RF TEST REPORT

Applicant	Honor Device Co., Ltd.
FCC ID	2AYGCTFY-LX1
Product	Smart Phone
Model	TFY-LX1
Report No.	R2201A0039-R4V1
Issue Date	March 2, 2022

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 15C (2020)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Prepared by: Peng Tao

Approved by: Kai Xu

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TABLE OF CONTENT

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Version	Revision description	Issue Date
Rev.0	Initial issue of report.	February 14, 2022
Rev.1	Update d description in Page 4.	March 2, 2022
Note: This revised report (Report No. R2201A0039-R4V1) supersedes and replaces the previously issued report (Report No. R2201A0039-R4). Please discard or destroy the previously issued report and dispose of it accordingly.		

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Summary of measurement results

Number	Test Case	Clause in FCC rules	Verdict
1	Maximum output power	15.247(b)(3)	PASS
2	6 dB bandwidth	15.247(a)(2)	PASS
3	Power spectral density	15.247(e)	PASS
4	Band Edge	15.247(d)	PASS
5	Spurious RF Conducted Emissions	15.247(d)	PASS
6	Unwanted Emissions	15.247(d),15.205,15.209	PASS
7	Conducted Emissions	15.207	PASS
Date of Testing: January 11, 2022 and January 24, 2022 Date of Sample Received: January 10, 2022			
Note: All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.			

TFY-LX1 (Report No.: R2201A0039-R4V1) is a variant model of TFY-LX3 (Report No.: R2201A0036-R6V1). Test values partial duplicated from Original for variant.

There is only tested Unwanted Emissions, and did not worsen, so they were not recorded in the report.

The difference between model TFY-LX3 and model TFY-LX1 is show in the below table:

Difference	Model	TFY-LX3	TFY-LX1
Licensed Frequency	LTE BAND	B2/4/5/7/13/26/38/66 Not support CA	B5/B7 Support CA
	UMTS BAND	B2/B4/B5	B2/B5
	Antenna	The antenna matching and routing are the same. The frequency is different.	The antenna matching and routing are the same. The frequency is different.
Unlicensed Frequency	NFC	Not support	Support. Add NFC functionality via hardware
	Antenna	BT+Wi-Fi+GPS antenna	BT+Wi-Fi+GPS Add NFC antenna
RF	RF circuit	The RF circuit of the same frequency is the same.	The RF circuit of the same frequency is the same. The different frequency changed by hardware and some RF parameters. Changes are followed: 1. delete B4/B13/B38/B66 SAWS, Diplexer, switch, LNA and RF matching components. 2、LTE bands support 64QAM.

The detailed product change description please refers to the Difference Declaration Letter.

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1. Test Laboratory

1.1. Notes of the test report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Xu Kai
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	http://www.ta-shanghai.com
E-mail:	xukai@ta-shanghai.com

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2. General Description of Equipment under Test

2.1. Applicant and Manufacturer Information

Applicant	Honor Device Co., Ltd.
Applicant address	Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China
Manufacturer	Honor Device Co., Ltd.
Manufacturer address	Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, China

2.2. General information

EUT Description	
Model	TFY-LX1
SN	A7NX011C30000083
Hardware Version	HL6TFYM
Software Version	4.2.0.35(C900E14R1P1)
Power Supply	Battery / AC adapter
Antenna Type	Internal Antenna
Antenna Connector	A permanently attached antenna (meet with the standard FCC Part 15.203 requirement)
Antenna Gain	-1.8dBi
additional beamforming gain	NA
Operating Frequency Range(s)	802.11b/g/n(HT20): 2412 ~ 2462 MHz 802.11n(HT40): 2422 ~ 2452 MHz Bluetooth LE V5.0: 2402 ~2480 MHz
Modulation Type	802.11b: DSSS 802.11g/n(HT20/HT40): OFDM Bluetooth LE: GFSK
Max. Conducted Power	Wi-Fi 2.4G: 19.02dBm Bluetooth LE: 6.95dBm

EUT Accessory			
Accessory	**Model**	**Manufacture**	**No.**
Adapter	HW-100225E00	Honor Device Co., Ltd. (Manufacturer:Huntkey)	1
	HW-100225U00	Honor Device Co., Ltd. (Manufacturer:Huntkey)	2
	HW-100225B00	Honor Device Co., Ltd. (Manufacturer:Huntkey)	3
	HN-100225E00	Honor Device Co., Ltd. (Manufacturer: Salcomp)	4
	HN-100225U00	Honor Device Co., Ltd. (Manufacturer: Salcomp)	5
Battery	HB416492EFW	Honor Device Co., Ltd. (Manufacturer: Sunwoda Electronic Co.,LTD)	1

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	HB416492EFW	Honor Device Co., Ltd. (Manufacturer:NVT)	2
Earphone	MEND1532B528A11	Jiangxi Lianchuang Hongsheng Electronic Co., LTD.	1
	1293-3283-3.5mm-339	BOLUO COUNTY QUANCHENG ELECTRONIC CO.,LTD.	2
	EPAB542-2WH05-DH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	3
USB Cable	RY0002	NingBo Broad Telecommunication Co., Ltd.	1
	AU2-CRO013HF	Freeport Resources Enterprises Corp.	2
	2120-00001-0	MING JI ELECTRONICS CO., LTD.	3
	L125UC007-CS-H	LUXSHARE PRECISION INDUSTRY CO., LTD.	4
	CUDU01B-HC451-EH	FOXCONN INTERCONNECT TECHNOLOGY LIMITED	5
Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant. 2. There are more than one Adapter, Battery, Earphone and USB Cable, each one should be applied throughout the compliance test respectively, however, only the worst case (Adapter 1, Battery 2, Earphone 1 and USB Cable 3) will be recorded in this report.			

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3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 15C (2020) Radio Frequency Devices

ANSI C63.10 (2013)

Reference standard:

KDB 558074 D01 15.247 Meas Guidance v05r02

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4. Test Configuration

Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the loop antenna is vertical, the others are vertical and horizontal. and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate. Preliminary tests have been done on all the configuration for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates are shown as following table.

Test Mode	Data Rate
Bluetooth(Low Energy)	1Mbps
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

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5. Test Case Results

5.1. Maximum output power

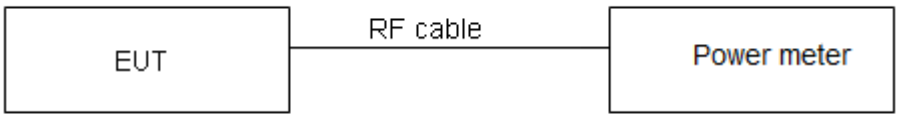
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT was connected to Power meter with a known loss. The EUT is max power transmission with proper modulation.

Test Setup



Limits

Rule Part 15.247 (b) (3) specifies that " For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz: 1 Watt."

Average Output Power	≤ 1W (30dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.44 dB.

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Test Results

Test Mode	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11b	12.44	12.60	0.99	0.00
802.11g	2.06	2.10	0.98	0.00
802.11n HT20	1.92	1.96	0.98	0.00
802.11n HT40	0.95	1.00	0.95	0.24
Bluetooth LE	2.14	2.50	0.86	0.66
Note: when Duty cycle⩾0.98, Duty cycle correction Factor not required.				

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Test Mode	Carrier frequency (MHz))/ Channel	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11b	2412/CH 1	18.75	18.75	30	PASS
	2437/CH 6	18.46	18.46	30	PASS
	2462/CH11	18.60	18.60	30	PASS
802.11g	2412/CH 1	14.67	14.67	30	PASS
	2417/CH 2	16.37	16.37	30	PASS
	2422/CH 3	18.80	18.80	30	PASS
	2427/CH 4	18.80	18.80	30	PASS
	2437/CH 6	19.02	19.02	30	PASS
	2447/CH 8	18.84	18.84	30	PASS
	2452/CH 9	18.51	18.51	30	PASS
	2457/CH 10	16.32	16.32	30	PASS
	2462/CH 11	14.34	14.34	30	PASS
802.11n HT20	2412/CH 1	14.47	14.47	30	PASS
	2417/CH 2	16.21	16.21	30	PASS
	2422/CH 3	18.72	18.72	30	PASS
	2427/CH 4	18.73	18.73	30	PASS
	2437/CH 6	18.87	18.87	30	PASS
	2447/CH 8	18.68	18.68	30	PASS
	2452/CH 9	18.30	18.30	30	PASS
	2457/CH 10	16.14	16.14	30	PASS
	2462/CH 11	14.12	14.12	30	PASS
802.11n HT40	2422/CH 3	11.34	11.58	30	PASS
	2427/CH 4	11.24	11.48	30	PASS
	2432/CH 5	12.76	13.00	30	PASS
	2437/CH 6	14.10	14.34	30	PASS
	2442/CH 7	12.64	12.88	30	PASS
	2447/CH 8	11.54	11.78	30	PASS
	2452/CH 9	11.25	11.49	30	PASS
Bluetooth (Low Energy)	2402/CH 0	5.69	6.35	30	PASS
	2440/CH 19	5.24	5.90	30	PASS
	2480/CH 39	6.29	6.95	30	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

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5.2. 99% Bandwidth and 6dB Bandwidth

Ambient condition

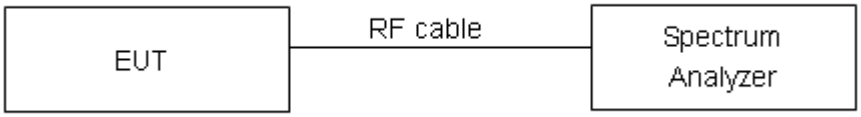
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable. RBW is set to 100 kHz; VBW is set to 300 kHz on spectrum analyzer.
Dector=Peak, Trace mode=max hold.

The EUT was connected to the spectrum analyzer through a known loss cable. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value.

Test Setup



Limits

Rule Part 15.247 (a) (2) specifies that “Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.”

minimum 6 dB bandwidth	≥ 500 kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936 Hz.

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Test Results:

Test Mode	Carrier frequency (MHz)	99% bandwidth (MHz)	Minimum 6 dB bandwidth (MHz)	Limit (kHz)	Conclusion
802.11b	2412/CH 1	13.61	8.08	500	PASS
	2437/CH 6	14.07	9.07	500	PASS
	2462/CH11	13.71	8.54	500	PASS
802.11g	2412/CH 1	16.41	16.30	500	PASS
	2417/CH 2	16.49	15.36	500	PASS
	2422/CH 3	16.74	14.48	500	PASS
	2427/CH 4	16.85	12.94	500	PASS
	2437/CH 6	16.84	15.92	500	PASS
	2447/CH 8	16.71	15.00	500	PASS
	2452/CH 9	16.57	14.94	500	PASS
	2457/CH 10	16.47	15.67	500	PASS
	2462/CH 11	16.45	14.75	500	PASS
802.11n HT20	2412/CH 1	17.61	12.58	500	PASS
	2417/CH 2	17.68	16.36	500	PASS
	2422/CH 3	17.84	15.97	500	PASS
	2427/CH 4	17.94	16.27	500	PASS
	2437/CH 6	17.99	17.56	500	PASS
	2447/CH 8	17.88	16.00	500	PASS
	2452/CH 9	17.78	14.78	500	PASS
	2457/CH 10	17.66	15.10	500	PASS
	2462/CH 11	17.67	15.37	500	PASS
802.11n HT40	2422/CH 3	36.14	35.09	500	PASS
	2427/CH 4	36.24	35.74	500	PASS
	2432/CH 5	36.30	36.34	500	PASS
	2437/CH 6	36.32	36.33	500	PASS
	2442/CH 7	36.22	36.32	500	PASS
	2447/CH 8	36.13	35.34	500	PASS
	2452/CH 9	35.98	35.11	500	PASS
Bluetooth (Low Energy)	2402/CH 0	1.04	0.65	500	PASS
	2440/CH 19	1.04	0.65	500	PASS
	2480/CH 39	1.05	0.65	500	PASS

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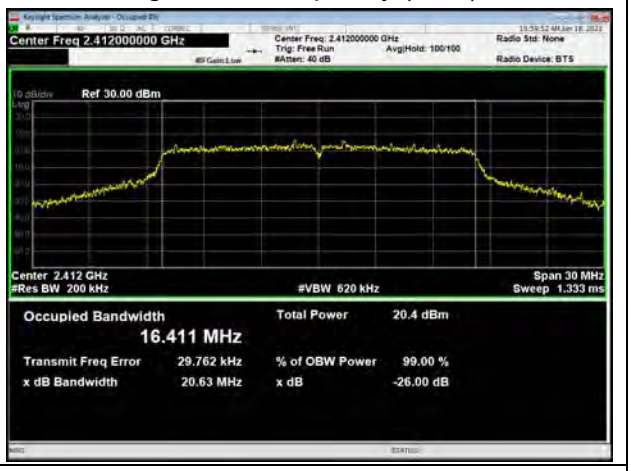
99%bandwidth

