



September 11, 2024

Test Letter #: 18892-01 REV 2 (Created with Reference to WL Report # 18891)

Applicant: Stanley Black & Decker, Inc.

Exempt RF Host: DCPS660

Embedded Module 1, FCC ID: YJ7-NA230951

Embedded Module 2, FCC ID: YJ7-NA382408

### **EUT Summary:**

The NA230951 and NA382408 limited single modules are co-located, as the modules are embedded in a host device, Model: DCPS660. 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)  $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{\text{(GHz)}}/x}] \text{ W/kg}$ , for *test separation distances*  $\leq 50 \text{ mm}$ ;  
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  $> 50 \text{ mm}$ .<sup>37</sup>



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  $< 5\text{mm}$ , 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. Ram-Style Soil Compactor (Model: DCPS660) is the host. This device contains two pre-certified 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.

DCPS660, Compactor 2402MHz to 2480MHz	<b>G2 BLEM NA230951</b>	<b>Proteus Module NA382408</b>
Peak Output Power, Conducted:	0.89 dBm	-0.87 dBm
Tune-up Tolerance:	$\pm 1.2$ dB	$\pm 1.0$ dB
Channel Power, Conducted:	2.09 dBm (1.62 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.