

Project No.: TM-2304000001P
Report No.: TMWK2304001001KR

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Rev.: 00

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

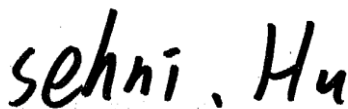
Test Standard	FCC Part 15.407
Product name	AX3000 Wi-Fi 6 Range Extender
Brand Name	D-Link
Model No.	E30
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Sehni Hu
Supervisor

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 27, 2023	Initial Issue	ALL	Allison Chen

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	D-Link Corporation 14420 Myford Road Suite 100 Irvine California United States 92606
Manufacturer	D-Link Corporation 14420 Myford Road Suite 100 Irvine California United States 92606
Equipment	AX3000 Wi-Fi 6 Range Extender
Model No.	E30
Model Discrepancy	N/A
Trade Name	D-Link
Received Date	April 13, 2023
Date of Test	April 17~July 6, 2023
Power Operation	Power form AC 120V, 60Hz
HW Version	A1
SW Version	1.00
Product category	Master equipment for indoor operation

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.

1.2 EUT CHANNEL INFORMATION

Frequency Range	UNII-1	
	IEEE 802.11a	5180 ~ 5240 MHz
	IEEE 802.11n HT20	5180 ~ 5240 MHz
	IEEE 802.11ac VHT20	5180 ~ 5240 MHz
	IEEE 802.11n HT40	5190 ~ 5230 MHz
	IEEE 802.11ac VHT40	5190 ~ 5230 MHz
	IEEE 802.11ac VHT80	5210 MHz
	IEEE 802.11ax HE20	5180 ~ 5240 MHz
	IEEE 802.11ax HE40	5190 ~ 5230 MHz
	IEEE 802.11ax HE80	5210 MHz
	UNII-2a	
	IEEE 802.11a	5260 ~ 5320 MHz
	IEEE 802.11n HT20	5260 ~ 5320 MHz
	IEEE 802.11ac VHT20	5260 ~ 5320 MHz
	IEEE 802.11n HT40	5270 ~ 5310 MHz
	IEEE 802.11ac VHT40	5270 ~ 5310 MHz
	IEEE 802.11ac VHT80	5290 MHz
	IEEE 802.11ac VHT160	5250 MHz
	IEEE 802.11ax HE20	5260 ~ 5320 MHz
	IEEE 802.11ax HE40	5270 ~ 5310 MHz
	IEEE 802.11ax HE80	5290 MHz
	IEEE 802.11ax HE160	5250 MHz
	UNII-2c	
	IEEE 802.11a	5500 ~ 5700 MHz
	IEEE 802.11n HT20	5500 ~ 5700 MHz
	IEEE 802.11ac VHT20	5500 ~ 5700 MHz
	IEEE 802.11n HT40	5510 ~ 5670 MHz
	IEEE 802.11ac VHT40	5510 ~ 5670 MHz
	IEEE 802.11ac VHT80	5530 ~ 5610 MHz
	IEEE 802.11ac VHT160	5570 MHz
	IEEE 802.11ax HE20	5500 ~ 5700 MHz
	IEEE 802.11ax HE40	5510 ~ 5670 MHz
	IEEE 802.11ax HE80	5530 ~ 5610 MHz
	IEEE 802.11ax HE160	5570 MHz
	UNII-3	
	IEEE 802.11a	5745 ~ 5825 MHz
	IEEE 802.11n HT20	5745 ~ 5825 MHz
	IEEE 802.11ac VHT20	5745 ~ 5825 MHz
	IEEE 802.11n HT40	5755 ~ 5795 MHz
	IEEE 802.11ac VHT40	5755 ~ 5795 MHz
	IEEE 802.11ac VHT80	5775 MHz
	IEEE 802.11ax HE20	5745 ~ 5825 MHz
	IEEE 802.11ax HE40	5755 ~ 5795 MHz
	IEEE 802.11ax HE80	5775 MHz

Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT20 mode: OFDM 3. IEEE 802.11n HT40 mode: OFDM 4. IEEE 802.11ac VHT20 mode: OFDM 5. IEEE 802.11ac VHT40 mode: OFDM 6. IEEE 802.11ac VHT80 mode: OFDM 7. IEEE 802.11ac VHT160 mode: OFDM 8. IEEE 802.11ax HE20 mode: OFDMA 9. IEEE 802.11ax HE40 mode: OFDMA 10. IEEE 802.11ax HE80 mode: OFDMA 11. IEEE 802.11ax HE160 mode: OFDMA
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Remark:

Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Specification	☐ PIFA ☐ PCB ☒ Dipole ☐ Coils																																		
Antenna Gain	<table><tr><th>Band</th><th>Ant3-2/5G (Chain 0) Gain (dBi)</th><th>Ant4-2/5G (Chain 1) Gain (dBi)</th><th>Ant2-5G (Chain 2) Gain (dBi)</th><th>Total Gain (dBi)</th></tr><tr><td>Band I (U-NII 1) 5150-5250MHz</td><td>5.34</td><td>3.25</td><td>6.08</td><td>9.74</td></tr><tr><td>Band II (U-NII 2a) 5250-5350 MHz</td><td>5.21</td><td>3.73</td><td>6.07</td><td>9.83</td></tr><tr><td>Band III (U-NII 2c) 5470-5725 MHz</td><td>4.49</td><td>3.70</td><td>5.80</td><td>9.48</td></tr><tr><td>Band IV (U-NII 3) 5725-5850MHz</td><td>5.44</td><td>3.73</td><td>5.39</td><td>9.66</td></tr><tr><td colspan="5"></td></tr></table>					Band	Ant3-2/5G (Chain 0) Gain (dBi)	Ant4-2/5G (Chain 1) Gain (dBi)	Ant2-5G (Chain 2) Gain (dBi)	Total Gain (dBi)	Band I (U-NII 1) 5150-5250MHz	5.34	3.25	6.08	9.74	Band II (U-NII 2a) 5250-5350 MHz	5.21	3.73	6.07	9.83	Band III (U-NII 2c) 5470-5725 MHz	4.49	3.70	5.80	9.48	Band IV (U-NII 3) 5725-5850MHz	5.44	3.73	5.39	9.66					
	Band	Ant3-2/5G (Chain 0) Gain (dBi)	Ant4-2/5G (Chain 1) Gain (dBi)	Ant2-5G (Chain 2) Gain (dBi)	Total Gain (dBi)																														
	Band I (U-NII 1) 5150-5250MHz	5.34	3.25	6.08	9.74																														
	Band II (U-NII 2a) 5250-5350 MHz	5.21	3.73	6.07	9.83																														
	Band III (U-NII 2c) 5470-5725 MHz	4.49	3.70	5.80	9.48																														
	Band IV (U-NII 3) 5725-5850MHz	5.44	3.73	5.39	9.66																														
Antenna Trade / Model	Ant2-5G (Chain 2): M.gear / C1958-510029-A Ant3-2/5G (Chain 0): M.gear / C1958-510030-A Ant4-2/5G (Chain 1): M.gear / C1958-510031-A																																		
Antenna connector	I-PEX MHF Connetcor																																		

Notes:

- Power Directional Gain = $10 \cdot \log \{ [10^{(Ant1/20)} + 10^{(Ant2/20)} + \dots + 10^{(Ant N / 20)}]^2 / N \text{ ANT} \}$ dBi
- The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.213 dB
Channel Bandwidth	± 2.7 %
RF output power (Spectrum)	± 2.440 dB
Power Spectral density	± 2.739 dB
Radiated Emission_9kHz-30MHz	± 3.761 dB
Radiated Emission_30MHz-200MHz	± 3.473 dB
Radiated Emission_200MHz-1GHz	± 3.946 dB
Radiated Emission_1GHz-6GHz	± 4.797 dB
Radiated Emission_6GHz-18GHz	± 4.803 dB
Radiated Emission_18GHz-26GHz	± 3.459 dB
Radiated Emission_26GHz-40GHz	± 3.297 dB

Remark:

- 1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

☐ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan 24803

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Tony Chao	-
Radiation	Ray Li, Tony Chao	-
RF Conducted	Marco Chan, David Li	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC pubic Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309.

1.6 INSTRUMENT CALIBRATION

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
Power Sensor	Anritsu	MA2411B	1911386	2022-08-08	2023-08-07
Power Sensor	Anritsu	MA2411B	1911387	2022-08-08	2023-08-07
EXA Signal Analyzer	Keysight	N9010B	MY60242460	2023-02-02	2024-02-01
Power Meter	Anritsu	ML2496A	2136002	2022-11-24	2023-11-23
Software	"Radio Test Software Ver. 21 & E3-Ver: 6.11-20180413				

AC Conducted Emissions Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
EMI Test Receiver	R&S	ESCI	100064	2022-06-17	2023-06-16
LISN	TESEQ	LN2-16N	22012	2023-03-08	2024-03-07
Cable	EMCI	CFD300-NL	CERF	2022-06-27	2023-06-26
Software	EZ-EMC(CCS-3A1-CE-wugu)				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

3M 966 Chamber Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
PXA Signal Analyzer	Keysight Technologies	N9030B	MY62291089	2022-10-14	2023-10-13
Cable	Woken	J-1099	201709090004	2021-12-23	2022-12-22
Horn Antenna	ETS LINDGREN	3116	00026370	2022-11-24	2023-11-23
Pre-Amplifier	MITEQ	AMF-6F-180040 00-37-8P	985646	2022-09-07	2023-09-06
K-Type Cable	Huber+Suhner	SUCOFLEX 102	29406/2	2022-11-29	2023-11-28
Loop Antenna	SCHWARZBECK	FMZB 1513_60	1513_60_028	2022-12-27	2023-12-26
Preamplifier	EMEC	EM330	060609	2023-02-22	2024-02-21
Thermo-Hygro Meter	WISEWIND	1206	D07	2022-12-19	2023-12-18
Preamplifier	HP	8449B	3008A00965	2022-12-23	2023-12-22
Bi-Log Antenna	Sundt Sciences	JB3	A030105	2022-08-03	2023-08-02
Cable	Huber+Suhner	104PEA	20995+21000+18 2330	2023-02-22	2024-02-21
Coaxial Cable	EMCI	EMC105	190914+33953	2022-06-15	2023-06-14
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2023-01-12	2024-01-11
High Pass Filters	MICRO TRONICS	HPM13195	003	2023-02-01	2024-01-31
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2022-12-30	2023-12-29
Pre-Amplifier	EMCI	EMC184045SE	980860	2022-12-27	2023-12-26
Coaxial Cable	EMC	EMC101G-KM-K M-9000	211042	2022-12-06	2023-12-05
Coaxial Cable	EMCI	EMC101G-KM-KM-500	211041	2022-12-06	2023-12-05
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 V9-210616c				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

DFS Test (Master)					
Name of Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
Cable	Woken	SUMITOMO	9	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	7	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	6	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	5	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	4	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	2	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	1	2023-03-02	2024-03-01
EXA Signal Analyzer	Keysight	N9010B	MY55460167	2022-09-07	2023-09-06
Attenuator	E-INSTRUMENT	EPA-600H	EC1400050	2022-06-28	2023-06-27
Power Splitter	Mini-Circuits	ZN2PD-9G-S	777	2022-07-20	2023-07-19
Power Divider	Solvang Technology	STI08-0015	008	2022-07-26	2023-07-25
Power Divider	Marvelous Microwave	MVE8586	16011206	2022-07-20	2023-07-19
Vector Signal Generator	KEYSIGHT	N5182B/N5182B X07	MY61252828/ MY59362552	2023-02-01	2024-01-31
Software	GPIBShot,DFS-Aggregate-Time FSU,DFS Test Software				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

DFS Test (Slave)					
Name of Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal Due
Power Divider	Marvelous Microwave	MVE8586	16011205	2023-06-16	2024-06-15
Power Divider	Marvelous Microwave	MVE8586	16011202	2023-06-16	2024-06-15
Power Divider	Marvelous Microwave	MVE8586	16011201	2023-06-16	2024-06-15
Power Divider	Solvang Technology	STI08-0015	008	2022-07-26	2023-07-25
Power Divider	Solvang Technology	STI08-0015	009	2022-07-26	2023-07-25
Cable	Woken	SUMITOMO	13	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	12	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	11	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	10	2023-03-02	2024-03-01
Cable	Woken	SUMITOMO	9	2023-03-02	2024-03-01
EXA Signal Analyzer	Keysight	N9010A	MY54200716	2022-10-13	2023-10-12
Attenuator	E-INSTRUMENT	EPA-600H	EC1400050	2023-06-13	2024-06-12
Vector Signal Generator	KEYSIGHT	N5182B/N5182B X07	MY61252828/ MY59362552	2023-02-01	2024-01-31
Software	GPIBShot,DFS Test Software,DFS Radar Profiles 2022 Update 1.0				

Remark:

- Each piece of equipment is scheduled for calibration once a year.
- N.C.R. = No Calibration Required.

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

Support Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
1	NB(E)	Lenovo	T460	N/A	N/A	N/A
2	NB	Lenovo	TP00075A	N/A	N/A	N/A
3	NB(E)	Lenovo	V4400u	N/A	N/A	N/A
4	AP	D-Link	M30	N/A	N/A	N/A

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02 and KDB 905462 D02.

