



# New Product Announcement

## UF Series XO

### Smallest Size Ultra-Low Jitter Crystal Oscillators (XO)

The DIODES™ UF Series of ultra-low jitter, miniature, crystal oscillators are being used at the forefront of the high-performance computing and networking industry in the most demanding and advanced applications. Automotive-compliant variants are available.

The new UF family of crystal oscillators support applications that require exceptionally low phase noise, in one of the industries smallest standard packages for this performance level. Larger packages are also available to meet flexible design needs.

Multiple output standards are available: LVPECL, LVDS, and HCSL, along with supply voltages of 2.5V and 3.3V, offering customer-specified frequencies up to 212.5MHz, and temperature stability to 25PPM.

*Automotive compliant – AEC qualified in IATF 16949 certified manufacturing sites and supports PPAP documentation*

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### The DIODES™ Advantage

**The UF Series provides ultra-low jitter for high-speed clocks, in the smallest possible packages for high-performance applications.**

- **Ultra-Low RMS Jitter (as low as 50fs typical)**  
Exceeds requirements of demanding applications and provides wide design margins
- **2.5mm x 2.0mm Size Package:**  
Optimizes board space to support miniature systems design
- **Wide Temperature Range (-40°C to 125°C) and Automotive-Compliant (Qualified to AEC-Q104) Versions**  
Enables ruggedized equipment designs that operate in harsh environments

### Applications

- Optical modules
- Networking systems
- Test and Measurement Equipment
- 112G serial applications
- PCIe® 5.0 architecture systems
- Servers and storage systems
- Professional video equipment
- FPGA/ASIC reference clock generator

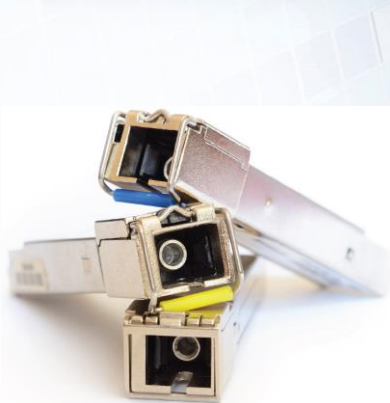
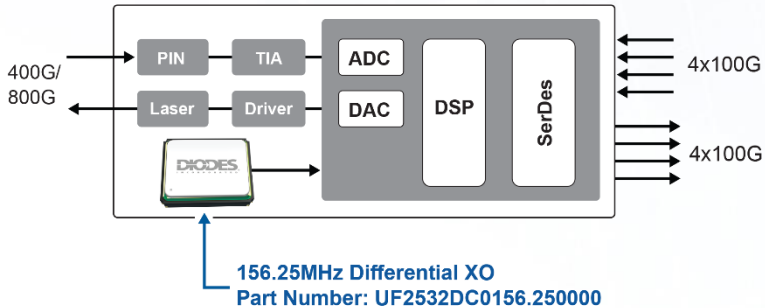


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### Typical Application

#### SFP-Type 400G/800G Pluggable Optical Module

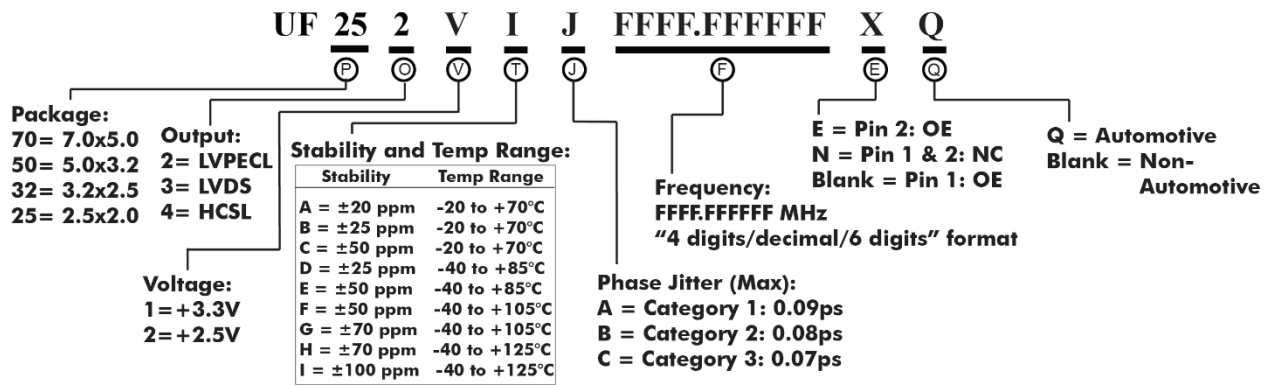


### UF Series Portfolio (See Note)

| Part Number                         | Package     | Output | Voltage | Jitter | Frequency | Freq. Stability      |
|-------------------------------------|-------------|--------|---------|--------|-----------|----------------------|
| <a href="#">UF2521DA0100.000000</a> | 2.5 x 2.0mm | LVPECL | 3.3V    | 0.09ps | 100MHz    | ±25ppm, -40 to +85C  |
| <a href="#">UF2532DC0156.250000</a> | 2.5 x 2.0mm | LVDS   | 2.5V    | 0.07ps | 156.26MHz | ±25ppm, -40 to +85C  |
| <a href="#">UF2542HC0100.000000</a> | 2.5 x 2.0mm | HCSL   | 2.5V    | 0.07ps | 100MHz    | ±70ppm, -40 to +125C |
| <a href="#">UF3221DA0212.500000</a> | 3.2 x 2.5mm | LVPECL | 3.3V    | 0.09ps | 212.5MHz  | ±25ppm, -40 to +85C  |
| <a href="#">UF3242DA0100.000000</a> | 3.2 x 2.5mm | HCSL   | 2.5V    | 0.09ps | 100MHz    | ±25ppm, -40 to +85C  |
| <a href="#">UF3231FB0156.250000</a> | 3.2 x 2.5mm | LVDS   | 3.3V    | 0.08ps | 156.25MHz | ±50ppm, -40 to +105C |
| <a href="#">UF5022DA0100.000000</a> | 5.0 x 3.2mm | LVPECL | 2.5V    | 0.09ps | 100MHz    | ±25ppm, -40 to +85C  |
| <a href="#">UF5031DB0156.250000</a> | 5.0 x 3.2mm | LVDS   | 3.3V    | 0.08ps | 156.25MHz | ±25ppm, -40 to +85C  |

Note: The UF series supports more options than the listed part numbers above. For other variations or frequencies, see the format below, [contact Diodes' sales](#), or use the [crystal oscillator product table](#).

### UF Series Part Number Format



### Ordering Information

Please [contact Diodes Incorporated sales](#) for ordering details.