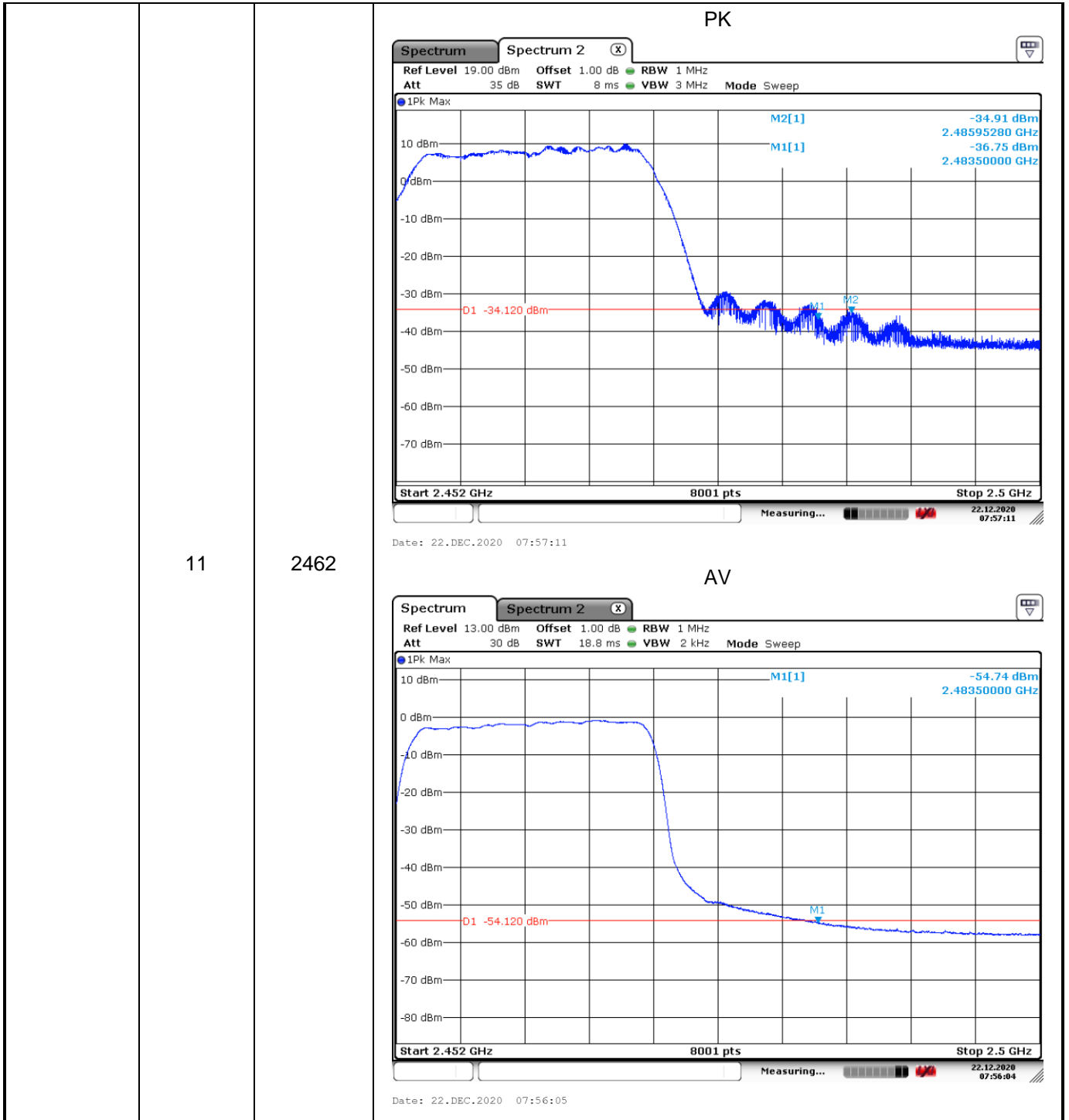


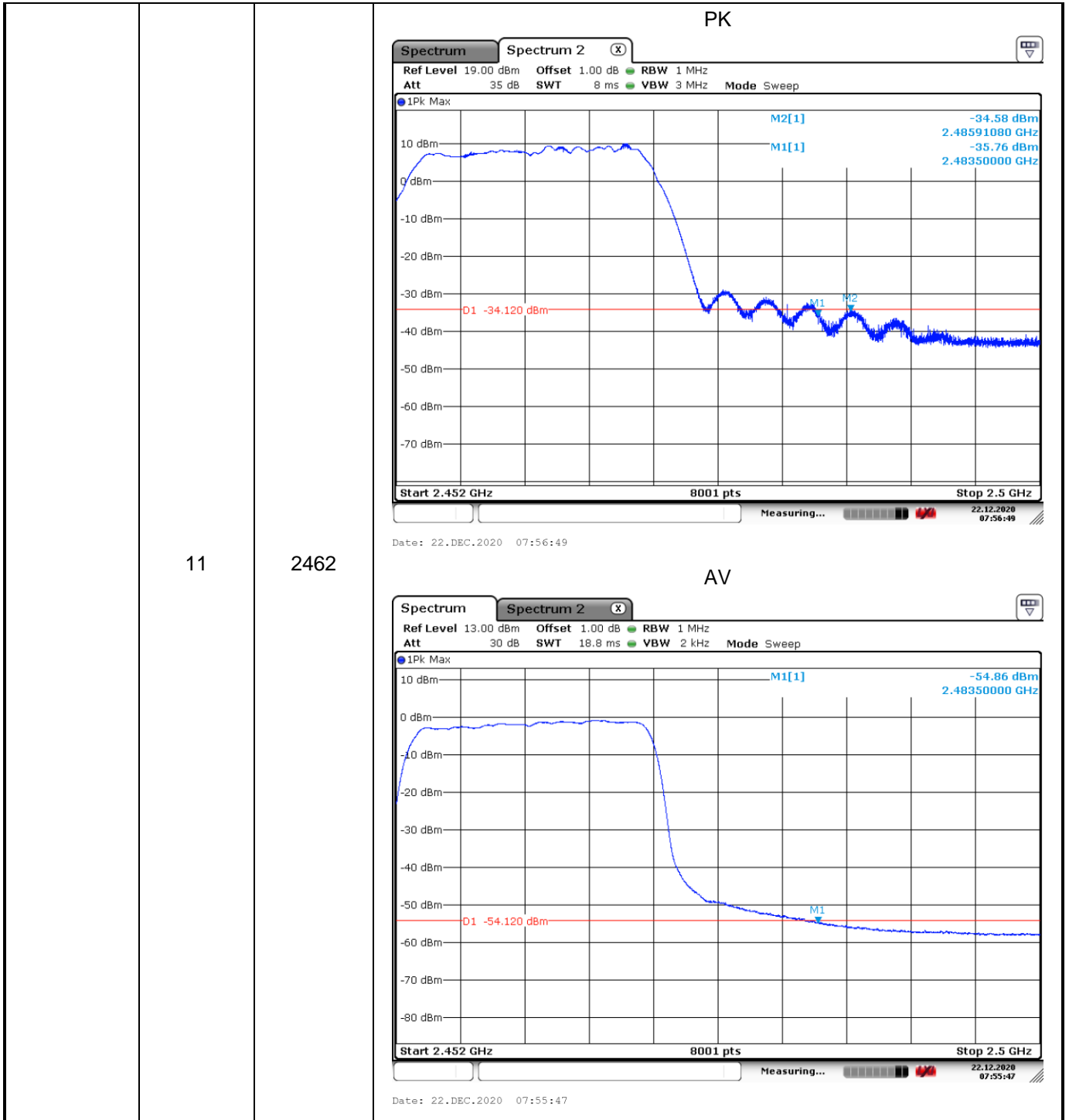
CDD 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>



