

TEST REPORT

**CTK Co., Ltd.**

(Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si,
Gyeonggi-do, Korea
Tel: +82-1551-9871
Fax: +82-31-624-9501

REPORT No.:
CTK-2026-01750
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1. Applicant

- Name : Samsung Electronics Co Ltd
- Address : 19 Chapin Rd, Building D. Pine Brook, New Jersey, United States
- Date of Receipt : 2026-04-28

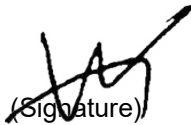
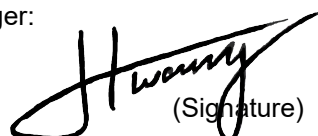
2. Manufacturer

- Name : Samsung Electronics Co., Ltd.

3. Use of Report : For FCC Conformance**4. Test sample / Model : Wi-Fi/BT Transceiver / WCH734R****5. Date(s) of test : 2026-05-16 to 2026-05-22****6. Test Standard (Method) used : FCC 47 CFR part 15 subpart C 15.247****7. Testing Environment : Refer to 7 page****8. Test Results : Compliance****9. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing**

(Address : (Unhak-Dong) 5, 221 beon-gil, Dongbu-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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Approval	Tested by:	Technical Manager:
	Seong-uk Park :  (Signature)	Wonjae Hwang :  (Signature)

2026-07-02

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REPORT REVISION HISTORY

Date	Revision	Page No
2026-07-02	Issued (CTK-2026-01750)	all

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1. General Product Description

1.1 Applicant Information

Company	Samsung Electronics Co Ltd
Contact Point	19 Chapin Rd, Building D. Pine Brook, New Jersey, United States
Contact Person	Name : Minhyung Cho E-mail : mh719.cho@samsung.com Tel : +82-31-277-2688 Fax : -

1.2 Manufacturer Information

Manufacturer	Samsung Electronics Co., Ltd.
Address	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea
Factory #1	CHEMTRONICS Co., Ltd
Address	35, Hyeongjero, Namsa-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea
Factory #2	SJIT CO., LTD.
Address	#54-11, Dongtanhana 1gil, Hwaseong-si, Gyeonggi-Do, Korea
Factory #3	CHEMTROVINA COMPANY LIMITED
Address	Nhon Trach 2 - Loc Khang IZ, Hiep Phuoc Town, Nhon Trach District, Dong Nai, Province, Vietnam
Factory #4	SJIT VINA Co., Ltd
Address	Lot X2, Ho Nai Industrial Zone, Ho Nai 3 Commune, Trang Bom District, Dong Nai Province, Vietnam
Factory #5	XUGUANG TECHNOLOGY (VIETNAM) COMPANY LIMITED
Address	Factory No.4, Lot CN1, An Duong Industrial Park, Hong Phong Commune, An Duong District, Hai Phong City, Vietnam
Factory #6	Chengdu Xuguang Technology Co., Ltd.
Address	Building 1, Floors 1-2 and Building 2, Wenbai Avenue No.998, Baihe Street, Economic and Technological Development Zone (Longquanyi District), Chengdu City, Sichuan Province, P.R.China

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1.3 Product Information

FCC ID	A3LWCH734R	
Product Description	Wi-Fi/BT Transceiver	
Model name	WCH734R	
Variant Model name	-	
Operating Frequency	2 412 MHz to 2 472 MHz (20 MHz_BW)	
RF Output Power	802.11b : 16.88 dBm (48.75 mW) 802.11g : 16.18 dBm (41.50 mW) 802.11n_HT20 : 18.69 dBm (73.96 mW)	
Antenna Specification	Antenna Type	Metal Antenna
	Peak Gain	0.01 dBi (ANT0), 0.68 dBi (ANT1)
Antenna Configurations	802.11b : SISO (ANT0, ANT1) 802.11g : SISO (ANT0, ANT1) 802.11n : SISO (ANT0, ANT1), MIMO (ANT0+ANT1)	
Number of channels	13	
Type of modulation	802.11b : DSSS 802.11g/n : OFDM	
Data Rate	802.11b : 11 / 5.5 / 2 / 1 Mbps 802.11g : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n : up to 144 Mbps	
Power Source	DC 3.3 V	
Hardware Rev(HVIN)	WCH734R	
Software Rev(FVIN)	v5.15.0.1	
Test Program	MPTool.exe	