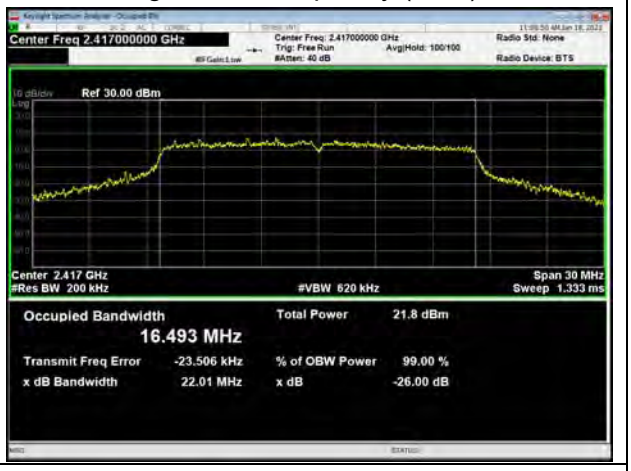
802.11b, Carrier frequency (MHz): 2412

802.11g, Carrier frequency (MHz): 2412



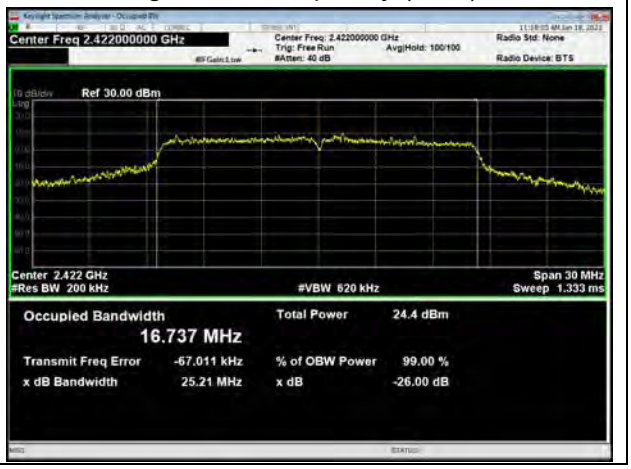
802.11b, Carrier frequency (MHz): 2437

802.11g, Carrier frequency (MHz): 2417



802.11b, Carrier frequency (MHz):2462

802.11g, Carrier frequency (MHz): 2422



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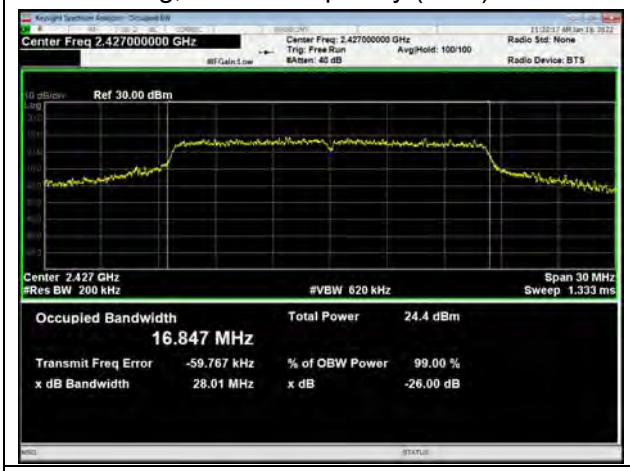
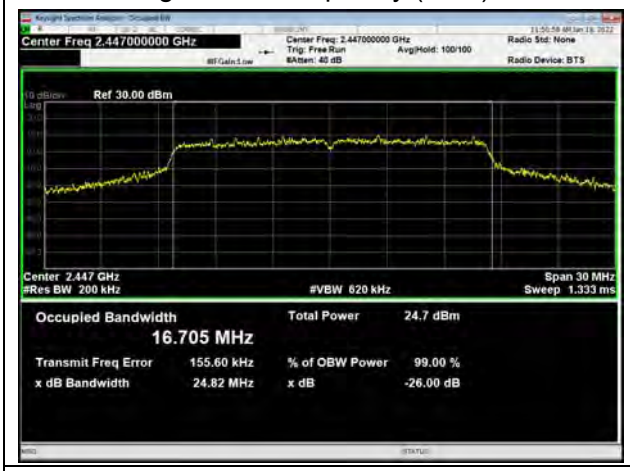
802.11g, Carrier frequency (MHz): 2427

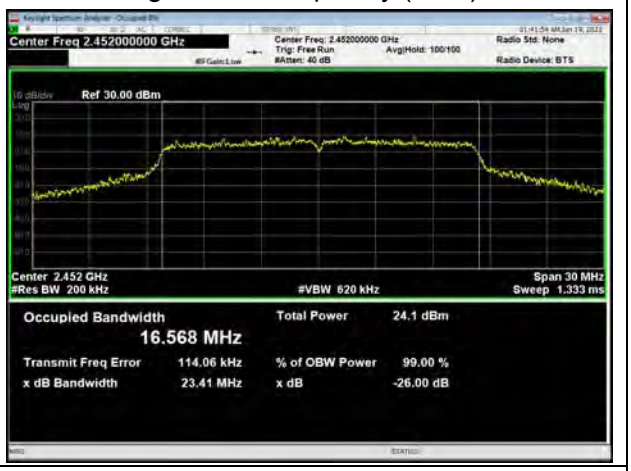


802.11g, Carrier frequency (MHz): 2437

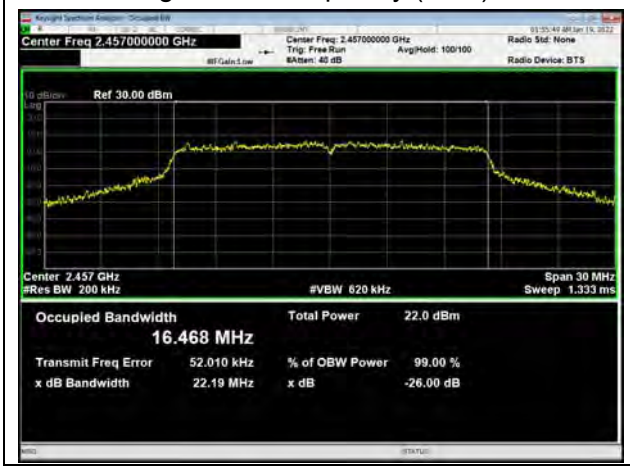
802.11g, Carrier frequency (MHz): 2447



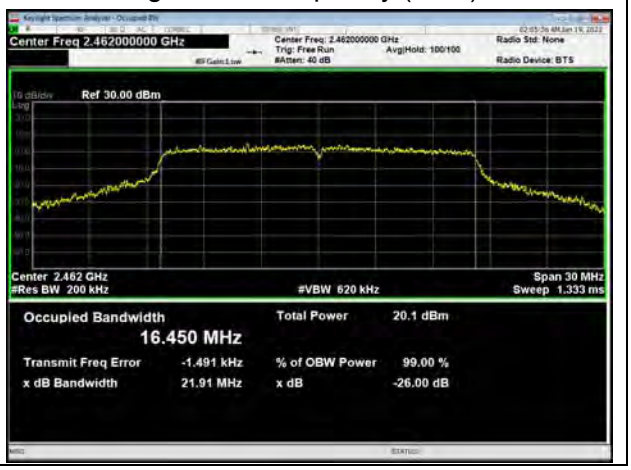
802.11g, Carrier frequency (MHz): 2452



802.11g, Carrier frequency (MHz): 2457



802.11g, Carrier frequency (MHz): 2462



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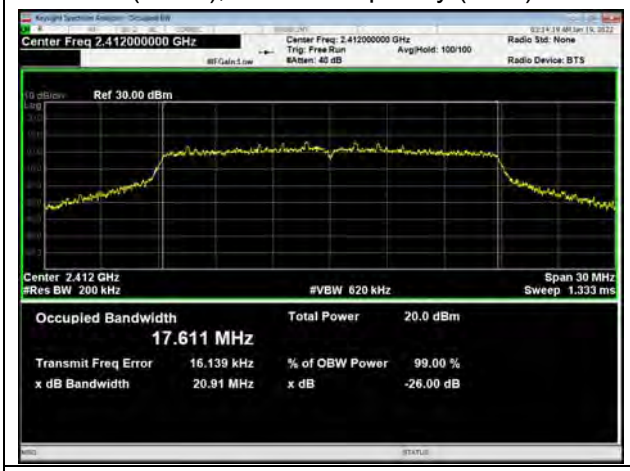
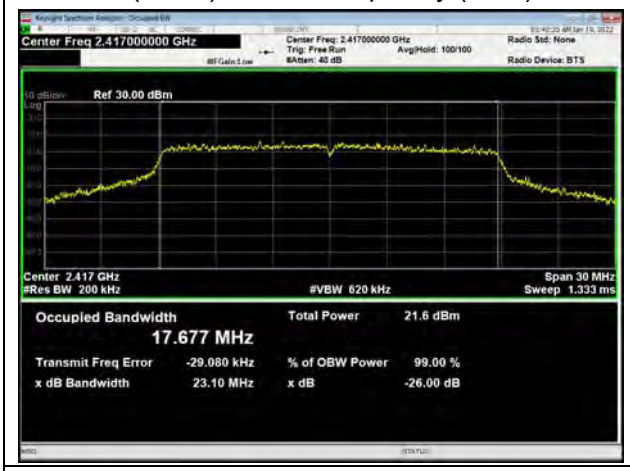
802.11n(HT20), Carrier frequency (MHz): 2412

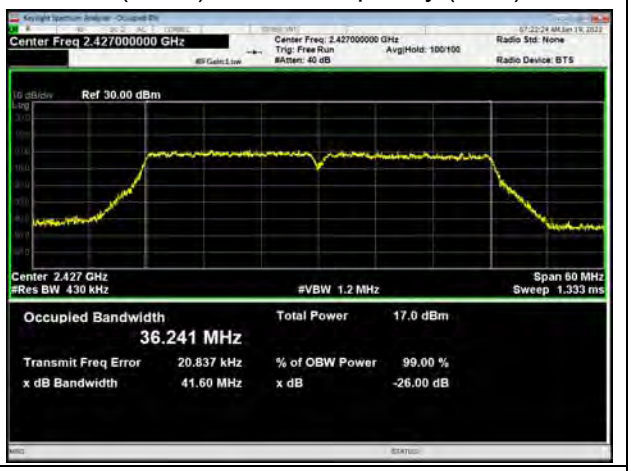


802.11n(HT40), Carrier frequency (MHz): 2422

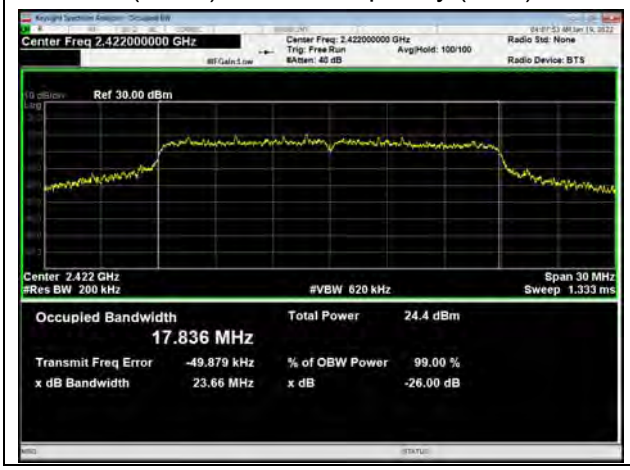
802.11n(HT20), Carrier frequency (MHz): 2417



