



RADIO EXPOSURE TEST REPORT

FCC ID : UDX-600216010

Equipment : Cisco Wireless 9179F Series Wi-Fi 7 Access Point

Brand Name : CISCO

Model Name : CW9179F

Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA

Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA

Standard : 47 CFR Part 2.1091

The product was received on Nov. 29, 2024, and testing was started from Dec. 12, 2024 and completed on Jul. 03, 2025. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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Photographs of EUT v01



TEL : 886-3-656-9065
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Report Template No.: CB-A1_1 Ver1.1



Summary of Test Result

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

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
3. The presented declaration output power of UWB for EUT in the report are provided by the manufacturer, and We, Sporton International Inc. Hsinchu Laboratory does not guarantee its accuracy.

Reviewed by: Sam Chen**Report Producer: Sophia Shiung**



1 General Description

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, 1024QAM) 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	5180-5250 5250-5320 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 (6ID&6PP)	5925-7125	5955-7115	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
6GHz WLAN (6SD)	5925-6425 6525-6875	5955-6415 6535-6855	802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
Bluetooth	2400-2483.5	2402-2480	LE: GFSK
Zigbee	2400-2483.5	2405-2480	O-QPSK
UWB	3100-10600	7987.2	Pi/2 shift BPSK+ DSSS

Serial Number	For WLAN 2.4GHz, 5GHz, 6GHz, Bluetooth and Zigbee: WNT284508JE For UWB: WNT284603DK
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1.2 Antenna Information

<Internal Antenna>

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	WNC	57XPAD15.LAU	Dipole	U.FL	Radio 1
2	WNC	57XPAD15.MAU	Dipole	U.FL	
3	WNC	57XPAD15.AAU	Dipole	U.FL	Radio 2
4	WNC	57XPAD15.BAU	Dipole	U.FL	
5	WNC	57XPAD15.CAU	Dipole	U.FL	
6	WNC	57XPAD15.DAU	Dipole	U.FL	Radio 3
7	WNC	57XPAD15.HAU	Dipole	U.FL	
8	WNC	57XPAD15.HAU	Dipole	U.FL	
9	WNC	57XPAD15.IAU	Dipole	U.FL	Radio 4
10	WNC	57XPAD15.IAU	Dipole	U.FL	
11	WNC	57XPAD15.JAU	Dipole	U.FL	
12	WNC	57XPAD15.JAU	Dipole	U.FL	Radio 5
13	WNC	57XPAD15.KAU	Dipole	U.FL	
14	WNC	57XPAD15.KAU	Dipole	U.FL	
15	WNC	57XPAD15.EAU	Dipole	U.FL	Radio 6
16	WNC	57XPAD15.EAU	Dipole	U.FL	
17	WNC	57XPAD15.FAU	Dipole	U.FL	
18	WNC	57XPAD15.FAU	Dipole	U.FL	Radio 7
19	WNC	57XPAD15.NAU	Loop	U.FL	
20	WNC	57XPAD15.PAU	PIFA	U.FL	Radio 8
21	WNC	57XPAD15.0DG	PIFA	U.FL	
22	WNC	57XPAD15.OAU	Patch	U.FL	Radio 8
23	WNC	57XPAD15.OAU	Patch	U.FL	

Ant.	Port	Gain (dBi)						Support
		WLAN 2.4GHz	WLAN 5GHz		WLAN 6GHz			
			UNII 1~2A	UNII 2C~3	UNII 5~6	UNII 7	UNII 8	
1	1	3.7	4.9	6.1	5.0	5.8	5.7	Radio 1
2	2	5.1	4.5	5.2	5.5	6.4	5.3	
3	1	5.0	-	-	-	-	-	Radio 2
4	2	4.3	-	-	-	-	-	
5	3	5.1	-	-	-	-	-	
6	4	5.3	-	-	-	-	-	



