



FCC ID: W3TR8812BU1
Report No.: T200416C04-RP2

IC: 26044-R8812BU1

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Rev.: 02

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

INDUSTRY CANADA RSS-247

Test Standard	FCC Part 15.407+ RSS-247 issue 2 and RSS-GEN issue 5
Brand name	Safe Fleet
Product name	BL-R8812BU1
Model No.	BL-R8812BU1
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:

Kevin Tsai
Deputy Manager

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	June 24, 2020	Initial Issue	ALL	Allison Chen
01	July 10, 2020	See the following note Rev.(01)	P.4-5, P.10, P.18, P.29, P.51, P.57, P.68-69, P.75, P.75, P.81-82, P.194-195, P.212-214	Allison Chen
02	July 10, 2020	See the following note Rev.(02)	P.42, P.213-214	Allison Chen

Rev.(01)

1. Revised serial #, output power and remark in section 1.1.
2. Revised frequency range in section 1.2 and 3.1.
3. Remove BW, output power, power density, harmonic plots for NII-2c, IEEE 802.11 ac, frequency@5610 test data.
4. Revised test plot for NII-3, IEEE 802.11a, and data title in section 4.4.
5. Revised reference temp. in section 4.6.

Rev.(02)

1. Remove BW test plot for NII-2c, IEEE 802.11 ac, frequency@5610.
2. Revised test data in section 4.6.



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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Fleetmind Seon Solutions Inc Unit 111 – 3B Burbidge Street, Coquitlam, BC, V3K 7B2 Canada																																																										
Manufacturer	Shenzhen Bilian Electronic Co., Ltd. 10-11/F,Building A1,Huaqiang idea park,Guanguang Rd,Guangming new district,Shenzhen,Guangdong,China.																																																										
Equipment	BL-R8812BU1																																																										
Model No.	BL-R8812BU1																																																										
Model Discrepancy	N/A																																																										
Trade Name	Safe Fleet																																																										
Received Date	April 16, 2020																																																										
Date of Test	May 14 ~ 27, 2020																																																										
Power Operation	Power from power supply.																																																										
HW Version	V1.0																																																										
SW Version	v5.6.1.5_35370.20191022_COEX20180928-6a6a																																																										
EUT Serial #	26044-R8812BU1																																																										
Output Power(W)	<table> <tr> <th>Band</th><th>Mode</th><th>Frequency Range (MHz)</th><th>Output Power (W)</th></tr> <tr> <td rowspan="4">U-NII-1</td><td>IEEE 802.11a</td><td>5180 ~ 5240</td><td>0.0834</td></tr> <tr> <td>IEEE 802.11n HT 20 MHz</td><td>5180 ~ 5240</td><td>0.0982</td></tr> <tr> <td>IEEE 802.11n HT 40 MHz</td><td>5190 ~ 5230</td><td>0.1010</td></tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td><td>5210</td><td>0.0274</td></tr> <tr> <td rowspan="4">U-NII-2a</td><td>IEEE 802.11a</td><td>5260 ~ 5320</td><td>0.0576</td></tr> <tr> <td>IEEE 802.11n HT 20 MHz</td><td>5260 ~ 5320</td><td>0.0702</td></tr> <tr> <td>IEEE 802.11n HT 40 MHz</td><td>5270 ~ 5310</td><td>0.1011</td></tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td><td>5290</td><td>0.0104</td></tr> <tr> <td rowspan="4">U-NII-2c</td><td>IEEE 802.11a</td><td>5500 ~ 5700</td><td>0.0901</td></tr> <tr> <td>IEEE 802.11n HT 20 MHz</td><td>5500 ~ 5700</td><td>0.1016</td></tr> <tr> <td>IEEE 802.11n HT 40 MHz</td><td>5510 ~ 5670</td><td>0.0957</td></tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td><td>5530</td><td>0.0148</td></tr> <tr> <td rowspan="4">U-NII-3</td><td>IEEE 802.11a</td><td>5745 ~ 5825</td><td>0.0843</td></tr> <tr> <td>IEEE 802.11n HT 20 MHz</td><td>5745 ~ 5825</td><td>0.0635</td></tr> <tr> <td>IEEE 802.11n HT 40 MHz</td><td>5755 ~ 5795</td><td>0.0966</td></tr> <tr> <td>IEEE 802.11ac VHT 80 MHz</td><td>5775</td><td>0.0443</td></tr> </table>			Band	Mode	Frequency Range (MHz)	Output Power (W)	U-NII-1	IEEE 802.11a	5180 ~ 5240	0.0834	IEEE 802.11n HT 20 MHz	5180 ~ 5240	0.0982	IEEE 802.11n HT 40 MHz	5190 ~ 5230	0.1010	IEEE 802.11ac VHT 80 MHz	5210	0.0274	U-NII-2a	IEEE 802.11a	5260 ~ 5320	0.0576	IEEE 802.11n HT 20 MHz	5260 ~ 5320	0.0702	IEEE 802.11n HT 40 MHz	5270 ~ 5310	0.1011	IEEE 802.11ac VHT 80 MHz	5290	0.0104	U-NII-2c	IEEE 802.11a	5500 ~ 5700	0.0901	IEEE 802.11n HT 20 MHz	5500 ~ 5700	0.1016	IEEE 802.11n HT 40 MHz	5510 ~ 5670	0.0957	IEEE 802.11ac VHT 80 MHz	5530	0.0148	U-NII-3	IEEE 802.11a	5745 ~ 5825	0.0843	IEEE 802.11n HT 20 MHz	5745 ~ 5825	0.0635	IEEE 802.11n HT 40 MHz	5755 ~ 5795	0.0966	IEEE 802.11ac VHT 80 MHz	5775	0.0443
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Remark: for more details, please refer to the User's manual and Operation description of the EUT.

1.2 EUT CHANNEL INFORMATION

Frequency Range	<table border="1"> <tr><td colspan="2">UNII-1</td></tr> <tr><td>IEEE 802.11a</td><td>5180 ~ 5240 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5180 ~ 5240 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5190 ~ 5230 MHz</td></tr> <tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5210 MHz</td></tr> <tr><td colspan="2">UNII-2a</td></tr> <tr><td>IEEE 802.11a</td><td>5260 ~ 5320 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5260 ~ 5320 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5270 ~ 5310 MHz</td></tr> <tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5290 MHz</td></tr> <tr><td colspan="2">UNII-2c</td></tr> <tr><td>IEEE 802.11a</td><td>5500 ~ 5700 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5500 ~ 5700 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5510 ~ 5670 MHz</td></tr> <tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5530 MHz</td></tr> <tr><td colspan="2">UNII-3</td></tr> <tr><td>IEEE 802.11a</td><td>5745 ~ 5825 MHz</td></tr> <tr><td>IEEE 802.11n HT 20 MHz</td><td>5745 ~ 5825 MHz</td></tr> <tr><td>IEEE 802.11n HT 40 MHz</td><td>5755 ~ 5795 MHz</td></tr> <tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5775 MHz</td></tr> </table>	UNII-1		IEEE 802.11a	5180 ~ 5240 MHz	IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz	IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz	IEEE 802.11ac VHT 80 MHz	5210 MHz	UNII-2a		IEEE 802.11a	5260 ~ 5320 MHz	IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz	IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz	IEEE 802.11ac VHT 80 MHz	5290 MHz	UNII-2c		IEEE 802.11a	5500 ~ 5700 MHz	IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz	IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz	IEEE 802.11ac VHT 80 MHz	5530 MHz	UNII-3		IEEE 802.11a	5745 ~ 5825 MHz	IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz	IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz	IEEE 802.11ac VHT 80 MHz	5775 MHz
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Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 80 MHz mode: OFDM																																								

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 Type	☐ PIFA ☐ PCB ☒ Dual Band Omni Antenna ☐ Coils
Antenna Gain	Gain: 4 dBi
Antenna Connector	RPSMA Male

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

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. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT doesn't connect to AC Main Source direct.
Radiation	Jerry Chang	-
RF Conducted	Dally Hong	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

3M 966 Chamber Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Bilog Antenna	Sunol Sciences	JB3	A030105	07/26/2019	07/25/2020
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+25111	09/20/2019	09/19/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/15/2020	01/14/2021
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	10/04/2019	10/03/2020
High Pass Filters	MICRO TRONICS	HPM13195	003	02/25/2020	02/24/2021
Horn Antenna	ETS LINDGREN	3116	00026370	12/18/2019	12/17/2020
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
Pre-Amplifier	MITEQ	AMF-6F-1800 4000-37-8P	985646	06/18/2019	06/17/2020
Signal Analyzer	Agilent	N9010A	MY52220817	03/19/2020	03/18/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

RF Conducted Test Site					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Coaxial Cable	Woken	WC12	CC001	06/28/2019	06/27/2020
EXA Signal Analyzer	KEYSIGHT	N9010B	MY55460167	07/31/2019	07/30/2020
Power Meter	Anritsu	ML2487A	6K00003260	05/22/2019	05/21/2020
Power Seneor	Anritsu	MA2490A	032910	05/22/2019	05/21/2020
Software	N/A				

Remark:

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



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1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

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

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	NB(J)	TOSHIBA	PT345T-00L002	N/A	PD97260H
2	DC Power Supplies	GW Instek	SPS-3610	GPE880163	N/A
3	DC Power Source	Agilent	E3640A	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, KDB 905462 D02, RSS-247 Issue 2 and RSS-GEN Issue 5.

2. TEST SUMMARY

FCC Standard Sec.	IC Standard Sec.	Chapter	Test Item	Result
15.203	-	1.3	Antenna Requirement	Pass
15.207	RSS-Gen(8.8)	4.1	AC Conducted Emission	N/A
15.403(i)	-	4.2	26dB Bandwidth	Pass
15.407(e)	RSS-247(6.2.4)	4.2	6dB Bandwidth	Pass
15.403(i)	RSS-Gen (6.7)	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	RSS-247(6.2.1.1) RSS-247(6.2.2.1) RSS-247(6.2.3.1) RSS-247(6.2.4.1)	4.3	Output Power Measurement	Pass
15.407(a)	RSS-247(6.2.1.1) RSS-247(6.2.2.1) RSS-247(6.2.3.1) RSS-247(6.2.4.1)	4.4	Power Spectral Density	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.5	Radiation Band Edge	Pass
15.407(b)	RSS-247(6.2.1.2) RSS-247(6.2.2.2) RSS-247(6.2.3.2) RSS-247(6.2.4.2)	4.5	Radiation Spurious Emission	Pass
15.407(g)	RSS-Gen(6.11)	4.6	Frequency Stability	Pass
15.407(h)	-	4.7	Dynamic Frequency Selection	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 HT 20 MHz mode: MCS8 3. IEEE 802.11n HT 40 MHz mode: MCS8 4. IEEE 802.11ac VHT 80 MHz mode: MCS8				
Operating Frequency			Mode	Frequency Range (MHz)	
		U-NII-1	IEEE 802.11a	5180, 5220, 5240	
			IEEE 802.11n HT 20 MHz	5180, 5220, 5240	
			IEEE 802.11n HT 40 MHz	5190, 5230	
			IEEE 802.11ac VHT 80 MHz	5210	
		U-NII-2a	IEEE 802.11a	5260, 5280, 5320	
			IEEE 802.11n HT 20 MHz	5260, 5280, 5320	
			IEEE 802.11n HT 40 MHz	5270, 5310	
			IEEE 802.11ac VHT 80 MHz	5290	
		U-NII-2c	IEEE 802.11a	5500, 5580, 5700	
			IEEE 802.11n HT 20 MHz	5500, 5580, 5700	
			IEEE 802.11n HT 40 MHz	5510, 5550, 5670	
			IEEE 802.11ac VHT 80 MHz	5530	
		U-NII-3	IEEE 802.11a	5745, 5785, 5825	
			IEEE 802.11n HT 20 MHz	5745, 5785, 5825	
			IEEE 802.11n HT 40 MHz	5755, 5795	
IEEE 802.11ac VHT 80 MHz	5775				

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n 20 MHz and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n 20 MHz and HT40) were test conducted and radiated measurement and recorded in this report.
3. For Canada the EUT Frequency Range 5600~5650MHz will be disabled.

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 Power supply
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 Power supply
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

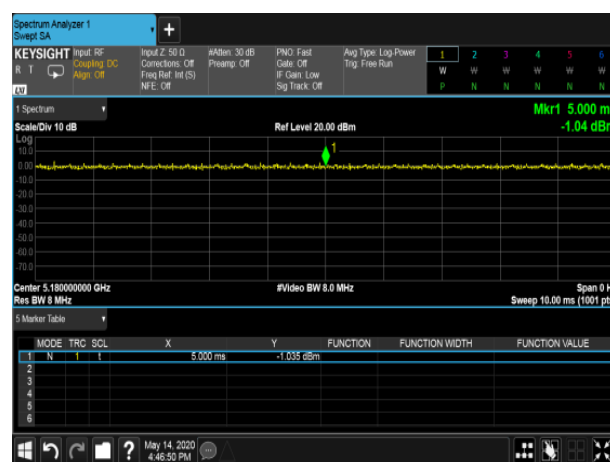
Remark:

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

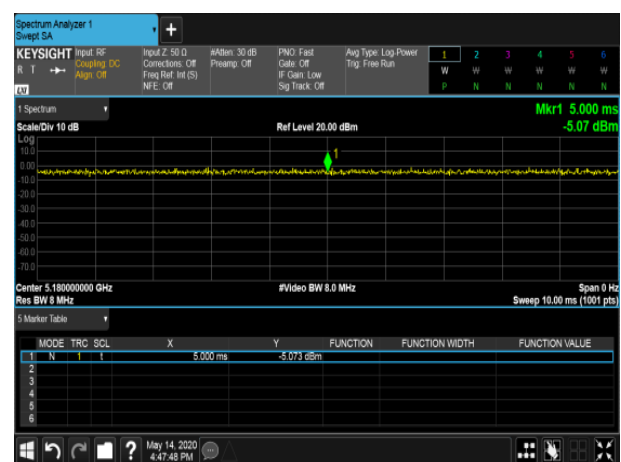
3.3 EUT DUTY CYCLE

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) $=10 \cdot \log(1/\text{Duty Cycle})$	1/T (kHz)	VBW setting (kHz)
802.11a	100.00	0.00	N/A	0.01
802.11n HT20	100.00	0.00	N/A	0.01
802.11n HT40	100.00	0.00	N/A	0.01
802.11ac VHT80	100.00	0.00	N/A	0.01

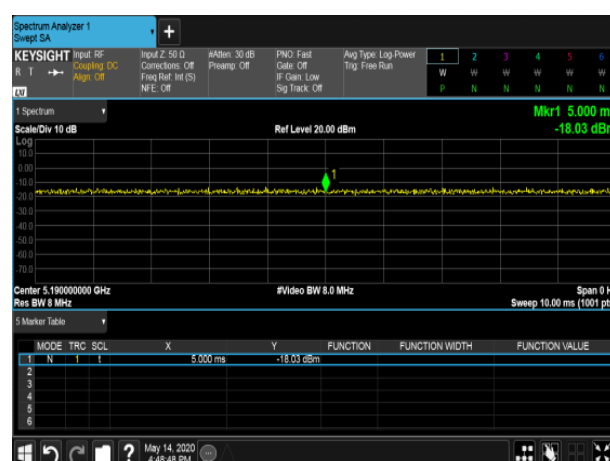
802.11a



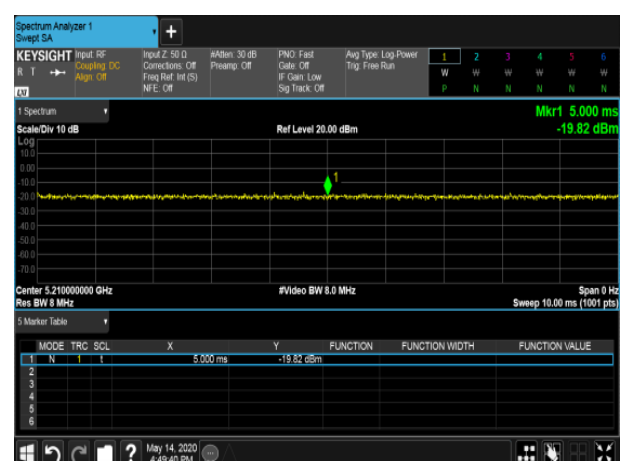
802.11n HT20



802.11n HT40



802.11ac VHT80



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

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

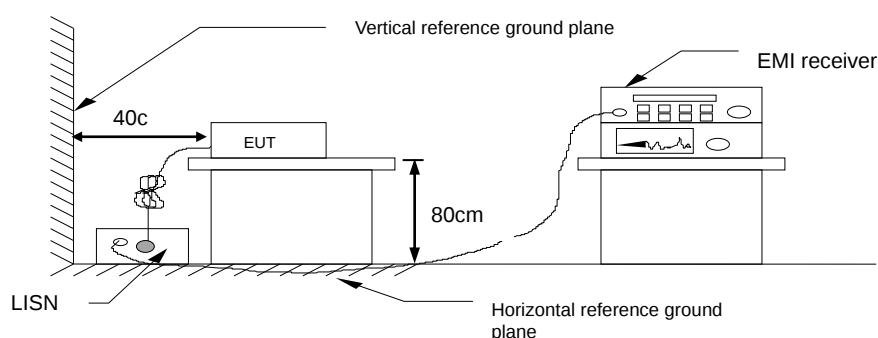
* Decreases with the logarithm of the frequency.

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

Not applicable, because EUT doesn't connect to AC Main Source direct.

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

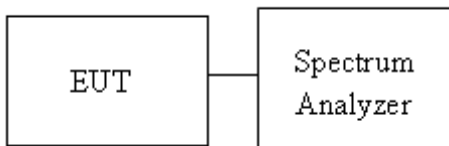
1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW>RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26dB down 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 $\geq 3 \times$ RBW

4.2.3 Test Setup

4.2.4 Test Result

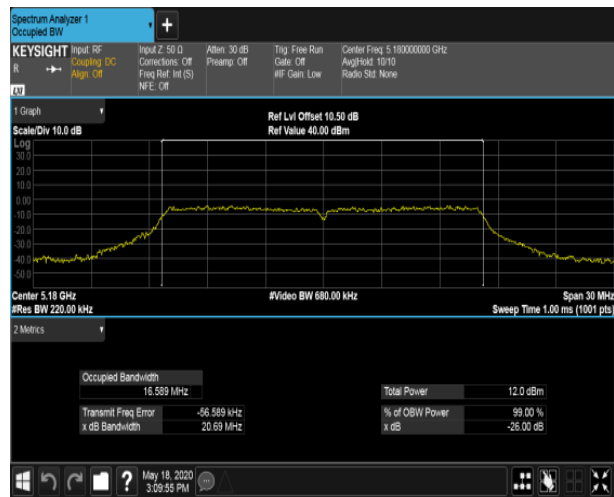
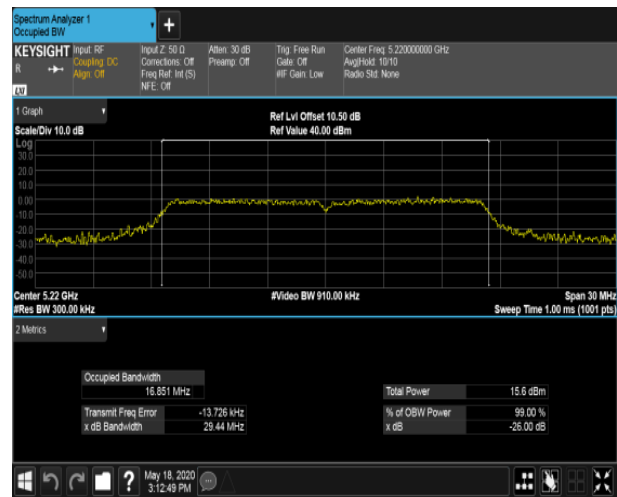
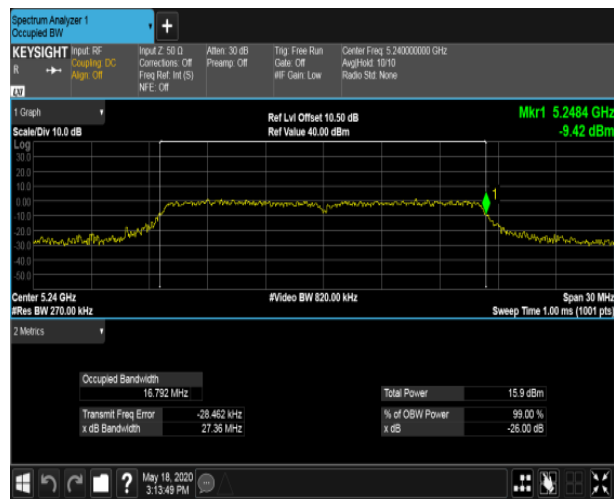
UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5180	16.589	16.640	20.69	27.45
Mid	5220	16.851	16.712	29.44	27.95
High	5240	16.792	16.839	27.36	29.98
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5180	17.902	17.726	29.19	28.13
Mid	5220	17.996	17.746	29.71	26.03
High	5240	17.864	17.699	27.05	24.63
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5190	36.648	36.394	49.67	48.93
High	5230	36.695	36.434	49.55	49.91
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5210	76.018	75.561	99.82	97.60

