

Radio Exposure Evaluation Report

FCC ID : QXO-AP4060
Equipment : Access Point
Brand Name : Extreme Networks
Model Name : AP4060X
Applicant : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Manufacturer : Extreme Networks, Inc.
2121 RDU Center Drive Morrisville North Carolina
United States 27560
Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Apr. 17, 2025, and testing was started from May 05, 2025 and completed on Jul. 23, 2025. 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 variant 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
No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



Table of Contents

HISTORY OF THIS TEST REPORT 3

SUMMARY OF TEST RESULT 4

1 GENERAL DESCRIPTION 5

1.1 Information.....5

1.2 Applicable Standards 11

1.3 Testing Location 11

2 MAXIMUM PERMISSIBLE EXPOSURE 12

2.1 Limit of Maximum Permissible Exposure 12

2.2 RF Exposure Exempt Measurement 14

2.3 Multiple RF Sources Exposure.....15

2.4 MPE Calculation Method 16

2.5 Calculated Result and Limit.....17

Photographs of EUT V01



History of this test report

Report No.	Version	Description	Issued Date
FA512205-03A	01	Initial issue of report	Sep. 25, 2025



Summary of Test Result

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

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: Barry Hsiao

Report Producer: Amber Chiu



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) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
5GHz WLAN	5150-5250 5250-5350 5470-5725 5725-5850	5180-5240 5260-5320 5500-5720 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
6GHz WLAN	5925-6425 6525-6875	5955-6415 6535-6855	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Bluetooth	2400-2483.5	2402-2480	LE: DSSS (GFSK)
802.15.4	2400-2483.5	2405-2480	DSSS (QPSK)

1.1.2 Antenna Information

< AP4060X >

Ant.	Brand	Model Name	Antenna Type	Connector	Support	Radio
1	Signal Plus	61723014SG	Dipole	N-type	2.4G+5G	Radio 1_2.4G Radio 2_5G
2	Signal Plus	61723014SG	Dipole	N-type	2.4G+5G	Radio 1_2.4G Radio 2_5G
3	Signal Plus	61723014SG	Dipole	N-type	5G+6G	Radio 3_5GL/6G
4	Signal Plus	61723014SG	Dipole	N-type	5G+6G	Radio 3_5GL/6G
5	Sercomm	6172008HWA5	PIFA	I-Pex	2.4G+5G+6G	Radio 1_Scan
6	Sercomm	6172008HWA6	PIFA	I-Pex	BT+802.15.4	BLE_chain 1_H
7	Sercomm	6172008HWA7	PIFA	I-Pex	BT+802.15.4	BLE_chain 1_V
8	Sercomm	6172008HWA8	PIFA	I-Pex	BT+802.15.4	BLE_chain 0_I
9	Sercomm	6172008HWA9	PIFA	I-Pex	GPS	GPS
10	Signal Plus	61723015SG	Omni	N-type	BT+802.15.4	BLE_chain 0_E
11	Signal Plus	6172300VSG	Patch	N-type	2.4G+5G+6G	Radio 1_2.4G Radio 2_5G Radio 3_5GL/6G
12	Signal Plus	61723016SG	Patch	N-type	2.4G+5G+6G	Radio 1_2.4G Radio 2_5G Radio 3_5GL/6G

Ant.	Port	Gain (dBi)													
		2.4G	UNII-1	UNII-2 A	UNII-2 C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8	BT1H	BT1V	BT0-I	GPS	BT0-E
1	1	4.45	4.76	4.21	4.32	4.64	-	-	-	-	-	-	-	-	-
2	2	4.45	4.76	4.21	4.32	4.64	-	-	-	-	-	-	-	-	-
3	1	-	4.76	4.21	-	-	6.69	6.72	7.40	6.85	-	-	-	-	-
4	2	-	4.76	4.21	-	-	6.69	6.72	7.40	6.85	-	-	-	-	-
5	1	3.70	2.89	3.35	4.93	3.56	4.96	3.88	3.55	4.32	-	-	-	-	-
6	2	-	-	-	-	-	-	-	-	-	3.13	-	-	-	-
7	1	-	-	-	-	-	-	-	-	-	-	4.00	-	-	-
8	1	-	-	-	-	-	-	-	-	-	-	-	3.75	-	-
9	1	-	-	-	-	-	-	-	-	-	-	-	-	2.31	-
10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	5.65
11-1	1	7.3	6.27	6.43	6.72	6.47	-	-	-	-	-	-	-	-	-
11-2	2	7.3	6.27	6.43	6.72	6.47	-	-	-	-	-	-	-	-	-
11-3	1	-	6.27	6.43	-	-	6.72	6.53	6.5	6.49	-	-	-	-	-
11-4	2	-	6.27	6.43	-	-	6.72	6.53	6.5	6.49	-	-	-	-	-
12-1	1	12.34	12.08	12.3	12.2	12.24	-	-	-	-	-	-	-	-	-
12-2	2	12.34	12.08	12.3	12.2	12.24	-	-	-	-	-	-	-	-	-
12-3	1	-	12.08	12.3	-	-	12.39	11.63	12.32	12.25	-	-	-	-	-
12-4	2	-	12.08	12.3	-	-	12.39	11.63	12.32	12.25	-	-	-	-	-



