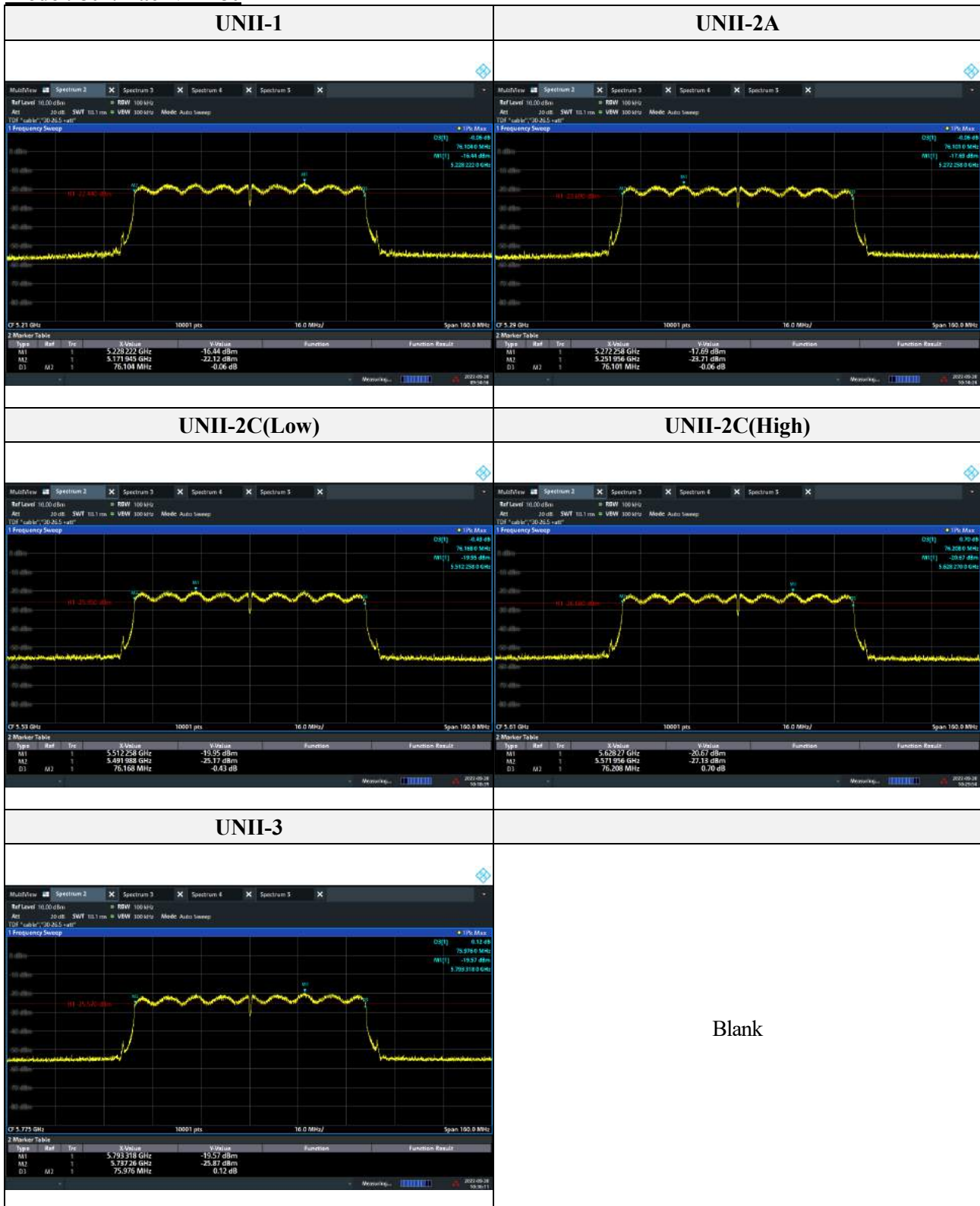


Mode : 802.11ac VHT80



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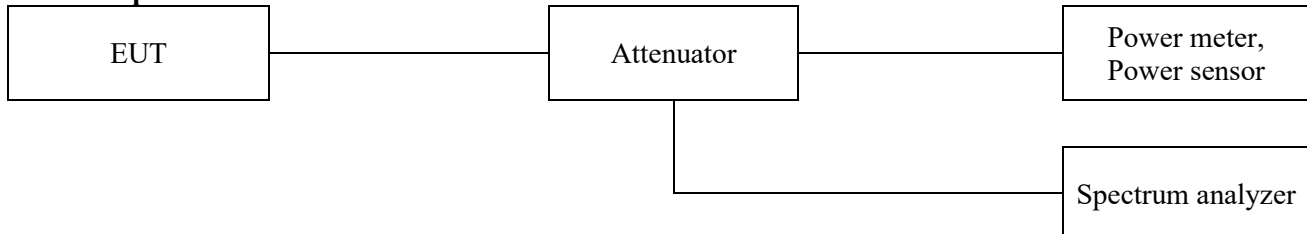
3.3. Maximum conducted output power

Test procedure

KDB 789033 D02 v02r01– Section E.3.a) or b)

Used test method is Section E.3.b)

Test setup



Section E.3.a)

Method PM (Measurement using an RF average power meter):

- i. Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.
 - The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
 - At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
 - The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- ii. If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in section II.B.
- iii. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
- iv. Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25 %).

Section E.3.b)

Method PM-G (Measurement using a gated RF average power meter):

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

**Limit
FCC**

Band	EUT Category		Limit
UNII-1		Outdoor access point	1 W (30 dBm)
	✓	Indoor access point	
		Fixed point-to-point access point	
		Mobile and portable client device	250 mW(24 dBm)
UNII-2A	✓		250 mW or 11 dBm + 10logB*
UNII-2C	✓		250 mW or 11 dBm + 10logB*
UNII-3	✓		1 W (30 dBm)

IC

Band	Limit
5150~5250 MHz	EIRP shall not exceed 200 mW or 10+10logB*, dBm
5250~5350 MHz	Conducted output power shall not exceed 250 mW or 11 dBm + 10logB* EIRP shall not exceed 1.0 W or 17+10logB*, dBm
5470~5600 MHz and 5650~5725 MHz	Conducted output power shall not exceed 250 mW or 11 dBm + 10logB* EIRP shall not exceed 1.0 W or 17+10logB*, dBm
5725~5850 MHz	Conducted output power shall not exceed 1 W

Note.

- 1.FCC Limit B is the 26 dB emission bandwidth.
- 2.IC Limit B is the 99% emission bandwidth in megahertz

Test results

ANT1

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 a	AV	0.7	9.01	30.00	30.00
	5 220		AV		8.95		
	5 240		AV		8.82		
UNII-2A	5 260		AV	0.7	8.70	24.00	24.00
	5 280		AV		8.16		
	5 320		AV		7.60		
UNII-2C	5 500		AV	0.5	5.89	24.00	24.00
	5 600		AV		6.35		
	5 700		AV		6.85		
UNII-3	5 745		AV	0.5	6.33	30.00	30.00
	5 785		AV		6.15		
	5 825		AV		5.98		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 an_HT20	AV	0.7	9.22	30.00	30.00
	5 220		AV		9.03		
	5 240		AV		8.87		
UNII-2A	5 260		AV	0.7	8.60	24.00	24.00
	5 280		AV		8.26		
	5 320		AV		7.68		
UNII-2C	5 500		AV	0.5	5.69	24.00	24.00
	5 600		AV		6.23		
	5 700		AV		6.75		
UNII-3	5 745		AV	0.5	5.98	30.00	30.00
	5 785		AV		5.78		
	5 825		AV		5.63		

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Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 ac VHT20	AV	0.7	9.33	30.00	30.00
	5 220		AV		9.10		
	5 240		AV		8.92		
UNII-2A	5 260		AV	0.7	8.60	24.00	24.00
	5 280		AV		8.08		
	5 320		AV		7.61		
UNII-2C	5 500		AV	0.5	5.72	24.00	24.00
	5 600		AV		6.25		
	5 700		AV		6.71		
UNII-3	5 745		AV	0.5	6.33	30.00	30.00
	5 785		AV		6.16		
	5 825		AV		6.03		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 an_HT40	AV	0.7	9.40	30.00	30.00
	5 230		AV		8.83		
UNII-2A	5 270		AV	0.7	8.23	24.00	24.00
	5 310		AV		7.97		
UNII-2C	5 510		AV	0.5	5.86	24.00	24.00
	5 590		AV		6.45		
	5 670		AV		6.84		
UNII-3	5 755		AV	0.5	6.33	30.00	30.00
	5 795		AV		6.27		

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Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 ac VHT40	AV	0.7	8.20	30.00	30.00
	5 230		AV		7.21		
UNII-2A	5 270		AV		6.89	24.00	24.00
	5 310		AV		6.47		
UNII-2C	5 510		AV	0.5	6.02	24.00	24.00
	5 590		AV		6.40		
	5 670		AV		6.81		
UNII-3	5 755		AV		6.42	30.00	30.00
	5 795		AV		6.30		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 210	802.11 ac VHT80	AV	0.7	8.41	30.00	30.00
UNII-2A	5 290		AV		8.00	24.00	24.00
UNII-2C	5 530		AV	0.5	5.71	24.00	24.00
	5 610		AV		6.22		
UNII-3	5 775		AV		5.85	30.00	30.00

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ANT2

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 a	AV	0.7	7.54	30.00	30.00
	5 220		AV		7.19		
	5 240		AV		7.05		
UNII-2A	5 260		AV	0.7	6.94	24.00	24.00
	5 280		AV		6.31		
	5 320		AV		5.64		
UNII-2C	5 500		AV	0.5	4.95	24.00	24.00
	5 600		AV		4.27		
	5 700		AV		4.15		
UNII-3	5 745		AV	0.5	3.96	30.00	30.00
	5 785		AV		3.88		
	5 825		AV		3.54		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 an_HT20	AV	0.7	7.58	30.00	30.00
	5 220		AV		7.30		
	5 240		AV		7.01		
UNII-2A	5 260		AV	0.7	6.76	24.00	24.00
	5 280		AV		6.33		
	5 320		AV		5.64		
UNII-2C	5 500		AV	0.5	4.54	24.00	24.00
	5 600		AV		4.14		
	5 700		AV		4.11		
UNII-3	5 745		AV	0.5	3.98	30.00	30.00
	5 785		AV		3.82		
	5 825		AV		3.67		

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Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 ac VHT20	AV	0.7	7.61	30.00	30.00
	5 220		AV		7.33		
	5 240		AV		7.05		
UNII-2A	5 260		AV	0.7	6.79	24.00	24.00
	5 280		AV		6.23		
	5 320		AV		5.60		
UNII-2C	5 500		AV	0.5	4.53	24.00	24.00
	5 600		AV		4.20		
	5 700		AV		4.04		
UNII-3	5 745		AV	0.5	3.87	30.00	30.00
	5 785		AV		3.56		
	5 825		AV		3.39		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 an_HT40	AV	0.7	7.67	30.00	30.00
	5 230		AV		7.16		
UNII-2A	5 270		AV	0.7	6.69	24.00	24.00
	5 310		AV		6.13		
UNII-2C	5 510		AV	0.5	4.72	24.00	24.00
	5 590		AV		4.46		
	5 670		AV		4.46		
UNII-3	5 755		AV	0.5	4.16	30.00	30.00
	5 795		AV		3.98		

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Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 ac VHT40	AV	0.7	7.65	30.00	30.00
	5 230		AV		6.77		
UNII-2A	5 270		AV		6.48	24.00	24.00
	5 310		AV		6.15		
UNII-2C	5 510		AV	0.5	4.50	24.00	24.00
	5 590		AV		4.33		
	5 670		AV		4.36		
UNII-3	5 755		AV		4.02	30.00	30.00
	5 795		AV		3.83		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 210	802.11 ac VHT80	AV	0.7	7.01	30.00	30.00
UNII-2A	5 290		AV		6.14	24.00	24.00
UNII-2C	5 530		AV	0.5	4.27	24.00	24.00
	5 610		AV		4.15		
UNII-3	5 775		AV		3.87	30.00	30.00

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MIMO ANT1+ANT2

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 an_HT20	AV	3.7	7.02	30.00	30.00
	5 220		AV		6.82		
	5 240		AV		6.51		
UNII-2A	5 260		AV	3.7	3.35	24.00	24.00
	5 280		AV		3.45		
	5 320		AV		3.67		
UNII-2C	5 500		AV	3.5	6.54	24.00	24.00
	5 600		AV		6.47		
	5 700		AV		7.09		
UNII-3	5 745		AV	3.5	7.24	30.00	30.00
	5 785		AV		7.35		
	5 825		AV		7.45		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 180	802.11 ac VHT20	AV	3.7	7.96	30.00	30.00
	5 220		AV		7.37		
	5 240		AV		6.69		
UNII-2A	5 260		AV	3.7	2.97	24.00	24.00
	5 280		AV		2.49		
	5 320		AV		2.11		
UNII-2C	5 500		AV	3.5	6.36	24.00	24.00
	5 600		AV		6.52		
	5 700		AV		7.30		
UNII-3	5 745		AV	3.5	7.25	30.00	30.00
	5 785		AV		7.32		
	5 825		AV		7.40		

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Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 an_HT40	AV	3.7	4.51	30.00	30.00
	5 230		AV		3.14		
UNII-2A	5 270		AV		-0.32	24.00	24.00
	5 310		AV		-1.03		
UNII-2C	5 510		AV	3.5	3.55	24.00	24.00
	5 590		AV		3.94		
	5 670		AV		4.39		
UNII-3	5 755		AV		4.53	30.00	30.00
	5 795		AV		4.66		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 190	802.11 ac VHT40	AV	3.7	4.14	30.00	30.00
	5 230		AV		3.13		
UNII-2A	5 270		AV		-0.45	24.00	24.00
	5 310		AV		-1.01		
UNII-2C	5 510		AV	3.5	3.55	24.00	24.00
	5 590		AV		4.01		
	5 670		AV		4.50		
UNII-3	5 755		AV		4.57	30.00	30.00
	5 795		AV		4.64		

Mode	Frequency (MHz)	Mode	Detector mode	Ant Gain (dBi)	Output power (dBm)	Limit (dBm)	
						FCC	IC
UNII-1 (E.I.R.P)	5 210	802.11 ac VHT80	AV	3.7	1.27	30.00	30.00
UNII-2A	5 290		AV		-1.59	24.00	24.00
UNII-2C	5 530		AV	3.5	2.33	24.00	24.00
	5 610		AV		2.75		
UNII-3	5 775		AV		2.68	30.00	30.00

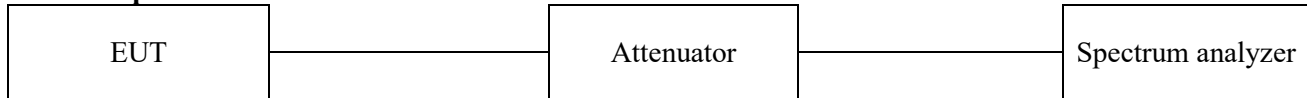
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3.4. Power spectral density

Test procedure

KDB 789033 D02 v02r01 – Section F

Test setup



Section F

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, “Compute power...” (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)
2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
3. Make the following adjustments to the peak value of the spectrum, if applicable:
 - a) If Method SA-2 or SA-2 Alternative was used, add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
 - b) If Method SA-3 Alternative was used and the linear mode was used in step II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
 - a) Set $RBW \geq 1/T$, where T is defined in section II.B.1.a)
 - b) Set $VBW \geq 3 RBW$.
 - c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
 - d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1 \text{ MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
 - e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note.

As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ kHz}$ is available on nearly all spectrum analyzers.

**Limit
FCC**

Band	EUT Category		Limit
UNII-1		Outdoor access point	17 dBm/MHz
	✓	Indoor access point	
		Fixed point-to-point access point	
		Mobile and portable client device	11 dBm/MHz
UNII-2A	✓		11 dBm/MHz
UNII-2C	✓		11 dBm/MHz
UNII-3	✓		30 dBm/500 kHz

IC

Band	Limit
5150~5250 MHz	EIRP spectral density 10 dBm/MHz
5250~5350 MHz	11 dBm/MHz
5470~5600 MHz and 5650~5725 MHz	11 dBm/MHz
5725~5850 MHz	30 dBm/500 kHz

Note.

1. If transmitting antennas of directional gain greater than 6 dBi are used, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceed 6 dBi.

Test results
ANT1

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)		
								FCC	IC	
802.11 a	5 180	UNII-1 (E.I.R.P)	2.24	-	1.73	0.7	4.67	17.00	10.00	
	5 220		1.64				4.07			
	5 240		0.84				3.27			
	5 260	UNII-2A	1.42		1.74		3.16	11.00	11.00	
	5 300		1.08				2.82			
	5 320		0.61				2.35			
	5 500	UNII-2C	4.80		1.74	6.54				
	5 600		5.66			7.40				
	5 700		5.37			7.11				
	5 745	UNII-3	-8.19		1.74	0.5	-6.45	30.00	30.00	
	5 785		-8.86			-7.12				
	5 825		-3.78			-2.04				

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)		
								FCC	IC	
802.11 an_HT20	5 180	UNII-1 (E.I.R.P)	0.53	-	1.84	0.7	3.07	17.00	10.00	
	5 220		0.81				3.35			
	5 240		0.88				3.42			
	5 260	UNII-2A	1.39		1.84		3.23	11.00	11.00	
	5 300		0.49				2.33			
	5 320		0.84				2.68			
	5 500	UNII-2C	5.23		1.84	0.5	7.07			
	5 600		5.05				6.89			
	5 700		5.58				7.42			
	5 745	UNII-3	-4.15		1.84		-2.31	30.00	30.00	
	5 785		-3.22				-1.38			
	5 825		-4.81				-2.97			

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Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)		
								FCC	IC	
802.11 ac_VHT20	5 180	UNII-1 (E.I.R.P)	0.94	-	1.83	0.7	3.47	17.00	10.00	
	5 220		0.72				3.25			
	5 240		0.32				2.85			
	5 260	UNII-2A	1.13		1.83		2.96	11.00	11.00	
	5 300		0.77				2.60			
	5 320		0.14				1.97			
	5 500	UNII-2C	4.96		1.82	0.5	6.78			
	5 600		5.44				7.26			
	5 700		5.12				6.94			
	5 745	UNII-3	-2.80		1.84		-0.96	30.00	30.00	
	5 785		-4.30				-2.46			
	5 825		-3.48				-1.64			

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 an_HT40	5 190	UNII-1 (E.I.R.P)	-9.72	-	3.15	0.7	-5.87	17.00	10.00
	5 230		-10.10				-6.25		
	5 270	UNII-2A	-10.44		3.15		-7.29	11.00	11.00
	5 310		-8.46				-5.31		
	5 510	UNII-2C	-11.98		3.14	-8.84			
	5 590		-12.82			-9.68			
	5 670		-12.20			-9.06			
	5 755	UNII-3	-16.51		3.17	-13.34	30.00	30.00	
	5 795		-14.99			-11.82			



Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT40	5 190	UNII-1 (E.I.R.P)	-9.72	-	3.16	0.7	-5.86	17.00	10.00
	5 230		-9.89				-6.03		
	5 270	UNII-2A	-7.68		3.16		-4.52	11.00	11.00
	5 310		-11.33				-8.17		
	5 510	UNII-2C	-12.92		3.16	-9.76			
	5 590		-12.96			-9.80			
	5 670		-13.34			-10.18			
	5 755	UNII-3	-15.56		3.13	0.5	-12.43	30.00	30.00
	5 795		-15.53				-12.40		

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT80	5 210	UNII-1 (E.I.R.P)	-13.00	-	5.02	0.7	-7.28	17.00	10.00
	5 290	UNII-2A	-14.34		5.00		-9.34		
	5 530	UNII-2C	-16.49		5.04	0.5	-11.45	11.00	11.00
	5 610		-17.57				-12.53		
	5 775	UNII-3	-15.86		5.02		-10.84	30.00	30.00

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ANT2

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 a	5 180	UNII-1 (E.I.R.P)	-0.18	-	1.73	0.7	2.25	17.00	10.00
	5 220		0.05				2.48		
	5 240		0.55				2.98		
	5 260	UNII-2A	0.24		1.74		1.98	11.00	11.00
	5 300		0.20				1.94		
	5 320		-1.06				0.68		
	5 500	UNII-2C	2.06		1.74	0.5	3.80		
	5 600		1.46				3.20		
	5 700		2.86				4.60		
	5 745	UNII-3	-7.47		1.74		-5.73	30.00	30.00
	5 785		-6.85				-5.11		
	5 825		-3.78				-2.04		

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)			
								FCC	IC		
802.11 an_HT20	5 180	UNII-1 (E.I.R.P)	-0.62	-	1.84	0.7	1.92	17.00	10.00		
	5 220		-0.68				1.86				
	5 240		-1.26				1.28				
	5 260	UNII-2A	0.02		1.84		1.86	11.00	11.00		
	5 300		-0.77				1.07				
	5 320		-1.29				0.55				
	5 500	UNII-2C	1.80		1.84	3.64	0.5			11.00	11.00
	5 600		1.49			3.33					
	5 700		2.05			3.89					
	5 745	UNII-3	-6.77		1.84	-4.93		30.00	30.00		
	5 785		-7.56			-5.72					
	5 825		-3.90			-2.06					

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Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)		
								FCC	IC	
802.11 ac_VHT20	5 180	UNII-1 (E.I.R.P)	-0.21	-	1.83	0.7	2.32	17.00	10.00	
	5 220		-0.62				1.91			
	5 240		-1.09				1.44			
	5 260	UNII-2A	1.58		1.83		3.41	11.00	11.00	
	5 300		0.10				1.93			
	5 320		-0.19				1.64			
	5 500	UNII-2C	1.85		1.82	0.5	3.67			
	5 600		1.42				3.24			
	5 700		2.70				4.52			
	5 745	UNII-3	-8.38		1.84		-6.54	30.00	30.00	
	5 785		-4.67				-2.83			
	5 825		-7.73				-5.89			

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 an_HT40	5 190	UNII-1 (E.I.R.P)	-8.58	-	3.15	0.7	-4.73	17.00	10.00
	5 230		-8.19				-4.34		
	5 270	UNII-2A	-8.72		3.15		-5.57	11.00	11.00
	5 310		-8.48				-5.33		
	5 510	UNII-2C	-9.86		3.14	-6.72			
	5 590		-10.27			-7.13			
	5 670		-9.41			-6.27			
	5 755	UNII-3	-11.75		3.17	-8.58	30.00	30.00	
	5 795		-12.32			-9.15			



Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT40	5 190	UNII-1 (E.I.R.P)	-8.42	-	3.16	0.7	-4.56	17.00	10.00
	5 230		-8.60				-4.74		
	5 270	UNII-2A	-7.89		3.16		-4.73	11.00	11.00
	5 310		-9.52				-6.36		
	5 510	UNII-2C	-9.59		3.16	-6.43			
	5 590		-10.12			-6.96			
	5 670		-10.04			-6.88			
	5 755	UNII-3	-11.97		3.13	-8.84	30.00	30.00	
	5 795		-10.51			-7.38			

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT80	5 210	UNII-1 (E.I.R.P)	-12.27	-	5.02	0.7	-6.55	17.00	10.00
	5 290	UNII-2A	-12.46		5.00		-7.46		
	5 530	UNII-2C	-14.16		5.04	0.5	-9.12	11.00	11.00
	5 610		-13.77				-8.73		
	5 775	UNII-3	-15.79		5.02		-10.77	30.00	30.00

MIMO ANT1+ANT2

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 an_HT20	5 180	UNII-1 (E.I.R.P)	-1.77	-	1.84	3.7	3.77	17.00	10.00
	5 220		-0.84				4.70		
	5 240		-1.05				4.49		
	5 260	UNII-2A	1.49		1.84		3.33	11.00	11.00
	5 300		1.36				3.20		
	5 320		0.98				2.82		
	5 500	UNII-2C	-2.17		1.84	3.5	-0.33		
	5 600		-1.70				0.14		
	5 700		-0.86				0.98		
	5 745	UNII-3	-2.69		1.84		-0.85	30.00	30.00
	5 785		-4.25				-2.41		
	5 825		-3.34				-1.50		

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT20	5 180	UNII-1 (E.I.R.P)	-1.07	-	1.83	3.7	4.46	17.00	10.00
	5 220		-2.02				3.51		
	5 240		-1.70				3.83		
	5 260	UNII-2A	1.13		1.83		2.96	11.00	11.00
	5 300		-2.06				-0.23		
	5 320		-1.87				-0.04		
	5 500	UNII-2C	-0.83		1.82	3.5	0.99		
	5 600		-1.70				0.12		
	5 700		-0.86				0.96		
	5 745	UNII-3	-3.72		1.84		-1.88	30.00	30.00
	5 785		-2.87				-1.03		
	5 825		-5.20				-3.36		

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Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 an_HT40	5 190	UNII-1 (E.I.R.P)	-8.79	-	3.15	3.7	-1.94	17.00	10.00
	5 230		-8.25				-1.4		
	5 270	UNII-2A	-8.97		3.15	-5.82	11.00	11.00	
	5 310		-8.28			-5.13			
	5 510	UNII-2C	-9.48		3.14	-6.34			
	5 590		-10.14			-7.00			
	5 670		-9.29			-6.15			
	5 755	UNII-3	-12.05		3.17	-8.88	30.00	30.00	
	5 795		-12.01			-8.84			

Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT40	5 190	UNII-1 (E.I.R.P)	-8.05	-	3.16	3.7	-1.19	17.00	10.00
	5 230		-8.59				-1.73		
	5 270	UNII-2A	-7.66		3.16		-4.50	11.00	11.00
	5 310		-9.34			-6.18			
	5 510	UNII-2C	-9.85		3.16	-6.69			
	5 590		-9.82			-6.66			
	5 670		-9.89			-6.73			
	5 755	UNII-3	-11.63		3.13	-8.50	30.00	30.00	
	5 795		-11.62			-8.49			

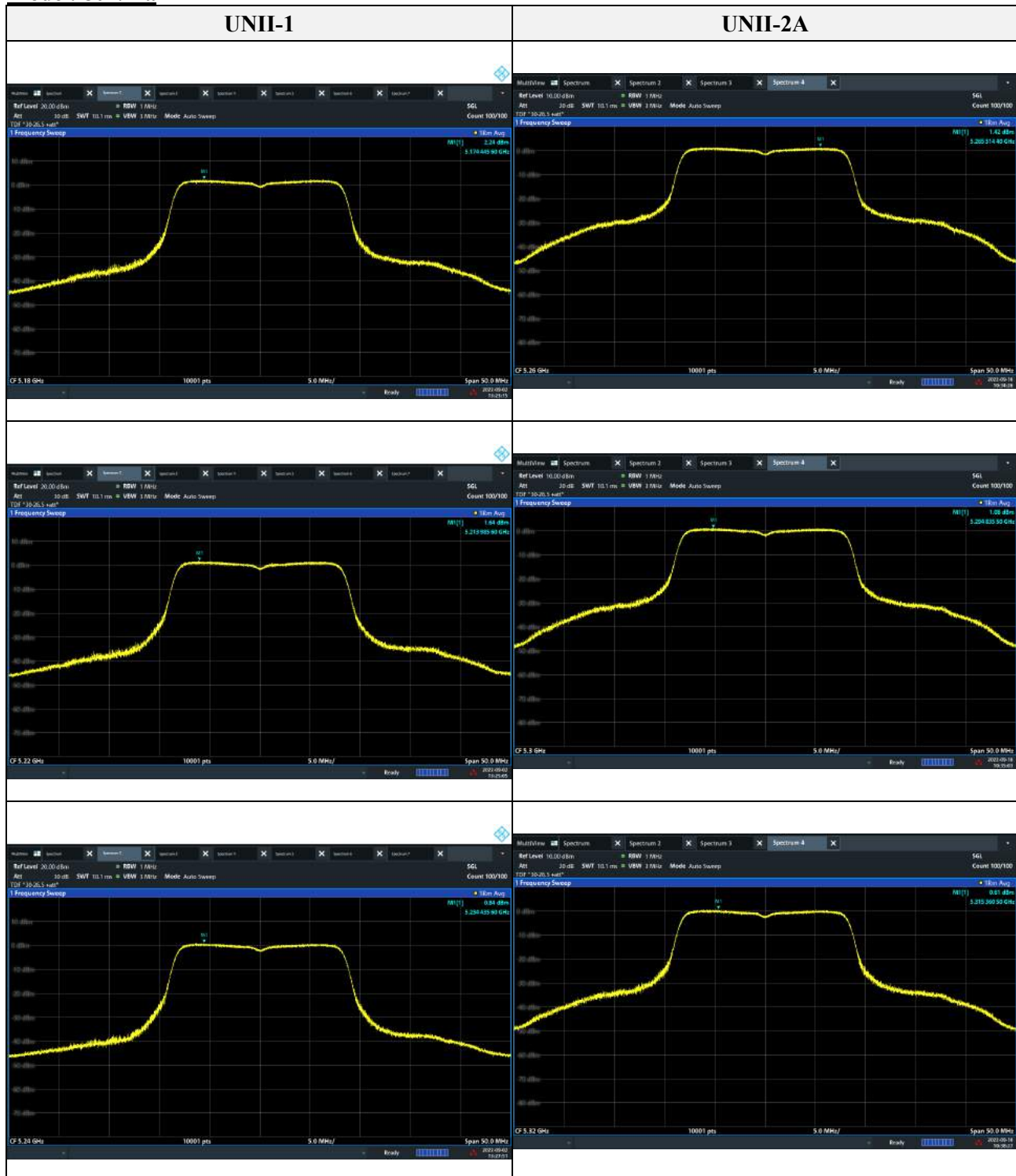
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Mode	Frequency (MHz)	Band	PSD (dBm/MHz)	RBWF Note1	DCF Note2	Ant Gain	Sum Note3	Limit(dBm/MHz)	
								FCC	IC
802.11 ac_VHT80	5 210	UNII-1 (E.I.R.P)	-12.19	-	5.02	3.7	-3.47	17.00	10.00
	5 290	UNII-2A	-12.60		5.00		-7.60		
	5 530	UNII-2C	-14.14		5.04	3.5	-9.10	11.00	11.00
	5 610		-13.74				-8.70		
	5 775	UNII-3	-15.59		5.02		-10.57	30.00	30.00

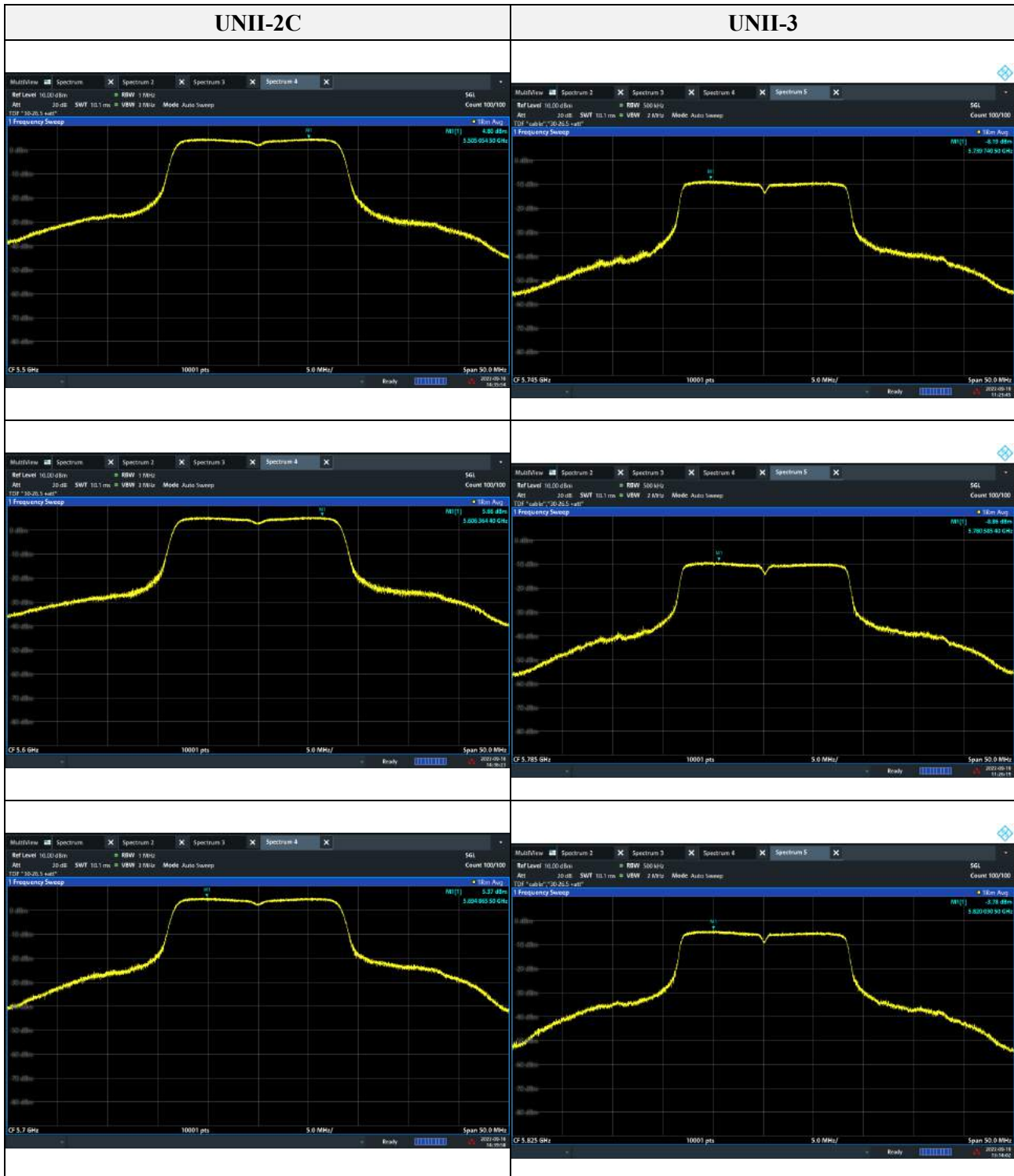
Note.

