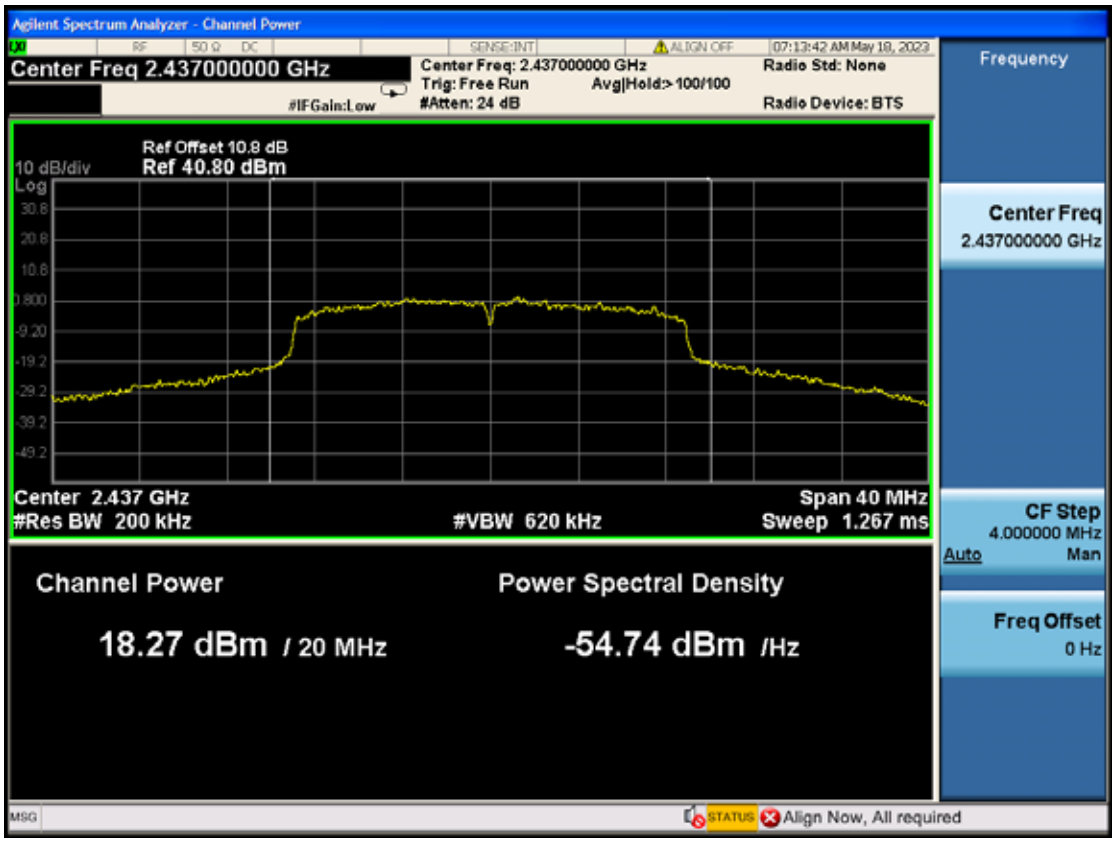
802.11g CH11



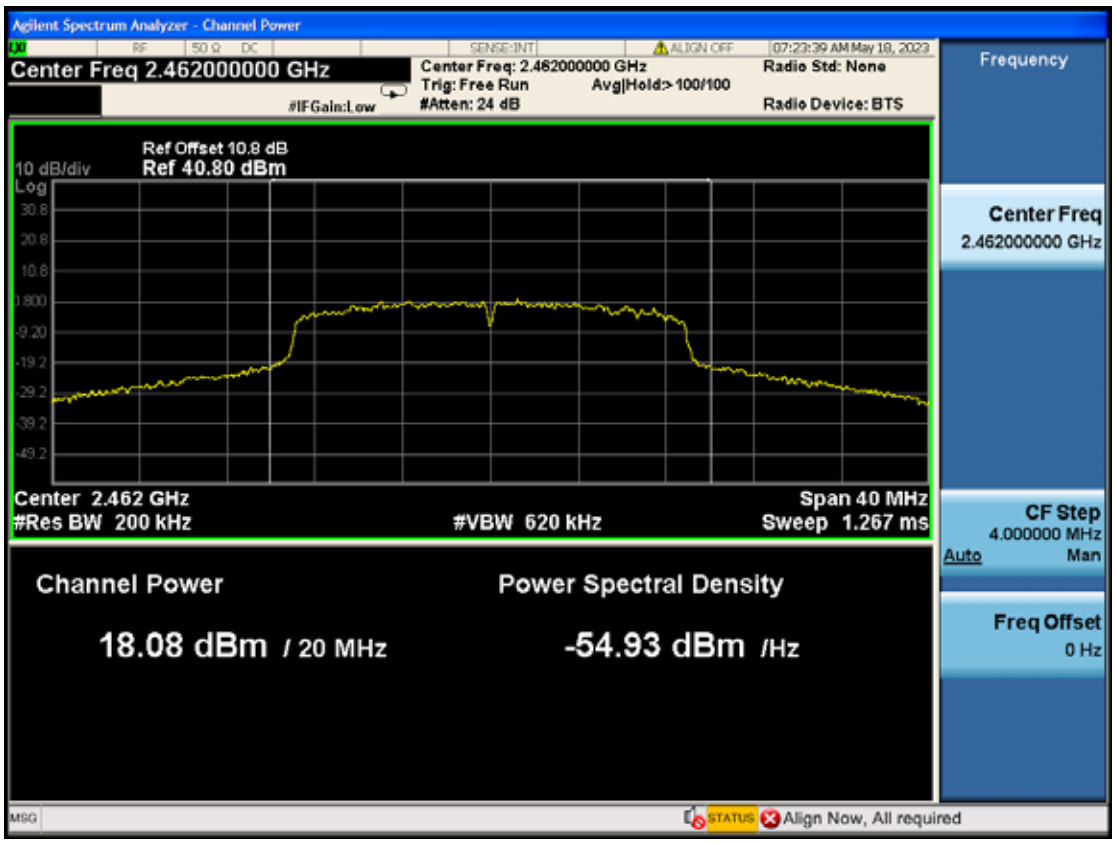
802.11nHT20 CH1



802.11nHT20 CH6



802.11nHT20 CH11



8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Period
1.	PXA signal analyzer	Agilent	N9030A	MY53120217	2023-03-25	1 Year

8.2. Block Diagram of Test Setup

The same as section 6.2.

8.3. Specification Limits

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band.

8.4. Test Procedure

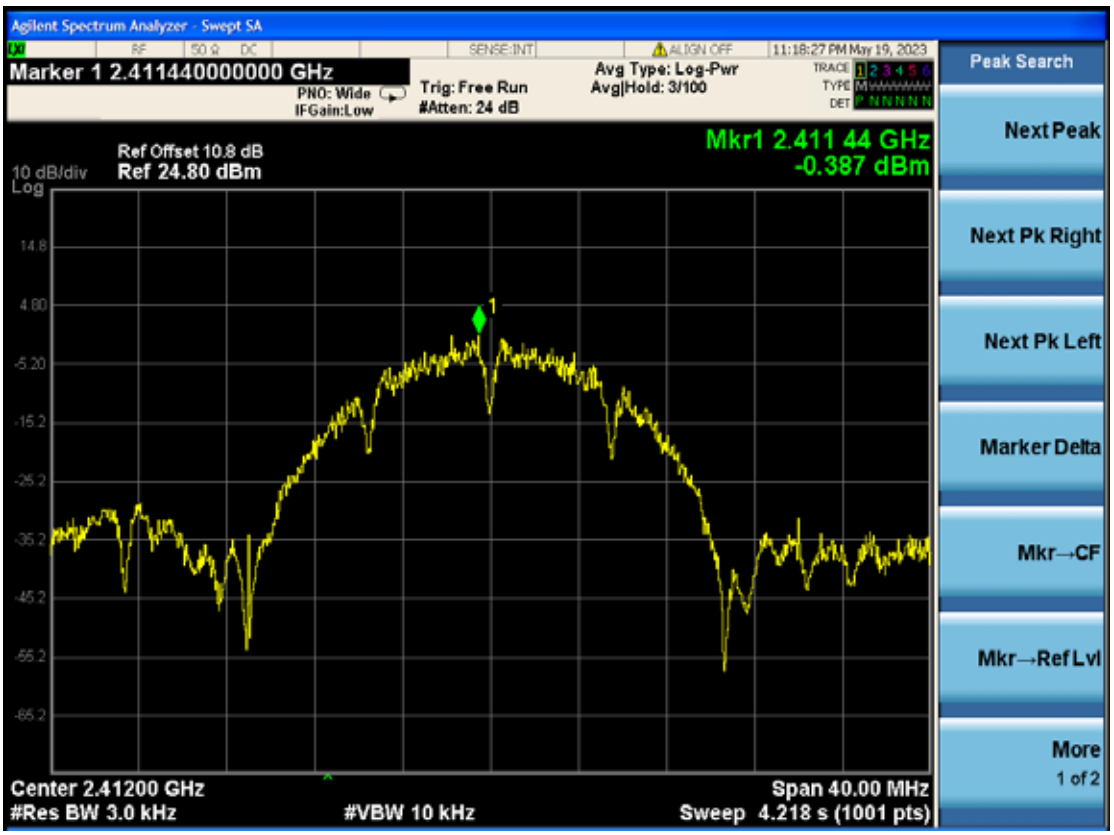
(1) Set analyzer center frequency to DTS channel center frequency.
(2) Set the span to 1.5 times the DTS bandwidth.
(3) Set the RBW to: 3 kHz $\leq$ RBW $\leq$ 100 kHz.
(4) Set the VBW $\geq$ 3 × RBW.
(5) Detector = peak.
(6) Sweep time = auto couple.
(7) Trace mode = max hold.
(8) Allow trace to fully stabilize.
(9) Use the peak marker function to determine the maximum amplitude level.

8.5. Test Results

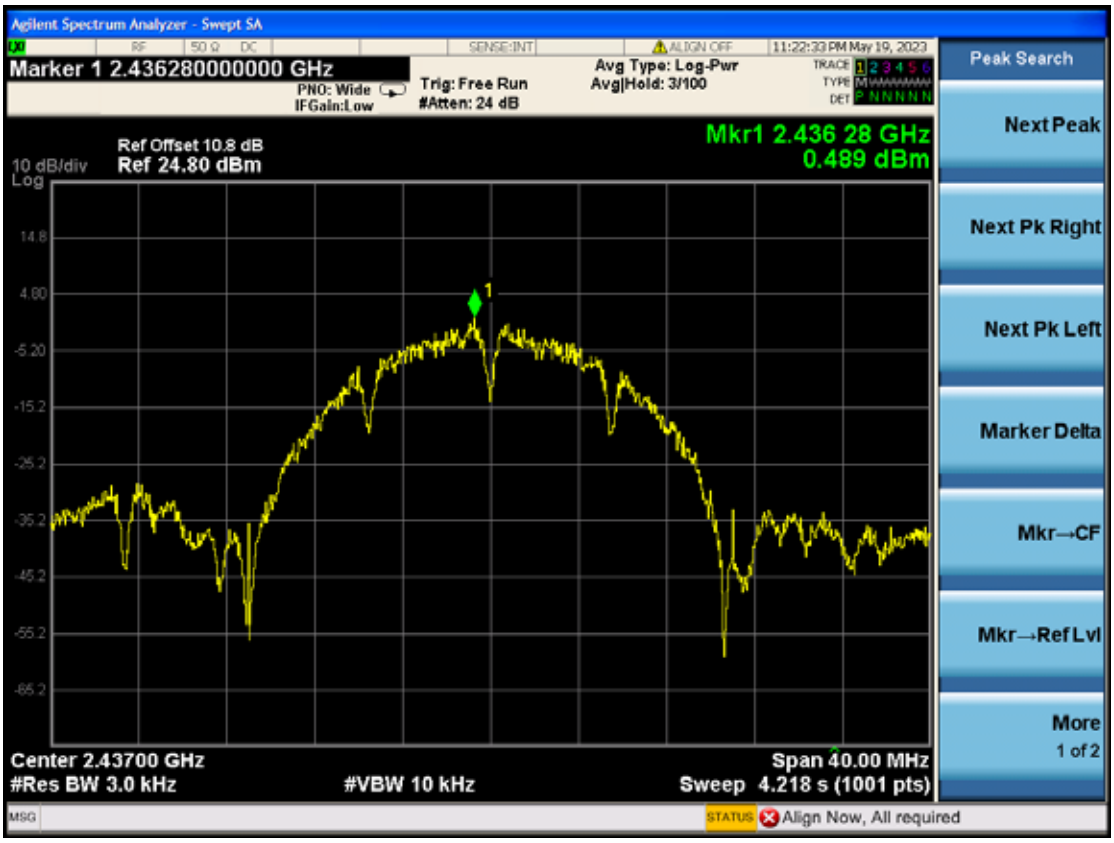
PASSED. All the test results are attached in next page.

Mode	Frequency	Duty Cycle Factor	Reading (dBm)	Result (dBm)	Limit (dBm/3kHz)
11b	2412	0.12	-0.387	-0.267	8
	2437		0.489	0.609	
	2462		-0.565	-0.445	
11g	2412	0.22	-3.615	-3.395	
	2437		-4.883	-4.663	
	2462		-5.399	-5.179	
11n-HT20	2412	0.43	-5.236	-4.806	
	2437		-4.604	-4.174	
	2462		-2.854	-2.424	

