

RF Exposure Requirements

Product Description: Laptop

Model No.: TG18, TG01, TG02, TG03, TG05, TG06, TG07, TG08, TG09, TG10, TG11, TG12, TG13, TG15, TG16, TG17, TG19, TG20, TG21, TG22, TG23, TG25, F5, F6, F6Pro, F7, F6Plus, TB01, TB02, TB03, TB04, TB05, TB06, F15, TE10, TE11, TE12, TE13, TE14, TE15, TB10, F8, F7 Plus, F9

FCC ID: 2ACGT-TG18

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:

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

- $f(\text{GHz})$ 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

Calculation Result:

BT

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 4.596dBm

Tune-Up output power: 5dBm

RF channel transmit frequency: 2402MHz

Result: 1.0 ($3.2/5 \cdot 1.55$)

Limit: 3.0

Wi-Fi 2.4G

Tx frequency range: 2412-2462MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 8.94dBm

Tune-Up output power: 9.0dBm

RF channel transmit frequency: 2412MHz

Result: 2.5 ($7.9/5 \cdot 1.55$)

Limit: 3.0

Wi-Fi 5.8G

Tx frequency range: 5745-5825MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 5.60dBm

Tune-Up output power: 6.0dBm

RF channel transmit frequency: 5745MHz

Result: 1.7 ($3.6/5 \times 2.40$)

Limit: 3.0

BT and WiFi can't transmit at the same time. So the transmitter complies with the RF exposure requirements and the SAR is not required.