

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-2026-01751
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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

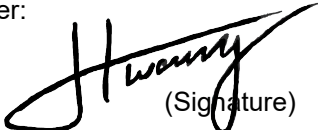
2. Manufacturer

- 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 : 2026-05-15 to 2026-05-22****6. Test Standard (Method) used : FCC 47 CFR part 15 subpart E 15.407****7. Testing Environment : Refer to 9 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-2026-01751)	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	UNII 1	20 MHz_BW : 5 180 MHz – 5 240 MHz 40 MHz_BW : 5 190 MHz – 5 230 MHz 80 MHz_BW : 5 210 MHz
	UNII 2A	20 MHz_BW : 5 260 MHz – 5 320 MHz 40 MHz_BW : 5 270 MHz – 5 310 MHz 80 MHz_BW : 5 290 MHz
	UNII 2C	20 MHz_BW : 5 500 MHz – 5 720 MHz 40 MHz_BW : 5 510 MHz – 5 710 MHz 80 MHz_BW : 5 530 MHz – 5 690 MHz
	UNII 3	20 MHz_BW : 5 745 MHz – 5 825 MHz 40 MHz_BW : 5 755 MHz – 5 795 MHz 80 MHz_BW : 5 775 MHz
RF Output Power	802.11a : 16.68 dBm (45.56 mW) 802.11n_HT20 : 19.13 dBm (81.85 mW) 802.11n_HT40 : 18.68 dBm (73.79 mW) 802.11ac_VHT20 : 17.61 dBm (57.68 mW) 802.11ac_VHT40 : 17.38 dBm (54.70 mW) 802.11ac_VHT80 : 17.32 dBm (53.95 mW)	
Antenna Specification	Antenna Type	Metal Antenna
	UNII 1, UNII 2A	Peak Gain : 0.85 dBi (ANT0), 0.69 dBi (ANT1)
	UNII 2C, UNII 3	Peak Gain : 1.39 dBi (ANT0), 0.87 dBi (ANT1)
Antenna Configurations	802.11a : SISO (ANT0) 802.11n : SISO (ANT0, ANT1), MIMO (ANT0+ANT1) 802.11ac : SISO (ANT0, ANT1), MIMO (ANT0+ANT1)	
Type of modulation	802.11a/n/ac : OFDM	
Data Rate	802.11a : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n : up to 300 Mbps 802.11ac : up to 867 Mbps	
Power Source	DC 3.3 V	
Hardware Rev	WCH734R	
Software Rev	v5.15.0.1	
Dynamic Frequency Selection	Slave without radar detection	
Test Program	MPTool.exe	

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RF Power Setting in Test SW

Mode	Frequency Band	Power Setting Value
802.11a	UNII 1	16.00
	UNII 2A	15.25
	UNII 2C	16.00
	UNII 3	16.00
802.11n_HT20	UNII 1	12.50
	UNII 2A	15.00
	UNII 2C	15.00
	UNII 3	15.00
802.11n_HT40	UNII 1	12.50
	UNII 2A	13.75
	UNII 2C	13.00
	UNII 3	15.00
802.11ac_VHT20	UNII 1	11.50
	UNII 2A	14.00
	UNII 2C	14.00
	UNII 3	14.00
802.11ac_VHT40	UNII 1	12.50
	UNII 2A	12.50
	UNII 2C	14.00
	UNII 3	14.00
802.11ac_VHT80	UNII 1	13.00
	UNII 2A	14.00
	UNII 2C	14.00
	UNII 3	14.00

