

RF exposure information

FCC ID: 2AGCXLQSQ5

1. Introduction:

The EUT is designed to be used in portable exposure conditions.
This product is a transmitter operated in 315MHz frequency.

2. Output power considerations:

Worst case output power transmitter (E_{max}): 83.19dB μ V/m@3m

$Pt = (E^*d) / (30 \times gt) = 0.001W = 1mw$

Pt=transmitter output power in watts;

gt=numeric gain of the transmitting antenna (unites/dBi) = 1.35/1.3dBi;

E=electric field strength in V/m = $(10^{(83.19/20)})/1000000 = 0.014$ V/m

d=measurement distance in meters (m) = 3 m

3. Compliance criteria:

According to 447498 D01 General RF Exposure Guidance v05 The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,
where

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

Calculate:

$$(1/5) * (0.315)^{0.5} = 0.112 < 3 \text{ for 1g SAR}$$

Then SAR evaluation is not required.