

Radio Exposure Evaluation Report

FCC ID : LDKVEHVR2777
Equipment : Cisco Catalyst 9136I Access Point
Brand Name : Cisco
Model Name : C9136I-B
Applicant : Cisco Systems Inc
125 West Tasman Drive , San Jose, CA
95134, USA.
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA
95134, USA.
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Aug. 09, 2021, and testing was started from Aug. 12, 2021 and completed on Jun. 02, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR FCC Part 2 Subpart J, section 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory
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Photographs of EUT V01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Note 1: From Sporton Project No.: FA180526 (Serving Radio)

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

None

Reviewed by: Ryan Hsiao

Report Producer: Ann Hou

1 General Description

1.1 Information

1.1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
5GHz WLAN	5150-5250 5250-5350 5470-5725 5725-5850	5180-5240 5260-5320 5500-5700 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
6GHz WLAN	5925-7125	5955-7095 5965-7085 5985-7025 6025-6985	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)

Identify EUT	
HW Version	V03

**1.1.2 Antenna Information**

Ant.	Brand	Model Name	Antenna Type	Connector
1	Foxconn	361.01530.005	PIFA	I-PEX
2	Foxconn	361.01530.005	PIFA	I-PEX
3	Foxconn	361.01530.005	PIFA	I-PEX
4	Foxconn	361.01530.005	PIFA	I-PEX
5	Foxconn	361.01530.005	Dipole	I-PEX
6	Foxconn	361.01530.005	Dipole	I-PEX
7	Foxconn	361.01530.005	Dipole	I-PEX
8	Foxconn	361.01530.005	Dipole	I-PEX
9	Foxconn	361.01530.005	PIFA	I-PEX
10	Foxconn	361.01530.005	PIFA	I-PEX
11	Foxconn	361.01530.005	PIFA	I-PEX
12	Foxconn	361.01530.005	PIFA	I-PEX
13	Foxconn	361.01530.005	PIFA	I-PEX
14	Foxconn	361.01530.005	PIFA	I-PEX
15	Foxconn	361.01530.005	PIFA	I-PEX

Serving Radio

Working Table

Ant.	Port	Gain (dBi)					
		2.4G	5G Primary	5G Secondary	5G Dual	6G	BT
1	1	4	5	-	5	-	-
2	2	4	5	-	5	-	-
3	3	4	5	-	5	-	-
4	4	4	5	-	5	-	-
5	5	-	-	5	5	-	-
6	6	-	-	5	5	-	-
7	7	-	-	5	5	-	-
8	8	-	-	5	5	-	-
9	1	-	-			6	-
10	2	-	-			6	-
11	3	-	-			6	-
12	4	-	-			6	-

**Scanning Radio**

Ant.	Port	Gain (dBi)			
		2.4G	5G	6G	BT
13	1	6	6	6	-
14	2	6	6	6	-

Ant.	Port	Gain (dBi)			
		2.4G	5G	6G	BT
15	1	-	-	-	5

Note 1: The EUT has fifteen antennas.

Note 2: The antenna for dual mode is cross polarized.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax mode (2TX/2RX)

Ant. 13 (port 1) and Ant. 14 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX)

Only Ant. 15 (port 1) can be used as transmitting/receiving antenna.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (2TX/2RX)

Ant. 13 (port 1) and Ant. 14 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3) and Ant. 4 (port 4) could transmit/receive simultaneously.

Ant. 5 (port 5), Ant. 6 (port 6), Ant. 7 (port 7) and Ant. 8 (port 8) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax mode (8TX/8RX)

Ant. 1 (port 1), Ant. 2 (port 2), Ant. 3 (port 3), Ant. 4 (port 4), Ant. 5 (port 5), Ant. 6 (port 6), Ant. 7 (port 7), and Ant. 8 (port 8) could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 a/ax mode (2TX/2RX)

Ant. 13 (port 1) and Ant. 14 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/ax mode (4TX/4RX)

Ant. 9 (port 1), Ant. 10 (port 2), Ant. 11 (port 3) and Ant. 12 (port 4) could transmit/receive simultaneously.

