



Test report No. : 4790446225-US-R1-V0  
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Issued date : 2022/8/9  
FCC ID : YAISB35

## RADIO TEST REPORT

**Product** : Wireless SOM Module  
**Model Name** : SB35  
**FCC ID** : YAISB35  
**Test Regulation** : FCC 47 CFR Part 15 Subpart E (Section 15.407)  
**Received Date** : 2022/6/15  
**Test Date** : 2022/6/16 ~ 2022/7/6  
**Issued Date** : 2022/8/9

**Applicant** : InnoComm Mobile Technology Corporation  
3F, No. 6, Hsin Ann Rd., Hsinchu Science Park, Hsinchu,  
Taiwan, 300092

**Issued By** : Underwriters Laboratories Taiwan Co., Ltd.  
Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd.,  
Zhudong Township, Hsinchu County, Taiwan



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Doc No: 17-EM-F0878 / 6.0





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## 1. Attestation of Test Results

**APPLICANT:** InnoComm Mobile Technology Corporation  
 3F, No. 6, Hsin Ann Rd., Hsinchu Science Park, Hsinchu, Taiwan,  
 300092

**MANUFACTURER:** InnoComm Mobile Technology Corporation  
 3F, No. 6, Hsin Ann Rd., Hsinchu Science Park, Hsinchu, Taiwan,  
 300092

**EUT DESCRIPTION:** Wireless SOM Module

**BRAND:** InnoComm

**MODEL:** SB35

**SAMPLE STAGE:** Design Verification Test sample

**DATE of TESTED:** 2022/6/16 ~ 2022/7/6

<b>APPLICABLE STANDARDS</b>	
<b>STANDARD</b>	<b>Test Results</b>
FCC 47 CFR PART 15 Subpart E (Section 15.407)	PASS

Underwriters Laboratories Taiwan Co., Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Taiwan Co., Ltd. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Taiwan Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Taiwan Co., Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Prepared By:

Sally Lu  
 Project Handler

Date : 2022/8/9

Approved and Authorized By:

Eric Lee  
 Senior Laboratory Engineer

Date : 2022/8/9

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## 2. Summary of Test Results

Summary of Test Results		
FCC Clause	Test Items	Result
15.407(e)	6dB Bandwidth	PASS
15.403(i)	26dB Bandwidth	PASS
2.1049	Occupied Bandwidth	See Note1
15.407(a)(1/2/3)	Conducted Output Power	PASS
15.407(a)(1/2/3)	Power Spectral Density	PASS
15.407(g)	Frequency Stability	PASS
15.407(b) (1/2/3/4(i/ii)/9)	Radiated Emissions and Band Edge Measurement	PASS
15.407(b)(9)	AC Power Conducted Emission	PASS
15.203	Antenna Requirement	PASS
15.407(h)	Dynamic Frequency Selection & Transmit power control	See Note2

Note:

1. The Occupied Bandwidth was reference only.
2. The “Dynamic Frequency Selection & Transmit power control” measurement was recorded in Report No.: 4790446225-US-R2-V0.

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### 3. Test Methodology and Reference Procedures

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2, KDB 789033 D02 General UNII Test Procedure New Rules v02r01, KDB414788 D01 Radiated Test Site v01r01, ANSI C63.10-2013 and KDB 662911 D01 Multiple Transmitter Output v02r01.

### 4. Facilities and Accreditation

<b>Test Location</b>	Underwriters Laboratories Taiwan Co., Ltd.
<b>Address</b>	Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan
<b>Accreditation Certificate</b>	Underwriters Laboratories Taiwan Co., Ltd. is accredited by TAF, Laboratory Code 3398.

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## 5. Measurement Uncertainty

For statement of conformity, accuracy method (Section 8.2.4 and 8.2.5 of ISO Guide 98-4) was applied as decision rule for measurement in this test report.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor k=2.

Measurement	Frequency	Uncertainty
Conducted disturbance at mains terminals ports	150kHz ~ 30MHz	±2.9 dB
RF Conducted	9 kHz - 40GHz	±2.4 dB
Radiated disturbance below 30MHz	9 kHz - 30 MHz	±1.9 dB
Radiated disturbance below 1 GHz	30MHz ~ 1GHz	±5.8 dB
Radiated disturbance above 1 GHz	1GHz ~ 40GHz	±4.8 dB

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## 6. Equipment under Test

### 6.1. Description of EUT

<b>Product</b>	Wireless SOM Module	
<b>Brand Name</b>	InnoComm	
<b>Model Name</b>	SB35	
<b>Operating Frequency</b>	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5700 MHz, 5745 ~ 5825 MHz	
<b>Modulation</b>	256QAM, 64QAM, 16QAM, QPSK, BPSK	
<b>Transfer Rate</b>	802.11a: up to 54 Mbps 802.11n: up to MCS15 802.11ac: up to MCS9	
<b>Number of Channel</b>	5180 ~ 5240 MHz	4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)
		2 for 802.11n (HT40), 802.11ac (VHT40)
		1 for 802.11ac (VHT80)
	5260 ~ 5320 MHz	4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)
		2 for 802.11n (HT40), 802.11ac (VHT40)
		1 for 802.11ac (VHT80)
	5500 ~ 5700 MHz	11 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)
		5 for 802.11n (HT40), 802.11ac (VHT40)
		2 for 802.11ac (VHT80)
	5745 ~ 5825 MHz	5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20)
		2 for 802.11n (HT40), 802.11ac (VHT40)
		1 for 802.11ac (VHT80)
<b>Maximum Output Power</b>	5180 ~ 5240 MHz: 20.85 dBm 5260 ~ 5320 MHz: 22.31 dBm 5500 ~ 5700 MHz: 22.45 dBm 5745 ~ 5825 MHz: 19.62 dBm	
<b>Normal Voltage</b>	3.8Vdc	
<b>Sample ID</b>	5059965	

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Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and two receivers.

<b>Modulation Mode</b>	<b>Tx,Rx Function</b>
802.11a	2TX,2RX
802.11n (HT20)	2TX,2RX
802.11n (HT40)	2TX,2RX
802.11ac (VHT20)	2TX,2RX
802.11ac (VHT40)	2TX,2RX
802.11ac (VHT80)	2TX,2RX

\* 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.

2. The above EUT information is declared by manufacturer and for more detailed features description, please refer the manufacturer's or user's manual.

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## 6.2. Channel List

### FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

### FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

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### FOR 5500 ~ 5700MHz

11 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	-	-

5 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	-	-

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz

### FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz	-	-

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

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### 6.3. Test Condition

Test Item	Test Site No.	Environmental Condition	Input Power	Test Date	Tested by
Antenna Port Conducted Measurement	SR4	20~27°C/ 51~69%RH	3.8Vdc	2022/06/16~ 2022/06/24	Rex Chen
Radiated Spurious Emission	966-2	20~27°C/ 51~69%RH	3.8Vdc	2022/06/16~ 2022/07/06	Rex Chen
AC power Line Conducted Emission	SR1	20~27°C/ 51~69%RH	3.8Vdc	2022/06/16~ 2022/06/24	Rex Chen

FCC Test Firm Registration Number: 498077

### 6.4. Description of Available Antennas

Ant. No.	Transmitter Circuit	Brand Name	Model Name	Ant. Type	Maximum Gain (dBi)
1	Chain (0)+(1)	Walsin	RFDPA171300SBLB801	Dipole	2.4GHz: 5 5GHz: 5
2	Chain (0)+(1)	InnoComm	PCA5016-2B	PCB	2.4GHz: 3.78 5GHz: 4.76

Note: The above antenna information was provided from customer and for more detailed features description, please refer the manufacturer's specification or user's manual.

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## 6.5. Test Mode Applicability and Tested Channel Detail

- The fundamental of the dipole antenna was investigated in two orthogonal (lay and stand), it was determined that stand mode was worst-case. Therefore, all final radiated testing was performed with the dipole antenna in stand mode.
- The fundamental of the PCB Antenna was investigated in three orthogonal axes X-Y/Y-Z/X-Z, it was determined that X-Y axis were worst-case. Therefore, PCB Antenna all final radiated tests were performed with the X-Y axis.
- For Antenna Port Conducted Measurement, this item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- For below 30MHz testing, investigation was done on three antenna orientations (parallel, perpendicular, and ground-parallel), parallel and perpendicular are the worst orientations, therefore testing was performed on these two orientations only.
- For below 1 GHz radiated emission and AC power line conducted emission have performed all modes of operation were investigated and the worst-case emissions are reported.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Test Item	Mode	Modulation Technology	Modulation Type	Available Channel	Test Channel	Data Rate
Radiated Emissions (Above 1GHz)	802.11a	5180-5240	OFDM	36 to 48	36, 44, 48	6Mbps
	802.11ac20		OFDM	36 to 48	36, 44, 48	MCS0
	802.11ac40			38 to 46	38, 46	MCS0
	802.11ac80			42	42	MCS0
	802.11a	5260-5320		OFDM	52 to 64	52, 60, 64
	802.11ac20		OFDM	52 to 64	52, 60, 64	MCS0
	802.11ac40			54 to 62	54, 62	MCS0
	802.11ac80			58	58	MCS0
	802.11a	5500-5700		OFDM	100 to 140	100, 116, 140
	802.11ac20		OFDM	100 to 140	100, 116, 140	MCS0
	802.11ac40			102 to 134	102, 110, 134	MCS0
	802.11ac80			106, 122	106, 122	MCS0
	802.11a	5745-5825		OFDM	149 to 165	149, 157, 165
	802.11ac20		OFDM	149 to 165	149, 157, 165	MCS0
	802.11ac40			151 to 159	151, 159	MCS0
	802.11ac80			155	155	MCS0
Radiated Emissions (Below 1GHz)	802.11ac80	5500-5700		OFDM	106, 122	122
AC Power Line Conducted Emission	802.11ac80	5500-5700	OFDM	106, 122	122	MSC0

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Test Item	Mode	Modulation Technology	Modulation Type	Available Channel	Test Channel	Data Rate
Antenna Port Conducted Measurement	802.11a	5180-5240	OFDM	36 to 48	36, 44, 48	6Mbps
	802.11ac20		OFDM	36 to 48	36, 44, 48	MCS0
	802.11ac40			38 to 46	38, 46	MCS0
	802.11ac80			42	42	MCS0
	802.11a	5260-5320		OFDM	52 to 64	52, 60, 64
	802.11ac20		OFDM	52 to 64	52, 60, 64	MCS0
	802.11ac40			54 to 62	54, 62	MCS0
	802.11ac80			58	58	MCS0
	802.11a	5500-5700		OFDM	100 to 140	100, 116, 140
	802.11ac20		OFDM	100 to 140	100, 116, 140	MCS0
	802.11ac40			102 to 134	102, 110, 134	MCS0
	802.11ac80			106, 122	106, 122	MCS0
	802.11a	5745-5825		OFDM	149 to 165	149, 157, 165
	802.11ac20		OFDM	149 to 165	149, 157, 165	MCS0
	802.11ac40			151 to 159	151, 159	MCS0
	802.11ac80			155	155	MCS0

Simultaneously transmission condition:

Condition	Technology	
1	BT-LE	WLAN (2GHz)
2	BT-LE	WLAN (5GHz)

