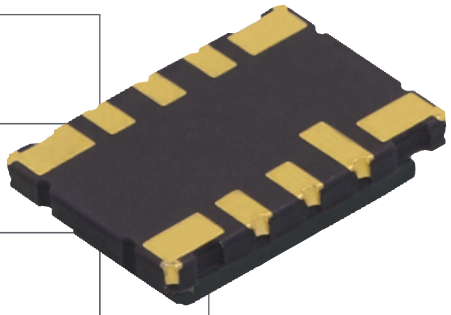
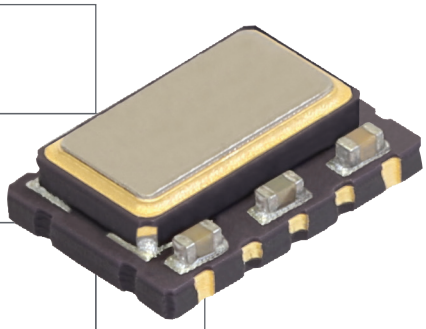
TCXO
VCTCXO

Connect





CTS Your Partner in Smart Solutions

TCXO/VCTCXO

CTS' broad portfolio of Temperature Compensated Crystal Oscillators [TCXOs] and Voltage Controlled Temperature Compensated Crystal Oscillators [VCTCXOs] provide solutions with tight stabilities, superior phase noise and phase jitter performance, frequencies to 1.0GHz and multiple package size options. Our designs have low current consumption, utilize hermetically sealed or FR4 based packages and support Clipped Sine Wave, Sine Wave, HCMOS and LVPECL outputs.

Stratum 3, Low Phase Noise, High Frequency

CTS' high performance TCXO/VCTCXOs, highlight unique design techniques that allow our devices to achieve the best phase noise in the market, even at frequencies reaching 1.0GHz. We also offer Stratum 3 compatible designs in a variety of package size options.

General Purpose

CTS also offer a wide array of TCXO/VCTCXO solutions for applications that function with less stringent performance requirements. These products provide our customers with low cost designs, good phase noise performance, analog compensation, support for Clipped Sine Wave or HCMOS outputs and small package footprints when available application space is critical.

cts Your Partner in Smart Solutions

Stratum 3, Low Phase Noise, High Frequency

» Package Type: 500 Models all SMD Leadless Castellated Ceramic; VFTX110 Thru-Hole Metal Can Europack; VFTX312 SMD Leadless Ceramic Substrate, all other VFTX Models SMD Shielded FR-4

» Voltage Control Option Frequency Range: Model VFTX110 ±2ppm; All other models ±5ppm

