FCC RADIO TEST REPORT

FCC ID:X5B-048073

Report Reference No.....:	16FAB07011 11
Date of issue .....:	2016-07-21
FCC 2.948 No .....:	923232
Testing Laboratory .....:	ATT Product Service Co., Ltd.
Address.....:	No. 3, ChangLianShan Industrial Park, ChangAn Town, DongGuan City, GuangDong, China.
Applicant's name……..:	Performance Designed Products, LLC
Address……..:	14144 Ventura Blvd, Suite 200 Sherman Oaks,CA 91423 U.S.A
Manufacturer……..:	Performance Designed Products, LLC
Address……:	2300 West Empire Avenue Suite 600 Burbank CA 91504

Test specification:

Test item description .....:	Wireless Drum Kit Controller for Xbox One
Trade Mark.....:	--
Model/Type reference .....:	048-073
Ratings.....:	I/P: Battery 1.5Vdc*2

Responsible Engineer :

Smile Wang

Smile Wang

Authorized Signatory:

King Wang

King Wang

TABLE OF CONTENTS

TEST REPORT DECLARE

Applicant	:	Performance Designed Products, LLC
Address	:	14144 Ventura Blvd, Suite 200 Sherman Oaks,CA 91423 U.S.A
Equipment under Test	:	Wireless Drum Kit Controller for Xbox One
Model No	:	048-073
Trade Mark	:	--
Manufacturer	:	Performance Designed Products, LLC
Address	:	14144 Ventura Blvd, Suite 200 Sherman Oaks,CA 91423 U.S.A

Test Standard Used: FCC Rules and Regulations Part 15 Subpart C : 2015.

Test procedure used: ANSI C63.10:2013, ANSI C63.4:2014, 558074 V03R05.

We Declare:

The equipment described above is tested by ATT Product Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and ATT Product Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these

tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	16FAB07011 11		
Date of Test:	2016-05-25---2016-07-06	**Date of Report**:	2016-07-21

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of ATT Product Service Co., Ltd.

1. Summary of test Standards and results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Results
6dB Bandwidth And 99% Occupied Bandwidth	§15.247 (a)(2)	PASS
Peak Output Power	§15.247(b)(3)	PASS
Power Spectral Density	§15.247(e)	PASS
Spurious Emissions at Antenna Port	§15.247(d)	PASS
Spurious Emissions	§15.205, §15.209, §15.247(d)	PASS
100 kHz Bandwidth of Frequency Band Edge	§15.247(d)	PASS
AC Line Conducted Emissions	§15.207 (a)	N/A
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL TEST INFORMATION

2.1. Accresitations

The measuring facility of laboratories has been authorized or registered by the following approval agencies

USA FCC Registration Number :923232

2.2. Description of EUT

EUT* Name	:	Performance Designed Products, LLC
Model Number	:	14144 Ventura Blvd, Suite 200 Sherman Oaks,CA 91423 U.S.A
Trade Mark	:	--
EUT function description	:	Please reference user manual of this device
Power supply	:	Battery 1.5Vdc*2
Radio Specification	:	IEEE802.11b/g/n20/n40
Operation frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n20: HT20: 2412MHz—2462MHz IEEE 802.11n40: HT40: 2422MHz—2452MHz
Modulation	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n20: HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n40: HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Type	:	PIFA antenna,maximum PK gain: 3dBi
Date of Receipt	:	2016-05-25
Sample Type	:	Series production

Note: EUT is the ab. of equipment under test.

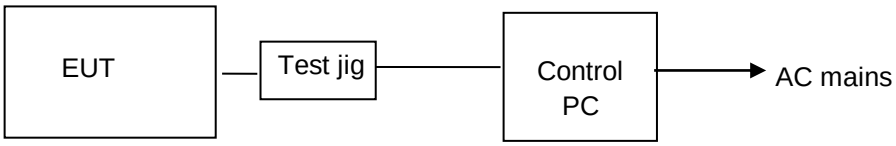
2.3. Accessories of EUT

Description of Accessories	Manufacturer	Model number or Type	Other
/	/	/	/

2.4. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	Other
Notebook	acer	Aspire E1-472G	FCC DoC

2.5. Block diagram of EUT configuration for test



EUT was connected to control to a special test jig provided by manufacturer which has a standard RSS-232 connector to connect to Notebook, and the Notebook will run a special test software "MP_v1.1.1" provided by manufacturer to control EUT work in test mode as blow table.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11n HT20	MCS 0	Low :CH1	2412
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH11	2462
IEEE 802.11n HT40	MCS 0	Low :CH3	2422
	MCS 0	Middle: CH6	2437
	MCS 0	High: CH9	2452
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test. Dutycycle>98%. New battery is used during all test.			

2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

2.7. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.44dB
Uncertainty for Radiation Emission test (150KHz-30MHz)	3.21dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.14 dB (Polarize: V)
	3.16 dB (Polarize: H)
Uncertainty for Radiation Emission test (1GHz to 25GHz)	2.08dB(Polarize: V)
	2.56dB (Polarize: H)
Uncertainty for radio frequency	1×10-9
Uncertainty for conducted RF Power	0.65dB

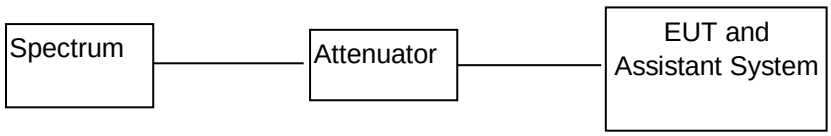
Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. 6dB Bandwidth and 99% Occupied Bandwidth

3.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Due.	Cal. Interval
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2017/05/05	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2016/12/19	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2016/12/19	1 Year

3.2. Block diagram of test setup



3.3. Limits

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 KHz

3.4. Test Procedure

(1) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

(2) Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to

measurement instrument. Then set it to any one convenient frequency within its operating range. Set a

reference level on the measuring instrument equal to the highest peak value.

(3) Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.

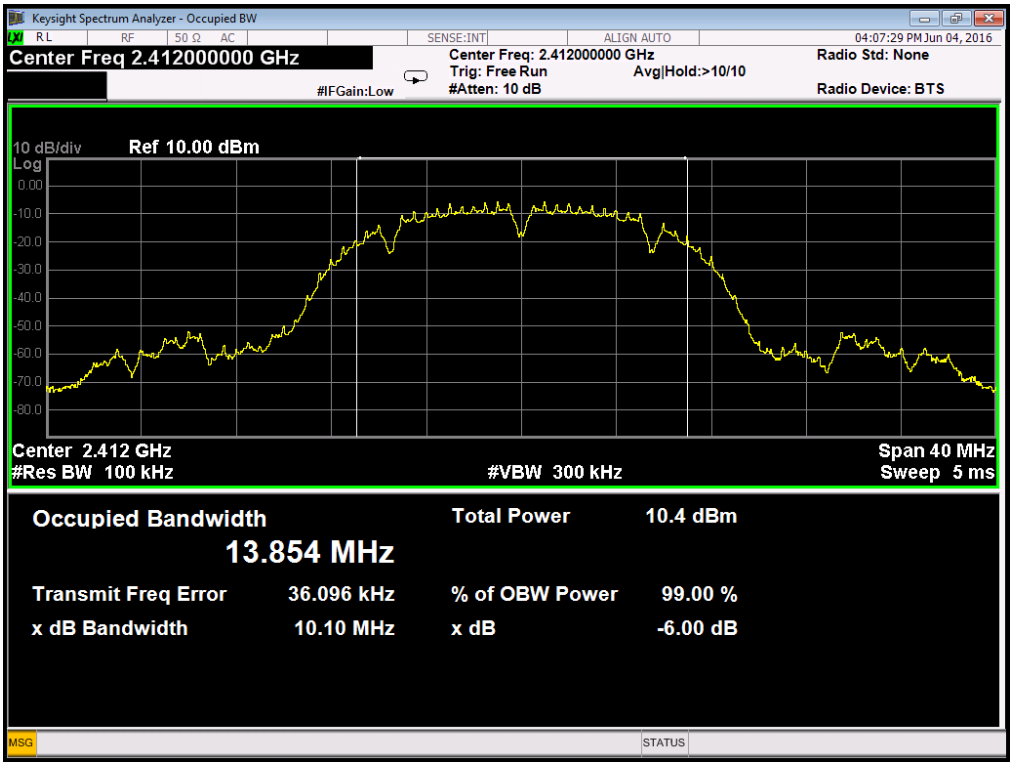
(4) Repeat above procedures until all frequencies measured were complete.

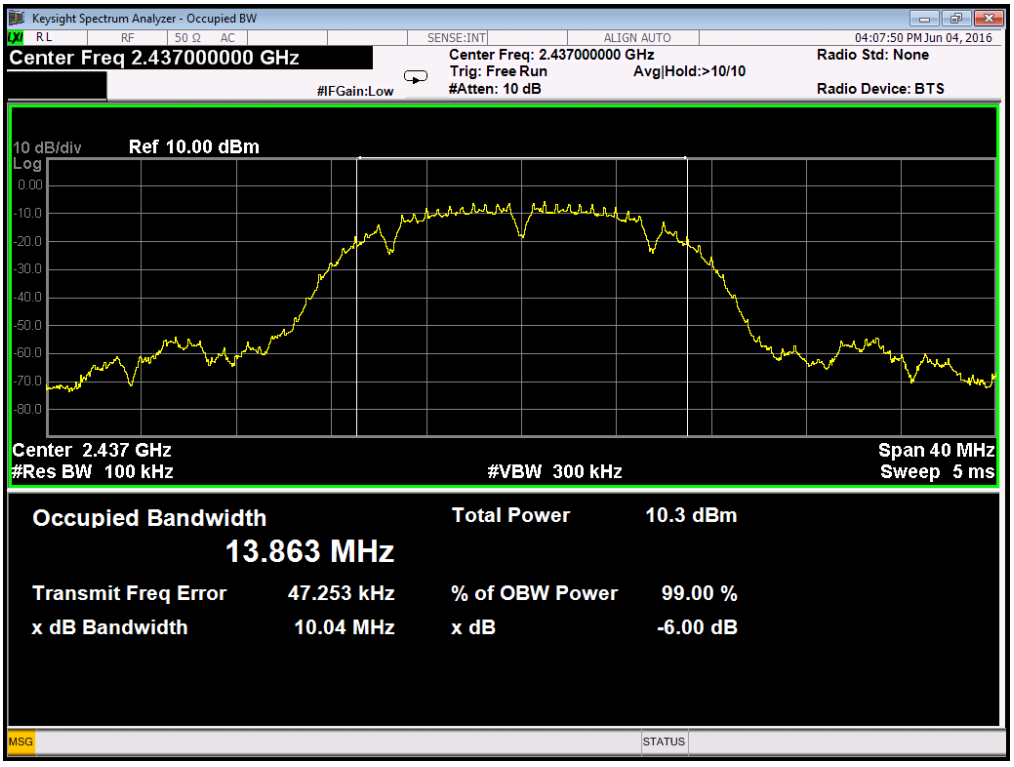
3.5. Test Result

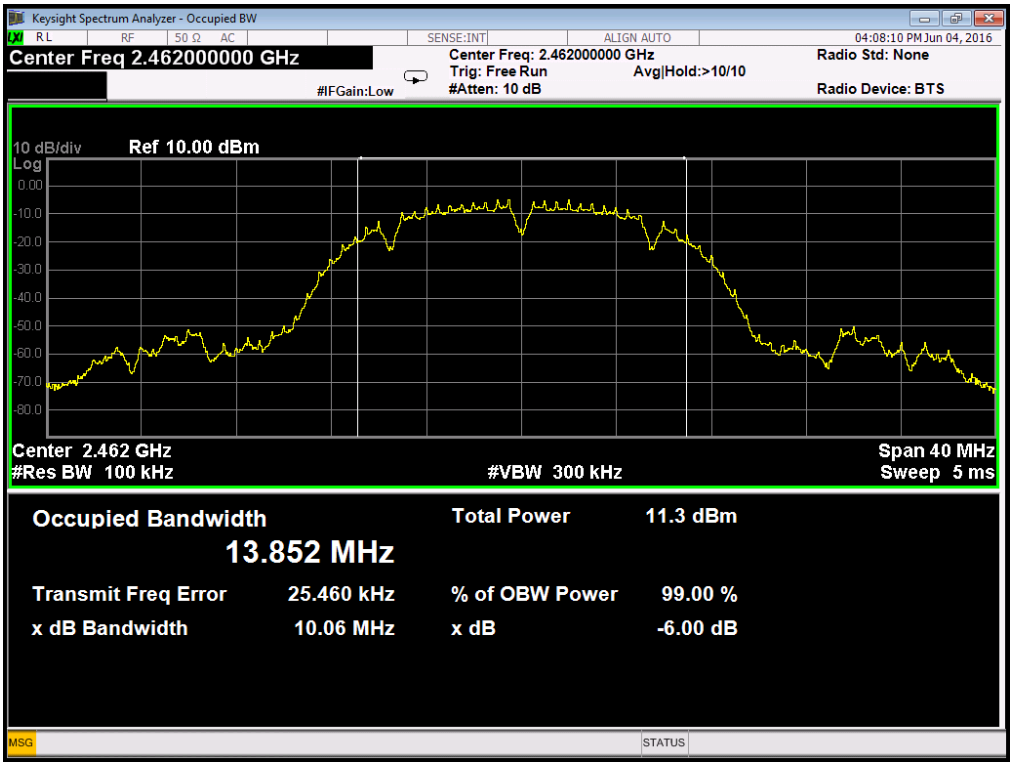
EUT Set Mode	CH or Frequency	6 dB bandwidth	99% dB bandwidth	Limt	Conclusion
		Result (MHz)	Result (MHz)	>500KHz	PASS
11b	CH1	10.10	13.85	>500KHz	PASS
	CH6	10.04	13.86	>500KHz	PASS
	CH11	10.06	13.85	>500KHz	PASS
11g	CH1	16.55	16.52	>500KHz	PASS
	CH6	16.57	16.51	>500KHz	PASS
	CH11	16.56	16.51	>500KHz	PASS
11n HT 20	CH1	17.79	17.69	>500KHz	PASS
	CH6	17.80	17.70	>500KHz	PASS
	CH11	17.78	17.69	>500KHz	PASS
11n HT 40	CH3	36.52	36.22	>500KHz	PASS
	CH6	36.52	36.22	>500KHz	PASS
	CH9	36.54	36.22	>500KHz	PASS

