TEKTELIC COMMUNICATIONS INC.

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Product name:	**Kona Mega Gateway**
Product codes:	**T0004142, T0004470, T0004250, T0004251, T0004252, T0004537**

Revision History

Version	Date	Comments
1.0	March 15, 2017	Initial Release
1.1	March 24, 2017	Added detail to block diagram
1.2	March 31, 2017	Updated table 1-1
1.3	March 31, 2017	Updated table 1-1
1.4	Oct 26, 2022	Update product name

Contents

1 Family Certification Information

The T0004279 Kona Mega Gateway family consists of several variants differentiated by the number of LoRa transceivers (1 or 2, each with its own antenna), backhaul options (optical or 3G/4G cellular wireless), and a direct 48V DC power input option. All variants include GPS with external antenna connection and a copper Ethernet port which, in addition to backhaul, also supports Power over Ethernet (PoE). All variants use the same internal T0004071 radio/digital PCBA with one or two internal passive LoRa duplexers and slightly different mechanical housings (same initial casting) to enable bulkhead interconnect options. The individual LoRa transceivers in each variant are all electrically identical. The optical transceiver and 3G/4G radio modem options are integrated internally at the factory by installing approved commercial modules into connectors on the radio/digital PCBA. There is no post factory module configuration allowed.

Table 1-1 presents the Gateway variants which are being certified. For the purposes of design verification and certification, one variant may be considered as covering all test cases. The T0004250 (variant -3) which includes the 3G/4G wireless backhaul option is the overall worst case variant thermally. Relative to the T0004250 variant, the T0004252 variant 5 contains an incremental electrical to optical transceiver to support optical backhaul. Therefore for full EMC test coverage a T0004250 module will be used, but the electrical to optical transceiver with a Tx to Rx loopback fiber cable will be populated as well to ensure a worst case emissions case is covered.

Table 1-1 Kona Mega Variants

Variant	Hardware Version ID (HVIN)	Product Description	GPS Ant.	Direct DC Power	Optical /DC Power	Copper Eth.	3G/4G Ant.	LoRa Ant.
-1	T0004142	KONA MEGA, NA FDD	1	0	0	1	0	1
-2	T0004470	KONA MEGA, NA FDD, DC POWER, 3G/4G	1	1	0	1	1	1
-3	T0004250	KONA MEGA, NA FDD, DC POWER, 2X LORA, 3G/4G	1	1	0	1	1	2
-4	T0004251	KONA MEGA, NA FDD, OPTICAL & DC POWER	1	0	1	1	0	1
-5	T0004252	KONA MEGA, NA FDD, OPTICAL & DC POWER, 2X LORA	1	0	1	1	0	2
-6	T0004537	KONA MEGA, NA FDD, DC POWER, 2X LORA	1	1	0	1	0	2