RF Power Setting in Test SW

Mode	Frequency	Power Setting Value
802.11b	2 412 MHz to 2 467 MHz	17.00
	2 472 MHz	14.50
802.11g	2 412 MHz to 2 467 MHz	16.00
	2 472 MHz	13.00
802.11n_HT20	2 412 MHz to 2 467 MHz	16.00
	2 472 MHz	12.75

1.4 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Notebook	Samsung Electronics Co., Ltd.	550XDA	KQFJ99YRA002J0
AC Adapter	Samsung Electronics Co., Ltd.	PA-1400-96	CN60BA4400295AD2VHNCHF042
Note Computer	Samsung Electronics Co., Ltd.	NT550XEZ	5RNV9FCW400929K
AC/DC Adapter	SHENZHEN HONOR ELECTRONIC CO.,LTD	ADT-60LM-P	-

1.5 Model Differences

Not applicable

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2. Accreditations

2.1 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	CN : 8737A CAB ID : KR0025
KOREA	NRRA	KR0025

2.2 Calibration Details of Equipment used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

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3. Test Specifications

3.1 Standards

FCC Part Section(s)	Requirement(s)	Status (Note 1)	Test Condition
15.247(a)	6 dB Bandwidth	C	Conducted
15.247(b)	Maximum Output Power	C	
15.247(d)	Conducted Spurious Emission	C	
15.247(e)	Transmitter Power Spectral Density	C	
15.209	Radiated Emissions	C	Radiated
15.207	AC Conducted Emissions	C	Line Conducted
Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable			
Note 2: The data in this test report are traceable to the national or international standards.			
Note 3: The sample was tested according to the following specification: FCC Part 15.247			
Note 4: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2020+Cor 1-2023+C63.10a-2024+Errata to C63.10a-2024			

3.2 Testing Environment

Test Item		Test Date	Temperature (°C)	Relative Humidity (%)
6 dB Bandwidth & 99 % Bandwidth		2026-05-18	25 ± 1	17 ± 3
Maximum Output Power				
Conducted Spurious Emission				
Transmitter Power Spectral Density				
Transmitter Emission (Radiated)	(1 GHz Below)	2026-05-19, 2026-05-22	(23, 23) ± 1	(32, 46) ± 3
	(1 GHz Above)	2026-05-16 to 2026-05-22	(17 to 20) ± 1	(48 to 50) ± 3
AC Conducted Emission		2026-05-18	23 ± 1	48 ± 3

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3.3 Mode of Operation during the Test

The EUT is operated in a manner representative of the typical of the equipments.
During at testing, system components were manipulated within the confines of typical usage to maximize each emission. All modulation modes were tests. The results are only attached worst cases.

Test Frequency & Bandwidth

Bandwidth	Lowest Channel	Middle Channel	Highest Channel 1	Highest Channel 2
20 MHz	2 412 MHz	2 442 MHz	2 467 MHz	2 472 MHz

Test Mode & Worst Case

Test Mode	Modulation	Data Rate (Worst Case)	Duty Cycle	Duty Cycle Factor
802.11b	DSSS	1 Mbps	100 %	0.00 dB
802.11g	OFDM	6 Mbps	100 %	0.00 dB
802.11n_HT20	OFDM	MCS 8	100 %	0.00 dB

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3.4 Device Modifications

The following modifications were necessary for compliance:

Not applicable

3.5 Measurement Uncertainty

The value of the measurement uncertainty for the measurement of each parameter.
Coverage factor $k = 2$, Confidence levels of 95 %

Description	Uncertainty
Conducted RF Output Power	0.46 dB (C.L.: Approx. 95 %, $k = 2$)
Power Spectral Density	0.46 dB (C.L.: Approx. 95 %, $k = 2$)
Occupied Bandwidth	0.10 MHz (C.L.: Approx. 95 %, $k = 2$)
Unwanted Emission (Conducted)	0.54 dB (C.L.: Approx. 95 %, $k = 2$)
Radiated Emissions ($f \leq 1$ GHz)	4.11 dB (C.L.: Approx. 95 %, $k = 2$)
Radiated Emissions ($f > 1$ GHz)	4.34 dB (C.L.: Approx. 95 %, $k = 2$)
Line Conducted Emission	2.06 dB (C.L.: Approx. 95 %, $k = 2$)

3.6 Test Software

Conducted Test	Ics Pro Ver. 6.0.3
Radiated Test	EP5RE Ver. 6.0.10, ES10 Ver. 10.001
Line Conducted Test	EMC32 Ver. 10.50.00

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4. Technical Characteristic Test

4.1 6 dB Bandwidth

Test Procedures

KDB 558074 - Section 8.2
ANSI C63.10-2020 - Section 11.8.2

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

ANSI C63.10-2020 - Section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission.

