FCC SAR Exemption per KDB 447498

KDB 447498 D01 General RF Exposure Guidance v06 (October 23, 2015)

1. Declaration of RF exposure compliance for exemption from routine evaluation limits

FCC ID:	EZSG6867
Product Marketing Name (PMN)	915MHz Remote Start In Vehicle Transceiver Unit
Model number:	G6867T
Manufacturer:	VOXX DEI Canada Ltd.
4.3.1. Standalone SAR test exclusion considerations:	During normal operation, user extremities can come within 20 cm of the internal antenna and therefore product is considered as “Portable”. The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at Test separation distances ≤ 50 mm are determined by: [(max. power of channel, including tune-up tolerance, mW) ÷ (min. test separation distance, mm)] × $[\sqrt{F(GHz)}]$ ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where • F(GHz) is the RF channel transmit frequency in GHz • Power and distance are rounded to the nearest mW and mm before calculation • The result is rounded to one decimal place for comparison The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to section 4.1(f) is applied to determine SAR test exclusion As per customer, the G6867T is installed by an accredited installer, it only has an installation guide but no user’s guide for end-user. The user does not use the push button on the G6867T but only the key fob buttons. However, if the key fob is lost or malfunctioning, and the user opens the car with his/her mechanical key, the alarm system (if armed) will start, and the car won’t start with the mechanical key. The user can reset the system by pushing this button on the G6867T and he/she can start the engine with the mechanical key. In such a case, the separation distance between the user and the antenna is 5 cm as per client declaration. At 907 MHz, The exemption limit for extremity is: 158 mW * 2.5 = 395 mW Measured conducted output power: 20.95 dBm, Antenna gain: 3 dBi EIRP [W] = $10^{(\text{Power [dBm]} + \text{Antenna gain [dBi]})/10}$ = $10^{(20.95 + 3)/10}$ = 248.3 mW, As per KDB 447498 section 6.3, EUT is considered as devices that transmit only intermittently in data mode, without any voice support. According to EUT’s operational description, in worst-case, the HHU sends user’s commands (99.6ms) to the IVU and listen to the IVU confirmation (100.4ms). With a 50 % transmission duty factor as conservative evaluation, Average EIRP = 248.3 * 50% = 124.2 mW The calculation is below the threshold, therefore the product exempt from the SAR test requirements. Margin for compliance: 270.8 mW As per equation : [(max. power of channel, including tune-up tolerance, mW) ÷ (min. test separation distance, mm)] × $[\sqrt{F(GHz)}]$ = = (125 mW ÷ 50 mm) × $\sqrt{0.907\ GHz}$ = 2.4 which is ≤ 7.5

2. Attestation

ATTESTATION: I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned departmental standard(s), and that the radio equipment identified in this application has been subject to all applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met.

Signature:	
Date:	March 25, 2021
Name:	Redwanul Rasel, EMC Specialist