TEST REPORT

Dt&C

DT&C Co., Ltd.

42, Yurim-ro, 154Beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea, 17042
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No : DRTFCC2003-0064
2. Customer
   - Name : LINKFLOW Co., Ltd.
   - Address : 3,4F, 54, Nonhyeon-ro 2-gil, Gangnam-gu, Seoul, South Korea
3. Use of Report : FCC Original Grant
4. Product Name / Model Name : FITT360 / LF-F200U
   FCC ID : 2AVCKLFF200U
5. Test Method Used : KDB558074 D01v05r02, ANSI C63.10-2013
   Test Specification : FCC Part 15.247
6. Date of Test : 2019.12.02 ~ 2019.12.16
7. Testing Environment : See appended test report.
8. Test Result : Refer to the attached test result.

Affirmation	Tested by Name : InHee Bae (Signature)	Reviewed by Name : Geunki Son (Signature)

2020 . 03 . 06 .

DT&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description	Revised by	Reviewed by
DRTFCC2003-0064	Mar. 06, 2020	Initial issue	InHee Bae	Geunki Son

Table of Contents

1. EUT DESCRIPTION

FCC Equipment Class	Digital Transmission System(DTS)
Product	FITT360
Model Name	LF-F200U
Add Model Name	NA
Hardware Version	Rev.05
Software Version	MR5 1.5.1
Power Supply	DC 3.8 V
Frequency Range	▪ 802.11b/g/n(20 MHz) : 2412 MHz ~ 2462 MHz ▪ 802.11n(40 MHz) : 2422 MHz ~ 2452 MHz
Max. RF Output Power	2.4GHz Band ▪ 802.11b : 18.67 dBm ▪ 802.11g : 25.70 dBm ▪ 802.11n (HT20) : 25.32 dBm ▪ 802.11n (HT40) : 25.47 dBm
Modulation Type	▪ 802.11b: CCK, DSSS ▪ 802.11g/n: OFDM
Antenna Specification	**Antenna type**: PIFA Antenna **Antenna gain:** Refer to the clause 7 in test report.

Transmitting configuration of EUT

Mode	SISO		MIMO(CDD)	MIMO(SDM)
	Ant 1	Ant 2	Ant 1 & 2	Ant 1 & 2
	Data rate			
802.11b	1~11 Mbps	1~11 Mbps	1~11 Mbps	-
802.11g	6~54 Mbps	6~54 Mbps	6~54 Mbps	-
802.11n(HT20)	MCS 0 ~ 7	MCS 0 ~ 7	MCS 0 ~ 7	MCS 8 ~ 15
802.11n(HT40)	MCS 0 ~ 7	MCS 0 ~ 7	MCS 0 ~ 7	MCS 8 ~ 15

Note1: SDM = Spatial Diversity Multiplexing, CDD = Cycle Delay Diversity, SS = Spatial Streams

2. INFORMATION ABOUT TESTING

2.1 Test mode

Test mode	Worst case data rate	Tested Frequency (MHz)		
TM 1	802.11b 1 Mbps (CDD Multiple transmitting)	2412	2437	2462
TM 2	802.11g 6 Mbps (CDD Multiple transmitting)	2412	2437	2462
TM 3	802.11n(HT20) MCS 0 (CDD Multiple transmitting)	2412	2437	2462
TM 4	802.11n(HT40) MCS 0 (CDD Multiple transmitting)	2422	2437	2452
TM 5	802.11n(HT20) MCS 8 (SDM Multiple transmitting)	2412	2437	2462
TM 6	802.11n(HT40) MCS 8 (SDM Multiple transmitting)	2422	2437	2452

Note 1: The worst case data rate is determined as above test mode according to the power measurements.
Note 2: The power measurement results for all modes and data rate were reported.

2.2 Auxiliary equipment

Equipment	Model No.	Serial No.	Manufacturer	Note
-	-	-	-	-
-	-	-	-	-

2.3 Tested environment

Temperature	:	20 ºC ~ 25 ºC
Relative humidity content	:	39 % ~ 45 %
Details of power supply	:	DC 3.8 V

2.4 EMI suppression Device(s) / Modifications

EMI suppression device(s) added and/or modifications made during testing
→ None

2.5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C 63.4-2014 and ANSI C 63.10-2013. All measurement uncertainty values are shown with a coverage factor of *k* = 2 to indicate a 95 % level of confidence.

Test items	Measurement uncertainty
Transmitter Output Power	0.9 dB (The confidence level is about 95 %, k = 2)
Conducted spurious emission	0.9 dB (The confidence level is about 95 %, k = 2)
AC conducted emission	2.4 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (1 GHz Below)	5.1 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (1 GHz ~ 18 GHz)	5.4 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (18 GHz Above)	5.3 dB (The confidence level is about 95 %, k = 2)

3. SUMMARY OF TESTS

FCC Part	RSS Std.	Parameter	Limit	Test Condition	Status Note 1
15.247(a)	RSS-247 [5.2]	6 dB Bandwidth	> 500 kHz	Conducted	C
15.247(b)	RSS-247 [5.4]	Transmitter Output Power	< 1 Watt		C
15.247(d)	RSS-247 [5.5]	Out of Band Emissions / Band Edge	20 dBc in any 100 kHz BW		C
15.247(e)	RSS-247 [5.2]	Transmitter Power Spectral Density	< 8 dBm/3 kHz		C
-	RSS-Gen [6.7]	Occupied Bandwidth (99 %)	RSS-Gen(6.7)		NA
15.247(d) 15.205 15.209	RSS-247 [5.5] RSS-GEN [8.9] RSS-GEN [8.10]	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	FCC 15.209 limits	Radiated	C Note 3
15.207	RSS-Gen [8.8]	AC Line Conducted Emissions	FCC 15.207 limits	AC Line Conducted	C
15.203	RSS-Gen [8.3]	Antenna Requirements	FCC 15.203	-	C

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable

Note 2: For radiated emission tests below 30 MHz were performed on semi-anechoic chamber which is correlated with OATS.

Note 3: This test item was performed in each axis and the worst case data was reported.

4. TEST METHODOLOGY

The measurement procedures described in the ANSI C63.10-2013 and the guidance provided in KDB558074 D01v05r02 were used in measurement of the EUT.

The EUT was tested per the guidance of KDB558074 D01v05r02. And ANSI C63.10-2013 was used to reference appropriate EUT setup and maximizing procedures of radiated spurious emission and AC line conducted emission testing.

4.1 EUT configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT exercise

The EUT was operated in the test mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

4.3 General test procedures

Conducted Emissions

The power-line conducted emission test procedure is not described on the KDB558074 D01v05r02.

So this test was fulfilled with the requirements in Section 6.2 of ANSI C63.10-2013.

The EUT is placed on the wooden table, which is 0.8 m above ground plane and the conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and Average detector

Radiated Emissions

Basically the radiated tests were performed with KDB558074 D01v05r02. But some requirements and procedures like test site requirements, EUT setup and maximizing procedure were fulfilled with the requirements in Section 5 and 6 of the ANSI C63.10 as stated on section 12.1 of the KDB558074 D01V05R02.

The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the highest emission, the relative positions of the EUT were rotated through three orthogonal axes.

4.4 Description of test modes

The EUT has been tested with all modes of operating conditions to determine the worst case emission characteristics.

A test program is used to control the EUT for staying in continuous transmitting mode.

5. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

6. FACILITIES AND ACCREDITATIONS

6.1 Facilities

DT&C Co., Ltd.		
The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042. The test site complies with the requirements of § 2.948 according to ANSI C63.4-2014. **- FCC MRA Accredited Test Firm No. : KR0034**		
www.dtnc.net		
Telephone	:	+ 82-31-321-2664
FAX	:	+ 82-31-321-1664

6.2 Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, loop, horn. Spectrum analyzers with pre-selectors and peak, quasi-peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

7. ANTENNA REQUIREMENTS

7.1 According to FCC 47 CFR §15.203

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 shall be considered sufficient to comply with the provisions of this section.

The antenna is attached on the device by means of unique connector.
Therefore this E.U.T Complies with the requirement of §15.203

7.2 Directional antenna gain:

Bands	SISO		MIMO (CDD) Note 1.	MIMO (SDM) Note 2
	ANT 1 [dBi]	ANT 2 [dBi]	Directional Gain [dBi]	Directional Gain [dBi]
2.4 GHz	0.05	-3.52	**1.46**	**-1.38**

Note 1. Directional gain (Correlated signal with unequal antenna gain and equal transmit power)
$10 \log [(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi
Note 2. Directional gain (Completely uncorrelated signal with unequal antenna gain and equal transmit power)
$10 \log [(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10}) / N_{ANT}]$ dBi

8. TEST RESULT

8.1 6dB bandwidth

▣ Test Requirements and limit, §15.247(a)

The bandwidth at 6 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

The minimum permissible 6 dB bandwidth is 500 kHz.

▣ Test Configuration:

Refer to the APPENDIX I.

▣ Test Procedure

- **KDB558074 D01v05r02 - Section 8.2**
- **ANSI C63.10-2013 – Section 11.8.2**

Option 2

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x 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) that are attenuated by 6 dB relative to the maximum level in the fundamental emission.

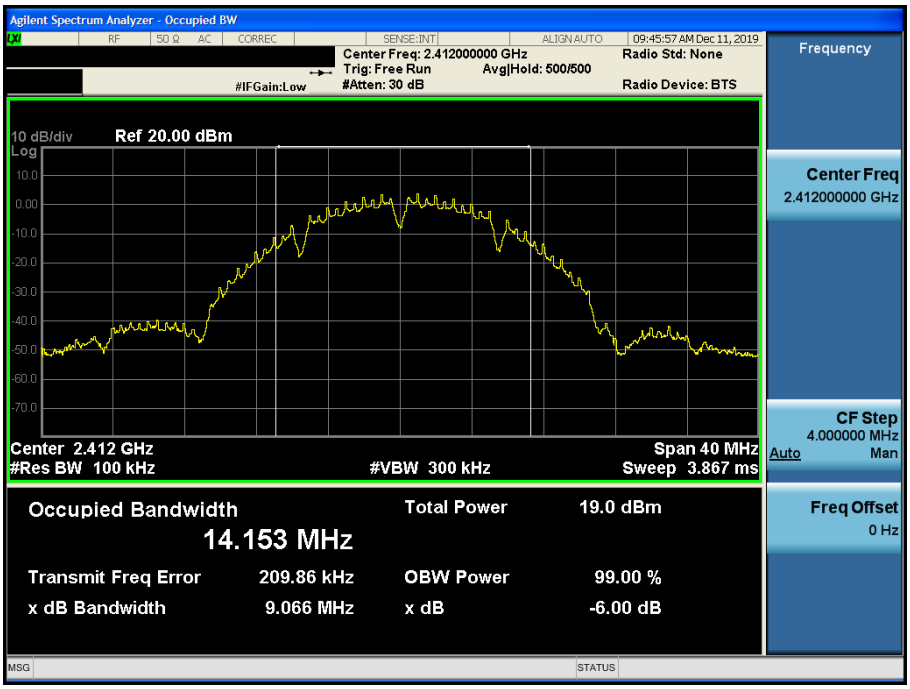
▣ Test Results: Comply

Test Mode	Frequency	Test Results[MHz]	
		ANT 1	ANT 2
TM 1	2412	9.07	8.13
	2437	9.07	8.12
	2462	8.10	8.10
TM 2	2412	16.37	16.39
	2437	15.96	16.39
	2462	16.14	16.15
TM 3	2412	17.60	17.63
	2437	17.26	17.64
	2462	17.22	17.25
TM 4	2422	35.22	35.78
	2437	35.82	36.28
	2452	35.82	35.83
TM 5	2412	17.63	17.62
	2437	16.72	17.38
	2462	16.94	16.73
TM 6	2422	35.24	35.46
	2437	35.83	36.31
	2452	35.83	35.83

▣ RESULT PLOTS

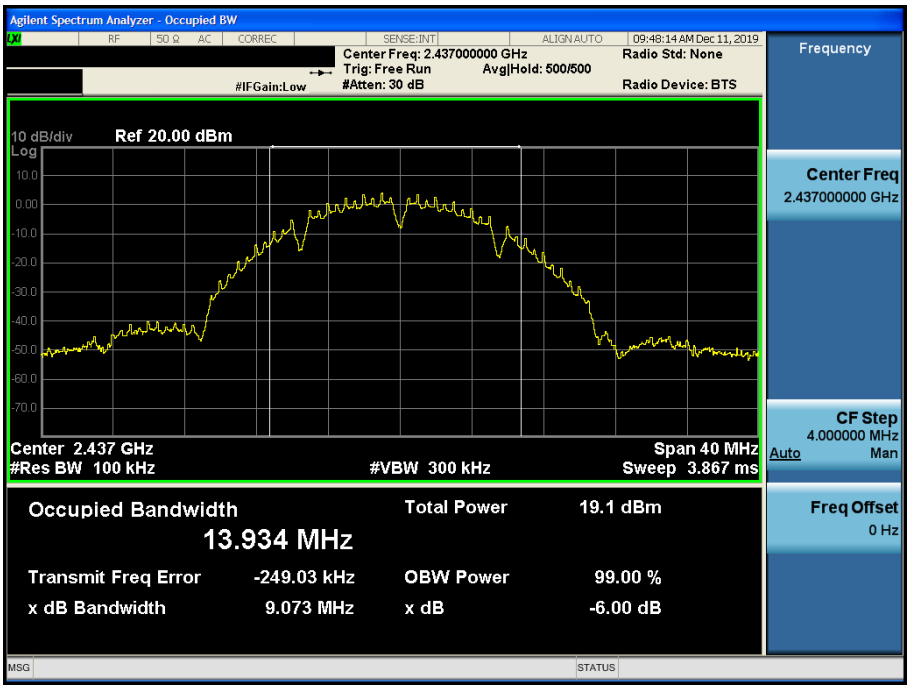
6 dB Bandwidth

TM 1 & ANT 1 & 2412



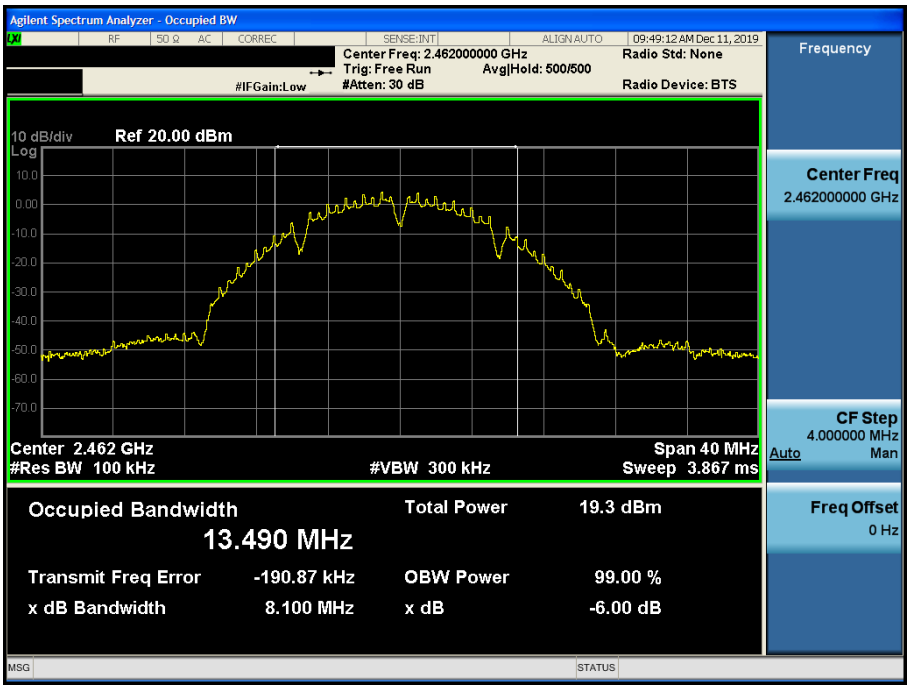
6 dB Bandwidth

TM 1 & ANT 1 & 2437



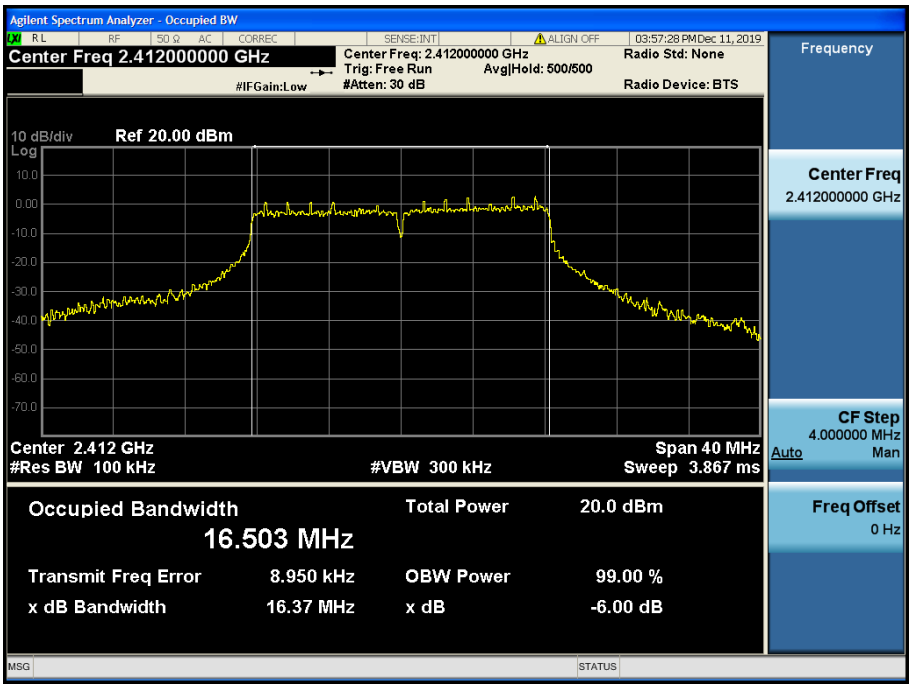
6 dB Bandwidth

TM 1 & ANT 1 & 2462



6 dB Bandwidth

TM 2 & ANT 1 & 2412



6 dB Bandwidth

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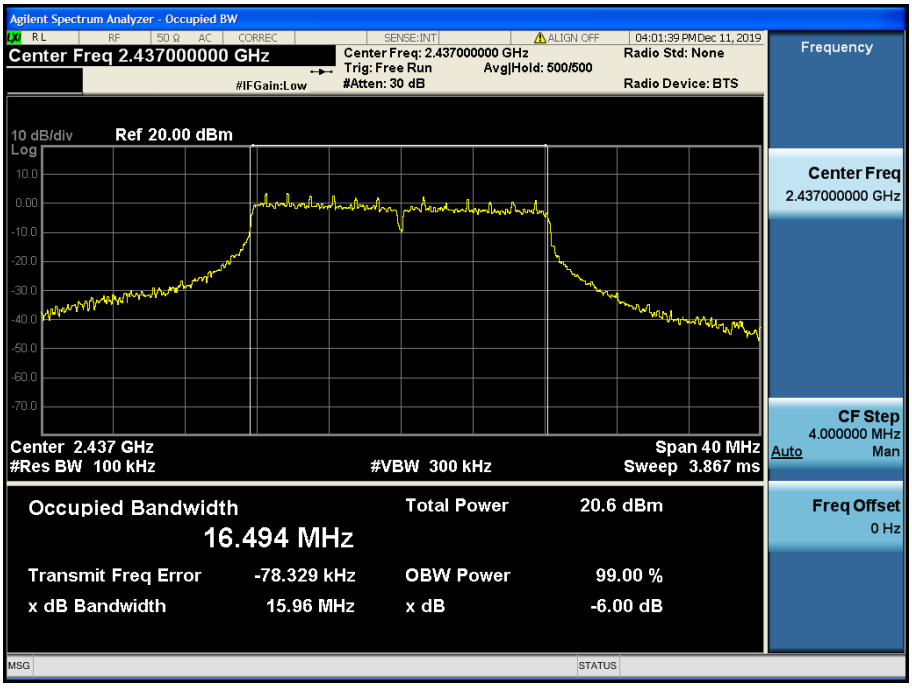
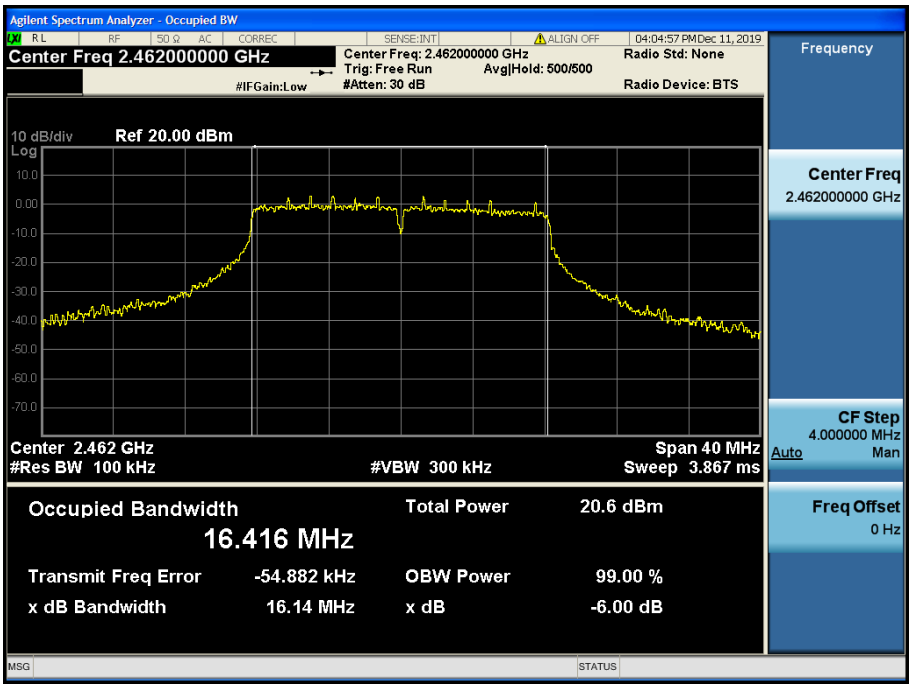