3.6. Original test data

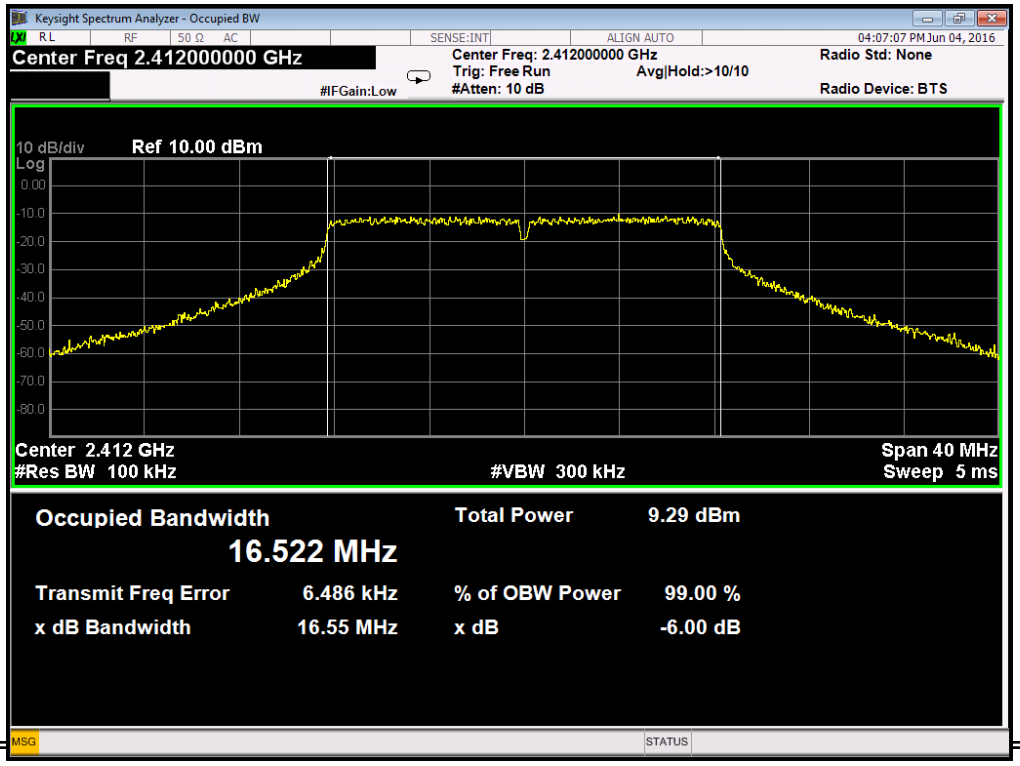
802.11 b Mode

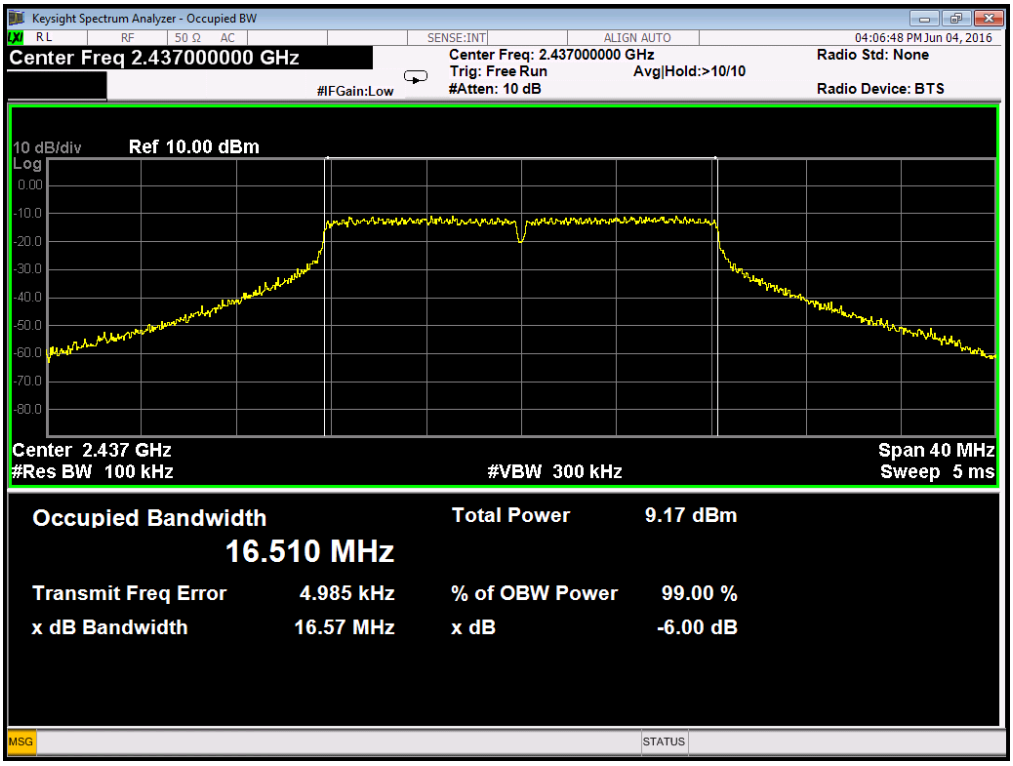

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:07:29 PM Jun 04, 2016
Center Freq 2.412000000 GHz
Center Freq: 2.412000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.412 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
13.854 MHz
Total Power 10.4 dBm
Transmit Freq Error 36.096 kHz
% of OBW Power 99.00 %
x dB Bandwidth 10.10 MHz
x dB -6.00 dB
MSG
STATUS

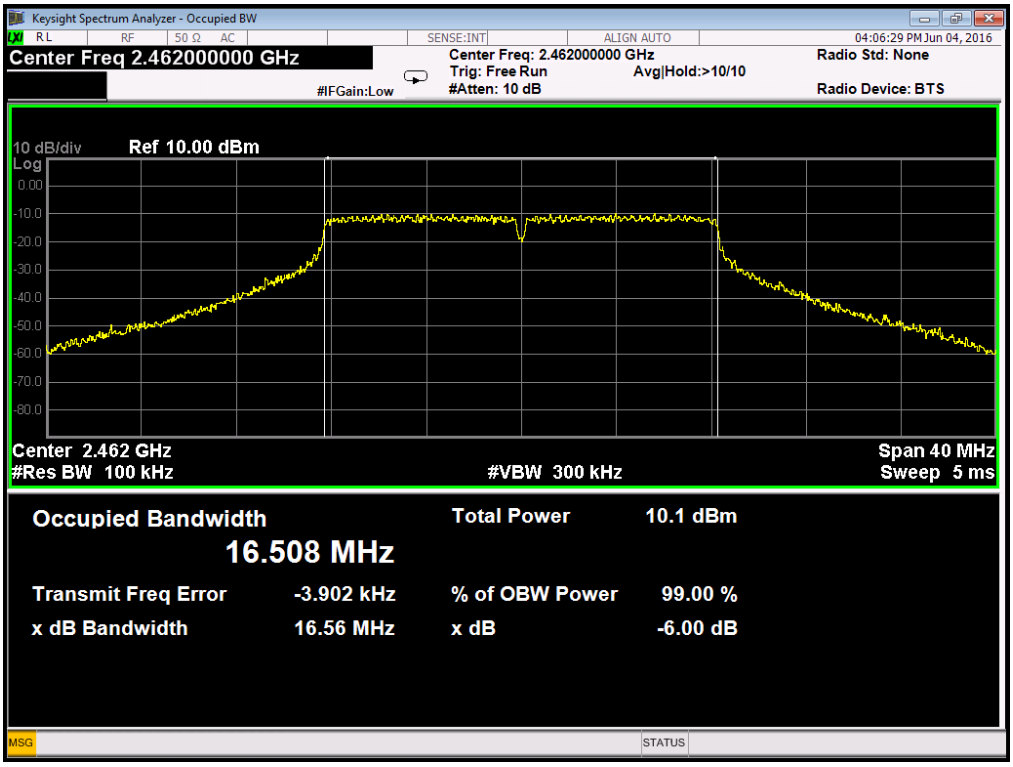

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:07:50 PM Jun 04, 2016
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
13.863 MHz
Total Power 10.3 dBm
Transmit Freq Error 47.253 kHz
% of OBW Power 99.00 %
x dB Bandwidth 10.04 MHz
x dB -6.00 dB
MSG
STATUS


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:08:10 PM Jun 04, 2016
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
13.852 MHz
Total Power 11.3 dBm
Transmit Freq Error 25.460 kHz
% of OBW Power 99.00 %
x dB Bandwidth 10.06 MHz
x dB -6.00 dB
MSG
STATUS

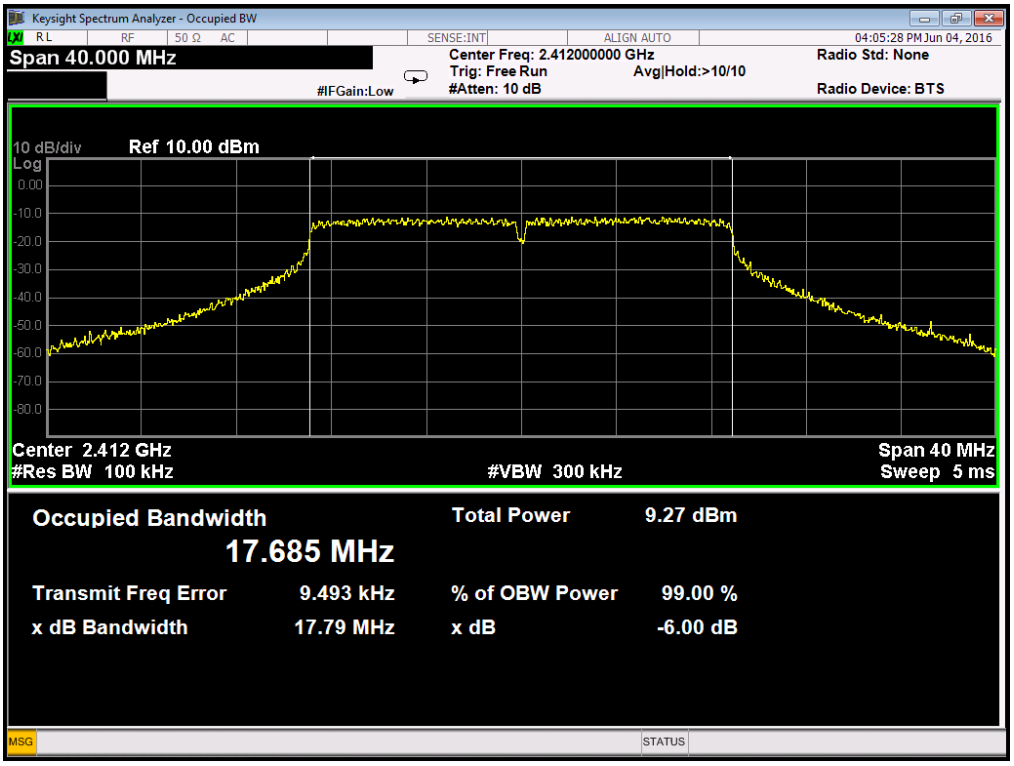
802.11 g Mode

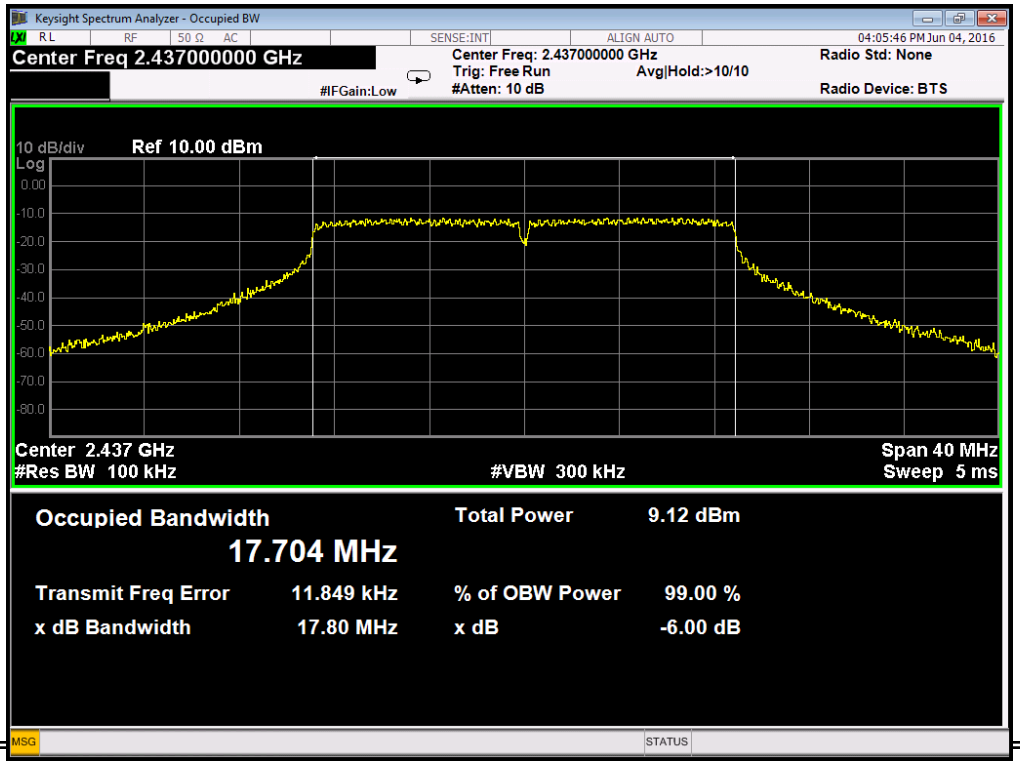

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:07:07 PM Jun 04, 2016
Center Freq 2.412000000 GHz
Center Freq: 2.412000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.412 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
16.522 MHz
Total Power 9.29 dBm
Transmit Freq Error 6.486 kHz
% of OBW Power 99.00 %
x dB Bandwidth 16.55 MHz
x dB -6.00 dB
MSG
STATUS

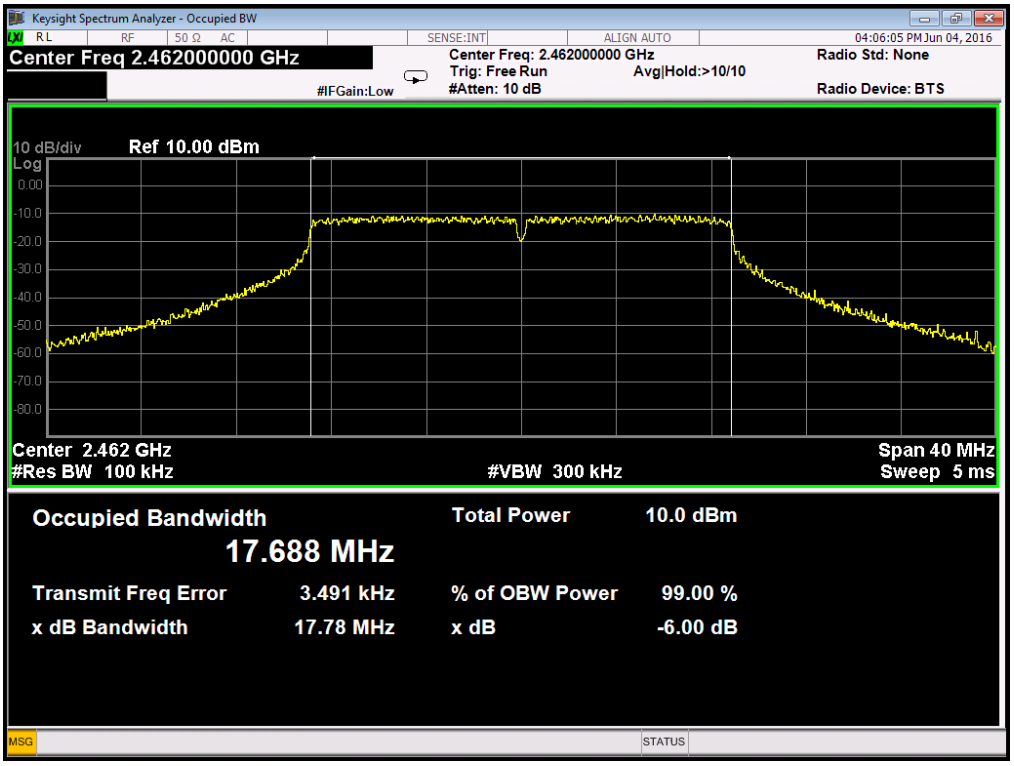

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:06:48 PM Jun 04, 2016
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
16.510 MHz
Total Power
9.17 dBm
Transmit Freq Error
4.985 kHz
% of OBW Power
99.00 %
x dB Bandwidth
16.57 MHz
x dB
-6.00 dB
MSG
STATUS


