



RF EXPOSURE ANALYSIS

<u>Product</u>	<u>FCC ID</u>
MGM13S02A/N 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

$$[(\text{max. power of channel, including tun-up tolerance, mW}) / (\text{min. separation distance, mm.})] * (\sqrt{f(\text{GHz})}) \leq 3$$

For BGM13S2 the maximum peak TX power including tolerances is 11.2 mW and maximum TX frequency is 2.48 GHz. Using separation distance of 5.9 mm with the formula above results

$$(11.2\text{mW}/5.9\text{mm}) * \text{SQRT}(2.48) = 2.87 < 3$$

Thus BGM13S2 meets the SAR exclusion criteria with 5.9 mm separation and SAR evaluation is not needed.

Analysis for FCC, mobile use

$$S = \text{EIRP} / (4 * \text{PI} * \text{R}^2) = 14.8\text{mW} / (4 * \text{PI} * 20^2) = 0.0031\text{mW}/\text{cm}^2$$

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