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

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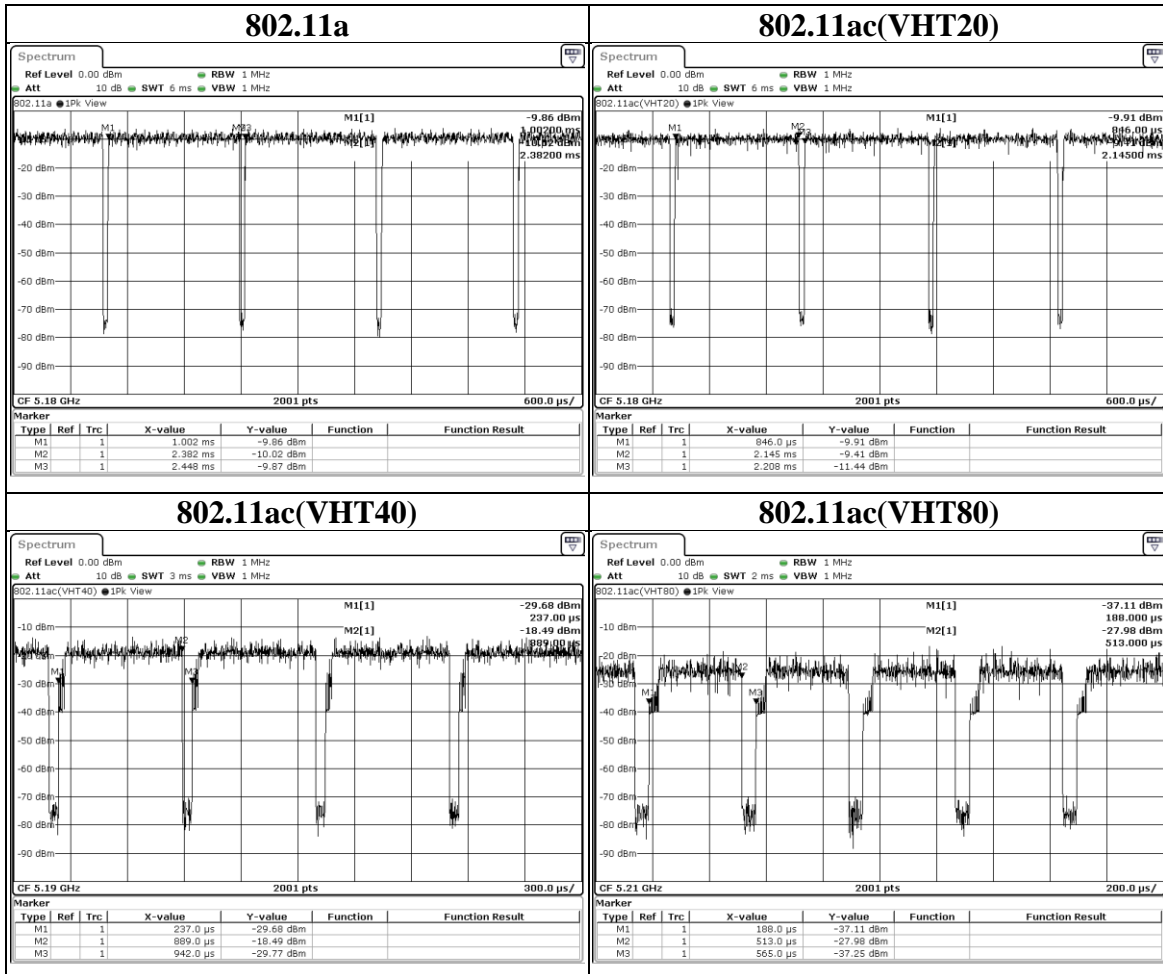
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### 6.6. Duty cycle

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle	Duty Factor (dB)	VBW Set (above 1GHz)
802.11a	1.380	1.446	0.9544	0.20	1kHz
802.11ac(VH T20)	1.299	1.362	0.9537	0.21	1kHz
802.11ac(VH T40)	0.652	0.705	0.9255	0.34	2kHz
802.11ac(VH T80)	0.325	0.377	0.8621	0.64	5.1kHz



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## 7. Test Equipment

Test Equipment List					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Expired date
Radiated Spurious Emission					
Spectrum Analyzer	Keysight	N9010A	MY56070827	2021/11/9	2022/11/8
EMI Test Receiver	Rohde & Schwarz	ESR7	101754	2021/12/10	2022/12/9
Loop Antenna	ETS lindgren	6502	00213440	2021/12/23	2022/12/22
Trilog-Broadband Antenna with 5dB Attenuator	Schwarzbeck & EMCI	VULB 9168 & N-6-05	774 & AT-N0538	2022/2/8	2023/2/7
Horn Antenna (1-18 GHz)	Schwarzbeck	BBHA 9120 D	01690	2021/12/13	2022/12/12
Horn Antenna (18-40 GHz)	Schwarzbeck	BBHA 9170	781	2021/12/17	2022/12/16
Preamplifier (30-1000 MHz)	EMCI	EMC330E	980405	2022/6/7	2023/6/6
Preamplifier (1-18 GHz)	EMCI	EMC051835BE	980406	2022/2/16	2023/2/15
Preamplifier (18-40GHz)	EMCI	EMC184040SEE	980426	2022/5/17	2023/5/16
Cables	Hanyitek	K1K50-UP0264-K1K50-2500	170214-4 & 170425-2	2021/12/3	2022/12/2
Cables	Hanyitek	K1K50-UP0264-K1K50-2500	170214-1 & 170214-2	2021/12/3	2022/12/2

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Test Equipment List					
Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Expired date
Antenna Port Conducted Measurement					
Spectrum Analyzer	Keysight	N9010A	MY56070834	2021/10/29	2022/10/28
USB Power Sensor	Anritsu	MA24408A	12031	2022/3/23	2023/3/22
Temperature & Humidity Test Chamber	GIANT FORCE	GTH-150-40-CP-AR	MAA1701-010	2022/3/11	2023/3/10
AC power Line Conducted Emission					
EMI Test Receiver	Rohde & Schwarz	ESR7	101753	2021/11/15	2022/11/14
Two-Line V-Network	Rohde & Schwarz	ENV216	102136	2021/8/30	2022/8/29
Impuls-Begrenzer Pulse Limiter	Rohde & Schwarz	ESH3-Z2	102219-Qt	2021/8/26	2022/8/25
Cables	TITAN	CFD200	T0732ACFD20 020A300-1	2022/3/16	2023/3/15

UL Software		
Description	Name	Version
Radiated measurement	e3	6.191211 (V6)
Conducted measurement	RF-Conducted-FCC 15407	ver 1.1
AC power Line Conducted Emission	EZ_EMG	UL-3A1.2

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## 8. Description of Test Setup

### Support Equipment

ID	Equipment	Brand Name	Model Name	S/N	Remark
A	Laptop	DELL	Latitude E5470	3JFKWF2	Provided by Lab
B	Test Tool	InnoComm	SB52-IO-004	Label	Supplied by client
C	AC Adapter	EDAC	EA10681G-120	NA	Supplied by client

### I/O Cables

ID	Equipment	Brand Name	Model Name	Length (m)	Remark
1	Micro USB Cable	WONDER	WA-W07UA	1.44	Provided by Lab
2	Power Cable	NA	NA	1.75	Supplied by client
3	DC Cable	NA	NA	1	Supplied by client, with core

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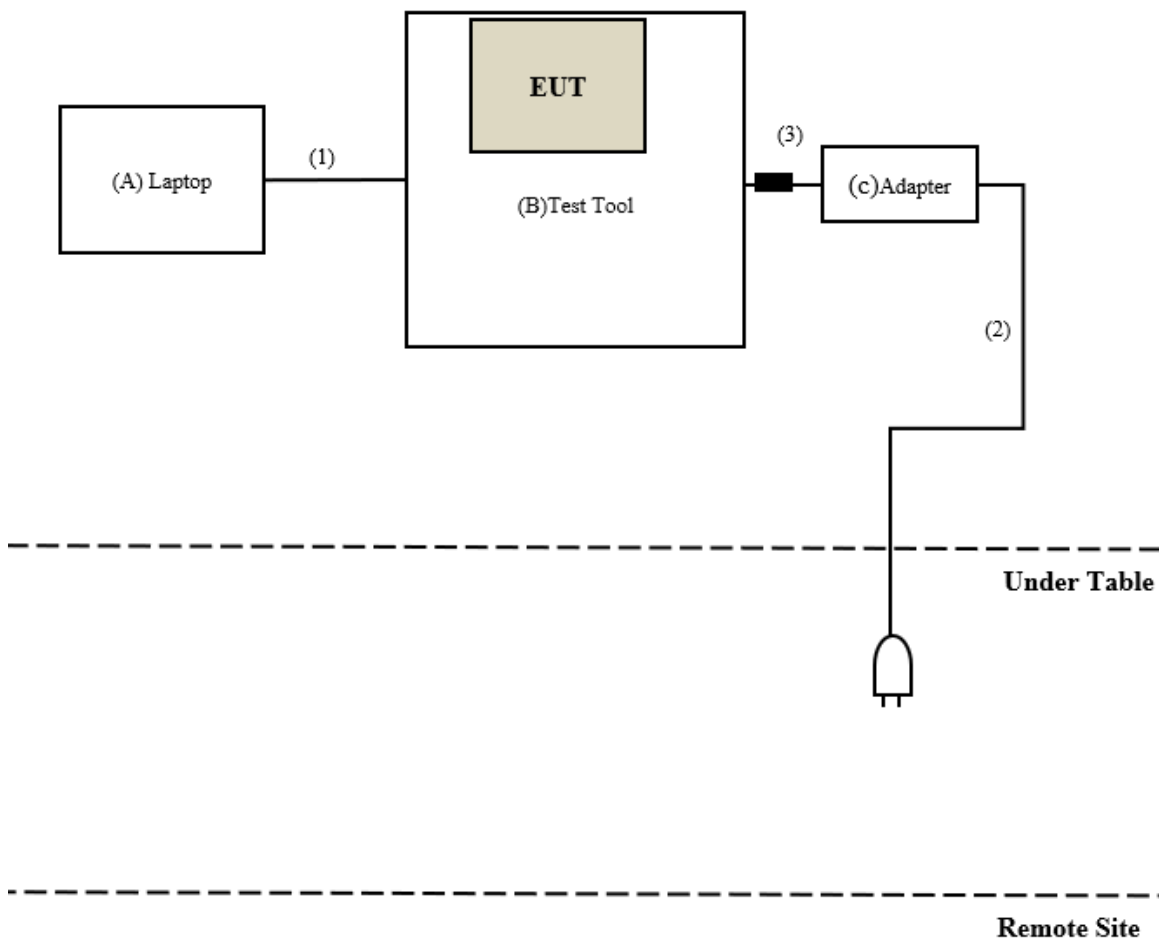
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## Test Setup

Controlled using a bespoke application (Typing RF command by adb tool (version 1.0.32)) on a test Notebook. The application was used to enable a continuous transmission mode and to select the test channels, data rates, modulation schemes and power setting as required.

## Setup Diagram for Test



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## 9. Test Results

### 9.1. 6dB Bandwidth

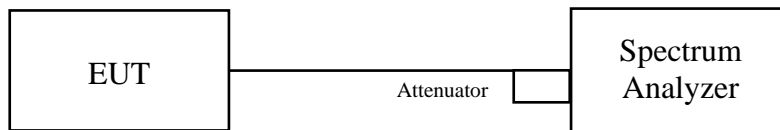
#### Requirements

The minimum 6 dB bandwidth shall be at least 500 kHz.