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:06:29 PM Jun 04, 2016
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
16.508 MHz
Total Power
10.1 dBm
Transmit Freq Error
-3.902 kHz
% of OBW Power
99.00 %
x dB Bandwidth
16.56 MHz
x dB
-6.00 dB
MSG
STATUS

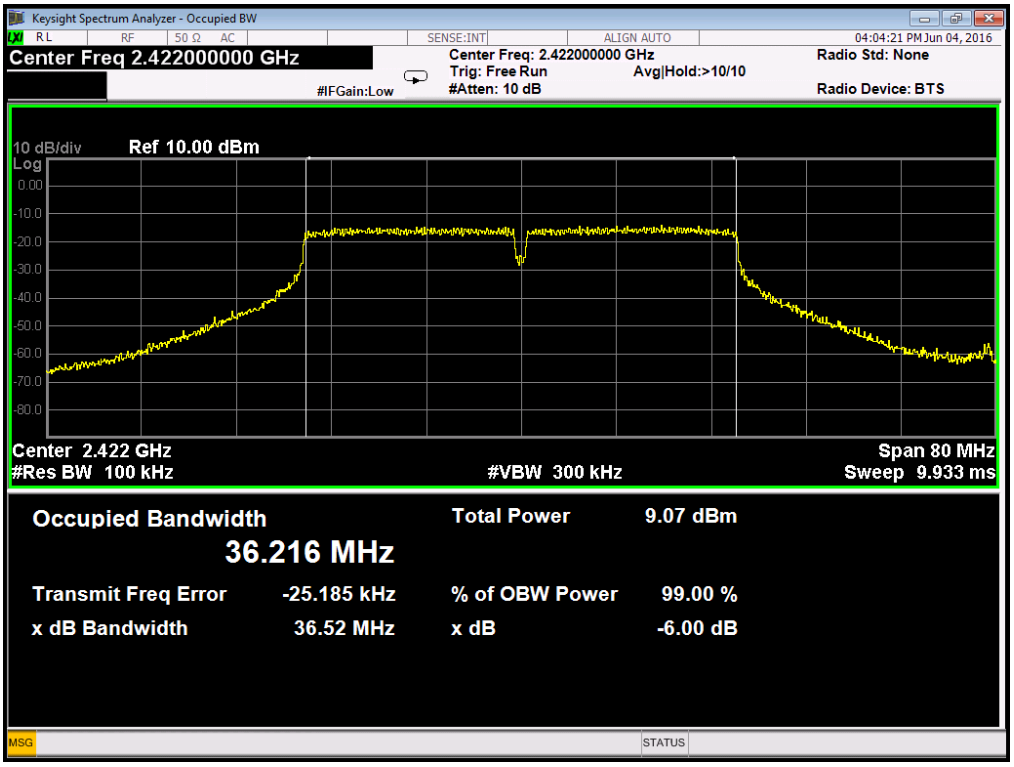
802.11 n20

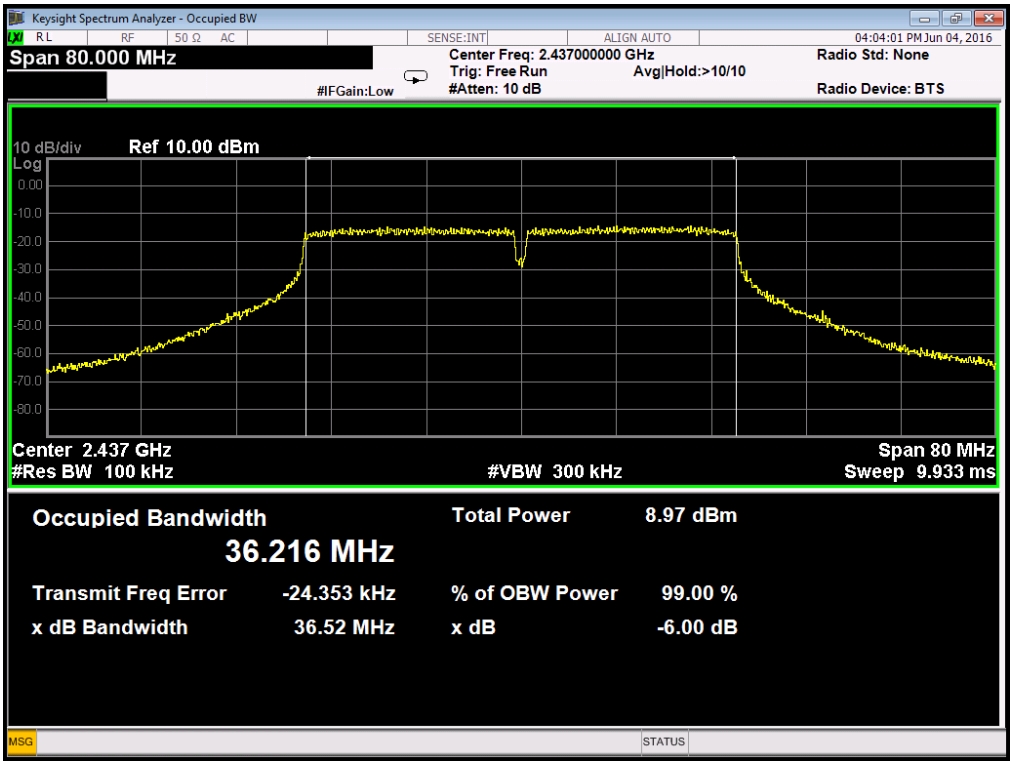

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:28 PM Jun 04, 2016
Span 40.000 MHz
Center Freq: 2.412000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.412 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
17.685 MHz
Total Power
9.27 dBm
Transmit Freq Error
9.493 kHz
% of OBW Power
99.00 %
x dB Bandwidth
17.79 MHz
x dB
-6.00 dB
MSG
STATUS

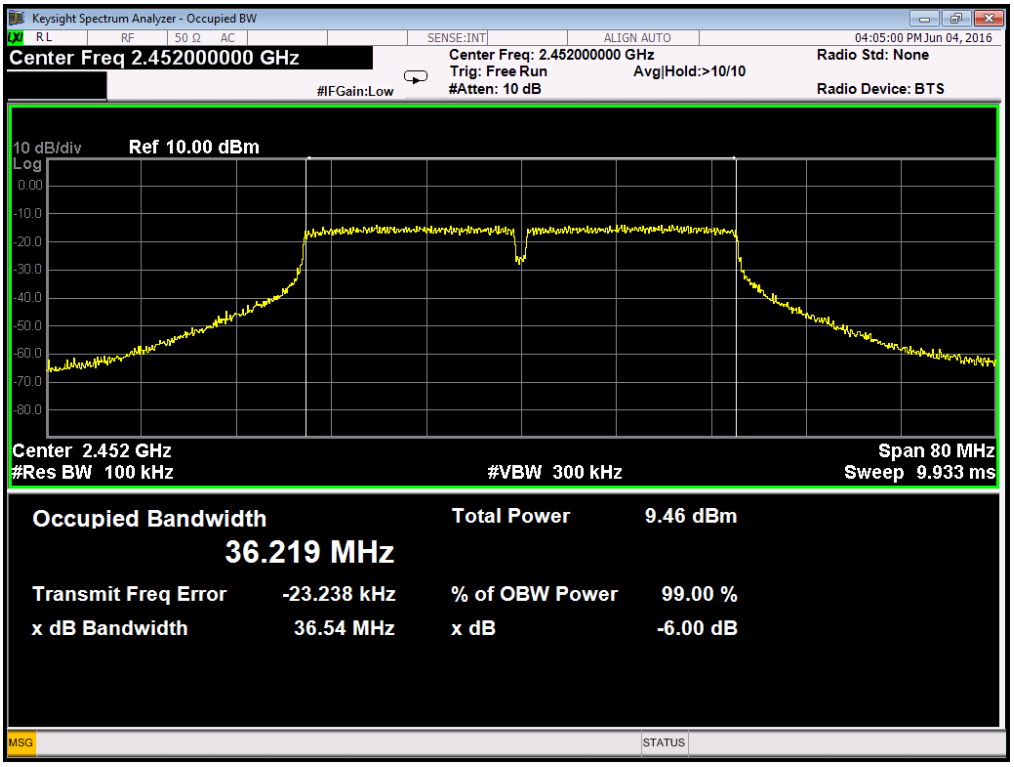

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:46 PM Jun 04, 2016
Center Freq 2.437000000 GHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Ref 10.00 dBm
Log
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
17.704 MHz
Total Power
9.12 dBm
Transmit Freq Error
11.849 kHz
% of OBW Power
99.00 %
x dB Bandwidth
17.80 MHz
x dB
-6.00 dB
MSG
STATUS


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:06:05 PM Jun 04, 2016
Center Freq 2.462000000 GHz
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 10 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 5 ms
Occupied Bandwidth
17.688 MHz
Total Power
10.0 dBm
Transmit Freq Error
3.491 kHz
% of OBW Power
99.00 %
x dB Bandwidth
17.78 MHz
x dB
-6.00 dB
MSG
STATUS

802.11 n40


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:04:21 PM Jun 04, 2016
Center Freq 2.422000000 GHz
Center Freq: 2.422000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.422 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 9.933 ms
Occupied Bandwidth
36.216 MHz
Total Power 9.07 dBm
Transmit Freq Error -25.185 kHz
% of OBW Power 99.00 %
x dB Bandwidth 36.52 MHz
x dB -6.00 dB
MSG
STATUS


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:04:01 PM Jun 04, 2016
Span 80.000 MHz
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 9.933 ms
Occupied Bandwidth
36.216 MHz
Total Power 8.97 dBm
Transmit Freq Error -24.353 kHz
% of OBW Power 99.00 %
x dB Bandwidth 36.52 MHz
x dB -6.00 dB
MSG
STATUS

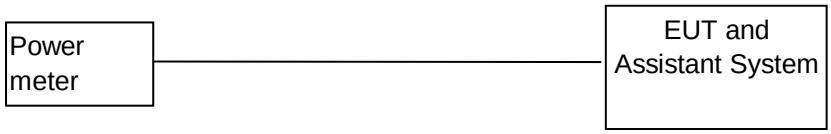

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:00 PM Jun 04, 2016
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#IFGain:Low
#Atten: 10 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.452 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 9.933 ms
Occupied Bandwidth
36.219 MHz
Total Power 9.46 dBm
Transmit Freq Error -23.238 kHz
% of OBW Power 99.00 %
x dB Bandwidth 36.54 MHz
x dB -6.00 dB
MSG
STATUS

4. Maximum Peak Output Power

4.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until	Cal. Interval
1	Power meter	Agilent	E4417A	MY45100473	2016/12/19	1Y
2	Wireband Power sensor	Agilent	E4427A	MY5100041	2016/12/19	1Y

4.2. Block diagram of test setup



4.3. Limits

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz bands: 1 Watt. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.4. Test Procedure

1. Place the EUT on a bench and set it in transmitting mode. .
2. A wide band power meter with a matched thermocouple detector was used to directly measure the output power from the RF output port of the EUT in continuously transmitting mode.
3. The measurement shall be repeated at the lowest, the middle, and the highest channel of the stated frequency range.

4.5. TEST RESULT

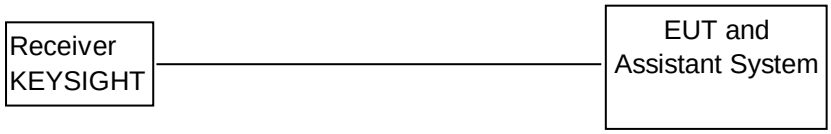
EUT Set Mode	Limit	Conclusion	CH	Result(dBm)
				Peak
11b	30dBm	PASS	CH1	2.64
			CH6	2.57
			CH11	2.34
11g	30dBm	PASS	CH1	2.88
			CH6	2.46
			CH11	2.53
11n HT20	30dBm	PASS	CH1	2.19
			CH6	2.44
			CH11	2.54
11n HT40	30dBm	PASS	CH3	2.76
			CH6	2.67
			CH9	2.38

5. Power Spectral Density

5.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Due.	Cal. Interval
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2017/05/05	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2016/12/19	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2016/12/19	1 Year

5.2. Block diagram of test setup



5.3. Limits

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

5.4. TEST PROCEDURE

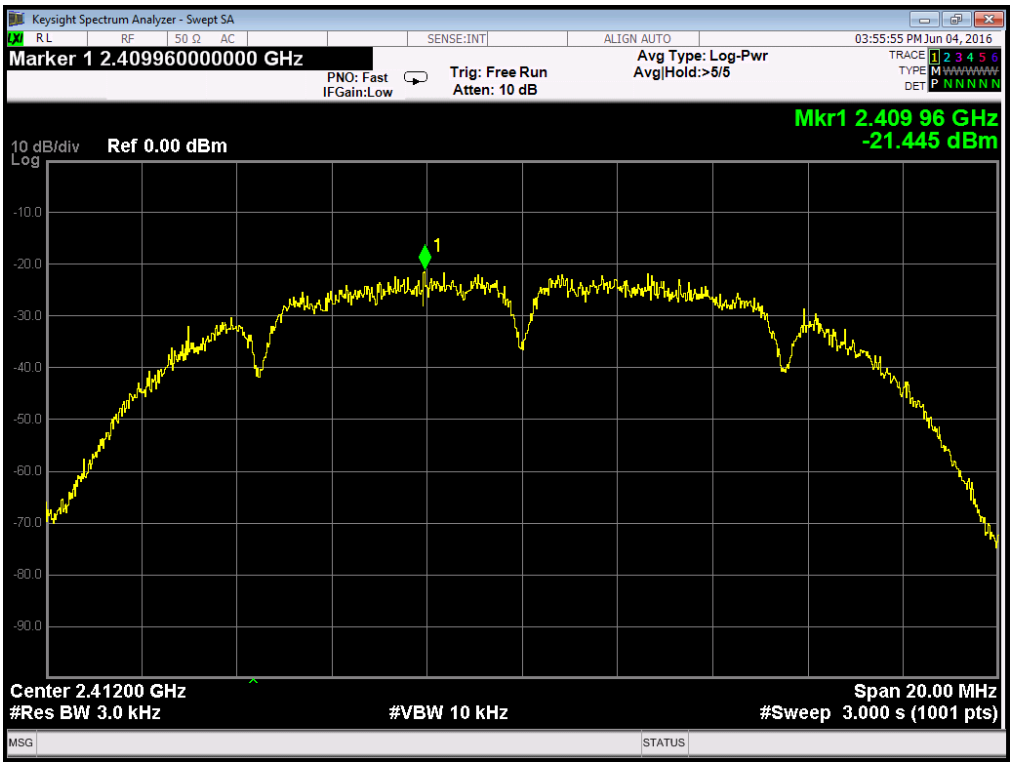
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generatorl.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range
3. According to KDB 558074 D01 DTS Meas Guidance v03, set the RBW = 3 kHz, VBW = 30 kHz, Set the span to 1.5 times the DTS channel bandwidth.
4. Use the peak marker function to determine the maximum power level in any 3 kHz band segment within the fundamental EBW

