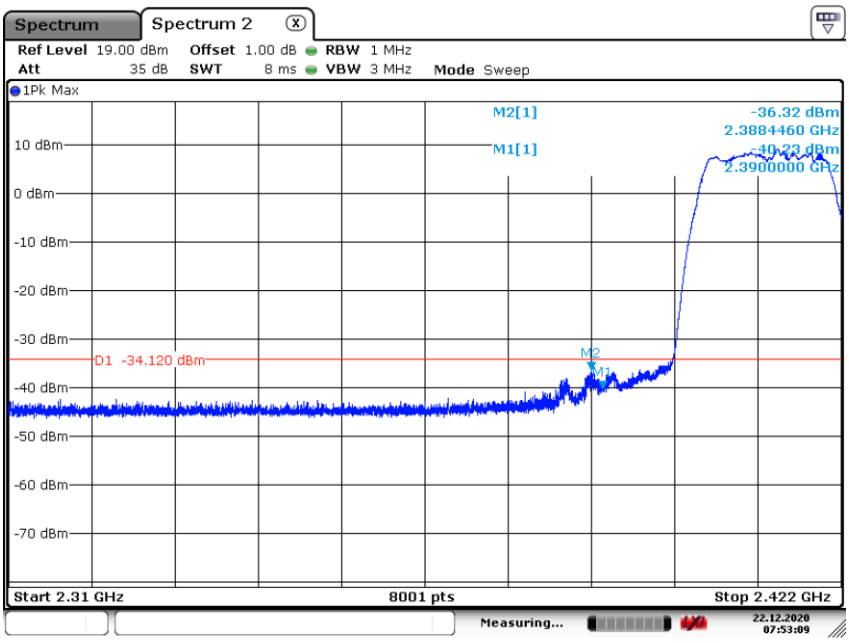
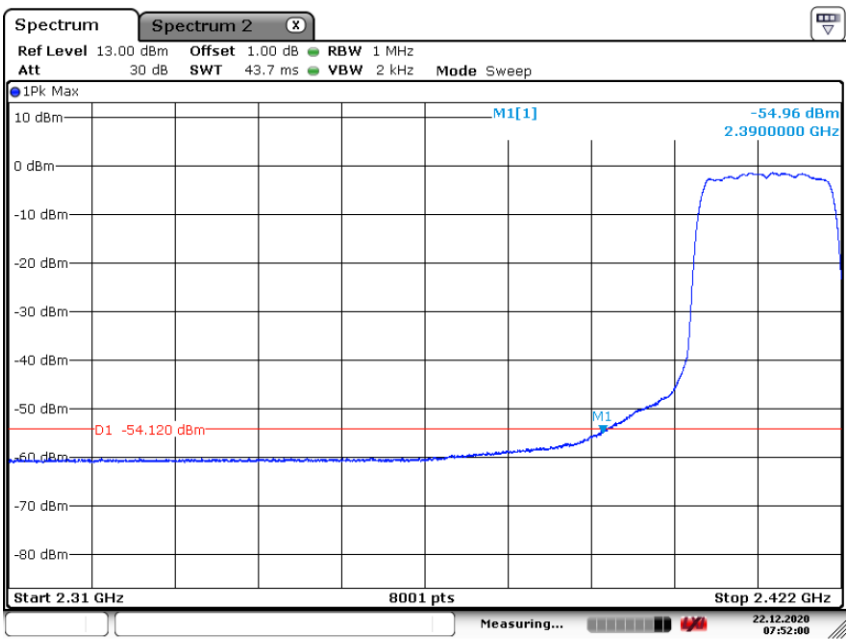
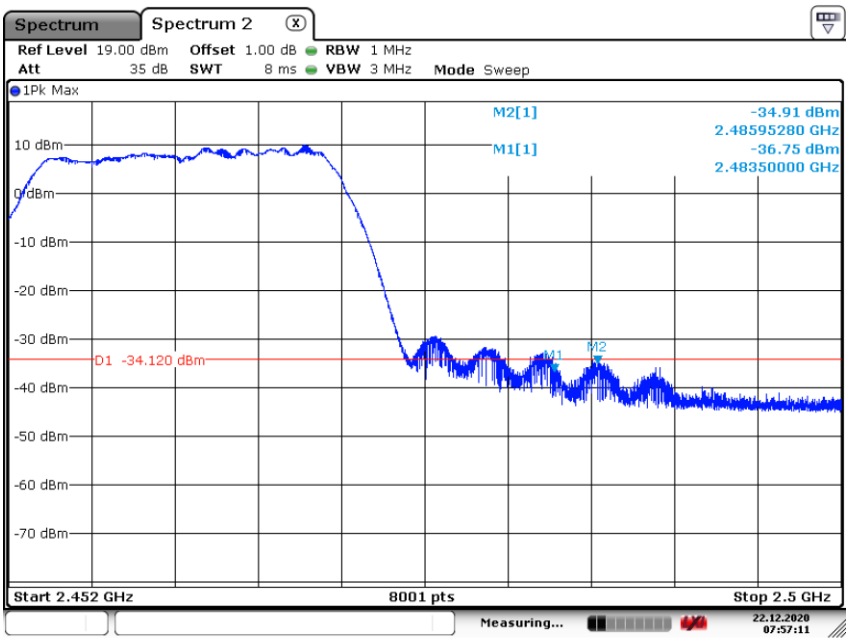
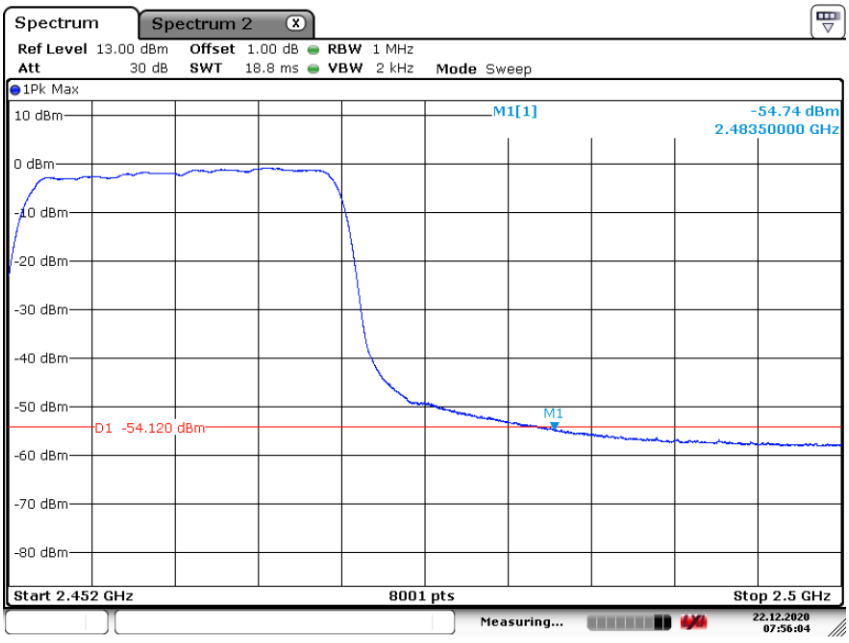
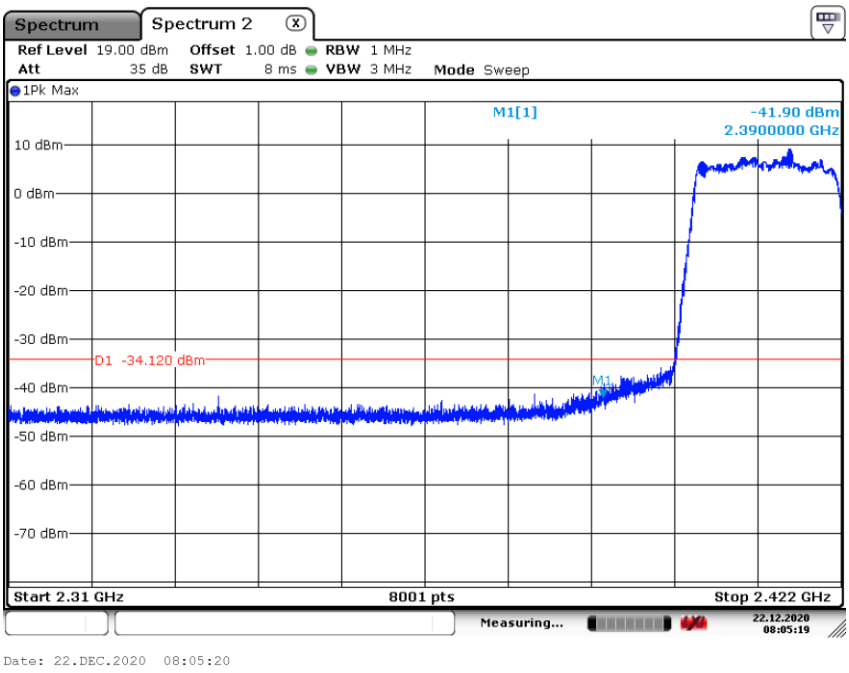
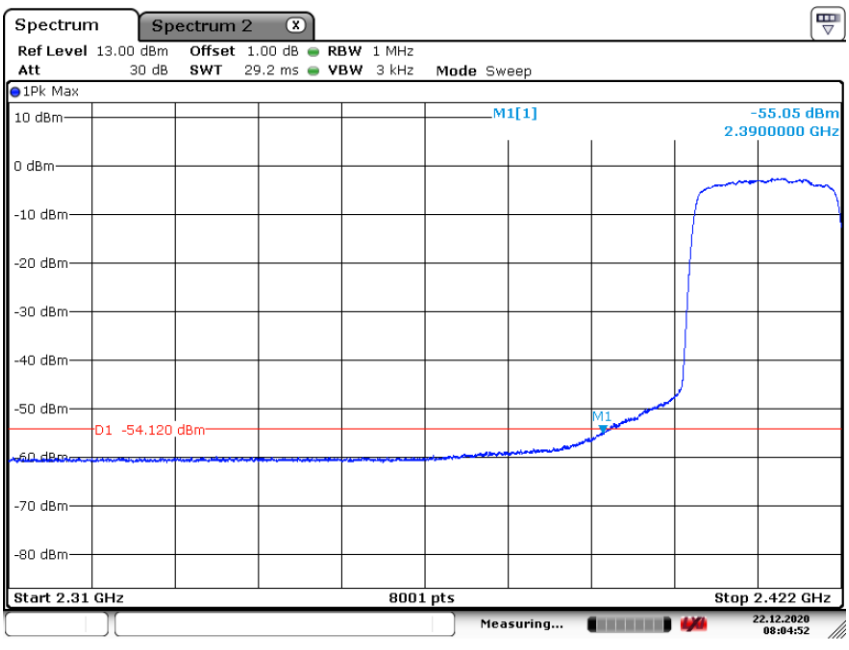
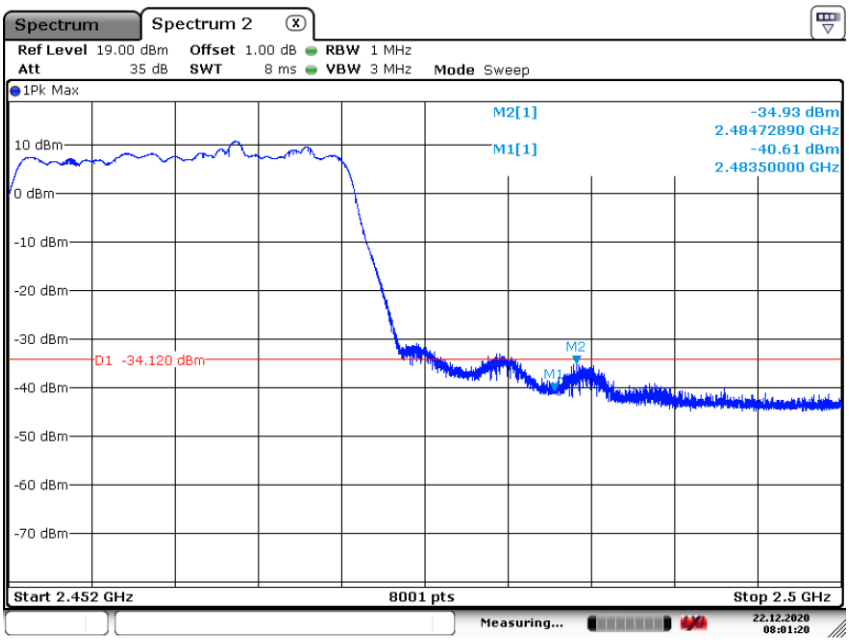
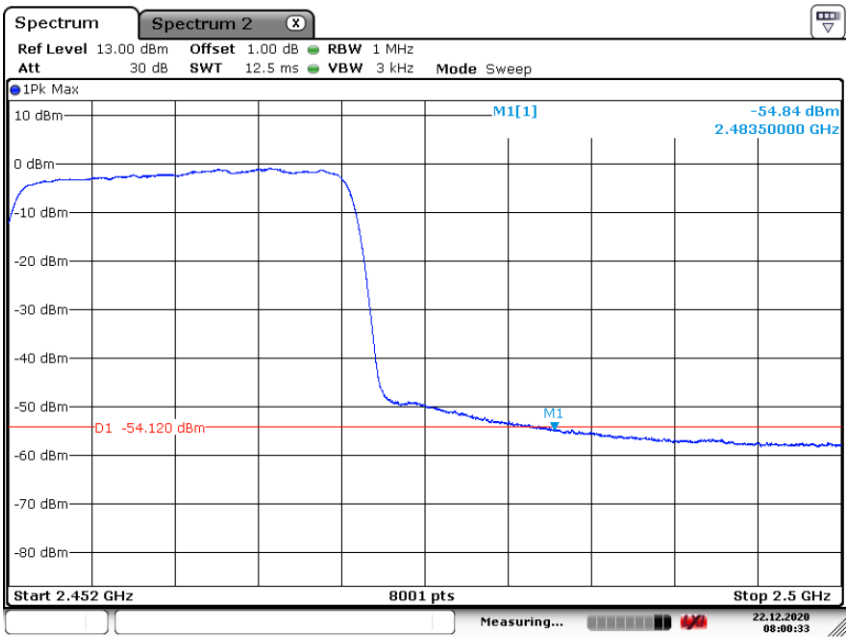
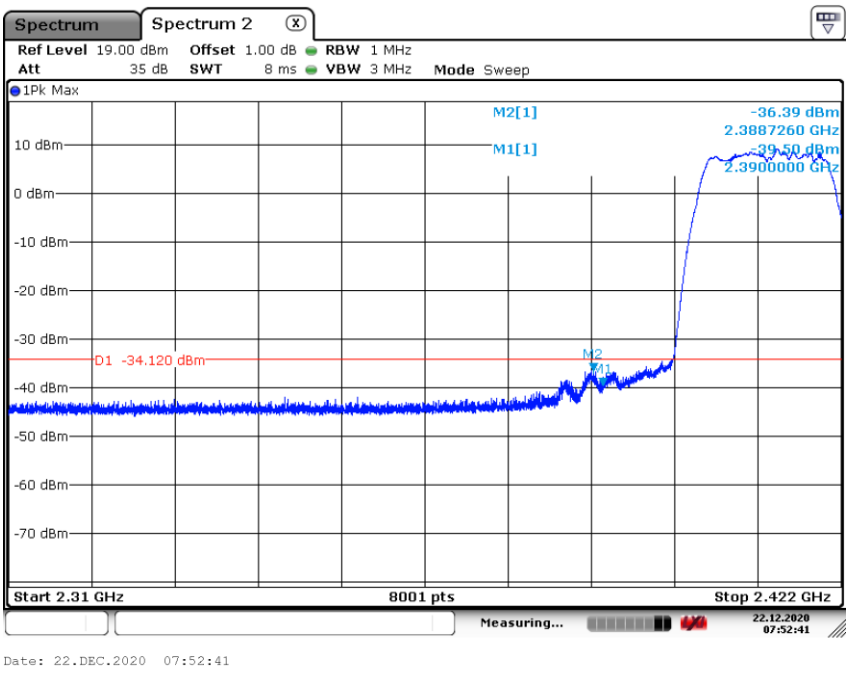
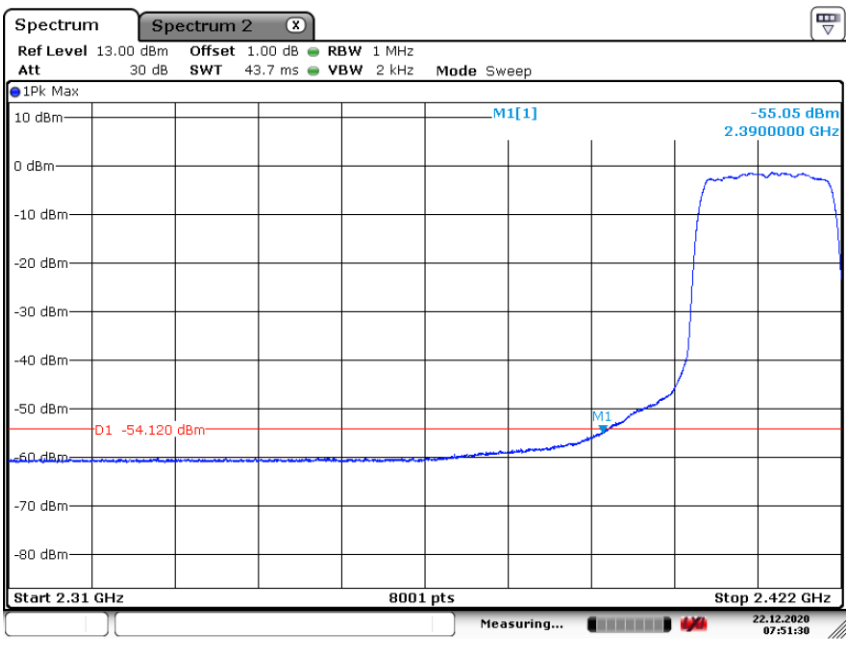
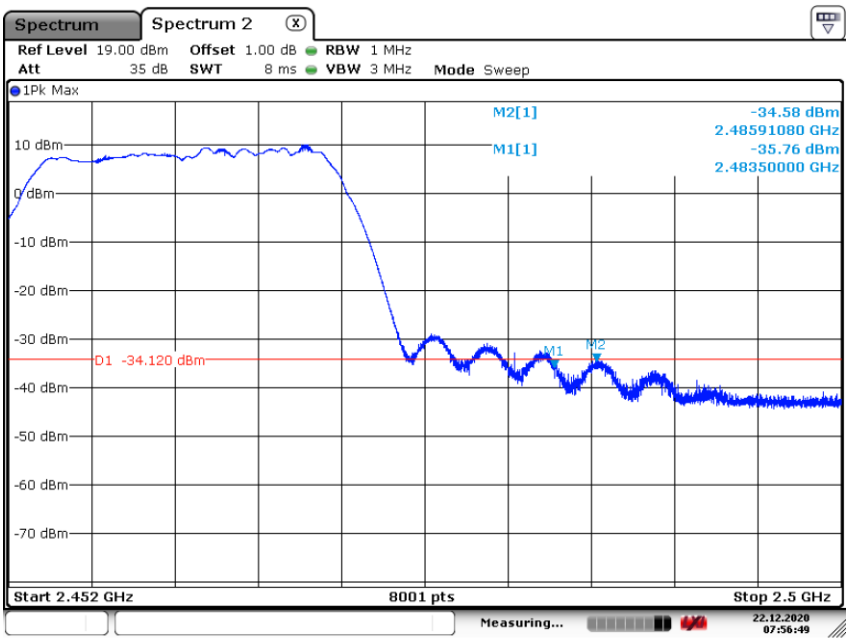
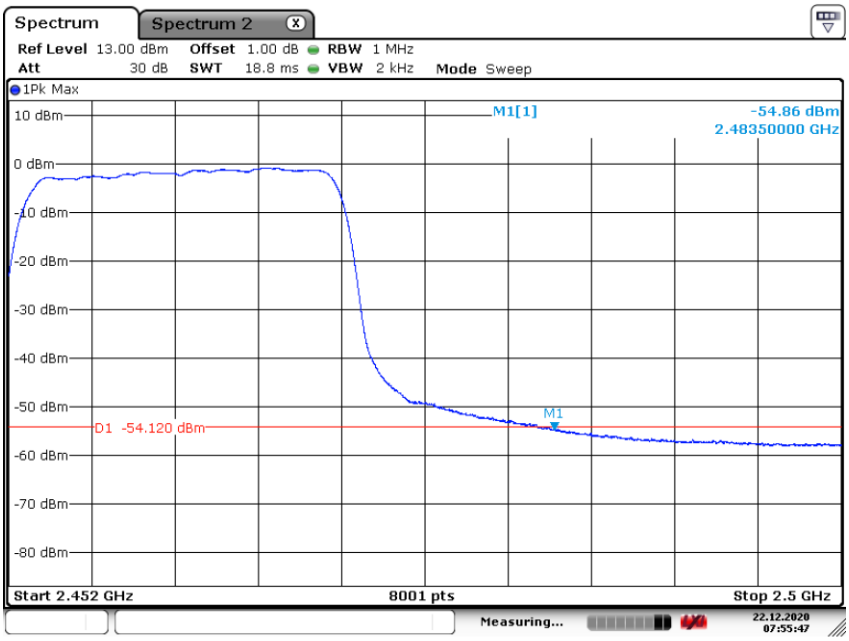
CDD 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	PK  Date: 22.DEC.2020 07:53:09 AV  Date: 22.DEC.2020 07:52:00

