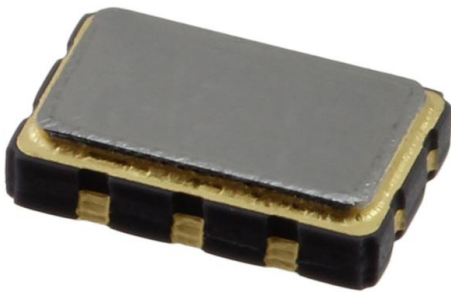


LDA620002 Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

| | |
|------------------------------|---|
| DiGi Electronics Part Number | LDA620002-DG |
| Manufacturer | Diodes Incorporated |
| Manufacturer Product Number | LDA620002 |
| Description | XTAL OSC XO 106.2500MHZ LVDS SMD |
| Detailed Description | 106.25 MHz XO (Standard) LVDS Oscillator 3.3V Enable/Disable 6-SMD, No Lead |



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

LDA620002

Series:

SaRonix-eCera™ LD

Base Resonator:

Crystal

Frequency:

106.25 MHz

Output:

LVDS

Frequency Stability:

±50ppm

Operating Temperature:

-20°C ~ 70°C

Ratings:

-

Package / Case:

6-SMD, No Lead

Height - Seated (Max):

0.051" (1.30mm)

Manufacturer:

Diodes Incorporated

Product Status:

Active

Type:

XO (Standard)

Function:

Enable/Disable

Voltage - Supply:

3.3V

Absolute Pull Range (APR):

-

Current - Supply (Max):

47mA

Mounting Type:

Surface Mount

Size / Dimension:

0.197" L x 0.126" W (5.00mm x 3.20mm)

Current - Supply (Disable) (Max):

30µA

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

Moisture Sensitivity Level (MSL):

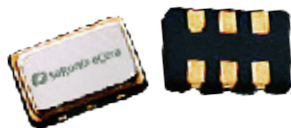
1 (Unlimited)

ECCN:

EAR99

3.3V LVDS Low Jitter XO

LD



5.0 x 3.2mm Ceramic SMD

Product Features

- 38.88 to 162 MHz Frequency Range
- <1 ps RMS jitter with non-PLL design
- Designed for standard reflow & washing techniques
- IBIS models available
- Pb-free & RoHS/Green compliant

Product Description

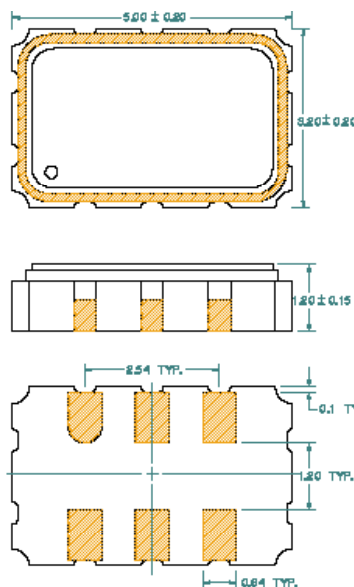
The LD Series 3.3V crystal clock oscillator achieves superb jitter and stability over a broad range of operating conditions and frequencies. The output clock signal, generated internally with a non-PLL oscillator design, is compatible with LVDS logic levels. The device, available on tape and reel, is contained in a 5.0 x 3.2mm surface-mount ceramic package.

Applications

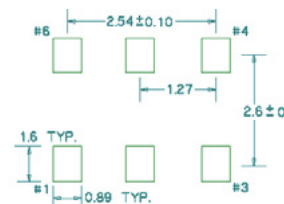
The LD Series is ideal for high-speed applications requiring low jitter, including:

- 1/10 Gigabit Ethernet
- 2/4/10G FibreChannel
- Serial Attached SCSI (SAS)
- Server & Storage platforms
- SONET/SDH linecards
- Passive Optical Network (PON) devices
- HD Video Systems

Package:



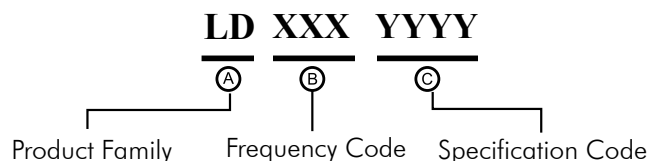
Recommended Land Pattern:



Pin Functions:

| Pin | Function |
|-----|------------------|
| 1 | OE or NC |
| 2 | NC or OE |
| 3 | Ground |
| 4 | Q Output |
| 5 | \bar{Q} Output |
| 6 | V _{CC} |

Part Ordering Information:



Following the above format, Saronix-eCera part numbers will be assigned upon confirmation of exact customer requirements.

3.3V LVDS Low Jitter XO LD**LD Series Crystal Clock Oscillator (XO)
5.0 x 3.2mm****Electrical Performance**

| Parameter | Min. | Typ. | Max. | Units | Notes |
|---------------------------------|-------------------------------------|------|------------|--------------|-------------------------------|
| Output Frequency | 38.88 | | 162 | MHz | As specified |
| Supply Voltage | 3.0 | 3.3 | 3.6 | V | |
| Supply Current, Enabled | | 35 | 47 | mA | |
| Supply Current, Disabled | | | 0.03 | mA | |
| Frequency Stability | | | ±20 to ±50 | ppm | See Note 1 below |
| Operating Temperature Range | -20 | | +70 | °C | Commercial (standard) |
| | -40 | | +85 | | Industrial (standard) |
| Output Logic 0, V _{OL} | 0.9 | 1.1 | | V | |
| Output Logic 1, V _{OH} | | 1.43 | 1.6 | V | |
| Output Load | 100Ω connected between both outputs | | | | output requires termination |
| Duty Cycle | 45 | | 55 | % | measured 50% of waveform |
| Rise and Fall Time | | 500 | 850 | ps | measured 20/80% of waveform |
| Jitter, Phase | | 0.5 | 1 | ps RMS (1-σ) | 12kHz to 20MHz frequency band |
| Jitter, Total | | | 25 | ps pk-pk | 100,000 random periods |

Notes:

1. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (5 year at 40°C average effective ambient temperature), shock and vibration.
2. For specifications other than those listed, please contact sales.

Output Enable / Disable Function

| Parameter | Min. | Typ. | Max. | Units | Notes |
|--|------|------|------|-------|-------------------------|
| Input Voltage (pin OE), Output Enable | 0.7 | | | V | or open |
| Input Voltage (pin OE), Output Disable (low power standby) | | | 0.3 | V | Output disabled to Hi-Z |
| Internal Pullup Resistance | 50 | | | kΩ | |
| Output Disable Delay | | | 200 | ns | |
| Output Enable Delay | | | 10 | ms | |

Absolute Maximum Ratings

| Parameter | Min. | Typ. | Max. | Units | Notes |
|---------------------|------|------|------|-------|-------|
| Storage Temperature | -55 | | +125 | °C | |

For the latest product information visit: <http://www.pericom.com/products/crystals-and-crystal-oscillators/standard-xo/?part=LD+3.3V>

For test circuit go to: http://www.pericom.com/assets/sre/tc_lvds.pdf

For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/assets/sre/reflow2.pdf>

For tape and reel information go to: http://www.pericom.com/assets/sre/tr_5032_xo.pdf

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.