



November 28, 2022
Test Letter #: 17918-01 REV 2
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Stanley Black and Decker, Inc.
Exempt RF Device (2.4GHz FHSS Transmitter)
FCC ID: YJ7DCR008
ISED ID: 9082A-DCR008

Summary: The DCR008 is categorically excluded from SAR testing.

Per section 2.5.1 of RSS-102 and FCC Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies #447498 DO1, General RF Exposure Guidance v06.

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance as defined in the table below.

Exemption Limits Based on Frequency and Separation Distance (ISED is Worst-Case)

Frequency (MHz)	SAR Evaluation Exemption Limits (mW)				
	At separation distance of ≤ 5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤ 300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW
1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW
5800	1 mW	6 mW	15 mW	27 mW	41 mW



SAR Exclusion Results:

The 2.4 GHz radio-fundamental peak output power measured 3.96 dBm, conducted at the antenna port. The maximum gain of the PCB Meador antenna is -1.5 dBi. The maximum potential EIRP is 2.46 dBm.

The applicant has declared that the production tune-up tolerance is as follows:

$$-3.5 \text{ dBm} < \text{EIRP}_{\text{NOMINAL}} < 2.5 \text{ dBm}$$

2.5 dBm is equal to 1.778 mW. This power shall be rounded to 2 mW (which is the nearest mW) per the FCC Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies # 447498 DO1, General RF Exposure Guidance v06.

In accordance with Section 4.3.1, of the aforementioned document, the following formula may be used to calculate the exclusion of SAR Testing:

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

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
- When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is used

The minimum separation distance for this device could be ≤ 3 mm. As such, the test separation distance used for the exclusion calculation shall be 5 mm.

$$[2\text{mW}/5\text{mm}] \cdot [\sqrt{2.4\text{GHz}}] = 0.62$$

Because $0.62 \leq 3.0$ for 1-g body SAR, the DCR008 does not require SAR testing.

The DCR008 also meets the exemption limit (at 5mm) for ISED Canada RSS-102, as the 2mW power level is below the 3.94 mW limit.

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