Radio Exposure Evaluation Report

Report No. : FA512205-03A

Ant.	Port	Cable loss													
		2.4G	UNII-1	UNII-2 A	UNII-2 C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8	BT1H	BT1V	BT0-I	GPS	BT0-E
1	1	0.69	1.15	1.04	1.13	1.22	-	-	-	-	-	-	-	-	-
2	2	0.55	0.90	0.95	0.88	0.98	-	-	-	-	-	-	-	-	-
3	1	-	0.90	0.85	-	-	0.84	0.92	0.88	0.87	-	-	-	-	-
4	2	-	1.17	1.10	-	-	1.23	1.15	1.37	1.16	-	-	-	-	-
5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.88
11-1	1	0.69	1.15	1.04	1.13	1.22	-	-	-	-	-	-	-	-	-
11-2	2	0.55	0.90	0.95	0.88	0.98	-	-	-	-	-	-	-	-	-
11-3	1	-	0.90	0.85	-	-	0.84	0.92	0.88	0.87	-	-	-	-	-
11-4	2	-	1.17	1.10	-	-	1.23	1.15	1.37	1.16	-	-	-	-	-
12-1	1	1.20	1.89	1.78	1.87	1.96	-	-	-	-	-	-	-	-	-
12-2	2	1.06	1.64	1.69	1.62	1.72	-	-	-	-	-	-	-	-	-
12-3	1	-	1.64	1.59	-	-	1.65	1.73	1.69	1.68	-	-	-	-	-
12-4	2	-	1.91	1.84	-	-	2.04	1.96	2.18	1.97	-	-	-	-	-

Ant.	Port	Net Antenna Gain (dBi)													
		2.4G	UNII-1	UNII-2 A	UNII-2 C	UNII-3	UNII-5	UNII-6	UNII-7	UNII-8	BT1H	BT1V	BT0-I	GPS	BT0-E
1	1	3.76	3.61	3.17	3.19	3.42	-	-	-	-	-	-	-	-	-
2	2	3.90	3.86	3.26	3.44	3.66	-	-	-	-	-	-	-	-	-
3	1	-	3.86	3.36	-	-	5.85	5.80	6.52	5.98	-	-	-	-	-
4	2	-	3.59	3.11	-	-	5.46	5.57	6.03	5.69	-	-	-	-	-
5	1	3.70	2.89	3.35	4.93	3.56	4.96	3.88	3.55	4.32	-	-	-	-	-
6	2	-	-	-	-	-	-	-	-	-	3.13	-	-	-	-
7	1	-	-	-	-	-	-	-	-	-	-	4.00	-	-	-
8	1	-	-	-	-	-	-	-	-	-	-	-	3.75	-	-
9	1	-	-	-	-	-	-	-	-	-	-	-	-	3.80	-
10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4.77
11-1	1	6.61	5.12	5.39	5.59	5.25	-	-	-	-	-	-	-	-	-
11-2	2	6.75	5.37	5.48	5.84	5.49	-	-	-	-	-	-	-	-	-
11-3	1	-	5.37	5.58	-	-	5.88	5.61	5.62	5.62	-	-	-	-	-
11-4	2	-	5.10	5.33	-	-	5.49	5.38	5.13	5.33	-	-	-	-	-
12-1	1	11.14	10.19	10.52	10.33	10.28	-	-	-	-	-	-	-	-	-
12-2	2	11.28	10.44	10.61	10.58	10.52	-	-	-	-	-	-	-	-	-
12-3	1	-	10.44	10.71	-	-	10.74	9.90	10.63	10.57	-	-	-	-	-
12-4	2	-	10.17	10.46	-	-	10.35	9.67	10.14	10.28	-	-	-	-	-



Ant.	Port	30 Degree Gain (dBi)			
		UNII-1	UNII-5	UNII-6	UNII-7
1~2	1~2	3.33	-	-	-
3~4	1~2	3.33	4.37	2.36	3.29
11	1~2	3.6	-	-	-
	1~2	3.6	3.58	4.14	4.17
12	1~2	3.55	-	-	-
	1~2	3.55	4.05	4.07	4.43

Note 1: The EUT has twelve antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax/be mode (1TX/2RX) < **Radio 1** >

Ant. 1 (port 1) could transmit.

Ant. 1 (port 1) and Ant. 2 (port 2) could receive simultaneously.

Ant. 11-1 (port 1) could transmit.

Ant. 11-1 (port 1) and Ant. 11-2 (port 2) could receive simultaneously.