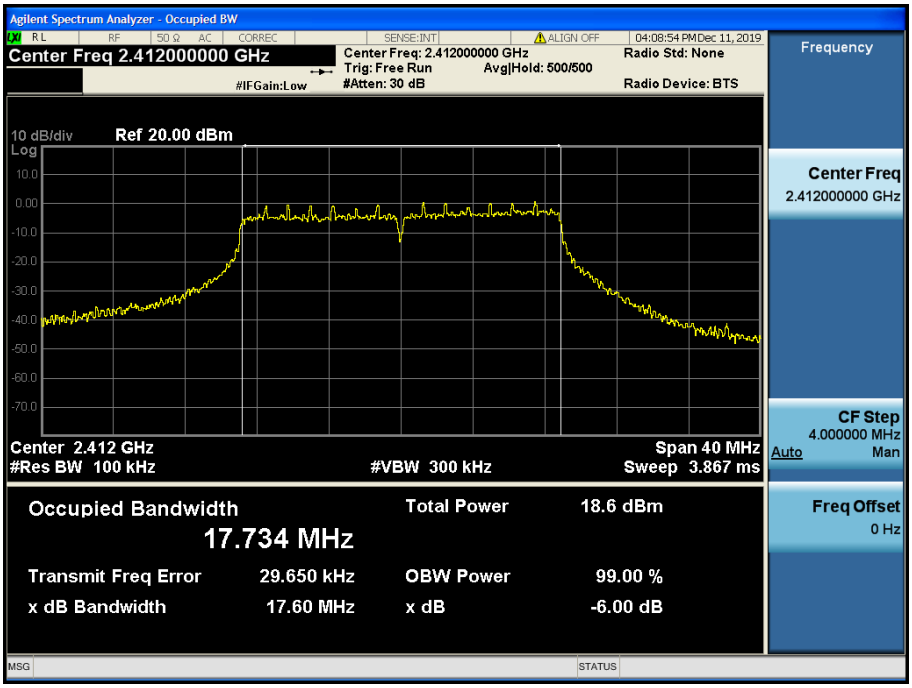
6 dB Bandwidth

TM 2 & ANT 1 & 2462



6 dB Bandwidth

TM 3 & ANT 1 & 2412



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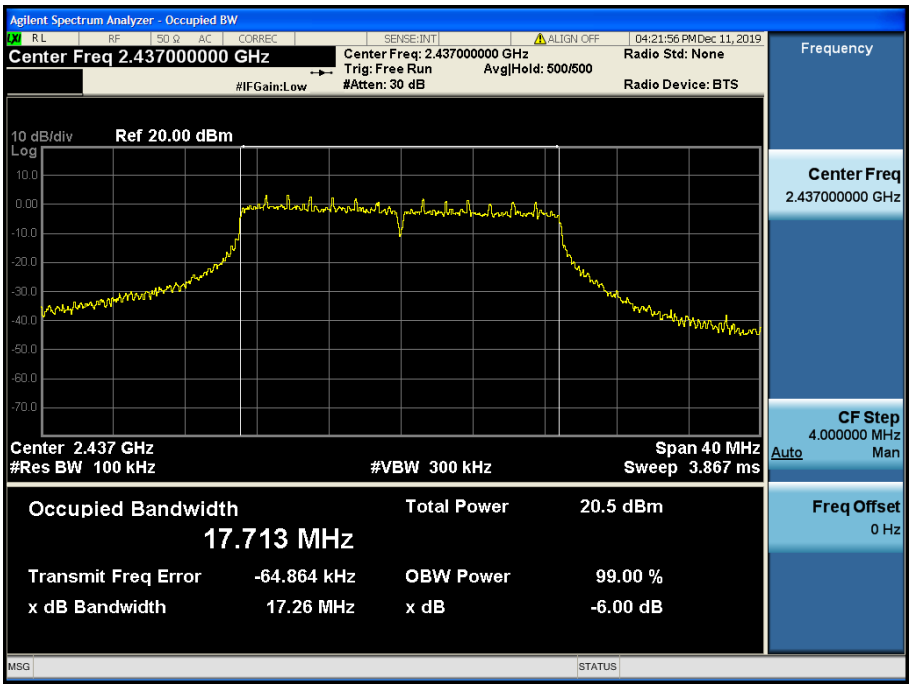

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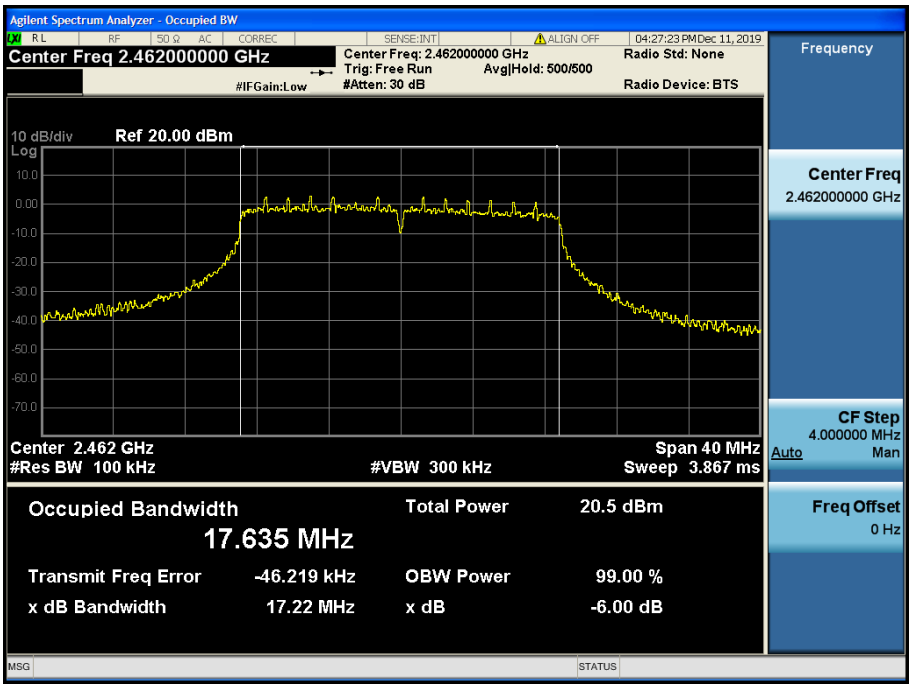
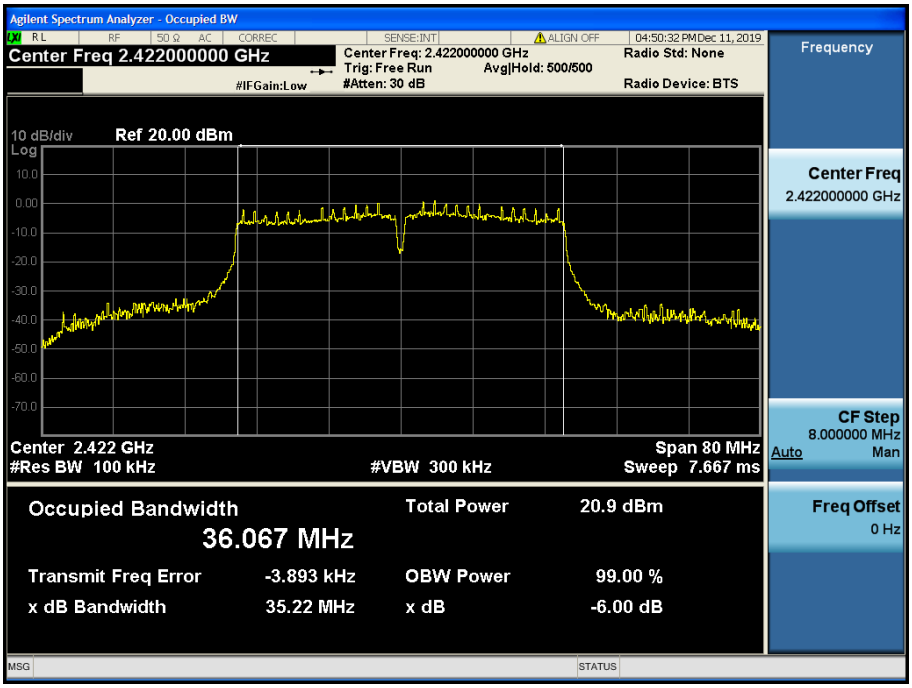


6 dB Bandwidth

TM 4 & ANT 1 & 2422



6 dB Bandwidth

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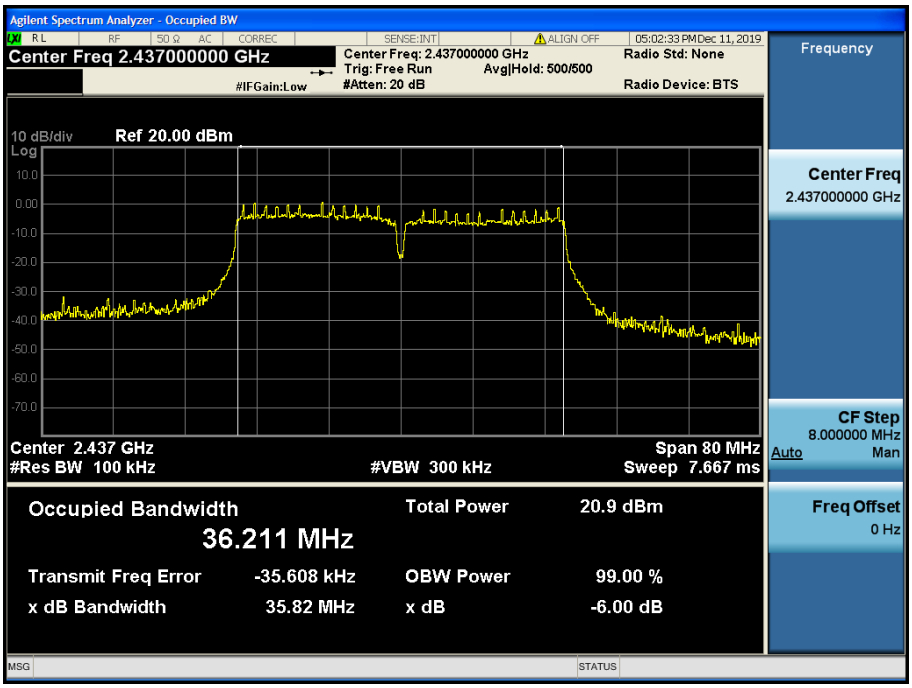
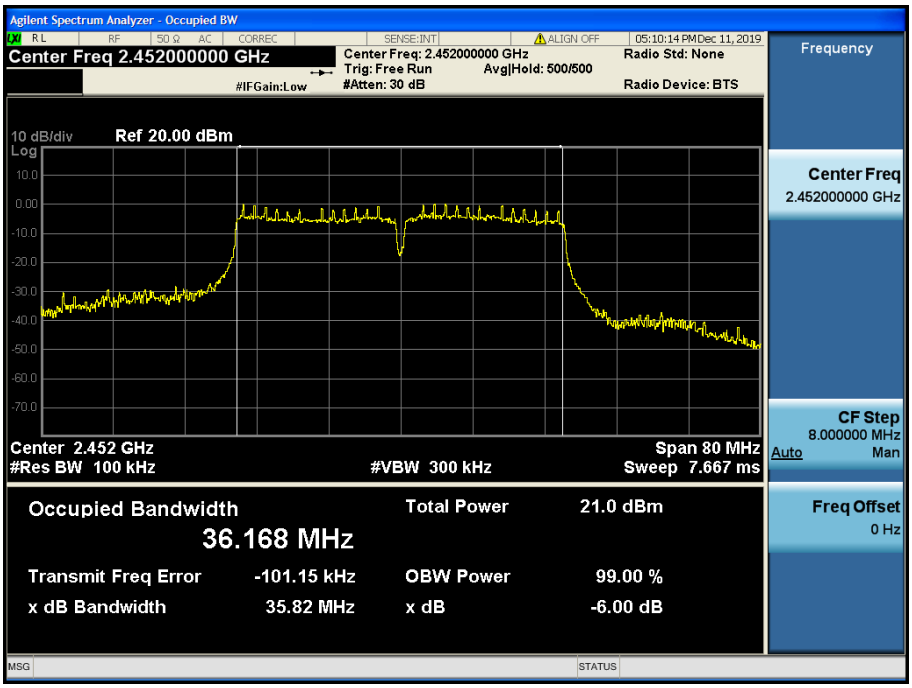


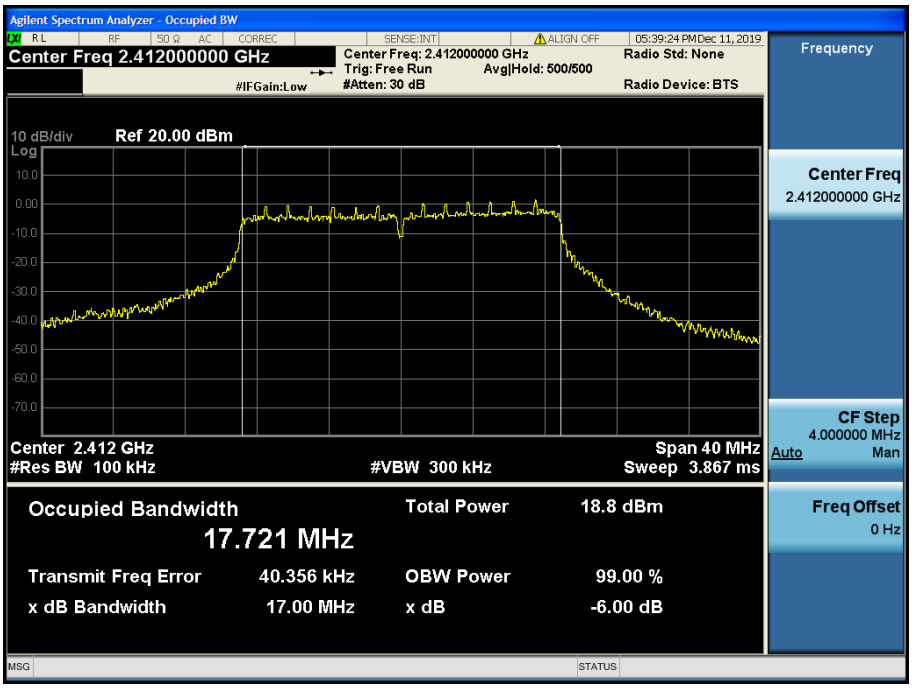
6 dB Bandwidth

TM 4 & ANT 1 & 2452



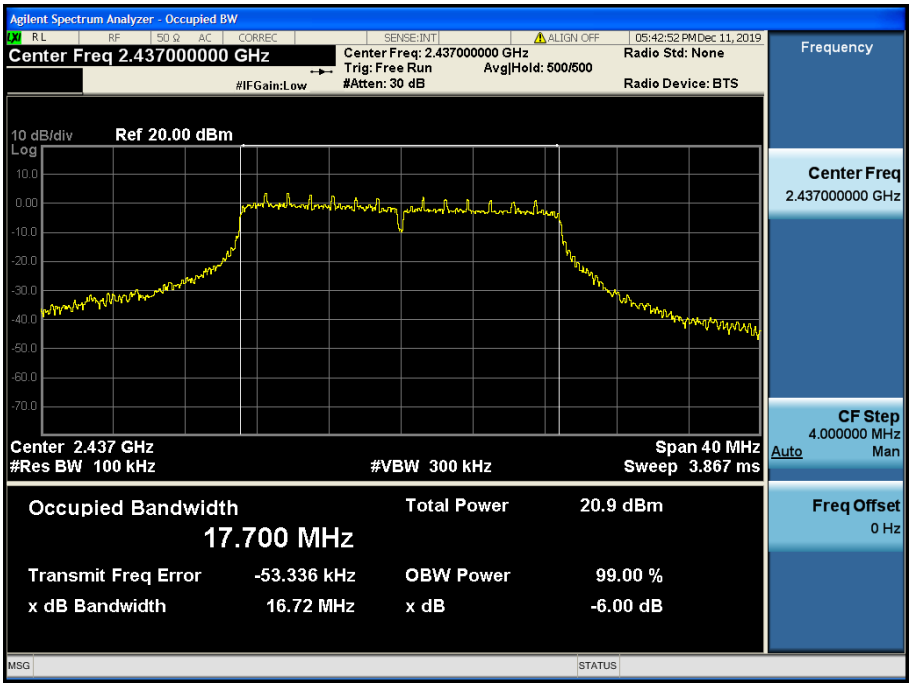
6 dB Bandwidth

TM 5 & ANT 1 & 2412



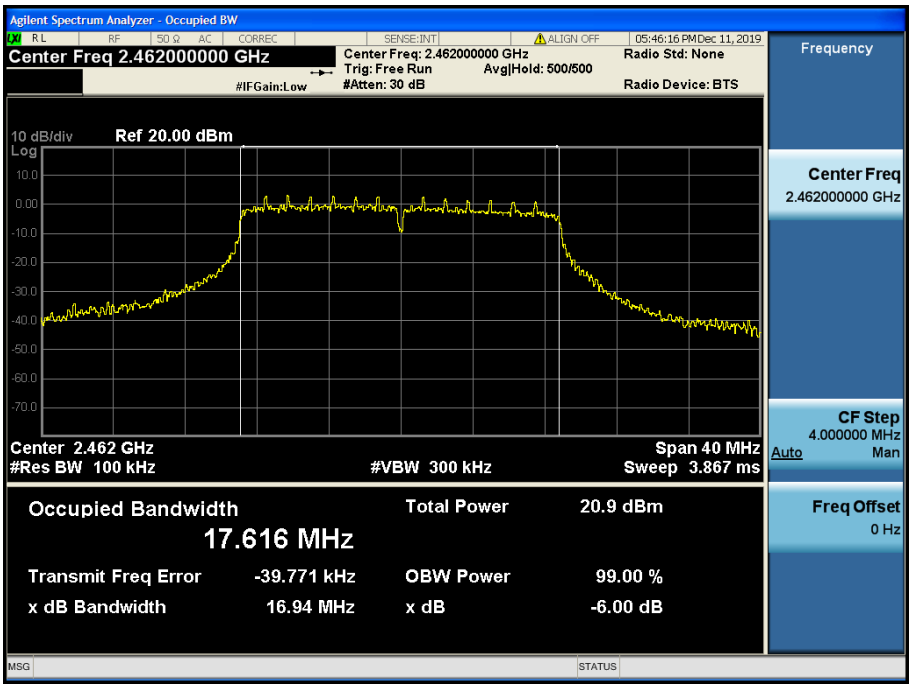
6 dB Bandwidth

TM 5 & ANT 1 & 2437



6 dB Bandwidth

TM 5 & ANT 1 & 2462



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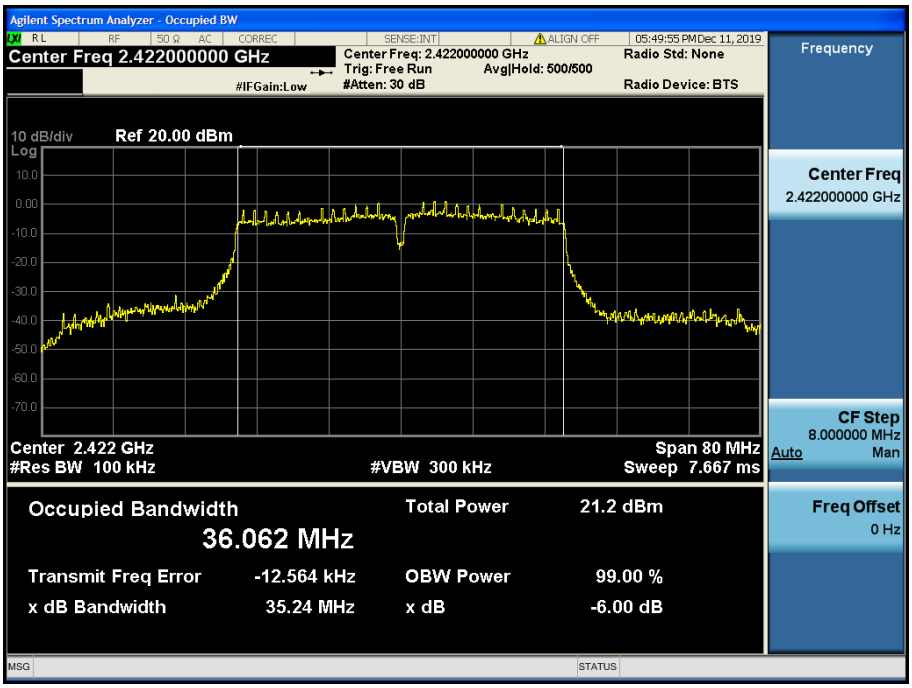