Use the 99 % power bandwidth function of the instrument and report the measured bandwidth.

Test Settings:

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1 (i.e., RBW = 100 kHz, VBW $\geq$ 3 $\times$ RBW, and peak detector with maximum hold) is implemented by the instrumentation function.

When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be $\geq$ 6 dB.

Minimum Standard :

6 dB Bandwidth > 500 kHz

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Test Data :**ANT0**

Test Mode	6 dB Bandwidth & 99 % Bandwidth [MHz]					
	802.11b		802.11g		802.11n_HT20	
Frequency	6 dB	99 %	6 dB	99 %	6 dB	99 %
2 412 MHz	10.16	14.64	15.16	16.21	15.16	17.40
2 442 MHz	10.15	14.62	15.16	16.21	15.17	17.41
2 467 MHz	10.16	14.63	15.16	16.20	15.16	17.39
2 472 MHz	10.15	14.57	15.15	16.19	15.16	17.38

ANT1

Test Mode	6 dB Bandwidth & 99 % Bandwidth [MHz]					
	802.11b		802.11g		802.11n_HT20	
Frequency	6 dB	99 %	6 dB	99 %	6 dB	99 %
2 412 MHz	10.16	14.64	15.18	16.22	15.73	17.42
2 442 MHz	10.16	14.61	15.17	16.22	15.74	17.43
2 467 MHz	10.16	14.64	15.16	16.20	15.73	17.41
2 472 MHz	10.16	14.60	15.15	16.21	15.76	17.42

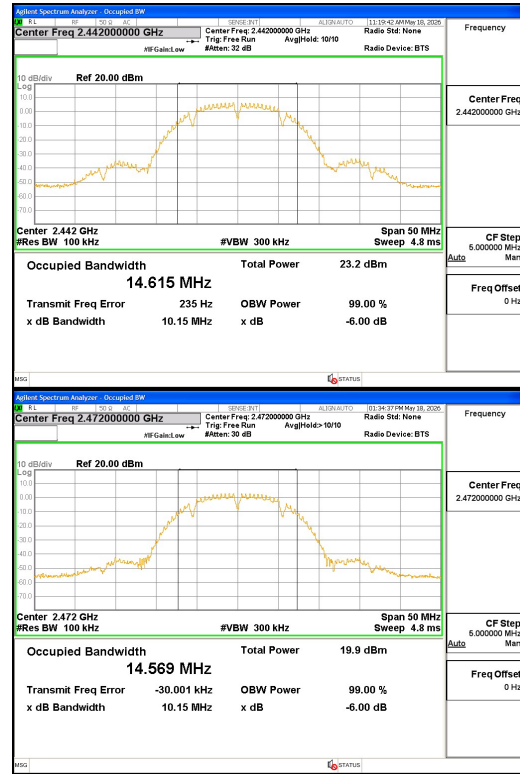
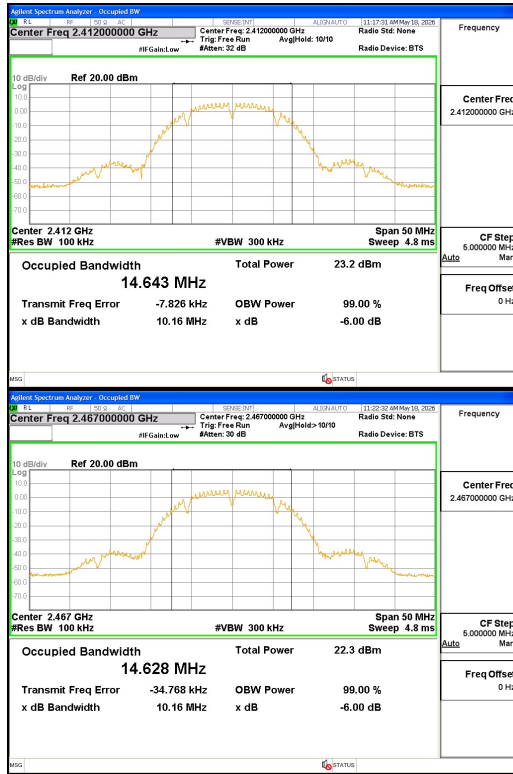
See next pages for actual measured spectrum plots.