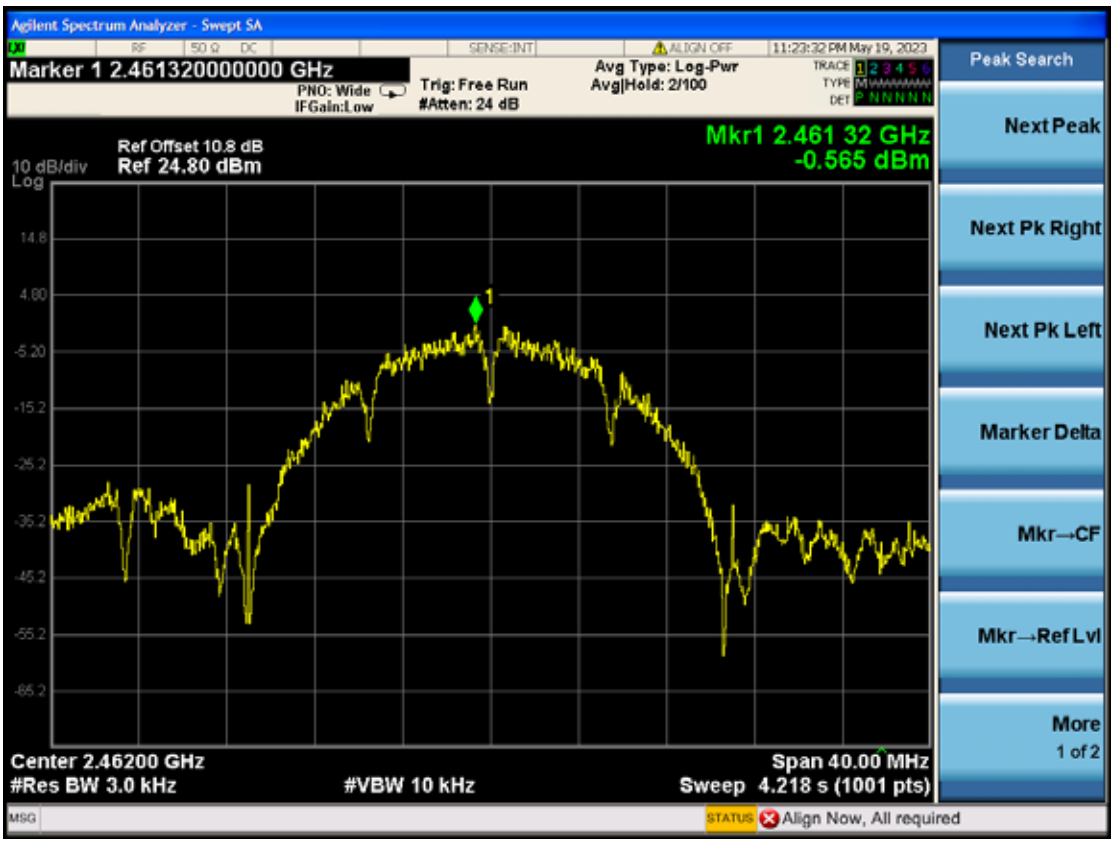
802.11b CH1



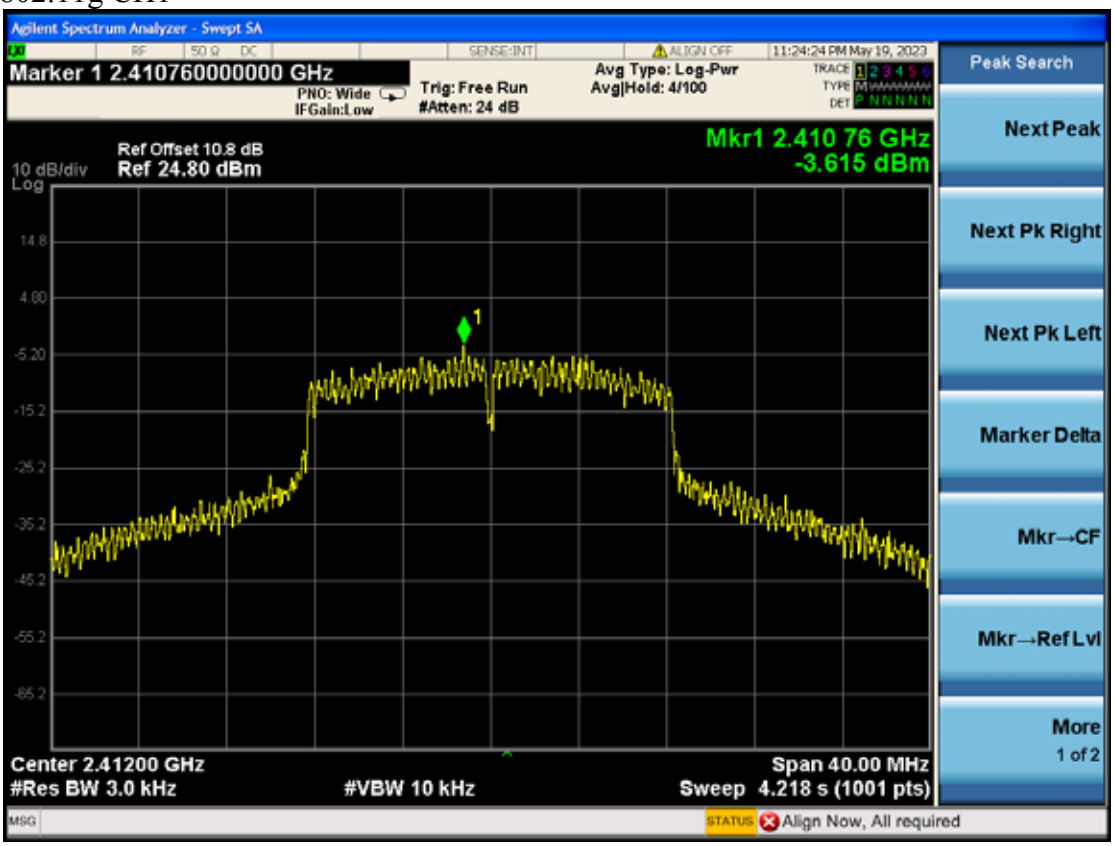
802.11b CH6



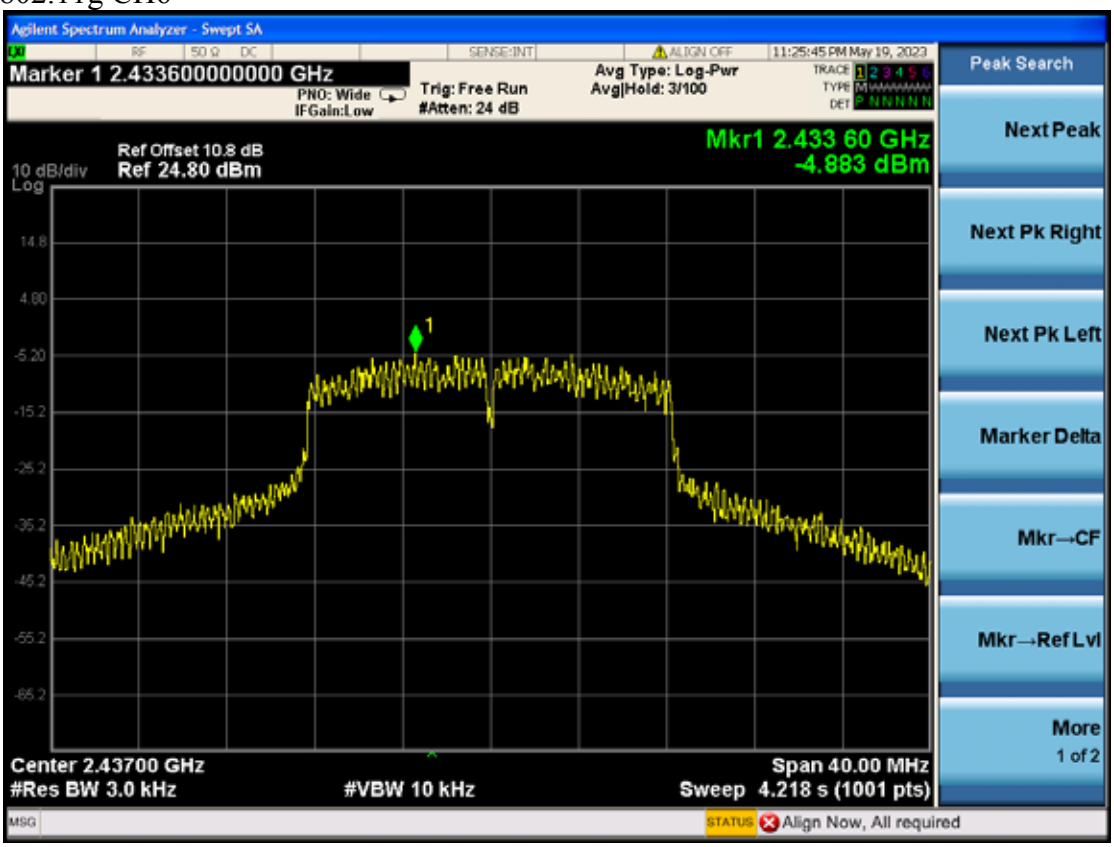
802.11b CH11



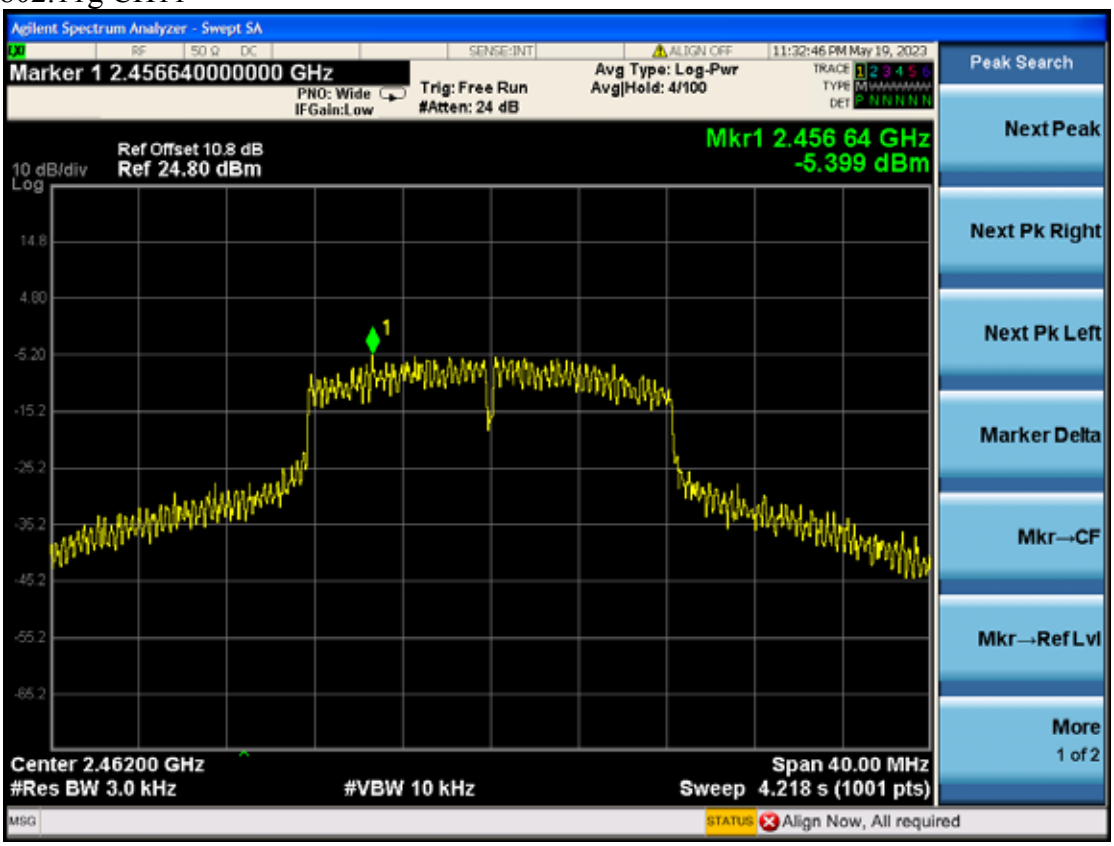
802.11g CH1



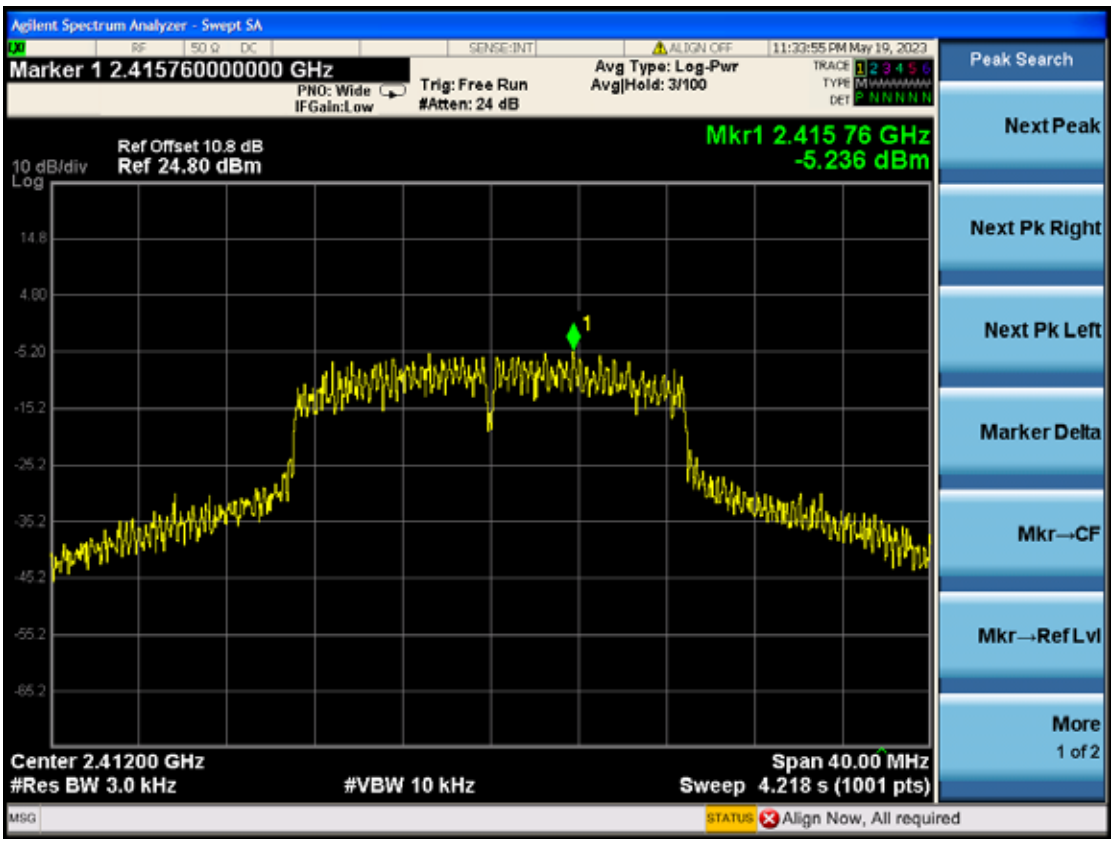
802.11g CH6



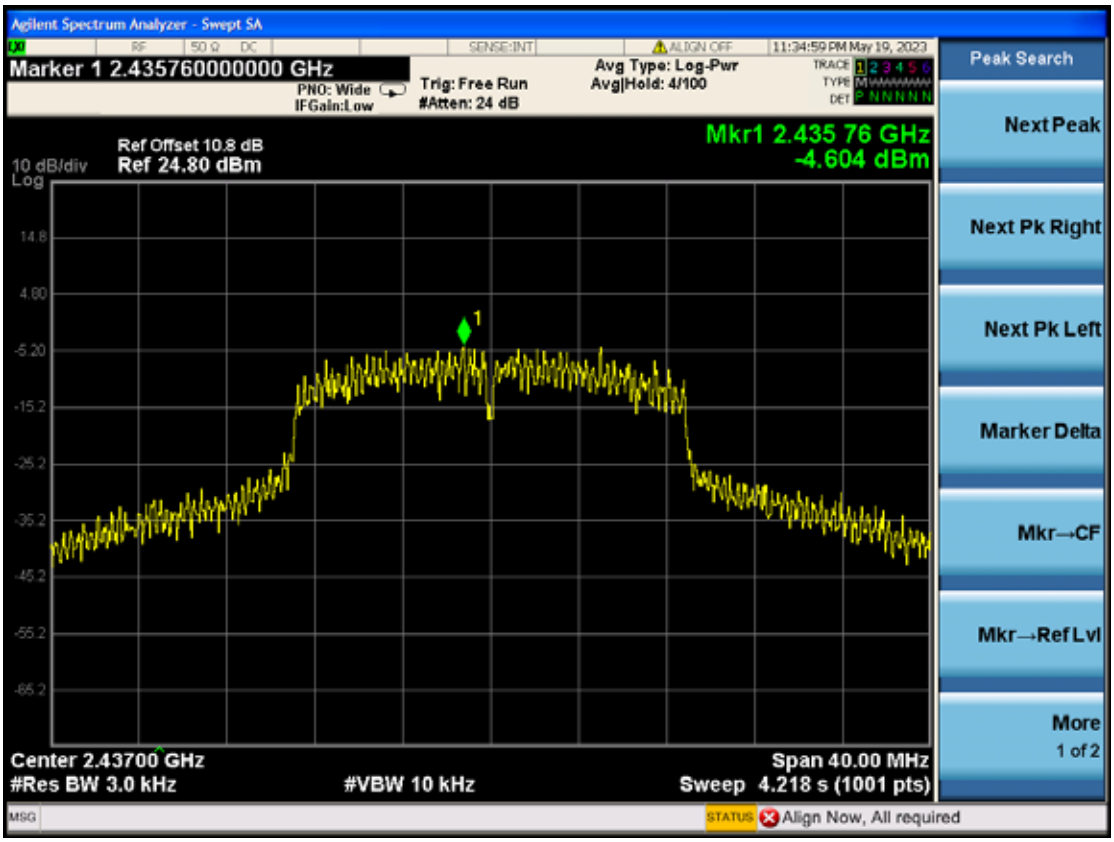
802.11g CH11



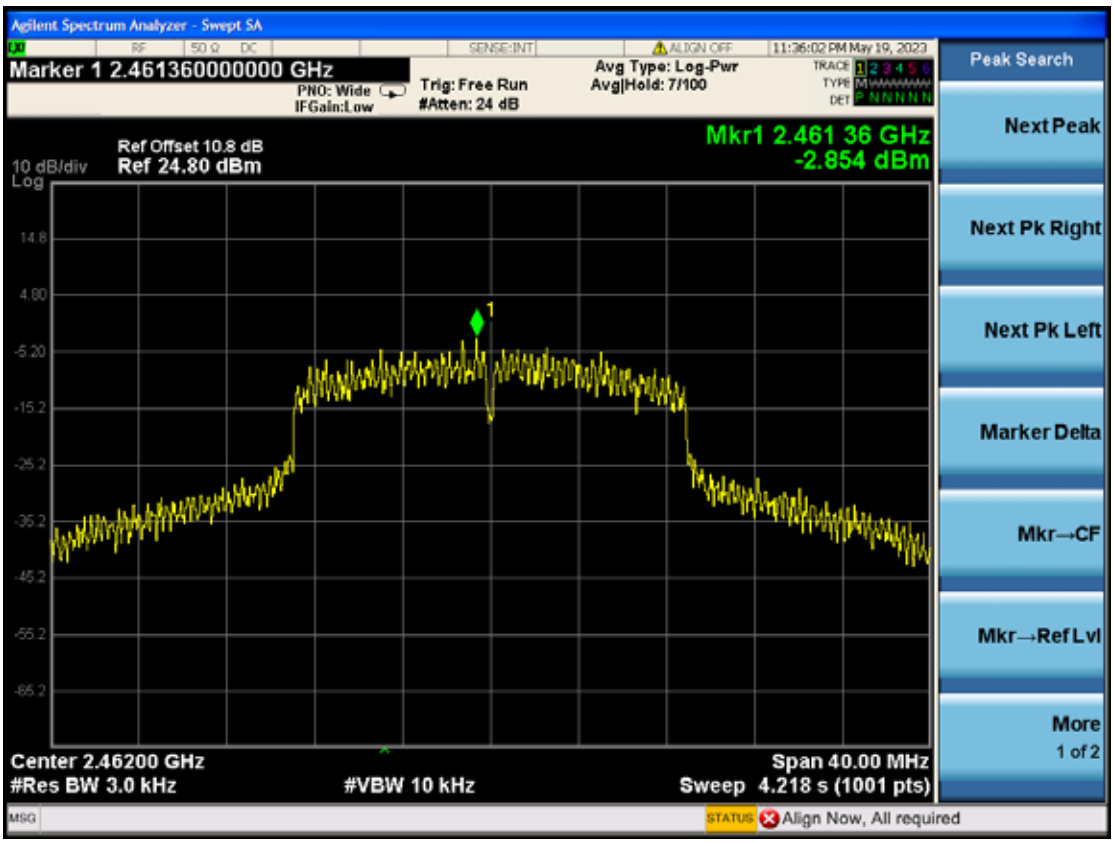
802.11nHT20 CH1



802.11nHT20 CH6



802.11nHT20 CH11



9. EMISSION LIMITATIONS MEASUREMENT

9.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Period
1.	PXA signal analyzer	Agilent	N9030A	MY53120217	2023-03-25	1 Year

9.2. Block Diagram of Test Setup

The same as section 6.2.

9.3. Specification Limits

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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, based on either an RF conducted or a radiated measurement. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, that the required attenuation shall be 30 dB instead of 20 dB.

9.4. Test Procedure

Following measurement procedure is reference to KDB 558074 D01 DTS Meas Guidance v05r02:

(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: 100 kHz.

(4) Set the VBW $\geq$ 3 × RBW.

(5) Detector = peak.

(6) Sweep time = auto couple.

(7) Trace mode = max hold.

(8) Allow trace to fully stabilize to find the max level.

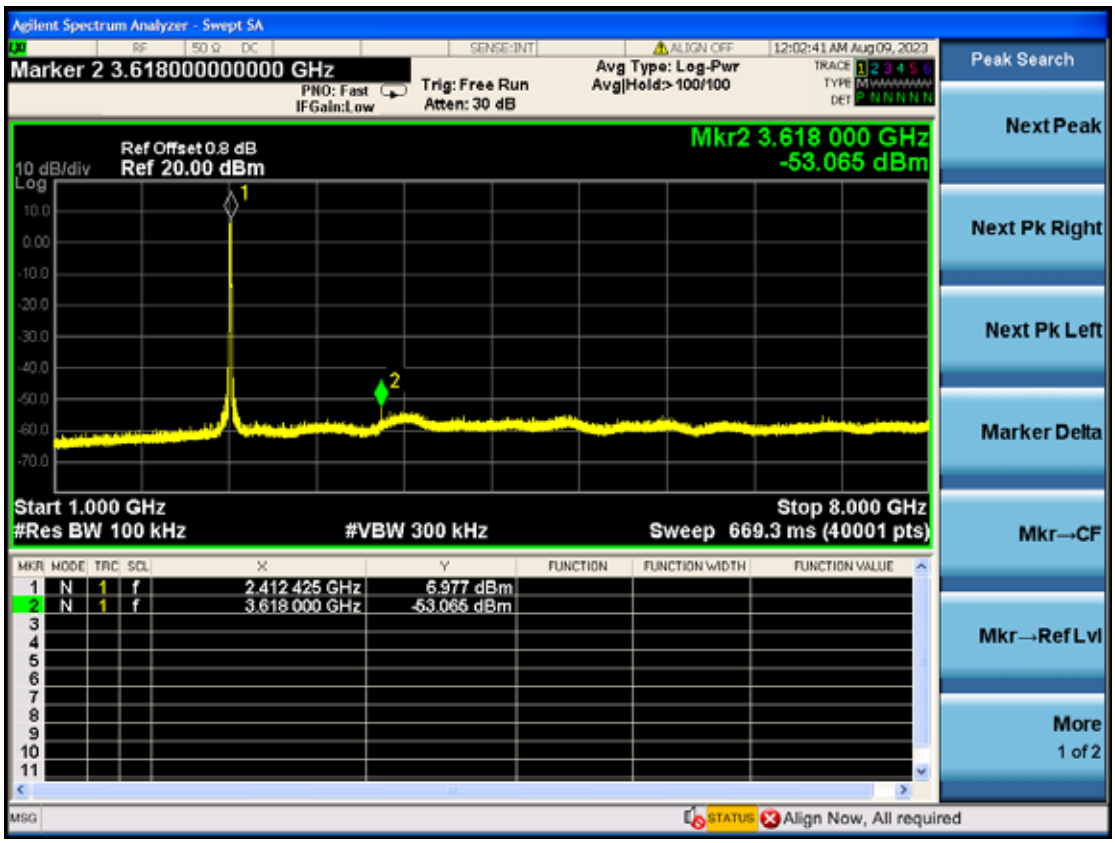
9.5. Test Results

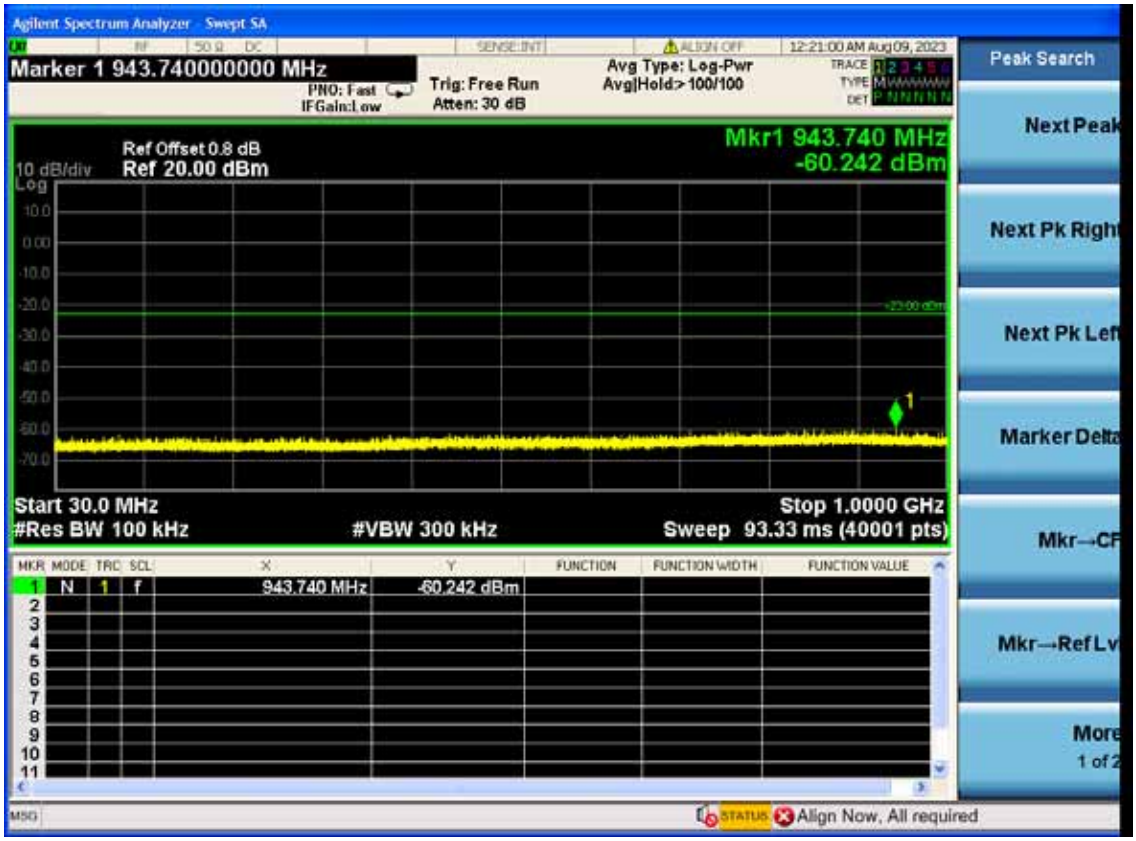
PASSED. All the test results are attached in next pages.