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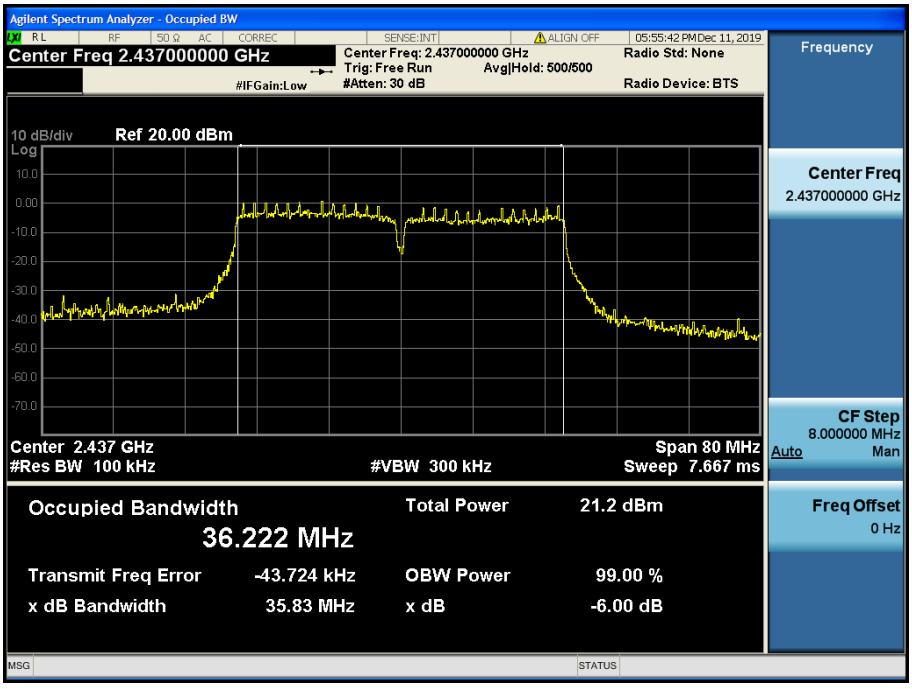

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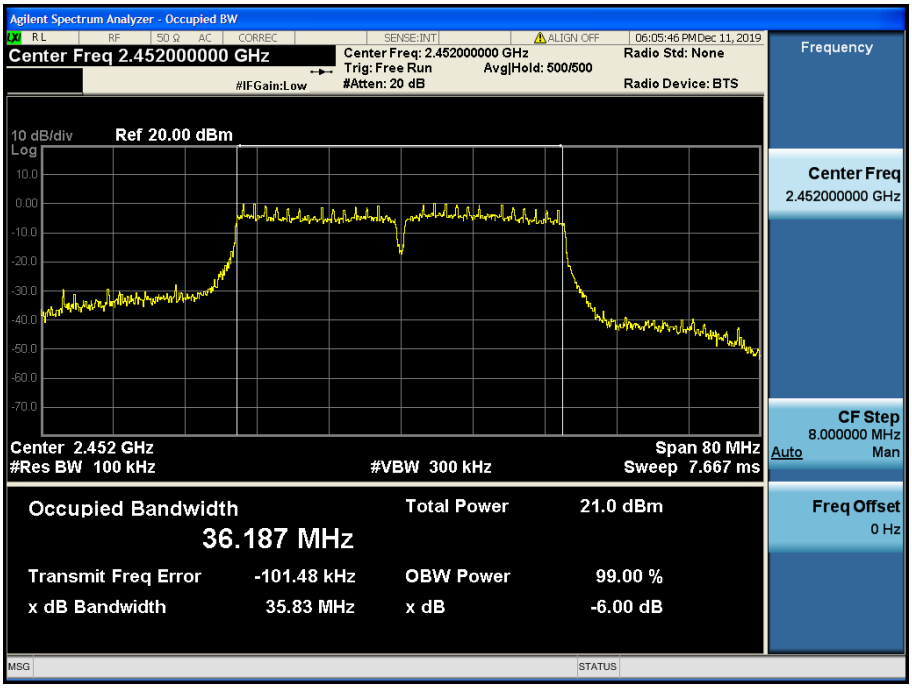

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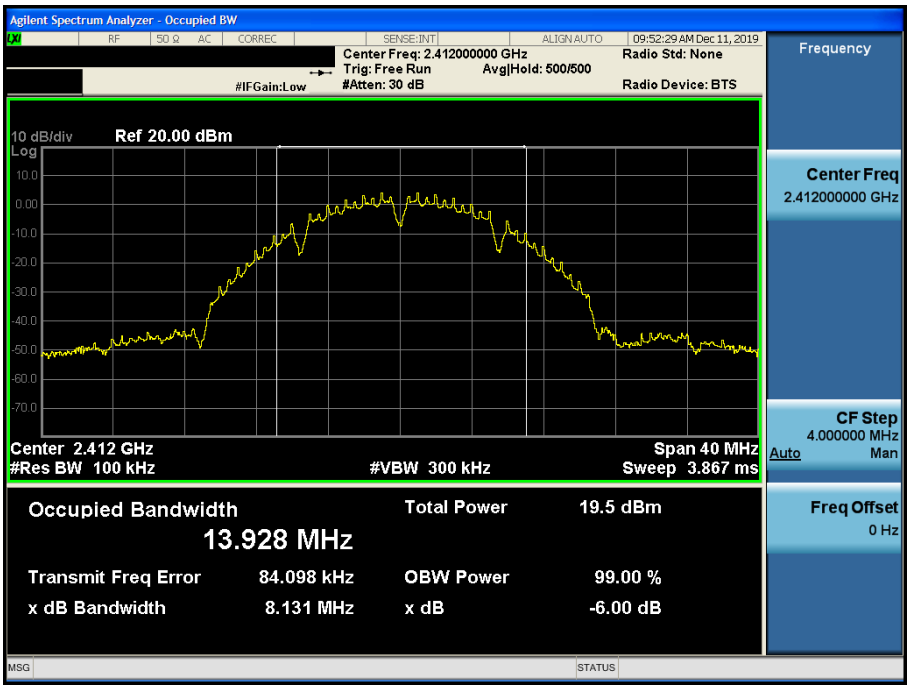

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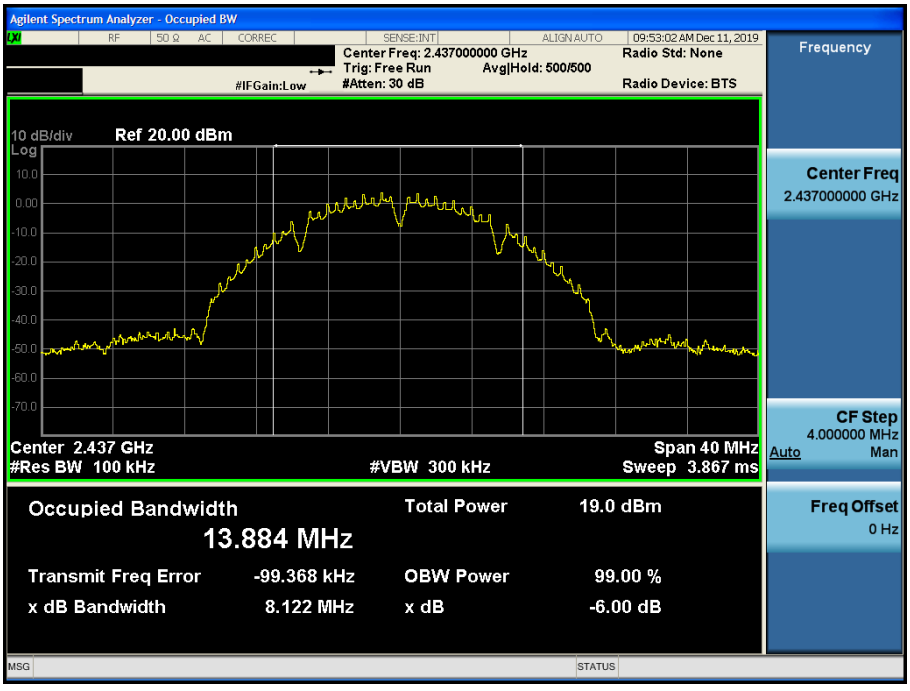

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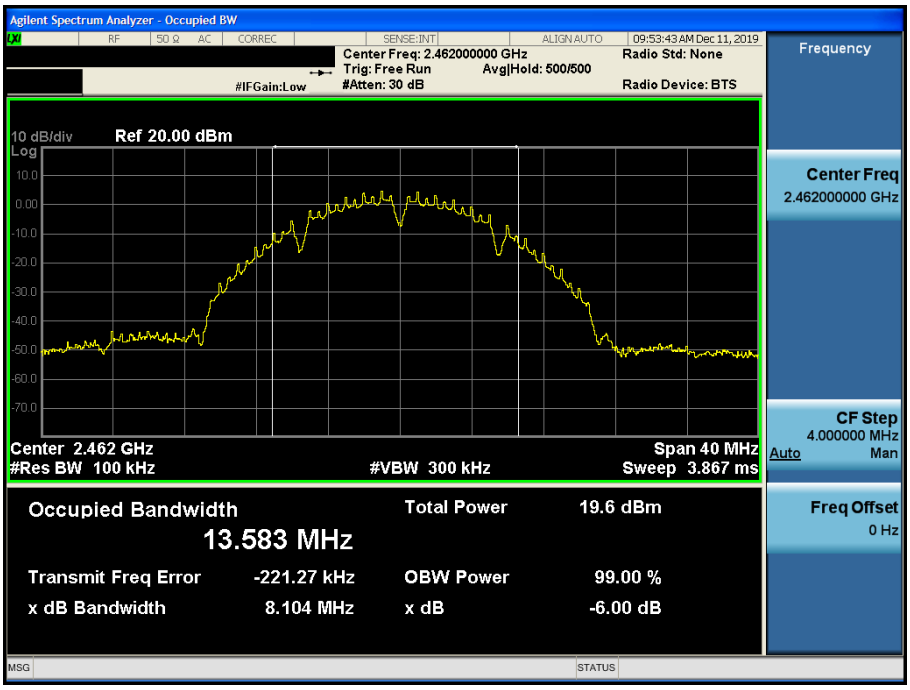

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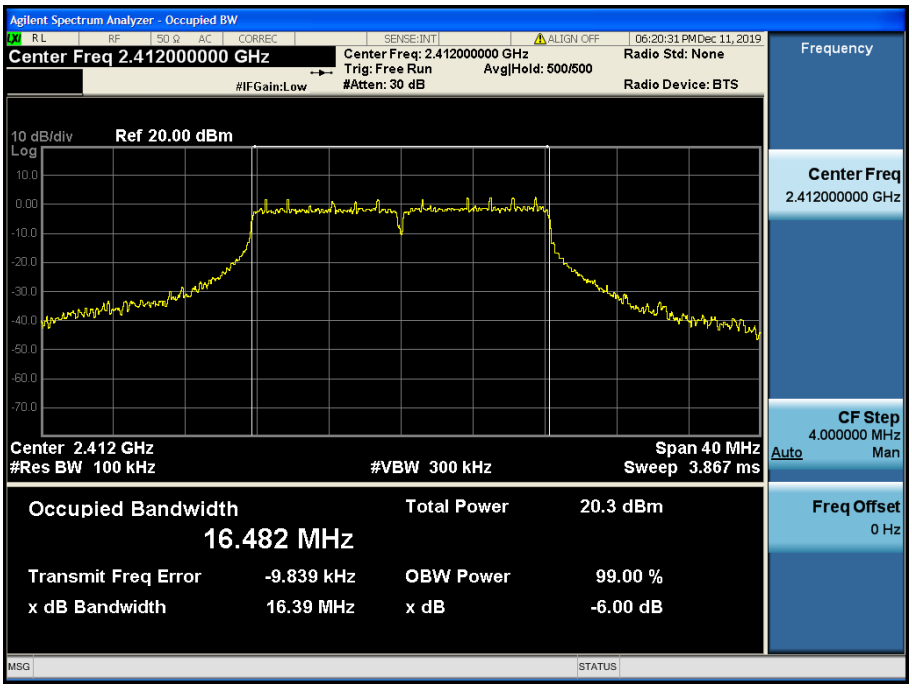
TM 2 & ANT 2 & 2412



6 dB Bandwidth

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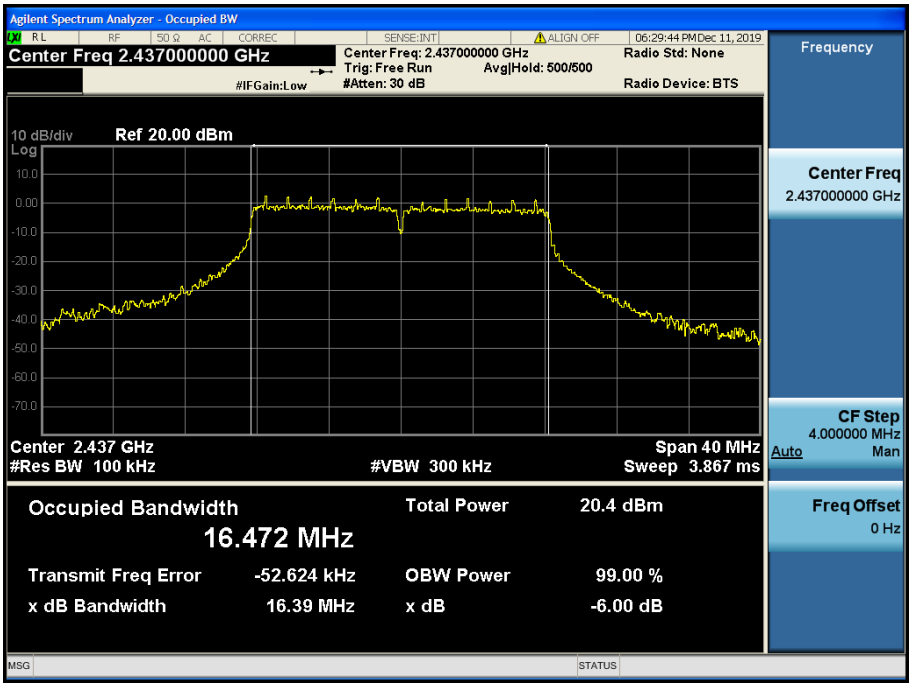

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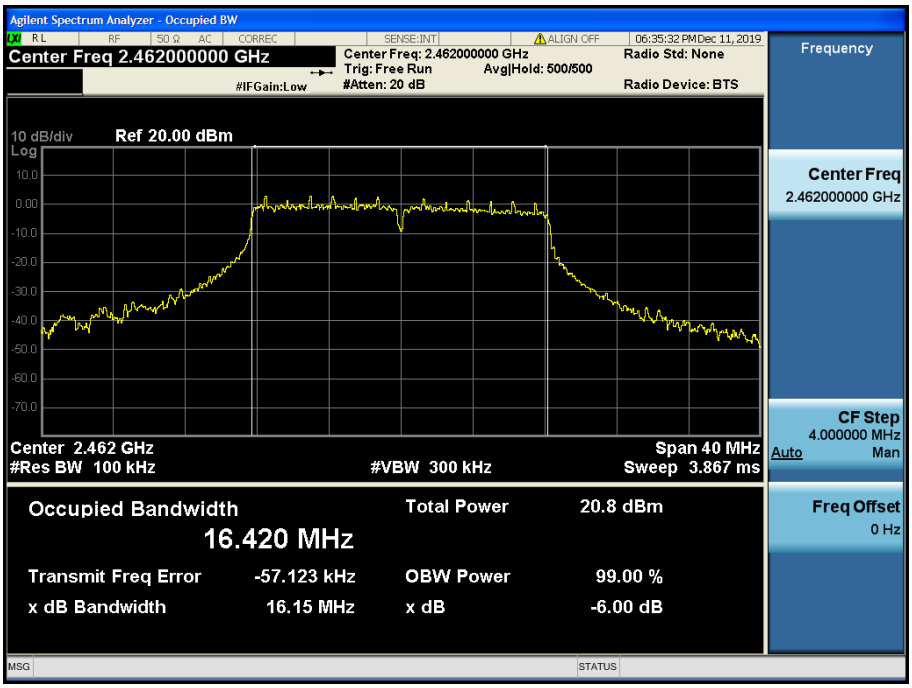

6 dB Bandwidth

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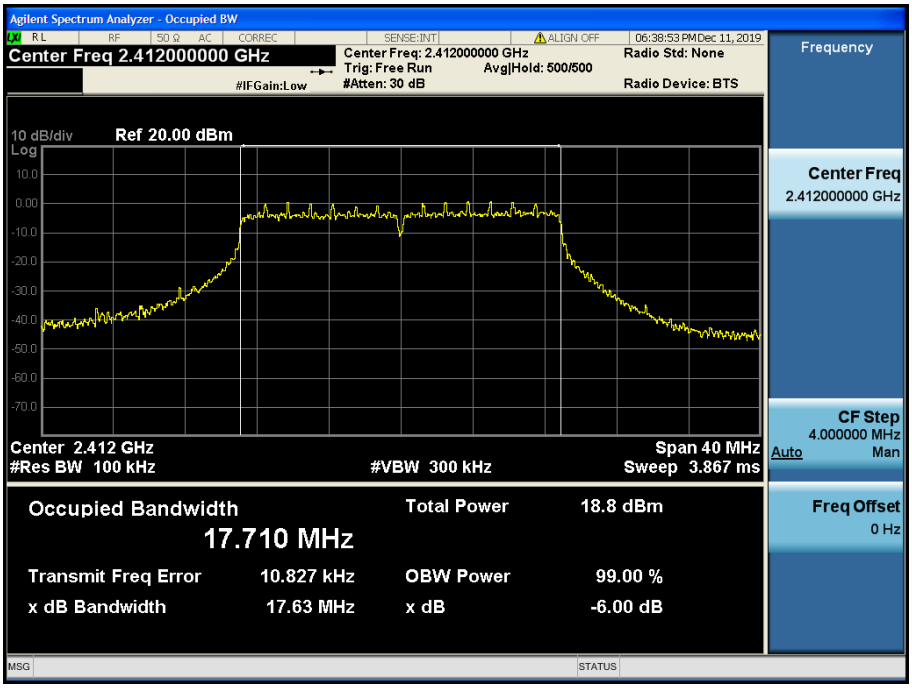

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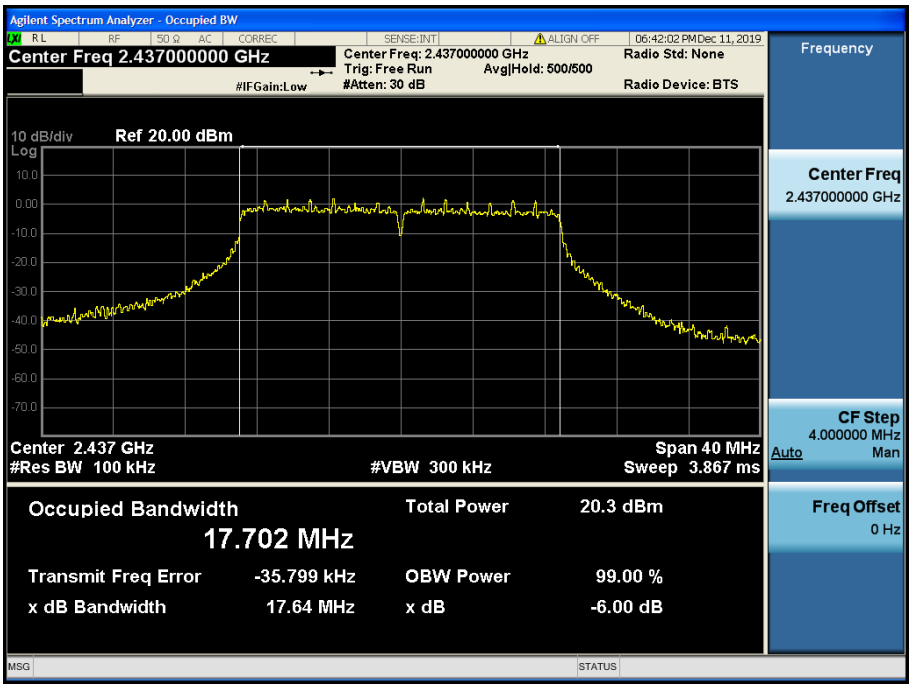

