

# FCC MPE REPORT

## Class II Permissive Change

**Applicant Name:**  
Socket Mobile, Inc.

**Date of Issue:**  
January 21, 2019

**Address:**  
39700 Eureka Drive  
Newark, CA, USA 94560

**Location:**  
EMCE Engineering  
1726 Ringwood Avenue San Jose, California USA  
**Report No.:** EMCE-R-1811-F002-2

<b>FCC ID:</b>	<b>LUBMA41</b>
<b>APPLICANT:</b>	<b>Socket Mobile</b>

**Model:** S700, S730, S740  
**EUT Type:** Barcode Scanner

The measurements shown in this report were made in accordance with the procedures specified in §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.



**Steve.In**  
**Test Engineer**  
**Certification Division**



**Billy Kim**  
**Technical Manager**  
**Certification Division**

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## Version

TEST REPORT NO.	DATE	DESCRIPTION
EMCE-R-1811-F002	November 16, 2018	- First Approval Report
EMCE-R-1811-F002-1	December 16, 2018	- Revised EUT Type and Prediction distance
EMCE-R-1811-F002-2	January 21, 2019	- Revised EVALUATION RESULTS

## RF EXPOSURE DEFINE

SAR Exclusion threshold conduction.

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion.

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR}$$

1.  $f(\text{GHz})$  is the RF channel transmit frequency in GHz
2. Power and distance are rounded to the nearest mW and mm before calculation
3. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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 according to 4.1 f) is applied to determine SAR test exclusion

The antenna of this host device, under normal use condition, is at less than 20 cm away from the Body of the user.

## EVALUATION RESULTS

Modulation Mode	Freq.(MHz)	Max Power (dBm)	Max tune-up tolerance Power (dBm)	Max tune-up tolerance Power (mW)	Antenna Gain (dBm)
GFSK	2402	-7.386	4.000	2.512	0.36
	2440	-7.696	4.000	2.512	0.36
	2480	-6.998	4.000	2.512	0.36
8DPSK	2402	3.300	4.000	2.512	0.36
	2440	3.068	4.000	2.512	0.36
	2480	3.627	4.000	2.512	0.36
π/4DQPSK	2402	3.127	4.000	2.512	0.36
	2440	2.888	4.000	2.512	0.36
	2480	3.415	4.000	2.512	0.36

## SAR test exclusion thresholds

Modulation Mode	Freq.(MHz)	Max tune-up tolerance Power (mW)	Result	Limit for 1-g SAR	Verdict
ALL	2480	2.512	0.79	3	Exempt from SAR

$$\left[ \frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR} = (2.512/5) \cdot \sqrt{2.480} = \mathbf{0.79}$$

## Conclusion

Therefore this device complies with exposure limits for population without SAR evaluation.