1.1.3 Accessories

Accessories				
PoE	Brand Name	DELTA	Model Name	ADH-65AR B
	Power Rating	I/P: 100 - 240 Vac, 2.0 A, O/P: 56 Vdc, 1.161 A		

Reminder: Regarding to more detail and other information, please refer to user manual.

1.2 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 2 Subpart J, section 2.1091
- ♦ KDB 447498 D04 Interim General RF Exposure Guidance v01

The following reference test guidance is not within the scope of accreditation of TAF.

- ♦ 47 CFR Part 1.1307
- ♦ 47 CFR Part 1.1310

1.3 Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory			
☒	Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)	
		TEL: 886-3-327-3456	FAX: 886-3-327-0973
Test site Designation No. TW3785 with FCC.			
☐	Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)	
		TEL: 886-3-318-0787	FAX: 886-3-318-0287
Test site Designation No. TW0008 with FCC.			

2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	F/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	F/1500	30
1500-100,000	-	-	1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

Multiple Transmitters Condition

Co-location as simultaneously transmitting (co-transmitting) and the evaluation shall be consider that simultaneous transmissions from co-located devices the individual transmitters are evaluated separately. After sum of the individual value (basic restriction / reference level) are measured/calculated also have to under basic restriction / reference level.

Co-transmitting mode: WLAN 2.4G (Serving Radio Primary)+ WLAN 5G (Serving Radio Primary)+ WLAN 5G (Serving Radio Secondary)+ WLAN 6G+ Bluetooth

2.2 RF Exposure Exempt Measurement

Option	Refer Std.	Exemption Exposure Thresholds (TL)
A	§1.1307(b)(3)(i)(A)	Available maximum time-averaged power is no more than 1 mW
B	§1.1307(b)(3)(i)(B)	$P_{th}(mW) = \begin{cases} ERP_{20cm} (d / 20cm)^x \rightarrow d \leq 20cm \\ ERP_{20cm} \rightarrow 20cm < d \leq 40cm \end{cases}$ $x = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right) \text{ and } f \text{ is in GHz}$ $\begin{cases} ERP_{20cm} : 0.3GHz \leq f < 1.5GHz \rightarrow 2040 f (mW) \\ ERP_{20cm} : 1.5GHz \leq f \leq 6GHz \rightarrow 3060 (mW) \end{cases}$
C	§1.1307(b)(3)(i)(C)	$\begin{cases} 0.3 \sim 1.34MHz \rightarrow ERP(W) = 1920R^2 \\ 1.34 \sim 30MHz \rightarrow ERP(W) = 3450R^2 / f^2 \\ 30 \sim 300MHz \rightarrow ERP(W) = 3.83R^2 \\ 300 \sim 1500MHz \rightarrow ERP(W) = 0.0128R^2 f \\ 1500 \sim 100000MHz \rightarrow ERP(W) = 19.2R^2 \end{cases}$ f is in MHz; R is in m; $R > \lambda / 2\pi$

2.3 Multiple RF Sources Exposure

Refer Std.	Exemption Exposure Thresholds (TL)
§1.1307(b)(3)(ii)(A)	The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required)
§1.1307(b)(3)(ii)(B)	$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{ExposureLimit_k} \leq 1$ a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(B) of this section for P , including existing exempt transmitters and those being added. b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph §1.1307(b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added. c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters. P_i = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive). $P_{th,i}$ = the exemption threshold power (P_{th}) according to paragraph §1.1307(b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i. ERP_j = the ERP of fixed, mobile, or portable RF source j. $ERP_{th,j}$ = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least $\lambda/2\pi$ according to the applicable formula of paragraph §1.1307(b)(3)(i)(C) of this section. $Evaluated_k$ = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure. $Evaluated Limit_k$ = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310 of this chapter.