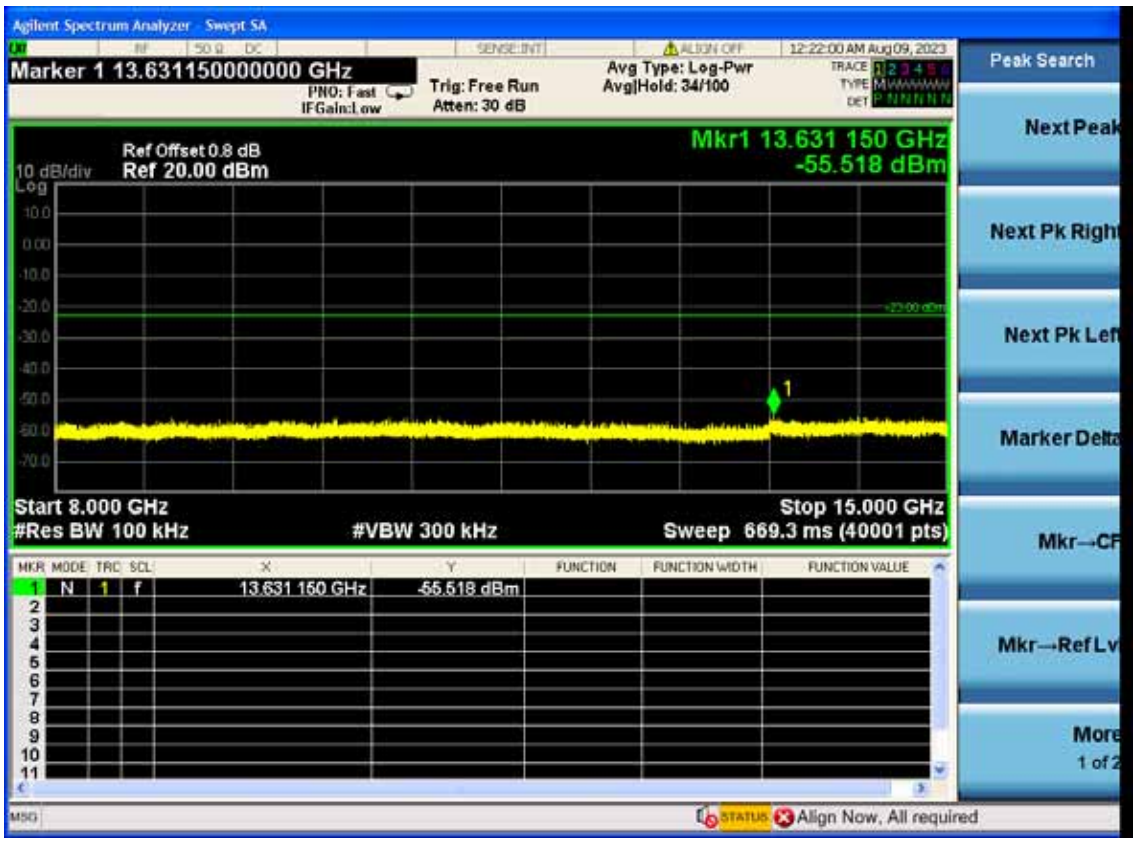
Item	Channel	Frequency (MHz)	Amplitude (dBm)
802.11b	1	2412.425	6.977
		3618	-53.065
		943.74	-60.242
		13631.15	-55.518
		24173.5	-51.129
		2390	-50.836
		2400	-49.087
	6	2436.4	6.226
		3655.45	-53.765
		808.086	-60.894
		14027.7	-54.823
		23930	-51.558
	11	23930	-51.558
		2461.075	5.448
		3692.9	-55.127
		875.307	-59.860
		14373.325	-54.427
		19291.75	-54.399
		2483.5	-56.910
802.11g	1	2415.75	4.046
		3618	-52.508
		904.795	-60.307
		10503.9	-55.323
		23996.25	-51.124
		2390	-45.999
		2400	-30.962
	6	2433.25	3.896
		3655.45	-53.613
		953.513	-59.307
		13666.15	-55.098
		24007.75	-51.636
	11	2460.725	4.073
		3756.6	-54.014
		847.007	-60.381
		14432.125	-54.495
		23901	-51.255
		2483.5	-44.034
		2474	-31.243
802.11n HT20	1	2413.3	4.762
		3809.275	-53.652
		880.617	-60.422
		14176.1	-54.976
		23605.75	-52.390
		2390	-48.303
		2400	-31.857
	6	2438.15	4.481

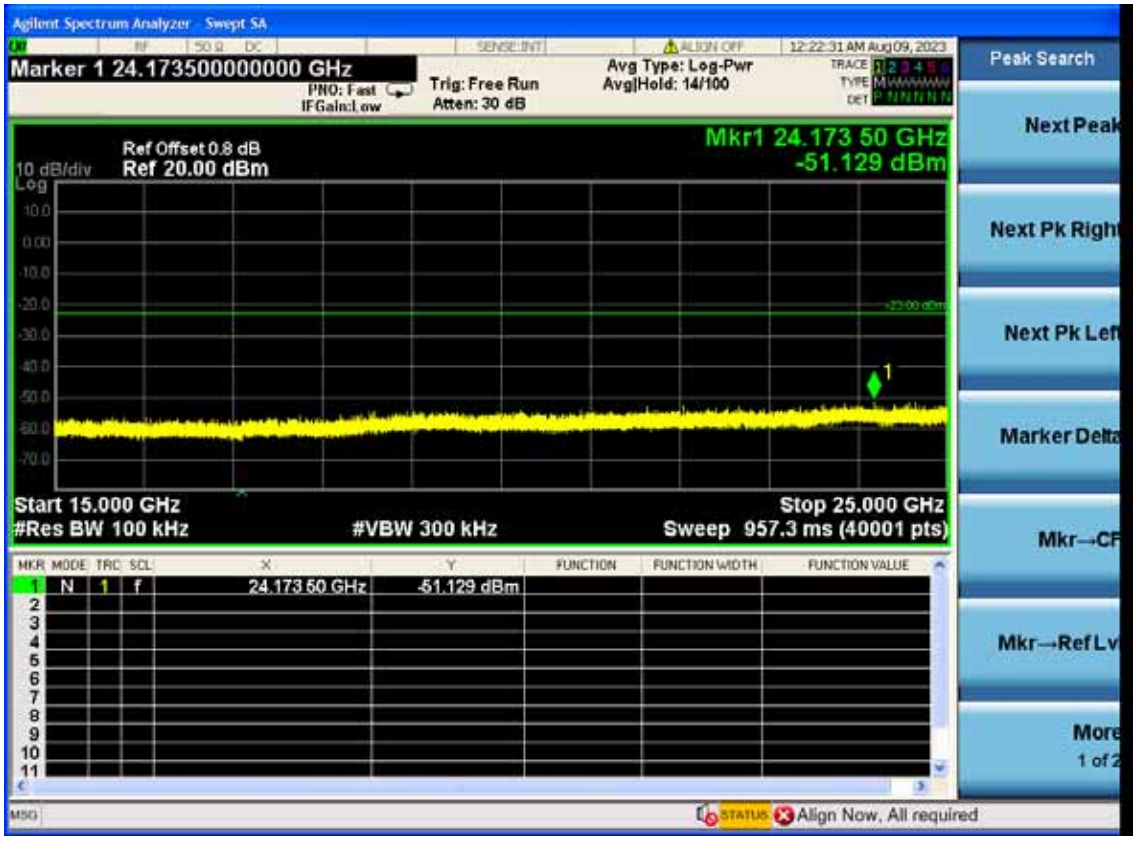
		3655.45	-52.929
		902.491	-60.209
		13618.2	-55.810
		24115	-52.428
	11	2463.175	4.563
		3692.9	-51.613
		772.535	-60.112
		13681.55	-54.850
		23915.5	-52.005
		2483.5	-47.567
		2476.4	-39.558

802.11b CH1


Agilent Spectrum Analyzer - Swept SA
Marker 2 3.618000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:02:41 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 3.618 000 GHz
-53.065 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.412 425 GHz 6.977 dBm
2 N 1 f 3.618 000 GHz -53.065 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

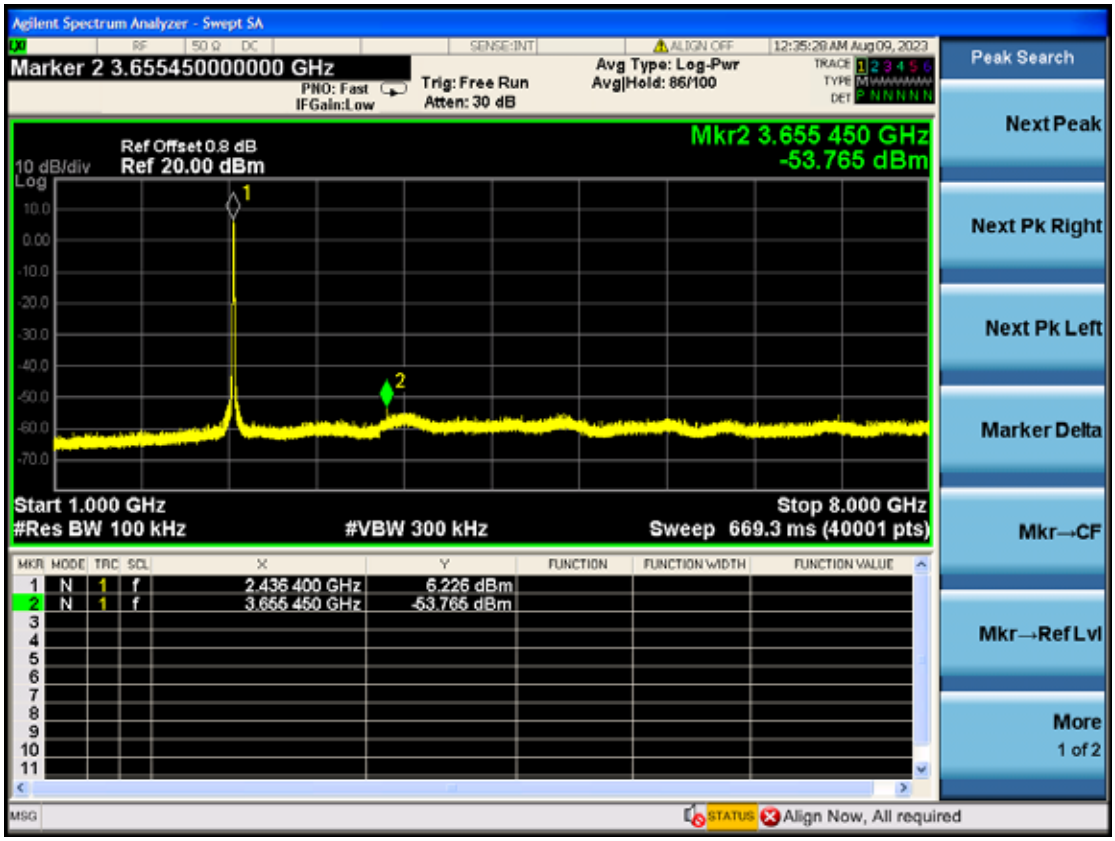

Agilent Spectrum Analyzer - Swept SA
Marker 1 943.740000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:21:00 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 943.740 MHz
-60.242 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 943.740 MHz -60.242 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

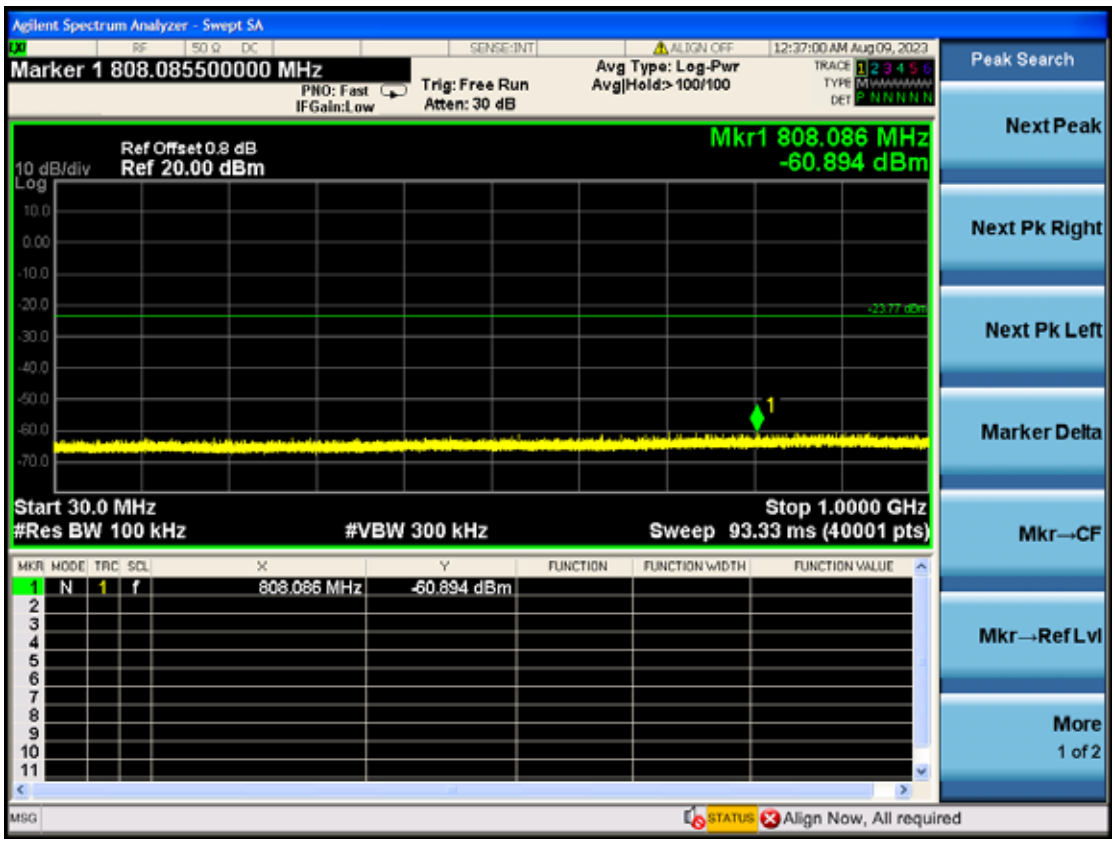

Agilent Spectrum Analyzer - Swept SA
Marker 1 13.631150000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 34/100
12:22:00 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 13.631 150 GHz
-55.518 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 13.631 150 GHz -55.518 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

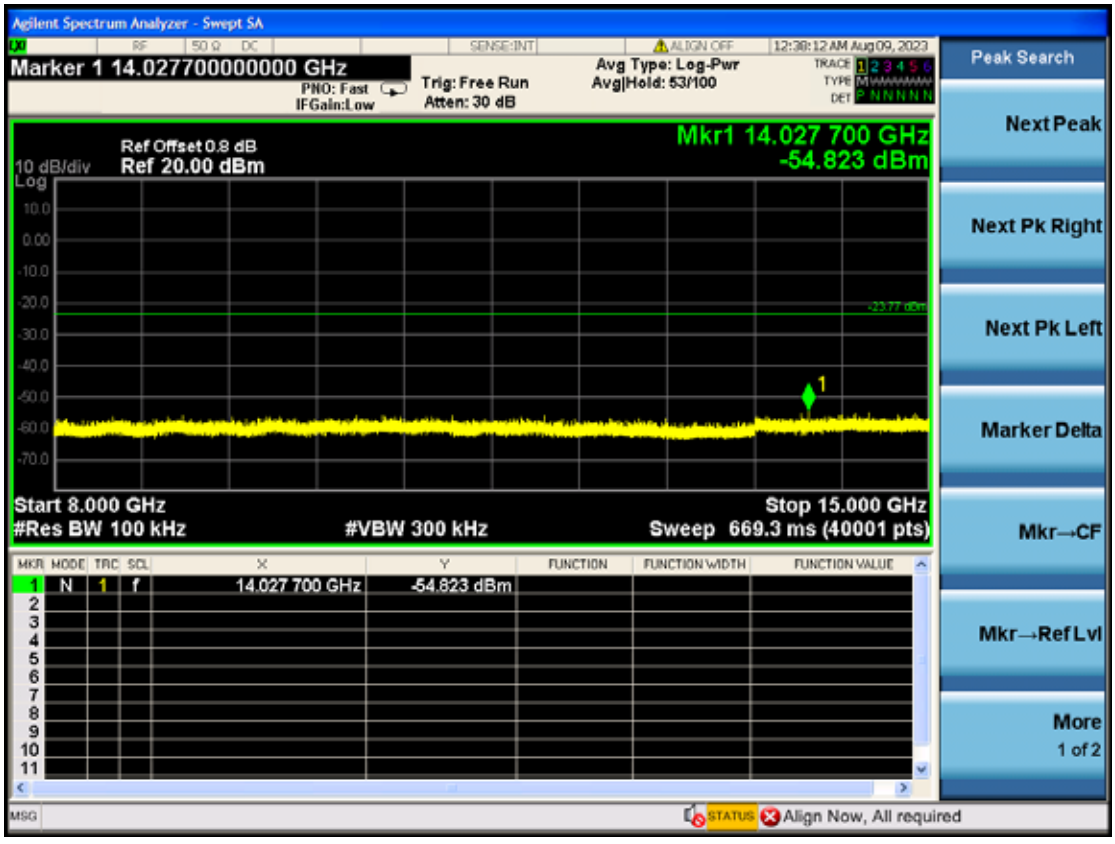

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.173500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 14/100
12:22:31 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 24.173 50 GHz
-51.129 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 24.173 50 GHz -51.129 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

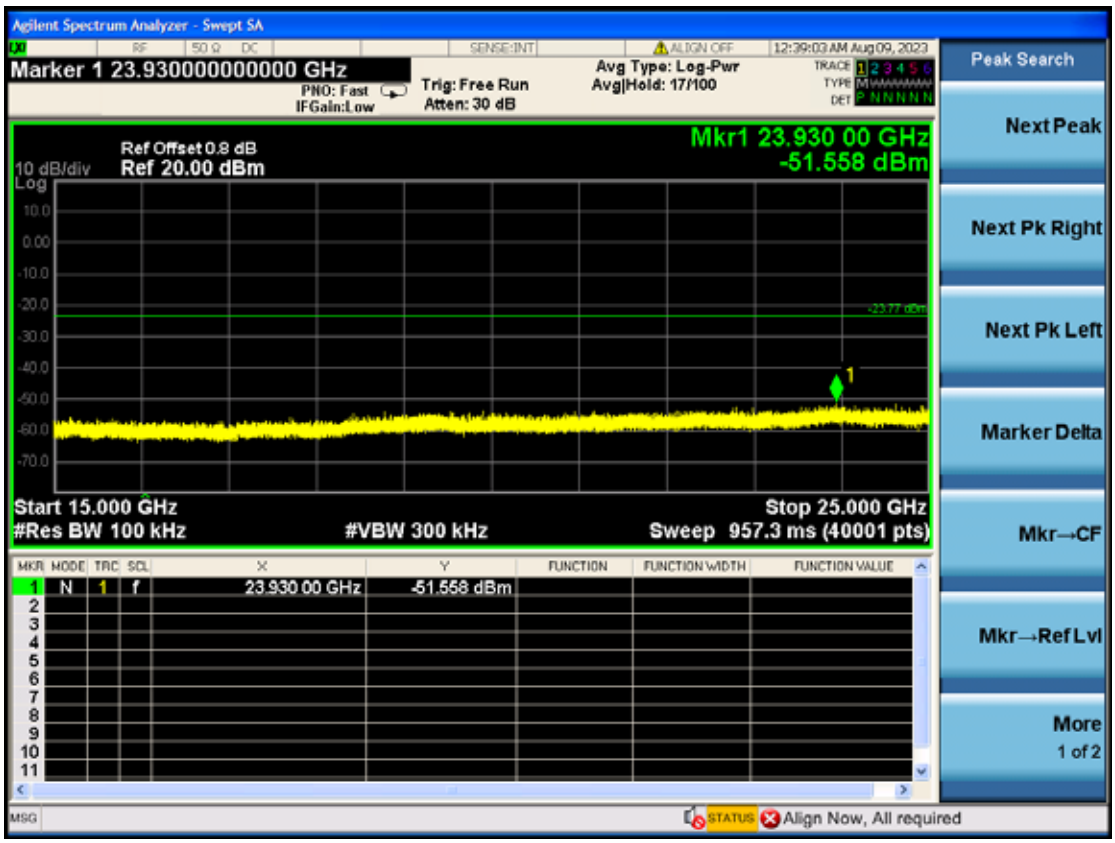

Agilent Spectrum Analyzer - Swept SA
Marker 2 2.400000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:24:57 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 2.400 000 0 GHz
-49.087 dBm
Start 2.35000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.45000 GHz
Sweep 10.67 ms (40001 pts)
1 N 1 f 2.390 000 0 GHz -50.836 dBm
2 N 1 f 2.400 000 0 GHz -49.087 dBm
Marker
Select Marker
Norma
Delta
Fixed
Off
Properties
More
1 of 2
Align Now, All required