- UNII-1 = $10\log(1 \text{ MHz}/1 \text{ MHz})$
 UNII-2A = $10\log(1 \text{ MHz}/1 \text{ MHz})$
 UNII-2C = $10\log(1 \text{ MHz}/1 \text{ MHz})$
 UNII-3 = $10\log(500 \text{ kHz} / 500 \text{ kHz})$
- Refer to the page 234 on this report.
- $\text{Sum(dBm)} = \text{PSD(dBm)} + \text{RBWF} + \text{Duty correction factor (dB)}$

SISO ANT1
Mode : 802.11a

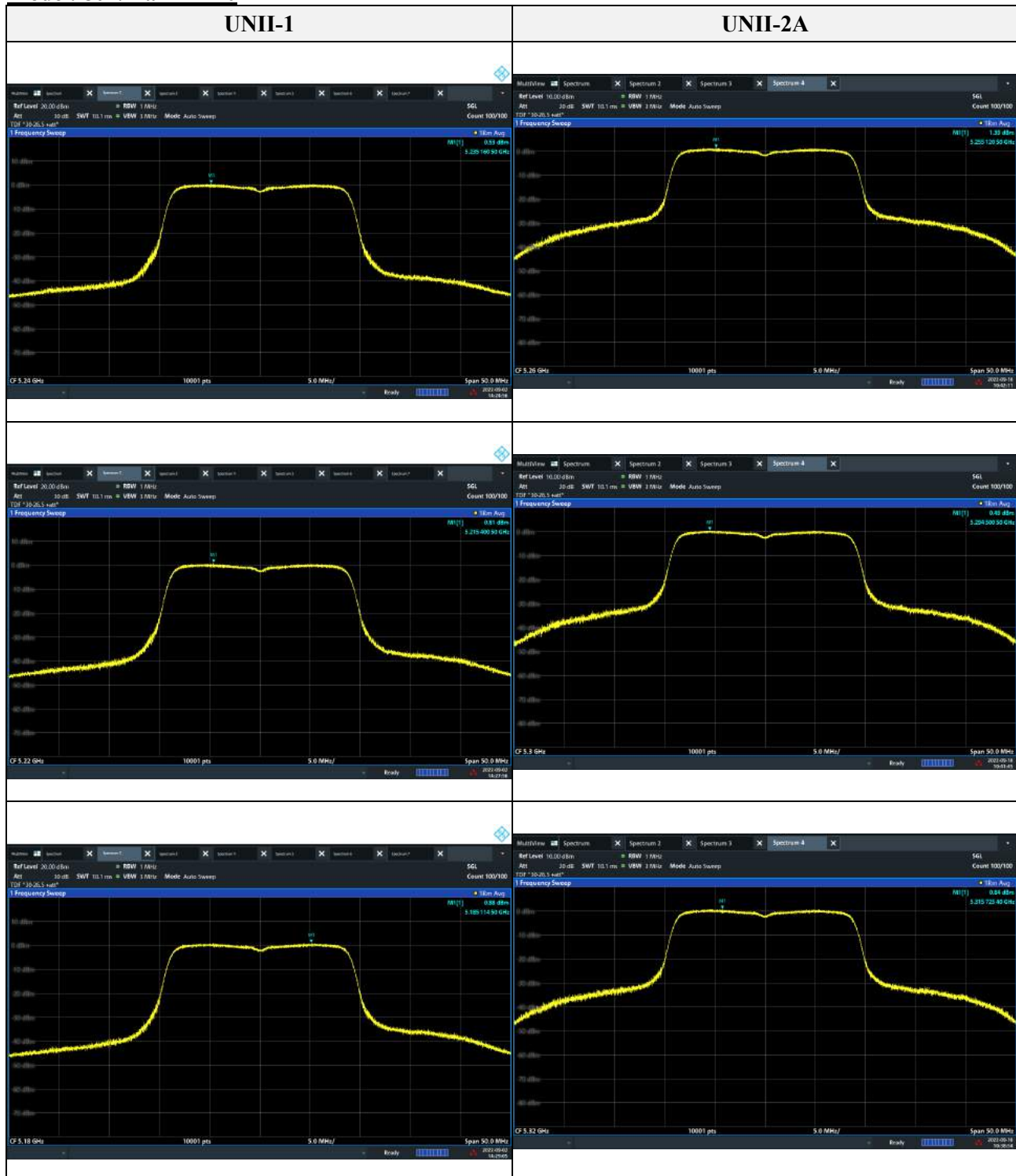


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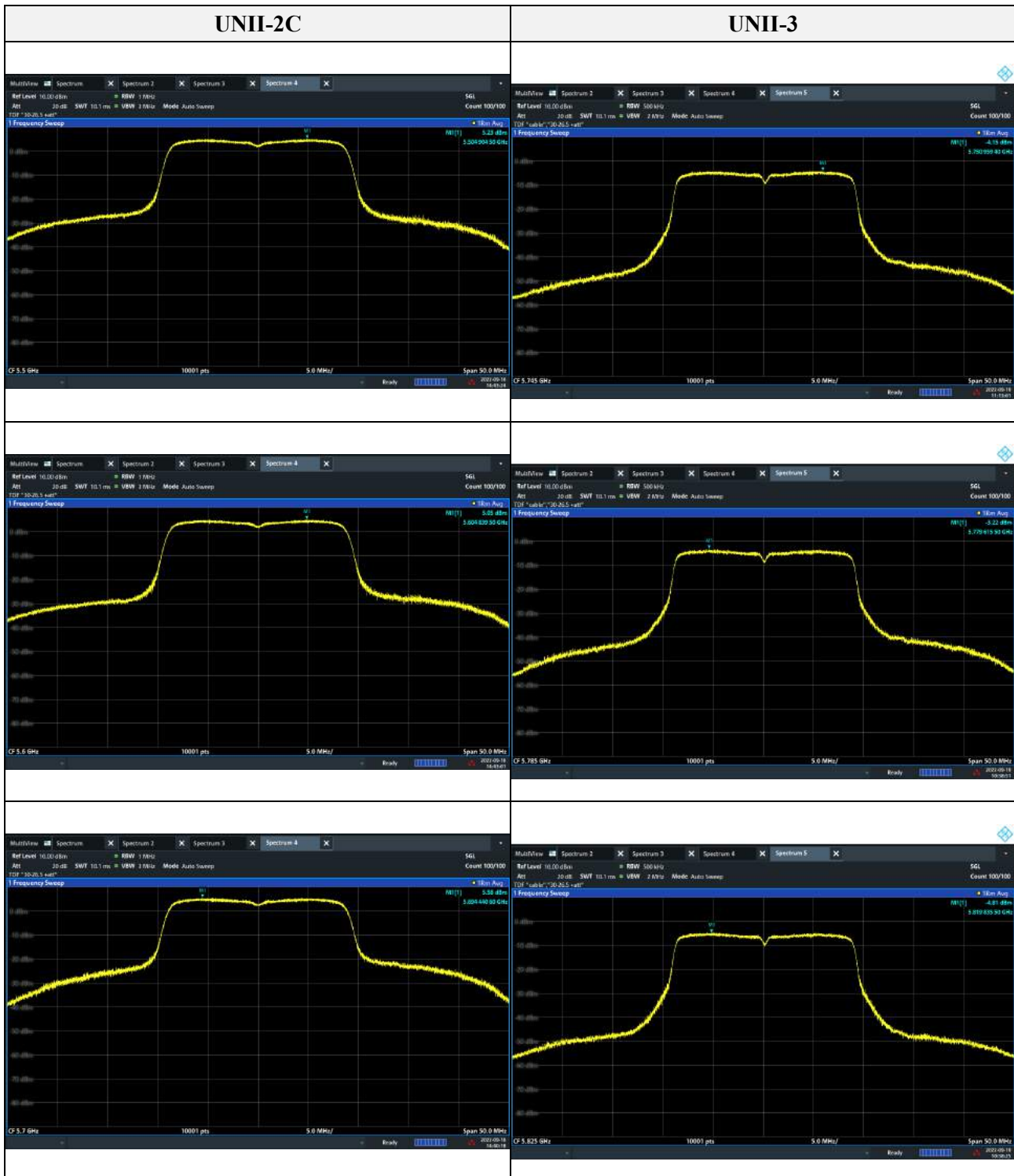


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Mode : 802.11an HT20

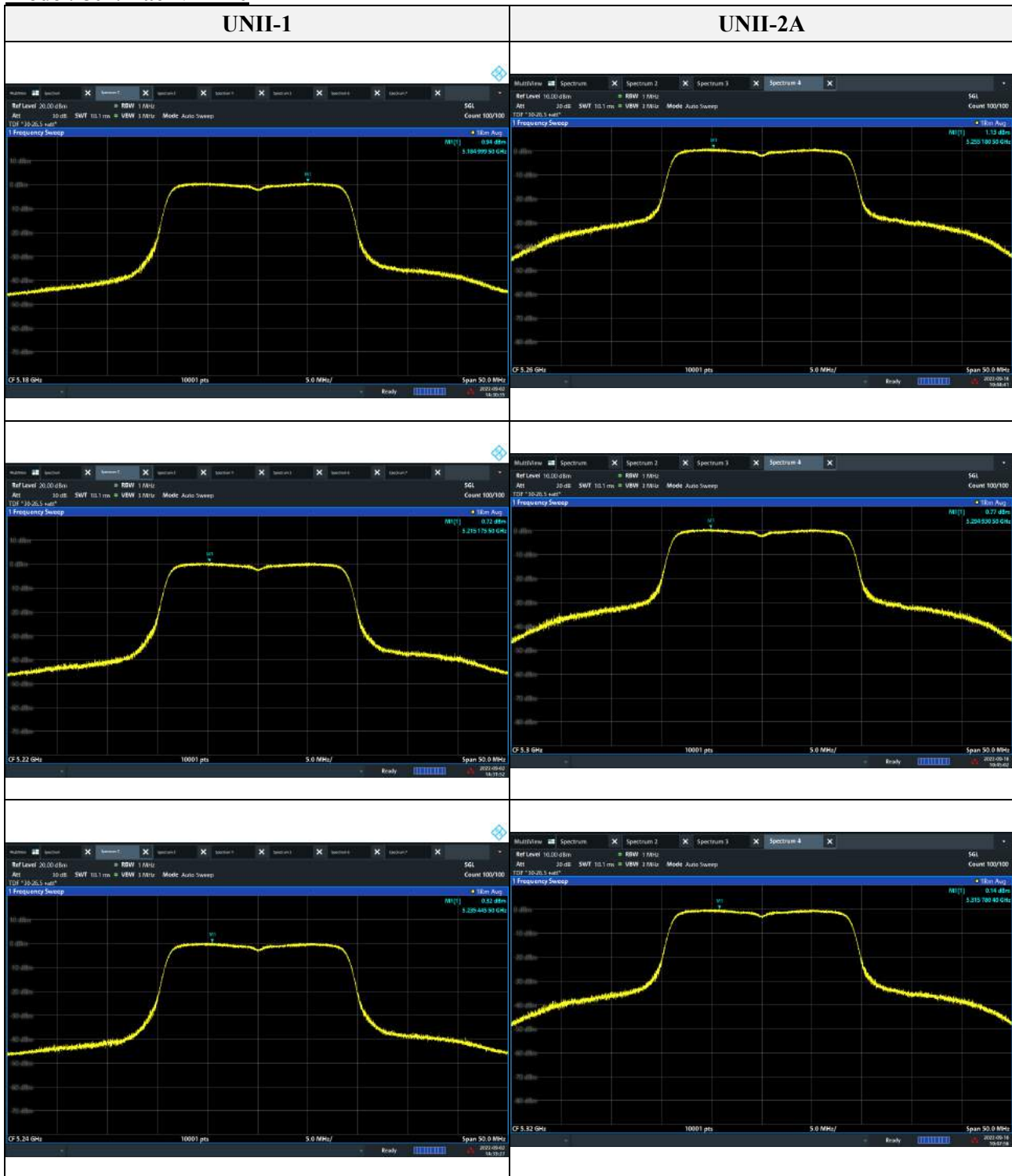


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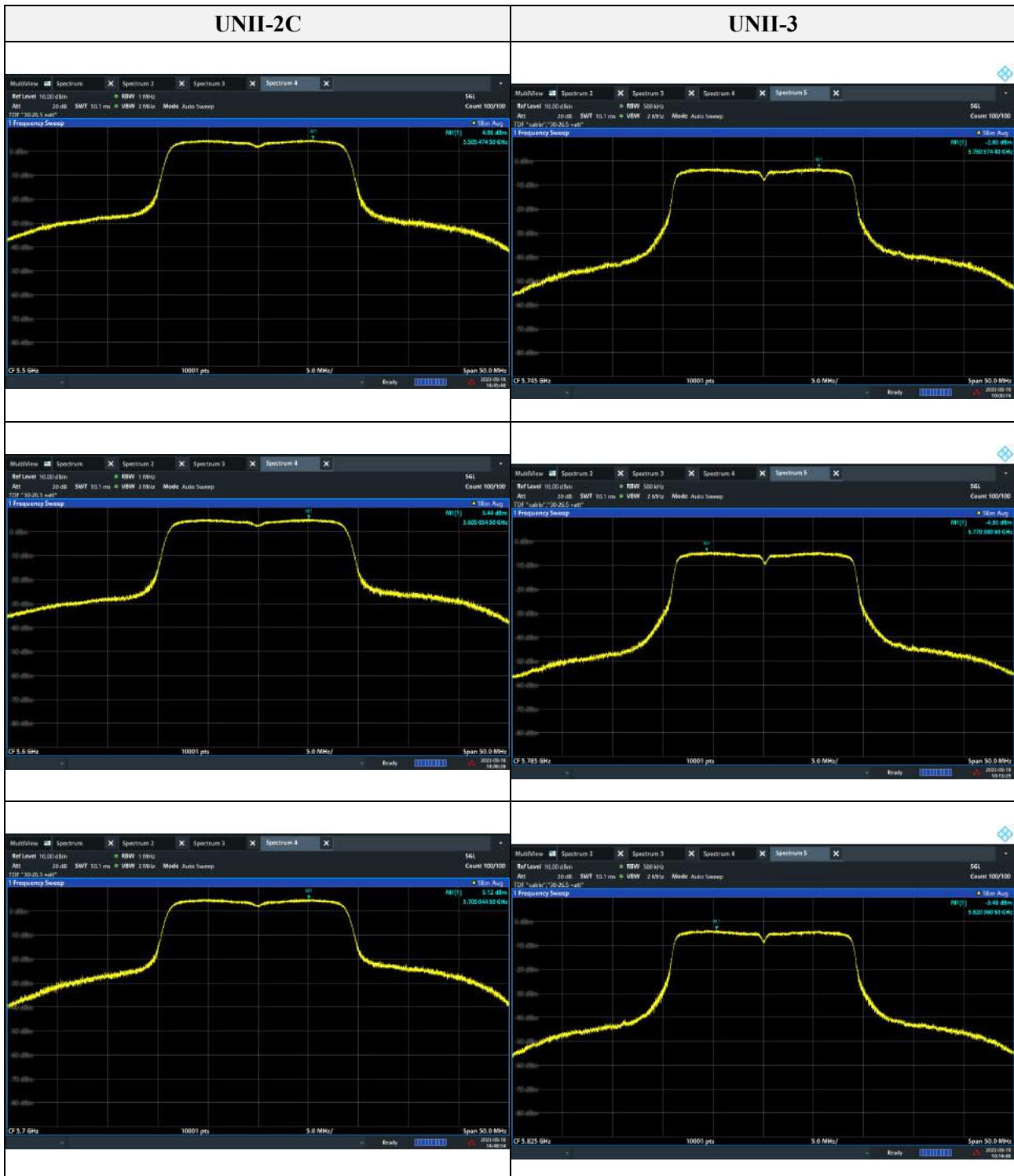


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Mode : 802.11ac VHT20

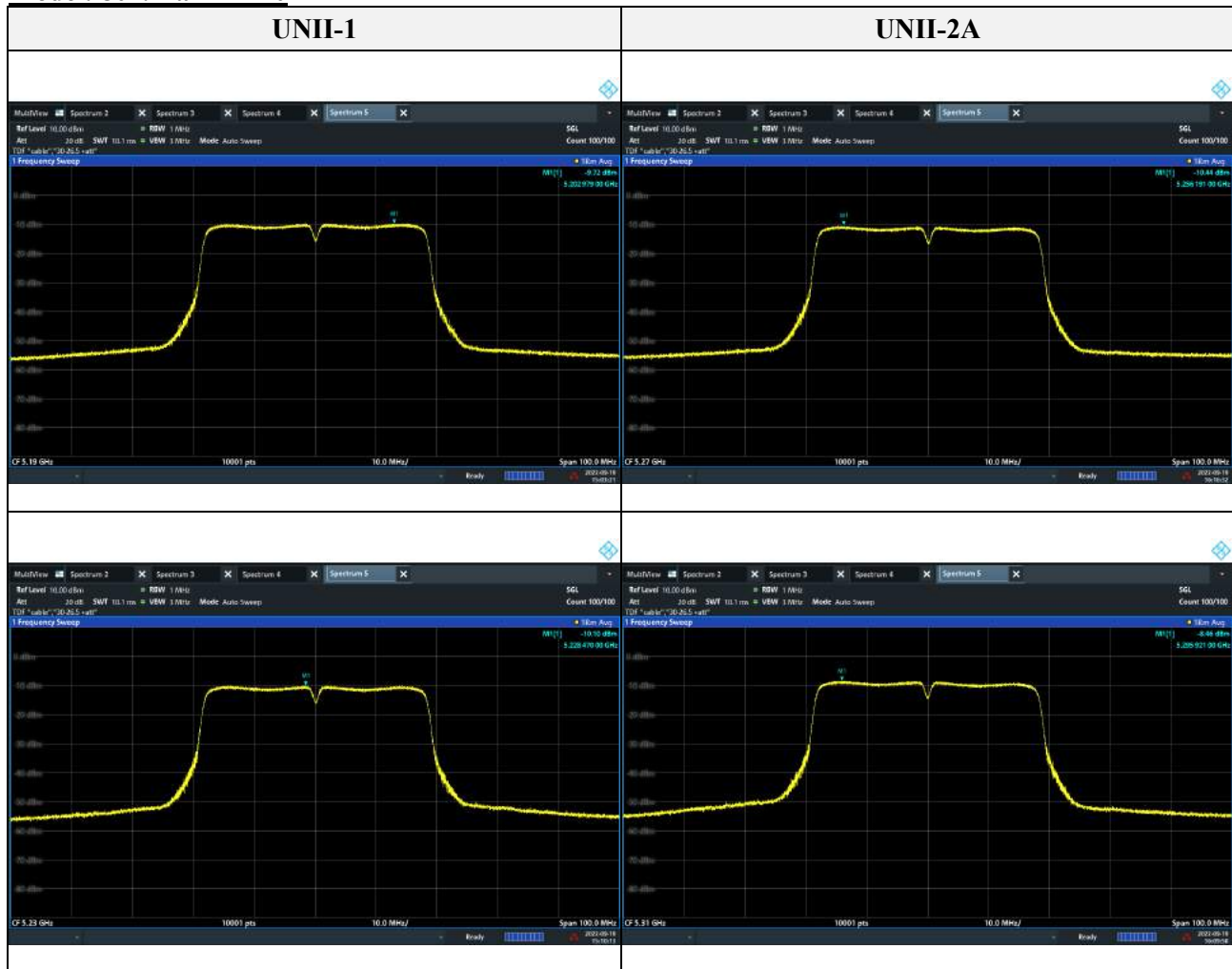


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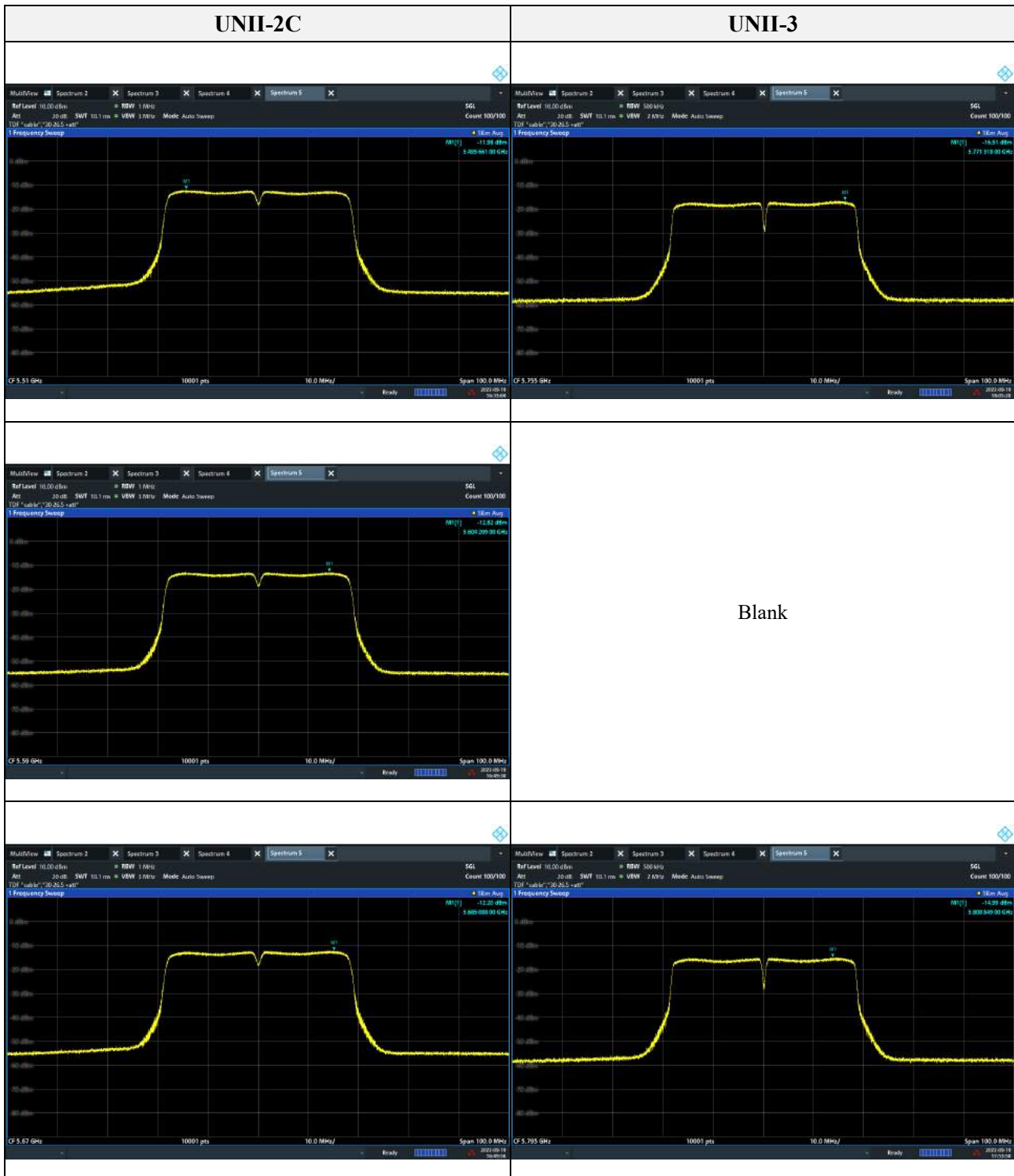


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Mode : 802.11an HT40

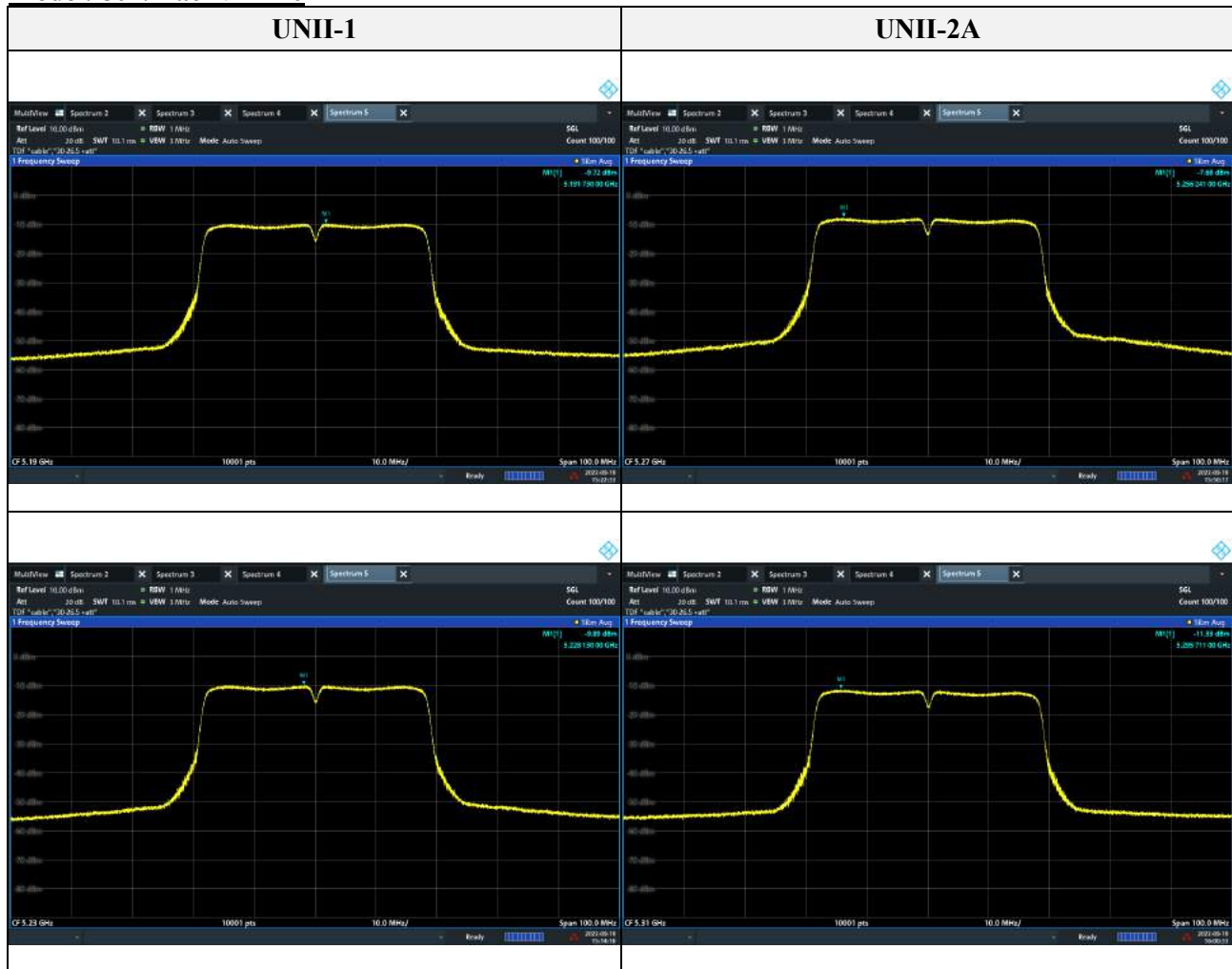


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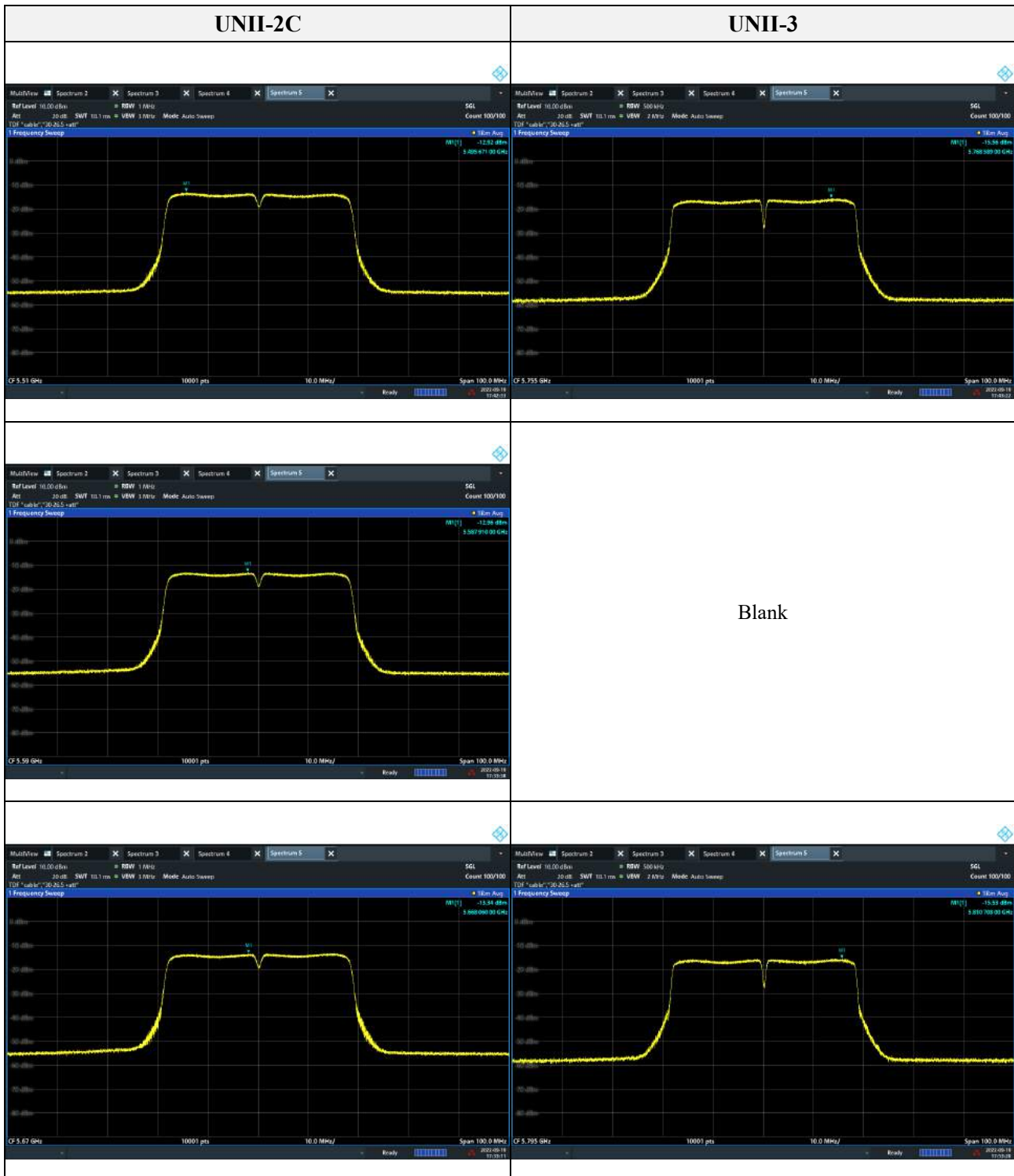


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Mode : 802.11ac VHT40

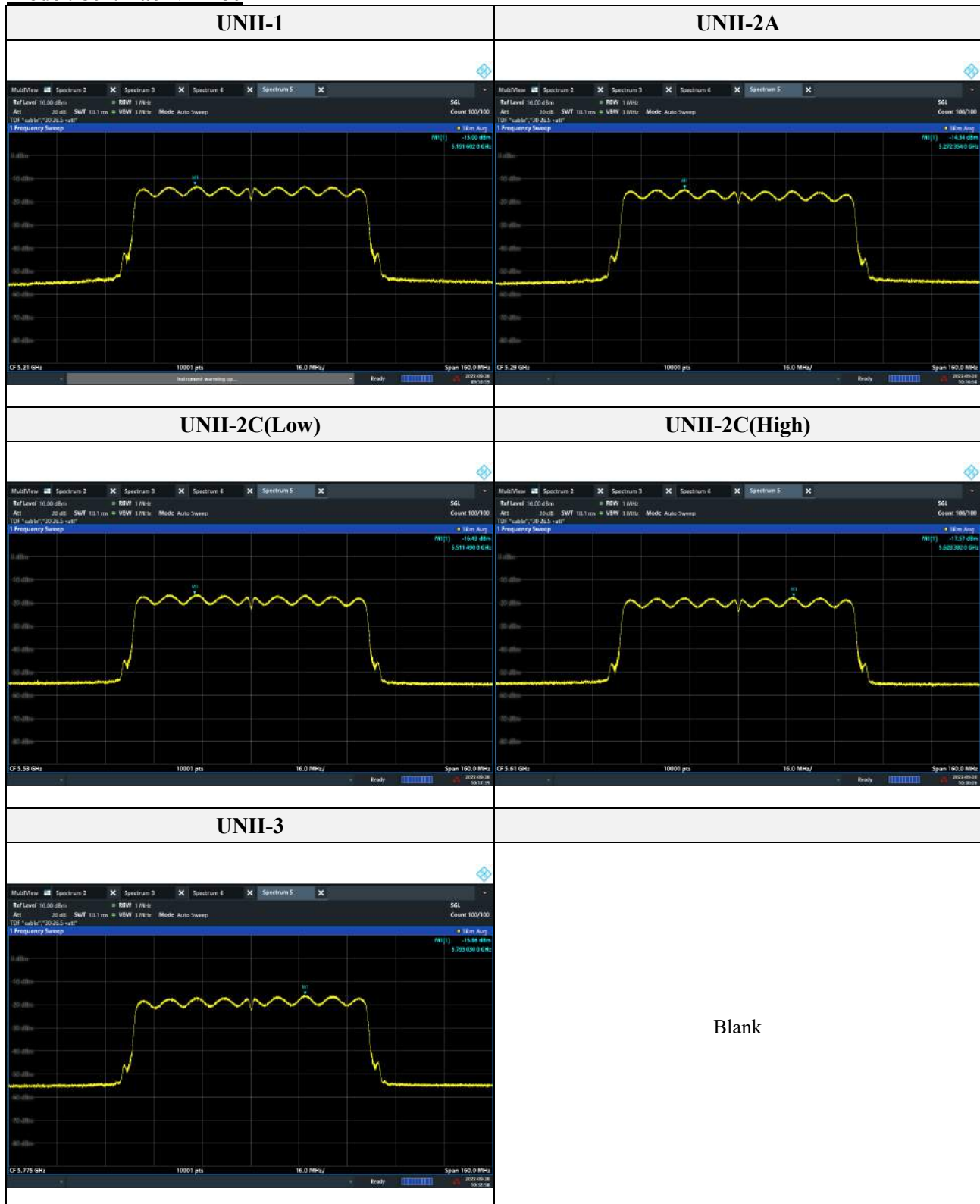


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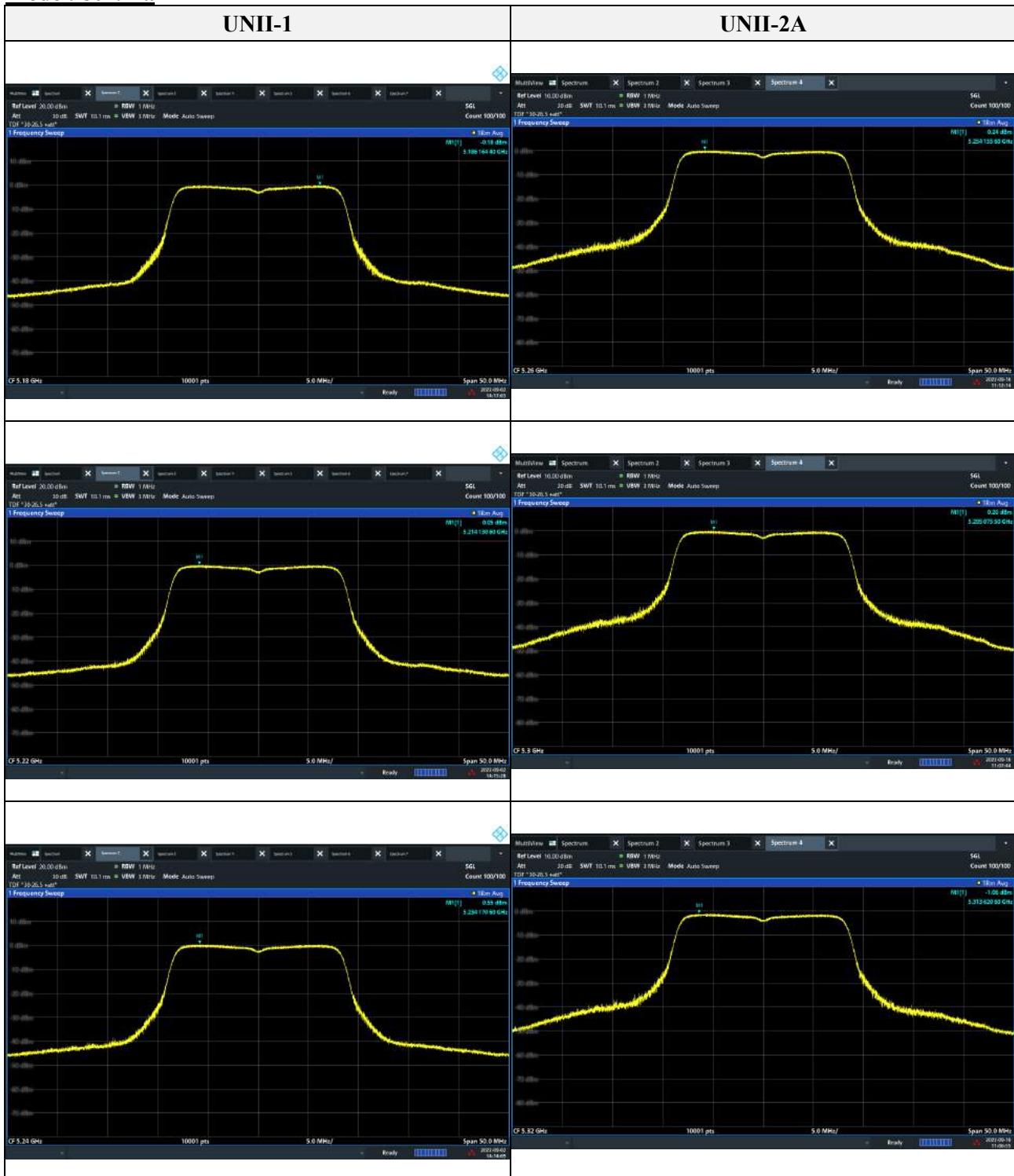
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Mode : 802.11ac VHT80