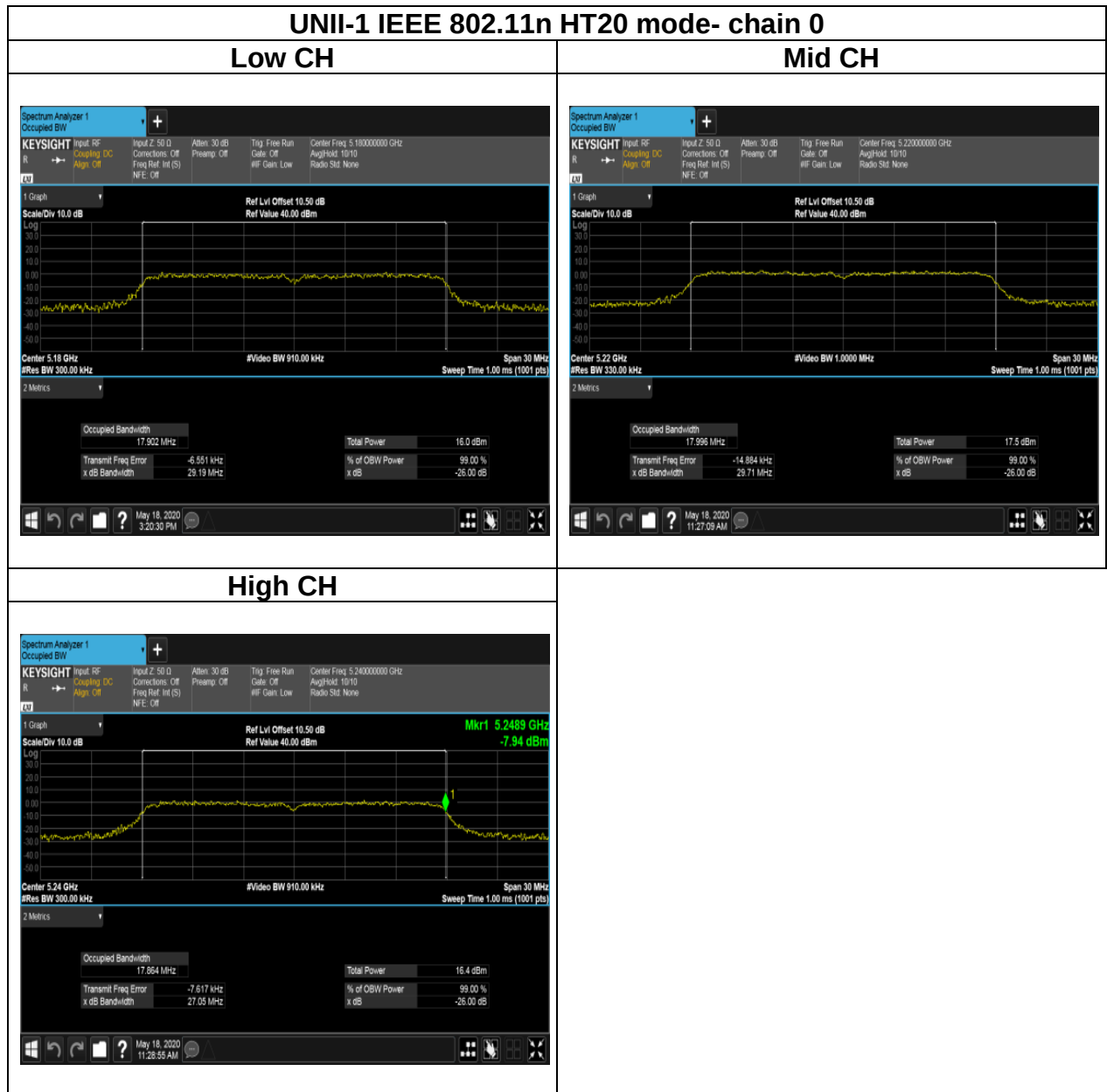
UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5260	16.768	16.808	25.43	28.08
Mid	5280	16.515	16.468	25.12	26.88
High	5320	16.754	16.757	27.76	27.71
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5260	17.801	17.772	26.10	28.32
Mid	5280	17.658	17.629	23.83	28.26
High	5320	17.875	17.701	29.45	20.84
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5270	36.384	36.472	48.88	49.10
High	5310	36.450	36.373	48.65	49.13
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5290	75.934	75.537	98.85	96.16

UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5500	17.300	16.816	29.97	28.35
Mid	5580	17.062	16.742	29.65	26.38
High	5700	16.818	16.721	27.16	29.45
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW (99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5500	18.348	17.823	29.97	28.16
Mid	5580	18.260	17.657	30.00	22.41
High	5700	18.018	17.772	30.00	28.69
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW (99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5510	36.806	36.345	50.00	49.43
Mid	5550	36.781	36.366	50.00	49.30
High	5670	36.636	36.258	49.51	46.04
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 26dB BW (MHz)	Chain 1 26dB BW (MHz)
Low	5530	76.628	75.764	100.00	99.49

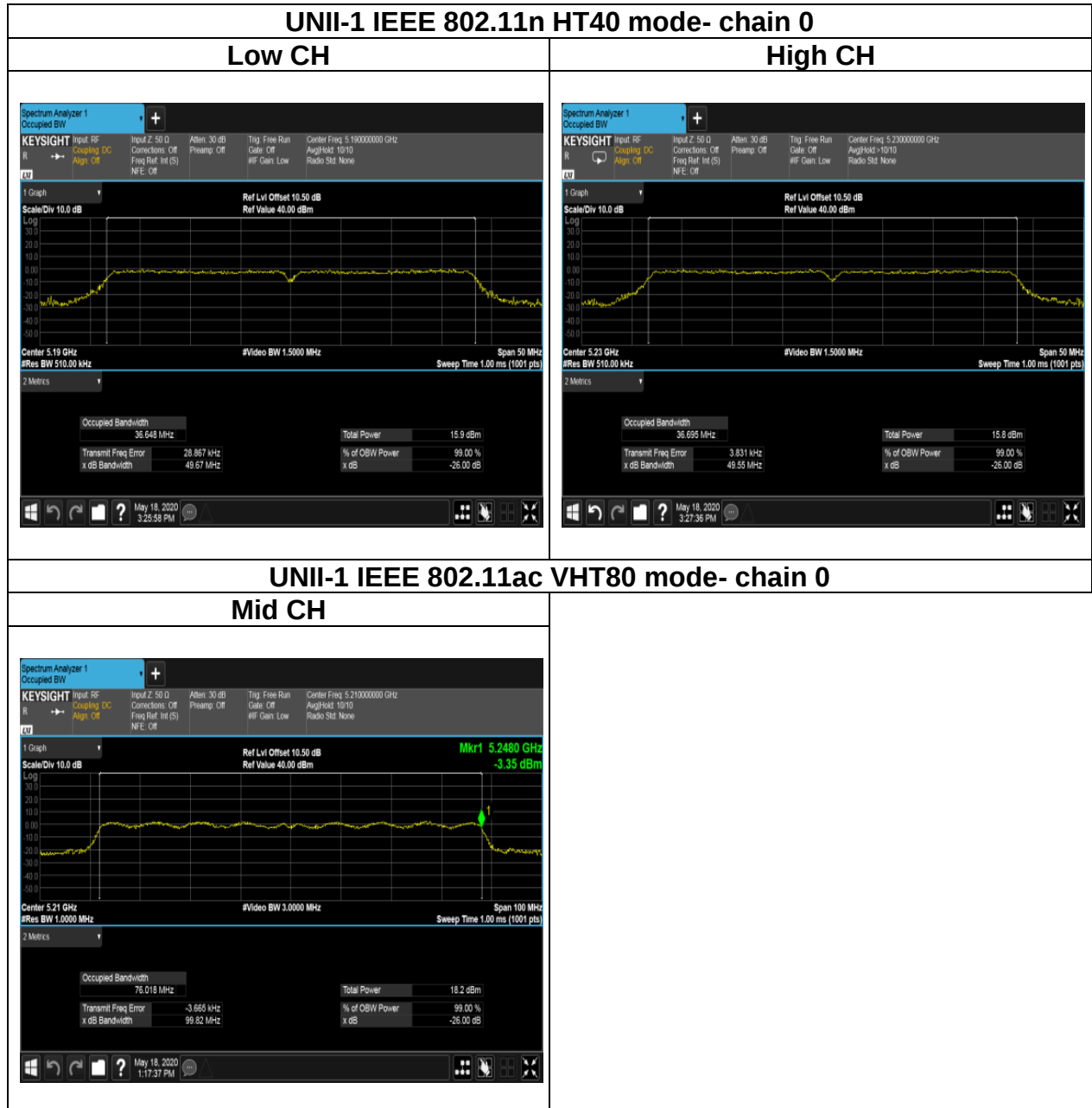
UNII-3 5725-5825MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)
Low	5745	16.566	16.459	16.52	16.43
Mid	5785	16.563	16.456	16.54	16.47
High	5825	16.545	16.467	16.52	16.45
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)
Low	5745	17.672	17.598	17.74	17.64
Mid	5785	17.655	17.608	17.70	17.63
High	5825	17.650	17.615	17.68	17.64
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)
Low	5755	36.295	36.154	36.56	36.48
High	5795	36.300	36.186	36.51	36.49
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 OBW(99%) (MHz)	Chain 1 OBW(99%) (MHz)	Chain 0 6dB BW (MHz)	Chain 1 6dB BW (MHz)
Low	5775	75.778	75.458	76.46	75.81

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Test Data (26dB BANDWIDTH and 99% OBW)**UNII-1 IEEE 802.11a mode- chain 0****Low CH****Mid CH****High CH**

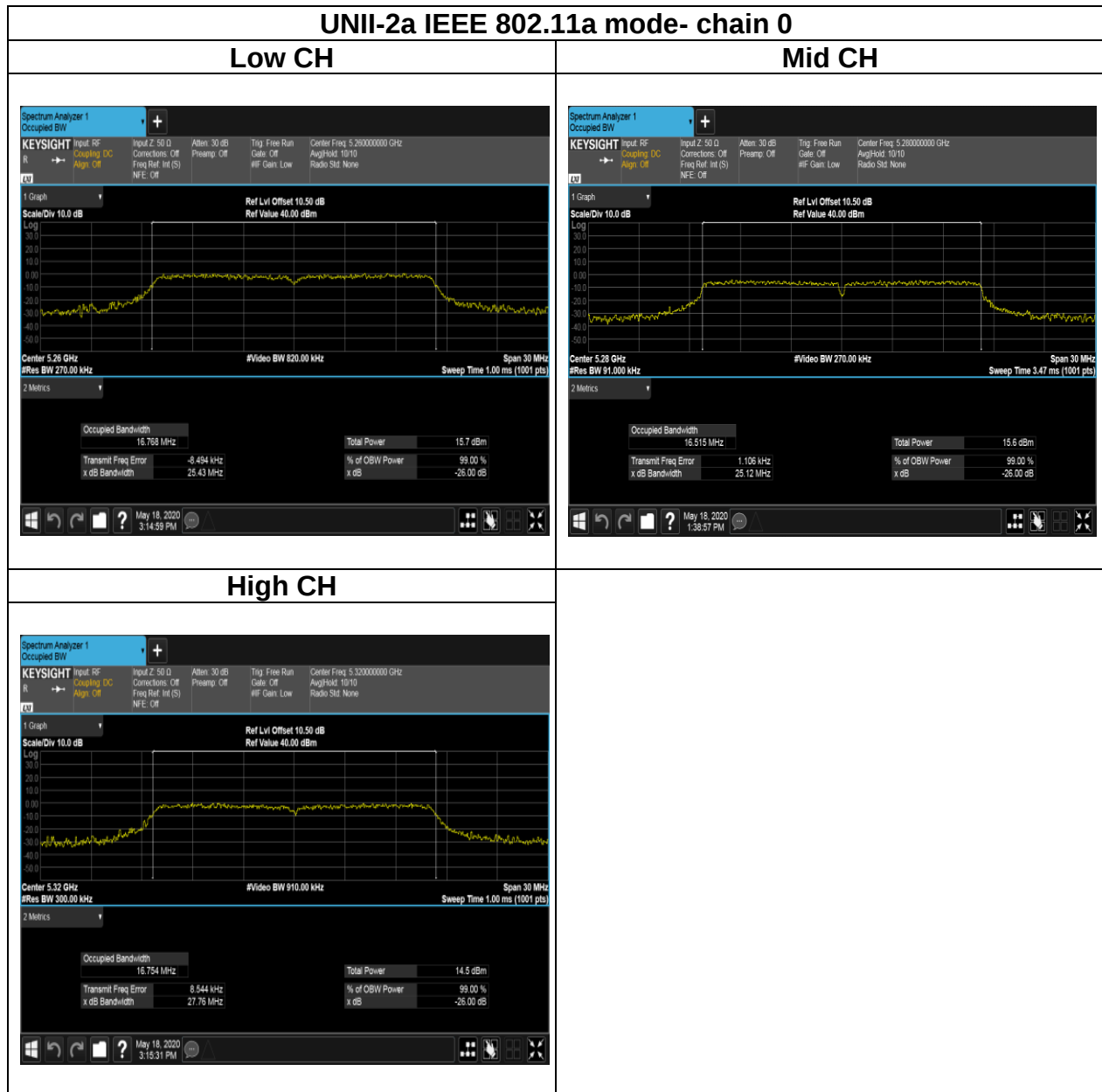


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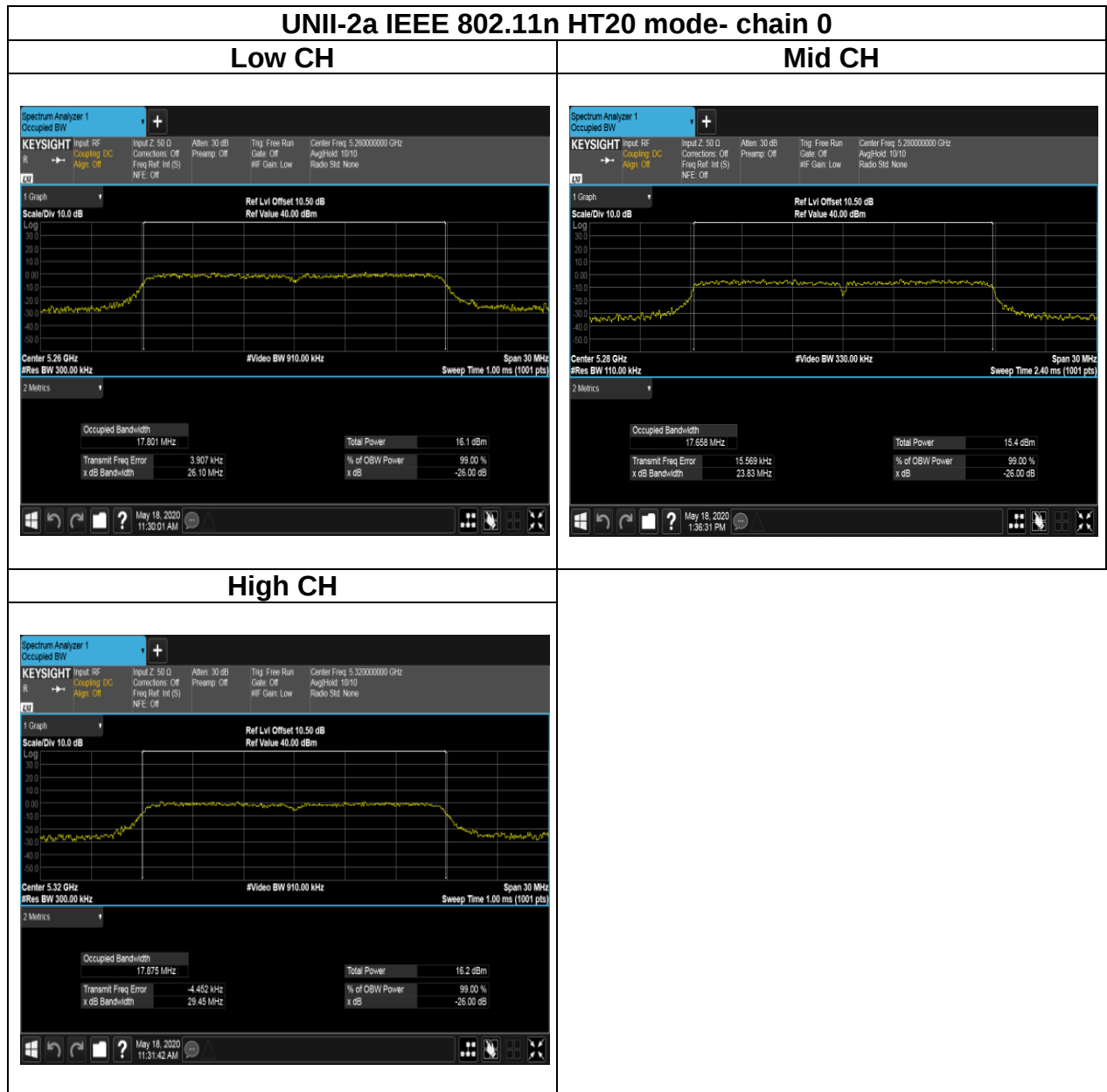
Test Data (26dB BANDWIDTH and 99% OBW)