802.11b CH6

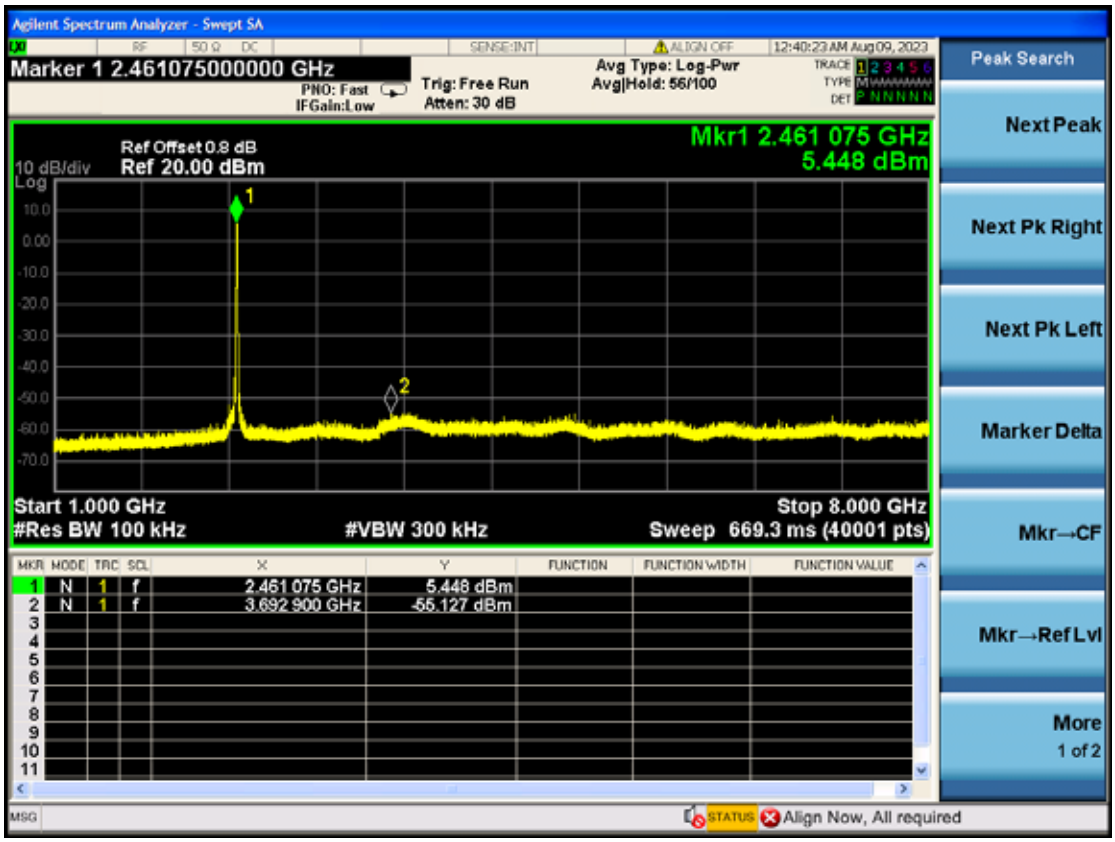

Agilent Spectrum Analyzer - Swept SA
Marker 2 3.655450000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 86/100
12:35:28 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 3.655 450 GHz
-53.765 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.436 400 GHz 6.226 dBm
2 N 1 f 3.655 450 GHz -53.765 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

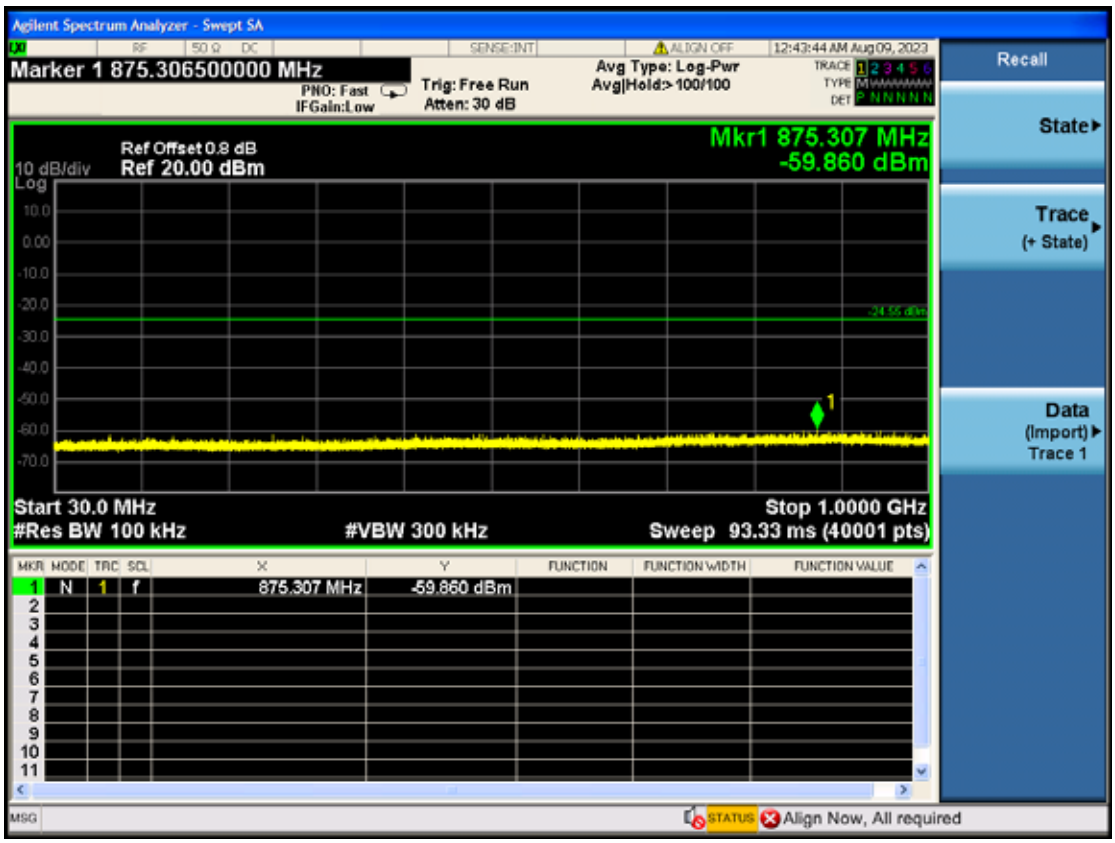

Agilent Spectrum Analyzer - Swept SA
Marker 1 808.085500000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:37:00 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 808.086 MHz
-60.894 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 808.086 MHz -60.894 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

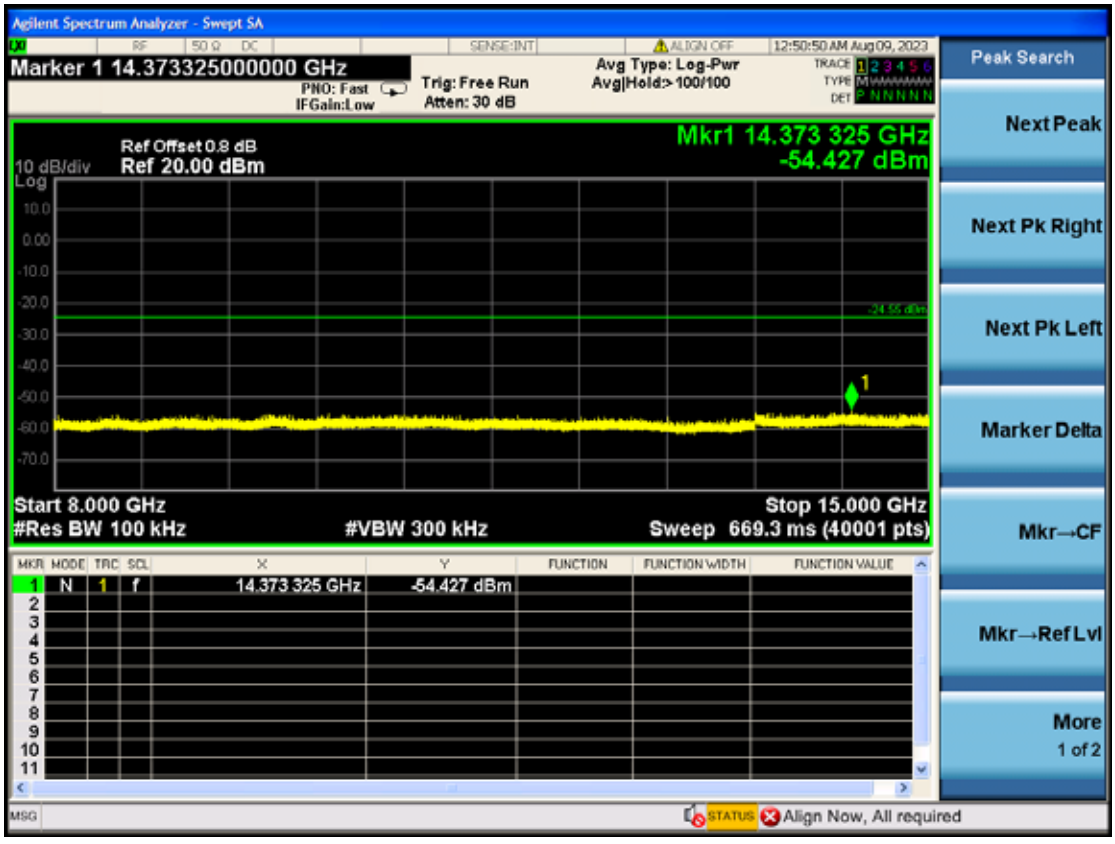

Agilent Spectrum Analyzer - Swept SA
Marker 1 14.027700000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 53/100
12:38:12 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 14.027 700 GHz
-54.823 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 14.027 700 GHz -54.823 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

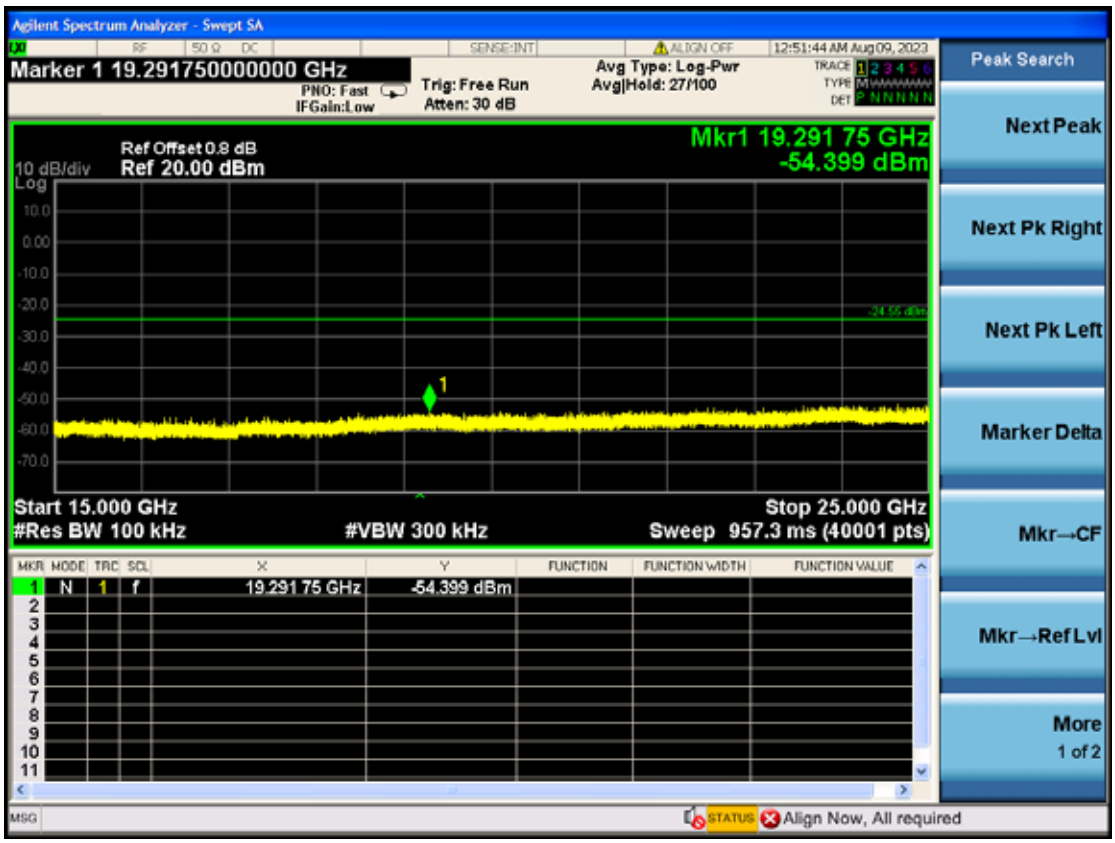

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.930000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 17/100
12:39:03 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 23.930 00 GHz
-51.558 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 23.930 00 GHz -51.558 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

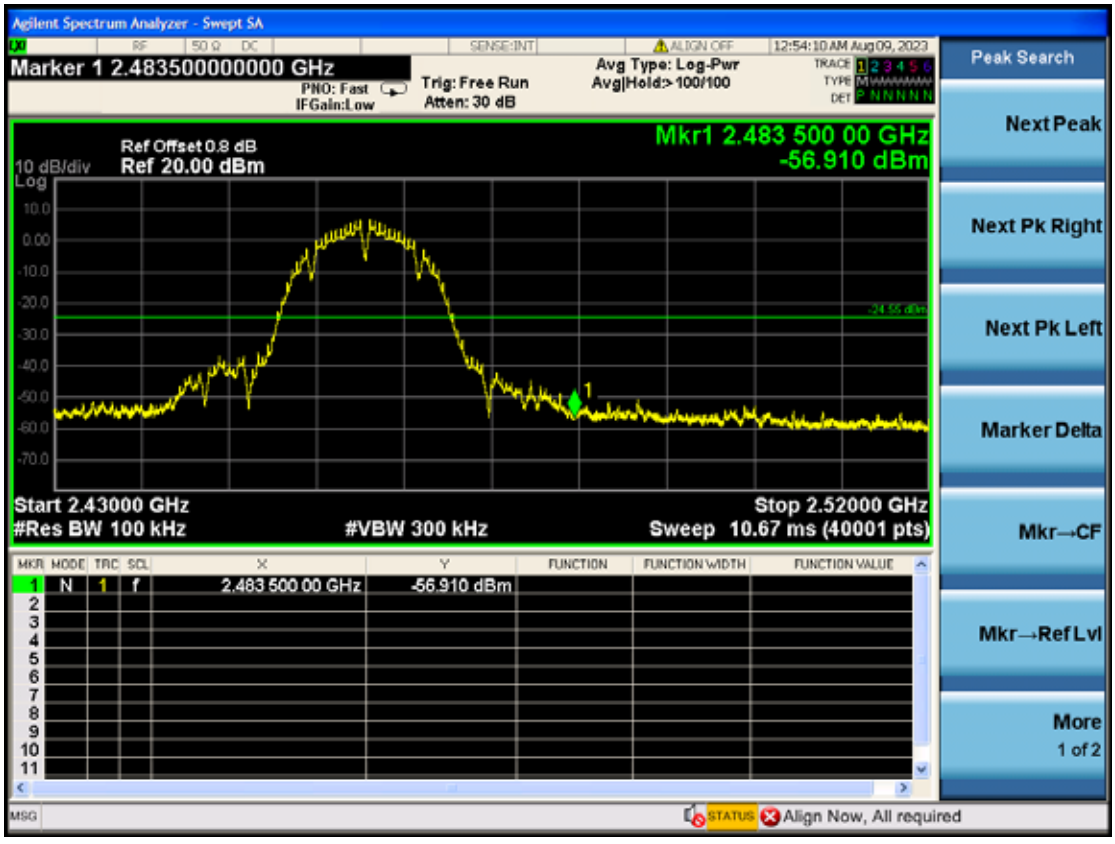
802.11b CH11


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.461075000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 56/100
12:40:23 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.461 075 GHz
5.448 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.461 075 GHz 5.448 dBm
2 N 1 f 3.692 900 GHz -55.127 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

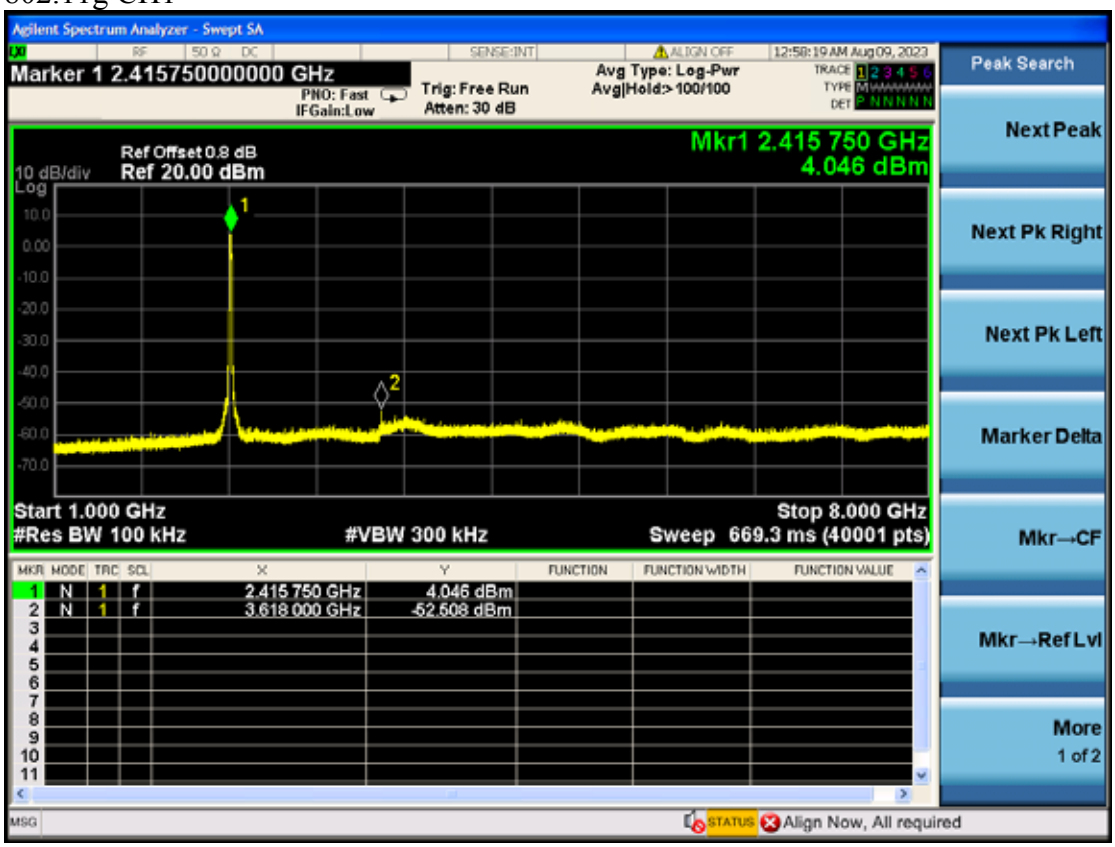

Agilent Spectrum Analyzer - Swept SA
Marker 1 875.306500000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:43:44 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 875.307 MHz
-59.860 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 875.307 MHz -59.860 dBm
Recall
State
Trace (+ State)
Data (Import) Trace 1
Align Now, All required