2. TEST SUMMARY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	Pass
15.407(a)	4.2	26dB Bandwidth	Pass
15.407(e)	4.2	6dB Bandwidth	Pass
2.1049	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass
15.407(h)	5, 6	Dynamic Frequency Selection	Pass

Summary of Dynamic Frequency of Selection Test For Master

UNII	Description	Limit	Result
U-NII Band 2-A 5250-5350MHz	Channel Availability Check Time	> 60sec	Pass
	U-NII Detection Bandwidth	> 100% of the U-NII 99% transmission power bandwidth	Pass
	Statistical Performance Check	Type 1,2,3,4 >= 60% Type 1~4 and 5 >= 80% Type 6 >= 70%	Pass
	Channel Move Time	< 10 sec	Pass
	Channel Closing Transmission Time	< 200 ms + aggregate of 60 ms over remaining 10 s period	Pass
	Non-Occupancy Period Test	> 30 minutes	Pass
U-NII Band 2-C 5470-5725MHz	Channel Availability Check Time	> 60sec	Pass
	U-NII Detection Bandwidth	> 100% of the U-NII 99% transmission power bandwidth	Pass
	Statistical Performance Check	Type 1,2,3,4 >= 60% Type 1~4 and 5 >= 80% Type 6 >= 70%	Pass
	Channel Move Time	< 10 sec	Pass
	Channel Closing Transmission Time	< 200 ms + aggregate of 60 ms over remaining 10 s period	Pass
	Non-Occupancy Period Test	> 30 minutes	Pass

Summary of Dynamic Frequency of Selection Test For Slave

UNII	Description	Limit	Result
U-NII Band 2-A 5250-5350MHz	Channel Availability Check Time	> 60sec	N/A
	U-NII Detection Bandwidth	> 100% of the U-NII 99% transmission power bandwidth	N/A
	Statistical Performance Check	Type 1,2,3,4 >= 60% Type 1~4 and 5 >= 80% Type 6 >= 70%	N/A
	Channel Move Time	< 10 sec	Pass
	Channel Closing Transmission Time	< 200 ms + aggregate of 60 ms over remaining 10 s period	Pass
	Non-Occupancy Period Test	> 30 minutes	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT20 mode: MCS0 3. IEEE 802.11n HT40 mode: MCS0 4. IEEE 802.11ac VHT20 mode: MCS0 5. IEEE 802.11ac VHT40 mode: MCS0 6. IEEE 802.11ac VHT80 mode: MCS0 7. IEEE 802.11ac VHT160 mode: MCS0 8. IEEE 802.11ax HE20 mode: MCS0 9. IEEE 802.11ax HE40 mode: MCS0 10. IEEE 802.11ax HE80 mode: MCS0 11. IEEE 802.11ax HE160 mode: MCS0																																															
Operating Frequency	<table><tr><td></td><td>Mode</td><td>Frequency Range (MHz)</td></tr><tr><td rowspan="9">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5210</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ax HE80</td><td>5210</td></tr><tr><td rowspan="11">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5290</td></tr><tr><td>IEEE 802.11ac VHT160</td><td>5250</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ax HE80</td><td>5290</td></tr><tr><td>IEEE 802.11ax HE160</td><td>5250</td></tr></table>				Mode	Frequency Range (MHz)	U-NII-1	IEEE 802.11a	5180, 5220, 5240	IEEE 802.11n HT20	5180, 5220, 5240	IEEE 802.11n HT40	5190, 5230	IEEE 802.11ac VHT20	5180, 5220, 5240	IEEE 802.11ac VHT40	5190, 5230	IEEE 802.11ac VHT80	5210	IEEE 802.11ax HE20	5180, 5220, 5240	IEEE 802.11ax HE40	5190, 5230	IEEE 802.11ax HE80	5210	U-NII-2a	IEEE 802.11a	5260, 5300, 5320	IEEE 802.11n HT20	5260, 5300, 5320	IEEE 802.11n HT40	5270, 5310	IEEE 802.11ac VHT20	5260, 5300, 5320	IEEE 802.11ac VHT40	5270, 5310	IEEE 802.11ac VHT80	5290	IEEE 802.11ac VHT160	5250	IEEE 802.11ax HE20	5260, 5300, 5320	IEEE 802.11ax HE40	5270, 5310	IEEE 802.11ax HE80	5290	IEEE 802.11ax HE160	5250
	Mode	Frequency Range (MHz)																																														
U-NII-1	IEEE 802.11a	5180, 5220, 5240																																														
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	IEEE 802.11ax HE40	5270, 5310																																														
	IEEE 802.11ax HE80	5290																																														
	IEEE 802.11ax HE160	5250																																														

Operating Frequency		Mode	Frequency Range (MHz)
	U-NII-2c	IEEE 802.11a	5500, 5580, 5700
		IEEE 802.11n HT20	5500, 5580, 5700
		IEEE 802.11n HT40	5510, 5550, 5670
		IEEE 802.11ac VHT20	5500, 5580, 5700
		IEEE 802.11ac VHT40	5510, 5550, 5670
		IEEE 802.11ac VHT80	5530, 5610
		IEEE 802.11ac VHT160	5570
		IEEE 802.11ax HE20	5500, 5580, 5700
		IEEE 802.11ax HE40	5510, 5550, 5670
		IEEE 802.11ax HE80	5530, 5610
		IEEE 802.11ax HE160	5570
	U-NII-3	IEEE 802.11a	5745, 5785, 5825
		IEEE 802.11n HT20	5745, 5785, 5825
		IEEE 802.11n HT40	5755, 5795
		IEEE 802.11ac VHT20	5745, 5785, 5825
		IEEE 802.11ac VHT40	5755, 5795
		IEEE 802.11ac VHT80	5775
		IEEE 802.11ax HE20	5745, 5785, 5825
		IEEE 802.11ax HE40	5755, 5795
		IEEE 802.11ax HE80	5775

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☒ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by Adapter
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(X-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worst case.
4. The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report
5. The device supports SISO and MIMO at 802.11n20/n40/ac20/ac40/ac80/ac160/ax20/ax40/ax80/ax160 mode, SISO and MIMO's power level is the same,per pre-test, MIMO 2TX mode was the worst and reported.
6. The device supports non_BF and BF modes. Since the non_BF mode has higher power and similar to BF radio frequency characteristics, some test items of BF mode will be exempted.
7. This device only supports FULL RU for AX mode.
8. The device supports Master DFS and TPC , EUT employ a TPC mechanism and TPC have the capability to operate at least 6 dB below highest RF output power .

3.3 EUT DUTY CYCLE

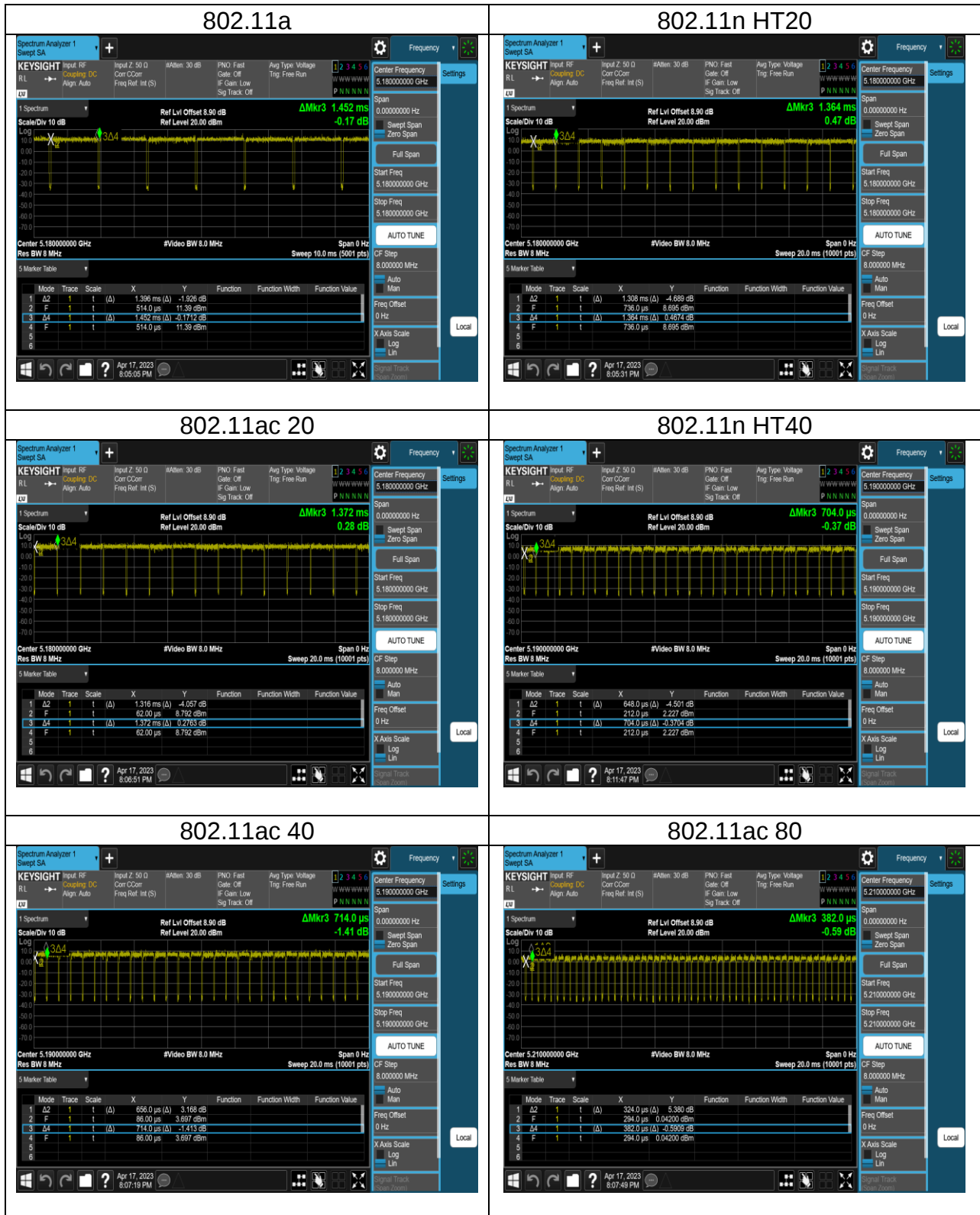
Temperature: 23.6~24.8°C

Test date: April 17~June 26, 2023

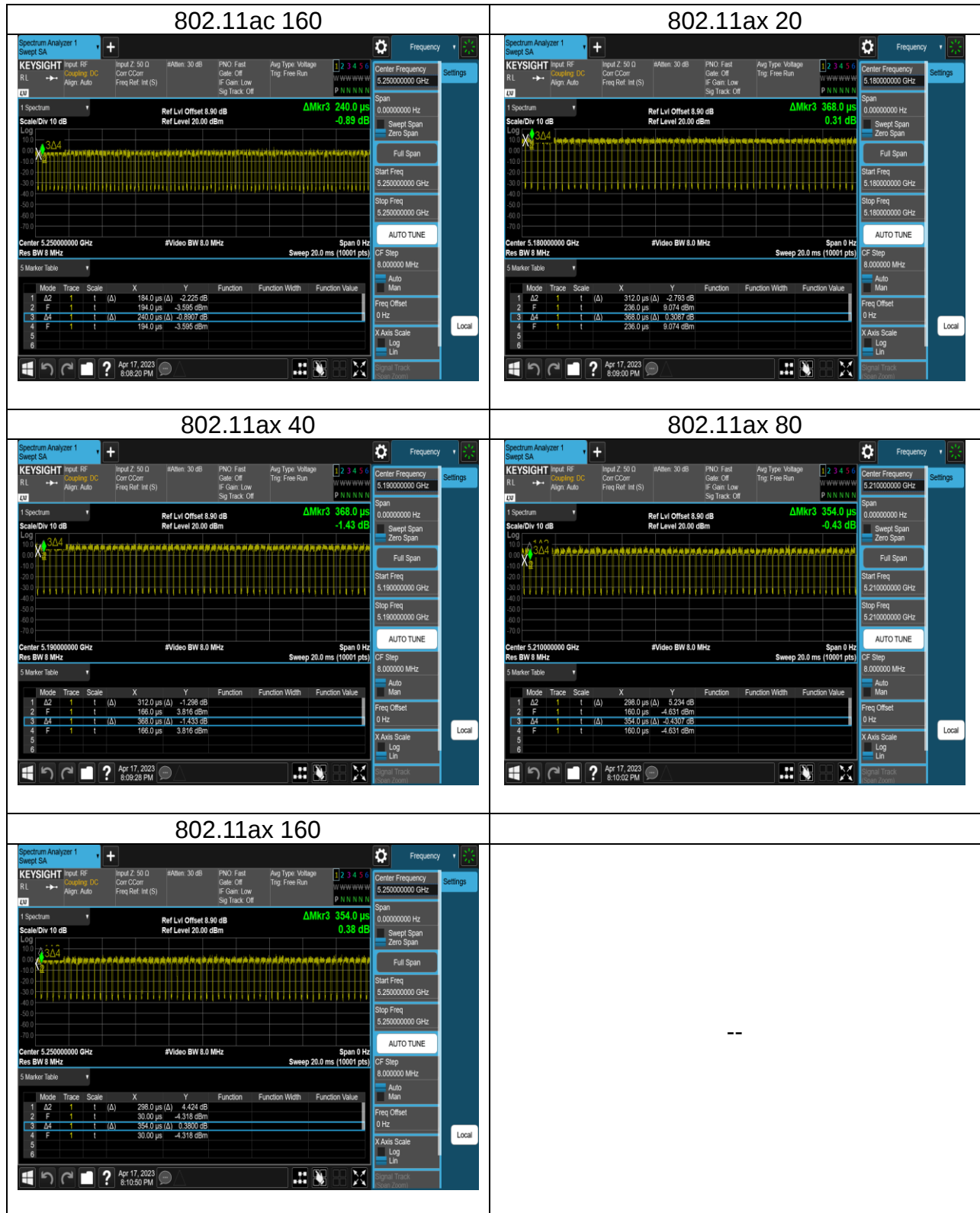
Humidity: 60~64% RH

Tested by: Marco Chan

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	96.14	0.17	0.72	1.00
802.11n_20	95.89	0.18	0.76	1.00
802.11ac_20	95.92	0.18	0.76	1.00
802.11n_40	92.05	0.36	1.54	2.00
802.11ac_40	91.88	0.37	1.52	2.00
802.11ac_80	84.82	0.72	3.09	4.00
802.11ac_160	76.67	1.15	5.43	6.00
802.11ax_20	84.78	0.72	3.21	4.00
802.11ax_40	84.78	0.72	3.21	4.00
802.11ax_80	84.18	0.75	3.36	4.00
802.11ax_160	84.18	0.75	3.36	4.00