#### Test procedure

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW)  $\geq 3 \times$  RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

#### Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

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**Test Data**

Mode	CH	Freq (MHz)	6dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11a	149	5745	14.444	15.708	0.5	Pass
	157	5785	13.433	14.452	0.5	Pass
	165	5825	15.115	15.914	0.5	Pass

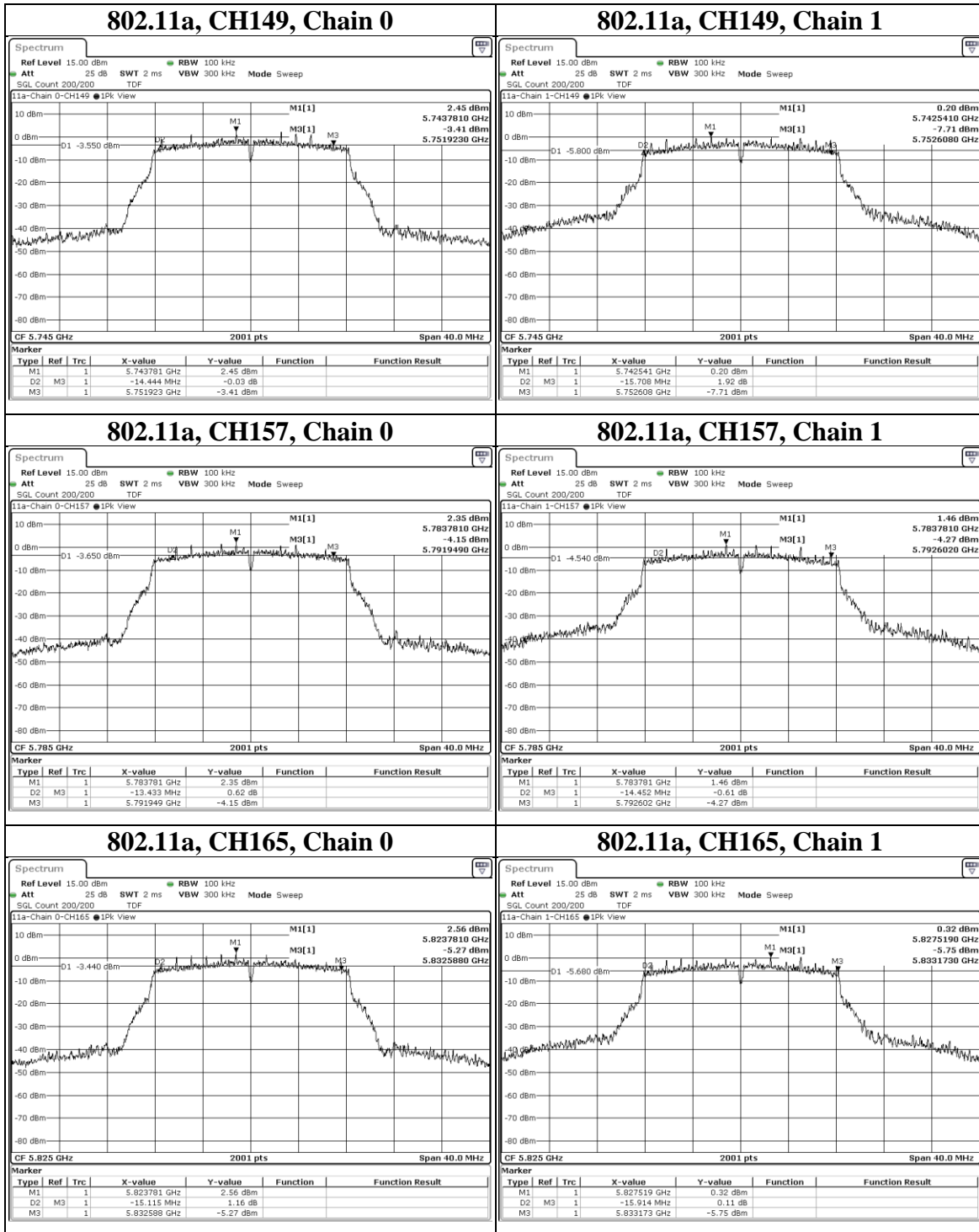
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Mode	CH	Freq (MHz)	6dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(V HT20)	149	5745	15.101	15.666	0.5	Pass
	157	5785	14.227	16.334	0.5	Pass
	165	5825	15.137	15.71	0.5	Pass

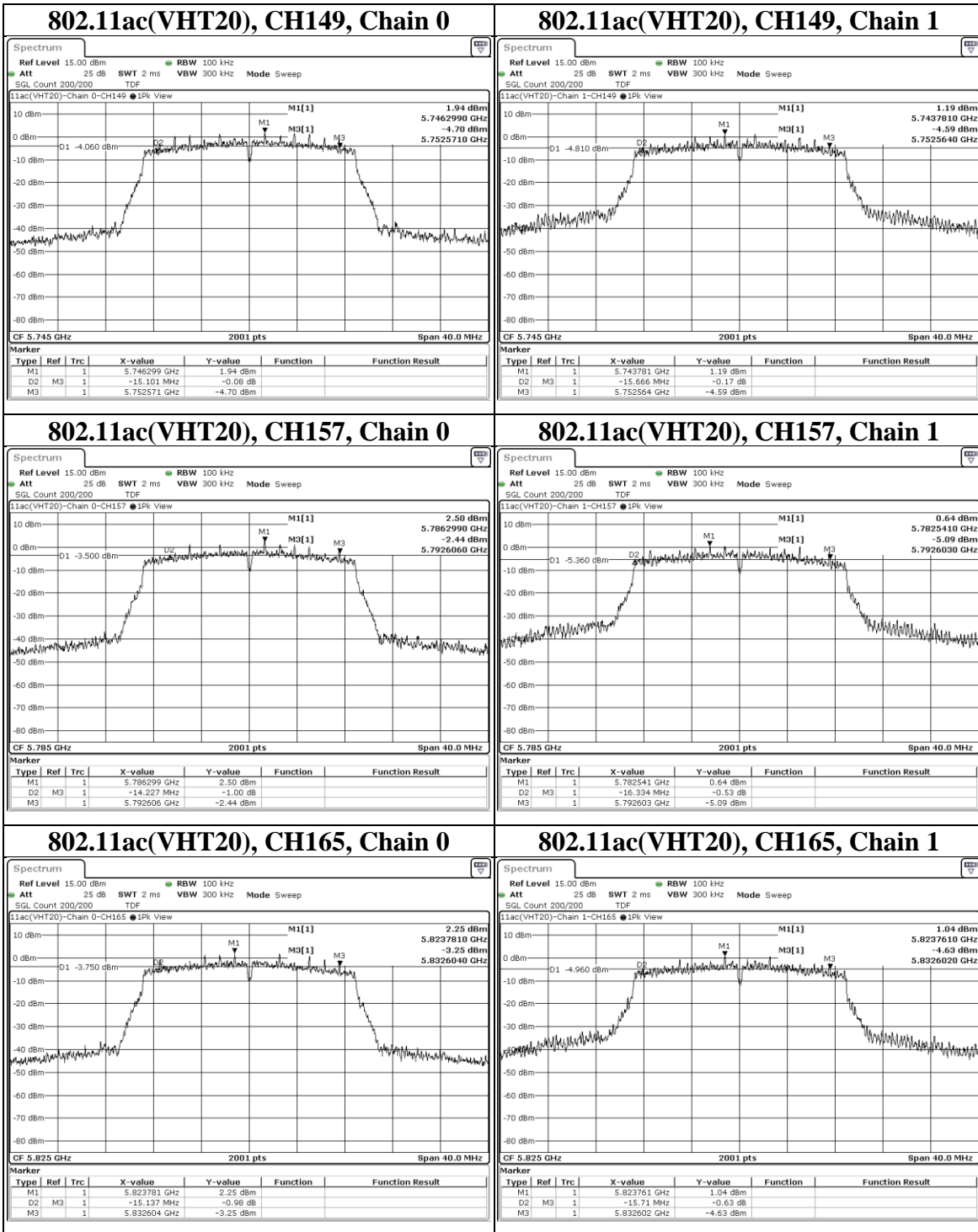
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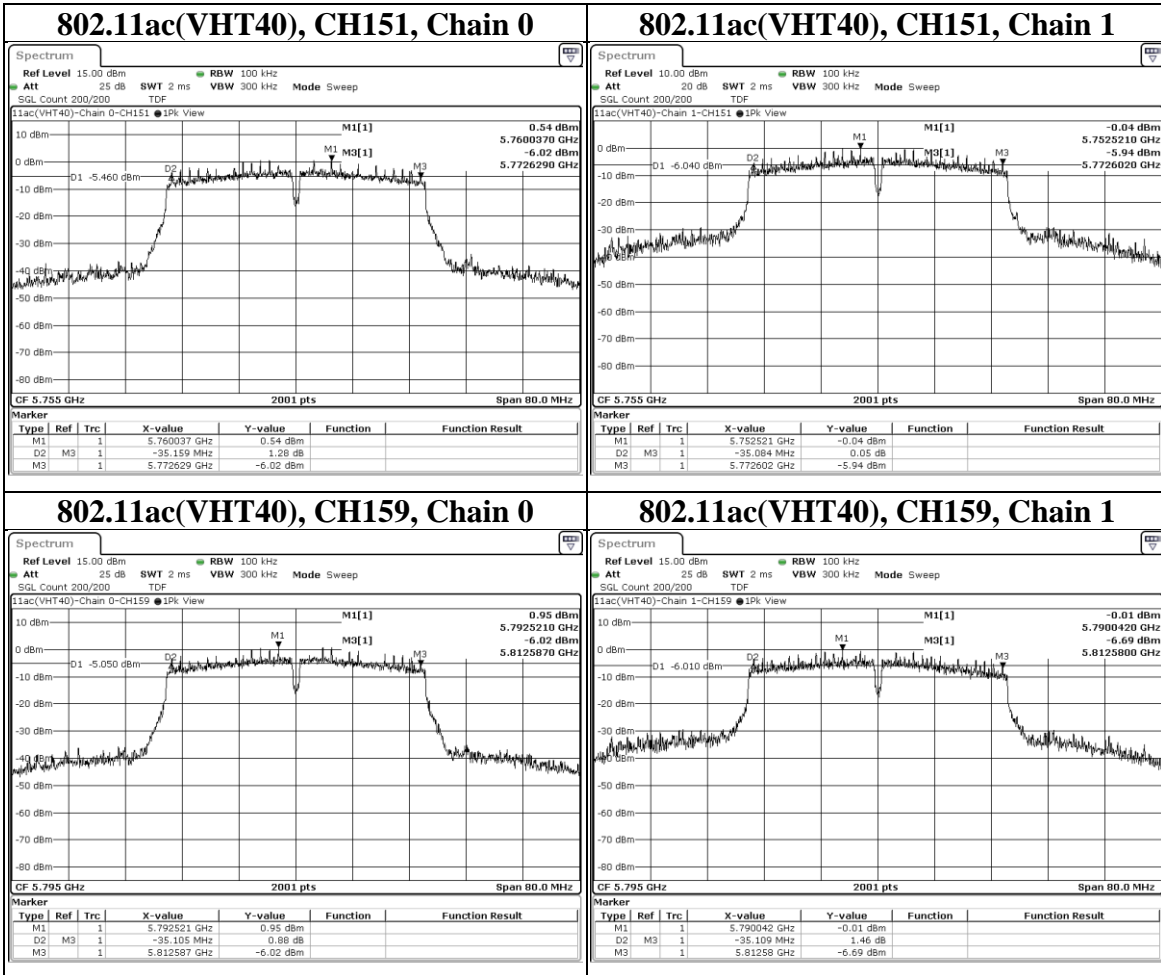
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Mode	CH	Freq (MHz)	6dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(VHT40)	151	5755	35.159	35.084	0.5	Pass
	159	5795	35.105	35.109	0.5	Pass



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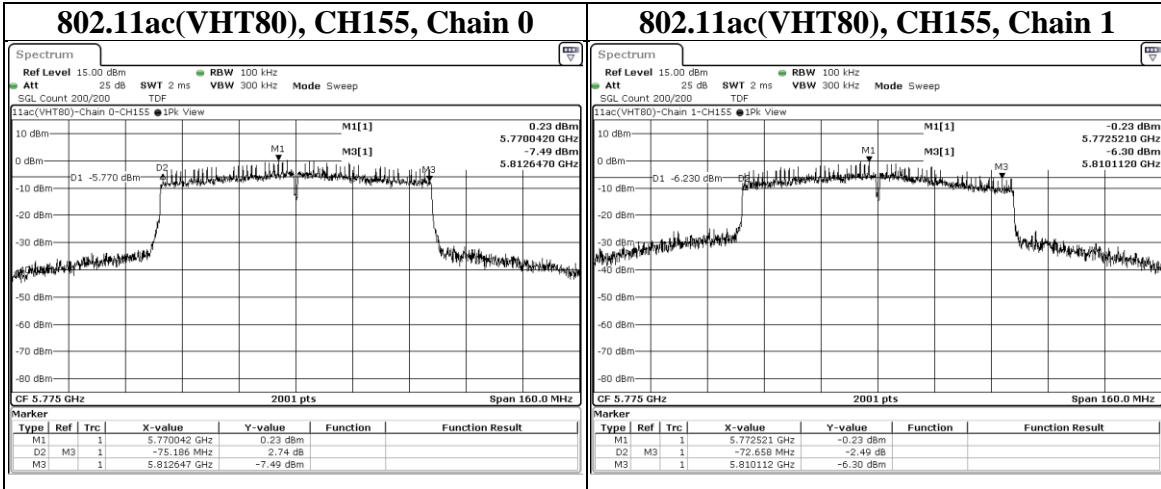
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Mode	CH	Freq (MHz)	6dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(VHT80)	155	5775	75.186	72.658	0.5	Pass



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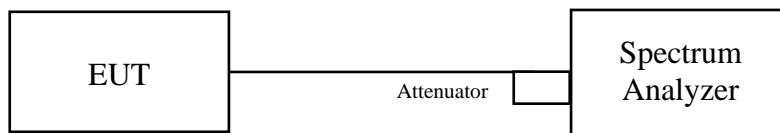


## 9.2. 26dB Bandwidth

### Test procedure

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak 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 Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.



