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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: 14-Jan-25
Test Engineer: J. Nantz
EUT: HFA31
EUT Mode: Active
Meas. Distance: 3m

R0	Mode	Frequency Band Start MHz	Frequency Band Stop MHz	EIRP+Duty (RMS) dBm	Tune Up dB	E20cm (Avg) dBuV/m	S20cm (Avg) mW/cm2	EIRP (Avg Total) W	Canada ISED Safety Code 6 FRL Section 6.6 W	Canada ISED Safety Code 6 FRL Ratio	USA FCC 1.1310 MPE MPE Limit Table 1 (mW/cm2)	USA FCC 1.1310 MPE MPE Ratio
R1	CM	24050.00	24250.00	3.6	1.000	123.322	0.001	0.003	5.00000	0.00058	1.000	0.001
R2												
R3												
R6												
R7									Total MPE	**0.00058**	Total MPE	**0.001**
R8									MPE Ratio < 1	**YES**	MPE Ratio < 1	**YES**
#	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13

(ROW)	(COLUMN)	NOTE:
R0	C4	As Measured / Computed from highest fundamental emission, see fundamental emission section of the test report. Peak EIRP is used to demonstrate compliance
R0	C5	TUNE UP – The manufacturer declares +/-1dB tune up
R0	C6	E20cm = EIRP+Tune Up+95.2+20*LOG(3/0.2)
R0	C7	EIRP+Tune up (mW) = S (mW/cm^2) x 4 x PI x 20cm^2
R0	C8	EIRP+Tune up (dBm) -> EIRP (W) = 0.001*10^((EIRP+Tune up (dBm))/10)

Summary:

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