802.11n(HT40), Carrier frequency (MHz): 2427



802.11n(HT20), Carrier frequency (MHz): 2422



802.11n(HT40), Carrier frequency (MHz): 2432

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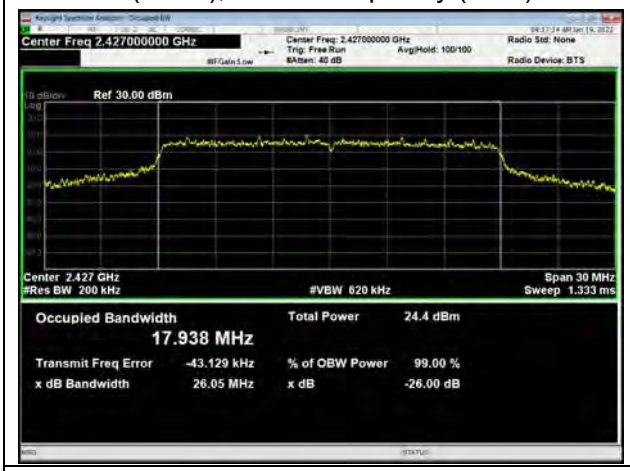
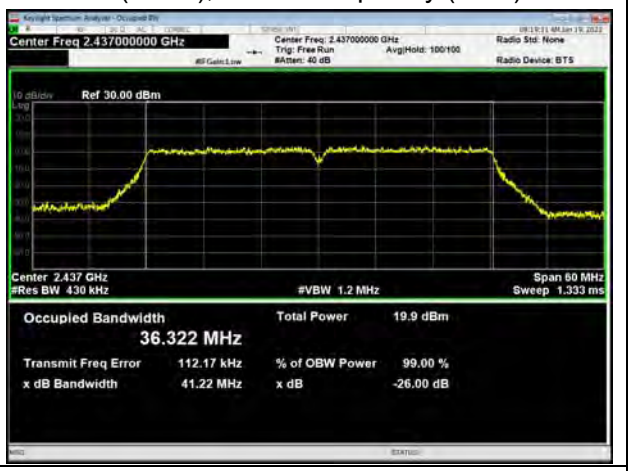
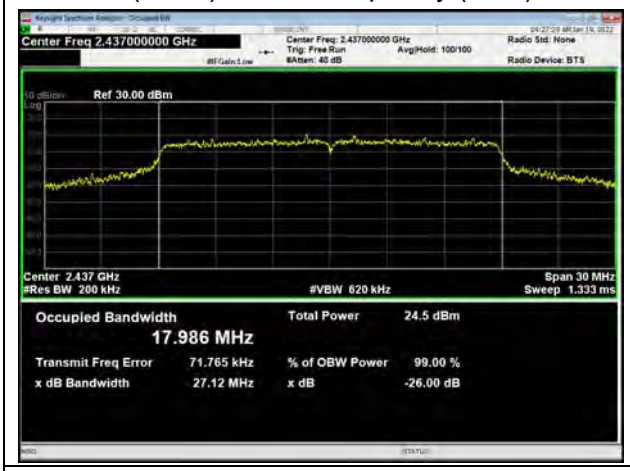
802.11n(HT20), Carrier frequency (MHz): 2427



802.11n(HT40), Carrier frequency (MHz): 2437

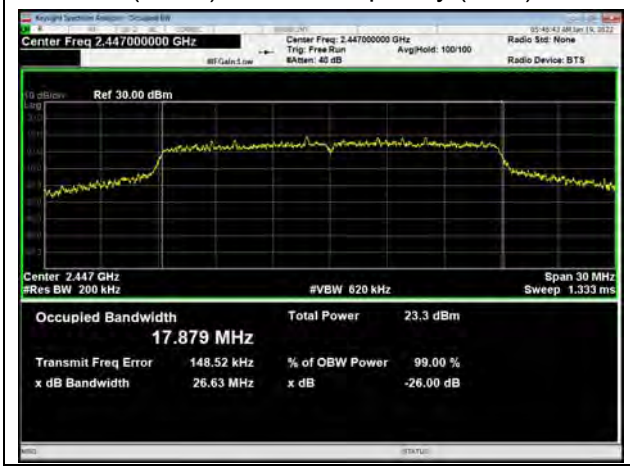


802.11n(HT20), Carrier frequency (MHz): 2437

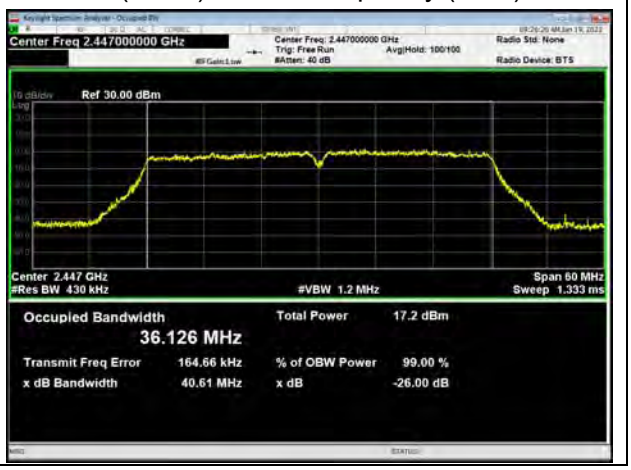


802.11n(HT40), Carrier frequency (MHz): 2442

802.11n(HT20), Carrier frequency (MHz): 2447



802.11n(HT40), Carrier frequency (MHz): 2447



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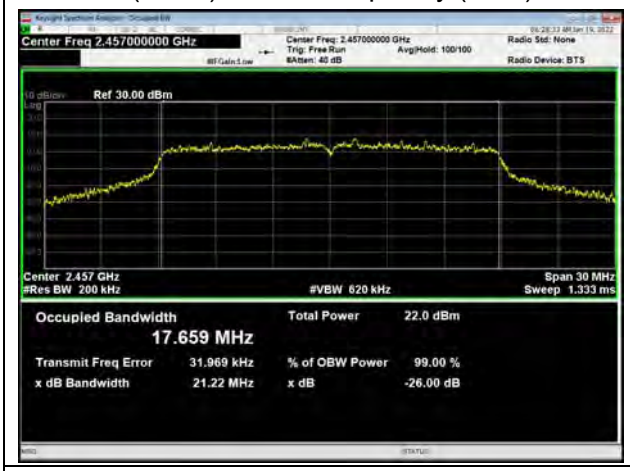
802.11n(HT20), Carrier frequency (MHz): 2452

802.11n(HT40), Carrier frequency (MHz): 2452

802.11n(HT20), Carrier frequency (MHz): 2457



802.11n(HT20), Carrier frequency (MHz): 2462

Bluetooth LE Carrier frequency (MHz): 2402

Bluetooth LE Carrier frequency (MHz): 2440

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Bluetooth LE Carrier frequency (MHz): 2480

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6 dB bandwidth

802.11b, Carrier frequency (MHz): 2412

802.11g, Carrier frequency (MHz): 2412

802.11b, Carrier frequency (MHz): 2437

802.11g, Carrier frequency (MHz): 2417

802.11b, Carrier frequency (MHz):2462

802.11g, Carrier frequency (MHz): 2422

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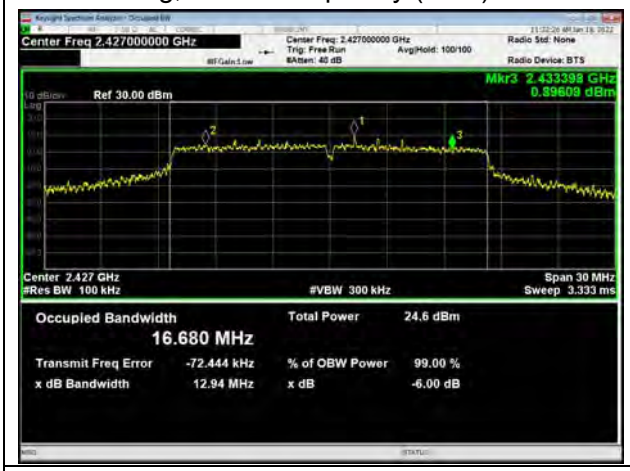
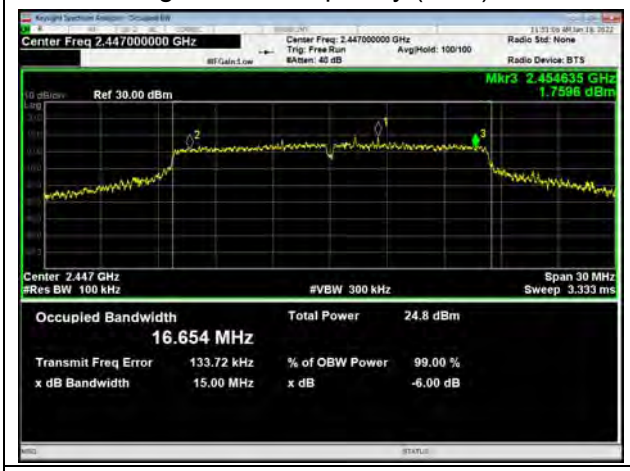
802.11g, Carrier frequency (MHz): 2427



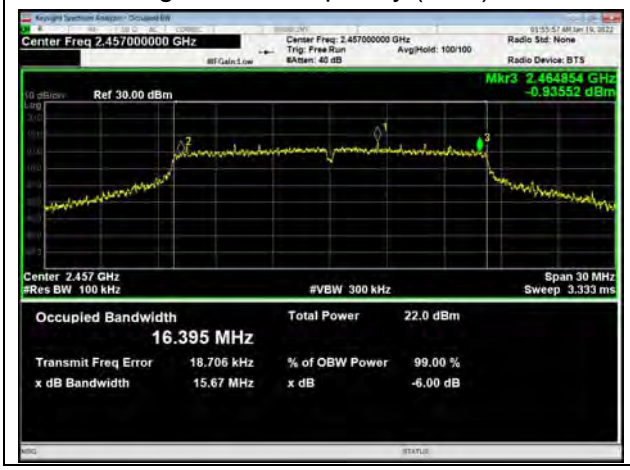
802.11g, Carrier frequency (MHz): 2437

802.11g, Carrier frequency (MHz): 2447



802.11g, Carrier frequency (MHz): 2452

802.11g, Carrier frequency (MHz): 2457



802.11g, Carrier frequency (MHz): 2462

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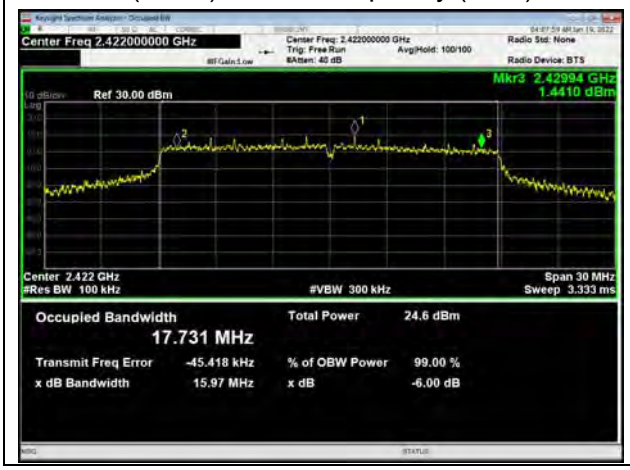
802.11n(HT20), Carrier frequency (MHz): 2412

802.11n(HT40), Carrier frequency (MHz): 2422

802.11n(HT20), Carrier frequency (MHz): 2417

802.11n(HT40), Carrier frequency (MHz): 2427

802.11n(HT20), Carrier frequency (MHz): 2422



802.11n(HT40), Carrier frequency (MHz): 2432

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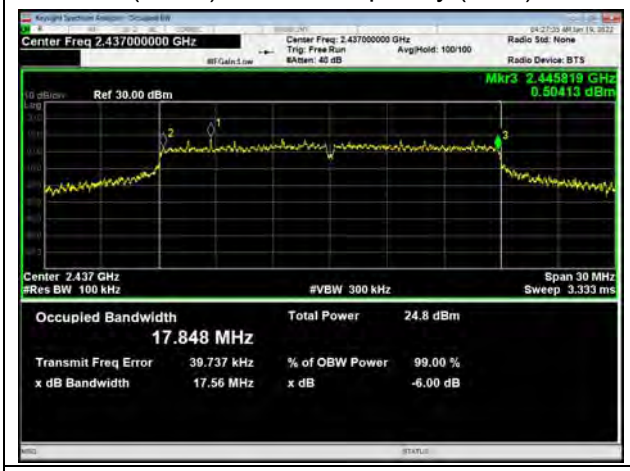
802.11n(HT20), Carrier frequency (MHz): 2427

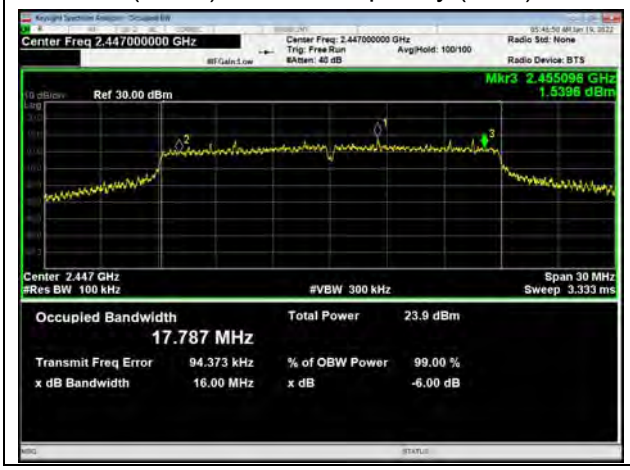
802.11n(HT40), Carrier frequency (MHz): 2437