Ant. 12-1 (port 1) could transmit.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could receive simultaneously.

For IEEE 802.11 b/g/n/VHT/ax/be mode (2TX/2RX) < **Radio 1** >

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

Ant. 11-1 (port 1) and Ant. 11-2 (port 2) could transmit/receive simultaneously.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could transmit/receive simultaneously.

For b20/g20 mode (1TX/1RX) < **Radio 1_Scan** >

Ant. 5 (port 1) could transmit/receive.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax/be mode (1TX/2RX) < **Radio 2** >

Ant. 1 (port 1) could transmit.

Ant. 1 (port 1) and Ant. 2 (port 2) could receive simultaneously.

Ant. 11-1 (port 1) could transmit.

Ant. 11-1 (port 1) and Ant. 11-2 (port 2) could receive simultaneously.

Ant. 12-1 (port 1) could transmit.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/2RX) < **Radio 2** >

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

Ant. 11-1 (port 1) and Ant. 11-2 (port 2) could transmit/receive simultaneously.

Ant. 12-1 (port 1) and Ant. 12-2 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (1TX/2RX) < **Radio 3** > **Low band**

Ant. 3 (port 1) could transmit.

Ant. 3 (port 1) and Ant. 4 (port 2) receive simultaneously.

Ant. 11-3 (port 1) could transmit.

Ant. 11-3 (port 1) and Ant. 11-4 (port 2) could receive simultaneously.

Ant. 12-3 (port 1) could transmit.

Ant. 12-3 (port 1) and Ant. 12-4 (port 2) could receive simultaneously.

For IEEE 802.11 a/n/ac/ax/be mode (2TX/2RX) < **Radio 3** > **Low band**

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

Ant. 11-3 (port 1) and Ant. 11-4 (port 2) could transmit/receive simultaneously.

Ant. 12-3 (port 1) and Ant. 12-4 (port 2) could transmit/receive simultaneously.

For a20/a40/a80/a160 mode (1TX/1RX) < **Radio 1_Scan** >

Ant. 5 (port 1) could transmit/receive.

For 6GHz function:

For IEEE 802.11 a/ax/be mode(1TX/2RX) < **Radio 3** >

Ant. 3 (port 1) could transmit

Ant. 3 (port 1) and Ant. 4 (port 2) receive simultaneously.

Ant. 11-3 (port 1) could transmit.

Ant. 11-3 (port 1) and Ant. 11-4 (port 2) could receive simultaneously.

Ant. 12-3 (port 1) could transmit.

Ant. 12-3 (port 1) and Ant. 12-4 (port 2) could receive simultaneously.

For IEEE 802.11 a/ax/be mode(2TX/2RX) < **Radio 3** >

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

Ant. 11-3 (port 1) and Ant. 11-4 (port 2) could receive simultaneously.

Ant. 12-3 (port 1) and Ant. 12-4 (port 2) could receive simultaneously.

For a20/a40/a80/a160 mode(1TX/1RX) < **Radio 1_Scan** >

Ant. 5 (port 1) could transmit/receive.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX) < **chain 0** >

Ant. 8 (port 1) could transmit/receive.

Ant. 10 (port 1) could transmit/receive.

For IEEE 802.15.1 Bluetooth mode (1TX/2RX) < **chain 1** >

Ant. 6 (port 2) and Ant. 7 (port 1) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant. 7 (port 1) and it was recorded in this test report.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX) < **chain 0** >

Ant. 8 (port 1) could transmit/receive.

Ant. 10 (port 1) could transmit/receive.

For IEEE 802.15.1 Bluetooth mode (1TX/2RX) < **chain 1** >

Ant. 6 (port 2) and Ant. 7 (port 1) could transmit/receive.

Support diversity function and pre-tested on each single chain, the worst case was Ant. 7 (port 1) and it was recorded in this test report.

Note 2: Directional gain information

	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{BT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{BT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{BT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

**1.1.3 Table for Multiple Listing**

The model names in the following table are all refer to the identical product.

Model Name	Description
AP4060	Internal antennas
AP4060X	External antennas

1.1.4 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FA512205-01A

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Add model name. (AP4060X)	Exposure evaluation was evaluated

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:

1	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-I)
2	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-E)
3	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-I)
4	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-E)
5	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)
6	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)
7	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-I)
8	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-E)
9	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-I)
10	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-E)
11	R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain1)
12	R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4(chain1)

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)	$\begin{cases} 0.3 \sim 1.34MHz \rightarrow ERP(W) = 1920 R^2 \\ 1.34 \sim 30MHz \rightarrow ERP(W) = 3450 R^2 / f^2 \\ 30 \sim 300MHz \rightarrow ERP(W) = 3.83R^2 \\ 300 \sim 1500MHz \rightarrow ERP(W) = 0.0128 R^2 f \\ 1500 \sim 100000MHz \rightarrow ERP(W) = 19.2R^2 \end{cases}$ 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 61 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

