

RF Exposure Evaluation Report

Product : SUB-1
Trade mark : RIPL
Model/Type reference : RS-1
Serial Number : N/A
Report Number : EED32L00175902
FCC ID : 2ATM9-SUB1RS1
Date of Issue : Mar. 05, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure
Guidance v06
Test result : PASS

Prepared for:

Ripl, LLC

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Prepared by:

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Mar. 05, 2020

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2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	Ripl, LLC
Address of Applicant:	5600 Pioneer Creek Drive Suite 8 Maple Plain, MN 55359
Manufacturer:	Ripl, LLC
Address of Manufacturer:	5600 Pioneer Creek Drive Suite 8 Maple Plain, MN 55359
Factory:	FoShan ShunDe Alford Electronics Co., Ltd
Address of Factory:	XinJiao Industrial Park, Daliang, ShunDe, FoShan City, GuangDong, China

4.2 General Description of EUT

Product Name:	SUB-1
Model No.(EUT):	RS-1
Trade Mark:	RIPL
EUT Supports Radios application	BT 4.2 Signal mode, 2402-2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channels:	79
Test Power Grade:	3
Test Software of EUT:	BK32XXRF Test -v1.5
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Max Conducted Peak Output Power:	-0.391dBm The Max Conducted Peak Output Power data refer to the report EED32L00175901
Power Supply:	3*(AAA battery)
Sample Received Date:	Jul. 03, 2019
Sample tested Date:	Jul. 03, 2019 to Aug. 20, 2019
The tested sample(s) and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

The tune-up power is -1 dBm +/- 1dB, therefore the highest tune-up power is

0.0 dBm (1.00 mW) @ 2402 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

$$(1.00\text{mW} / 5\text{mm}) * (2.402\text{GHz}^{0.5}) = 0.3$$

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 0.3 < 3.0$$

Therefore, standalone SAR measurements are not required for both head and body

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00175901 for EUT external and internal photos.

*** End of Report ***

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