### Test Data

Mode	CH	Freq (MHz)	26dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11a	36	5180	22.567	19.681	N/A	Pass
	44	5220	34.026	30.497	N/A	Pass
	48	5240	30.924	28.365	N/A	Pass
	52	5260	32.299	26.682	N/A	Pass
	60	5300	26.043	20.346	N/A	Pass
	64	5320	20.028	19.731	N/A	Pass
	100	5500	19.79	19.722	N/A	Pass
	116	5580	19.858	19.788	N/A	Pass
	140	5700	19.869	19.708	N/A	Pass

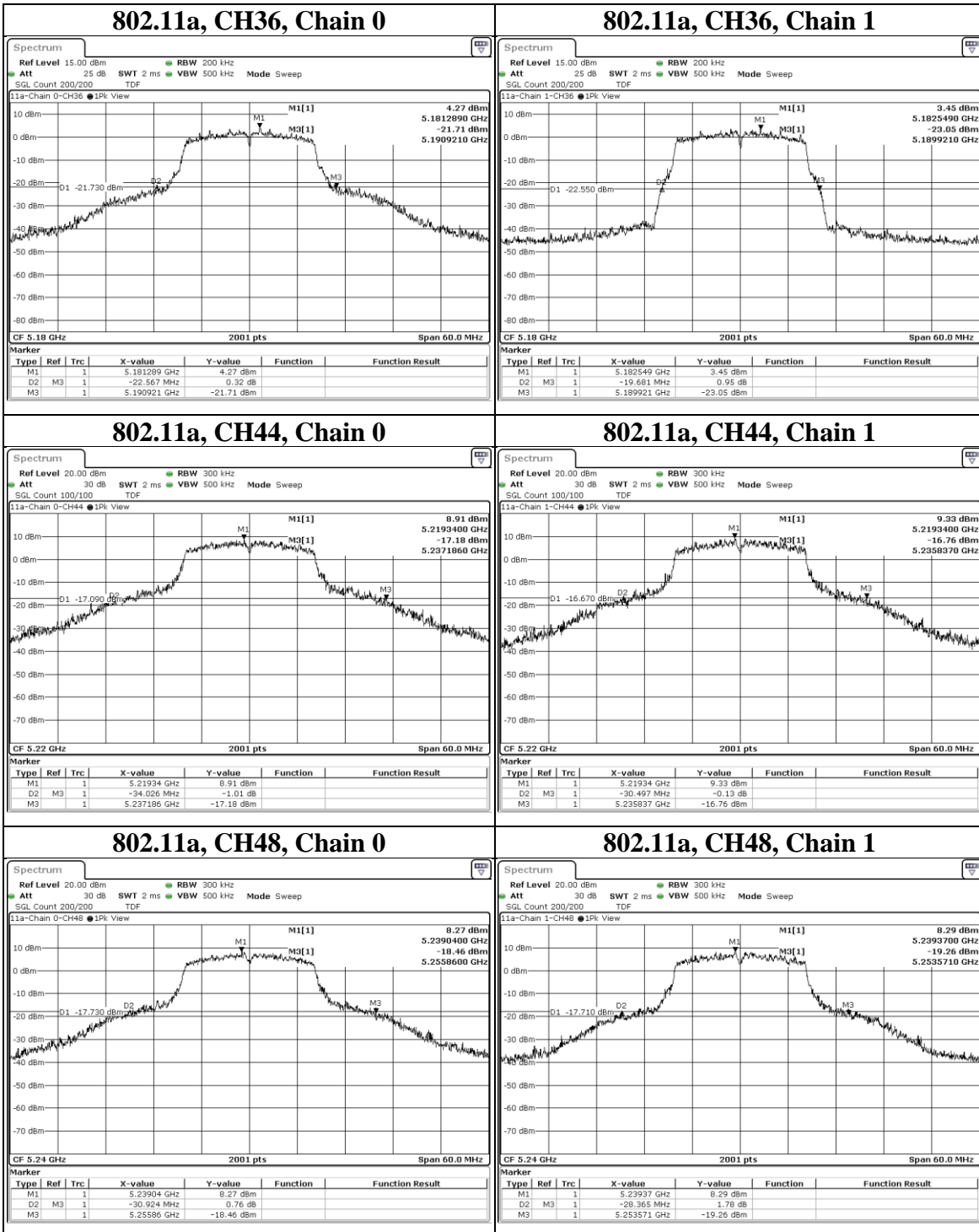
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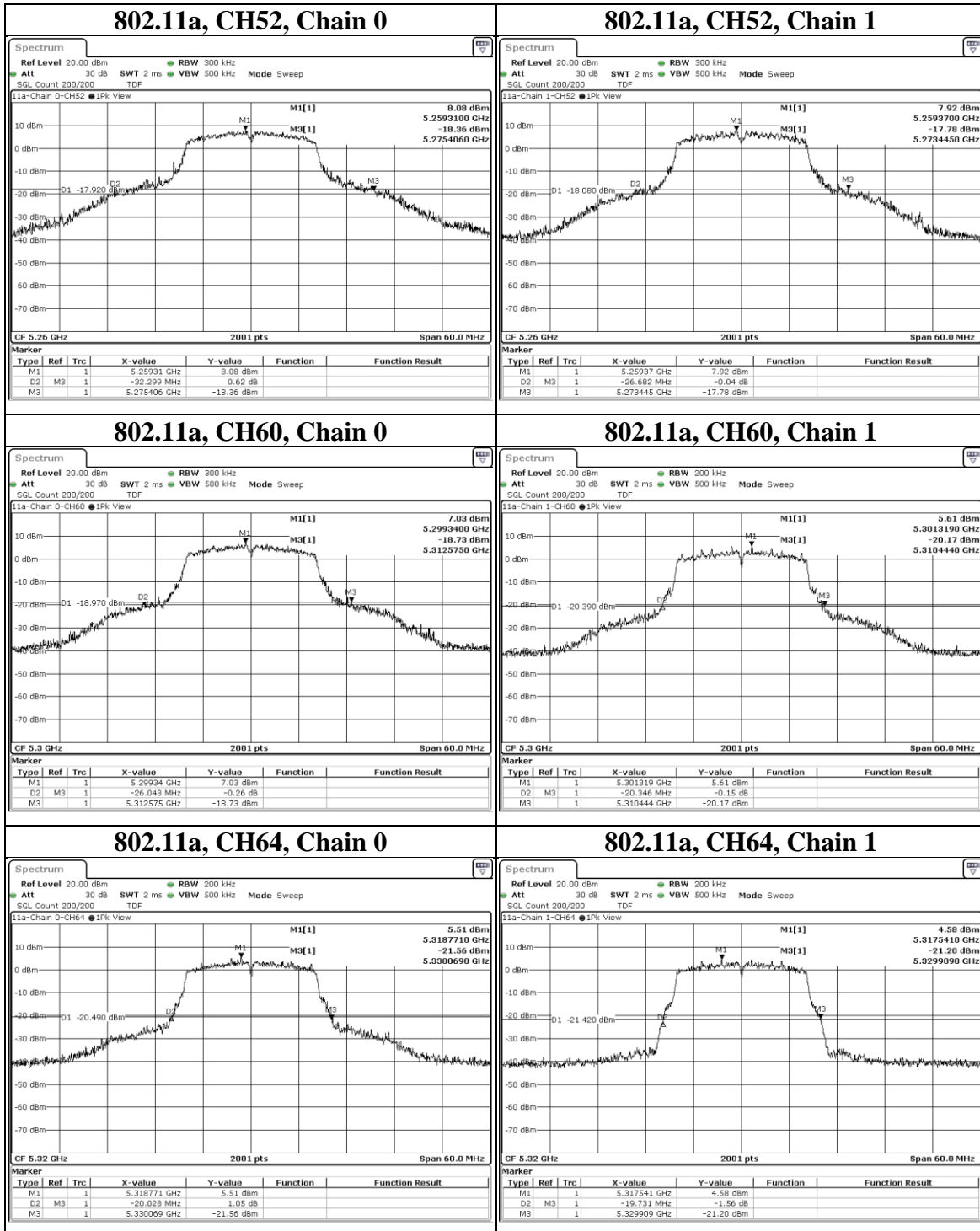
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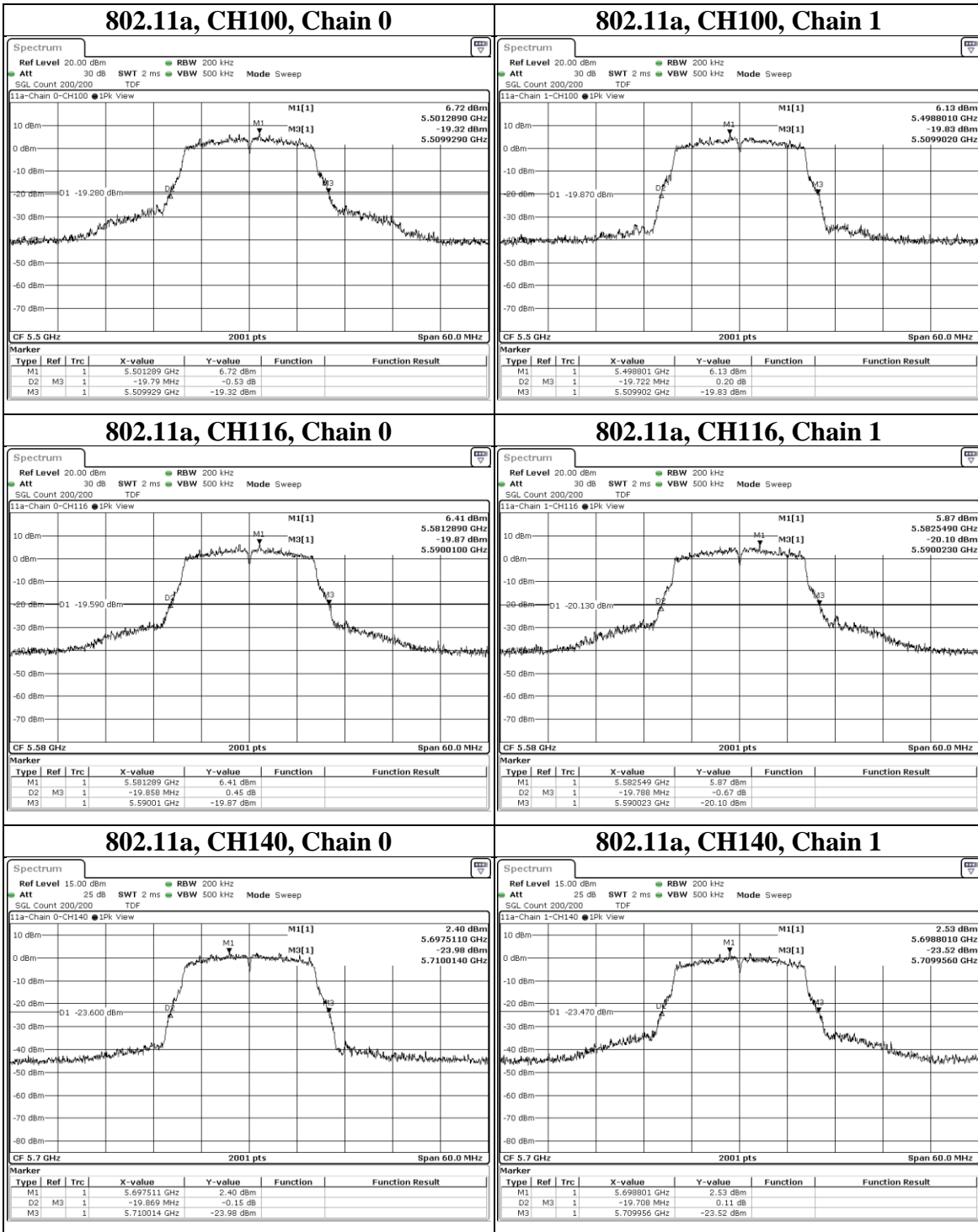
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Mode	CH	Freq (MHz)	26dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(V HT20)	36	5180	19.992	20.126	N/A	Pass
	44	5220	35.53	33.415	N/A	Pass
	48	5240	32.149	29.121	N/A	Pass
	52	5260	33.401	26.023	N/A	Pass
	60	5300	29.99	20.813	N/A	Pass
	64	5320	20.21	19.888	N/A	Pass
	100	5500	20.047	19.874	N/A	Pass
	116	5580	19.958	19.983	N/A	Pass
	140	5700	19.95	19.923	N/A	Pass

