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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

Test Date: 17-Mar-25
Test Engineer: J. Nantz
EUT: AIHS-MU
EUT Mode: Active
Meas. Distance: 3m

R0	Mode	Frequency Band		Conducted Power (Avg) dBm	Antenna Gain dBi	EIRP (Avg) mW	S20cm (Avg) mW/cm ²	S (Avg) W/m ²	Canada ISED Safety Code 6			USA FCC 1.1310 MPE			
		Start MHz	Stop MHz						SAR (Avg) W/kg	SAR Limit (Avg) W/kg	Srl Limit Table 5 W/m ²	MPE Ratio	SAR Limit (Avg) W/kg	MPE Limit Table 1 (mW/cm ²)	MPE Ratio
R1	CM	2412	2472	23.5	1.3	302.0	0.060	0.601		5.45689	0.11010		1.000	0.060	
R2	CW	13.56	13.56						1.380	1.600		0.863	1.600		0.863
R3															
R4															
R5											Total MPE	0.97260		Total MPE	0.923
R6										MPE Ratio < 1	YES		MPE Ratio < 1	YES	
#	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C16

(ROW)COLUMNNOTE:

R1 C4 Max conducted power including tune up tolerance as reported in Bureau Veritas Rpt. No. SA150107E07H. Device is classified as a mobile device.
R1 C5 Max antenna gain of INPAQ dipole model DAM-I6-H-DB-800-10-17 as reported in Bureau Veritas Rpt. No. SA150107E07H.
R1 C6 EIRP (mW) = $10^{\alpha}((\text{Cond Pow}(dBm) + \text{tune up}(dB)) + \text{Ant. Gain}(dB)) / 10$
R1 C7 S (mW/cm²) = EIRP(mW) / (4 x PI x 20cm²)
R1 C8 S(W/m²) = EIRP(W) / (4 x PI x 0.2m²)
R1 C10 Limit calculated as: $0.02619 \times f(MHz)^0.6834$ W/m² according to RSS-102 i6, table 7 for uncontrolled environment
R2 C9 Maximum measured SAR according to Willow Run Test Labs Rpt. No's. AIHS-MU - Exh 11 - TR_20778-25_FCC_SAR REPORT_3 & TR_20779-25_ISED_SAR REPORT_2

Summary:

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