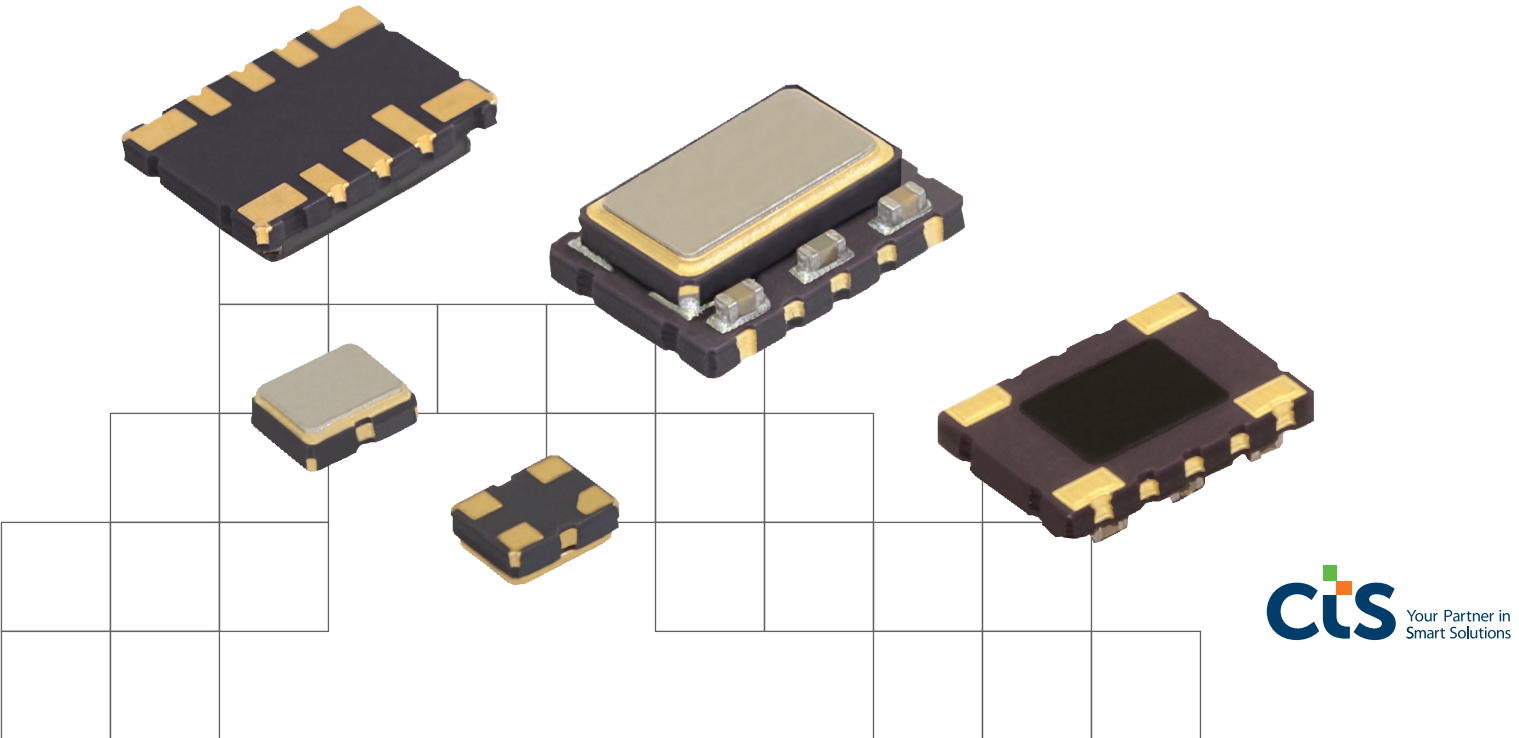
Model	Features	Package Size [mm]	Output Logic	Frequency Range [MHz]	Frequency Stability Options	Supply Voltage	Temperature Range
578	Stratum 3 Timing, 10-Pad Footprint	7.0 x 5.0	Clipped Sine Wave	5 - 52	±0.28ppm over temp ±4.6ppm total overall	3.0V 3.3V 5.0V	-20°C to 70°C -40°C to 85°C
579	Stratum 3 Timing, 10-Pad Footprint	7.0 x 5.0	HCMOS	5 - 52	±0.28ppm over temp ±4.6ppm total overall	3.0V 3.3V 5.0V	-20°C to 70°C -40°C to 85°C
588	Stratum 3 Timing, 4-Pad Footprint	7.0 x 5.0	Clipped Sine Wave	5 - 52	±0.28ppm over temp ±4.6ppm total overall	3.0V 3.3V 5.0V	-20°C to 70°C -40°C to 85°C
589	Stratum 3 Timing, 4-Pad Footprint	7.0 x 5.0	HCMOS	5 - 52	±0.28ppm over temp ±4.6ppm total overall	3.0V 3.3V 5.0V	-20°C to 70°C -40°C to 85°C
580	Stratum 3 Timing, 4-Pad Footprint	5.0 x 3.2	Clipped Sine Wave	5 - 52	±0.28ppm ±0.50ppm	3.0V 3.3V 5.0V	0°C to 55°C -10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
581	Stratum 3 Timing, 4-Pad Footprint	5.0 x 3.2	HCMOS	5 - 52	±0.28ppm ±0.50ppm	3.0V 3.3V 5.0V	0°C to 55°C -10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
VFTX140	Stratum 3 Performance, 7-Pad, Low Power [<265mW], Ultra Low Jitter and Phase Noise: -118dBc/Hz @ 1kHz	25.4 x 22.0	LVPECL	200 - 1000	±0.28ppm over temp ±4.6ppm total overall	3.3V	0°C to 70°C
