

GNSS

Positioning & Synchronization



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A GNSS positioning and synchronization solution

Able to Lock to Communication Satellite Signals | Features Accurate Reference Frequency Sources and Time Synchronization Modules Even in Bad Weather | Low g-Sensitivity | Low Power

Pletronics provides TCXO and OCXO solutions to major international satellite communication companies looking for critical frequency components. Up/down converters are essential in satellite communication in Ka- and Ku bands, and critical components include oscillators with high-frequency, low-phase noise performance. With the coming of high-throughput satellites and LEOs on a large scale, the aerospace industry has entered the New Space Era and end-user ground receivers for satellite communications will be widely adopted in vehicles and ships in every corner of the world. Pletronics's newly launched high frequency and low g-sensitivity TCXO, high-precision OCXO, timing module and atomic clock modules feature excellent frequency stability, ultra-low phase noise and ultra-low aging, making them optimal for ground station applications.



Pletronics Product Solution

Product Family	Product Features	Output Waveform	Product Size(mm ²)	Frequency Range	Frequency Stability	Temperature Range (°C)	Phase Noise(P/N)	Accuracy	Power Consumption
 Timing Module	Miniature Atomic Oscillator	CMOS	AC45 41.0 x 35.0 AC32 50.8 x 50.8	10 MHz	±1 ppb ±0.5 ppb	-10 to 70°C -20 to 60°C	Max. P/N @10 MHz -80/85 dBc/Hz @10 Hz -113/115 dBc/Hz @100 Hz -125/135 dBc/Hz @1 kHz	1 PPS Accuracy: <±50 ns, <0.01 ppb	< 130mW < 6W
	Ultra-High Precision	CMOS	GT-5151 50.8 x 50.8	5, 10 MHz	±0.1 ppb	-10 to 70°C	Max. P/N @10 MHz -135 dBc/Hz @100 Hz -145 dBc/Hz @1 kHz -150 dBc/Hz @10 kHz	Holdover : 1.5 uS / 24hr	< 5W
	Low Power GPSDO	CMOS	GT-11 25.4 x 25.4	10 MHz		0 to 60°C		1 PPS Accuracy: <±75 ns RMS(1-Sigma) GPS Locked	< 0.6W
 OCXOs	Ultra Low g-Sensitivity (0.05 ppb/g)	Sine Wave	OGA5 25 x 25	100 MHz	±100 ppb	-40 to 85°C	Max. P/N @100 MHz -130 dBc/Hz @100 Hz -157 dBc/Hz @1 kHz -162 dBc/Hz @10 kHz		< 1.9W
	Low g-Sensitivity (1 ppb/g)	Sine Wave	OLA5 25.4 x 25.4	100 MHz	±20 ppb	-40 to 85°C	Max. P/N @100 MHz -138 dBc/Hz @100 Hz -163 dBc/Hz @1 kHz -172 dBc/Hz @10 kHz		< 2W
 VCXOs	Ultra Low Phase Noise Low G-Sensitivity(1.5 ppb/g) High Frequency	Sine Wave, CMOS	VC22 14.0 x 9.0	50 to 125 MHz	±25 ppm	-40 to 85°C	Typ. P/N @122.88 MHz -142 dBc/Hz @1 kHz -163 dBc/Hz @10 kHz -172 dBc/Hz @100 kHz		< 30mA
 VCTCXOs	Miniature	Clipped Sine Wave	UCG4/UCG6 2.0 x 1.6 UCF4/UHF4 2.5 x 2 UCE4/UHE4 3.2 x 2.5	10 to 60 MHz	±0.5 ppm	-40 to 85°C	Typ. P/N @50 MHz -132 dBc/Hz @1 kHz -150 dBc/Hz @10 kHz -155 dBc/Hz @100 kHz		< 2mA
	High Precision High Frequency Low g-Sensitivity (As low as 0.03 ppb/g)	Clipped Sine Wave, Sine Wave, CMOS	OeE4 3.2 x 2.5 OeD4 5.0 x 3.2 OeEA 5.0 x 3.2 OeA4 7.0 x 5.0 OeB6 14.5 x 9.6	5 to 150 MHz	±0.1 ppm	-40 to 105°C	Typ. P/N @100 MHz -116 dBc/Hz @100 Hz -144 dBc/Hz @1 kHz -155 dBc/Hz @10 kHz		< 7.5mA
 XOs	Extended Temp. Range	CMOS	SM22J 2.0 x 1.6 SM33J 2.5 x 2.0 SM44J 3.2 x 2.5	1.25 to 100 MHz	±30 to 50 ppm	-55 to 125°C	Typ. P/N @50 MHz -143 dBc/Hz @1 kHz -155 dBc/Hz @10 kHz -160 dBc/Hz @100 kHz		
	High Frequency Fast Delivery	CMOS	QM22L 2.0 x 1.6 QM33L 2.5 x 2.0 QM44L 3.2 x 2.5 QL/P77L 3.2 x 2.5	1 to 250 MHz	±15 to 50 ppm	-40 to 105°C	Typ. P/N @125 MHz -127 dBc/Hz @100 Hz -138 dBc/Hz @1 MHz -156 dBc/Hz @10 MHz		
 XTALS	Miniature		SM8T 2.0 x 1.6	16 to 60 MHz	±5 to 50 ppm	-40 to 125°C			
	kHz		SM8S 3.2 x 1.5	32.768 kHz	±20 ppm	-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.

