

INTERTEK TESTING SERVICES

According to the guidelines of FCC's OET KDB 447498 D01, "Mobile and Portable Device - RF Exposure Procedures and Equipment Authorization Policies", the hand SAR evaluation for hand-held and hand-operated device that operate closer than 5 cm from the antenna during normal use is exempted if the output power is not greater than $1000 \times [f(\text{GHz})]^{-0.5} \text{mW}$.

1. Parent unit of tested model of SCD505-R is a hand-held device, and the operation frequency range is 1.921536 to 1.928448 GHz.

Output power threshold
= $1000 \times [f(\text{GHz})]^{-0.5} \text{mW}$
= $1000 \times (1.924992)^{-0.5} \text{mW}$
= 720.75 mW

2. The maximum field strength measured (FS) of shaker unit was 112.4 dB μ V/m. The distance (D) between the antenna and the equipment under test (EUT) was 3 meters. And the maximum source-based time-averaging duty factor is 4.17%.

The radiated power
= $(\text{FS} \cdot \text{D})^2 / 30$
= 52.13 mW

The radiated (EIRP) source-based time-averaging output power
= $(52.13 \cdot 0.0417) \text{mW}$
= 2.17 mW

3. The conducted peak transmit power measured of shaker unit was 19.32 dBm. And the maximum source-based time-averaging duty factor is 4.17%.

The conducted power
= 85.51 mW

The conducted source-based time-averaging output power
= $(85.51 \cdot 0.0417) \text{mW}$
= 3.57 mW

The maximum output power (higher value of conducted or radiated (EIRP) source-based time-averaging output power) is 3.57 mW and is not greater than the above output power threshold 720.75 mW, therefore the hand SAR evaluation is exempted.