Ant.	Port	Gain (dBi)					Support
		WLAN 5GHz					
		Mode	UNII 1	UNII 2A	UNII 2C	UNII 3	
7	3	Boresight	9.3	9.4	9.7	9.8	Radio 3
		Steering	9.4	9.4	10.0	10.0	
8	4	Boresight	10.3	10.3	10.6	10.2	
		Steering	10.2	10.2	10.6	10.3	
9	2	Boresight	9.6	9.9	10.3	9.9	
		Steering	9.9	9.8	10.3	10.1	
10	1	Boresight	10.4	10.6	10.7	10.4	
		Steering	10.3	10.7	10.6	10.4	

Ant.	Port	Gain (dBi)					Support
		WLAN 6GHz					
		Mode	UNII 5	UNII 6	UNII 7	UNII 8	
11	3	Narrow Beam	9.2	9.0	9.0	9.1	Radio 4
		Wide Beam	5.4	4.9	5.3	6.0	
12	4	Narrow Beam	9.2	8.7	8.7	8.8	
		Wide Beam	5.1	5.2	5.2	5.4	
13	2	Narrow Beam	10.0	9.8	9.8	9.9	
		Wide Beam	6.4	6.2	6.5	6.9	
14	1	Narrow Beam	9.8	10.1	10.1	10.0	
		Wide Beam	5.6	6.2	6.2	7.0	

Ant.	Port	Gain (dBi)						Support
		WLAN 5GHz			Bluetooth / Zigbee	UWB	GPS	
		Mode	UNII 1	UNII 2A				
15	2	Boresight	8.6	8.8	-	-	-	Radio 5
		Steering	8.5	9.0	-	-	-	
16	1	Boresight	9.4	9.4	-	-	-	
		Steering	9.4	9.4	-	-	-	
17	4	Boresight	8.7	9.3	-	-	-	
		Steering	8.8	9.2	-	-	-	
18	3	Boresight	8.5	9.0	-	-	-	
		Steering	8.5	9.0	-	-	-	
19	1	-	-	-	6.1	-	-	Radio 6
20	1	-	-	-	-	-	3.8	Radio 7
21	1	-	-	-	-	-	3.5	
22	2	-	-	-	-	8.2	-	Radio 8
23	1	-	-	-	-	8.6	-	


<External Antenna>

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Support
1	1~4	CISCO	AIR-ANT2588P4M-NS	(Panel) Dual-polarized directional	N-Female Bulkhead	Radio 2, Radio 5
2	1~4	CISCO	AIR-ANT2566D4M-R	(Patch) Dual-Band Polarization-Diverse Directional Array	RP-TNC (with coupling ring)	
3	1~4	CISCO	AIR-ANT2566D4M-RS	(Patch) Dual-Band Polarization-Diverse Directional Array	RP-TNC (with coupling ring)	
4	1~4	CISCO	AIR-ANT2566P4W-R	(Patch) 4-element dual-band MIMO	RP-TNC	
5	1~4	CISCO	AIR-ANT2566P4W-RS	(Patch) 4-element dual-band MIMO	RP-TNC	
6	1~4	CISCO	CW-ANT-T-D3-N	Dipole	RP-TNC	Radio 7
7	1	CISCO	CW-ANT-GPS1-M-00	OMNI	MMCX	

Ant.	Gain (dBi)					Support
	Pol	WLAN 2.4GHz				
		Peak Gain	Internal Cable Loss	External Cable Loss	Net Gain	
1	V-Pol*2	9.1	0.83	0.5	7.77	Radio 2
	H-Pol*2	7.1	0.83		5.77	
2~3	V-Pol*2	6	0.83	-	5.17	
	H-Pol*2	6	0.83	-	5.17	
4~5	V-Pol*4	6	0.83	-	5.17	
6	-	6	0.83	-	5.17	

Ant.	Gain (dBi)					Support
	Pol	WLAN 5GHz				
		Peak Gain	Internal Cable Loss	External Cable Loss	Net Gain	
1	V-Pol*2	9.6	1.29	0.8	7.51	Radio 5
	H-Pol*2	7.8	1.29		5.71	
2~3	V-Pol*2	6	1.29	-	4.71	
	H-Pol*2	6	1.29	-	4.71	
4~5	V-Pol*4	6	1.29	-	4.71	
6	-	7.5	1.29	-	6.21	

Ant.	Gain (dBi)	Support
	GPS	
7	5	Radio 7

Note 1: The above information was declared by manufacturer.

