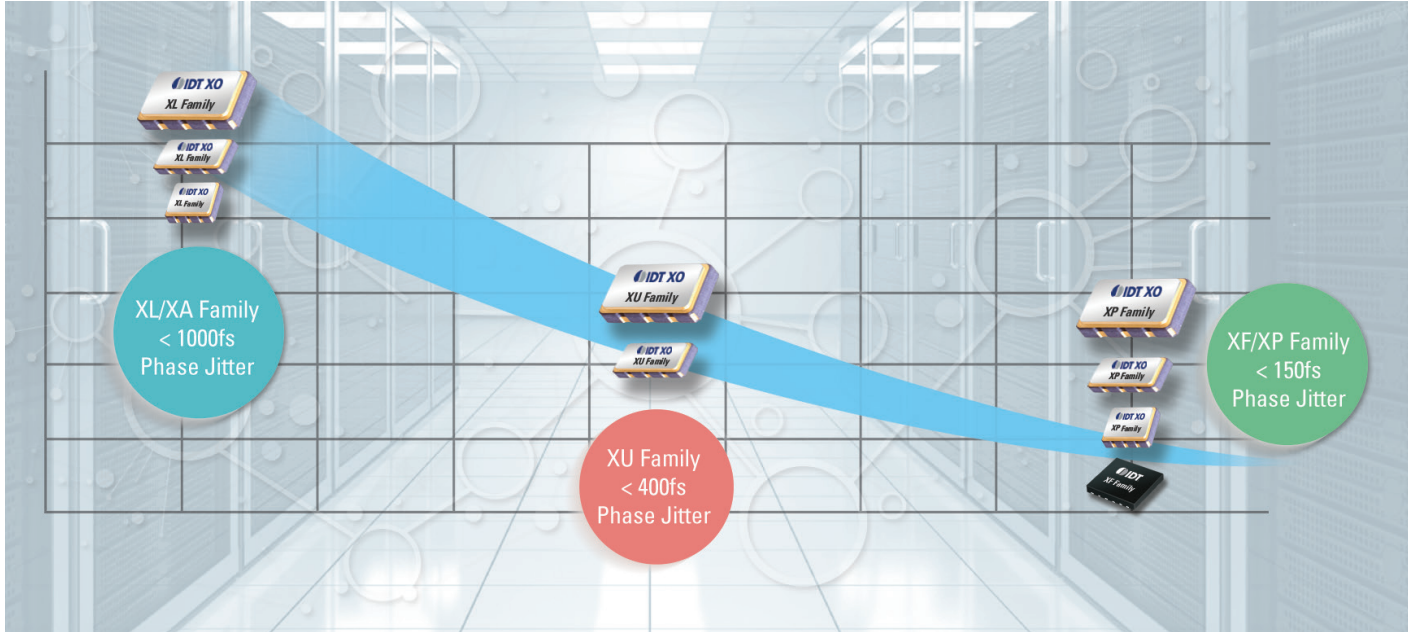


High-Performance Clock Oscillator Family



IDT’s family of clock oscillators offers designers a reliable on-time solution. Short lead-time, low noise, wide frequency range, excellent temperature versus frequency performance, and very little engineering effort for design in, makes them an excellent choice over conventional technology solutions. The clock oscillator families have stabilities as tight as $\pm 20\text{ppm}$, a range of phase jitter options, and temperature capabilities up to $+105^\circ\text{C}$. These devices also offer extremely quick delivery for both standard and custom frequencies (16kHz to 2.1GHz).

ADVANTAGES

- Configurable output type
 - LVCMOS (HCMOS), LVPECL, LVDS, HCSL, and CML
- Phase jitter options
 - 1000fs, 400fs, and 150fs
- 1.8, 2.5, and 3.3VDC voltage options
- Frequency versus temperature performance options from $\pm 20\text{ppm}$ to $\pm 100\text{ppm}$

APPLICATIONS

- Networking
- Industrial
- Automotive
- Cloud servers
- Storage

Configurable PLL Oscillator Family

| Model | ProXO XF & XP | XU | XL | XA (AEC-Q200) |
|---------------------------------|--|------------------------------|--|------------------------------|
| Package Options | 2.5 x 2.0 mm 3.2 x 2.5 mm 5.0 x 3.2 mm 7.0 x 5.0 mm | 5.0 x 3.2 mm 7.0 x 5.0 mm | 3.2 x 2.5 mm 5.0 x 3.2 mm 7.0 x 5.0 mm | 3.2 x 2.5 mm 5.0 x 3.2 mm |
| Voltage Options | 1.8V, 2.5V, 3.3V | 1.8V, 2.5V, 3.3V | 2.5V, 3.3V | 2.5V, 3.3V |
| Phase Jitter (12 kHz to 20 MHz) | < 150fs | < 400fs | < 1000fs | < 1000fs |
| Outputs | LVDS, LVPECL, HCSL, LVCMOS, CML | LVDS, LVPECL, HCSL, LVCMOS | LVDS, LVPECL, LVCMOS | LVDS, LVPECL, LVCMOS |
| Frequency Range | 15 to 2100 MHz | 0.016 to 1500 MHz | 0.75 to 1350 MHz | 0.75 to 1350 MHz |
| VCXO option | Yes (analog and I2C) | — | Yes (analog) +/-50ppm APR | — |

High-Performance Clock Oscillator Family

Need to request a sample or determine an orderable part number?

Please use IDT's on-line tool for clock oscillators

<https://www.idt.com/customxo>

Need to build a configurable part number?

General Configuration

Configuration complete!

Progress 8 / 8

| | | | |
|--|---|--|--|
| Temperature i <input type="checkbox"/> -20°C to +70°C <input checked="" type="checkbox"/> -40°C to +85°C <input type="checkbox"/> -40°C to 105°C | Stability i <input type="checkbox"/> ± 100 ppm <input checked="" type="checkbox"/> ± 50 ppm <input type="checkbox"/> ± 50 ppm APR (VCXO) <input type="checkbox"/> ± 25 ppm <input type="checkbox"/> ± 20 ppm | OE Position i <input checked="" type="checkbox"/> Pin 1 <input type="checkbox"/> Pin 2 <input type="checkbox"/> Pin 5 | Package i <input type="checkbox"/> 7 x 5 mm <input checked="" type="checkbox"/> 5 x 3.2 mm <input type="checkbox"/> 3.2 x 2.5 mm <input type="checkbox"/> 2.5 x 2 mm |
| Jitter i <input type="checkbox"/> < 1 ps (AEC-Q200) <input checked="" type="checkbox"/> < 1 ps <input type="checkbox"/> < 400 fs <input type="checkbox"/> < 150 fs | Voltage i <input checked="" type="checkbox"/> 3.3 V <input type="checkbox"/> 2.5 V <input type="checkbox"/> 1.8 V | Output Type i <input checked="" type="checkbox"/> LVDS <input type="checkbox"/> LVPECL <input type="checkbox"/> CML <input type="checkbox"/> HCML <input type="checkbox"/> HCMOS <input type="checkbox"/> HCMOSD, 2 outputs, 180° out of phase | Frequency (MHz) i <input type="text" value="312.5"/> Min: 0.75 Max: 1350 |

[Reset Form](#)

Need to check and see if an orderable part number exists?

Submit by Part Number (Optional)

Users who wish to submit a request and generate a datasheet addendum based on a part number, may do so here. The part number must be a valid part number. An entry here will override the selections in the General Configuration above. Leave this field blank to use the selection above.

XLL535312.500000I