



FOR IMMEDIATE RELEASE

Z-Communications, Inc. Introduces Rugged 100 MHz OCXO Reference for Demanding Lab and Field Applications

SAN DIEGO, CA — May 19, 2026 — Z-Communications, Inc., a leader in advanced frequency generation technology, today announced the launch of its new Oven Controlled Crystal Oscillator (OCXO) Reference, the **REF100ECA-O**. Engineered to deliver ultra-low phase noise and superior frequency stability, this compact 100 MHz reference is designed for high-performance laboratory testing and demanding in-field system applications.

The REF100ECA-O features an exceptional phase noise profile of -156 dBc/Hz at a 10 kHz offset, dropping to a floor of -170 dBc/Hz at 1 MHz. It provides a steady +7.5 dBm sine wave power output with a tight frequency stability of ± 50 ppb across a wide operating temperature range from -40°C to +85°C. Packaged in a rugged, all-metal enclosure, the device is built to withstand harsh environments while offering a flexible, single wide-range supply voltage from 7 to 18 Vdc.

“Modern test systems and field operations demand highly reliable reference signals that don’t compromise on signal purity,” said the Applications Engineering Team at Z-Communications. “The REF100ECA-O bridges the gap between delicate benchtop performance and extreme field reliability, giving engineers a dependable 100 MHz reference wherever they need it.”

Built for Extreme Durability

Unlike standard laboratory references, the internal OCXO of the REF100ECA-O was tested to comply with stringent military standards.

- **Shock Resistance:** Meets MIL-STD-202G, Method 213, Test Condition C.
- **Random Vibration:** Meets MIL-STD-810G, Method 514, Test Procedure I.
- **Sinusoidal Vibration:** Meets MIL-STD-202G, Method 204, Test Condition A.

Key Technical Specifications

- **Output Frequency:** 100 MHz (Sine wave)
- **Phase Noise:** -156 dBc/Hz at a 10 kHz offset
- **Power Output:** +7.5 dBm into a 50 Ω load impedance
- **Frequency Stability vs. Temp:** ± 50 ppb
- **Aging Rate:** ± 1 ppb per day
- **Spurious Suppression:** -80 dB
- **Warm-up Time:** 5 minutes
- **Visual Status:** Built-in green LED supply voltage indicator

Target Applications

The REF100ECA-O is optimized for high-reliability systems, including Phase Locked Loops (PLLs), frequency synthesizers, function generators, and advanced test and measurement setups. Its ultra-low acceleration sensitivity of 1.0 ppb/g (typical) ensures stable operation even in vibrating environments.

Availability

The REF100ECA-O is available immediately for ordering. For complete engineering data sheets, physical dimensions, or custom variations, please visit the official Z-Communications website or contact their application support team directly.

About Z-Communications, Inc.

Based in San Diego, California, Z-Communications, Inc. is a premier developer and manufacturer of voltage-controlled oscillators (VCOs) and phase-locked loop (PLL) synthesizers. Serving the wireless, telecommunications, and military industries for decades, Z-Comm specializes in delivering high-quality, high-performance frequency control solutions.

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