

RF EXPOSURE EXHIBIT

Standard Applicable

According to FCC KDB 447498 clause 5, the power thresholds and operating conditions in the following table 1 are used to determine SAR test requirements for PTT radios required to comply with the general population exposure limit. When the occupational exposure limit applies, these power thresholds are increased by a factor of five (5) to determine the test requirements. SAR is required for PTT devices with maximum output power greater than these thresholds.

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

Exposure Conditions	mW
Held to face ≥ 2.5 cm	250
Body-worn ≥ 1.5 cm	200
Body-worn ≥ 1.0 cm	150

Notes:

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.

Evaluation:

RF Exposure Conditions:

The two-way radio device is intended for use in the Held to face exposure condition and the Occupational RF exposure environment, and always keep the antenna at least 2.5cm away from the face.

Transmission Mode:

The two-way radio device utilizes a FM modulation with Push-to talk mode.

Duty Cycle:

The two-way radio device utilizes a FM modulation with a duty cycle of 50% when actual operating duty factor is ≤ 50 %.

RF Output Power

Tx frequency range: 136~174MHz

Antenna-to-tissue separation: ≥ 2.5 cm

Maximum Output Power: 33.58 dBm (2.280W)

Maximum Duty Factor: 50%

The threshold at 2.5 cm or more is 250 mW, then applying factor 5 gives a limit of $250 \text{ mW} \times 5 = 1250 \text{ mW}$
Source-based time-averaged conducted output power is $0.5 \times 2280 \text{ mW} = 1140 \text{ mW} < 1250 \text{ mW}$