Report No.: TMWK2304001001KR



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

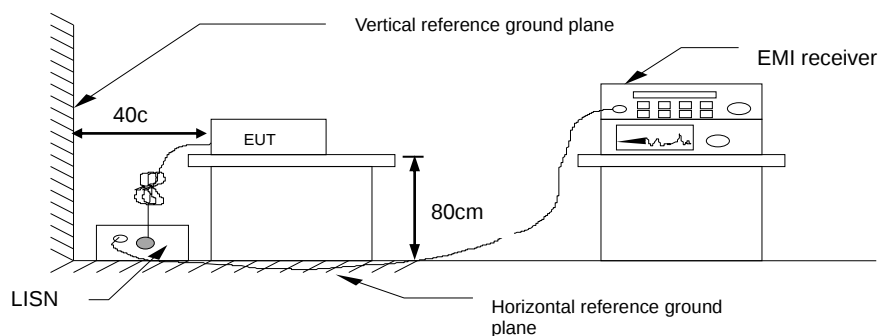
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup

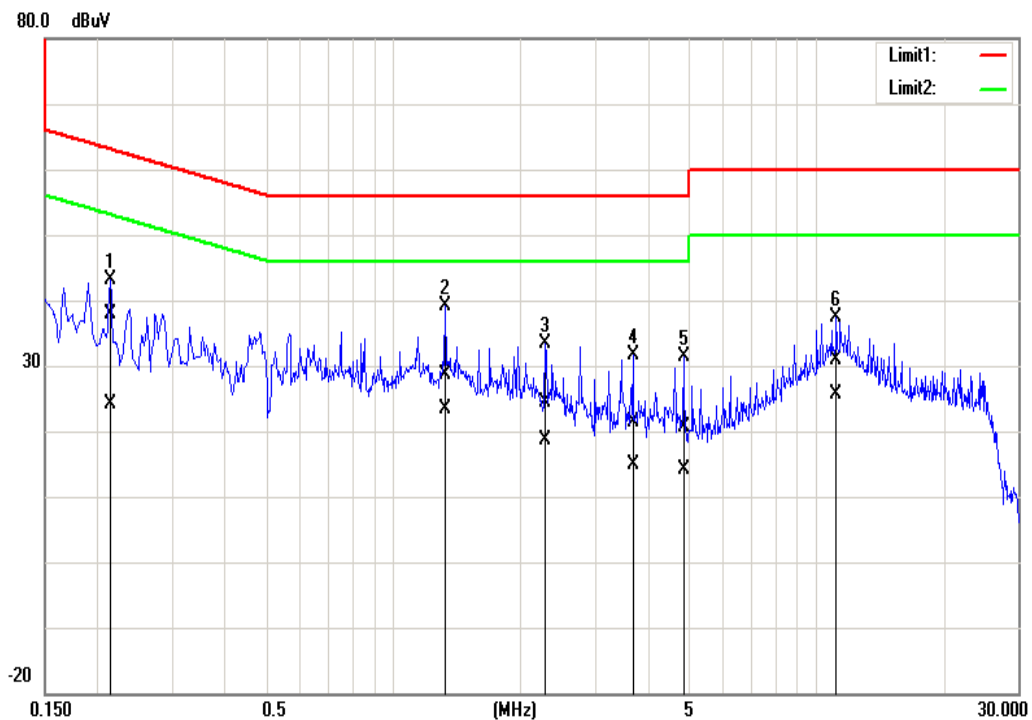


4.1.4 Test Result

Pass.

Test Data

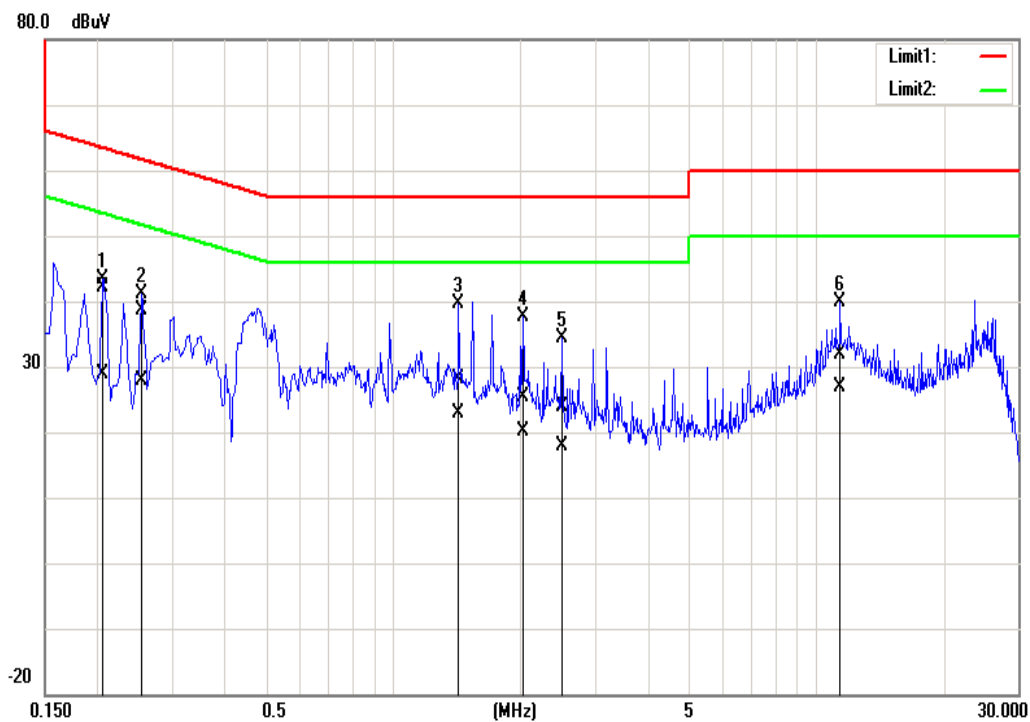
Test Mode:	Mode 1	Temp/Hum	25.2(°C)/ 59%RH
Phase:	Line	Test Date	May 8, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.2140	37.71	24.05	0.15	37.86	24.20	63.05	53.05	-25.19	-28.85	Pass
1.3260	28.43	23.30	0.18	28.61	23.48	56.00	46.00	-27.39	-22.52	Pass
2.2940	24.11	18.48	0.21	24.32	18.69	56.00	46.00	-31.68	-27.31	Pass
3.6940	21.09	14.68	0.25	21.34	14.93	56.00	46.00	-34.66	-31.07	Pass
4.8700	20.26	13.82	0.26	20.52	14.08	56.00	46.00	-35.48	-31.92	Pass
11.1540	30.59	25.37	0.37	30.96	25.74	60.00	50.00	-29.04	-24.26	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

Test Mode:	Mode 1	Temp/Hum	25.2(°C)/ 59%RH
Phase:	Neutral	Test Date	May 8, 2023
Test Voltage:	120Vac, 60Hz	Test Engineer	Tony Chao



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.2060	41.93	28.57	0.19	42.12	28.76	63.37	53.37	-21.25	-24.61	Pass
0.2540	38.47	27.60	0.19	38.66	27.79	61.63	51.63	-22.97	-23.84	Pass
1.4300	27.98	22.78	0.22	28.20	23.00	56.00	46.00	-27.80	-23.00	Pass
2.0300	25.19	19.94	0.25	25.44	20.19	56.00	46.00	-30.56	-25.81	Pass
2.5020	23.53	17.66	0.27	23.80	17.93	56.00	46.00	-32.20	-28.07	Pass
11.4180	31.60	26.59	0.40	32.00	26.99	60.00	50.00	-28.00	-23.01	Pass

Note: 1. Correction factor = LISN loss + Cable loss.

4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth : For reporting purposes only.

6 dB Bandwidth : Least 500kHz.

Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW>RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

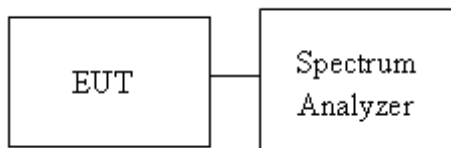
6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. 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.

99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW $\geq$ 3 xRBW

4.2.3 Test Setup



4.2.4 Test Result

Non-Beamforming

Temperature: 23.6~24.8°C

Test date: April 17~June 26, 2023

Humidity: 60~64% RH

Tested by: Marco Chan

UNII-1 5150-5250 MHz

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
36	5180	29.90	29.84	29.41	16.648	16.637	16.628
44	5220	29.66	29.75	29.87	17.108	16.673	20.043
48	5240	29.66	29.83	29.96	17.458	18.486	17.680

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
36	5180	23.95	26.13	25.38	17.777	17.785	17.804
44	5220	21.70	21.71	21.48	17.706	17.719	17.682
48	5240	20.35	20.17	20.62	17.695	17.705	17.676

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
38	5190	45.97	40.25	43.42	36.046	36.030	36.095
46	5230	44.72	45.24	44.86	36.081	36.129	36.102

Test mode: IEEE 802.11ac VHT80 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
42	5210	92.66	91.26	91.36	75.272	75.122	75.363

Test mode: IEEE 802.11ax HE20 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
36	5180	full	25.12	22.25	23.89	18.995	19.040	18.951
44	5220	full	22.17	22.48	21.63	18.933	18.966	18.949
48	5240	full	19.93	20.00	19.95	18.913	18.876	18.879

Test mode: IEEE 802.11ax HE40 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
38	5190	full	46.90	46.36	42.60	37.548	37.567	37.610
46	5230	full	48.96	49.55	49.09	37.598	37.636	37.665

Test mode: IEEE 802.11ax HE80 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
42	5210	Full	89.12	86.17	80.26	76.718	76.810	76.907

UNII-2a 5250-5350 MHz

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
52	5260	29.96	28.55	29.28	16.595	16.560	16.582
60	5300	29.95	28.78	25.18	16.666	16.653	16.698
64	5320	29.68	28.48	26.18	16.688	16.673	16.581

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
52	5260	22.10	21.47	21.44	17.717	17.668	17.657
60	5300	27.45	26.38	26.13	17.818	17.834	17.798
64	5320	27.85	26.37	27.85	17.834	17.799	17.810

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
54	5270	40.77	39.69	39.82	36.043	36.019	36.046
62	5310	46.74	46.12	45.78	36.082	36.138	36.081

Test mode: IEEE 802.11ac VHT80 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
58	5290	92.12	89.61	86.73	75.380	75.354	75.273

Test mode: IEEE 802.11ac VHT160 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
50	5250	161.5	162.8	165.7	153.28	153.16	154.33

Test mode: IEEE 802.11ax HE20 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
52	5260	full	22.00	21.53	21.40	18.956	18.934	18.924
60	5300	full	23.42	26.20	27.27	18.981	18.984	18.964
64	5320	full	24.14	26.62	25.55	19.018	18.977	18.981

Test mode: IEEE 802.11ax HE40 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
54	5270	full	39.46	39.53	39.59	37.526	37.484	37.538
62	5310	full	48.75	48.47	44.76	37.664	37.608	37.603

Test mode: IEEE 802.11ax HE80 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
58	5290	Full	88.51	88.97	80.15	76.883	76.940	76.951

Test mode: IEEE 802.11ax HE160 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
50	5250	Full	163.3	165.9	163.9	153.53	153.75	153.54

UNII-2c 5475-5725 MHz

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
100	5500	28.94	27.65	25.72	16.797	16.624	16.598
116	5580	28.57	29.42	29.83	16.616	16.743	16.696
140	5700	26.71	29.52	26.89	16.650	16.704	16.630

