

APPENDIX I RADIO FREQUENCY EXPOSURE**LIMIT**

According to §15.407(f), U-NII devices are subject to the radio frequency radiation exposure requirements specified in §§ 1.1307(b), 2.1091 and 2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a "general population/uncontrolled" environment. Applications for equipment authorization of devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

EUT Specification

EUT	TLM99s,TLM99si
Frequency band (Operating)	☒ Bluetooth:2.402GHz ~ 2.480GHz ☐ Others: _____
Device category	☒ Portable (<20cm separation) ☐ Mobile (>20cm separation) ☐ Others: _____
Exposure classification	General Population/Uncontrolled exposure ($S=1mW/cm^2$)
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Max. output power	1.20dBm (1.318mW)
Antenna gain (Max)	3.3dBi (Numeric gain: 2.138)
Evaluation applied	☐ MPE Evaluation ☐ SAR Evaluation* ☒ N/A
Remark: 1. The maximum output power is 1.20 dBm (1.318mW) at <u>2480MHz</u> (with <u>2.138</u> numeric antenna gain) EIRP=PG=4.5dBm=2.818 mW. 2. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm ² even if the calculation indicates that the power density would be larger.	

RESULT

According to KDB447498 D01v06: 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,²⁴ where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below
- If the test separation distance (antenna-user) is < 5 mm, 5 mm is used for excluded SAR calculation

	Wireless Interface	Bluetooth
	Tune-up Maximum power (dBm)	4.5
	Tune-up Maximum rated power (mW)	2.818
Body	Antenna to user (mm)	5
	Frequency(GHz)	2.480
	Test result	0.887
	SAR exclusion threshold	3

Per KDB 447498 D01v06 exclusion thresholds is $0.887 < 3$, No SAR test is required.

END OF REPORT