WLAN 2.4GHz_Non-Beamforming_Radio 1_Scan

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
2.4G;D1D	3.70	18.09	19.64	0.50	103.276	61	C	7144.3	0.0145

WLAN 2.4GHz_Non-Beamforming_Radio 1_1T1S_Dipole

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	3.76	20.58	22.19	0.50	185.780	61	C	7144.3	0.0260
2.4G;D1D	3.76	19.92	21.53	0.50	159.588	61	C	7144.3	0.0223

WLAN 2.4GHz_Non-Beamforming_Radio 1_2T1S_Dipole

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	3.90	23.12	24.87	0.50	344.437	61	C	7144.3	0.0482
2.4G;D1D	3.90	22.25	24.00	0.50	281.838	61	C	7144.3	0.0395

WLAN 2.4GHz_Non-Beamforming_Radio 1_2T2S_Dipole

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	3.90	21.79	23.54	0.50	253.513	61	C	7144.3	0.0355

WLAN 2.4GHz_Non-Beamforming_Radio 1_1T1S_Patch

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	11.14	18.85	27.84	0.50	682.339	61	C	7144.3	0.0955
2.4G;D1D	11.14	17.37	26.36	0.50	485.289	61	C	7144.3	0.0679

WLAN 2.4GHz_Non-Beamforming_Radio 1_2T1S_Patch

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;G1D	11.28	21.17	30.30	0.50	1202.264	61	C	7144.3	0.1683
2.4G;D1D	11.28	20.11	29.24	0.50	941.890	61	C	7144.3	0.1319

WLAN 2.4GHz_Non-Beamforming_Radio 1_2T2S_Patch

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	11.28	19.53	28.66	0.50	824.138	61	C	7144.3	0.1154

**WLAN 5GHz_Non-Beamforming_Radio 1_Scan_Indoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	2.89	17.60	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	3.35	17.91	19.11	0.50	91.411	61	C	7144.3	0.0128
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
5.8G;D1D	3.56	18.05	19.46	0.50	99.083	61	C	7144.3	0.0139

WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.61	18.83	20.29	0.50	119.950	61	C	7144.3	0.0168
5.3G;D1D	3.17	18.26	19.28	0.50	95.060	61	C	7144.3	0.0133
5.6G;D1D	3.19	18.21	19.25	0.50	94.406	61	C	7144.3	0.0132
5.8G;D1D	3.42	18.61	19.88	0.50	109.144	61	C	7144.3	0.0153

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	21.99	23.70	0.50	263.027	61	C	7144.3	0.0368
5.3G;D1D	3.26	21.51	22.62	0.50	205.116	61	C	7144.3	0.0287
5.6G;D1D	3.44	21.38	22.67	0.50	207.491	61	C	7144.3	0.0291
5.8G;D1D	3.66	22.01	23.52	0.50	252.348	61	C	7144.3	0.0353

WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	22.12	23.83	0.50	271.019	61	C	7144.3	0.0379
5.3G;D1D	3.26	21.62	22.73	0.50	210.378	61	C	7144.3	0.0295
5.6G;D1D	3.44	21.53	22.82	0.50	214.783	61	C	7144.3	0.0301
5.8G;D1D	3.66	22.05	23.56	0.50	254.683	61	C	7144.3	0.0357

WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.19	18.83	26.87	0.50	545.758	61	C	7144.3	0.0764
5.3G;D1D	10.52	18.26	26.63	0.50	516.416	61	C	7144.3	0.0723
5.6G;D1D	10.33	18.15	26.33	0.50	481.948	61	C	7144.3	0.0675
5.8G;D1D	10.28	18.61	26.74	0.50	529.663	61	C	7144.3	0.0742

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	21.99	30.28	0.50	1196.741	61	C	7144.3	0.1676
5.3G;D1D	10.61	18.85	27.31	0.50	603.949	61	C	7144.3	0.0846
5.6G;D1D	10.58	18.88	27.31	0.50	603.949	61	C	7144.3	0.0846
5.8G;D1D	10.52	22.01	30.38	0.50	1224.616	61	C	7144.3	0.1715

**WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Patch_Indoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	22.12	30.41	0.50	1233.105	61	C	7144.3	0.1726
5.3G;D1D	10.61	18.82	27.28	0.50	599.791	61	C	7144.3	0.0840
5.6G;D1D	10.58	18.89	27.32	0.50	605.341	61	C	7144.3	0.0848
5.8G;D1D	10.52	22.05	30.42	0.50	1235.947	61	C	7144.3	0.1730

WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	19.33	21.04	0.50	142.561	61	C	7144.3	0.0200
5.3G;D1D	3.36	18.88	20.09	0.50	114.551	61	C	7144.3	0.0160