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
100	5500	27.02	28.39	25.65	17.820	17.734	17.777
116	5580	21.97	21.40	20.49	17.712	17.694	17.669
140	5700	25.77	24.86	23.03	17.792	17.754	17.769

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
102	5510	49.04	40.75	45.56	36.070	36.081	36.112
110	5550	40.19	40.47	40.25	35.971	35.918	36.059
134	5670	47.17	42.52	49.13	36.115	36.148	36.090

Test mode: IEEE 802.11ac VHT80 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
106	5530	90.67	95.26	91.56	75.116	75.179	75.314
122	5610	79.90	79.56	79.52	75.052	75.156	75.158

Test mode: IEEE 802.11ac VHT160 mode

Channel	Frequency (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
114	5570	160.0	161.4	160.9	152.23	152.62	153.40

Test mode: IEEE 802.11ax HE20 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
100	5500	full	23.64	27.74	26.23	18.937	19.003	18.985
116	5580	full	21.59	22.27	21.42	18.929	18.944	18.949
140	5700	full	24.76	25.43	26.17	18.983	18.982	18.983

Test mode: IEEE 802.11ax HE40 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
102	5510	full	47.95	48.66	46.35	37.648	37.598	37.637
110	5550	full	39.52	39.53	39.56	37.505	37.550	37.545
134	5670	full	46.71	48.24	47.30	37.655	37.691	37.638

Test mode: IEEE 802.11ax HE80 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
106	5530	full	91.42	85.16	89.94	76.681	76.693	76.895
122	5610	full	80.21	80.05	80.15	76.733	76.726	76.646

Test mode: IEEE 802.11ax HE160 mode

Channel	Frequency (MHz)	RU config	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)	Chain 2 26dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
114	5570	full	161.7	161.4	162.2	153.78	153.91	155.17

UNII-3 5750-5825 MHz

Test mode: IEEE 802.11a mode

Channel	Frequency (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
		Limit: > 500 KHz					
149	5745	16.28	16.37	16.36	24.999	25.592	17.182
157	5785	16.44	16.39	16.44	25.415	25.714	25.746
165	5825	15.67	16.34	16.46	25.017	25.588	17.068

Test mode: IEEE 802.11n HT20 mode

Channel	Frequency (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
		Limit: > 500 KHz					
149	5745	17.59	17.59	17.62	17.915	18.262	17.971
157	5785	15.80	16.95	17.62	17.821	18.231	17.904
165	5825	17.59	17.56	17.62	17.889	18.393	17.872

Test mode: IEEE 802.11n HT40 mode

Channel	Frequency (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
		Limit: > 500 KHz					
151	5755	33.78	33.86	34.99	36.145	36.246	36.135
159	5795	34.98	33.91	31.32	36.135	36.457	36.247

Test mode: IEEE 802.11ac VHT80 mode

Channel	Frequency (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
		Limit: > 500 KHz					
155	5775	75.16	75.17	75.20	75.102	75.123	75.242

Test mode: IEEE 802.11ax HE20 mode

Channel	Frequency (MHz)	RU config	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
			Limit: > 500 KHz					
149	5745	full	18.12	18.45	18.71	19.023	19.111	19.026
157	5785	full	18.31	18.41	18.58	19.026	19.142	19.060
165	5825	full	17.58	17.60	16.97	17.785	17.833	17.817

Test mode: IEEE 802.11ax HE40 mode

Channel	Frequency (MHz)	RU config	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
			Limit: > 500 KHz					
151	5755	full	35.06	35.14	35.02	37.610	37.695	37.727
159	5795	full	36.38	35.16	33.93	37.624	37.701	37.637

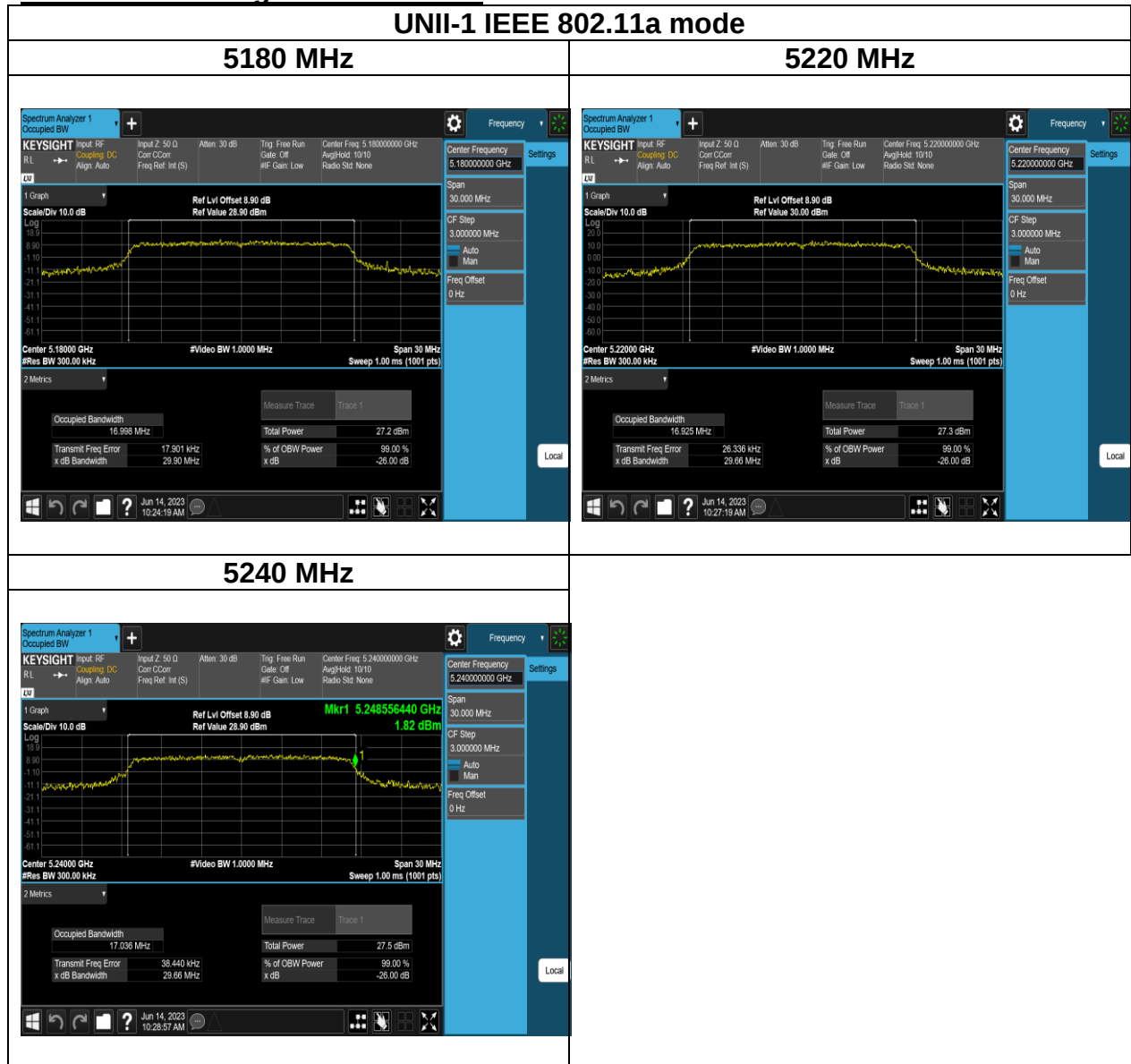
Test mode: IEEE 802.11ax HE80 mode

Channel	Frequency (MHz)	RU config	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)	Chain 2 6dB BW (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 2 OBW (99%) (MHz)
			Limit: > 500 KHz					
155	5775	full	73.88	75.18	75.63	76.691	76.685	76.794

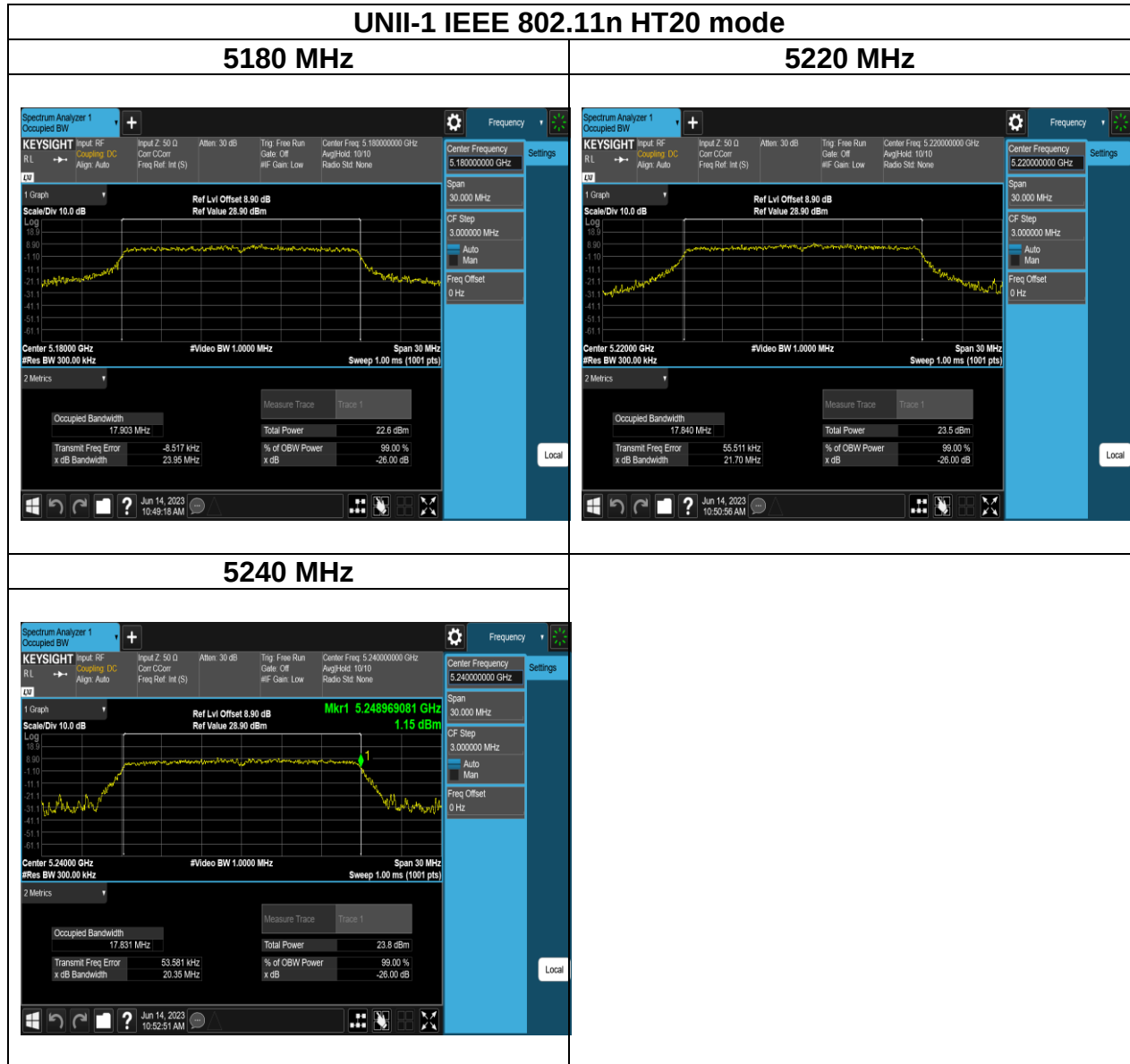
Report No.: TMWK2304001001KR

Test Plots (26dB BANDWIDTH)