Note 2: For external Ant. 1~6:

For radiated measurement: The external Ant. 1, 5 and 6 with the highest antenna gain for each type were selected for testing.

For conducted measurement:

NonTXBF power: The external Ant. 1 with the highest antenna gain was selected for testing.



NonTXBF PSD / TXBF power & PSD:

2.4GHz: The external Ant. 4 with the highest antenna array gain was selected for testing.

5GHz: The external Ant. 6 with the highest antenna array gain was selected for testing.

Note 3: Directional gain information

Type	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 ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20} ; NSS1(g1,4) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where;

For nonTXBF power:

Radio	Mode		Max Gain (dBi)				DG (dBi)	Remark
			G1	G2	G3	G4		
2	2.4G External	2TX	7.77	5.77	-	-	7.77	Cross-Polarized Antenna
		4TX	7.77	5.77	7.77	5.77	7.77	
	2.4G Internal	2TX	5	4.3	-	-	5	
		4TX	5	4.3	5.1	5.3	5.3	
3	5G UNII 1 (Note 4)	2TX	10.4	9.9	-	-	10.4	
		4TX	10.4	9.9	9.4	10.3	10.4	
	5G UNII 1 (Boresight)	2TX	10.4	9.6	-	-	10.4	
		4TX	10.4	9.6	9.3	10.3	10.4	
	5G UNII 2A (Note 4)	2TX	10.7	9.9	-	-	10.7	
		4TX	10.7	9.9	9.4	10.3	10.7	
	5G UNII 2A (Boresight)	2TX	10.6	9.9	-	-	10.6	
		4TX	10.6	9.9	9.4	10.3	10.6	
	5G UNII 2C (Note 4)	2TX	10.7	10.3	-	-	10.7	
		4TX	10.7	10.3	10	10.6	10.7	
	5G UNII 2C (Boresight)	2TX	10.7	10.3	-	-	10.7	
		4TX	10.7	10.3	9.7	10.6	10.7	
	5G UNII 2C (Steering)	2TX	10.6	10.3	-	-	10.6	
		4TX	10.6	10.3	10	10.6	10.6	



Radio	Mode		Max Gain (dBi)				DG (dBi)	Remark
			G1	G2	G3	G4		
3	5G UNII 3 (Note 4)	2TX	10.4	10.1	-	-	10.4	Cross-Polarized Antenna
		4TX	10.4	10.1	10	10.3	10.4	
	5G UNII 3 (Boresight)	2TX	10.4	9.9	-	-	10.4	
		4TX	10.4	9.9	9.8	10.2	10.4	
	5G UNII 3 (Steering)	2TX	10.4	10.1	-	-	10.4	
		4TX	10.4	10.1	10	10.3	10.4	
4	6G UNII 5 (Narrow Beam)	2TX	9.8	10	-	-	10	
		4TX	9.8	10	9.2	9.2	10	
	6G UNII 5 (Wide Beam)	2TX	5.6	6.4	-	-	6.4	
		4TX	5.6	6.4	5.4	5.1	6.4	
	6G UNII 6 (Narrow Beam)	2TX	10.1	9.8	-	-	10.1	
		4TX	10.1	9.8	9	8.7	10.1	
	6G UNII 6 (Wide Beam)	2TX	6.2	6.2	-	-	6.2	
		4TX	6.2	6.2	4.9	5.2	6.2	
	6G UNII 7 (Narrow Beam)	2TX	10.1	9.8	-	-	10.1	
		4TX	10.1	9.8	9	8.7	10.1	
	6G UNII 7 (Wide Beam)	2TX	6.2	6.5	-	-	6.5	
		4TX	6.2	6.5	5.3	5.2	6.5	
	6G UNII 8 (Narrow Beam)	2TX	10	9.9	-	-	10	
		4TX	10	9.9	9.1	8.8	10	
5	5G UNII 1~2A External	2TX	7.51	5.71	-	-	7.51	
		4TX	7.51	5.71	7.51	5.71	7.51	
	5G UNII 1 Internal (Note 4)	2TX	9.4	8.6	-	-	9.4	
		4TX	9.4	8.6	8.5	8.8	9.4	
	5G UNII 1 Internal (Boresight)	2TX	9.4	8.6	-	-	9.4	
		4TX	9.4	8.6	8.5	8.7	9.4	
	5G UNII 1 Internal (Steering)	2TX	9.4	8.5	-	-	9.4	
		4TX	9.4	8.5	8.5	8.8	9.4	
	5G UNII 2A Internal (Note 4)	2TX	9.4	9	-	-	9.4	
		4TX	9.4	9	9	9.3	9.4	
	5G UNII 2A Internal (Boresight)	2TX	9.4	8.8	-	-	9.4	
		4TX	9.4	8.8	9	9.3	9.4	
	5G UNII 2A Internal (Steering)	2TX	9.4	9	-	-	9.4	
		4TX	9.4	9	9	9.2	9.4	



