

1 SAR Test Exclusion Threshold calculation

Product: Bluetooth module
Model name: WT41u
FCC ID: QOQWT41U

Portable use

The calculation is done according to:
KDB 447498 D01 General RF Exposure Guidance v06

Calculation formula according to KDB 447498 D01 Part 4.3.1a)

$$(\text{max power of transmitter [mW]}) \div (\text{min. test separation distance [mm]}) \times (\sqrt{\text{TX frequency [GHz]}}) \leq 3.0$$

Calculation:

Max power ¹ [mW]	Separation distance ² [mm]	TX frequency ³ [GHz]	Result	Limit	verdict
80	42	2.48	2.9997	3.0	Requirement fulfilled

¹maximum power of the transmitter according to calculation in the original equipment authorization (QOQWT41U)

²minimum separation distance according to calculation in the original equipment authorization (QOQWT41U)

³maximum transmission frequency according to calculation in the original equipment authorization (QOQWT41U)

Mobile use

Calculation Formula

$$S = \frac{EIRP}{4\pi R^2}$$

EIRP = maximum conducted outputpower + antenna gain

Limit for S < 1 mW/cm²

Max power ¹ [mW]	Max antenna gain ² [dB]	Evaluation distance R [cm]	Result for S [mW/cm ²]	Limit [mW/cm ²]	verdict
80	3.0	20	0.0317	1.0	Requirement fulfilled

¹maximum power of the transmitter according to calculation in the original equipment authorization (QOQWT41U)

²maximum antenna gain of antenna WE-MCA (part No. 7488910245, manufacturer Würth Elektronik)