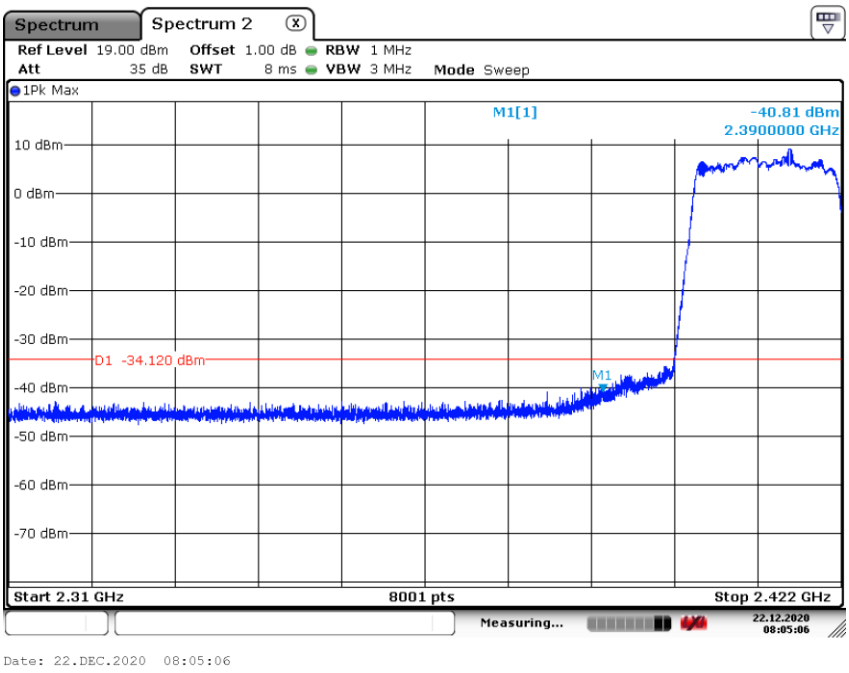
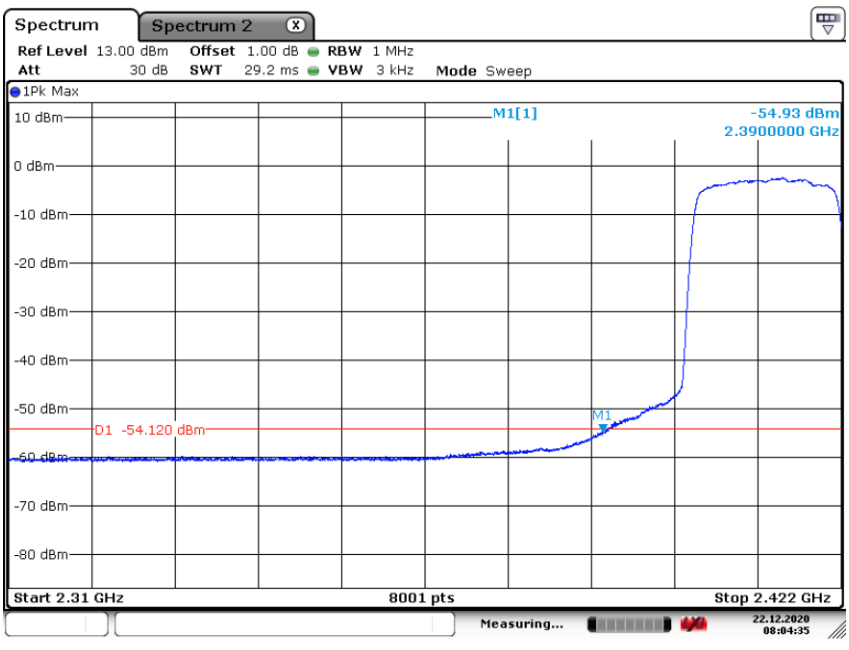
	11	2462	PK  Date: 22.DEC.2020 07:57:11 AV  Date: 22.DEC.2020 07:56:05

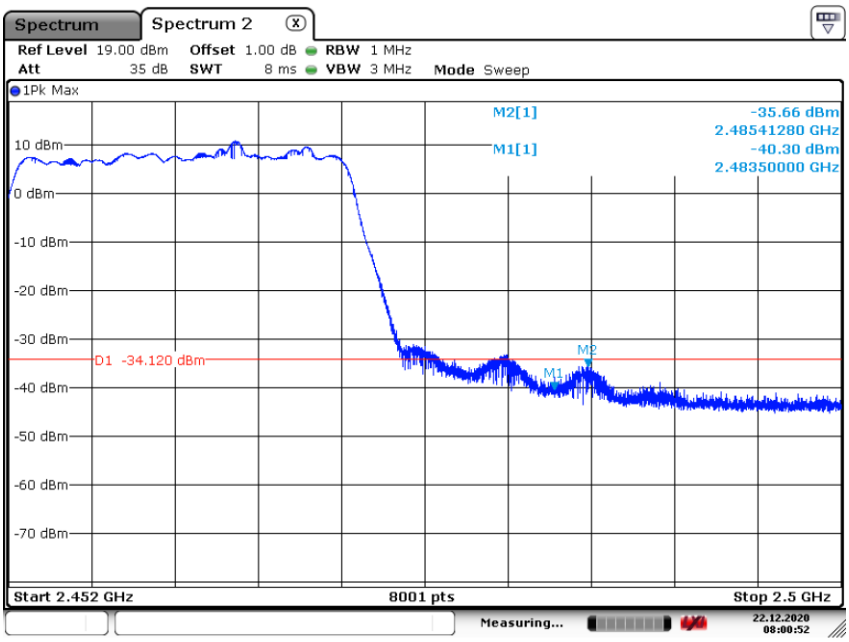
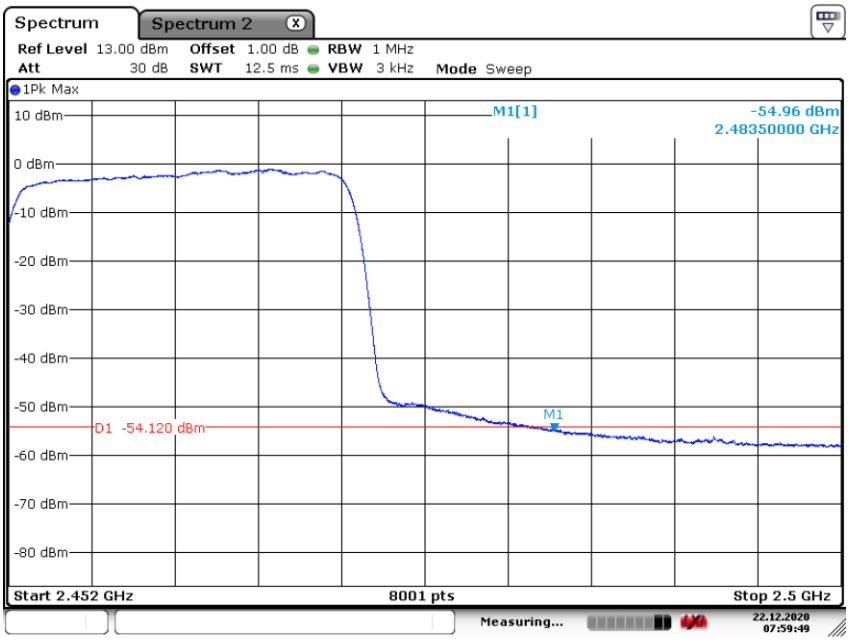
CDD 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	PK  Date: 22.DEC.2020 08:05:20 AV  Date: 22.DEC.2020 08:04:53

