Pletronics, Inc.

DATA CENTER

Synchronization : IEEE1588 & SyncE Compliant

A high-speed data center and edge computing and network synchronization solution

Ultra Low Jitter | Low Power Consumption | Smallest Size | Stratum 3, IEEE1588 and SyncE Compliant

As internet traffic and AI Data Center workloads grow exponentially, the need for precise timing and synchronization becomes more critical. Emerging applications, including PTP (Precision Time Protocol) and OAM (Open Accelerator Module), require low-jitter, high-stability clock sources to maintain network integrity. This results in the increasing adoption of high-precision TCXOs and OCXOs in top-of-rack switches and leaf switches for 5G networks with IEEE1588 and SyncE compliance. Pletronics's Stratum 3 high-precision crystal oscillators and timing modules provide outstanding synchronization accuracy and thermal stability. These solutions are ideal for AI data centers, Smart NICs, high-speed access devices, optical communication modules, servers, and spine/leaf network switches.

Pletronics Product Solution

Product Family	Product Series	Output Waveform	Product Size(mm)	Standard Frequency	Frequency Stability	Temperature Range (°C)	Phase Noise (P/N) RMS Phase Jitter	Long Term Stability
Atomic Oscillator	Ultra Low Power (CSAC)	CMOS	**AC45** 41.0 x 35.0	10 MHz	±1 ppb	-10 to 70°C	Typ. P/N @10 MHz -113 dBc/Hz @100 Hz -125 dBc/Hz @1 kHz -135 dBc/Hz @10 kHz	Holdover : 1.5 µS / 24hr
Timing Module	Ultra-High Precision Miniature	CMOS	**AC32** 50.8 x 50.8	5, 10 MHz	±0.1 ppb	-10 to 70°C	Typ. P/N @10 MHz -135 dBc/Hz @100 Hz -145 dBc/Hz @1 kHz -150 dBc/Hz @10 kHz	Holdover : 1.5 µS / 24hr
OCXOs	Stratum 3	Sine Wave, CMOS	**OSK6** 14.7 x 9.6 **OSJ7** 25.4 x 22 **OLA5/OSA5** 25.4 x 25.4 **OSI5** 36.3 x 27.2	10, 20 MHz	±10 to 50 ppb	-40 to 85°C	Typ. P/N @20 MHz -149 dBc/Hz @100 Hz -160 dBc/Hz @1 kHz -164 dBc/Hz @10 kHz	±2 ppb/day ±0.4 ppm/year ±2 ppm/10years
OeXO ®	Stratum 3	Clipped Sine Wave, CMOS	**OeE4** 3.2 x 2.5 **OeD4** 5.0 x 3.2 **OeDA** 5.0 x 3.2	10, 19.2, 20 MHz	±0.28 ppm	-40 to 85°C	Typ. P/N @19.2 MHz -115 dBc/Hz @100 Hz -135 dBc/Hz @1 kHz -148 dBc/Hz @10 kHz	±1 ppm/1st year
XOs	PRONTO	CMOS	**QM22L** 2.0 x 1.6 **QM33L** 2.5 x 2.0 **QM44L** 3.2 x 2.5	24, 25, 100, 125 MHz	±20 to 50 ppm	-40 to 105°C	Typ. P/N @100 MHz 0.5 ps; 12 kHz to 20 MHz	
		Differential	**QL/P44L** 3.2 x 2.5 **QL/P55L** 5.0 x 3.2 **QL/P77L** 7.0 x 5.0	156.25, 312.5 MHz	±20 to 50 ppm	-40 to 85°C	Typ. P/N @156.25 MHz 0.9 ps; 12 kHz to 20 MHz	
	Ultra Low Jitter	CMOS	**SM22J** 2.0 x 1.6 **SM33J** 2.5 x 2.0 **SM44J** 3.2 x 2.5	32.768kHz, 25, 40, 48, 50, 80, 125 MHz	±20 to 50 ppm	-40 to 125°C	Typ. P/N @50 MHz -168 dBc/Hz @100 kHz -168 dBc/Hz @1 MHz Typ. 0.07 ps; 12 kHz to 20 MHz	
		Differential	**LV/PE/HC 22J** 2.0 x 1.6 **LV/PE/HC 33J** 2.5 x 2.0 **LV/PE/HC 44J** 3.2 x 2.5	100, 125, 156.25 MHz	±25 to 50 ppm	-40 to 125°C	Typ. P/N @156.25 MHz -155 dBc/Hz @100 kHz -160 dBc/Hz @1 MHz Typ. 0.039 ps; 12 kHz to 20 MHz	
XTALs	Miniature		**SM8T** 2.0 x 1.6 **SM9T** 2.5 x 2.0 **SM10T** 3.2 x 2.5	25, 50 MHz	±5 to 50 ppm	-40 to 125°C		
	kHz		**SM8S** 3.2 x 1.5	32.768 kHz	±20 ppm tolerance	-40 to 125°C		

Note : Not all combinations are available. Detailed specifications are available upon request.

About Pletronics:
Headquartered in Lynnwood, Washington, USA, Pletronics has been deeply engaged in the frequency control product (FCP) industry for over 45 years, dedicated to quality, innovation, and professional service. As a USA-branded supplier, Pletronics offers local engineering and testing support, along with in-house programming capabilities for rapid response to market demands. Its comprehensive product portfolio includes crystal resonators, crystal oscillators, VCXO, TCXO, OeXO®, and OCXO, serving diverse applications in communications, industrial, medical, and test instrumentation fields. With a broad global distribution network—including Arrow, DigiKey, and Mouser—Pletronics delivers reliable, convenient, high-quality solutions to customers worldwide, making it a truly trusted partner in frequency control.