CDD 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>

	<p>11</p>	<p>2462</p>	<div style="text-align: center;">PK</div> <p>Date: 22.DEC.2020 08:01:20</p> <div style="text-align: center;">AV</div> <p>Date: 22.DEC.2020 08:00:34</p>
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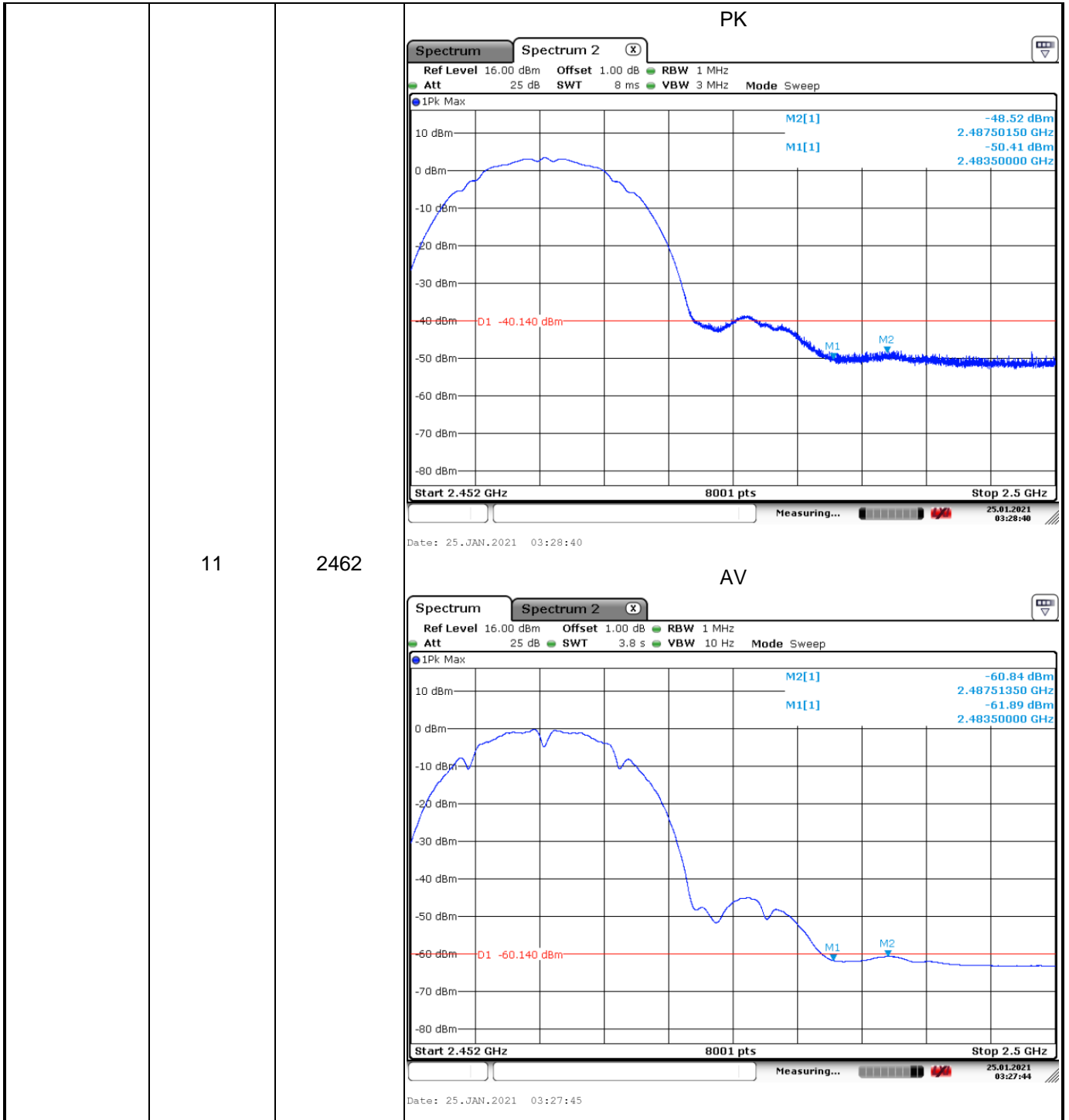
Beamforming 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>