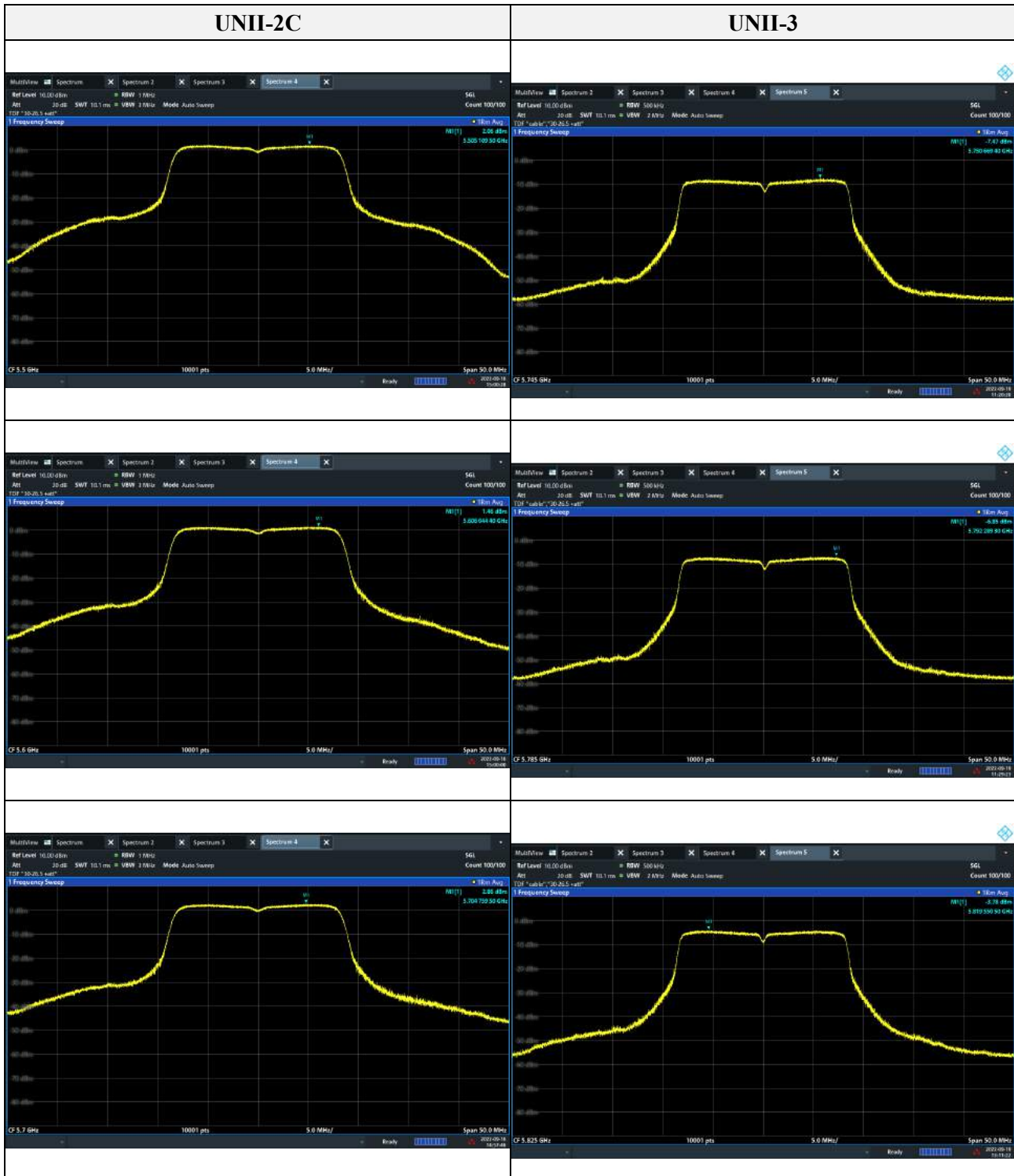


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SISO ANT2
Mode : 802.11a

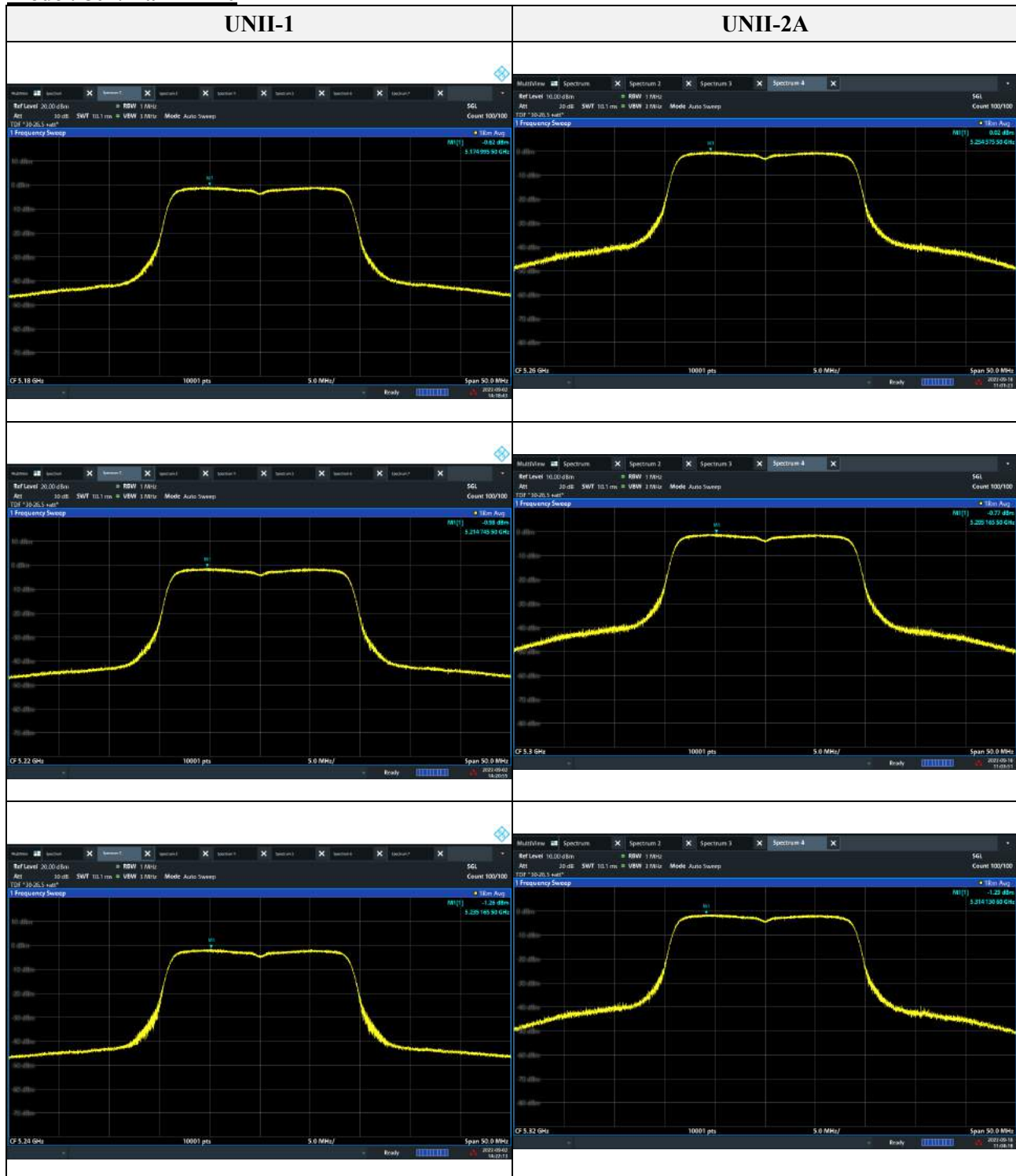


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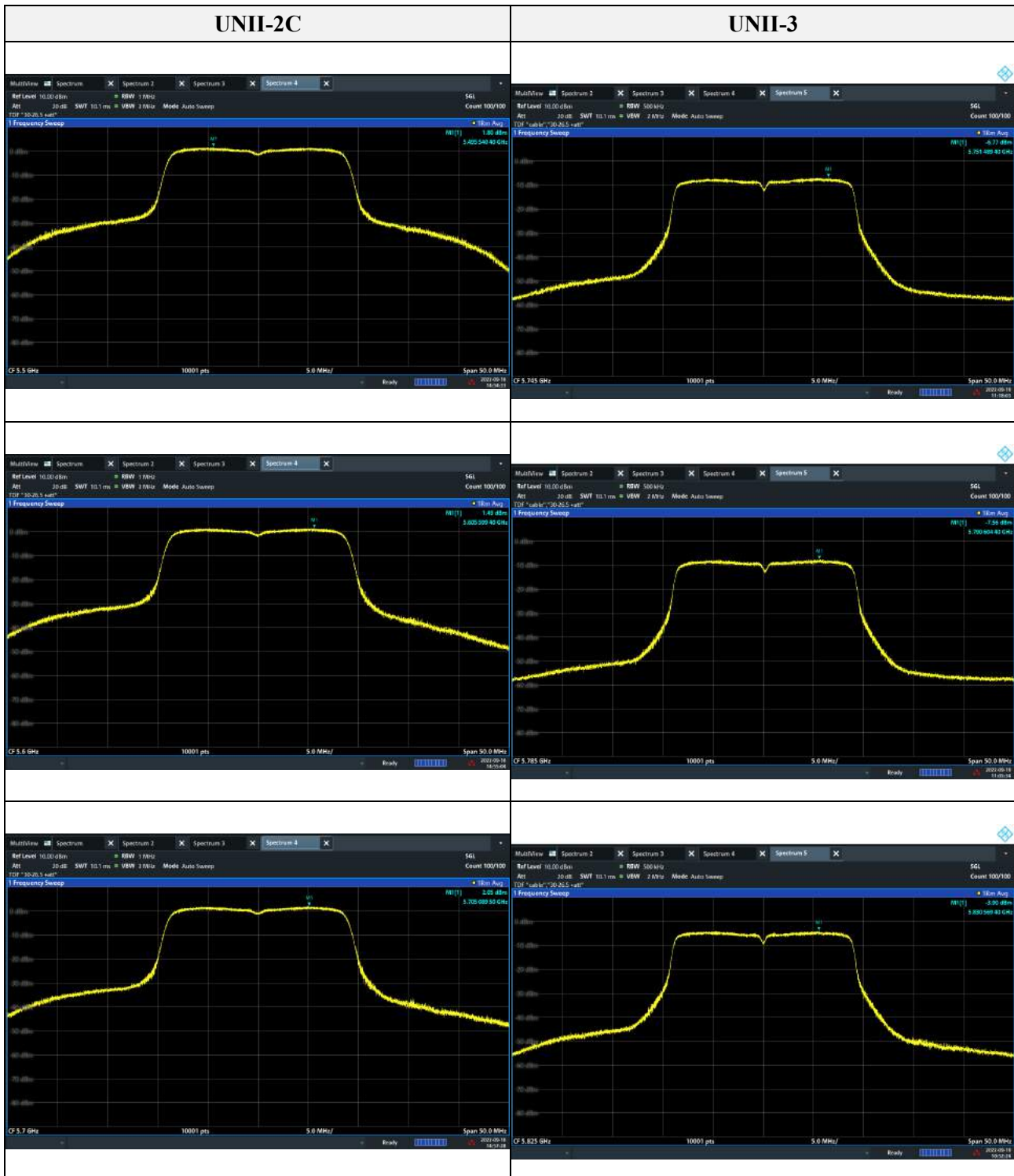


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Mode : 802.11an HT20



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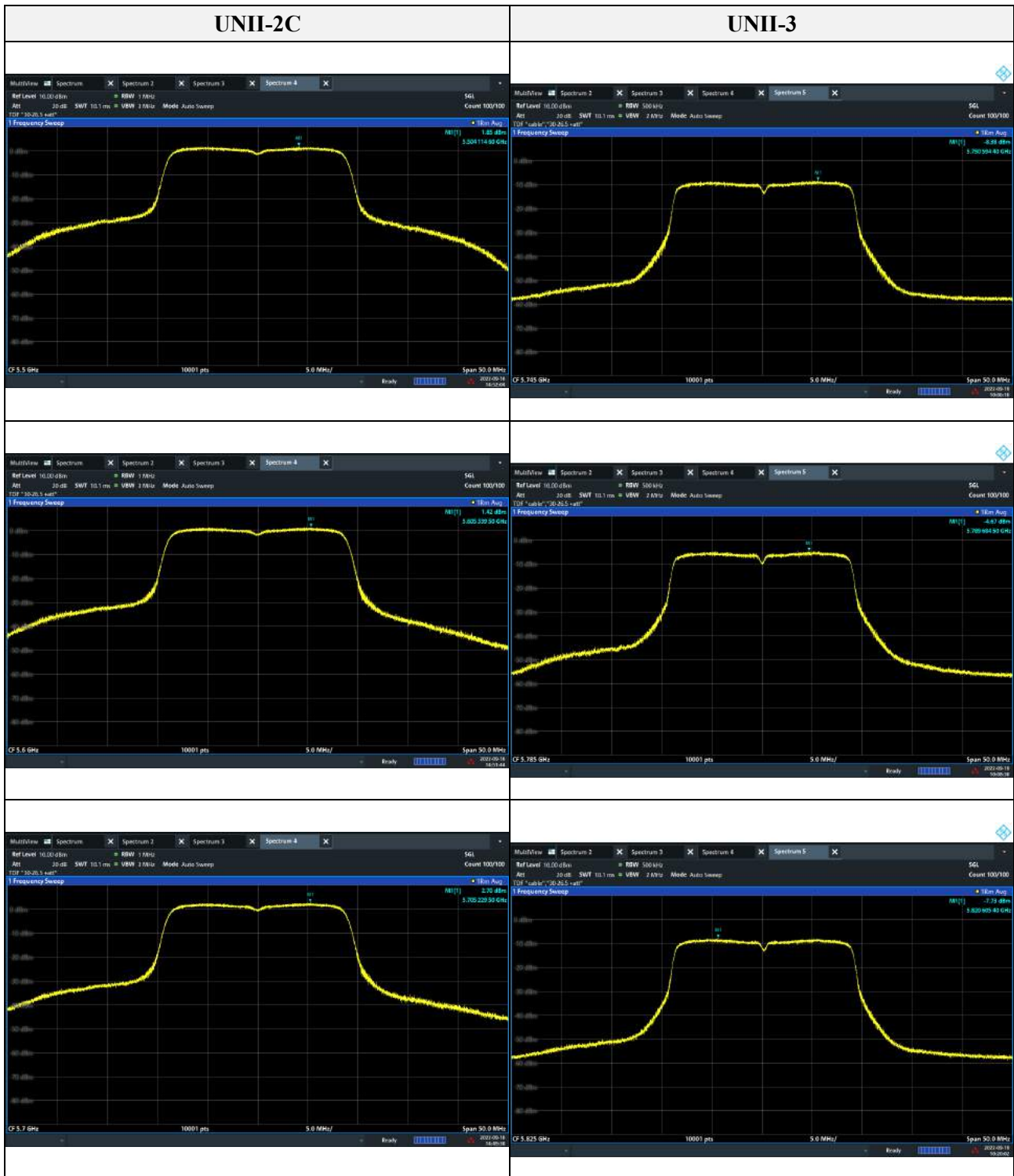


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Mode : 802.11ac VHT20

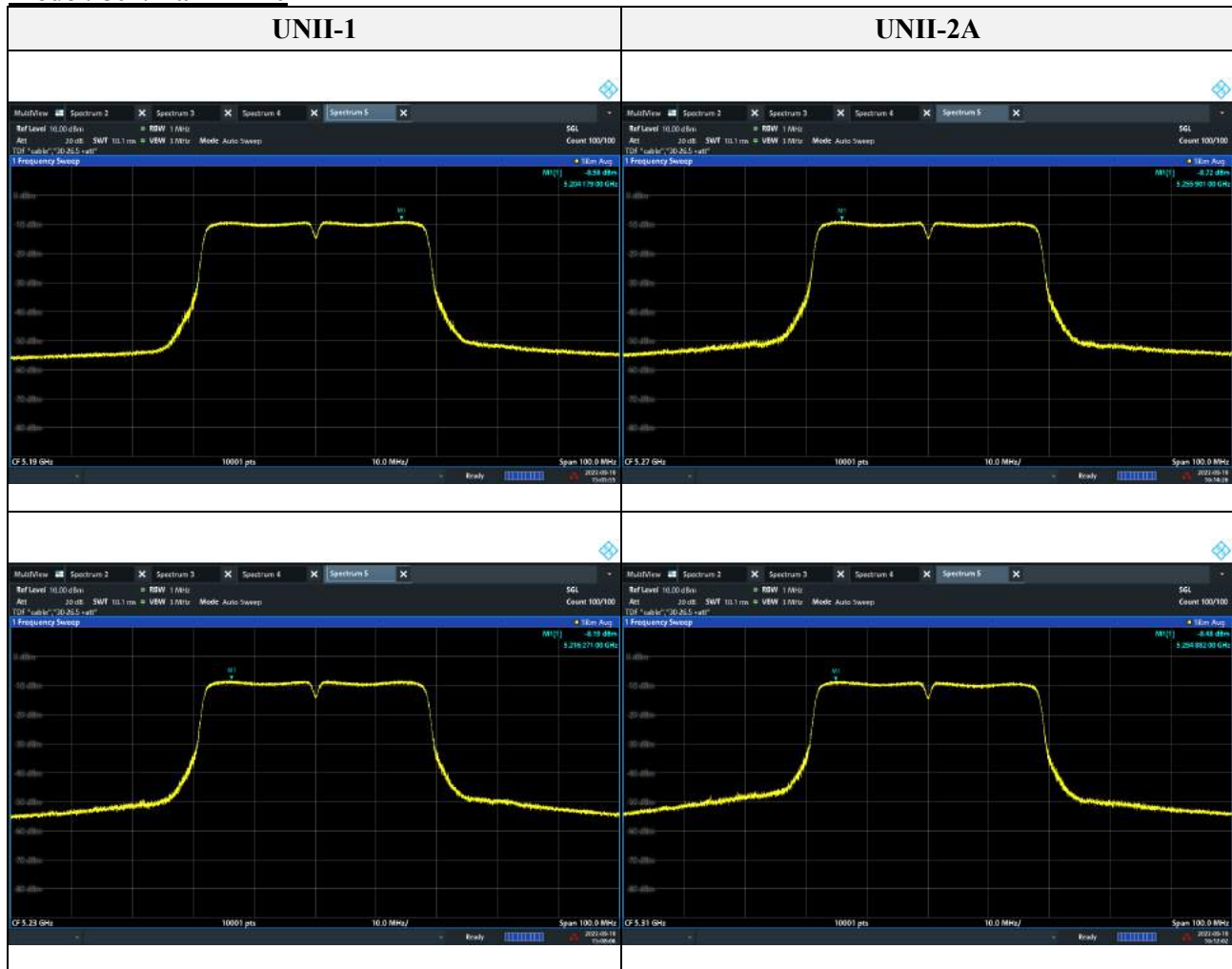


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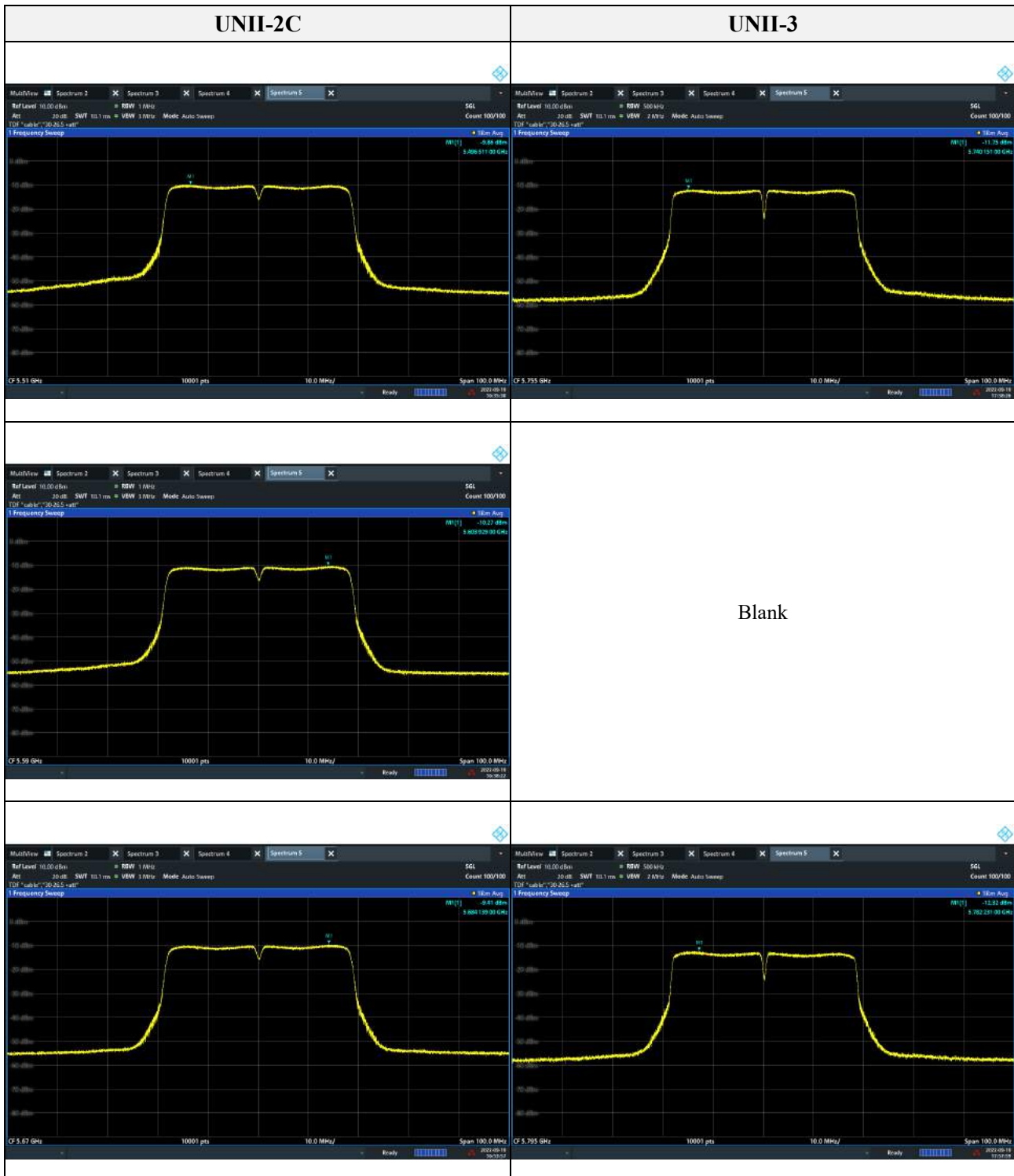


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Mode : 802.11an HT40

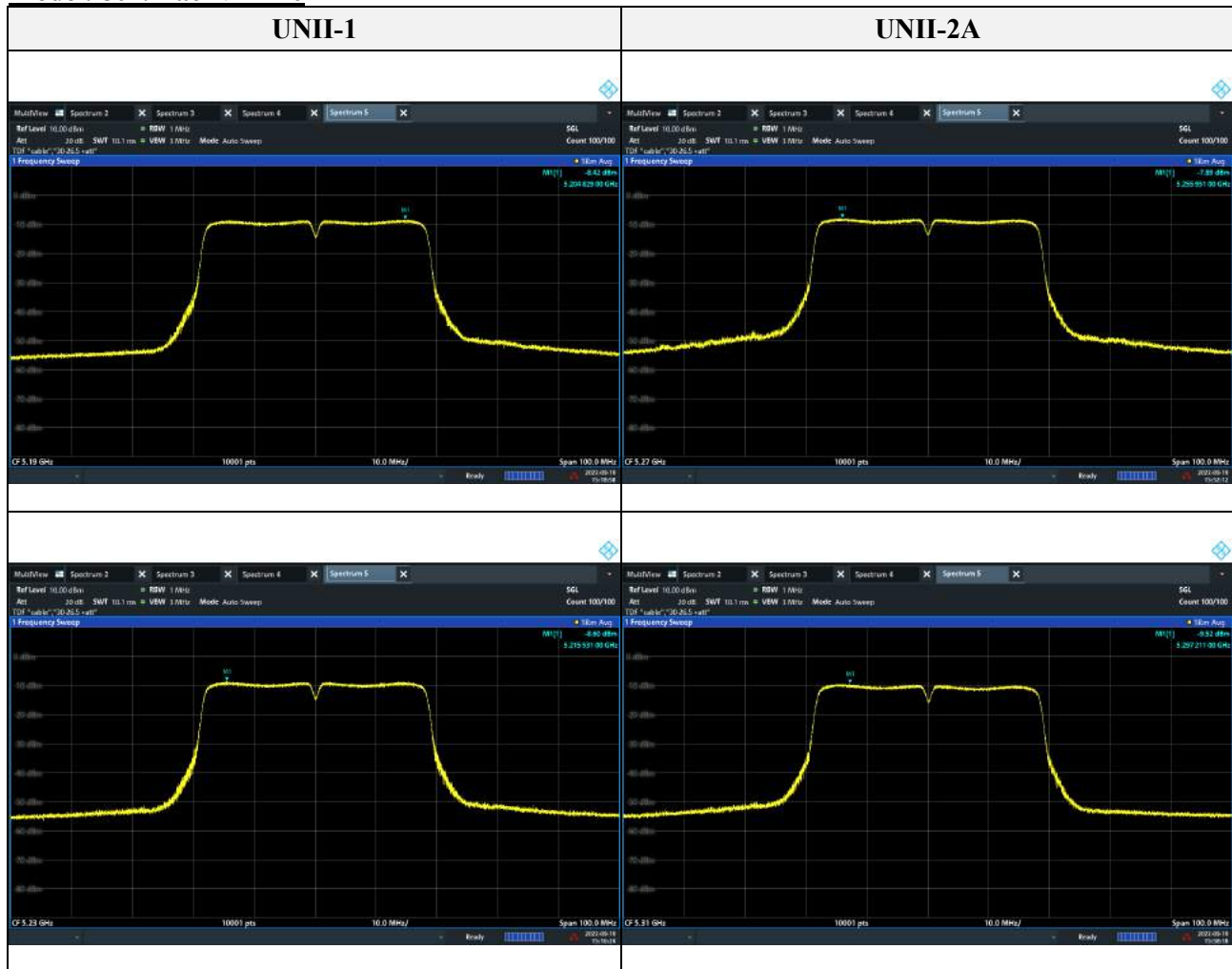


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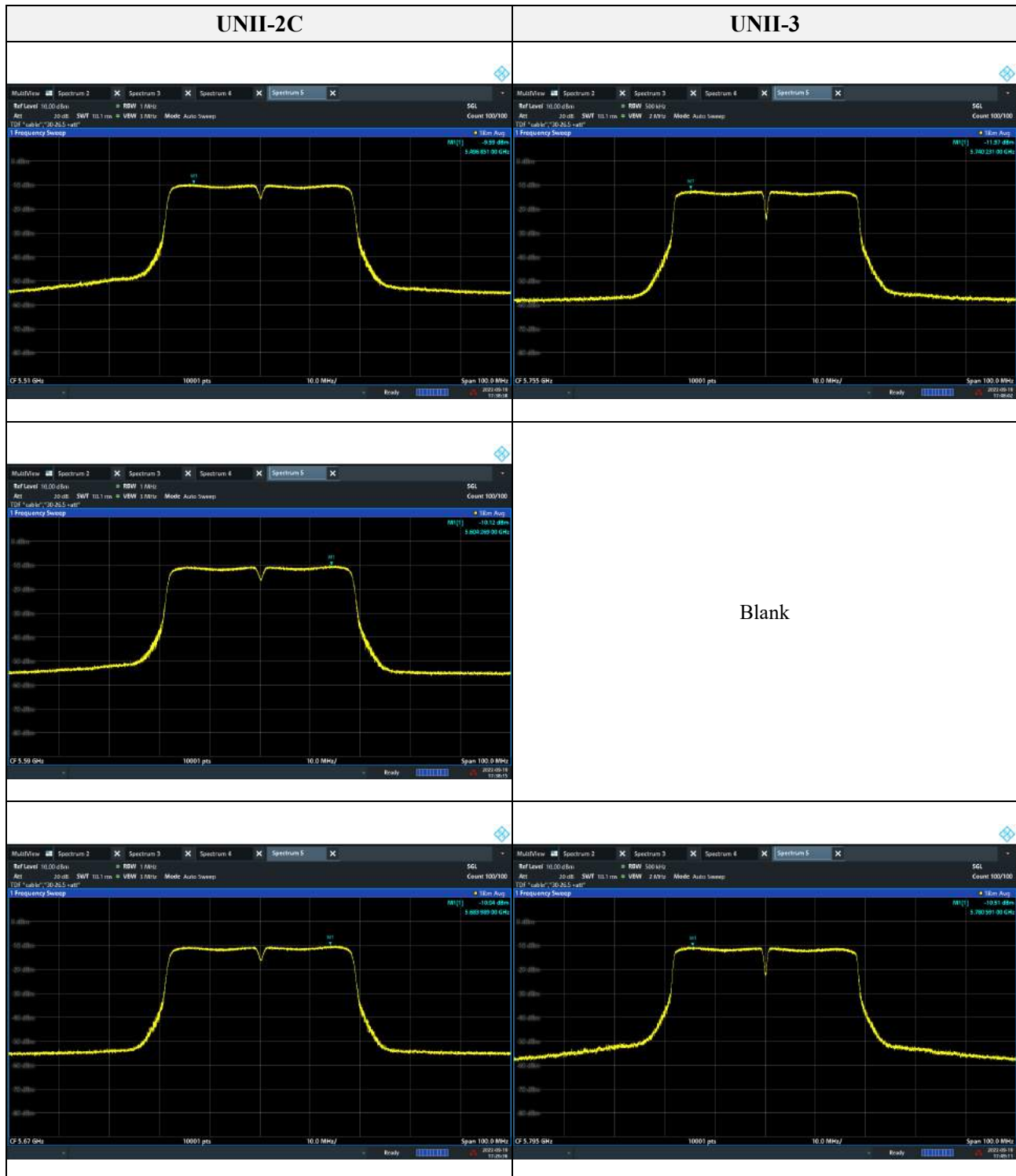


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Mode : 802.11ac VHT40

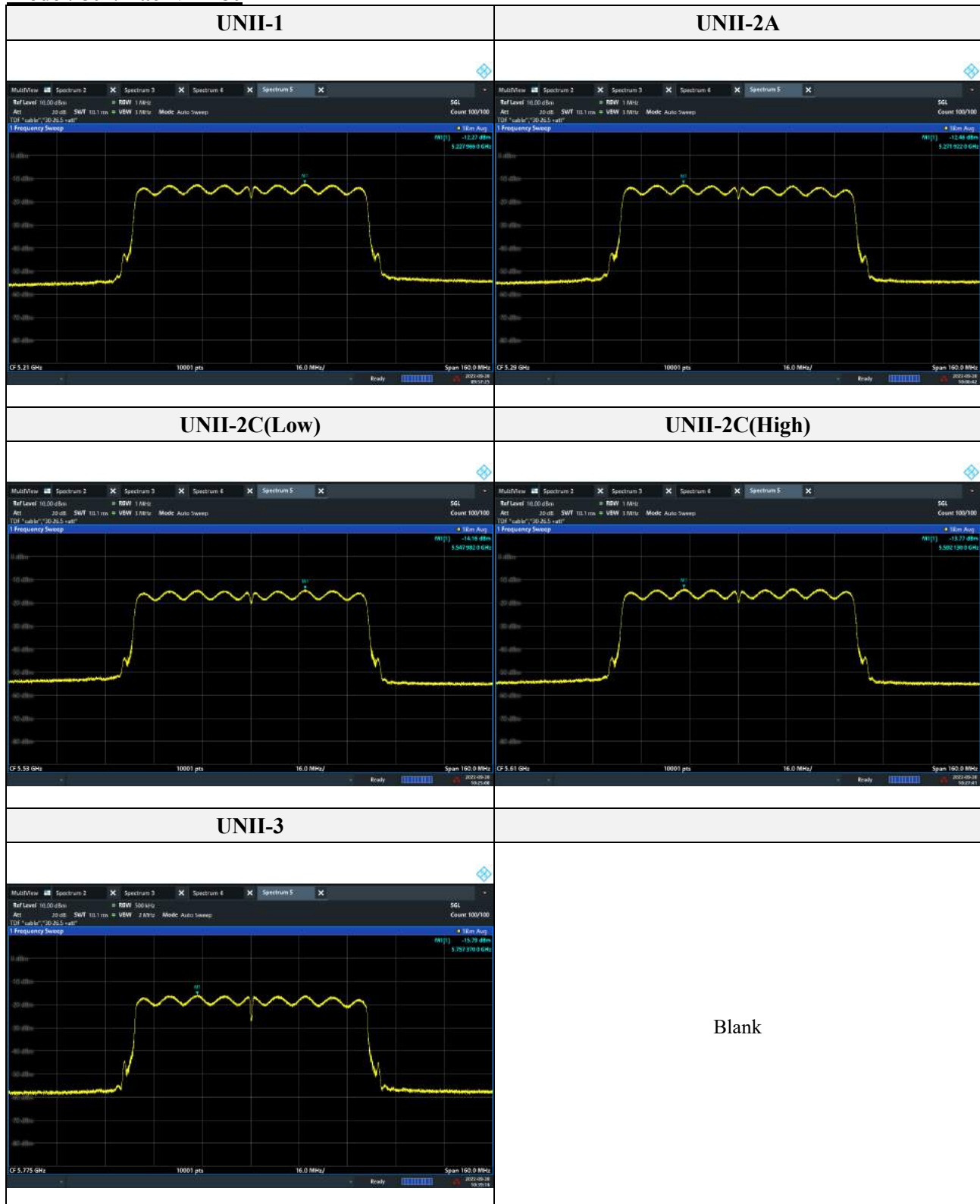


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Mode : 802.11ac VHT80



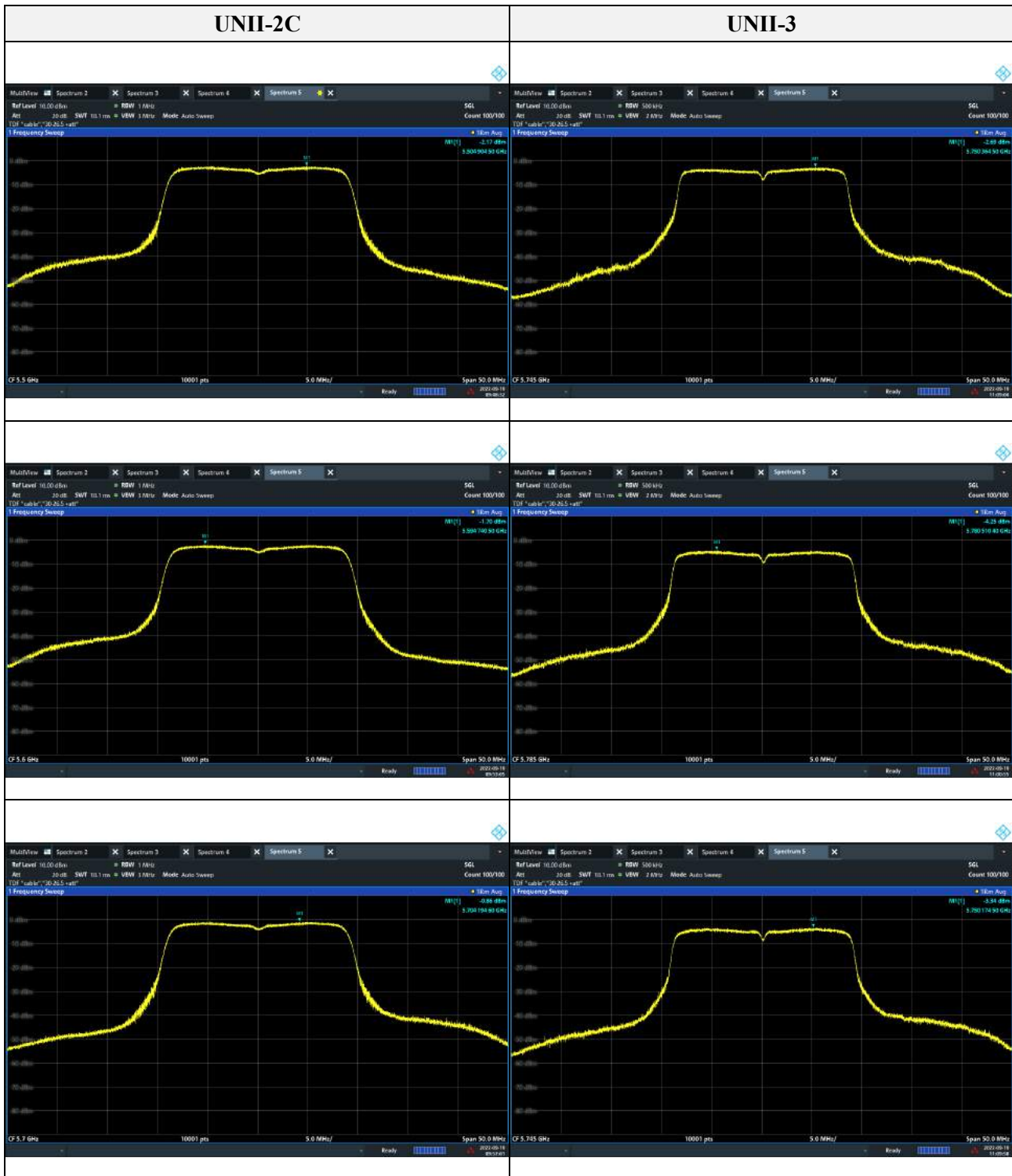
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MIMO ANT1

Mode : 802.11an HT20



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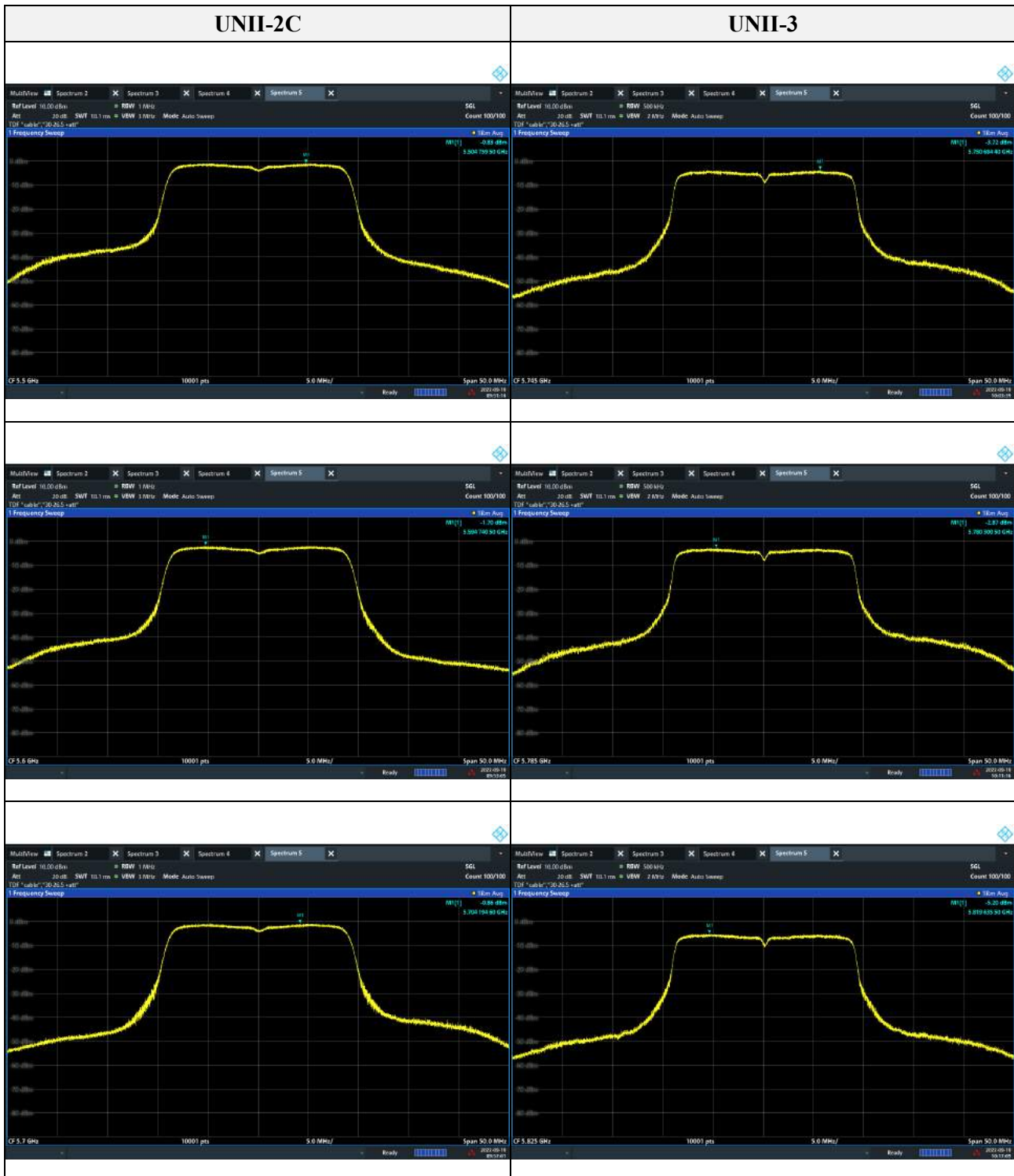