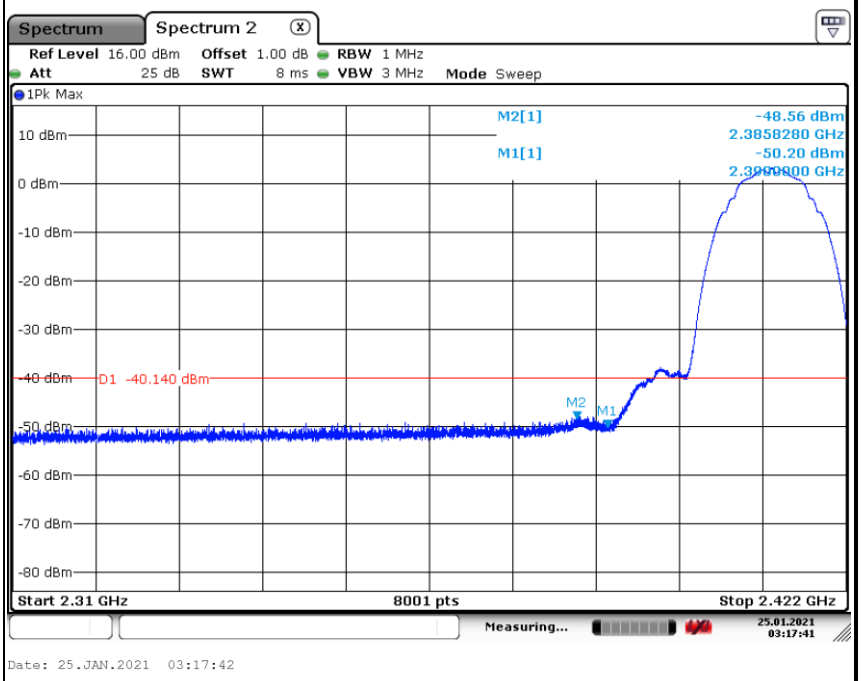
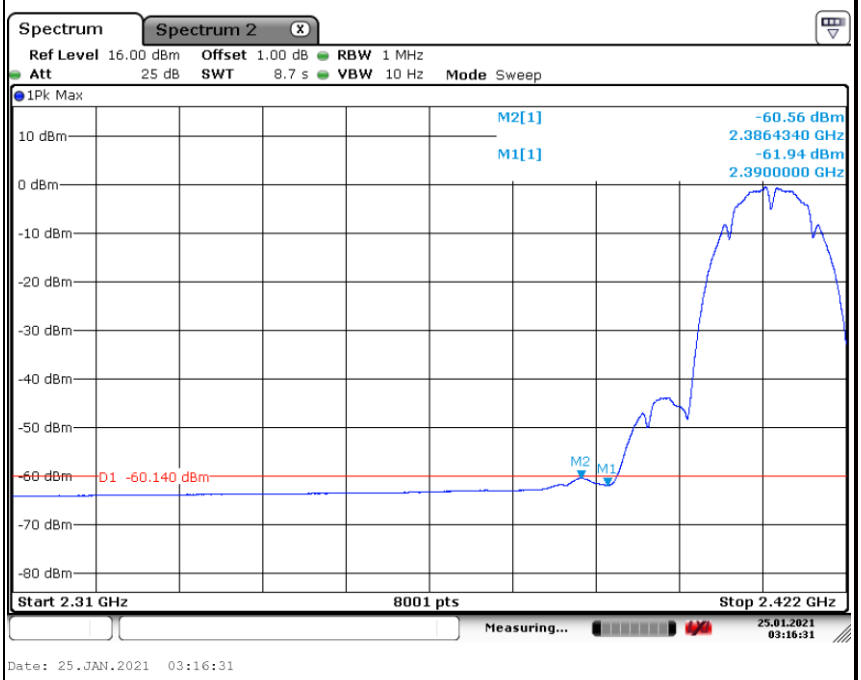
	11	2462	PK  Date: 22.DEC.2020 08:01:20 AV  Date: 22.DEC.2020 08:00:34

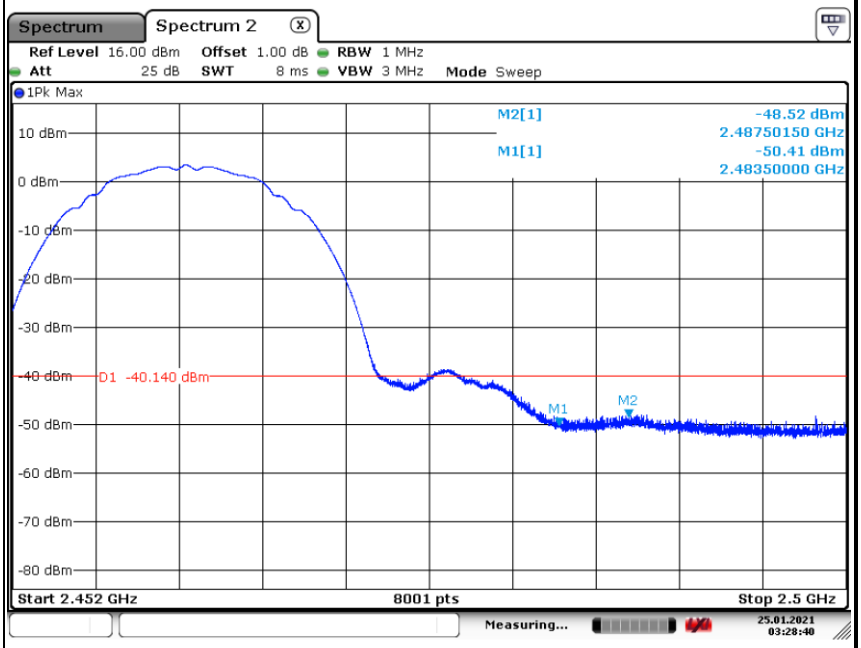
Beamforming 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	PK  Date: 22.DEC.2020 07:52:41 AV  Date: 22.DEC.2020 07:51:31

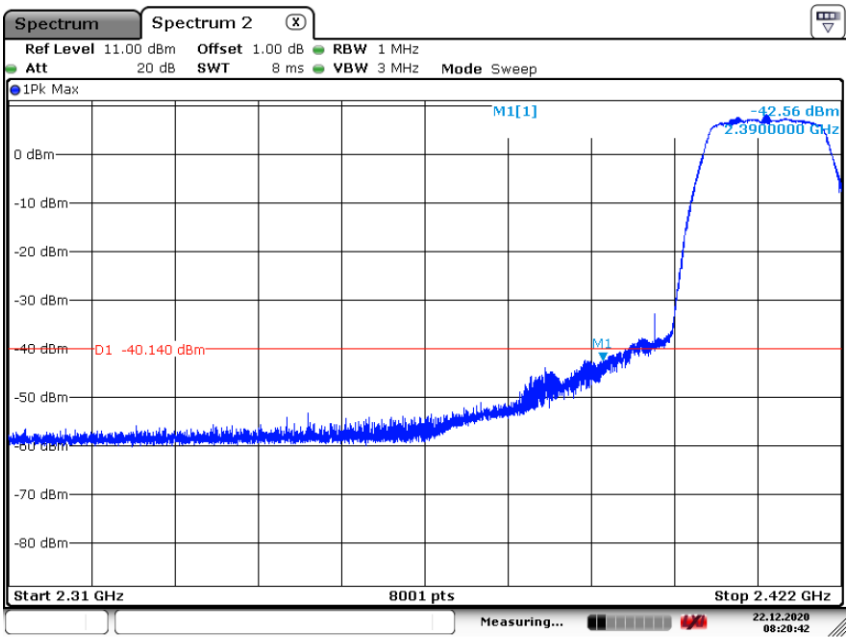
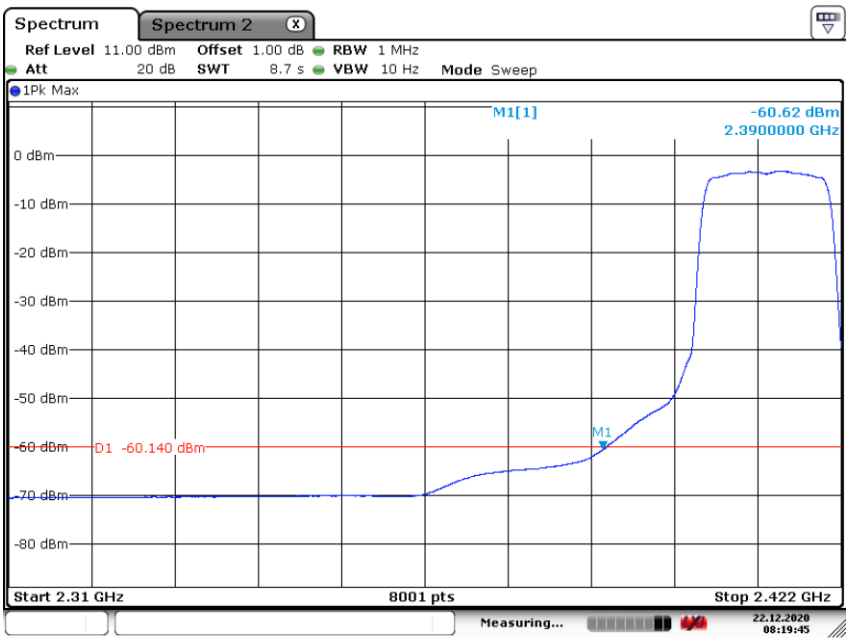
	11	2462	PK  Date: 22.DEC.2020 07:56:49 AV  Date: 22.DEC.2020 07:55:47

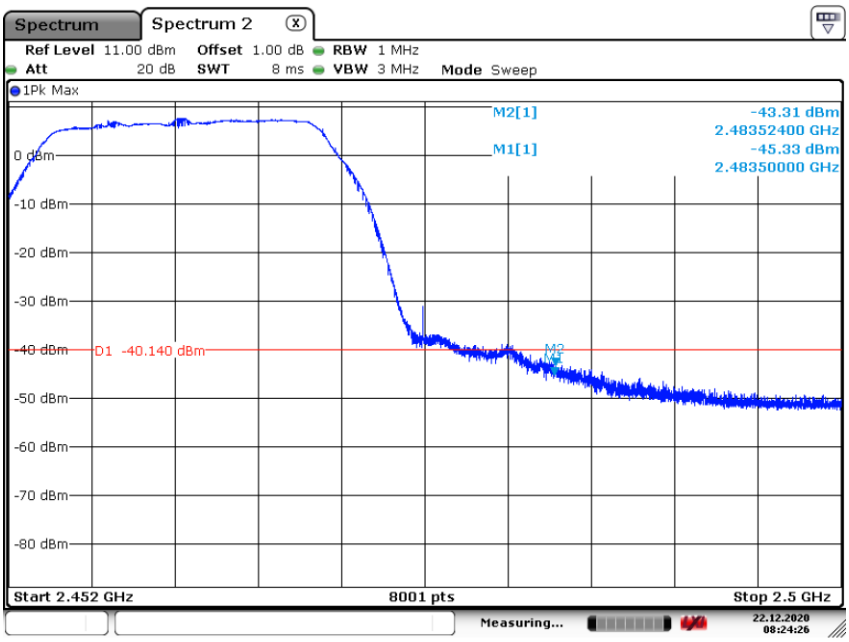
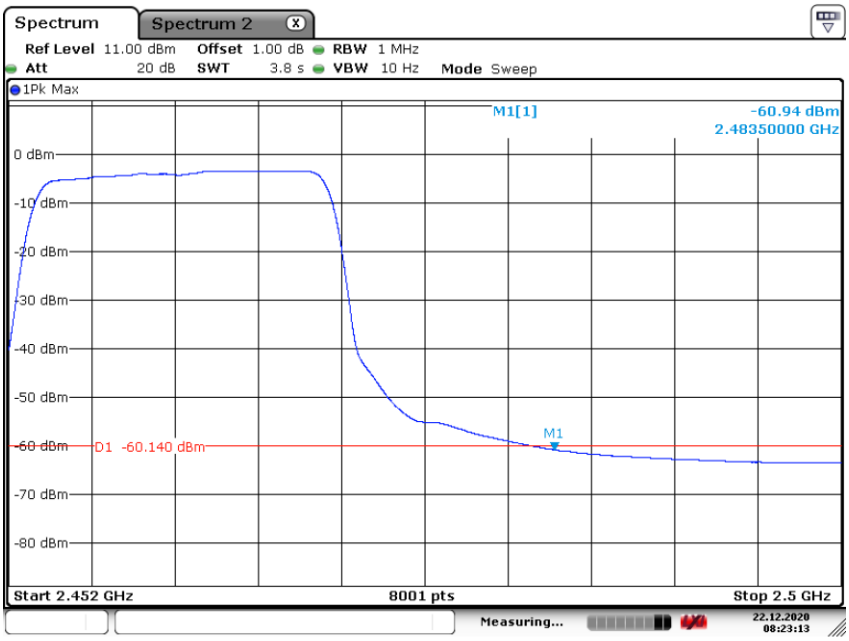
Beamforming 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	PK  Date: 22.DEC.2020 08:05:06 AV  Date: 22.DEC.2020 08:04:36