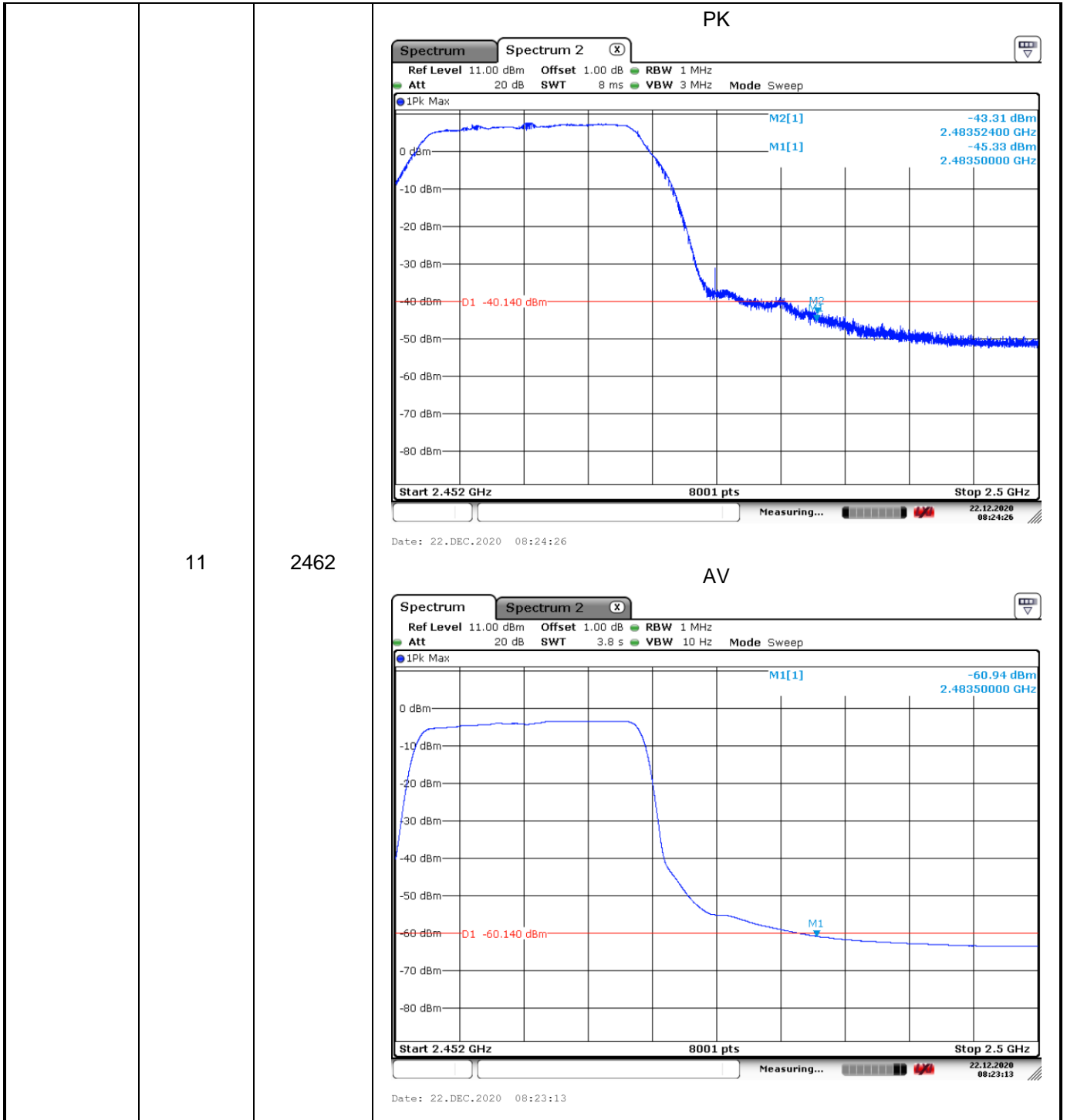
Beamforming 2TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	<p style="text-align: center;">PK</p>
			<p style="text-align: center;">AV</p>

	11	2462	<div style="text-align: center;">PK</div> <p>Ref Level 19.00 dBm Offset 1.00 dB RBW 1 MHz Att 35 dB SWT 8 ms VBW 3 MHz Mode Sweep</p> <p>M2[1] -35.66 dBm 2.48541280 GHz M1[1] -40.30 dBm 2.48350000 GHz</p> <p>D1 -34.120 dBm</p> <p>Start 2.452 GHz 8001 pts Stop 2.5 GHz</p> <p>Date: 22.DEC.2020 08:00:52</p> <div style="text-align: center;">AV</div> <p>Ref Level 13.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 12.5 ms VBW 3 kHz Mode Sweep</p> <p>M1[1] -54.96 dBm 2.48350000 GHz</p> <p>D1 -54.120 dBm</p> <p>Start 2.452 GHz 8001 pts Stop 2.5 GHz</p> <p>Date: 22.DEC.2020 07:59:49</p>
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CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
1	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>



CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
2	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>



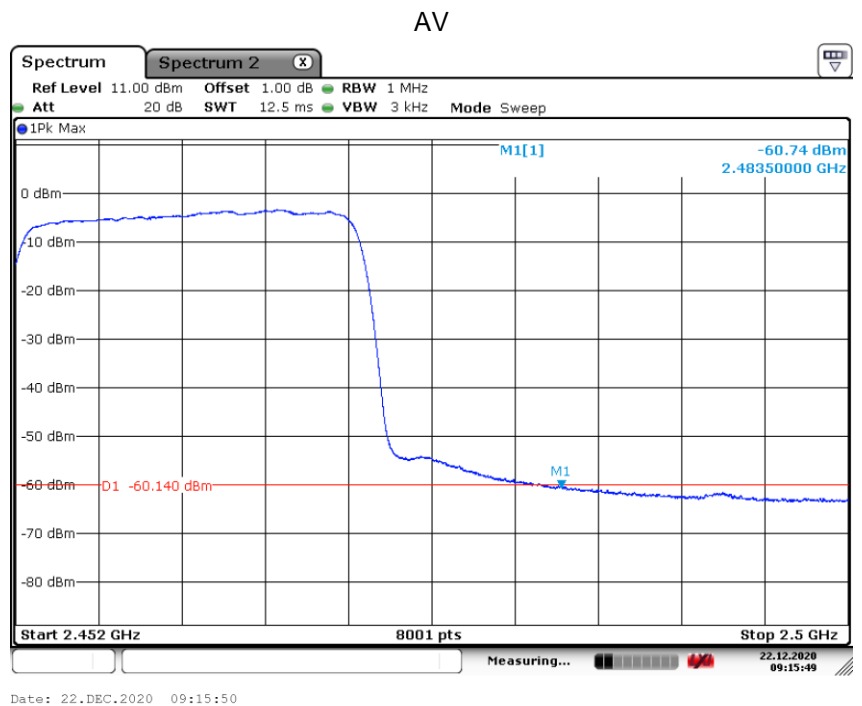
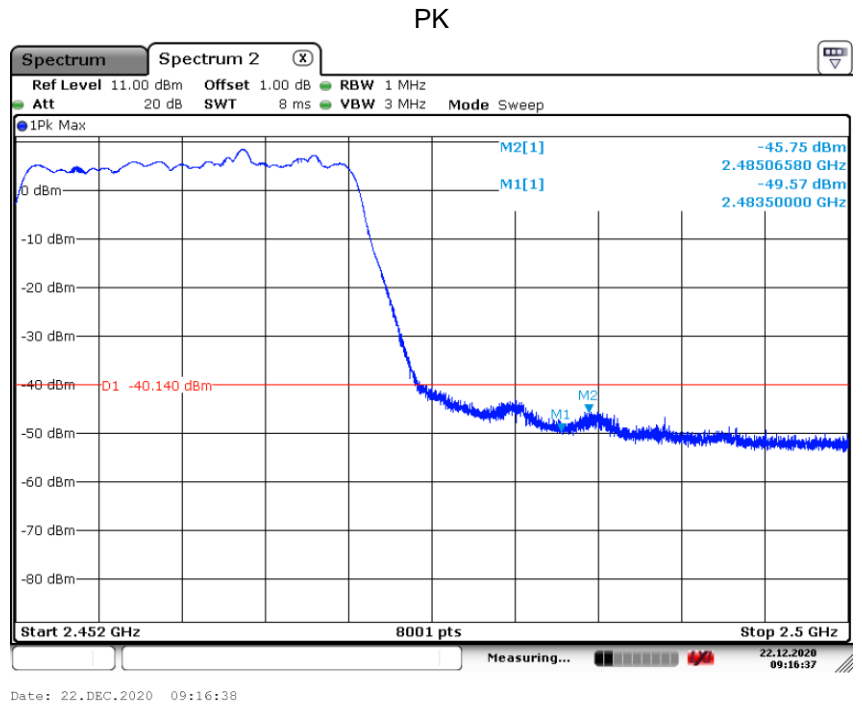
CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>

