



RF Exposure report

EUT INFORMATION

FCC ID	2BBN4SMC5238
EUT	RFID Reader
Model Name	SMC5238
Applicant	SmartChip Microelectronics Corp.
Address	16F., No. 11, Qiaohe Rd. Zhonghe Dist., New Taipei City 235, Taiwan(R.O.C.)

TEST RESULT

Following FCC KDB 447498 D01 "General SAR test exclusion guidance"

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances \leq 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(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 calculation.
 - The result is rounded to one decimal place for comparison.
 - The values 3.0 and 7.5 are referred to as numeric thresholds in step 1) below.
- 2) At 100 MHz to 6 GHz and for test separation distances $>$ 50 mm, the SAR test exclusion threshold is determined according to the following:
 - a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm) \cdot ($f(\text{MHz})/150$)] mW, at 100MHz to 1500 MHz
 - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) \cdot 10] mW at $>$ 1500 MHz and \leq 6 GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
 - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$ for test separation distances $>$ 50 mm and $<$ 200 mm.
 - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances \leq 50 mm.
 - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation



requirements for any test results to be acceptable.

MEASUREMENT RESULT

Frequency (MHz)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value ^(NOTE)	1-g SAR test exclusion thresholds	Result
13.56	0.0106	5	0.0106	442.973	Pass

Note:

1. Calculate SAR test exclusion thresholds from condition “3” formulas.
2. Max power (dBm) = Field Strength of Fundamental (dBuV/m) -95.23,
Max power (mW) = $10^{(\text{Max power (dBm)}/10)}$

Tested By:

10. 16, 2023

(Date)

Bing / Engineer

Reviewed by:

10. 16, 2023

(Date)

Bell / Manager

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