

FCC RF Exposure

EUT Description: Handheld Thermal Imager

Model No.: SC240M PRO

FCC ID: 2BQTU-SC240M-PRO

Equipment type: Portable Device

1. Test Procedure

According to KDB 447498 D01 General RF Exposure Guidance v06, Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

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:

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

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 test exclusions are applicable only when the minimum test separation distance is ≤ 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 is applied to determine SAR test exclusion.

2. Test Result of RF Exposure Evaluation

Modulation	Output power (dBm)	Output power (mW)	Antenna Gain (dBi)	Result calculation	SAR Exclusion threshold	SAR Test exclusion
U-NII 1 802.11a	6.80	4.7863	4.35	2.1915	3.0	Yes
U-NII 1 802.11n(HT20)	7.04	5.0582	4.35	2.3157	3.0	Yes
U-NII 1 802.11n(HT40)	6.90	4.8978	4.35	2.2402	3.0	Yes
U-NII 1 802.11ac(HT20)	6.65	4.6238	4.35	2.1169	3.0	Yes
U-NII 1 802.11ac(HT40)	6.57	4.5394	4.35	2.0762	3.0	Yes
U-NII 1 802.11ac(HT80)	6.47	4.4361	4.35	2.0251	3.0	Yes

Conclusion: No SAR is required