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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 5, Safety Code 6

Min. Sep. Distance: <5 mm (Portable)

Test Date:

22-Mar-17

Test Engineer:

Joseph Brunett

EUT:

LEAR SK CTO

EUT Mode:

LEAR SK CTO

Meas. Distance:

3m

Mode	Frequency Band		E-Field @ 3m (Avg) dBuV/m	Canada ISED RSS-102 MPE			USA FCC 1.1310 MPE		
	Start MHz	Stop MHz		EIRP + Duty (Avg) mW	Table 1 EIRP Exemption Limit <5mm mW	MPE Ratio	SAR Threshold	SAR Threshold 1g SAR Threshold Limit	Worst Case MPE Ratio
UHF	314.7	315.3	75.4	0.01047	69.1	0.00015	0.00510	3	0.00170
Mode	Start MHz	Stop MHz	Pk EIRP + Duty (RMS) dBm	EIRP + Duty (RMS) mW	Table 1 EIRP Exemption Limit <5mm mW	MPE Ratio	SAR Threshold	Minimum 1g SAR Threshold Limit	MPE Ratio
UWB	3723.60	4338.00	-13.4	0.04544	1.8	0.02549	0.01817	3	0.00606
IF SUM OF ALL MPE RATIOS IS > 1, THEN THE EUT MUST UNDERGO SAR TESTING PER FCC AND ISED (IC) REGULATIONS.					MPE RATIO Total (<1):	.026		MPE RATIO Total (<1):	.008
					REQUIRES SAR TESTING	No		REQUIRES SAR TESTING	No

* EIRP (mW) = S (mW/cm²) x 4 x PI x 20cm²

Summary:

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