VFTX160	Stratum 3 Performance, 7-Pad, Low Power [<135mW], Ultra Low Jitter and Phase Noise: -120dBc/Hz @ 1kHz	25.4 x 22.0	HCMOS	10 - 200	±0.28ppm over temp ±4.6ppm total overall	3.3V	0°C to 70°C
VFTX312	Stratum 3 Performance, 10-Pad, Femtocell Reference: -150dBc/Hz @ 100kHz, Phase Noise Floor: -150dBc/Hz Typ, Output Enable	7.0 x 5.0	HCMOS	26 - 26	±0.28ppm over temp ±4.6ppm total overall	3.3V	-20°C to 70°C
VFTX120	7-Pad, Low Power [<165mW], Ultra Low Jitter and Phase Noise: -135dBc/Hz @ 1kHz	25.4 x 22.0	Sine Wave	30 - 180	±1.0ppm	3.3V	0°C to 70°C -40°C to 85°C
VFTX130	7-Pad Low Power [<135mW], Ultra Low Jitter and Phase Noise: -120dBc/Hz @ 1kHz	25.4 x 22.0	HCMOS	30 - 180	±1.0ppm	3.3V	0°C to 70°C -40°C to 85°C
VFTX215	14-Pad, Dual Output, Low Power [<182mW], Ultra Low Jitter and Phase Noise: -135dBc/Hz @ 1kHz, Phase Noise Floor: -155dBc/Hz Max @ 100MHz	19.5 x 15.5	HCMOS	20 - 200	±0.5ppm	3.3V	-40°C to 85°C
VFTX100	7-Pad, Low Power [<250mW], Ultra Low Jitter and Phase Noise: -118dBc/Hz @ 1kHz, Output Enable	25.4 x 22.0	LVPECL	200 - 1000	±1.0ppm	3.3V 5.0V	0°C to 70°C -40°C to 85°C
VFTX110	5-Pin, Low Power [<300mW], Output Power: >+13dBm, Ultra Low Jitter and Phase Noise: -118dBc/Hz @ 1kHz	36.7 x 25.4	Sine Wave	50 - 1000	±1.0ppm	5.0V	0°C to 70°C -40°C to 85°C
VFTX210	16-Pad, Low Power [<280mW], Ultra Low Jitter and Phase Noise: -121dBc/Hz @ 1kHz, Phase Noise Floor: -150dBc/Hz Typ @ 1,000MHz	20.0 x 20.0	Sine Wave	200 - 1000	±1.0ppm	3.3V	0°C to 70°C -40°C to 85°C

