

FCC RF EXPOSURE REPORT

FCC ID: QISAP5130DN

Project No. : 1507C117
Equipment : Wireless LAN Access Point
Model : AP5130DN
Applicant : Huawei Technologies Co.,Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District Shenzhen China
According: : FCC Guidelines for Human Exposure IEEE C95.1

B T L I N C .

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna

2.4G

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
A	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	3.87	2.4G
B	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	3.87	2.4G
C	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	3.87	2.4G

Note:

- (1) The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and receivers (3T3R).
- (2) ANT A for 1TX was found to be the worst case and recorded.

Remark:

For 2TX with beamforming

The EUT with beamforming function, then, Direction gain = $G_{ANT} + 10\log(N_{ANT}/N_{SS})$, where N_{SS} = the number of independent spatial streams of data.

Directional gain = $3.87 + 10\log(3/2) = 3.87 + 1.76 = 5.63$

So the Output Power limit = 30

the PSD limit = 8

For 3TX with beamforming

The EUT with beamforming function, then, Direction gain = $G_{ANT} + 10\log(N_{ANT}/N_{SS})$, where N_{SS} = the number of independent spatial streams of data.

Directional gain = $3.87 + 10\log(3/3) = 3.87$

So the Output Power limit = 30

the PSD limit = 6

Operating Mode TX Mode	1TX	2TX	3TX
802.11b	V (ANT A)	V (ANT A + ANT B)	V (ANT A + ANT B + ANT C)
802.11g	V (ANT A)	V (ANT A + ANT B)	V (ANT A + ANT B + ANT C)
802.11n(20MHz)	V (ANT A)	V (ANT A + ANT B)	V (ANT A + ANT B + ANT C)
802.11n(40MHz)	V (ANT A)	V (ANT A + ANT B)	V (ANT A + ANT B + ANT C)

5G

Table for Filed Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
A	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	5.7	5G
B	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	5.7	5G
C	GUANGDONG SHENGLU TELECOMMUNICATION TECH. CO.,LTD.	SL10301A	External Antenna	RP-SMA-J	5.7	5G

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and receivers (3T3R).
ANT A for 1TX was found to be the worst case and recorded.

Remark:

For 2TX with beamforming

The EUT with beamforming function, then, Direction gain = $G_{ANT} + 10\log(N_{ANT}/N_{SS})$, where N_{SS} = the number of independent spatial streams of data.

Directional gain = $5.7 + 10\log(3/2) = 5.7 + 1.76 = 7.46$.

So the Output Power of UNII-1 & UNII-3 limit = $30 - 7.46 + 6 = 28.54$

the RSS-247 Output Power of UNII-1 limit = $23 - 7.26 + 6 = 21.54$

the Output Power of UNII-2A & UNII-2C limit = $24 - 7.46 + 6 = 22.54$,

the PSD of UNII-1 limit = $17 - 7.46 + 6 = 15.54$,

the RSS-247 PSD of UNII-1 limit = $10 - 7.26 + 6 = 8.54$,

the PSD of UNII-2A & UNII-2C limit = $11 - 7.46 + 6 = 9.54$,

the PSD of UNII-3 for AC mode limit = $30 - 7.46 + 6 = 28.54$.

For 3TX with beamforming

The EUT with beamforming function, then, Direction gain = $G_{ANT} + 10\log(N_{ANT}/N_{SS})$, where N_{SS} = the number of independent spatial streams of data.

Directional gain = $5.7 + 10\log(3/3) = 5.7 + 0 = 5.7$.

So the Output Power of UNII-1 & UNII-3 limit = 30

the RSS-247 Output Power of UNII-1 limit = 23

the Output Power of UNII-2A & UNII-2C limit = 24

the PSD of UNII-1 limit = 17,

the RSS-247 PSD of UNII-1 limit = 10,

the PSD of UNII-2A & UNII-2C limit = 11,

the PSD of UNII-3 limit = 30.