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)	Limit	Status (Note 1)	Test Condition
15.407 (e)	6 dB Bandwidth	> 500 kHz (5 725 – 5 850 MHz)	C	Conducted
15.407 (a)	26 dB Bandwidth and 99 % Bandwidth	NA	C	
15.407 (a)(1),(2),(3)	Conducted Output Power	< 250 mW (5 150 – 5 250 MHz) < 250 mW (5 250 – 5 350 MHz, 5 470 – 5 725 MHz) < 1 W (5 725 – 5 850 MHz)	C	
15.407 (a)(1),(2),(3)	Power Spectral Density	< 11 dBm/MHz (5 150 – 5 250 MHz) < 11 dBm/MHz (5 250 – 5 350 MHz, 5 470 – 5 725 MHz) < 30 dBm/500 kHz (5 725 – 5 850 MHz)	C	
15.407 (g)	Frequency Stability	NA	C	
15.407 (b)	Undesirable emission	< -27 dBm/MHz EIRP (5 150 – 5 250 MHz, 5 250 – 5 350 MHz, 5 470 – 5 725 MHz) < -27 dBm/MHz EIRP < 10 dBm/MHz EIRP < 15.6 dBm/MHz EIRP < 27 dBm/MHz EIRP (5 725 – 5 850 MHz)	C	Radiated
15.205, 15.407 (b)(9),(10)	Radiated Spurious Emission	15.209(a)	C	
15.407 (b)(9)	AC Conducted Emissions	15.207(a)	C	Line Conducted
<u>Note 1:</u> C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable				
<u>Note 2:</u> The data in this test report are traceable to the national or international standards.				
<u>Note 3:</u> The sample was tested according to the following specification: FCC Part 15.407				
<u>Note 4:</u> 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				

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3.2 Testing Environment

Test Item		Test Date	Temperature (°C)	Relative Humidity (%)
6 dB Bandwidth		2026-05-15 to 2026-05-21	(24 to 25) ± 1	(43 to 49) ± 3
26 dB Bandwidth & 99 % Bandwidth				
Conducted Output Power				
Power Spectral Density				
Frequency Stability		2026-05-20, 2026-05-21	(21, 23) ± 1	(47, 49) ± 3
Transmitter Emission (Radiated)	(1 GHz Below)	2026-05-19, 2026-05-22	(23, 23) ± 1	(32, 46) ± 3
	(1 GHz Above)	2026-05-18 to 2026-05-22	(17 to 20) ± 1	(48 to 49) ± 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.

For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit.

All modulation modes were tests. The results are only attached worst cases.

Test Frequency & Bandwidth

- 802.11a / n_HT20 / ac_VHT20

Frequency Band	Lowest Channel	Middle Channel	Highest Channel
UNII 1	5 180 MHz	5 200 MHz	5 240 MHz
UNII 2A	5 260 MHz	5 300 MHz	5 320 MHz
UNII 2C	5 500 MHz	5 600 MHz	5 700 MHz, 5 720 MHz
UNII 3	5 745 MHz	5 785 MHz	5 825 MHz

- 802.11n_HT40 / ac_VHT40

Frequency Band	Lowest Channel	Middle Channel	Highest Channel
UNII 1	5 190 MHz	-	5 230 MHz
UNII 2A	5 270 MHz	-	5 310 MHz
UNII 2C	5 510 MHz	5 590 MHz	5 670 MHz, 5 710 MHz
UNII 3	5 755 MHz	-	5 795 MHz

- 802.11ac_VHT80

Frequency Band	Lowest Channel	Middle Channel	Highest Channel
UNII 1	5 210 MHz	-	-
UNII 2A	5 290 MHz	-	-
UNII 2C	5 530 MHz	5 610 MHz	5 690 MHz
UNII 3	5 775 MHz	-	-

Test Mode & Worst Case

Test Mode	Modulation	Data Rate	Duty Cycle	Duty Cycle Factor
802.11a	OFDM	6 Mbps	97.8 %	0.09 dB
802.11n_HT20	OFDM	MCS 8	98.0 %	0.09 dB
802.11n_HT40		MCS 8	95.8 %	0.19 dB
802.11ac_VHT20	OFDM	Nss2 MCS0	97.9 %	0.09 dB
802.11ac_VHT40		Nss2 MCS0	95.8 %	0.19 dB
802.11ac_VHT80		Nss2 MCS0	91.9 %	0.37 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 %, $k = 2$)
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 789033 – Section C.2
ANSI C63.10-2020 - Section 12.5.1

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.

Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = 100 kHz
- b) VBW $\geq 3 \times$ RBW
- c) Detector = peak
- d) Trace mode = max hold
- e) Sweep time = auto couple
- f) Allow the trace to stabilize
- g) 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.