General Purpose

» Package Type: SMD Leadless Castellated

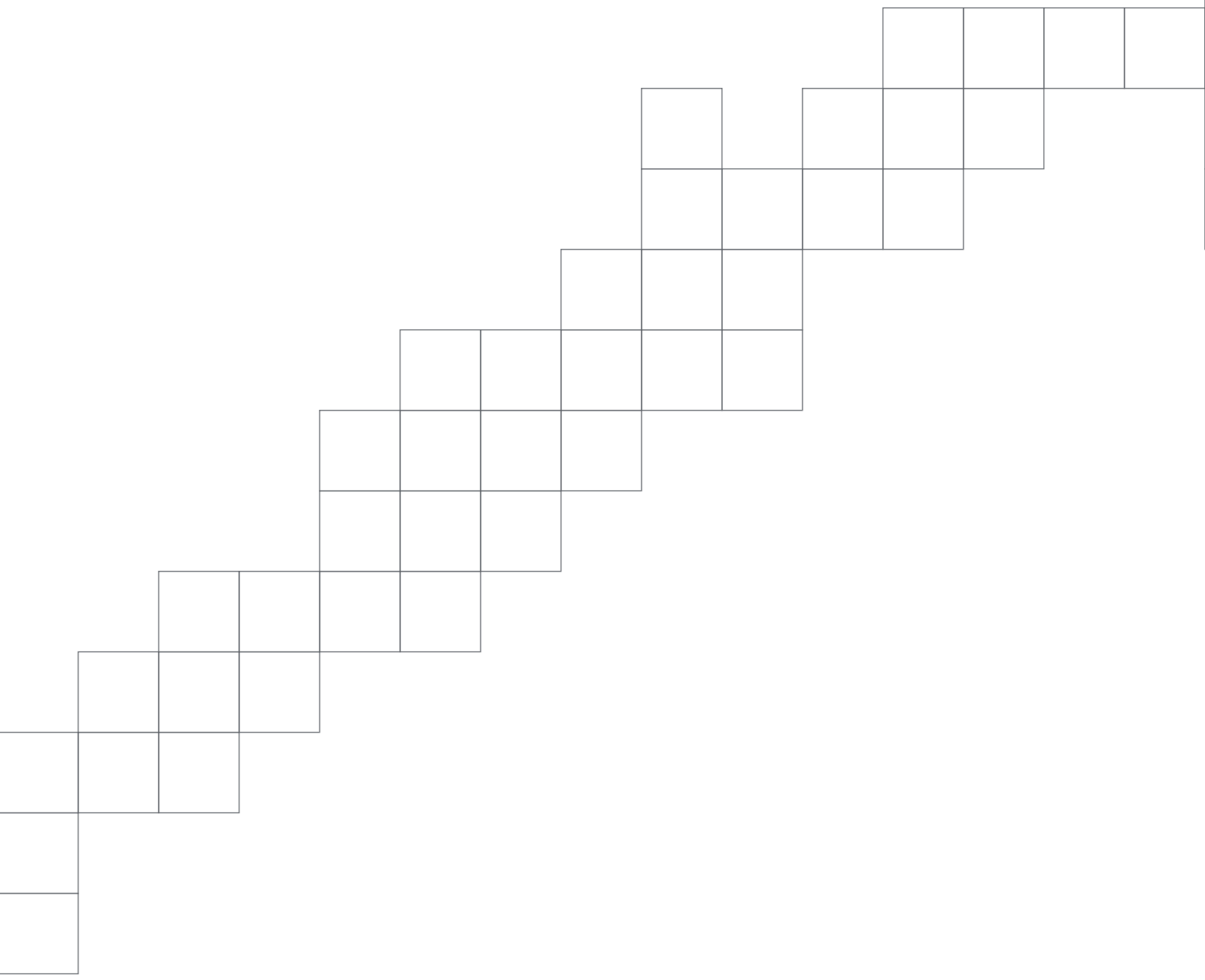
» Voltage Control Option Frequency Range: Models 520, 525, 533 ±5ppm; Model 532 ±5ppm, ±7ppm; Models 585, 586 ±5ppm, ±8ppm

Model	Features	Package Size [mm]	Output Logic	Frequency Range [MHz]	Frequency Stability Options	Supply Voltage	Temperature Range
520	4-Pad Footprint, Low Power[<5mW], Phase Noise Floor: -150dBc/Hz Typ	2.5 x 2.0	Clipped Sine Wave	10 - 52	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	1.8V 2.5V 2.7V 2.8V 3.0V 3.3V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
525	4-Pad Footprint, Low Power[<5mW], Phase Noise Floor: -151dBc/Hz Typ	3.2 x 2.5	Clipped Sine Wave	10 - 40	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	1.8V 2.5V 2.7V 2.8V 3.0V 3.3V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
532	4-Pad Footprint, Low Power[<10mW], Phase Noise Floor: -152dBc/Hz Typ	5.0 x 3.2	Clipped Sine Wave	10 - 40	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	2.8V 3.0V 3.3V 5.0V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
533	4-Pad Footprint, Low Power [<17mW], Phase Noise Floor: -153dBc/Hz Typ	5.0 x 3.2	HCMOS	10 - 40	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	2.8V 3.0V 3.3V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
585	4-Pad Footprint, Phase Noise Floor: -152dBc/Hz Typ	7.0 x 5.0	Clipped Sine Wave	5 - 52	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	2.8V 3.0V 3.3V 5.0V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C
586	4-Pad Footprint, Phase Noise Floor: -152dBc/Hz Typ	7.0 x 5.0	HCMOS	5 - 52	±0.5ppm ±1.0ppm ±1.5ppm ±2.0ppm ±2.5ppm	2.8V 3.0V 3.3V 5.0V	-10°C to 60°C -20°C to 70°C -30°C to 85°C -40°C to 85°C



CTS Your Partner in Smart Solutions

CTS Your Partner in Smart Solutions



Contact Sales

North America
T: +1 (800) 982-5737

Asia
T: +65-6481-1466

All Other Regions
T: +1 (508) 435-6831

frequencysales@ctscorp.com

www.ctscorp.com