802.11n(HT20), Carrier frequency (MHz): 2437



802.11n(HT40), Carrier frequency (MHz): 2442

802.11n(HT20), Carrier frequency (MHz): 2447



802.11n(HT40), Carrier frequency (MHz): 2447

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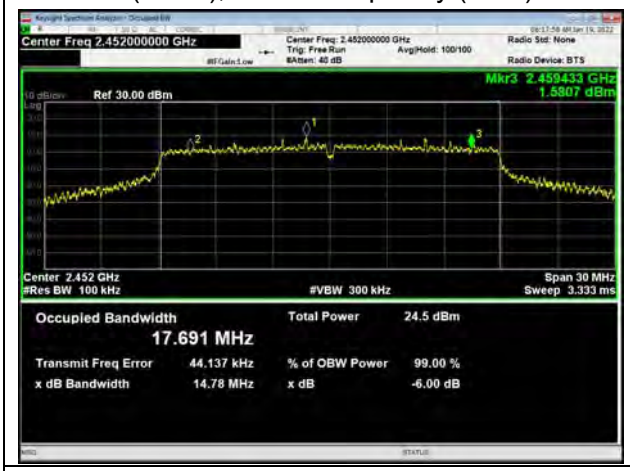
802.11n(HT20), Carrier frequency (MHz): 2452

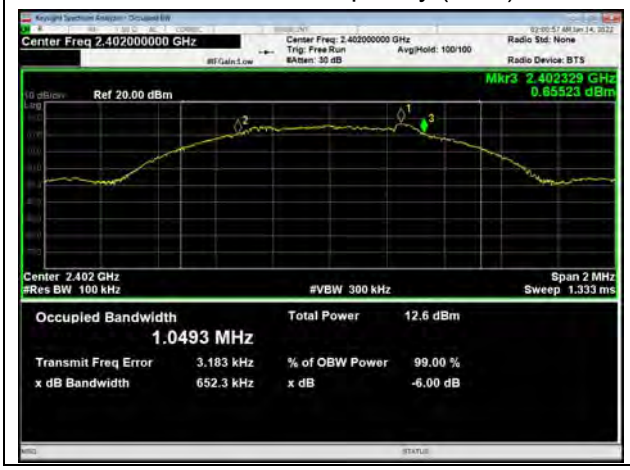


802.11n(HT40), Carrier frequency (MHz): 2452

802.11n(HT20), Carrier frequency (MHz): 2457

802.11n(HT20), Carrier frequency (MHz): 2462

Bluetooth LE Carrier frequency (MHz): 2402



Bluetooth LE Carrier frequency (MHz): 2440

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Bluetooth LE Carrier frequency (MHz): 2480

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5.3. Band Edge

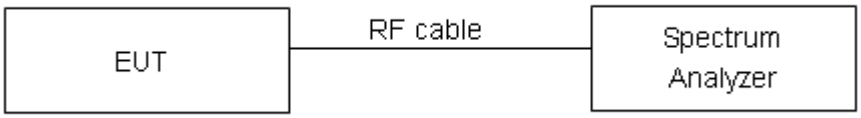
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable the band edge of the lowest and highest channels were measured. The peak detector is used and RBW is set to 100 kHz and VBW is set to 300 kHz on spectrum analyzer. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

Rule Part 15.247(d) specifies that “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.”

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
2GHz-3GHz	1.407 dB

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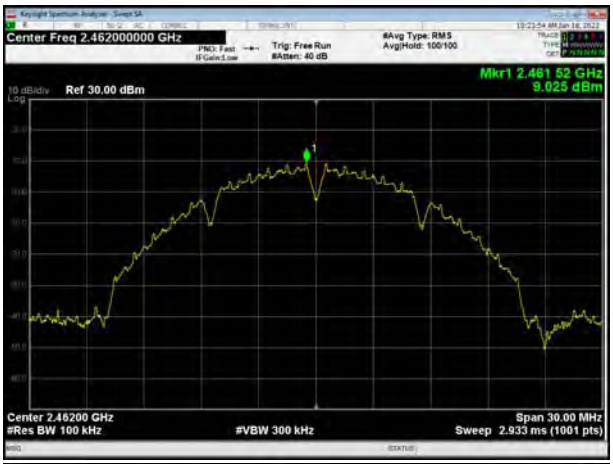
Test Results: PASS

802.11b, Channel No.: 1

802.11b, Channel No.: 11



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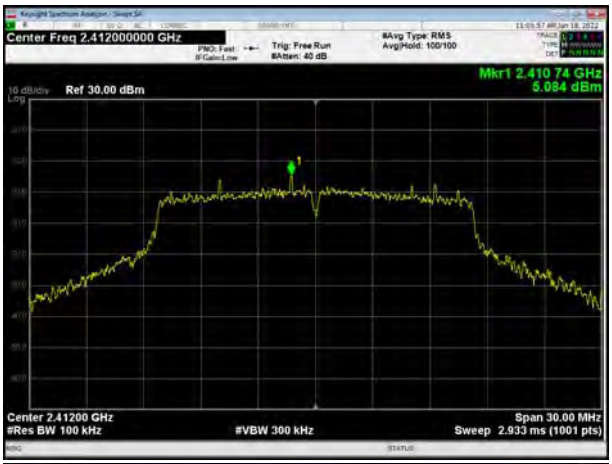
802.11g, Channel No.: 1



802.11g, Channel No.: 2

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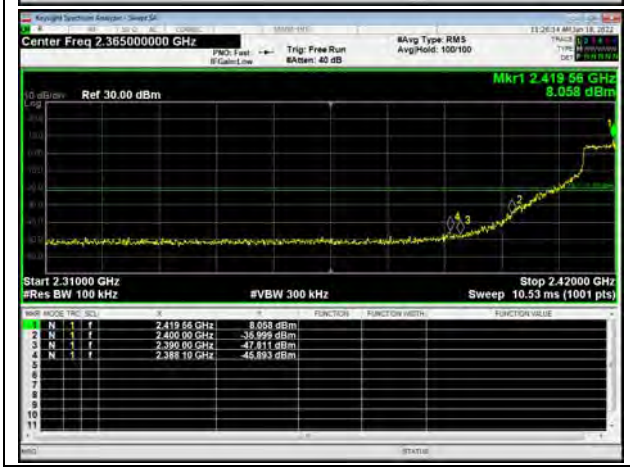
802.11g, Channel No.: 3	802.11g, Channel No.: 4
	
	

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802.11g, Channel No.: 8

802.11g, Channel No.: 9

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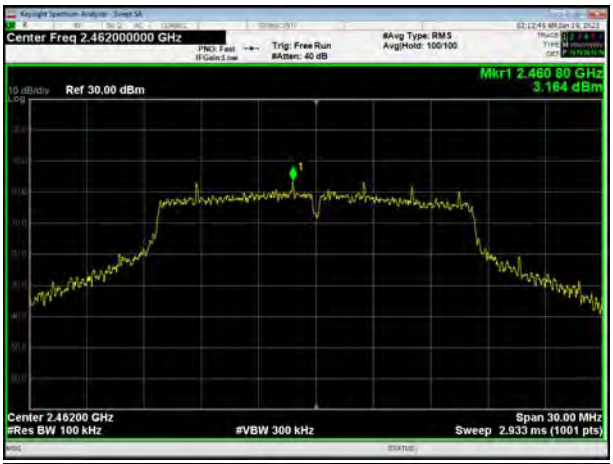
802.11g, Channel No.: 10

802.11g, Channel No.: 11



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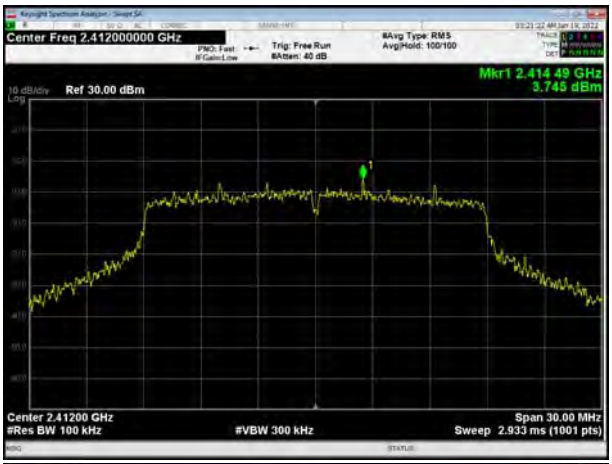
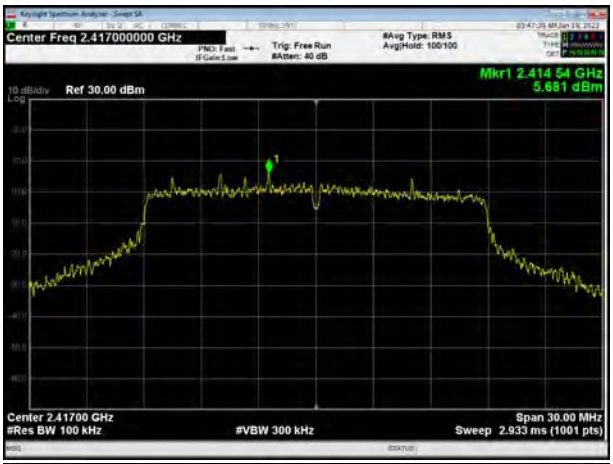
802.11n(HT20), Channel No. 1	802.11n(HT20), Channel No. 2
	
	

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802.11n(HT20), Channel No. 3	802.11n(HT20), Channel No. 4
	
	

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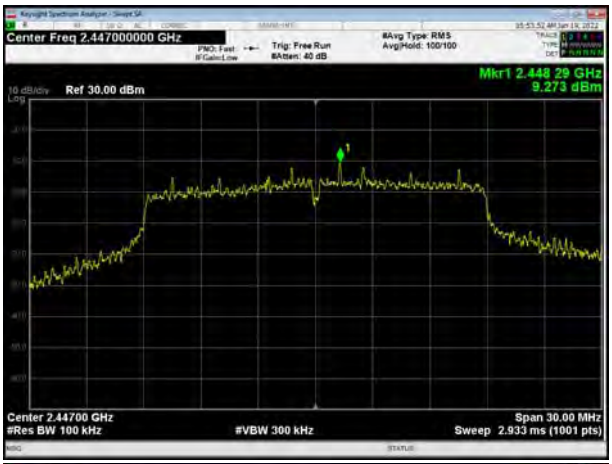
802.11n(HT20), Channel No. 8



802.11n(HT20), Channel No. 9

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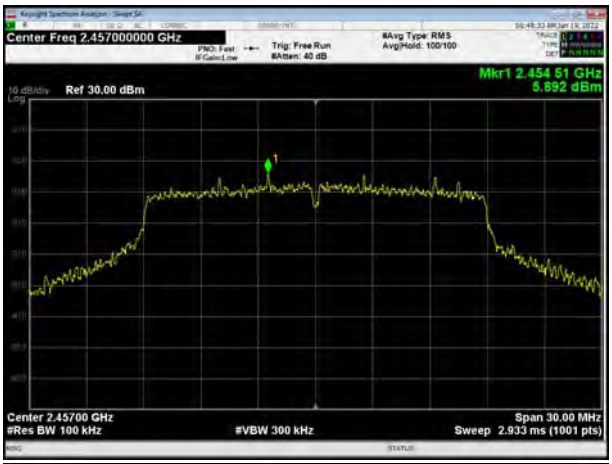
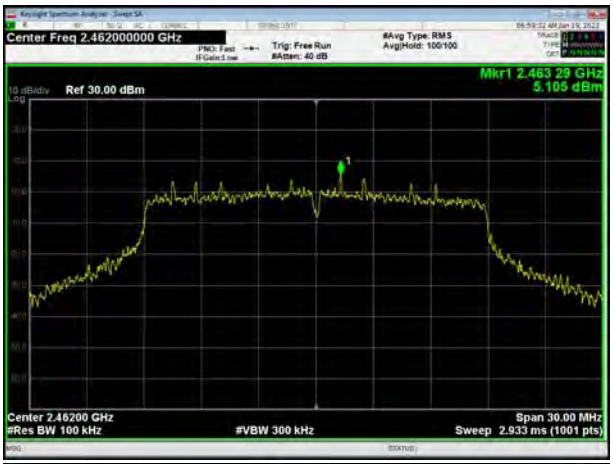
802.11n(HT20), Channel No. 10



802.11n(HT20), Channel No. 11



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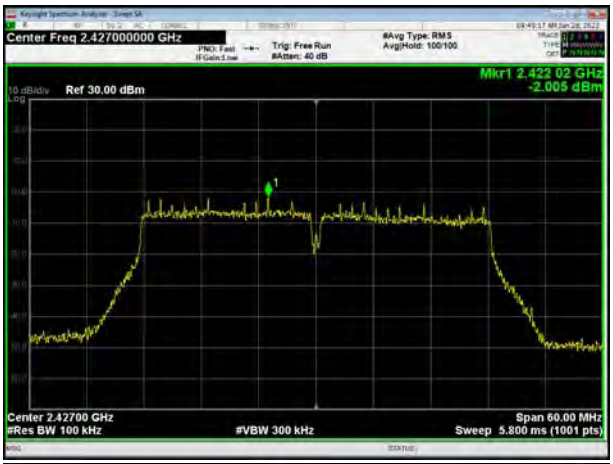
802.11n(HT40), Channel No. 3