Minimum Standard :

6 dB Bandwidth > 500 kHz

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Test Data :**ANT0**

	6 dB Bandwidth [MHz]		
Test Mode	802.11a	802.11n_HT20	802.11ac_VHT20
Frequency [MHz]			
5 745	15.55	15.45	16.79
5 785	15.72	15.46	15.95
5 825	15.60	15.15	15.96

	6 dB Bandwidth [MHz]	
Test Mode	802.11n_HT40	802.11ac_VHT40
Frequency [MHz]		
5 755	35.17	35.14
5 795	35.15	35.15

	6 dB Bandwidth [MHz]
Test Mode	802.11ac_VHT80
Frequency [MHz]	
5 775	75.07

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ANT1

	6 dB Bandwidth [MHz]	
Test Mode	802.11n_HT20	802.11ac_VHT20
Frequency [MHz]		
5 745	16.53	15.71
5 785	16.18	16.28
5 825	16.56	16.52

	6 dB Bandwidth [MHz]	
Test Mode	802.11n_HT40	802.11ac_VHT40
Frequency [MHz]		
5 755	35.15	35.10
5 795	35.09	35.15

	6 dB Bandwidth [MHz]
Test Mode	802.11ac_VHT80
Frequency [MHz]	
5 775	72.63

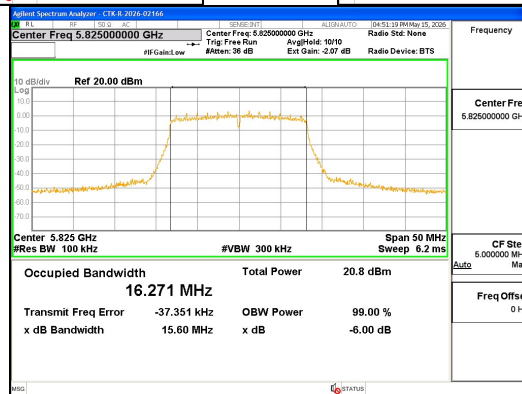
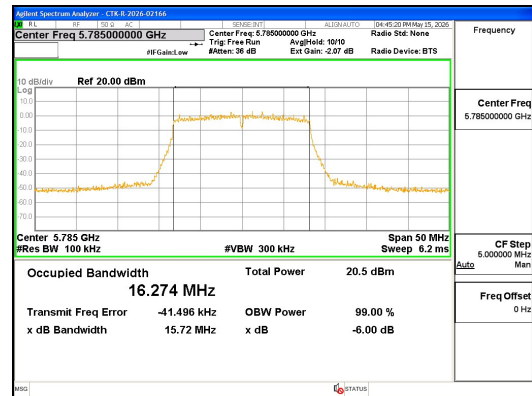
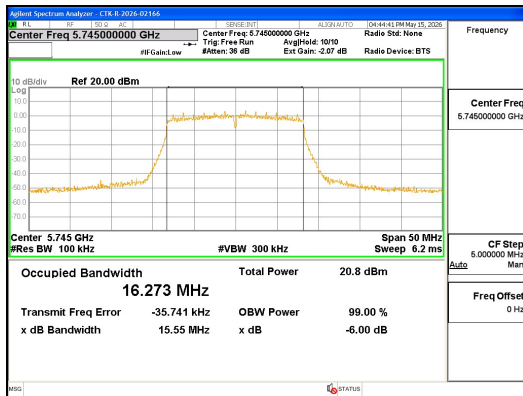
See next pages for actual measured spectrum plots.



