



Spectrum Research & Testing Lab., Inc.

No.167, Ln. 780, Shan-Tong Rd., Ling 8, Shan-Tong Li, Chung-Li Dist., Taoyuan City 320, Taiwan (R.O.C.)

TEST REPORT

Reference No.: A18011901
Report No.: MPEA18011901
FCC ID : 2AO3WR-TEST
Page:1 of 7
Date: Apr. 17, 2018

Product Name: Radius-Test
Model No.: Radius-Test
National Formosa University
Applicant: No.64, Wunhua Rd., Huwei Township, Yunlin County 632, Taiwan
Date of Receipt: Jan. 19, 2018
Finished date of Test: Apr. 16, 2018
Applicable Standards: KDB 447498
KDB 865664

We, **Spectrum Research & Testing Laboratory Inc.**, hereby certify that one sample of the above was tested in our laboratory with positive results according to the above-mentioned standards. The records in the report are an accurate account of the results. Details of the results are given in the subsequent pages of this report.

Tested By :

Richard Lin

(Richard Lin)

Date:

4/17/2018

Approved By :

Johnson Ho
(Johnson Ho, Director)

Date:

4/17/2018

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1. DOCUMENT POLICY AND TEST STATEMENT

1.1 DOCUMENT POLICY

- The report shall not be reproduced except in full, without the written approval of SRT Lab, Inc.

1.2 TEST STATEMENT

- The test results in the report apply only to the unit tested by SRT Lab.
- There was no deviation from the requirements of test standards during the test.
- DC power source from Battery DC 3.7V.

1.3 EUT MODIFICATION

- No modification in SRT Lab.

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2. DESCRIPTION OF EUT AND TEST MODE

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Radius-Test
MODEL NO.	Radius-Test
POWER SUPPLY	DC power source from Battery 3.7V x 4
CABLE	NA
FREQUENCY BAND	2.4 GHz ~ 2.4835 GHz
CARRIER FREQUENCY	WLAN : 2.447 GHz
NUMBER OF CHANNEL	1 ch (CH09)
RATED RF OUTPUT POWER	802.11b : 18.40 dBm (69.18 mW)
MODULATION TYPE	IEEE802.11b DSSS(BPSK/QPSK/CCK)
MODE OF OPERATION	Duplex
ANTENNA TYPE	Dipole Antenna
ANTENNA GAIN	-3.0 dBi

NOTE:

For more detailed information, please refer to the EUT's specification or user's manual provided by manufacturer.

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3. RF POWER EXPOSURE EVALUATION TEST

3.1 LIMIT

According to the requirements of Part 1.1310(e), KDB 447498 D01 General RF Exposure Guidance v06, Section7, and KDB 865664 D02 RF Exposure Reporting v01r02, section 2 .

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

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

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

NOTE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.



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3.2 TEST PROCEDURE

1. The EUT was operating in Tx mode.
2. The EUT uses an Printed Antenna, the antenna gain of 2 dBi is declared by the manufacturer.

$$S = PG / 4 \pi R^2$$

Where: S = power density

P = power input to antenna

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

R = distance to the center of radiation of the antenna

3.3 EUT OPERATING CONDITION

1. Setup the EUT and all peripheral devices .
2. Turn on the power of all equipment and EUT.
3. Set the EUT under continuous transmission condition mode.
4. The EUT was set to the highest available power level.

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3.4 CONNECT POWER AT THE ANTENNA CONNECTOR RESULT

Temperature:	24 °C	Humidity:	61 % RH
Spectrum Detector:	PK.	Tested Mode:	802.11b
Tested By:	Richard Lin	Tested Date:	Apr. 16, 2018

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	MPE DISTANCE (cm)	ANTENNA GAIN (dBi)	PEAK POWER OUTPUT		CALCULATED RF EXPOSURE (mW/cm ²)	LIMIT (mW/cm ²)
				dBm	mW		
CH09	2447	20	-3	18.40	69.18	0.0069	1

NOTE: Limits for Occupational/Controlled Exposure