2.4 MPE Calculation Method

The MPE was calculated at 50 cm to show compliance with the power density limit.
The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \qquad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

2.5 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

2.4GHz WLAN (S mode)

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	4.00	23.21	27.21	0.00	320.7082	50.00	0.01674	1.000	C	4800	0.0668
2.4G;D1D	4.00	22.25	26.25	0.00	257.1047	50.00	0.01342	1.000	C	4800	0.0536
2.4G;G1D	4.00	19.95	23.95	0.00	151.3945	50.00	0.00790	1.000	C	4800	0.0315
2.4G;D1D	4.00	18.96	22.96	0.00	120.5341	50.00	0.00629	1.000	C	4800	0.0251
2.4G;G1D	4.00	17.45	21.45	0.00	85.1354	50.00	0.00444	1.000	C	4800	0.0177
2.4G;D1D	4.00	16.32	20.32	0.00	65.6311	50.00	0.00343	1.000	C	4800	0.0137
2.4G;D1D	7.01	18.96	25.97	0.00	241.0516	50.00	0.01258	1.000	C	4800	0.0502
2.4G;D1D	10.02	22.25	32.27	0.00	1,028.2767	50.00	0.05368	1.000	C	4800	0.2142

5GHz WLAN (S mode)

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	5.00	16.85	21.85	0.00	93.3491	50.00	0.00487	1.000	C	4800	0.0194
5.3G;D1D	5.00	17.24	22.24	0.00	102.1198	50.00	0.00533	1.000	C	4800	0.0213
5.6G;D1D	5.00	16.96	21.96	0.00	95.7437	50.00	0.00500	1.000	C	4800	0.0199
5.8G;D1D	5.00	17.26	22.26	0.00	102.5912	50.00	0.00536	1.000	C	4800	0.0214
5.2G;D1D	5.00	20.05	25.05	0.00	195.0339	50.00	0.01018	1.000	C	4800	0.0406
5.3G;D1D	5.00	20.20	25.20	0.00	201.8878	50.00	0.01054	1.000	C	4800	0.0421
5.6G;D1D	5.00	19.49	24.49	0.00	171.4391	50.00	0.00895	1.000	C	4800	0.0357
5.8G;D1D	5.00	19.77	24.77	0.00	182.8563	50.00	0.00955	1.000	C	4800	0.0381
5.2G;D1D	5.00	22.85	27.85	0.00	371.6293	50.00	0.01940	1.000	C	4800	0.0774
5.3G;D1D	5.00	19.92	24.92	0.00	189.2823	50.00	0.00988	1.000	C	4800	0.0394
5.6G;D1D	5.00	21.73	26.73	0.00	287.1508	50.00	0.01499	1.000	C	4800	0.0598
5.8G;D1D	5.00	23.23	28.23	0.00	405.6113	50.00	0.02118	1.000	C	4800	0.0845
5.2G;D1D	8.01	20.05	28.06	0.00	390.0408	50.00	0.02036	1.000	C	4800	0.0813
5.3G;D1D	8.01	20.20	28.21	0.00	403.7476	50.00	0.02108	1.000	C	4800	0.0841
5.6G;D1D	8.01	19.49	27.50	0.00	342.8546	50.00	0.01790	1.000	C	4800	0.0714
5.8G;D1D	8.01	19.77	27.78	0.00	365.6874	50.00	0.01909	1.000	C	4800	0.0762
5.2G;D1D	11.02	22.85	33.87	0.00	1,486.3121	50.00	0.07760	1.000	C	4800	0.3096
5.3G;D1D	11.02	16.94	27.96	0.00	381.1624	50.00	0.01990	1.000	C	4800	0.0794
5.6G;D1D	11.02	17.31	28.33	0.00	415.0592	50.00	0.02167	1.000	C	4800	0.0865
5.8G;D1D	11.02	23.23	34.25	0.00	1,622.2209	50.00	0.08469	1.000	C	4800	0.3380

