

## 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 Calculation:

The General Population / Uncontrolled Exposure limit for mobile devices is **1 mW/cm<sup>2</sup> at 20 cm** separation distance for the US. For Canada, the Exposure Evaluation EIRP Limit is computed from the formula  $EIRP = 1.31 * 10^{(-2)} * (f\_MHz)^{0.6834}$ . Cumulative power density at the 20 cm separation distance and total EIRP rating are computed below and compared to the respective limits.

<b>USA REF:</b> 2.1091/1093, 447498 D01 General RF Exposure Guidance v06	<b>Test Date:</b> 21-Apr-17
<b>IC REF:</b> RSS-102 Issue 5	<b>Test Engineer:</b> Joseph Brunett
<b>Sep. Distance:</b> >20cm	<b>EUT:</b> Nutek IVU FoMoCo
	<b>EUT Mode:</b> Hopping
	<b>Meas. Distance:</b> 3 meters

					<b>Canada</b>	<b>USA</b>
Freq. MHz	Pout* (Pk) dBm	EIRP* (Pk) dBm	Worst Case Source Based Time Averaged Po/EIRP(Pk)** mW	Power Density S @ 20cm mW/cm <sup>2</sup>	Worst Case Source Based Time Averaged Threshold (Avg) mW	Power Density Limit S @ 20cm mW/cm <sup>2</sup>
903.9	15.4	22.0	158.6	0.0315	1372.4	1.0
913.9	14.4	21.9	155.9	0.0310	1382.8	1.0
923.5	13.8	22.5	175.9	0.0350	1392.7	1.0

\*As Measured / Computed from highest fundamental emission, see fundamental emission section of this report.

\*\*Only RMS level is required, RMS/6min << Pk, Peak emission employed to demonstrate compliance.

### Summary:

The EUT with both transmitters is compliant with both the FCC power density limit and the IC Exposure Evaluation EIRP limit.