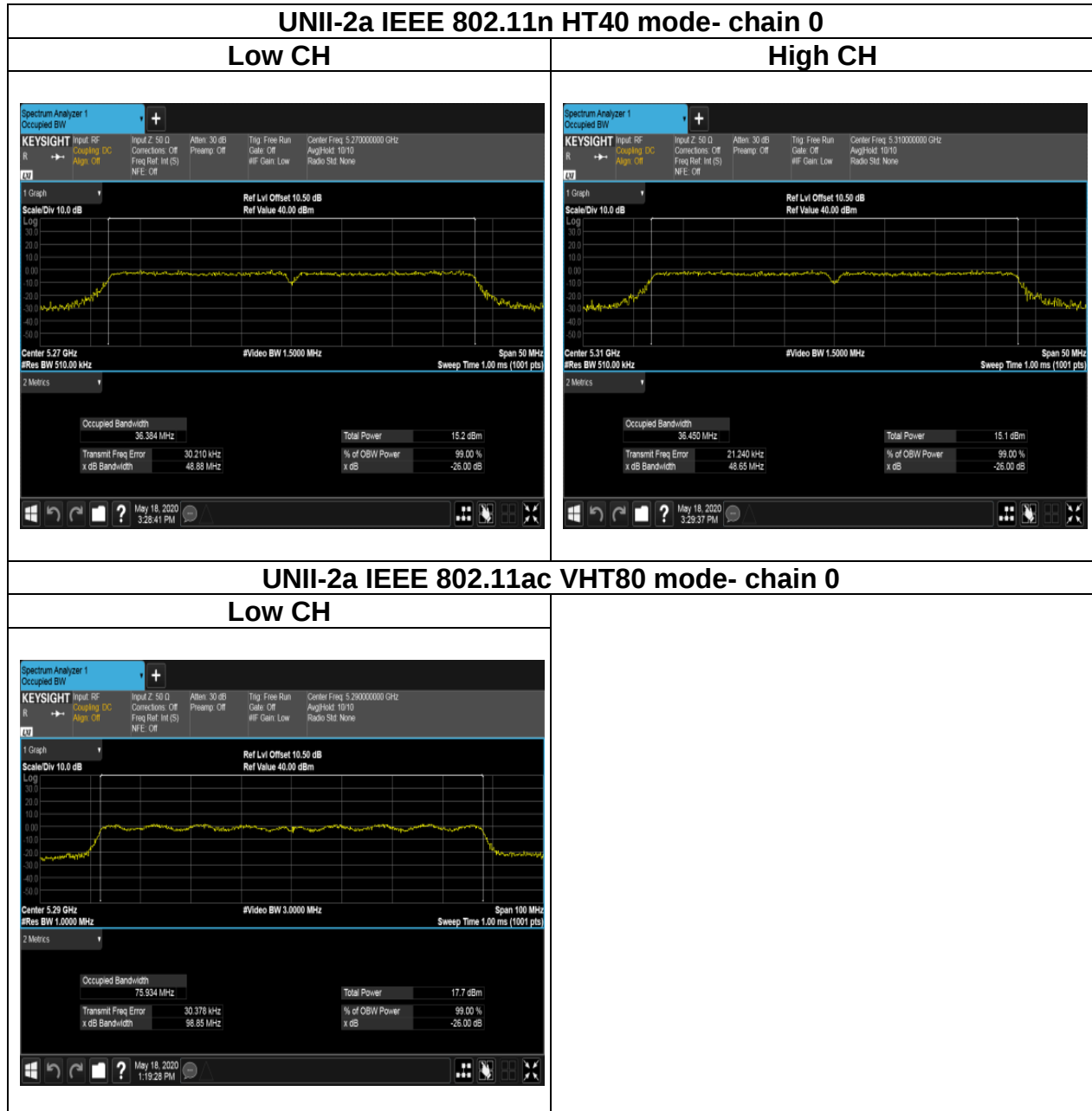




Report No.: T200416C04-RP2

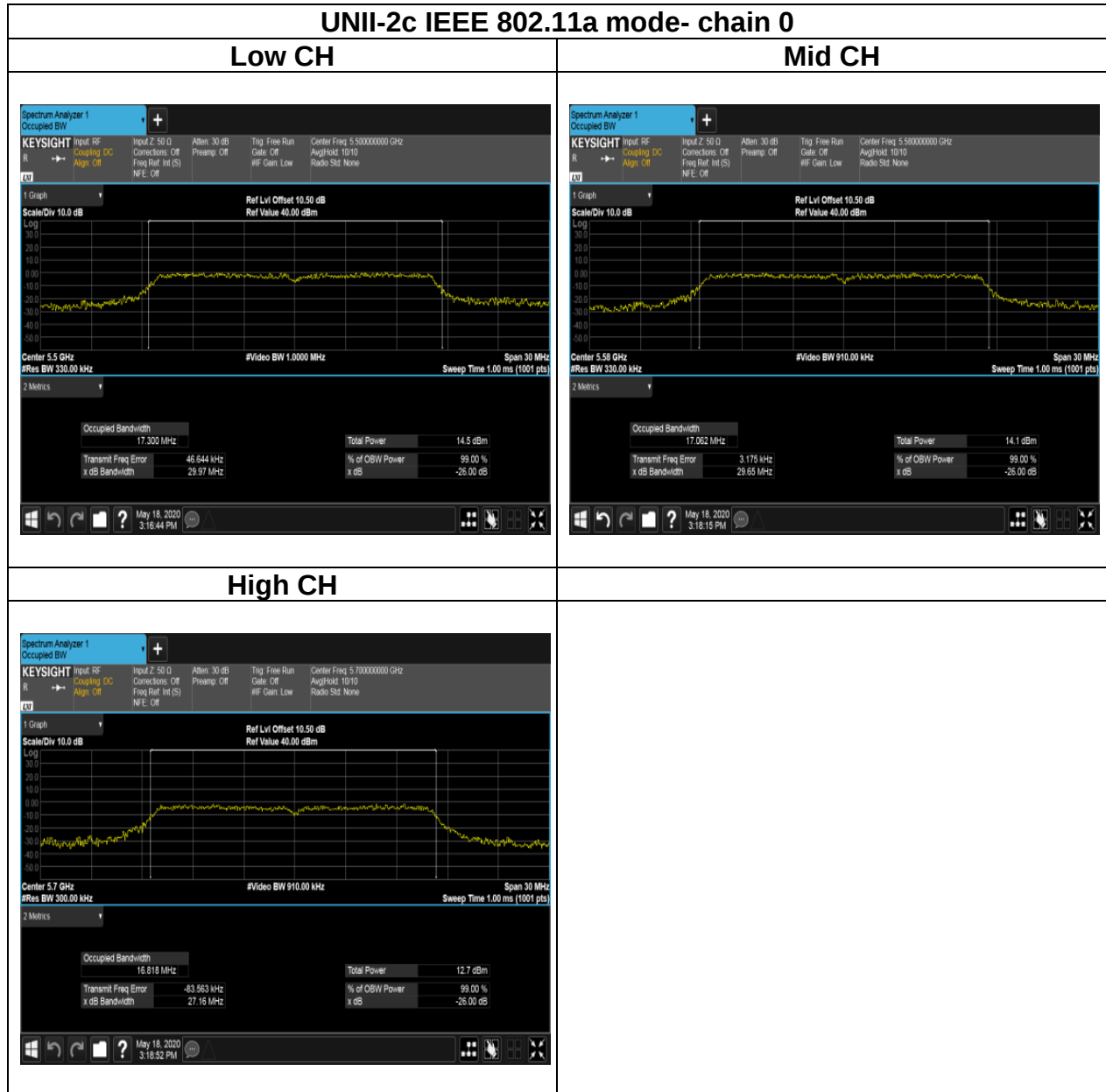
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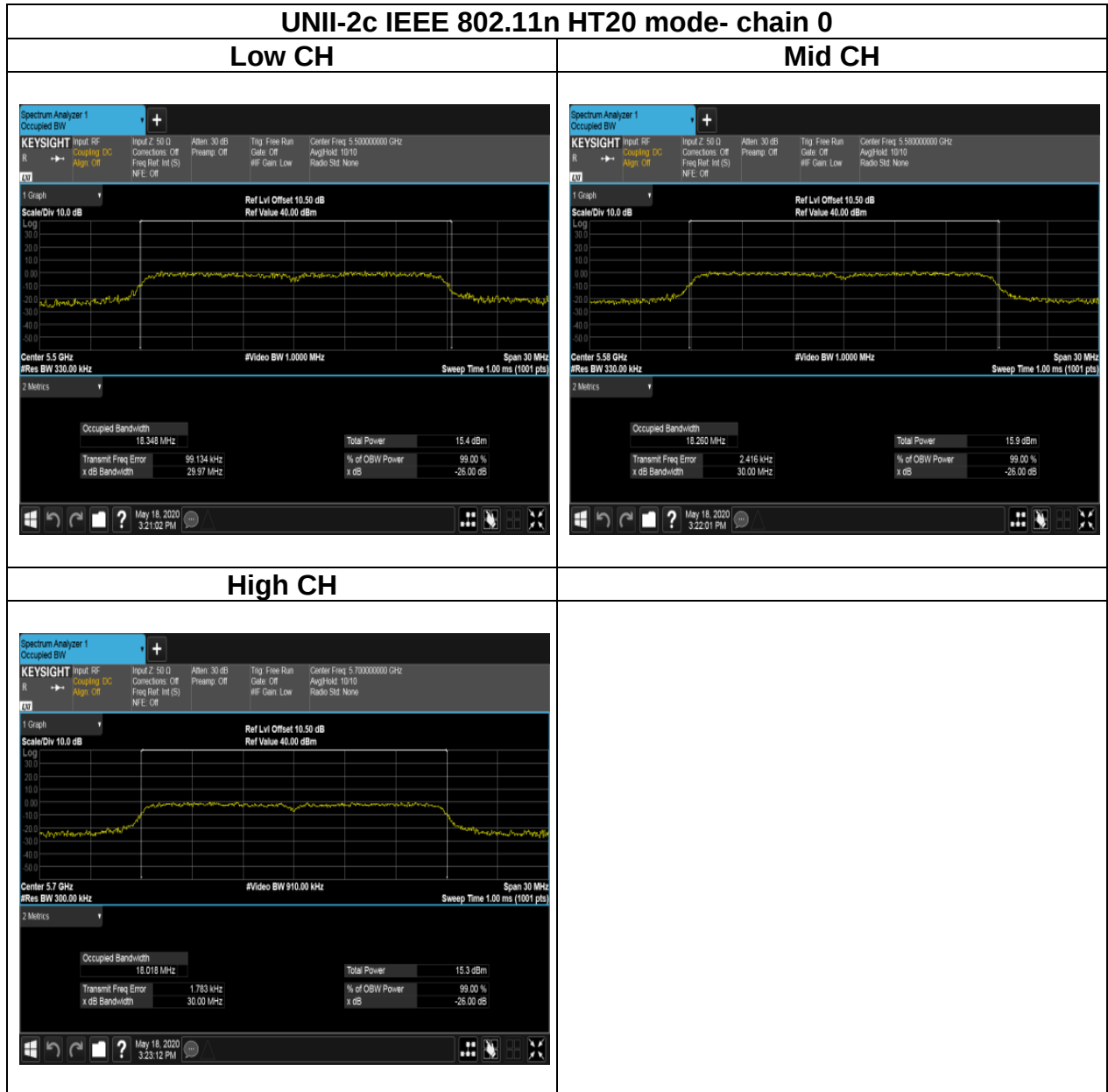




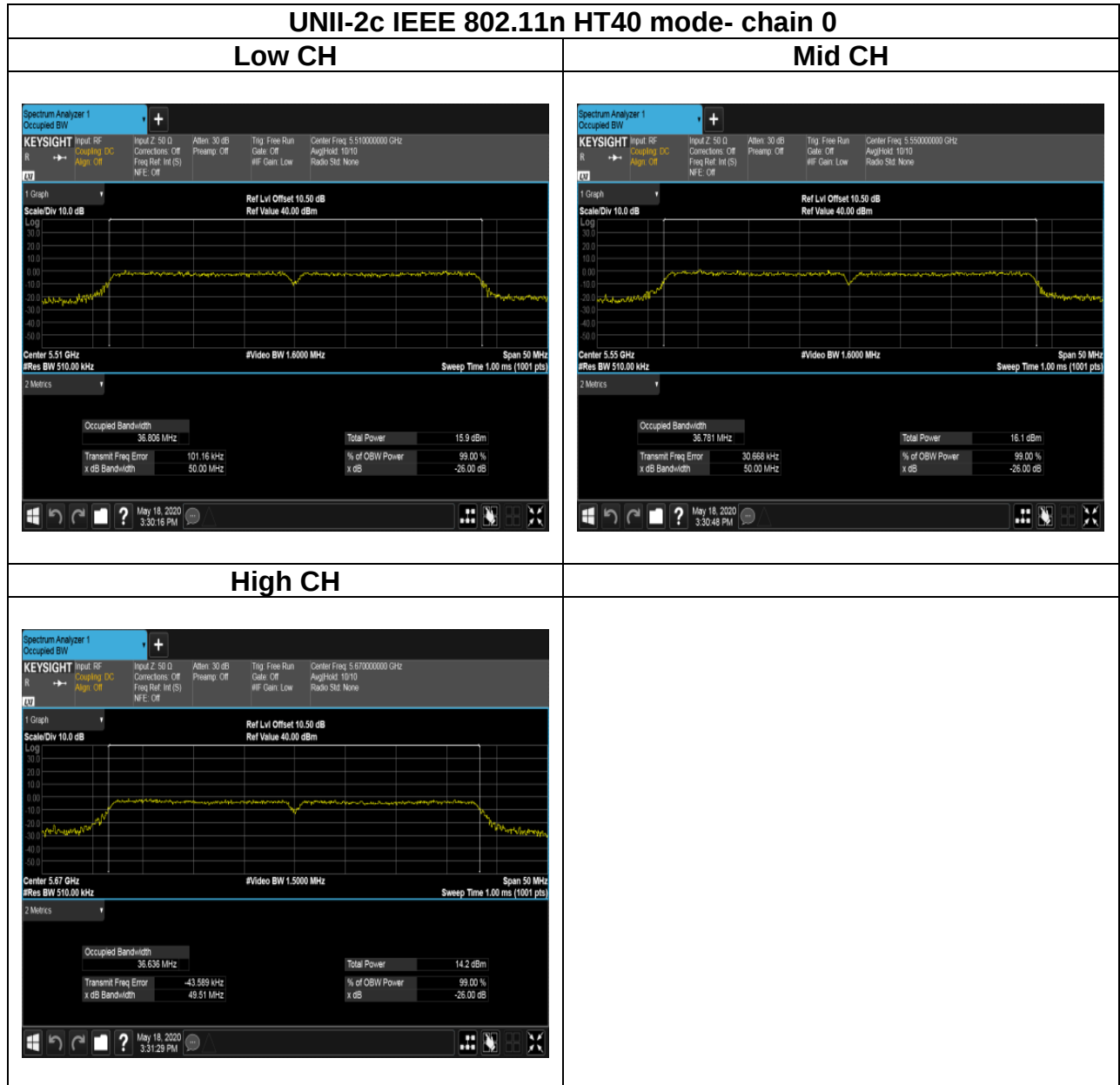
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Test Data (26dB BANDWIDTH and 99% OBW)





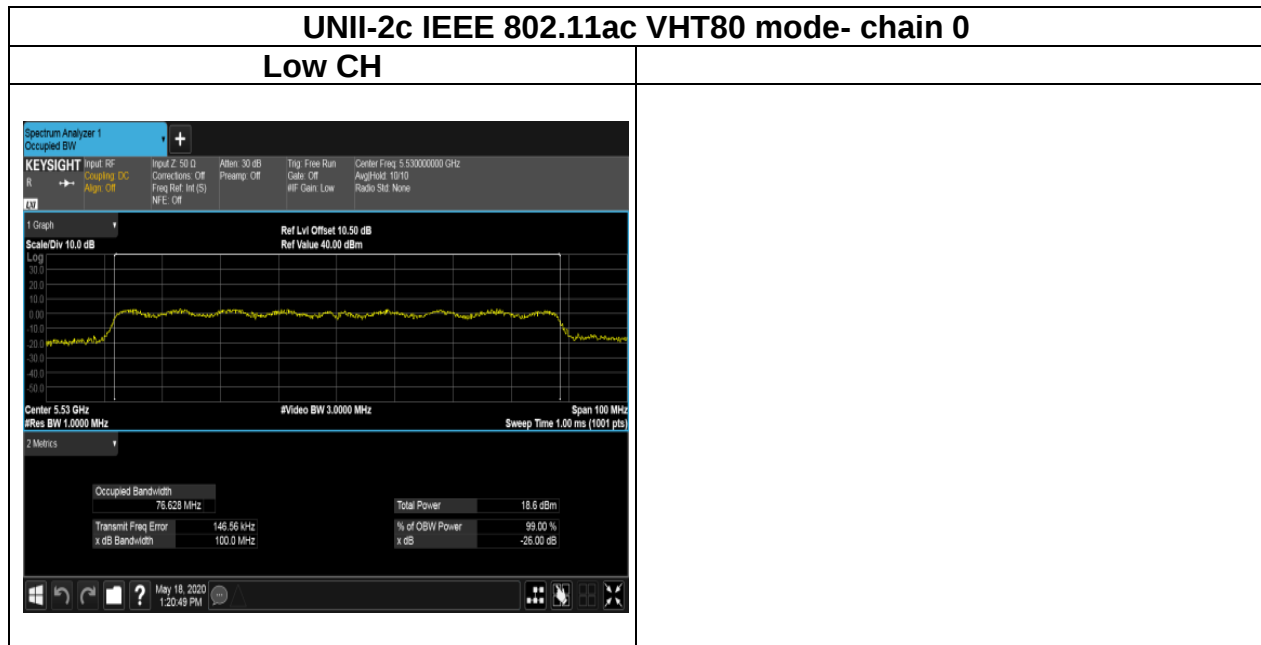
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Report No.: T200416C04-RP2

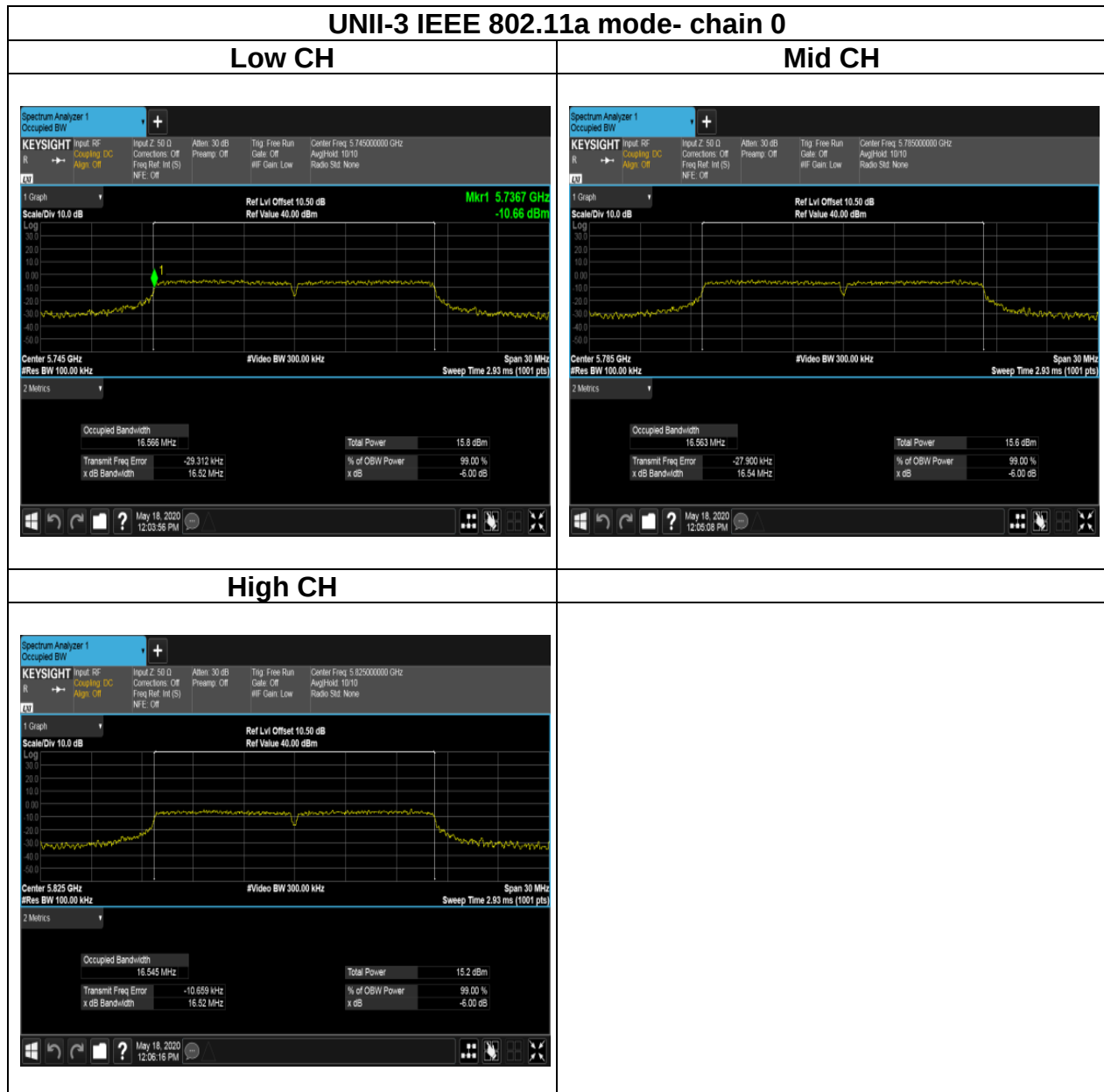
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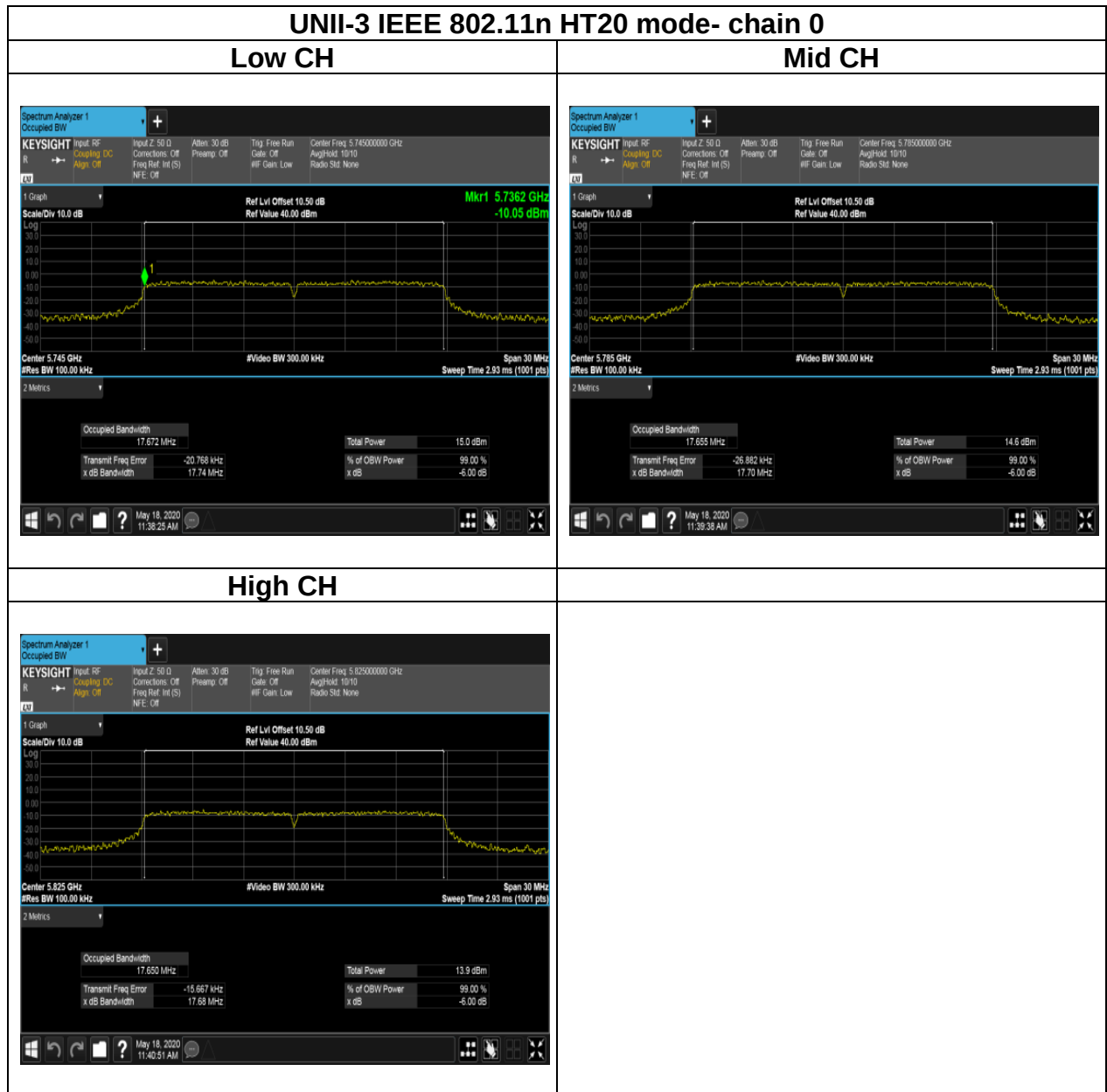