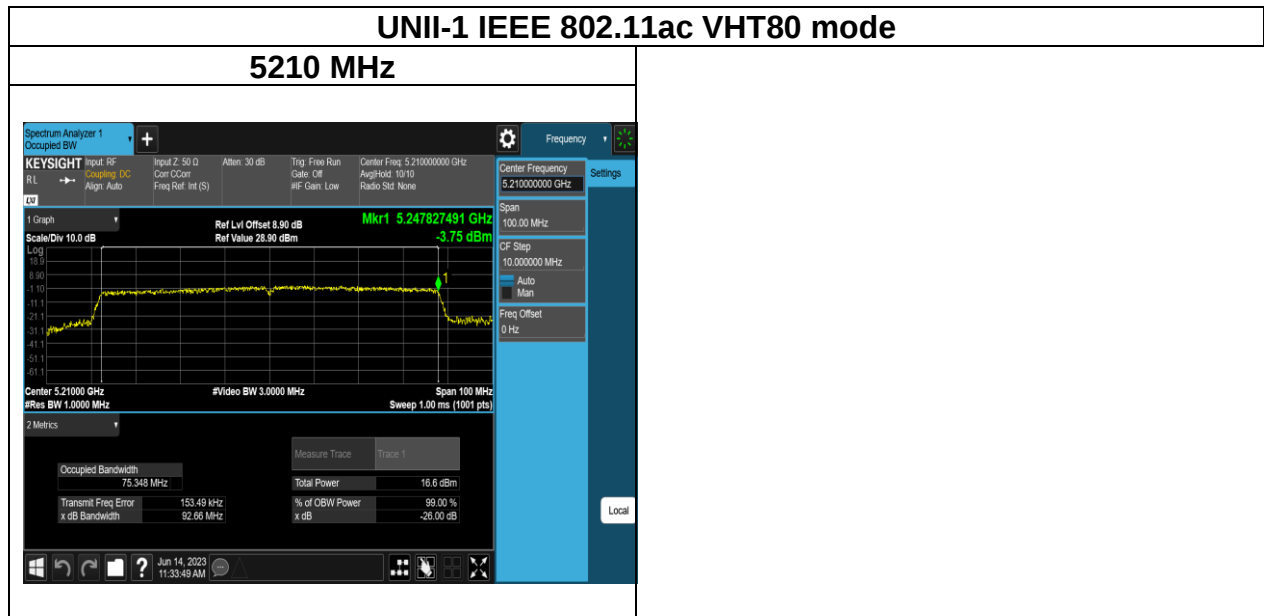
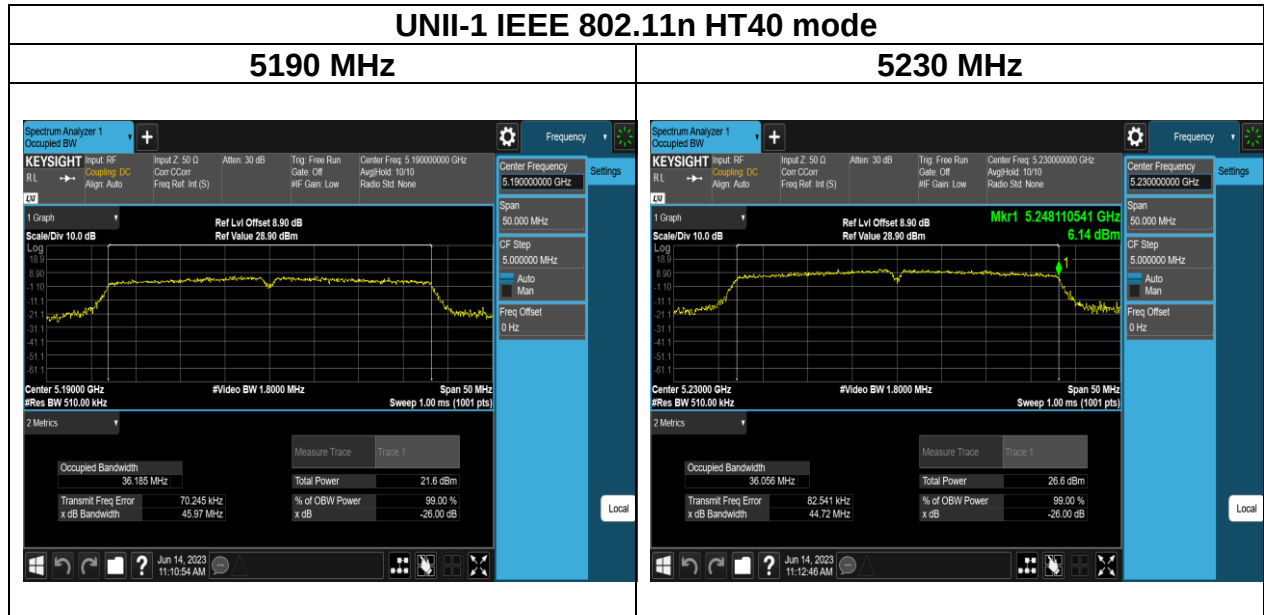
Non-Beamforming: UNII-1 Chain 0



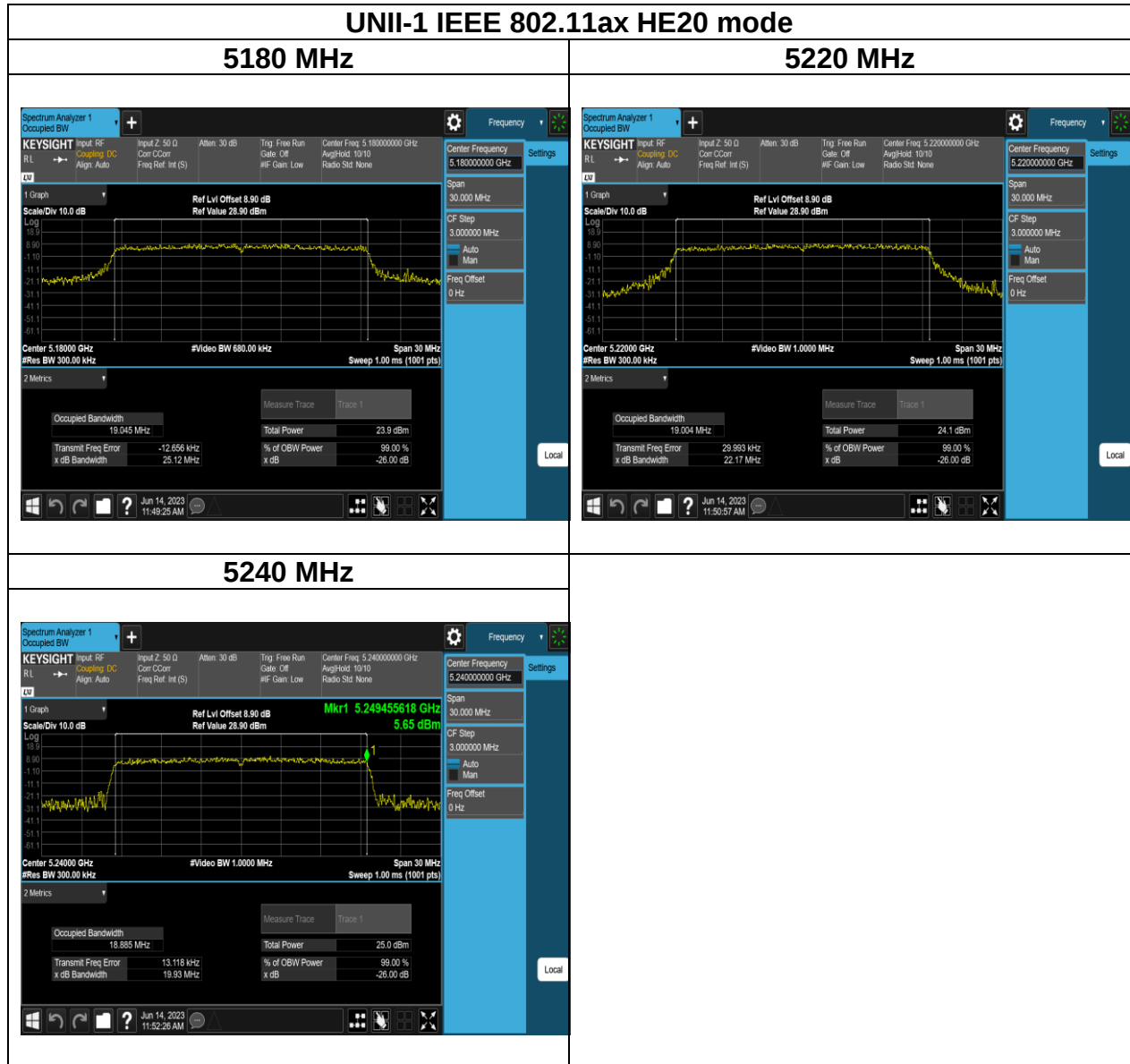
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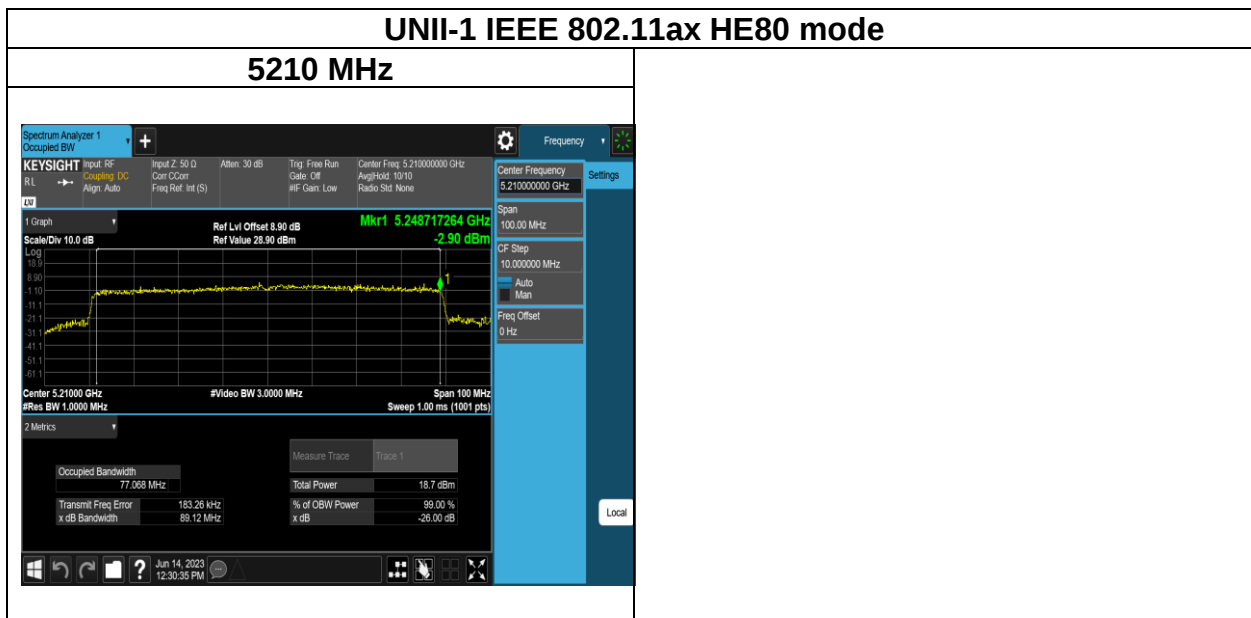
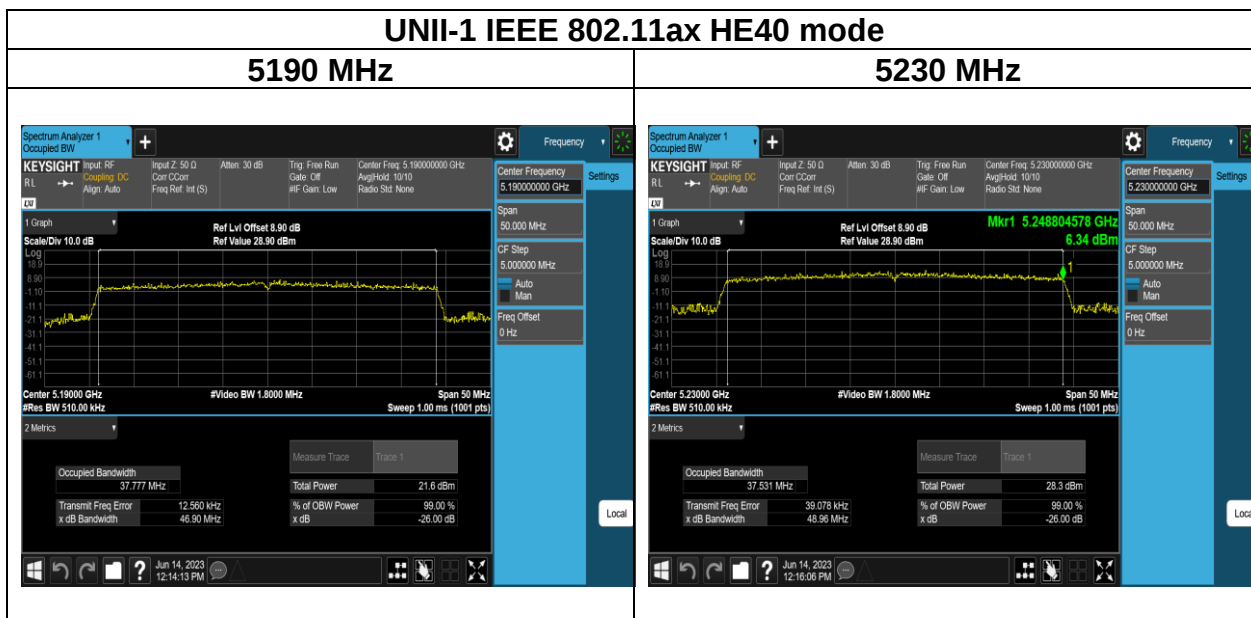
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Report No.: TMWK2304001001KR