For nonTXBF PSD / TXBF power & PSD:

Radio	Mode		Max Gain (dBi)				DG (dBi)	Remark
			G1	G2	G3	G4		
2	2.4G External	2TX	5.17	5.17	-	-	8.18	-
		4TX	5.17	5.17	5.17	5.17	11.19	
	2.4G Internal	2TX	5	4.3	-	-	5	
		4TX	5	4.3	5.1	5.3	7.95	
3	5G UNII 1 (Note 4)	2TX	10.4	9.9	-	-	10.4	Cross-Polarized Antenna
		4TX	10.4	9.9	9.4	10.3	13.02	
	5G UNII 1 (Boresight)	2TX	10.4	9.6	-	-	10.4	
		4TX	10.4	9.6	9.3	10.3	12.93	
	5G UNII 2A (Note 4)	2TX	10.7	9.9	-	-	10.7	
		4TX	10.7	9.9	9.4	10.3	13.11	
	5G UNII 2A (Boresight)	2TX	10.6	9.9	-	-	10.6	
		4TX	10.6	9.9	9.4	10.3	13.08	
	5G UNII 2C (Note 4)	2TX	10.7	10.3	-	-	10.7	
		4TX	10.7	10.3	10	10.6	13.42	
	5G UNII 2C (Boresight)	2TX	10.7	10.3	-	-	10.7	
		4TX	10.7	10.3	9.7	10.6	13.35	
	5G UNII 2C (Steering)	2TX	10.6	10.3	-	-	10.6	
		4TX	10.6	10.3	10	10.6	13.31	
	5G UNII 3 (Note 4)	2TX	10.4	10.1	-	-	10.4	
		4TX	10.4	10.1	10	10.3	13.21	
	5G UNII 3 (Boresight)	2TX	10.4	9.9	-	-	10.4	
		4TX	10.4	9.9	9.8	10.2	13.09	
	5G UNII 3 (Steering)	2TX	10.4	10.1	-	-	10.4	
		4TX	10.4	10.1	10	10.3	13.21	
4	6G UNII 5 (Narrow Beam)	2TX	9.8	10	-	-	10	
		4TX	9.8	10	9.2	9.2	12.57	
	6G UNII 5 (Wide Beam)	2TX	5.6	6.4	-	-	6.4	
		4TX	5.6	6.4	5.4	5.1	8.66	
	6G UNII 6 (Narrow Beam)	2TX	10.1	9.8	-	-	10.1	
		4TX	10.1	9.8	9	8.7	12.45	
	6G UNII 6 (Wide Beam)	2TX	6.2	6.2	-	-	6.2	
		4TX	6.2	6.2	4.9	5.2	8.67	
	6G UNII 7 (Narrow Beam)	2TX	10.1	9.8	-	-	10.1	
		4TX	10.1	9.8	9	8.7	12.45	
	6G UNII 7 (Wide Beam)	2TX	6.2	6.5	-	-	6.5	
		4TX	6.2	6.5	5.3	5.2	8.85	
	6G UNII 8 (Narrow Beam)	2TX	10	9.9	-	-	10	
		4TX	10	9.9	9.1	8.8	12.49	
	6G UNII 8 (Wide Beam)	2TX	7	6.9	-	-	7	
		4TX	7	6.9	6.0	5.4	9.38	