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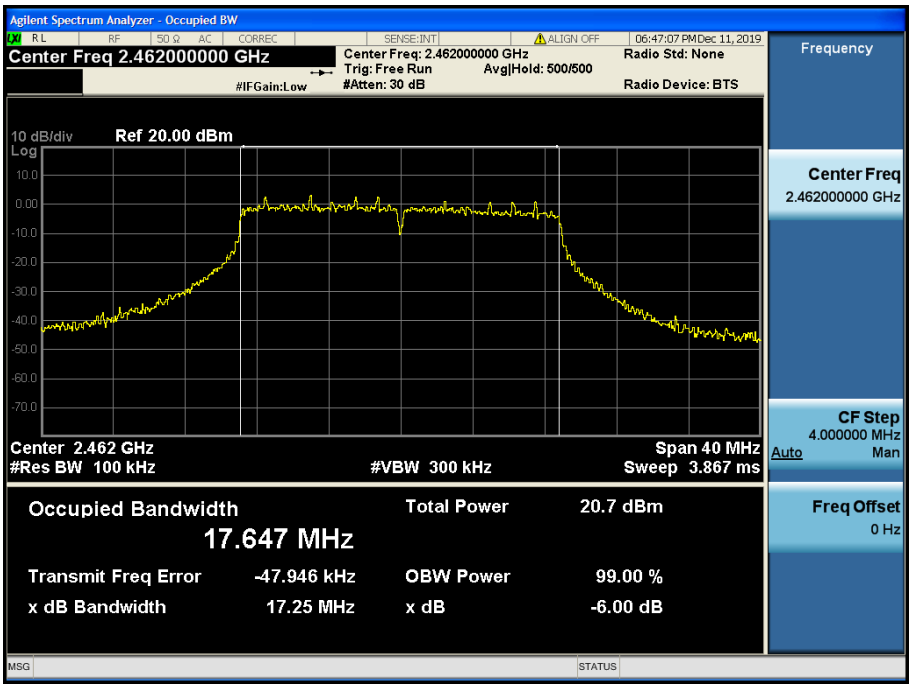
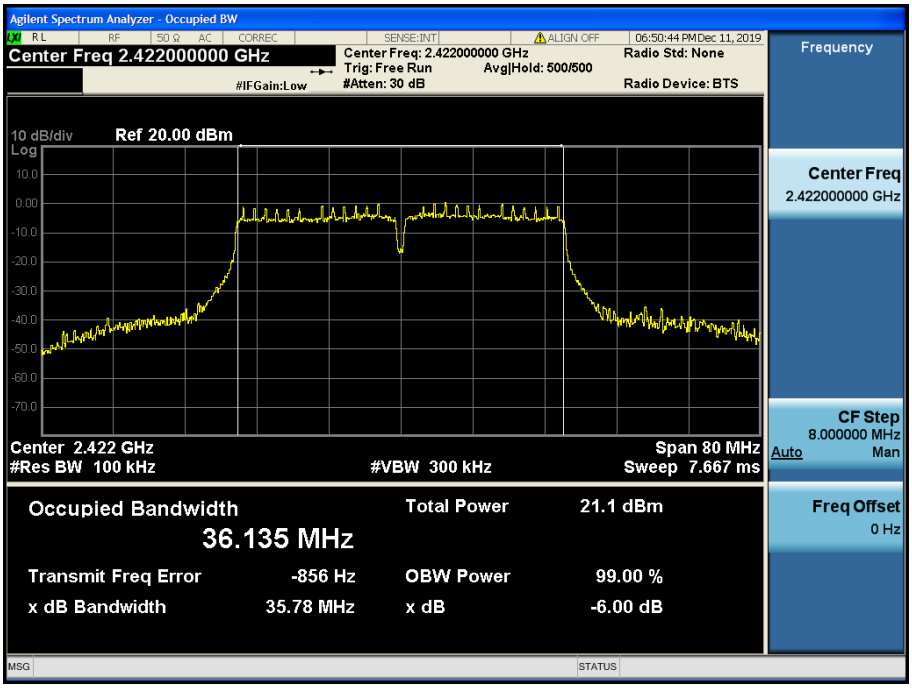


6 dB Bandwidth

TM 4 & ANT 2 & 2422



6 dB Bandwidth

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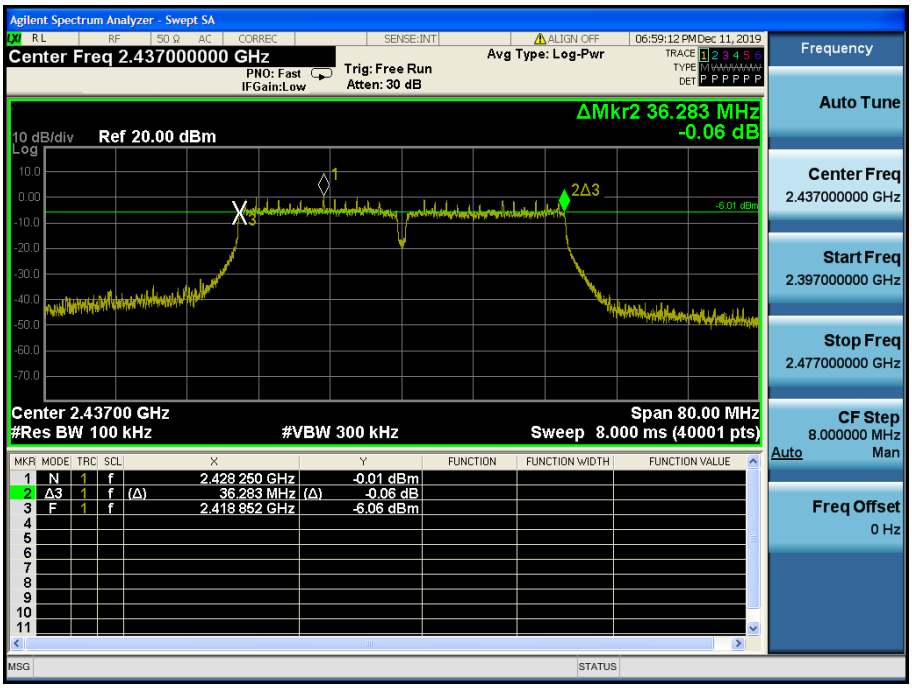

6 dB Bandwidth

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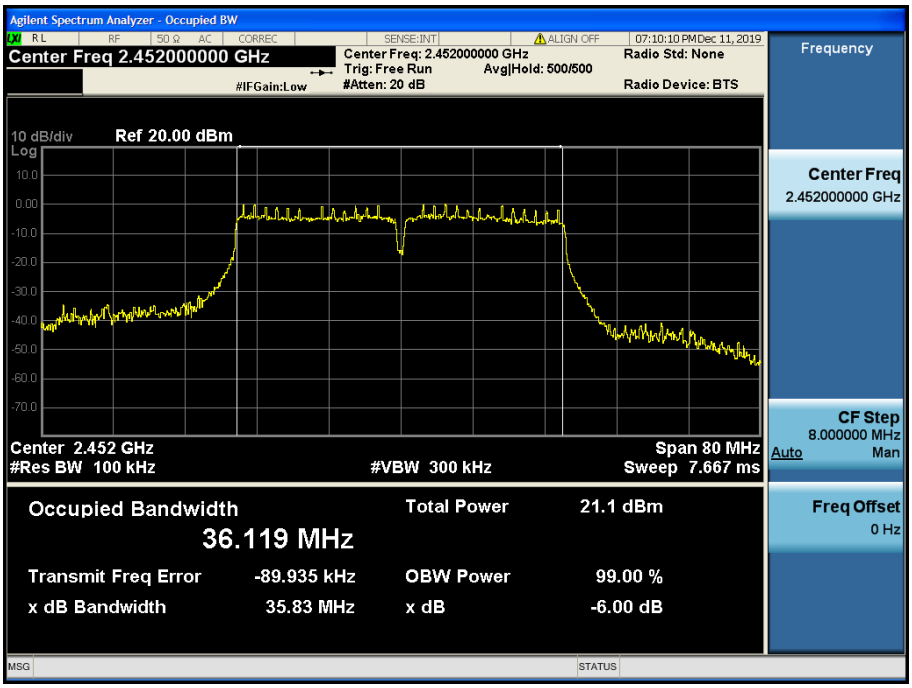
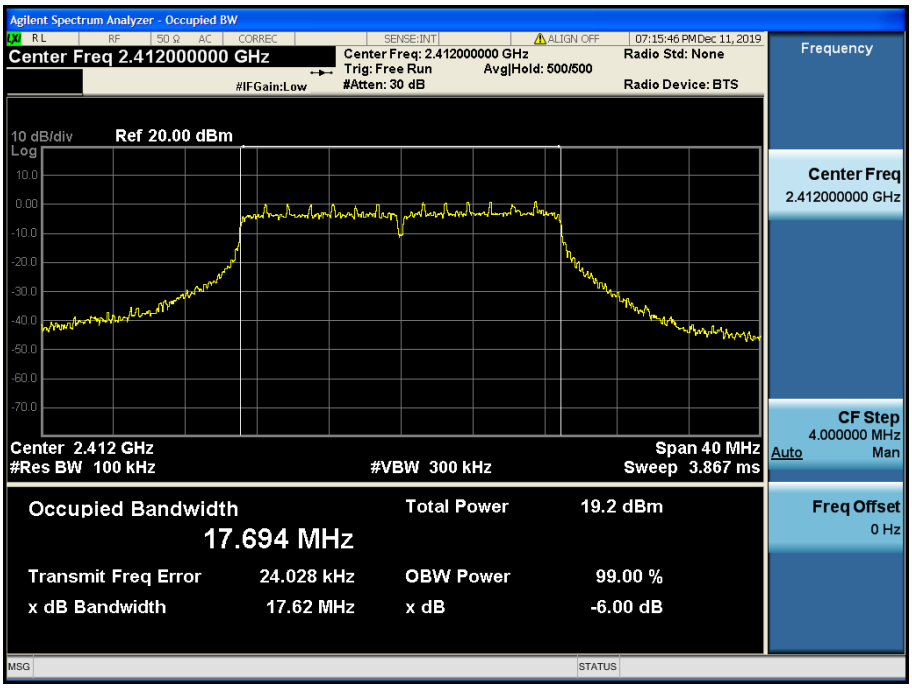


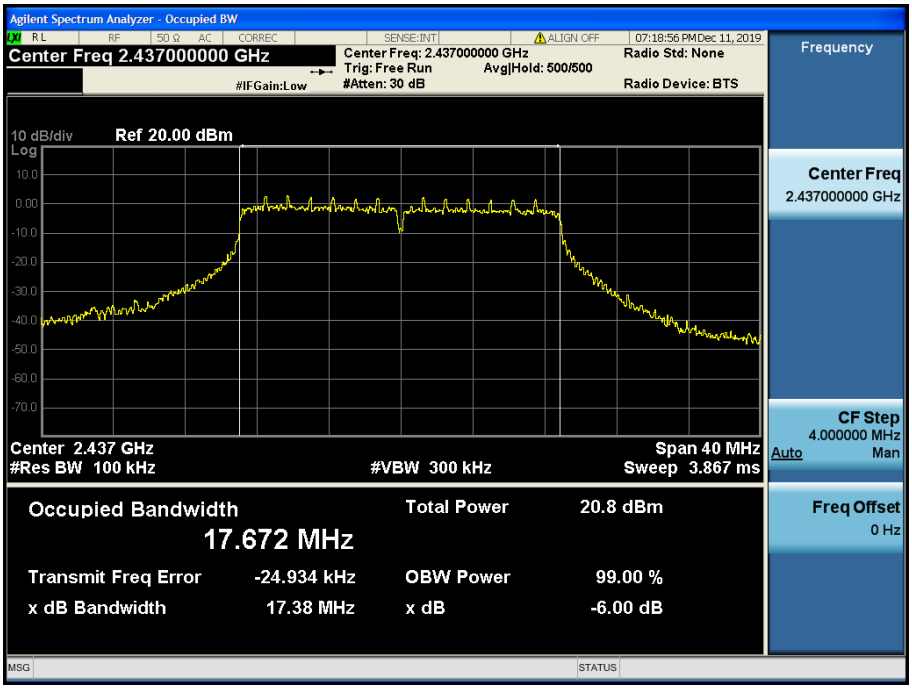
6 dB Bandwidth

TM 5 & ANT 2 & 2412



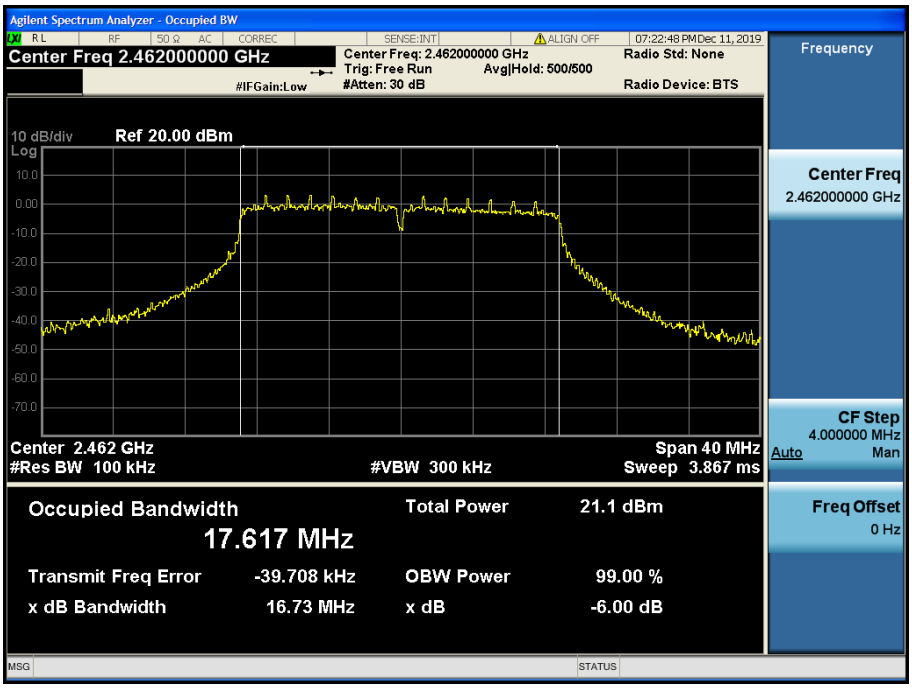
6 dB Bandwidth

TM 5 & ANT 2 & 2437



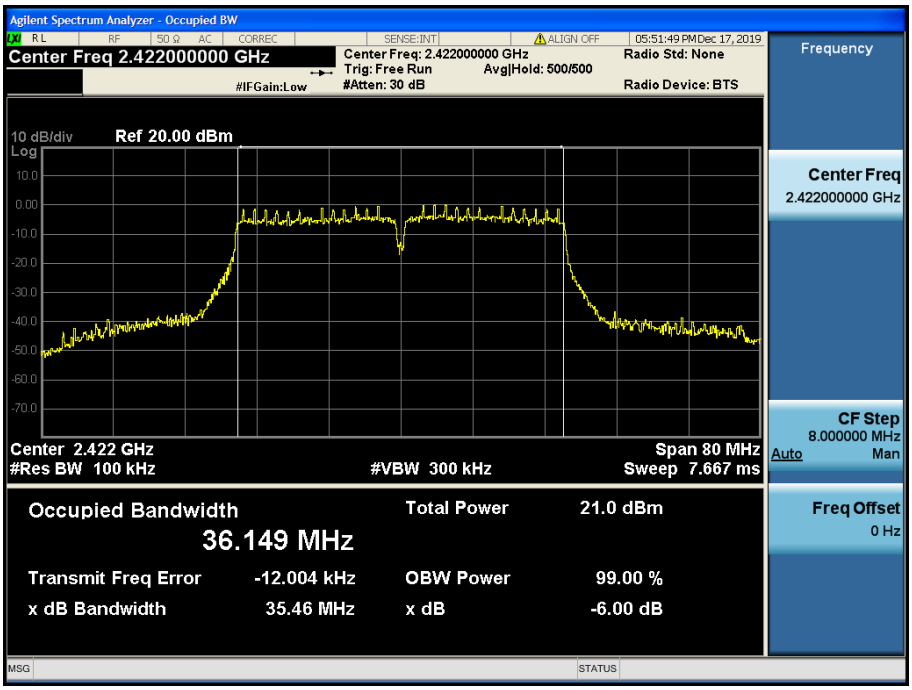
6 dB Bandwidth

TM 5 & ANT 2 & 2462



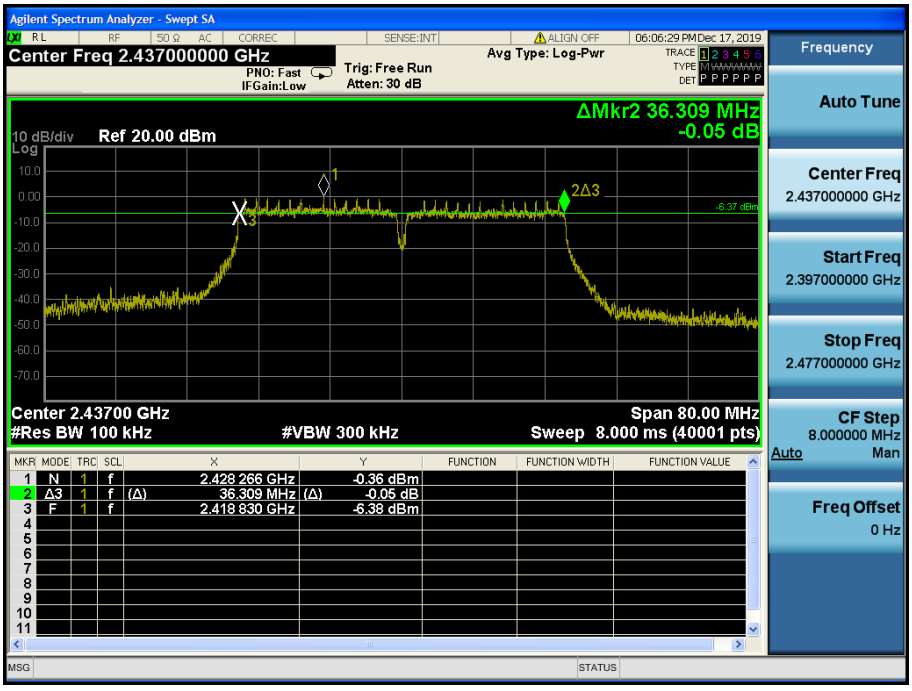
6 dB Bandwidth

TM 6 & ANT 2 & 2422



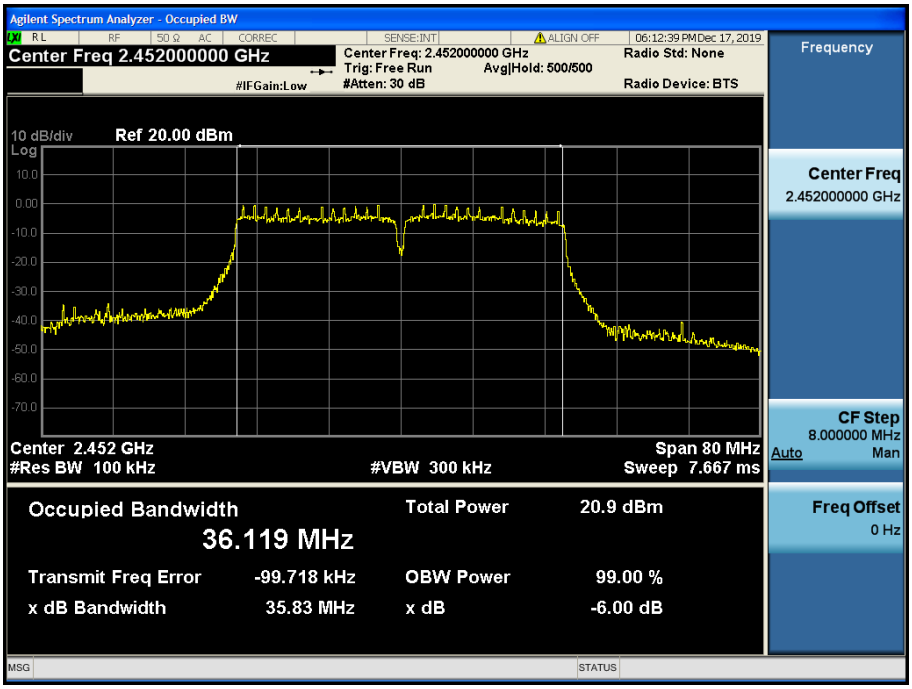
6 dB Bandwidth

TM 6 & ANT 2 & 2437



6 dB Bandwidth

TM 6 & ANT 2 & 2452

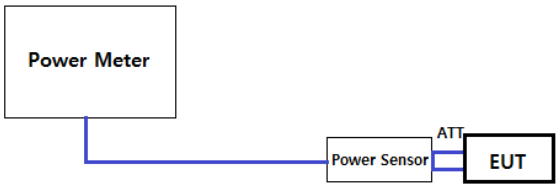


8.2 Maximum peak conducted output power

▣ Test Requirements and limit, §15.247(b)

The maximum permissible conducted output power is **1 Watt**.