	<p>11</p>	<p>2462</p>	<div style="text-align: center;">PK</div> <div style="text-align: center;">AV</div>
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CDD 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>

11

2462



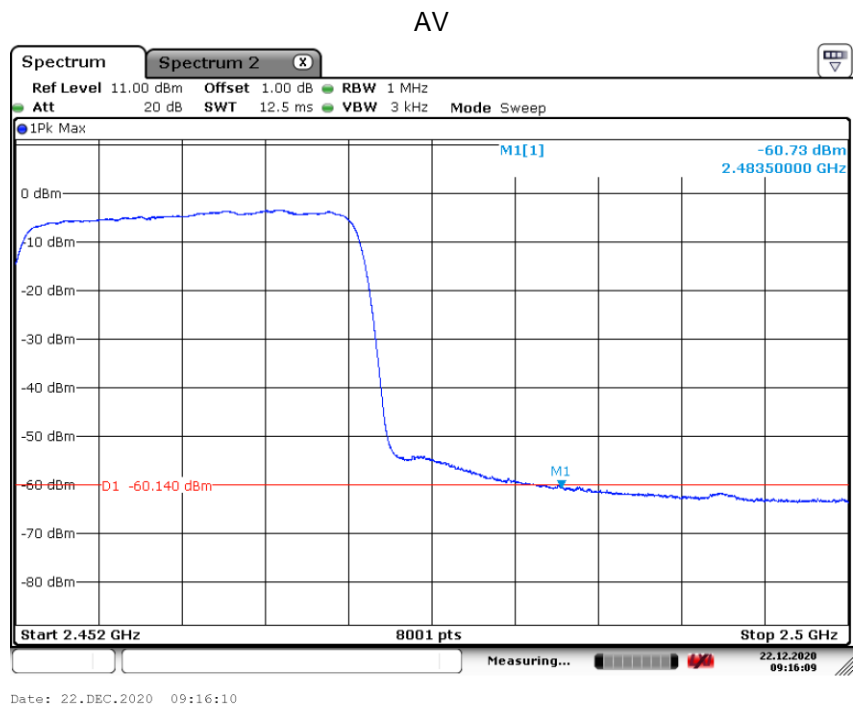
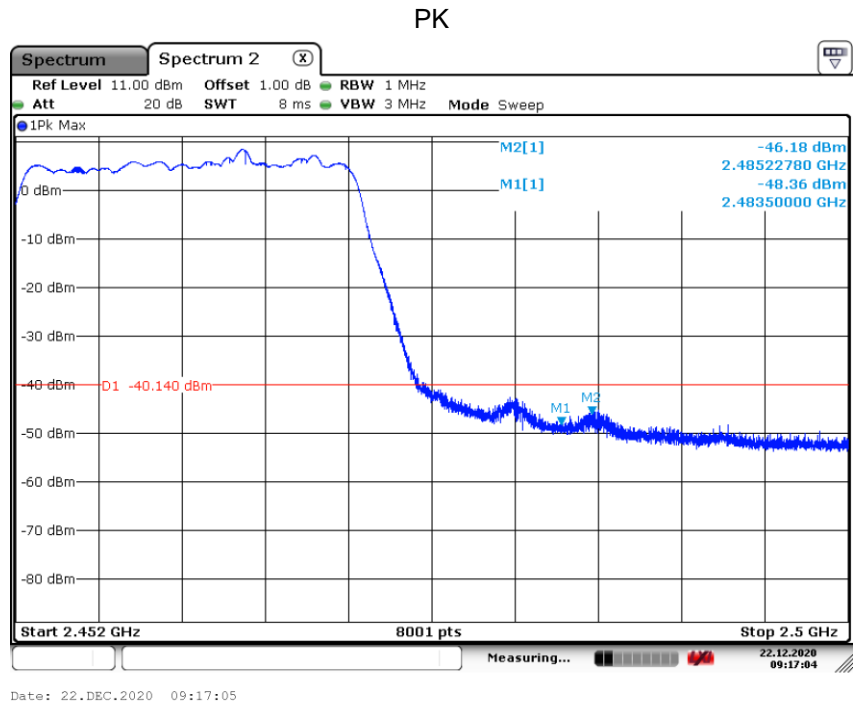
Beamforming 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
3	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>

	<p>11</p>	<p>2462</p>	<div style="text-align: center;">PK</div> <p>Date: 22.DEC.2020 09:08:33</p> <div style="text-align: center;">AV</div> <p>Date: 22.DEC.2020 09:07:38</p>
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Beamforming 4TX			
Mode	Channel	Test Frequency (MHz)	Test Plot
4	1	2412	<p style="text-align: center;">PK</p> <p style="text-align: center;">AV</p>