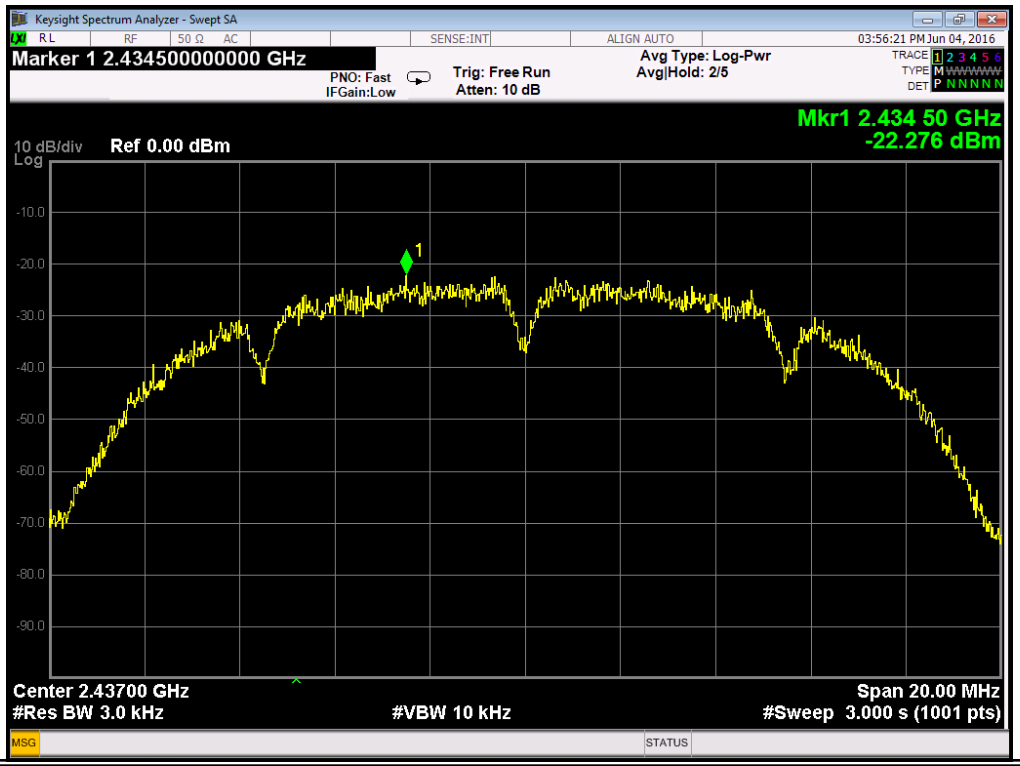
5.5. Test Result

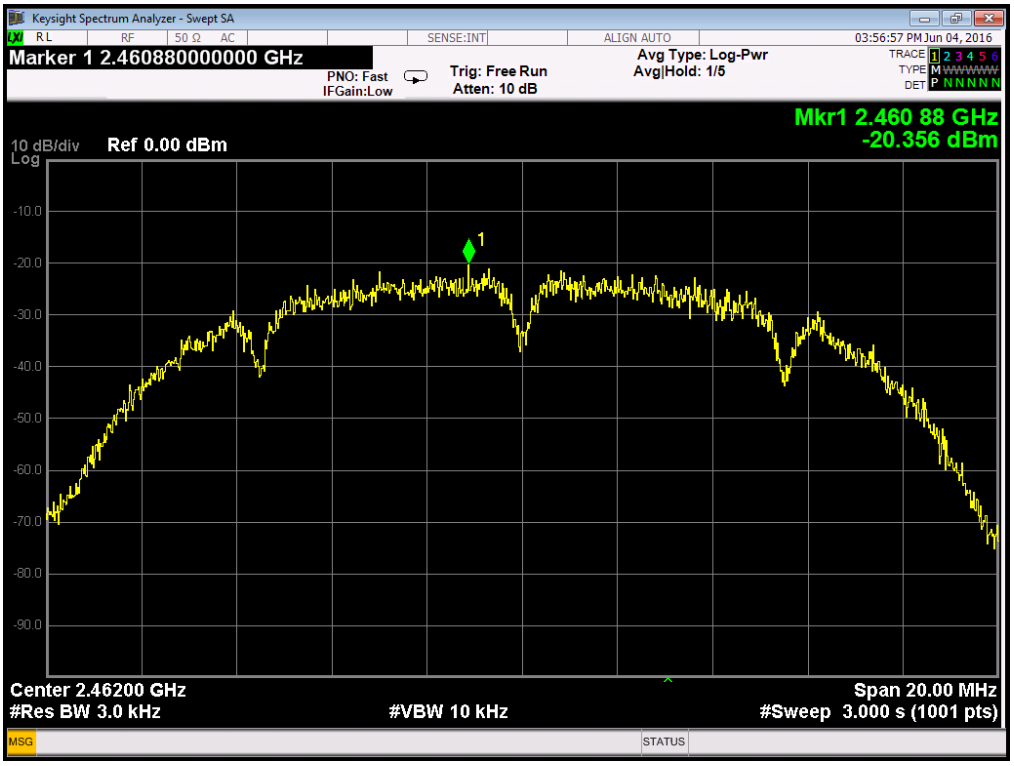
EUT Set Mode	CH or Frequency	Result	Limit: <dBm/3KHz	Conclusion
11b	CH1	-21.445	8	PASS
	CH6	-22.276	8	PASS
	CH11	-20.356	8	PASS
11g	CH1	-23.442	8	PASS
	CH6	-22.214	8	PASS
	CH11	-23.157	8	PASS
11n HT 20	CH1	-23.373	8	PASS
	CH6	-23.845	8	PASS
	CH11	-22.146	8	PASS
11n HT 40	CH3	-26.077	8	PASS
	CH6	-26.475	8	PASS
	CH9	-25.511	8	PASS

5.6. Original test data

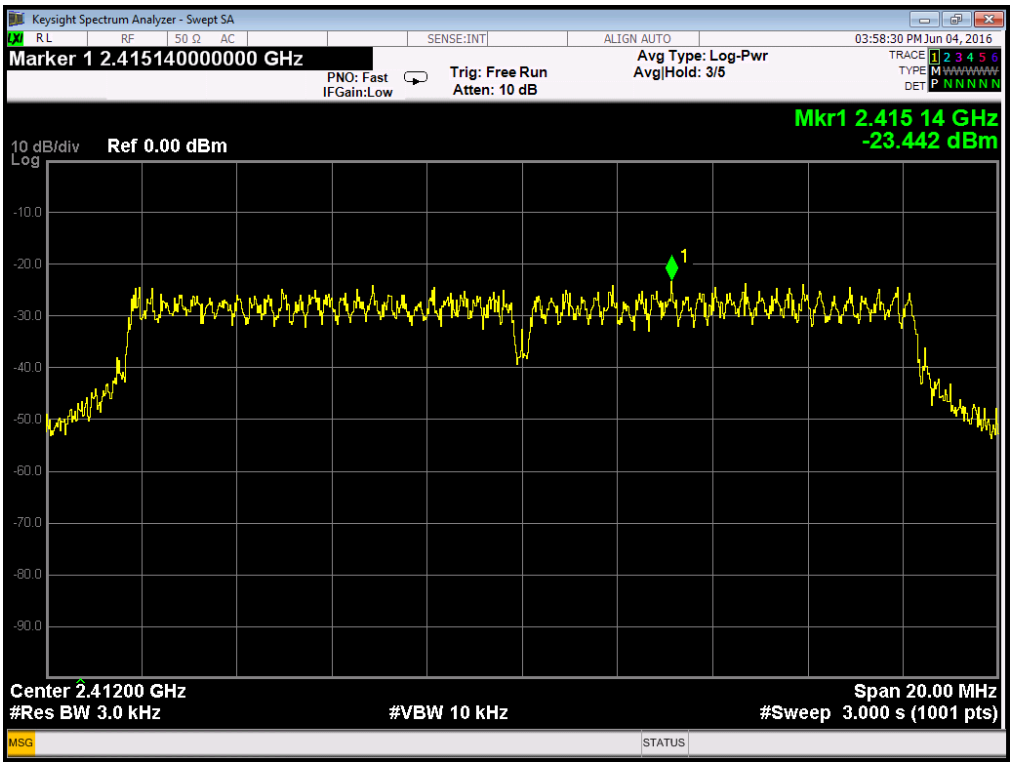
802.11 b Mode

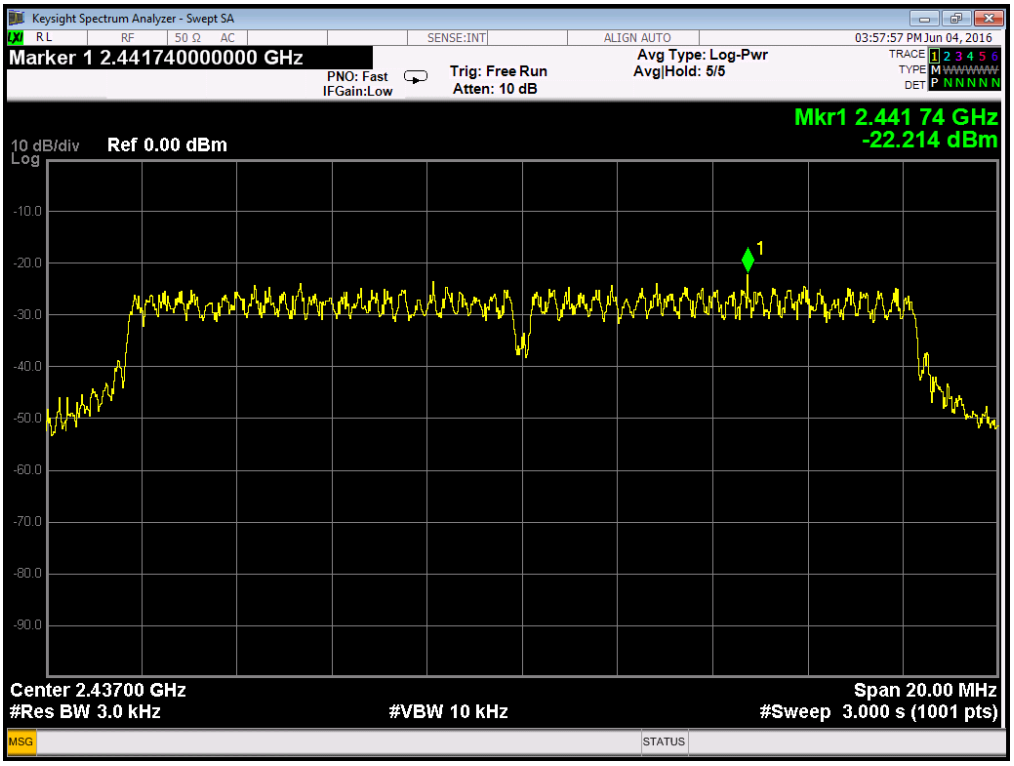


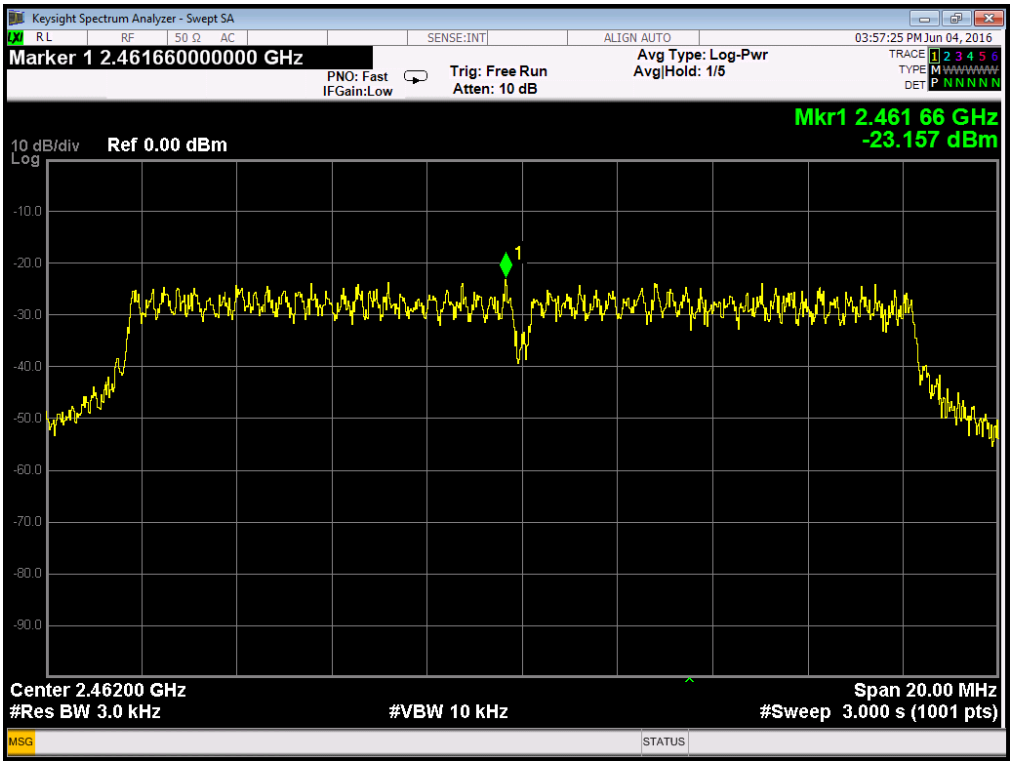



Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:56:57 PM Jun 04, 2016
Marker 1 2.460880000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.460 88 GHz
-20.356 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 20.00 MHz
#Sweep 3.000 s (1001 pts)
MSG
STATUS