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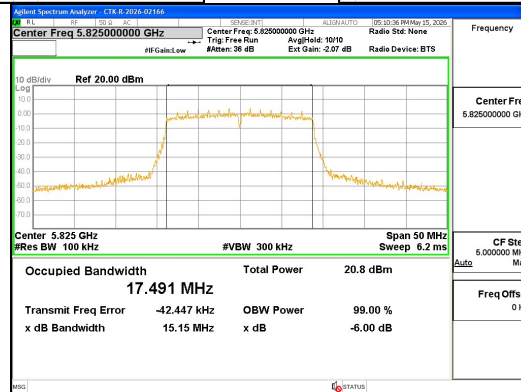
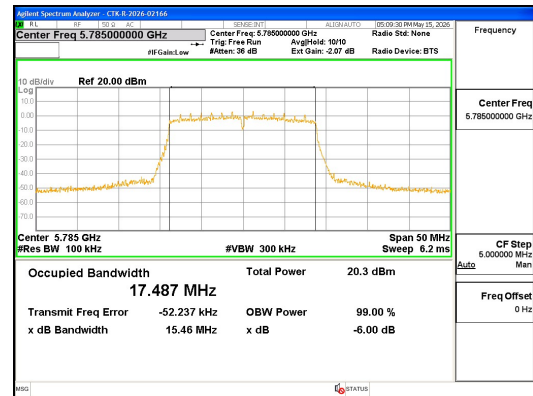
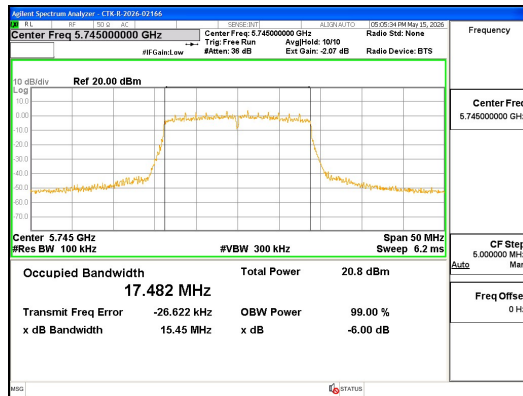
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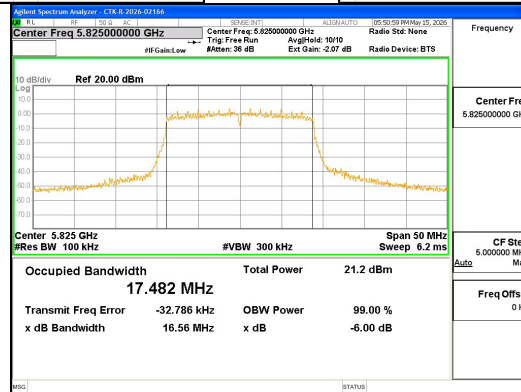
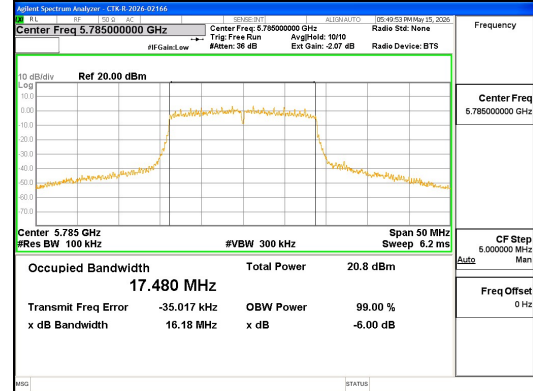
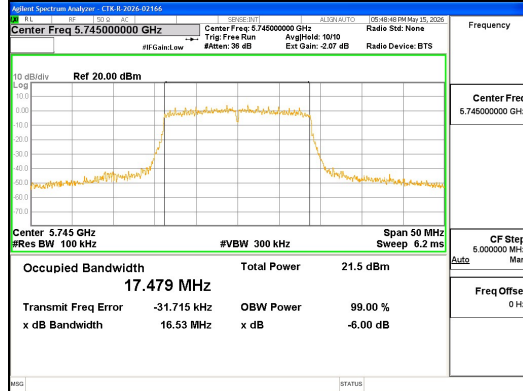
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ANT0_802.11n_HT20_UNII 3



