

December 2, 2016

Re: ISED RF exposure evaluation of BGM121/BGM123

Dear Application Examiner

To help the module integrators avoid SAR testing with the end product assembly we have tested the worst case SAR for the BGM121A. BGM123A is the same module but with the TXP limited to 3 dBm, so the same worst case SAR will apply to both BGM121A and BGM123A. The SAR was tested with the optimal board design which has been identified to provide highest emissions and highest radiated transmit power from the antenna. To identify the optimal board design for the antenna used in BGM12xA, the antenna specification has been consulted and the module has been tested on several board sizes by measuring the antenna gain and efficiency.

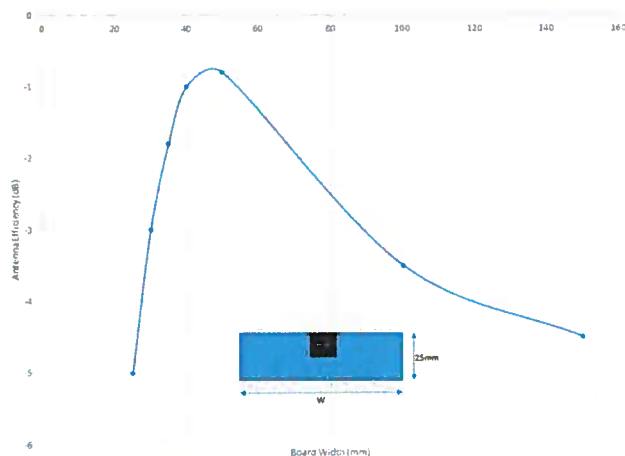


Figure 1: Identification of the optimal board design for the module

As shown in the SAR test report, the BGM121A is compliant to the SAR limits for body worn devices with separation distance of 2 mm and thus, as described in the RSS-102, BGM121A (and BGM123A) can be placed in touch with the human body without further SAR evaluation

The modules with only RF pin, BGM121N and BGM123N, have not been tested for the worst case SAR and thus the SAR exclusion limits will apply normally to these two models.

Best regards



Pasi Rahikkala, Staff HW Engineer
Silicon Labs