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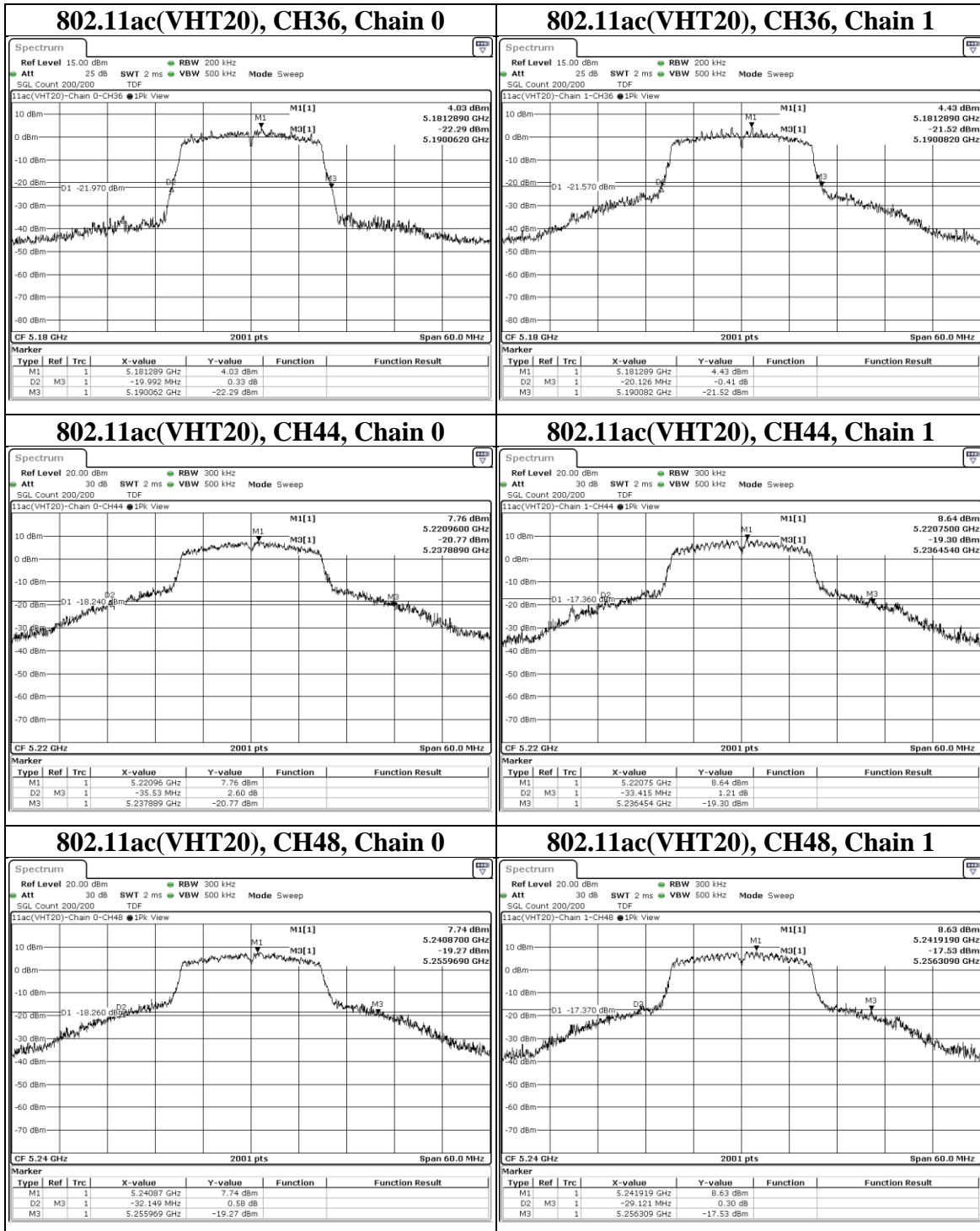
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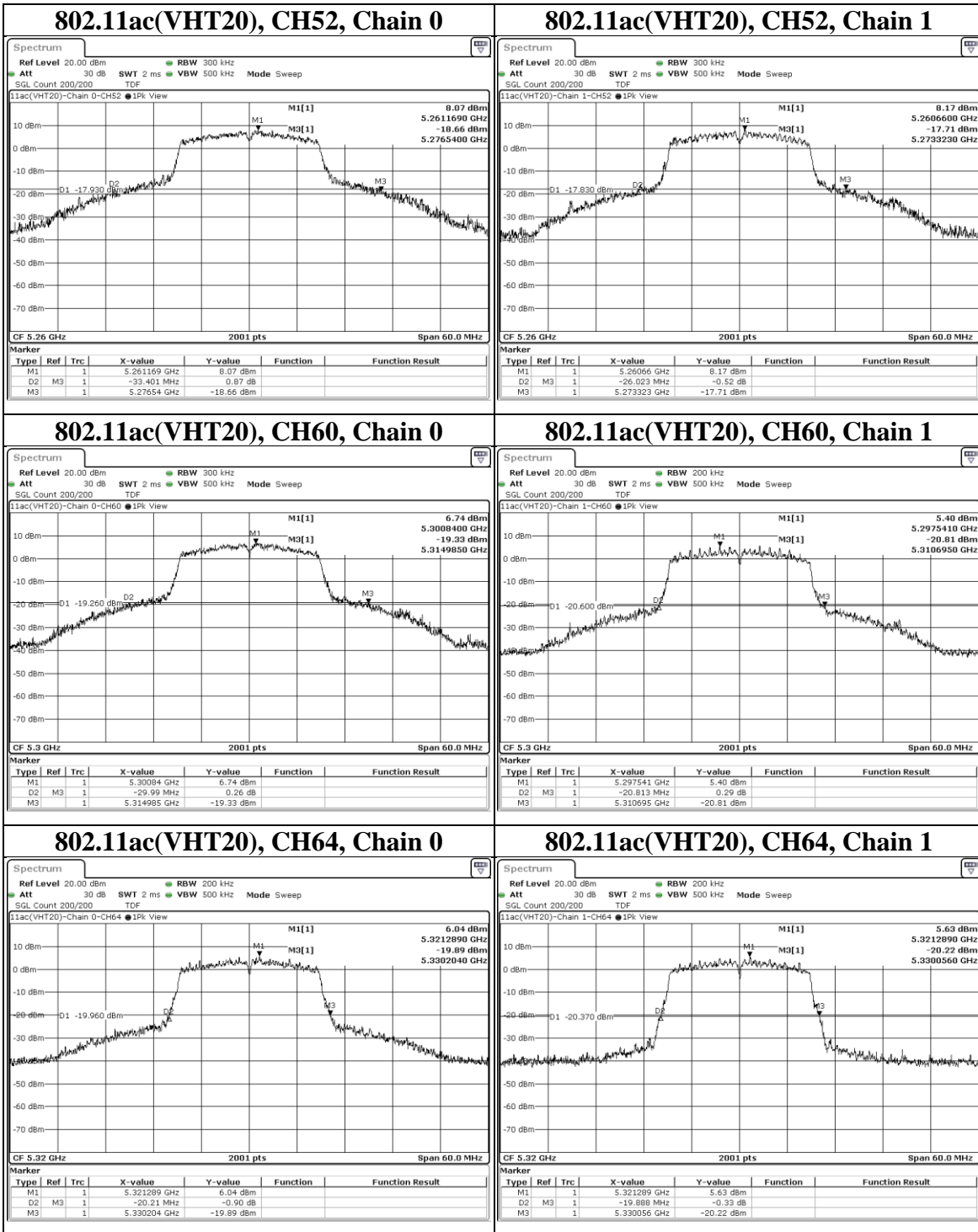
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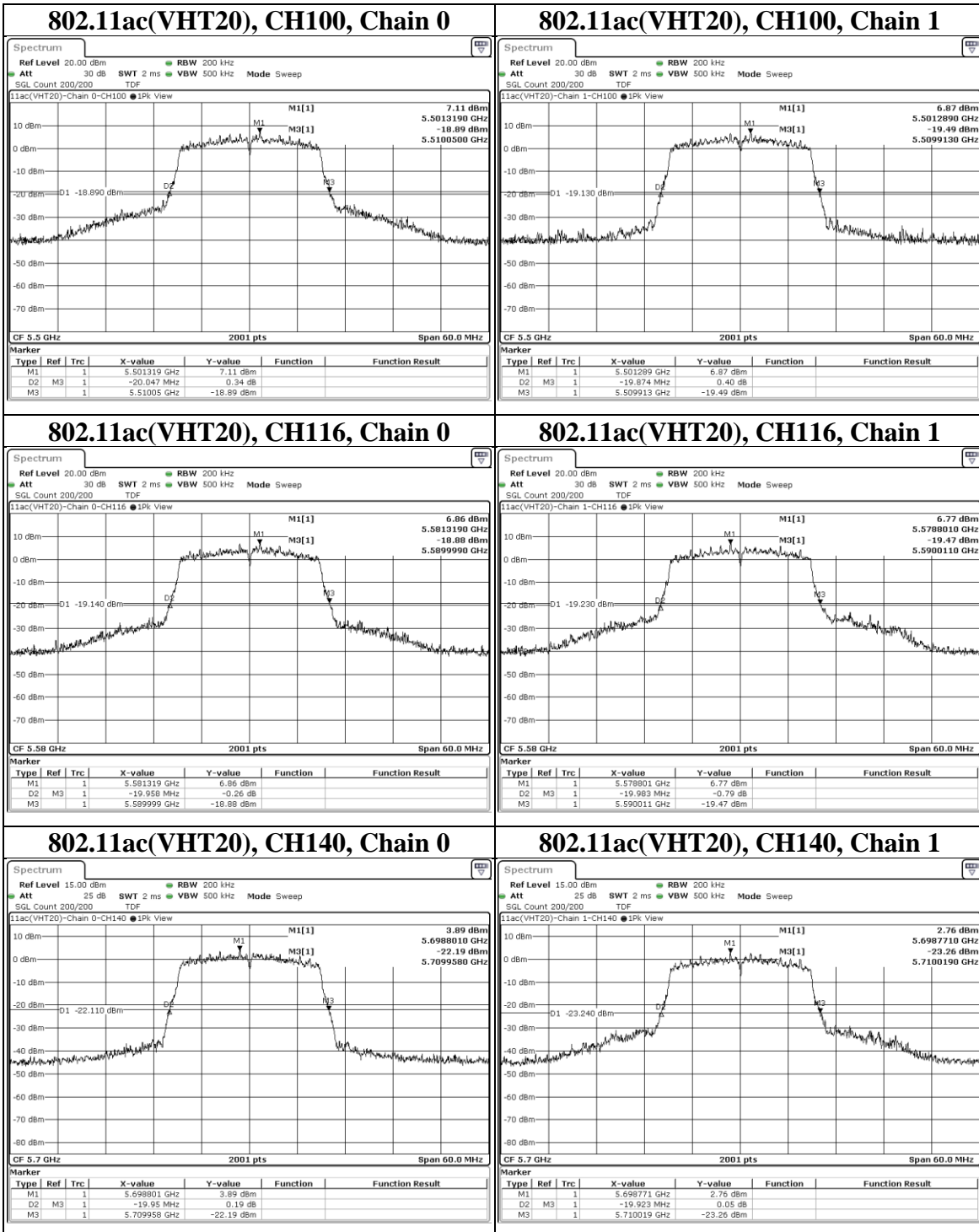
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Mode	CH	Freq (MHz)	26dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(V HT40)	38	5190	44.774	39.825	N/A	Pass
	46	5230	72.918	59.673	N/A	Pass
	54	5270	77.123	67.06	N/A	Pass
	62	5310	40.812	40.702	N/A	Pass
	102	5510	40.883	39.853	N/A	Pass
	110	5550	49.207	40.309	N/A	Pass
	134	5670	42.755	63.318	N/A	Pass