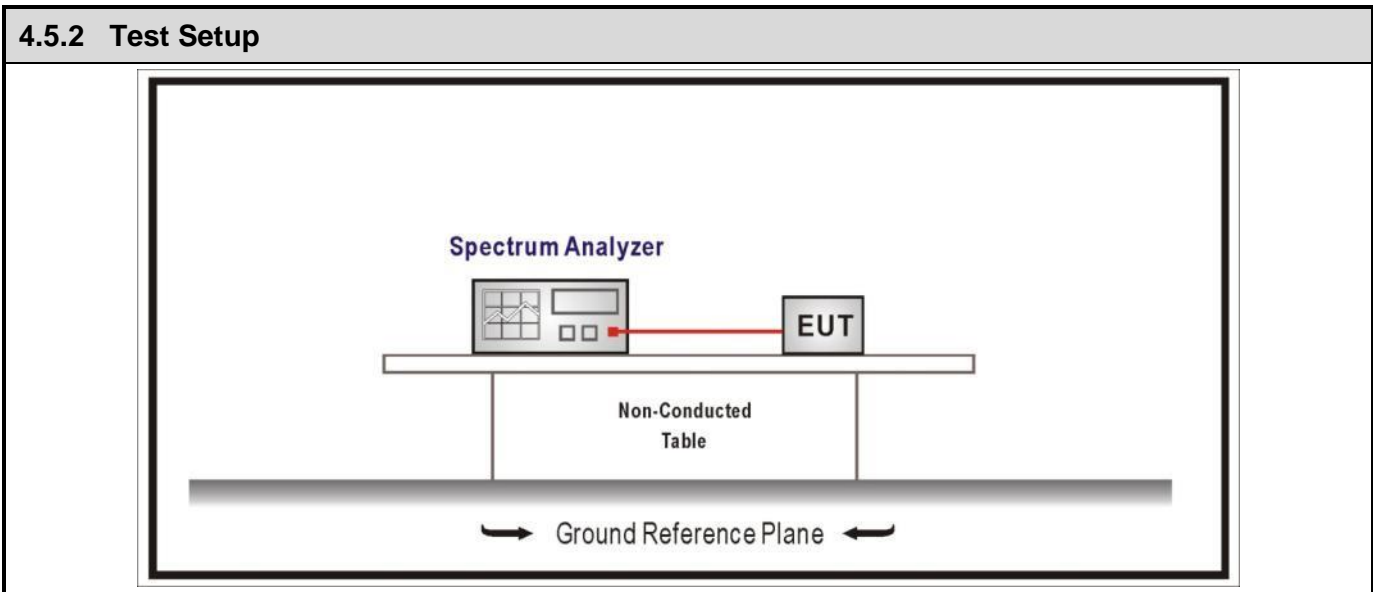
11

2462



4.5 DTS Bandwidth	VERDICT: N/A
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4.5.1 Limit	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)
Systems using digital modulation techniques operate in the 2400-2483.5 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 be within the required frequency range.	



4.5.3 Test Procedure			
	Reference Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.8	DTS bandwidth
<input type="checkbox"/>	ANSI C63.10	11.8.1	Option 1
<input checked="" type="checkbox"/>	ANSI C63.10	11.8.2	Option 2
<input checked="" type="checkbox"/>	ANSI C63.10	6.9	Occupied bandwidth
<input type="checkbox"/>	ANSI C63.10	6.9.2	relative measurement procedure
<input checked="" type="checkbox"/>	ANSI C63.10	6.9.3	power bandwidth (99%) measurement procedure

4.5.4 Test Data

N/A

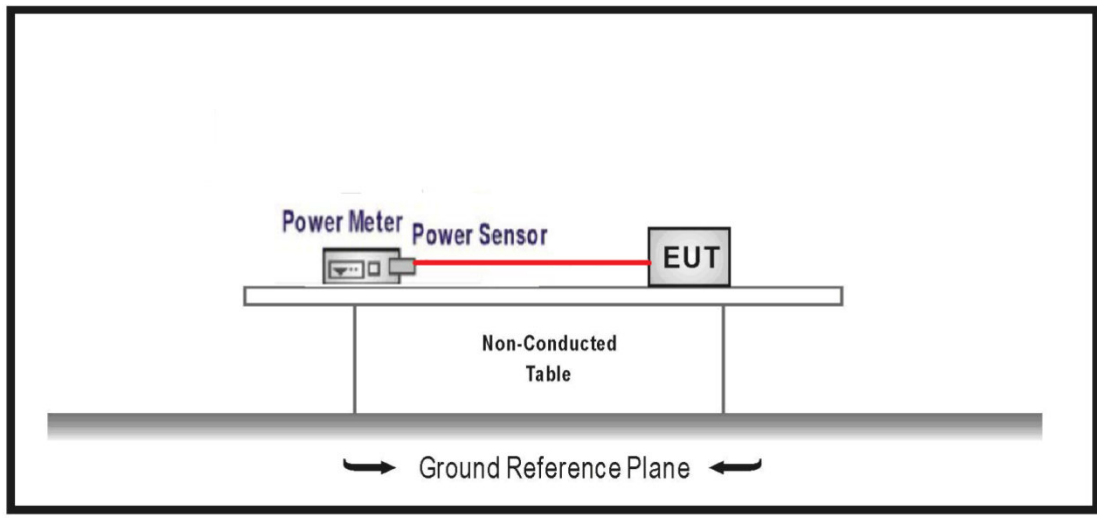
4.6 Fundamental emission output power	VERDICT: PASS
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4.6.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)	
<input checked="" type="checkbox"/>	GTX <6dBi	Pout≤30dBm
<input type="checkbox"/>	GTX >6dBi	
<input type="checkbox"/>	Non-Fix point-point	Pout≤30-(GTX -6)
<input type="checkbox"/>	Fix point-point	Pout≤30-[(GTX-6)]/3
<input type="checkbox"/>	Point-to-multipoint	Pout≤30-(GTX-6)
<input type="checkbox"/>	Overlap Beams	Pout≤30-[(GTX-6)]/3
<input type="checkbox"/>	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
<input type="checkbox"/>	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
<input checked="" type="checkbox"/>	ANSI C63.10	11.9	Fundamental emission output power
<input type="checkbox"/>	ANSI C63.10	11.9.1	Maximum peak conducted output power
	<input type="checkbox"/> ANSI C63.10	11.9.1.1	RBW \geq DTS bandwidth
	<input type="checkbox"/> ANSI C63.10	11.9.1.2	Integrated band power method
	<input type="checkbox"/> ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method
<input checked="" type="checkbox"/>	ANSI C63.10	11.9.2	Maximum conducted (average) output power
	<input checked="" type="checkbox"/> ANSI C63.10	11.9.2.2	Measurement using a spectrum analyzer (SA)
	<input checked="" type="checkbox"/> ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle \geq 98%)
	<input type="checkbox"/> ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle \geq 98%)
	<input checked="" type="checkbox"/> ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle \leq 98%)
	<input type="checkbox"/> ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle \leq 98%)
	<input type="checkbox"/> ANSI C63.10	11.9.2.2.4	Method AVGSA-3
	<input type="checkbox"/> ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
	<input checked="" type="checkbox"/> ANSI C63.10	11.9.2.3	Measurement using a power meter (PM)
	<input checked="" type="checkbox"/> ANSI C63.10	11.9.2.3.1	Method AVGPM
	<input type="checkbox"/> ANSI C63.10	11.9.2.3.2	Method AVGPM-G

