

RF Exposure Requirements

Product Description: In-Car Entertainment System

Model No.:

A6Y2710SB, A6Y2710S, A6Y2721PB, A6Y2721P, A6Y2721PRB, A6Y2721PR-G,
A6Y2721PRB-G, A6Y1021P, A6YTY721P, A6YTY710S, A6YVW821P, A6YVW710PB,
A6YVW721PB, A6YVW721PRB, A6Y1021PR, A6YTY721PR, A6Y1010P

FCC ID: 2AQ49-A6Y2710SB

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 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 calculation¹⁷

- The result is rounded to one decimal place for comparison

BT Calculation Result:

Tx frequency range: 2402 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: -4.97 dBm (0.318 mW)

Tune-Up output power: 0 dBm (1 mW)

RF channel transmit frequency: 2402 MHz

Result: 0.31

Limit: 3.0

Tx frequency range: 2442 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: -3.63 dBm (0.434 mW)

Tune-Up output power: 0 dBm (1 mW)

RF channel transmit frequency: 2442 MHz

Result: 0.31

Limit: 3.0

Tx frequency range: 2480 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: -4.83 dBm (0.329 mW)

Tune-Up output power: 0 dBm (1 mW)

RF channel transmit frequency: 2480 MHz

Result: 0.31

Limit: 3.0

The exclusion threshold is $0.31 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.

WIFI Calculation Result:

Tx frequency range:2412MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:9.47dBm(8.851 mW)

Tune-Up output power: 9.5dBm(8.913mW)

RF channel transmit frequency:2412MHz

Result: 2.768

Limit: 3.0

Tx frequency range:2437MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:9.48dBm(8.872mW)

Tune-Up output power: 9.5dBm(8.913mW)

RF channel transmit frequency:2437MHz

Result: 2.783

Limit: 3.0

Tx frequency range:2462MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power:9.45dBm(8.810mW)

Tune-Up output power: 9.5dBm(8.913mW)

RF channel transmit frequency:2462MHz

Result: 2.797

Limit: 3.0

The exclusion thresholds is $2.797 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.