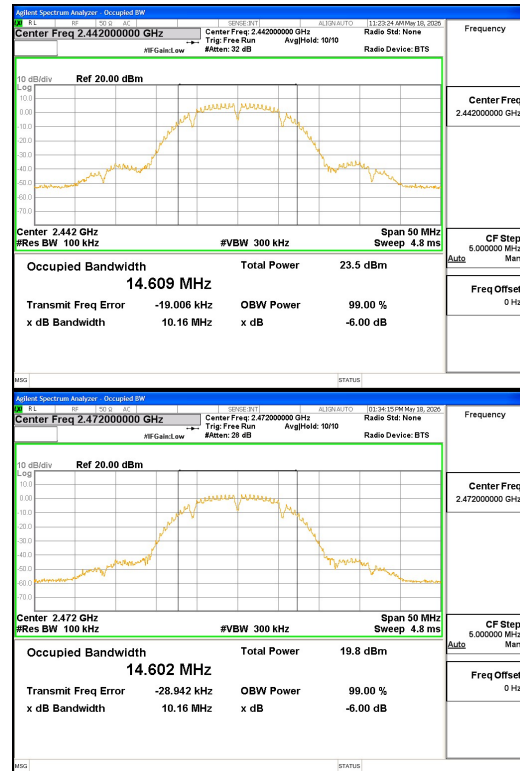
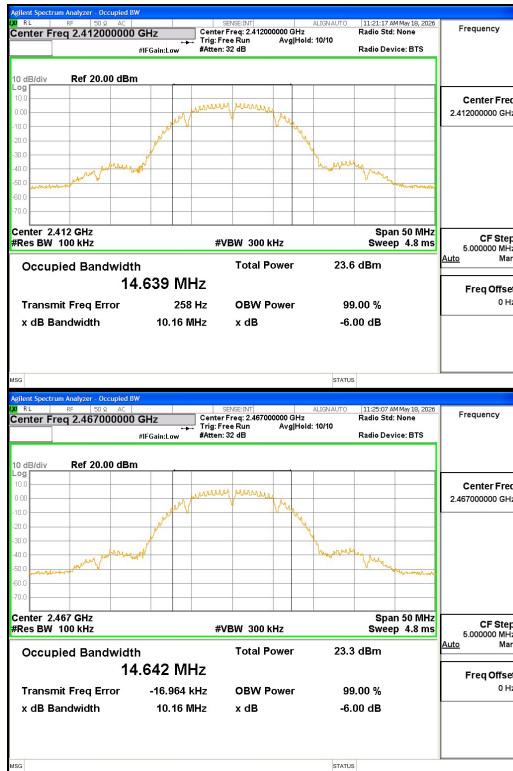
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ANT0, 802.11b, 6 dB & 99 % Bandwidth