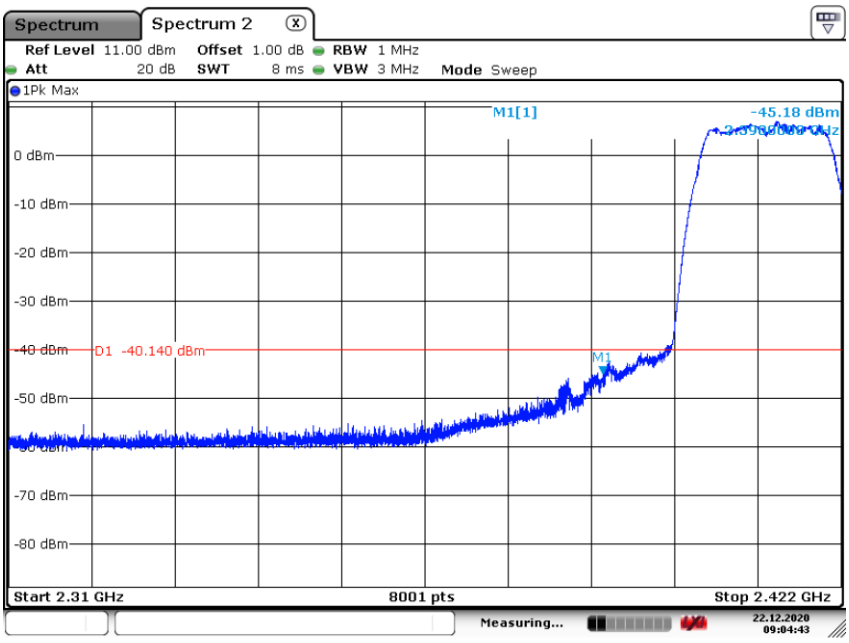
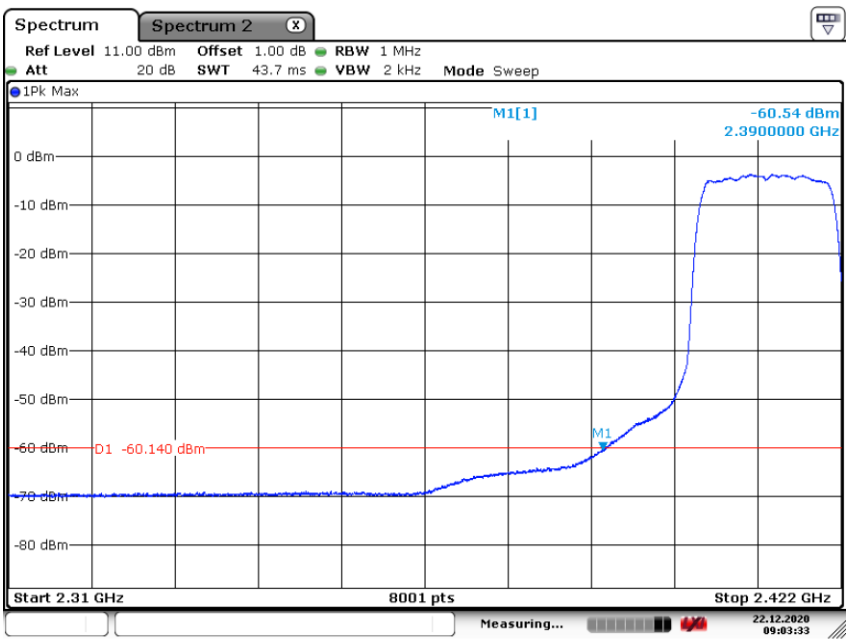
	11	2462	PK  Date: 22.DEC.2020 08:00:52 AV  Date: 22.DEC.2020 07:59:49

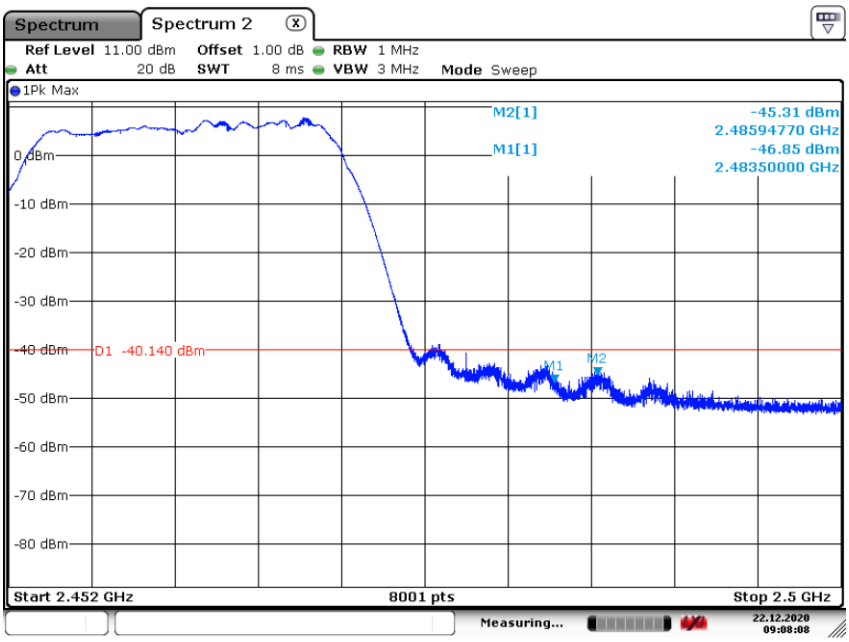
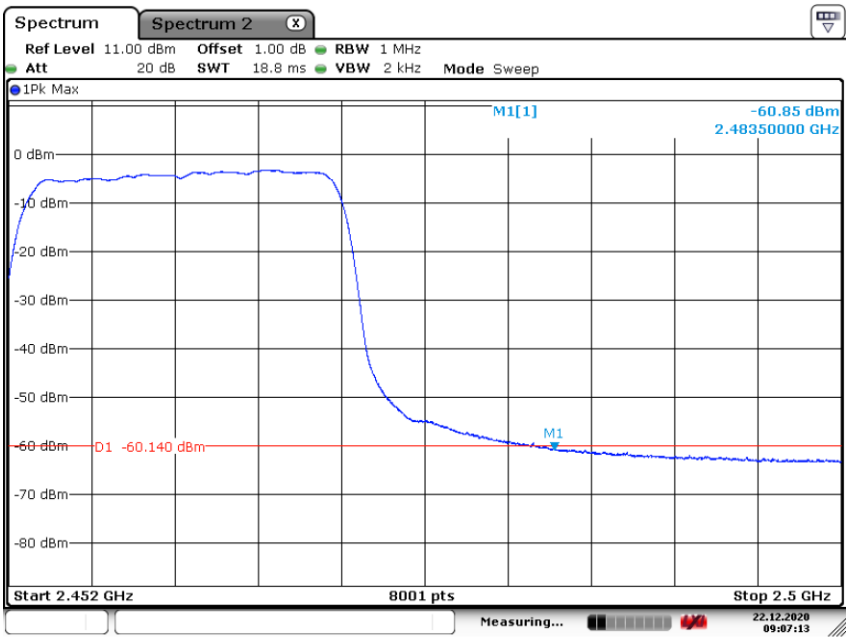
CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
1	1	2412	PK  Date: 25.JAN.2021 03:17:42 AV  Date: 25.JAN.2021 03:16:31

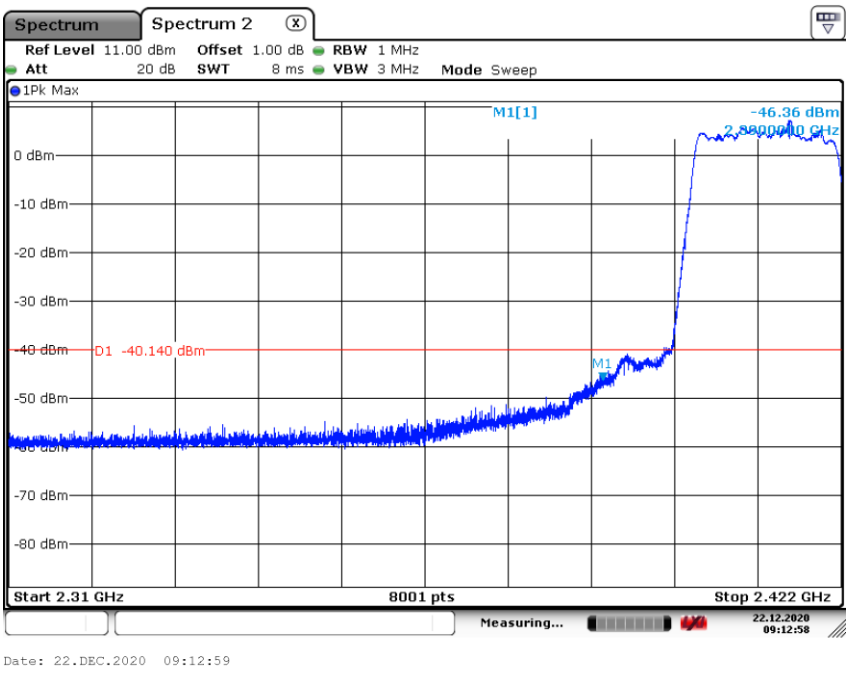
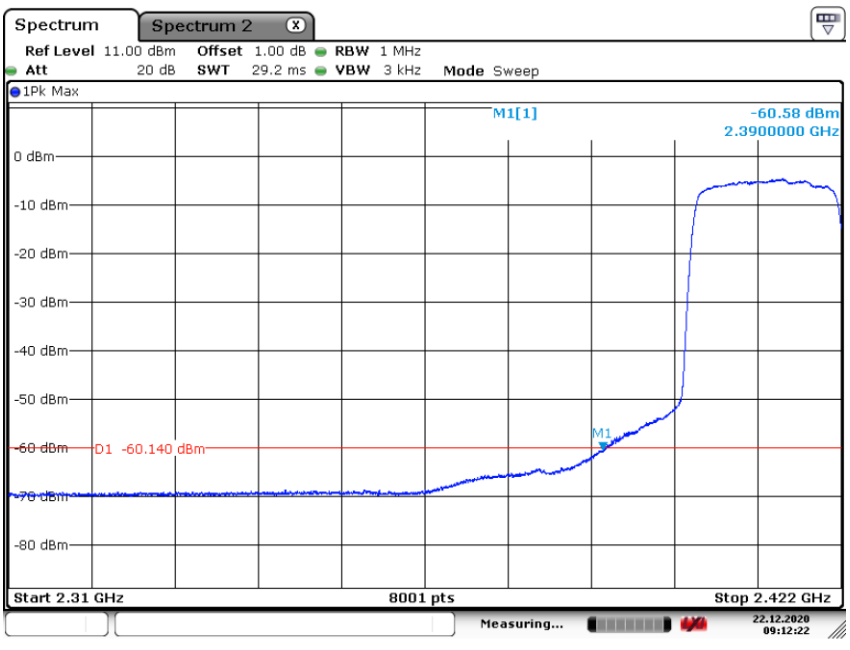
	11	2462	PK  Date: 25.JAN.2021 03:28:40 AV  Date: 25.JAN.2021 03:27:45

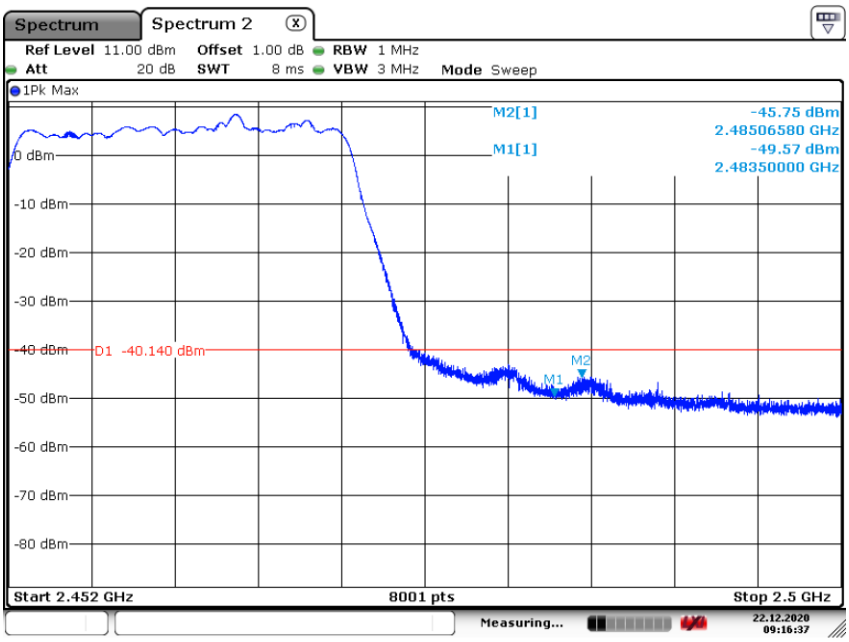
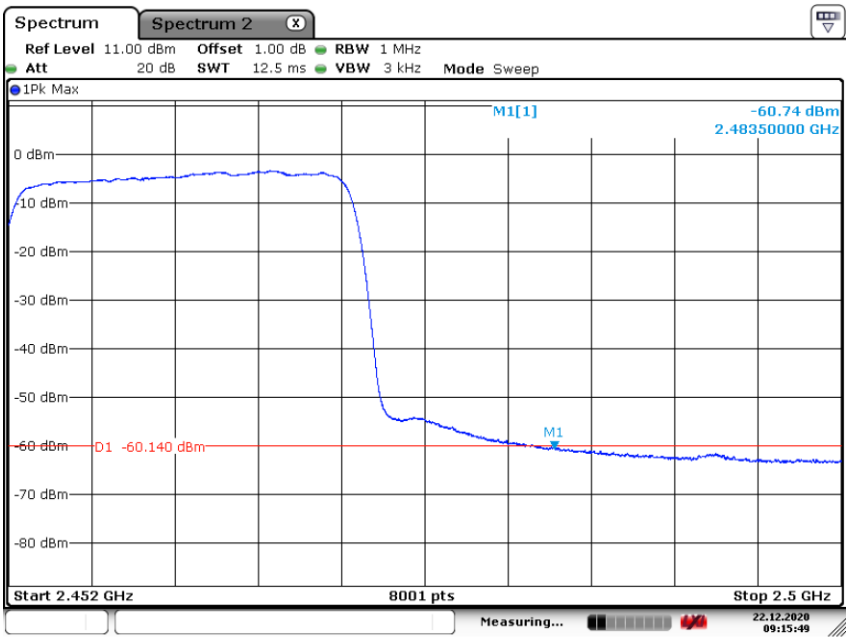
CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
2	1	2412	PK  Date: 22.DEC.2020 08:20:42 AV  Date: 22.DEC.2020 08:19:45

