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Federal Communications Commission
Authorization and Evaluation Division

Nov 1st, 2022

Class II Permissive Change Request for FCC ID: 2ALEPT0004279

We, the undersigned, request a Class II Permissive Change for the Kona Mega Gateway, formerly known as Kona Macro Gateway, with FCC ID 2ALEPT0004279, in accordance with the permissive change rules presented in KDB Publication 178919 D01 + Notification 202109-001.
The Kona Mega Gateway module is a LoRa gateway designed for IoT applications. It is intended purpose is to provide a carrier grade Gateway solution for LoRa networks. The product is designed to transmit in a North American ISM band (Rx 902.3 – 914.9 MHz, Tx 923.3 – 927.5 MHz) using DTS modulation. The device is powered via 48 Vdc input or IEEE 802.3bt PoE. The Kona Mega Gateway functionality has not changed from the previous design.

The differences between the updated Kona Mega Gateway and the previous Kona Macro Gateway components are as follows:

- Clock generator – same functionality – same LVDS levels
- Front End FPGA
- Point of load power converters – changed from TI to Maxim.
- The input converter is unchanged
- RF LNA (receiver)
- New Power Amplifier transistors
- Removed a 133MHz clock driver – now drive the SX1301 modems directly with shorter traces
- Dual carrier power is reduced from 0.98 W to 0.624 W to align closer to the single carrier power, to meet the EIRP requirement of 36dBm for both single carrier and dual carrier cases when an 8dBi antenna is used with cable loss less than 2 dB.
- EM7355 modem is replaced with the similar latest version EM7455 modem.

Sincerely,

Tom Danshin
Manager, System Design