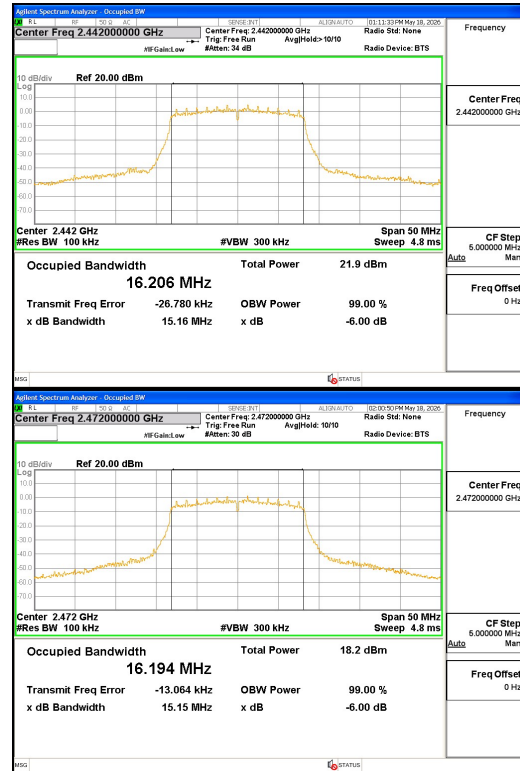
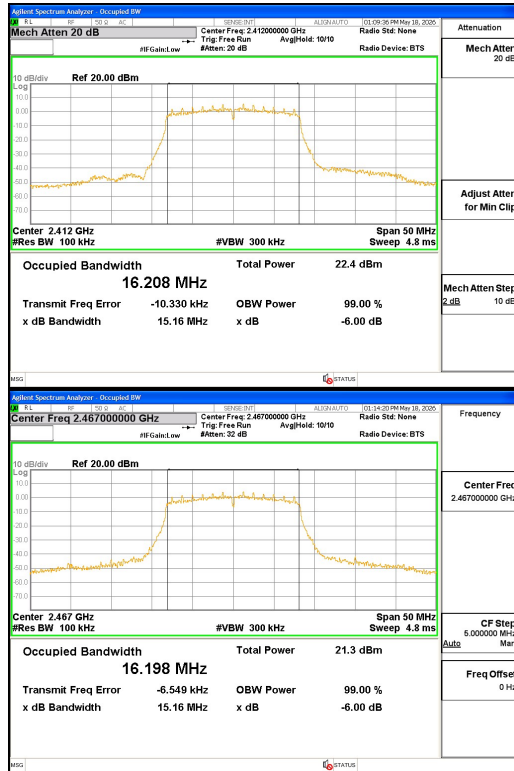
ANT1, 802.11b, 6 dB & 99 % Bandwidth



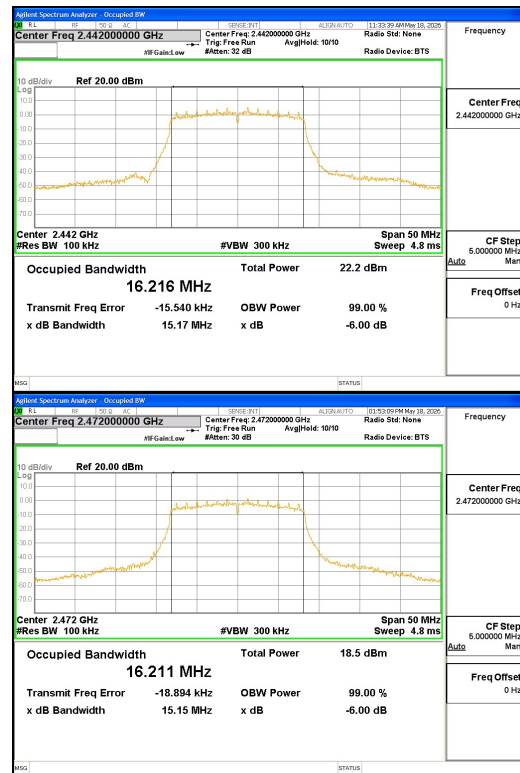
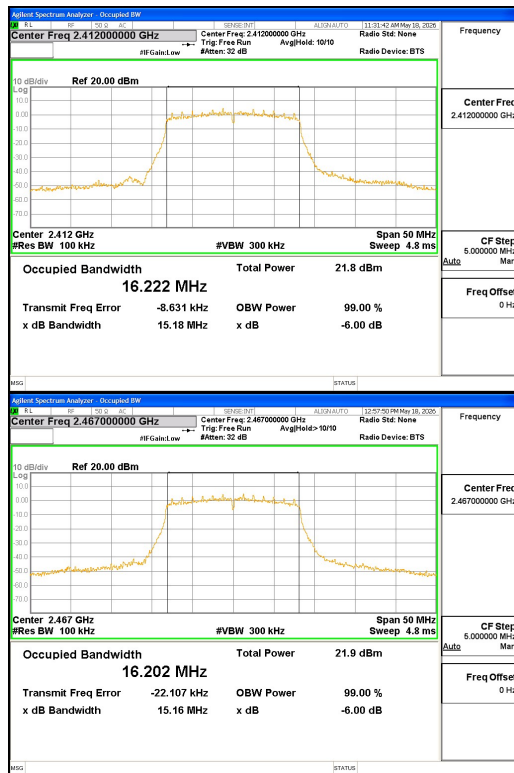
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ANT0, 802.11g, 6 dB & 99 % Bandwidth