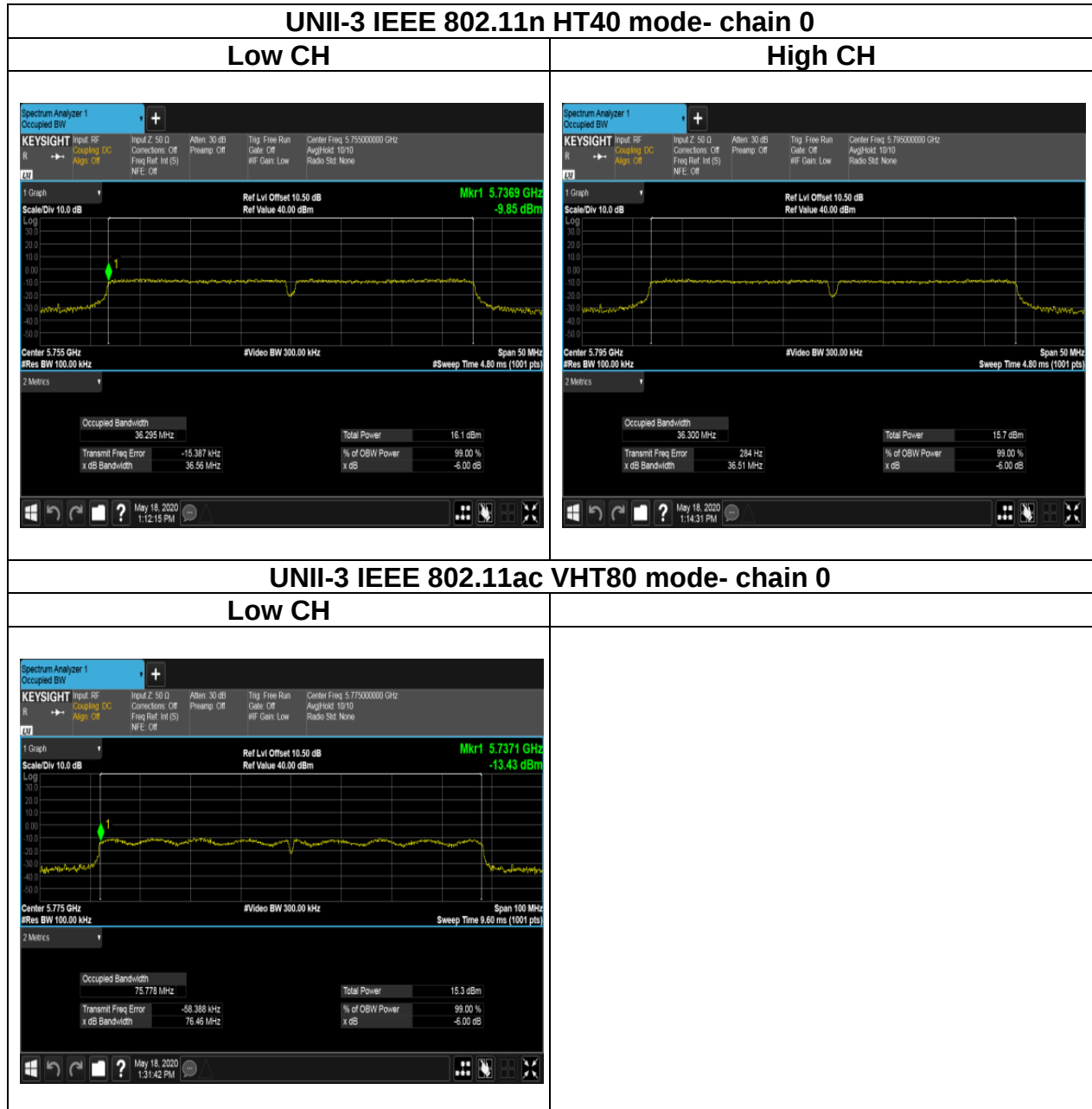


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Test Data (6dB BANDWIDTH and 99% OBW)



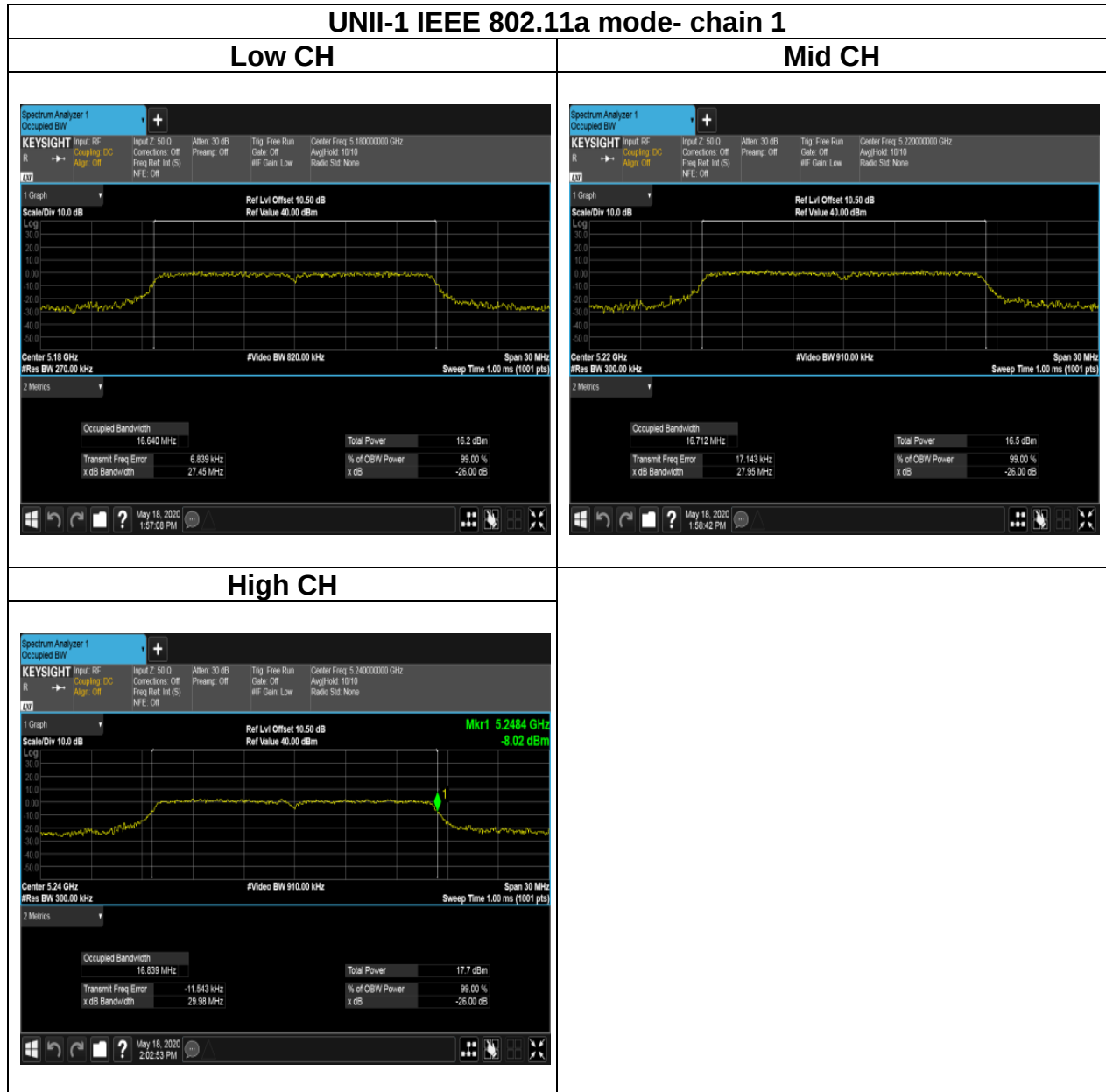


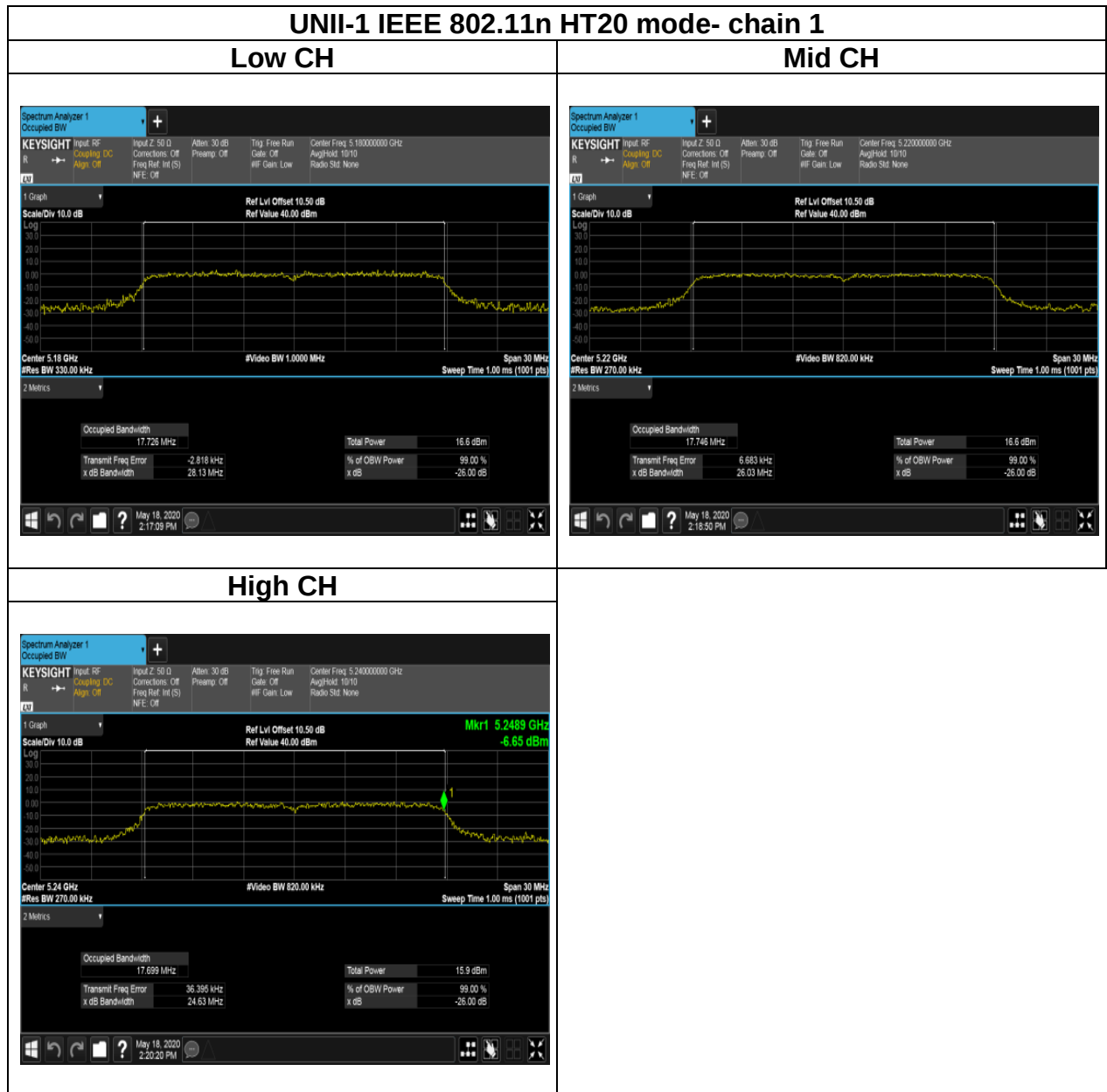


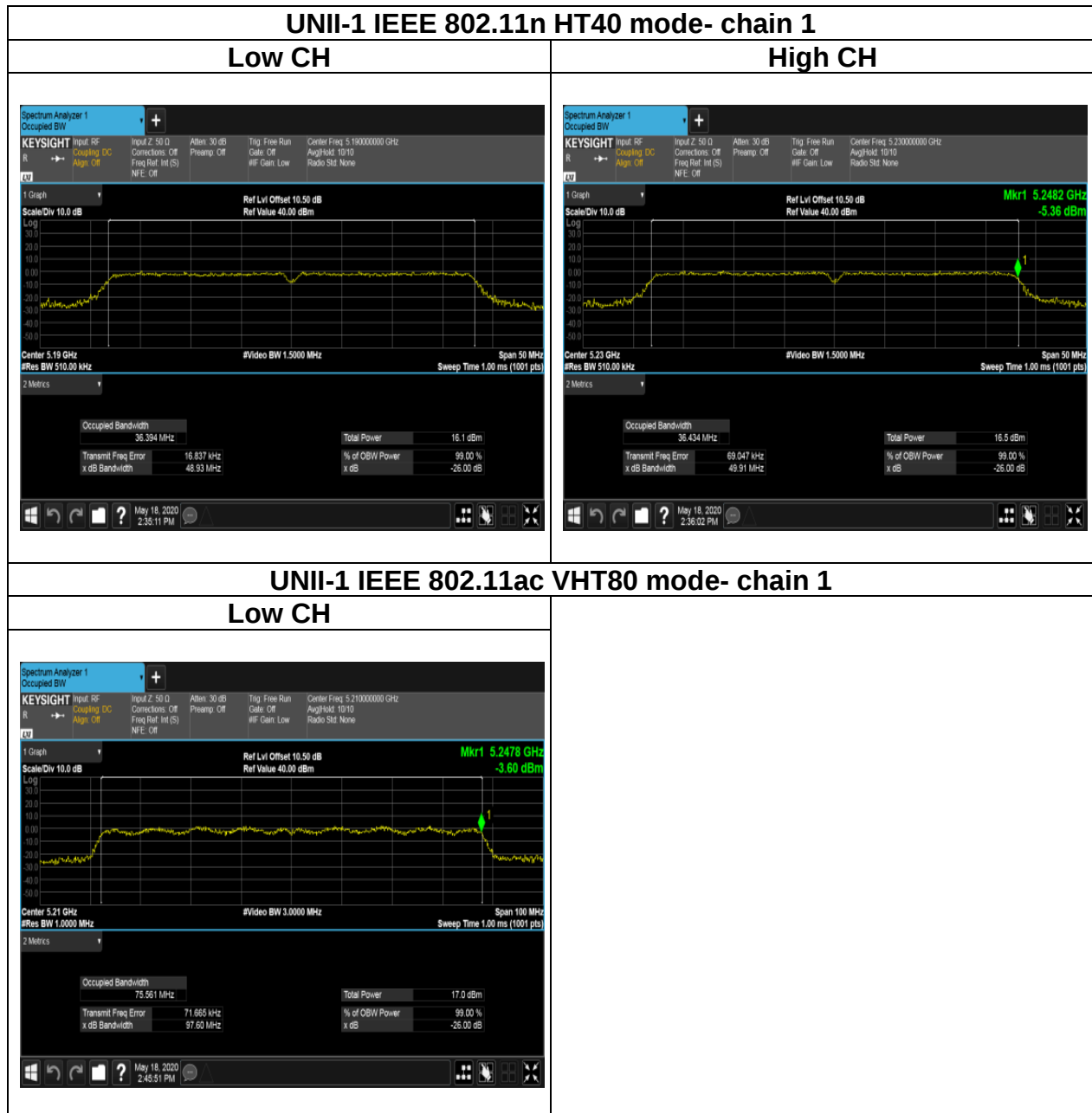


Report No.: T200416C04-RP2

Test Data (26dB BANDWIDTH and 99% OBW)

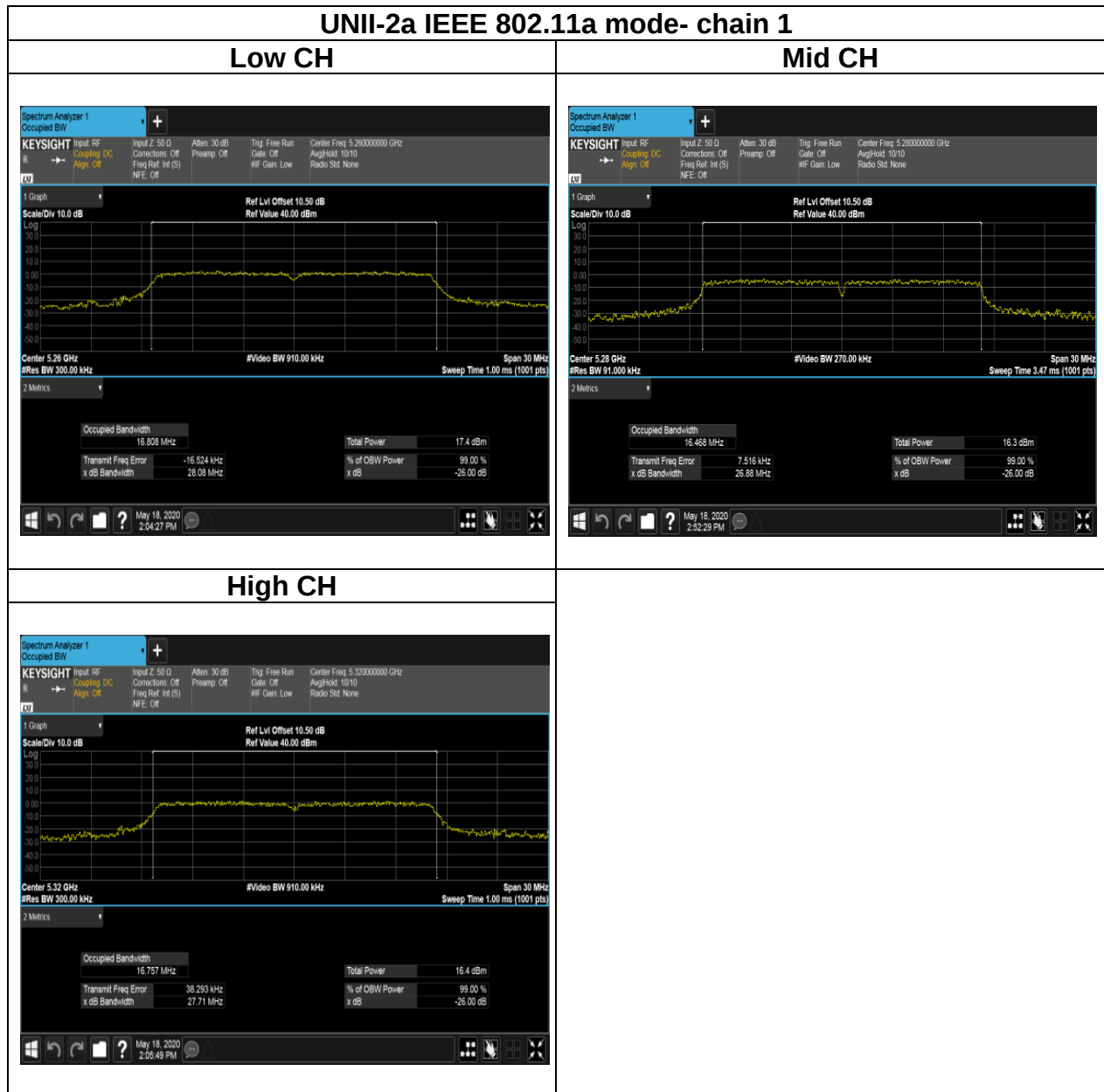






Report No.: T200416C04-RP2

Test Data (26dB BANDWIDTH and 99% OBW)