**6GHz WLAN (S mode)**

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	6.00	18.46	24.46	0.00	170.2590	50.00	0.00889	1.000	C	4800	0.0355
6.4G;D1D	6.00	17.83	23.83	0.00	147.2685	50.00	0.00769	1.000	C	4800	0.0307
6.7G;D1D	6.00	18.21	24.21	0.00	160.7348	50.00	0.00839	1.000	C	4800	0.0335
7.0G;D1D	6.00	18.36	24.36	0.00	166.3834	50.00	0.00869	1.000	C	4800	0.0347
6.2G;D1D	6.00	18.23	24.23	0.00	161.4768	50.00	0.00843	1.000	C	4800	0.0336
6.4G;D1D	6.00	17.73	23.73	0.00	143.9163	50.00	0.00751	1.000	C	4800	0.0300
6.7G;D1D	6.00	17.94	23.94	0.00	151.0463	50.00	0.00789	1.000	C	4800	0.0315
7.0G;D1D	6.00	18.04	24.04	0.00	154.5646	50.00	0.00807	1.000	C	4800	0.0322
6.2G;D1D	6.00	15.16	21.16	0.00	79.6361	50.00	0.00416	1.000	C	4800	0.0166
6.4G;D1D	6.00	15.24	21.24	0.00	81.1166	50.00	0.00423	1.000	C	4800	0.0169
6.7G;D1D	6.00	15.36	21.36	0.00	83.3892	50.00	0.00435	1.000	C	4800	0.0174
7.0G;D1D	6.00	14.12	20.12	0.00	62.6773	50.00	0.00327	1.000	C	4800	0.0131
6.2G;D1D	9.01	18.23	27.24	0.00	322.9312	50.00	0.01686	1.000	C	4800	0.0673
6.4G;D1D	9.01	17.73	26.74	0.00	287.8127	50.00	0.01503	1.000	C	4800	0.0600
6.7G;D1D	9.01	17.94	26.95	0.00	302.0717	50.00	0.01577	1.000	C	4800	0.0629
7.0G;D1D	9.01	18.04	27.05	0.00	309.1078	50.00	0.01614	1.000	C	4800	0.0644
6.2G;D1D	12.02	15.16	27.18	0.00	318.5004	50.00	0.01663	1.000	C	4800	0.0664
6.4G;D1D	12.02	15.24	27.26	0.00	324.4218	50.00	0.01694	1.000	C	4800	0.0676
6.7G;D1D	12.02	15.36	27.38	0.00	333.5109	50.00	0.01741	1.000	C	4800	0.0695
7.0G;D1D	12.02	14.12	26.14	0.00	250.6744	50.00	0.01309	1.000	C	4800	0.0522

Bluetooth

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	5.00	18.78	23.78	0.00	145.5828	50.00	0.00760	1.000	C	4800	0.0303