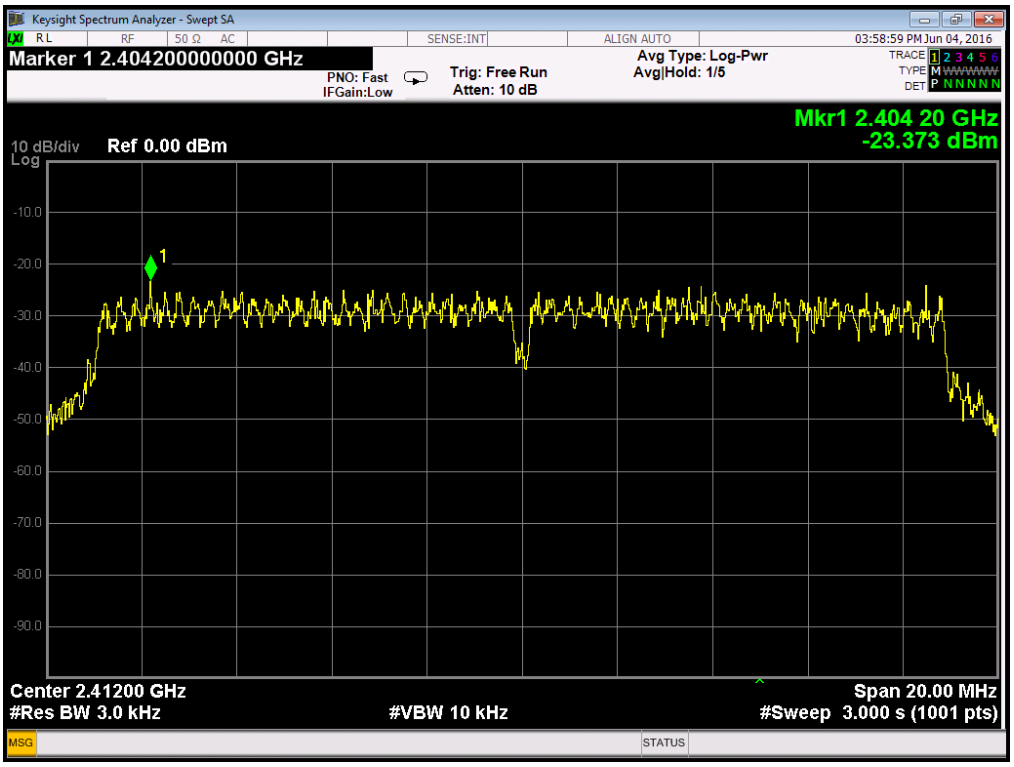
802.11 g Mode

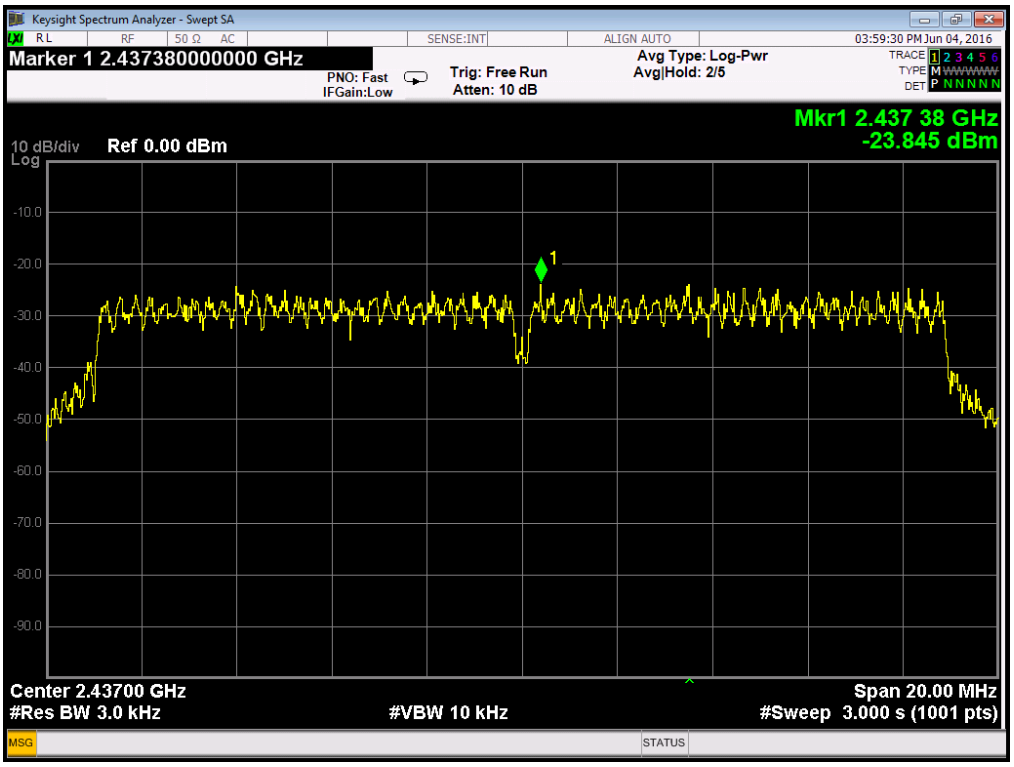

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:58:30 PM Jun 04, 2016
Marker 1 2.415140000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 3/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.415 14 GHz
-23.442 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
Center 2.41200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 20.00 MHz
#Sweep 3.000 s (1001 pts)
MSG
STATUS

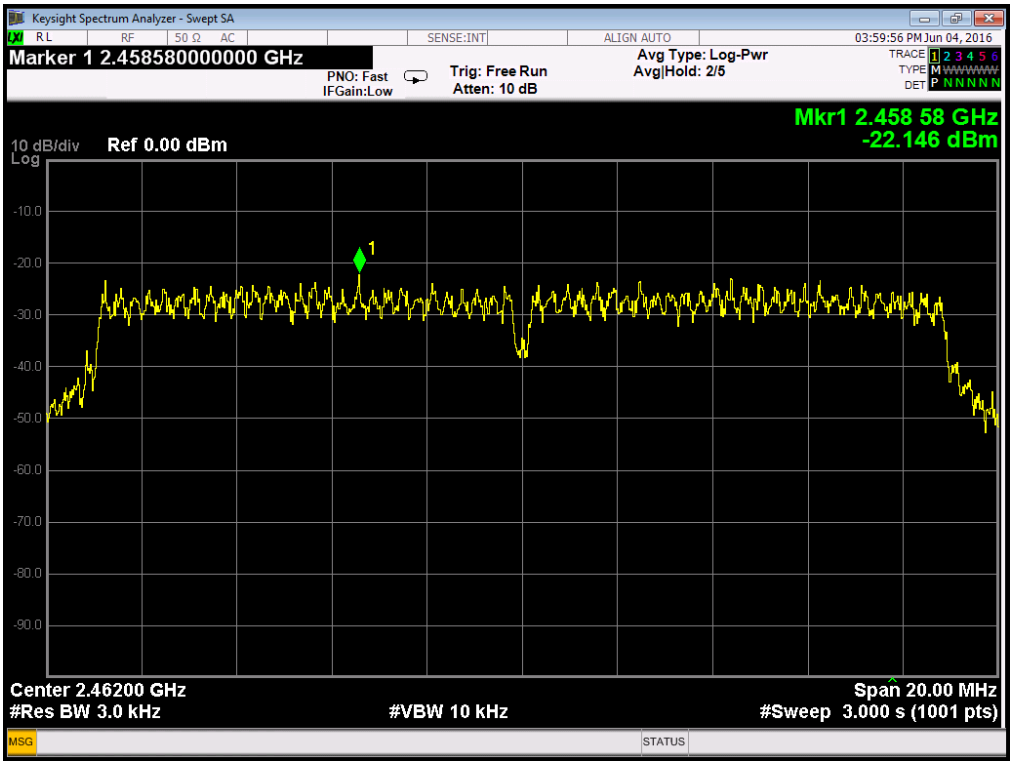

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:57:57 PM Jun 04, 2016
Marker 1 2.441740000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 5/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.441 74 GHz
-22.214 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Center 2.43700 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 20.00 MHz
#Sweep 3.000 s (1001 pts)
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:57:25 PM Jun 04, 2016
Marker 1 2.461660000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.461 66 GHz
-23.157 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
1
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 20.00 MHz
#Sweep 3.000 s (1001 pts)
MSG
STATUS

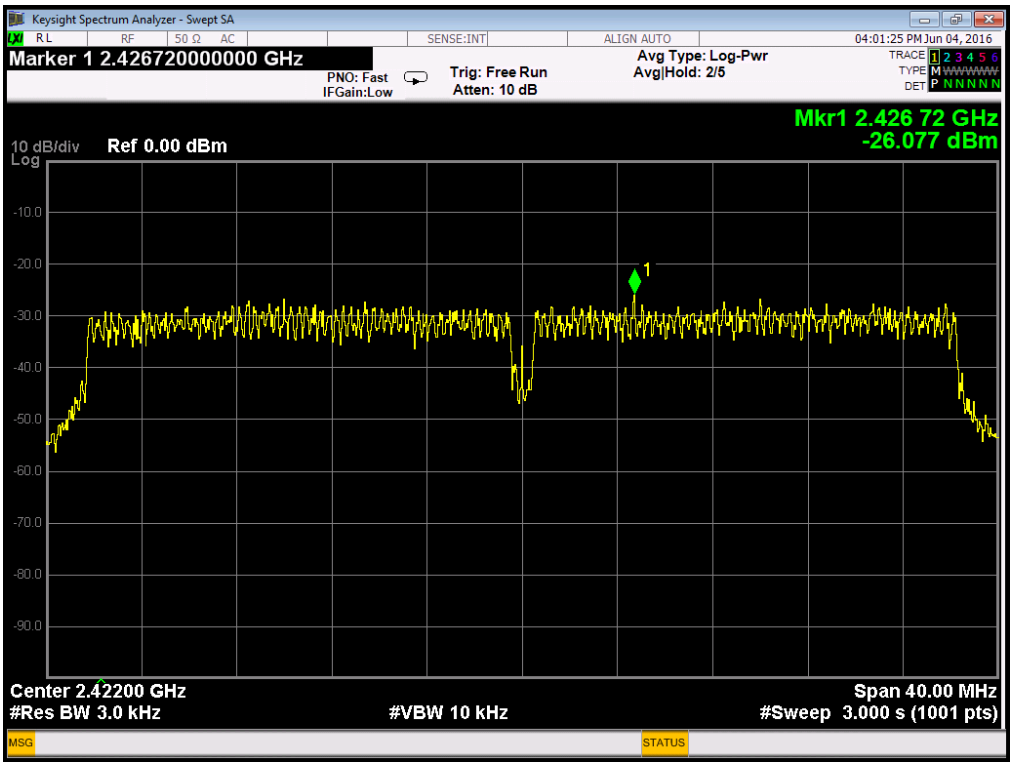
802.11 n20 Mode

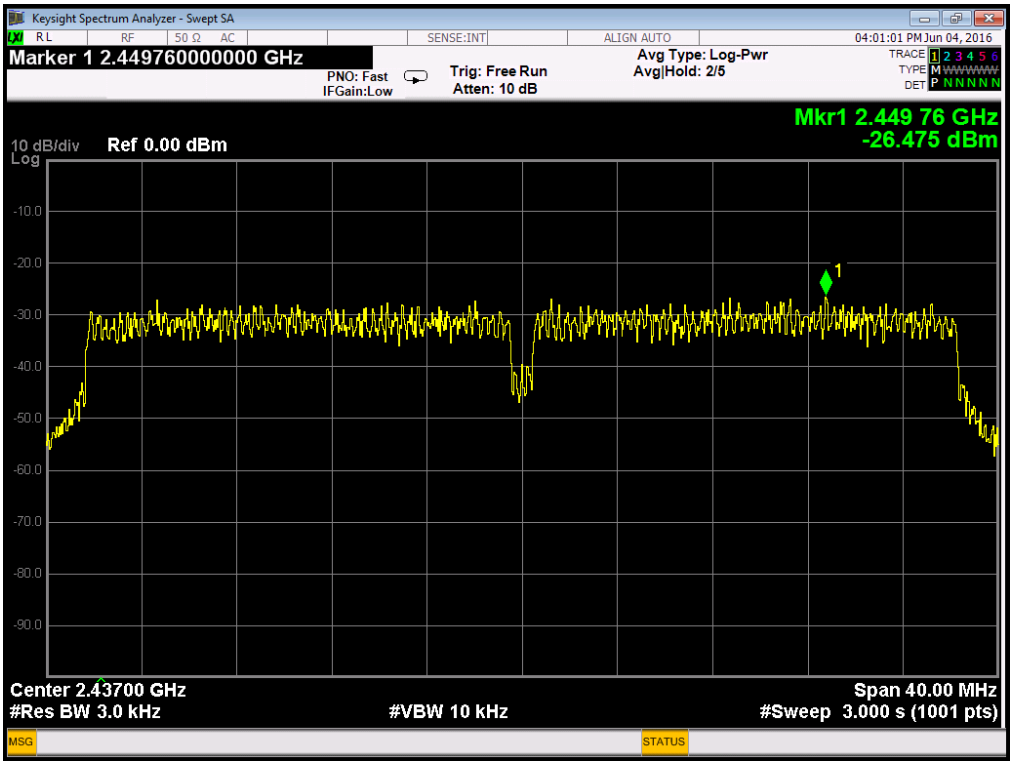


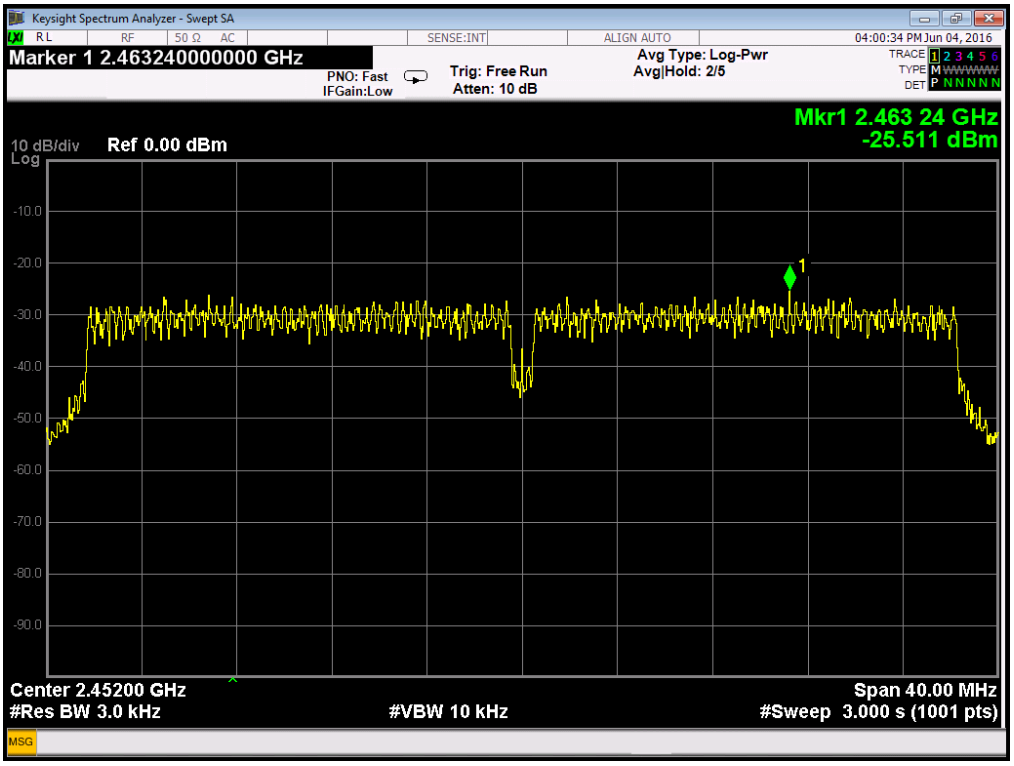




802.11 n40 Mode




Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:01:01 PM Jun 04, 2016
Marker 1 2.449760000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 2/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.449 76 GHz
-26.475 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
Center 2.43700 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 40.00 MHz
#Sweep 3.000 s (1001 pts)
MSG
STATUS


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:00:34 PM Jun 04, 2016
Marker 1 2.463240000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 2/5
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.463 24 GHz
-25.511 dBm
10 dB/div
Log
Ref 0.00 dBm
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
Center 2.45200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 40.00 MHz
#Sweep 3.000 s (1001 pts)
MSG