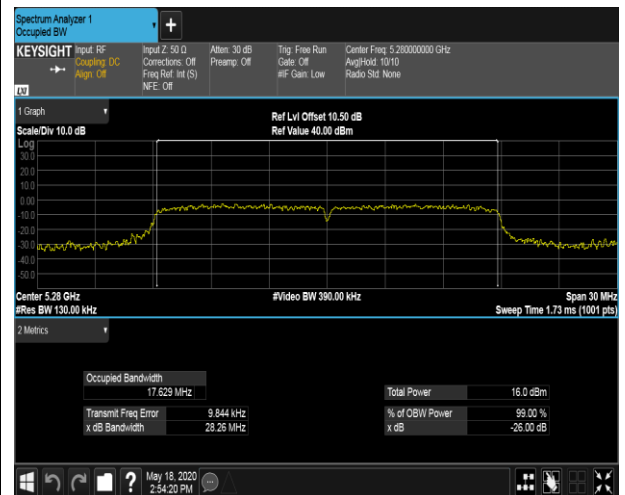


UNII-2a IEEE 802.11n HT20 mode- chain 1

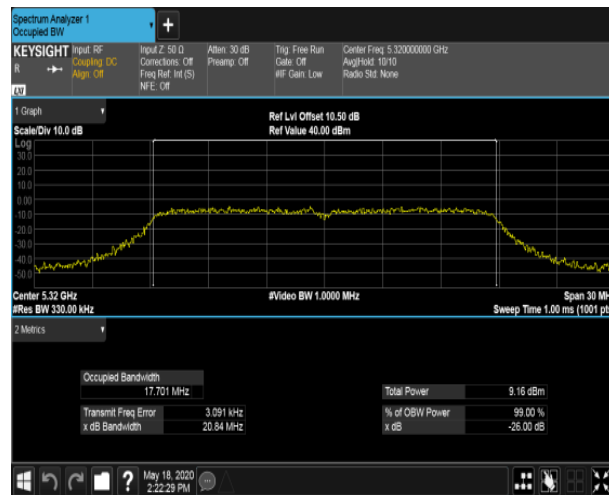
Low CH

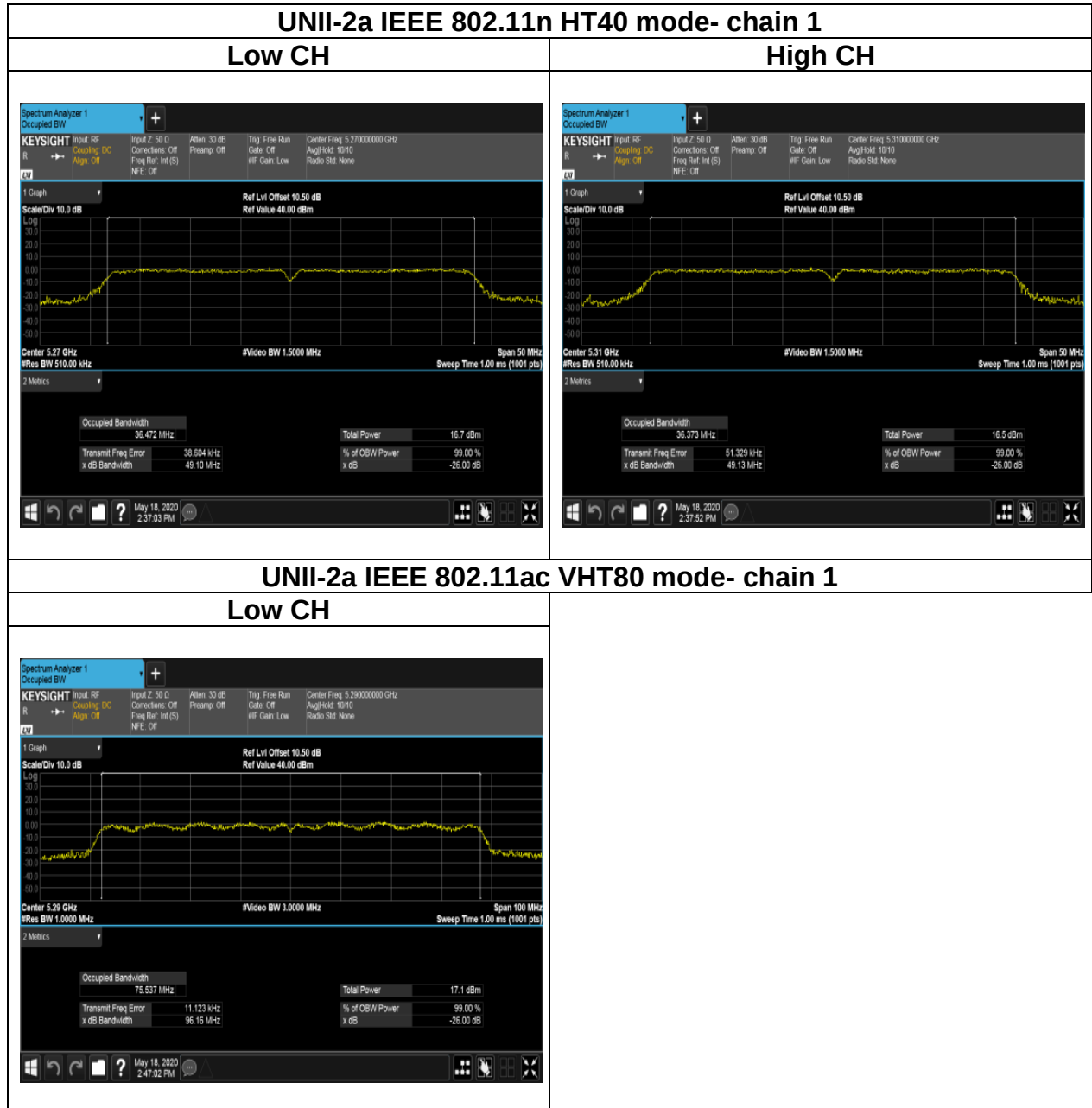


Mid CH



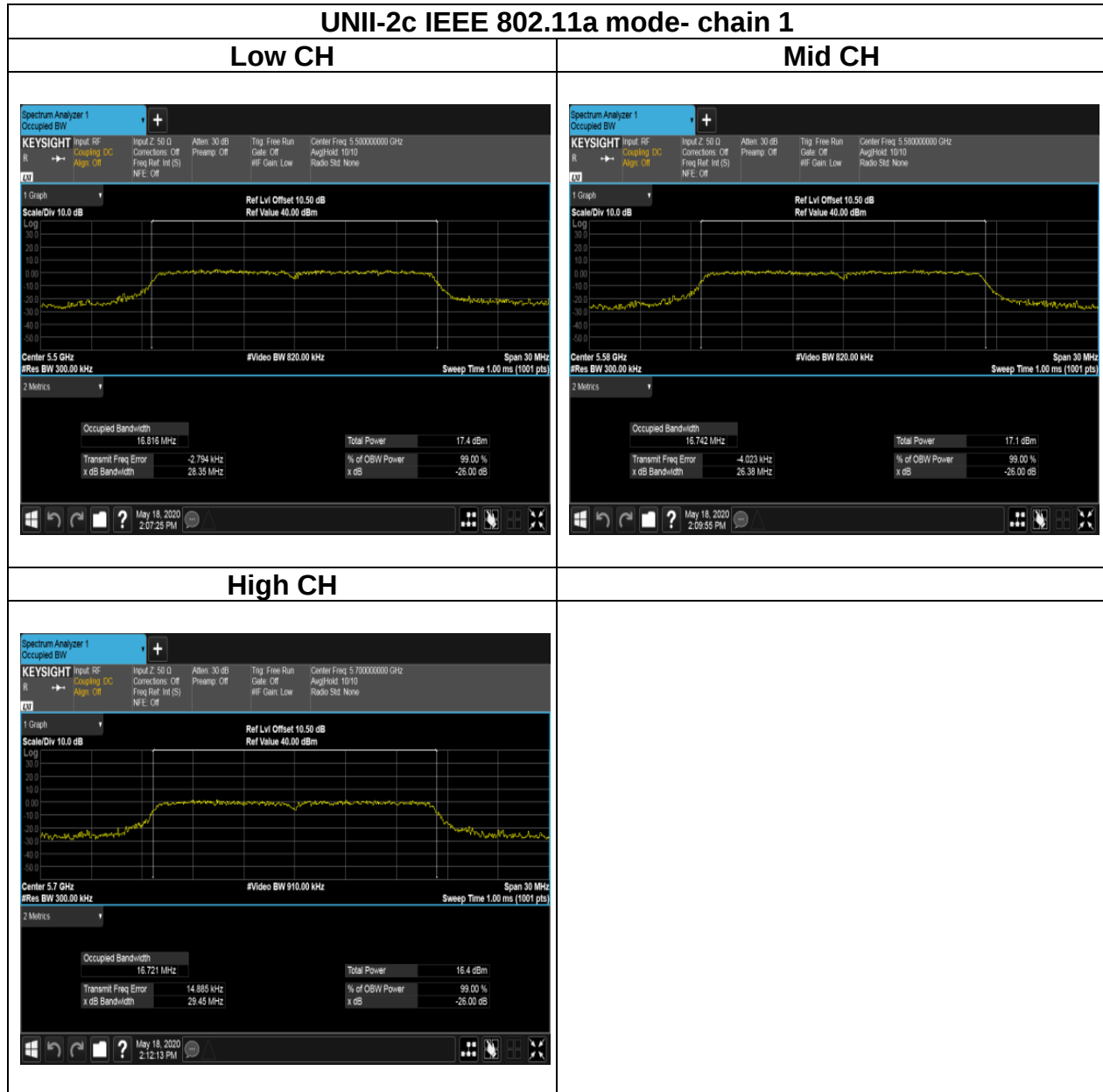
High CH





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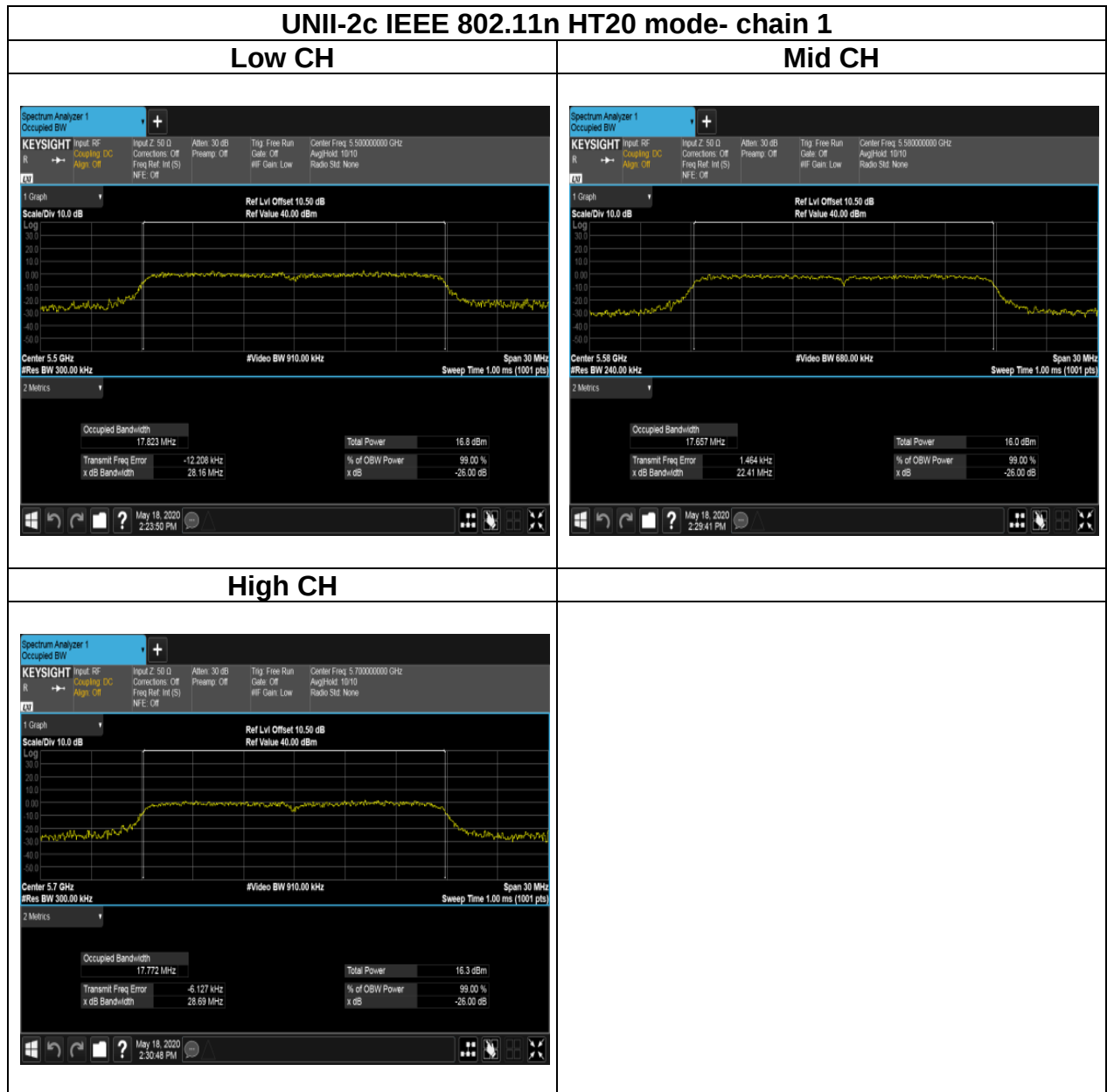
Test Data (26dB BANDWIDTH and 99% OBW)



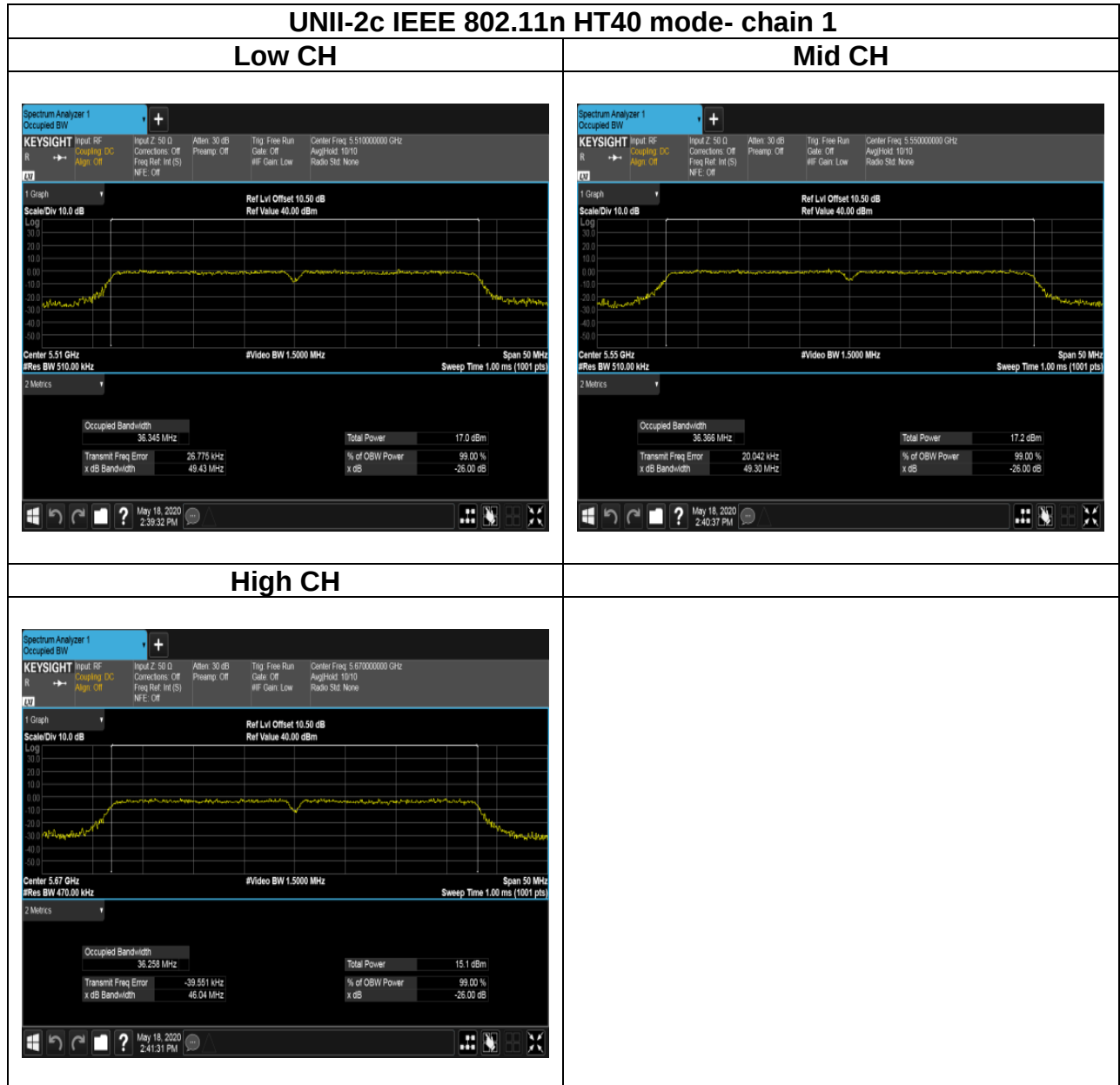


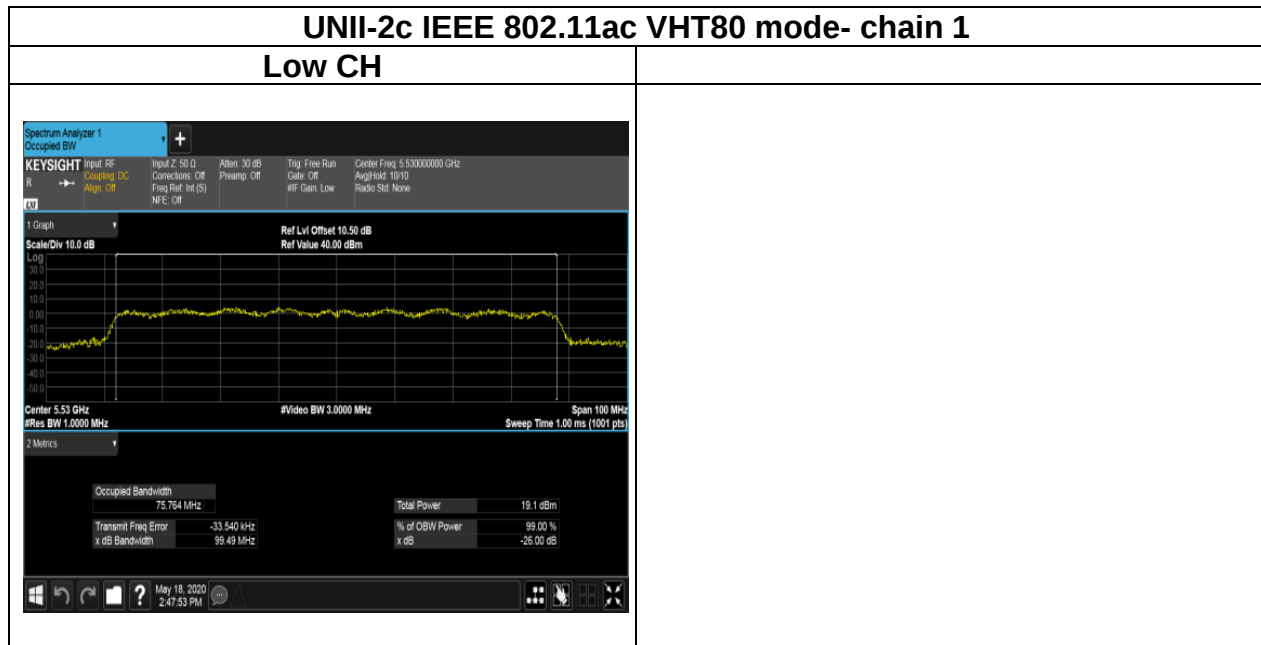
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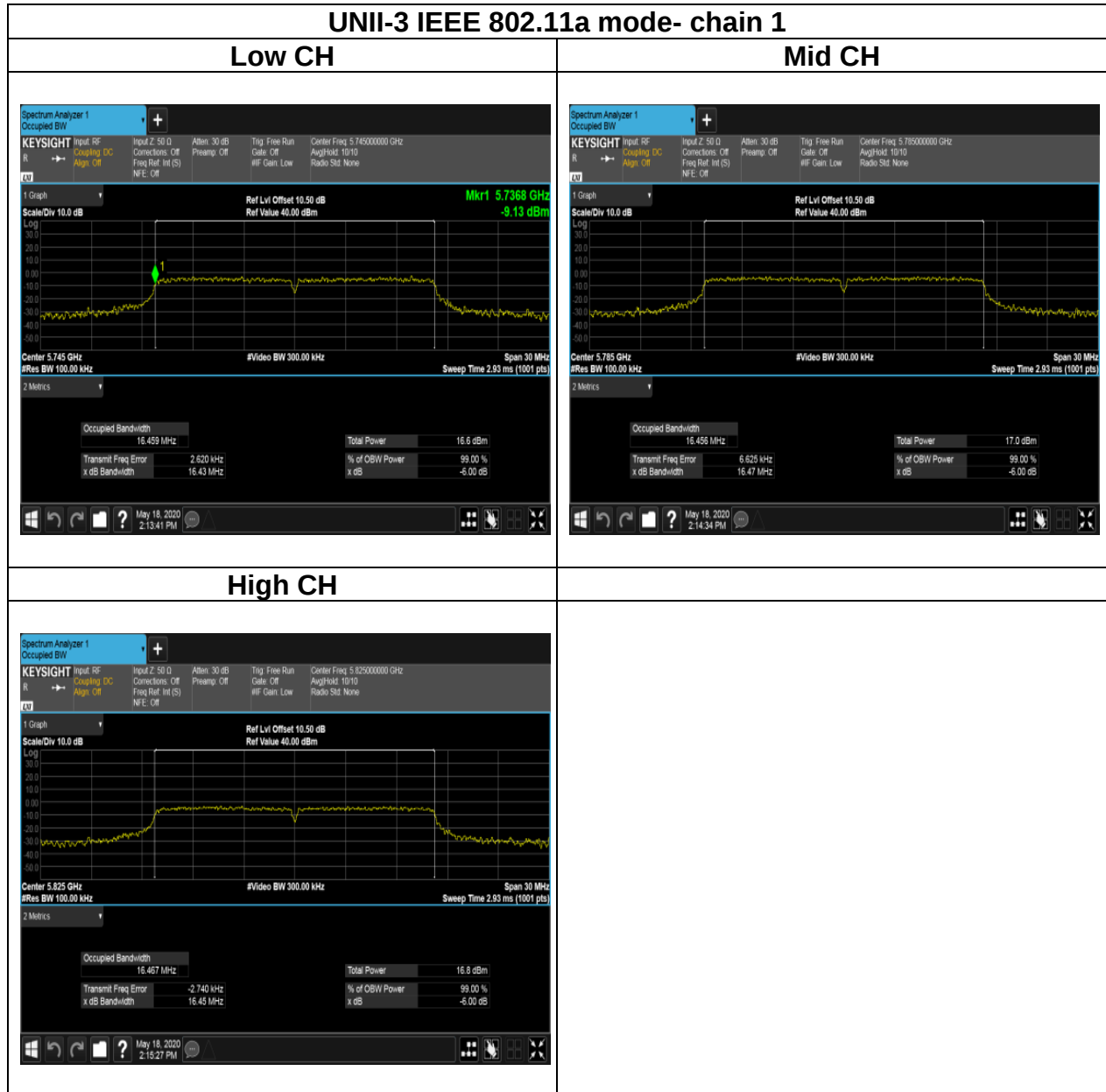
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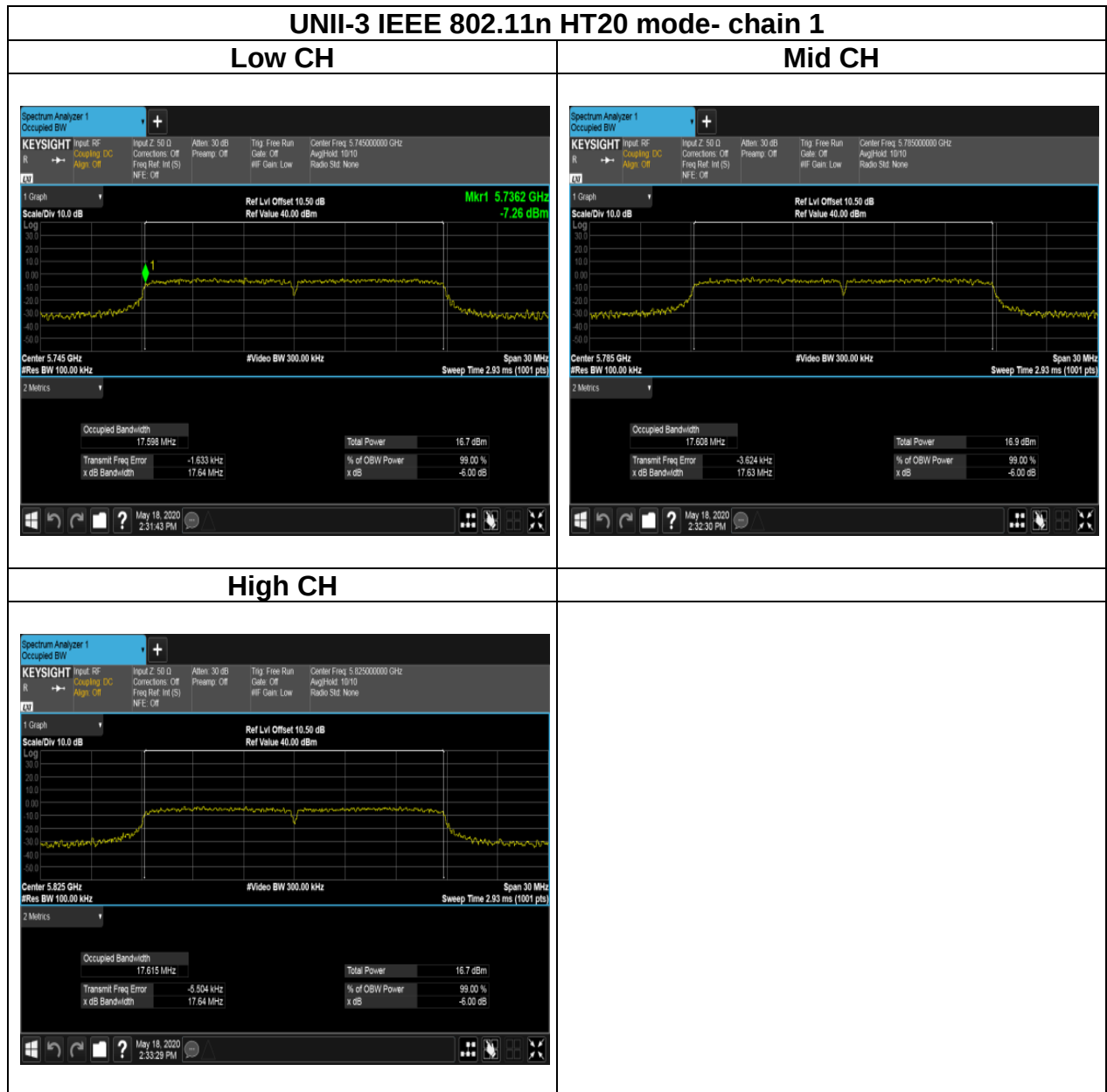


