

TABLE 1—CHARACTERISTICS OF OSCILLATOR TYPES

Clock type	Typical frequency accuracy (%)	Typical frequency range	Tunability	Temperature coefficient	Power-supply-rejection ratio	Comments
Quartz	0.005	10 kHz to 200 MHz	Poor	0.5 ppm/°C, easily achieved	1 ppm/V	High stability and initial accuracy at expense of tunability; essentially no tunability; stability of 1×10^{-9} achievable with compensation techniques
Ceramic resonator	0.5	250 kHz to 60 MHz	Poor	30 ppm/°C	20 ppm/V	Lower performance and cost than quartz; essentially untunable
LTC1799	1.5	1 kHz to 33 MHz	Good	40 ppm/°C plus resistor-temperature coefficient	500 ppm/V	Add 10 to 50 ppm/°C temperature coefficient, depending on resistor type; extremely small footprint: SOT-23 and one resistor
Typical RC-based clock	10	1 Hz to 25 MHz	Good	200 ppm/°C	2500 ppm/V	Requires careful design and component selection for best results