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FCC ID: EZSG6867

Model: G6867T

Technical brief for the G6867T 50% duty cycle

VOXX DEI DS4/DS4+ Car Remote Start System consists of one In-Vehicle Unit (object of this filling) and one or more remote key fobs (HHU – Hand Held Unit).

The IVU G6867T cannot be used alone, the user must possess an HHU to send commands. There are never RF connections happening between unpaired HHU&IVU.

The IVU has only 2 mechanisms for transmission. They are independent from each other, but mechanism #1 has priority:

#1 A response message immediately after receiving a command sent by a paired HHU product:

Next to receiving a command from the HHU, the IVU's answer is sent to the HHU and may be repeated up to 5 times maximum and over different channels, but these repeated TX/RX cycles are halted by the HHU whenever the answer from the previous transmitted burst is already well received by the HHU.

A TX/RX cycle consists of sending IVU's answer (99.6ms) to the HHU and listening to the HHU confirmation (100.4ms). The TX duty cycle is therefore 49.8% on a TX/RX cycle of 200ms.

In normal application, the IVU may answer to HHU commands about 2 to 10 times a day, according to user's need. That is about 1 second of total transmission time at max, and with an average of 2.5 bursts per command sent.

#2 A broadcast message sent to a paired HHU on a scheduled time slot:

There are only two cases where the IVU can send something without HHU requesting anything: a) to report an alarm or status change, and b) to send a synchronization burst to the HHU.

The TX/RX cycle remains the same 99.6/100.4ms, thus with a duty cycle of 49.8%.

On average there is a synchronous time slot available every 3 seconds, but in practice most of the time all slots are unused by the IVU, because of no alarm or no status change.

Synchronization bursts are initially spacing at few seconds, then exponentially lengthening the period until stabilizing at 1 burst at every 40 minutes.

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Signed:

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On behalf of: VOXX Electronics Corp.