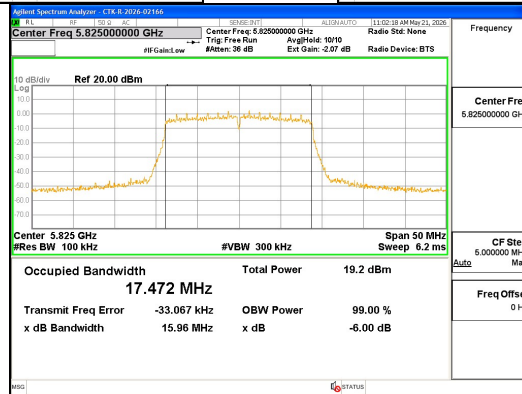
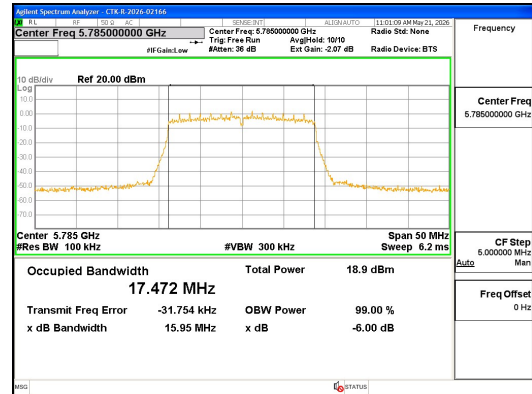
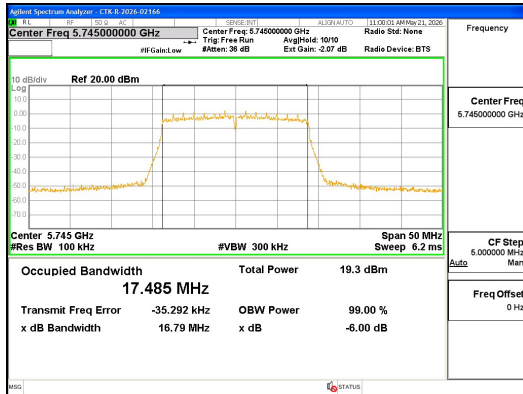
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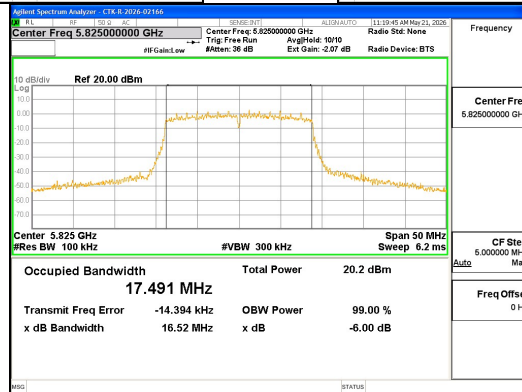
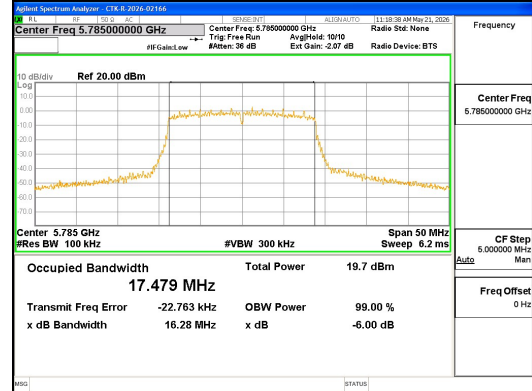
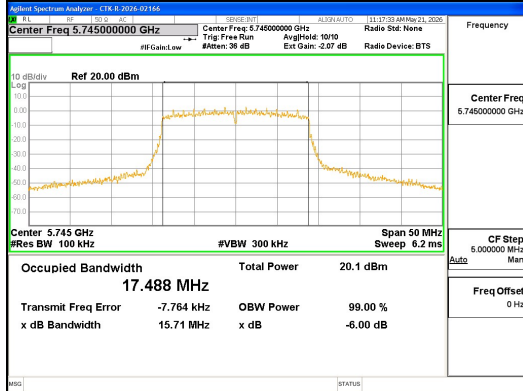
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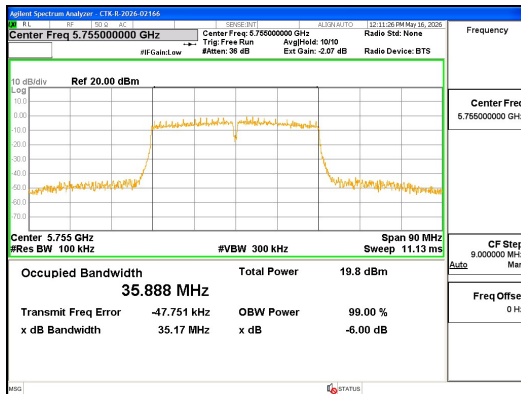