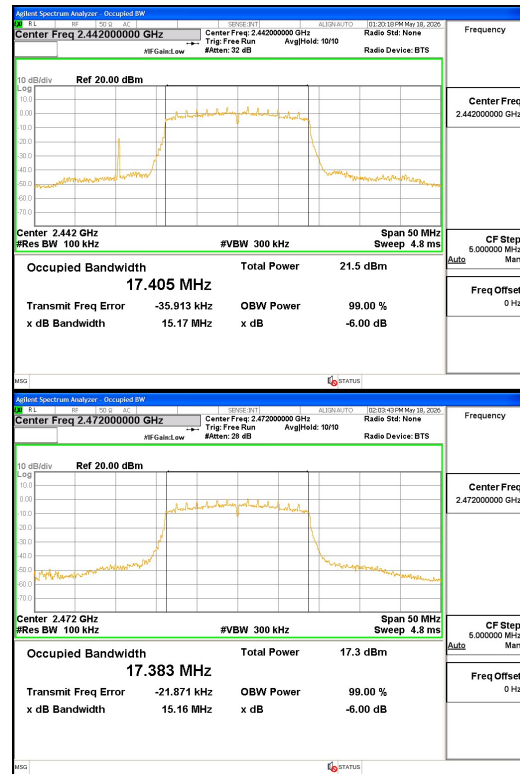
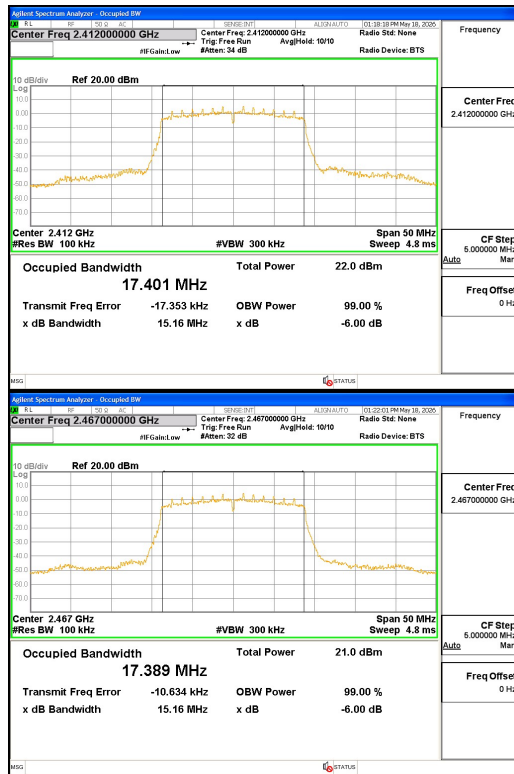
ANT1, 802.11g, 6 dB & 99 % Bandwidth



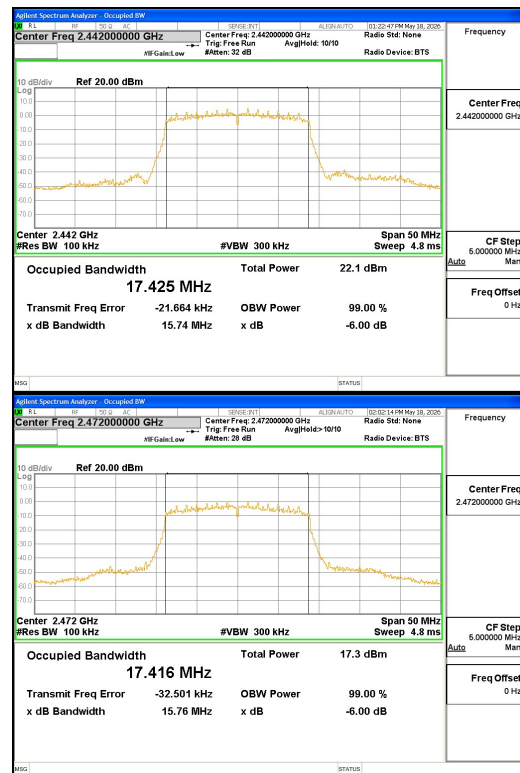
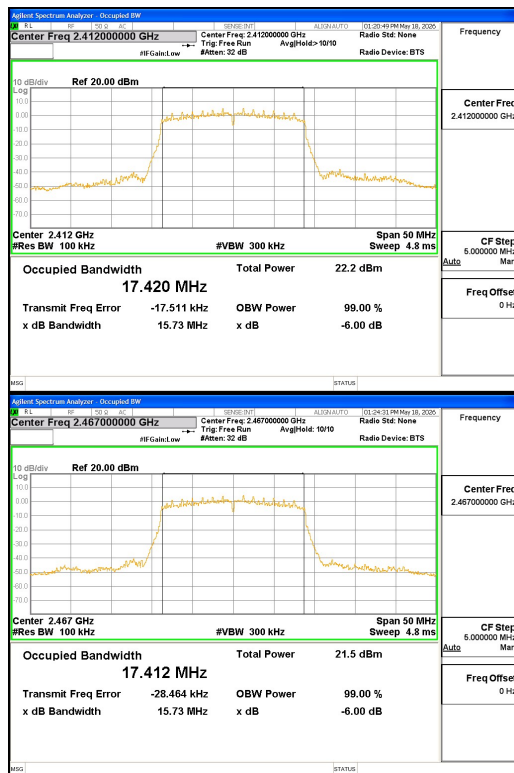
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ANT0, 802.11n_HT20, 6 dB & 99 % Bandwidth