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Mode : 802.11ac VHT20

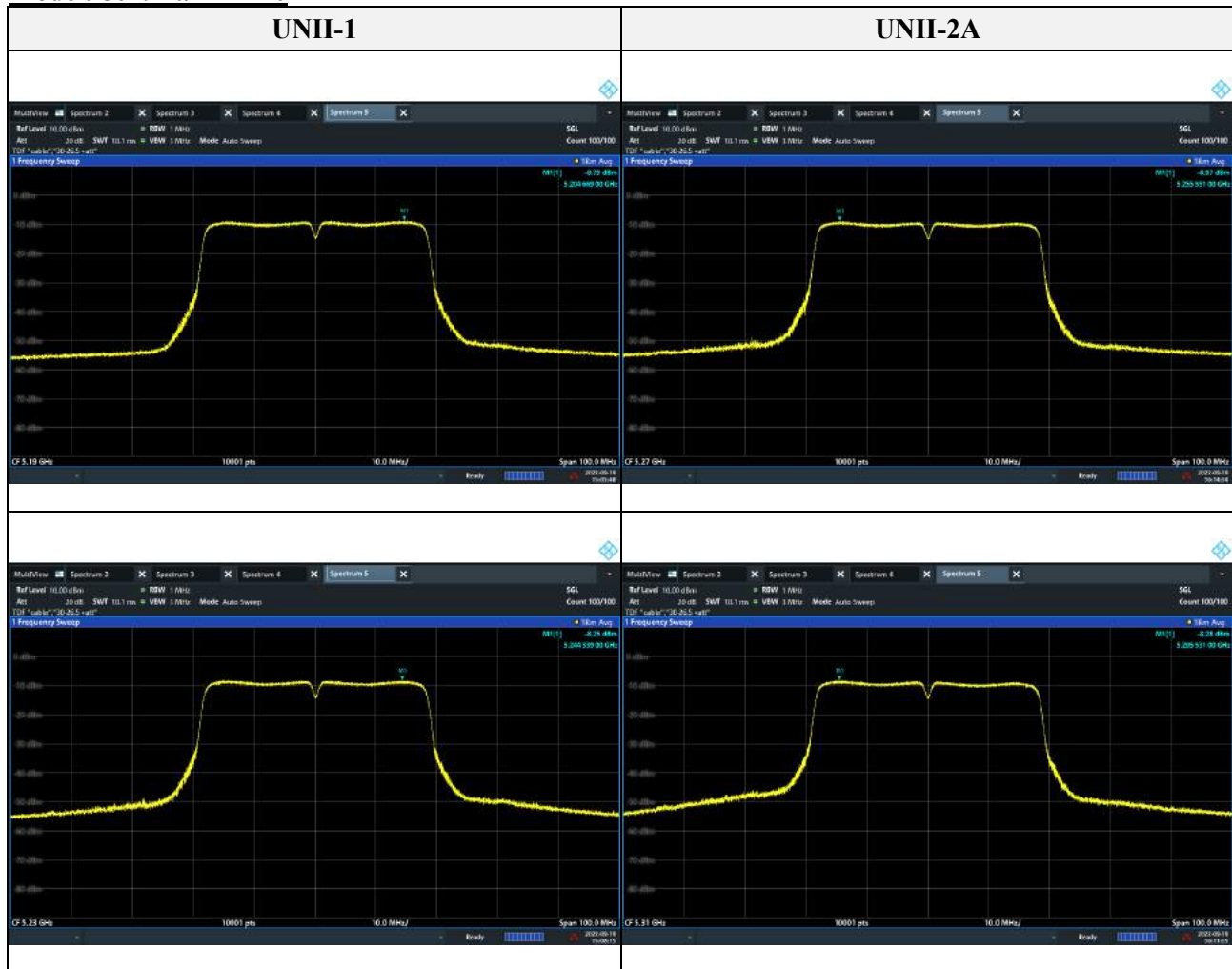


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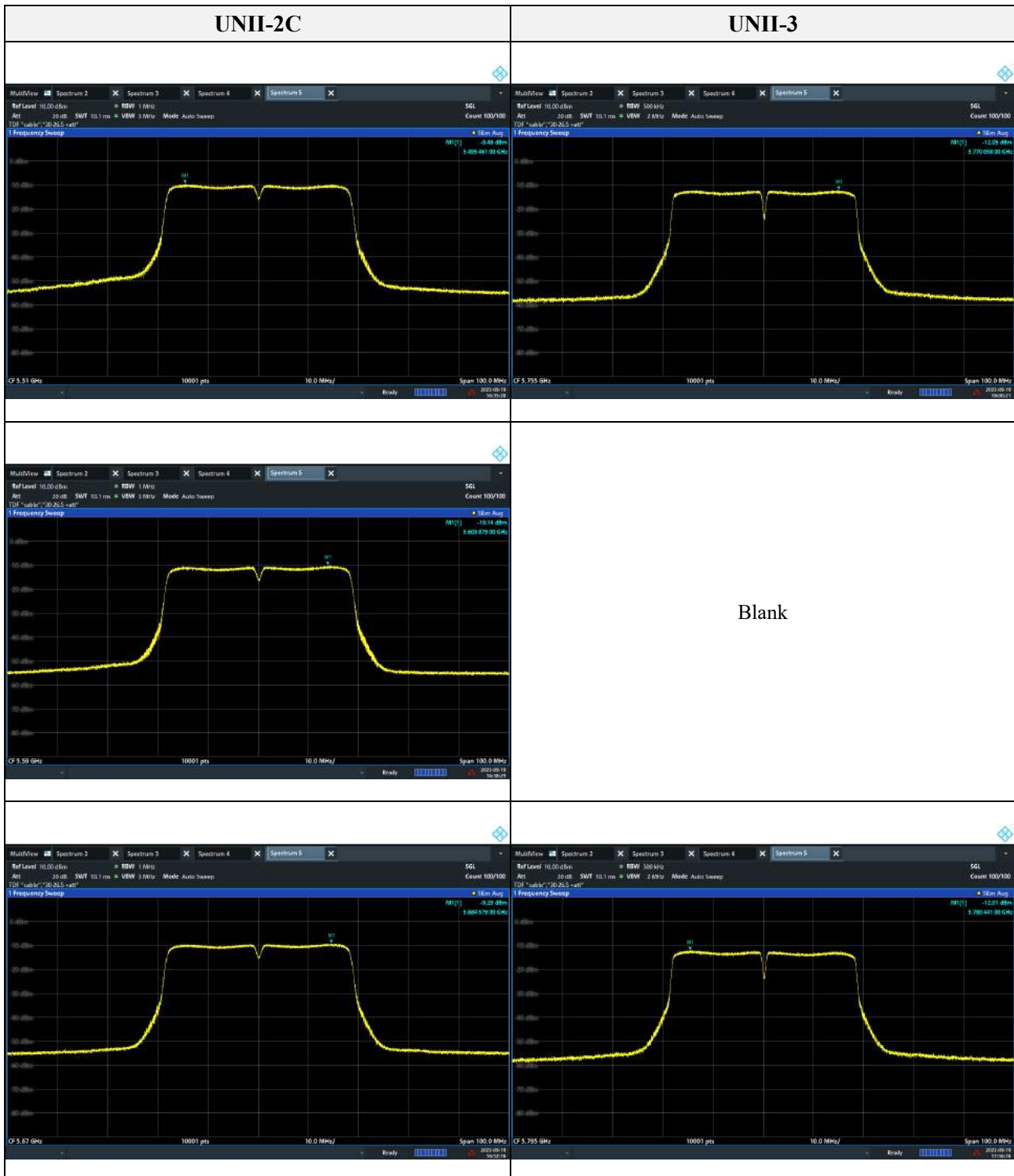


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Mode : 802.11an HT40

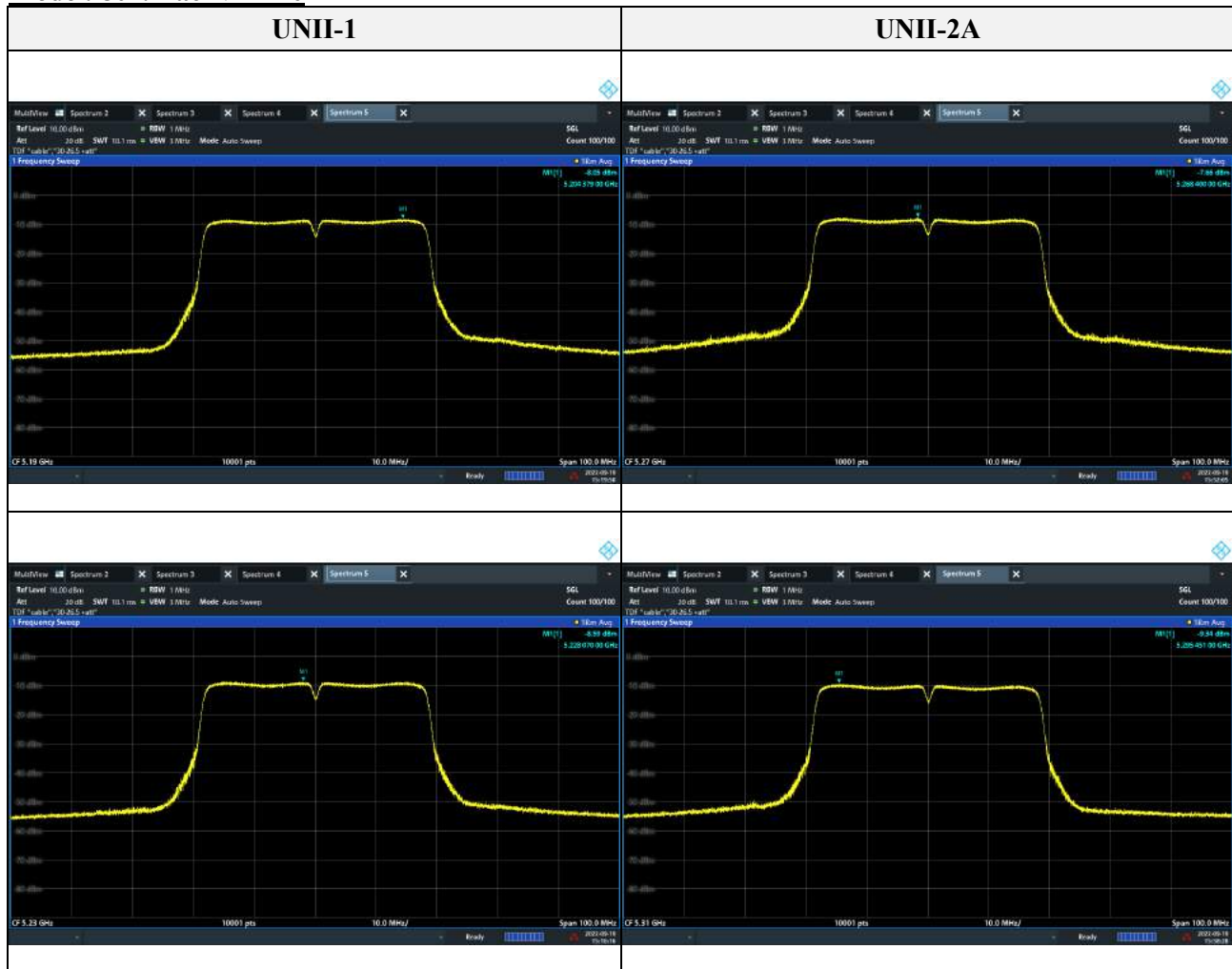


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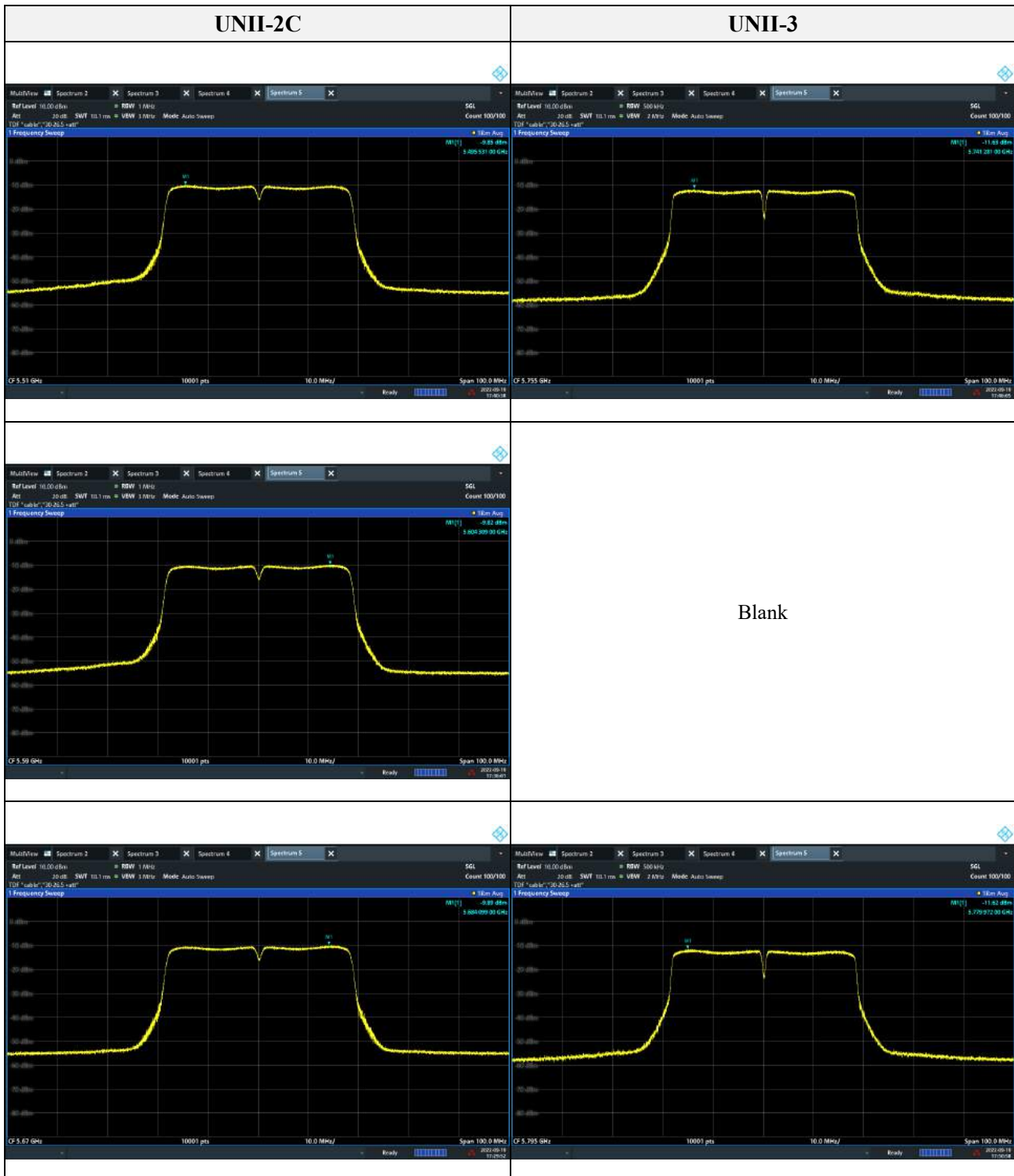


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Mode : 802.11ac VHT40

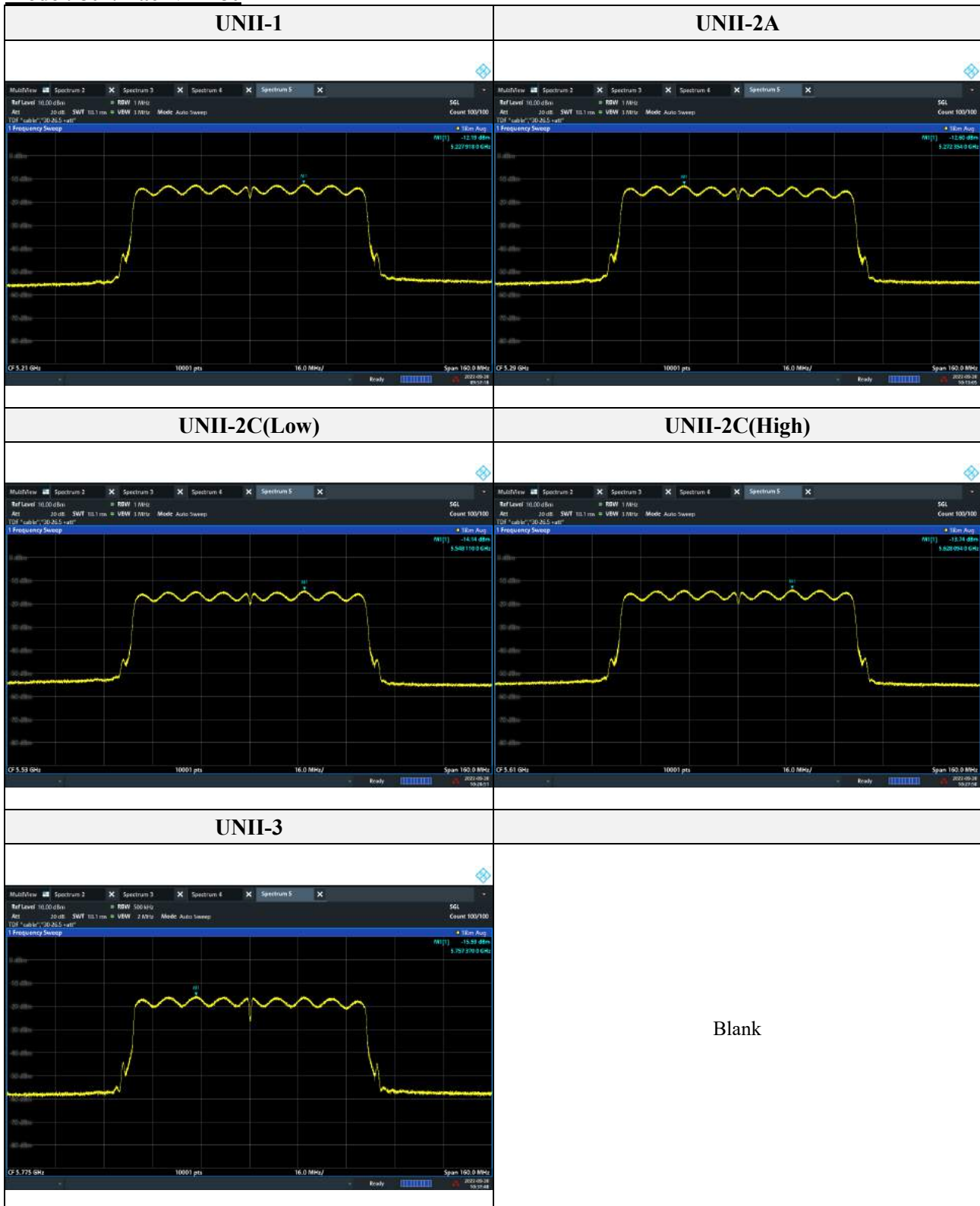


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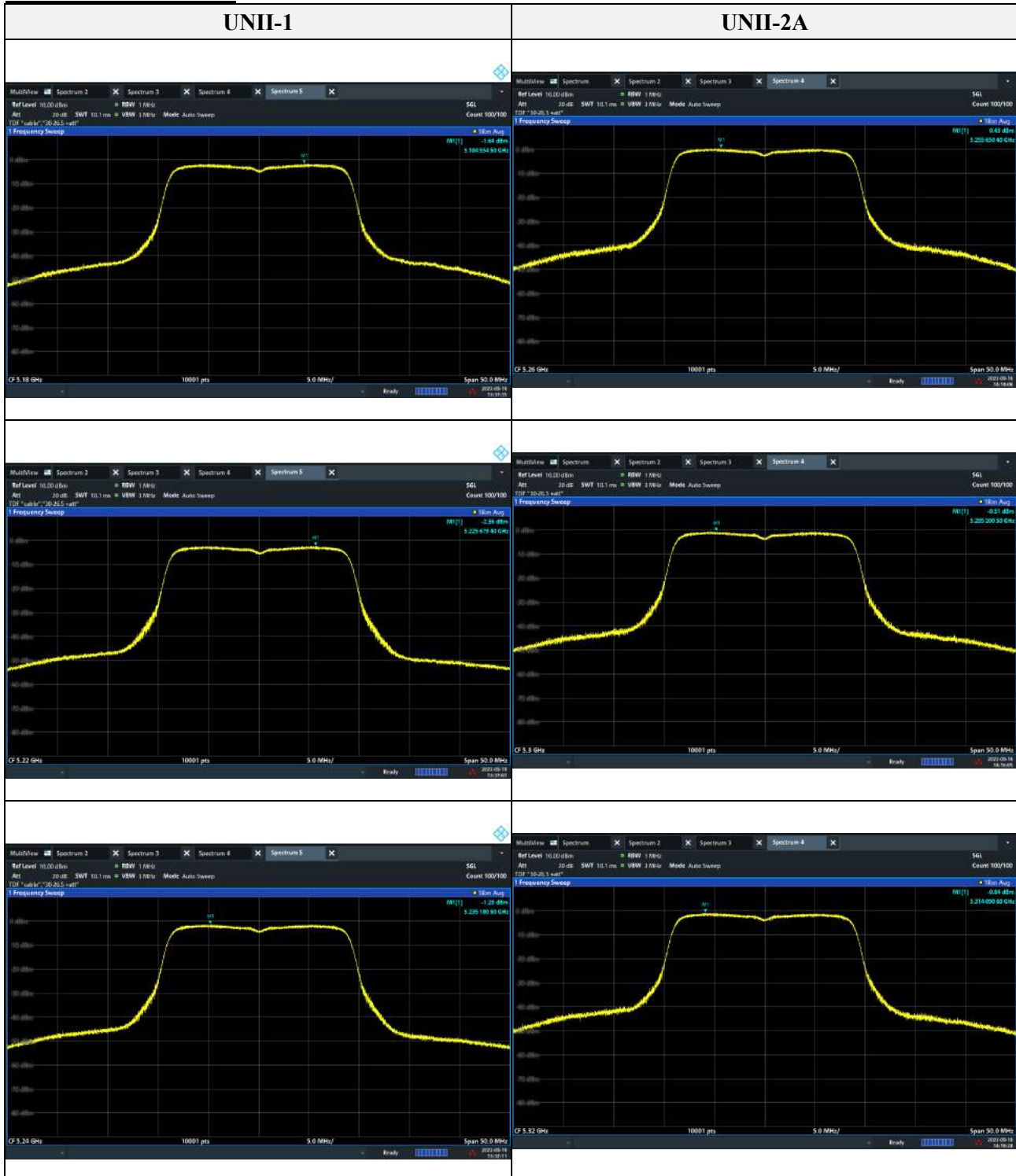
Mode : 802.11ac VHT80



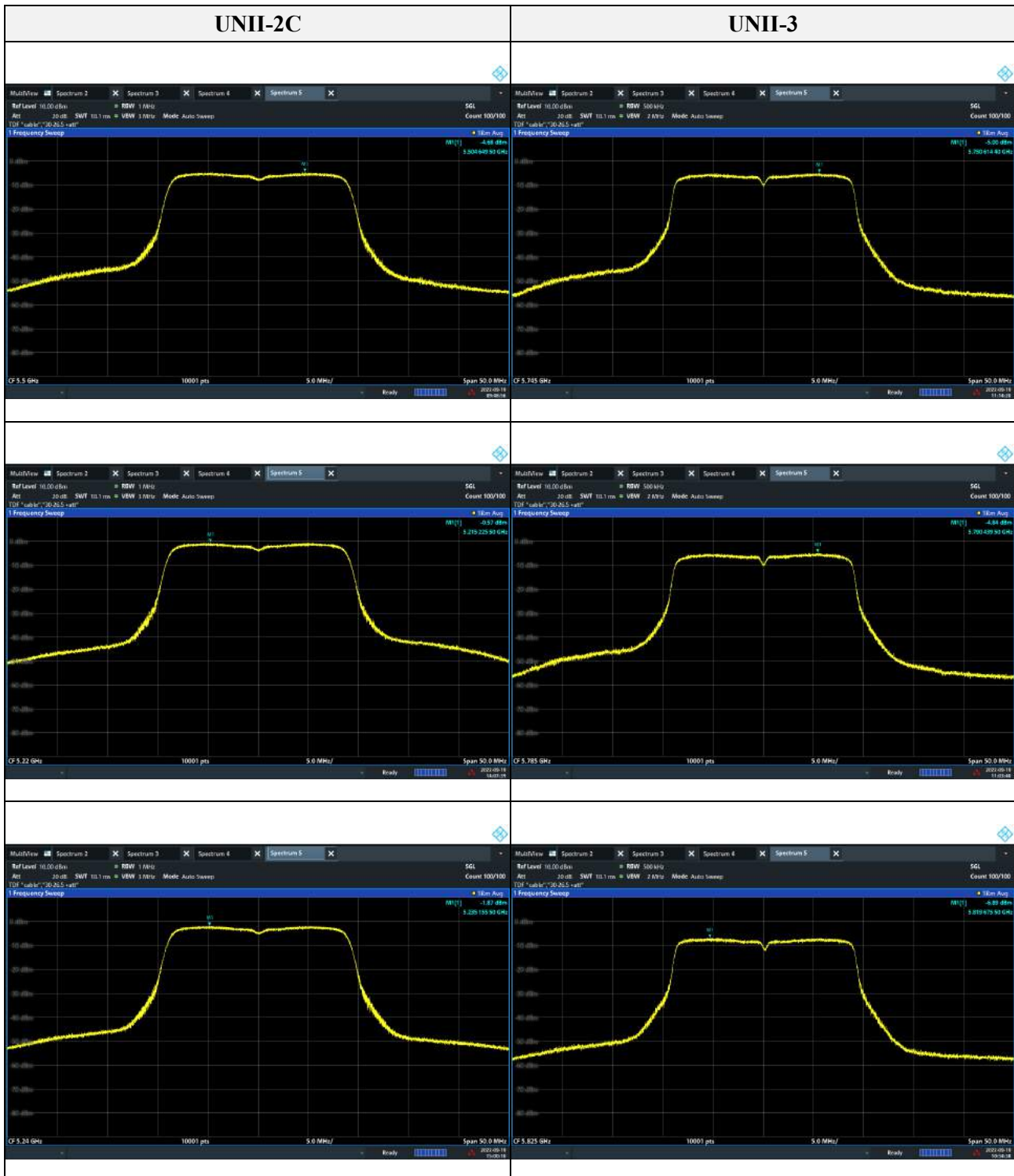
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MIMO ANT2

Mode : 802.11an HT20



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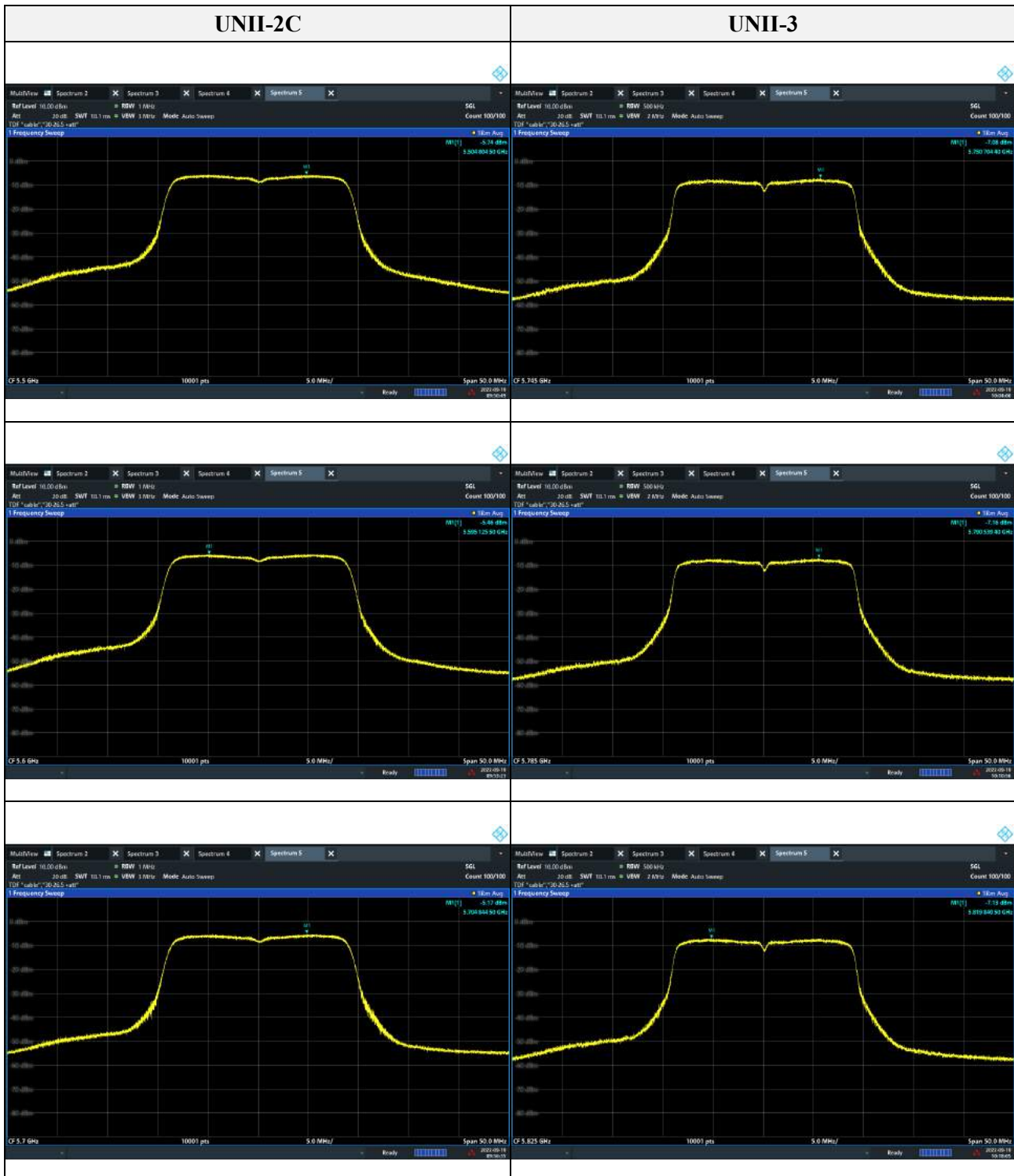


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Mode : 802.11ac VHT20

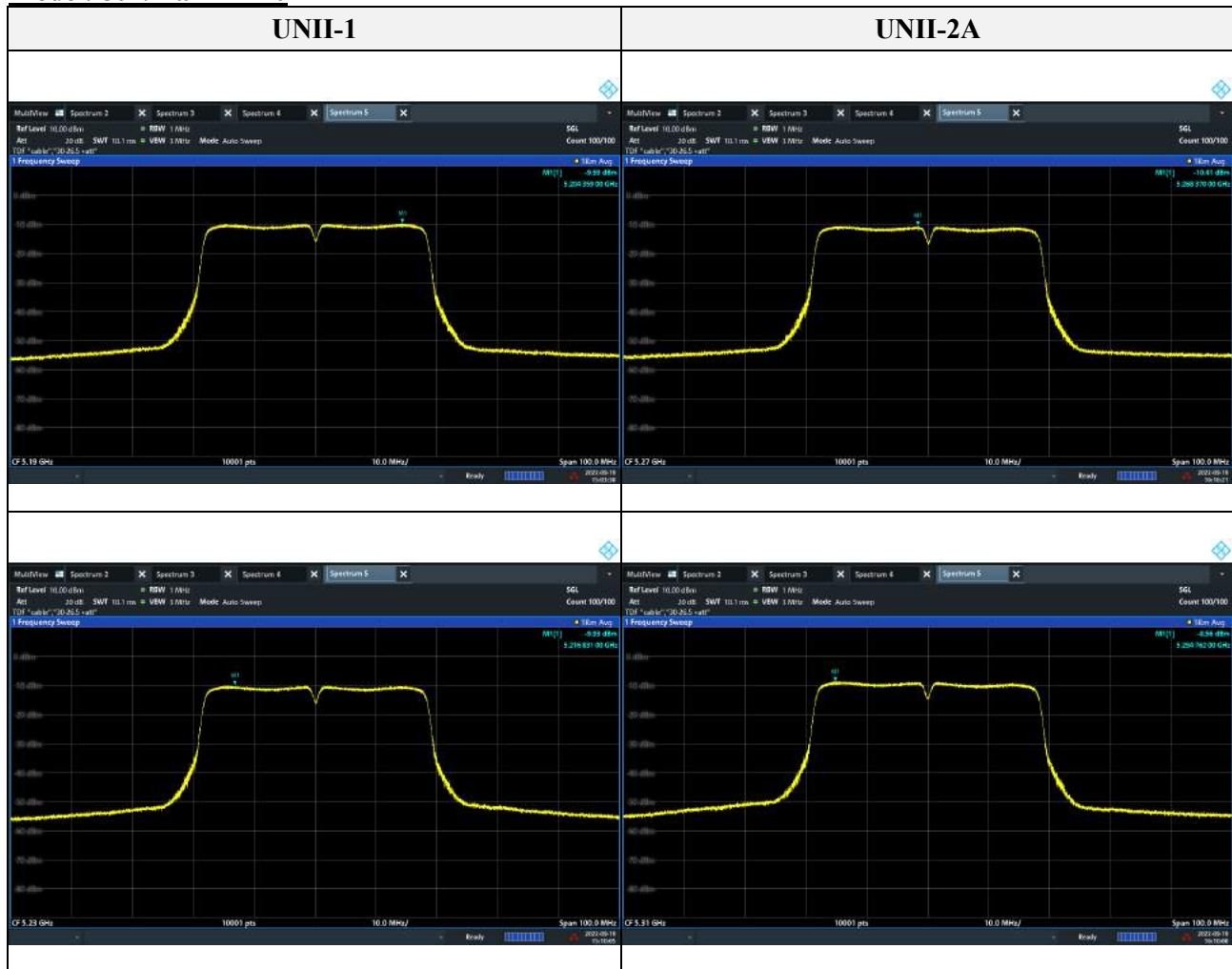


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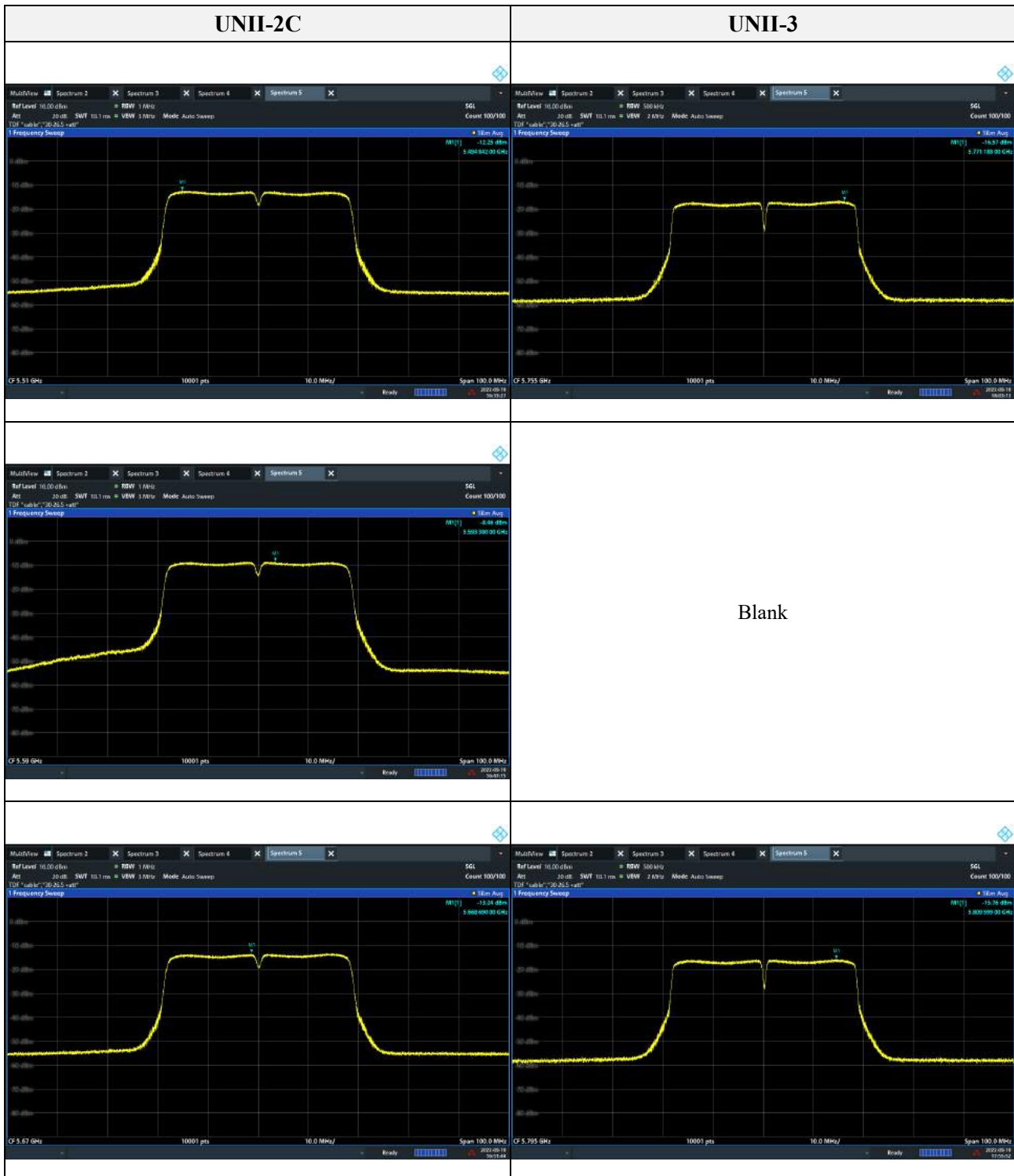