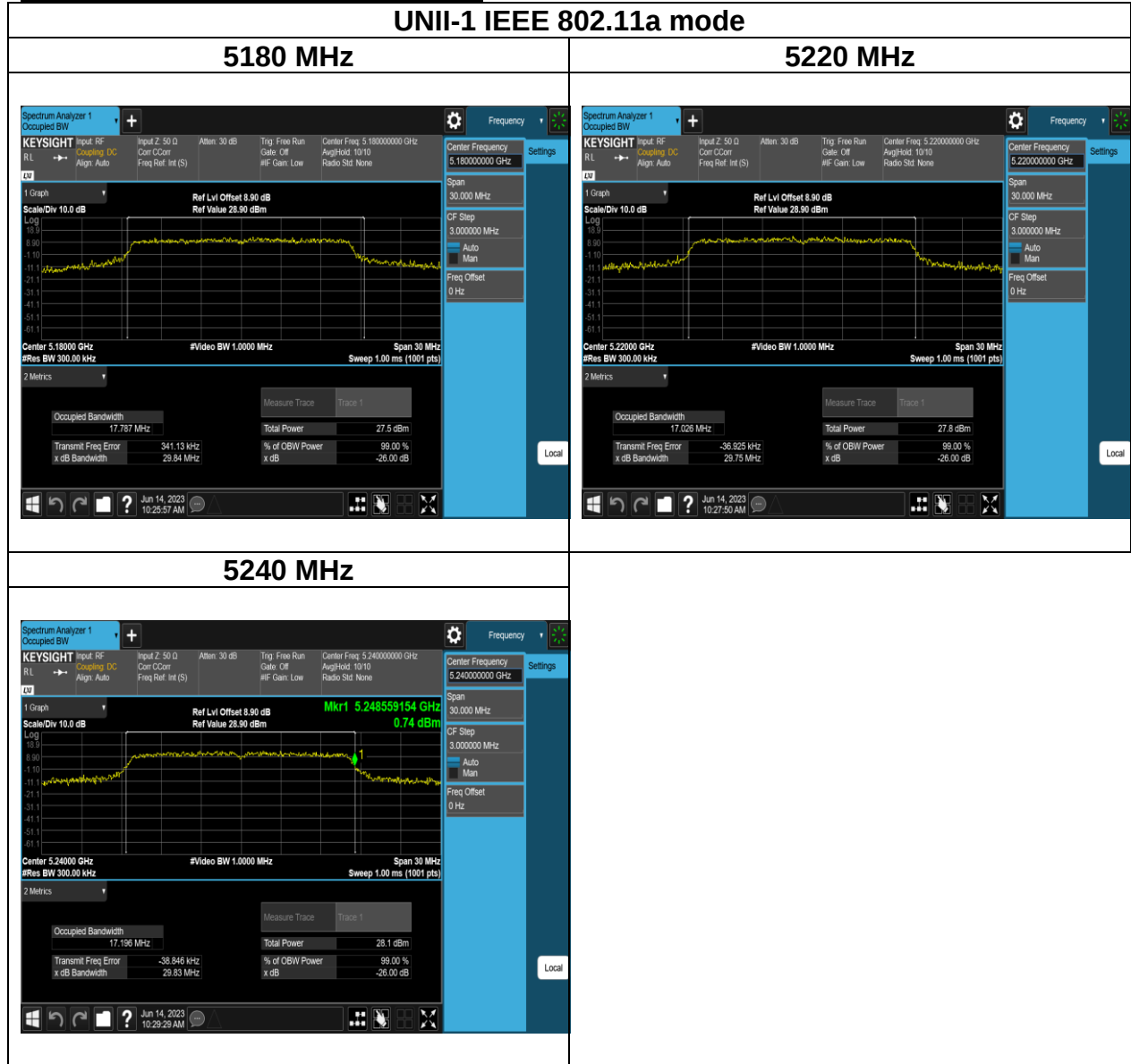


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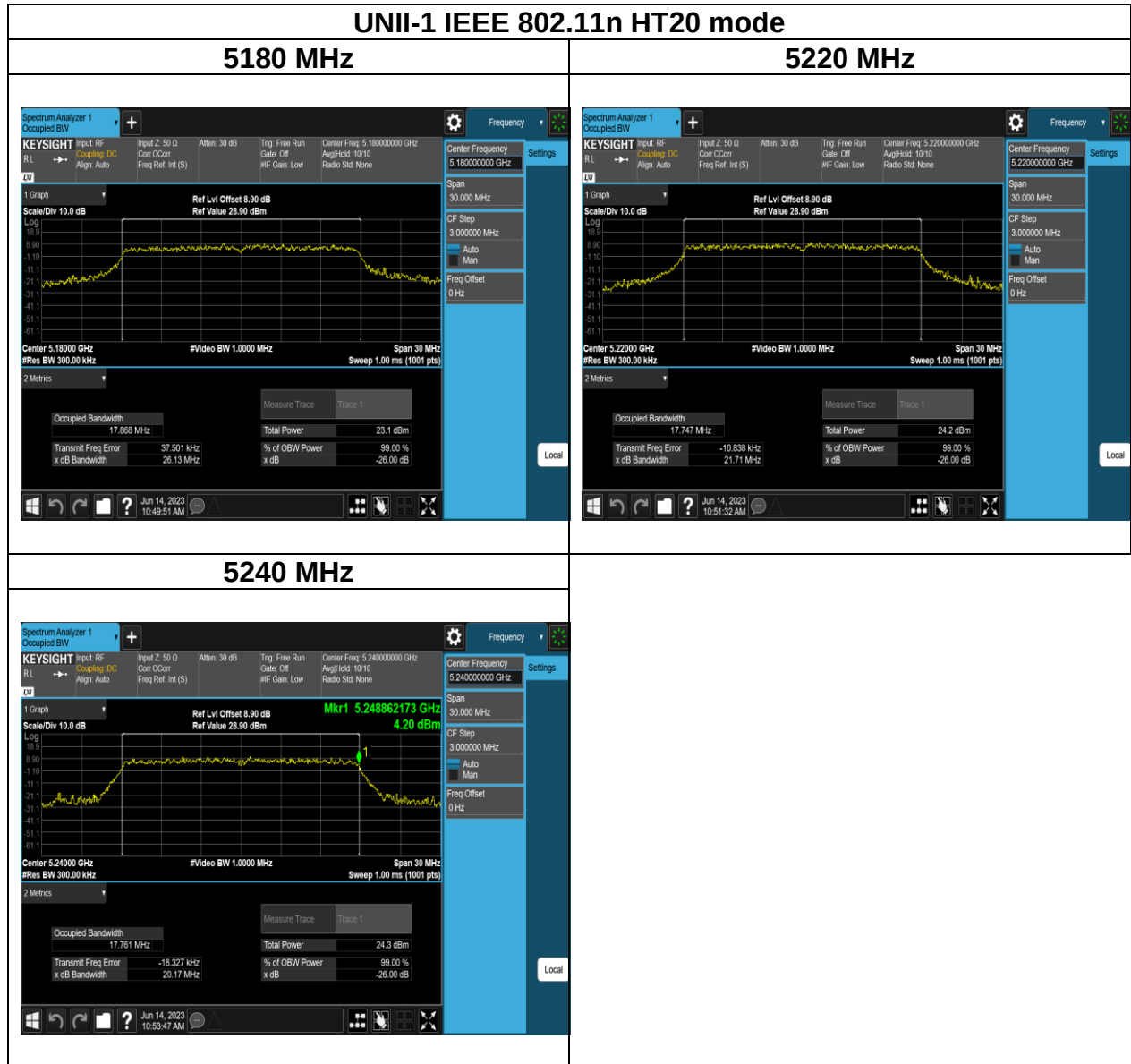


Report No.: TMWK2304001001KR

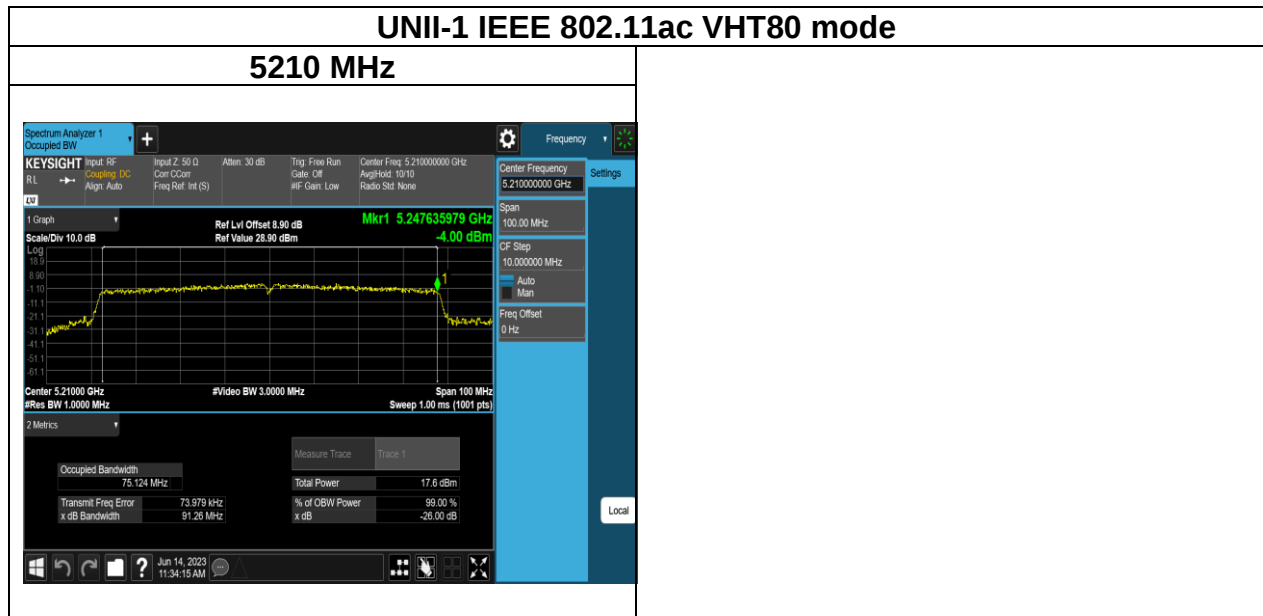
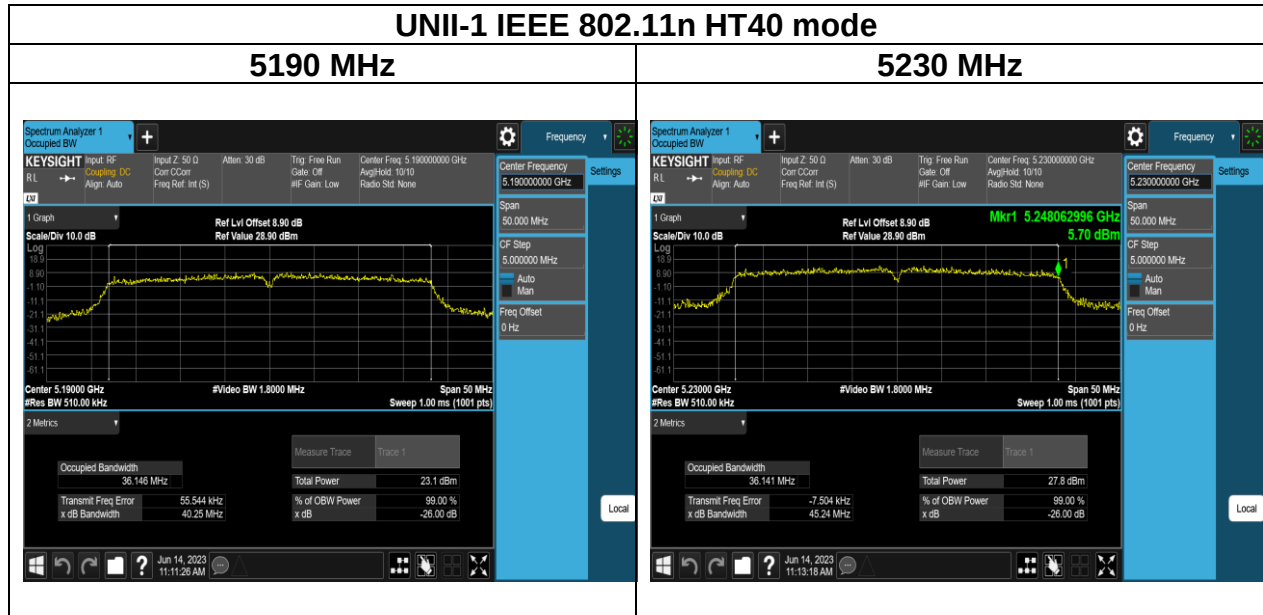
Non-Beamforming: UNII-1 Chain 1



