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Test Letter #: 18897-02 REV 0 (Created with Reference to WL Report # 18773)

Applicant: Stanley Black & Decker, Inc.

Exempt RF Host: DCPS330, Screed

Embedded Module 1, FCC ID: YJ7-NA080801

Embedded Module 2, FCC ID: YJ7-NA382408

## **EUT Summary:**

The NA230591 and NA382408 limited single modules are co-located, as the modules are embedded in a host device, Model: DCPS330. Overall, the EUT is categorically excluded from SAR testing.

# **Exclusion Threshold for FCC:**

Limit is based on FCC Rule Part § 1.1310(c), where the SAR limits for general population/uncontrolled exposure are 0.08 W/kg, as averaged over the whole body, and a peak spatial-average SAR of 1.6 W/kg, averaged over any 1-gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the parts of the human body treated as extremities, such as hands, wrists, feet, ankles, and pinnae, where the peak spatial-average SAR limit is 4 W/kg, averaged over any 10-grams of tissue (defined as a tissue volume in the shape of a cube). Exposure may be averaged over a time-period not to exceed 30 minutes to determine compliance with general population/uncontrolled SAR limits.

## **SAR Level, Calculated:**

Reference: KDB 447498 DO1 General RF Exposure Guidance v06, Section 4.3.2(b), Host platform SAR levels, from simultaneous transmitting antennas, are calculated from:

- 1) [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[ $\sqrt{f_{(GHz)}/x}$ ] W/kg, for test separation distances  $\leq$  50 mm; where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.
- 2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the *test separation distance* is > 50 mm.<sup>37</sup>



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### where,

- a)  $f_{(GHz)}$  is the RF channel transmit frequency in GHz
- b) power and distance shall be rounded to the nearest mW and mm before calculation.
- c) when the minimum test separation distance is < 5mm, a distance of 5mm is used
- d) the result for each antenna is the single SAR value in W/kg

## **EUT Transmitter and Host Platform:**

The Stanley Black & Decker, Inc. Screed (Model: DCPS330) is the host. This device contains two precertified limited modules; namely, FCC ID: YJ7-NA230951 and YJ7-NA382408. These Bluetooth LE modules can transmit simultaneously. The below table provides a summary of the embedded modules.

DCPS330, Screed 2402MHz to 2480MHz	BLEM NA080801	Proteus Module NA382408
Peak Output Power, Conducted:	1.11 dBm	-0.87 dBm
Tune-up Tolerance:	±1.2 dB	±1.0 dB
Channel Power, Conducted:	2.31dBm (1.70 mW)	0.13 dBm (1.03 mW)
Single SAR Value	0.084 W/kg	0.042 W/kg
Host Platform SAR Value	0.084 + 0.042 = 0.13  W/kg	

0.13 W/kg is the peak SAR value for the EUT.

1.6 W/kg is the average 1-gram SAR limit.

Because 0.13 W/kg is less than 1.6 W/kg, the device is excluded from SAR testing.