
FCC §15. 319 (i) & §2.1093 - RF EXPOSURE

Applicable Standard

According to FCC §15.319 (i) Unlicensed PCS devices are subject to the radiofrequency radiation exposure requirements specified in §1.1307(b), 2.1091 and 2.1093 of this chapter, as appropriate. All equipment shall be considered to operate in a general population/uncontrolled environment. Applications for equipment authorization of devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request. According to KDB 447498 D01 Mobile Portable RF Exposure v04 1) c): Unless excluded by specific FCC test procedures, portable devices with output power $> 60/f$ (GHz) mW shall include SAR data for equipment approval.

RF Exposure Evaluation

Maximum peak output power at antenna input terminal:

1921.536 MHz: 17.54 dBm = 56.75 mW

The Time-based average power at antenna input terminal = Peak output power *Duty cycle
 $= 56.75 \times 3.82\% = 2.168 \text{ mW}$

$2.168 \text{ mW} < 60/f(\text{GHz}) \text{ mW} = 60/1.921536 \text{ GHz} = 31.23 \text{ mW}$

So, when the time base average output power $< 60/f(\text{GHz}) \text{ mW}$, according to KDB 447498, For an unlicensed transmitter that does not transmit simultaneously with other transmitters and its output is $\leq 60/f(\text{GHz}) \text{ mW}$, 1-g SAR evaluation is not required.

Note: The time-base average output power depends on the duty cycle, and this device's duty cycle is 3.82%.