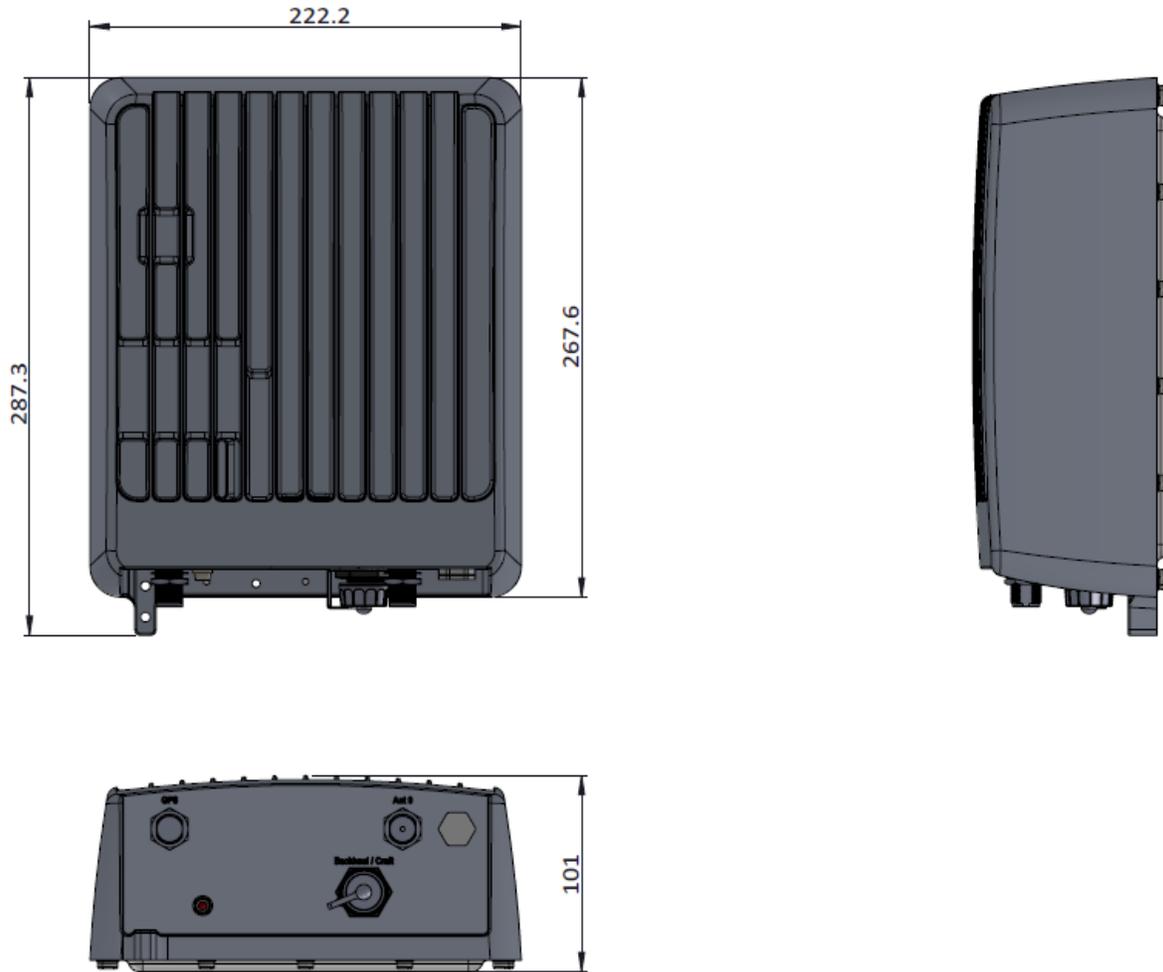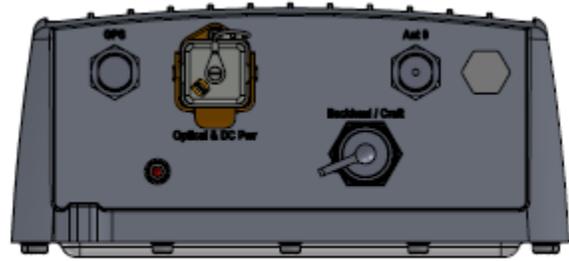An illustration of the common Kona Mega Gateway dimensions can be seen in Figure 1-1.

Figure 1-1 Kona Mega Gateway Common Dimensions

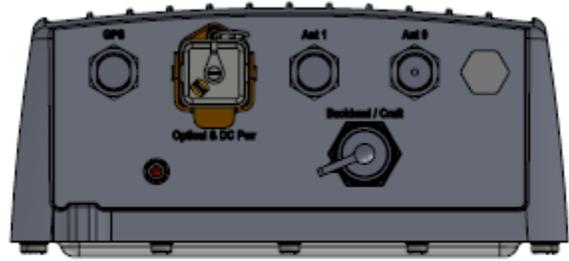The bulkhead connector options for the variants within the Kona Mega Gateway family are shown in Figure 1-2.

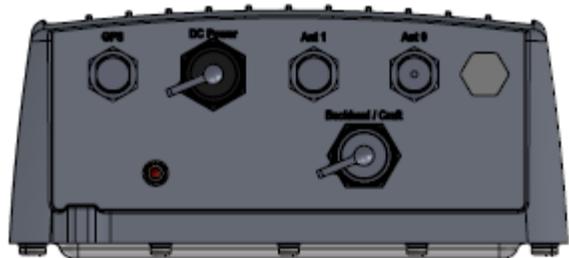**Figure 1-2 Kona Mega Gateway Variants**

2   References

There are no sources in the current document.