

VERIFICATION OF COMPLIANCE

● Equipment : WiFi6 11ax 2T2R module 1800Mbps
Model No. : AW7915-NPD
Applicant : AsiaRF Co., Ltd.
1F, 7, Houde Street, Yonghe Dist. New Taipei City Taiwan
23455



I HEREBY

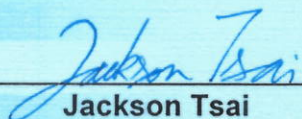
DECLARE THAT :

The equipment was **Passed** the test performed according to

EN IEC 62311:2020 and EN 50665: 2017

EN 50385:2017

The test was carried out on **May 13, 2022** at **SPORTON INTERNATIONAL INC. Hsinhua Laboratory.**


Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

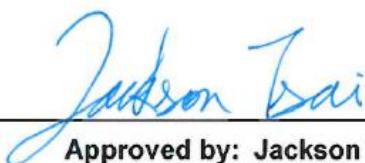
No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

EMF Test Report

Equipment : WiFi6 11ax 2T2R module 1800Mbps
Brand Name : AsiaRF Co., Ltd.
Model Name : AW7915-NPD
Applicant : AsiaRF Co., Ltd.
1F, 7, Houde Street, Yonghe Dist. New
Taipei City Taiwan 23455
Manufacturer : AsiaRF Co., Ltd.
1F, 7, Houde Street, Yonghe Dist. New
Taipei City Taiwan 23455
Standard : EN IEC 62311:2020 and EN 50665: 2017
EN 50385:2017

The product was received on Mar. 28, 2022, and testing was started from May 11, 2022 and completed on May 13, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in EN IEC 62311:2020 and EN 50665: 2017 and shown compliance with the applicable technical standards.

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



Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)

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PHOTOGRAPHS OF EUT v01

History of this test report

[illegible]

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: Ben Tseng

Report Producer: Jenny Yang

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	2412-2472	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
5GHz WLAN	5150-5250 5725-5875	5180-5240 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)

1.2 Table for Multiple Listing

SKU	Ant. Connector	Description
1	I-PEX	There are two SKUs for EUT. The only difference between SKU 1 and SKU 2 is Ant. Connector, but the gain is same. Therefore, SKU 1 configuration was measured during the test.
2	MMCX	

1.3 Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory		
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> 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

1.4 Evaluation Distance

Evaluation Distance
Evaluation distance 20cm as a distance between the equipment and the operator or user when it is used normally. The distance used for the assessment had be specified by the manufacturer and be consistent with the intended usage of the equipment.

1.5 Evaluation Method

Evaluation Method	
Far field region, For calculating the field in the far-field region the free space formula:	
$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$	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 (m)
The formula can be changed to	
$Pd = \frac{30 \times P \times G}{377 \times d^2}$	
Co-transmitting Evaluation Method	
Conclusion:	
CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1	
CPD = Calculation power density	
LPD = Limit of power density	

1.6 Basic Restrictions

Restrictions on exposure to time-varying electric, magnetic, and electromagnetic fields which are based directly on established health effects and biological considerations are termed "basic restrictions". Depending upon the frequency of the field, the physical quantities used to specify these restrictions are specific absorption rate (SAR), and power density.

1.7 Reference Levels

Levels of field strength and currents that can be compared with corresponding measured or calculated values. The reference levels are derived from the basic restrictions using worst-case assumptions about exposure. If the reference levels are met, then the basic restrictions will be complied with, but if the reference levels are exceeded, it does not necessarily mean that the basic restrictions will not be met.

1.8 Compliance criteria

If the average power emitted by apparatus operating in the frequency range 10 MHz – 300 GHz is less than or equal to 20 mW then the apparatus is deemed to comply with the basic restrictions without testing. The evaluation of power is only valid if it is made with an uncertainty of less than 30 %.

2 Assessment Result

2.1 Reference Levels Limits

According to Council Recommendation 99/519/EC Annex III

Reference levels limits for electric, magnetic and electromagnetic fields (0 Hz to 300 GHz)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density Seq (W/m ²)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	-
8-25 Hz	10000	$4000 / f$	$5000 / f$	-
0.025-0.8 kHz	$250 / f$	$4 / f$	$5 / f$	-
0.8-3 kHz	$250 / f$	5	6.25	-
3-150 kHz	87	5	6.25	-
0.15-1 MHz	87	$0.73 / f$	$0.92 / f$	-
1-10 MHz	$87 / f^{1/2}$	$0.73 / f$	$0.92 / f$	-
10-400 MHz	28	0.073	0.092	2
400-2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f / 200$
2-300 GHz	61	0.16	0.2	10

2.2 Reference Levels Evaluation

<2.4GHz WLAN>

Non-Beamforming

Mode	Gain (dBi)	Power (dBm)	EIRP (dBm)	EIRP (W)	Distance (cm)	S (W/m ²)	S Limit (W/m ²)
2.4G;G1D	4.90	14.24	19.14	0.08204	20	0.16321	10.00000
2.4G;D1D	4.90	15.08	19.98	0.09954	20	0.19803	10.00000

Beamforming

Mode	Gain (dBi)	Power (dBm)	EIRP (dBm)	EIRP (W)	Distance (cm)	S (W/m ²)	S Limit (W/m ²)
2.4G;D1D	7.91	12.02	19.93	0.09840	20	0.19576	10.00000

<5GHz WLAN>

Non-Beamforming

Mode	Gain (dBi)	Power (dBm)	EIRP (dBm)	EIRP (W)	Distance (cm)	S (W/m ²)	S Limit (W/m ²)
5.2G;D1D	5.20	17.71	22.91	0.19543	20	0.38880	10.00000
5.8G;D1D	5.20	8.75	13.95	0.02483	20	0.04940	10.00000

Beamforming

Mode	Gain (dBi)	Power (dBm)	EIRP (dBm)	EIRP (W)	Distance (cm)	S (W/m ²)	S Limit (W/m ²)
5.2G;D1D	8.21	14.78	22.99	0.19907	20	0.39604	10.00000
5.8G;D1D	8.21	5.60	13.81	0.02404	20	0.04783	10.00000

————THE END————