Radio	Mode		Max Gain (dBi)				DG (dBi)	Remark
			G1	G2	G3	G4		
5	5G UNII 1~2A External	2TX	6.21	6.21	-	-	9.22	-
		4TX	6.21	6.21	6.21	6.21	12.23	
	5G UNII 1 Internal (Note 4)	2TX	9.4	8.6	-	-	9.4	Cross-Polarized Antenna
		4TX	9.4	8.6	8.5	8.8	12.19	
	5G UNII 1 Internal (Boresight)	2TX	9.4	8.6	-	-	9.4	
		4TX	9.4	8.6	8.5	8.7	11.82	
	5G UNII 1 Internal (Steering)	2TX	9.4	8.5	-	-	9.4	
		4TX	9.4	8.5	8.5	8.8	11.82	
	5G UNII 2A Internal (Note 4)	2TX	9.4	9	-	-	9.4	
		4TX	9.4	9	9	9.3	12.19	
	5G UNII 2A Internal (Boresight)	2TX	9.4	8.8	-	-	9.4	
		4TX	9.4	8.8	9	9.3	12.14	
	5G UNII 2A Internal (Steering)	2TX	9.4	9	-	-	9.4	
		4TX	9.4	9	9	9.2	12.16	

Note 4: For RF Conducted: For internal Ant. 7~10 and Ant. 15~18, only the mode with higher antenna gain between Boresight mode and Steering mode was selected to record in this column and to perform all the test items, except for RF exposure tests.

Note 5: **<Radio 1>**

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax (1TX/2RX):

Only Port 1 can be used as transmitting antenna.

Both Port 1 and 2 can be used as receiving antenna.

Port 1~2 could receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax (1TX/2RX):

Only Port 1 can be used as transmitting antenna.

Both Port 1 and 2 can be used as receiving antenna.

Port 1~2 could receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax (1TX/2RX):

Only Port 1 can be used as transmitting antenna.

Both Port 1 and 2 can be used as receiving antenna.

Port 1~2 could receive simultaneously.

**<Radio 2>****For 2.4GHz function:****For IEEE 802.11 b/g/n/VHT/ax/be (1TX, 2TX, 4TX/4RX):****1TX:**

Only Port 1 can be used as transmitting antenna.

2TX:

Both Port 1 and 2 can be used as transmitting antenna.

Port 1~2 could transmit simultaneously.

4TX:

Port 1~4 can be used as transmitting antenna.

Port 1~4 could transmit simultaneously.

4RX:

Port 1~4 can be used as receiving antenna.

Port 1~4 could receive simultaneously.

<Radio 3>**For 5GHz function:****For IEEE 802.11 a/n/ac/ax/be (1TX, 2TX, 4TX/4RX):****1TX:**

Only Port 1 can be used as transmitting antenna.

2TX:

Both Port 1 and 2 can be used as transmitting antenna.

Port 1~2 could transmit simultaneously.

4TX:

Port 1~4 can be used as transmitting antenna.

Port 1~4 could transmit simultaneously.

4RX:

Port 1~4 can be used as receiving antenna.

Port 1~4 could receive simultaneously.

<Radio 4>**For 6GHz function:****For IEEE 802.11 ax/be (1TX, 2TX, 4TX/4RX):****1TX:**

Only Port 1 can be used as transmitting antenna.

2TX:

Both Port 1 and 2 can be used as transmitting antenna.

Port 1~2 could transmit simultaneously.

4TX:

Port 1~4 can be used as transmitting antenna.

Port 1~4 could transmit simultaneously.

4RX:

Port 1~4 can be used as receiving antenna.

Port 1~4 could receive simultaneously.

**<Radio 5>****For 5GHz function:****For IEEE 802.11 a/n/ac/ax/be (1TX, 2TX, 4TX/4RX):****1TX:**

Only Port 1 can be used as transmitting antenna.