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Mode : 802.11an HT40

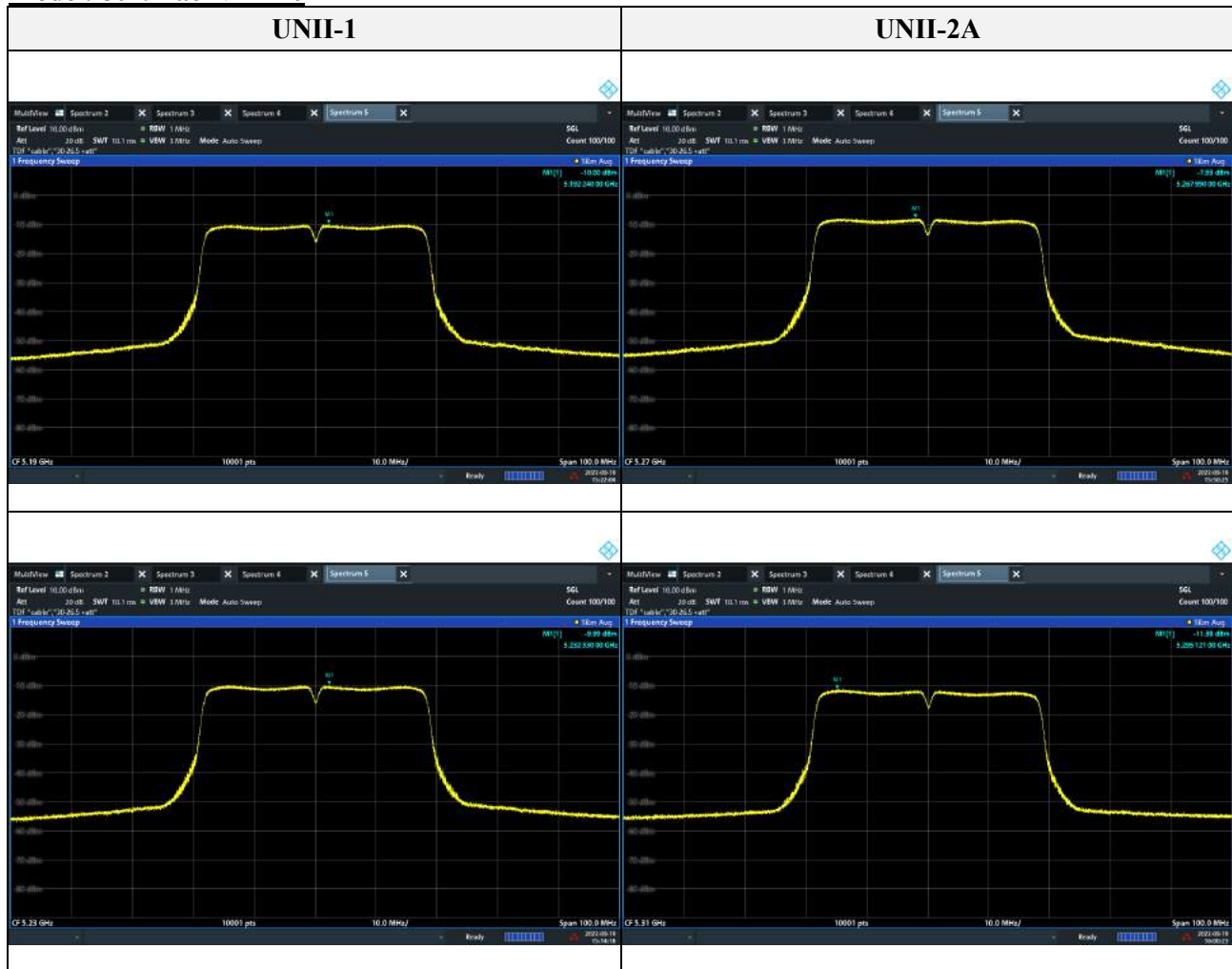


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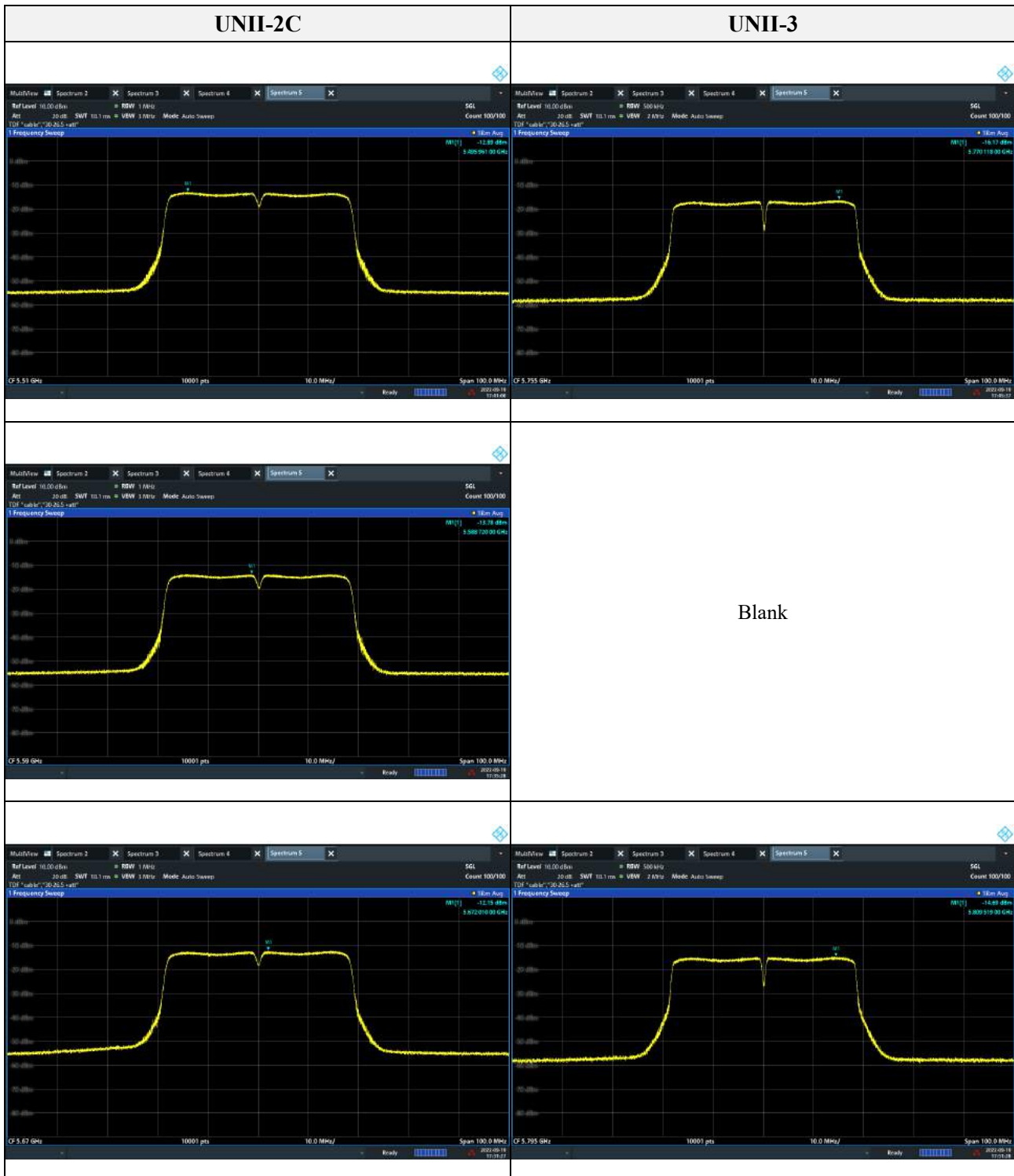


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Mode : 802.11ac VHT40

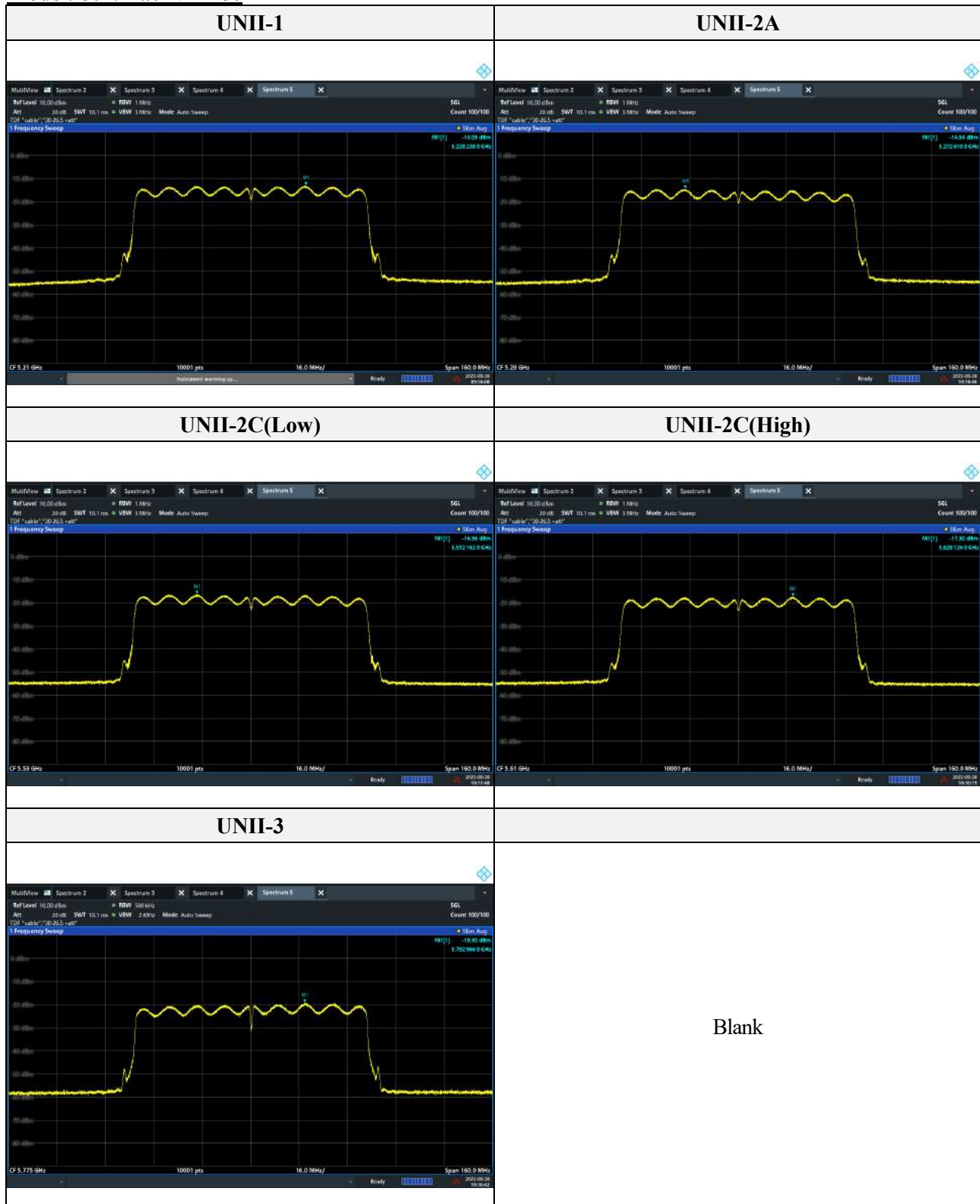


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Mode : 802.11ac VHT80



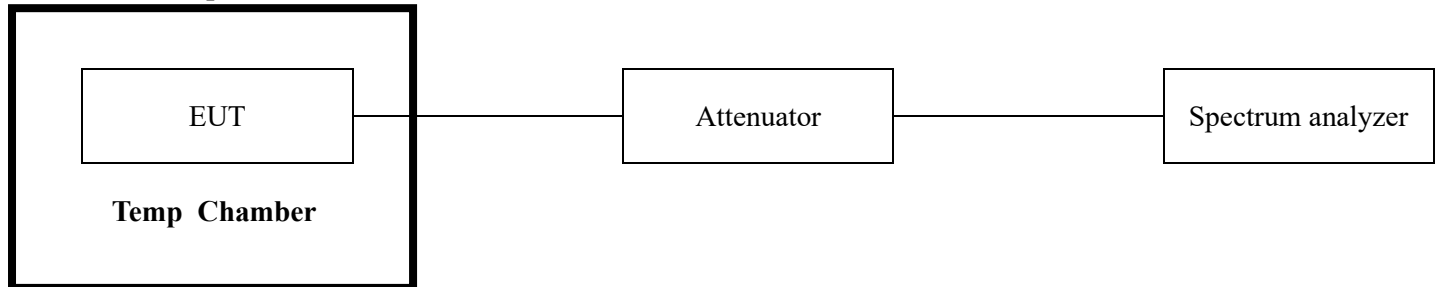
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3.5. Frequency Stability

Test procedure

ANSI C63.10-2013, clause 6.8.1

Test setup



1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
7. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

Limit

N/A

Test results
SISO ANT1

Mode: UNII-1
 Operating frequency: 5 180 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 180.028 385	28 385	0.000 548
			2 minutes	5 180.027 981	27 981	0.000 540
			5 minutes	5 180.027 141	27 141	0.000 524
			10 minutes	5 180.026 930	26 930	0.000 520
100 %		-5	Startup	5 180.024 261	24 261	0.000 468
			2 minutes	5 180.024 179	24 179	0.000 467
			5 minutes	5 180.023 701	23 701	0.000 458
			10 minutes	5 180.023 432	23 432	0.000 452
100 %		0	Startup	5 180.016 678	16 678	0.000 322
			2 minutes	5 180.016 605	16 605	0.000 321
			5 minutes	5 180.016 522	16 522	0.000 319
			10 minutes	5 180.015 131	15 131	0.000 292
100 %		10	Startup	5 180.009 385	9 385	0.000 181
			2 minutes	5 180.009 295	9 295	0.000 179
			5 minutes	5 180.009 200	9 200	0.000 178
			10 minutes	5 180.008 625	8 625	0.000 167
100 %		20	Startup	5 180.008 043	8 043	0.000 155
			2 minutes	5 180.007 448	7 448	0.000 144
			5 minutes	5 180.007 161	7 161	0.000 138
			10 minutes	5 180.006 464	6 464	0.000 125
100 %		23	Startup	5 180.006 705	6 705	0.000 129
			2 minutes	5 180.006 499	6 499	0.000 125
			5 minutes	5 180.005 542	5 542	0.000 107
			10 minutes	5 180.005 217	5 217	0.000 101
100 %		30	Startup	5 180.005 845	5 845	0.000 113
			2 minutes	5 180.006 417	6 417	0.000 124
			5 minutes	5 180.006 103	6 103	0.000 118
			10 minutes	5 180.005 155	5 155	0.000 100
100 %		40	Startup	5 179.991 169	-8 831	-0.000 170
			2 minutes	5 179.991 027	-8 973	-0.000 173
			5 minutes	5 179.990 908	-9 092	-0.000 176
			10 minutes	5 179.990 078	-9 922	-0.000 192
100 %		50	Startup	5 179.987 722	-12 278	-0.000 237
			2 minutes	5 179.987 579	-12 421	-0.000 240
			5 minutes	5 179.987 231	-12 769	-0.000 247
			10 minutes	5 179.986 937	-13 063	-0.000 252
85 %	DC 5.95	23	Startup	5 180.008 186	8 186	0.000 158
			2 minutes	5 180.007 868	7 868	0.000 152
			5 minutes	5 180.007 584	7 584	0.000 146
			10 minutes	5 180.007 545	7 545	0.000 146
115 %	DC 8.05	23	Startup	5 180.008 797	8 797	0.000 170
			2 minutes	5 180.008 289	8 289	0.000 160
			5 minutes	5 180.008 277	8 277	0.000 160
			10 minutes	5 180.007 435	7 435	0.000 144

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Mode: UNII-2A
Operating frequency: 5 260 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 260.028 295	28 295	0.000 538
			2 minutes	5 260.028 173	28 173	0.000 536
			5 minutes	5 260.027 784	27 784	0.000 528
			10 minutes	5 260.026 830	26 830	0.000 510
100 %		-5	Startup	5 260.025 120	25 120	0.000 478
			2 minutes	5 260.024 956	24 956	0.000 474
			5 minutes	5 260.024 468	24 468	0.000 465
			10 minutes	5 260.023 625	23 625	0.000 449
100 %		0	Startup	5 260.016 263	16 263	0.000 309
			2 minutes	5 260.015 557	15 557	0.000 296
			5 minutes	5 260.015 159	15 159	0.000 288
			10 minutes	5 260.015 044	15 044	0.000 286
100 %		10	Startup	5 260.010 160	10 160	0.000 193
			2 minutes	5 260.009 172	9 172	0.000 174
			5 minutes	5 260.008 795	8 795	0.000 167
			10 minutes	5 260.008 673	8 673	0.000 165
100 %		20	Startup	5 260.007 733	7 733	0.000 147
			2 minutes	5 260.007 719	7 719	0.000 147
			5 minutes	5 260.006 921	6 921	0.000 132
			10 minutes	5 260.006 277	6 277	0.000 119
100 %		23	Startup	5 260.007 107	7 107	0.000 135
			2 minutes	5 260.006 977	6 977	0.000 133
			5 minutes	5 260.006 093	6 093	0.000 116
			10 minutes	5 260.005 454	5 454	0.000 104
100 %		30	Startup	5 260.004 528	4 528	0.000 086
			2 minutes	5 260.005 335	5 335	0.000 101
			5 minutes	5 260.005 097	5 097	0.000 097
			10 minutes	5 260.004 105	4 105	0.000 078
100 %		40	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		50	Startup	5 259.988 344	-11 656	-0.000 222
			2 minutes	5 259.988 224	-11 776	-0.000 224
			5 minutes	5 259.987 563	-12 437	-0.000 236
			10 minutes	5 259.987 293	-12 707	-0.000 242
85 %	DC 5.95	23	Startup	5 260.008 708	8 708	0.000 166
			2 minutes	5 260.008 241	8 241	0.000 157
			5 minutes	5 260.008 145	8 145	0.000 155
			10 minutes	5 260.007 877	7 877	0.000 150
115 %	DC 8.05	23	Startup	5 260.009 264	9 264	0.000 176
			2 minutes	5 260.008 514	8 514	0.000 162
			5 minutes	5 260.008 448	8 448	0.000 161
			10 minutes	5 260.008 413	8 413	0.000 160

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Mode: UNII-2C
Operating frequency: 5500 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 500.028 807	28 807	0.000 524
			2 minutes	5 500.028 707	28 707	0.000 522
			5 minutes	5 500.027 321	27 321	0.000 497
			10 minutes	5 500.027 036	27 036	0.000 492
100 %		-5	Startup	5 500.024 961	24 961	0.000 454
			2 minutes	5 500.023 891	23 891	0.000 434
			5 minutes	5 500.023 773	23 773	0.000 432
			10 minutes	5 500.023 719	23 719	0.000 431
100 %		0	Startup	5 500.016 738	16 738	0.000 304
			2 minutes	5 500.016 322	16 322	0.000 297
			5 minutes	5 500.016 265	16 265	0.000 296
			10 minutes	5 500.014 990	14 990	0.000 273
100 %		10	Startup	5 500.010 528	10 528	0.000 191
			2 minutes	5 500.010 158	10 158	0.000 185
			5 minutes	5 500.009 687	9 687	0.000 176
			10 minutes	5 500.008 898	8 898	0.000 162
100 %		20	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		23	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
100 %		30	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.006 083	6 083	0.000 111
			5 minutes	5 500.006 081	6 081	0.000 111
			10 minutes	5 500.004 990	4 990	0.000 091
100 %		40	Startup	5 499.990 837	-916 3	-0.000 167
			2 minutes	5 499.990 436	-956 4	-0.000 174
			5 minutes	5 499.990 232	-976 8	-0.000 178
			10 minutes	5 499.989 935	-100 65	-0.000 183
100 %		50	Startup	5 499.988 198	-118 02	-0.000 215
			2 minutes	5 499.988 015	-119 85	-0.000 218
			5 minutes	5 499.987 686	-123 14	-0.000 224
			10 minutes	5 499.987 663	-123 37	-0.000 224
85 %	DC 5.95	23	Startup	5 500.008 375	8 375	0.000 152
			2 minutes	5 500.007 763	7 763	0.000 141
			5 minutes	5 500.007 623	7 623	0.000 139
			10 minutes	5 500.007 468	7 468	0.000 136
115 %	DC 8.05	23	Startup	5 500.008 257	8 257	0.000 150
			2 minutes	5 500.007 890	7 890	0.000 143
			5 minutes	5 500.007 822	7 822	0.000 142
			10 minutes	5 500.007 592	7 592	0.000 138

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Mode: UNII-3
Operating frequency: 5 745 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 745.028 509	28 509	0.000 496
			2 minutes	5 745.028 291	28 291	0.000 492
			5 minutes	5 745.027 075	27 075	0.000 471
			10 minutes	5 745.026 919	26 919	0.000 469
100 %		-5	Startup	5 745.025 371	25 371	0.000 442
			2 minutes	5 745.024 696	24 696	0.000 430
			5 minutes	5 745.024 032	24 032	0.000 418
			10 minutes	5 745.023 996	23 996	0.000 418
100 %		0	Startup	5 745.016 814	16 814	0.000 293
			2 minutes	5 745.016 637	16 637	0.000 290
			5 minutes	5 745.015 579	15 579	0.000 271
			10 minutes	5 745.015 294	15 294	0.000 266
100 %		10	Startup	5 745.010 578	10 578	0.000 184
			2 minutes	5 745.010 517	10 517	0.000 183
			5 minutes	5 745.009 084	9 084	0.000 158
			10 minutes	5 745.008 907	8 907	0.000 155
100 %		20	Startup	5 745.008 340	8 340	0.000 145
			2 minutes	5 745.006 878	6 878	0.000 120
			5 minutes	5 745.006 830	6 830	0.000 119
			10 minutes	5 745.006 513	6 513	0.000 113
100 %		23	Startup	5 745.007 032	7 032	0.000 122
			2 minutes	5 745.006 499	6 499	0.000 113
			5 minutes	5 745.006 485	6 485	0.000 113
			10 minutes	5 745.006 337	6 337	0.000 110
100 %		30	Startup	5 745.006 052	6 052	0.000 105
			2 minutes	5 745.005 864	5 864	0.000 102
			5 minutes	5 745.005 810	5 810	0.000 101
			10 minutes	5 745.005 547	5 547	0.000 097
100 %		40	Startup	5 744.991 748	-825 3	-0.000 144
			2 minutes	5 744.991 603	-839 8	-0.000 146
			5 minutes	5 744.989 995	-100 06	-0.000 174
			10 minutes	5 744.989 818	-101 83	-0.000 177
100 %		50	Startup	5 744.987 543	-124 58	-0.000 217
			2 minutes	5 744.987 541	-124 60	-0.000 217
			5 minutes	5 744.987 421	-125 80	-0.000 219
			10 minutes	5 744.987 090	-129 11	-0.000 225
85 %	DC 5.95	23	Startup	5 745.008 764	8 764	0.000 153
			2 minutes	5 745.008 710	8 710	0.000 152
			5 minutes	5 745.008 581	8 581	0.000 149
			10 minutes	5 745.007 996	7 996	0.000 139
115 %	DC 8.05	23	Startup	5 745.009 183	9 183	0.000 160
			2 minutes	5 745.008 623	8 623	0.000 150
			5 minutes	5 745.008 311	8 311	0.000 145
			10 minutes	5 745.007 761	7 761	0.000 135

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SISO ANT2

Mode: UNII-1

Operating frequency: 5 180 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 180.028 385	28 385	0.000 548
			2 minutes	5 180.027 981	27 981	0.000 540
			5 minutes	5 180.027 141	27 141	0.000 524
			10 minutes	5 180.026 930	26 930	0.000 520
100 %		-5	Startup	5 180.024 261	24 261	0.000 468
			2 minutes	5 180.024 179	24 179	0.000 467
			5 minutes	5 180.023 701	23 701	0.000 458
			10 minutes	5 180.023 432	23 432	0.000 452
100 %		0	Startup	5 180.016 678	16 678	0.000 322
			2 minutes	5 180.016 605	16 605	0.000 321
			5 minutes	5 180.016 522	16 522	0.000 319
			10 minutes	5 180.015 131	15 131	0.000 292
100 %		10	Startup	5 180.009 385	9 385	0.000 181
			2 minutes	5 180.009 295	9 295	0.000 179
			5 minutes	5 180.00 9200	9 200	0.000 178
			10 minutes	5 180.008 625	8 625	0.000 167
100 %		20	Startup	5 180.008 043	8 043	0.000 155
			2 minutes	5 180.007 448	7 448	0.000 144
			5 minutes	5 180.007 161	7 161	0.000 138
			10 minutes	5 180.006 464	6 464	0.000 125
100 %		23	Startup	5 180.006 705	6 705	0.000 129
			2 minutes	5 180.006 499	6 499	0.000 125
			5 minutes	5 180.005 542	5 542	0.000 107
			10 minutes	5 180.005 217	5 217	0.000 101
100 %		30	Startup	5 180.005 845	5 845	0.000 113
			2 minutes	5 180.006 417	6 417	0.000 124
			5 minutes	5 180.006 103	6 103	0.000 118
			10 minutes	5 180.005 155	5 155	0.000 100
100 %		40	Startup	5 179.991 169	-8 831	-0.000 170
			2 minutes	5 179.991 027	-8 973	-0.000 173
			5 minutes	5 179.990 908	-9 092	-0.000 176
			10 minutes	5 179.990 078	-9 922	-0.000 192
100 %		50	Startup	5 179.987 722	-12 278	-0.000 237
			2 minutes	5 179.987 579	-12 421	-0.000 240
			5 minutes	5 179.987 231	-12 769	-0.000 247
			10 minutes	5 179.986 937	-13 063	-0.000 252
85 %	DC 5.95	23	Startup	5 180.008 186	8 186	0.000 158
			2 minutes	5 180.007 868	7 868	0.000 152
			5 minutes	5 180.007 584	7 584	0.000 146
			10 minutes	5 180.007 545	7 545	0.000 146
115 %	DC 8.05	23	Startup	5 180.008 797	8 797	0.000 170
			2 minutes	5 180.008 289	8 289	0.000 160
			5 minutes	5 180.008 277	8 277	0.000 160
			10 minutes	5 180.007 435	7 435	0.000 144

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Mode: UNII-2A

Operating frequency: 5 260 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 260.028 295	28 295	0.000 538
			2 minutes	5 260.028 173	28 173	0.000 536
			5 minutes	5 260.027 784	27 784	0.000 528
			10 minutes	5 260.026 830	26 830	0.000 510
100 %		-5	Startup	5 260.025 120	25 120	0.000 478
			2 minutes	5 260.024 956	24 956	0.000 474
			5 minutes	5 260.024 468	24 468	0.000 465
			10 minutes	5 260.023 625	23 625	0.000 449
100 %		0	Startup	5 260.016 263	16 263	0.000 309
			2 minutes	5 260.015 557	15 557	0.000 296
			5 minutes	5 260.015 159	15 159	0.000 288
			10 minutes	5 260.015 044	15 044	0.000 286
100 %		10	Startup	5 260.010 160	10 160	0.000 193
			2 minutes	5 260.009 172	9 172	0.000 174
			5 minutes	5 260.008 795	8 795	0.000 167
			10 minutes	5 260.008 673	8 673	0.000 165
100 %		20	Startup	5 260.007 733	7 733	0.000 147
			2 minutes	5 260.007 719	7 719	0.000 147
			5 minutes	5 260.006 921	6 921	0.000 132
			10 minutes	5 260.006 277	6 277	0.000 119
100 %		23	Startup	5 260.007 107	7 107	0.000 135
			2 minutes	5 260.006 977	6 977	0.000 133
			5 minutes	5 260.006 093	6 093	0.000 116
			10 minutes	5 260.005 454	5 454	0.000 104
100 %		30	Startup	5 260.004 528	4 528	0.000 086
			2 minutes	5 260.005 335	5 335	0.000 101
			5 minutes	5 260.005 097	5 097	0.000 097
			10 minutes	5 260.004 105	4 105	0.000 078
100 %		40	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		50	Startup	5 259.988 344	-11 656	-0.000 222
			2 minutes	5 259.988 224	-11 776	-0.000 224
			5 minutes	5 259.987 563	-12 437	-0.000 236
			10 minutes	5 259.987 293	-12 707	-0.000 242
85 %	DC 5.95	23	Startup	5 260.008 708	8 708	0.000 166
			2 minutes	5 260.008 241	8 241	0.000 157
			5 minutes	5 260.008 145	8 145	0.000 155
			10 minutes	5 260.007 877	7 877	0.000 150
115 %	DC 8.05	23	Startup	5 260.009 264	9 264	0.000 176
			2 minutes	5 260.008 514	8 514	0.000 162
			5 minutes	5 260.008 448	8 448	0.000 161
			10 minutes	5 260.008 413	8 413	0.000 160

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Mode: UNII-2C
Operating frequency: 5500 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 500.028 807	28 807	0.000 524
			2 minutes	5 500.028 707	28 707	0.000 522
			5 minutes	5 500.027 321	27 321	0.000 497
			10 minutes	5 500.027 036	27 036	0.000 492
100 %		-5	Startup	5 500.024 961	24 961	0.000 454
			2 minutes	5 500.023 891	23 891	0.000 434
			5 minutes	5 500.023 773	23 773	0.000 432
			10 minutes	5 500.023 719	23 719	0.000 431
100 %		0	Startup	5 500.016 738	16 738	0.000 304
			2 minutes	5 500.016 322	16 322	0.000 297
			5 minutes	5 500.016 265	16 265	0.000 296
			10 minutes	5 500.014 990	14 990	0.000 273
100 %		10	Startup	5 500.010 528	10 528	0.000 191
			2 minutes	5 500.010 158	10 158	0.000 185
			5 minutes	5 500.009 687	9 687	0.000 176
			10 minutes	5 500.008 898	8 898	0.000 162
100 %		20	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		23	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
100 %		30	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.006 083	6 083	0.000 111
			5 minutes	5 500.006 081	6 081	0.000 111
			10 minutes	5 500.004 990	4 990	0.000 091
100 %		40	Startup	5 499.990 837	-9 163	-0.000 167
			2 minutes	5 499.990 436	-9 564	-0.000 174
			5 minutes	5 499.990 232	-9 768	-0.000 178
			10 minutes	5 499.989 935	-10 065	-0.000 183
100 %		50	Startup	5 499.988 198	-11 802	-0.000 215
			2 minutes	5 499.988 015	-11 985	-0.000 218
			5 minutes	5 499.987 686	-12 314	-0.000 224
			10 minutes	5 499.987 663	-12 337	-0.000 224
85 %	DC 5.95	23	Startup	5 500.008 375	8 375	0.000 152
			2 minutes	5 500.007 763	7 763	0.000 141
			5 minutes	5 500.007 623	7 623	0.000 139
			10 minutes	5 500.007 468	7 468	0.000 136
115 %	DC 8.05	23	Startup	5 500.008 257	8 257	0.000 150
			2 minutes	5 500.007 890	7 890	0.000 143
			5 minutes	5 500.007 822	7 822	0.000 142
			10 minutes	5 500.007 592	7 592	0.000 138

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Mode: UNII-3
Operating frequency: 5 745 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 745.028 509	28 509	0.000 496
			2 minutes	5 745.028 291	28 291	0.000 492
			5 minutes	5 745.027 075	27 075	0.000 471
			10 minutes	5 745.026 919	26 919	0.000 469
100 %		-5	Startup	5 745.025 371	25 371	0.000 442
			2 minutes	5 745.024 696	24 696	0.000 430
			5 minutes	5 745.024 032	24 032	0.000 418
			10 minutes	5 745.023 996	23 996	0.000 418
100 %		0	Startup	5 745.016 814	16 814	0.000 293
			2 minutes	5 745.016 637	16 637	0.000 290
			5 minutes	5 745.015 579	15 579	0.000 271
			10 minutes	5 745.015 294	15 294	0.000 266
100 %		10	Startup	5 745.010 578	10 578	0.000 184
			2 minutes	5 745.010 517	10 517	0.000 183
			5 minutes	5 745.009 084	9 084	0.000 158
			10 minutes	5 745.008 907	8 907	0.000 155
100 %		20	Startup	5 745.008 340	8 340	0.000 145
			2 minutes	5 745.006 878	6 878	0.000 120
			5 minutes	5 745.006 830	6 830	0.000 119
			10 minutes	5 745.006 513	6 513	0.000 113
100 %		23	Startup	5 745.007 032	7 032	0.000 122
			2 minutes	5 745.006 499	6 499	0.000 113
			5 minutes	5 745.006 485	6 485	0.000 113
			10 minutes	5 745.006 337	6 337	0.000 110
100 %		30	Startup	5 745.006 052	6 052	0.000 105
			2 minutes	5 745.005 864	5 864	0.000 102
			5 minutes	5 745.005 810	5 810	0.000 101
			10 minutes	5 745.005 547	5 547	0.000 097
100 %		40	Startup	5 744.991 748	-825 3	-0.000 144
			2 minutes	5 744.991 603	-839 8	-0.000 146
			5 minutes	5 744.989 995	-100 06	-0.000 174
			10 minutes	5 744.989 818	-101 83	-0.000 177
100 %		50	Startup	5 744.987 543	-124 58	-0.000 217
			2 minutes	5 744.987 541	-124 60	-0.000 217
			5 minutes	5 744.987 421	-125 80	-0.000 219
			10 minutes	5 744.987 090	-129 11	-0.000 225
85 %	DC 5.95	23	Startup	5 745.008 764	8 764	0.000 153
			2 minutes	5 745.008 710	8 710	0.000 152
			5 minutes	5 745.008 581	8 581	0.000 149
			10 minutes	5 745.007 996	7 996	0.000 139
115 %	DC 8.05	23	Startup	5 745.009 183	9 183	0.000 160
			2 minutes	5 745.008 623	8 623	0.000 150
			5 minutes	5 745.008 311	8 311	0.000 145
			10 minutes	5 745.007 761	7 761	0.000 135

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MIMO ANT1

Mode: UNII-1

Operating frequency: 5 180 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 180.028 385	28 385	0.000 548
			2 minutes	5 180.027 465	27 465	0.000 530
			5 minutes	5 180.027 585	27 585	0.000 533
			10 minutes	5 180.027 745	27 745	0.000 536
100 %		-5	Startup	5 180.026 455	26 455	0.000 511
			2 minutes	5 180.025 995	25 995	0.000 502
			5 minutes	5 180.025 605	25 605	0.000 494
			10 minutes	5 180.024 385	24 385	0.000 471
100 %		0	Startup	5 180.023 385	23 385	0.000 451
			2 minutes	5 180.029 385	29 385	0.000 567
			5 minutes	5 180.030 385	30 385	0.000 587
			10 minutes	5 180.031 385	31 385	0.000 606
100 %		10	Startup	5 180.019 385	19 385	0.000 374
			2 minutes	5 180.022 385	22 385	0.000 432
			5 minutes	5 180.023 385	23 385	0.000 451
			10 minutes	5 180.028 300	28 300	0.000 546
100 %		20	Startup	5 180.028 175	28 175	0.000 544
			2 minutes	5 180.028 395	28 395	0.000 548
			5 minutes	5 180.028 005	28 005	0.000 541
			10 minutes	5 180.024 255	24 255	0.000 468
100 %		23	Startup	5 180.024 330	24 330	0.000 470
			2 minutes	5 180.027 955	27 955	0.000 540
			5 minutes	5 180.023 385	23 385	0.000 451
			10 minutes	5 180.027 205	27 205	0.000 525
100 %		30	Startup	5 180.021 385	21 385	0.000 413
			2 minutes	5 180.028 385	28 385	0.000 548
			5 minutes	5 180.030 115	30 115	0.000 581
			10 minutes	5 180.026 985	26 985	0.000 521
100 %		40	Startup	5 180.029 955	29 955	0.000 578
			2 minutes	5 180.028 780	28 780	0.000 556
			5 minutes	5 180.026 455	26 455	0.000 511
			10 minutes	5 180.020 895	20 895	0.000 403
100 %		50	Startup	5 180.012 235	12 235	0.000 236
			2 minutes	5 180.013 545	13 545	0.000 261
			5 minutes	5 180.014 455	14 455	0.000 279
			10 minutes	5 180.012 065	12 065	0.000 233
85 %	DC 5.95	23	Startup	5 180.011 895	11 895	0.000 230
			2 minutes	5 180.009 875	9 875	0.000 191
			5 minutes	5 180.009 900	9 900	0.000 191
			10 minutes	5 180.007 895	7 895	0.000 152
115 %	DC 8.05	23	Startup	5 180.008 255	8 255	0.000 159
			2 minutes	5 180.004 965	4 965	0.000 096
			5 minutes	5 180.005 235	5 235	0.000 101
			10 minutes	5 180.004 775	4 775	0.000 092

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Mode: UNII-2A

Operating frequency: 5 260 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 260.018 295	18 295	0.000 348
			2 minutes	5 260.018 173	18 173	0.000 345
			5 minutes	5 260.019 784	19 784	0.000 376
			10 minutes	5 260.019 830	19 830	0.000 377
100 %		-5	Startup	5 260.015 120	15 120	0.000 287
			2 minutes	5 260.014 956	14 956	0.000 284
			5 minutes	5 260.014 468	14 468	0.000 275
			10 minutes	5 260.013 625	13 625	0.000 259
100 %		0	Startup	5 260.006 263	6 263	0.000 119
			2 minutes	5 260.005 557	5 557	0.000 106
			5 minutes	5 260.005 159	5 159	0.000 098
			10 minutes	5 260.005 044	5 044	0.000 096
100 %		10	Startup	5 260.010 160	10 160	0.000 193
			2 minutes	5 260.010 172	10 172	0.000 193
			5 minutes	5 260.010 795	10 795	0.000 205
			10 minutes	5 260.010 673	10 673	0.000 203
100 %		20	Startup	5 260.007 733	7 733	0.000 147
			2 minutes	5 260.007 719	7 719	0.000 147
			5 minutes	5 260.006 921	6 921	0.000 132
			10 minutes	5 260.006 277	6 277	0.000 119
100 %		23	Startup	5 260.005 107	5 107	0.000 097
			2 minutes	5 260.006 977	6 977	0.000 133
			5 minutes	5 260.006 993	6 993	0.000 133
			10 minutes	5 260.006 954	6 954	0.000 132
100 %		30	Startup	5 260.004 528	4 528	0.000 086
			2 minutes	5 260.005 335	5 335	0.000 101
			5 minutes	5 260.005 097	5 097	0.000 097
			10 minutes	5 260.004 105	4 105	0.000 078
100 %		40	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		50	Startup	5 745.010 578	10 578	0.000 184
			2 minutes	5 745.010 517	10 517	0.000 183
			5 minutes	5 745.009 084	9 084	0.000 158
			10 minutes	5 745.008 907	8 907	0.000 155
85 %	DC 5.95	23	Startup	5 745.008 340	8 340	0.000 145
			2 minutes	5 745.006 878	6 878	0.000 120
			5 minutes	5 745.006 830	6 830	0.000 119
			10 minutes	5 745.006 513	6 513	0.000 113
115 %	DC 8.05	23	Startup	5 745.007 032	7 032	0.000 122
			2 minutes	5 745.006 499	6 499	0.000 113
			5 minutes	5 745.006 485	6 485	0.000 113
			10 minutes	5 745.006 337	6 337	0.000 110

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Mode: UNII-2C
Operating frequency: 5500 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		-5	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
100 %		0	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.006 083	6 083	0.000 111
			5 minutes	5 500.006 081	6 081	0.000 111
			10 minutes	5 500.004 990	4 990	0.000 091
100 %		10	Startup	5 499.990 837	-9 163	-0.000 167
			2 minutes	5 499.990 436	-9 564	-0.000 174
			5 minutes	5 499.990 232	-9 768	-0.000 178
			10 minutes	5 499.989 935	-10 065	-0.000 183
100 %		20	Startup	5 500.006 707	6 707	0.000 122
			2 minutes	5 500.006 163	6 163	0.000 112
			5 minutes	5 500.005 787	5 787	0.000 105
			10 minutes	5 500.005 395	5 395	0.000 098
100 %		23	Startup	5 500.003 038	3 038	0.000 055
			2 minutes	5 500.002 406	2 406	0.000 044
			5 minutes	5 500.002 008	2 008	0.000 037
			10 minutes	5 500.003 361	3 361	0.000 061
100 %		30	Startup	5 500.003 946	3 946	0.000 072
			2 minutes	5 500.005 083	5 083	0.000 092
			5 minutes	5 500.005 081	5 081	0.000 092
			10 minutes	5 500.005 990	5 990	0.0001 09
100 %		40	Startup	5 500.006 707	6 707	0.000 122
			2 minutes	5 500.006 163	6 163	0.000 112
			5 minutes	5 500.005 787	5 787	0.000 105
			10 minutes	5 500.005 395	5 395	0.000 098
100 %		50	Startup	5 500.003 038	3 038	0.000 055
			2 minutes	5 500.002 406	2 406	0.000 044
			5 minutes	5 500.002 008	2 008	0.000 037
			10 minutes	5 500.003 361	3 361	0.000 061
85 %	DC 5.95	23	Startup	5 500.000 375	375	0.000 007
			2 minutes	5 500.000 763	763	0.000 014
			5 minutes	5 500.000 623	623	0.000 011
			10 minutes	5 500.000 468	468	0.000 009
115 %	DC 8.05	23	Startup	5 500.008 257	8 257	0.000 150
			2 minutes	5 500.007 890	7 890	0.000 143
			5 minutes	5 500.007 822	7 822	0.000 142
			10 minutes	5 500.007 592	7 592	0.000 138