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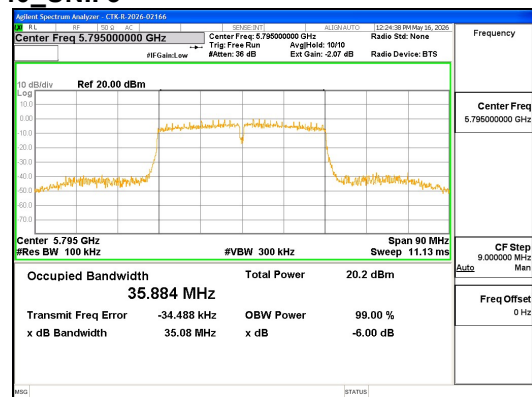
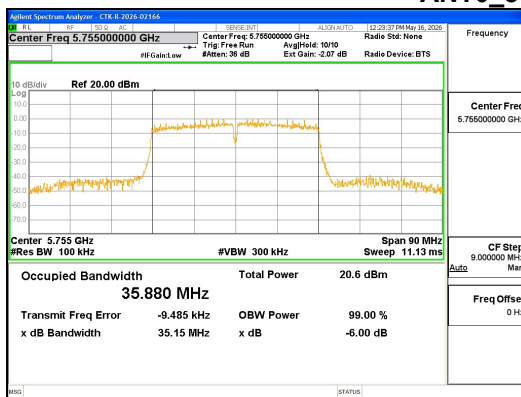
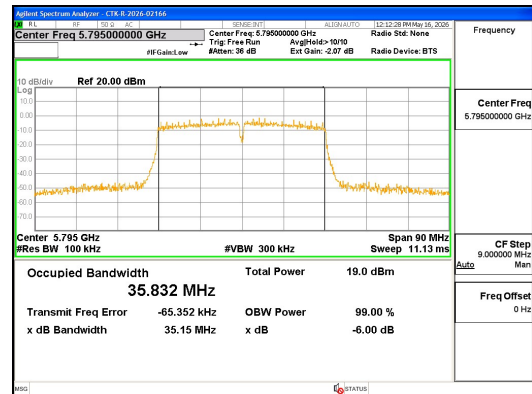
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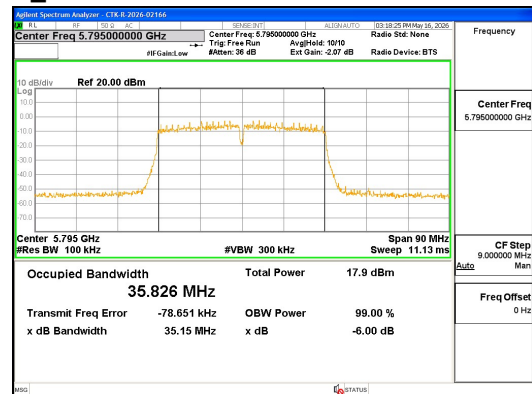
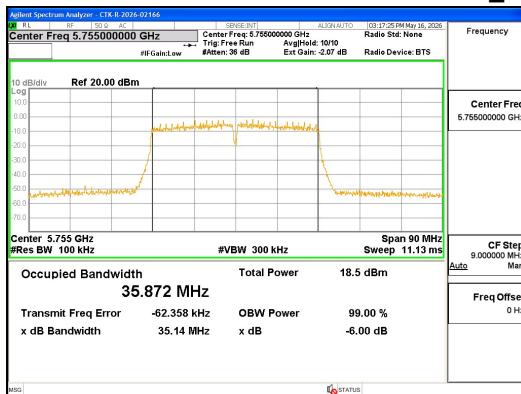
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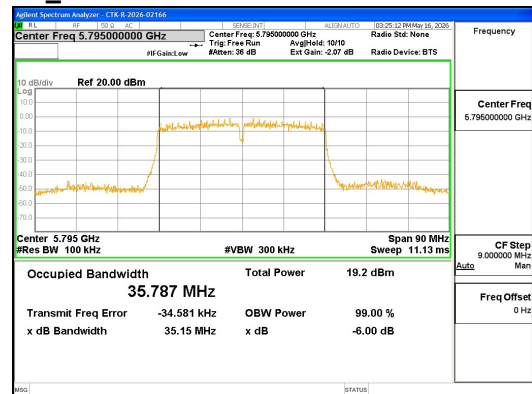
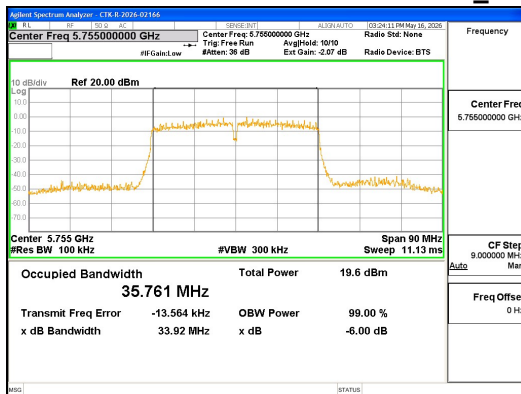
ANT0_802.11n_HT40_UNII 3