▣ Test Configuration



▣ Test Procedure

1. **PKPM1 Peak power meter method of KDB558074 D01V05R02**
   The maximum conducted output powers were measured using a broadband peak RF power meter which has greater video bandwidth than DUT's DTS bandwidth and utilize a fast-responding diode detector.

2. **Method AVGPM-G (Measurement using a gated RF average power meter) of KDB558074 D01V05R02**
   The average conducted output powers were measured using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.

▣ Test Results: Comply

▪ Multiple transmitting CDD

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for *802.11b*							
			Data Rate [Mbps]							
			1	2	5.5	11	-	-	-	-
ANT 1	2412	PK	15.39	15.33	15.25	15.19	-	-	-	-
		AV	13.30	13.28	13.27	13.22	-	-	-	-
	2437	PK	15.55	15.53	15.49	15.37	-	-	-	-
		AV	13.45	13.43	13.41	13.30	-	-	-	-
	2462	PK	15.50	15.44	15.39	15.25	-	-	-	-
		AV	13.29	13.22	13.20	13.15	-	-	-	-
ANT 2	2412	PK	15.82	15.79	15.74	15.75	-	-	-	-
		AV	13.72	13.71	13.68	13.66	-	-	-	-
	2437	PK	15.52	15.50	15.47	15.48	-	-	-	-
		AV	13.34	13.33	13.23	13.25	-	-	-	-
	2462	PK	15.81	15.77	15.75	15.76	-	-	-	-
		AV	13.64	13.62	13.60	13.61	-	-	-	-
Sum (ANT 1+2)	2412	PK	18.62	18.58	18.51	18.49	-	-	-	-
	2437	PK	18.55	18.53	18.49	18.44	-	-	-	-
	2462	PK	**18.67**	18.62	18.58	18.52	-	-	-	-

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for *802.11g*							
			Data Rate [Mbps]							
			6	9	12	18	24	36	48	54
ANT 1	2412	PK	21.82	21.65	21.60	21.29	21.38	21.15	21.44	21.40
		AV	13.19	13.18	13.11	13.10	13.12	13.08	13.12	13.07
	2437	PK	22.76	22.48	22.42	21.94	22.13	21.88	22.38	22.22
		AV	13.81	13.80	13.76	13.73	13.74	13.69	13.76	13.70
	2462	PK	22.64	22.49	22.40	22.18	22.26	22.10	22.28	22.25
		AV	13.79	13.77	13.70	13.69	13.74	13.66	13.68	13.61
ANT 2	2412	PK	22.11	21.79	21.72	21.75	21.87	21.66	21.62	21.60
		AV	13.12	12.98	12.95	12.96	12.96	12.92	12.90	12.91
	2437	PK	22.61	22.25	22.13	22.20	22.35	21.95	21.83	21.80
		AV	13.85	13.78	13.72	13.75	13.77	13.69	13.65	13.66
	2462	PK	22.41	22.09	22.05	22.06	22.15	21.98	21.92	21.90
		AV	13.89	13.84	13.82	13.83	13.91	13.88	13.85	13.86
Sum (ANT 1+2)	2412	PK	24.98	24.73	24.67	24.54	24.64	24.42	24.54	24.51
	2437	PK	**25.70**	25.38	25.29	25.08	25.25	24.93	25.12	25.03
	2462	PK	25.54	25.30	25.24	25.13	25.22	25.05	25.11	25.09

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for *802.11n(HT20)*							
			Data Rate [MCS]							
			0	1	2	3	4	5	6	7
ANT 1	2412	PK	20.85	20.77	20.51	20.50	20.47	20.55	20.59	20.66
		AV	11.73	11.66	11.65	11.63	11.60	11.64	11.59	11.69
	2437	PK	22.59	22.44	22.08	22.06	22.03	22.13	22.15	22.27
		AV	13.87	13.79	13.78	13.74	13.73	13.75	13.68	13.77
	2462	PK	22.38	22.25	21.98	21.95	21.91	22.07	22.11	22.18
		AV	13.88	13.72	13.71	13.69	13.68	13.72	13.70	13.75
ANT 2	2412	PK	21.14	20.95	20.98	20.92	20.94	20.87	21.05	21.00
		AV	12.28	12.21	12.23	12.20	12.25	12.18	12.15	12.17
	2437	PK	21.82	21.62	21.69	21.60	21.65	21.58	21.72	21.66
		AV	13.76	13.72	13.75	13.72	13.74	13.69	13.65	13.67
	2462	PK	21.93	21.75	21.81	21.71	21.77	21.64	21.80	21.78
		AV	13.90	13.85	13.81	13.83	13.76	13.74	13.76	13.71
Sum (ANT 1+2)	2412	PK	24.01	23.87	23.76	23.73	23.72	23.72	23.84	23.84
	2437	PK	**25.23**	25.06	24.90	24.85	24.85	24.87	24.95	24.99
	2462	PK	25.17	25.02	24.91	24.84	24.85	24.87	24.97	24.99

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for *802.11n(HT40)*							
			Data Rate [MCS]							
			0	1	2	3	4	5	6	7
ANT 1	2422	PK	22.36	22.02	22.17	22.20	22.10	22.32	22.34	21.96
		AV	13.80	13.72	13.70	13.66	13.72	13.71	13.73	13.66
	2437	PK	22.40	22.03	22.24	22.31	22.14	22.32	22.37	22.02
		AV	13.79	13.77	13.72	13.70	13.75	13.71	13.72	13.65
	2452	PK	22.38	22.09	22.18	22.22	22.15	22.38	22.35	22.10
		AV	13.74	13.72	13.66	13.65	13.69	13.66	13.67	13.62
ANT 2	2422	PK	22.37	22.02	22.15	22.11	22.08	21.90	21.97	21.96
		AV	13.91	13.82	13.84	13.83	13.83	13.79	13.81	13.80
	2437	PK	22.42	22.13	22.26	22.24	22.15	21.97	22.06	22.03
		AV	13.80	13.78	13.75	13.70	13.71	13.67	13.70	13.66
	2452	PK	22.53	22.29	22.33	22.32	22.30	22.23	22.27	22.25
		AV	13.82	13.69	13.71	13.70	13.68	13.65	13.66	13.62
Sum (ANT 1+2)	2422	PK	25.38	25.03	25.17	25.17	25.10	25.13	25.17	24.97
	2437	PK	25.42	25.09	25.26	25.29	25.16	25.16	25.23	25.04
	2452	PK	**25.47**	25.20	25.27	25.28	25.24	25.32	25.32	25.19

▪ **Multiple transmitting SDM**

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for ***802.11n(HT20)***							
			Data Rate [MCS]							
			8	9	10	11	12	13	14	15
ANT 1	2412	PK	20.56	20.08	20.16	20.21	20.18	20.11	20.10	19.97
		AV	11.89	11.79	11.81	11.82	11.75	11.74	11.74	11.72
	2437	PK	22.31	21.82	21.99	22.08	22.00	21.89	21.86	21.77
		AV	13.87	13.76	13.77	13.78	13.72	13.69	13.66	13.61
	2462	PK	22.23	21.75	21.86	21.97	21.92	21.84	21.81	21.72
		AV	13.83	13.72	13.75	13.76	13.70	13.66	13.62	13.60
ANT 2	2412	PK	20.33	20.00	19.69	20.09	20.13	20.25	20.19	19.94
		AV	12.01	11.92	11.85	11.95	11.96	11.98	11.92	11.89
	2437	PK	22.31	21.96	21.64	22.06	22.12	22.22	22.20	21.89
		AV	13.83	13.73	13.67	13.79	13.75	13.81	13.78	13.68
	2462	PK	22.14	21.79	21.53	21.85	21.87	21.99	21.94	21.80
		AV	13.98	13.91	13.84	13.92	13.94	13.97	13.94	13.88
Sum (ANT 1+2)	2412	PK	23.46	23.05	22.94	23.16	23.17	23.19	23.16	22.97
	2437	PK	**25.32**	24.90	24.83	25.08	25.07	25.07	25.04	24.84
	2462	PK	25.20	24.78	24.71	24.92	24.91	24.93	24.89	24.77

ANT	Freq. (MHz)	Det.	Maximum Peak Conducted Output Power (dBm) for ***802.11n(HT40)***							
			Data Rate [MCS]							
			8	9	10	11	12	13	14	15
ANT 1	2422	PK	22.12	21.52	21.76	21.78	21.83	21.70	21.60	21.50
		AV	13.64	13.61	13.53	13.50	13.47	13.45	13.41	13.38
	2437	PK	22.37	21.77	22.09	22.10	22.18	22.01	21.86	21.72
		AV	13.86	13.83	13.74	13.72	13.70	13.69	13.65	13.60
	2452	PK	22.08	21.54	21.71	21.73	21.78	21.63	21.57	21.50
		AV	13.81	13.78	13.69	13.66	13.65	13.62	13.59	13.55
ANT 2	2422	PK	22.09	21.94	21.88	22.02	21.77	21.99	21.94	21.98
		AV	13.68	13.65	13.58	13.60	13.49	13.52	13.55	13.60
	2437	PK	22.21	22.09	21.99	22.11	21.85	22.06	21.95	22.06
		AV	13.89	13.85	13.77	13.76	13.68	13.70	13.73	13.81
	2452	PK	22.38	22.29	22.22	22.25	21.95	22.21	22.14	22.16
		AV	13.85	13.81	13.75	13.76	13.69	13.74	13.70	13.74
Sum (ANT 1+2)	2422	PK	25.12	24.75	24.83	24.91	24.81	24.86	24.78	24.76
	2437	PK	**25.30**	24.94	25.05	25.12	25.03	25.05	24.92	24.90
	2452	PK	25.24	24.94	24.98	25.01	24.88	24.94	24.87	24.85

8.3 Maximum power spectral density

▣ Test requirements and limit, §15.247(e)

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

▣ Test Configuration:

Refer to the APPENDIX I.

▣ Test Procedure

- **KDB558074 D01v05r02 - Section 8.4**
- **ANSI C63.10-2013 – Section 11.10.2**

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** ≤ RBW ≤ **100 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 within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

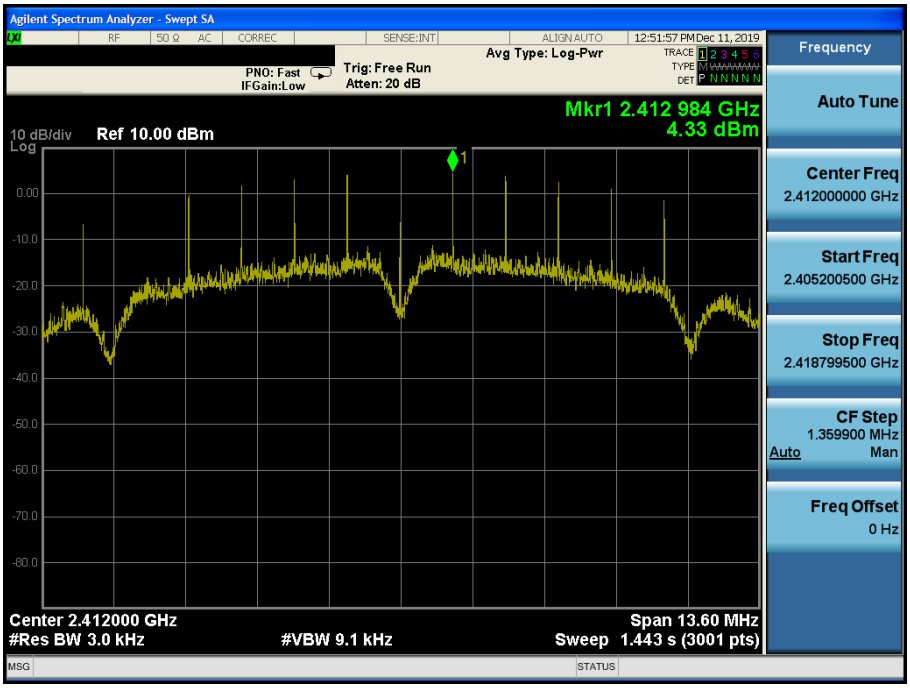
▣ **Test Results: Comply**

Test Mode	Frequency	RBW	PKPSD [dBm]		
			ANT 1	ANT 2	SUM (ANT 1 + ANT 2)
TM 1	2412	3 kHz	4.33	4.03	7.19
	2437	3 kHz	4.43	3.54	7.02
	2462	3 kHz	4.44	3.72	7.11
TM 2	2412	3 kHz	-11.61	-12.61	-9.07
	2437	3 kHz	-11.51	-13.05	-9.20
	2462	3 kHz	-12.55	-12.37	-9.45
TM 3	2412	3 kHz	-14.15	-13.27	-10.68
	2437	3 kHz	-11.39	-11.67	-8.52
	2462	3 kHz	-11.96	-11.79	-8.86
TM 4	2422	3 kHz	-13.24	-14.49	-10.81
	2437	3 kHz	-14.30	-14.47	-11.37
	2452	3 kHz	-13.80	-13.83	-10.80
TM 5	2412	3 kHz	-14.37	-13.00	-10.62
	2437	3 kHz	-11.90	-12.69	-9.27
	2462	3 kHz	-11.94	-11.77	-8.84
TM 6	2422	3 kHz	-14.23	-14.78	-11.49
	2437	3 kHz	-14.35	-14.58	-11.45
	2452	3 kHz	-14.75	-14.72	-11.72