Operating Mode TX Mode	1TX	2TX	3TX
802.11a	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)
802.11n(20MHz)	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)
802.11n(40MHz)	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)
802.11ac(20MHz)	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)
802.11ac(40MHz)	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)
802.11ac(80MHz)	V (ANT A)	V (ANT A+ ANT B)	V (ANT A+ ANT B + ANT C)

TEST RESULTS

2.4G

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature :	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX B MODE /CH01, CH06, CH11-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.87	2.4378	16.02	39.9945	0.01940664	1	Complies
3.87	2.4378	16.99	50.0035	0.02426333	1	Complies
3.87	2.4378	16.02	39.9945	0.01940664	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature :	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX G MODE /CH01, CH06, CH11-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.87	2.4378	20.00	100.0000	0.04852330	1	Complies
3.87	2.4378	23.22	209.8940	0.10184750	1	Complies
3.87	2.4378	21.46	139.9587	0.06791260	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.87	2.4378	20.79	119.9499	0.05820367	1	Complies
3.87	2.4378	23.22	209.8940	0.10184750	1	Complies
3.87	2.4378	21.14	130.0170	0.06308852	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.87	2.4378	21.14	130.0170	0.06308852	1	Complies
3.87	2.4378	23.80	239.8833	0.11639930	1	Complies
3.87	2.4378	20.79	119.9499	0.05820367	1	Complies

2.4G 2TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.63	3.6559	16.38	43.4510	0.03161916	1	Complies
5.63	3.6559	17.73	59.2925	0.04314698	1	Complies
5.63	3.6559	16.5	44.6684	0.03250501	1	Complies

2.4G 3TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-Ant A+Ant B		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.87	2.4378	16.22	41.8794	0.02032125	1	Complies
3.87	2.4378	18.37	68.7068	0.03333883	1	Complies
3.87	2.4378	15.96	39.4457	0.01914037	1	Complies

UNII-1

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE_Total / CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.78	18.9671	0.01402653	1	Complies
5.7	3.7154	15.25	33.4965	0.02477139	1	Complies
5.7	3.7154	15.19	33.0370	0.02443151	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.46	17.6198	0.01303018	1	Complies
5.7	3.7154	15.16	32.8095	0.02426333	1	Complies
5.7	3.7154	15.06	32.0627	0.02371103	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total / CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	13.04	20.1372	0.01489191	1	Complies
5.7	3.7154	15.28	33.7287	0.02494310	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-20M MODE_Total / CH36, CH40, CH48		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.43	17.4985	0.01294048	1	Complies
5.7	3.7154	13.85	24.2661	0.01794529	1	Complies
5.7	3.7154	14.09	25.6448	0.01896489	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_Total / CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	13.00	19.9526	0.01475538	1	Complies
5.7	3.7154	15.37	34.4350	0.02546539	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_Total /CH42		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	13.30	21.3796	0.01581067	1	Complies

UNII-1 2TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_ Ant A+Ant B / CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.46	5.5719	9.98	9.9541	0.01103952	1	Complies
7.46	5.5719	12.44	17.5388	0.01945138	1	Complies

UNII-1 3TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_ Ant A+Ant B / CH38, CH46		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	10.05	10.1158	0.00748084	1	Complies
5.7	3.7154	12.28	16.9044	0.01250116	1	Complies

UNII-2A

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE_Total / CH52, CH60, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.88	61.3762	0.04538897	1	Complies
5.7	3.7154	17.96	62.5173	0.04623282	1	Complies
5.7	3.7154	15.47	35.2371	0.02605856	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH52, CH60, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.60	57.5440	0.04255498	1	Complies
5.7	3.7154	17.78	59.9791	0.04435580	1	Complies
5.7	3.7154	15.46	35.1560	0.02599862	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total / CH54, CH62		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.89	61.5177	0.04549361	1	Complies
5.7	3.7154	15.61	36.3915	0.02691227	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-20M MODE_Total / CH52, CH60, CH64		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.63	57.9429	0.04284995	1	Complies
5.7	3.7154	17.70	58.8844	0.04354621	1	Complies
5.7	3.7154	15.36	34.3558	0.02540682	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_Total / CH54, CH62		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.88	61.3762	0.04538897	1	Complies
5.7	3.7154	15.61	36.3915	0.02691227	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_Total / CH58		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.81	38.1066	0.02818061	1	Complies

