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EXHIBIT NECESSARY BANDWIDTH

(Reference: FCC On-line Form 442)

LO Oscillator Tolerance = 1 part per million (1 ppm)

RF Bandwidth for Single tone CW signal = 10 kHz

Necessary Bandwidth, after including Tolerance = $10 \text{ kHz} + (0.0001/100) 38\text{GHz} = 48 \text{ kHz}$

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