2TX:

Both Port 1 and 2 can be used as transmitting antenna.

Port 1~2 could transmit simultaneously.

4TX:

Port 1~4 can be used as transmitting antenna.

Port 1~4 could transmit simultaneously.

4RX:

Port 1~4 can be used as receiving antenna.

Port 1~4 could receive simultaneously.

<Radio 6>**For Bluetooth function (1TX/1RX):**

Only Port 1 can be used as transmitting/receiving antenna.

For Zigbee function (1TX/1RX):

Only Port 1 can be used as transmitting/receiving antenna.

<Radio 7>**For GPS function (1RX):**

The EUT supports the antenna with RX diversity functions.

Internal Ant. 20~21 and external Ant. 7 can be used as receiving antenna, but only one of them will be used at one time.

<Radio 8>**For UWB function (1TX/2RX):**

Only Port 1 can be used as transmitting antenna.

Both Port 1 and 2 can be used as receiving antenna.

Port 1~2 could receive simultaneously.

1.3 Table for Multiple Listing

Equipment Name	Model Name	BW of 5G Mode (MHz)	Radio 3	6G Mode	SW	Frequencies supported by 320MHz (MHz)
Cisco Wireless 9179F Series Wi-Fi 7 Access Point	CW9179F	20/40/80/160	UNII 1~3/ UNII 2C~3	6ID	Cisco	6105, 6265, 6425, 6745
				6SD		Not support
		20/40/80	UNII 2C~3	6ID&6PP	Meraki	6105, 6265, 6425, 6585, 6745, 6905
				6SD		6105

Note: The above information was declared by manufacturer.

1.4 Table for EUT Support Function

Function	Supports Band
AP	2.4GHz, 5GHz UNII 1~3, 6GHz UNII 5~8, Bluetooth, Zigbee, UWB and GPS
Mesh	6GHz UNII 5~8

Note 1: Form above table list, only AP mode was tested and recorded in this report.

Note 2: The above information was declared by manufacturer.

1.5 Table for Radio Function

Function Radio (R)	WLAN 2.4GHz	WLAN 5GHz	WLAN 6GHz	Bluetooth	Zigbee	UWB	GPS
R1 (Scanning Radio)	✓	✓ (UNII 1~3)	✓	-	-	-	-
R2	✓	-	-	-	-	-	-
R3	-	✓ (Note 1) (Full band: UNII 1~3) (High band: UNII 2C~3)	-	-	-	-	-
R4	-	-	✓	-	-	-	-
R5	-	✓ (Low band: UNII 1~2A)	-	-	-	-	-
R6	-	-	-	✓	✓	-	-
R7	-	-	-	-	-	-	✓
R8	-	-	-	-	-	✓	-

Note 1: For R3, the full band mode supports Boresight mode only, and the high band mode supports both Boresight mode and Steering mode.

Note 2: For WLAN 2.4GHz, R1 and R2 can't operate at the same frequency simultaneously.

For WLAN 5GHz, R1, R3 and R5 can't operate at the same frequency simultaneously.

For WLAN 6GHz, R1 and R4 can't operate at the same frequency simultaneously.

Note 3: The above information was declared by manufacturer.

1.6 Accessories

Bracket*1 (Optional)

IO Bazel*1



1.7 Applicable Standards

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

- ♦ 47 CFR Part 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

1.8 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW3787 with FCC.
	Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.



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

2.2 MPE Calculation Method

The MPE was calculated at 74 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

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

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



2.3 MPE Exemption

Option (A): 1.1307(b)(3)(i)(A): Available maximum time-averaged power is < 1 mW

Option (B): 1.1307(b)(3)(i)(B): Device operates between 300 MHz and 6 GHz and the maximum time-averaged power or effective radiated power (ERP), whichever is greater, <= P_{th}.

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

d = the separation distance (cm);

Option (C): 1.1307(b)(3)(i)(C): ERP is below a threshold calculated based on the distance

R between the person and the antenna / radiating structure, where $R > \lambda / 2 \pi$.

