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Federal Communications Commission
(Authorization and Evaluation Division)
7435 Oakland Mills Road
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SUBJECT: **Attestation of Model Difference**

FCC: **QOQGM210P**
Models: **BGM210P22A, BGM210P32A, MGM210P22A, MGM210P32A**

We, **Silicon Laboratories Finland Oy**, hereby declare that the family of our **Bluetooth Low Energy and ZigBee wireless radio modules**, includes **4** models with names as listed above. These models are electrically and mechanically identical. The differences between models are described in the table below:

Model	MGM210P22A	MGM210P32A	BGM210P22A	BGM210P32A
Specification	Low-Power, Zigbee and/or BLE	High-Power, Zigbee and/or BLE	Low-Power, BLE	High-Power, BLE
Antenna Type	1. On-board ceramic chip antenna with 1.86dBi of gain 2. Reference external dipole antenna with the theoretical gain of 2.14dBi which can be optionally connected to module's RF pin			
Hardware Note	The wireless chipset (System-on-Chip, SoC) is the same in all these modules, and it integrates a PA subsystem and a RF switch to route the RF signal to two separate RF ports, one further routed to the module's integral on-board ceramic chip antenna, and the other routed to a module's RF pin for an optional external antenna. Both antennas can be used for a switched diversity implementation with Zigbee-only. There cannot be simultaneous transmission out of the two RF ports, and packets are transmitted only using one protocol at a time.			
RF max TX power	10dBm	20dBm	10dBm	20dBm
Differences: The MGM210P modules are for Zigbee + BLE, while the BGM210P modules are for BLE only. The Zigbee is disabled in the BGM210P by a hardcoded software configuration in the SoC. The 22 and 32 in the model names indicate the power variant, 22 referring to the low-power variants which are allowed to transmit at up to 10dBm, based on a purely hardcoded software limitation in the SoC, whereas the 32 indicates the high-power variants for up to 20dBm. Hardware-wise, the two power variants only differ in their 50Ω matching networks which are optimized for the related max allowed output power.				

Should you have any question, feel free to contact the undersigned directly.

Sincerely yours,

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