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### Description of Change

Radio Module 52-9134

The EM03 is a modular assembly comprised of two printed circuit board assemblies, the main controller 52-9069 and connected to that the 52-9134 radio module assembly that includes a SiLabs RS9116 Wi-Fi Transceiver Module operating 2.4GHz and 5GHz 802.11 a/b/g/n. The Lock Controller assembly is operated by batteries but can also run off an external 9V – 24V power supply.

The RS9116 Wi-Fi Transceiver module replaces the original Gainspan module due to the manufacturer discontinuing the Gainspan module.

The RS9116 in our design required a custom antenna deigned to fit in the escutcheon since SiLabs did not offer one that is compatible.

The custom antenna required a class II permissive change

FCC limits on Radiated Band Edge measurements required that the output power be lowered for **channel 1 .11g 6Mbps**.

The value of '19' is used for channel 1 in 11g data rates for FCC region in the 2.4G gain table. This gives a Tx power close to 11.3 dBm all other values in the gain table are unchanged.

The output power set during compliance tests was 127 (14.8dBm). To lower the peak, value 9 was taken (11.3dBm).

Load 2.4GHz gaintable.

61 74 2B 72 73 69 5F 67 61 69 6E 5F 74 61 62 6C 65 3D 31 2C 30 2C 35 39 2C 03 00 0B 01 1C 13 16 02 1C  
1C 1A 03 1C 1E 1E 04 1C 20 22 05 1C 24 24 06 1C 24 24 07 1C 24 24 08 1C 20 22 09 1C 1C 1E 0A 1C 18 1A  
0B 1A 14 12 01 11 FF 20 22 22 02 11 FF 24 24 24 0D 0A

Load 5GHz gaintable.

61 74 2B 72 73 69 5F 67 61 69 6E 5F 74 61 62 6C 65 3D 32 2C 30 2C 35 32 2C 03 00 06 01 07 08 02 0C 0C  
64 0D 0D 03 0A 09 95 0D 0E 04 0D 0E 01 05 01 0E 0D 02 0D 0D 03 0F 0F 8C 0F 0E 04 0B 0B 02 04 01 0C  
0C 02 0B 0B 03 0D 0C 04 0D 0C 0D 0A