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## RF EXPOSURE CALCULATIONS

### Requirement:

According to USA CFR 15 §1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. For Canada, RSS-102 sets out the requirements and measurement techniques used to evaluate radio frequency (RF) exposure compliance of radiocommunication apparatus designed to be used within the vicinity of the human body.

USA REF: 1.1310, 2.1091/1093, 447498 D01 General RF Exposure Guidance v06  
IC REF: RSS-102 Issue 6, Safety Code 6  
Min. Sep. Distance: 20 cm (Mobile)

Test Date: 17-Sep-24  
Test Engineer: John Nantz  
EUT: Vais Technology SEER ECU  
EUT Mode: Worst Case  
Meas. Distance: 3 meters

R0	SAR Exemption											
	Mode	Freq. MHz	Worst Case E3(Avg) dBuV/m	E20cm(Avg) dBuV/m	H20cm(Avg) dBuA/m	Canada ISED RSS-102 MPE	SC6 Limit (E20cm) dBuA/m	SC6 Limit (H20cm) dBuA/m	Worst Case MPE Ratio	E20cm Limit dBuV/m	H20cm Limit dBuA/m	USA FCC 1.1310 MPE
R1	LF	0.125	113.2	160.2	108.9			135.3	0.047948	175.8	124.2	0.1718
R2												
R3												
R4								MPE Ratio			S Limit mW/cm <sup>2</sup>	MPE Ratio
R5												
R6								MPE Total (<1):	.048			MPE Total (<1): .172
R7								Complies?	Yes			Complies? Yes
#	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	

(ROW) (COLUMN) NOTE  
R0 C3 As Measured / Computed from highest fundamental emission, see fundamental emission section of the respective radio reports.  
R0 C4 Conversion from 3m to 0.2m:  $E(3m)=40*\log_{10}(3/0.2)$   
R0 C5 Conversion from E(20cm) to H(20cm):  $E(20cm) - 20*\log_{10}(377\Omega)$   
R0 C9/C10 Limits for uncontrolled environment according to FCC 1.1310, Table 1 are converted from V/m or A/m to dBuV/m or dBuA/m via  $20*\log_{10}(A \text{ or } V/m * 1000000)$   
R0 C9/C10 For FCC MPE, use of 300 kHz limit at 125 kHz as previously allowed by FCC.

### Summary:

The EUT with all transmitters is compliant with both the FCC power density limit and the ISED Exposure Evaluation limits.