ANT1, 802.11n_HT20, 6 dB & 99 % Bandwidth

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4.2 Output Power

Test Procedures

KDB 558074 - Section 8.3.2.2 (Average Power)

ANSI C63.10-2020 - Section 11.9.2.2.2

KDB 662911 D01, D02 (Multiple Transmitter Output)

The transmitter output is connected to a spectrum analyzer and the analyzer's internal channel power integration function is used to integrate the power over a bandwidth greater than or equal to the 99 % bandwidth.

Test Settings:

Center frequency = the highest, middle and the lowest channels

- a) Span $\geq 1.5 \times \text{OBW}$
- b) RBW = 1 % to 5 % of the OBW, but do not exceed 1 MHz.
- c) VBW $\geq 3 \times \text{RBW}$
- d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$)
- e) Sweep time = auto
- f) Detector = RMS
- g) Do not use sweep triggering. Allow the sweep to "free run."
- h) Trace average at least 100 traces in power averaging (rms) mode.
- i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band-edges. If the instrument does not have a band-power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

Limit :

Operating Mode	Mode	ANT Configuration	ANT Gain [dBi]	Limit [dBm]
SISO	802.11b/g/n	ANT0	0.01	30.00
SISO	802.11b/g/n	ANT1	0.68	30.00
MIMO (2TX)	802.11n	ANT0 + ANT1	3.36	30.00

Note :

Per KDB 662911, the MIMO directional gain is calculated using the following formula, Where G_N is the gain of the nth antenna and N_{ANT} , the total number of antennas used.

$$\text{Directional gain} = 10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{\text{ANT}}] \text{ dBi}$$

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Test Data :**ANT0 (SISO)**

Test Mode	Frequency [MHz]	Measured Output Power [dBm]	Duty Cycle Factor [dB]	Result Output Power [dBm]	Limit [dBm]	Margin [dB]
802.11b	2 412	16.54	0.00	16.54	30.00	13.46
	2 442	16.51	0.00	16.51	30.00	13.49
	2 467	15.62	0.00	15.62	30.00	14.38
	2 472	13.37	0.00	13.37	30.00	16.63
802.11g	2 412	16.18	0.00	16.18	30.00	13.82
	2 442	15.56	0.00	15.56	30.00	14.44
	2 467	14.93	0.00	14.93	30.00	15.07
	2 472	10.49	0.00	10.49	30.00	19.51
802.11n _HT20	2 412	15.73	0.00	15.73	30.00	14.27
	2 442	15.20	0.00	15.20	30.00	14.80
	2 467	14.76	0.00	14.76	30.00	15.24
	2 472	9.03	0.00	9.03	30.00	20.97

ANT1 (SISO)

Test Mode	Frequency [MHz]	Measured Output Power [dBm]	Duty Cycle Factor [dB]	Result Output Power [dBm]	Limit [dBm]	Margin [dB]
802.11b	2 412	16.88	0.00	16.88	30.00	13.12
	2 442	16.70	0.00	16.70	30.00	13.30
	2 467	16.55	0.00	16.55	30.00	13.45
	2 472	13.10	0.00	13.10	30.00	16.90
802.11g	2 412	15.69	0.00	15.69	30.00	14.31
	2 442	15.88	0.00	15.88	30.00	14.12
	2 467	15.47	0.00	15.47	30.00	14.53
	2 472	10.86	0.00	10.86	30.00	19.14
802.11n _HT20	2 412	15.62	0.00	15.62	30.00	14.38
	2 442	15.58	0.00	15.58	30.00	14.42
	2 467	14.97	0.00	14.97	30.00	15.03
	2 472	8.23	0.00	8.23	30.00	21.77