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	22.42	24.13	0.50	290.402	61	C	7144.3	0.0407
5.3G;D1D	3.36	21.92	23.13	0.50	230.675	61	C	7144.3	0.0323

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	22.27	23.98	0.50	280.543	61	C	7144.3	0.0393
5.3G;D1D	3.36	21.80	23.01	0.50	224.388	61	C	7144.3	0.0314

WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	19.33	27.62	0.50	648.634	61	C	7144.3	0.0908
5.3G;D1D	10.71	18.68	27.24	0.50	594.292	61	C	7144.3	0.0832

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	22.42	30.71	0.50	1321.296	61	C	7144.3	0.1850
5.3G;D1D	10.71	18.69	27.25	0.50	595.662	61	C	7144.3	0.0834

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	22.27	30.56	0.50	1276.439	61	C	7144.3	0.1787
5.3G;D1D	10.71	18.75	27.31	0.50	603.949	61	C	7144.3	0.0846

**WLAN 5GHz_Non-Beamforming_Radio 1_Scan_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	2.89	17.60	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	3.35	17.91	19.11	0.50	91.411	61	C	7144.3	0.0128
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
5.8G;D1D	3.56	18.05	19.46	0.50	99.083	61	C	7144.3	0.0139

WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.61	16.86	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	3.17	18.26	19.28	0.50	95.060	61	C	7144.3	0.0133
5.6G;D1D	3.19	18.21	19.25	0.50	94.406	61	C	7144.3	0.0132
5.8G;D1D	3.42	18.61	19.88	0.50	109.144	61	C	7144.3	0.0153

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	16.61	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	3.26	21.51	22.62	0.50	205.116	61	C	7144.3	0.0287
5.6G;D1D	3.44	21.38	22.67	0.50	207.491	61	C	7144.3	0.0291
5.8G;D1D	3.66	22.01	23.52	0.50	252.348	61	C	7144.3	0.0353

WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	16.62	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	3.26	21.62	22.73	0.50	210.378	61	C	7144.3	0.0295
5.6G;D1D	3.44	21.53	22.82	0.50	214.783	61	C	7144.3	0.0301
5.8G;D1D	3.66	22.05	23.56	0.50	254.683	61	C	7144.3	0.0357

WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Patch_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.19	10.28	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	10.52	18.26	26.63	0.50	516.416	61	C	7144.3	0.0723
5.6G;D1D	10.33	18.15	26.33	0.50	481.948	61	C	7144.3	0.0675
5.8G;D1D	10.28	18.61	26.74	0.50	529.663	61	C	7144.3	0.0742

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Patch_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	10.00	18.29	0.50	75.683	61	C	7144.3	0.0106
5.3G;D1D	10.61	18.85	27.31	0.50	603.949	61	C	7144.3	0.0846
5.6G;D1D	10.58	18.88	27.31	0.50	603.949	61	C	7144.3	0.0846
5.8G;D1D	10.52	22.01	30.38	0.50	1224.616	61	C	7144.3	0.1715

**WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Patch_Peak Gain_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	10.04	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	10.61	18.82	27.28	0.50	599.791	61	C	7144.3	0.0840
5.6G;D1D	10.58	18.89	27.32	0.50	605.341	61	C	7144.3	0.0848
5.8G;D1D	10.52	22.05	30.42	0.50	1235.947	61	C	7144.3	0.1730

WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	16.63	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	3.36	18.88	20.09	0.50	114.551	61	C	7144.3	0.0160

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	16.58	18.29	0.50	75.683	61	C	7144.3	0.0106
5.3G;D1D	3.36	21.92	23.13	0.50	230.675	61	C	7144.3	0.0323

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Dipole_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	16.63	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	3.36	21.80	23.01	0.50	224.388	61	C	7144.3	0.0314

WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Patch_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	10.05	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.68	27.24	0.50	594.292	61	C	7144.3	0.0832

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Patch_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	10.03	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.69	27.25	0.50	595.662	61	C	7144.3	0.0834

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Patch_Peak Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	10.44	10.05	18.34	0.50	76.560	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.75	27.31	0.50	603.949	61	C	7144.3	0.0846

**WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Dipole_30 Degree Gain_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.33	17.15	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	3.17	18.26	19.28	0.50	95.060	61	C	7144.3	0.0133
5.6G;D1D	3.19	18.21	19.25	0.50	94.406	61	C	7144.3	0.0132
5.8G;D1D	3.42	18.61	19.88	0.50	109.144	61	C	7144.3	0.0153

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Dipole_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.33	17.11	18.29	0.50	75.683	61	C	7144.3	0.0106
5.3G;D1D	3.26	21.51	22.62	0.50	205.116	61	C	7144.3	0.0287
5.6G;D1D	3.44	21.38	22.67	0.50	207.491	61	C	7144.3	0.0291
5.8G;D1D	3.66	22.01	23.52	0.50	252.348	61	C	7144.3	0.0353

WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Dipole_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.86	22.12	23.83	0.50	271.019	61	C	7144.3	0.0379
5.3G;D1D	3.26	21.62	22.73	0.50	210.378	61	C	7144.3	0.0295
5.6G;D1D	3.44	21.53	22.82	0.50	214.783	61	C	7144.3	0.0301
5.8G;D1D	3.66	22.05	23.56	0.50	254.683	61	C	7144.3	0.0357

WLAN 5GHz_Non-Beamforming_Radio 2_1T1S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.88	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	10.52	18.26	26.63	0.50	516.416	61	C	7144.3	0.0723
5.6G;D1D	10.33	18.15	26.33	0.50	481.948	61	C	7144.3	0.0675
5.8G;D1D	10.28	18.61	26.74	0.50	529.663	61	C	7144.3	0.0742

WLAN 5GHz_Non-Beamforming_Radio 2_2T1S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.84	18.29	0.50	75.683	61	C	7144.3	0.0106
5.3G;D1D	10.61	18.85	27.31	0.50	603.949	61	C	7144.3	0.0846
5.6G;D1D	10.58	18.88	27.31	0.50	603.949	61	C	7144.3	0.0846
5.8G;D1D	10.52	22.01	30.38	0.50	1224.616	61	C	7144.3	0.1715

WLAN 5GHz_Non-Beamforming_Radio 2_2T2S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.81	18.26	0.50	75.162	61	C	7144.3	0.0105
5.3G;D1D	10.61	18.82	27.28	0.50	599.791	61	C	7144.3	0.0840
5.6G;D1D	10.58	18.98	27.41	0.50	618.016	61	C	7144.3	0.0865
5.8G;D1D	10.52	22.05	30.42	0.50	1235.947	61	C	7144.3	0.1730

**WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Dipole_30 Degree Gain_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.33	17.15	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	3.36	18.88	20.09	0.50	114.551	61	C	7144.3	0.0160

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Dipole_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.33	17.15	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	3.36	21.92	23.13	0.50	230.675	61	C	7144.3	0.0323

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Dipole_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.33	17.13	18.31	0.50	76.033	61	C	7144.3	0.0106
5.3G;D1D	3.36	21.80	23.01	0.50	224.388	61	C	7144.3	0.0314

WLAN 5GHz_Non-Beamforming_Radio 3_1T1S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.88	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.68	27.24	0.50	594.292	61	C	7144.3	0.0832

WLAN 5GHz_Non-Beamforming_Radio 3_2T1S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.88	18.33	0.50	76.384	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.69	27.25	0.50	595.662	61	C	7144.3	0.0834

WLAN 5GHz_Non-Beamforming_Radio 3_2T2S_Patch_30 Degree Gain_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	3.60	16.87	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	10.71	18.75	27.31	0.50	603.949	61	C	7144.3	0.0846

**WLAN 6GHz_Non-Beamforming_Radio 1_Scan_Indoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
6.7G;D1D	3.55	20.41	21.81	0.50	170.259	61	C	7144.3	0.0238

WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	23.71	27.41	0.50	618.173	61	C	7144.3	0.0865
6.7G;D1D	6.52	23.61	27.98	0.50	704.872	61	C	7144.3	0.0987

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	23.71	27.41	0.50	618.173	61	C	7144.3	0.0865
6.7G;D1D	6.52	23.61	27.98	0.50	704.872	61	C	7144.3	0.0987

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	23.90	29.75	0.50	645.818	61	C	7144.3	0.0904
6.7G;D1D	6.52	23.67	30.19	0.50	714.677	61	C	7144.3	0.1000

WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	21.20	29.79	0.50	1069.326	61	C	7144.3	0.1497
6.7G;D1D	10.63	21.04	29.52	0.50	1004.870	61	C	7144.3	0.1407

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	23.71	32.30	0.50	1905.943	61	C	7144.3	0.2668
6.7G;D1D	10.63	23.61	32.09	0.50	1815.976	61	C	7144.3	0.2542

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	23.90	32.49	0.50	1991.178	61	C	7144.3	0.2787
6.7G;D1D	10.63	23.67	32.15	0.50	1841.238	61	C	7144.3	0.2577

**WLAN 6GHz_Non-Beamforming_Radio 1_Scan_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.96	15.53	18.34	0.50	76.560	61	C	7144.3	0.0107
6.7G;D1D	3.55	16.93	18.33	0.50	76.384	61	C	7144.3	0.0107

WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Dipole_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	14.62	18.32	0.50	76.227	61	C	7144.3	0.0107
6.7G;D1D	6.52	13.95	18.32	0.50	76.227	61	C	7144.3	0.0107

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Dipole_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	14.63	18.33	0.50	76.384	61	C	7144.3	0.0107
6.7G;D1D	6.52	13.94	18.31	0.50	76.033	61	C	7144.3	0.0106

