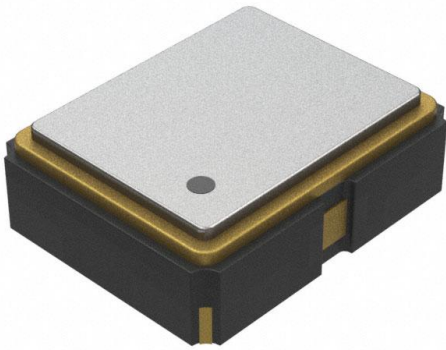


# FJA000003 Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



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

DiGi Electronics Part Number	FJA000003-DG
Manufacturer	<a href="#">Diodes Incorporated</a>
Manufacturer Product Number	FJA000003
Description	XTAL OSC XO 100.0000MHZ CMOS SMD
Detailed Description	100 MHz XO (Standard) CMOS Oscillator 1.8V Enable/Disable 4-SMD, No Lead



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.



## Purchase and inquiry

Manufacturer Product Number:

FJA000003

Series:

SaRonix-eCera™ FJ

Base Resonator:

Crystal

Frequency:

100 MHz

Output:

CMOS

Frequency Stability:

-

Operating Temperature:

-20°C ~ 70°C

Ratings:

-

Package / Case:

4-SMD, No Lead

Height - Seated (Max):

0.039" (1.00mm)

Base Product Number:

FJA000003

Manufacturer:

Diodes Incorporated

Product Status:

Active

Type:

XO (Standard)

Function:

Enable/Disable

Voltage - Supply:

1.8V

Absolute Pull Range (APR):

-

Current - Supply (Max):

5mA

Mounting Type:

Surface Mount

Size / Dimension:

0.098" L x 0.079" W (2.50mm x 2.00mm)

Current - Supply (Disable) (Max):

10µA

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

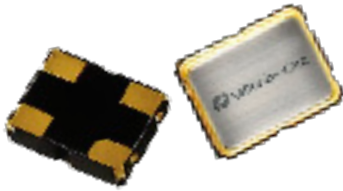
Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# 1.8V CMOS Low Jitter XO

2.5 x 2.0mm Ceramic SMD

## Product Features

- 1 to 156.25 MHz Frequency Range
- <1 ps RMS jitter with fundamental or overtone design
- 1.8V CMOS compatible logic levels
- Designed for standard reflow and washing techniques
- Low power standby mode: 10  $\mu$ A max
- Pb-free and RoHS/Green compliant

## Product Description

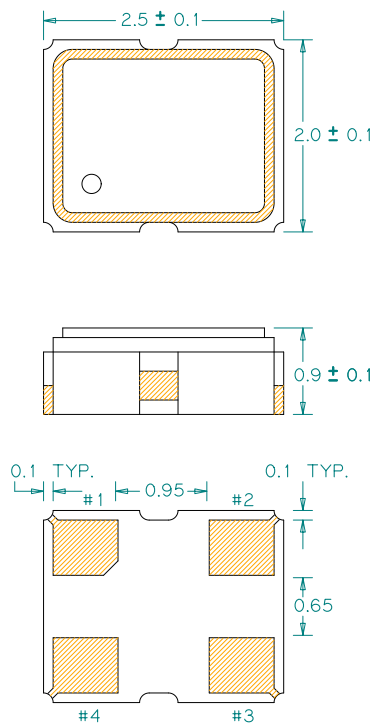
The FJ Series crystal clock oscillators achieve superb jitter and stability over a broad range of operating conditions and frequencies. The output clock signal, generated internally with a non-PLL oscillator design, is compatible with LVCMOS logic levels. The device, available on tape and reel, is contained in a 2.5 x 2.0mm surface-mount ceramic package.

## Applications

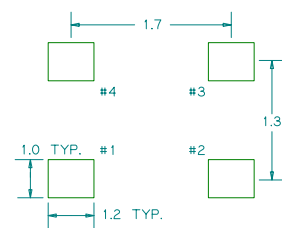
Ideal for compact, high-density applications:

- WLAN
- HBA
- Portable Multimedia Player (PMP)
- Notebook Computer
- SDIO / PCMCIA CARD
- USB BT Interface
- Bluetooth

## Package:



## Recommended Land Pattern:

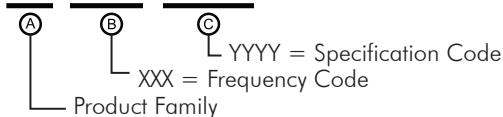


## Pin Functions:

Pin	Function
1	OE
2	Ground
3	Clock Output
4	V <sub>DD</sub>

## Part Ordering Information:

**FJ XXX YYYY**



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

1.8V CMOS Low Jitter XO **FJ**
**FJ Series Crystal Clock Oscillator (XO)**  
**2.5 x 2.0mm**

### Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency	1		156.25	MHz	As specified
Supply Voltage	1.62	1.8	1.98	V	
Supply Current, Output Enabled			4	mA	1 to 75 MHz
Supply Current, Standby Mode			10	μA	Output Hi-Z
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 <sub>OL</sub>			10% V <sub>DD</sub>	V	
Output Logic 1, V <sub>OH</sub>	90% V <sub>DD</sub>			V	
Output Load			15	pF	
Duty Cycle	45		55	%	Measured 50% V <sub>DD</sub>
Rise and Fall Time			5	ns	Measured 20/80% of waveform
Jitter, Phase			1	ps RMS (1-σ)	12kHz to 20 MHz frequency band
Jitter, Accumulated			5	ps RMS (1-σ)	20.000 adjacent periods
Jitter, Total			50	ps pk-pk	100.000 random periods

**Notes:**

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

### Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	0.7 V <sub>DD</sub>			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.3 V <sub>DD</sub>	V	Output is Hi-Z
Internal Pullup Resistance	30			kΩ	
Output Disable Delay			100	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/timing/oscillators/FJ1.8/>

For test circuit go to: [http://www.pericom.com/pdf/sre/tc\\_hcmos2.pdf](http://www.pericom.com/pdf/sre/tc_hcmos2.pdf)

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

For tape and reel information go to: [http://www.pericom.com/pdf/sre/tr\\_2520\\_xo.pdf](http://www.pericom.com/pdf/sre/tr_2520_xo.pdf)



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