

INTERTEK TESTING SERVICES

For Specific Absorption Rate (SAR) evaluation of the walkie talkie, with reference to Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies, portable transmitter with output power less than Power Thresholds for PTT devices, and operating greater than that distance which show in the table 1 ($\geq 1.5\text{cm}$) from person's body can be exempt from SAR test. The output power for portable transmitters is defined as emission radiated power (ERP) with 50% duty cycle.

For the portable transmitter of the tested model of MD200PR, the measured maximum effective radiated power was 200(mW). From these data, the radiated power with 50 % duty cycle is :

$$\begin{aligned}\text{The radiated power} &= 200(\text{mW}) * 50\% \\ &= 100(\text{mW})\end{aligned}$$

From the above calculation, output power obtained in method is less than low threshold , it is concluded that the device can be exempt from SAR test.

Table 1- SAR Evaluation Power Thresholds for PTT devices, $f \leq 0.5 \text{ GHz}$

Exposure Conditions	mW
Held to face $\geq 2.5\text{cm}$	250
Body-worn $\geq 1.5\text{cm}$	200
Body-worn $\geq 1.0\text{cm}$	150

1. The time-averaged output power, corresponding to the required PTT duty factor, is compared with these thresholds.
2. The closest distance between the user and the device or its antenna is used to determine the power thresholds.