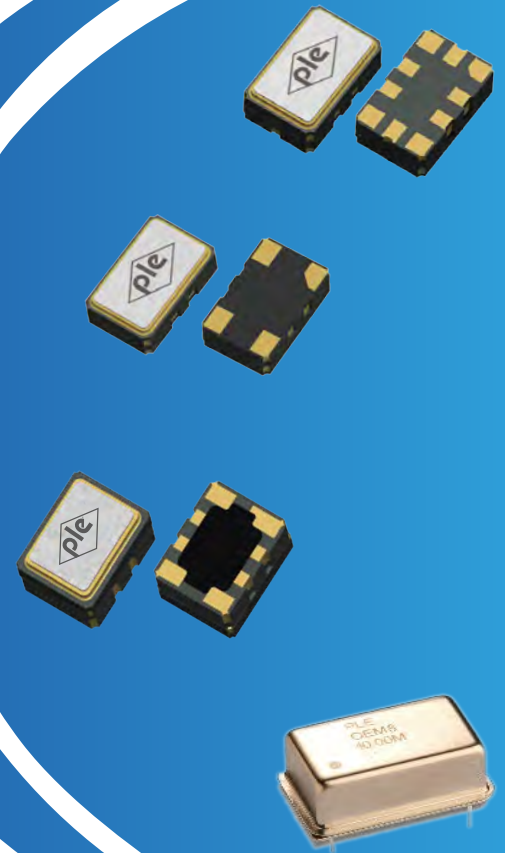




New OeXO[®] Series

Experience the future of timekeeping with our new OeXO[®] – OeE4 series — where every second counts.



Introduction

In an era where precision timing is critical across various industries, the demand for high-performance timing solutions continues to grow. Enter our latest innovation: the High Precision Temperature Compensated Crystal Oscillator (TCXO), designed to meet the stringent requirements of modern applications with unparalleled accuracy, compactness, and robustness.

Key Features of the New OeE4 series

1. Compact Size

Measuring just 3.2 x 2.5 x 1.4 mm, OeE4 sets a new benchmark for miniaturization in high-precision timing devices. The small form factor is ideal for space-constrained applications, enabling integration into a wide range of devices without compromising on performance. This makes it perfect for use in advanced electronics, portable devices, and IoT applications where board space is at a premium.

2. Exceptional Accuracy

With a high precision of ± 200 ppb over a temperature range of -40°C to 85°C , OeE4 ensures reliable and consistent performance in diverse environmental conditions. This level of accuracy is crucial for applications such as telecommunications, GPS, and network timing, where even the slightest timing error can lead to significant issues.

3. Low G-sensitivity

OeE4 boasts an impressive low G-sensitivity of 0.5 ppb/g for each axis, making it highly stable against vibrations. This feature is particularly beneficial for applications in automotive, aerospace, and industrial environments, where external forces can impact the stability of timing devices. With OeE4, you can be confident that your timing remains precise even in the most dynamic settings.

4. Stratum 3 Support (See OeE3 datasheet on our website)

Applications and Benefits

The new OeE4 series is engineered to cater to a broad spectrum of applications:

- ▶ **Telecommunications:** Ensures high stability and accuracy for network synchronization, preventing data loss and maintaining communication integrity.
- ▶ **GPS and Navigation Systems:** Enhances the accuracy and reliability of positioning data, crucial for both consumer and industrial navigation systems.
- ▶ **IoT Devices:** Its compact size and high precision make it ideal for smart devices that require accurate timing in a small footprint.
- ▶ **Aerospace and Defense:** Offers reliable performance in harsh conditions, ensuring mission-critical operations are not compromised.

Pletronics OeXO® lineup:

| Product Series | Output Logic | Frequency Range | Stability | Vcc | ICC (typ) @40MHz | RMS Jitter(typ) 12KHz - 5MHz @20MHz | Package Size | Remarks |
|----------------|-------------------------|-----------------|---|------------|---------------------------|-------------------------------------|------------------------|-------------------|
| OeE4 | CMOS / Clipped Sinewave | 10 ~ 40MHz | ±50ppb@0 ~ 70°C ±100ppb@-10 ~ 70°C ±200ppb@-40 ~ 85°C | 2.5 ~ 3.3V | 6.5mA @ CMOS 4mA @ CSW | 0.3ps | 3.2 x 2.5 mm (8 pads) | |
| OeDA | CMOS / Clipped Sinewave | 8.192 ~ 40MHz | ±50ppb@0 ~ 70°C ±100ppb@-10 ~ 70°C ±200ppb@-40 ~ 85°C | 2.5 ~ 3.3V | 6.5mA @ CMOS 4mA @ CSW | 0.3ps | 5.0 x 3.2 mm (10 pads) | |
| OeD4 | CMOS / Clipped Sinewave | 8.192 ~ 40MHz | ±50ppb@0 ~ 70°C ±100ppb@-10 ~ 70°C ±200ppb@-40 ~ 85°C | 2.5 ~ 3.3V | 6.5mA @ CMOS 4mA @ CSW | 0.3ps | 5.0 x 3.2 mm (4 pads) | |
| OeM4 | CMOS / Clipped Sinewave | 8.192 ~ 40MHz | ±50ppb@0 ~ 70°C ±100ppb@-10 ~ 70°C ±200ppb@-40 ~ 85°C | 2.5 ~ 3.3V | 6.5mA @ CMOS 4mA @ CSW | 0.3ps | 20.1 x 12.5 mm | |
| OeE3 | CMOS / Clipped Sinewave | 10/20/25MHz | ±0.28ppm@-40 ~ 85°C | 2.5 ~ 3.3V | 6.5mA @ CMOS 4mA @ CSW | 0.3ps | 3.2 x 2.5 mm (8 pads) | Stratum 3 support |

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