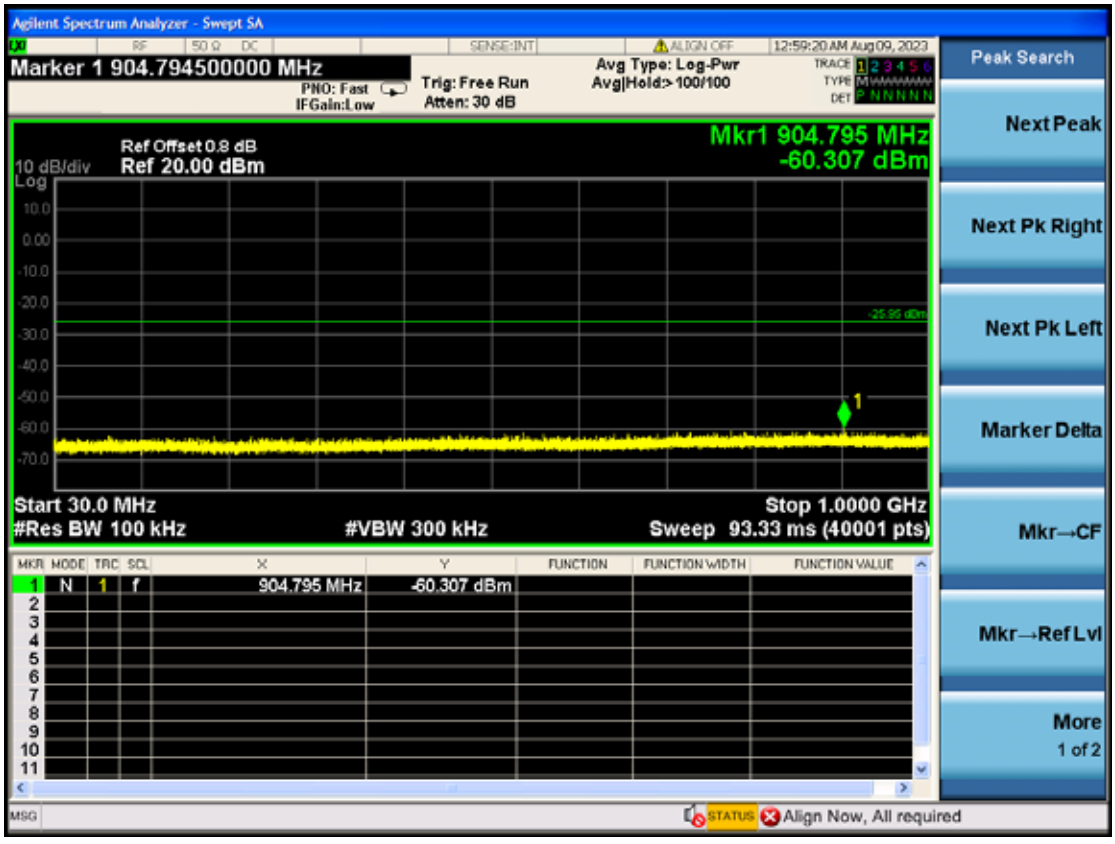

Agilent Spectrum Analyzer - Swept SA
Marker 1 14.373325000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:50:50 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 14.373 325 GHz
-54.427 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 14.373 325 GHz -54.427 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More 1 of 2
Align Now, All required

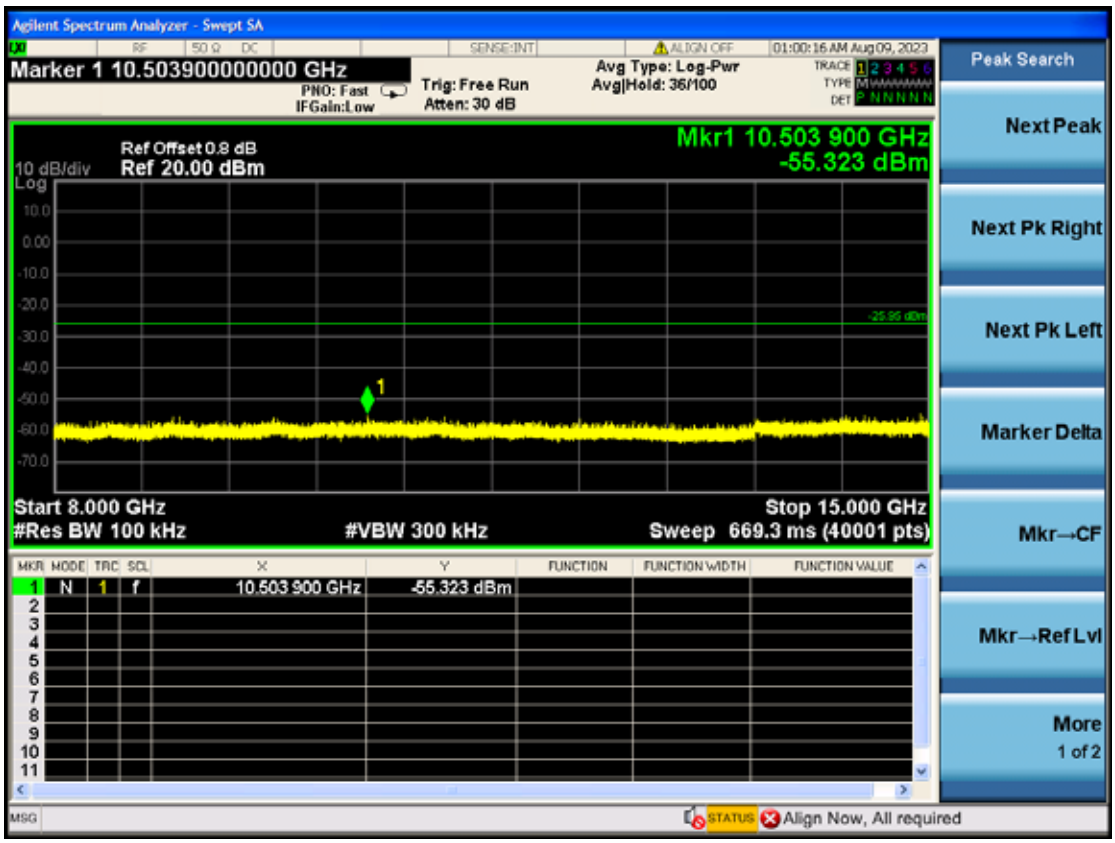

Agilent Spectrum Analyzer - Swept SA
Marker 1 19.291750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 27/100
12:51:44 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 19.291 75 GHz
-54.399 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 19.291 75 GHz -54.399 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

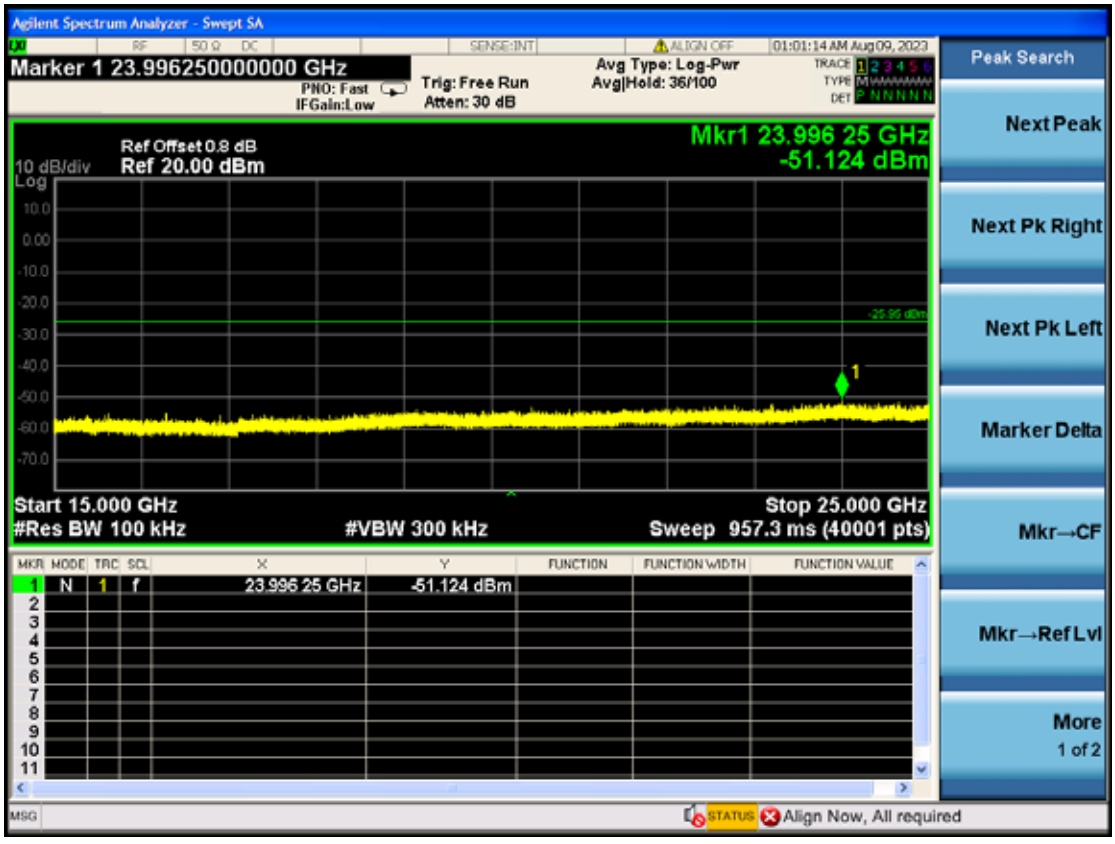

Agilent Spectrum Analyzer - Swept SA
Marker 1 2.483500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:54:10 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.483 500 00 GHz
-56.910 dBm
Start 2.43000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.52000 GHz
Sweep 10.67 ms (40001 pts)
1 N 1 f 2.483 500 00 GHz -56.910 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

802.11g CH1


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.415750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:58:19 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.415 750 GHz
4.046 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.415 750 GHz 4.046 dBm
2 N 1 f 3.618 000 GHz -52.508 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

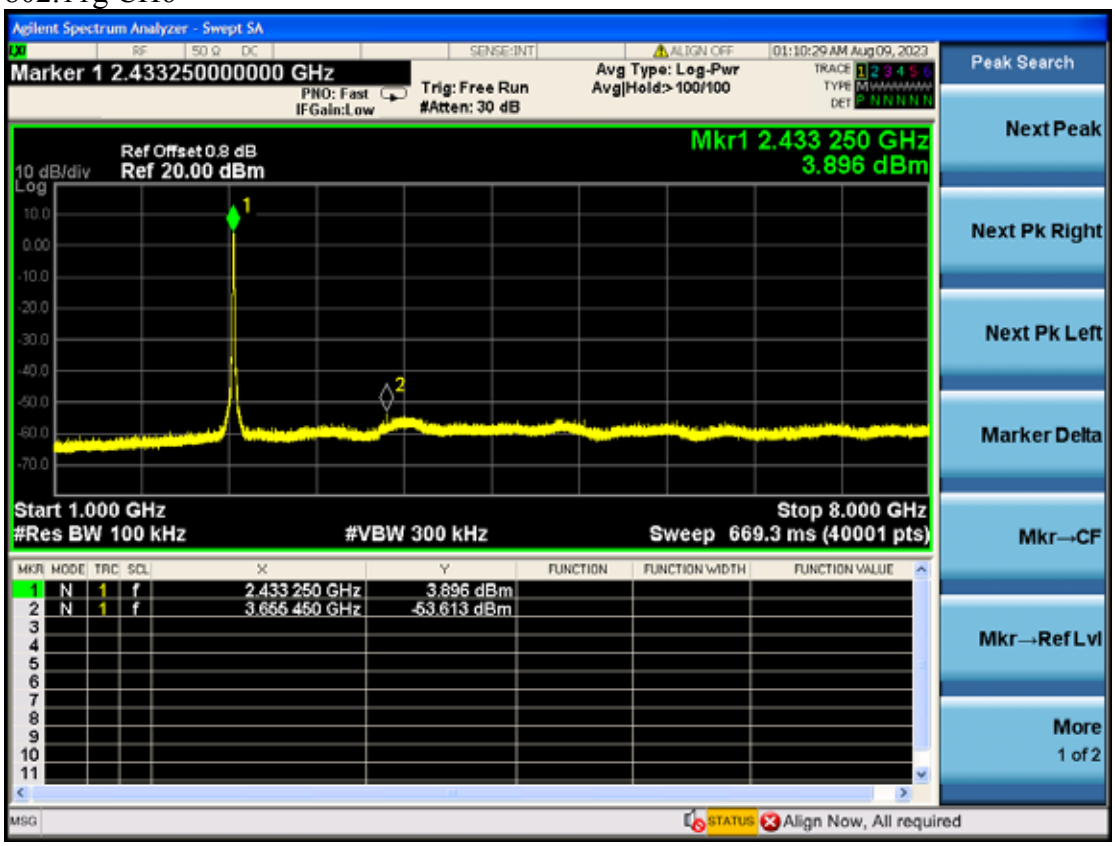

Agilent Spectrum Analyzer - Swept SA
Marker 1 904.794500000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
12:59:20 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 904.795 MHz
-60.307 dBm
-25.95 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 904.795 MHz -60.307 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

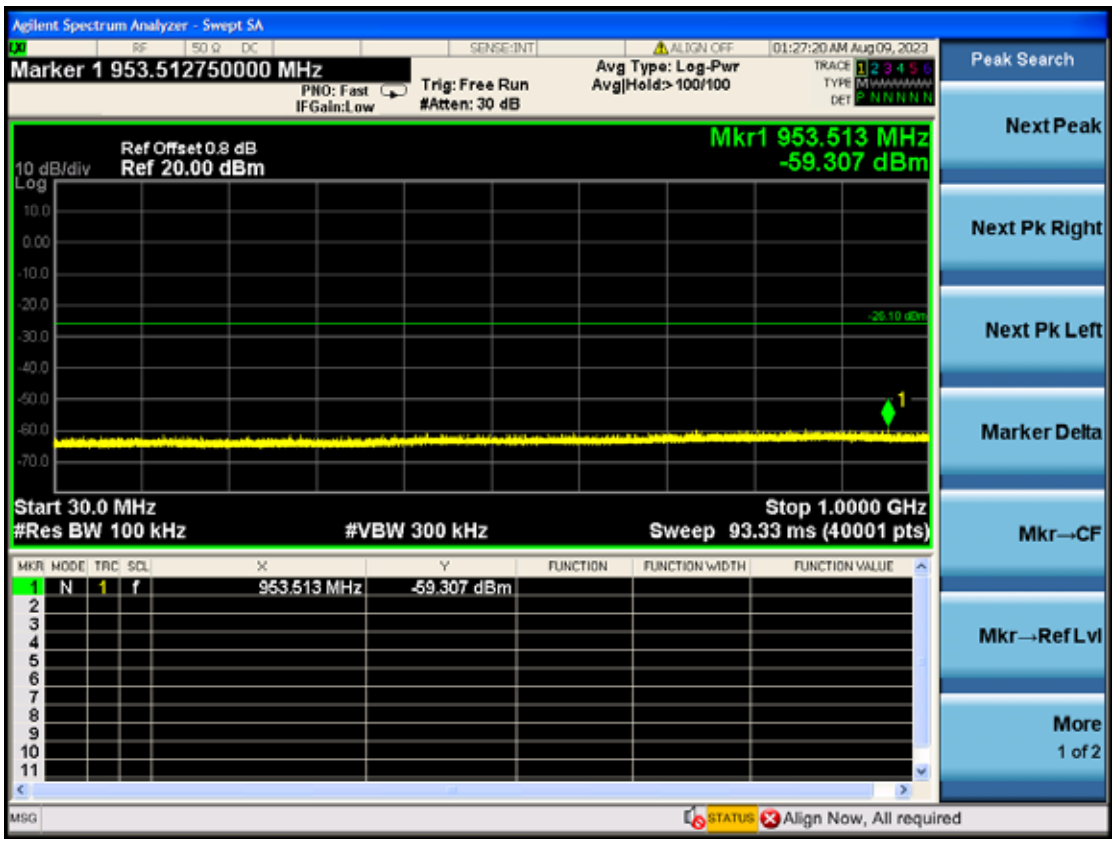

Agilent Spectrum Analyzer - Swept SA
Marker 1 10.503900000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 36/100
01:00:16 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 10.503 900 GHz
-55.323 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 10.503 900 GHz -55.323 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

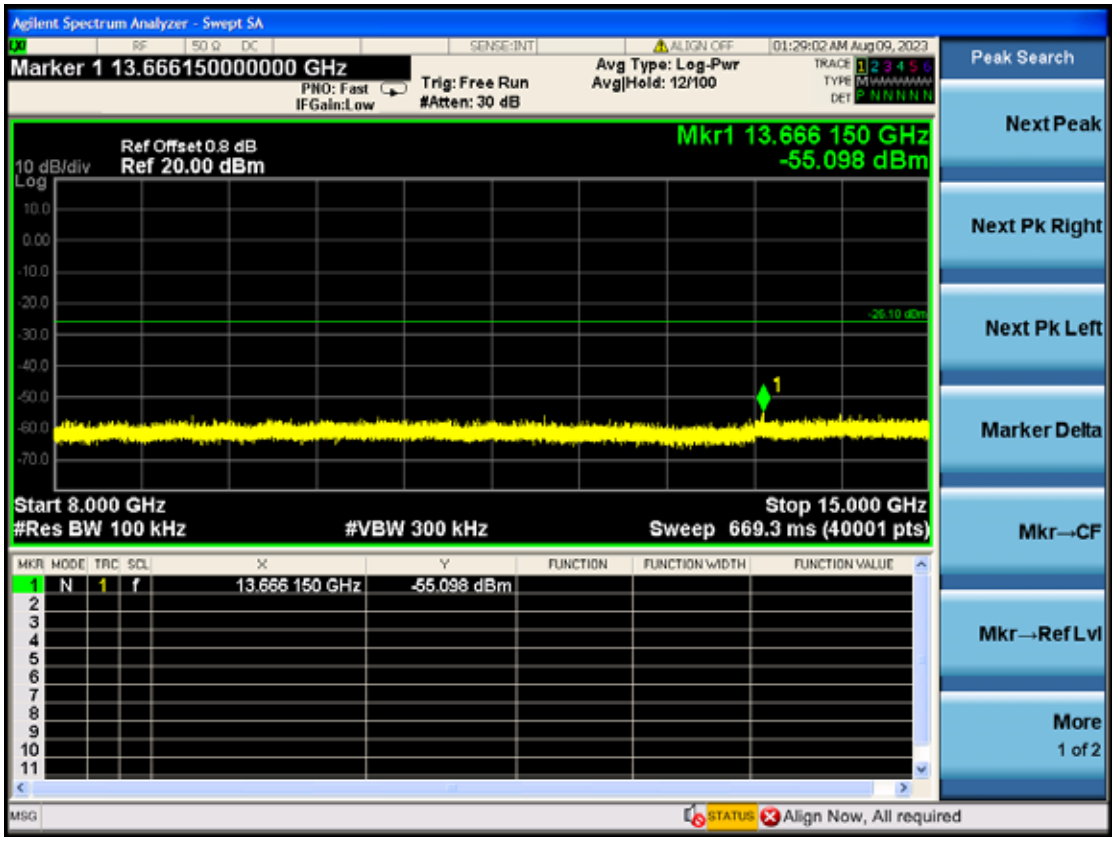

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.996250000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 36/100
01:01:14 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 23.996 25 GHz
-51.124 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 23.996 25 GHz -51.124 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

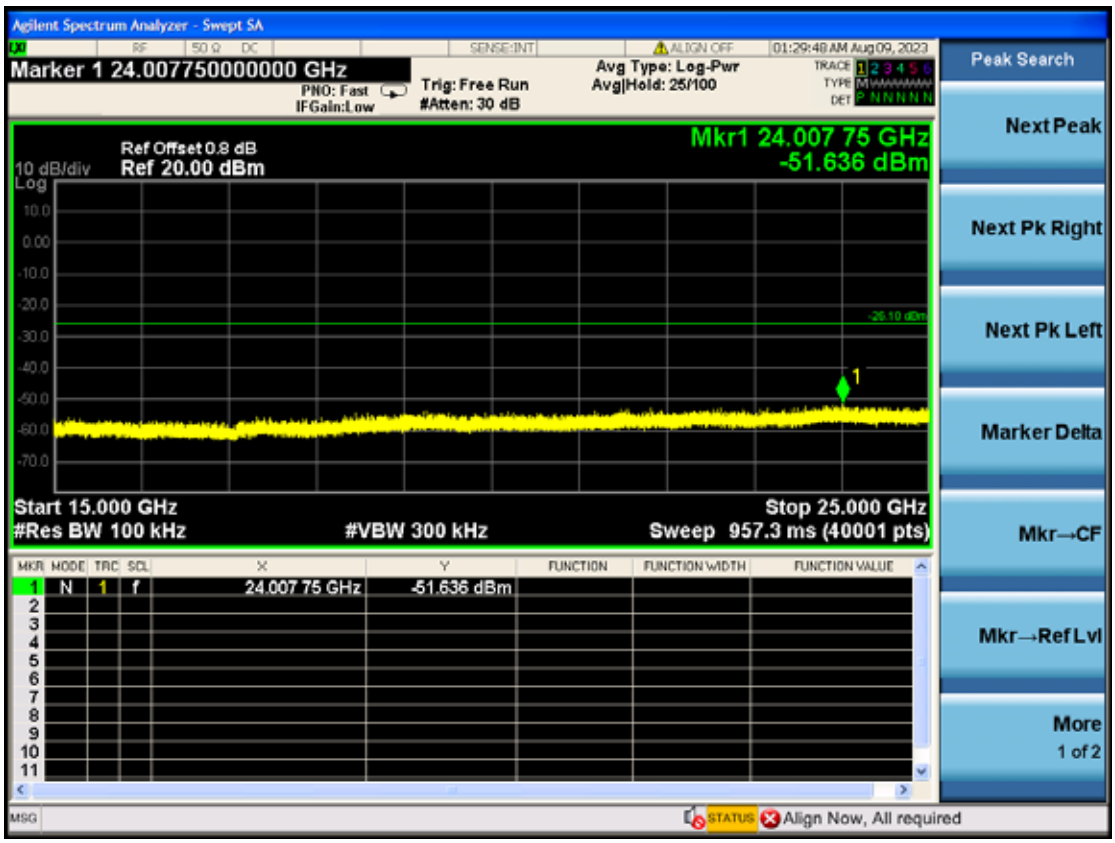

Agilent Spectrum Analyzer - Swept SA
Ref Level 20.00 dBm
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:06:19 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 2.400 000 00 GHz
-30.962 dBm
Start 2.36000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.43000 GHz
Sweep 8.000 ms (40001 pts)
1 N 1 f 2.390 000 00 GHz -45.999 dBm
2 N 1 f 2.400 000 00 GHz -30.962 dBm
Amplitude
Ref Level
20.00 dBm
Attenuation
[30 dB]
Scale/Div
10 dB
Scale Type
Log
Lin
Presel Center
Presel Adjust
0 Hz
More
1 of 2
Align Now, All required