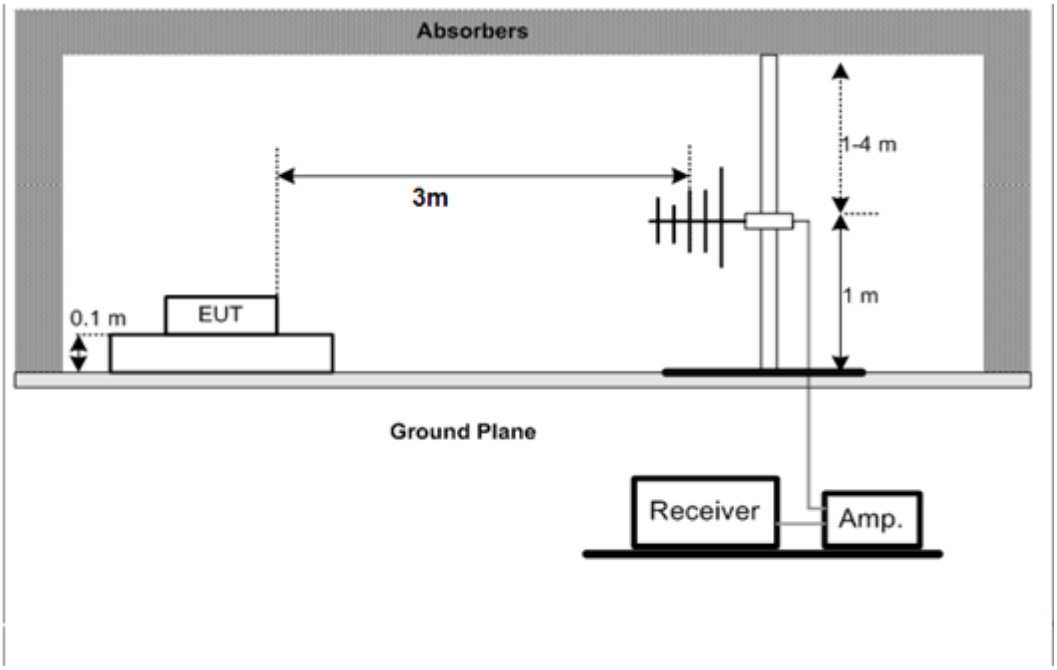
6. Spurious Emissions

6.1. Test equipment

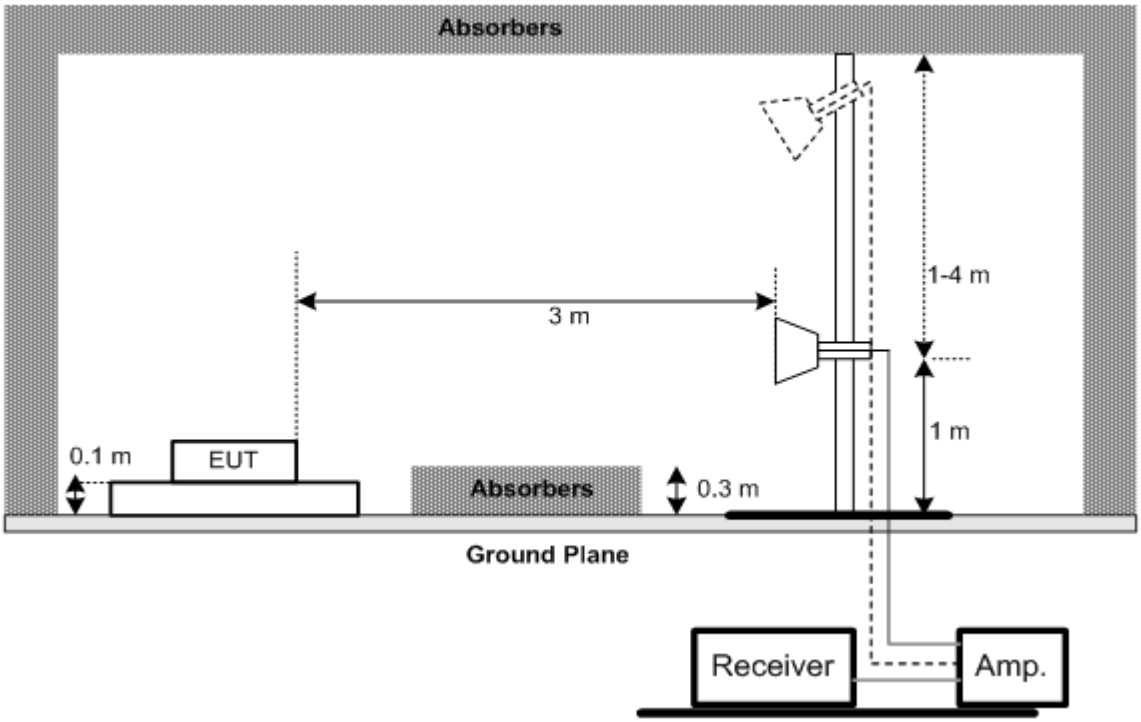
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until	Cal. Interval
1	EMI Test Receiver	R&S	ESCI	101307	2016/12/19	1Y
2	Spectrum analyzer	Agilent	E4407B	US40240708	2016/07/09	1Y
3	Loop antenna	Chase	HLA6120	20129	2016/12/19	1Y
4	Trilog Broadband Antenna	Schwarzbeck	VULB9163	9163-462	2016/12/19	1Y
5	Double Ridged Horn Antenna	Schwarzbeck	BBHA9120D	9120D 1065	2016/12/19	1Y
6	Pre-Amplifier	R&S	SCU-01	10049	2016/12/19	1Y
7	Pre-Amplifier	A.H.	PAM0-0118	360	2016/12/19	1Y
8	Pre-Amplifier	HP	8449B	3274A06298	2016/12/19	1Y
9	RF Cable	R&S	R01	10403	2016/12/19	1Y
10	RF Cable	R&S	R02	10512	2016/12/19	1Y
11	Horn Antenna	Schwarzbeck	BBHA 9170	9170 1248	2016/12/19	1Y

6.2. Block diagram of test setup

In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

6.3. Limit

6.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])

6.3.2 FCC 15.209 Limit

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

6.3.3 Limit for this EUT

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.10:2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

6.4. TEST PROCEDURE

(1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.

(2) Setup EUT and assistant system according clause 2.4 and 8.2

(3) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.

(a) Change work frequency or channel of device if practicable.

(b) Change modulation type of device if practicable.

(c) Change power supply range from 85% to 115% of the rated supply voltage

(d) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions

(4) Spectrum frequency from 9MHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 9KHz to 30MHz and 18GHz to 25GHz, so below final

test was performed with frequency range from 30MHz to 18GHz.

(5) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna

height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2009 on Radiated Emission test.

(6) For emissions from 30MHz to 1GHz, Quasi-Peak values were measured with EMI Receiver and the bandwidth of Receiver is 120 KHz.

(7)For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure, Detector is at PK; RBW is set at 1MHz, VBW is set at 3MHz for Average measure, Detector is at RMS..

6.5. Test result

Below 30M

EUT:	Wireless Drum Kit Controller for Xbox One	Model No.:	048-073
Temperature:	24℃ ·	Relative Humidity:	55%
Distance:	3m	Test Power:	3 Vdc
Polarization:	--	Test Result:	Pass
Test Mode:	Keeping TX mode	Test By:	Smile

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	P
--	--	--	--	P

Note:

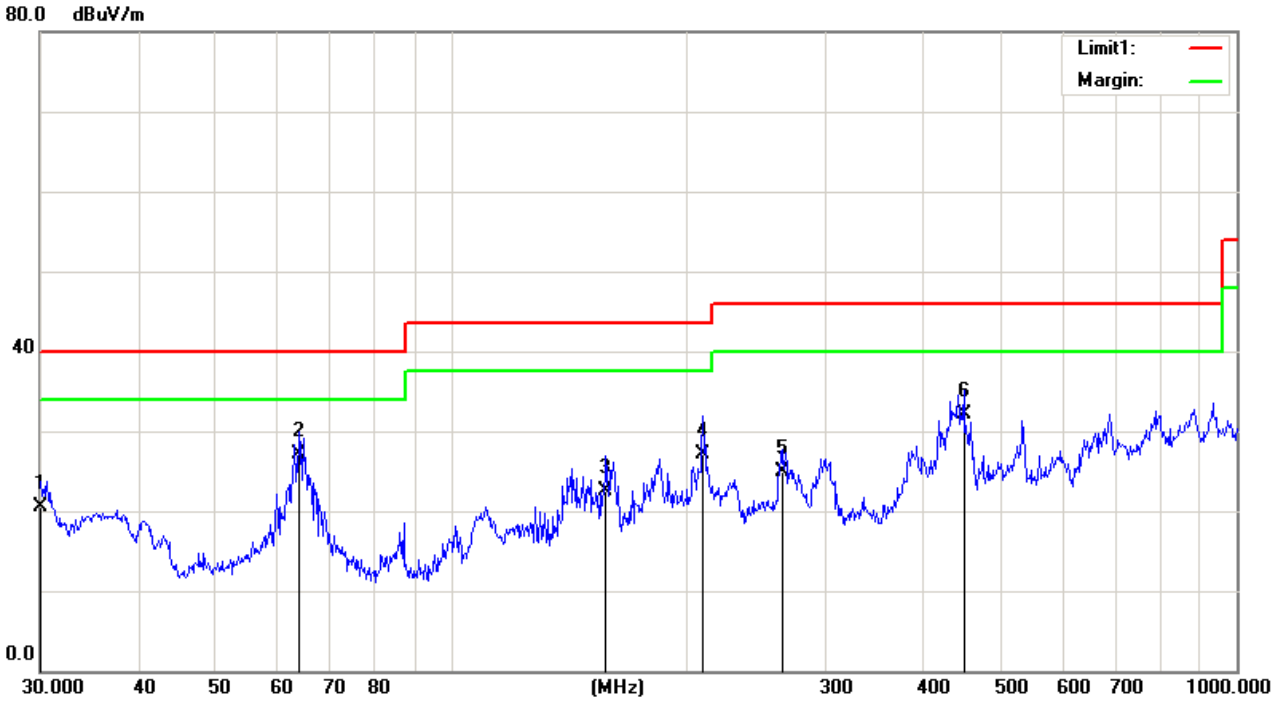
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =20 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor

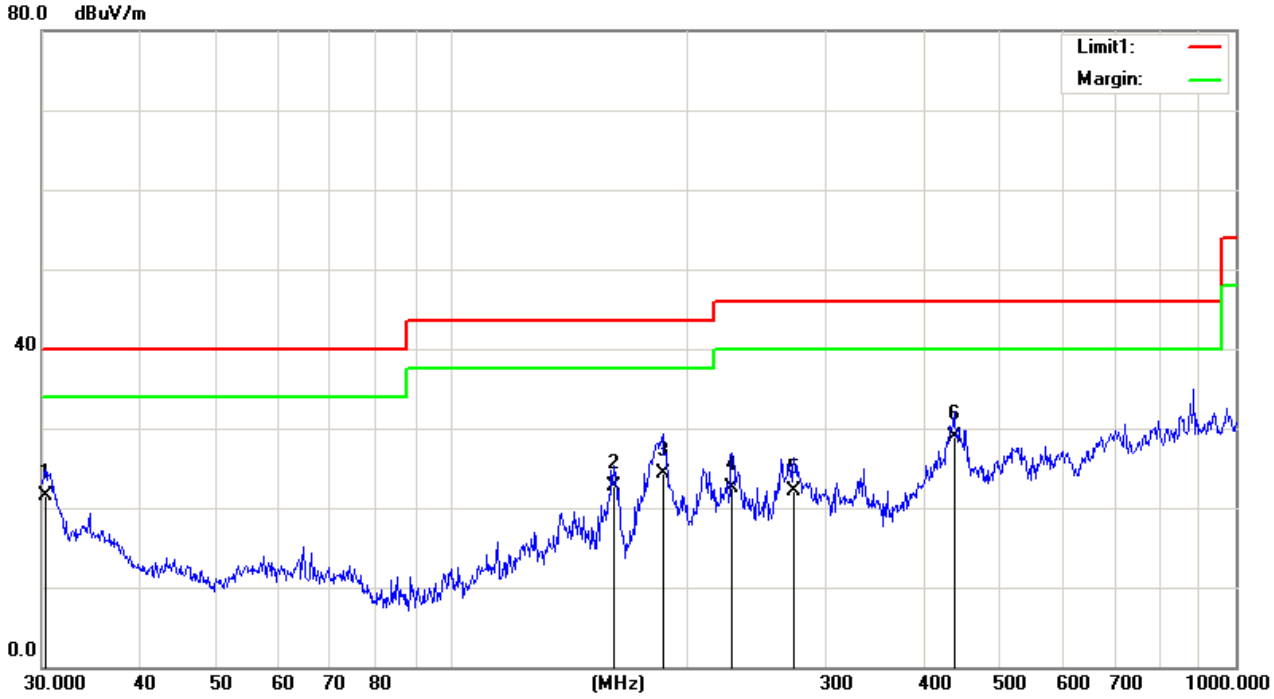
Between 30M – 1000 MHz

EUT:	Wireless Drum Kit Controller for Xbox One	Model No.:	048-073
Temperature:	24degree	Relative Humidity:	55%
Distance:	3m	Test Power:	DC 3V
Polarization:	Vertical	Test Result:	Pass
Standard:	(RE)FCC PART 15 class B 3m	Test By:	Smile
Test Mode:	Keeping TX Mdoe		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.1053	29.25	-8.71	20.54	40.00	-19.46	QP
2	64.2074	38.05	-11.01	27.04	40.00	-12.96	QP
3	157.5588	33.97	-11.39	22.58	43.50	-20.92	QP
4	209.3129	35.52	-8.36	27.16	43.50	-16.34	QP
5	263.8190	32.35	-7.42	24.93	46.00	-21.07	QP
6	449.5557	35.15	-3.14	32.01	46.00	-13.99	QP

EUT:	Wireless Drum Kit Controller for Xbox One	Model No.:	048-073
Temperature:	24degree	Relative Humidity:	55%
Distance:	3m	Test Power:	DC 3V
Polarization:	Horizontal	Test Result:	Pass
Standard:	(RE)FCC PART 15 class B 3m	Test By:	Smile
Test Mode:	Keeping TX Mdoe		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	30.3172	30.24	-8.73	21.51	40.00	-18.49	QP
2	160.9088	34.21	-11.46	22.75	43.50	-20.75	QP
3	185.7881	37.22	-12.83	24.39	43.50	-19.11	QP
4	227.6905	32.86	-10.40	22.46	46.00	-23.54	QP
5	273.2341	31.14	-9.07	22.07	46.00	-23.93	QP
6	437.1198	31.41	-2.50	28.91	46.00	-17.09	QP

Between 1000M – 25000 MHz

Test Site	:	3m Chamber			
EUT	:	Wireless Drum Kit Controller for Xbox One	**Tested By**	:	Smile
Power Supply	:	Battery 1.5Vdc*2	**Model Number**	:	048-073
Condition	:	Temp:24.5'C,Humi:55%, Press:100.1kPa	**Test Mode**	:	Tx mode
Memo	:	802.11b (worst case)	**Antenna/Distance**	:	VULB 9163 /3m

