1601 North A.W. Grimes Blvd., Suite B
Round Rock, TX 78665
e-mail: info@ptitest.com
(512) 244-3371 Fax: (512) 244-1846

1.0 Maximum Permissible Exposure Evaluation (Supplements the test report.)

The measured power is considered for the intended use of the device and resulting RF exposure to the user.

1.2 Criteria

Section Reference	Date
447498 D01 General RF Exposure Guidance v06	23 Mar 2018

1.3 Procedure

Using measurement of peak power and considering the intended application, determine the permissible exposure level, applicability of exclusion, or whether additional exposure tests (SAR) are indicated. When applicable justify conclusion for selected exposure level and separation distance.

1.4 Power to Exposure Calculation

For 2.4 GHz radio power is determined by conducted measurement. The SAR exemption method was applied for 20 cm. There is a 2nd wireless module (WiFi) that uses an internal antenna. The antennas are less than 20 cm apart making this a co-located system.

Table 1.4.1 Power Calculation for Exposure, 902-928 MHz Radio (Highest frequency 926 MHz)

Measured Conducted Power mW	Restated as dBm	Antenna Gain dBi	Calculated EIRP dBm	Source Duty Cycle Factor dB	Exposure Power dBm	Exposure Restated In Linear Terms mW
36.3	15.6	-0.1	15.5	-29.1	-13.6	0.044

Contribution to field density by WiFi module: 0.0057 mW/cm^2 @ 20 cm

1.5 SAR Exemption Calculation – FCC

Applicable requirement: KDB 447498 Clause 4.3.1 Section 1

900 MHz exposure calculation (max power including tune up tolerance = 0.044 mW):

Field density is determined at 20 cm:

Limit = $f_{MHz}/1500 = 926/1500 = 0.617$ mW/cm^2

$S = EIRP / (4 \pi 20^2)$

$S = 0.044$ mW / 5026.55 $cm^2 = 0.000009$ mW/cm^2

Percent of limit used on 900 MHz: 0.000009 / 0.617 = 0.02%

2.4 GHz exposure calculation:

Field density was determined in the original application of this module at 20 cm:

Limit = 1 mW/cm^2

S = 0.0057 mW/cm2 From referenced report no. SZEM160300123402, page 7

Percent of limit used on 2.4 GHz: 0.0057 / 1 = 0.57%

Total exposure: 0.02 % + 0.57 % = 0.6 % of allowed limit.

Therefore, the device meets the applicable FCC SAR exemption requirements.

Signed:

Eric Lifsey

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