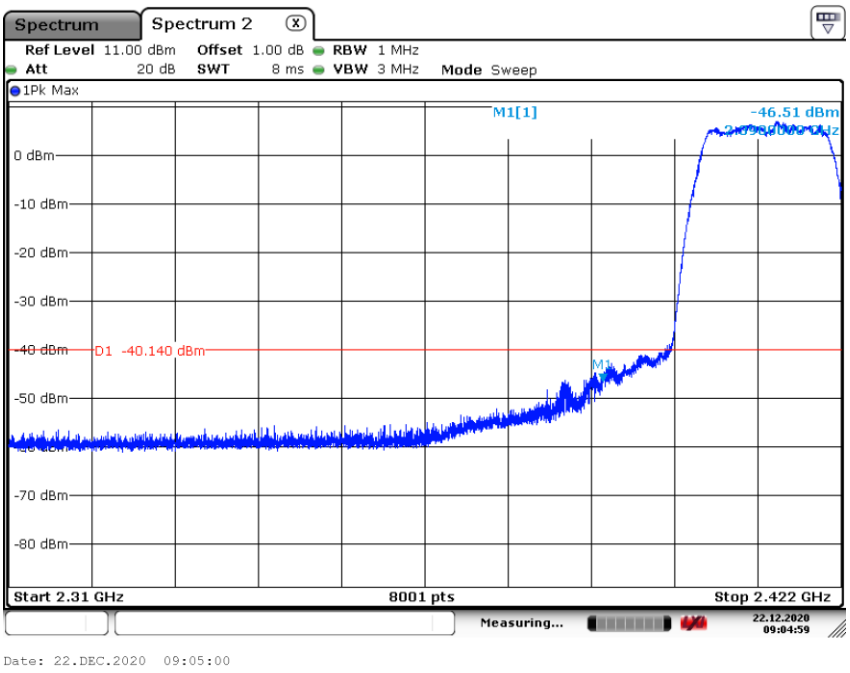
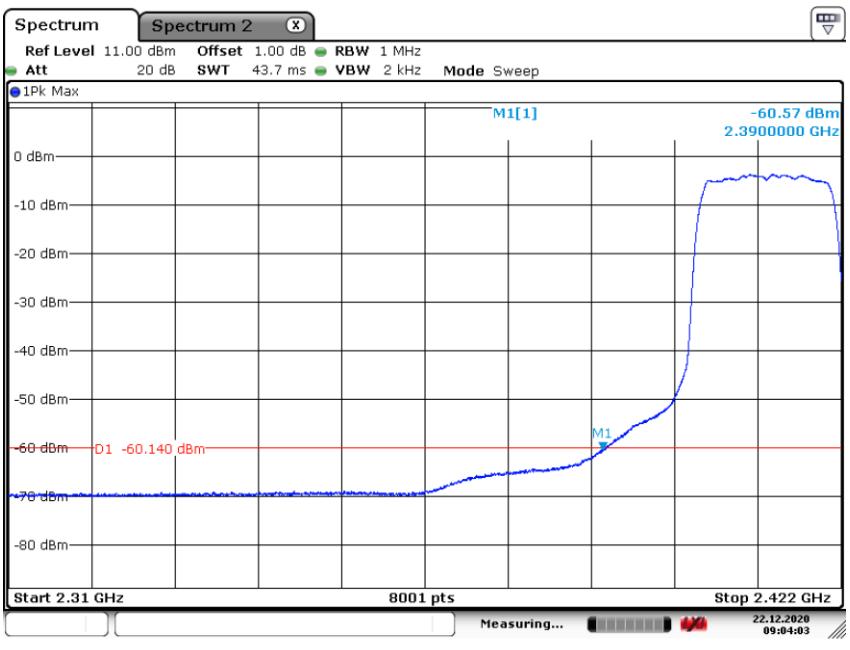
	11	2462	PK  Date: 22.DEC.2020 08:24:26 AV  Date: 22.DEC.2020 08:23:13

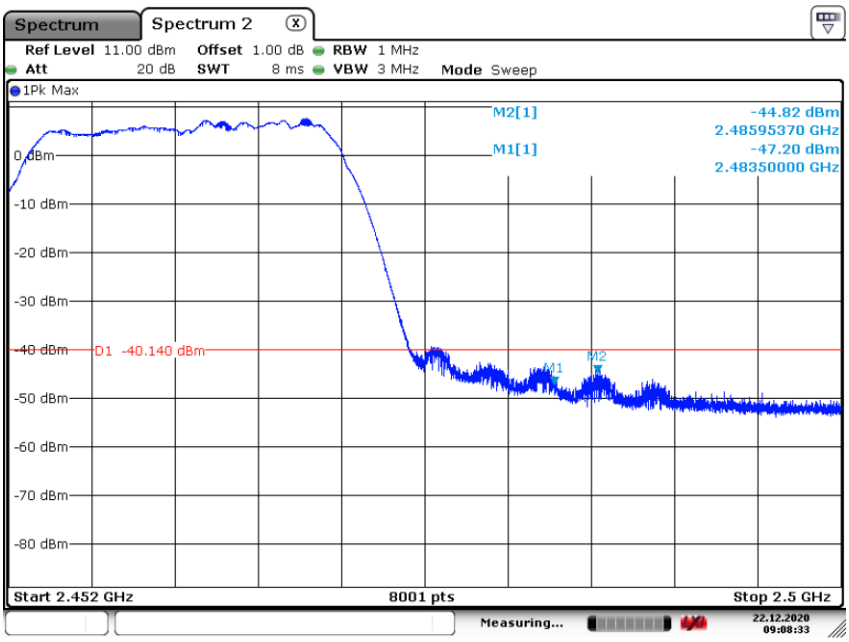
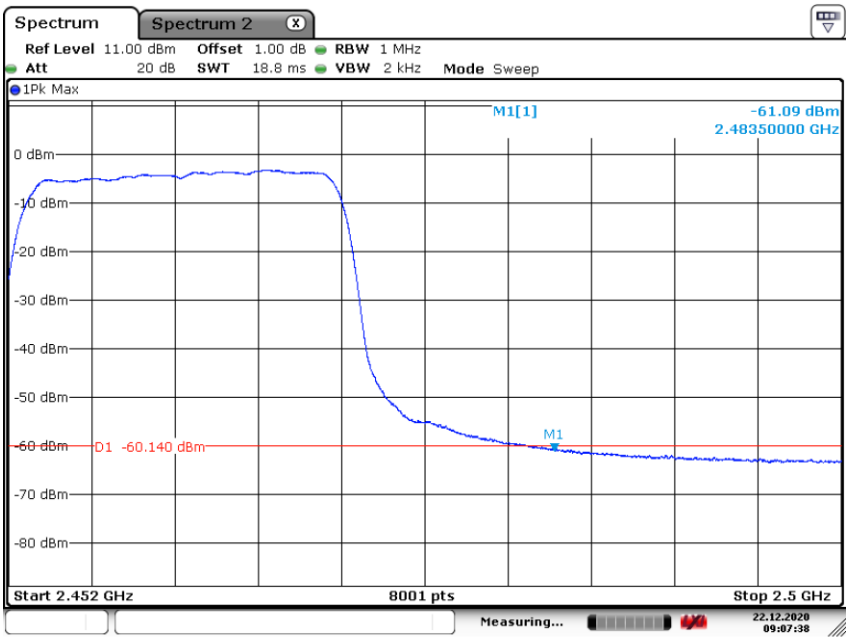
CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	PK  Date: 22.DEC.2020 09:04:43 AV  Date: 22.DEC.2020 09:03:33

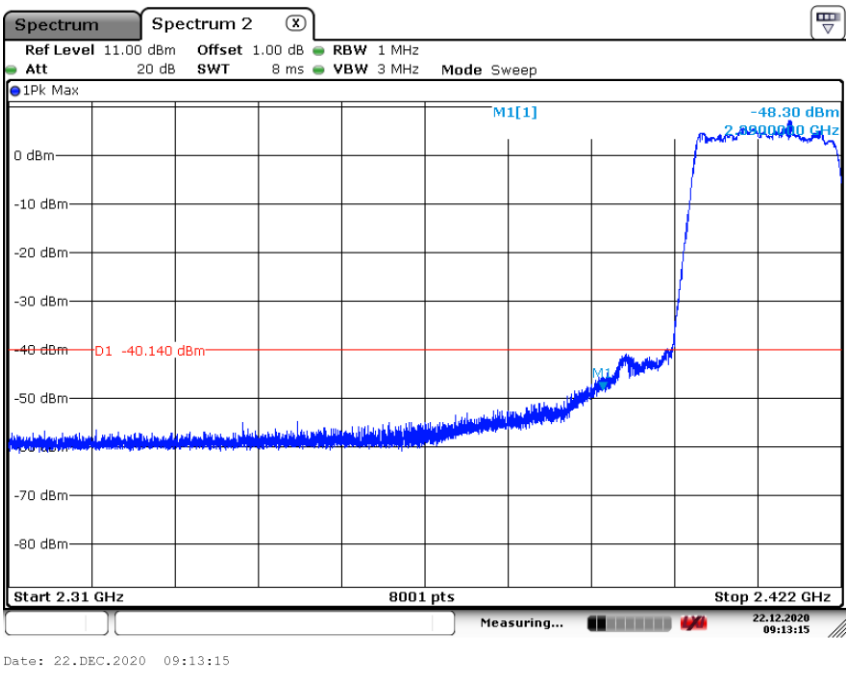
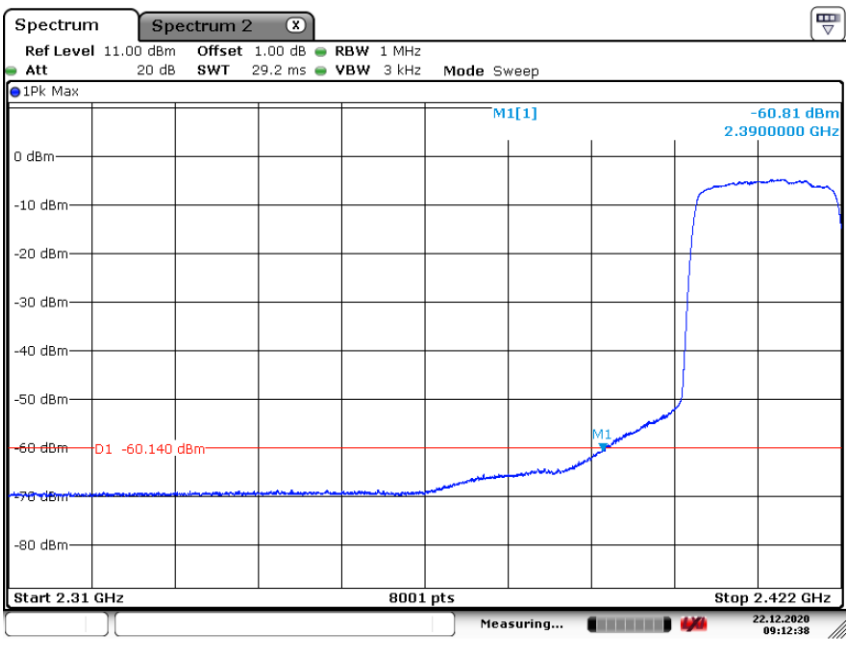
	11	2462	PK  Date: 22.DEC.2020 09:08:09 AV  Date: 22.DEC.2020 09:07:14

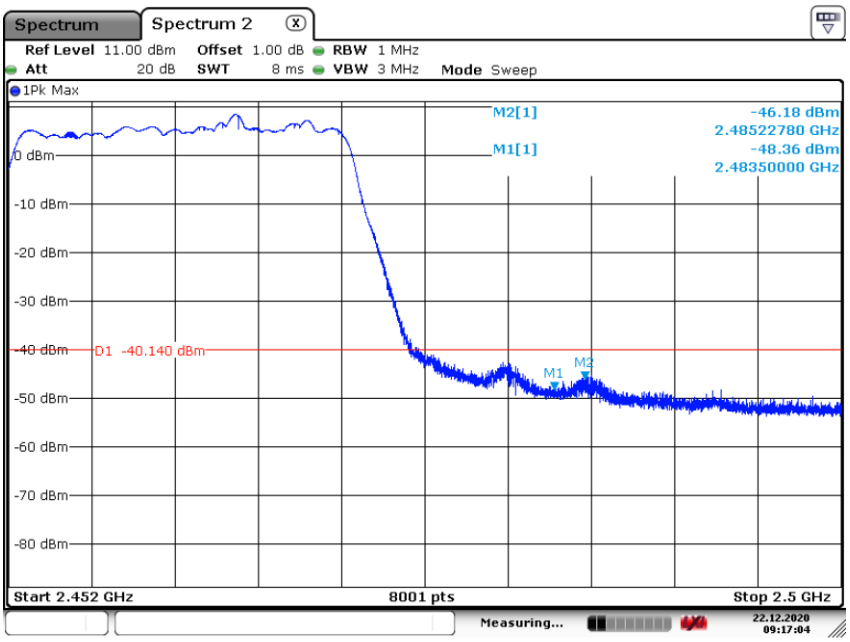
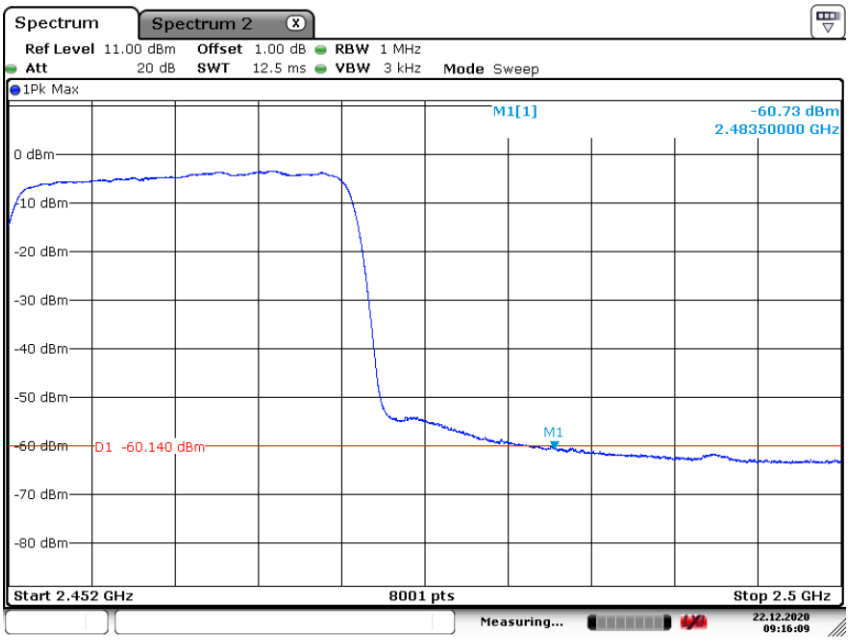
CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	PK  Date: 22.DEC.2020 09:12:59 AV  Date: 22.DEC.2020 09:12:23