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	FCC 15.247	
(MHz)	Reading (dBµV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)	(dB)	(dB)	(dBµV/m)	Limit (dBµV/m)	Margin (dB)
Low Channel (2412)									
4824	45.36	PK	H	32.3	5.91	31.78	51.79	74	-22.21
4824	37.48	AV	H	32.3	5.91	31.78	43.91	54	-10.09
4824	44.69	PK	V	32.3	5.91	31.78	51.12	74	-22.88
4824	37.61	AV	V	32.3	5.91	31.78	44.04	54	-9.96
7236	43.74	PK	H	36.3	6.34	30.97	55.41	74	-18.59
7236	35.05	AV	H	36.3	6.34	30.97	46.72	54	-7.28
7236	42.66	PK	V	36.3	6.34	30.97	54.33	74	-19.67
7236	34.54	AV	V	36.3	6.34	30.97	46.21	54	-7.79
9648	42.51	PK	H	37.9	8.01	30.86	57.56	74	-16.44
9648	31.43	AV	H	37.9	8.01	30.86	46.48	54	-7.52
9648	42.71	PK	V	37.9	8.01	30.86	57.76	74	-16.24
9648	30.41	AV	V	37.9	8.01	30.86	45.46	54	-8.54
Middle Channel (2437)									
4874	46.52	PK	H	32.6	6.15	31.78	53.49	74	-20.51
4874	35.44	AV	H	32.6	6.15	31.78	42.41	54	-11.59
4874	44.89	PK	V	32.6	6.15	31.78	51.86	74	-22.14
4874	36.13	AV	V	32.6	6.15	31.78	43.1	54	-10.9
7311	45.18	PK	H	36.7	6.22	30.97	57.13	74	-16.87
7311	33.97	AV	H	36.7	6.22	30.97	45.92	54	-8.08
7311	43.24	PK	V	36.7	6.22	30.97	55.19	74	-18.81
7311	32.65	AV	V	36.7	6.22	30.97	44.6	54	-9.4
9748	40.39	PK	H	38.2	8.11	30.86	55.84	74	-18.16
9748	31.79	AV	H	38.2	8.11	30.86	47.24	54	-6.76
9748	39.58	PK	V	38.2	8.11	30.86	55.03	74	-18.97
9748	32.54	AV	V	38.2	8.11	30.86	47.99	54	-6.01

High Channel (2462)									
4924	46.28	PK	H	32.8	6.17	31.78	53.47	74	-20.53
4924	37.43	AV	H	32.8	6.17	31.78	44.62	54	-9.38
4924	45.99	PK	V	32.8	6.17	31.78	53.18	74	-20.82
4924	34.14	AV	V	32.8	6.17	31.78	41.33	54	-12.67
7386	42.82	PK	H	36.8	6.26	30.97	54.91	74	-19.09
7386	33.62	AV	H	36.8	6.26	30.97	45.71	54	-8.29
7386	41.58	PK	V	36.8	6.26	30.97	53.67	74	-20.33
7386	32.41	AV	V	36.8	6.26	30.97	44.5	54	-9.5
9848	40.96	PK	H	38.4	8.17	30.86	56.67	74	-17.33
9848	32.75	AV	H	38.4	8.17	30.86	48.46	54	-5.54
9848	39.46	PK	V	38.4	8.17	30.86	55.17	74	-18.83
9848	29.57	AV	V	38.4	8.17	30.86	45.28	54	-8.72

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2：802.11b g nH20 and H40 all have been tested ，only worse case 802.11b is reported

Radiated band edge:

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	FCC 15.247	
(MHz)	Reading (dBμV)	PK/QP/AV	Polar (H/V)	Factor (dB)	(dB)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
Lowest Channel (802.11B)									
2390	22.19	PK	H	28.4	3.57	0	54.16	74	-19.84
2390	13.46	AV	H	28.4	3.57	0	45.43	54	-8.57
2390	21.14	PK	V	28.4	3.57	0	53.11	74	-20.89
2390	12.69	AV	V	28.4	3.57	0	44.66	54	-9.34
Highest Channel (802.11B)									
2483.5	23.58	PK	H	28.7	3.62	0	55.90	74	-18.10
2483.5	13.49	AV	H	28.7	3.62	0	45.81	54	-8.19
2483.5	21.64	PK	V	28.7	3.62	0	53.96	74	-20.04
2483.5	13.02	AV	V	28.7	3.62	0	45.34	54	-8.66
Lowest Channel (802.11G)									
2390	24.36	PK	H	28.4	3.57	0	56.33	74	-17.67
2390	13.85	AV	H	28.4	3.57	0	45.82	54	-8.18
2390	23.71	PK	V	28.4	3.57	0	55.68	74	-18.32
2390	12.97	AV	V	28.4	3.57	0	44.94	54	-9.06
Highest Channel (802.11G)									
2483.5	25.94	PK	H	28.7	3.62	0	58.62	74	-15.74
2483.5	14.39	AV	H	28.7	3.62	0	46.71	54	-7.29
2483.5	23.82	PK	V	28.7	3.62	0	56.14	74	-17.86
2483.5	13.06	AV	V	28.7	3.62	0	45.38	54	-8.62

Frequency	Receiver		Rx Antenna		Cable loss	Amplifier Gain	Corrected Amplitude	FCC 15.247	
(MHz)	Reading (dBμV)	PK/QP/AV	Polar (H/V)	Factor (dB)	(dB)	(dB)	(dBμV/m)	Limit (dBμV/m)	Margin (dB)
Lowest Channel (802.11N HT20)									
2390	24.69	PK	H	28.4	3.57	0	56.66	74	-17.34
2390	15.39	AV	H	28.4	3.57	0	47.36	54	-6.64
2390	26.18	PK	V	28.4	3.57	0	58.15	74	-15.85
2390	15.41	AV	V	28.4	3.57	0	47.38	54	-6.62
Highest Channel (802.11N HT20)									
2483.5	26.45	PK	H	28.7	3.62	0	58.77	74	-15.23
2483.5	12.78	AV	H	28.7	3.62	0	45.10	54	-8.90
2483.5	24.63	PK	V	28.7	3.62	0	56.95	74	-17.05
2483.5	13.42	AV	V	28.7	3.62	0	45.74	54	-8.26
Lowest Channel (802.11N HT40)									
2390	26.39	PK	H	28.4	3.57	0	58.36	74	-15.64
2390	12.85	AV	H	28.4	3.57	0	44.82	54	-9.18
2390	25.46	PK	V	28.4	3.57	0	57.43	74	-16.57
2390	12.04	AV	V	28.4	3.57	0	44.01	54	-9.99
Highest Channel (802.11N HT40)									
2483.5	25.16	PK	H	28.7	3.62	0	57.48	74	-16.52
2483.5	13.85	AV	H	28.7	3.62	0	46.17	54	-7.83
2483.5	24.43	PK	V	28.7	3.62	0	56.75	74	-17.25
2483.5	12.97	AV	V	28.7	3.62	0	45.29	54	-8.71

Note: 1. Result Level = Read Level + Antenna Factor + Cable Loss- Amplifier Gain

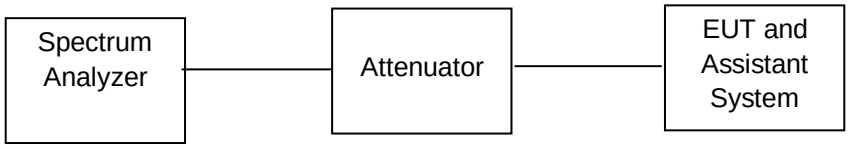
2. After test and evaluation hopping off mode and hopping on mode, will record worst case (hopping off mode) in this report.

7. 100 kHz Bandwidth of Frequency Band Edge

7.1. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Due.	Cal. Interval
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2017/05/05	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2016/12/19	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2016/12/19	1 Year

7.2. Block diagram of test setup



7.3. Limit

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

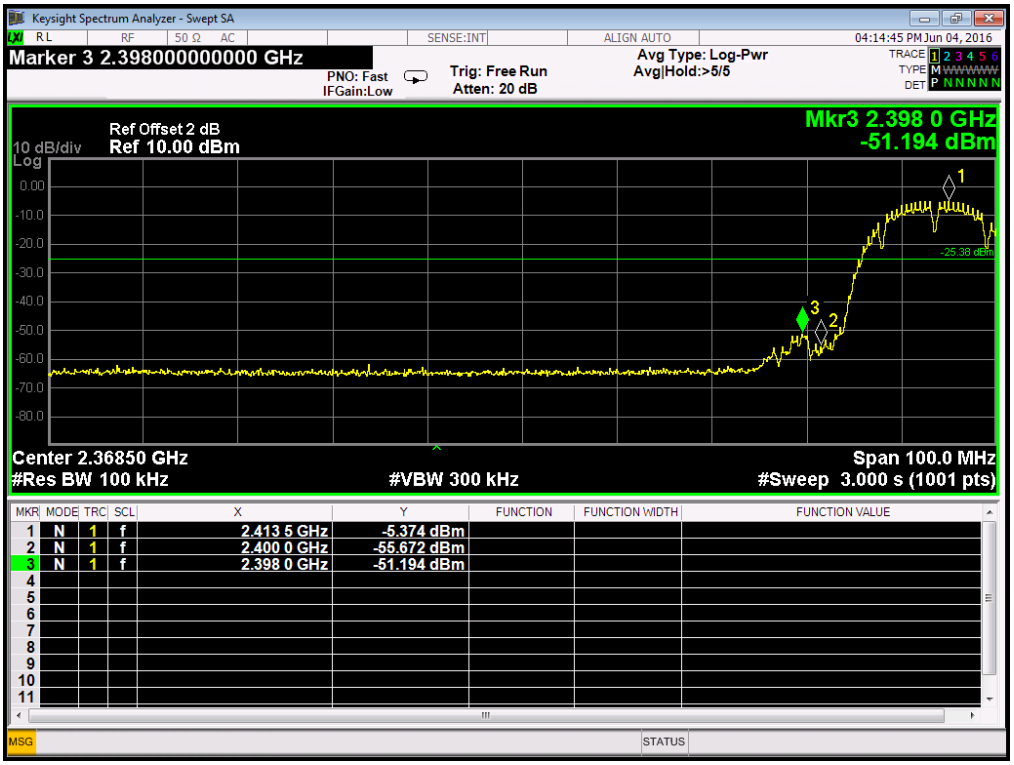
7.4. Test Procedure

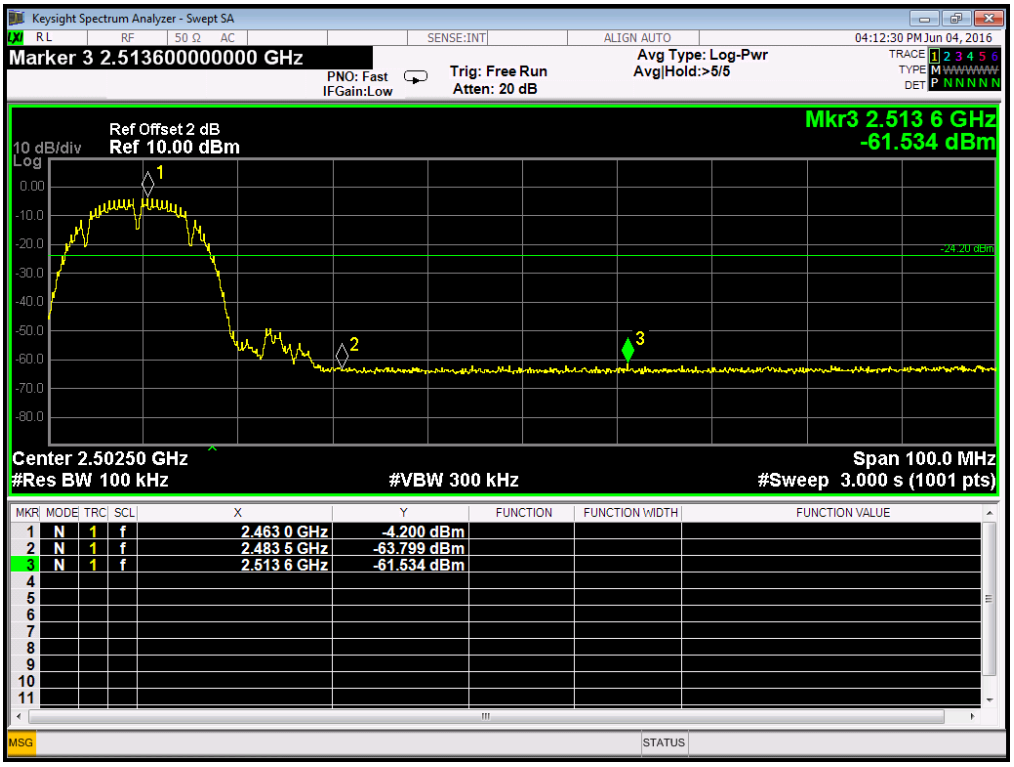
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

7.5. Test result

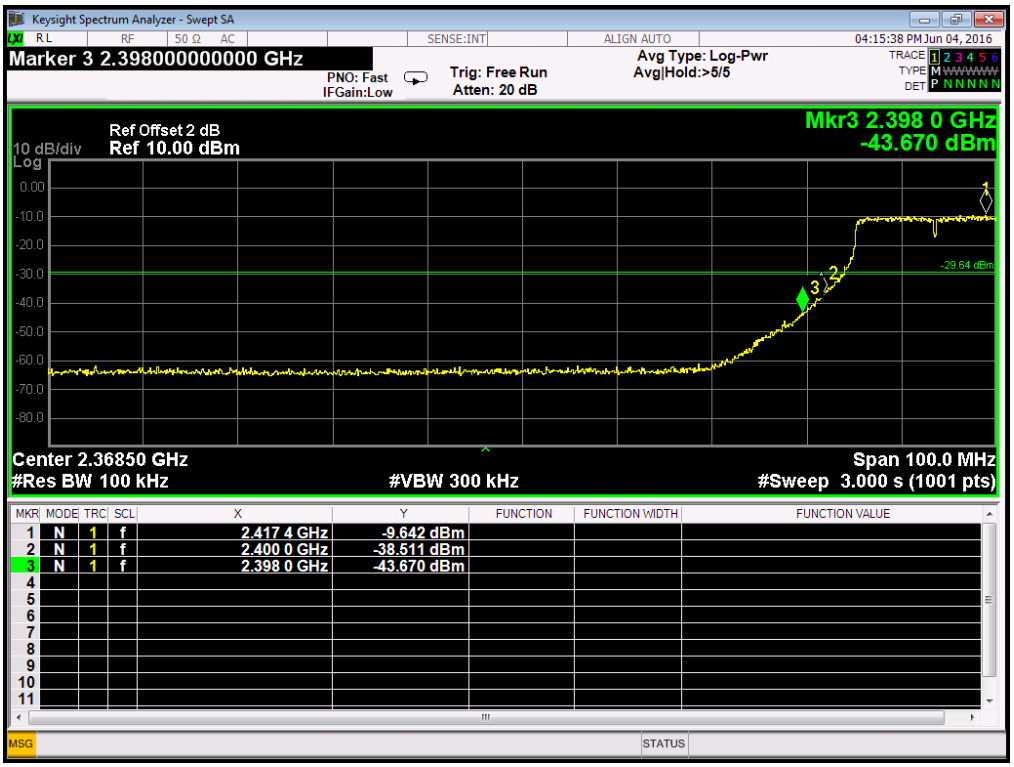
Frequency Band	Delta Peak to band emission (dBc)	＞Limit (dBc)	Result
802.11 b Mode			
2400	59.60	20	Pass
2483.5	50.30	20	Pass
802.11 g Mode			
2400	29.05	20	Pass
2483.5	53.30	20	Pass
802.11 n20 Mode			
2400	27.29	20	Pass
2483.5	47.37	20	Pass
802.11 n40 Mode			
2400	27.01	20	Pass
2483.5	40.78	20	Pass