**5GHz WLAN (M mode)**

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	5.00	17.17	22.17	0.00	100.4870	50.00	0.00525	1.000	C	4800	0.0209
5.3G;D1D	5.00	17.31	22.31	0.00	103.7791	50.00	0.00542	1.000	C	4800	0.0216
5.6G;D1D	5.00	16.81	21.81	0.00	92.4932	50.00	0.00483	1.000	C	4800	0.0193
5.8G;D1D	5.00	16.53	21.53	0.00	86.7181	50.00	0.00453	1.000	C	4800	0.0181
5.2G;D1D	5.00	19.95	24.95	0.00	190.5943	50.00	0.00995	1.000	C	4800	0.0397
5.3G;D1D	5.00	20.22	25.22	0.00	202.8196	50.00	0.01059	1.000	C	4800	0.0423
5.6G;D1D	5.00	19.83	24.83	0.00	185.4001	50.00	0.00968	1.000	C	4800	0.0386
5.8G;D1D	5.00	19.84	24.84	0.00	185.8275	50.00	0.00970	1.000	C	4800	0.0387
5.2G;D1D	5.00	23.37	28.37	0.00	418.8997	50.00	0.02187	1.000	C	4800	0.0873
5.3G;D1D	5.00	22.51	27.51	0.00	343.6450	50.00	0.01794	1.000	C	4800	0.0716
5.6G;D1D	5.00	23.63	28.63	0.00	444.7439	50.00	0.02322	1.000	C	4800	0.0927
5.8G;D1D	5.00	22.78	27.78	0.00	365.6874	50.00	0.01909	1.000	C	4800	0.0762
5.2G;D1D	8.00	24.20	32.20	0.00	1,011.8357	50.00	0.05283	1.000	C	4800	0.2108
5.3G;D1D	5.00	21.41	26.41	0.00	266.7534	50.00	0.01393	1.000	C	4800	0.0556
5.6G;D1D	5.00	23.76	28.76	0.00	458.2579	50.00	0.02392	1.000	C	4800	0.0955
5.8G;D1D	8.00	25.69	33.69	0.00	1,425.9687	50.00	0.07445	1.000	C	4800	0.2971
5.2G;D1D	8.01	23.37	31.38	0.00	837.7414	50.00	0.04374	1.000	C	4800	0.1745
5.3G;D1D	8.01	21.46	29.47	0.00	539.6473	50.00	0.02817	1.000	C	4800	0.1124
5.6G;D1D	8.01	21.27	29.28	0.00	516.5472	50.00	0.02697	1.000	C	4800	0.1076
5.8G;D1D	8.01	22.78	30.79	0.00	731.3243	50.00	0.03818	1.000	C	4800	0.1524
5.2G;D1D	11.02	24.20	35.22	0.00	2,028.1964	50.00	0.10589	1.000	C	4800	0.4225
5.3G;D1D	11.02	18.41	29.43	0.00	534.6998	50.00	0.02792	1.000	C	4800	0.1114
5.6G;D1D	11.02	18.39	29.41	0.00	532.2431	50.00	0.02779	1.000	C	4800	0.1109
5.8G;D1D	11.02	24.43	35.45	0.00	2,138.5037	50.00	0.11165	1.000	C	4800	0.4455

2.4GHz WLAN (AUX mode)

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	6.00	17.28	23.28	0.50	129.7508	50.00	0.00677	1.000	C	4800	0.0270
2.4G;D1D	6.00	17.29	23.29	0.00	130.0499	50.00	0.00679	1.000	C	4800	0.0271
2.4G;G1D	6.00	20.48	26.48	0.00	271.0878	50.00	0.01415	1.000	C	4800	0.0565
2.4G;D1D	6.00	20.07	26.07	0.00	246.6664	50.00	0.01288	1.000	C	4800	0.0514
2.4G;D1D	9.01	19.99	29.00	0.00	484.2950	50.00	0.02528	1.000	C	4800	0.1009

**5GHz WLAN (AUX mode)**

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	6.00	16.48	22.48	0.00	107.9220	50.00	0.00563	1.00000	C	4800	0.0225
5.3G;D1D	6.00	16.64	22.64	0.00	111.9721	50.00	0.00585	1.00000	C	4800	0.0233
5.6G;D1D	6.00	16.69	22.69	0.00	113.2687	50.00	0.00591	1.00000	C	4800	0.0236
5.8G;D1D	6.00	16.96	22.96	0.00	120.5341	50.00	0.00629	1.00000	C	4800	0.0251
5.2G;D1D	6.00	19.98	25.98	0.00	241.6073	50.00	0.01261	1.00000	C	4800	0.0503
5.3G;D1D	6.00	20.01	26.01	0.00	243.2820	50.00	0.01270	1.00000	C	4800	0.0507
5.6G;D1D	6.00	20.14	26.14	0.00	250.6744	50.00	0.01309	1.00000	C	4800	0.0522
5.8G;D1D	6.00	20.29	26.29	0.00	259.4837	50.00	0.01355	1.00000	C	4800	0.0541
5.2G;D1D	9.01	19.85	28.86	0.00	468.9321	50.00	0.02448	1.00000	C	4800	0.0977
5.3G;D1D	9.01	19.88	28.89	0.00	472.1826	50.00	0.02465	1.00000	C	4800	0.0984
5.6G;D1D	9.01	20.01	29.02	0.00	486.5304	50.00	0.02540	1.00000	C	4800	0.1014
5.8G;D1D	9.01	20.18	29.19	0.00	505.9528	50.00	0.02641	1.00000	C	4800	0.1054