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Mode: UNII-3
Operating frequency: 5 745 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 260.005 107	5 107	0.000 097
			2 minutes	5 260.006 977	6 977	0.000 133
			5 minutes	5 260.006 993	6 993	0.000 133
			10 minutes	5 260.006 954	6 954	0.000 132
100 %		-5	Startup	5 260.004 528	4 528	0.000 086
			2 minutes	5 260.005 335	5 335	0.000 101
			5 minutes	5 260.005 097	5 097	0.000 097
			10 minutes	5 260.004 105	4 105	0.000 078
100 %		0	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		10	Startup	5 745.005 415	5 415	0.000 094
			2 minutes	5 745.005 596	5 596	0.000 097
			5 minutes	5 745.007 084	7 084	0.000 123
			10 minutes	5 745.006 907	6 907	0.000 120
100 %		20	Startup	5 745.006 834	6 834	0.000 119
			2 minutes	5 745.005 878	5 878	0.000 102
			5 minutes	5 745.006 530	6 530	0.000 114
			10 minutes	5 745.005 513	5 513	0.000 096
100 %		23	Startup	5 745.005 032	5 032	0.000 088
			2 minutes	5 745.005 499	5 499	0.000 096
			5 minutes	5 745.006 085	6 085	0.000 106
			10 minutes	5 745.006 237	6 237	0.000 109
100 %		30	Startup	5 745.006 952	6 952	0.000 121
			2 minutes	5 745.005 864	5 864	0.000 102
			5 minutes	5 745.005 810	5 810	0.000 101
			10 minutes	5 745.004 547	4 547	0.000 079
100 %		40	Startup	5 745.028 509	28 509	0.000 496
			2 minutes	5 745.028 291	28 291	0.000 492
			5 minutes	5 745.027 075	27 075	0.000 471
			10 minutes	5 745.026 919	26 919	0.000 469
100 %		50	Startup	5 745.025 371	25 371	0.000 442
			2 minutes	5 745.024 696	24 696	0.000 430
			5 minutes	5 745.024 032	24 032	0.000 418
			10 minutes	5 745.023 996	23 996	0.000 418
85 %	DC 5.95	23	Startup	5 745.028 509	28 509	0.000 496
			2 minutes	5 745.028 291	28 291	0.000 492
			5 minutes	5 745.027 075	27 075	0.000 471
			10 minutes	5 745.026 919	26 919	0.000 469
115 %	DC 8.05	23	Startup	5 745.028 509	28 509	0.000 496
			2 minutes	5 745.028 291	28 291	0.000 492
			5 minutes	5 745.027 075	27 075	0.000 471
			10 minutes	5 745.026 919	26 919	0.000 469

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MIMO ANT2

Mode: UNII-1

Operating frequency: 5 180 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 180.024 330	24 330	0.000 470
			2 minutes	5 180.027 955	27 955	0.000 540
			5 minutes	5 180.023 385	23 385	0.000 451
			10 minutes	5 180.027 205	27 205	0.000 525
100 %		-5	Startup	5 180.021 385	21 385	0.000 413
			2 minutes	5 180.028 385	28 385	0.000 548
			5 minutes	5 180.030 115	30 115	0.000 581
			10 minutes	5 180.026 985	26 985	0.000 521
100 %		0	Startup	5 180.029 955	29 955	0.000 578
			2 minutes	5 180.028 780	28 780	0.000 556
			5 minutes	5 180.026 455	26 455	0.000 511
			10 minutes	5 180.020 895	20 895	0.000 403
100 %		10	Startup	5 180.012 235	12 235	0.000 236
			2 minutes	5 180.013 545	13 545	0.000 261
			5 minutes	5 180.014 455	14 455	0.000 279
			10 minutes	5 180.012 065	12 065	0.000 233
100 %		20	Startup	5 180.011 895	11 895	0.000 230
			2 minutes	5 180.009 875	9 875	0.000 191
			5 minutes	5 180.009 900	9 900	0.000 191
			10 minutes	5 180.007 895	7 895	0.000 152
100 %		23	Startup	5 180.008 255	8 255	0.000 159
			2 minutes	5 180.004 965	4 965	0.000 096
			5 minutes	5 180.005 235	5 235	0.000 101
			10 minutes	5 180.004 775	4 775	0.000 092
100 %		30	Startup	5 180.005 845	5 845	0.000 113
			2 minutes	5 180.006 417	6 417	0.000 124
			5 minutes	5 180.006 103	6 103	0.000 118
			10 minutes	5 180.005 155	5 155	0.000 100
100 %		40	Startup	5 500.003 038	3 038	0.000 055
			2 minutes	5 500.002 406	2 406	0.000 044
			5 minutes	5 500.002 008	2 008	0.000 037
			10 minutes	5 500.003 361	3 361	0.000 061
100 %		50	Startup	5 180.011 895	11 895	0.000 230
			2 minutes	5 180.009 875	9 875	0.000 191
			5 minutes	5 180.009 900	9 900	0.000 191
			10 minutes	5 180.007 895	7 895	0.000 152
85 %	DC 5.95	23	Startup	5 180.008 255	8 255	0.000 159
			2 minutes	5 180.004 965	4 965	0.000 096
			5 minutes	5 180.005 235	5 235	0.000 101
			10 minutes	5 180.004 775	4 775	0.000 092
115 %	DC 8.05	23	Startup	5 180.008 797	8 797	0.000 170
			2 minutes	5 180.008 289	8 289	0.000 160
			5 minutes	5 180.008 277	8 277	0.000 160
			10 minutes	5 180.007 435	7 435	0.000 144

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Mode: UNII-2A
Operating frequency: 5 260 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 260.006 263	6 263	0.000 119
			2 minutes	5 260.005 557	5 557	0.000 106
			5 minutes	5 260.005 159	5 159	0.000 098
			10 minutes	5 260.005 044	5 044	0.000 096
100 %		-5	Startup	5 260.010 160	10 160	0.000 193
			2 minutes	5 260.010 172	10 172	0.000 193
			5 minutes	5 260.010 795	10 795	0.000 205
			10 minutes	5 260.010 673	10 673	0.000 203
100 %		0	Startup	5 260.018 295	18 295	0.000 348
			2 minutes	5 260.018 173	18 173	0.000 345
			5 minutes	5 260.019 784	19 784	0.000 376
			10 minutes	5 260.019 830	19 830	0.000 377
100 %		10	Startup	5 260.015 120	15 120	0.000 287
			2 minutes	5 260.014 956	14 956	0.000 284
			5 minutes	5 260.014 468	14 468	0.000 275
			10 minutes	5 260.013 625	13 625	0.000 259
100 %		20	Startup	5 260.007 733	7 733	0.000 147
			2 minutes	5 260.007 719	7 719	0.000 147
			5 minutes	5 260.006 921	6 921	0.000 132
			10 minutes	5 260.006 277	6 277	0.000 119
100 %		23	Startup	5 260.007 107	7 107	0.000 135
			2 minutes	5 260.006 977	6 977	0.000 133
			5 minutes	5 260.006 093	6 093	0.000 116
			10 minutes	5 260.005 454	5 454	0.000 104
100 %		30	Startup	5 260.004 528	4 528	0.000 086
			2 minutes	5 260.005 335	5 335	0.000 101
			5 minutes	5 260.005 097	5 097	0.000 097
			10 minutes	5 260.004 105	4 105	0.000 078
100 %		40	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		50	Startup	5 259.988 344	-11 656	-0.000 222
			2 minutes	5 259.988 224	-11 776	-0.000 224
			5 minutes	5 259.987 563	-12 437	-0.000 236
			10 minutes	5 259.987 293	-12 707	-0.000 242
85 %	DC 5.95	23	Startup	5 260.008 708	8 708	0.000 166
			2 minutes	5 260.008 241	8 241	0.000 157
			5 minutes	5 260.008 145	8 145	0.000 155
			10 minutes	5 260.007 877	7 877	0.000 150
115 %	DC 8.05	23	Startup	5 260.009 264	9 264	0.000 176
			2 minutes	5 260.008 514	8 514	0.000 162
			5 minutes	5 260.008 448	8 448	0.000 161
			10 minutes	5 260.008 413	8 413	0.000 160

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Mode: UNII-2C
Operating frequency: 5500 MHz

Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		-5	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
100 %		0	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.016 322	16 322	0.000 297
			5 minutes	5 500.016 265	16 265	0.000 296
			10 minutes	5 500.014 990	14 990	0.000 273
100 %		10	Startup	5 500.010 528	10 528	0.000 191
			2 minutes	5 500.010 158	10 158	0.000 185
			5 minutes	5 500.009 687	9 687	0.000 176
			10 minutes	5 500.008 898	8 898	0.000 162
100 %		20	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		23	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
100 %		30	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.006 083	6 083	0.000 111
			5 minutes	5 500.006 081	6 081	0.000 111
			10 minutes	5 500.004 990	4 990	0.000 091
100 %		40	Startup	5 500.007 707	7 707	0.000 140
			2 minutes	5 500.007 163	7 163	0.000 130
			5 minutes	5 500.006 787	6 787	0.000 123
			10 minutes	5 500.006 395	6 395	0.000 116
100 %		50	Startup	5 500.007 038	7 038	0.000 128
			2 minutes	5 500.006 406	6 406	0.000 116
			5 minutes	5 500.006 008	6 008	0.000 109
			10 minutes	5 500.005 361	5 361	0.000 097
85 %	DC 5.95	23	Startup	5 500.005 946	5 946	0.000 108
			2 minutes	5 500.007 763	7 763	0.000 141
			5 minutes	5 500.007 623	7 623	0.000 139
			10 minutes	5 500.007 468	7 468	0.000 136
115 %	DC 8.05	23	Startup	5 500.008 257	8 257	0.000 150
			2 minutes	5 500.007 890	7 890	0.000 143
			5 minutes	5 500.007 822	7 822	0.000 142
			10 minutes	5 500.007 592	7 592	0.000 138

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Mode: UNII-3
Operating frequency: 5 745 MHz

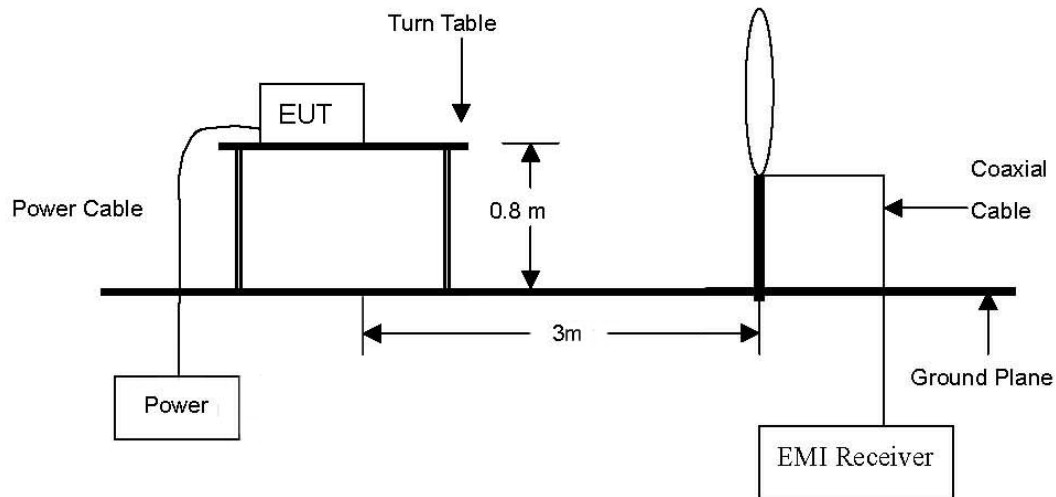
Test voltage (%)	Test voltage (V)	Temperature (°C)	Maintaining time	Measure frequency (MHz)	Frequency deviation (Hz)	Deviation (%)
100 %	DC 7	-10	Startup	5 259.991 257	-8 743	-0.000 166
			2 minutes	5 259.990 881	-9 119	-0.000 173
			5 minutes	5 259.990 812	-9 188	-0.000 175
			10 minutes	5 259.990 355	-9 645	-0.000 183
100 %		-5	Startup	5 745.005 415	5 415	0.000 094
			2 minutes	5 745.005 596	5 596	0.000 097
			5 minutes	5 745.007 084	7 084	0.000 123
			10 minutes	5 745.006 907	6 907	0.000 120
100 %		0	Startup	5 745.006 834	6 834	0.000 119
			2 minutes	5 745.005 878	5 878	0.000 102
			5 minutes	5 745.006 530	6 530	0.000 114
			10 minutes	5 745.005 513	5 513	0.000 096
100 %		10	Startup	5 745.010 578	10 578	0.000 184
			2 minutes	5 745.010 517	10 517	0.000 183
			5 minutes	5 745.009 084	9 084	0.000 158
			10 minutes	5 745.008 907	8 907	0.000 155
100 %		20	Startup	5 745.008 340	8 340	0.000 145
			2 minutes	5 745.006 878	6 878	0.000 120
			5 minutes	5 745.006 830	6 830	0.000 119
			10 minutes	5 745.006 513	6 513	0.000 113
100 %		23	Startup	5 745.007 032	7 032	0.000 122
			2 minutes	5 745.006 499	6 499	0.000 113
			5 minutes	5 745.006 485	6 485	0.000 113
			10 minutes	5 745.006 337	6 337	0.000 110
100 %		30	Startup	5 745.006 052	6 052	0.000 105
			2 minutes	5 745.005 864	5 864	0.000 102
			5 minutes	5 745.005 810	5 810	0.000 101
			10 minutes	5 745.005 547	5 547	0.000 097
100 %		40	Startup	5 745.006 834	6 834	0.000 119
			2 minutes	5 745.005 878	5 878	0.000 102
			5 minutes	5 745.006 530	6 530	0.000 114
			10 minutes	5 745.005 513	5 513	0.000 096
100 %		50	Startup	5 745.008 340	8 340	0.000 145
			2 minutes	5 745.006 878	6 878	0.000 120
			5 minutes	5 745.006 830	6 830	0.000 119
			10 minutes	5 745.006 513	6 513	0.000 113
85 %	DC 5.95	23	Startup	5 745.008 764	8 764	0.000 153
			2 minutes	5 745.008 710	8 710	0.000 152
			5 minutes	5 745.008 581	8 581	0.000 149
			10 minutes	5 745.007 996	7 996	0.000 139
115 %	DC 8.05	23	Startup	5 745.009 183	9 183	0.000 160
			2 minutes	5 745.008 623	8 623	0.000 150
			5 minutes	5 745.008 311	8 311	0.000 145
			10 minutes	5 745.007 761	7 761	0.000 135

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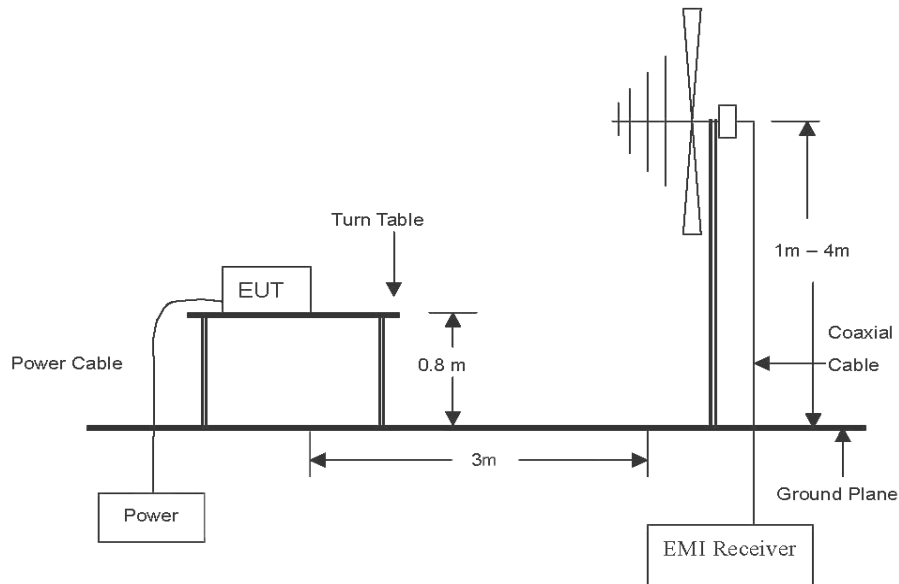
3.6. Radiated restricted band and emissions

Test setup

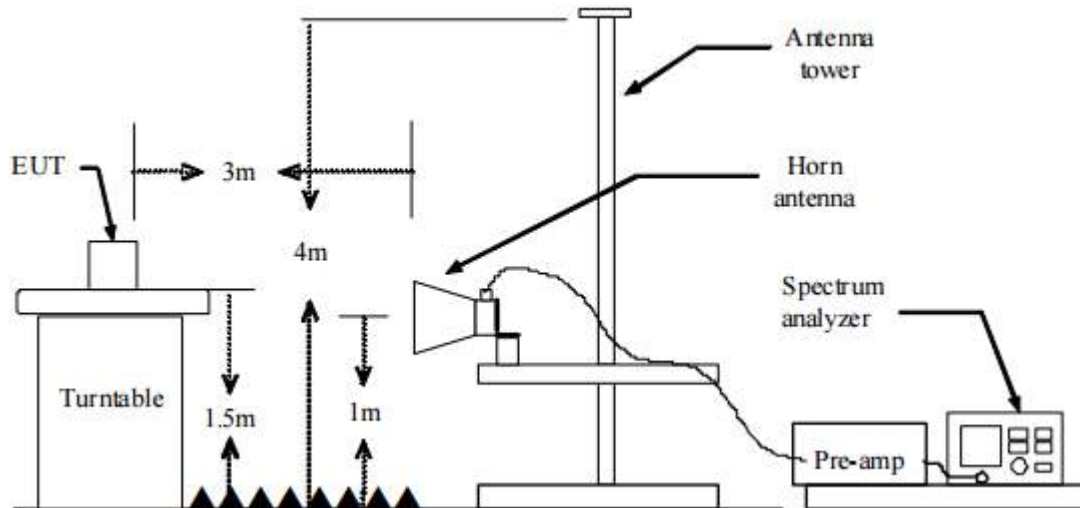
The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 GHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz emissions, whichever is lower.



Test procedure

Radiated emissions from the EUT were measured according to the dictates in section 11.11 & 11.12 of ANSI C63.10-2013.

Test procedure below 30 MHz

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel, ground parallel and perpendicular of the antenna are set to make the measurement. It was determined that parallel was worst-case orientation; therefore, all final radiated testing was performed with the EUT in parallel.
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum hold mode.

Test procedure above 30 MHz

1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The antenna is a bi-log antenna, a horn antenna, and its height are varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

5. Spectrum analyzer settings for $f < 1$ GHz:

- ① Span = wide enough to fully capture the emission being measured
- ② RBW = 100 kHz
- ③ VBW $\geq$ RBW
- ④ Detector = quasi peak
- ⑤ Sweep time = auto
- ⑥ Trace = max hold

6. Spectrum analyzer settings for $f \geq 1$ GHz: Peak

- ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- ② RBW = 1 MHz
- ③ VBW ≥ 3 MHz
- ④ Detector = peak
- ⑤ Sweep time = auto
- ⑥ Trace = max hold
- ⑦ Trace was allowed to stabilize

7. Spectrum analyzer settings for $f \geq 1$ GHz: Average

- ① Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- ② RBW = 1 MHz
- ③ VBW $\geq 3 \times$ RBW
- ④ Detector = RMS, if span/(# of points in sweep) $\leq$ (RBW/2). Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- ⑤ Averaging type = power(i.e., RMS)
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- ⑥ Sweep = auto
- ⑦ Trace = max hold
- ⑧ Perform a trace average of at least 100 traces.
- ⑨ A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
 - 1) If power averaging (RMS) mode was used in step ⑤, then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.
 - 2) If linear voltage averaging mode was used in step ⑤, then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.
 - 3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

Note.

1. $f < 30$ MHz, extrapolation factor of 40 dB/decade of distance. $F_d = 40 \log(D_m/D_s)$
 $f \geq 30$ MHz, extrapolation factor of 20 dB/decade of distance. $F_d = 20 \log(D_m/D_s)$
 Where:
 F_d = Distance factor in dB
 D_m = Measurement distance in meters
 D_s = Specification distance in meters
2. Field strength(dB μ V/m) = Level(dB μ V) + CF (dB) + or DCF(dB)
3. Margin(dB) = Limit(dB μ V/m) - Field strength(dB μ V/m)
4. Emissions below 18 GHz were measured at a 3 meter test distance while emissions above 18 GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, it was determined that **X orientation** was worst-case orientation; therefore, all final radiated testing was performed with the EUT in **X orientation**.
8. The worst-case emissions are reported however emissions whose levels were not within 20 dB of respective limits were not reported.
9. According to exploratory test no any obvious emission were detected from 9 kHz to 30 MHz. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30 m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.

Limit

According to 15.209(a), for an intentional radiator devices, the general required of field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values :

Frequency (MHz)	Distance (Meters)	Radiated (μ V/m)
0.009 ~ 0.490	300	2400/F(kHz)
0.490 ~ 1.705	30	24000/F(kHz)
1.705 ~ 30.0	30	30
30 ~ 88	3	100**
88 ~ 216	3	150**
216 ~ 960	3	200**
Above 960	3	500

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54 ~ 72 MHz, 76 ~ 88 MHz, 174 ~ 216 MHz or 470 ~ 806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

According to 15.407(b), (b) Undesirable emission limits: Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: All emissions outside of the 5.15–5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: All emissions outside of the 5.47–5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725–5.85 GHz band:
 - i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
 - ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

According to RSS-247 6.2 The equipment output power and e.i.r.p. shall be measured in terms of average value. If the transmission is in bursts, the provisions of RSS-Gen for pulsed operation shall apply.

(1) For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

(2) For transmitters operating in the band 5250-5350 MHz Devices shall comply with the following:

- a) All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.; or
- b) All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device, except devices installed in vehicles, shall be labelled or include in the user manual the following text “for indoor use only.”

(3) For transmitters operating in the band 5470-5600 MHz and 5650-5725 MHz, Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, devices with bandwidth overlapping the band edge of 5725 MHz can meet the emission limit of -27 dBm/MHz e.i.r.p. at 5850 MHz instead of 5725 MHz.

(4) For the band 5725-5850 MHz, Devices operating in the band 5725-5850 MHz with antenna gain greater than 10 dBi can have unwanted emissions that comply with either the limits in this section or in section 5.5 until six (6) months after the publication date of this standard for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2018.

Devices operating in the band 5725-5850 MHz with antenna gain of 10 dBi or less can have unwanted emissions that comply with either the limits in this section or in section 5.5 until April 1, 2018 for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2020.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

Duty cycle

Regarding to KDB 789033 D02 v02r01, B)2)b), the maximum duty cycles of all modes were investigated and set the spectrum analyzer as below.

Set $RBW \geq OBW$ if possible; otherwise, set RBW to the largest available value. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100.

For the band 5.15-5.25 GHz

ANTI

For the band 5.150-5.250 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.11	1.73
802.11an_HT20	1.89	2.89	0.65	65.42	1.84
802.11ac_VHT20	1.90	2.90	0.66	65.61	1.83
802.11an_HT40	0.94	1.93	0.48	48.41	3.15
802.11ac_VHT40	0.94	1.94	0.48	48.33	3.16
802.11ac_VHT80	0.46	1.46	0.31	31.47	5.02

For the band 5.250-5.350 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.02	1.74
802.11an_HT20	1.89	2.89	0.65	65.46	1.84
802.11ac_VHT20	1.90	2.90	0.66	65.59	1.83
802.11an_HT40	0.93	1.93	0.48	48.40	3.15
802.11ac_VHT40	0.94	1.94	0.48	48.35	3.16
802.11ac_VHT80	0.46	1.46	0.32	31.63	5.00

For the band 5.470-5.725 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	66.99	1.74
802.11an_HT20	1.89	2.89	0.65	65.40	1.84
802.11ac_VHT20	1.90	2.89	0.66	65.72	1.82
802.11an_HT40	0.94	1.94	0.49	48.51	3.14
802.11ac_VHT40	0.94	1.94	0.48	48.32	3.16
802.11ac_VHT80	0.46	1.46	0.31	31.34	5.04

For the band 5.725-5.85 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.05	1.74
802.11an_HT20	1.90	2.89	0.66	65.54	1.84
802.11ac_VHT20	1.90	2.90	0.65	65.47	1.84
802.11an_HT40	0.93	1.93	0.48	48.22	3.17
802.11ac_VHT40	0.94	1.93	0.49	48.63	3.13
802.11ac_VHT80	0.46	1.46	0.31	31.47	5.02

ANT2

For the band 5.150-5.250 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.11	1.73
802.11an_HT20	1.89	2.89	0.65	65.42	1.84
802.11ac_VHT20	1.90	2.90	0.66	65.61	1.83
802.11an_HT40	0.94	1.93	0.48	48.41	3.15
802.11ac_VHT40	0.94	1.94	0.48	48.33	3.16
802.11ac_VHT80	0.46	1.46	0.31	31.47	5.02

For the band 5.250-5.350 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.02	1.74
802.11an_HT20	1.89	2.89	0.65	65.46	1.84
802.11ac_VHT20	1.90	2.90	0.66	65.59	1.83
802.11an_HT40	0.93	1.93	0.48	48.40	3.15
802.11ac_VHT40	0.94	1.94	0.48	48.35	3.16
802.11ac_VHT80	0.46	1.46	0.32	31.63	5.00

For the band 5.470-5.725 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	66.99	1.74
802.11an_HT20	1.89	2.89	0.65	65.40	1.84
802.11ac_VHT20	1.90	2.89	0.66	65.72	1.82
802.11an_HT40	0.94	1.94	0.49	48.51	3.14
802.11ac_VHT40	0.94	1.94	0.48	48.32	3.16
802.11ac_VHT80	0.46	1.46	0.31	31.34	5.04

For the band 5.725-5.85 GHz

Test mode	T _{on} time (ms)	Period (ms)	Duty cycle (Linear)	Duty cycle (%)	Duty cycle correction factor (dB)
802.11a	2.03	3.03	0.67	67.05	1.74
802.11an_HT20	1.90	2.89	0.66	65.54	1.84
802.11ac_VHT20	1.90	2.90	0.65	65.47	1.84
802.11an_HT40	0.93	1.93	0.48	48.22	3.17
802.11ac_VHT40	0.94	1.93	0.49	48.63	3.13
802.11ac_VHT80	0.46	1.46	0.31	31.47	5.02

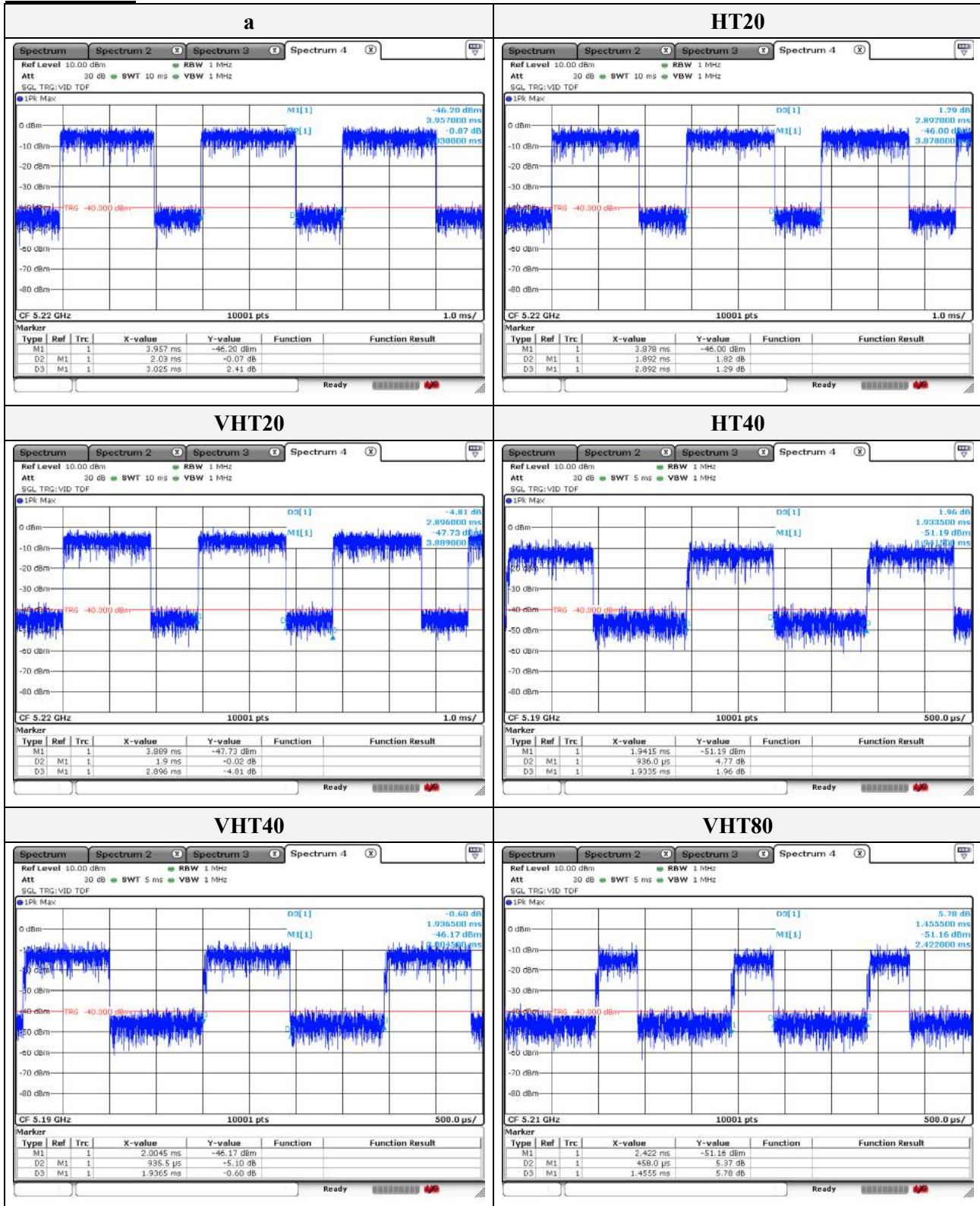
Note:

Duty cycle (Linear) = T_{on} time/Period

DCF(Duty cycle correction factor (dB)) = 10log(1/duty cycle)

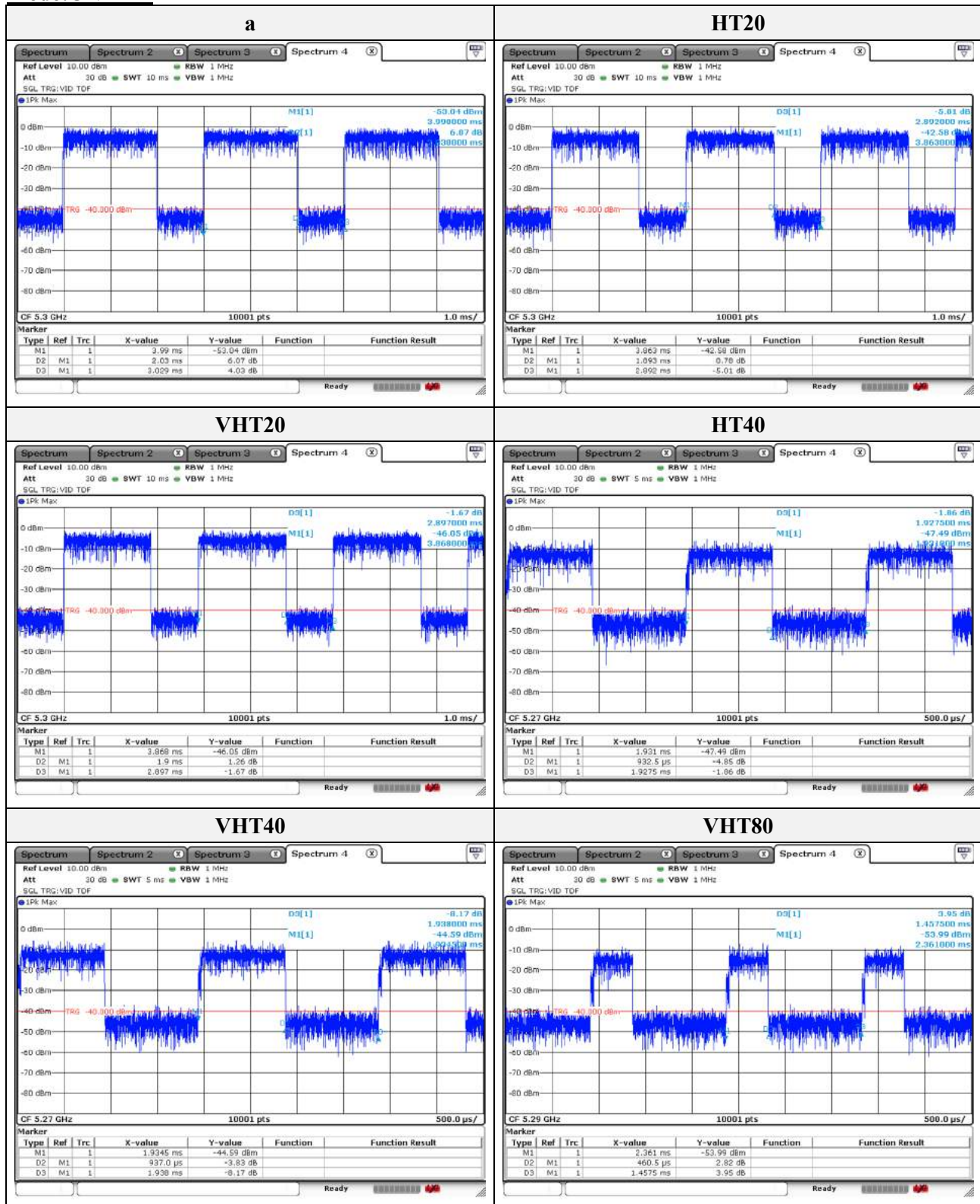
ANT1

Mode:UNII-1



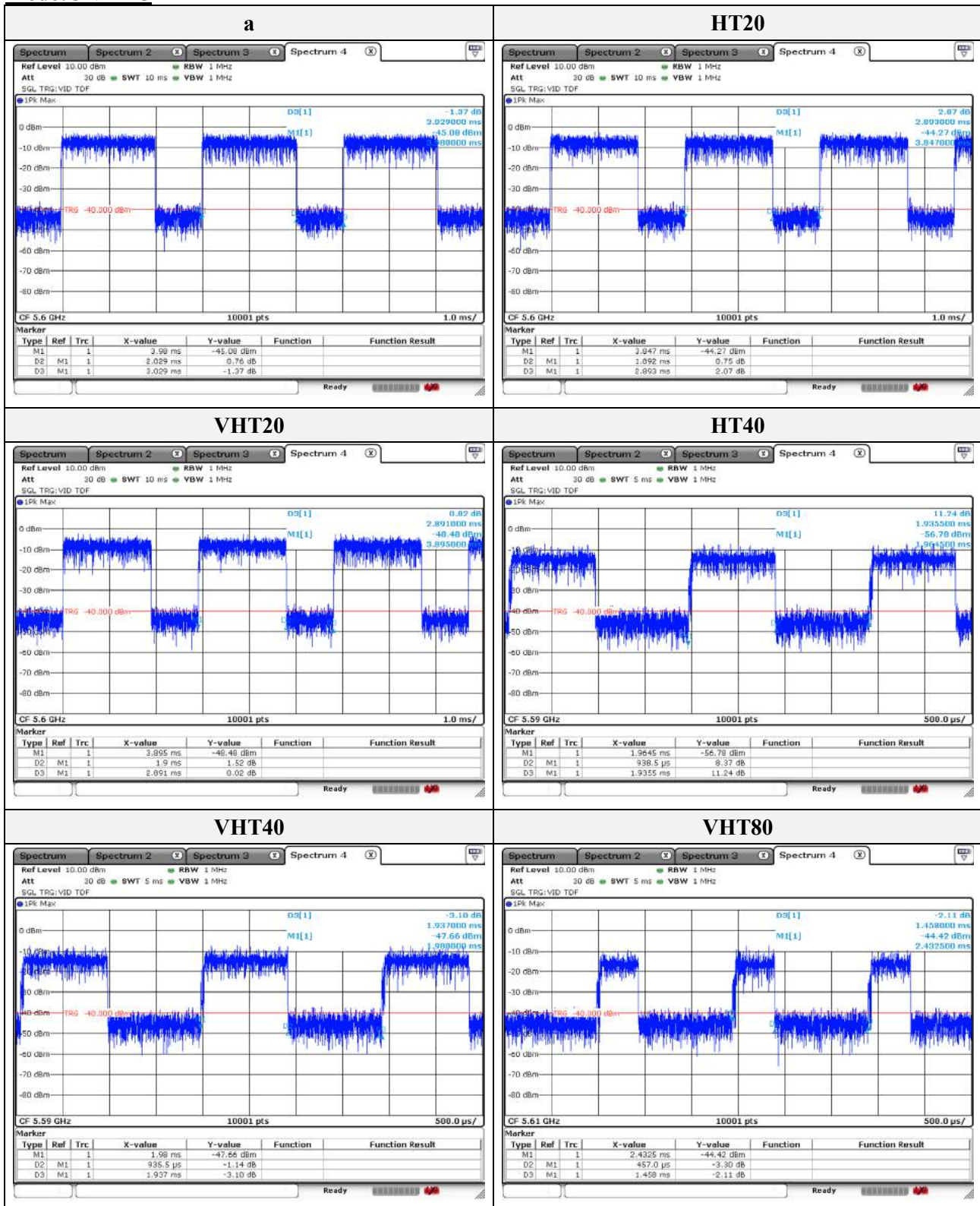
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Mode:UNII-2A



