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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.

Maximum Permissible Exposure Calculations:

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: 20 cm (Mobile)

Test Date: 5-Apr-20
 Test Engineer: J. Brunett
 EUT: AirLift Manifold
 EUT Mode: Worst Case
 Meas. Distance: 3 meters

Mode	Freq. MHz	Worst Case EIRP(Avg)** dBm	E20cm(Avg) dBuV/m	S20cm(Avg)**** mW/cm2	SC6 Limit (S20cm) mW/cm2	MPE Ratio	S Limit mW/cm2	MPE Ratio	
Mode	Freq. MHz	Worst Case EIRP(Avg)** dBm	E20cm(Avg) dBuV/m	S20cm(Avg)**** mW/cm2	SC6 Limit (S20cm) mW/cm2	MPE Ratio	S Limit mW/cm2	MPE Ratio	
BLE (worst case)	2440	5.5	124.2	0.00071	5.4	.0001	1.00000	.0007	
MPE Total (<1):						.0001	MPE Total (<1):		.0007
Complies?						Yes	Complies?		Yes

*As Measured / Computed from highest fundamental emission, see fundamental emission section of this report.
 **maximum of either EIRP or Pout as measured.
 *** For FCC MPE, use of 300 kHz limit for signals below 300 kHz as previously requested by FCC.
 **** 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.