ANT1_802.11n_HT40_UNII 3



ANT0_802.11ac_VHT40_UNII 3



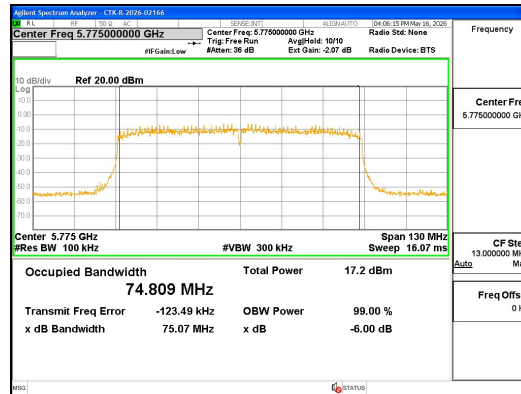
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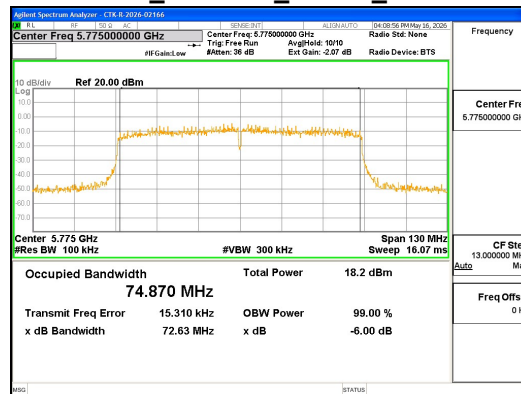
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ANT0_802.11ac_VHT80_UNII 3



ANT1_802.11ac_VHT80_UNII 3

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4.2 26 dB Bandwidth and 99 % Bandwidth

Test Procedures

KDB 789033 – Section C.1
ANSI C63.10-2020 - Section 12.5.2

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 26 dB relative to the maximum level measured in the fundamental emission.

Test Settings :

Center frequency = the highest, middle and the lowest channels

- a) RBW = approximately 1 % to 5 % of the emission bandwidth
- b) VBW > RBW
- c) Detector = peak
- d) Trace mode = Max hold
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Test Procedures

KDB 789033 – Section D
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 :

Center frequency = the highest, middle and the lowest channels

- a) Span = 1.5 times to 5.0 times the OBW.
- b) RBW = 1 % to 5 % of the OBW
- c) VBW $\geq 3 \times$ RBW
- d) Video averaging is not permitted.
Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- e) Use the 99 % power bandwidth function of the instrument (if available).
- f) If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units.
The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % occupied bandwidth is the difference between these two frequencies.