802.11g CH6

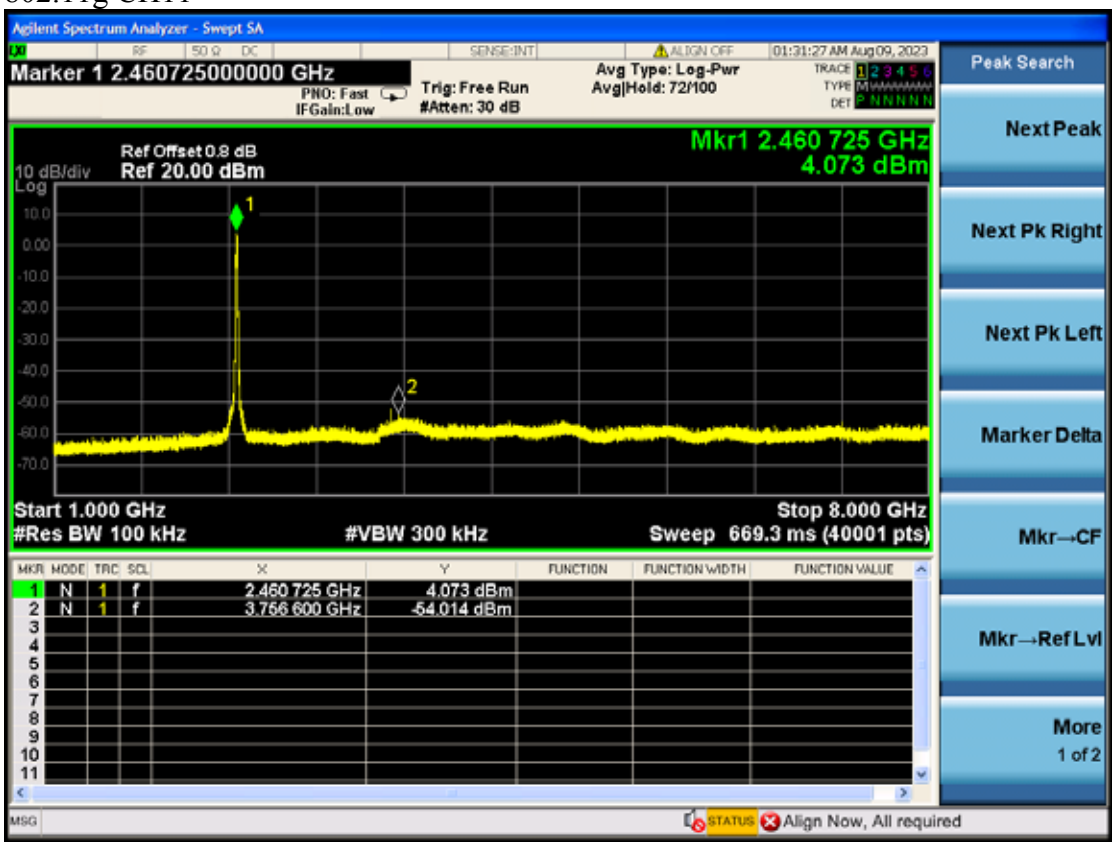

Agilent Spectrum Analyzer - Swept SA
Marker 1 2.433250000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:10:29 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.433 250 GHz
3.896 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.433 250 GHz 3.896 dBm
2 N 1 f 3.655 450 GHz -53.613 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

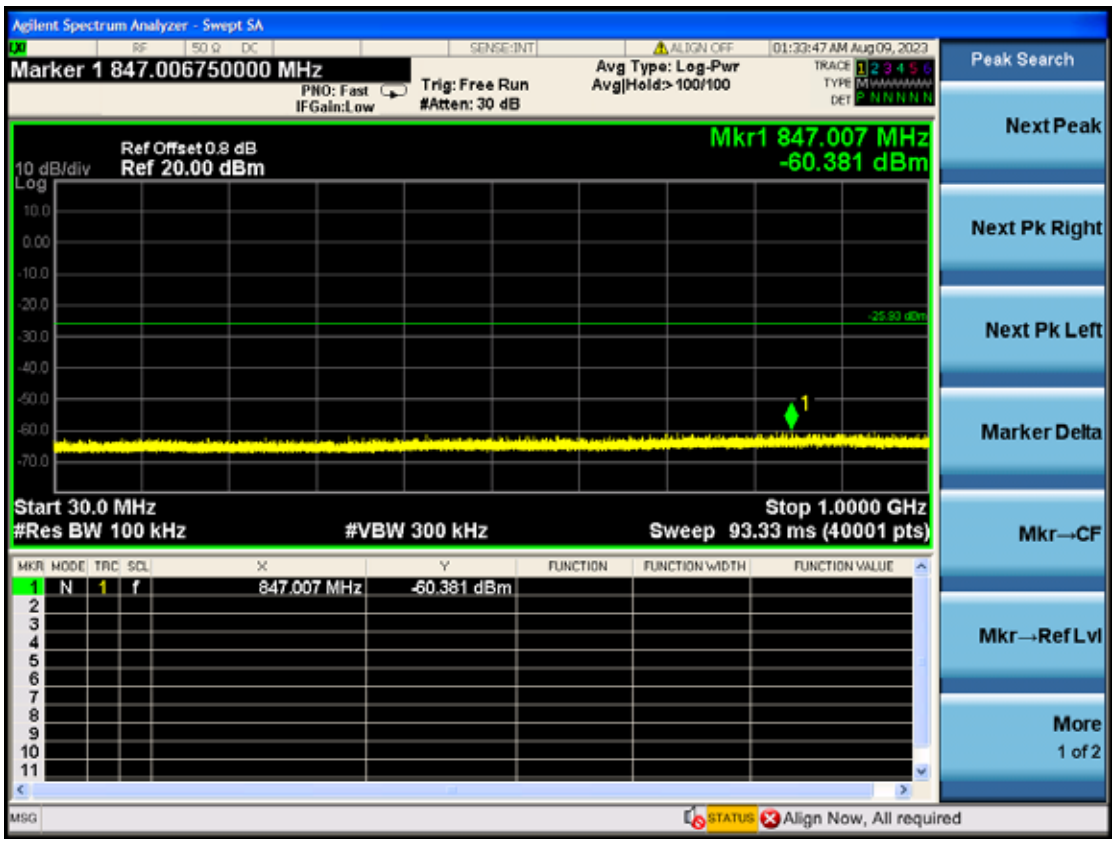

Agilent Spectrum Analyzer - Swept SA
Marker 1 953.512750000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:27:20 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 953.513 MHz
-59.307 dBm
-26.10 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 953.513 MHz -59.307 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

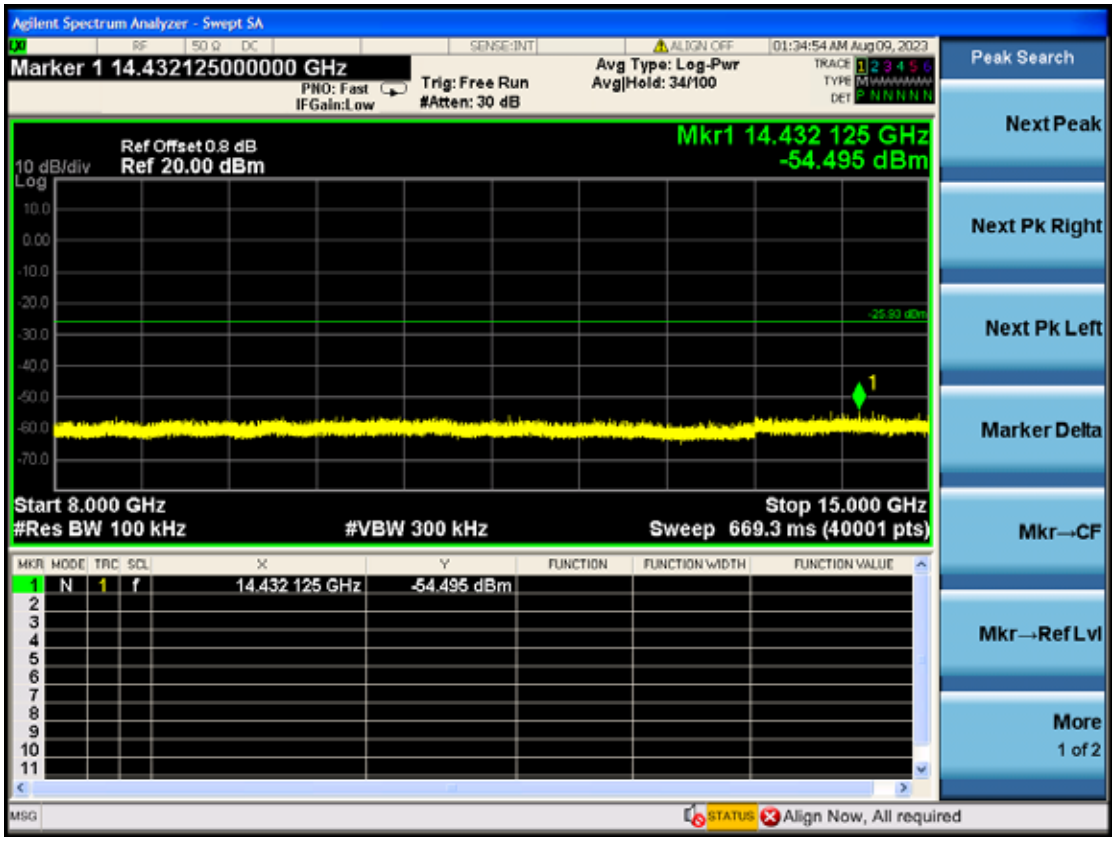

Agilent Spectrum Analyzer - Swept SA
Marker 1 13.666150000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 12/100
01:29:02 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 13.666 150 GHz
-55.098 dBm
-26.10 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 13.666 150 GHz -55.098 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

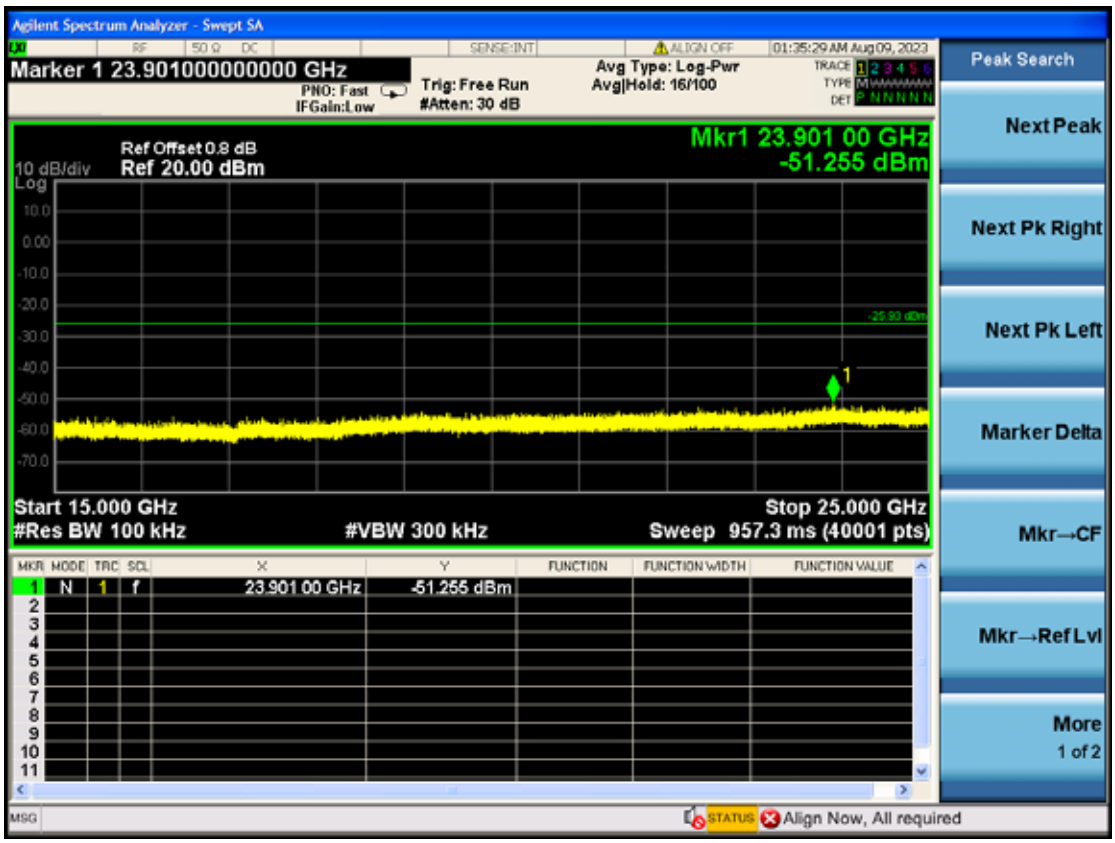

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.007750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 25/100
01:29:48 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 24.007 75 GHz
-51.636 dBm
-26.10 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 24.007 75 GHz -51.636 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

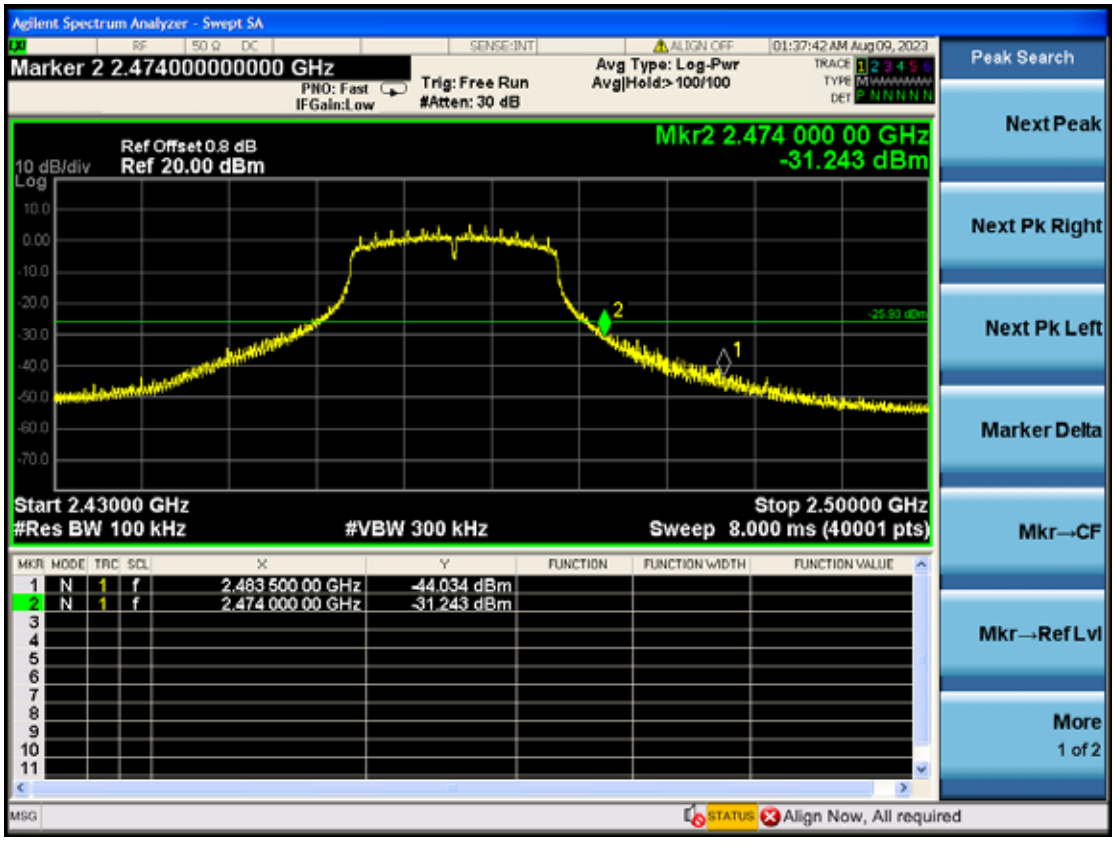
802.11g CH11


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.460725000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 72/100
01:31:27 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.460 725 GHz
4.073 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 8.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 2.460 725 GHz 4.073 dBm
2 N 1 f 3.756 600 GHz -54.014 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

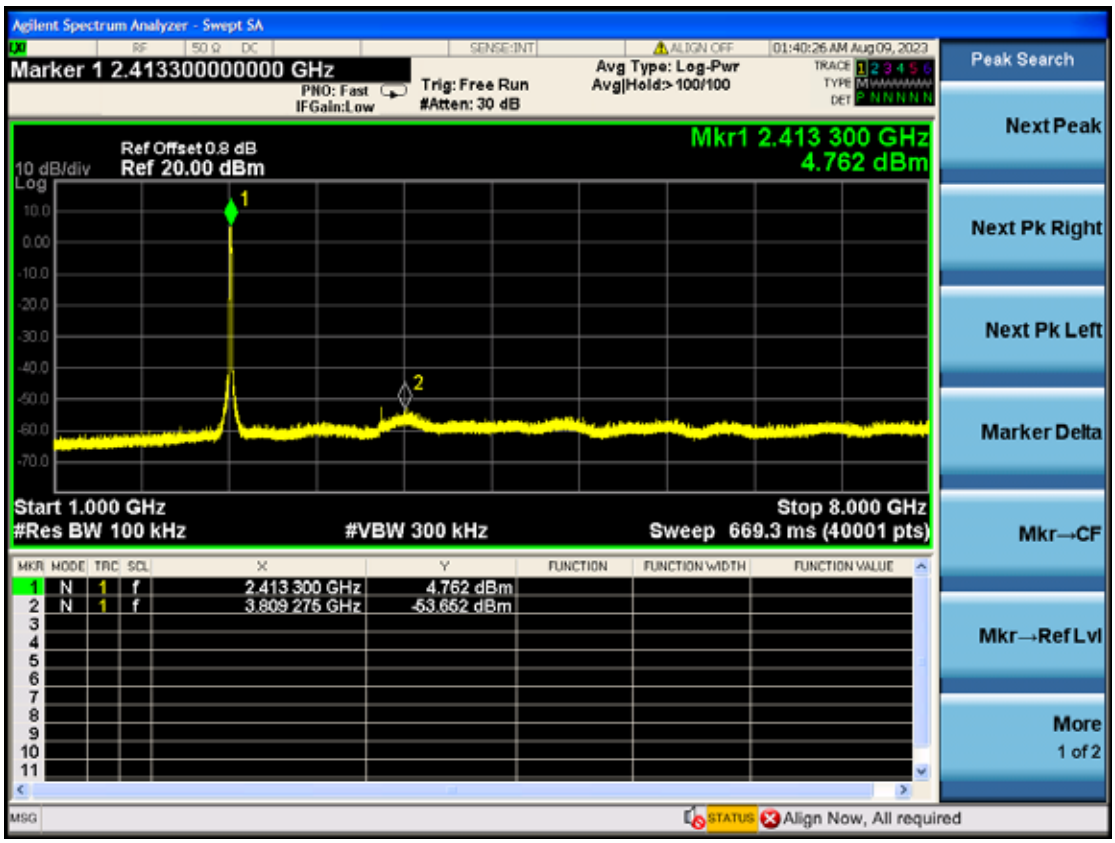

Agilent Spectrum Analyzer - Swept SA
Marker 1 847.006750000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:33:47 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 847.007 MHz
-60.381 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 847.007 MHz -60.381 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