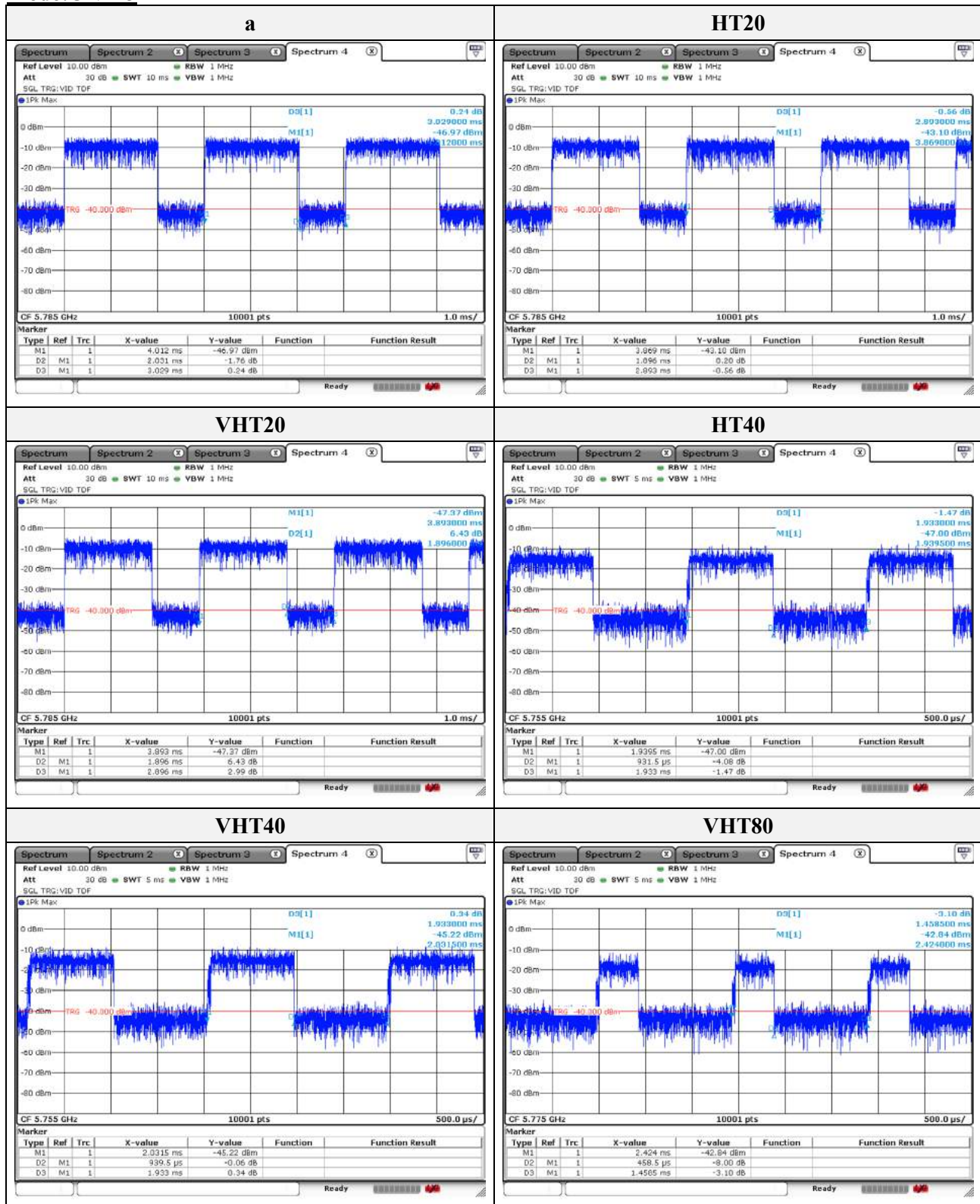
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Mode:UNII-2C



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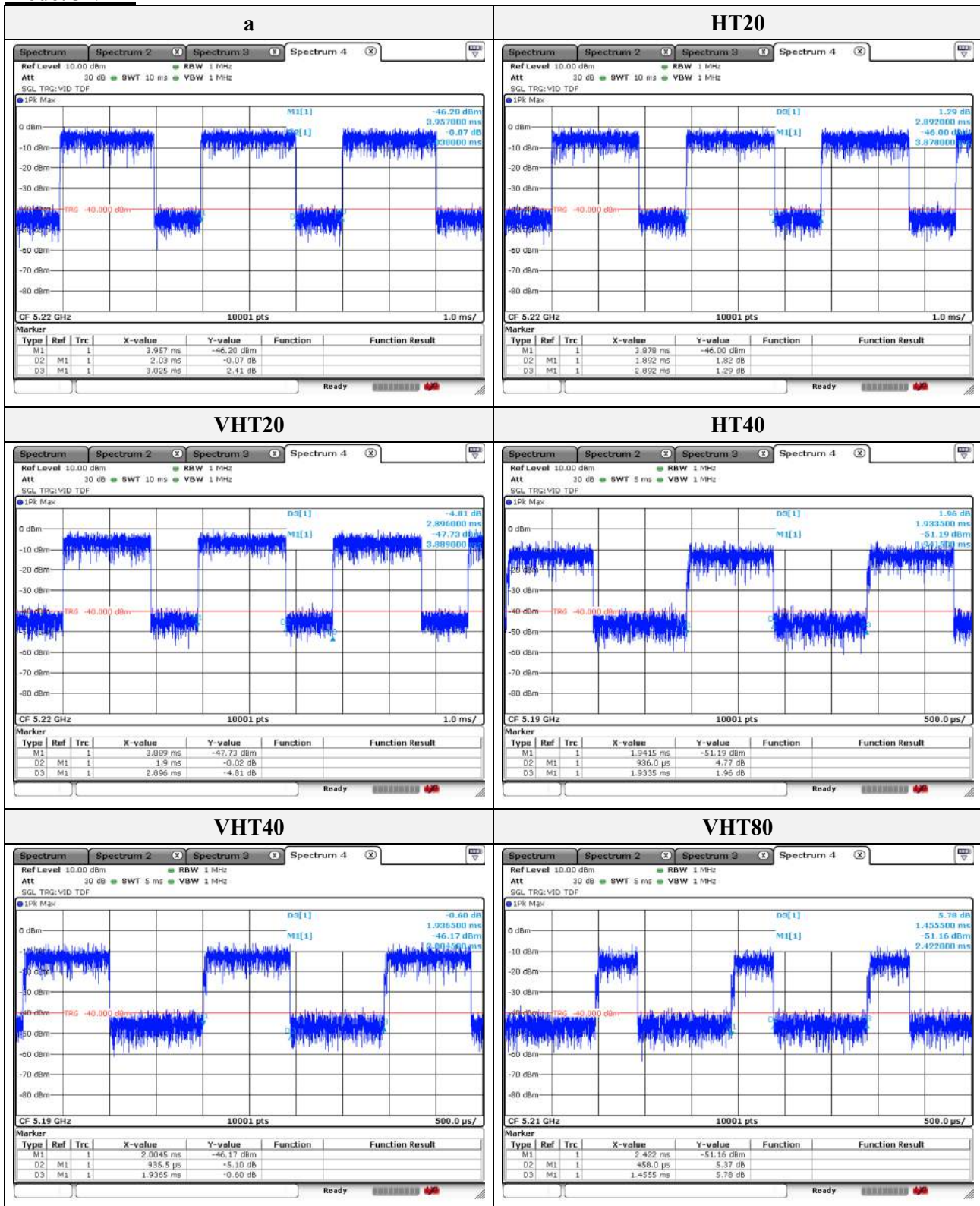
Mode:UNII-3



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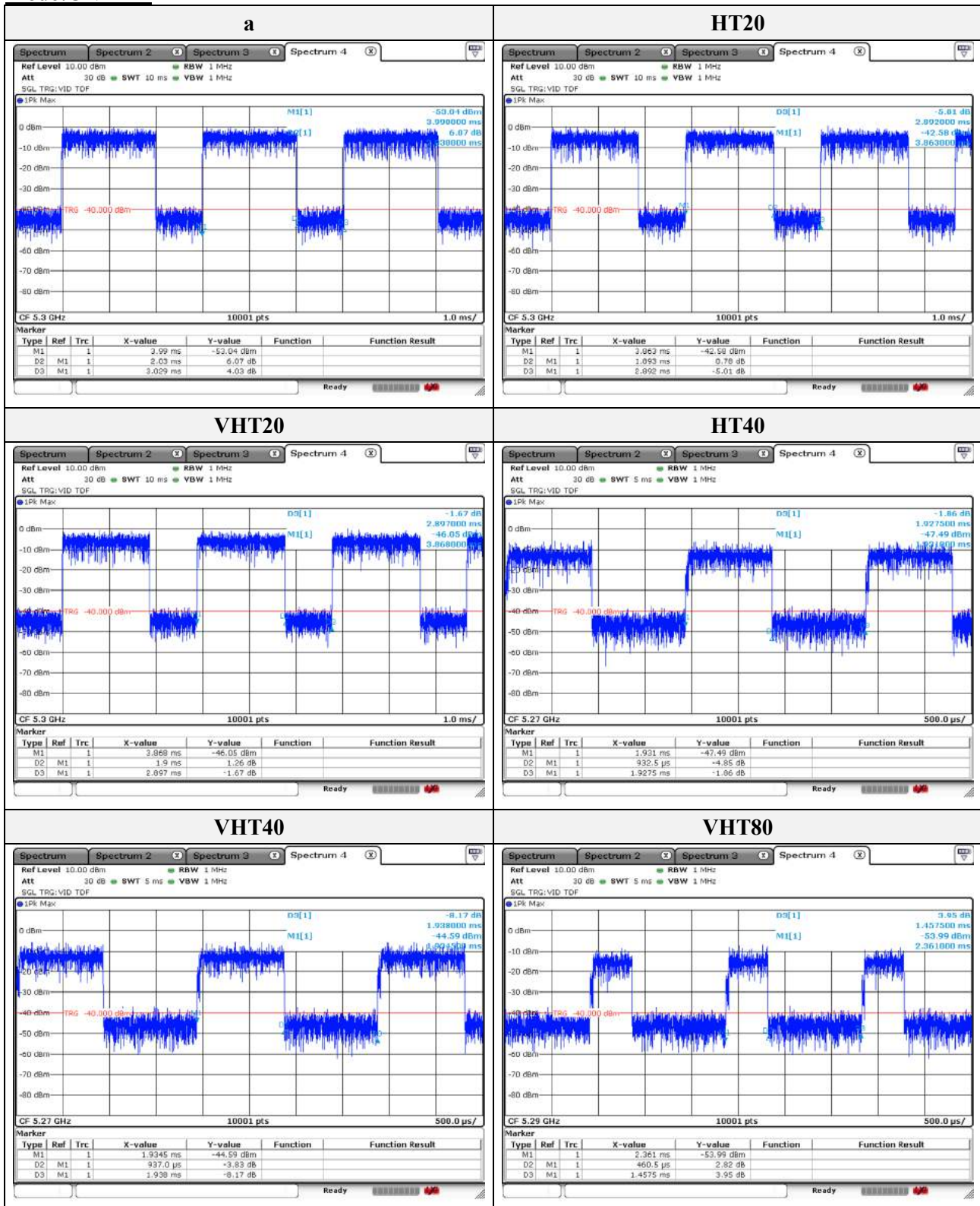
ANT2

Mode:UNII-1



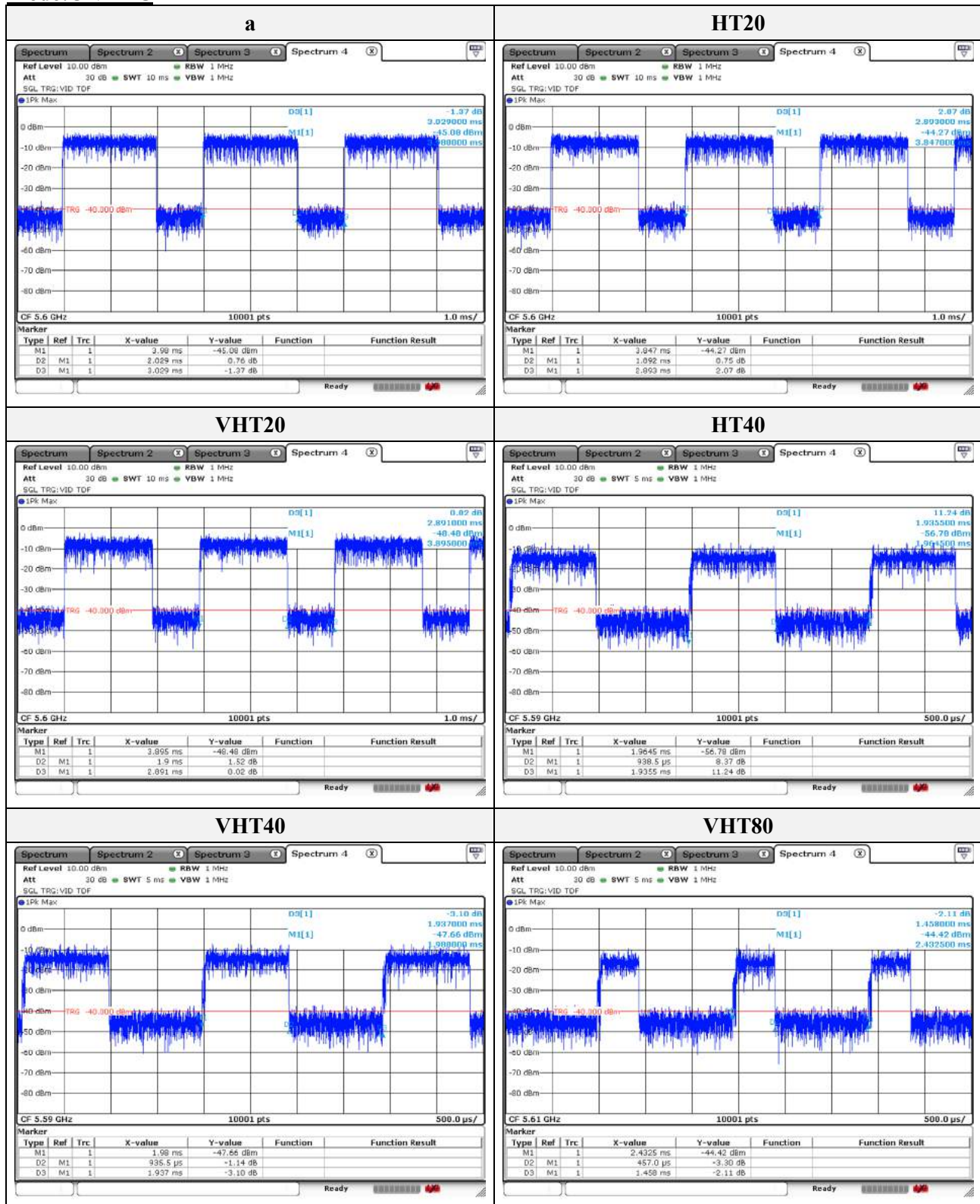
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Mode:UNII-2A



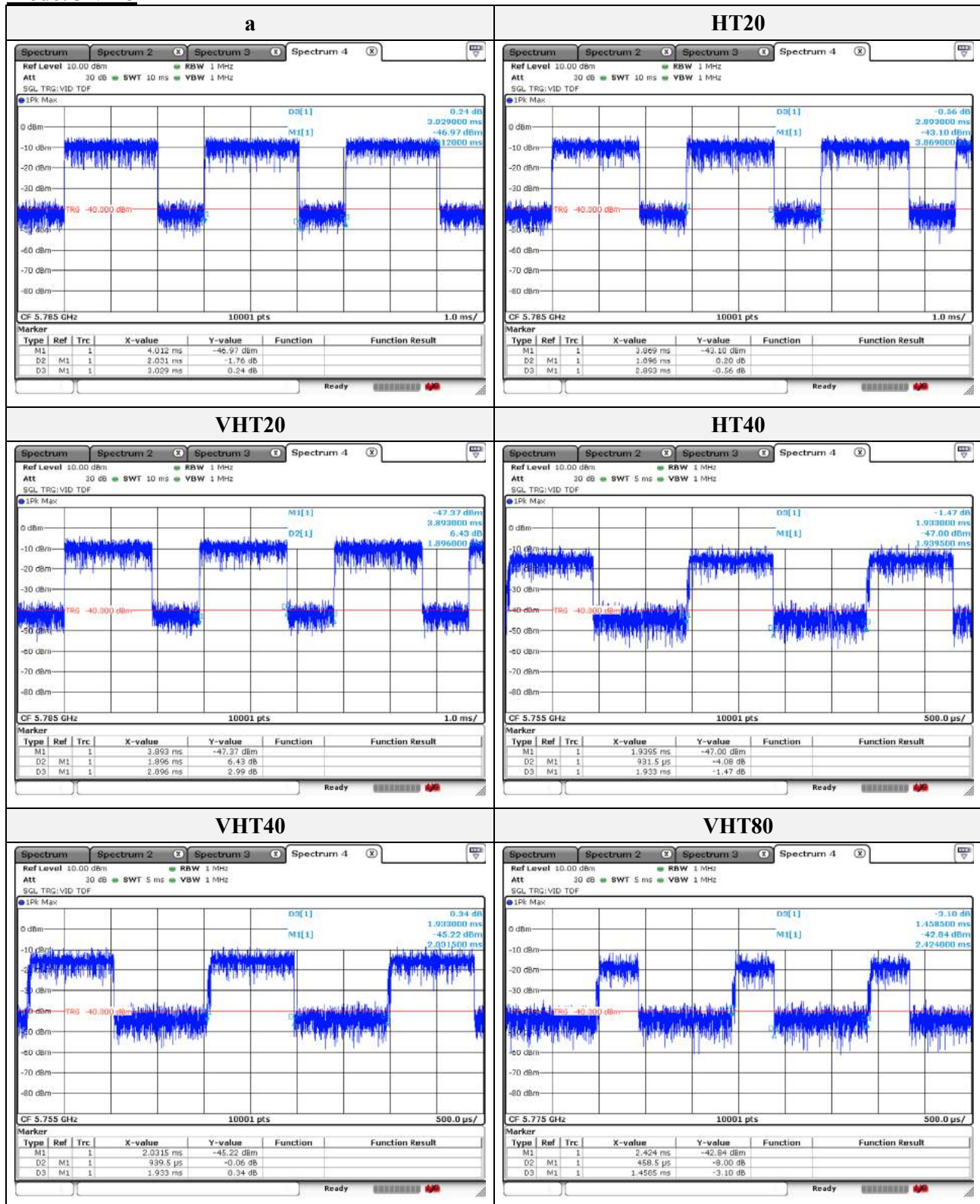
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Mode:UNII-2C



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Mode:UNII-3

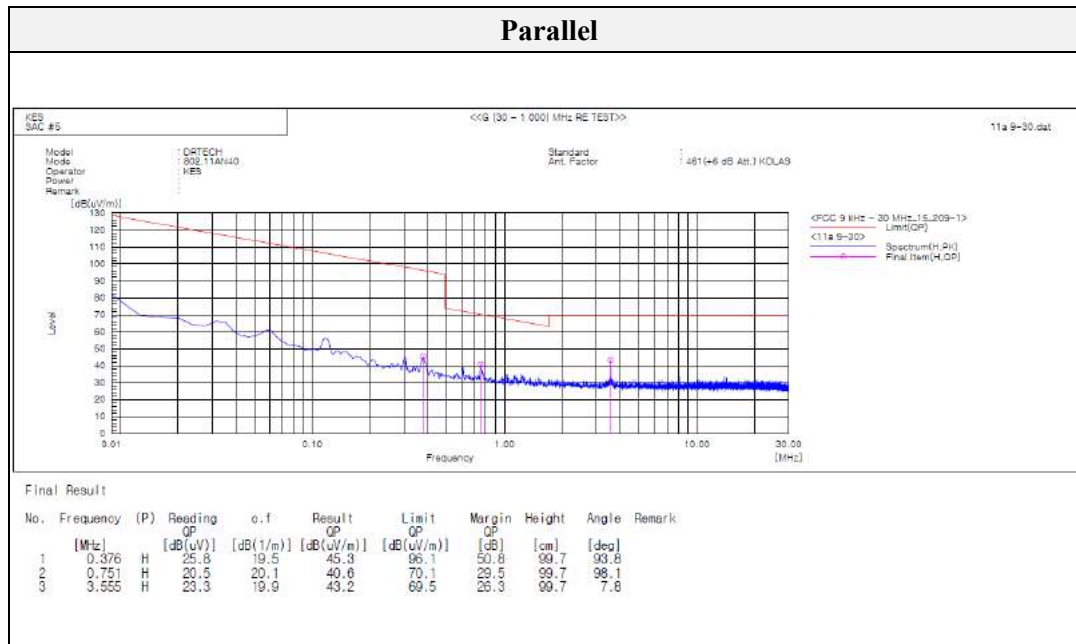


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Test results (Below 30 MHz)

ANT1

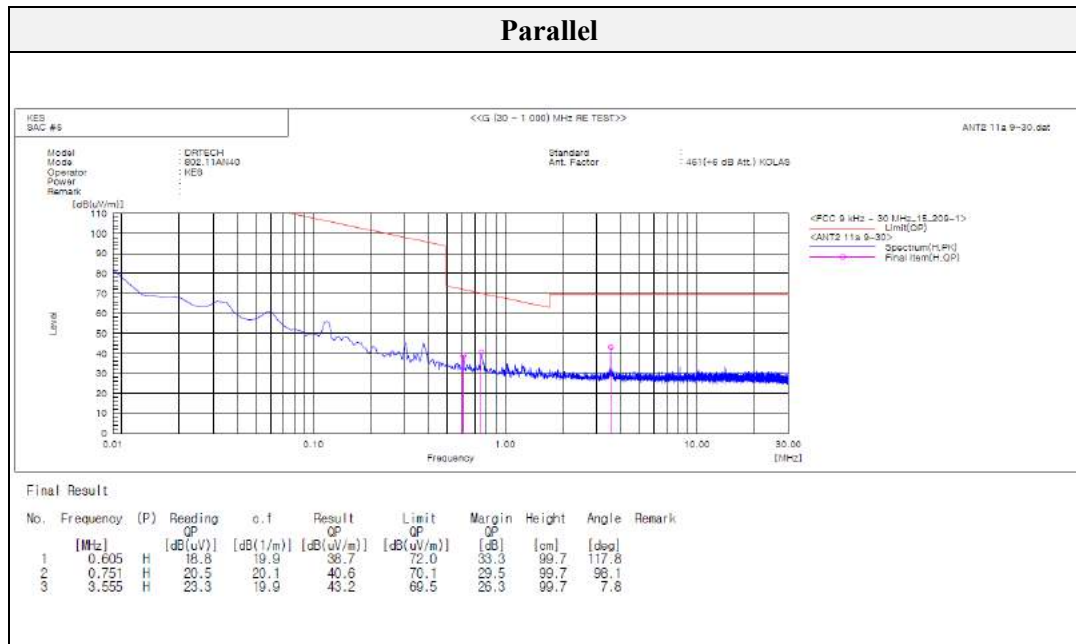
Band	UNII-1
Mode	802.11an_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter



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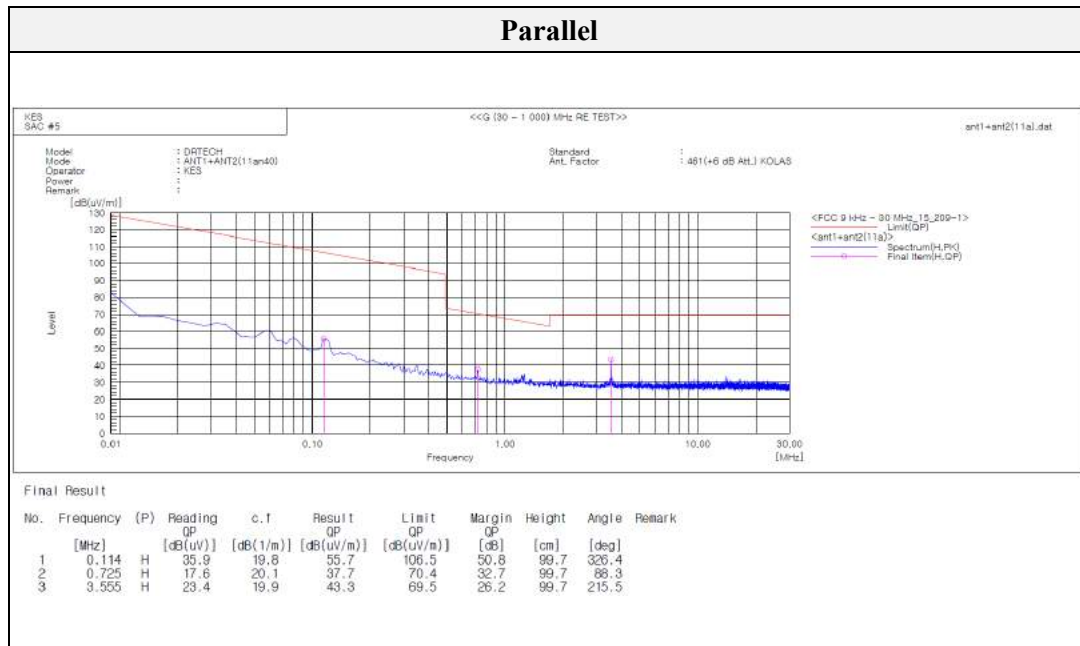
ANT2

Band	UNII-1
Mode	802.11a_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter



MIMO

Band	UNII-1
Mode	802.11an_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter



Note.

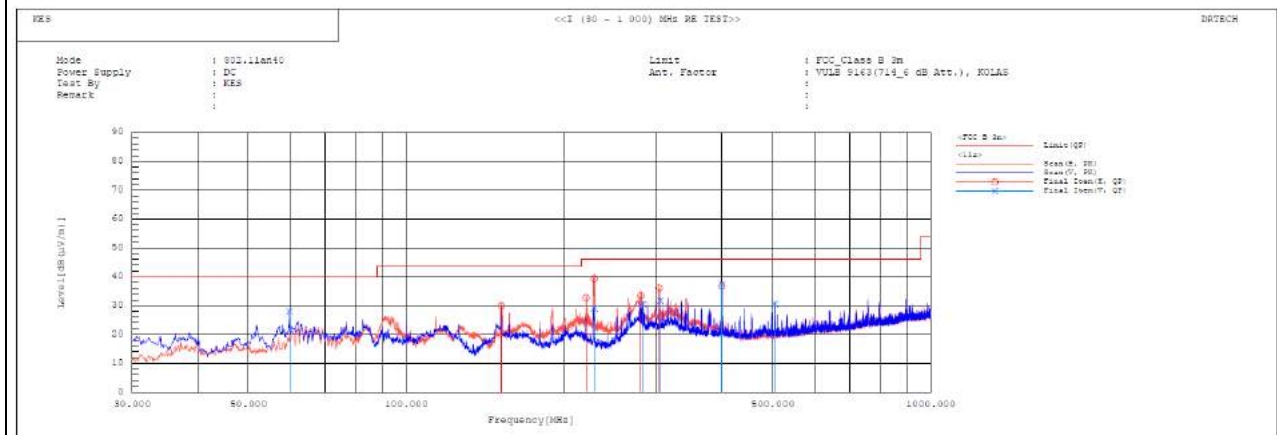
1. No spurious emission were detected under 30 MHz, the above test result is the peak result.

Test results (Below 1 000 MHz)

ANTI

Band	UNII-1
Mode	802.11an_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter

Horizontal // Vertical



Final Result

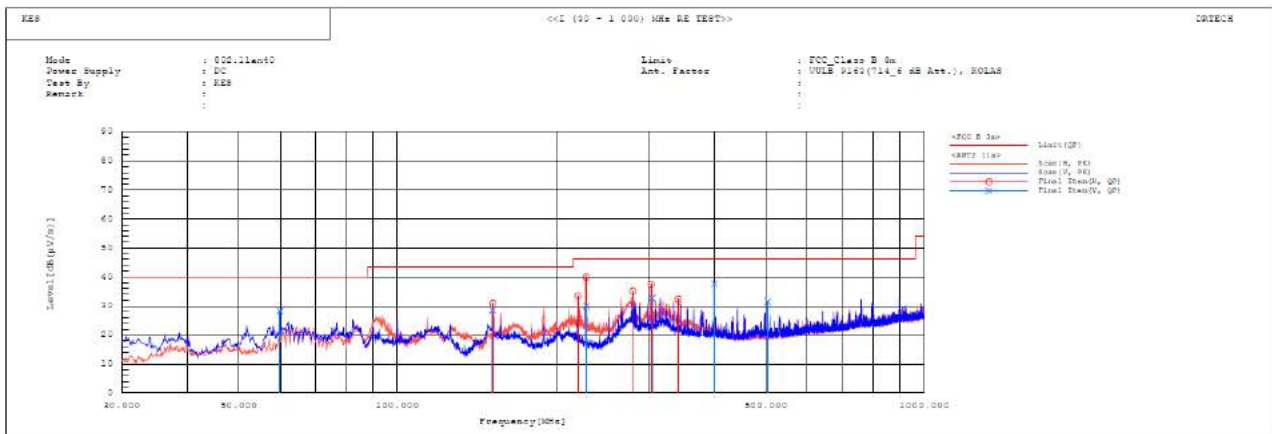
No.	Frequency [MHz]	Pol	Reading QP [dB (μV)]	c.f [dB (1/m)]	Result QP [dB (μV/m)]	Limit QP [dB (μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	59.949	V	39.9	-12.0	27.9	40.0	12.1	99.8	49.9	
2	151.978	H	45.3	-15.4	29.9	43.5	13.6	199.9	73.2	
3	220.241	H	43.9	-11.2	32.7	46.0	13.3	99.8	45.3	
4	228.365	H	50.2	-10.9	39.3	46.0	6.7	99.8	27.6	
5	228.486	V	39.9	-10.9	29.0	46.0	17.0	150.1	177.9	
6	280.260	H	43.1	-9.7	33.4	46.0	12.6	99.8	86.8	
7	282.685	V	40.1	-9.6	30.5	46.0	15.5	150.1	133.6	
8	303.419	H	45.3	-9.2	36.1	46.0	9.9	99.8	45.3	
9	304.631	V	40.7	-9.1	31.6	46.0	14.4	150.1	0.0	
10	400.055	H	43.3	-6.5	36.8	46.0	9.2	99.8	86.8	
11	400.055	V	44.0	-6.5	37.5	46.0	8.5	99.8	113.9	
12	504.694	V	34.9	-4.4	30.5	46.0	15.5	99.8	73.4	



ANT2

Band	UNII-1
Mode	802.11an_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter

Horizontal // Vertical



Final Result

No.	Frequency [MHz]	Pol	Reading QP [dB (μV)]	c.f [dB (1/m)]	Result QP [dB (μV/m)]	Limit QP [dB (μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	59.949	V	40.3	-12.0	28.3	40.0	11.7	99.8	49.9	
2	151.735	V	44.1	-15.5	28.6	43.5	14.9	99.8	0.1	
3	151.978	H	46.3	-15.4	30.9	43.5	12.6	199.9	73.2	
4	220.241	H	44.7	-11.2	33.5	46.0	12.5	99.8	45.3	
5	228.365	H	50.9	-10.9	40.0	46.0	6.0	99.8	27.6	
6	228.486	V	40.9	-10.9	30.0	46.0	16.0	150.1	177.9	
7	280.260	H	44.9	-9.7	35.2	46.0	10.8	99.8	86.8	
8	303.419	H	46.7	-9.2	37.5	46.0	8.5	99.8	45.3	
9	304.631	V	41.8	-9.1	32.7	46.0	13.3	150.1	0.0	
10	341.370	H	39.9	-7.5	32.4	46.0	13.6	99.8	65.7	
11	400.055	V	44.2	-6.5	37.7	46.0	8.3	99.8	113.9	
12	504.694	V	35.9	-4.4	31.5	46.0	14.5	99.8	73.4	

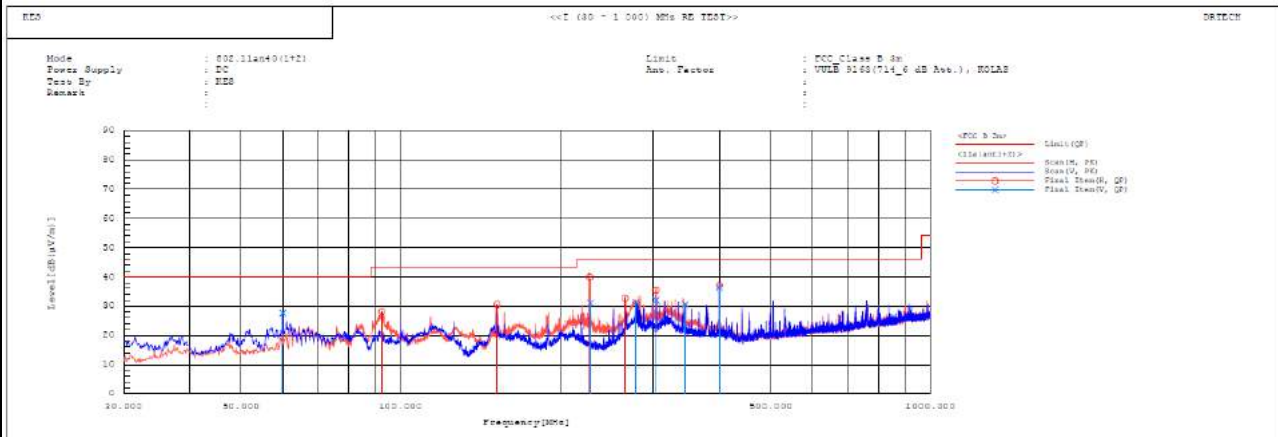
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MIMO

Band	UNII-1
Mode	802.11an_HT40
Channel	38 (Worst Case)
Distance of measurement:	3 meter

Horizontal // Vertical



Final Result

No.	Frequency [MHz]	Pol	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]	Remark
1	59.949	V	39.6	-12.0	27.6	40.0	12.4	99.8	158.9	
2	92.201	H	42.0	-13.9	28.1	43.5	15.4	199.9	181.9	
3	152.220	H	46.0	-15.4	30.6	43.5	12.9	199.9	139.0	
4	227.638	H	50.9	-10.9	40.0	46.0	6.0	99.7	27.5	
5	228.486	V	42.0	-10.9	31.1	46.0	14.9	150.1	359.8	
6	265.589	H	42.6	-9.9	32.7	46.0	13.3	99.7	179.8	
7	278.805	V	41.0	-9.7	31.3	46.0	14.7	150.1	153.3	
8	303.419	V	41.2	-9.2	32.0	46.0	14.0	150.1	22.8	
9	303.540	H	44.6	-9.2	35.4	46.0	10.6	99.7	0.0	
10	345.129	V	38.0	-7.3	30.7	46.0	15.3	150.1	0.0	
11	400.055	H	43.6	-6.5	37.1	46.0	8.9	199.9	50.9	
12	400.055	V	42.9	-6.5	36.4	46.0	9.6	99.8	114.5	

Test results (Above 1 000 MHz)

ANT1

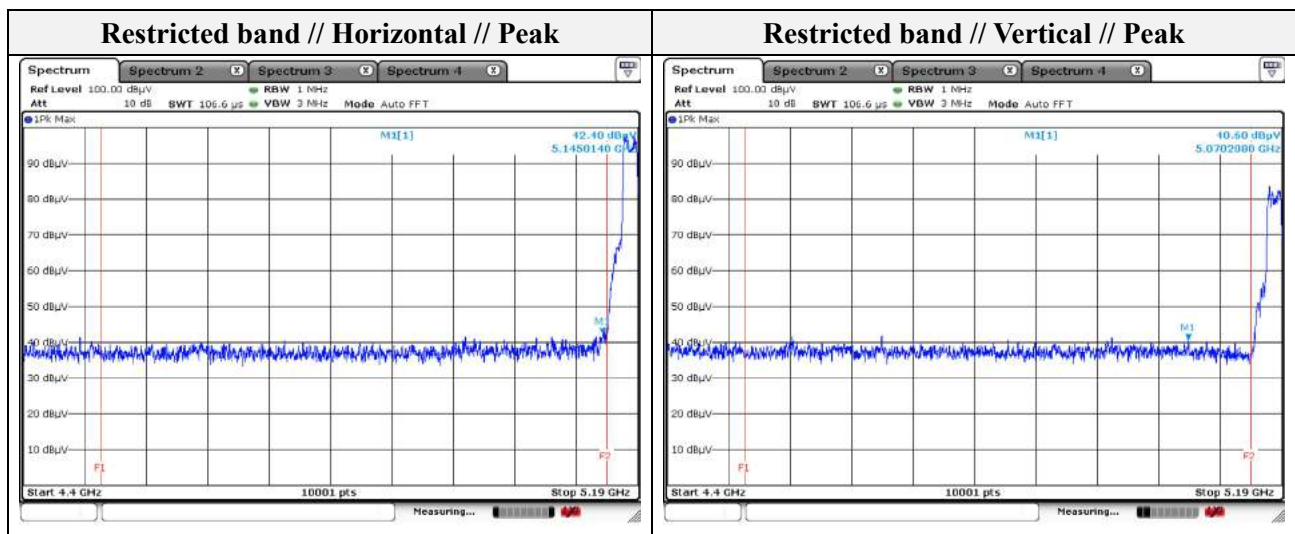
Mode:	802.11a
Band:	UNII-1
Distance of measurement:	3 meter
Channel:	36

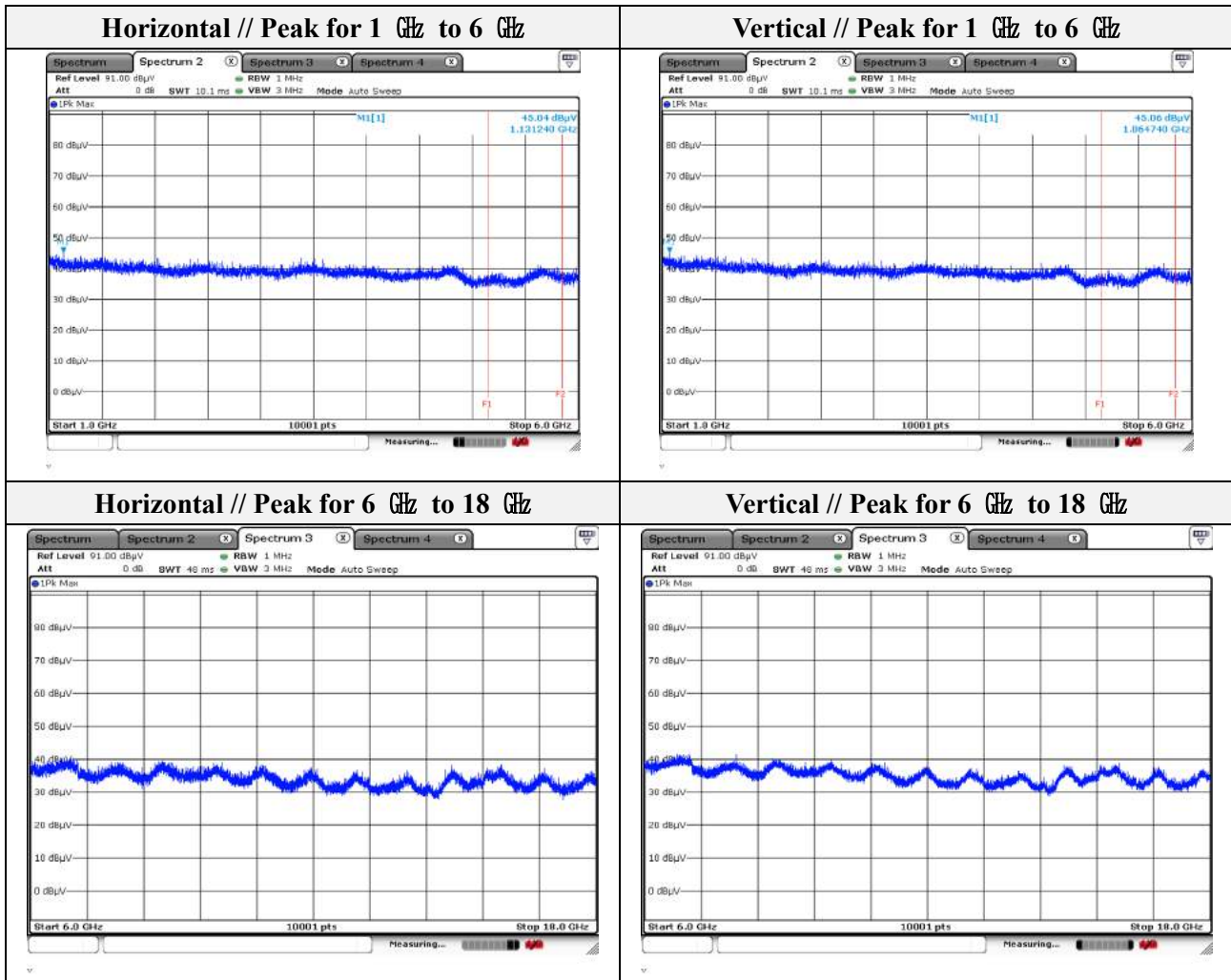
- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 064.74	45.06	Peak	V	-9.38		35.68	74.00	38.32
1 131.24	45.04	Peak	H	-9.31	-	35.73	74.00	38.27