	11	2462	PK  Date: 22.DEC.2020 09:16:38 AV  Date: 22.DEC.2020 09:15:50

Beamforming 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	PK  Date: 22.DEC.2020 09:05:00 AV  Date: 22.DEC.2020 09:04:03

	11	2462	PK  Date: 22.DEC.2020 09:08:33 AV  Date: 22.DEC.2020 09:07:38

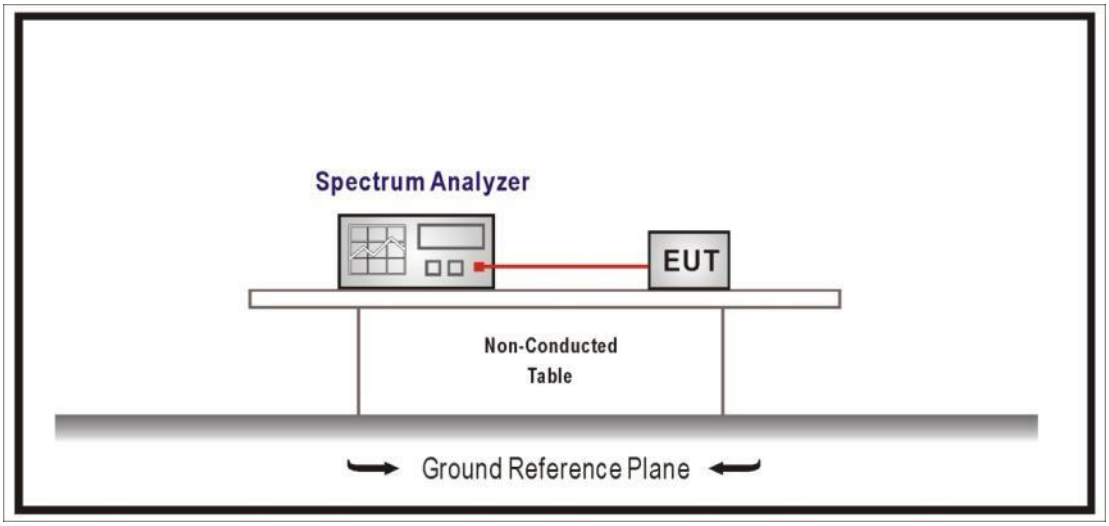
Beamforming 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	PK  Date: 22.DEC.2020 09:13:15 AV  Date: 22.DEC.2020 09:12:39

	11	2462	PK  Date: 22.DEC.2020 09:17:05 AV  Date: 22.DEC.2020 09:16:10

4.5 DTS Bandwidth	VERDICT: N/A

4.5.1 Limit	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)
Systems using digital modulation techniques operate in the2400-2483.5 MHz .The minimum 6 dB bandwidth shall be at least 500 kHz	
Standard	ANSI C63.10 Paragraph 6.7
The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs. The occupied bandwidth should within the required frequency range.	

4.5.2 Test Setup



4.5.3 Test Procedure

	Reference Rule		Chapter	Description
☒	ANSI C63.10		11.8	DTS bandwidth
	☐	ANSI C63.10	11.8.1	Option 1
	☒	ANSI C63.10	11.8.2	Option 2
☒	ANSI C63.10		6.9	Occupied bandwidth
	☐	ANSI C63.10	6.9.2	relative measurement procedure
	☒	ANSI C63.10	6.9.3	power bandwidth (99%) measurement procedure

4.5.4 Test Data

N/A

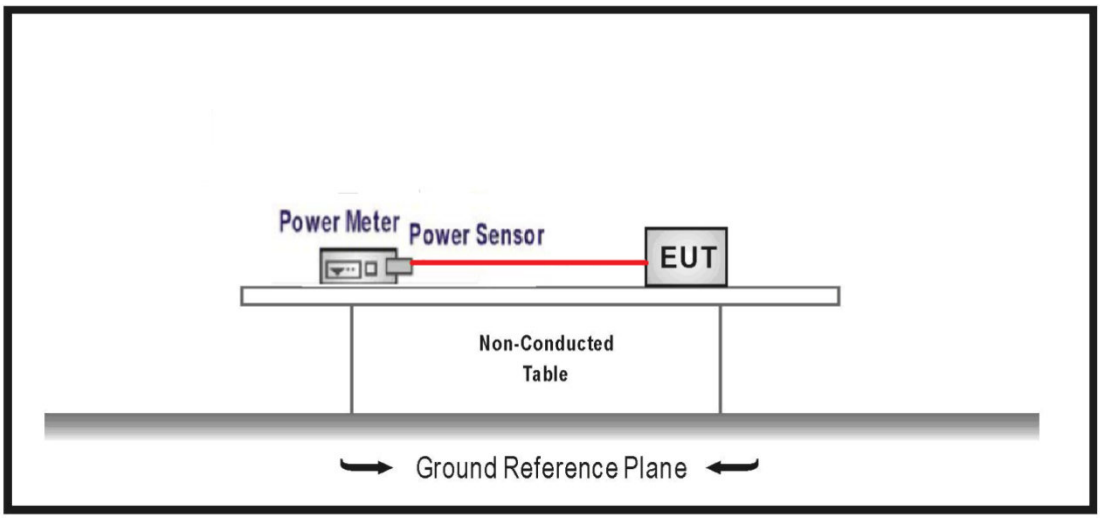
4.6 Fundamental emission output power	VERDICT: PASS

4.6.1 Limit

Standard			FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX ＜6dBi		Pout≤30dBm
☐	GTX ＞6dBi		
	☐	Non-Fix point-point	Pout≤30-(GTX -6)
	☐	Fix point-point	Pout≤30-[(GTX-6)]/3
	☐	Point-to-multipoint	Pout≤30-(GTX-6)
	☐	Overlap Beams	Pout≤30-[(GTX-6)]/3
	☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
	☐	single directional beam	Pout≤30-[(GTX-6)]/3+8dB

Note 1 : GTX directional gain of transmitting antennas.
Note 2 : Pout is maximum peak conducted output power .

4.6.2 Test Setup



4.6.3 Test Procedure

	References Rule	Chapter	Description
☒	ANSI C63.10	11.9	Fundamental emission output power
	☐ ANSI C63.10	11.9.1	Maximum peak conducted output power
	☐ ANSI C63.10	11.9.1.1	RBW ≥ DTS bandwidth
	☐ ANSI C63.10	11.9.1.2	Integrated band power method
	☐ ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method
	☒ ANSI C63.10	11.9.2	Maximum conducted (average) output power
	☒ ANSI C63.10	11.9.2.2	Measurement using a spectrum analyzer (SA)
	☒ ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle≥98%)
	☐ ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle≥98%)
	☒ ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle≤98%)
	☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle≤98%)
	☐ ANSI C63.10	11.9.2.2.4	Method AVGSA-3
	☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
	☒ ANSI C63.10	11.9.2.3	Measurement using a power meter (PM)
	☒ ANSI C63.10	11.9.2.3.1	Method AVGPM
	☐ ANSI C63.10	11.9.2.3.2	Method AVGPM-G

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☐	KDB 662911		F2)a)	Basic methodology
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☐	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☒	KDB 662911		F2)e)	Spatial stream
	☒	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☒	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☒	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)f) (iii)	Antenna have the different gain with more than one spatial stream

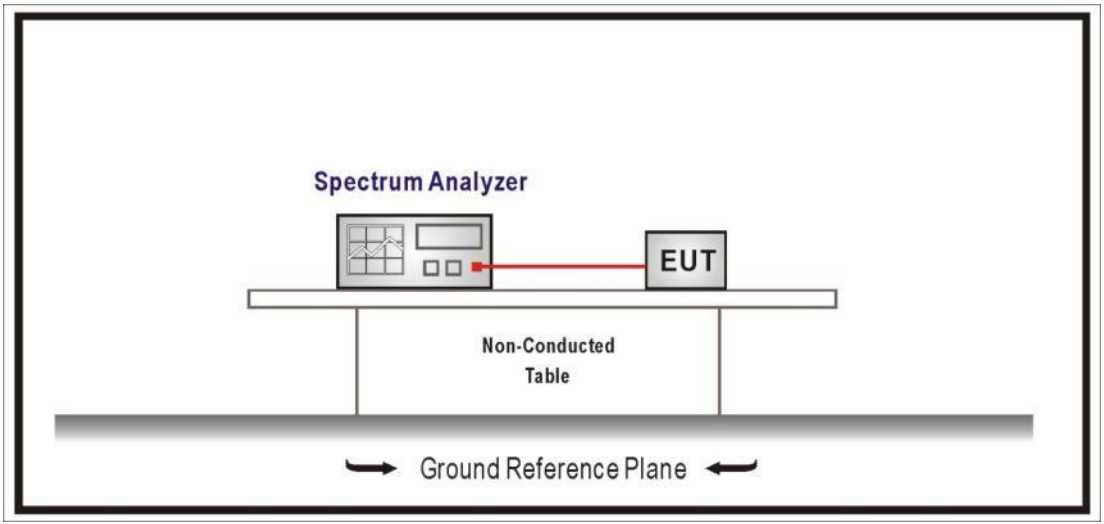
4.6.4 Test Data

Please reference to **Appendix 1: Wi-Fi 2.4G Power Table**.

4.7 Power Density	VERDICT: PASS

4.7.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (e)
Power Spectral Density≤8dBm/3kHz	

4.7.2 Test Setup



4.7.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☐	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☒	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle≥98%)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle≥98%)
	☒	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle＜98%)
	☐	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle＜98%)
	☐	ANSI C63.10	11.10.7	Method AVGPSD-3
	☐	ANSI C63.10	11.10.8	Method AVGPSD-3A

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☐	KDB 662911		F2)a)	Basic methodology
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☐	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☒	KDB 662911		F2)e)	Spatial stream
	☒	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☒	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☒	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)f) (iii)	Antenna have the different gain with more than one spatial stream

4.7.4 Test Data

Dipole Antenna-CDD 2TX

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	1	2412	-3.21	≤5.49	Pass
	6	2437	-3.20	≤5.49	Pass
	11	2462	-3.53	≤5.49	Pass
2	1	2412	-10.33	≤5.49	Pass
	6	2437	-9.42	≤5.49	Pass
	11	2462	-9.86	≤5.49	Pass
3	1	2412	-11.19	≤5.49	Pass
	6	2437	-10.32	≤5.49	Pass
	11	2462	-10.96	≤5.49	Pass
4	1	2412	-11.78	≤5.49	Pass
	6	2437	-9.74	≤5.49	Pass
	11	2462	-9.72	≤5.49	Pass

Dipole Antenna-Beamforming 2TX

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
3	1	2412	-10.28	≤5.49	Pass
	6	2437	-9.98	≤5.49	Pass
	11	2462	-10.82	≤5.49	Pass
4	1	2412	-11.33	≤5.49	Pass
	6	2437	-10.93	≤5.49	Pass
	11	2462	-10.74	≤5.49	Pass

Dipole Antenna-CDD 4TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	1	2412	-3.41	≤2.48	Pass
	6	2437	-3.82	≤2.48	Pass
	11	2462	-3.77	≤2.48	Pass
2	1	2412	-13.91	≤2.48	Pass
	6	2437	-13.41	≤2.48	Pass
	11	2462	-12.98	≤2.48	Pass
3	1	2412	-14.39	≤2.48	Pass
	6	2437	-13.97	≤2.48	Pass
	11	2462	-14.09	≤2.48	Pass
4	1	2412	-15.73	≤2.48	Pass
	6	2437	-15.09	≤2.48	Pass
	11	2462	-14.82	≤2.48	Pass

Dipole Antenna-Beamforming 4TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
3	1	2412	-15.58	≤2.48	Pass
	6	2437	-14.77	≤2.48	Pass
	11	2462	-14.43	≤2.48	Pass
4	1	2412	-16.24	≤2.48	Pass
	6	2437	-13.45	≤2.48	Pass
	11	2462	-14.14	≤2.48	Pass

Sector Antenna-CDD 2TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	1	2412	-4.30	≤4.09	Pass
	6	2437	-3.39	≤4.09	Pass
	11	2462	-3.34	≤4.09	Pass
2	1	2412	-10.68	≤4.09	Pass
	6	2437	-9.77	≤4.09	Pass
	11	2462	-10.31	≤4.09	Pass
3	1	2412	-11.79	≤4.09	Pass
	6	2437	-9.46	≤4.09	Pass
	11	2462	-10.93	≤4.09	Pass
4	1	2412	-11.62	≤4.09	Pass
	6	2437	-9.72	≤4.09	Pass
	11	2462	-11.20	≤4.09	Pass

Sector Antenna-Beamforming 2TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
3	1	2412	-11.45	≤4.09	Pass
	6	2437	-10.11	≤4.09	Pass
	11	2462	-11.21	≤4.09	Pass
4	1	2412	-11.04	≤4.09	Pass
	6	2437	-11.22	≤4.09	Pass
	11	2462	-10.75	≤4.09	Pass

Sector Antenna-CDD 4TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	1	2412	-3.93	≤1.08	Pass
	6	2437	-3.85	≤1.08	Pass
	11	2462	-3.97	≤1.08	Pass
2	1	2412	-13.87	≤1.08	Pass
	6	2437	-13.44	≤1.08	Pass
	11	2462	-13.76	≤1.08	Pass
3	1	2412	-15.32	≤1.08	Pass
	6	2437	-13.48	≤1.08	Pass
	11	2462	-14.21	≤1.08	Pass
4	1	2412	-15.13	≤1.08	Pass
	6	2437	-13.45	≤1.08	Pass
	11	2462	-14.67	≤1.08	Pass

Sector Antenna-Beamforming 4TX					
Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
3	1	2412	-14.99	≤1.08	Pass
	6	2437	-14.20	≤1.08	Pass
	11	2462	-14.46	≤1.08	Pass
4	1	2412	-15.59	≤1.08	Pass
	6	2437	-13.48	≤1.08	Pass
	11	2462	-14.70	≤1.08	Pass

4.8 Antenna Requirement	VERDICT: PASS

4.8.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.	

