

**SAR Exclusion**  
**FCC ID: LF5TM91**

**KDB 447498 was used as the guidance.**

**SAR test exclusion considerations**

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

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

$\leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, 30 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 b) below

**EUT: TM91**

Frequency Range: 402-405 MHz

EIRP: -27.28 dBm

Maximum Peak Antenna Gain: -8.94dBi

Frequency Range: 2402-2480 MHz

Conducted Power: -1.25 dBm

Maximum Antenna Gain: 1 dBi

The EUT will only be used a separation of 5 mm or lesser between the antenna and body of the SAR Exclusion calculation for this exposure is show below.

**Estimated SAR at the Specific separation**

CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Tolerance Max Power (mw)	SAR test exclusion calculation value	Limit (mW)	Pass/Fail
402.15	-18.34	-8.94	$\pm 1$ dB	-17.34	0.018	0.002283	$\leq 3.0$ for 1-g SAR	Pass
2402	-1.25	1	$\pm 1$ dB	-0.25	0.94	0.29137	$\leq 3.0$ for 1-g SAR	Pass

**RF Exposure Compliance Issue**

Therefore, EUT is not required the SAR Evaluation.

Completed By: CIPHER



SIEMIC, Inc

775 Montague Expressway, Milpitas, CA 95035

Phone: (408) 526-1188

Date: 08/29/2019