



## **FCC RF EXPOSURE REPORT**

*For*

**Appliance**

**MODEL NUMBER: S9N29R**

**FCC ID: 2ANXA-6733**

**REPORT NUMBER: 4788499014-4**

**ISSUE DATE: 30 Jun. 2018**

*Prepared for*

**The Resistor L.L.C.**

**8215 SW Tualatin-Sherwood Road Suite 200 Tualatin, Oregon, 97062**

*Prepared by*

**UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch  
Room 101, Building 10, Innovation Technology Park,  
Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China**

**Tel: +86 769 33817100**

**Fax: +86 769 33244054**

**Website: [www.ul.com](http://www.ul.com)**

Revision History

Rev.	Issue Date	Revisions	Revised By
--	6/30/2018	Initial Issue	--



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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: The Resistor L.L.C.  
Address: 8215 SW Tualatin-Sherwood Road Suite 200 Tualatin, Oregon, 97062

### Manufacturer Information

Company Name: Same as Applicant  
Address: Same as Applicant

### EUT Description

EUT Name: Appliance  
Model: S9N29R  
Brand Name: N/A  
Sample Status: Normal  
Sample ID: 03059, 1102464  
Sample Received Date: 06 Mar. 2018  
Date of Tested: 06 Mar. 2018 ~ 28 Jun. 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	Complies

Prepared By:

Chris chen  
Engineer Project Associate  
Approved By:

Stephen Guo  
Laboratory Manager

Checked By:

Shawn Wen  
Laboratory Leader



## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4338.01)</b> Shenzhen STS Test Services Co., Ltd. has been assessed and proved to be in compliance with A2LA.</p> <p><b>CNAS (Registration No.: L7649)</b> Shenzhen STS Test Services Co., Ltd. has been assessed and proved to be in compliance with CNAS.</p> <p><b>FCC (FCC Designation No.: 625569)</b> Shenzhen STS Test Services Co., Ltd. has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p><b>IC(Company No.: 12108A)</b> Shenzhen STS Test Services Co., Ltd. has been registered and fully described in a report filed with Industry Canada. The Company Number is 12108A.</p>
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## 4. REQUIREMENT

### LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

### RF EXPOSURE LIMIT

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

### CALCULATION METHOD

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

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

### Turn up power

WiFi	
Mode	Turn-up power
802.11b	18.5 ±1dBm
802.11g	17.5 ±1dBm
802.11n(HT20)	17 ±1dBm
802.11n(HT40)	16 ±1dBm

BLE	
Mode	Turn-up power
BLE	4 ±1dBm

**CALCULATED RESULTS**

BLE Mode					
Frequency	Output Power	Output Power	Power Density	Limit	Test Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
2402	5	3.162	0.00088	1	PASS

WiFi 802.11b Mode					
Frequency	Output Power	Output Power	Power Density	Limit	Test Result
MHz	dBm	mW	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
2412	19.5	89.125	0.02487	1	PASS
2437	19.5	89.125	0.02487	1	PASS
2462	19.5	89.125	0.02487	1	PASS
2467	19.5	89.125	0.02487	1	PASS
2470	19.5	89.125	0.02487	1	PASS

- Note: 1. Antenna Gain=1.47dBi (Numeric 1.403),  $\pi=3.1416$ .  
2. The Power comes from turn up power which declared by customer.  
3. The minimum separation distance of the device is greater than 20 cm.  
4. Calculate by WORST-CASE mode.

**END OF REPORT**