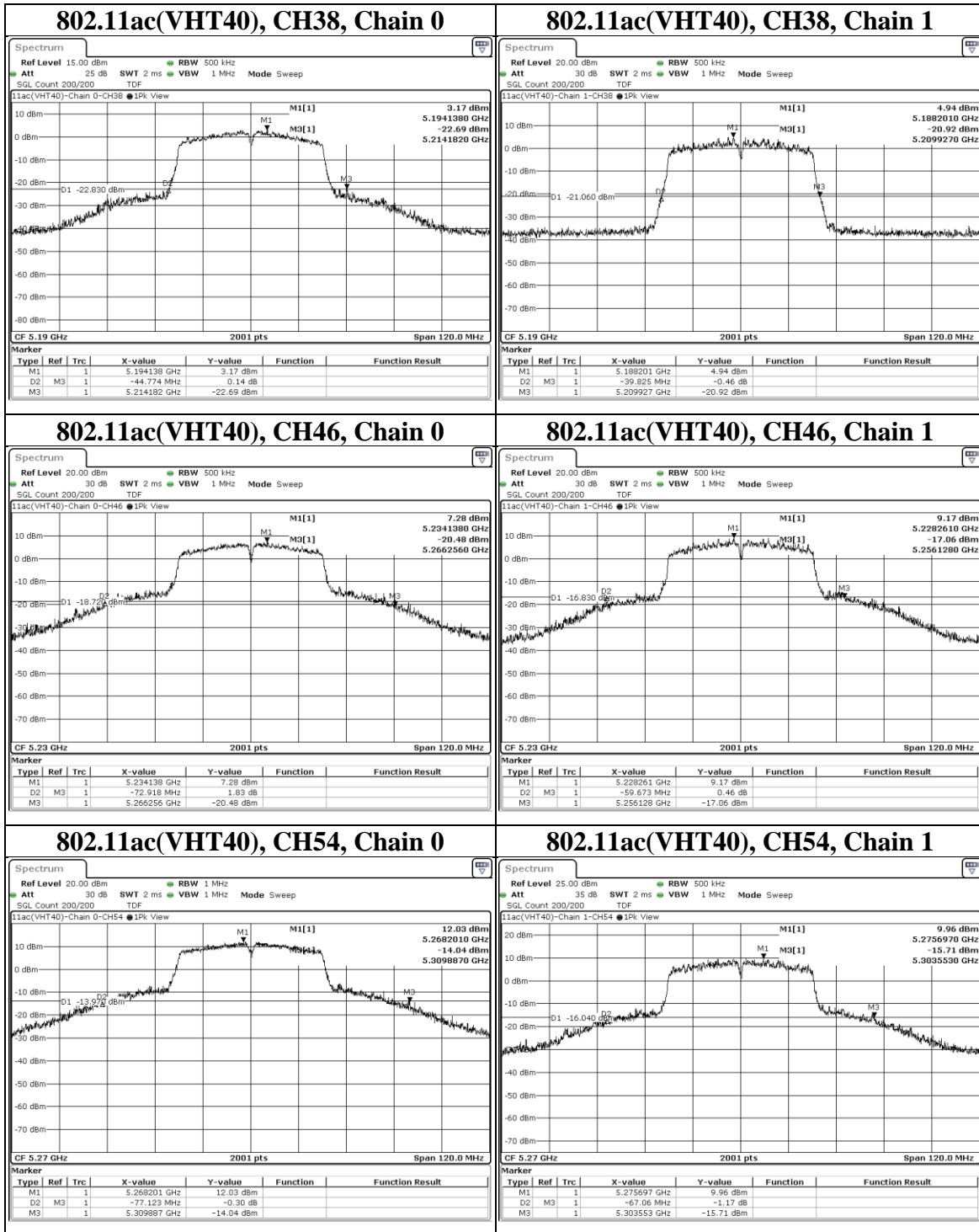
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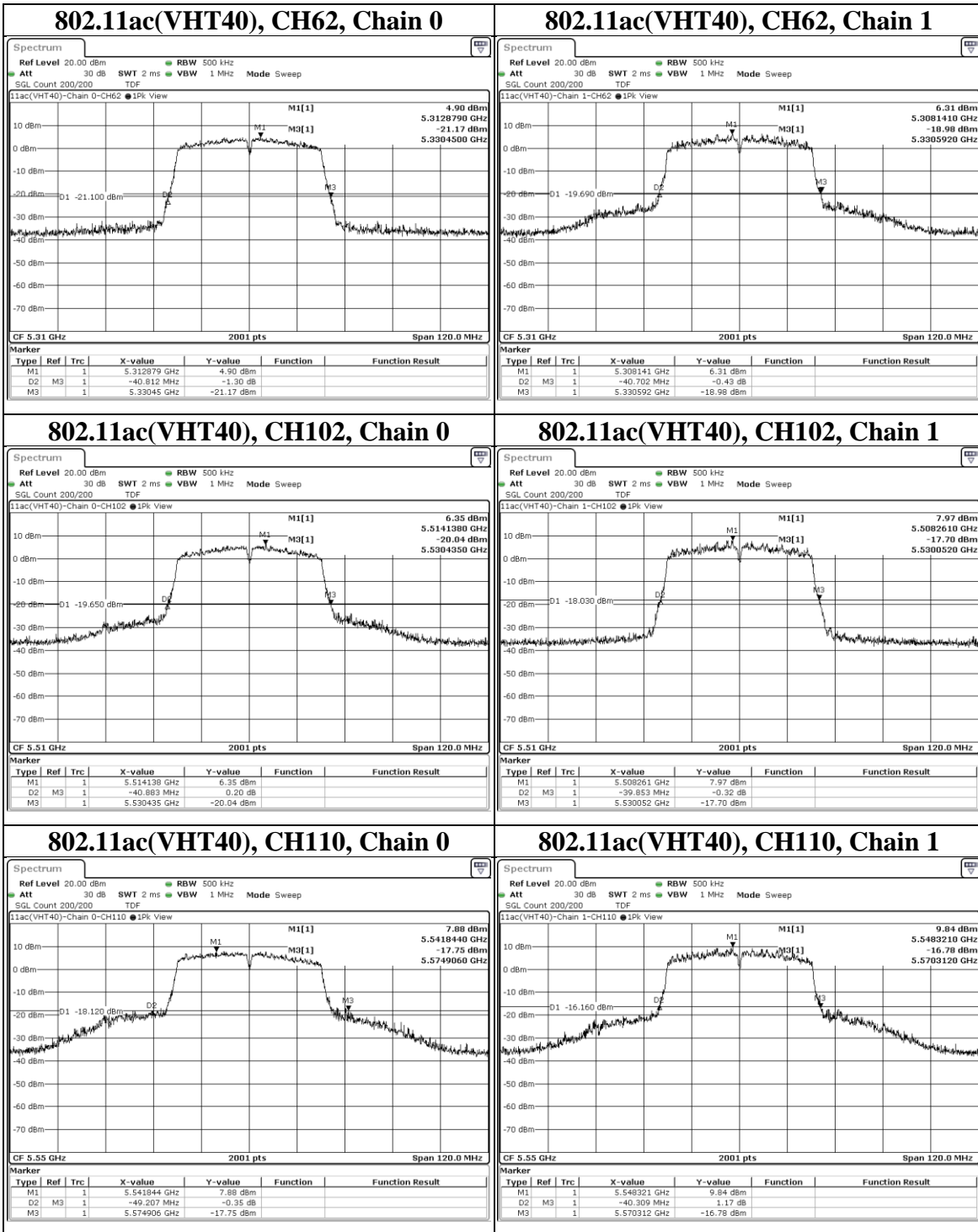
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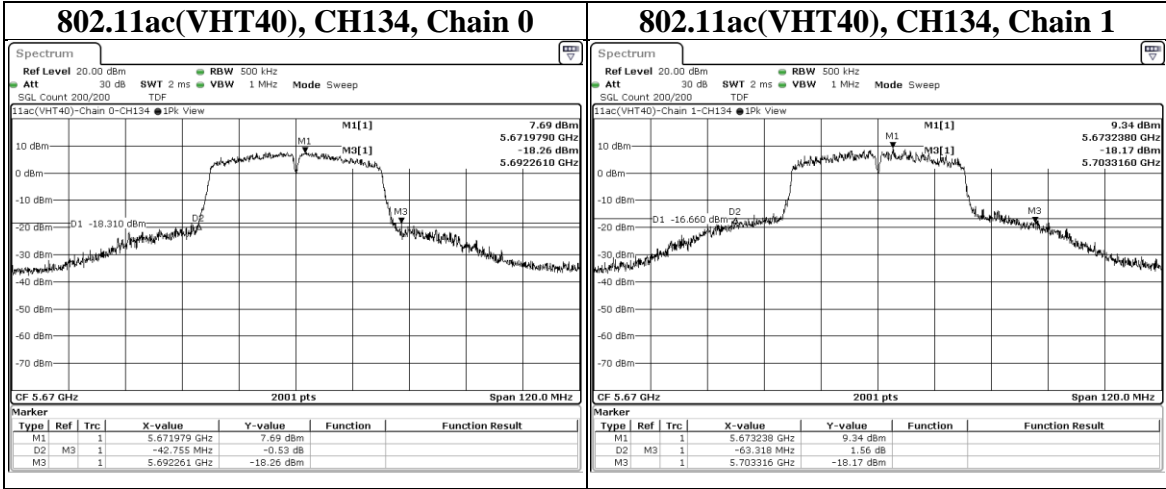