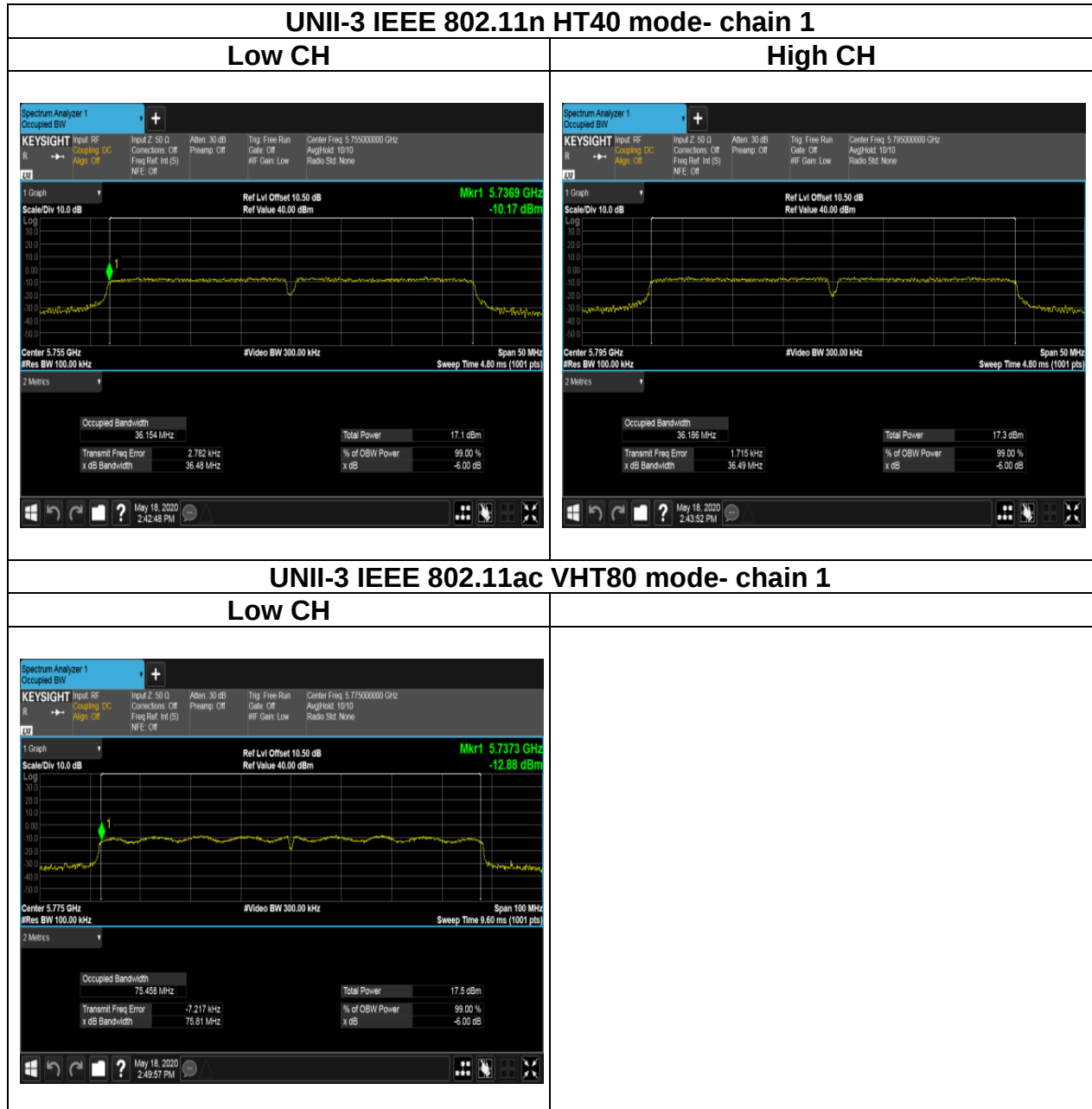


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Test Data (6dB BANDWIDTH and 99% OBW)







4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3), and RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

FCC:

UNII-1 :

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW(24 dBm), whichever power is less. B is the 99% emission bandwidth in megahertz, provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-2a and 2c:

the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. and The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

IC:**UNII-1 :**

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

UNII-2a and 2c:

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

Devices, other than devices installed in vehicles, shall comply with the following:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

UNII-2c (5470-5600 MHz and 5650-5725 MHz)

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-1 Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

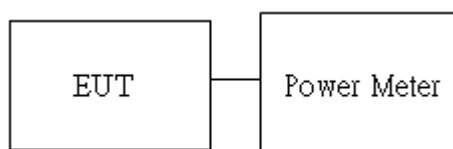
4.3.2 Test Procedure

Test method Refer as KDB 789033 D02, Section E.3.b for BW 20MHz and 40MHz, E.2.b for BW 80MHz.

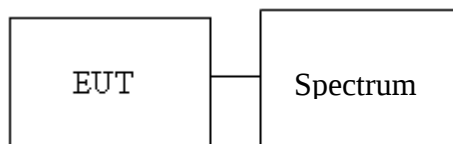
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.3.3 Test Setup

For BW 20MHz and 40MHz



For BW 80MHz





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4.3.4 Test Result

Conducted output power :

UNII-1													
Config	CH	Freq. (MHz)	Power Set		AV Power (dBm)		AV Total Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
			Chain 0	Chain 1	Chain 0	Chain 1							
IEEE 802.11a Data rate: 6Mbps	36	5180	63	63	17.14	15.00	19.21	23.21	0.0834	0.2094	4	24	23
	44	5220	60	60	16.44	14.36	18.53	22.53	0.0713	0.1792			
	48	5240	60	60	16.82	14.46	18.81	22.81	0.0760	0.1909			
IEEE 802.11n HT20 Data rate: MCS8	36	5180	63	63	17.32	16.46	19.92	23.92	0.0982	0.2467			
	44	5220	63	63	17.41	16.25	19.88	23.88	0.0973	0.2443			
	48	5240	57	57	15.40	15.89	18.66	22.66	0.0735	0.1846			
IEEE 802.11n HT40 Data rate: MCS8	38	5190	57	57	15.20	16.03	18.65	22.65	0.0732	0.1839			
	46	5230	63	63	17.65	16.31	20.04	24.04	0.1010	0.2536			
IEEE 802.11ac VHT80 Data rate: MCS8	42	5210	57	57	11.99	10.64	14.38	18.38	0.0274	0.0688			

UNII-2a																			
Config	CH	Freq. (MHz)	Power Set		AV Power (dBm)		AV Total Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)						
			Chain 0	Chain 1	Chain 0	Chain 1													
IEEE 802.11a Data rate: 6Mbps	52	5260	60	60	14.40	14.78	17.60	21.60	0.0576	0.1447	4	24	30						
	56	5280	54	54	14.18	14.02	17.11	21.11	0.0514	0.1292									
	64	5320	54	54	14.46	13.81	17.16	21.16	0.0520	0.1305									
IEEE 802.11n HT20 Data rate: MCS8	52	5260	57	57	15.68	14.17	18.00	22.00	0.0631	0.1585				4	24	30			
	56	5280	57	57	15.07	15.80	18.46	22.46	0.0702	0.1762									
	64	5320	57	57	15.78	14.06	18.01	22.01	0.0633	0.1590									
IEEE 802.11n HT40 Data rate: MCS8	54	5270	63	63	17.66	16.31	20.05	24.05	0.1011	0.2540							4	24	30
	62	5310	53	53	14.29	13.80	17.06	21.06	0.0508	0.1277									
IEEE 802.11ac VHT80 Data rate: MCS8	58	5290	47	47	7.18	7.17	10.19	14.19	0.0104	0.0262									



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UNII-2c													
Config	CH	Freq. (MHz)	Power Set		AV Power (dBm)		AV Total Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
			Chain 0	Chain 1	Chain 0	Chain 1							
IEEE 802.11a Data rate: 6Mbps	100	5500	58	58	17.29	15.62	19.55	23.55	0.0901	0.2262	4	24	30
	116	5580	58	58	17.05	15.21	19.24	23.24	0.0839	0.2107			
	140	5700	57	57	15.4	16.04	18.74	22.74	0.0749	0.1880			
IEEE 802.11n HT20 Data rate: MCS0	100	5500	59	59	17.82	16.14	20.07	24.07	0.1016	0.2553			
	116	5580	59	59	17.47	15.52	19.61	23.61	0.0915	0.2298			
	140	5700	57	57	14.5	15.81	18.21	22.21	0.0663	0.1665			
IEEE 802.11n HT40 Data rate: MCS0	102	5510	55	55	15.59	16.5	19.08	23.08	0.0809	0.2032			
	110	5550	59	59	17.44	16.05	19.81	23.81	0.0957	0.2405			
	134	5670	59	59	17.12	15.57	19.42	23.42	0.0876	0.2200			
IEEE 802.11ac VHT80 Data rate: MCS8	106	5530	47	47	8.94	8.4	11.69	15.69	0.0148	0.0371			



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UNII-3												
Config	CH	Freq. (MHz)	Power Set		AV Power (dBm)		AV Total Power (dBm)	EIRP AV Total Power (dBm)	AV Total Power (W)	EIRP AV Total Power (W)	DG (dBi)	Limit (dBm)
			Chain 0	Chain 1	Chain 0	Chain 1						
IEEE 802.11a Data rate: 6Mbps	149	5745	57	57	16.50	15.98	19.26	23.26	0.0843	0.2117	4	30
	157	5785	54	54	14.70	15.53	18.15	22.15	0.0652	0.1639		
	165	5825	54	54	15.37	14.99	18.19	22.19	0.0660	0.1657		
IEEE 802.11n HT20 Data rate: MCS0	149	5745	54	54	13.57	13.52	16.56	20.56	0.0452	0.1136		
	157	5785	54	54	14.56	14.14	17.37	21.37	0.0545	0.1369		
	165	5825	54	54	15.23	14.80	18.03	22.03	0.0635	0.1596		
IEEE 802.11n HT40 Data rate: MCS0	151	5755	62	62	17.34	16.27	19.85	23.85	0.0966	0.2426		
	159	5795	60	60	16.52	16.10	19.33	23.33	0.0856	0.2150		
IEEE 802.11ac VHT80 Data rate: MCS0	155	5775	63	63	13.55	13.35	16.46	20.46	0.0443	0.1112		

4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3)

According to RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

UNII-1:

FCC: The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

IC: The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-2a and 2c:

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

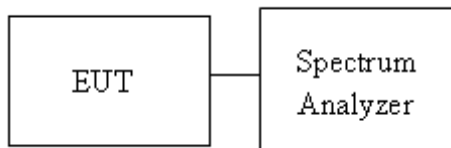
UNII-1 Limit	☒ Antenna not exceed 6 dBi : 11 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-2a Limit	☒ Antenna not exceed 6 dBi : 11 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-2c Limit	☒ Antenna not exceed 6 dBi : 11 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi : 30 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

4.4.2 Test Procedure

Test method Refer as KDB 789033 D02

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c, SA set RBW = 1MHz, VBW = 3MHz and Detector = RMS, to measurement Power Density.
4. UNII-3, SA set RBW = 500kHz, VBW = 2MHz and Detector = RMS, to measurement Power Density
5. The path loss and Duty Factor were compensated to the results for each measurement by SA.
6. Mark the maximum level.
7. Measure and record the result of power spectral density. in the test report.

4.4.3 Test Setup



4.4.4 Test Result

UNII-1 5150-5250 MHz							
Test mode: IEEE 802.11a mode							
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	EIRP Total PPSD (dBm)	FCC Limit (dBm)	IC Limit (dBm)
Low	5180	0.094	0.22	3.17	7.17	11	10
Mid	5220	-0.058	0.032	3.00	7.00		
High	5240	-0.403	0.315	2.98	6.98		
Test mode: IEEE 802.11n HT20 mode							
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	EIRP Total PPSD (dBm)	FCC Limit (dBm)	IC Limit (dBm)
Low	5180	-0.137	-0.17	2.86	6.86	11	10
Mid	5220	-0.425	-0.138	2.73	6.73		
High	5240	-0.648	-0.059	2.67	6.67		
Test mode: IEEE 802.11n HT40 mode							
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	EIRP Total PPSD (dBm)	FCC Limit (dBm)	IC Limit (dBm)
Low	5190	-3.796	-3.596	-0.68	3.32	11	10
High	5230	-3.397	-3.317	-0.35	3.65		
Test mode: IEEE 802.11ac VHT80 mode							
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	EIRP Total PPSD (dBm)	FCC Limit (dBm)	IC Limit (dBm)
Low	5210	-5.884	-5.565	-2.71	1.29	11	10

UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5260	0.015	0.277	3.16	11
Mid	5280	-0.763	0.299	2.81	
High	5320	-0.432	0.374	3.00	
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5260	-0.622	0.16	2.80	11
Mid	5280	-0.903	-0.277	2.43	
High	5320	-1.018	-7.081	-0.06	
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5270	-4.06	-3.258	-0.63	11
High	5310	-4.251	-3.161	-0.66	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Mid	5290	-6.26	-5.641	-2.93	11

UNII-2c 5470-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5500	-0.368	1.00	3.38	11
Mid	5580	-0.063	0.41	3.19	
High	5700	-0.434	0.241	2.93	
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5500	-0.672	0.8	3.14	11
Mid	5580	-0.166	0.021	2.94	
High	5700	-1.654	0.107	2.33	
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5510	-3.639	-2.97	-0.28	11
Mid	5550	-3.298	-2.316	0.23	
High	5670	-4.639	-4.525	-1.57	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5530	-4.694	-3.623	-1.12	11

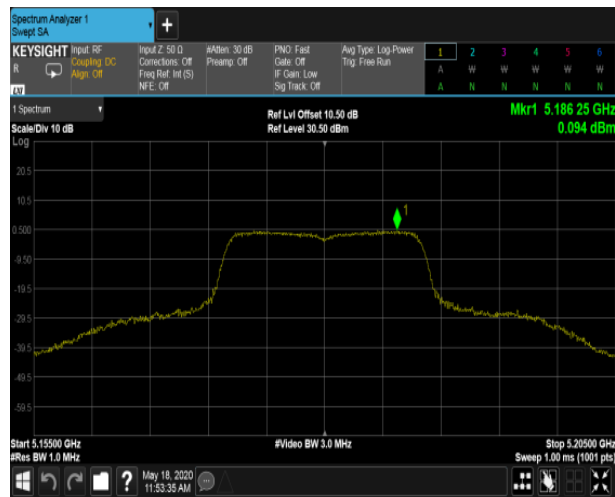
UNII-3 5725-5825 MHz					
Test mode: IEEE 802.11a mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5745	-4.318	-3.294	-0.77	30
Mid	5785	-4.517	-2.995	-0.68	
High	5825	-4.733	-2.733	-0.61	
Test mode: IEEE 802.11n HT20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5745	-5.524	-3.128	-1.15	30
Mid	5785	-5.501	-2.624	-0.82	
High	5825	-6.159	-3.126	-1.37	
Test mode: IEEE 802.11n HT40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5755	-7.865	-6.381	-4.05	30
High	5795	-8.288	-5.985	-3.98	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Mid	5775	-10.894	-7.981	-6.19	30

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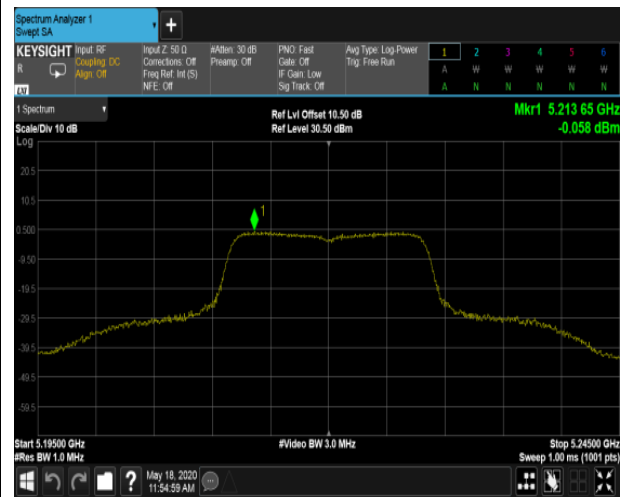
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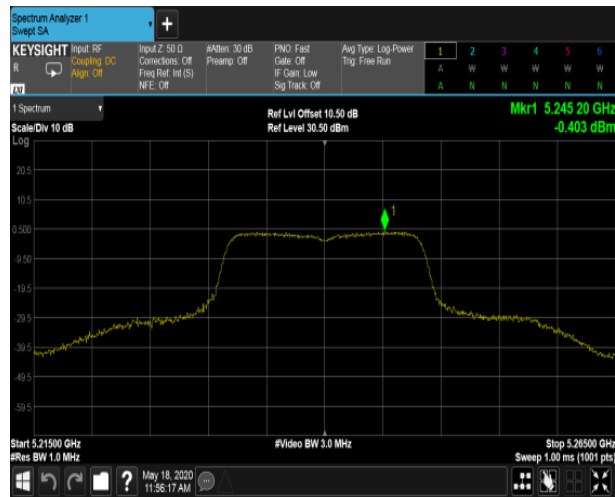
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Mid CH

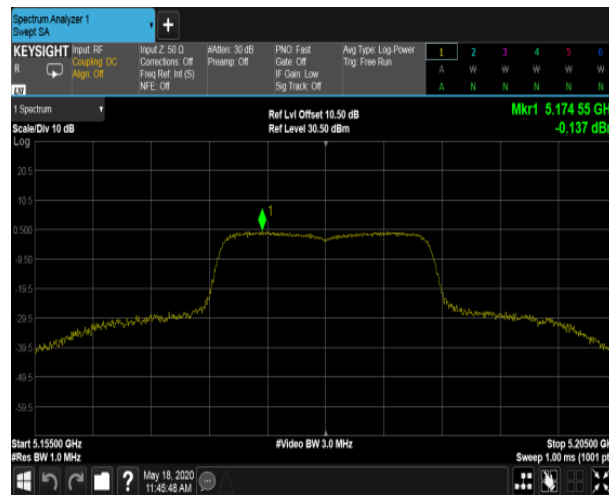


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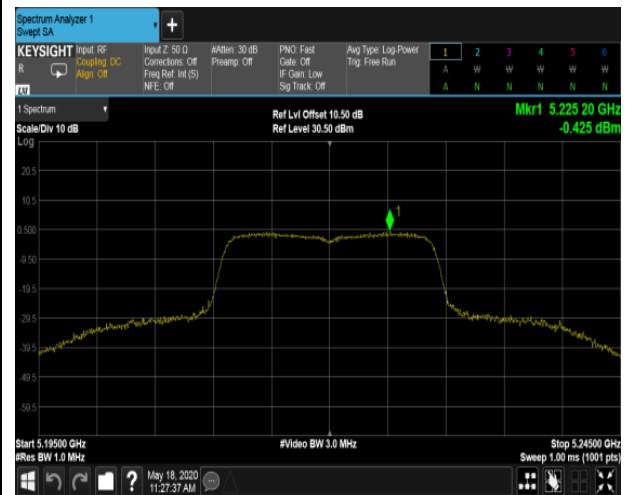