Directional Gain Calculations for In-Band test method

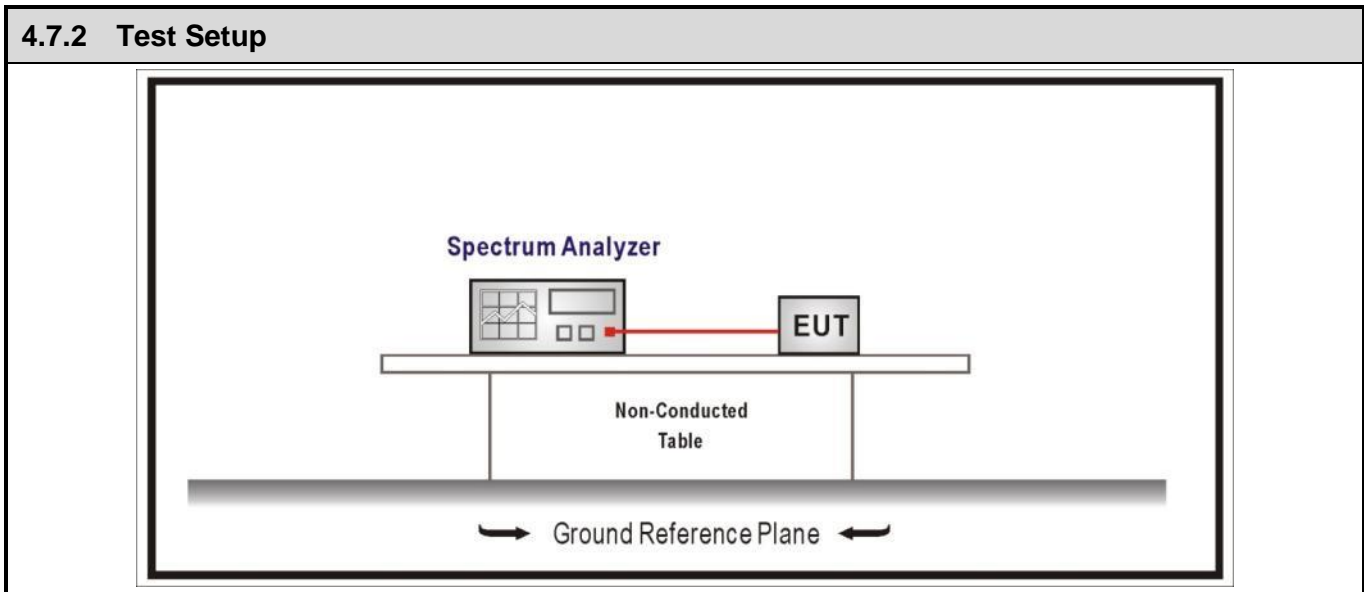
	References Rule	Chapter	Description
<input type="checkbox"/>	KDB 662911	F2)a)	Basic methodology
	<input type="checkbox"/> KDB 662911	F2)a) (i)	transmit signals are correlated
	<input type="checkbox"/> KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
<input type="checkbox"/>	KDB 662911	F2)b)	Sectorized antenna systems.
<input type="checkbox"/>	KDB 662911	F2)c)	Cross-polarized antennas
	<input type="checkbox"/> ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	<input type="checkbox"/> ANSI C63.10	F2)c) (ii)	Multiple antennas
<input checked="" type="checkbox"/>	KDB 662911	F2)e)	Spatial stream
	<input checked="" type="checkbox"/> KDB 662911	F2)e) (i)	Antennas have the same gain
	<input type="checkbox"/> KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/> KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
<input checked="" type="checkbox"/>	KDB 662911	F2)f)	Cyclic Delay Diversity (CDD)
	<input checked="" type="checkbox"/> KDB 662911	F2)f) (i)	Antennas have the same gain
	<input type="checkbox"/> KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/> 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
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4.7.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.247 (e)
Power Spectral Density ≤ 8dBm/3kHz	



4.7.3 Test Procedure

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

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
<input type="checkbox"/>	KDB 662911		F2)a)	Basic methodology
	<input type="checkbox"/>	KDB 662911	F2)a) (i)	transmit signals are correlated
	<input type="checkbox"/>	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
<input type="checkbox"/>	KDB 662911		F2)b)	Sectorized antenna systems.
<input type="checkbox"/>	KDB 662911		F2)c)	Cross-polarized antennas
	<input type="checkbox"/>	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	<input type="checkbox"/>	ANSI C63.10	F2)c) (ii)	Multiple antennas
<input checked="" type="checkbox"/>	KDB 662911		F2)e)	Spatial stream
	<input checked="" type="checkbox"/>	KDB 662911	F2)e) (i)	Antennas have the same gain
	<input type="checkbox"/>	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/>	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
<input checked="" type="checkbox"/>	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	<input checked="" type="checkbox"/>	KDB 662911	F2)f) (i)	Antennas have the same gain
	<input type="checkbox"/>	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	<input type="checkbox"/>	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
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4.8.1 Limit:	
Standard	FCC Part 15 Subpart C Paragraph 15.203
<p>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.</p>	