- Band edge

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
5 070.21	40.60	Peak	V	8.28	-	48.88	74.00	25.12
5 145.01	42.40	Peak	H	7.94	-	50.34	74.00	23.66





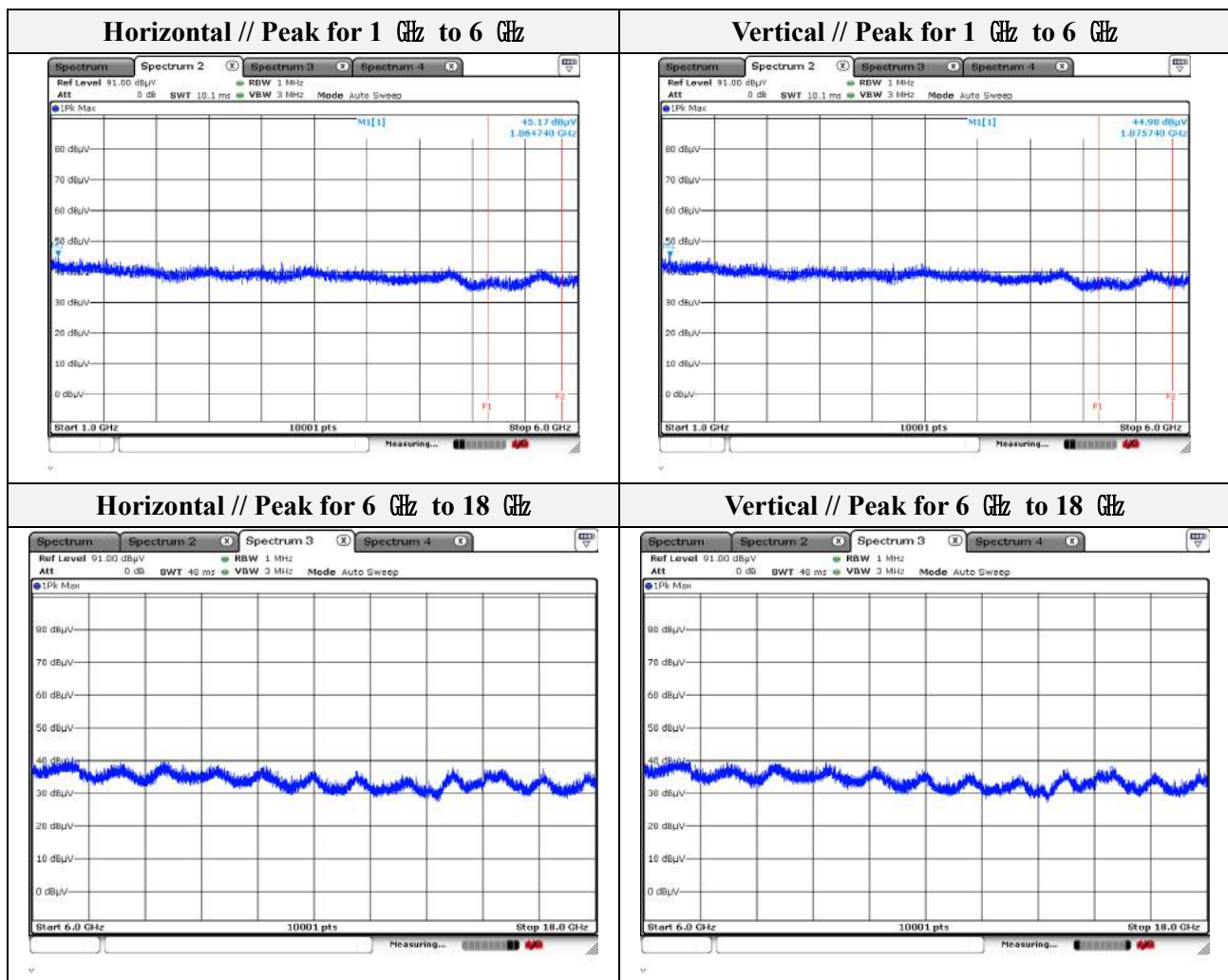
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11a
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 44

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 064.74	45.17	Peak	H	-9.38	-	35.79	74.00	38.21
1 075.74	44.98	Peak	V	-9.37	-	35.61	74.00	38.39



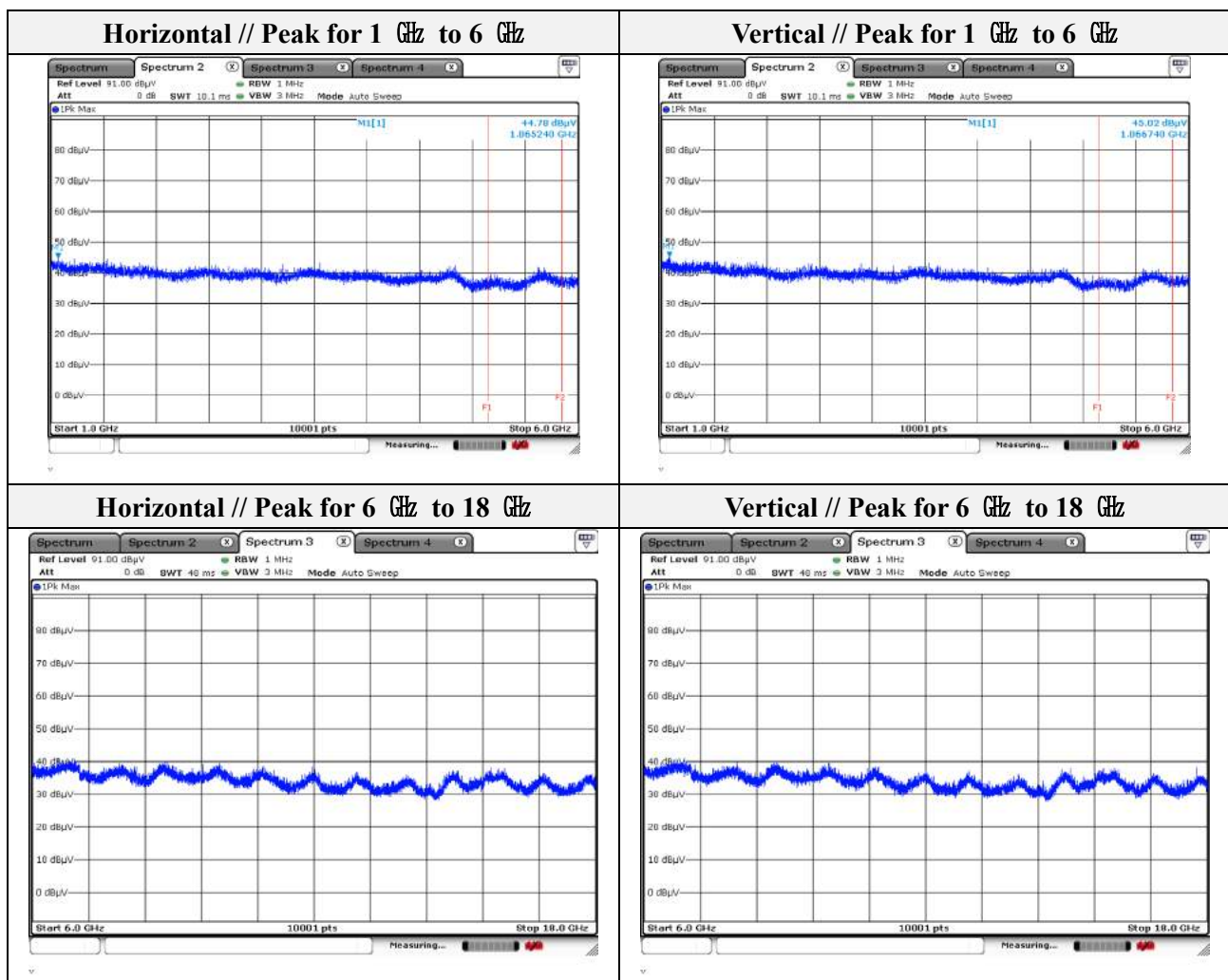
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11a
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 48

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 065.24	44.78	Peak	H	-9.38	-	35.40	74.00	38.60
1 066.74	45.02	Peak	V	-9.37	-	35.65	74.00	38.35



Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

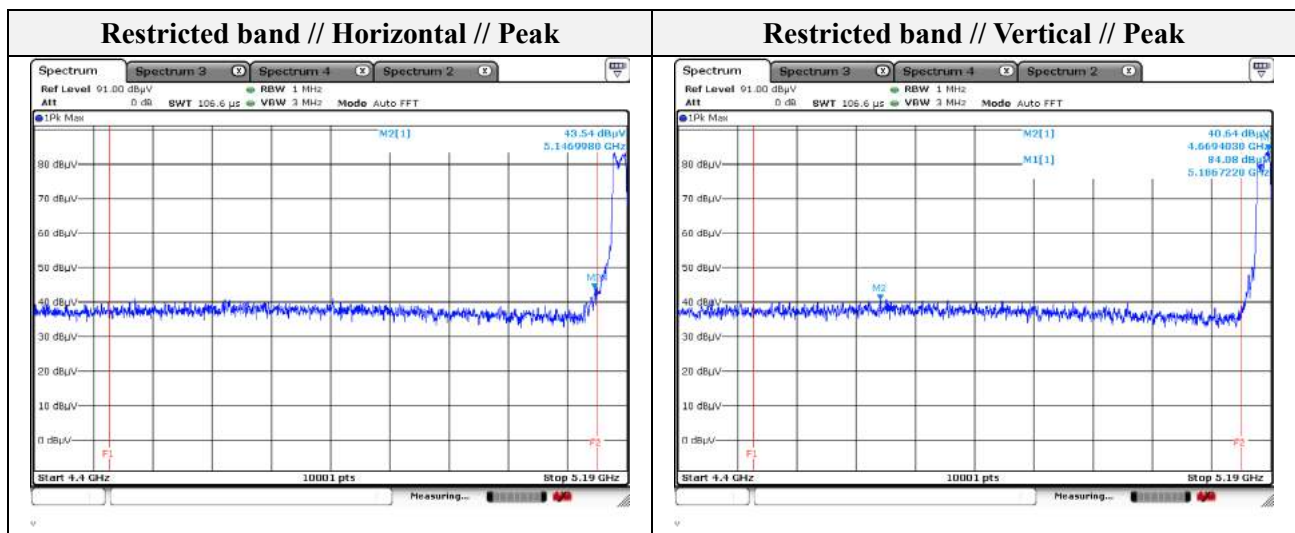
Mode: 802.11an_HT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 36

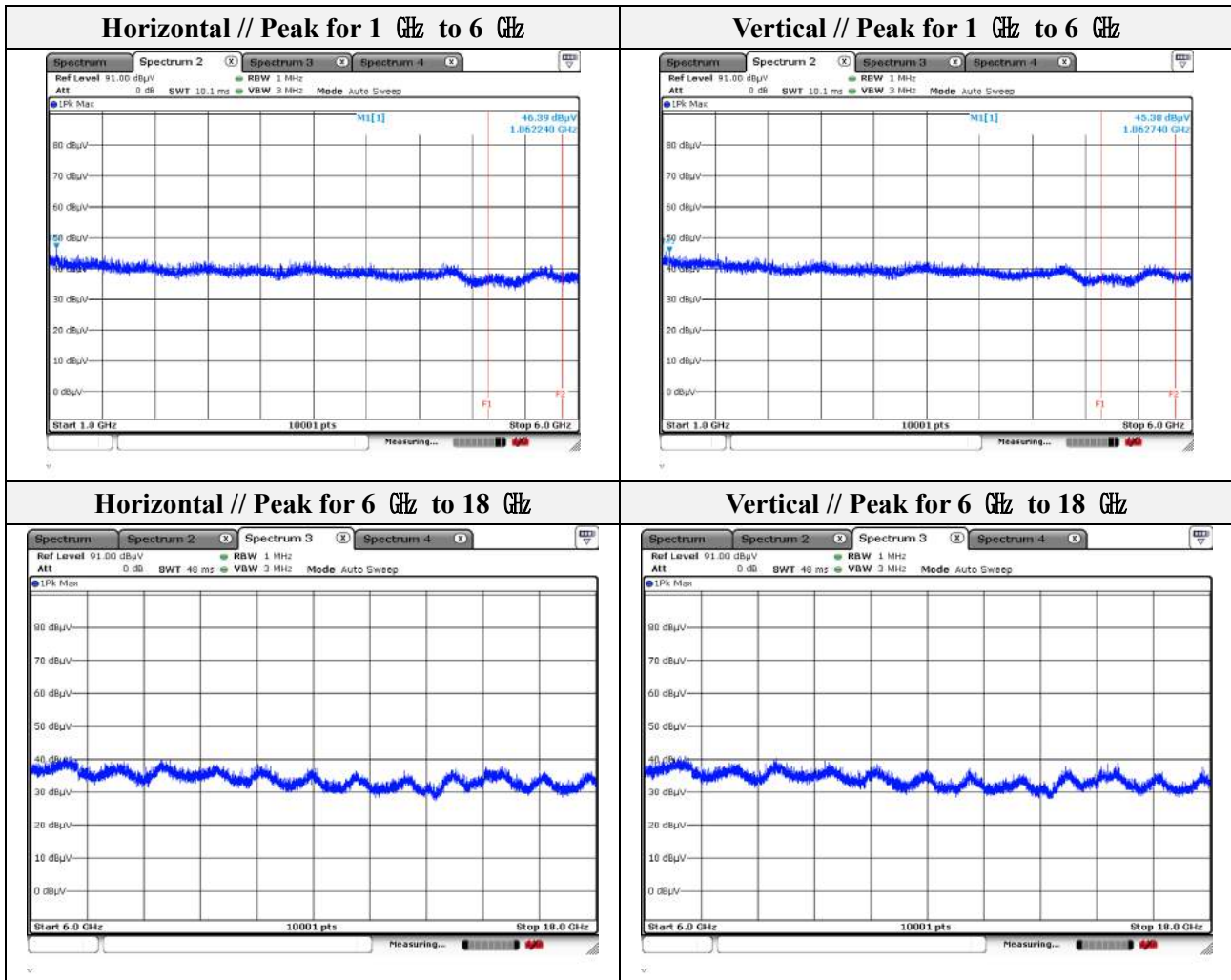
- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 062.24	46.39	Peak	H	-9.38	-	37.01	74.00	36.99
1 062.74	45.38	Peak	V	-9.37	-	36.01	74.00	37.99

- Band edge

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4 669.40	40.64	Peak	V	5.94	-	46.58	74.00	27.42
5 147.00	43.54	Peak	H	7.93	-	51.47	74.00	22.53





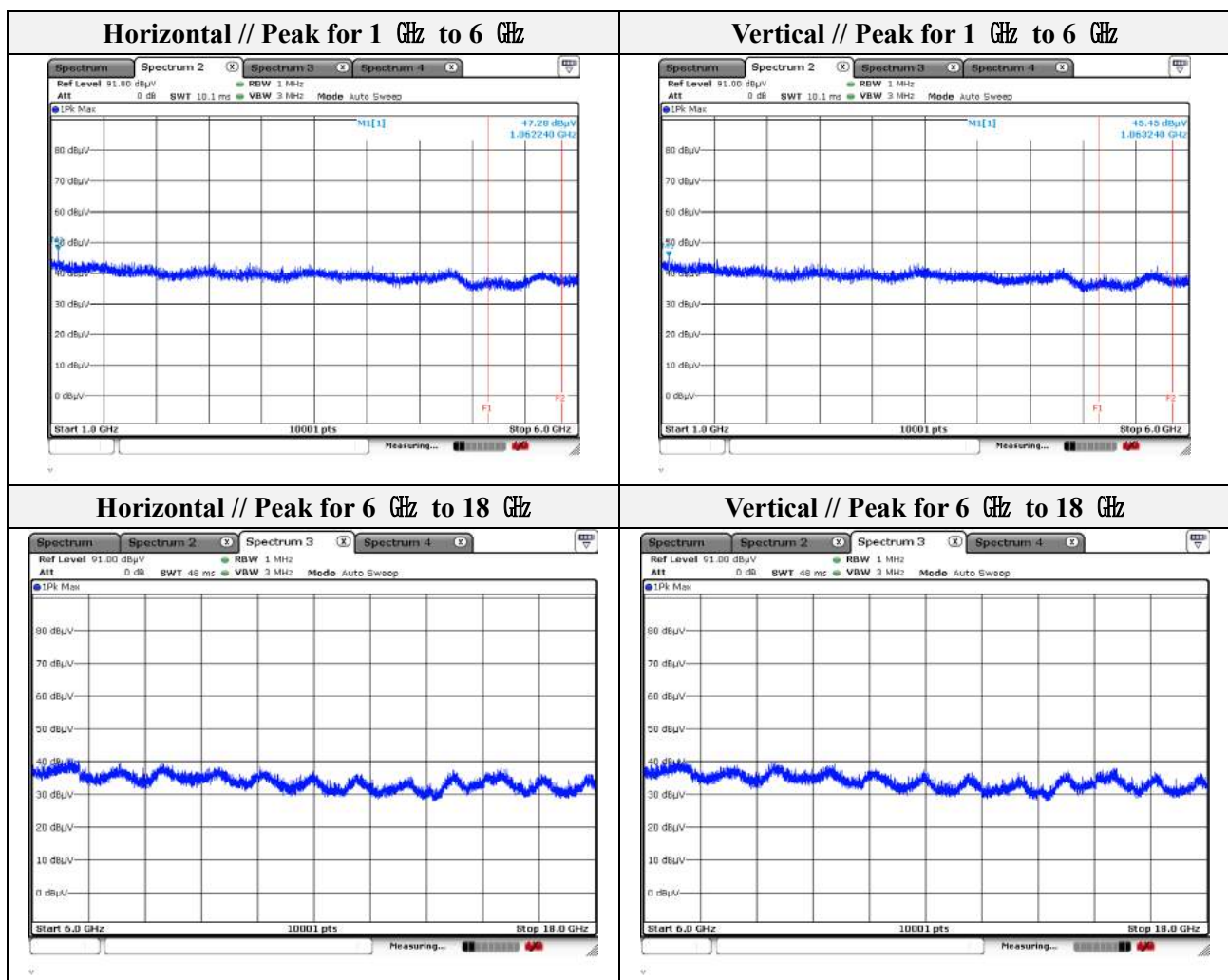
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11an_HT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 44

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 062.24	47.28	Peak	H	-9.38	-	37.90	74.00	36.10
1 063.24	45.45	Peak	V	-9.37	-	36.08	74.00	37.92



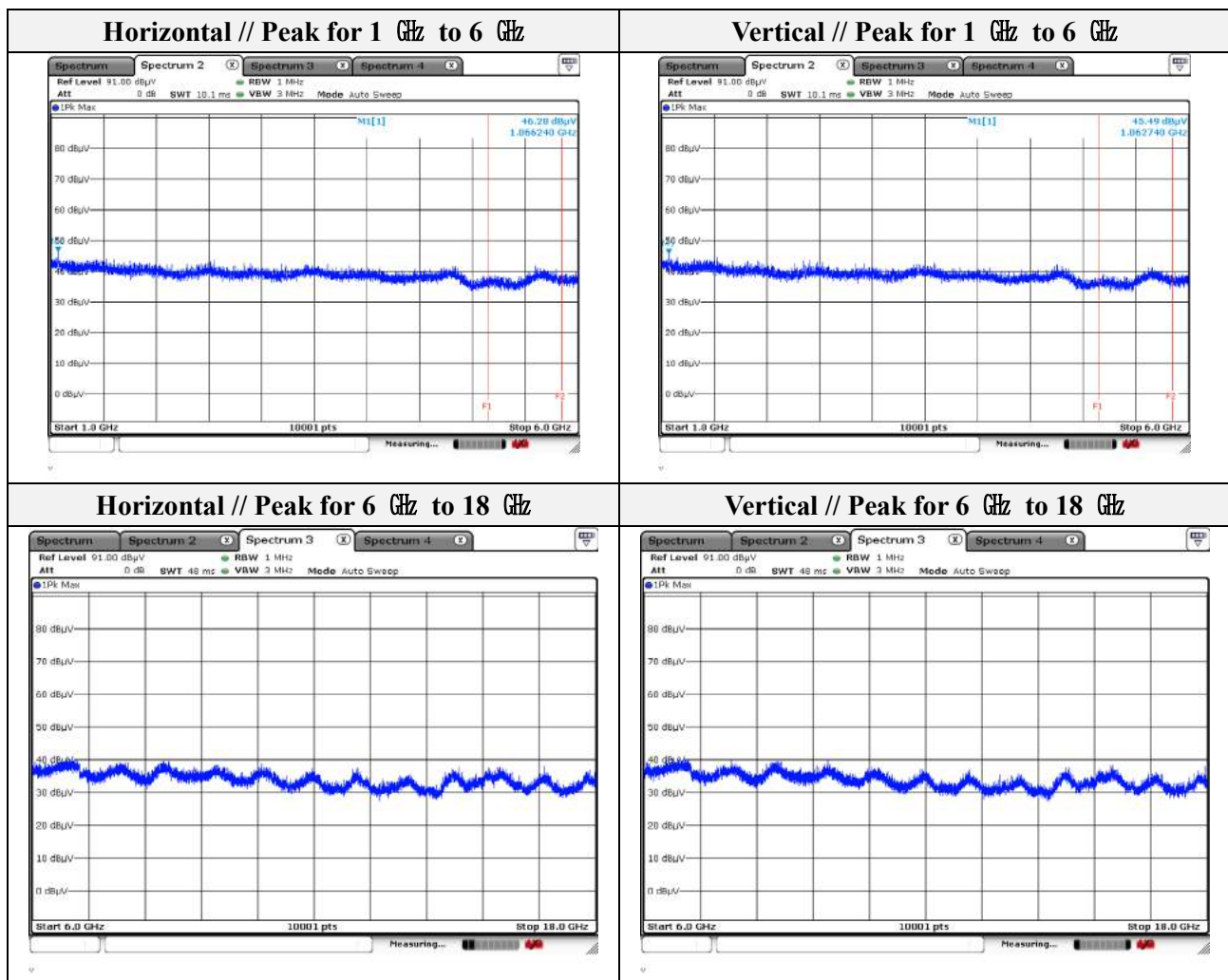
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11an_HT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 48

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 062.74	45.49	Peak	V	-9.37	-	36.12	74.00	37.88
1 066.24	46.28	Peak	H	-9.37	-	36.91	74.00	37.09



Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

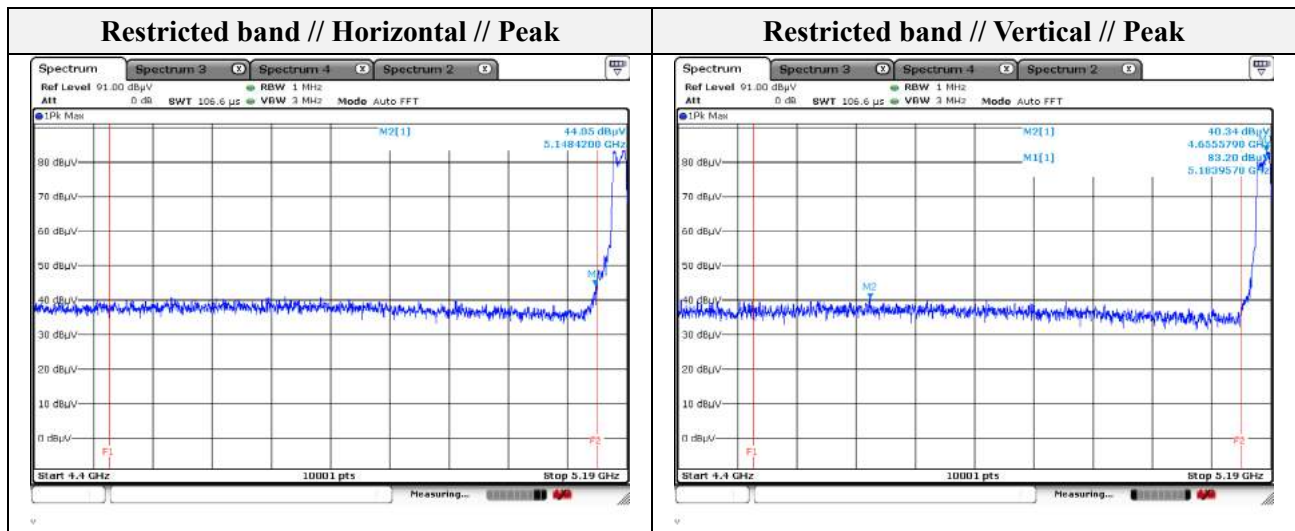
Mode: 802.11ac_VHT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 36

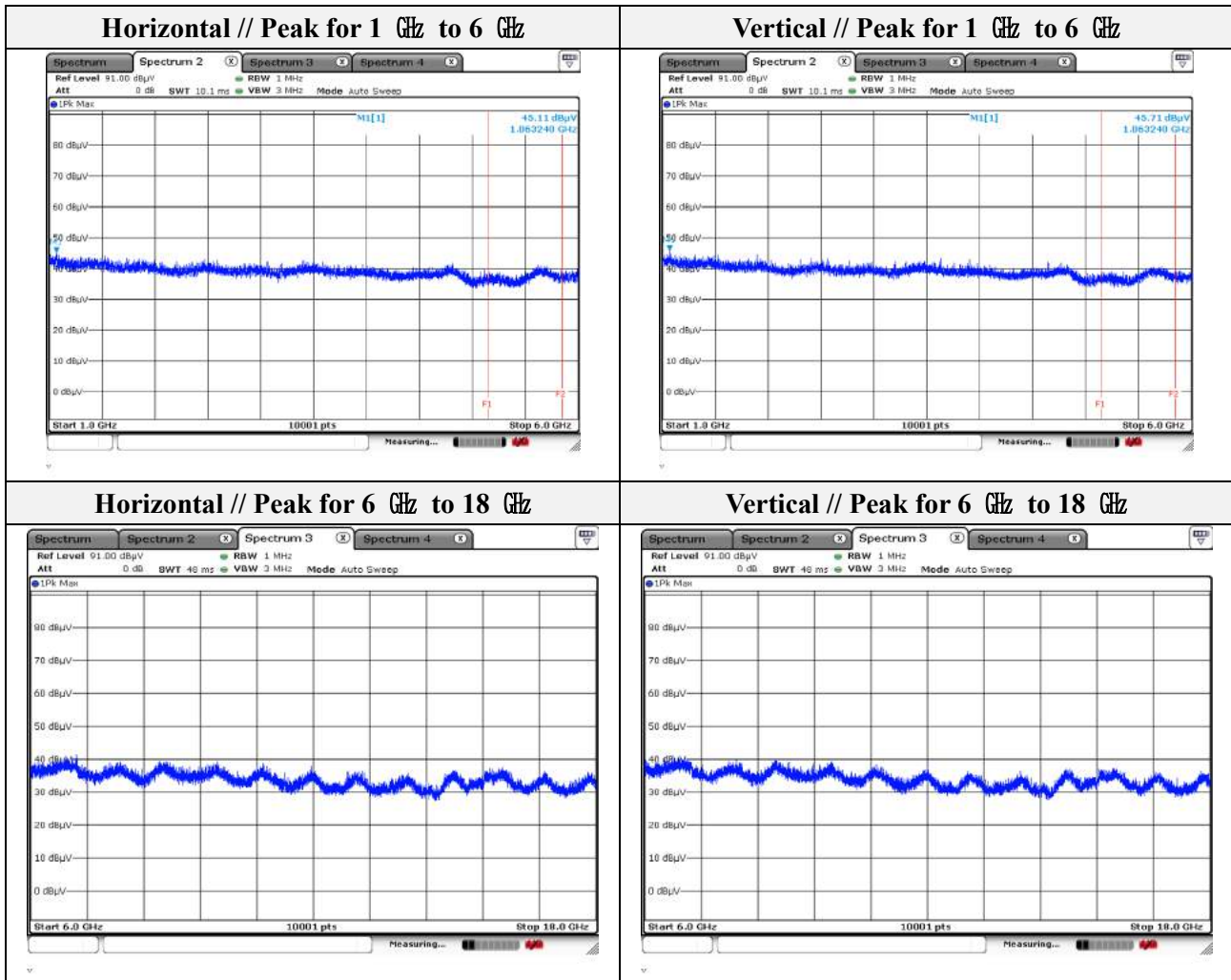
- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 063.24	45.71	Peak	V	-9.37	-	36.34	74.00	37.66
1 063.24	45.11	Peak	H	-9.37	-	35.74	74.00	38.26

- Band edge

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
4 655.58	40.34	Peak	V	5.88	-	46.22	74.00	27.78
5 148.42	44.05	Peak	H	7.93	-	51.98	74.00	22.02





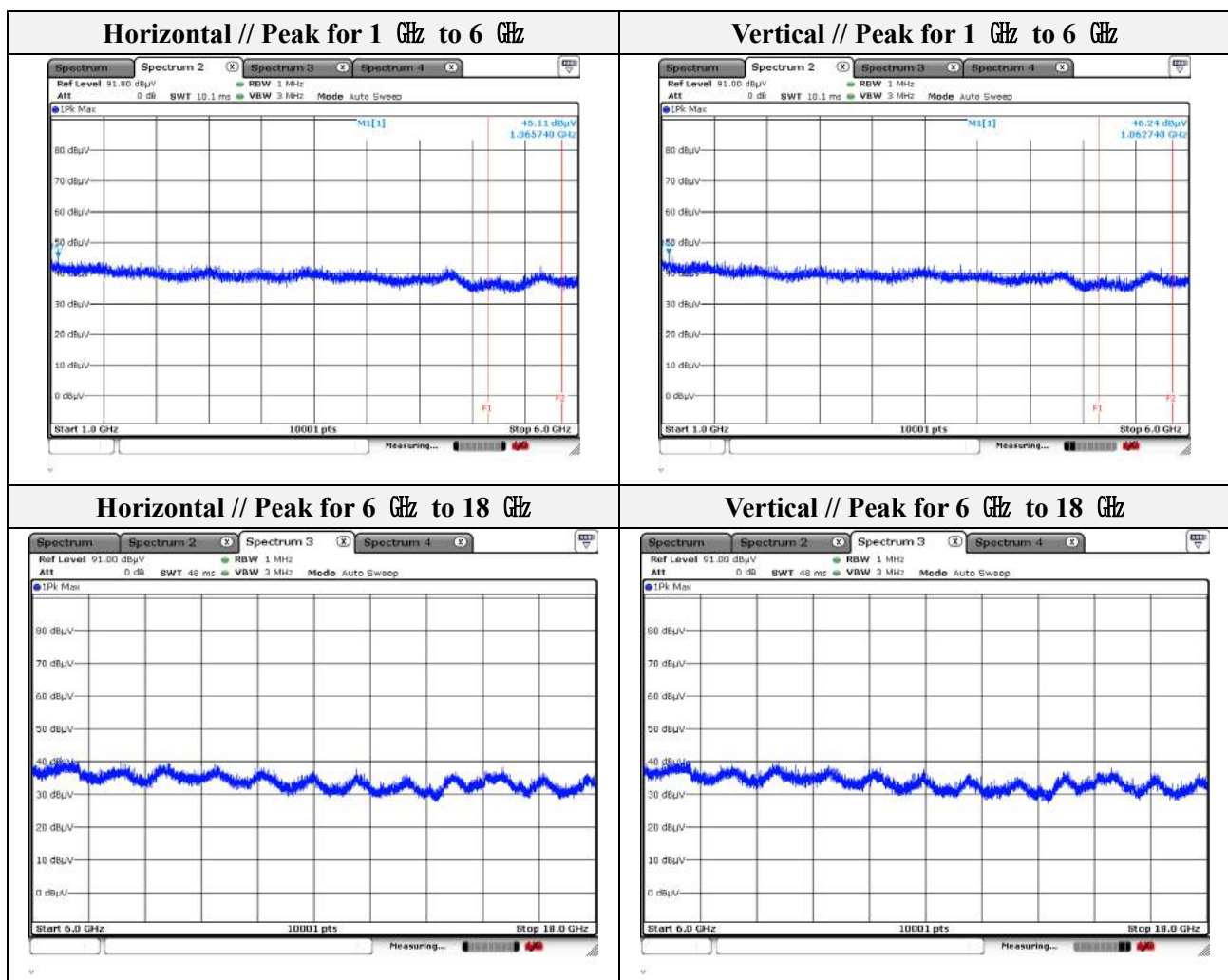
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11ac_VHT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 44

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 062.74	46.24	Peak	V	-9.37	-	36.87	74.00	37.13
1 065.75	45.11	Peak	H	-9.38	-	35.73	74.00	38.27



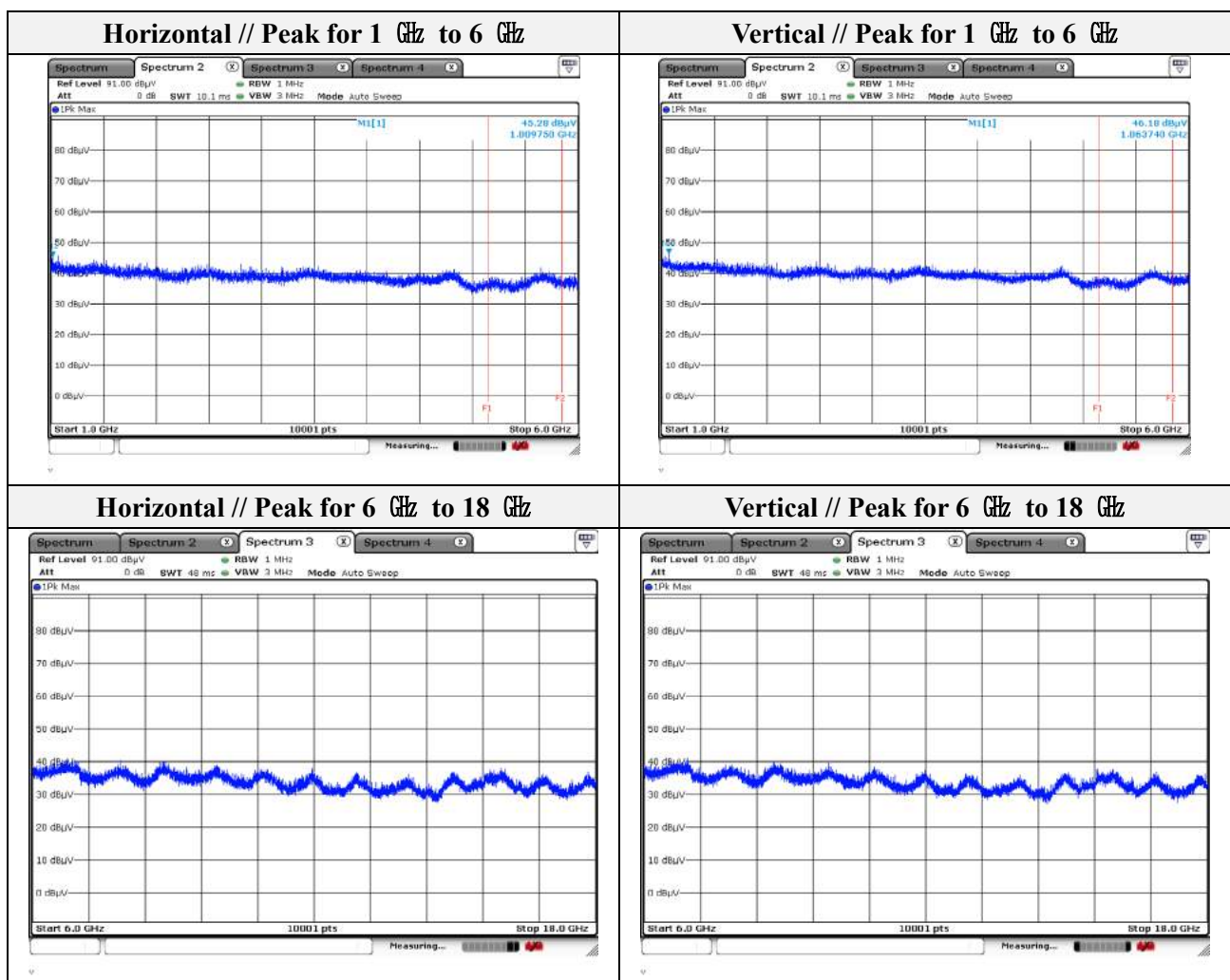
Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.

Mode: 802.11ac_VHT20
 Band: UNII-1
 Distance of measurement: 3 meter
 Channel: 48

- Spurious

Frequency (MHz)	Level (dBμV)	Detect mode	Ant. Pol. (H/V)	CF (dB)	DCF (dB)	Field strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
1 009.75	45.28	Peak	H	-9.43		35.85	74.00	38.15
1 063.74	46.18	Peak	V	-9.38	-	36.80	74.00	37.20



Note.

1. No spurious emission were detected above 6 GHz.
2. Average test would be performed if the peak result were greater than the average limit.