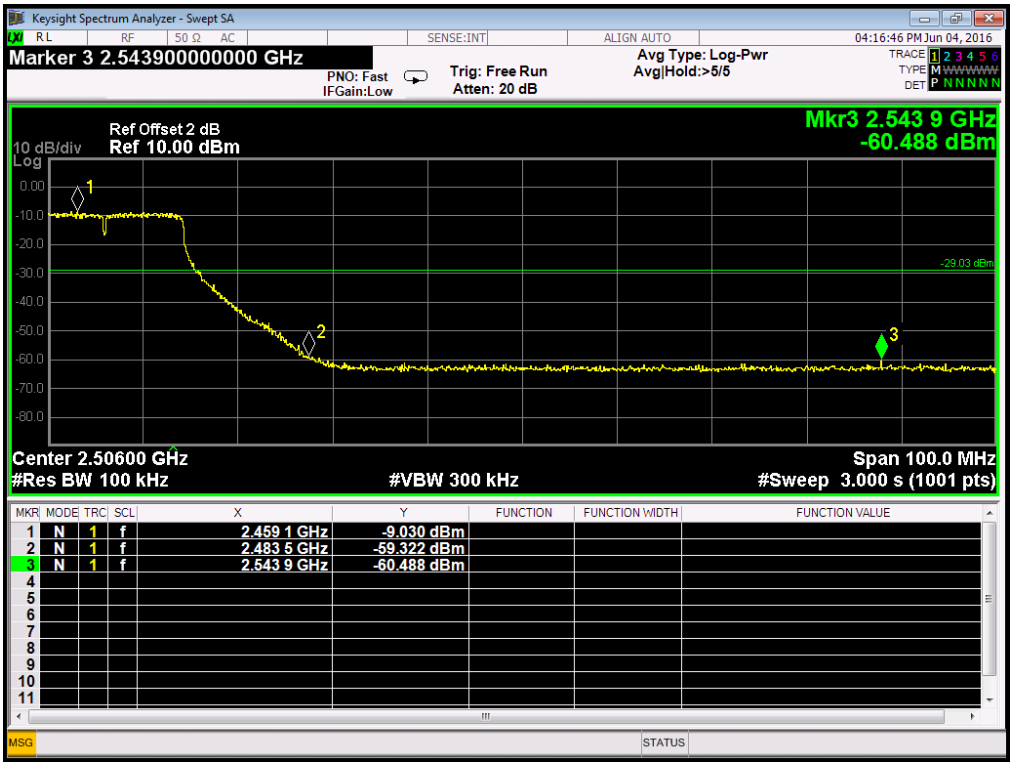
802.11 b Mode


Keysight Spectrum Analyzer - Swept SA
Marker 3 2.398000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold:>5/5
04:14:45 PM Jun 04, 2016
Ref Offset 2 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr3 2.398 0 GHz
-51.194 dBm
-25.38 dBm
Center 2.36850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
#Sweep 3.000 s (1001 pts)
1 N 1 f 2.413 5 GHz -5.374 dBm
2 N 1 f 2.400 0 GHz -55.672 dBm
3 N 1 f 2.398 0 GHz -51.194 dBm

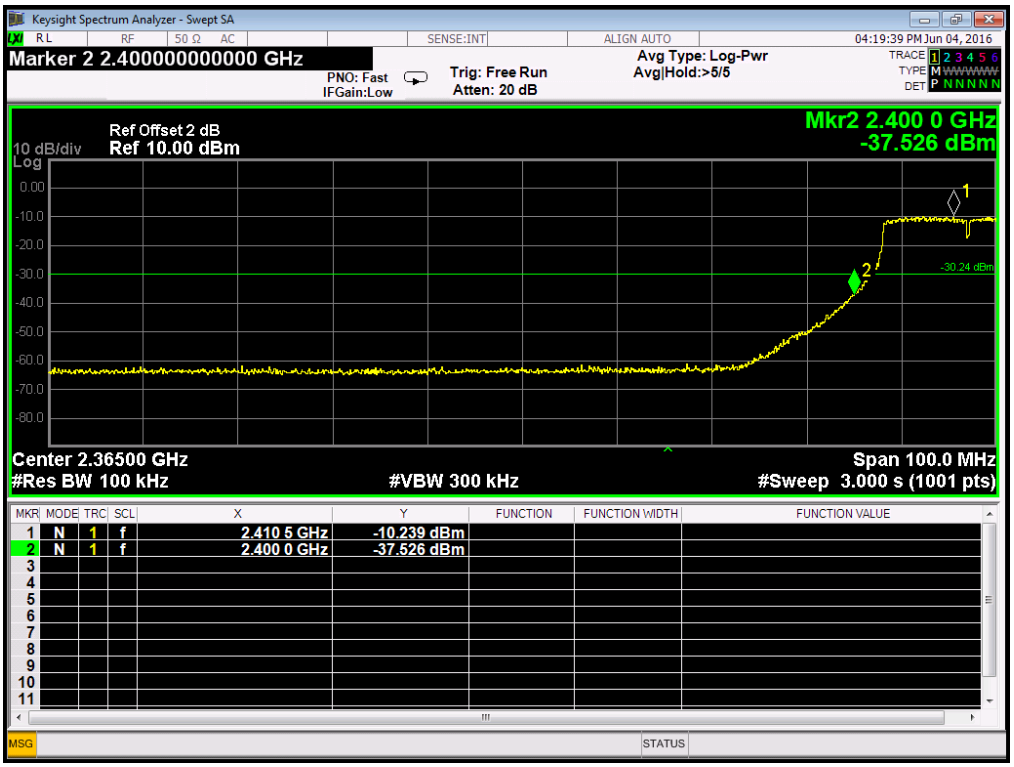

Keysight Spectrum Analyzer - Swept SA
Marker 3 2.513600000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold:>5/5
04:12:30 PM Jun 04, 2016
Ref Offset 2 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr3 2.513 6 GHz
-61.534 dBm
-24.20 dBm
Center 2.50250 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
#Sweep 3.000 s (1001 pts)
1 N 1 f 2.463 0 GHz -4.200 dBm
2 N 1 f 2.483 5 GHz -63.799 dBm
3 N 1 f 2.513 6 GHz -61.534 dBm
MSG
STATUS

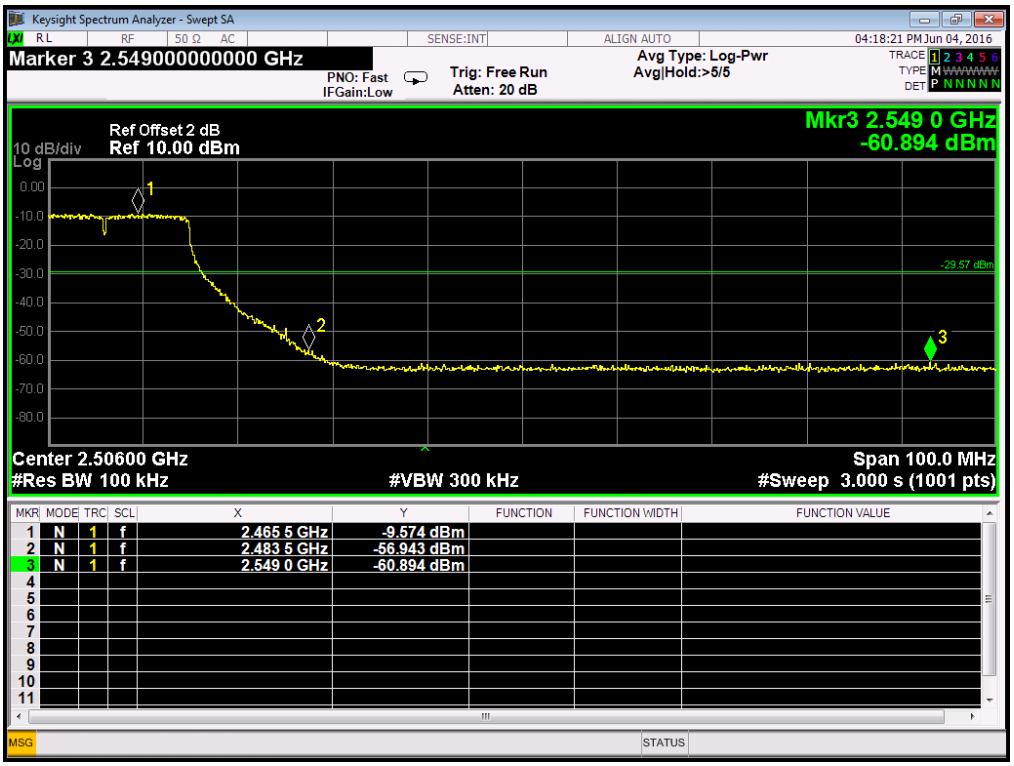
802.11 g Mode


Keysight Spectrum Analyzer - Swept SA
Marker 3 2.398000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold:>5/5
04:15:38 PM Jun 04, 2016
Ref Offset 2 dB
10 dB/div
Ref 10.00 dBm
Log
Mkr3 2.398 0 GHz
-43.670 dBm
-29.64 dBm
Center 2.36850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
#Sweep 3.000 s (1001 pts)
1 N 1 f 2.417 4 GHz -9.642 dBm
2 N 1 f 2.400 0 GHz -38.511 dBm
3 N 1 f 2.398 0 GHz -43.670 dBm
MSG
STATUS

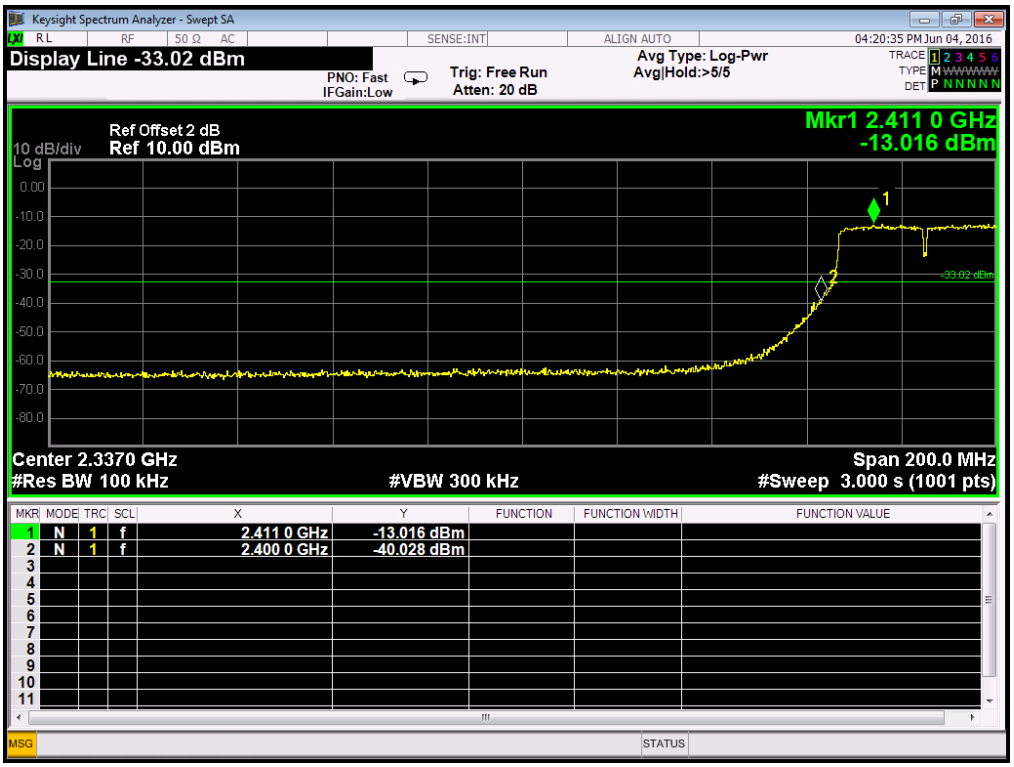


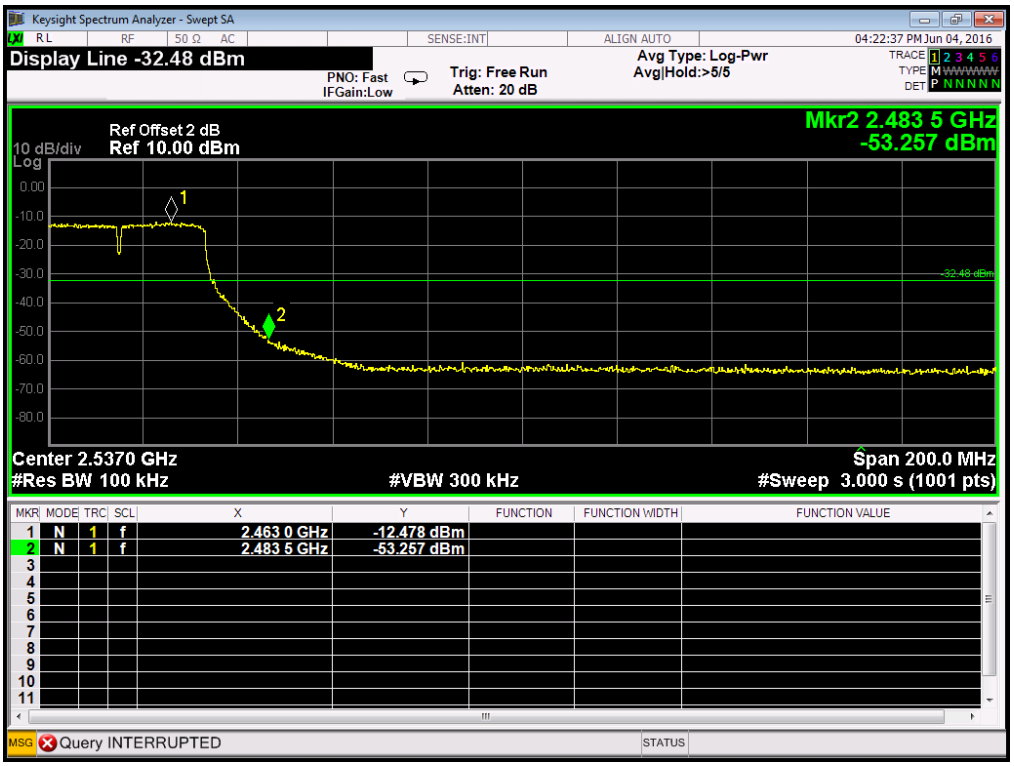
802.11 n20 Mode





802.11 n40 Mode





9. Antenna Requirements

9.1. Limit

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

9.2. Result

The antennas used for this product are built-in undetachable dipole antenna and that no antenna other than that furnished by the responsible party shall be used with the device.

END OF REPORT