UNII-1 IEEE 802.11n HT20 mode- chain 0

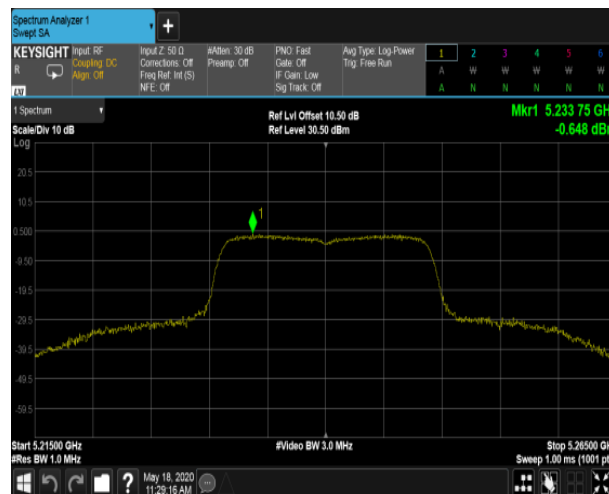
Low CH



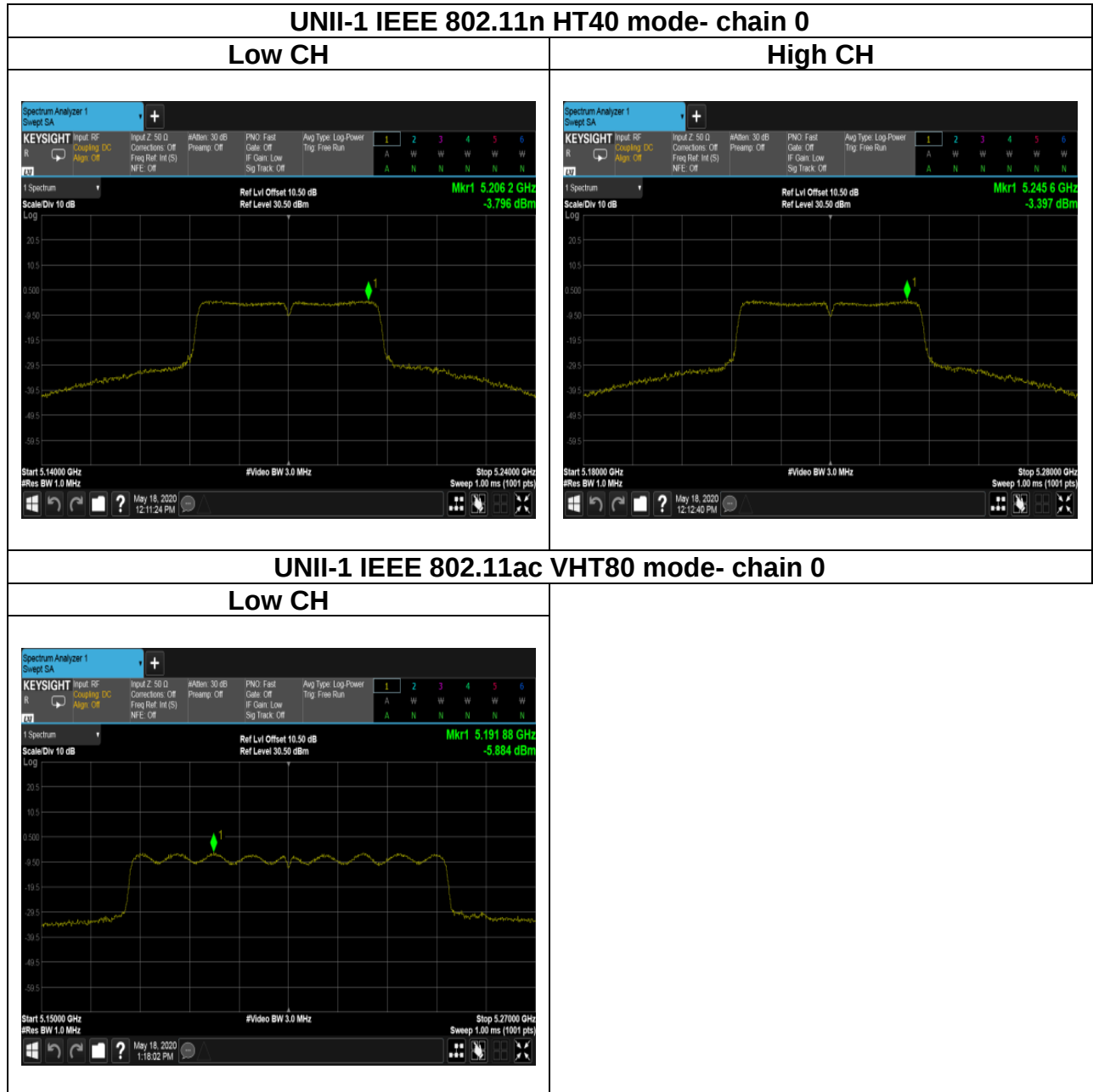
Mid CH



High CH

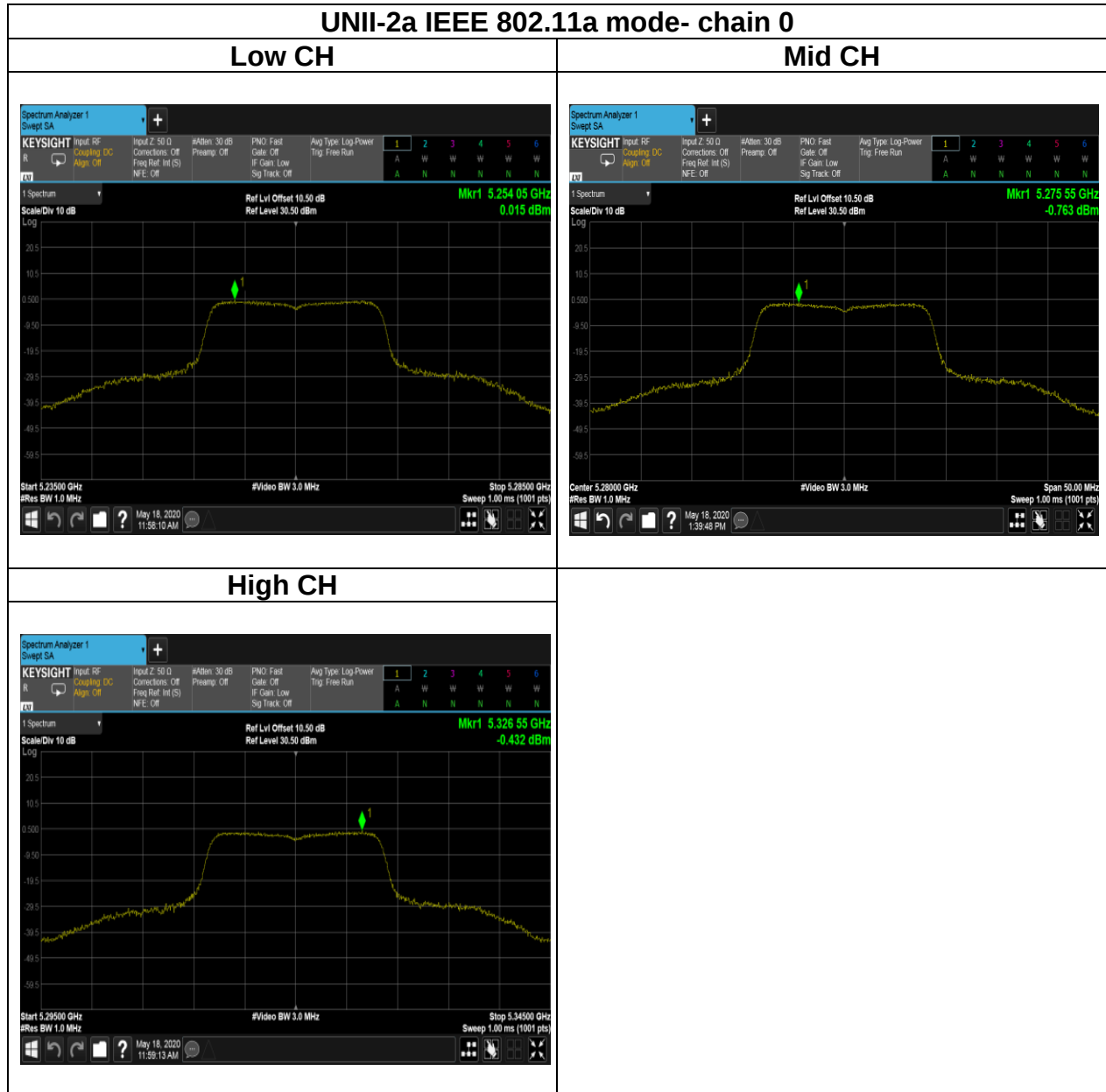


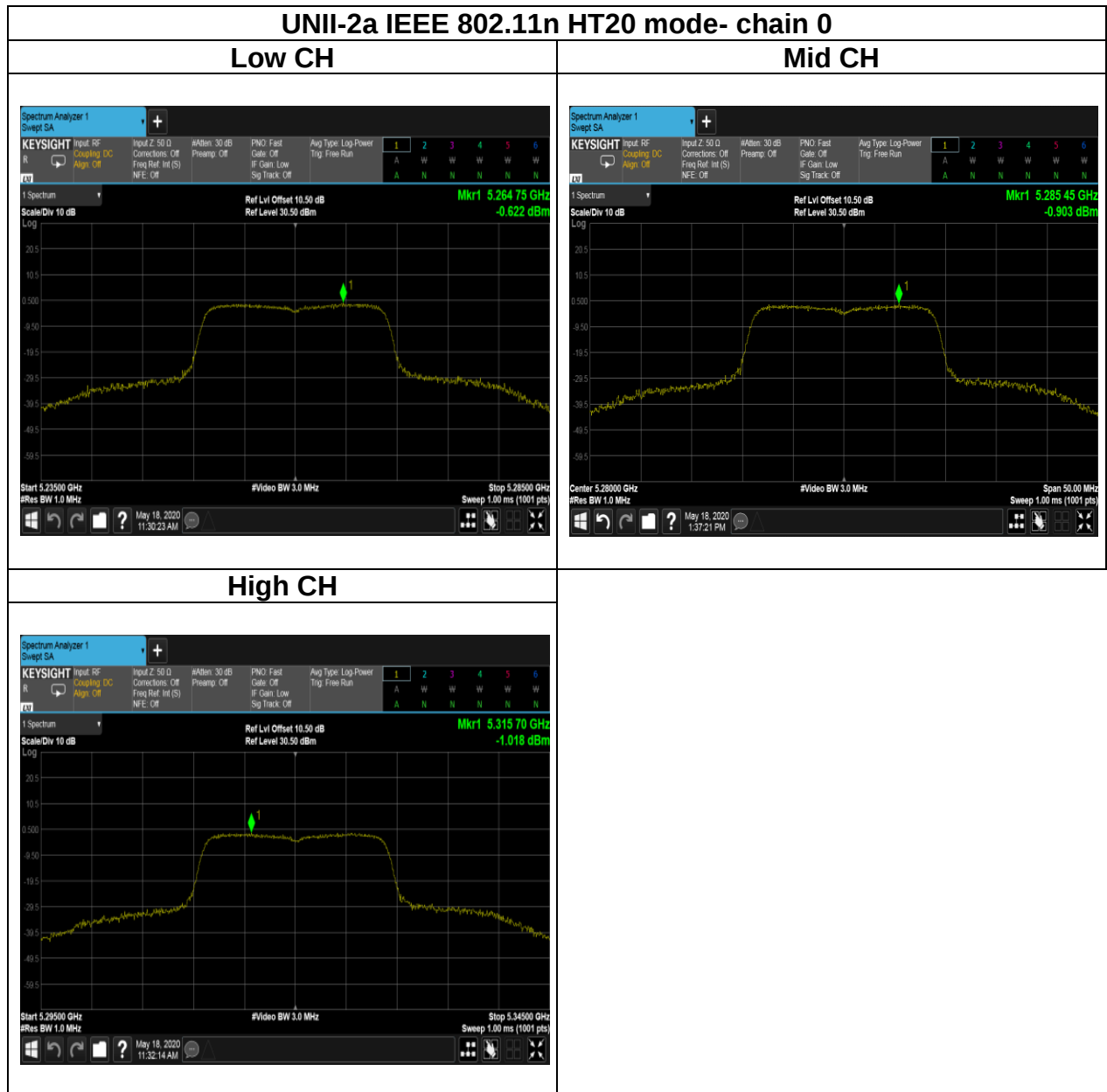
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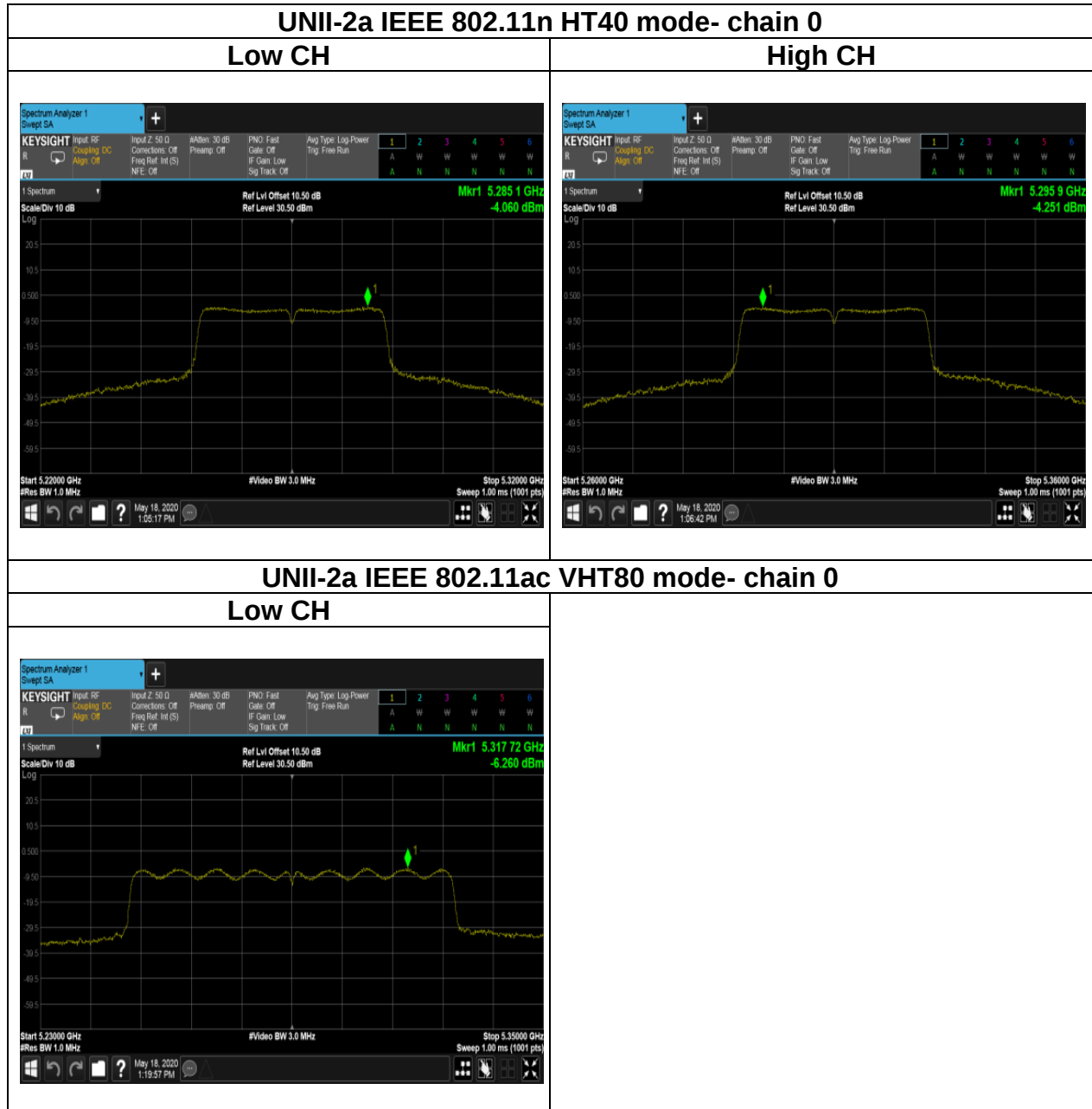


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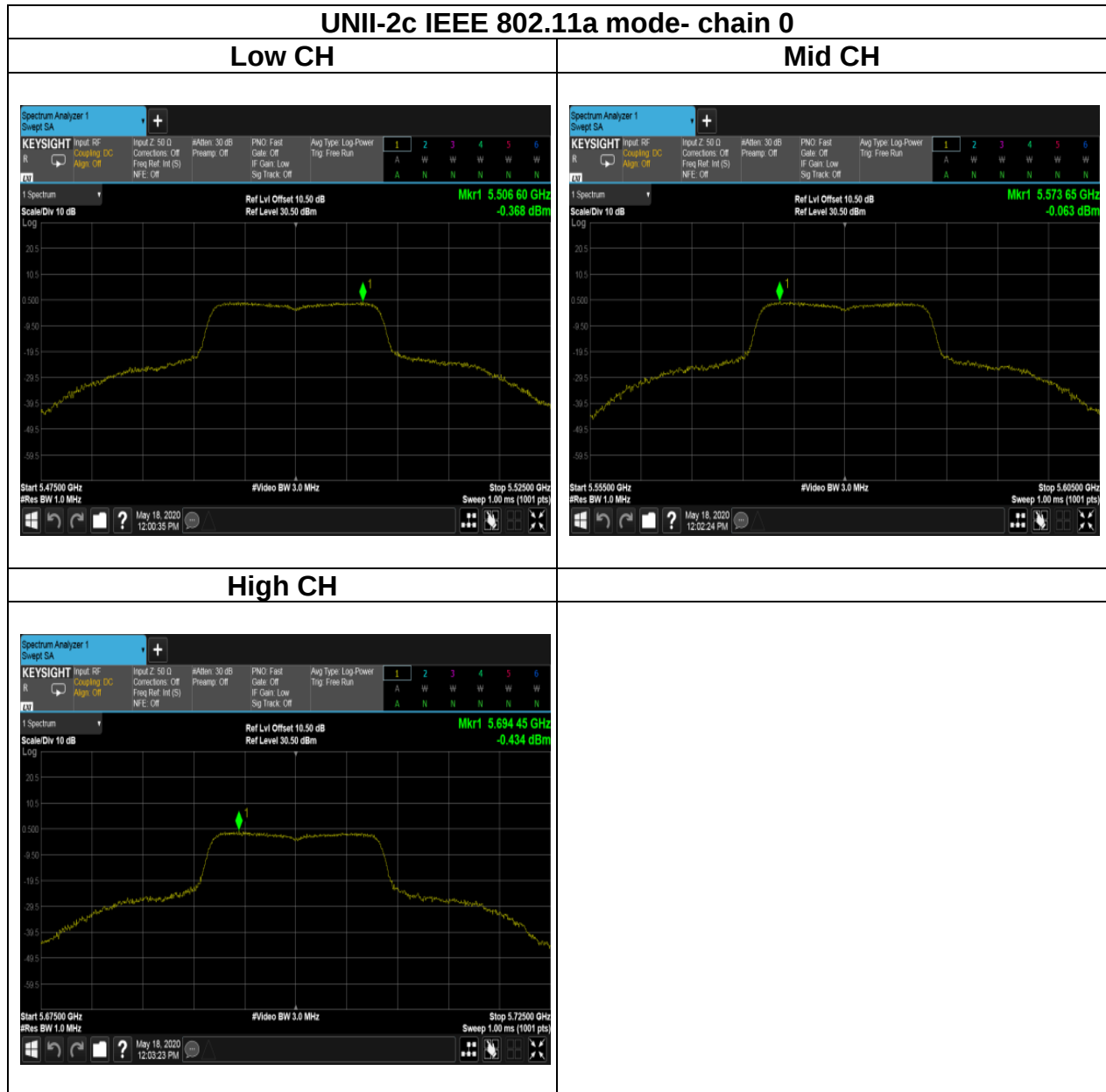