▣ RESULT PLOTS

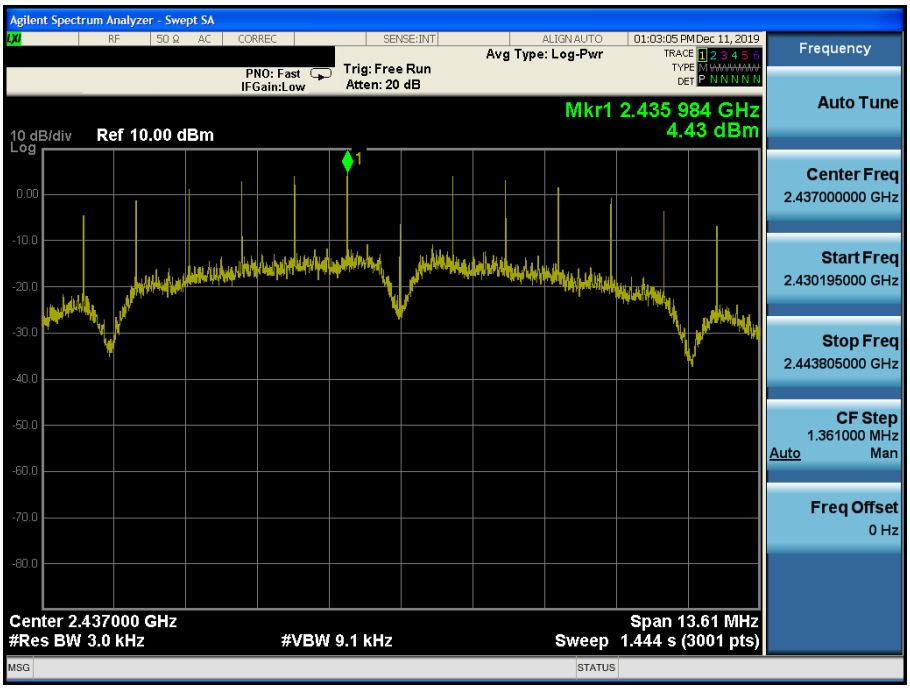
Maximum PPSD

TM 1 & ANT 1 & 2412



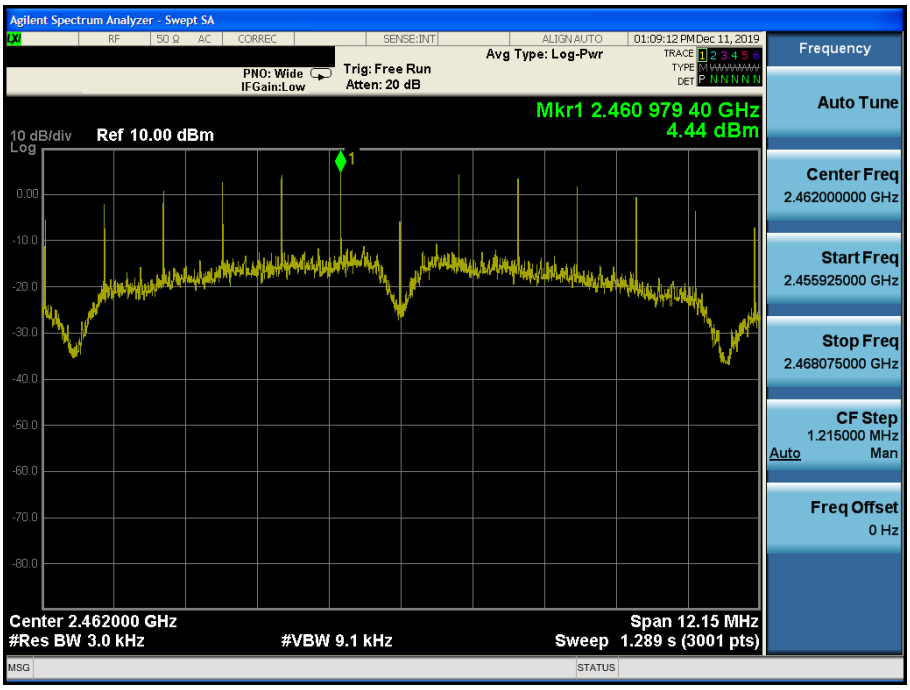
Maximum PPSD

TM 1 & ANT 1 & 2437



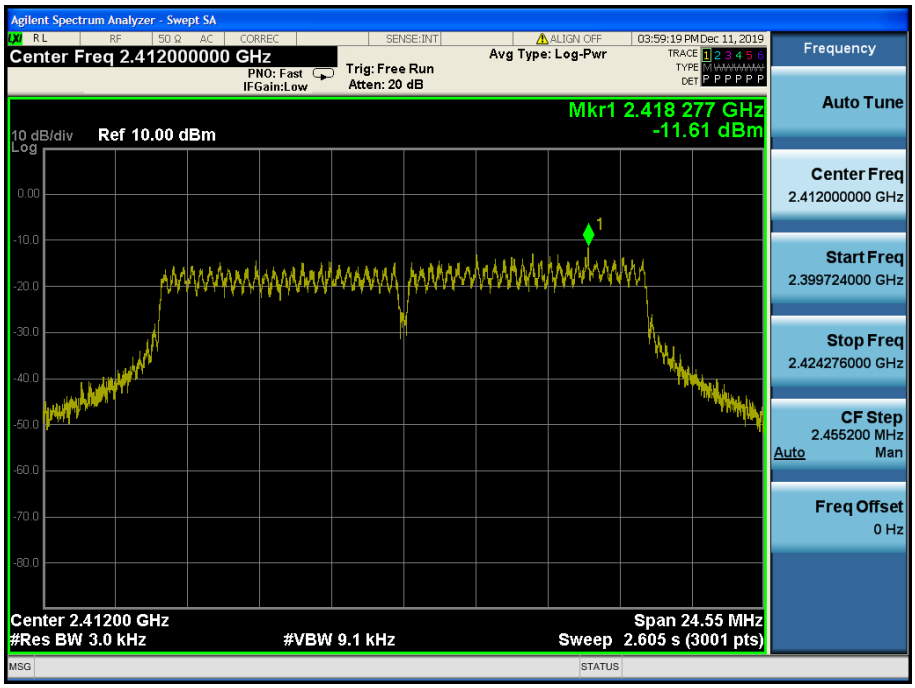
Maximum PPSD

TM 1 & ANT 1 & 2462



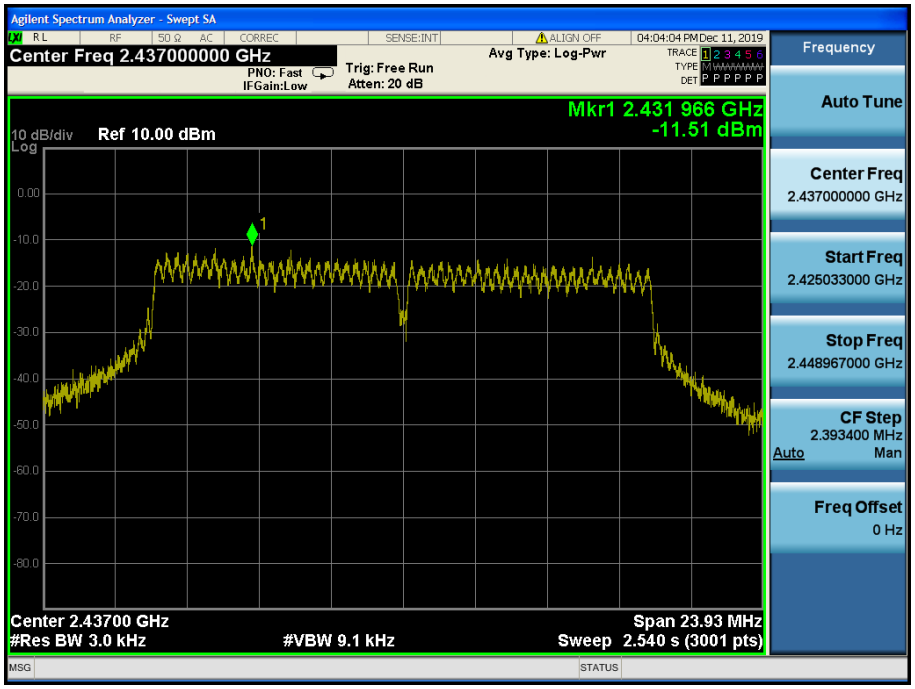
Maximum PPSD

TM 2 & ANT 1 & 2412



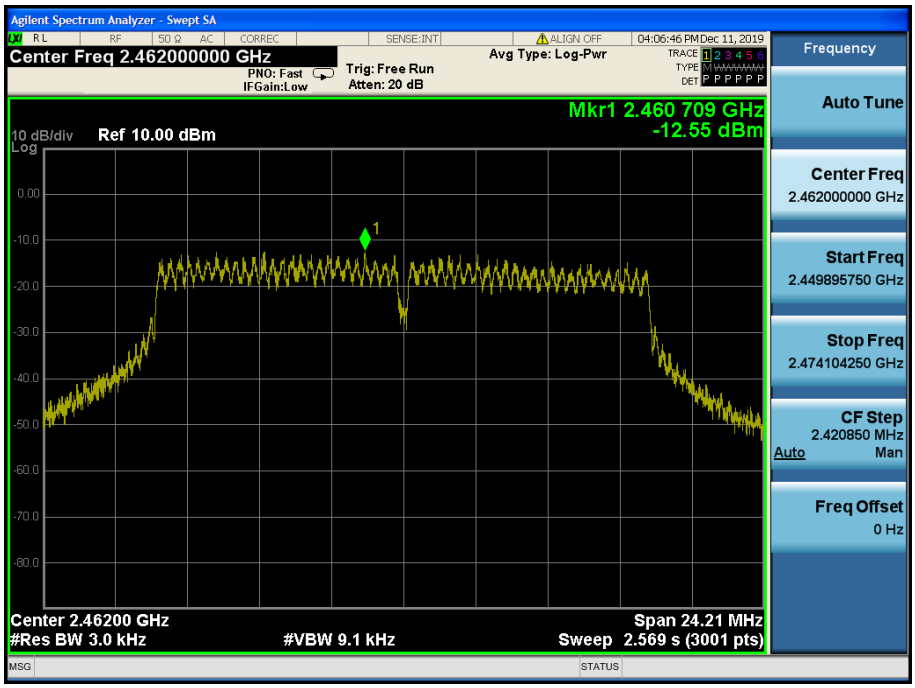
Maximum PPSD

TM 2 & ANT 1 & 2437



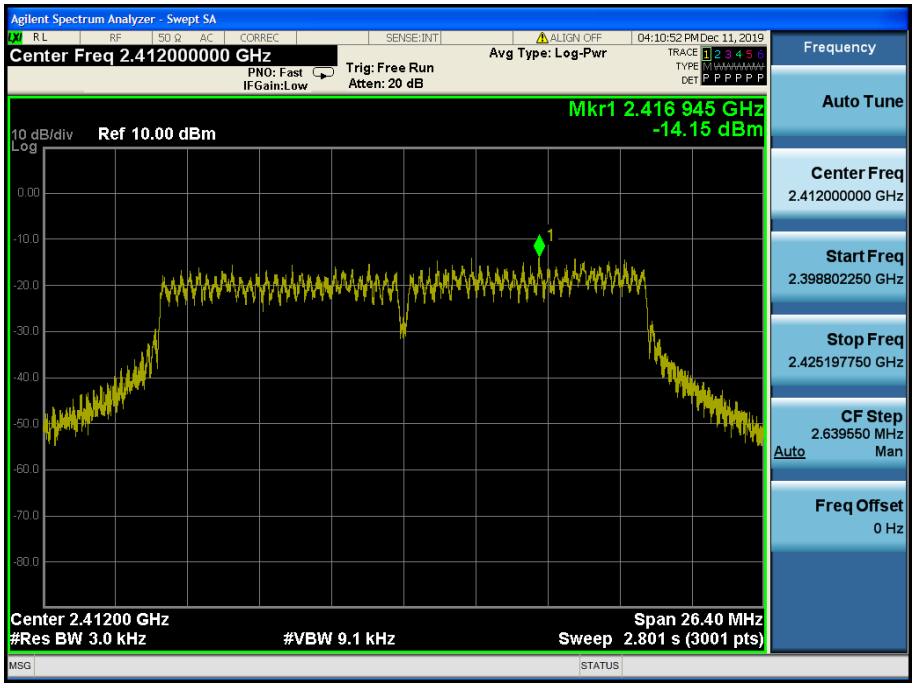
Maximum PPSD

TM 2 & ANT 1 & 2462



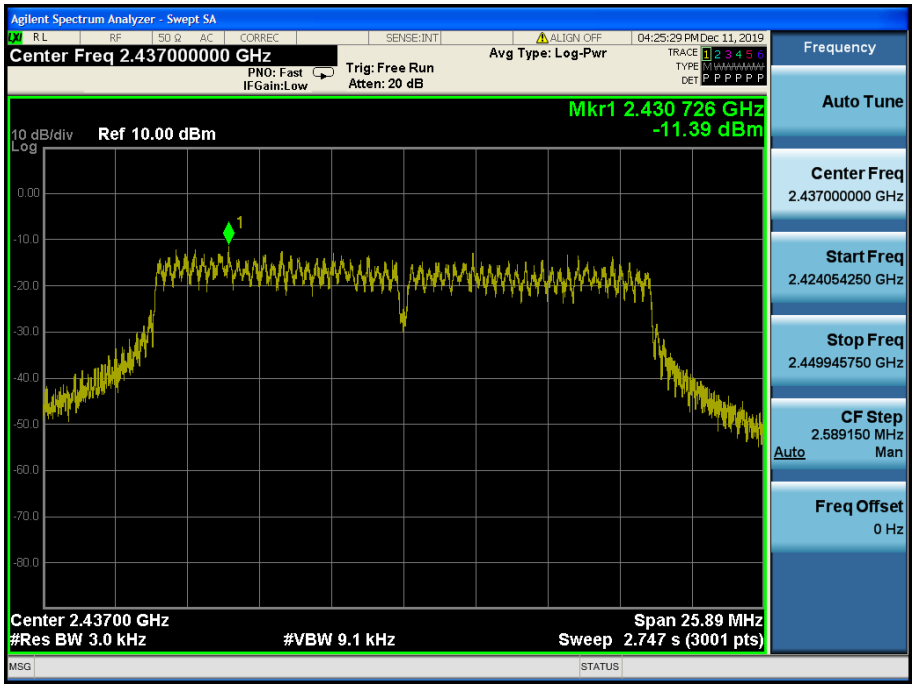
Maximum PPSD

TM 3 & ANT 1 & 2412



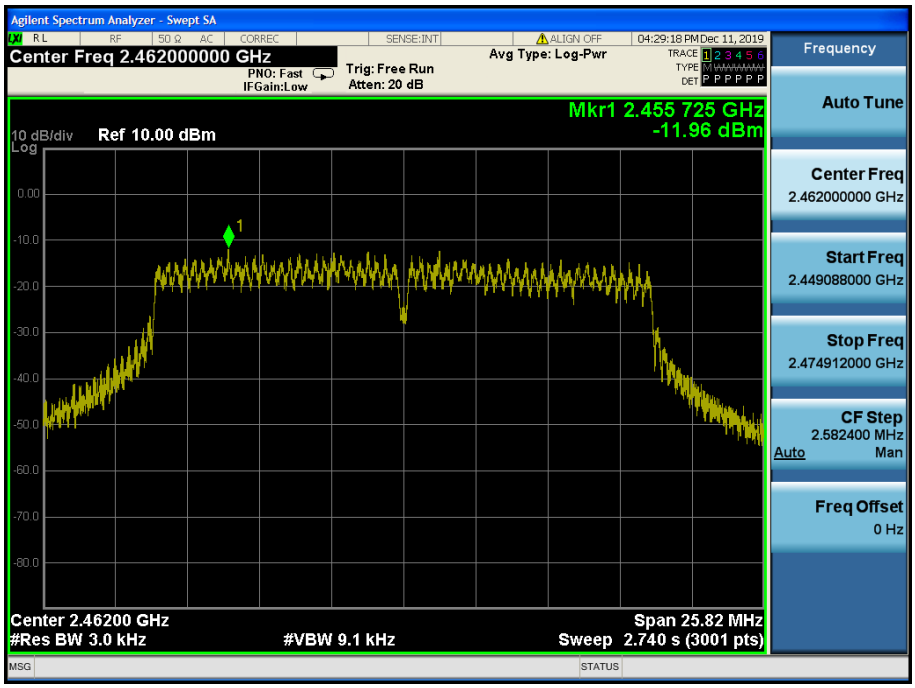
Maximum PPSD

TM 3 & ANT 1 & 2437



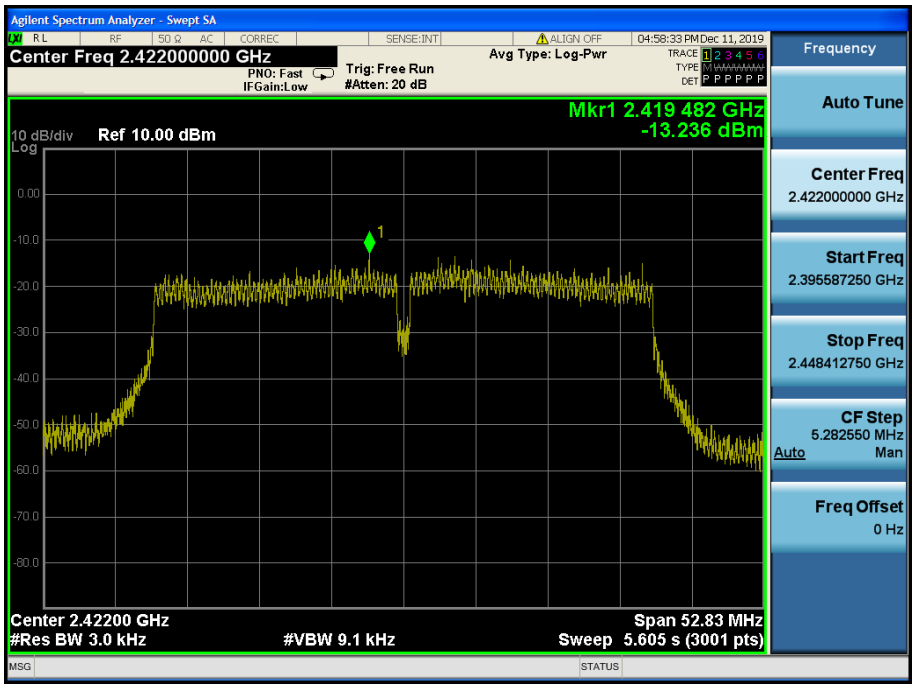
Maximum PPSD

TM 3 & ANT 1 & 2462



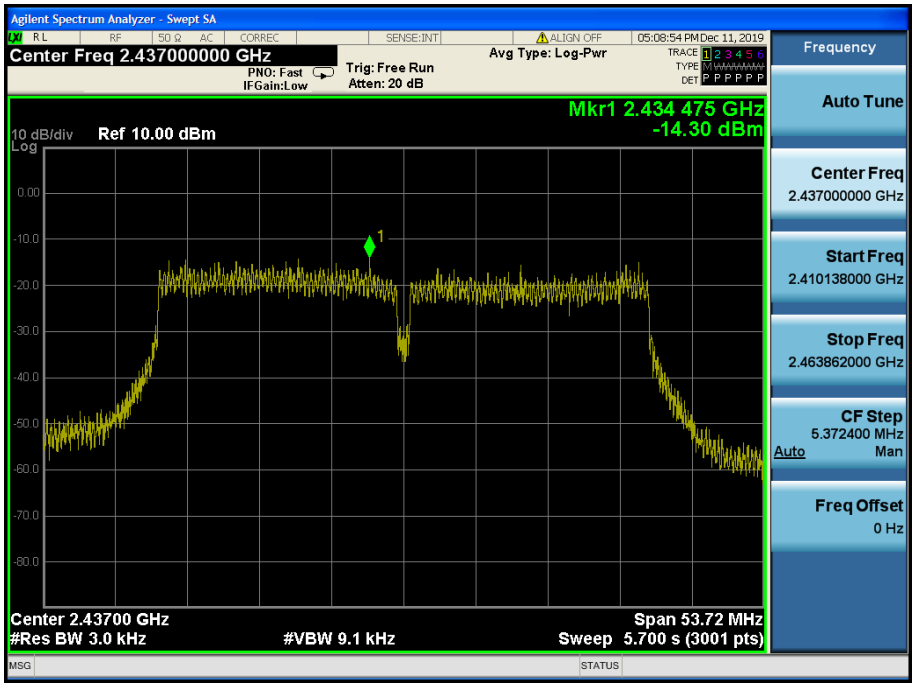
Maximum PPSD

TM 4 & ANT 1 & 2422



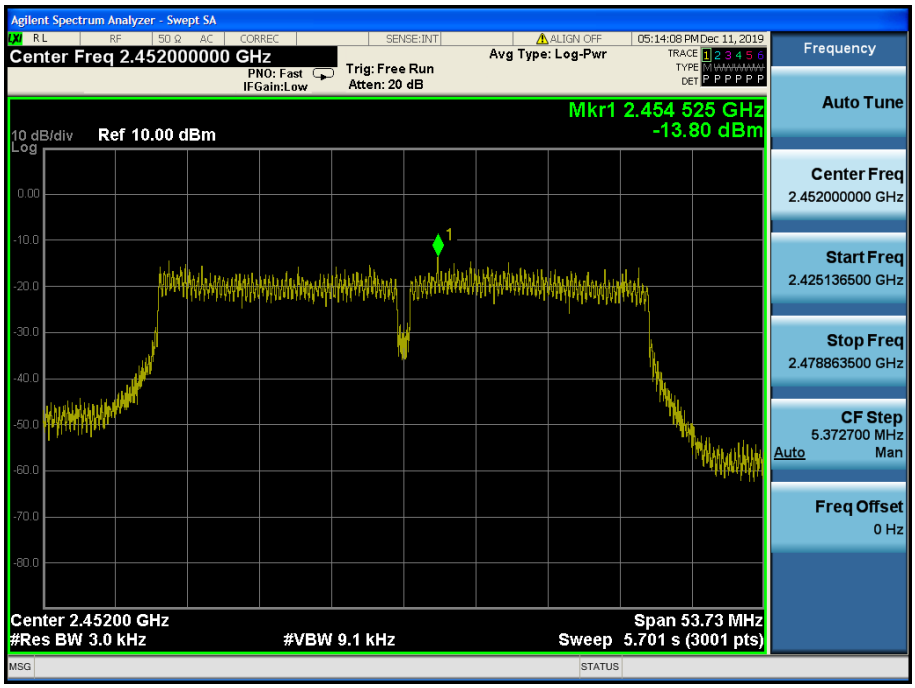
Maximum PPSD

TM 4 & ANT 1 & 2437



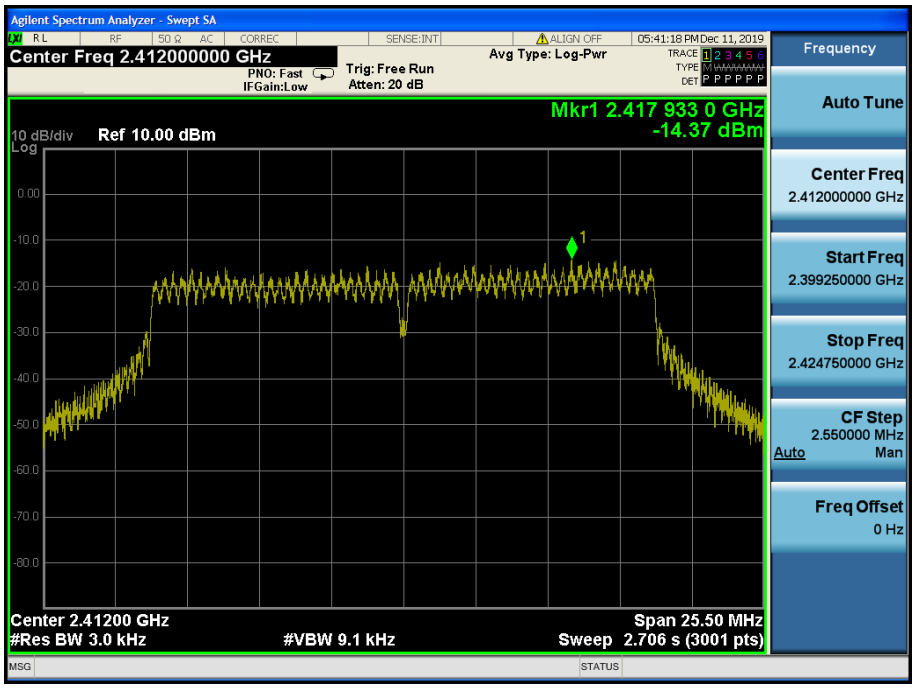