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Mode	CH	Freq (MHz)	26dB BW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11ac(V HT80)	42	5210	81.326	97.468	N/A	Pass
	58	5290	81.31	80.075	N/A	Pass
	106	5530	81.131	80.32	N/A	Pass
	122	5610	87.22	110.441	N/A	Pass

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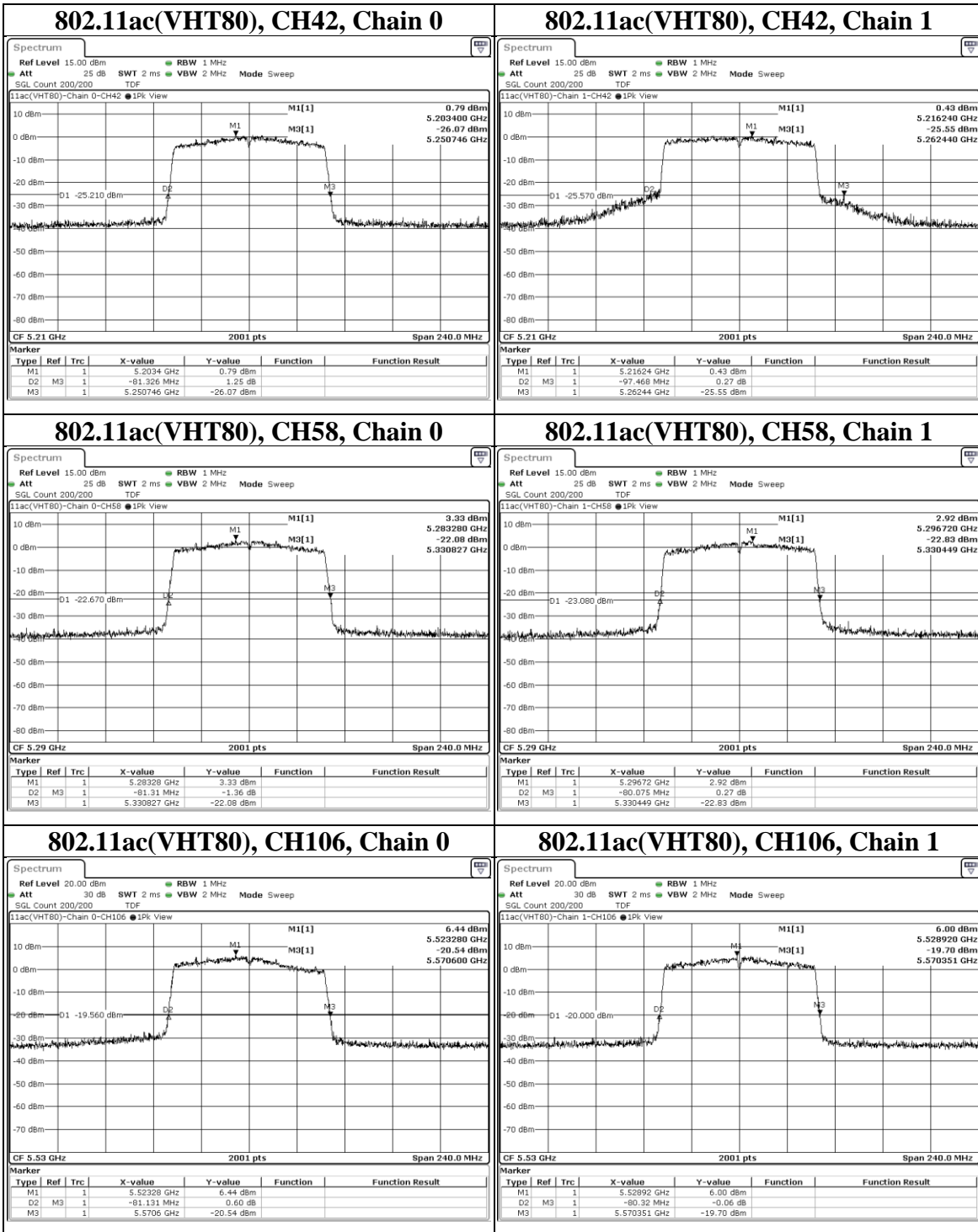
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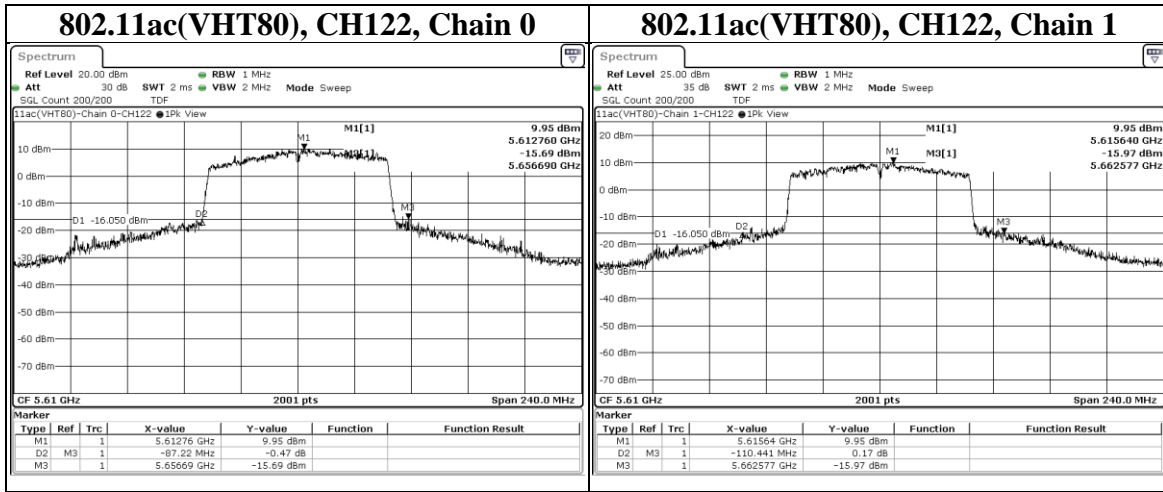
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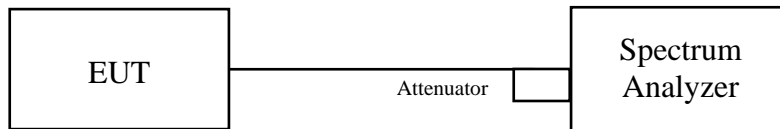


### 9.3. Occupied Bandwidth

#### Test procedure

- a. Set center frequency to the nominal EUT channel center frequency.
- b. Set span = 1.5 times to 5.0 times the OBW.
- c. Set RBW = 1% to 5% of the OBW
- d. Set VBW  $\geq 3 \times$  RBW
- e. 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.
- f. Use the 99% power bandwidth function of the instrument (if available).
- g. 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.

#### Test Setup



The loss between RF output port of the EUT and the input port of the Spectrum Analyzer has been taken into consideration.

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### Test Data

Mode	CH	Freq (MHz)	OBW (MHz)		Limit (MHz)	Result
			Chain 0	Chain 1		
802.11a	36	5180	17.352	16.718	N/A	Pass
	44	5220	18.722	17.779	N/A	Pass
	48	5240	18.16	17.328	N/A	Pass
	52	5260	18.142	17.214	N/A	Pass
	60	5300	17.408	16.911	N/A	Pass
	64	5320	17.194	16.815	N/A	Pass
	100	5500	17.118	16.778	N/A	Pass
	116	5580	17.116	16.818	N/A	Pass
	140	5700	16.996	16.825	N/A	Pass
	149	5745	17.07	16.82	N/A	Pass
	157	5785	17.071	16.876	N/A	Pass
165	5825	17.068	16.816	N/A	Pass	

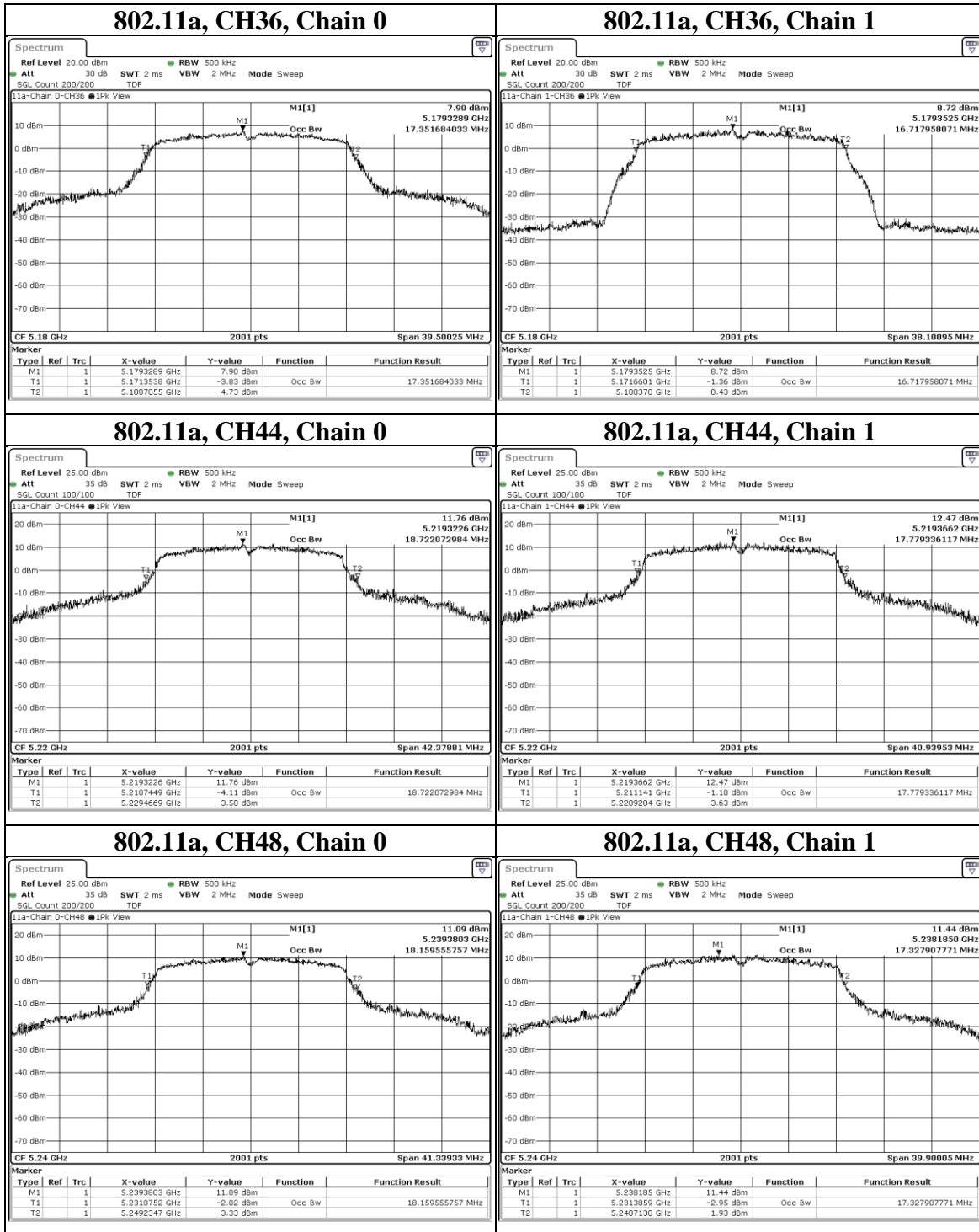
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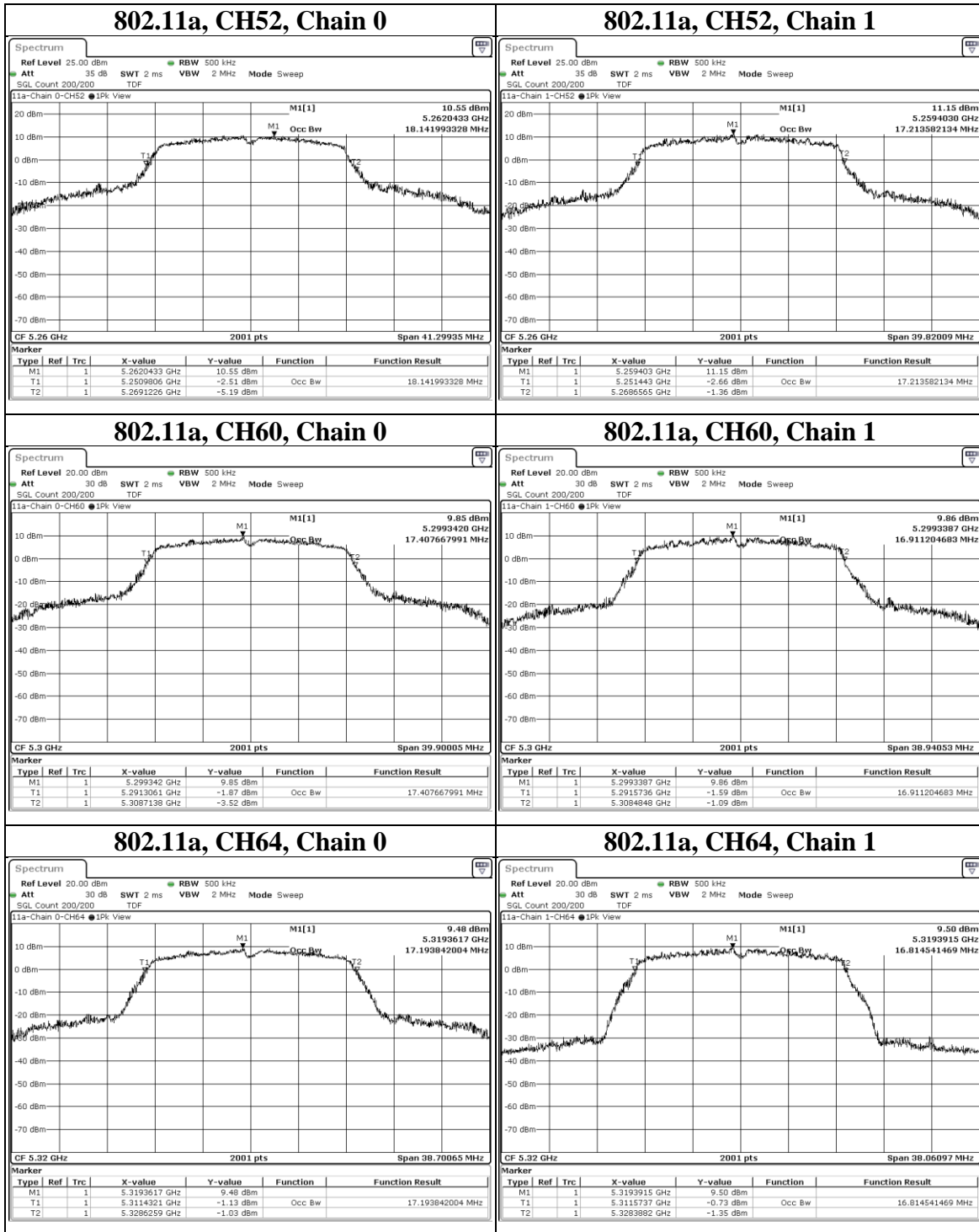


