

# TI mmWave Studio Equations

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**Abstract**—Equations for optimizing TI's mmWave Studio software package.

## I. CHIRP PARAMETERS

$$t_{ADC} = \frac{N}{F_s} < t_{RampEnd} - t_{ADCstart} - t_{TXstart} \quad (1)$$

$$B = S * t_{RampEnd} < 4GHz \quad (2)$$

$$t_{ChirpCycle} = t_{Idle} + t_{RampEnd} \quad (3)$$

$$B_{Useful} = S * t_{ADC} \quad (4)$$

$$d_{max} = \frac{F_s c}{2S} \quad (5)$$