Maximum PPSD

TM 4 & ANT 1 & 2452



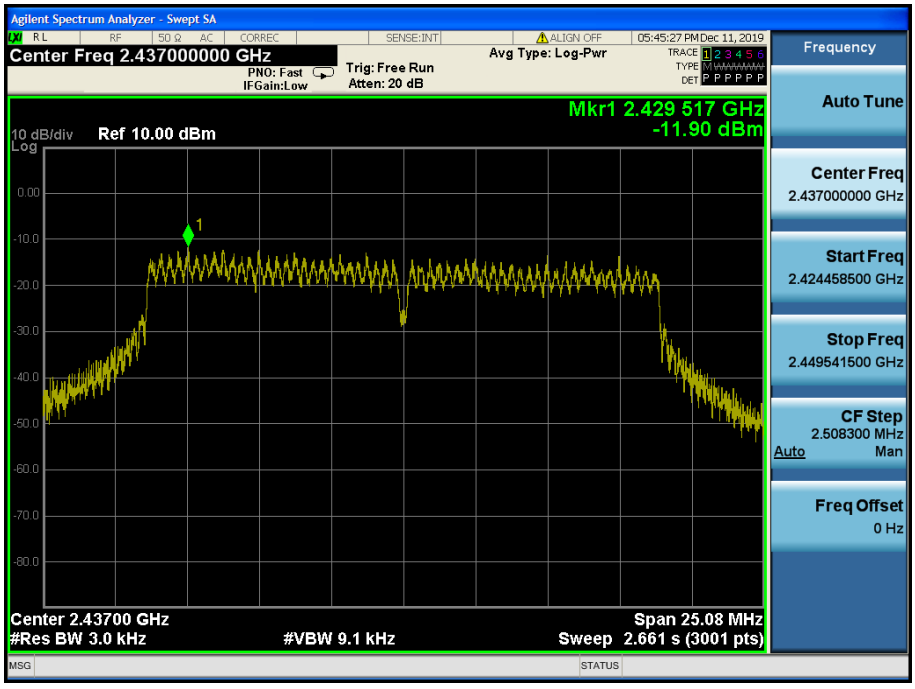
Maximum PPSD

TM 5 & ANT 1 & 2412



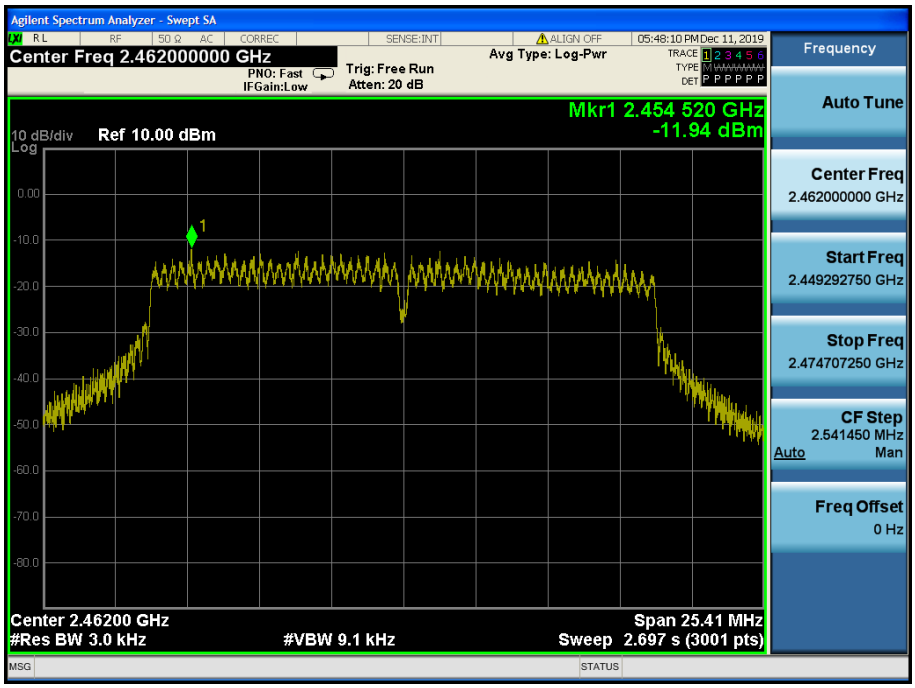
Maximum PPSD

TM 5 & ANT 1 & 2437



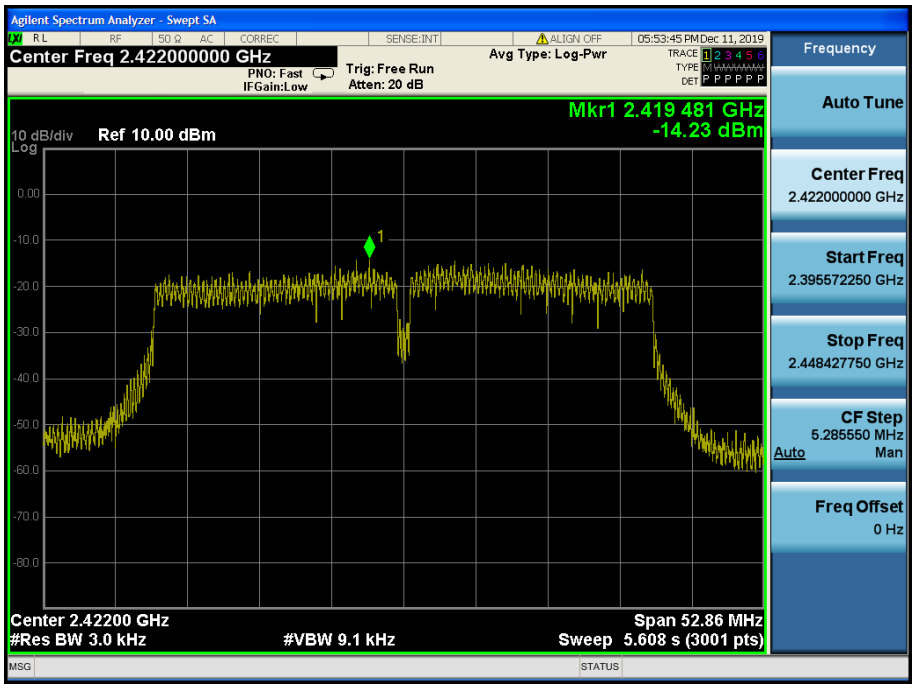
Maximum PPSD

TM 5 & ANT 1 & 2462



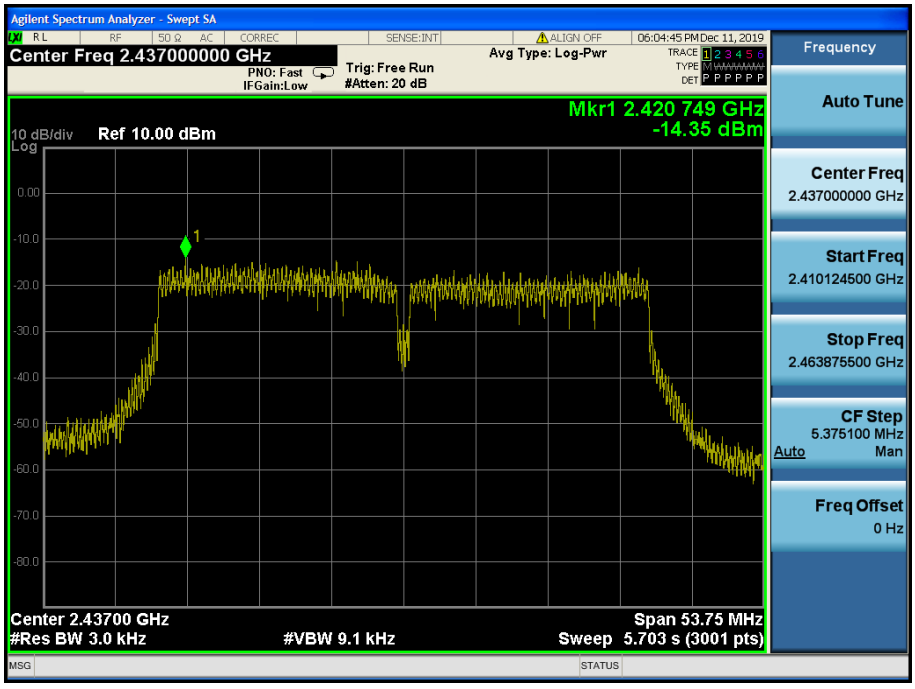
Maximum PPSD

TM 6 & ANT 1 & 2422



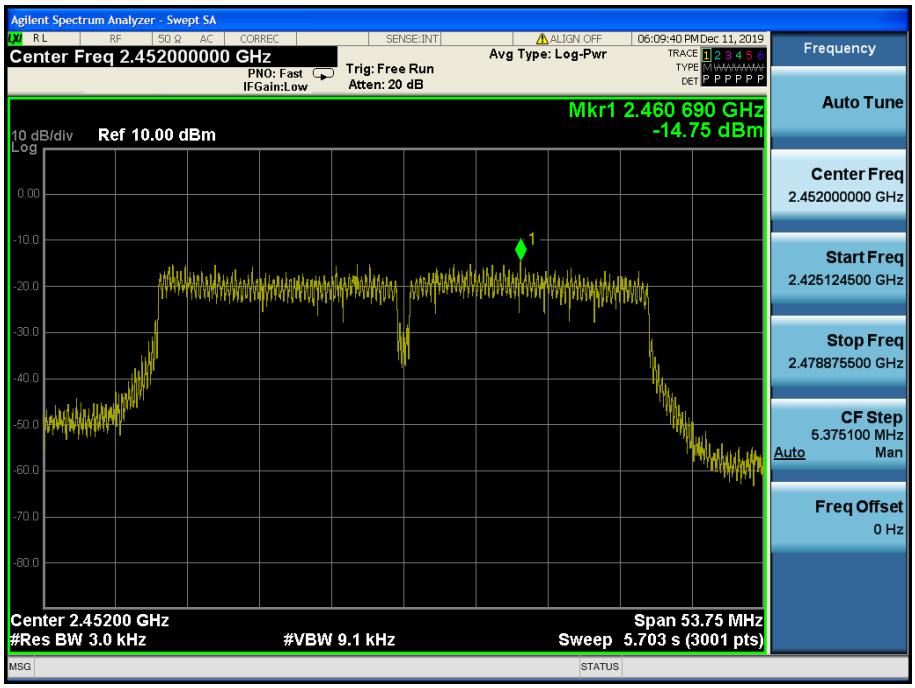
Maximum PPSD

TM 6 & ANT 1 & 2437



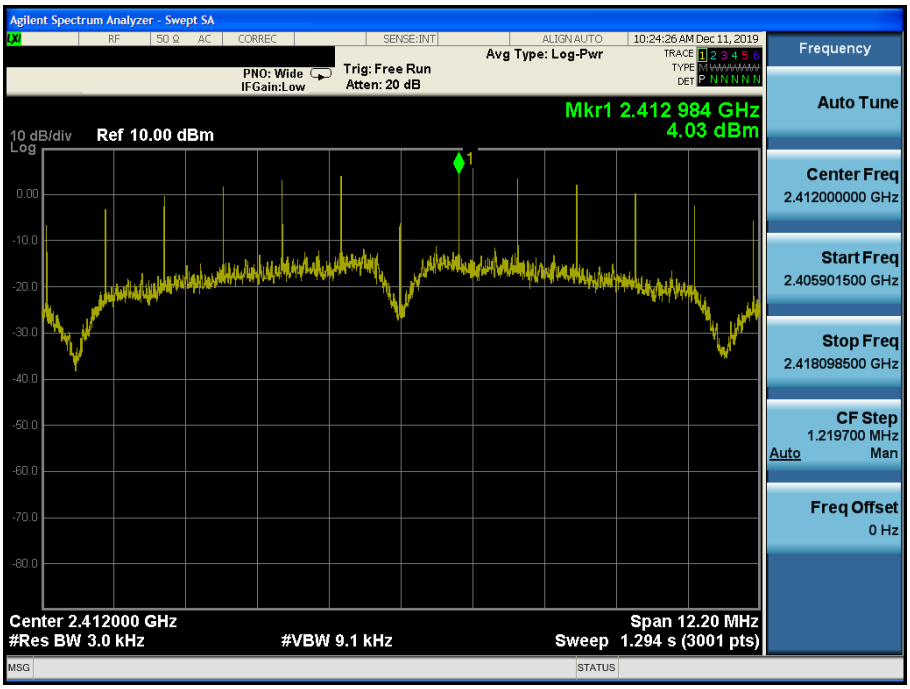
Maximum PPSD

TM 6 & ANT 1 & 2452



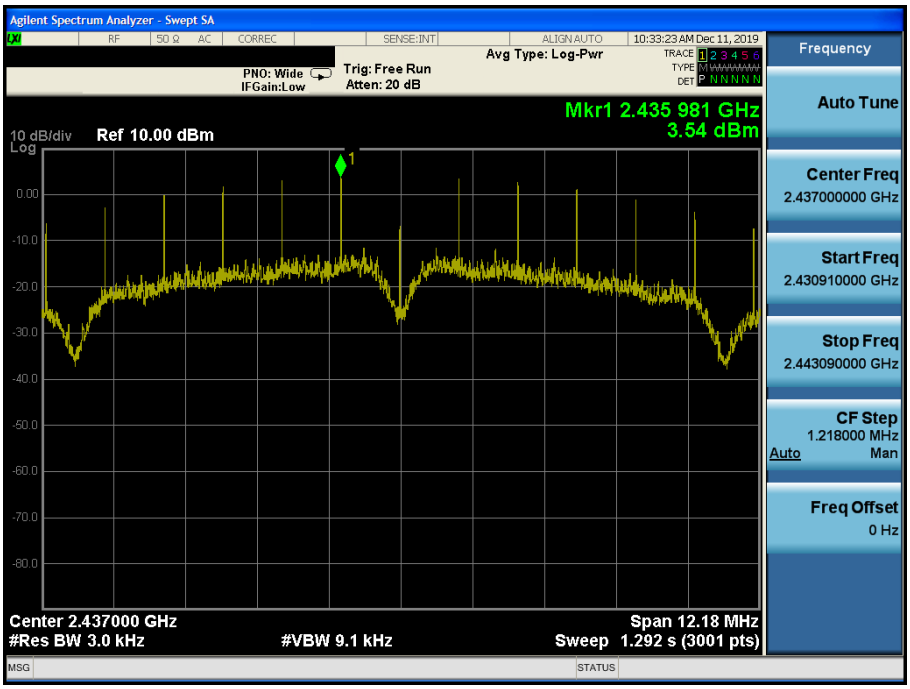
Maximum PPSD

TM 1 & ANT 2 & 2412



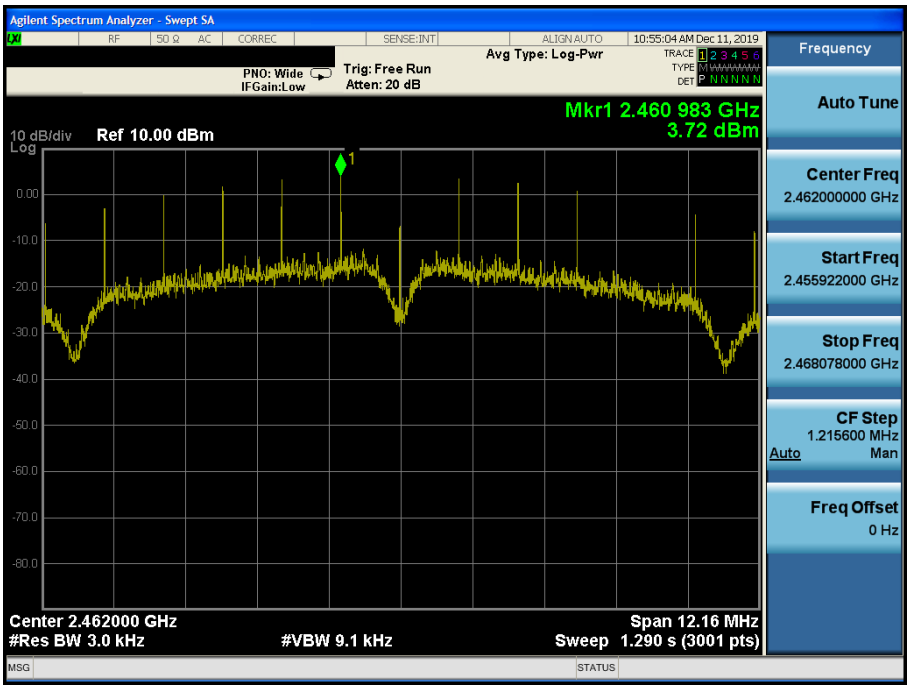
Maximum PPSD

TM 1 & ANT 2 & 2437



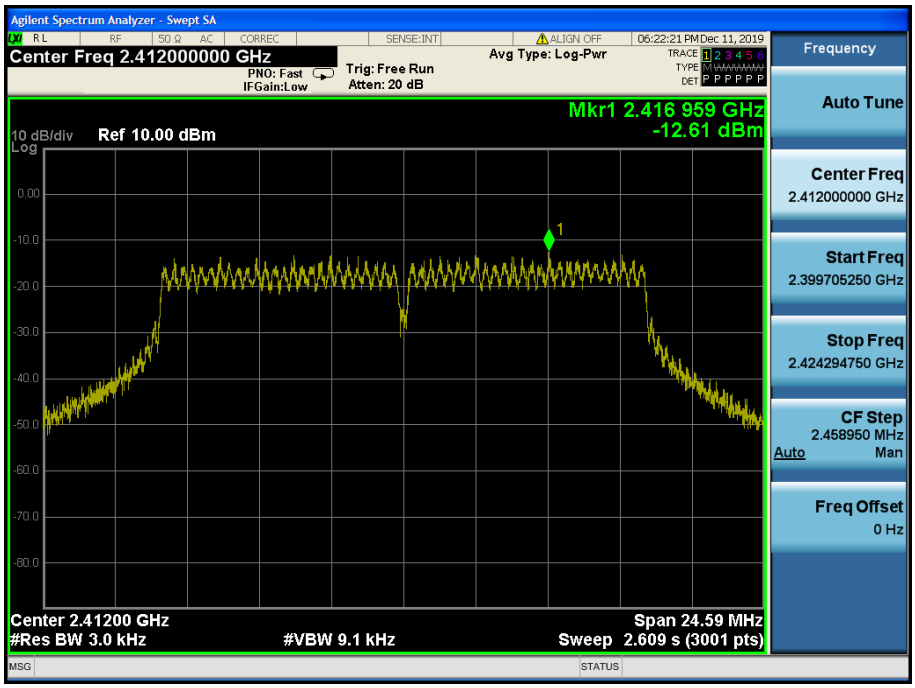
Maximum PPSD

TM 1 & ANT 2 & 2462



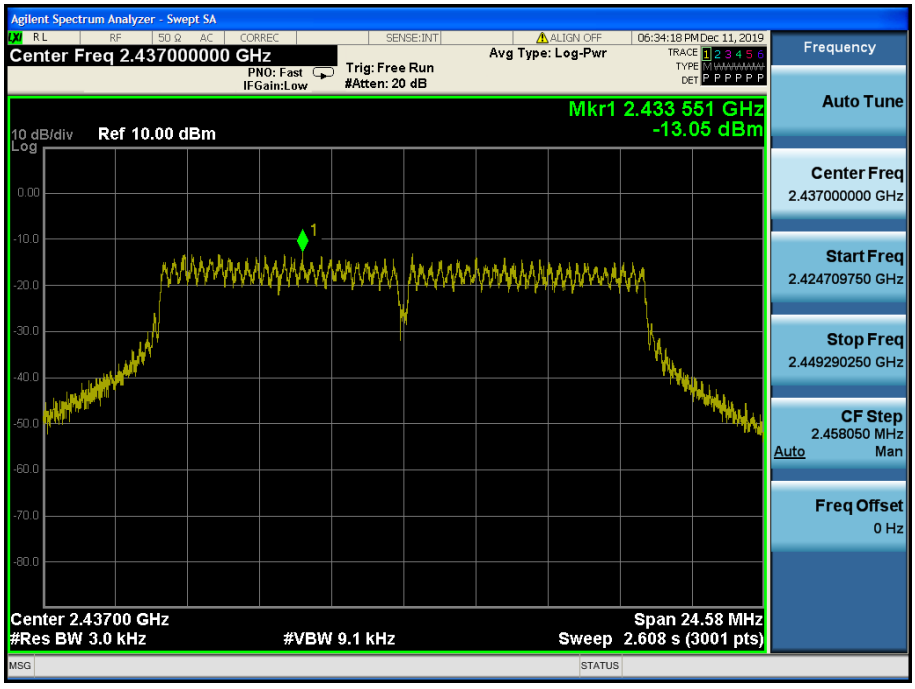
Maximum PPSD

TM 2 & ANT 2 & 2412



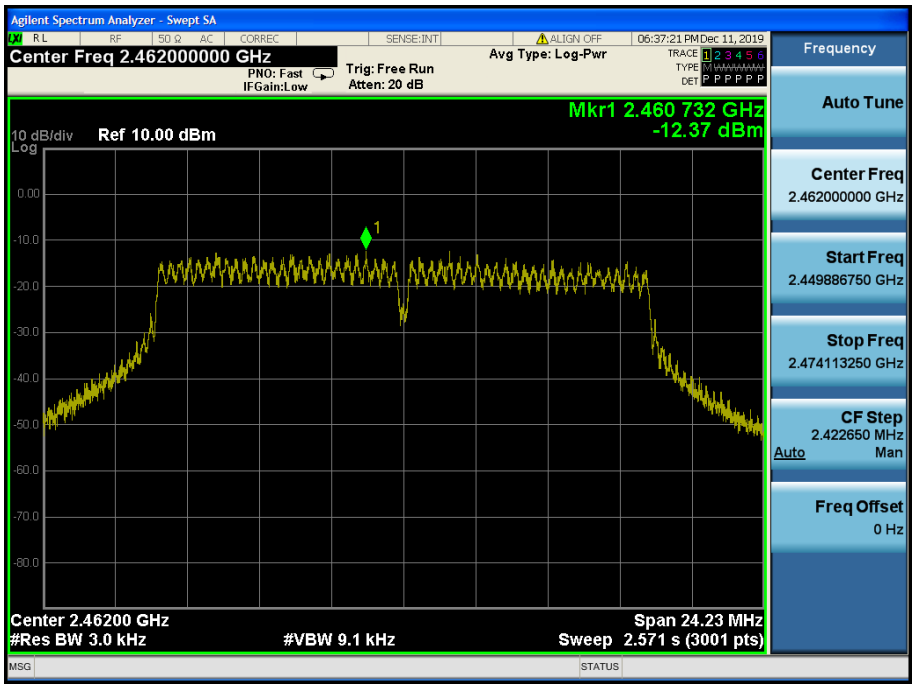
Maximum PPSD

TM 2 & ANT 2 & 2437