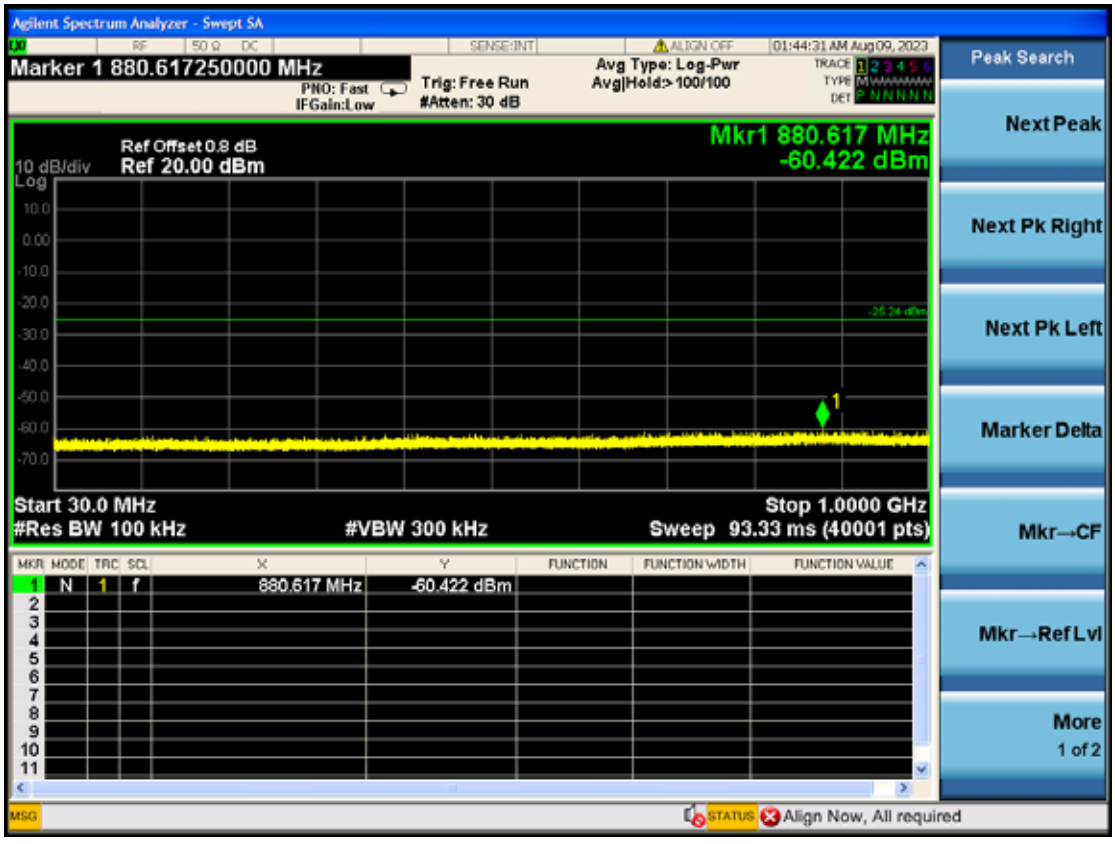

Agilent Spectrum Analyzer - Swept SA
Marker 1 14.432125000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 34/100
01:34:54 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 14.432 125 GHz
-54.495 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 14.432 125 GHz -54.495 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

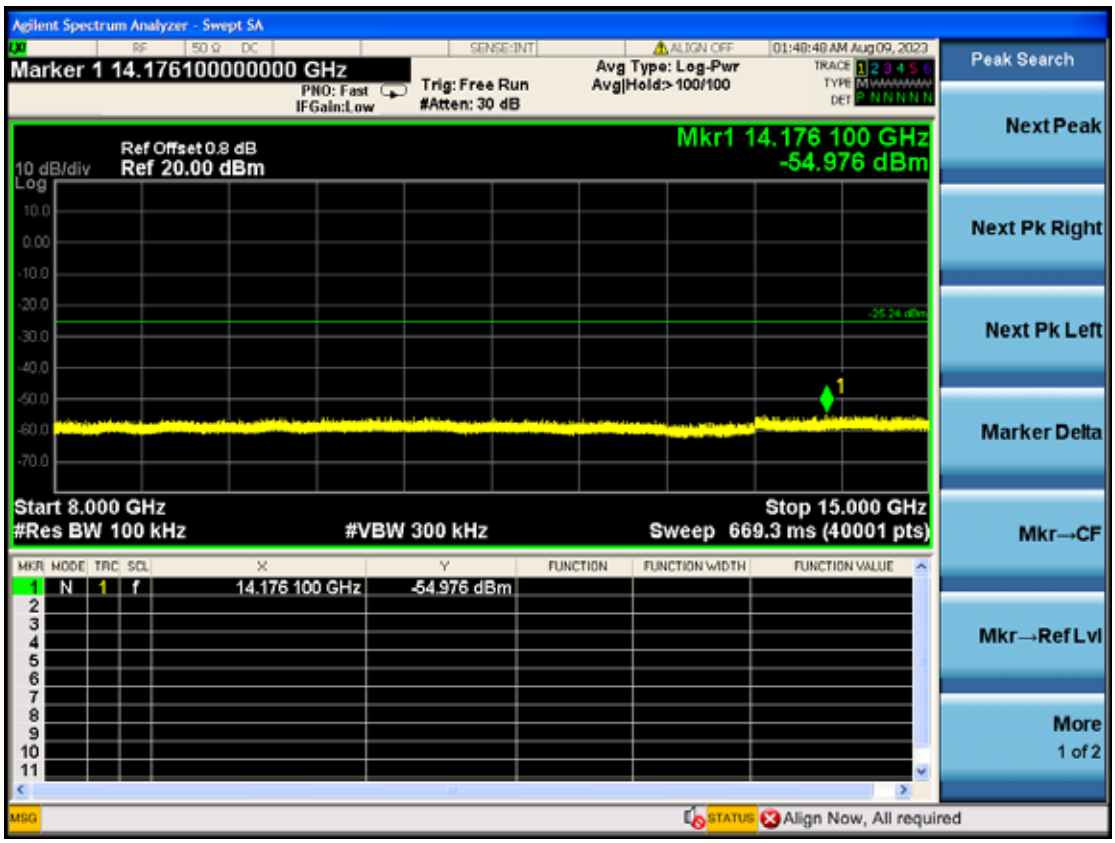

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.901000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
01:35:29 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 23.901 00 GHz
-51.255 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 23.901 00 GHz -51.255 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

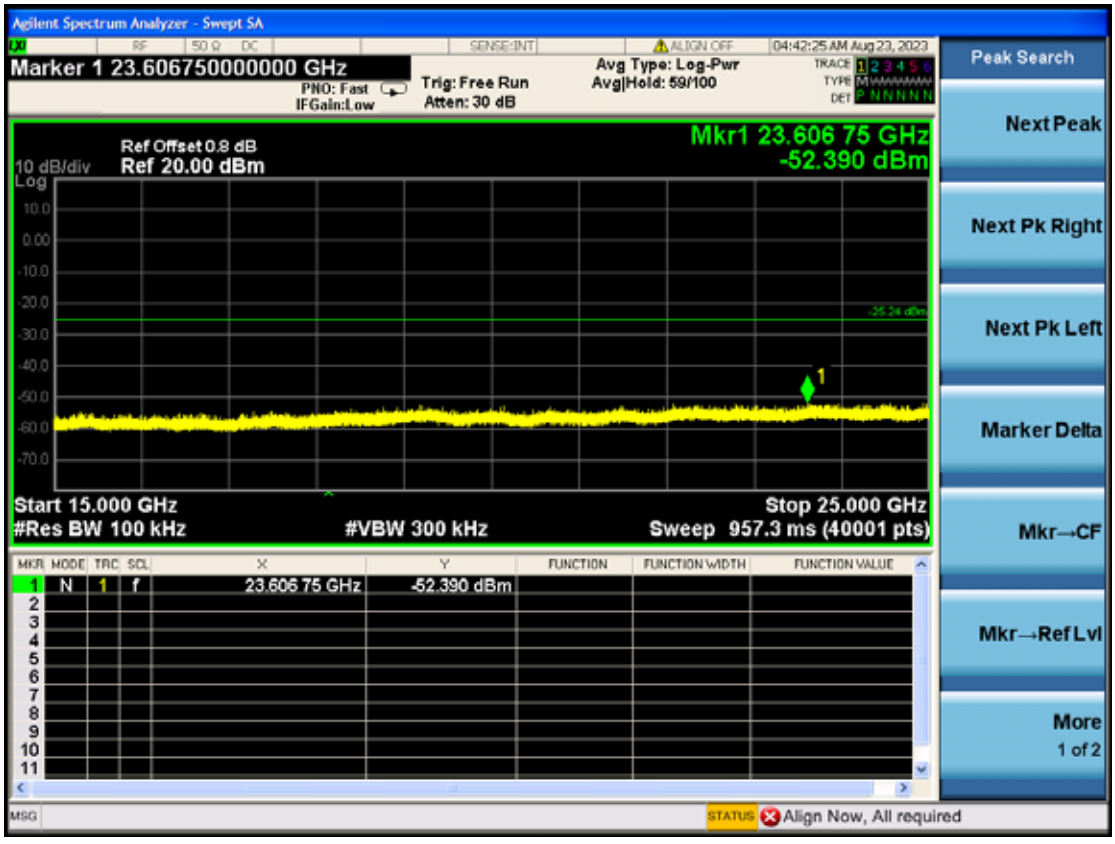

Agilent Spectrum Analyzer - Swept SA
Marker 2 2.474000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:37:42 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 2.474 000 00 GHz
-31.243 dBm
Start 2.43000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.50000 GHz
Sweep 8.000 ms (40001 pts)
1 N 1 f 2.483 500 00 GHz -44.034 dBm
2 N 1 f 2.474 000 00 GHz -31.243 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

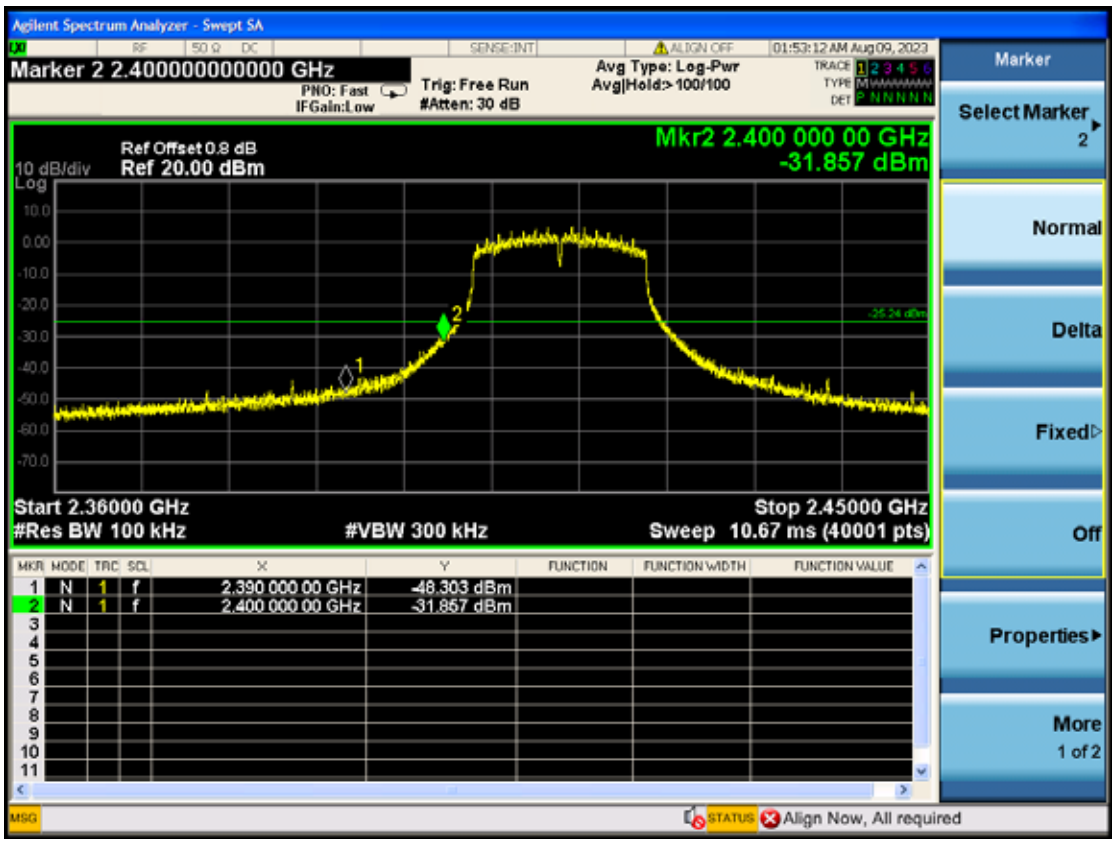
802.11nHT20 CH1






Agilent Spectrum Analyzer - Swept SA
Marker 1 14.176100000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
01:40:48 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 14.176 100 GHz
-54.976 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 14.176 100 GHz -54.976 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 23.606750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 59/100
04:42:25 AM Aug 23, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 23.606 75 GHz
-52.390 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 23.606 75 GHz -52.390 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



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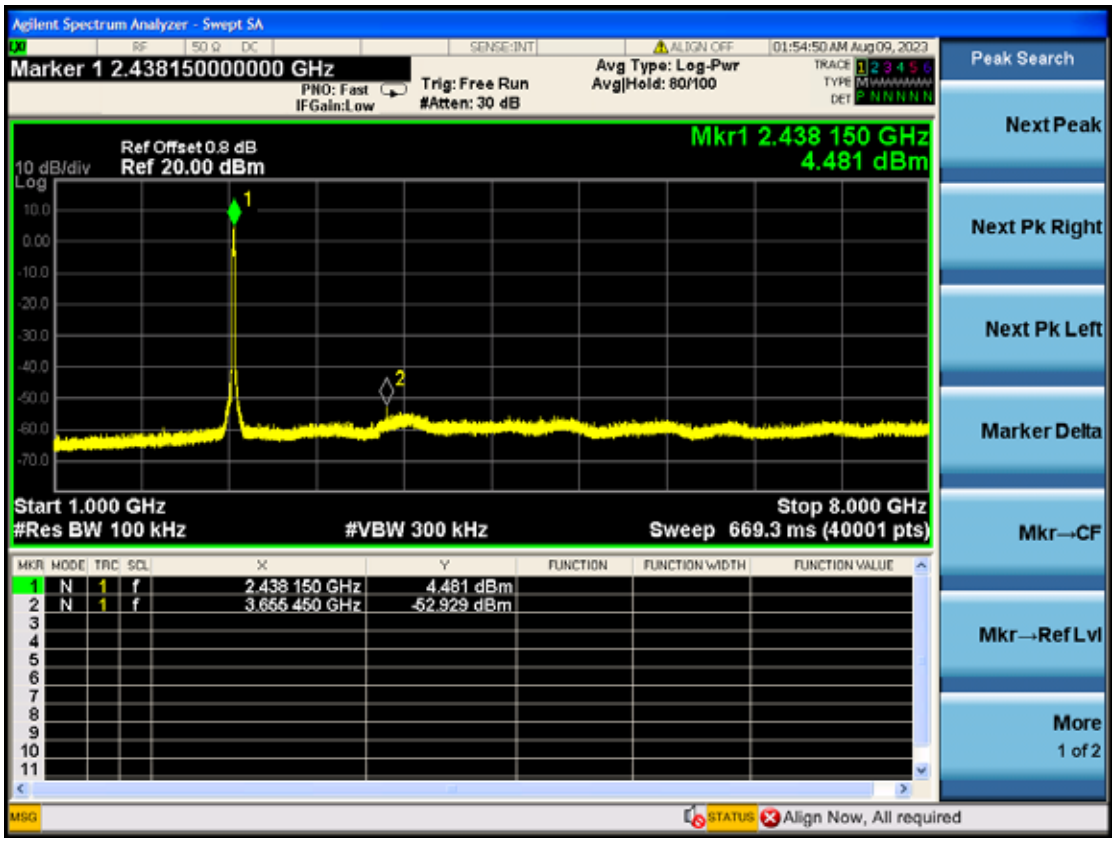
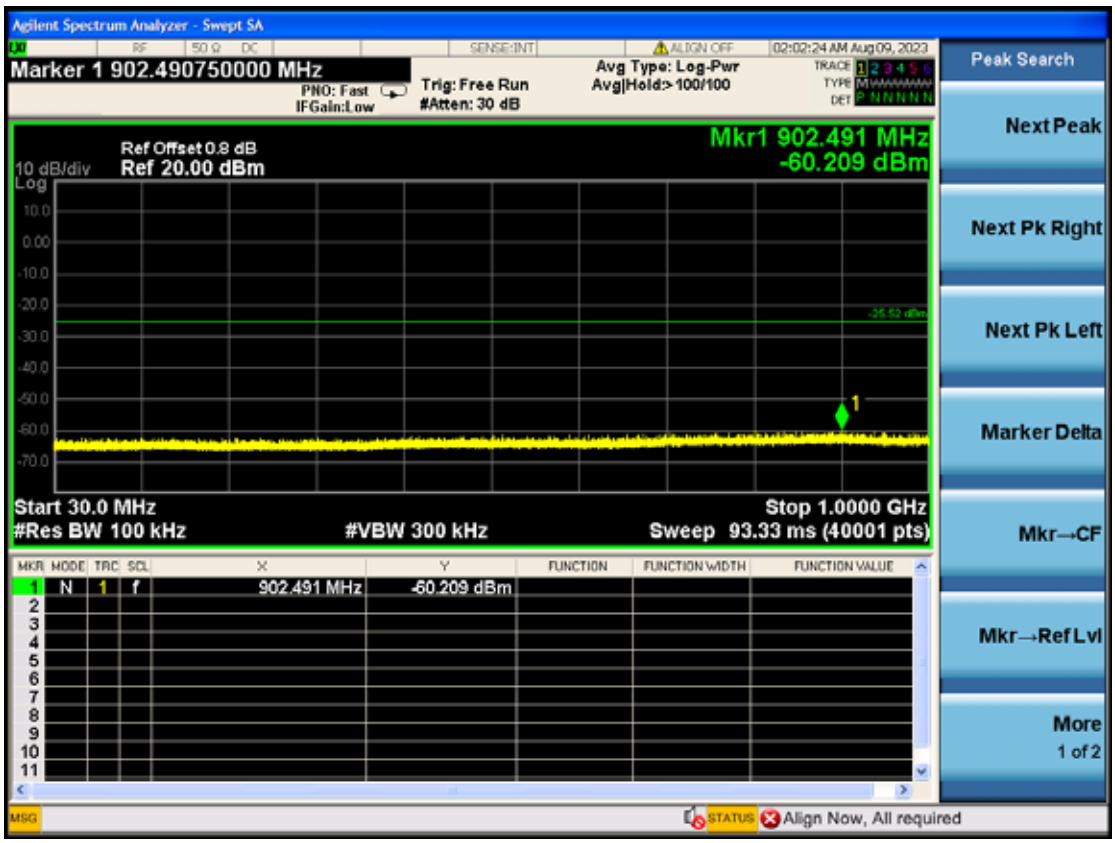
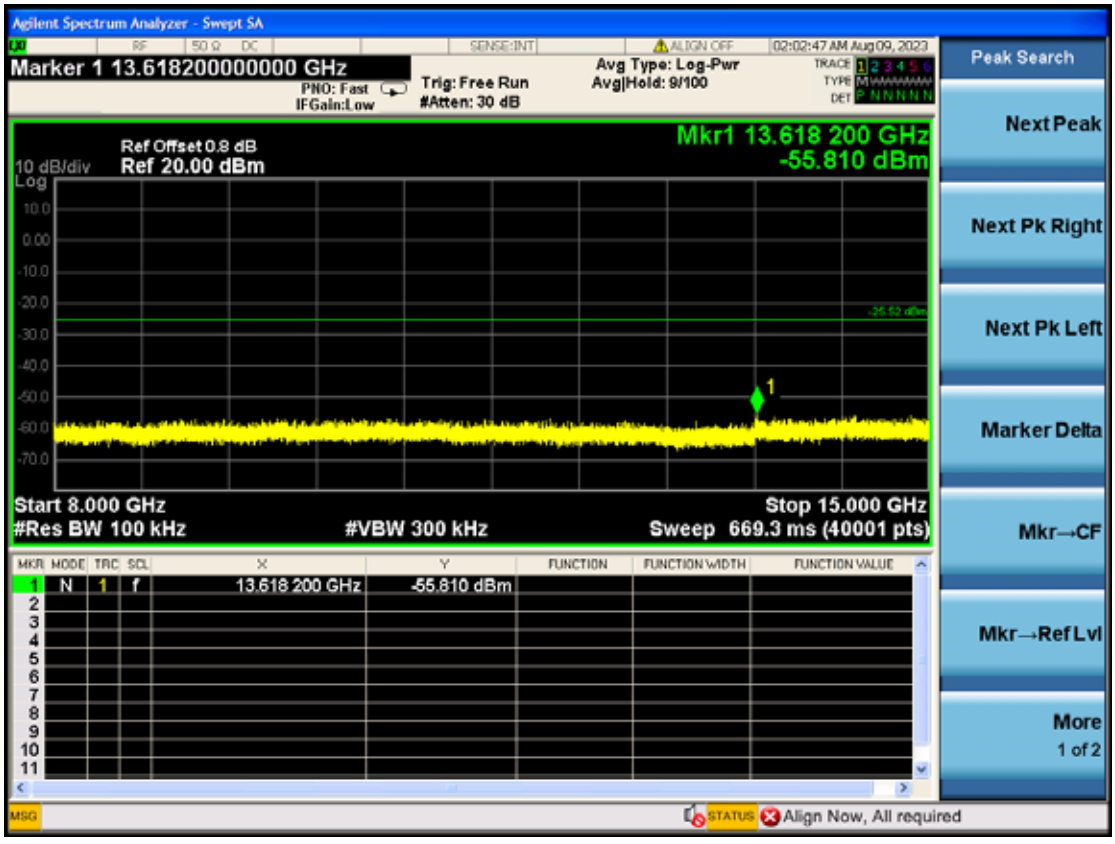
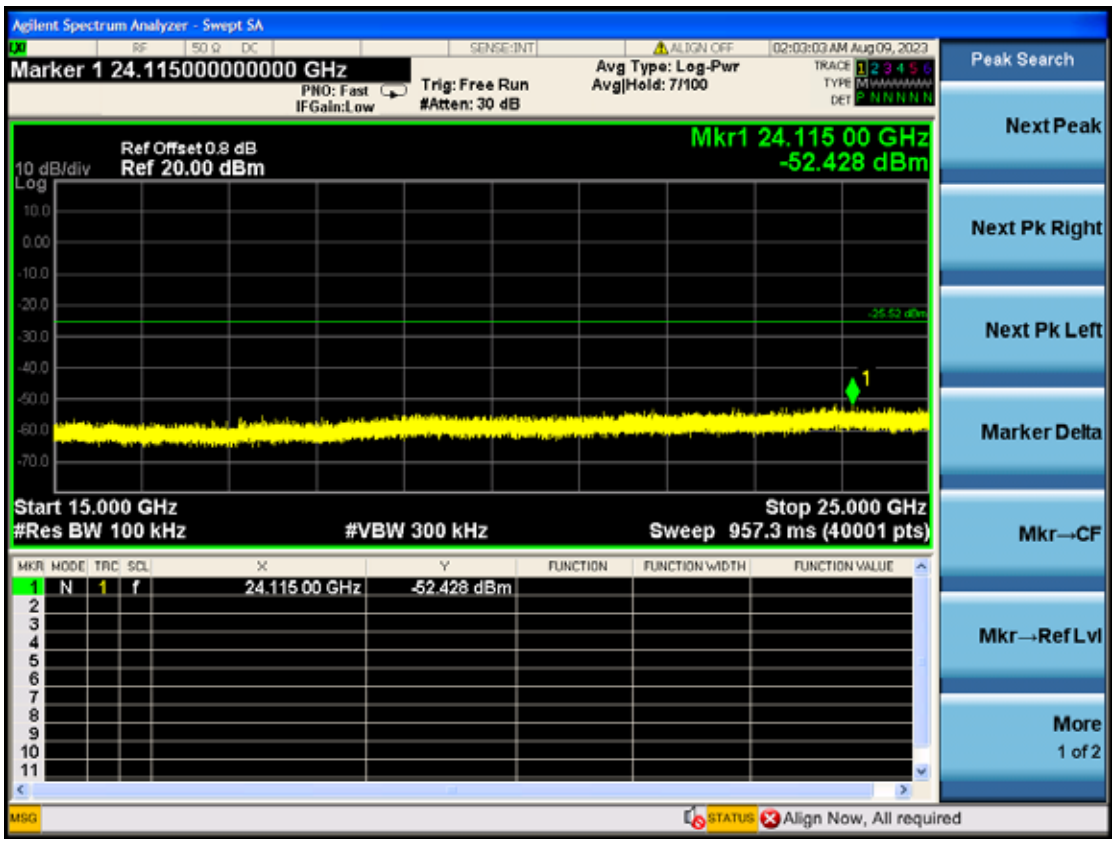