4.8.2 Antenna Connector Construction:	
<input type="checkbox"/>	The use of a permanently attached antenna
<input type="checkbox"/>	The antenna use of a unique coupling to the intentional radiator
<input checked="" type="checkbox"/>	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
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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°C	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 MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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 MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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 MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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:	MCS0NS1	Conducted power MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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 MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	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	28	28	28	28
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	Vnom (120V)	1	2412	11.58	11.20	12.11	12.42	17.67	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 MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	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	17.86	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:	MCS0NS1	Conducted power MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	Vnom (120V)	1	2412	11.69	11.09	12.09	12.42	17.57	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	10.82	17.43	29.10	Pass	44	44	44	44
Antenna Technology: Beamforming 2*2														
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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	11.86		15.35	26.09	Pass	43	43			
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NS1	Conducted power MIMO Mode(2T*2RX)							Power Index			
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit						
		(MHz)	Ant3	Ant5		Avg. (dBm) (Ant 1+2)	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5				
Tnom (25°C)	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 MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	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:	MCS0NS1	Conducted power MIMO Mode(4T*4RX)							Power Index			
Test Conditions	Channel	Frequency	Ant3 Reading Level	Ant5 Reading Level	Ant6 Reading Level	Ant7 Reading Level	Total Power	Limit						
		(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°C)	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°C	Humidity:	55%RH							
Project No.:	2080117R			Product Name:	Wireless Access Point	Model Name:	APS10CX	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)										
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit	Power Index					
		(MHz)	Ant3	Ant5	Ant5	Ant5	Avg. (dBm (Ant 1+2))	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 5	Ant 5	
Tnom (25 °C)	Vnom (120V)	1	2412	20.64	20.16	20.16	23.42	30.00	Pass	30	30	30	30	
		6	2437	20.96	20.25	20.25	23.63	30.00	Pass	29	29	29	29	
		11	2462	20.90	20.84	20.84	23.88	30.00	Pass	27	27	27	27	
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(2TX+2RX)										
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit	Power Index					
		(MHz)	Ant3	Ant5	Ant5	Ant5	Avg. (dBm (Ant 1+2))	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 5	Ant 5	
Tnom (25 °C)	Vnom (120V)	1	2412	14.95	14.60	14.60	17.79	30.00	Pass	41	41	41	41	
		6	2437	14.91	14.11	14.11	17.54	30.00	Pass	41	41	41	41	
		11	2462	13.89	13.32	13.32	16.62	30.00	Pass	41	41	41	41	
Antenna Technology: CDD 4'4														
Mode:	802.11b	Data Rate:	1Mbps	Conducted power MIMO Mode(4TX+4RX)										
Test Conditions	Channel	Frequency	Ant3 Reading Level Avg. (dBm)		Ant5 Reading Level Avg. (dBm)		Ant7 Reading Level Avg. (dBm)		Total Power	Limit	Power Index			
		(MHz)	Ant3	Ant5	Ant5	Ant7	Avg. (dBm (Ant 1+2+3+4))	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	30.00	Pass	30	30	30	30
		6	2437	21.53	20.51	20.82	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)										
Test Conditions	Channel	Frequency	Ant3 Reading Level Avg. (dBm)		Ant5 Reading Level Avg. (dBm)		Ant7 Reading Level Avg. (dBm)		Total Power	Limit	Power Index			
		(MHz)	Ant3	Ant5	Ant5	Ant7	Avg. (dBm (Ant 1+2+3+4))	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	17.59	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)										
Test Conditions	Channel	Frequency	Ant3 Reading Level Avg. (dBm)		Ant5 Reading Level Avg. (dBm)		Ant7 Reading Level Avg. (dBm)		Total Power	Limit	Power Index			
		(MHz)	Ant3	Ant5	Ant5	Ant7	Avg. (dBm (Ant 1+2+3+4))	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	17.72	30.00	Pass	49	49	49	49
		6	2437	12.31	11.83	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
Antenna Technology: Beamforming 2'2														
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(2TX+2RX)										
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit	Power Index					
		(MHz)	Ant3	Ant5	Ant5	Ant5	Avg. (dBm (Ant 1+2))	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 5	Ant 5	
Tnom (25 °C)	Vnom (120V)	1	2412	14.21	13.67	13.67	16.96	27.49	Pass	43	43	43	43	
		6	2437	12.35	13.35	13.35	16.64	27.49	Pass	43	43	43	43	
		11	2462	13.90	11.53	11.53	15.34	27.49	Pass	43	43	43	43	
Mode:	802.11ax(20MHz)	Data Rate:	MCS0NSS1	Conducted power MIMO Mode(2TX+2RX)										
Test Conditions	Channel	Frequency	Ant 1+2 Reading Level Avg. (dBm)				Total Power	Limit	Power Index					
		(MHz)	Ant3	Ant5	Ant5	Ant5	Avg. (dBm (Ant 1+2))	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 5	Ant 5	
Tnom (25 °C)	Vnom (120V)	1	2412	13.73	13.08	13.08	16.43	27.49	Pass	44	44	44	44	
		6	2437	13.71	12.82	12.82	16.30	27.49	Pass	44	44	44	44	
		11	2462	12.81	10.96	10.96	14.87	27.49	Pass	44	44	44	44	
Antenna Technology: Beamforming 4'4														
Mode:	802.11n(20MHz)	Data Rate:	MCS0	Conducted power MIMO Mode(4TX+4RX)										
Test Conditions	Channel	Frequency	Ant3 Reading Level Avg. (dBm)		Ant5 Reading Level Avg. (dBm)		Ant7 Reading Level Avg. (dBm)		Total Power	Limit	Power Index			
		(MHz)	Ant3	Ant5	Ant5	Ant7	Avg. (dBm (Ant 1+2+3+4))	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	17.25	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)										
Test Conditions	Channel	Frequency	Ant3 Reading Level Avg. (dBm)		Ant5 Reading Level Avg. (dBm)		Ant7 Reading Level Avg. (dBm)		Total Power	Limit	Power Index			
		(MHz)	Ant3	Ant5	Ant5	Ant7	Avg. (dBm (Ant 1+2+3+4))	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	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°C	Humidity:	55%RH							
Project No.:	2080117R			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)				Power Index						
Test Conditions	Channel	Ant 1+2+3+4				Total Power	Limit							
		Frequency	Ant1	Ant2	Ant3							Ant4		
		(MHz)	Reading Level	Reading Level	Reading Level	Reading Level	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7		
Tnom (25 °C)	Vnom (120V)	1	2412	13.02	12.99	13.12	13.06	13.07	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)				Power Index						
Test Conditions	Channel	Ant 1+2+3+4				Total Power	Limit							
		Frequency	Ant1	Ant2	Ant3							Ant4		
		(MHz)	Reading Level	Reading Level	Reading Level	Reading Level	Avg. (dBm)	Pass/Fail	Ant 3	Ant 5	Ant 6	Ant 7		
Tnom (25 °C)	Vnom (120V)	1	2412	13.08	12.83	13.05	12.83	13.99	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°C	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				




Antenna Technology														CDD 2*2																																																																																																																																																									
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IC Power -Sector Antenna