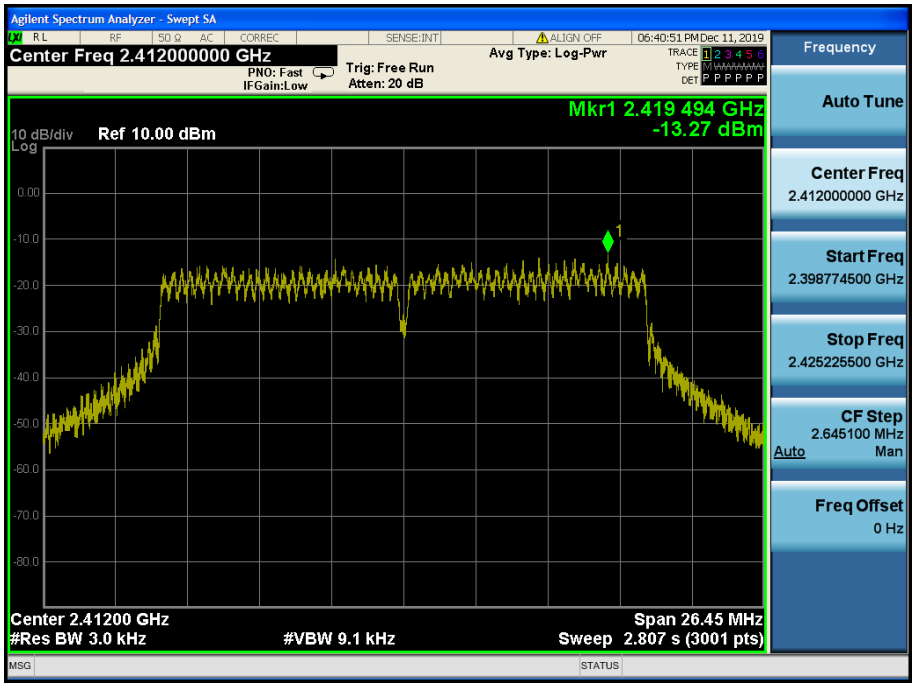
Maximum PPSD

TM 2 & ANT 2 & 2462



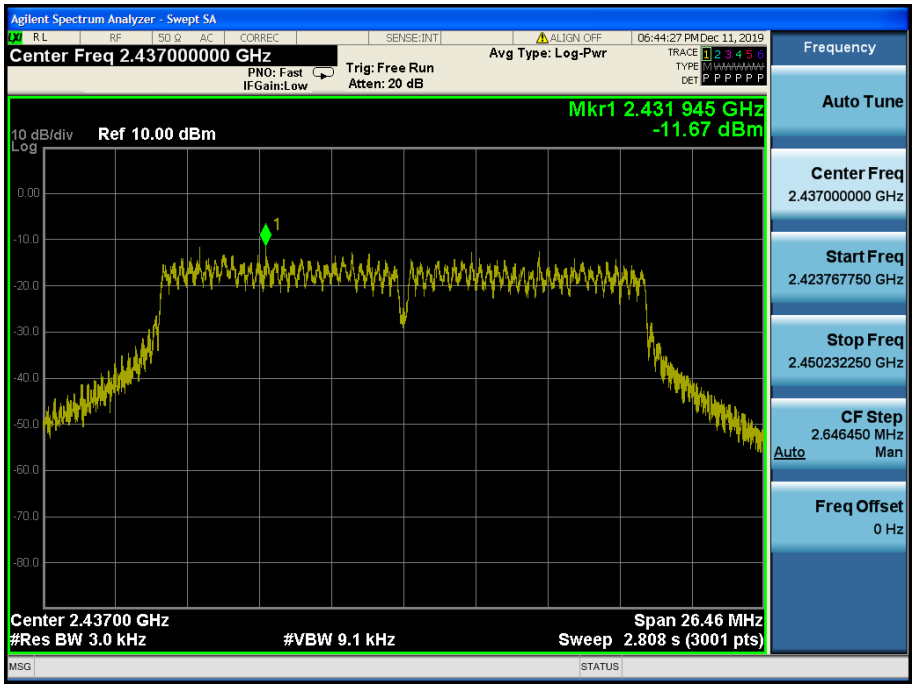
Maximum PPSD

TM 3 & ANT 2 & 2412



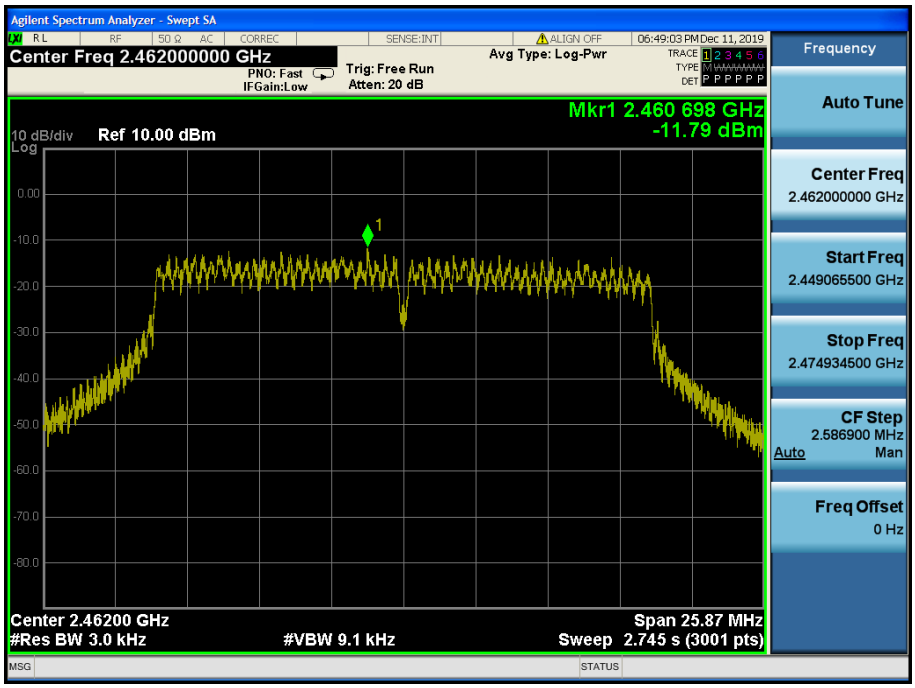
Maximum PPSD

TM 3 & ANT 2 & 2437



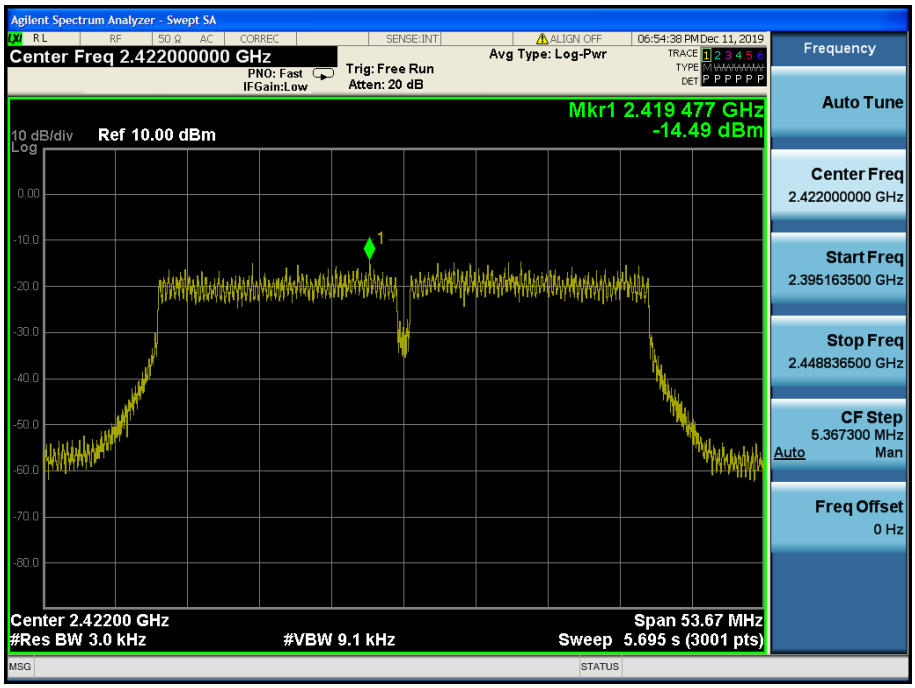
Maximum PPSD

TM 3 & ANT 2 & 2462



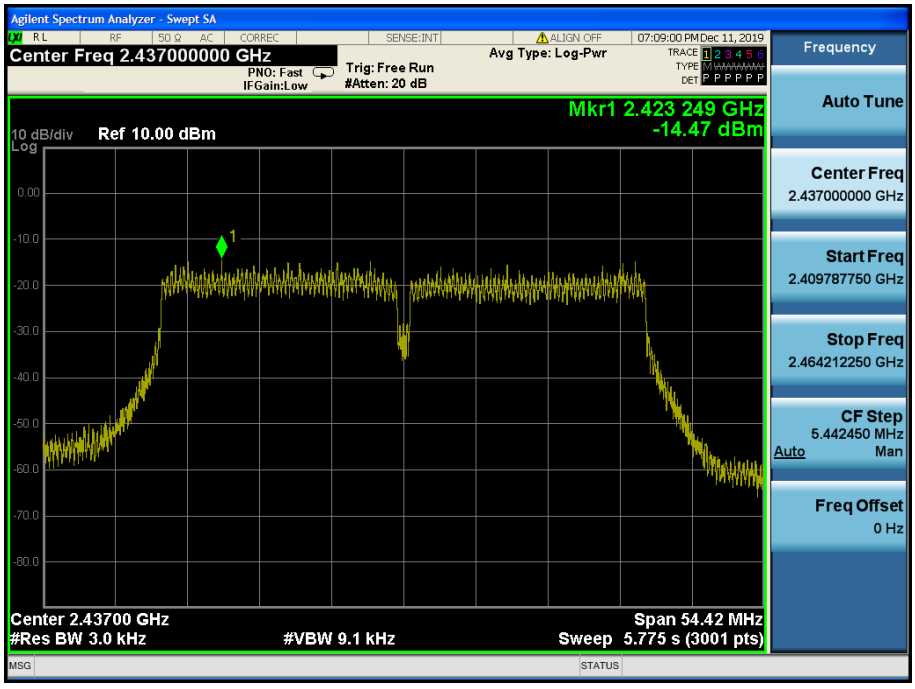
Maximum PPSD

TM 4 & ANT 2 & 2422



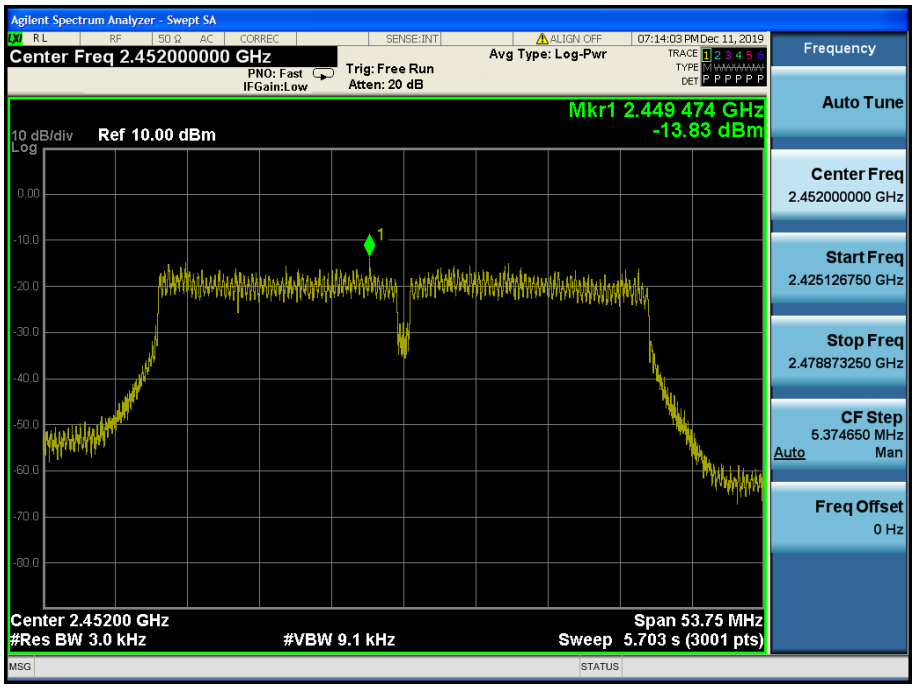
Maximum PPSD

TM 4 & ANT 2 & 2437



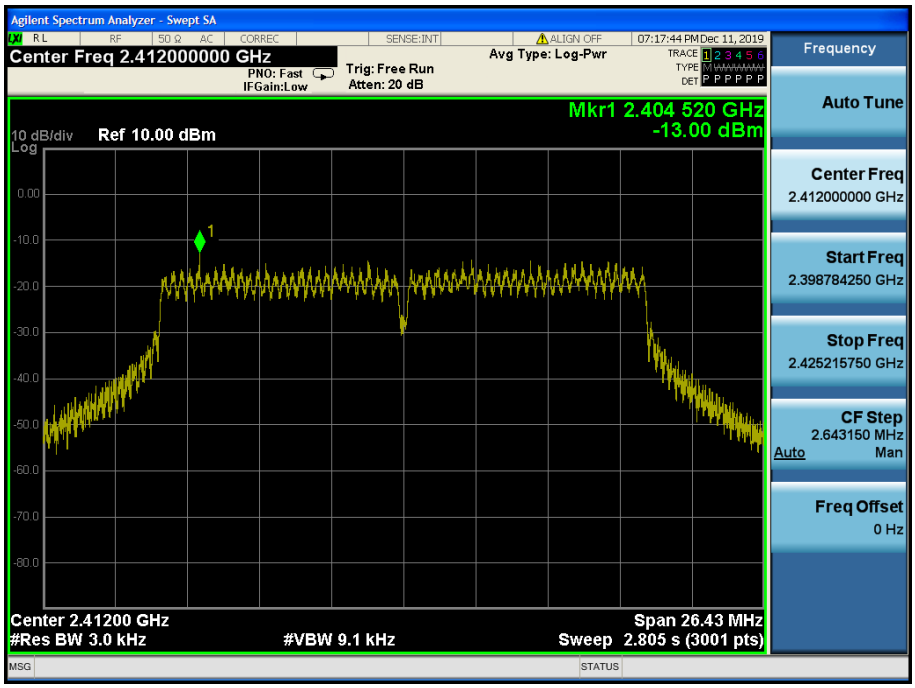
Maximum PPSD

TM 4 & ANT 2 & 2452



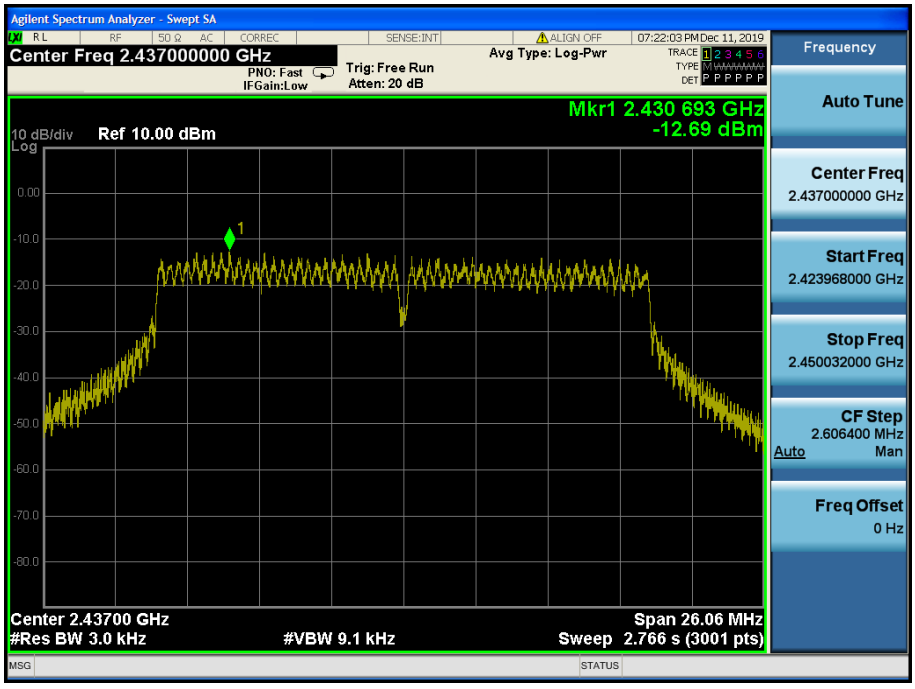
Maximum PPSD

TM 5 & ANT 2 & 2412



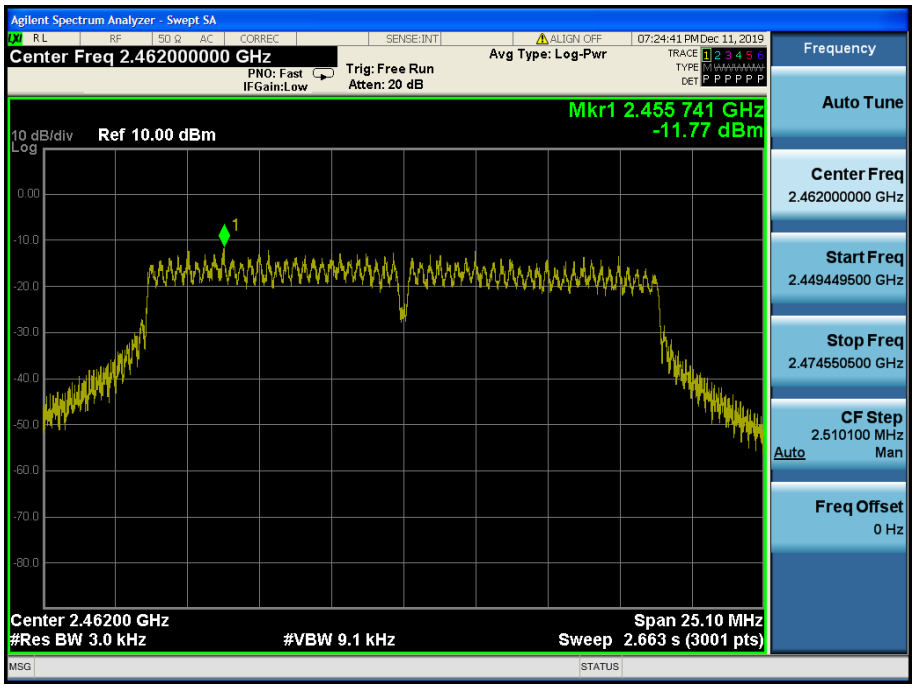
Maximum PPSD

TM 5 & ANT 2 & 2437



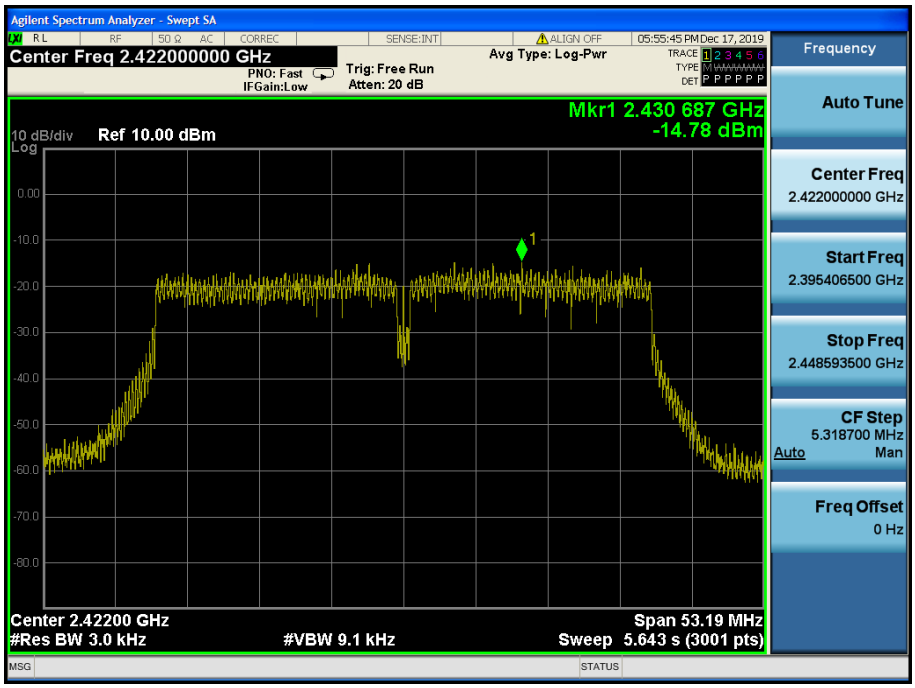
Maximum PPSD

TM 5 & ANT 2 & 2462



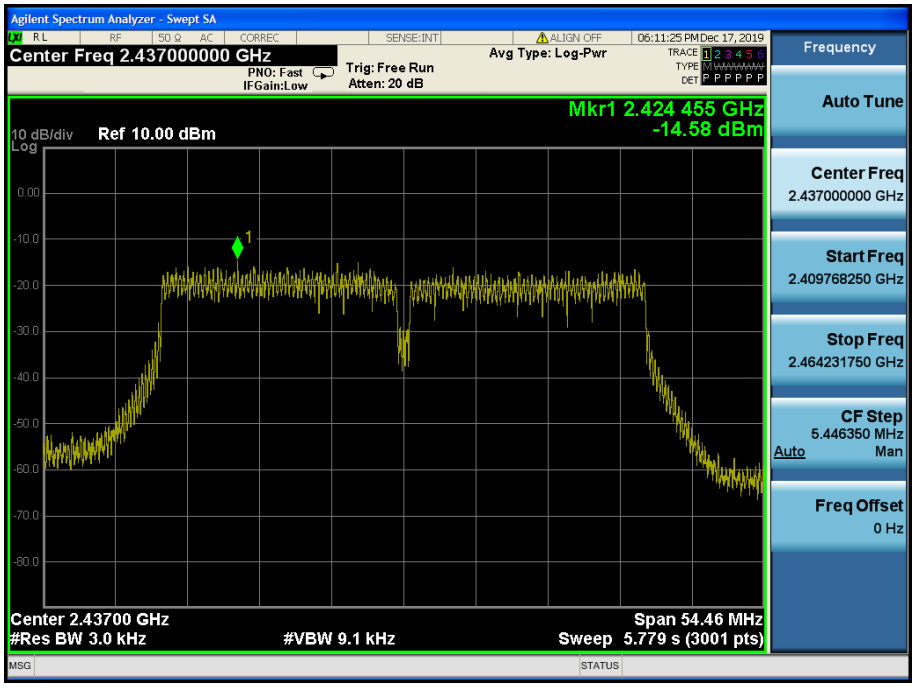
Maximum PPSD

TM 6 & ANT 2 & 2422



Maximum PPSD

TM 6 & ANT 2 & 2437



Maximum PPSD

TM 6 & ANT 2 & 2452