802.11n(HT40), Channel No. 4



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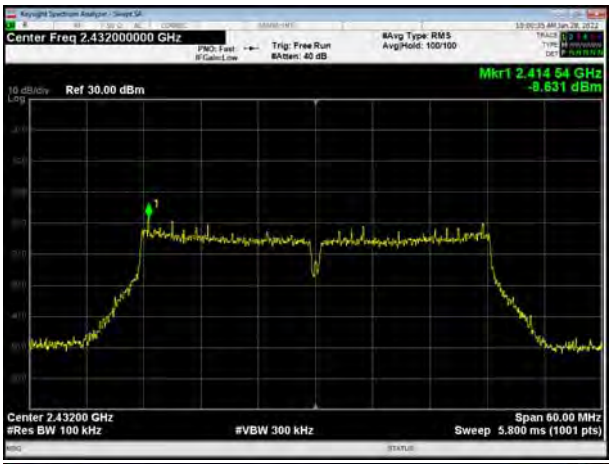
802.11n(HT40), Channel No. 5



802.11n(HT40), Channel No. 6

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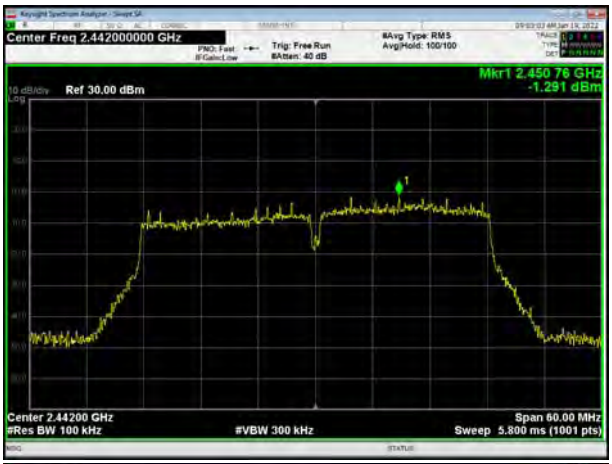
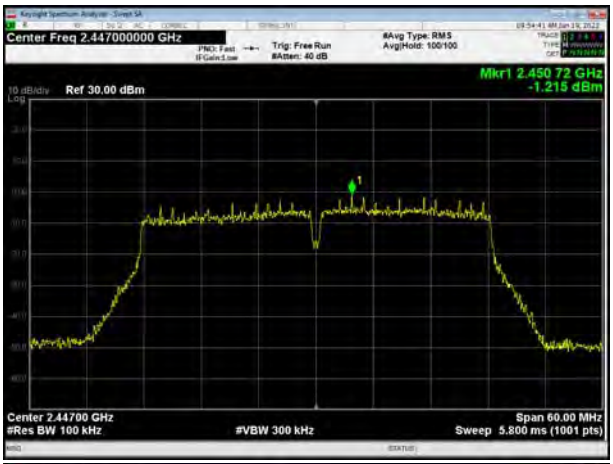
802.11n(HT40), Channel No. 7



802.11n(HT40), Channel No. 8



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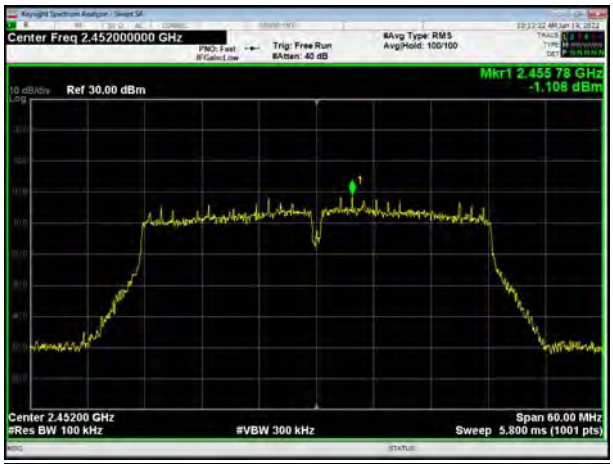
802.11n(HT40), Channel No. 9



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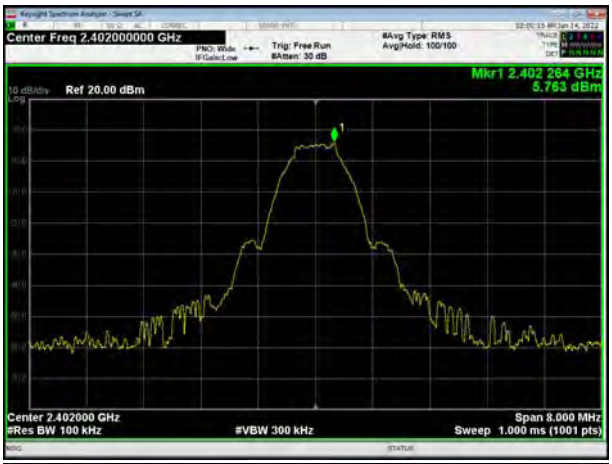
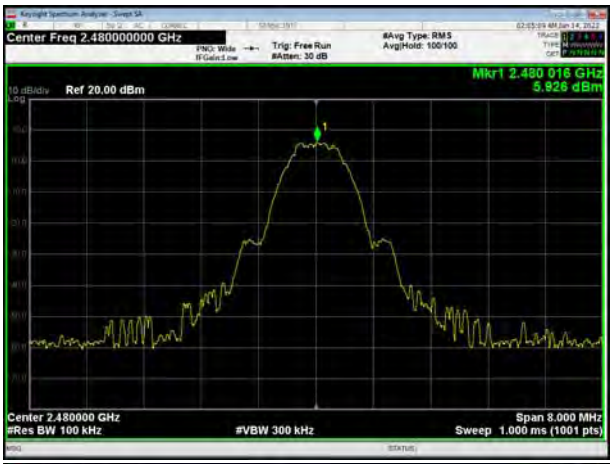
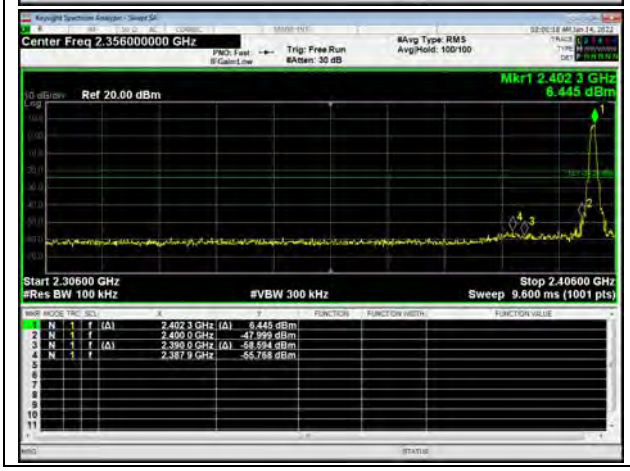
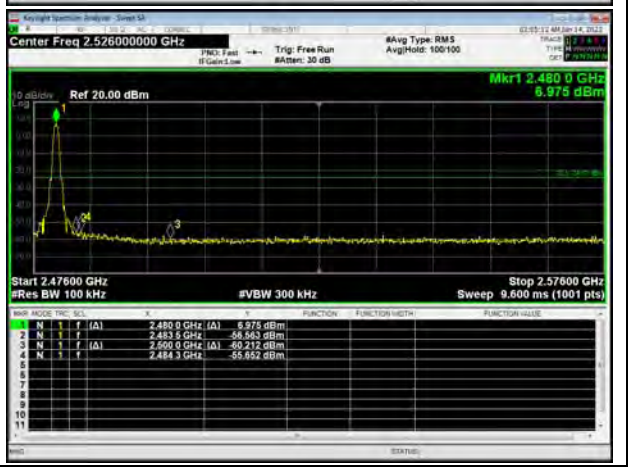
Bluetooth LE, Channel No.: 0	Bluetooth LE, Channel No.: 39
	
	

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5.4. Power Spectral Density

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

During the process of the testing, The EUT was connected to Spectrum Analyzer with a known loss. The EUT is max power transmission with proper modulation.

Method AVGPSD-1 was used for this test.

a) Set instrument center frequency to DTS channel center frequency

b) Set span to at least 1.5 times the OBW

c) Set RBW to:3kHz≤RBW≤100kHz

d) Set VBW≥[3x RBW]

e) Detector=power averaging(rms) or sample detector(when rms not available)

f) Ensure that the number of measurement points in the sweep 2[2 X span/RBWT]

g)Sweep time auto couple

h) Employ trace averaging(rms) mode over a minimum of 100 traces

i) Use the peak marker function to determine the maximum amplitude level.

j) If the measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat(note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced)

Method AVGPSD-2 was used for this test.

a) Measure the duty cycle(D)of the transmitter output signal as described in 11.6

b) Set instrument center frequency to DTS channel center frequency

c)Set span to at least 1.5 times the OBW

d) Set RBW to:3kHz≤RBW≤100Kh

e) Set VBW≥[3x RBW]

f)Detector= power averaging(rms) or sample detector (when rms not available)

g) Ensure that the number of measurement points in the sweep 2[2 X span/RBW]

h) Sweep time =auto couple

i) Do not use sweep triggering; allow sweep to "free run”

j) Employ trace averaging(rms) mode over a minimum of 100 traces

k) Use the peak marker function to determine the maximum amplitude level

l) Add [10 log(1/ D)], where D is the duty cycle measured in step a), to the measured PSD to

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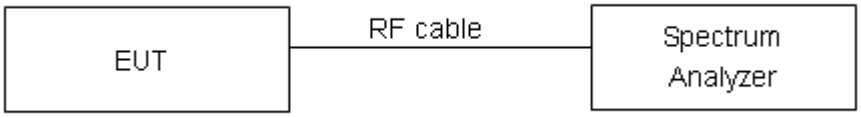
compute the average PSD during the actual transmission time

m) If measured value exceeds requirement specified by regulatory agency then reduce RBW(but o less than 3 kHz) and repeat(note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced)

Test setup



Limits

Rule Part 15.247(e) specifies that" For digitally modulated systems, 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. ''

Limits	≤ 8 dBm / 3kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.75dB.

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Test Results:

Test Mode	Channel Number	Read Value (dBm / 3kHz)	Power Spectral Density (dBm / 3kHz)	Limit (dBm / 3kHz)	Conclusion
802.11b	2412/CH 1	-13.41	-13.41	8	PASS
	2437/CH 6	-14.21	-14.21	8	PASS
	2462/CH11	-13.54	-13.54	8	PASS
802.11g	2412/CH 1	-19.29	-19.29	8	PASS
	2417/CH 2	-17.86	-17.86	8	PASS
	2422/CH 3	-15.53	-15.53	8	PASS
	2427/CH 4	-15.66	-15.66	8	PASS
	2437/CH 6	-15.31	-15.31	8	PASS
	2447/CH 8	-15.25	-15.25	8	PASS
	2452/CH 9	-15.76	-15.76	8	PASS
	2457/CH 10	-18.14	-18.14	8	PASS
	2462/CH 11	-19.50	-19.50	8	PASS
802.11n HT20	2412/CH 1	-19.97	-19.97	8	PASS
	2417/CH 2	-18.34	-18.34	8	PASS
	2422/CH 3	-15.86	-15.86	8	PASS
	2427/CH 4	-15.96	-15.96	8	PASS
	2437/CH 6	-15.54	-15.54	8	PASS
	2447/CH 8	-16.42	-16.42	8	PASS
	2452/CH 9	-16.67	-16.67	8	PASS
	2457/CH 10	-17.79	-17.79	8	PASS
	2462/CH 11	-19.64	-19.64	8	PASS
802.11n HT40	2422/CH 3	-27.06	-26.82	8	PASS
	2427/CH 4	-26.43	-26.19	8	PASS
	2432/CH 5	-26.35	-26.11	8	PASS
	2437/CH 6	-24.45	-24.21	8	PASS
	2442/CH 7	-25.14	-24.90	8	PASS
	2447/CH 8	-26.03	-25.79	8	PASS
	2452/CH 9	-25.84	-25.60	8	PASS
Bluetooth (Low Energy)	2402/CH 0	-15.36	-14.70	8	PASS
	2440/CH 19	-15.98	-15.32	8	PASS
	2480/CH 39	-15.00	-14.34	8	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