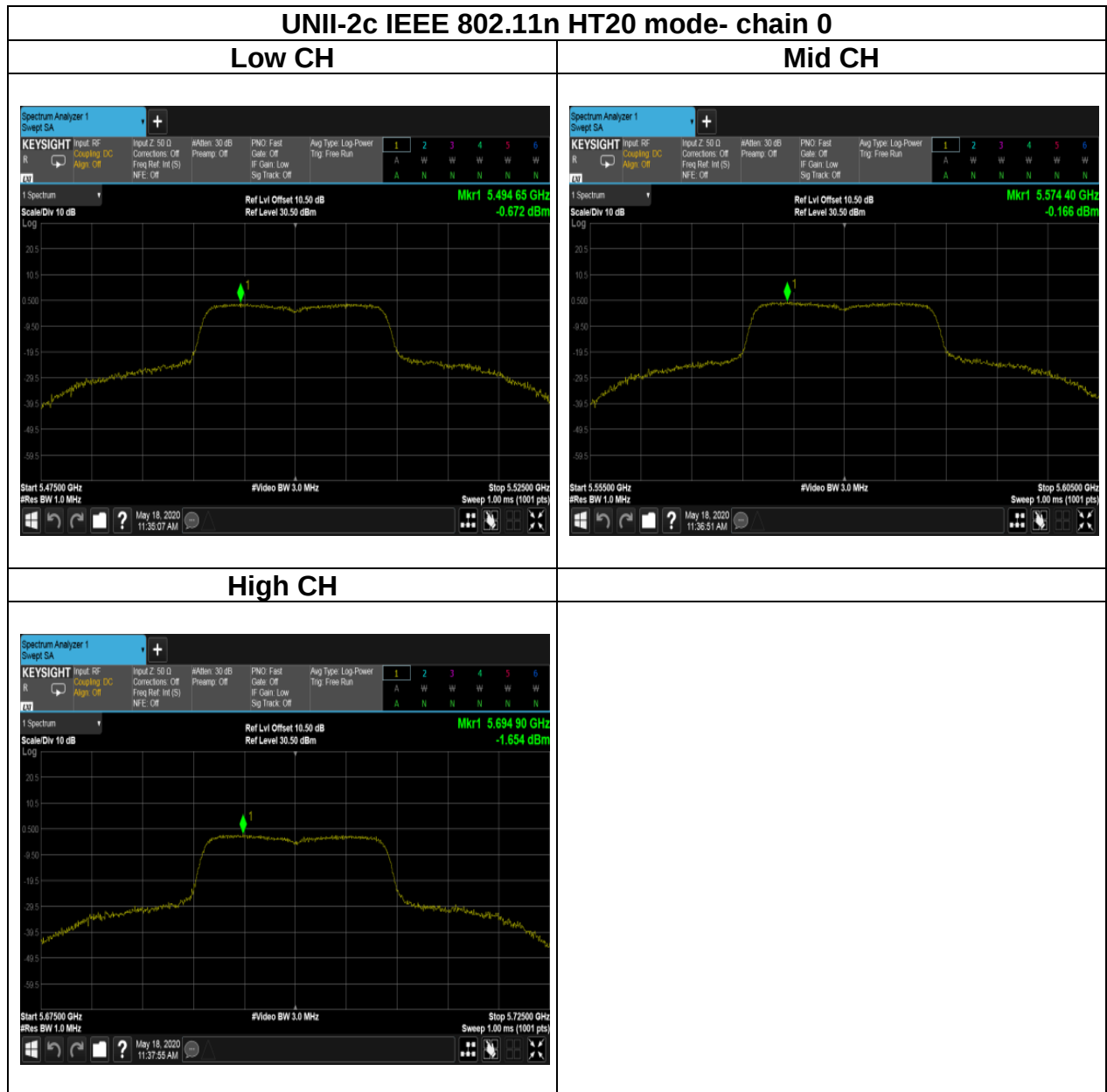


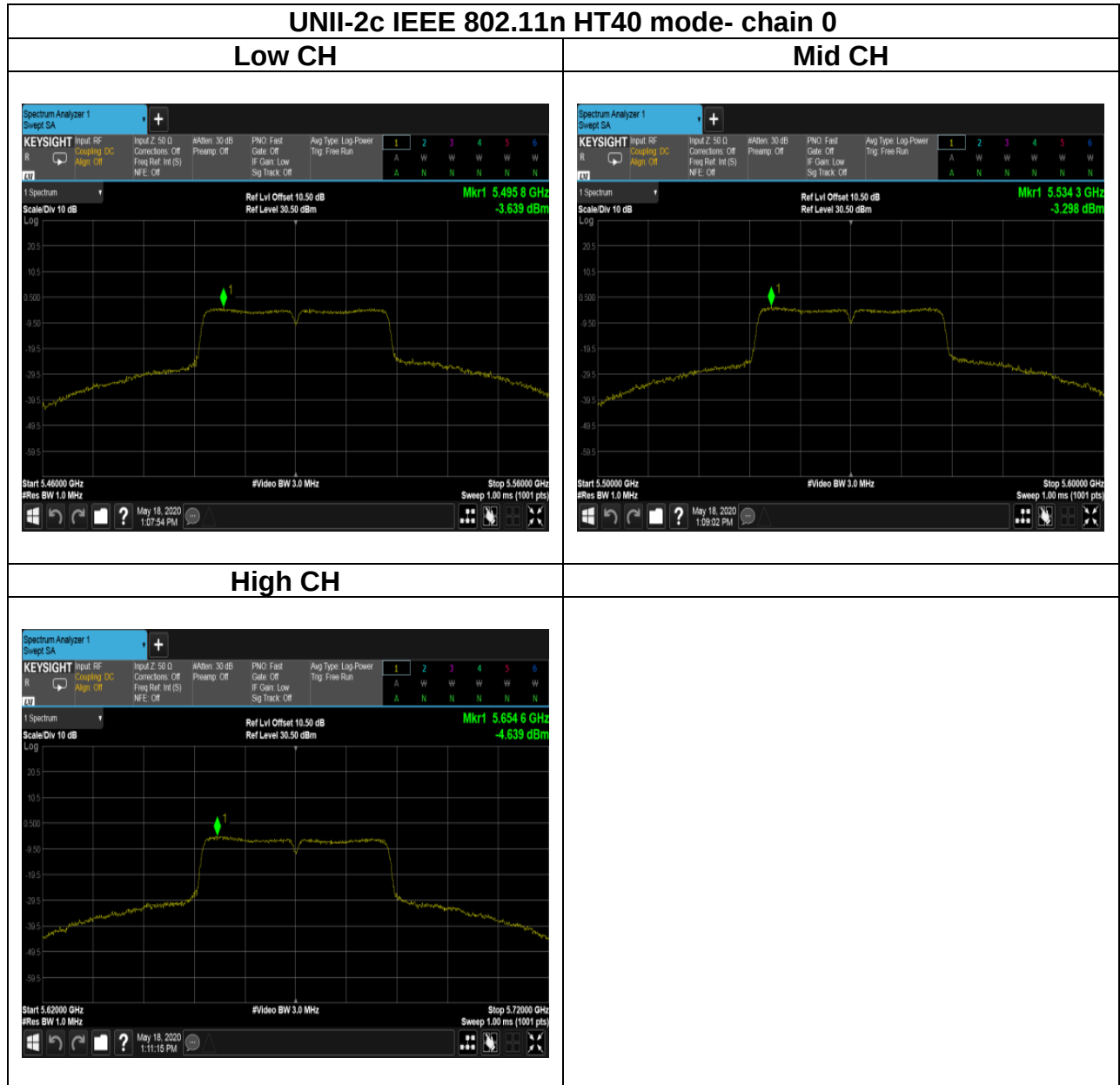


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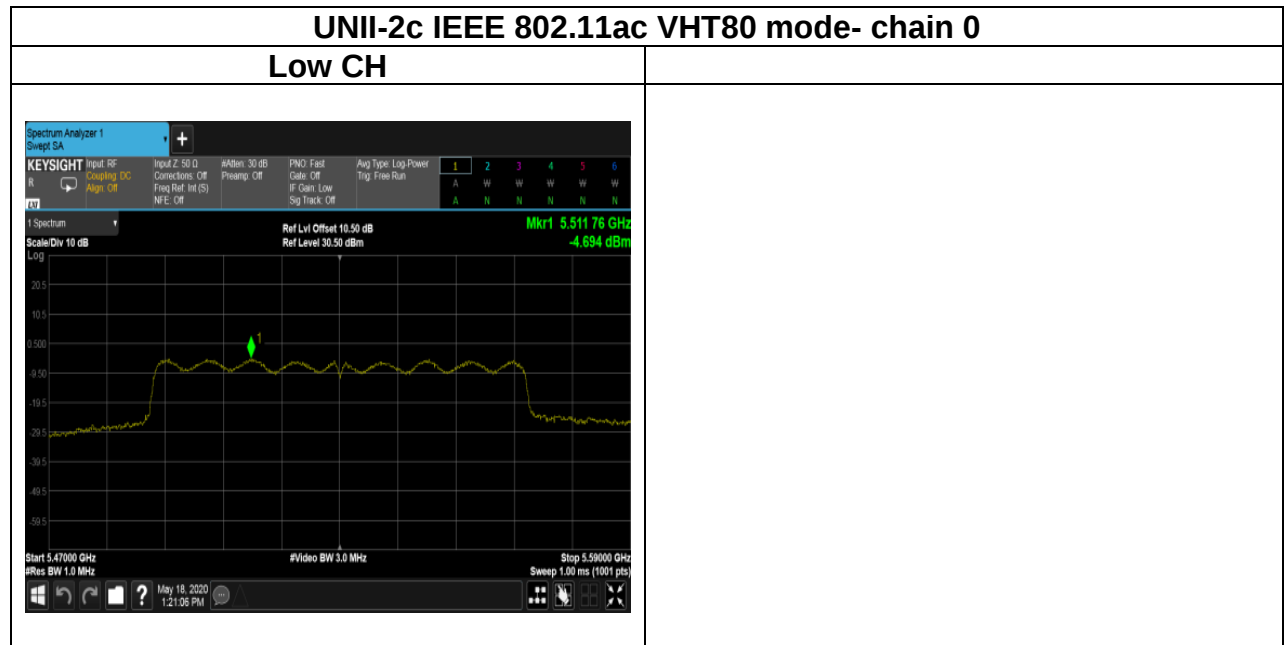






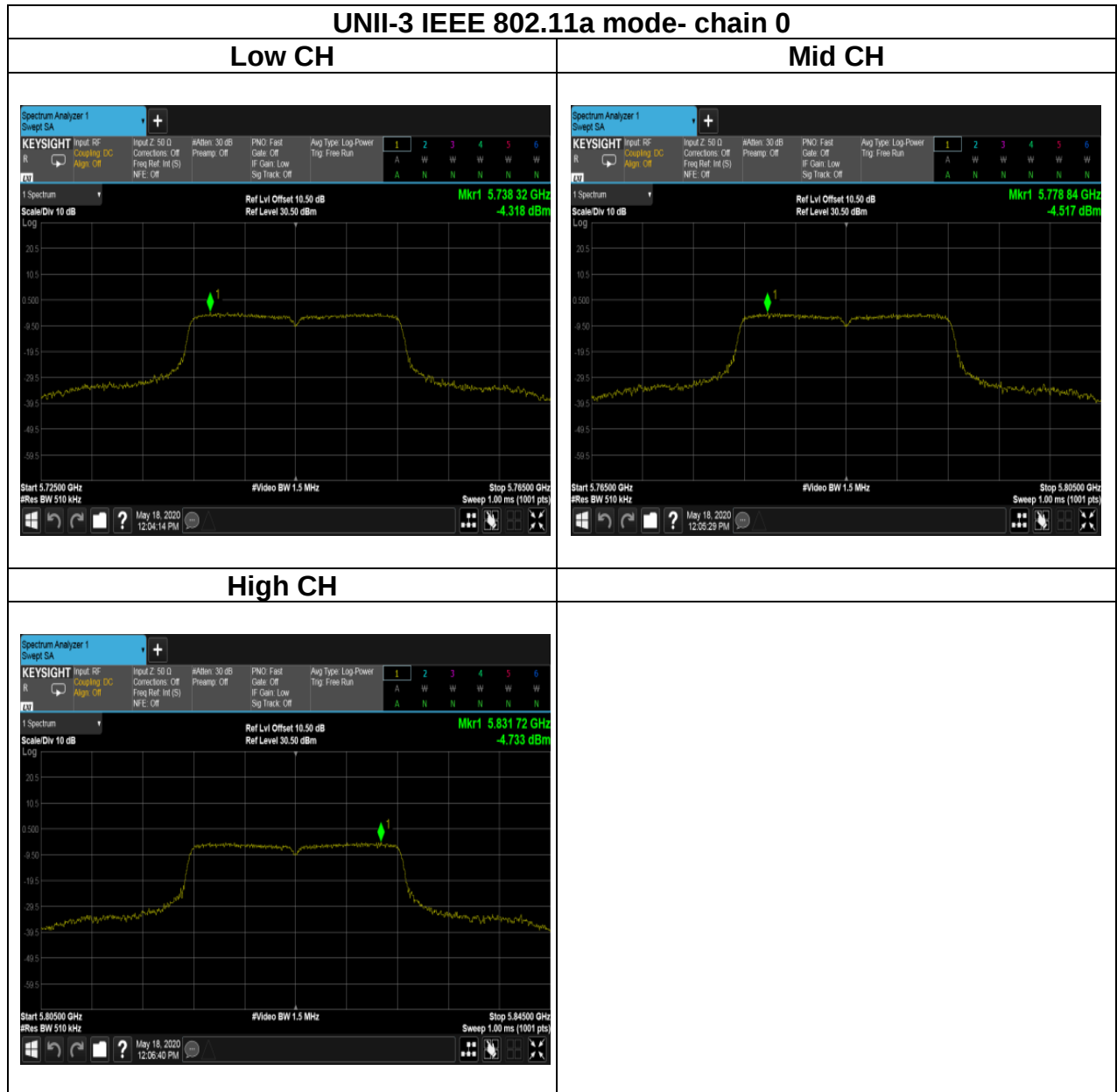
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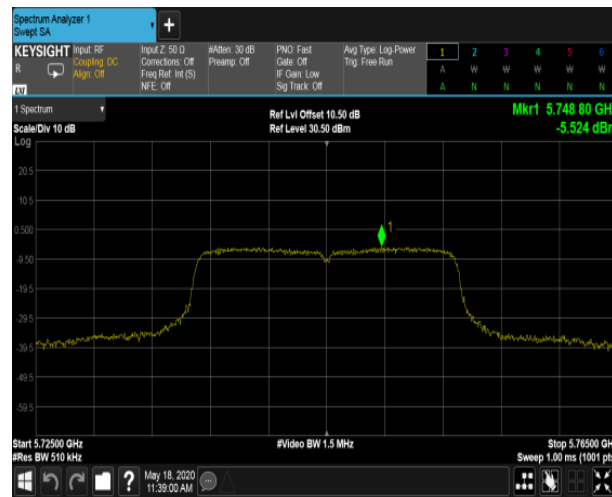
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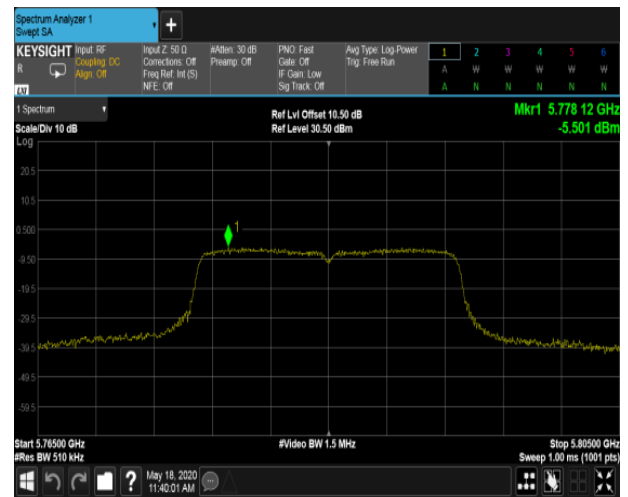


UNII-3 IEEE 802.11n HT20 mode- chain 0

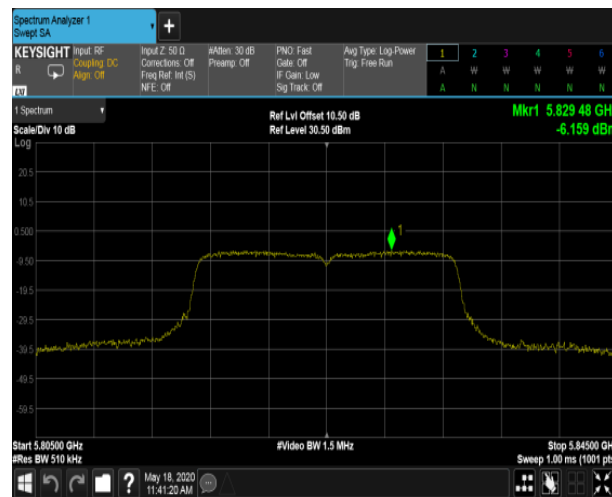
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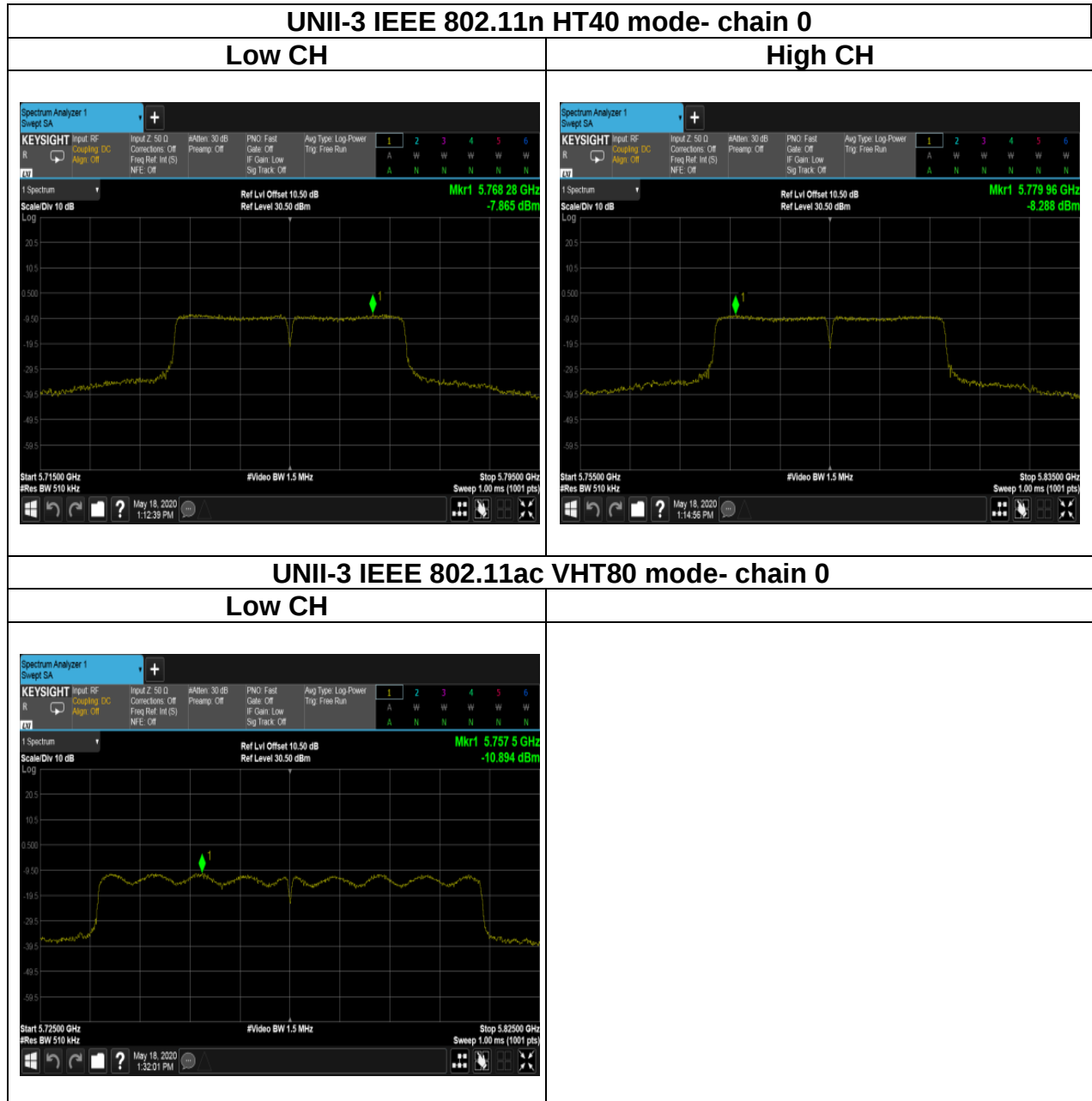


Mid CH



High CH



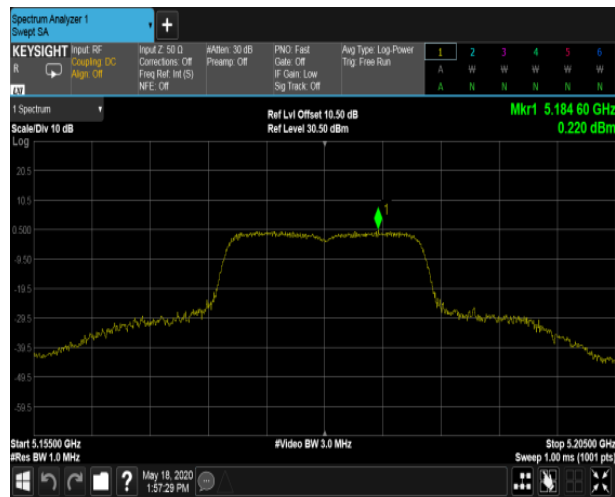


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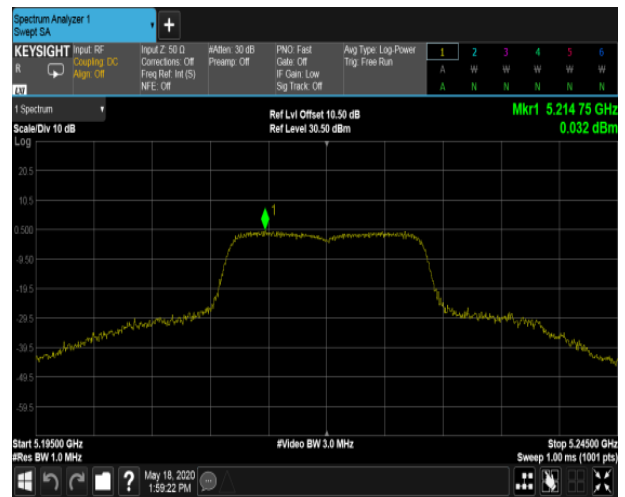
Test Data

UNII-1 IEEE 802.11a mode- chain 1

Low CH



Mid CH



High CH