UNII-2A 2TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_Ant A+Ant B/ CH54, CH62		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.46	5.5719	12.5	17.7828	0.01972197	1	Complies
7.46	5.5719	10.13	10.3039	0.01142748	1	Complies

UNII-2A 3TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_Ant A+Ant B/ CH54, CH62		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.46	17.6198	0.01303018	1	Complies
5.7	3.7154	10.03	10.0693	0.00744647	1	Complies

UNII-2C

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE_Total / CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.51	35.5631	0.02629967	1	Complies
5.7	3.7154	17.88	61.3762	0.04538897	1	Complies
5.7	3.7154	15.50	35.4813	0.02623919	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.46	35.1560	0.02599862	1	Complies
5.7	3.7154	17.70	58.8844	0.04354621	1	Complies
5.7	3.7154	15.45	35.0752	0.02593883	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total / CH102, CH110, CH134		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.84	60.8135	0.04497285	1	Complies
5.7	3.7154	17.71	59.0201	0.04364660	1	Complies
5.7	3.7154	17.89	61.5177	0.04549361	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-20M MODE_Total / CH100, CH116, CH140		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.36	34.3558	0.02540682	1	Complies
5.7	3.7154	17.81	60.3949	0.04466325	1	Complies
5.7	3.7154	15.44	34.9945	0.02587917	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_Total / CH102, CH110, CH134		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.92	61.9441	0.04580895	1	Complies
5.7	3.7154	17.86	61.0942	0.04518043	1	Complies
5.7	3.7154	17.91	61.8016	0.04570360	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_Total / CH106, CH122		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.91	38.9942	0.02883702	1	Complies
5.7	3.7154	15.99	39.7192	0.02937314	1	Complies

UNII-2C 2TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N40 MODE_ Ant A+Ant B/ CH102, CH110, CH134		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.46	5.5719	12.38	17.2982	0.01918449	1	Complies
7.46	5.5719	12.2	16.5959	0.01840562	1	Complies
7.46	5.5719	12.2	16.5959	0.01840562	1	Complies

UNII-2C 3TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_ Total/ CH102, CH110, CH134		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.39	17.3380	0.01282184	1	Complies
5.7	3.7154	12.35	17.1791	0.01270429	1	Complies
5.7	3.7154	12.33	17.1002	0.01264592	1	Complies

UNII-3

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX A MODE_Total / CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.79	60.1174	0.04445805	1	Complies
5.7	3.7154	17.88	61.3762	0.04538897	1	Complies
5.7	3.7154	17.81	60.3949	0.04466325	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_Total / CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.73	59.2925	0.04384806	1	Complies
5.7	3.7154	17.60	57.5440	0.04255498	1	Complies
5.7	3.7154	17.64	58.0764	0.04294873	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_Total / CH151, CH159		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.87	61.2350	0.04528458	1	Complies
5.7	3.7154	17.82	60.5341	0.04476621	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-20M MODE_Total / CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.73	59.2925	0.04384806	1	Complies
5.7	3.7154	17.74	59.4292	0.04394914	1	Complies
5.7	3.7154	17.69	58.7489	0.04344606	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-40M MODE_Total / CH151, CH159		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	17.89	61.5177	0.04549361	1	Complies
5.7	3.7154	17.82	60.5341	0.04476621	1	Complies

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC-80M MODE_Total / CH155		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	15.94	39.2645	0.02903691	1	Complies

UNII-3 2TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N20 MODE_ Ant A+Ant B/ CH149, CH157, CH165		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.46	5.5719	12.17	16.4816	0.01827891	1	Complies
7.46	5.5719	12.34	17.1396	0.01900861	1	Complies
7.46	5.5719	12.05	16.0325	0.01778076	1	Complies

UNII-3 3TX with beamforming

EUT :	Wireless LAN Access Point	Model Name :	AP5130DN
Temperature:	27 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX AC40 MODE_ Total / CH151, CH159		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
5.7	3.7154	12.46	17.6198	0.01303018	1	Complies
5.7	3.7154	12.42	17.4582	0.01291072	1	Complies

For 2.4G+5G simultaneous transmission MPE:

$$0.1164/1+0.0462/1=0.1626<1$$

Note: the calculated distance is 20 cm.