4.8.2 Antenna Connector Construction:	
☐	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☒	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document “Internal Photograph” to show the antenna connector.	

4.9 Test setup photo and EUT Photo	VERDICT: PASS

Remark: The test setup photo and EUT Photo please see appendix.

The End

FCC Power - Sector Antenna

FCC 2.4GHz Power Table-ETH7

Standard:	FCC Part 15.247	Test Date:	2021.01.05	Temperature:	25℃	Humidity:	55%RH		
Project No. :	20B0117R			Product Name:	Wireless Access Point	Model Name:	AP510CX	Test Site:	TR8
Antenna Gain(dBi)	Ant 1	6.90	Ant 2	6.90	Ant 3	6.90	Ant 4	6.90	
2*2 CDD-Directional Gain-Power(dBi)	6.90		2*2 BF-Directional Gain-Power(dBi)	9.91					
4*4 CDD-Directional Gain-Power(dBi)	6.90		4*4 BF-Directional Gain-Power(dBi)	12.92					

Antenna Technology: CDD 2*2

Mode:	802.11b	Data Rate:	1Mbps	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	20.82	20.36	23.61	29.10	Pass	30	30	
		6	2437	21.12	20.39	23.78	29.10	Pass	29	29	
		11	2462	21.10	21.06	24.09	29.10	Pass	27	27	
Mode:	802.11g	Data Rate:	6Mbps	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	15.20	14.79	18.01	29.10	Pass	41	41	
		6	2437	15.11	14.33	17.75	29.10	Pass	41	41	
		11	2462	14.02	13.50	16.78	29.10	Pass	41	41	
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	14.88	14.33	17.62	29.10	Pass	42	42	
		6	2437	14.74	13.99	17.39	29.10	Pass	42	42	
		11	2462	13.75	12.11	16.02	23.10	Pass	42	42	
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	14.41	13.83	17.14	29.10	Pass	43	43	
		6	2437	14.29	13.50	16.92	29.10	Pass	43	43	
		11	2462	13.23	11.64	15.52	29.10	Pass	43	43	

Antenna Technology: CDD 4*4

Mode:	802.11b	Data Rate:	1Mbps	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	20.71	20.33	21.19	21.74	27.05	29.10	Pass	30	30	30	30
		6	2437	21.65	20.78	20.79	20.61	27.00	29.10	Pass	28	28	28	28
		11	2462	21.59	21.03	21.50	21.57	27.45	29.10	Pass	26	26	26	26
Mode:	802.11g	Data Rate:	6Mbps	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.58	11.20	12.11	12.42	17.87	29.10	Pass	49	49	49	49
		6	2437	12.09	11.27	11.26	10.98	17.44	29.10	Pass	47	47	47	47
		11	2462	12.30	11.93	11.29	12.41	18.02	29.10	Pass	44	44	44	44
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.77	11.11	12.15	12.64	17.97	29.10	Pass	49	49	49	49
		6	2437	12.55	11.79	11.74	11.61	17.96	29.10	Pass	47	47	47	47
		11	2462	12.50	10.95	11.49	12.57	17.95	23.10	Pass	44	44	44	44
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.69	11.09	12.09	12.42	17.87	29.10	Pass	49	49	49	49
		6	2437	12.49	11.68	11.67	11.52	17.88	29.10	Pass	47	47	47	47
		11	2462	12.39	10.95	11.46	10.62	17.43	29.10	Pass	44	44	44	44

Antenna Technology: Beamforming 2*2

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	14.35	13.87	17.13	26.09	Pass	43	43	
		6	2437	14.12	13.53	16.85	26.09	Pass	43	43	
		11	2462	13.27	11.66	15.55	26.09	Pass	43	43	
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power				Power Index			
				MIMO Mode(2TX+2RX)							
Test Conditions		Channel	Frequency	Ant 1+2		Total Power	Limit				
				Reading Level							
				Avg. (dBm)							
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25℃)	Vnom (120V)	1	2412	13.86	13.29	16.59	26.09	Pass	44	44	
		6	2437	13.85	13.02	16.47	26.09	Pass	44	44	
		11	2462	12.79	11.14	15.05	20.09	Pass	44	44	

Antenna Technology: Beamforming 4*4

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.40	10.69	11.70	12.23	17.56	23.08	Pass	50	50	50	50
		6	2437	12.10	11.38	11.36	11.14	17.53	23.08	Pass	47	47	47	47
		11	2462	12.03	10.49	11.01	12.15	17.50	23.08	Pass	45	45	45	45
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power					Power Index			
				MIMO Mode(4TX+4RX)								
Test Conditions		Channel	Frequency	Ant 1+2+3+4				Total Power	Limit			
				Ant3	Ant5	Ant6	Ant7					
				Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.27	10.64	11.65	11.95	17.43	23.08	Pass	50	50	50	50
		6	2437	12.00	11.23	11.19	11.13	17.42	23.08	Pass	47	47	47	47
		11	2462	11.91	10.50	11.05	10.14	16.97	23.08	Pass	45	45	45	45

Appendix 1：Wi-Fi 2.4G Power Table

FCC Power -Dipole Antenna

FCC 2.4GHz Power Table-ETH7

Standard:	FCC Part 15.247	Test Date:	2021.01.05	Temperature:	25℃	Humidity:	55%RH		
Project No. :	20B0117R			Product Name:	Wireless Access Point	Model Name:	AP510CX	Test Site:	TR8
Antenna Gain(dBi)	Ant 1	5.50	Ant 2	5.50	Ant 3	5.50	Ant 4	5.50	
2*2 CDD-Directional Gain-Power(dBi)	5.50		2*2 BF-Directional Gain-Power(dBi)		8.51				
4*4 CDD-Directional Gain-Power(dBi)	5.50		4*4 BF-Directional Gain-Power(dBi)		11.52				

Antenna Technology: CDD 2*2

Mode:	802.11b	Data Rate:	1Mbps	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	20.64	20.16	23.42	30.00	Pass	30	30
		6	2437	20.96	20.25	23.63	30.00	Pass	29	29
		11	2462	20.90	20.84	23.88	30.00	Pass	27	27

Mode:	802.11g	Data Rate:	6Mbps	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	14.95	14.60	17.79	30.00	Pass	41	41
		6	2437	14.91	14.11	17.54	30.00	Pass	41	41
		11	2462	13.89	13.32	16.62	30.00	Pass	41	41

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	14.71	14.13	17.44	30.00	Pass	42	42
		6	2437	14.49	13.80	17.17	30.00	Pass	42	42
		11	2462	13.59	11.83	15.81	30.00	Pass	42	42

Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	14.14	13.70	16.94	30.00	Pass	43	43
		6	2437	14.01	13.24	16.65	30.00	Pass	43	43
		11	2462	13.05	11.51	15.36	30.00	Pass	43	43

Antenna Technology: CDD 4*4

Mode:	802.11b	Data Rate:	1Mbps	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	20.47	20.10	21.05	21.54	26.85	30.00	Pass	30	30	30	30
		6	2437	21.53	20.51	20.62	20.42	26.81	30.00	Pass	28	28	28	28
		11	2462	21.33	20.76	21.25	21.41	27.22	30.00	Pass	26	26	26	26

Mode:	802.11g	Data Rate:	6Mbps	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.34	10.95	11.98	12.28	17.69	30.00	Pass	49	49	49	49
		6	2437	11.97	11.03	11.08	10.80	17.26	30.00	Pass	47	47	47	47
		11	2462	12.08	11.79	11.01	12.18	17.81	30.00	Pass	44	44	44	44

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.57	10.97	11.96	12.41	17.78	30.00	Pass	49	49	49	49
		6	2437	12.31	11.63	11.61	11.34	17.76	30.00	Pass	47	47	47	47
		11	2462	12.28	10.73	11.33	12.32	17.74	30.00	Pass	44	44	44	44

Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.42	10.92	11.82	12.18	17.63	30.00	Pass	49	49	49	49
		6	2437	12.35	11.41	11.45	11.31	17.67	30.00	Pass	47	47	47	47
		11	2462	12.22	10.69	11.33	10.46	17.25	30.00	Pass	44	44	44	44

Antenna Technology: Beamforming 2*2

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	14.21	13.67	16.96	27.49	Pass	43	43
		6	2437	13.89	13.35	16.64	27.49	Pass	43	43
		11	2462	13.00	11.53	15.34	27.49	Pass	43	43

Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power						
				MIMO Mode(2TX+2RX)						Power Index
				Ant 1+2		Total Power	Limit			
Test Conditions		Channel	Frequency	Reading Level						
				Avg. (dBm)						
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25℃)	Vnom (120V)	1	2412	13.73	13.08	16.43	27.49	Pass	44	44
		6	2437	13.71	12.82	16.30	27.49	Pass	44	44
		11	2462	12.61	10.96	14.87	27.49	Pass	44	44

Antenna Technology: Beamforming 4*4

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.16	10.52	11.51	12.01	17.35	24.48	Pass	50	50	50	50
		6	2437	11.89	11.13	11.24	10.99	17.35	24.48	Pass	47	47	47	47
		11	2462	11.83	10.22	10.74	11.92	17.26	24.48	Pass	45	45	45	45

Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power								
				MIMO Mode(4TX+4RX)								Power Index
				Ant 1+2+3+4				Total Power	Limit			
			Frequency	Ant3	Ant5	Ant6	Ant7					
Test Conditions		Channel		Reading Level	Reading Level	Reading Level	Reading Level					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25℃)	Vnom (120V)	1	2412	11.13	10.39	11.50	11.76	17.25	24.48	Pass	50	50	50	50
		6	2437	11.82	11.06	10.95	10.96	17.23	24.48	Pass	47	47	47	47
		11	2462	11.74	10.34	10.85	10.01	16.81	24.48	Pass	45	45	45	45

FCC 2.4GHz Power Table-ETH 7

Standard:	FCC Part 15.247	Test Date:	2021.03.31	Temperature:	25℃	Humidity:	55%RH		
Project No. :	20B0117R			Product Name:	Wireless Access Point	Model Name:	AP510CX	Test Site:	TR8
Antenna Gain(dBi)	Ant 1	5.50	Ant 2	5.50	Ant 3	5.50	Ant 4	5.50	
2*2 CDD-Directional Gain-Power(dBi)	5.50		2*2 BF-Directional Gain-Power(dBi)		8.51				
4*4 CDD-Directional Gain-Power(dBi)	5.50		4*4 BF-Directional Gain-Power(dBi)		11.52				

Antenna Technology:	CDD 4*4															
Mode:	802.11n(20MHz)	Data Rate:	MCS24	Conducted power												
				MIMO Mode(4TX+4RX)												
				Ant 1+2+3+4												
Test Conditions		Channel	Frequency	Ant1	Ant2	Ant3	Ant4	Total Power	Limit		Power Index					
				Reading Level	Reading Level	Reading Level	Reading Level									
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7		
Tnom (25℃)	Vnom (120V)	1	2412	13.02	12.99	13.12	13.06	19.07	30.00	Pass	50	50	50	50		
		6	2437	17.57	17.46	17.33	17.49	23.48	30.00	Pass	47	47	47	47		
		11	2462	15.16	14.97	15.14	15.06	21.10	30.00	Pass	45	45	45	45		
Mode:	802.11ax(20MHz)	Data Rate:	MCS36NSS4	Conducted power												
				MIMO Mode(4TX+4RX)												
				Ant 1+2+3+4												
Test Conditions		Channel	Frequency	Ant1	Ant2	Ant3	Ant4	Total Power	Limit		Power Index					
				Reading Level	Reading Level	Reading Level	Reading Level									
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7		
Tnom (25℃)	Vnom (120V)	1	2412	13.08	12.93	13.05	12.83	18.99	30.00	Pass	50	50	50	50		
		6	2437	17.63	17.65	17.41	17.62	23.60	30.00	Pass	47	47	47	47		
		11	2462	14.92	14.83	15.06	14.86	20.94	30.00	Pass	45	45	45	45		

IC Power -Dipole Antenna

IC 2.4GHz Power Table-ETH7

Standard:	FCC Part 15.247	Test Date:	2021.01.05	Temperature:	25℃	55%RH	
Project No. :	20B0117R			Product Name:	Wireless Access	AP510CX	TR8
Antenna Gain(dBi)	Ant 1	5.50		Ant 2	Ant 3	Ant 4	
2*2 CDD-Directional Gain-Power(dBi)	5.50			2*2 BF-Directional	8.51		
4*4 CDD-Directional Gain-Power(dBi)	5.50			4*4 BF-Directional	11.52		