6GHz WLAN (AUX mode)

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	6.00	17.57	23.57	0.00	138.7107	50.00	0.00724	1.00000	C	4800	0.0289
6.4G;D1D	6.00	17.54	23.54	0.00	137.7558	50.00	0.00719	1.00000	C	4800	0.0287
6.7G;D1D	6.00	17.62	23.62	0.00	140.3169	50.00	0.00733	1.00000	C	4800	0.0292
7.0G;D1D	6.00	16.81	22.81	0.00	116.4421	50.00	0.00608	1.00000	C	4800	0.0243
6.2G;D1D	6.00	17.52	23.52	0.00	137.1229	50.00	0.00716	1.00000	C	4800	0.0286
6.4G;D1D	6.00	17.20	23.20	0.00	127.3826	50.00	0.00665	1.00000	C	4800	0.0265
6.7G;D1D	6.00	17.83	23.83	0.00	147.2685	50.00	0.00769	1.00000	C	4800	0.0307
7.0G;D1D	6.00	17.16	23.16	0.00	126.2147	50.00	0.04621	1.00000	C	4800	0.0263
6.2G;D1D	9.01	17.44	26.45	0.00	269.2217	50.00	0.01406	1.00000	C	4800	0.0561
6.4G;D1D	9.01	17.05	26.06	0.00	246.0991	50.00	0.01285	1.00000	C	4800	0.0513
6.7G;D1D	9.01	17.78	26.79	0.00	291.1454	50.00	0.01520	1.00000	C	4800	0.0607
7.0G;D1D	9.01	16.25	25.26	0.00	204.6963	50.00	0.01069	1.00000	C	4800	0.0426

Note 1: Option A, B and C refer as clause 2.2

Note 2: For option B, Pth(mW) convert to TL ERP(mW); For option C, ERP(W) convert to TL ERP(mW)

Note 3: TL Ratio=Tune-up ERP(mW)/TL ERP(mW)



Simultaneous Transmission Analysis Mode: WLAN 2.4G (Serving Radio Primary)+ WLAN 5G (Serving Radio Primary)+ WLAN 5G (Serving Radio Secondary)+ WLAN 6G+ Bluetooth

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	10.02	22.25	32.27	0.00	1,028.2767	50.00	0.05368	1.000	C	4800	0.2142
5.8G;D1D	11.02	23.23	34.25	0.00	1,622.2209	50.00	0.08469	1.000	C	4800	0.3380
5.8G;D1D	11.02	23.23	34.25	0.00	1,622.2209	50.00	0.08469	1.000	C	4800	0.3380
6.7G;D1D	12.02	15.36	27.38	0.00	333.5109	50.00	0.01741	1.000	C	4800	0.0695
2.4G;BT-LE	5.00	18.78	23.78	0.00	145.5828	50.00	0.00760	1.000	C	4800	0.0303
										Sum Ratio	0.9900
										Ratio Limit	1

Note 1: Option A, B and C refer as clause 2.2

Note 2: For option B, Pth(mW) convert to TL ERP(mW); For option C, ERP(W) convert to TL ERP(mW)

Note 3: TL Ratio=Tune-up ERP(mW)/TL ERP(mW)

Note 4: Refer as clause 2.3 Multiple RF Sources Exposure. Please follow below option and sum TL ration table.

Option	Sum TL Ratio_B	Option	Sum TL Ratio_C	Option	Sum TL Ratio_E
B	$\sum_{i=1}^a \frac{P_i}{P_{th,i}}$	C	$\sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}}$	E	$\sum_{k=1}^c \frac{Evaluated_k}{ExposureLimit_k}$

Note: The above antenna gain was declared by manufacturer.

————THE END————