ANT0 + ANT1 (MIMO)

Test Mode	Frequency [MHz]	Measured Output Power [dBm]	Duty Cycle Factor [dB]	Result Output Power [dBm]	Limit [dBm]	Margin [dB]
802.11n _HT20	2 412	18.69	0.00	18.69	30.00	11.31
	2 442	18.40	0.00	18.40	30.00	11.60
	2 467	17.88	0.00	17.88	30.00	12.12
	2 472	11.66	0.00	11.66	30.00	18.34

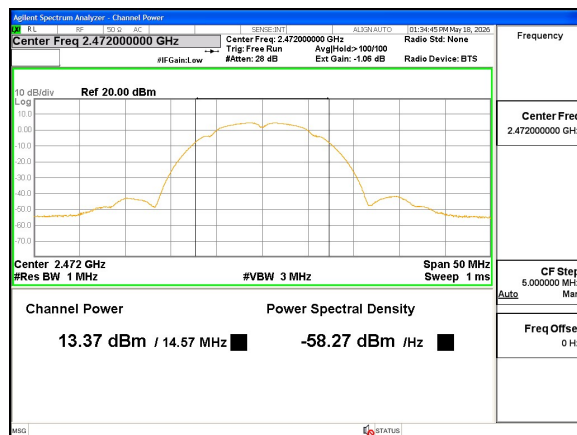
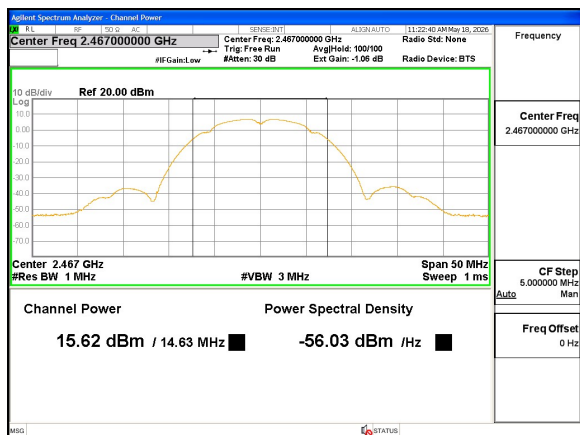
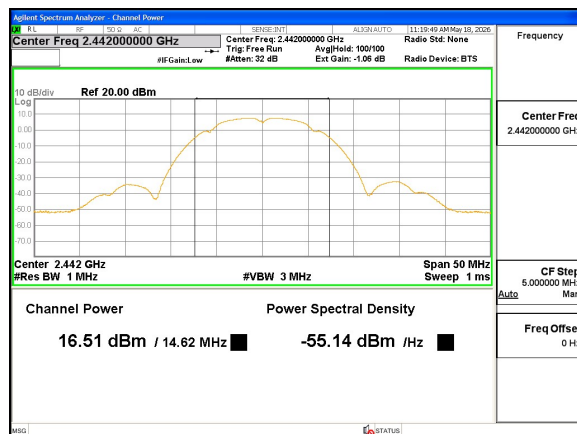
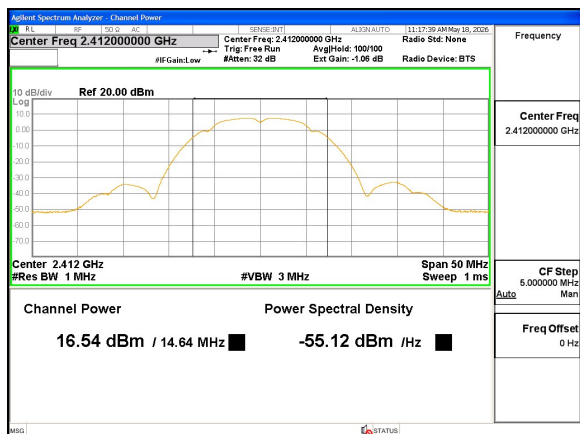
See next pages for actual measured spectrum plots.



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