Single RF Sources Subject to Routine Environmental Evaluation	
RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.
Note: R is in meters, f is in MHz.	



2.4 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

<Radio 1>

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
5.2G;D1D	4.90	21.83	24.58	0.50	322.107	74	C	10514.0	0.0306
5.3G;D1D	4.90	21.74	24.49	0.50	315.500	74	C	10514.0	0.0300
5.6G;D1D	6.10	22.29	26.24	0.50	472.063	74	C	10514.0	0.0449
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528

For Indoor AP:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.00	13.23	16.08	0.50	45.499	74	C	10514.0	0.0043
6.4G;D1D	5.00	13.62	16.47	0.50	49.774	74	C	10514.0	0.0047
6.7G;D1D	5.80	12.62	16.27	0.50	47.534	74	C	10514.0	0.0045
7.0G;D1D	5.70	12.87	16.42	0.50	49.204	74	C	10514.0	0.0047

For Standard Power AP:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	5.00	22.81	25.66	0.50	413.048	74	C	10514.0	0.0393
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487

<Radio 2>

For Internal Antenna:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304

For External Antenna:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304

**<Radio 3>****For Boresight mode:**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	12.93	22.88	33.66	0.18	2421.029	74	C	10514.0	0.2304
5.3G;D1D	13.08	16.76	27.69	0.13	605.341	74	C	10514.0	0.0576
5.6G;D1D	10.70	19.21	27.76	0.06	605.341	74	C	10514.0	0.0576
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304

For Steering mode:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.6G;D1D	13.31	16.51	27.75	0.15	605.341	74	C	10514.0	0.0576
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304

<Radio 4>**For Indoor AP_Narrow Beam mode:**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	10.0	-	27.81	0.03	608.135	74	C	10514.0	0.0579
6.4G;D1D	10.1	-	27.76	0.08	608.135	74	C	10514.0	0.0579
6.7G;D1D	12.45	-	27.77	0.07	608.135	74	C	10514.0	0.0579
7.0G;D1D	12.49		24.56	0.50	320.627	74	C	10514.0	0.0305

For Indoor AP_Wide Beam mode:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	6.4	-	26.92	0.50	552.077	74	C	10514.0	0.0525
6.4G;D1D	8.67	-	27.31	0.50	603.949	74	C	10514.0	0.0575
6.7G;D1D	8.85	-	26.53	0.50	504.661	74	C	10514.0	0.0480
7.0G;D1D	9.38	-	23.10	0.50	229.087	74	C	10514.0	0.0218

For Standard Power AP_Narrow Beam mode:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	12.57		33.81	0.03	2421.029	74	C	10514.0	0.2304
6.7G;D1D	10.1	-	33.75	0.09	2421.029	74	C	10514.0	0.2304

For Standard Power AP_Wide Beam mode:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.2G;D1D	8.66	-	32.15	0.50	1840.772	74	C	10514.0	0.1751
6.7G;D1D	8.85		32.33	0.50	1918.669	74	C	10514.0	0.1826

**<Radio 5>****For Internal Antenna - Boresight mode:**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
5.3G;D1D	9.40	20.46	27.71	0.11	605.341	74	C	10514.0	0.0576

For Internal Antenna - Steering mode:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
5.3G;D1D	12.16	17.71	27.72	0.10	605.341	74	C	10514.0	0.0576

For External Antenna:

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
5.3G;D1D	12.23	17.6	27.68	0.14	605.341	74	C	10514.0	0.0576

<Radio 6>

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	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235

<Radio 8>

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001

Note:

Mode	Frequency	EIRP PSD-AV (dBm/MHz)	OBW (Hz)	EIRP (dBm)	ERP (dBm)
HPRF#16 Ultra Wide Band_Nss1_1TX	7987.2MHz	-41.84	1436	-10.27	-12.42

**Simultaneous Transmission Analysis Mode:****Mode 1: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: BT + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.74881								
Ratio Limit	1								

**Mode 2: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.76671								
Ratio Limit	1								

**Mode 3: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.76261								
Ratio Limit	1								



**Mode 4: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: Zigbee + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.74961								
Ratio Limit	1								

