



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.

This new family of crystal oscillators supports a wide range of applications that require exceptionally low noise within one of the smallest industry-standard packages. 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

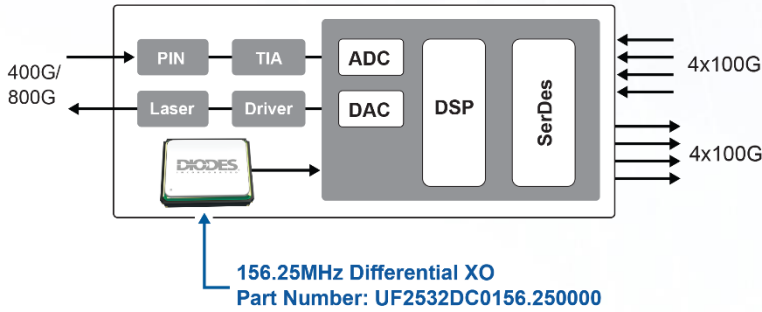


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Typical Application

SFP-Type 400G/800G Pluggable Optical Module

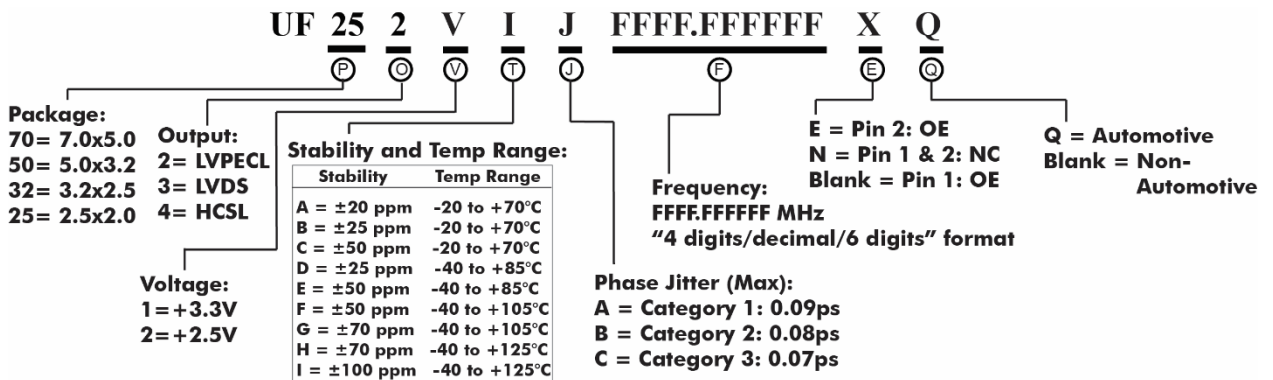


UF Series Portfolio (See Note)

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