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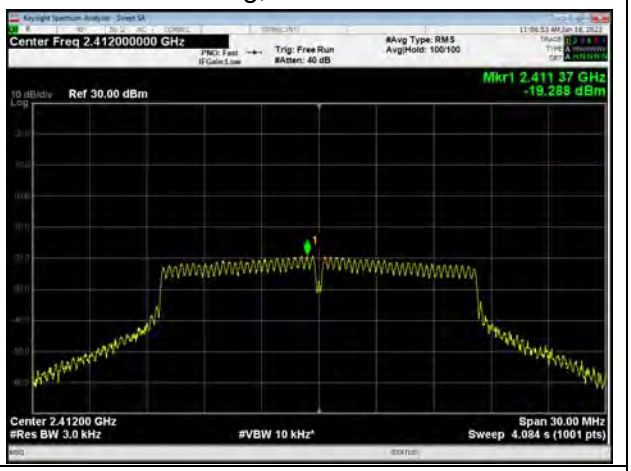
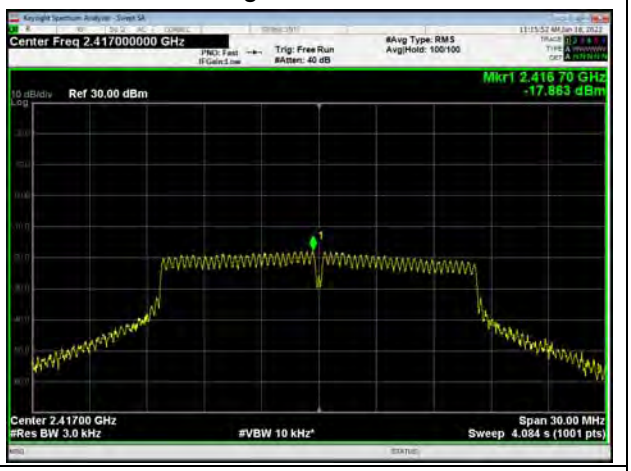
802.11b, Channel No.: 1

802.11g, Channel No.: 1



802.11b, Channel No.: 6

802.11g, Channel No.: 2



802.11b, Channel No.: 11

802.11g, Channel No.: 3

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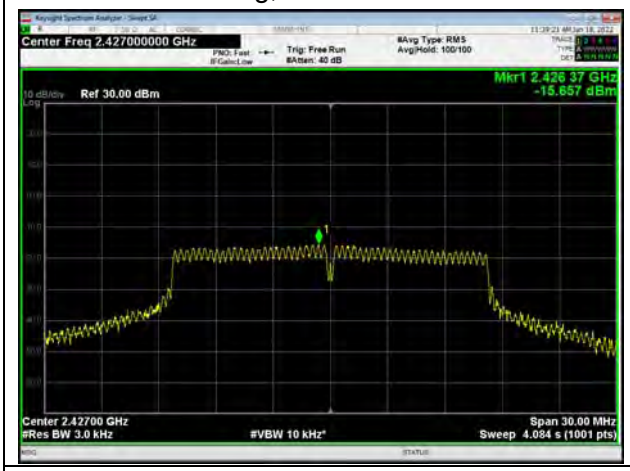
802.11g, Channel No.: 4

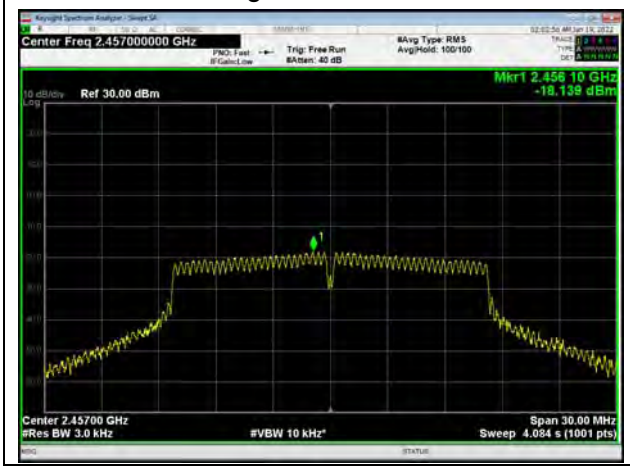


802.11g, Channel No.: 6

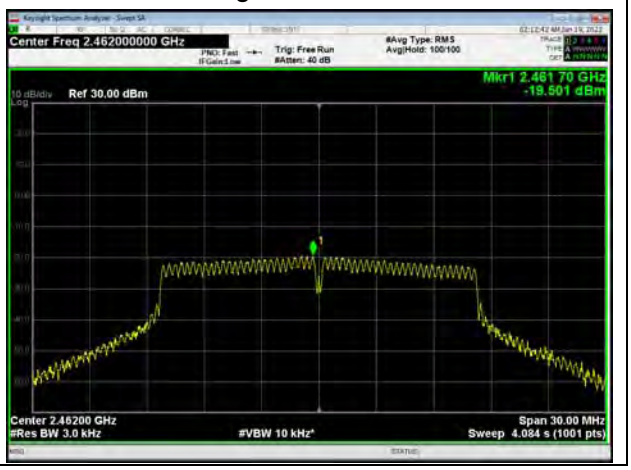
802.11g, Channel No.: 8

802.11g, Channel No.: 9

802.11g, Channel No.: 10



802.11g, Channel No.: 11



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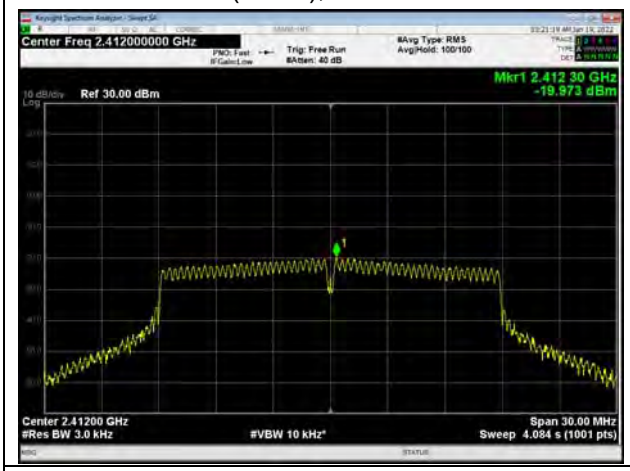
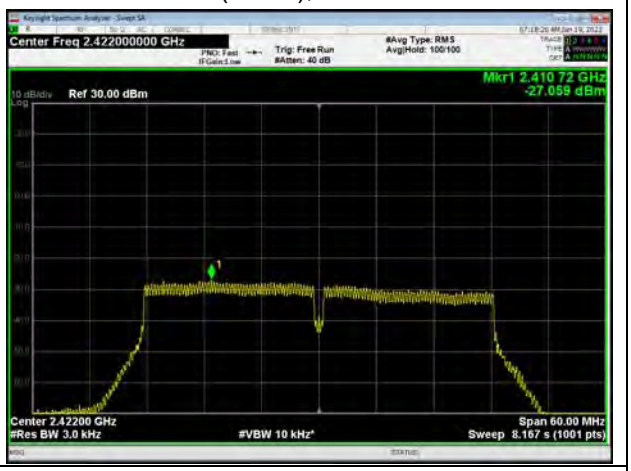
802.11n(HT20), Channel No. 1



802.11n(HT40), Channel No. 3



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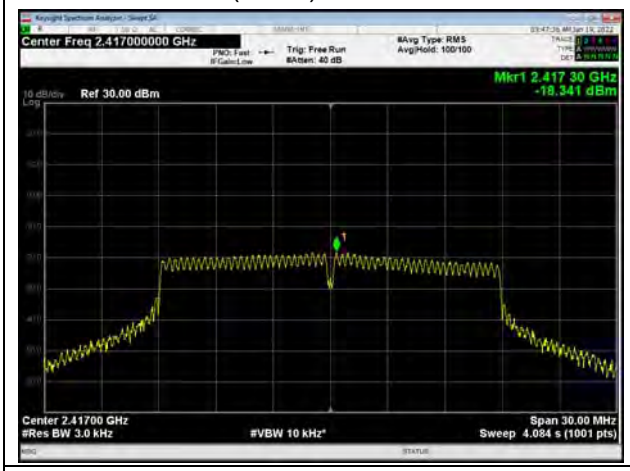

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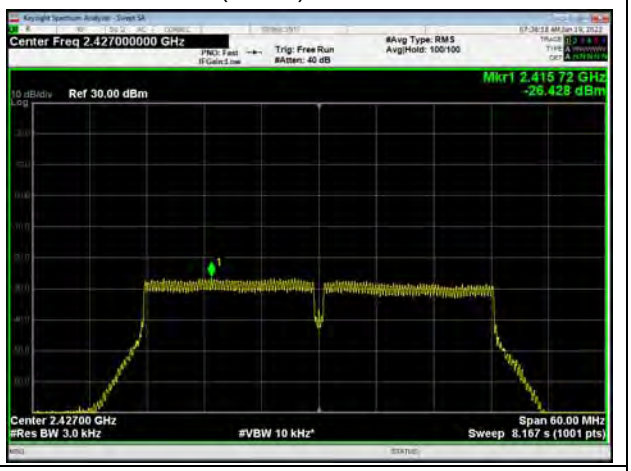

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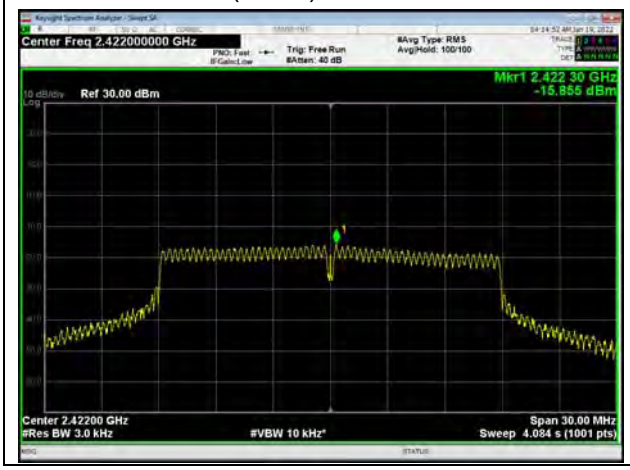

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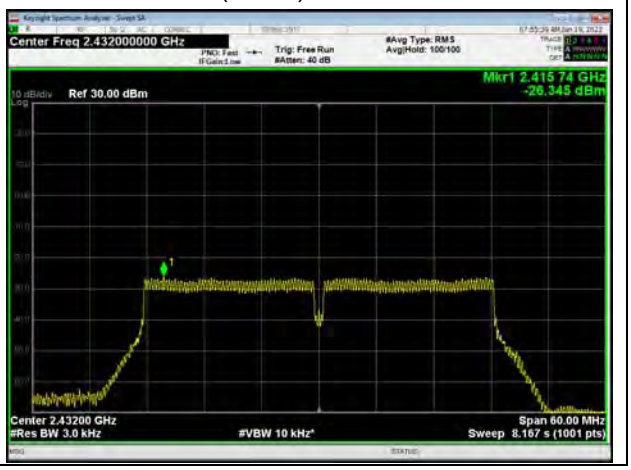

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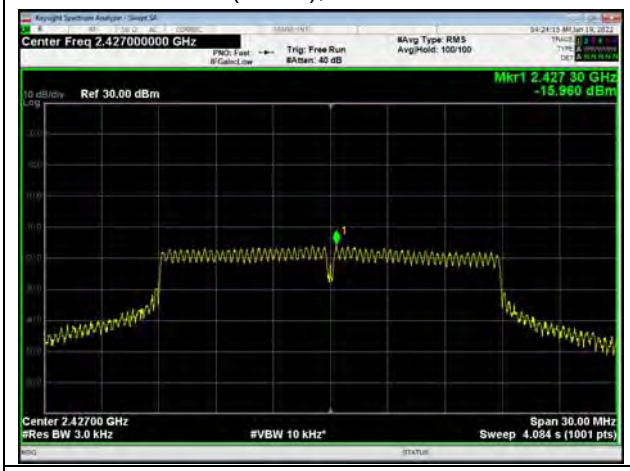

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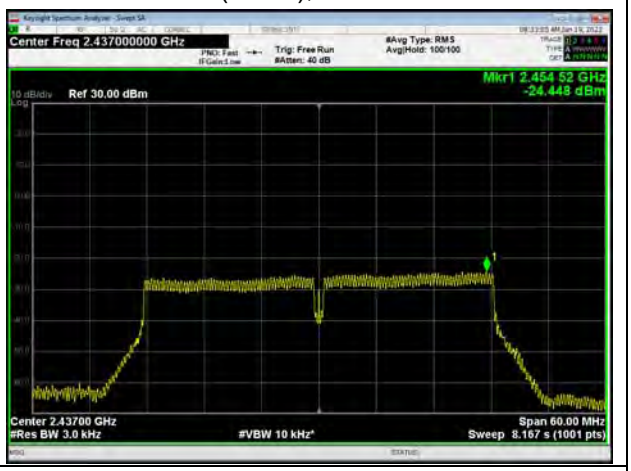