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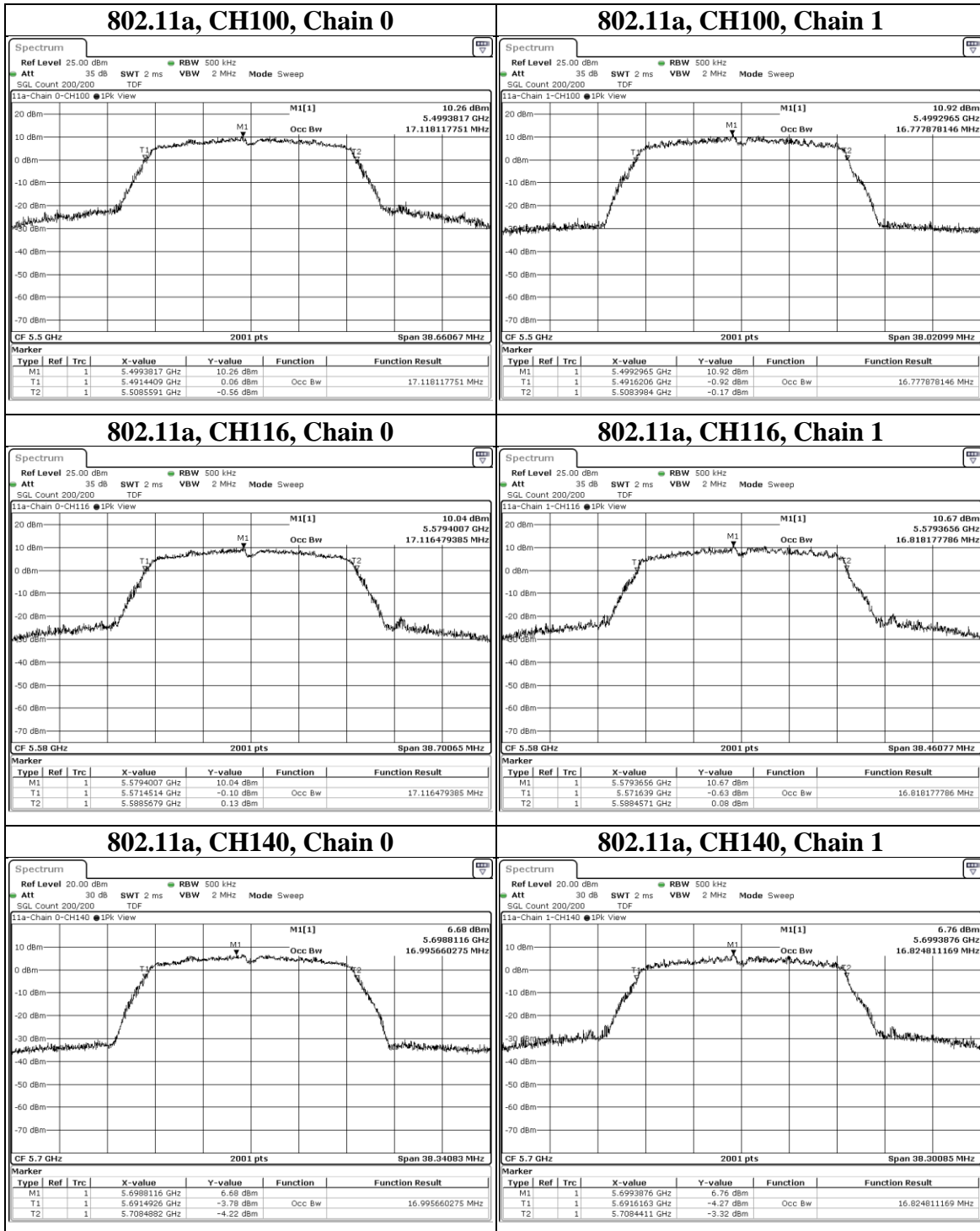
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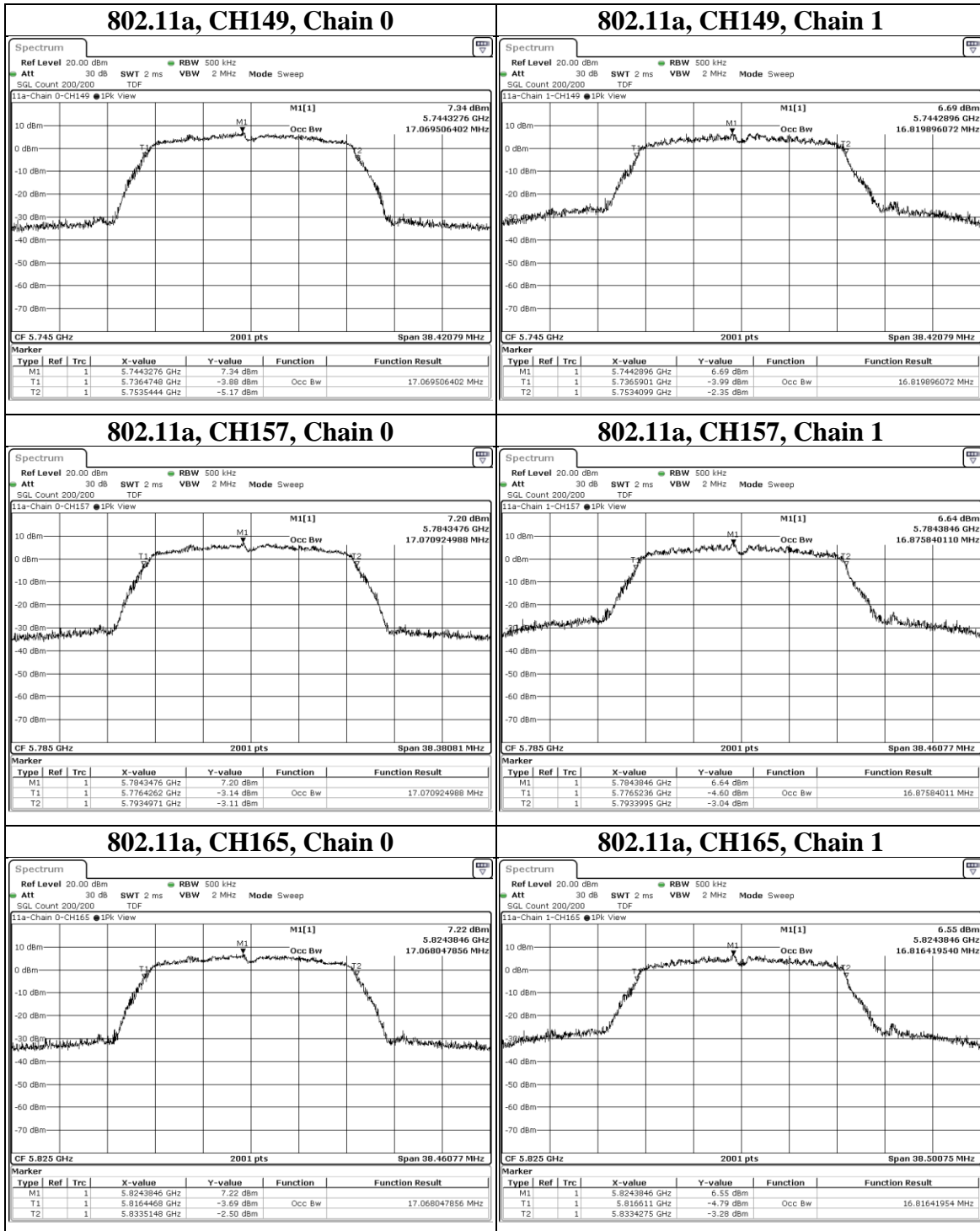


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			Chain 0	Chain 1		
802.11ac(V HT20)	36	5180	17.966	17.82	N/A	Pass
	44	5220	19.609	18.3	N/A	Pass
	48	5240	19.028	18.095	N/A	Pass
	52	5260	19.081	18.051	N/A	Pass
	60	5300	18.556	17.884	N/A	Pass
	64	5320	18.076	17.691	N/A	Pass
	100	5500	18.025	17.713	N/A	Pass
	116	5580	18.005	17.771	N/A	Pass
	140	5700	17.926	17.728	N/A	Pass
	149	5745	17.966	17.758	N/A	Pass
	157	5785	17.944	17.741	N/A	Pass
	165	5825	17.944	17.778	N/A	Pass

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