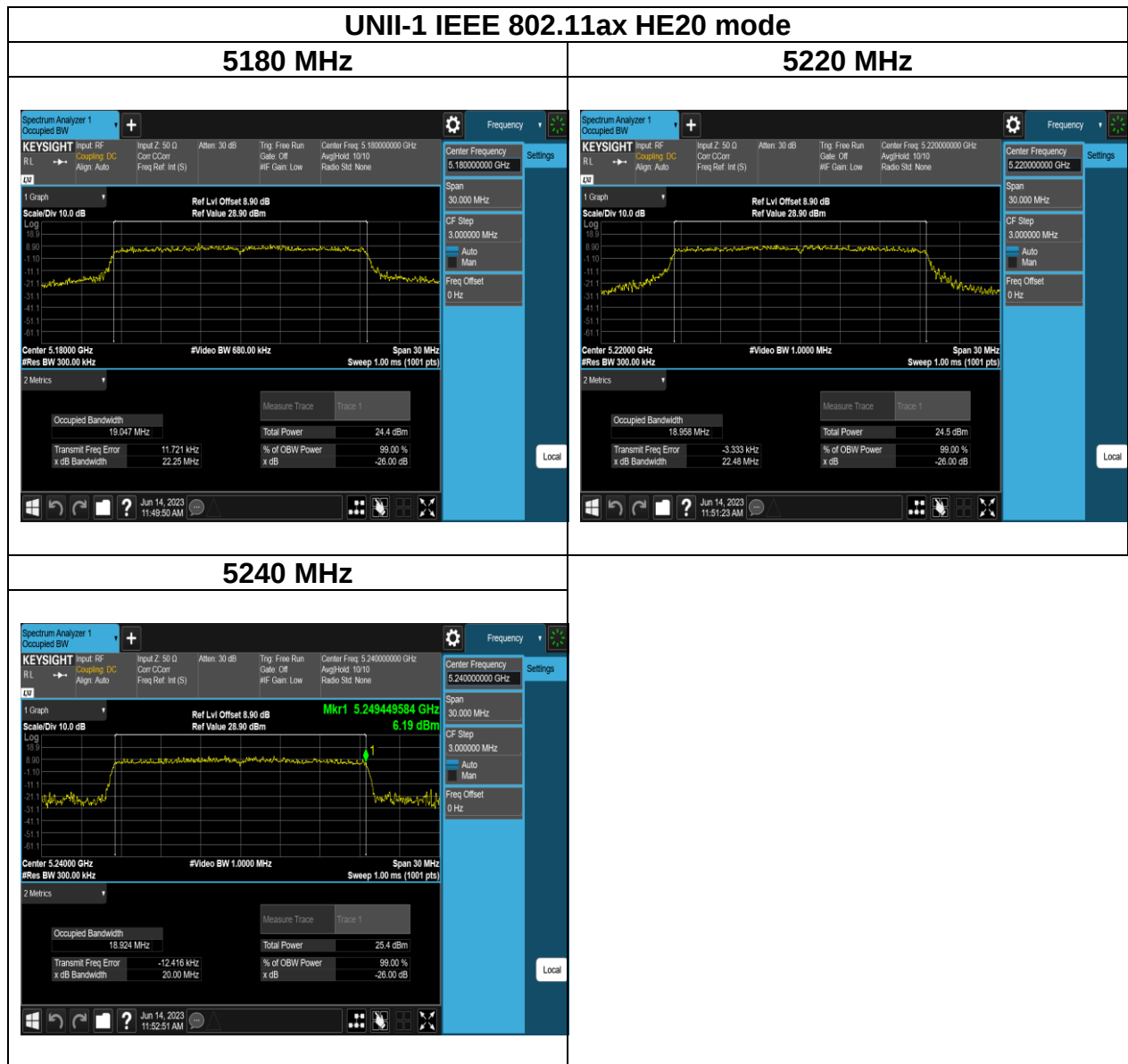
Report No.: TMWK2304001001KR



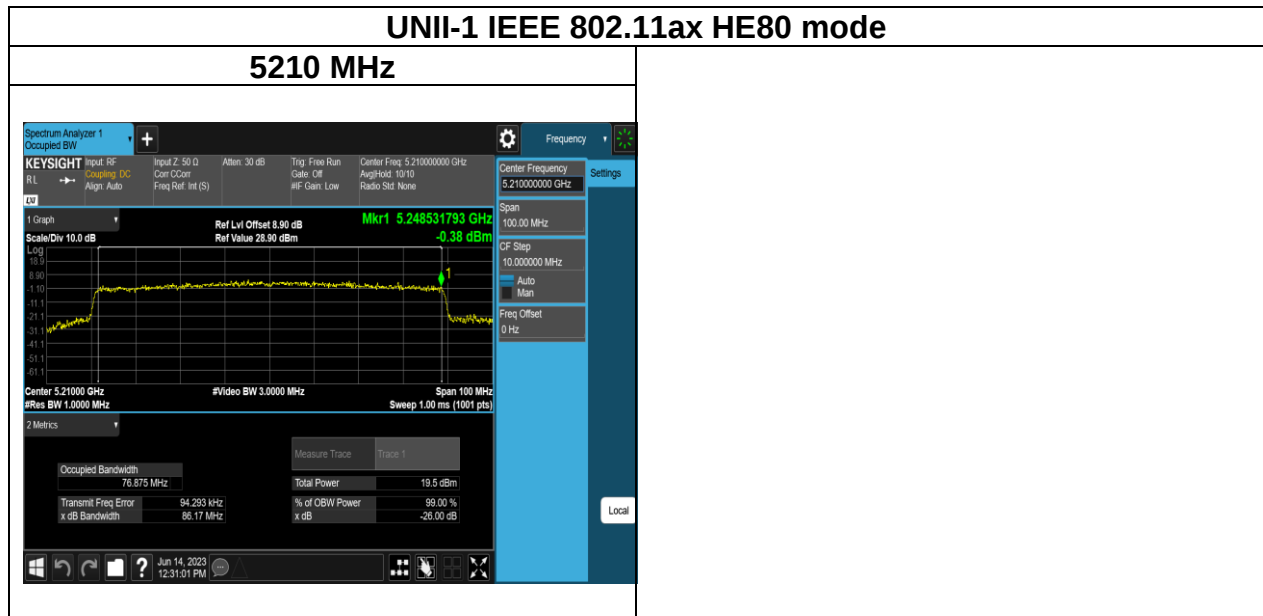
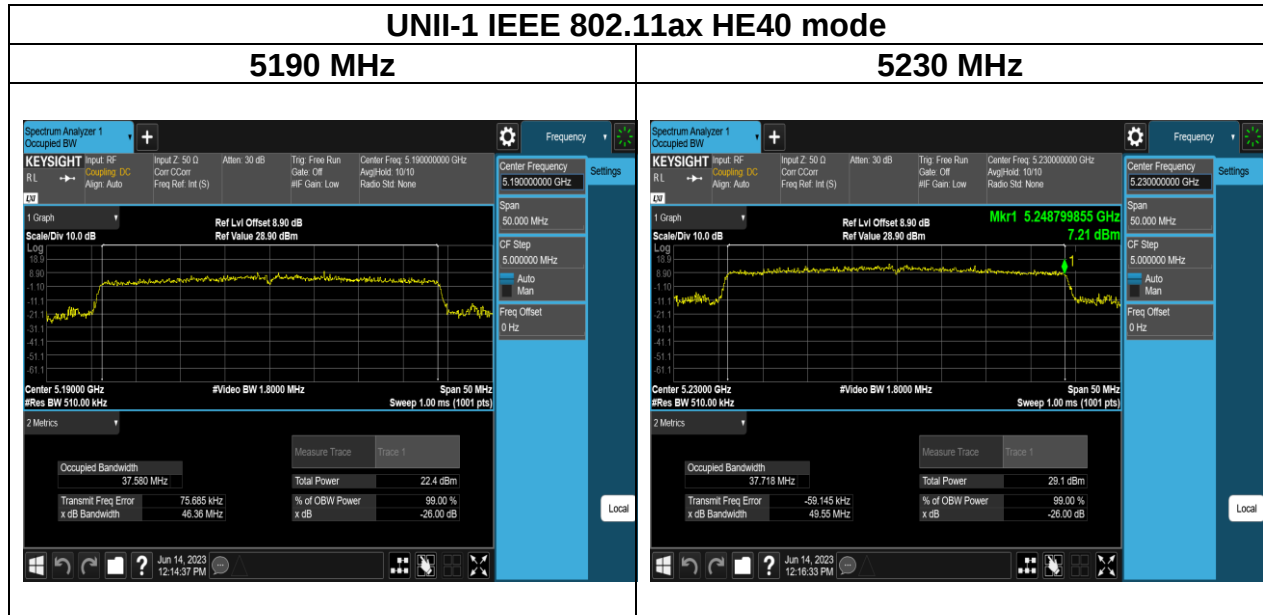
Report No.: TMWK2304001001KR