Agilent Spectrum Analyzer - Swept SA
Marker 1 902.490750000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
02:02:24 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 902.491 MHz
-60.209 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 902.491 MHz -60.209 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 13.618200000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 9/100
02:02:47 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 13.618 200 GHz
-55.810 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 13.618 200 GHz -55.810 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



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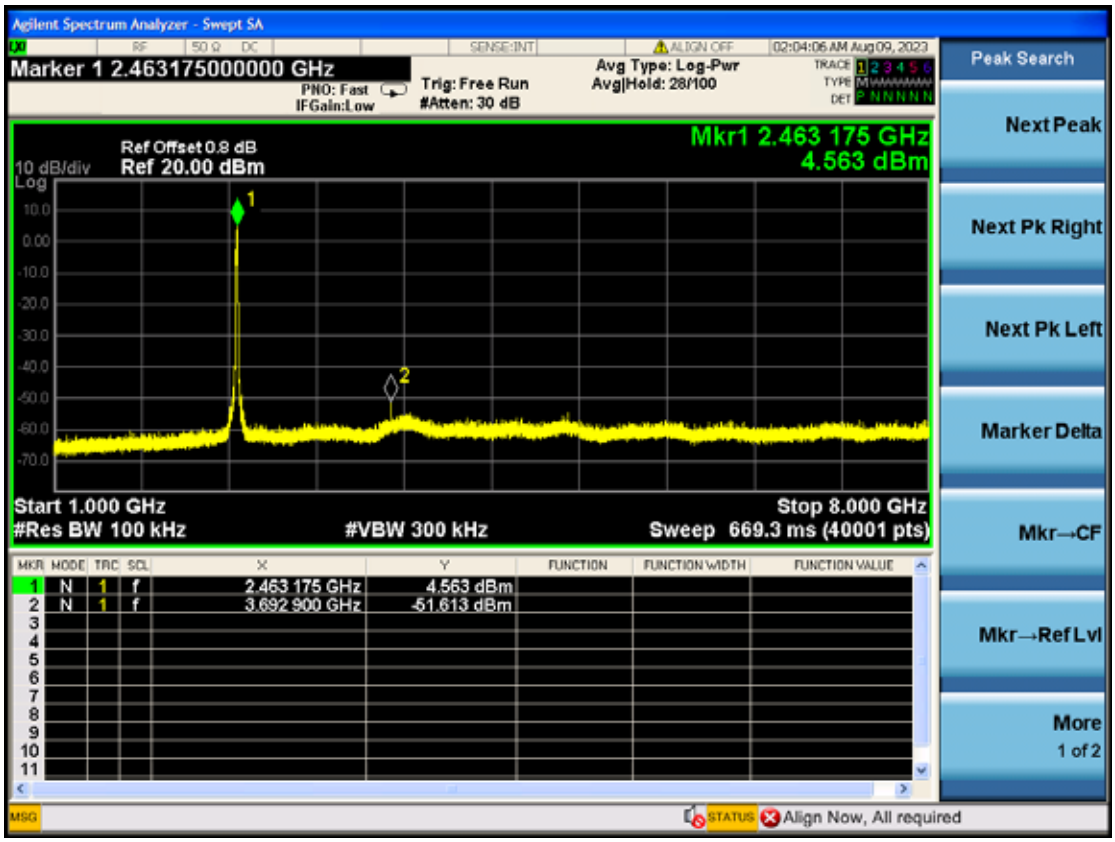
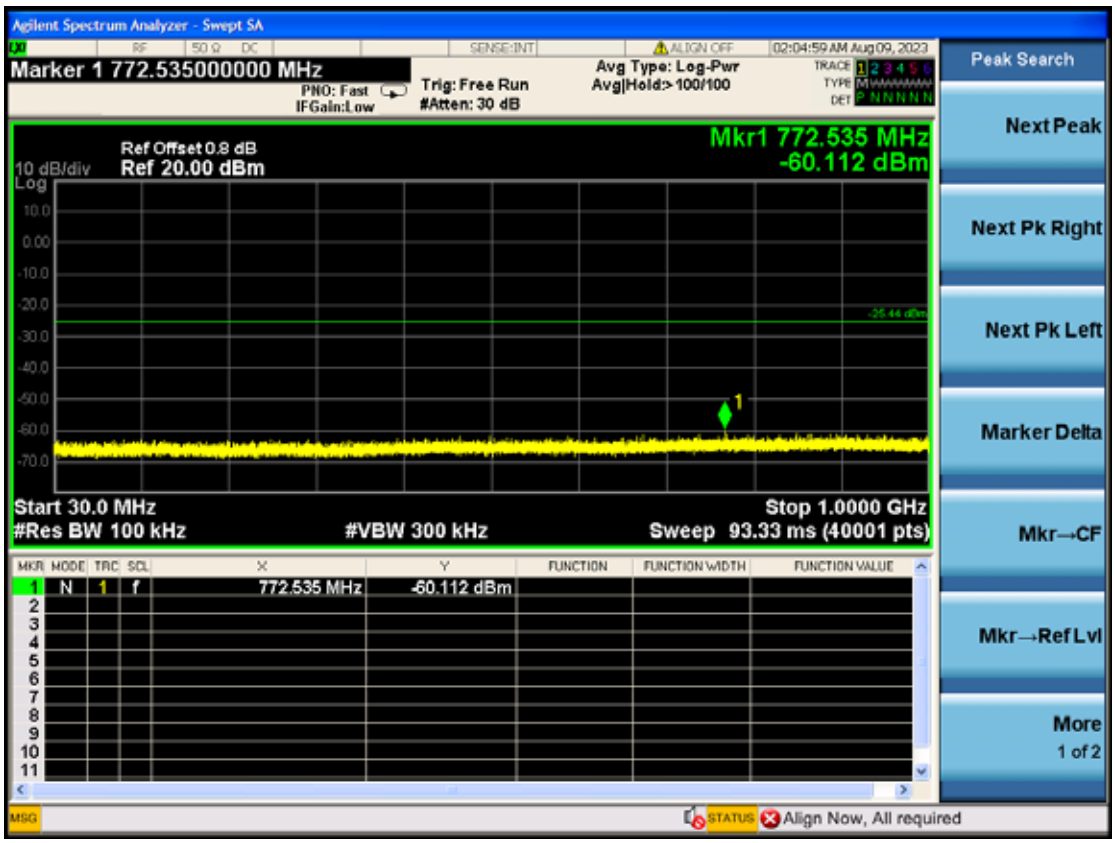
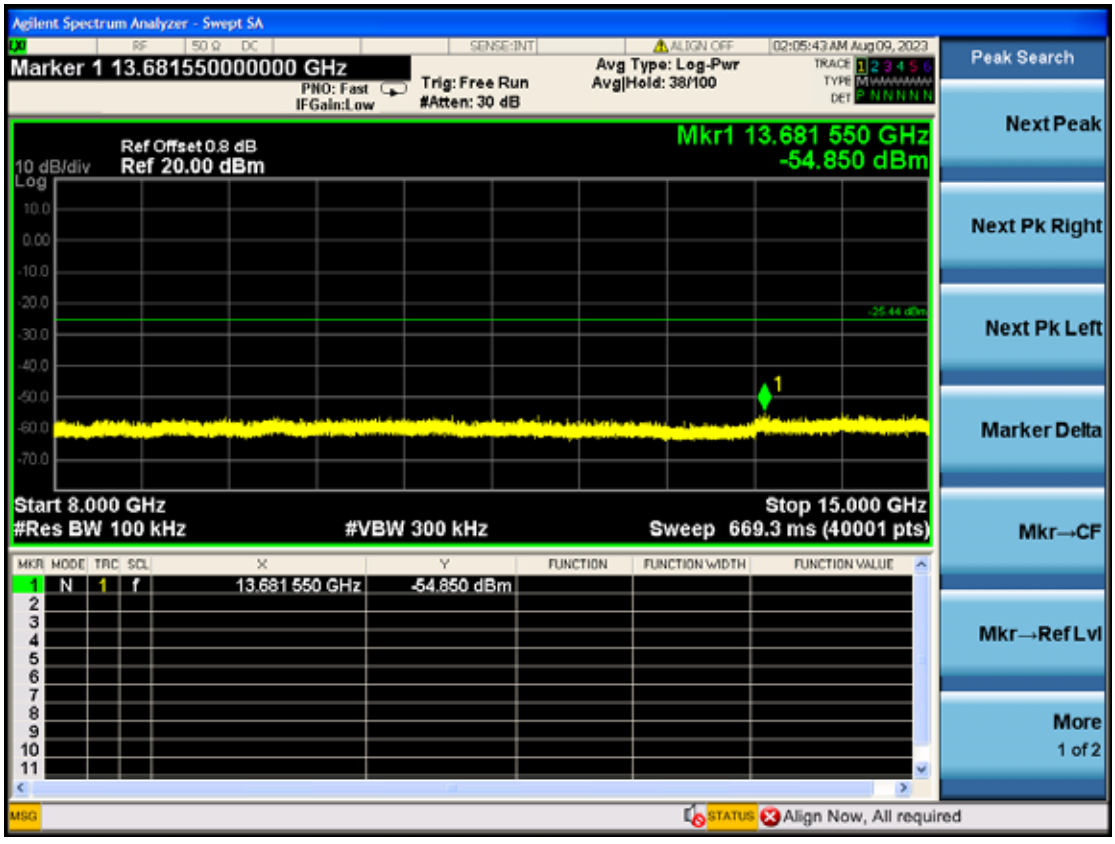
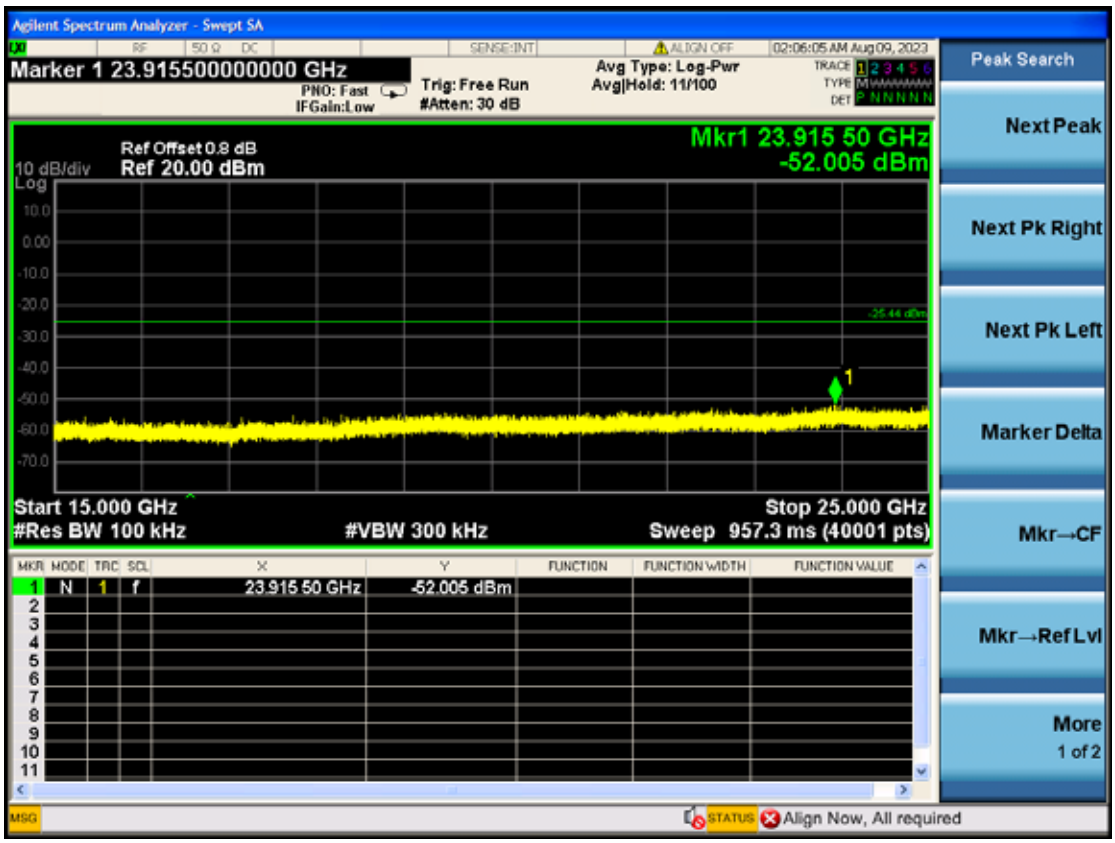
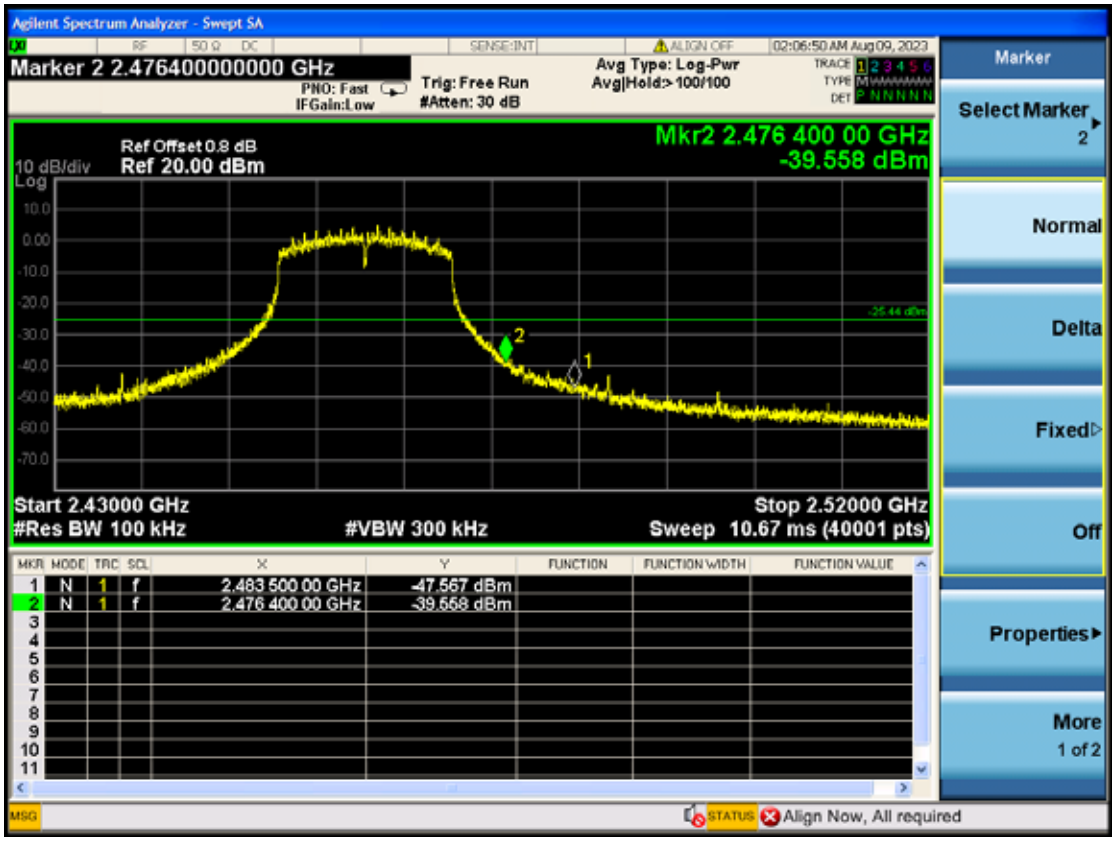



Agilent Spectrum Analyzer - Swept SA
Marker 1 772.535000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
02:04:59 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 772.535 MHz
-60.112 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 93.33 ms (40001 pts)
1 N 1 f 772.535 MHz -60.112 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 13.681550000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 38/100
02:05:43 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 13.681 550 GHz
-54.850 dBm
Start 8.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 669.3 ms (40001 pts)
1 N 1 f 13.681 550 GHz -54.850 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 23.915500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 11/100
02:06:05 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 23.915 50 GHz
-52.005 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 957.3 ms (40001 pts)
1 N 1 f 23.915 50 GHz -52.005 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 2 2.476400000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
02:06:50 AM Aug 09, 2023
Ref Offset 0.8 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr2 2.476 400 00 GHz
-39.558 dBm
Start 2.43000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.52000 GHz
Sweep 10.67 ms (40001 pts)
1 N 1 f 2.483 500 00 GHz -47.567 dBm
2 N 1 f 2.476 400 00 GHz -39.558 dBm
Marker
Select Marker 2
Normal
Delta
Fixed
Off
Properties
More
1 of 2
Align Now, All required

10. DEVIATION TO TEST SPECIFICATIONS

【NONE】

----------The End----------