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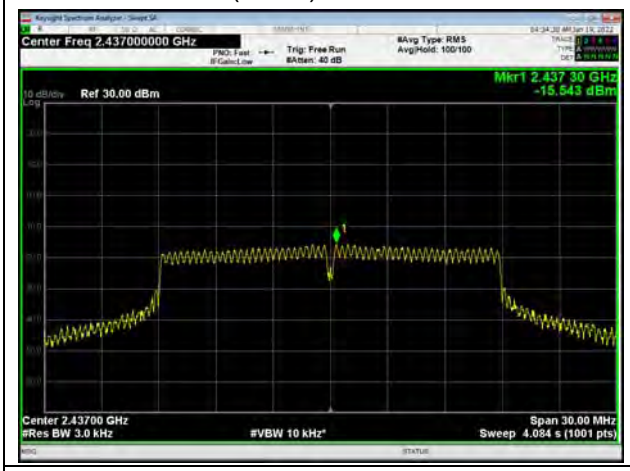

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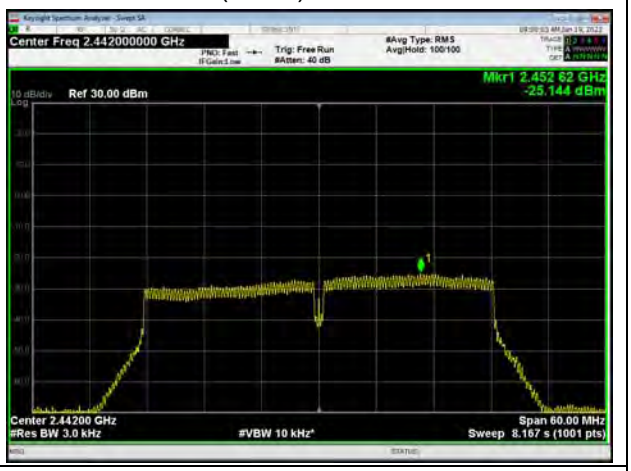

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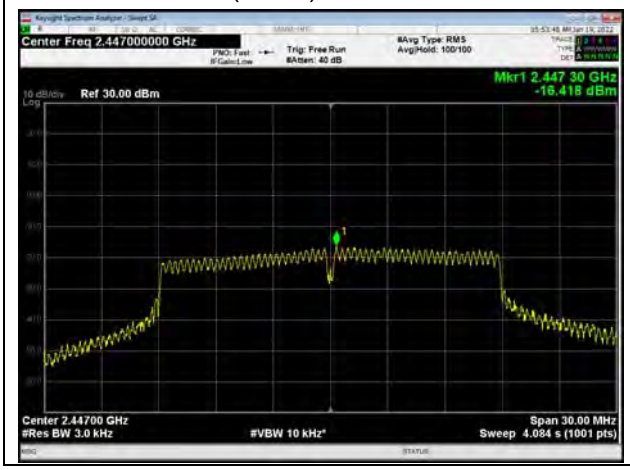

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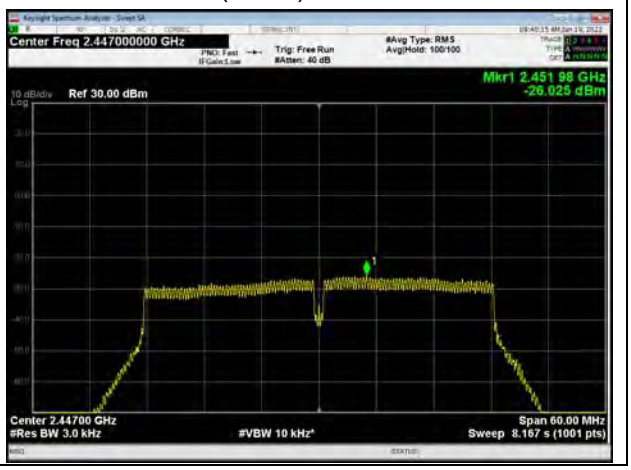

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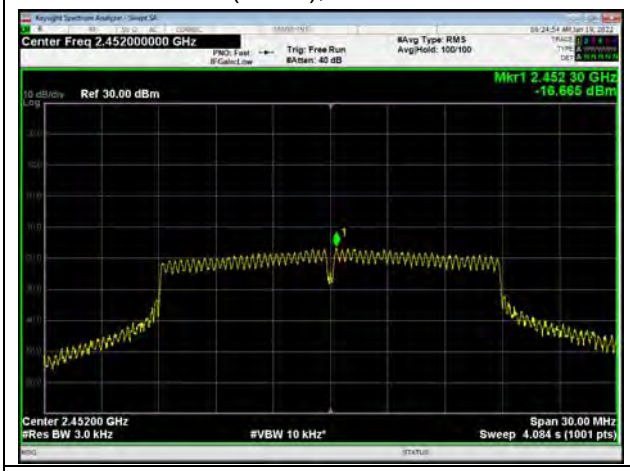

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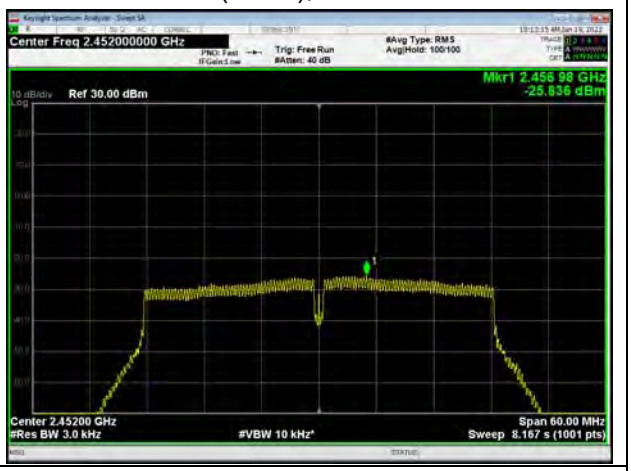

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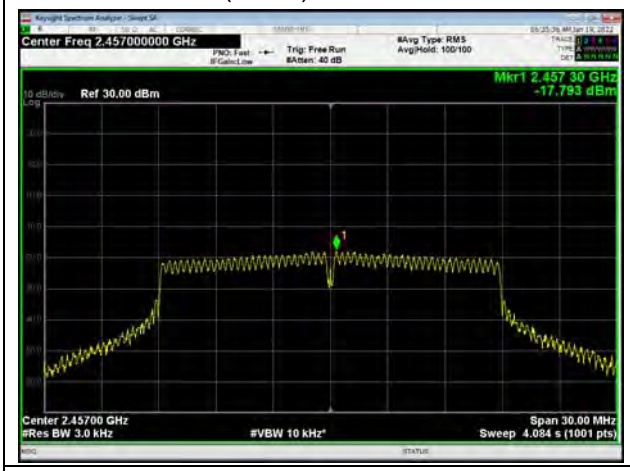

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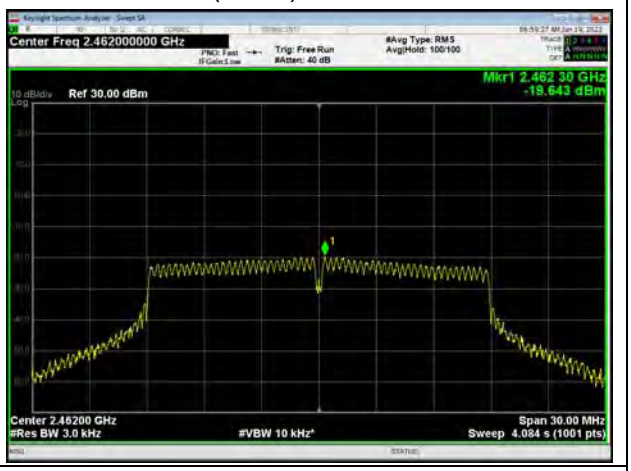
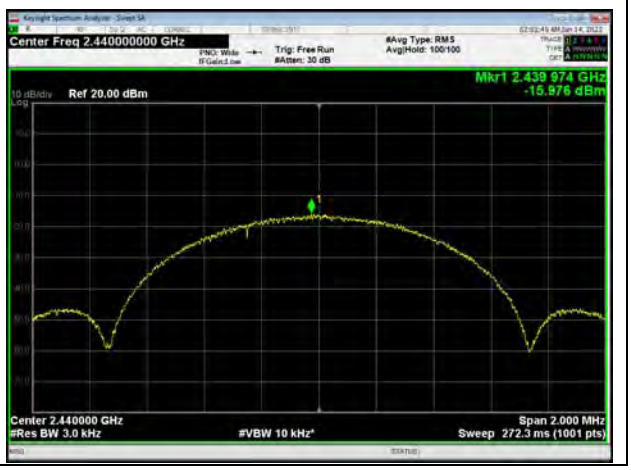


Bluetooth LE, Channel No.: 0

Bluetooth LE, Channel No.: 19



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Bluetooth LE, Channel No.: 39

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5.5. Spurious RF Conducted Emissions

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to the spectrum analyzer with a known loss. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. Set RBW to 100 kHz and VBW to 300 kHz, Sweep is set to ATUO.
The test is in transmitting mode.

Test setup

Limits

Rule Part 15.247(d) pacifies that “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. ”

Antenna 1

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
802.11b	2412/CH 1	10.56	-19.44
	2437/CH 6	9.96	-20.04
	2462/CH11	10.41	-19.59
802.11g	2412/CH 1	5.66	-24.34
	2417/CH 2	6.46	-23.54
	2422/CH 3	7.50	-22.50
	2427/CH 4	9.13	-20.87
	2437/CH 6	8.43	-21.57
	2447/CH 8	9.29	-20.71
	2452/CH 9	7.93	-22.07
	2457/CH 10	3.82	-26.18

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	2462/CH 11	2.40	-27.60
802.11n HT20	2412/CH 1	5.44	-24.56
	2417/CH 2	5.78	-24.22
	2422/CH 3	8.24	-21.76
	2427/CH 4	8.15	-21.85
	2437/CH 6	8.50	-21.50
	2447/CH 8	7.75	-22.25
	2452/CH 9	9.86	-20.14
	2457/CH 10	7.49	-22.51
	2462/CH 11	5.19	-24.81
802.11n HT40	2422/CH 3	-2.97	-32.97
	2427/CH 4	-1.97	-31.97
	2432/CH 5	-1.50	-31.50
	2437/CH 6	0.28	-29.72
	2442/CH 7	-0.54	-30.54
	2447/CH 8	-1.30	-31.30
	2452/CH 9	-1.22	-31.22
Bluetooth (Low Energy)	2402/CH 0	6.31	-23.69
	2440/CH 19	6.00	-24.00
	2480/CH 39	6.90	-23.10

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96.

Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB

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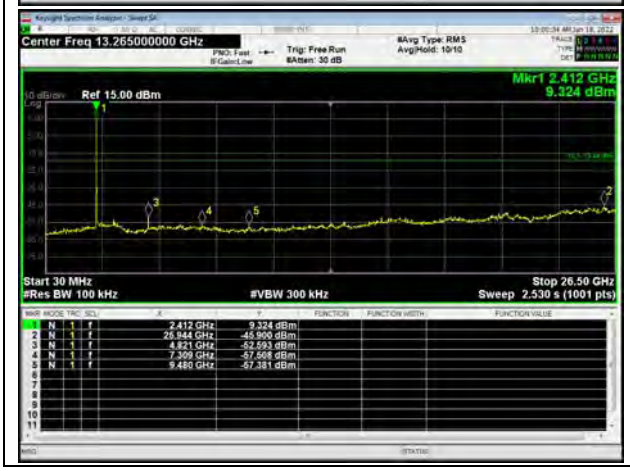
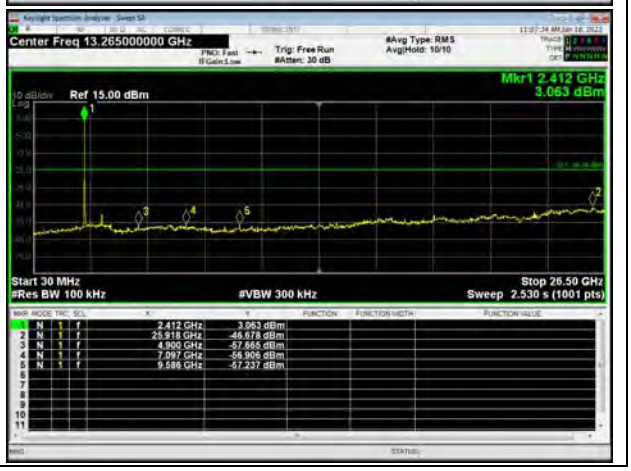
Test Results:

802.11b, Channel No.: 1	802.11g, Channel No.: 1
	
	