Minimum Standard :

NA

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Test Data :**ANT0**

	26 dB Bandwidth and 99 % Bandwidth [MHz]					
Test Mode	802.11a		802.11n_HT20		802.11ac_VHT20	
Frequency [MHz]	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 180	18.12	16.24	19.01	17.42	19.03	17.41
5 200	18.03	16.23	19.03	17.41	18.71	17.52
5 240	18.17	16.23	19.06	17.41	18.98	17.41
5 260	18.19	16.24	19.04	17.43	19.13	17.43
5 300	18.11	16.24	19.11	17.42	19.08	17.42
5 320	18.12	16.24	19.03	17.4	18.99	17.41
5 500	18.15	16.24	19.12	17.43	19.02	17.42
5 600	18.07	16.23	19.02	17.43	19.03	17.42
5 700	18.24	16.25	19.07	17.43	19.01	17.42
5 720	18.16	16.23	19.01	17.42	19.08	17.42
5 745	18.15	16.24	19.06	17.43	19.69	18.38
5 785	18.17	16.24	19.07	17.42	19.04	17.42
5 825	18.01	16.24	19.12	17.42	19.03	17.43

	26 dB Bandwidth and 99 % Bandwidth [MHz]			
Test Mode	802.11n_HT40		802.11ac_VHT40	
Frequency [MHz]	26 dB	99 %	26 dB	99 %
5 190	38.65	35.76	38.71	35.81
5 230	38.82	35.75	38.73	35.82
5 270	38.70	35.80	38.78	35.86
5 310	38.83	35.80	38.74	35.87
5 510	38.84	35.82	38.91	35.88
5 590	38.83	35.80	38.72	35.85
5 670	38.82	35.84	38.69	35.87
5 710	38.95	35.80	38.95	35.91
5 755	38.85	35.93	38.80	35.90
5 795	38.84	35.92	38.79	35.86

	26 dB Bandwidth and 99 % Bandwidth [MHz]	
Test Mode	802.11ac_VHT80	
Frequency [MHz]	26 dB	99 %
5 210	80.81	74.87
5 290	80.72	75.00
5 530	80.85	74.98
5 610	80.96	75.08
5 690	80.37	74.65
5 775	80.24	74.75

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ANT1

	26 dB Bandwidth and 99 % Bandwidth [MHz]			
Test Mode	802.11n_HT20		802.11ac_VHT20	
Frequency [MHz]	26 dB	99 %	26 dB	99 %
5 180	18.98	17.46	19.00	17.46
5 200	18.94	17.45	18.97	17.45
5 240	18.92	17.45	18.93	17.46
5 260	18.88	17.44	18.94	17.46
5 300	18.89	17.44	18.92	17.46
5 320	18.92	17.44	18.95	17.45
5 500	18.89	17.45	18.95	17.46
5 600	18.92	17.45	19.01	17.45
5 700	18.93	17.46	18.93	17.46
5 720	18.86	17.44	18.97	17.45
5 745	18.94	17.45	18.98	17.46
5 785	18.96	17.46	19.00	17.46
5 825	18.96	17.46	19.05	17.48

	26 dB Bandwidth and 99 % Bandwidth [MHz]			
Test Mode	802.11n_HT40		802.11ac_VHT40	
Frequency [MHz]	26 dB	99 %	26 dB	99 %
5 190	38.53	35.88	38.57	35.77
5 230	38.54	35.92	38.68	35.76
5 270	38.62	35.91	38.60	35.77
5 310	38.45	35.88	38.49	35.75
5 510	38.47	35.84	38.54	35.74
5 590	38.56	35.89	38.57	35.78
5 670	38.47	35.83	38.55	35.74
5 710	38.61	35.90	38.58	35.81
5 755	38.88	35.91	38.55	35.76
5 795	38.86	35.93	38.74	35.84

	26 dB Bandwidth and 99 % Bandwidth [MHz]	
Test Mode	802.11ac_VHT80	
Frequency [MHz]	26 dB	99 %
5 210	80.36	74.57
5 290	80.61	74.80
5 530	79.27	74.61
5 610	79.58	74.98
5 690	79.83	75.10
5 775	79.43	74.76

See next pages for actual measured spectrum plots.