**Mode 5: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.76751								
Ratio Limit	1								

**Mode 6: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 1~3 (Boresight) + R4: 6GHz (Narrow Beam)
+ R5: N/A + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.76341								
Ratio Limit	1								



Mode 7: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: BT + R7: UWB

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85	-	32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.92711								
Ratio Limit	1								

Mode 8: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: BT + R7: UWB

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85	-	32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.94501								
Ratio Limit	1								

Mode 9: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: BT + R7: UWB

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85	-	32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.94091								
Ratio Limit	1								



Mode 10: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: Zigbee + R7: UWB

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85	-	32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.92791								
Ratio Limit	1								

Mode 11: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: Zigbee + R7: UWB

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85	-	32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.94581								
Ratio Limit	1								

Mode 12: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Steering) + R4: 6GHz (Wide Beam) + R5: 5GHz (Internal Ant. - Steering) + R6: Zigbee + R7: UWB

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	13.21	22.72	33.78	0.06	2421.029	74	C	10514.0	0.2304
6.7G;D1D	8.85		32.33	0.50	1918.669	74	C	10514.0	0.1826
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.94171								
Ratio Limit	1								

**Mode 13: R1: 2.4GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: BT + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.97921								
Ratio Limit	1								

**Mode 14: R1: 5GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99711								
Ratio Limit	1								

**Mode 15: R1: 6GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99301								
Ratio Limit	1								

**Mode 16: R1: 2.4GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: Zigbee + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.98001								
Ratio Limit	1								

**Mode 17: R1: 5GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99791								
Ratio Limit	1								

**Mode 18: R1: 6GHz + R2: 2.4GHz (External Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (External Ant.) + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	11.19	24.78	33.82	0.02	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	12.23	23.51	33.59	0.25	2421.029	74	C	10514.0	0.2304
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99381								
Ratio Limit	1								



**Mode 19: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: BT + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.97491								
Ratio Limit	1								

**Mode 20: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99281								
Ratio Limit	1								

**Mode 21: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: BT + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
2.4G;BT-LE	6.10	19.33	23.28	0.50	238.781	74	C	10514.0	0.0227
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.98871								
Ratio Limit	1								



**Mode 22: R1: 2.4GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: Zigbee + R7: UWB**

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	23.6	25.15	0.50	367.282	74	C	10514.0	0.0349
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.97571								
Ratio Limit	1								

**Mode 23: R1: 5GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
5.8G;D1D	6.10	22.99	26.94	0.50	554.626	74	C	10514.0	0.0528
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.99361								
Ratio Limit	1								

**Mode 24: R1: 6GHz + R2: 2.4GHz (Internal Ant.) + R3: 5GHz UNII 2C~3 (Boresight) +
R4: 6GHz (Narrow Beam) + R5: 5GHz (Internal Ant. - Boresight) + R6: Zigbee + R7: UWB**

Mode	DG (dBi)	Power (dBm)	ERP (dBm)	Tolerance (dB)	Tune-up ERP (mW)	Distance (cm)	Option	TL ERP (mW)	TL Ratio
6.7G;D1D	5.80	22.94	26.59	0.50	511.682	74	C	10514.0	0.0487
2.4G;D1D	7.95	27.91	33.71	0.13	2421.029	74	C	10514.0	0.2304
5.8G;D1D	10.40	25.5	33.75	0.09	2421.029	74	C	10514.0	0.2304
6.2G;D1D	12.57	-	33.81	0.03	2421.029	74	C	10514.0	0.2304
5.2G;D1D	11.82	23.59	33.26	0.50	2376.840	74	C	10514.0	0.2261
Zigbee	6.10	19.47	23.42	0.50	246.604	74	C	10514.0	0.0235
UWB HPRF#16;D1D	8.60	-	-12.42	0.50	0.064	74	C	10514.0	0.00001
Sum TL Ratio_C	0.98951								
Ratio Limit	1								

Note: The above antenna gain was declared by manufacturer.

—————THE END—————