
FCC §15.407(f) & §2.1093 - RF EXPOSURE

Applicable Standard

According to FCC §15.407 and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 Mobile Portable RF Exposure v03r03, no SAR required if power is lower than the flowing threshold:

When routine evaluation is required for SAR and the output power is $\leq 60/f(\text{GHz})$ mW, the test reduction and test exclusion procedures given herein, or in KDB 616217 or KDB 648474, are applicable.

A device may be used in portable exposure conditions with no restrictions on host platforms when either the source-based time-averaged output power is $\leq 60/f(\text{GHz})$ mW or all measured 1-g SAR are < 0.4 W/kg.10 When SAR evaluation is required, the most conservative exposure conditions for all expected operating configurations must be tested.

Measurement Result:

Average output power at antenna port: 6.66 dBm

Antenna Gain: 1.5 dBi

$\text{EIRP} = 6.66 + 1.5 = 8.16 \text{ dBm} = 6.55 \text{ mW}$

SAR exclusion threshold: $60/f_{\text{GHz}} = 60/5.18 = 11.58 \text{ mW}$

The SAR measurement is not necessary.