Report No.: TMWK2304001001KR

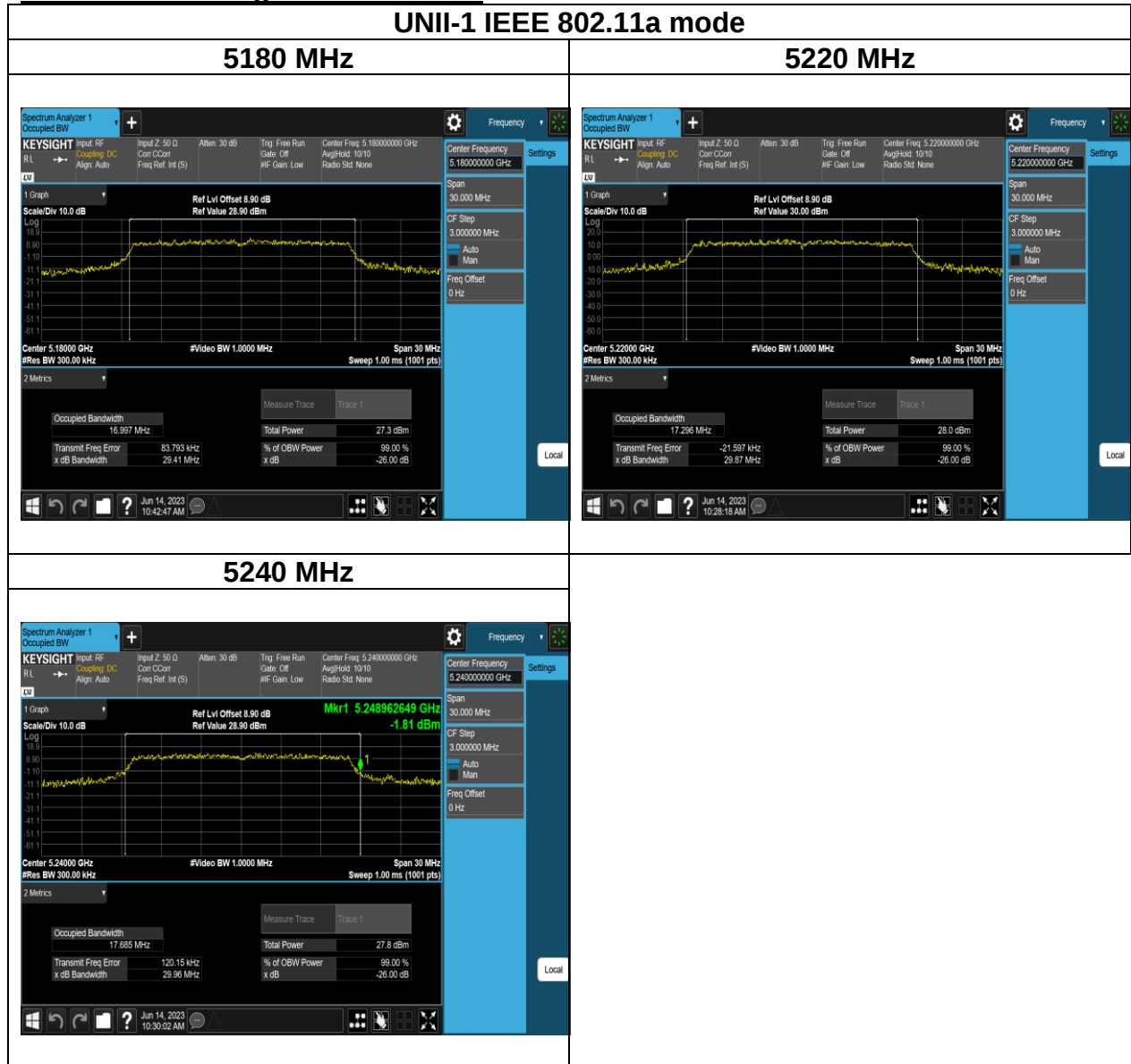


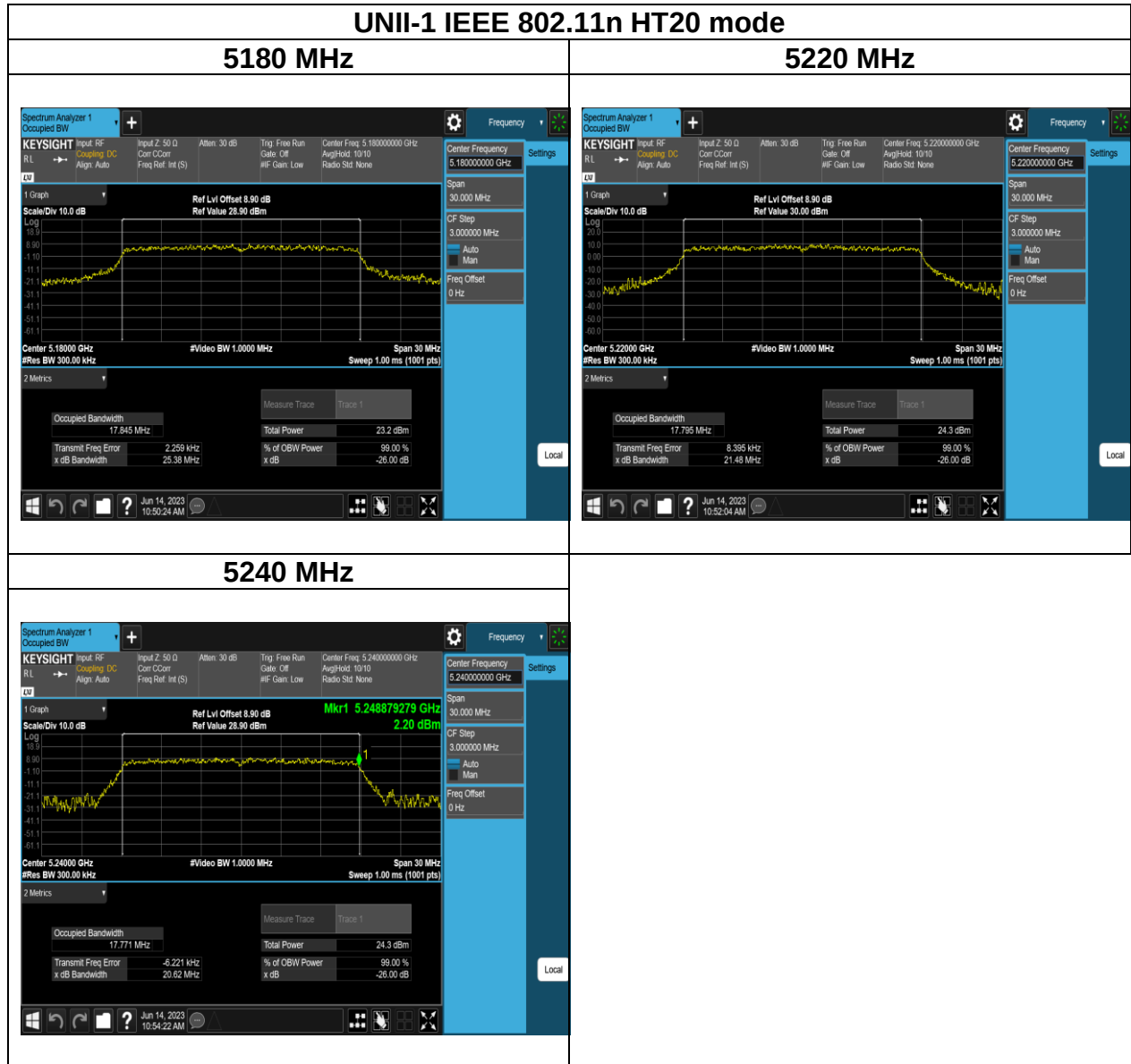
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Report No.: TMWK2304001001KR

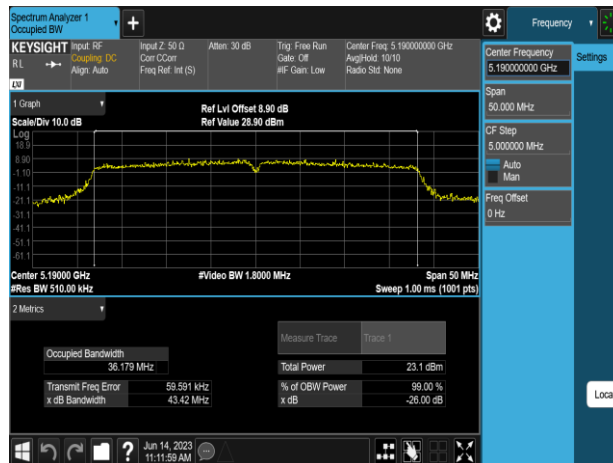
Non-Beamforming: UNII-1 Chain 2



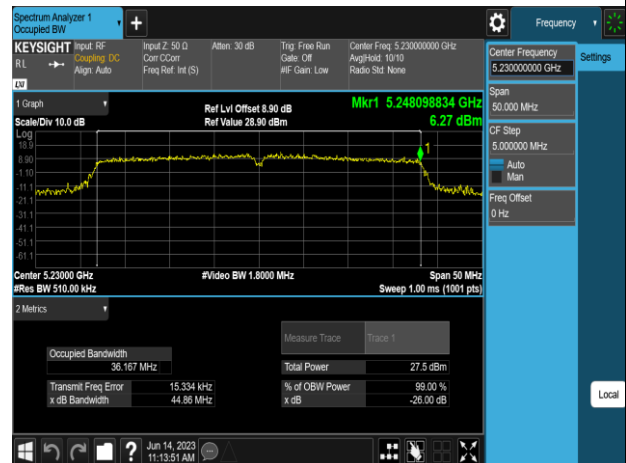


UNII-1 IEEE 802.11n HT40 mode

5190 MHz

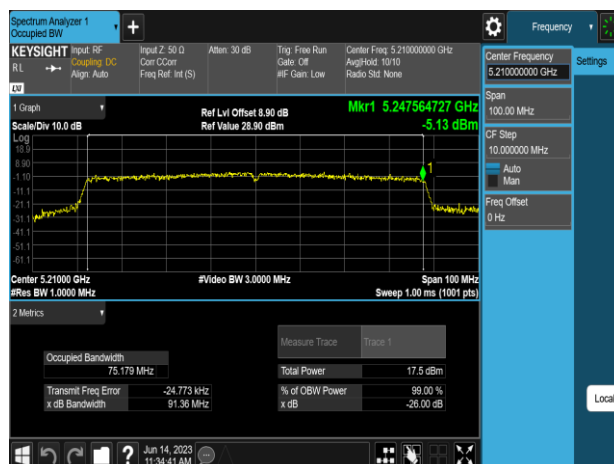


5230 MHz



UNII-1 IEEE 802.11ac VHT80 mode

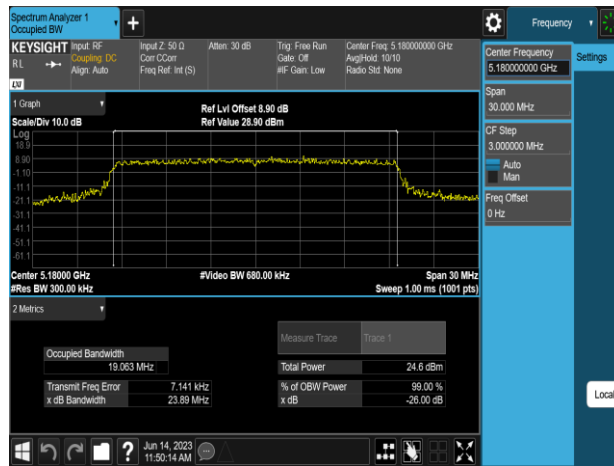
5210 MHz



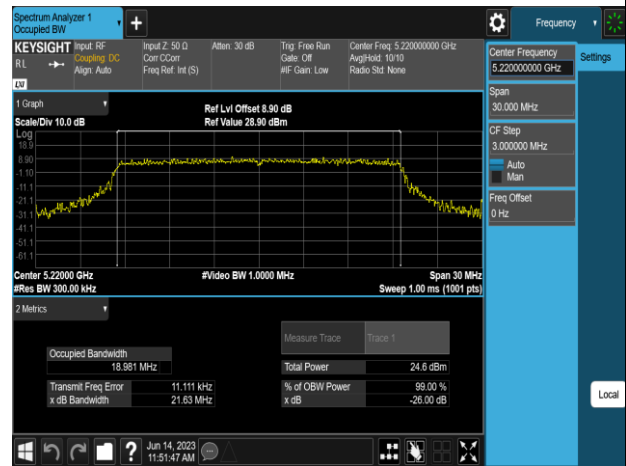
Report No.: TMWK2304001001KR

UNII-1 IEEE 802.11ax HE20 mode

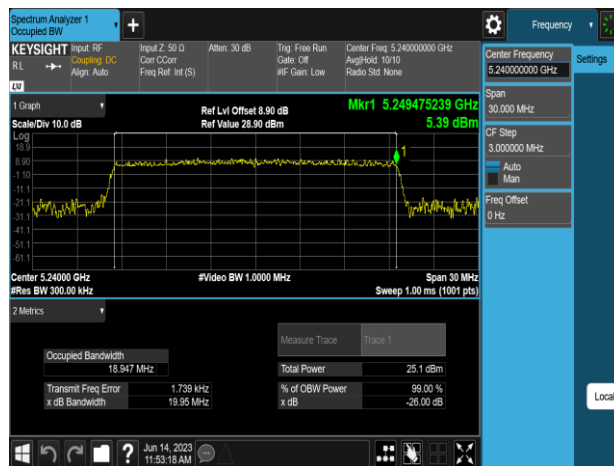
5180 MHz



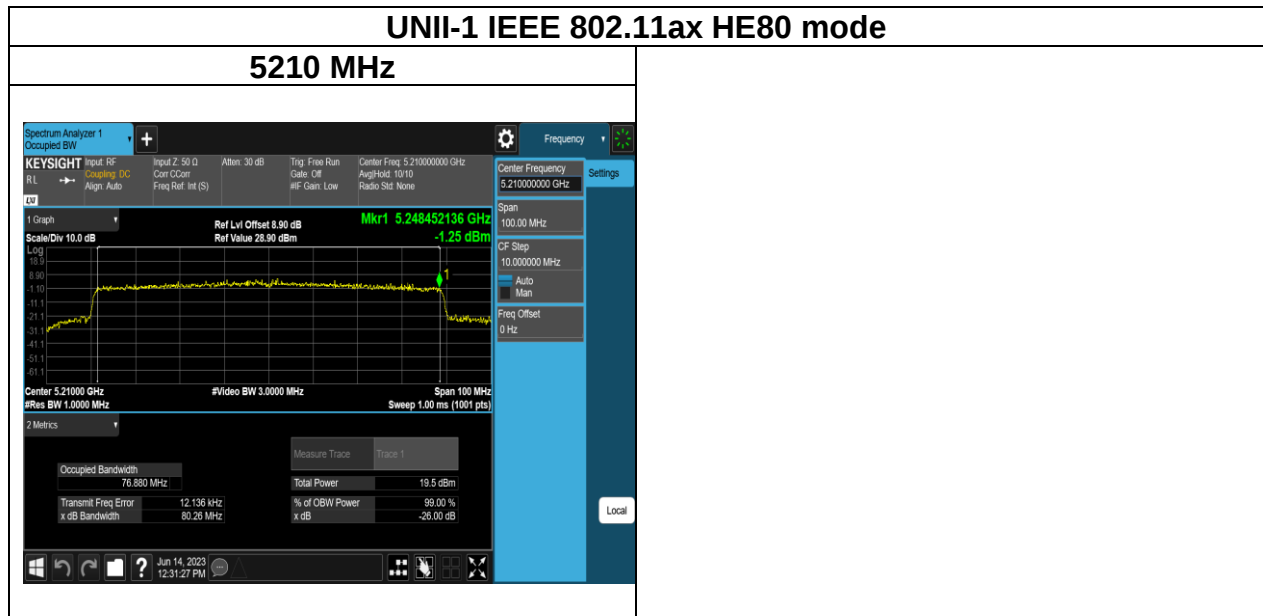
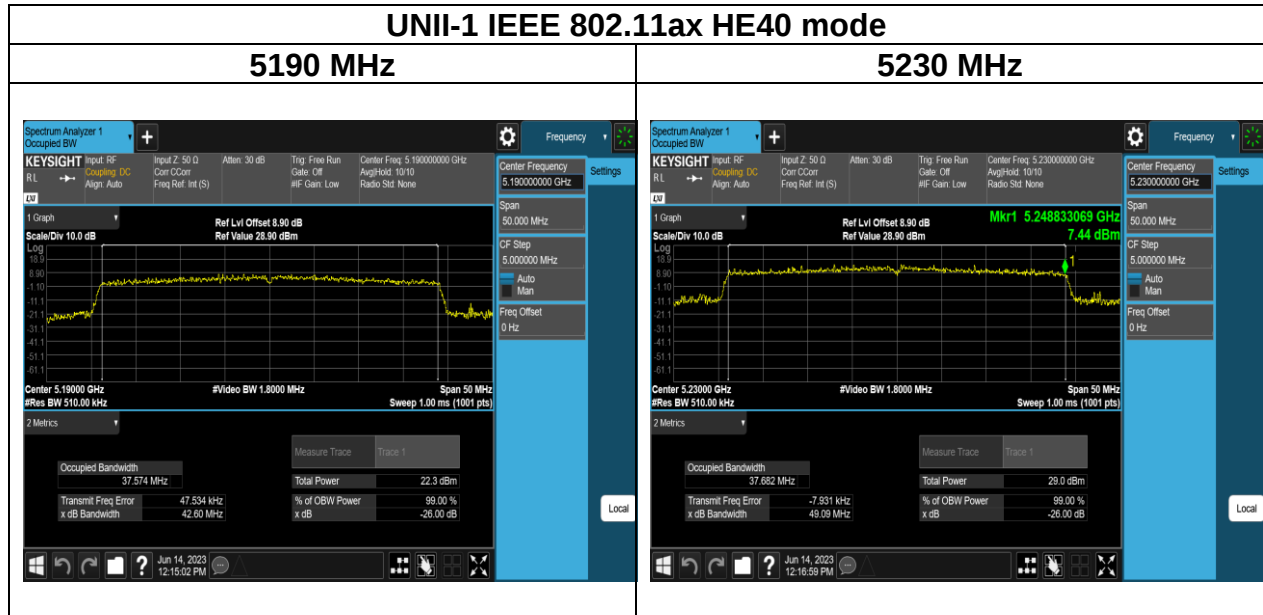
5220 MHz



5240 MHz



Report No.: TMWK2304001001KR



Report No.: TMWK2304001001KR

Test Plots (26dB BANDWIDTH)

Non-Beamforming: UNII-2a Chain 0