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Dipole_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.85	14.80	18.50	0.50	79.433	61	C	7144.3	0.0111
6.7G;D1D	6.52	14.20	18.57	0.50	80.724	61	C	7144.3	0.0113

WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Patch_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	9.74	18.33	0.50	76.384	61	C	7144.3	0.0107
6.7G;D1D	10.63	9.84	18.32	0.50	76.208	61	C	7144.3	0.0107

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Patch_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	9.73	18.32	0.50	76.208	61	C	7144.3	0.0107
6.7G;D1D	10.63	9.85	18.33	0.50	76.384	61	C	7144.3	0.0107

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Patch_Outdoor_Peak Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.74	9.91	18.50	0.50	79.433	61	C	7144.3	0.0111

**WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Dipole_Outdoor_30 Degree Gain**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.37	16.06	18.28	0.50	75.509	61	C	7144.3	0.0106
6.7G;D1D	3.29	17.15	18.29	0.50	75.683	61	C	7144.3	0.0106

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Dipole_Outdoor_30 Degree Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.37	16.10	18.32	0.50	76.227	61	C	7144.3	0.0107
6.7G;D1D	3.29	17.16	18.30	0.50	75.877	61	C	7144.3	0.0106

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Dipole_Outdoor_30 Degree Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.37	16.07	18.29	0.50	75.683	61	C	7144.3	0.0106
6.7G;D1D	3.29	17.19	18.33	0.50	76.384	61	C	7144.3	0.0107

WLAN 6GHz_Non-Beamforming_Radio 3_1T1S_Patch_Outdoor_30 Degree Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.05	16.43	18.33	0.50	76.384	61	C	7144.3	0.0107
6.7G;D1D	4.43	16.00	18.28	0.50	75.509	61	C	7144.3	0.0106

WLAN 6GHz_Non-Beamforming_Radio 3_2T1S_Patch_Outdoor_30 Degree Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.05	16.42	18.32	0.50	76.208	61	C	7144.3	0.0107
6.7G;D1D	4.43	16.00	18.28	0.50	75.509	61	C	7144.3	0.0106

WLAN 6GHz_Non-Beamforming_Radio 3_2T2S_Patch_Outdoor_30 Degree Gain

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	4.05	16.43	18.33	0.50	76.384	61	C	7144.3	0.0107
6.7G;D1D	4.43	16.02	18.30	0.50	75.858	61	C	7144.3	0.0106

**BT_Chain 0_Internal**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	3.75	11.57	13.17	0.50	23.281	61	C	7144.3	0.0033

BT_Chain 0_External

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	4.77	11.62	14.24	0.50	29.785	61	C	7144.3	0.0042

BT_Chain 1

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;BT-LE	4.00	11.33	13.18	0.50	23.335	61	C	7144.3	0.0033

802.15.4_Chain 0_Internal

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;	3.75	11.62	13.22	0.50	23.550	61	C	7144.3	0.0033

802.15.4_Chain 0_External

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;	4.77	11.67	14.29	0.50	30.130	61	C	7144.3	0.0042

802.15.4_Chain 1

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;	4.00	11.42	13.27	0.50	23.823	61	C	7144.3	0.0033

**WLAN 2.4GHz_Beamforming_Radio 1_Dipole**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	6.84	22.07	26.76	0.50	532.108	61	C	7144.3	0.0745

WLAN 2.4GHz_Beamforming_Radio 1_Patch

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378

WLAN 5GHz_Beamforming_Radio 2_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	6.75	21.99	26.59	0.50	511.682	61	C	7144.3	0.0716
5.3G;D1D	6.23	21.51	25.59	0.50	406.443	61	C	7144.3	0.0569
5.6G;D1D	6.33	21.38	25.56	0.50	403.645	61	C	7144.3	0.0565
5.8G;D1D	6.55	22.01	26.41	0.50	490.908	61	C	7144.3	0.0687

WLAN 5GHz_Beamforming_Radio 2_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	13.33	21.99	33.17	0.50	2328.091	61	C	7144.3	0.3259
5.3G;D1D	13.58	15.88	27.31	0.50	603.949	61	C	7144.3	0.0846
5.6G;D1D	13.47	16.02	27.34	0.50	608.135	61	C	7144.3	0.0851
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335

WLAN 5GHz_Beamforming_Radio 3_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	6.74	22.42	27.01	0.50	563.638	61	C	7144.3	0.0789
5.3G;D1D	6.25	21.92	26.02	0.50	448.745	61	C	7144.3	0.0628

WLAN 5GHz_Beamforming_Radio 3_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
5.3G;D1D	13.60	15.84	27.29	0.50	601.174	61	C	7144.3	0.0842