IC 2.4GHz Power Table-ETH7																	
Standard:	FCC Part 15.247	Test Date:	2021.01.05	Temperature:	25°C	Humidity:		SSNR:									
Project No.:	2080117R	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	Ant 5:	6.90								
2° 2-Dir-Directional Gain-Power(dBi)	6.90	2° 2-Dir-Directional Gain-Power(dBi)	6.90	2° 2-Dir-Directional Gain-Power(dBi)	6.90	2° 2-Dir-Directional Gain-Power(dBi)	6.90	2° 2-Dir-Directional Gain-Power(dBi)	6.90								
4° 4-Dir-Directional Gain-Power(dBi)	6.90	4° 4-Dir-Directional Gain-Power(dBi)	6.90	4° 4-Dir-Directional Gain-Power(dBi)	6.90	4° 4-Dir-Directional Gain-Power(dBi)	6.90	4° 4-Dir-Directional Gain-Power(dBi)	6.90								
Antenna Technology: CDD 2x2																	
Mode:	802.11b	Data Rate:	1Mbps	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	13.30	14.33	23.61	30.81	29.10	Pass	36.00	Pass	30	30				
		6	2437	21.12	22.39	23.75	30.88	29.10	Pass	36.00	Pass	29	29				
		11	2462	21.10	21.06	24.09	30.59	29.10	Pass	36.00	Pass	27	27				
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	14.33	14.33	17.62	24.57	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:	MCSS0	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	14.88	14.53	17.62	24.57	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	12.71	16.02	22.92	30.00	Pass	36.00	Pass	42	42				
Mode:	802.11ax(20MHz)	Data Rate:	MCSS0SS1	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	14.41	13.85	17.14	24.42	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	11.64	15.52	22.52	29.10	Pass	36.00	Pass	43	43				
Antenna Technology: CDD 4x4																	
Mode:	802.11b	Data Rate:	1Mbps	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
Tnom (25°C)	Vnom (120V)	1	2412	20.71	20.33	12.11	12.42	17.87	33.85	29.10	Pass	36.00	Pass	30	30	30	30
		6	2437	21.05	20.76	11.26	10.98	17.44	33.93	29.10	Pass	36.00	Pass	28	28	28	28
		11	2462	21.39	21.03	11.50	11.57	18.02	34.35	29.10	Pass	36.00	Pass	26	26	26	26
Mode:	802.11g	Data Rate:	6Mbps	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
Tnom (25°C)	Vnom (120V)	1	2412	11.88	11.20	12.11	12.42	17.87	33.85	29.10	Pass	36.00	Pass	49	49	49	49
		6	2437	12.09	11.27	11.26	10.98	17.44	33.93	29.10	Pass	36.00	Pass	47	47	47	47
		11	2462	12.30	11.83	11.29	12.41	18.02	34.52	29.10	Pass	36.00	Pass	44	44	44	44
Mode:	802.11n(20MHz)	Data Rate:	MCSS0	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
Tnom (25°C)	Vnom (120V)	1	2412	11.69	11.09	12.09	12.42	17.87	33.85	29.10	Pass	36.00	Pass	49	49	49	49
		6	2437	12.05	11.79	11.74	11.61	17.56	34.56	29.10	Pass	36.00	Pass	47	47	47	47
		11	2462	12.50	10.95	11.49	12.57	17.95	34.56	30.00	Pass	36.00	Pass	44	44	44	44
Mode:	802.11ax(20MHz)	Data Rate:	MCSS0SS1	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
Tnom (25°C)	Vnom (120V)	1	2412	11.69	11.09	12.09	12.42	17.87	33.85	29.10	Pass	36.00	Pass	49	49	49	49
		6	2437	12.49	11.68	11.67	11.52	17.58	34.75	29.10	Pass	36.00	Pass	47	47	47	47
		11	2462	12.39	10.95	11.48	10.62	17.43	34.33	29.10	Pass	36.00	Pass	44	44	44	44
Antenna Technology: Beamforming 2x2																	
Mode:	802.11n(20MHz)	Data Rate:	MCSS0	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	14.35	13.87	17.13	24.57	29.10	Pass	36.00	Pass	43	43				
		6	2437	14.12	13.63	16.85	26.76	29.10	Pass	36.00	Pass	43	43				
		11	2462	13.27	11.66	15.55	24.66	29.10	Pass	36.00	Pass	43	43				
Mode:	802.11ax(20MHz)	Data Rate:	MCSS0SS1	Conducted power MIMO Mode(2Tx+2Rx)						Power Index							
Test Conditions	Channel	Ant 1+2 Reading Level Avg. (dBm)				Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5						
		Frequency (MHz)	Ant3 Avg. (dBm)	Ant5 Avg. (dBm)	Avg. (dBm) (Ant 1+2)												
Tnom (25°C)	Vnom (120V)	1	2412	13.86	13.29	16.59	24.57	29.10	Pass	36.00	Pass	44	44				
		6	2437	13.80	13.02	16.47	26.38	29.10	Pass	36.00	Pass	44	44				
		11	2462	12.79	11.14	15.06	24.96	30.00	Pass	36.00	Pass	44	44				
Antenna Technology: Beamforming 4x4																	
Mode:	802.11n(20MHz)	Data Rate:	MCSS0	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
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	
		6	2437	12.10	11.38	11.38	11.14	17.53	30.55	23.08	Pass	36.00	Pass	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	
Mode:	802.11ax(20MHz)	Data Rate:	MCSS0SS1	Conducted power MIMO Mode(4Tx+4Rx)						Power Index							
Test Conditions	Channel	Ant 3 Reading Level Avg. (dBm)		Ant 5 Reading Level Avg. (dBm)		Ant 6 Reading Level Avg. (dBm)		Total Power	ERP Power	Conducted Limit	ERP Limit	Ant 3	Ant 5	Ant 6	Ant 7		
		Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)	Frequency (MHz)	Avg. (dBm)									Avg. (dBm) (Ant 1+2+3+4)	
Tnom (25°C)	Vnom (120V)	1	2412	11.87	10.54	11.65	11.95	17.43	30.25	23.08	Pass	36.00	Pass	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	
		11	2462	11.91	10.50	11.05	10.14	16.97	29.89	23.08	Pass	36.00	Pass	45	45	45	

FCC 2.4GHz Power Table-ETH 7



Standard:	FCC Part 15.247	Test Date:	2021.03.31	Temperature:	25°C		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)								
Test Conditions	Channel	Ant 1+2+3+4				Total Power	Limit					
		Frequency	Ant1	Ant2	Ant3		Ant4	Avg. (dBm)	Avg. (dBm)	Pass/Fail		
		(MHz)	Reading Level	Reading Level	Reading Level		Reading Level					
Tnom (25 °C)	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:	MCS36NSS 4	Conducted power MIMO Mode(4TX+4RX)								
Test Conditions	Channel	Ant 1+2+3+4				Total Power	Limit					
		Frequency	Ant1	Ant2	Ant3		Ant4	Avg. (dBm)	Avg. (dBm)	Pass/Fail		
		(MHz)	Reading Level	Reading Level	Reading Level		Reading Level					
Tnom (25 °C)	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	15.06	21.14	29.10	Pass		