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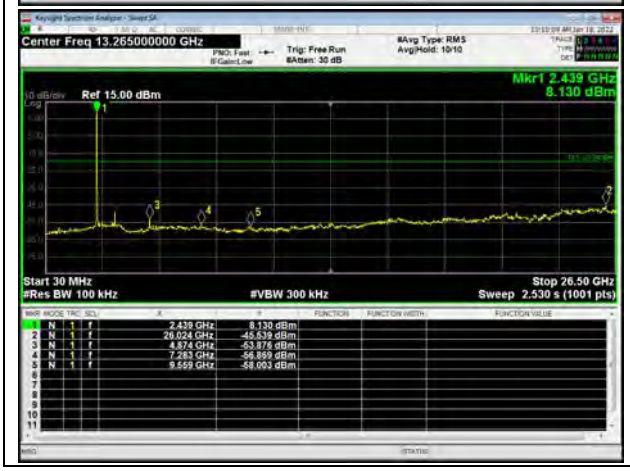
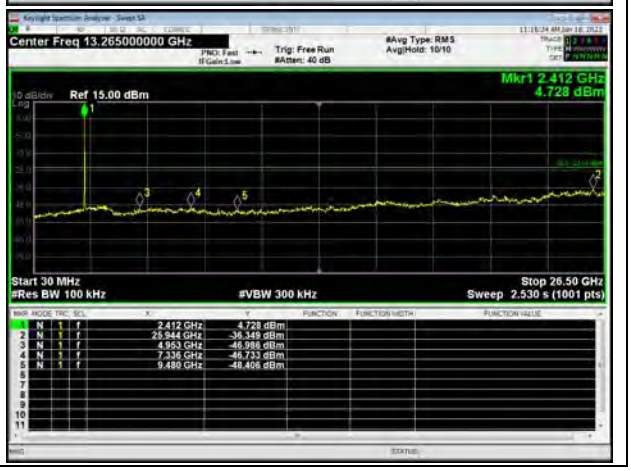


802.11g, Channel No.: 2



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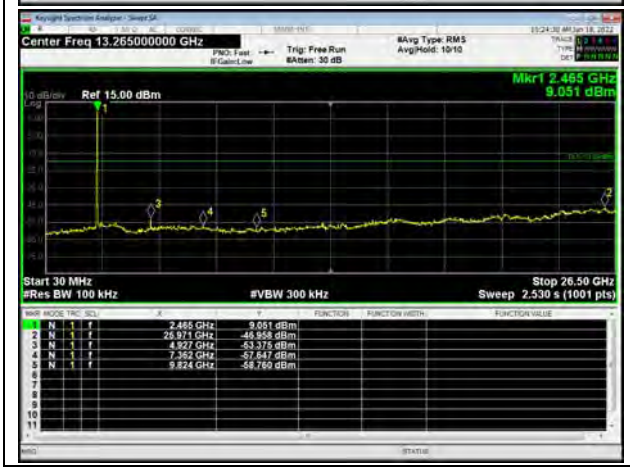
802.11b, Channel No.: 11



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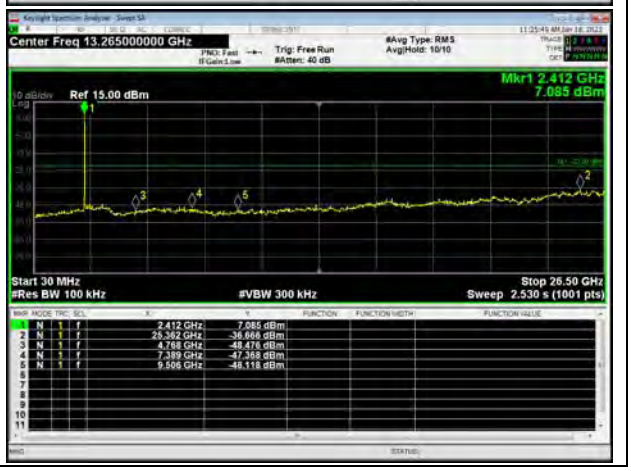

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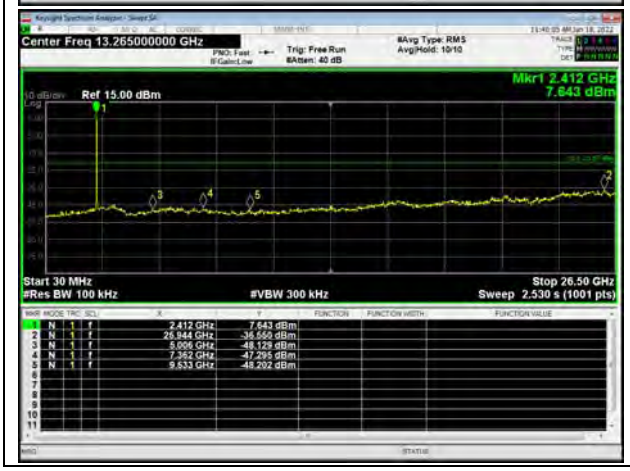

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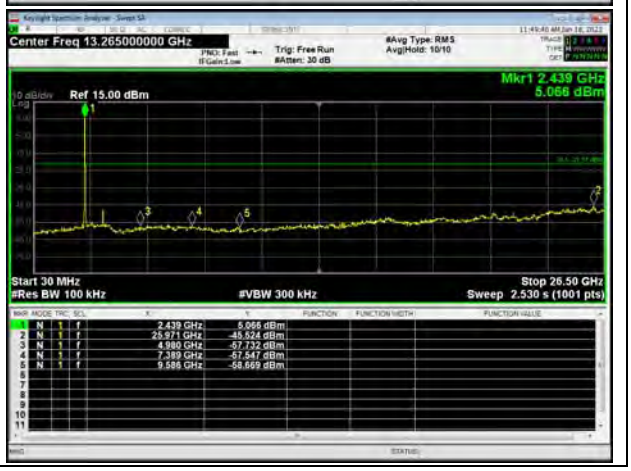

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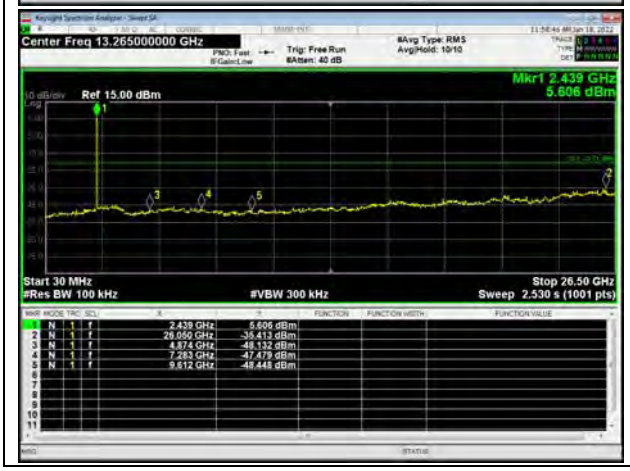

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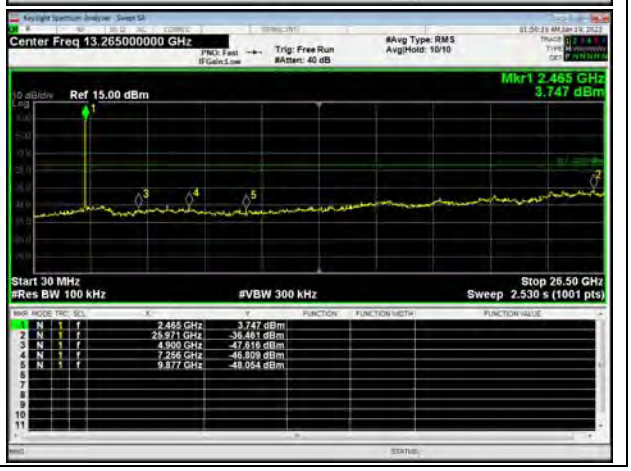

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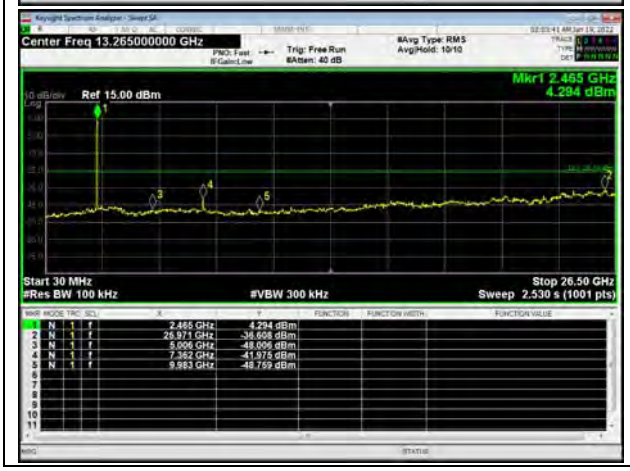

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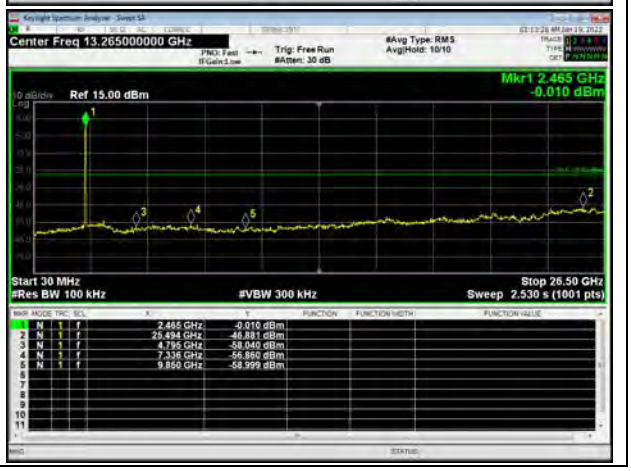

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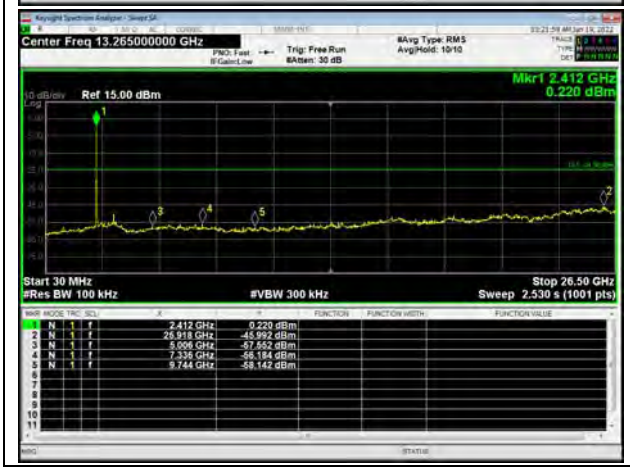
802.11n(HT20), Channel No. 1	802.11n(HT40), Channel No. 3
	
	

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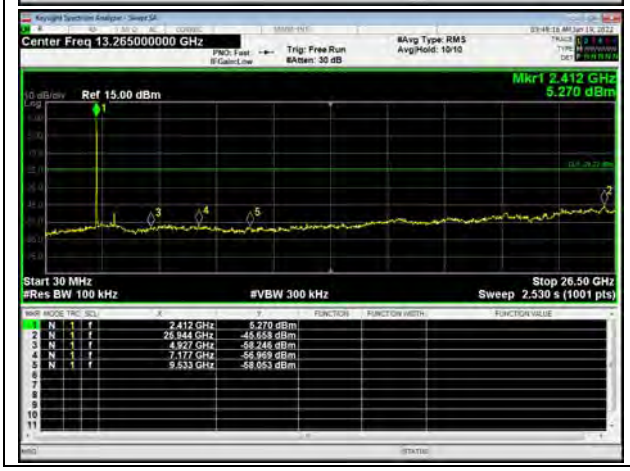
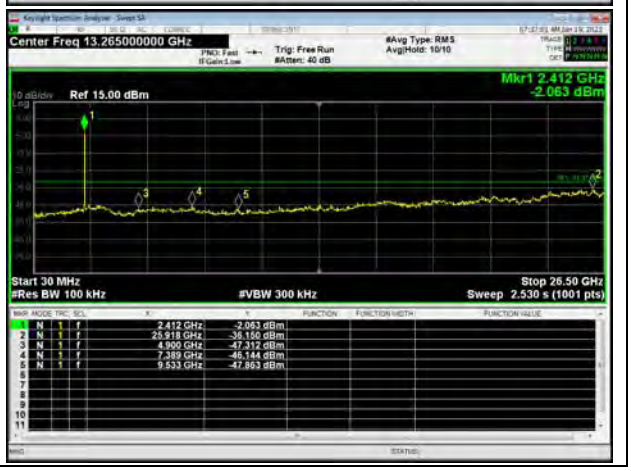
802.11n(HT20), Channel No. 2	802.11n(HT40), Channel No. 4
	
	

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