WLAN 5GHz_Beamforming_Radio 2_Dipole_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	6.75	13.68	18.28	0.50	75.509	61	C	7144.3	0.0106
5.3G;D1D	6.23	21.51	25.59	0.50	406.443	61	C	7144.3	0.0569
5.6G;D1D	6.33	21.38	25.56	0.50	403.645	61	C	7144.3	0.0565
5.8G;D1D	6.55	22.01	26.41	0.50	490.908	61	C	7144.3	0.0687

**WLAN 5GHz_Beamforming_Radio 2_Patch_Outdoor**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	13.33	7.13	18.31	0.50	76.033	61	C	7144.3	0.0106
5.3G;D1D	13.58	15.86	27.29	0.50	601.174	61	C	7144.3	0.0842
5.6G;D1D	13.47	16.02	27.34	0.50	608.135	61	C	7144.3	0.0851
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335

WLAN 5GHz_Beamforming_Radio 3_Dipole_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	6.74	13.73	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	6.25	21.92	26.02	0.50	448.745	61	C	7144.3	0.0628

WLAN 5GHz_Beamforming_Radio 3_Patch_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	13.32	7.15	18.32	0.50	76.208	61	C	7144.3	0.0107
5.3G;D1D	13.60	15.84	27.29	0.50	601.174	61	C	7144.3	0.0842

WLAN 6GHz_Beamforming_Radio 3_Dipole_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	8.67	23.71	30.23	0.50	1183.341	61	C	7144.3	0.1656
6.7G;D1D	9.29	23.61	30.75	0.50	1333.859	61	C	7144.3	0.1867

WLAN 6GHz_Beamforming_Radio 3_Patch_Indoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	13.56	21.84	33.25	0.50	2371.974	61	C	7144.3	0.3320
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359

WLAN 6GHz_Beamforming_Radio 3_Dipole_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	8.67	11.78	18.30	0.50	75.858	61	C	7144.3	0.0106
6.7G;D1D	9.29	11.18	18.32	0.50	76.208	61	C	7144.3	0.0107

WLAN 6GHz_Beamforming_Radio 3_Patch_Outdoor

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	13.56	6.91	18.32	0.50	76.208	61	C	7144.3	0.0107
6.7G;D1D	13.40	7.08	18.33	0.50	76.384	61	C	7144.3	0.0107

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:****1. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-I)**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	3.75	11.57	13.17	0.50	23.281	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9821								
Ratio Limit	1								

2. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-E)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	4.77	11.62	14.24	0.50	29.785	61	C	7144.3	0.0042
Sum TL Ratio_C	0.9830								
Ratio Limit	1								

3. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-I)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	3.75	11.57	13.17	0.50	23.281	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9775								
Ratio Limit	1								

**4. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain0-E)**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	4.77	11.62	14.24	0.50	29.785	61	C	7144.3	0.0042
Sum TL Ratio_C	0.9784								
Ratio Limit	1								

5. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	4.00	11.33	13.18	0.50	23.335	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9821								
Ratio Limit	1								

6. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+BT(chain1)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;BT-LE	4.00	11.33	13.18	0.50	23.335	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9775								
Ratio Limit	1								

**7. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-I)**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	3.75	11.62	13.22	0.50	23.550	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9821								
Ratio Limit	1								

8. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-E)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	4.77	11.67	14.29	0.50	30.130	61	C	7144.3	0.0042
Sum TL Ratio_C	0.9830								
Ratio Limit	1								

9. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-I)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	3.75	11.62	13.22	0.50	23.550	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9775								
Ratio Limit	1								

**10. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain0-E)**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	4.77	11.67	14.29	0.50	30.130	61	C	7144.3	0.0042
Sum TL Ratio_C	0.9784								
Ratio Limit	1								

11. R1:2.4G+R2:5G Full+R3:6G Full+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4 (chain1)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
6.7G;D1D	13.40	22.05	33.30	0.50	2399.441	61	C	7144.3	0.3359
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	4.00	11.42	13.27	0.50	23.823	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9822								
Ratio Limit	1								

12. R1:2.4G+R2:5G High(Band3/4)+R3:5G Low(Band1/2)+R1:Scan 2.4G+R1:Scan 5G +R1:Scan 6G+IEEE 802.15.4(chain1)

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	14.22	19.73	31.80	0.50	1698.244	61	C	7144.3	0.2378
5.8G;D1D	13.41	22.01	33.27	0.50	2382.319	61	C	7144.3	0.3335
5.2G;D1D	13.32	22.07	33.24	0.50	2365.920	61	C	7144.3	0.3312
2.4G;G1D	3.70	20.74	22.29	0.50	190.108	61	C	7144.3	0.0266
5.6G;D1D	4.93	17.87	20.65	0.50	130.317	61	C	7144.3	0.0182
6.2G;D1D	4.96	19.51	22.32	0.50	191.474	61	C	7144.3	0.0268
2.4G;	4.00	11.42	13.27	0.50	23.823	61	C	7144.3	0.0033
Sum TL Ratio_C	0.9775								
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—————