RF EXPOSURE ANALYSIS

Product	FCC ID
BGM13S2N/BGM13S2A BT5.0 Module	QOQ13

Analysis for FCC, portable use

Standalone SAR test exclusion considerations are defined in the KDB 447498 Chapter 4.3.1. 1-g head or body SAR exclusion threshold is defined with formula

[(max . power of channel, including tun-up tolerance, mW)/(min. separation distance, mm.)]* (√f(GHz))≤3

For BGM13S2 the maximum peak TX power including tolerances is 9.1 mW and maximum TX frequency is 2.48 GHz. Using separation distance of 5 mm with the formula above results

(9.1mW/5.0mm)*SQRT(2.48)=2.87<3

According to KDB 447498, if the separation distance is less than 5mm, then 5mm separation distance is used to calculate the RF exposure. Thus BGM13S2 meets the SAR exclusion criteria with 0 mm separation and SAR evaluation is not needed.

Analysis for FCC, mobile use

S=EIRP/4*PI*R^2=14.8mW/(4*PI*20^2)= 0.0031mW/cm^2

E.I.R.P (mW)	Evaluation distance R (cm)	Power density S at prediction frequency (mW/cm^2)	MPE limit for uncontrolled exposure at prediction frequency (mW/cm^2)	Verdict
14.8	20	0.0029	1	PASS

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