DEKRA

Antenna Technology: CDD 2*2

Mode:	802.11b	Data Rate:	1Mbps	power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		EIRP Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	20.64	20.16	23.42	28.92	30.00	Pass	36.00	Pass	30	30
		6	2437	20.96	20.25	23.63	29.13	30.00	Pass	36.00	Pass	29	29
		11	2462	20.90	20.84	23.88	29.38	30.00	Pass	36.00	Pass	27	27
Mode:	802.11g	Data Rate:	6Mbps	Conducted power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		EIRP Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	14.95	14.60	17.79	23.29	30.00	Pass	36.00	Pass	41	41
		6	2437	14.91	14.11	17.54	23.04	30.00	Pass	36.00	Pass	41	41
		11	2462	13.89	13.32	16.62	22.12	30.00	Pass	36.00	Pass	41	41
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	14.71	14.13	17.44	22.94	30.00	Pass	36.00	Pass	42	42
		6	2437	14.49	13.80	17.17	22.67	30.00	Pass	36.00	Pass	42	42
		11	2462	13.59	11.83	15.81	21.31	30.00	Pass	36.00	Pass	42	42
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS 1	Conducted power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		EIRP Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	14.14	13.70	16.94	22.44	30.00	Pass	36.00	Pass	43	43
		6	2437	14.01	13.24	16.65	22.15	30.00	Pass	36.00	Pass	43	43
		11	2462	13.05	11.51	15.36	20.86	30.00	Pass	36.00	Pass	43	43

Antenna Technology: CDD 4*4

Mode:	802.11b	Data Rate:	1Mbps	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	20.47	20.10	21.05	21.54	26.85	32.35	30.00	Pass	36.00	Pass	30	30	30	30
		6	2437	21.53	20.51	20.62	20.42	26.81	32.31	30.00	Pass	36.00	Pass	28	28	28	28
		11	2462	21.33	20.76	21.25	21.41	27.22	32.72	30.00	Pass	36.00	Pass	26	26	26	26
Mode:	802.11g	Data Rate:	6Mbps	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	11.34	10.95	11.98	12.28	17.69	23.19	30.00	Pass	36.00	Pass	49	49	49	49
		6	2437	11.97	11.03	11.08	10.80	17.26	22.76	30.00	Pass	36.00	Pass	47	47	47	47
		11	2462	12.08	11.79	11.01	12.18	17.81	23.31	30.00	Pass	36.00	Pass	44	44	44	44
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	11.57	10.97	11.96	12.41	17.78	23.28	30.00	Pass	36.00	Pass	49	49	49	49
		6	2437	12.31	11.63	11.61	11.34	17.76	23.26	30.00	Pass	36.00	Pass	47	47	47	47
		11	2462	12.28	10.73	11.33	12.32	17.74	23.24	30.00	Pass	36.00	Pass	44	44	44	44
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS 1	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	11.42	10.92	11.82	12.18	17.63	23.13	30.00	Pass	36.00	Pass	49	49	49	49
		6	2437	12.35	11.41	11.45	11.31	17.67	23.17	30.00	Pass	36.00	Pass	47	47	47	47
		11	2462	12.22	10.69	11.33	10.46	17.25	22.75	30.00	Pass	36.00	Pass	44	44	44	44

Antenna Technology: Beamforming 2*2

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		EIRP Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	14.21	13.67	16.96	25.47	27.49	Pass	36.00	Pass	43	43
		6	2437	13.89	13.35	16.64	25.15	27.49	Pass	36.00	Pass	43	43
		11	2462	13.00	11.53	15.34	23.85	27.49	Pass	36.00	Pass	43	43
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS 1	Conducted power								Power Index	
				MIMO Mode(2TX+2RX)									
Test Conditions		Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)		Total Power	EIRP power	Conducted Limit		EIRP Limit			
			(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5
Tnom (25 °C)	Vnom (120V)	1	2412	13.73	13.08	16.43	24.94	27.49	Pass	36.00	Pass	44	44
		6	2437	13.71	12.82	16.30	24.81	27.49	Pass	36.00	Pass	44	44
		11	2462	12.61	10.96	14.87	23.38	21.49	Pass	36.00	Pass	44	44

Antenna Technology: Beamforming 4*4

Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	11.16	10.52	11.51	12.01	17.35	28.87	24.48	Pass	36.00	Pass	50	50	50	50
		6	2437	11.89	11.13	11.24	10.99	17.35	28.87	24.48	Pass	36.00	Pass	47	47	47	47
		11	2462	11.83	10.22	10.74	11.92	17.26	28.78	24.48	Pass	36.00	Pass	45	45	45	45
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS 1	Conducted power										Power Index			
				MIMO Mode(4TX+4RX)													
Test Conditions		Channel	Frequency	Ant 1+2+3+4 Ant3 Reading Level	Ant5 Reading	Ant6 Reading	Ant7 Reading	Total Power	EIRP power	Conducted Limit		EIRP Limit					
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25 °C)	Vnom (120V)	1	2412	11.13	10.39	11.50	11.76	17.25	28.77	24.48	Pass	36.00	Pass	50	50	50	50
		6	2437	11.82	11.06	10.95	10.96	17.23	28.75	24.48	Pass	36.00	Pass	47	47	47	47
		11	2462	11.74	10.34	10.85	10.01	16.81	28.33	24.48	Pass	36.00	Pass	45	45	45	45

IC Power -Sector Antenna

IC 2.4GHz Power Table-ETH7

Standard:	FCC Part 15.247	Test Date:	2021.01.05	Temperature:	25℃		Humidity:	55%RH			
Project No.:	20B0117R			Product Name:	Wireless Access Point		Model Name:	AP510CX	Test Site:	TR8	
Antenna Gain(dBi)		Ant 1	6.90	Ant 2	6.90	Ant 3	6.90	Ant 4	6.90		
2*2 CDD-Directional Gain-Power(dBi)		6.90		2*2 BF-Directional Gain-Power(dBi)		9.91					
4*4 CDD-Directional Gain-Power(dBi)		6.90		4*4 BF-Directional Gain-Power(dBi)		12.92					

CDD 2*2

Antenna Technology:				Conducted power MIMO Mode(2TX+2RX)											
Mode:	802.11b	Data Rate:	1Mbps	Ant 1+2											Power Index
Test Conditions		Channel		Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		EIRP Limit				
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	20.82	20.36	23.61	30.51	29.10	Pass	36.00	Pass	30	30	
		6		2437	21.12	20.39	23.78	30.68	29.10	Pass	36.00	Pass	29	29	
		11		2462	21.10	21.06	24.09	30.99	29.10	Pass	36.00	Pass	27	27	
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(2TX+2RX)											
Test Conditions		Channel		Ant 1+2 Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	15.20	14.79	18.01	24.91	29.10	Pass	36.00	Pass	41	41	
		6		2437	15.11	14.33	17.75	24.65	29.10	Pass	36.00	Pass	41	41	
		11		2462	14.02	13.50	16.78	23.68	29.10	Pass	36.00	Pass	41	41	
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(2TX+2RX)											
Test Conditions		Channel		Ant 1+2 Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		Limit				Power Index
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	14.88	14.33	17.62	24.52	29.10	Pass	36.00	Pass	42	42	
		6		2437	14.74	13.99	17.39	24.29	29.10	Pass	36.00	Pass	42	42	
		11		2462	13.75	12.11	16.02	22.92	30.00	Pass	36.00	Pass	42	42	
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power MIMO Mode(2TX+2RX)											
Test Conditions		Channel		Ant 1+2 Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	14.41	13.83	17.14	24.04	29.10	Pass	36.00	Pass	43	43	
		6		2437	14.29	13.50	16.92	23.82	29.10	Pass	36.00	Pass	43	43	
		11		2462	13.23	11.54	15.52	22.42	29.10	Pass	36.00	Pass	43	43	

CDD 4*4

Antenna Technology:				Conducted power MIMO Mode(4TX+4RX)													
Mode:	802.11b	Data Rate:	1Mbps	Ant 1+2+3+4													Power Index
Test Conditions		Channel		Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	20.71	20.33	21.19	21.74	27.05	33.95	29.10	Pass	36.00	Pass	30	30	30	30
		6		2437	21.65	20.78	20.79	20.61	27.00	33.90	29.10	Pass	36.00	Pass	28	28	28	28
		11		2462	21.59	21.03	21.50	21.57	27.45	34.35	29.10	Pass	36.00	Pass	26	26	26	26
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(4TX+4RX)													
Test Conditions		Channel		Ant 1+2+3+4 Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	11.58	11.20	12.11	12.42	17.87	24.77	29.10	Pass	36.00	Pass	49	49	49	49
		6		2437	12.09	11.27	11.26	10.98	17.44	24.34	29.10	Pass	36.00	Pass	47	47	47	47
		11		2462	12.30	11.93	11.29	12.41	18.02	29.52	29.10	Pass	36.00	Pass	44	44	44	44
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(4TX+4RX)													
Test Conditions		Channel		Ant 1+2+3+4 Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	11.77	11.11	12.15	12.64	17.97	24.87	29.10	Pass	36.00	Pass	49	49	49	49
		6		2437	12.55	11.79	11.74	11.61	17.96	24.86	29.10	Pass	36.00	Pass	47	47	47	47
		11		2462	12.50	10.95	11.49	12.57	17.95	24.56	30.00	Pass	36.00	Pass	44	44	44	44
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power MIMO Mode(4TX+4RX)													
Test Conditions		Channel		Ant 1+2+3+4 Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	11.69	11.09	12.09	12.42	17.87	24.77	29.10	Pass	36.00	Pass	49	49	49	49
		6		2437	12.49	11.68	11.67	11.52	17.88	24.78	29.10	Pass	36.00	Pass	47	47	47	47
		11		2462	12.39	10.95	11.46	10.62	17.43	24.33	29.10	Pass	36.00	Pass	44	44	44	44

Beamforming 2*2

Antenna Technology:				Beamforming 2*2											
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(2TX+2RX)											
Test Conditions		Channel		Ant 1+2 Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	14.35	13.87	17.13	27.04	26.09	Pass	36.00	Pass	43	43	
		6		2437	14.12	13.53	16.85	26.76	26.09	Pass	36.00	Pass	43	43	
		11		2462	13.27	11.66	15.55	25.46	26.09	Pass	36.00	Pass	43	43	
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power MIMO Mode(2TX+2RX)											
Test Conditions		Channel		Ant 1+2 Frequency	Reading Level Avg. (dBm)		Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Ant3	Ant5	Avg. (dBm (Ant 1+2)	Avg. (dBm (Ant 1+2)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	
Tnom (25°C)	Vnom (120V)	1		2412	13.86	13.29	16.59	26.50	26.09	Pass	36.00	Pass	44	44	
		6		2437	13.85	13.02	16.47	26.38	26.09	Pass	36.00	Pass	44	44	
		11		2462	12.79	11.14	15.05	24.96	20.09	Pass	36.00	Pass	44	44	

Beamforming 4*4

Antenna Technology:				Beamforming 4*4													
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(4TX+4RX)													
Test Conditions		Channel		Ant 1+2+3+4 Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	11.40	10.69	11.70	12.23	17.56	30.48	23.08	Pass	36.00	Pass	50	50	50	50
		6		2437	12.10	11.38	11.36	11.14	17.53	30.45	23.08	Pass	36.00	Pass	47	47	47	47
		11		2462	12.03	10.49	11.01	12.15	17.50	30.42	23.08	Pass	36.00	Pass	45	45	45	45
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power MIMO Mode(4TX+4RX)													
Test Conditions		Channel		Ant 1+2+3+4 Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	EIRP Power	Conducted Limit		EIRP Limit				Power Index
				(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7
Tnom (25°C)	Vnom (120V)	1		2412	11.27	10.64	11.65	11.95	17.43	30.35	23.08	Pass	36.00	Pass	50	50	50	50
		6		2437	12.00	11.23	11.19	11.13	17.42	30.34	23.08	Pass	36.00	Pass	47	47	47	47
		11		2462	11.91	10.50	11.05	10.14	16.97	29.89	23.08	Pass	36.00	Pass	45	45	45	45

FCC 2.4GHz Power Table-ETH 7

Standard:	FCC Part 15.247	Test Date:	2021.03.31	Temperature:	25℃	Humidity:	55%RH		
Project No. :	20B0117R			Product Name:	Wireless Access Point	Model Name:	AP510CX	Test Site:	TR8
Antenna Gain(dBi)		Ant 1	6.90	Ant 2	6.90	Ant 3	6.90	Ant 4	6.90
2*2 CDD-Directional Gain-Power(dBi)		6.90		2*2 BF-Directional Gain-Power(dBi)		9.91			
4*4 CDD-Directional Gain-Power(dBi)		6.90		4*4 BF-Directional Gain-Power(dBi)		12.92			

Antenna Technology:	CDD 4*4

Mode:	802.11n(20MHz)	Data Rate:	MCS24	Conducted power						
				MIMO Mode(4TX+4RX)						
				Ant 1+2+3+4						
Test Conditions		Channel	Frequency	Ant1	Ant2	Ant3	Ant4	Total Power	Limit	
				Reading Level	Reading Level	Reading Level	Reading Level			
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail
Tnom (25℃)	Vnom (120V)	1	2412	13.49	13.52	13.54	13.51	19.54	29.10	Pass
		6	2437	18.14	18.09	18.16	18.06	24.13	29.10	Pass
		11	2462	15.16	15.14	15.09	15.03	21.13	29.10	Pass

Mode:	802.11ax(20MHz)	Data Rate:	MCS36NSS4	Conducted power						
				MIMO Mode(4TX+4RX)						
				Ant 1+2+3+4						
Test Conditions		Channel	Frequency	Ant1	Ant2	Ant3	Ant4	Total Power	Limit	
				Reading Level	Reading Level	Reading Level	Reading Level			
			(MHz)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm)	Avg. (dBm (Ant 1+2+3+4)	Avg. (dBm)	Pass/Fail
Tnom (25℃)	Vnom (120V)	1	2412	13.47	13.56	13.48	13.51	19.53	29.10	Pass
		6	2437	18.12	18.15	18.20	18.02	24.14	29.10	Pass
		11	2462	15.09	15.14	15.17	15.08	21.14	29.10	Pass