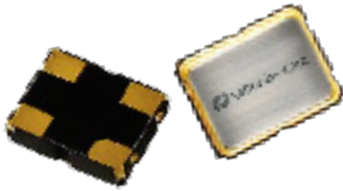


1.8V CMOS Low Jitter XO

FJ


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 μ A max
- Pb-free and RoHS/Green compliant

Product Description

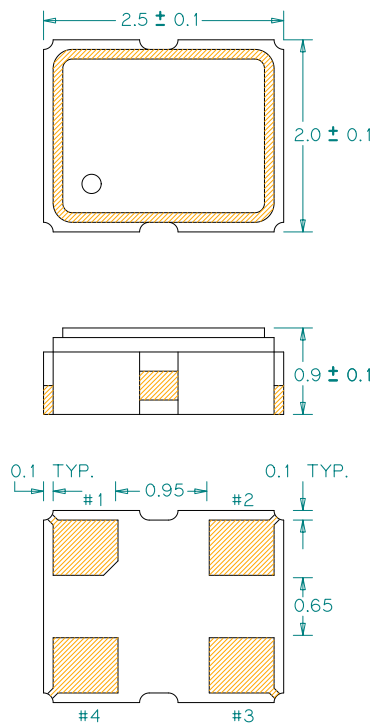
The FJ Series crystal clock oscillators achieve superb jitter and stability over a broad range of operating conditions and frequencies. The output clock signal, generated internally with a non-PLL oscillator design, is compatible with LVCMOS logic levels. The device, available on tape and reel, is contained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

Applications

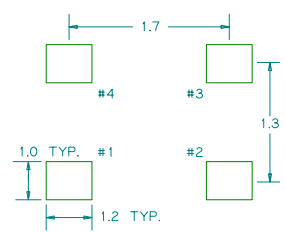
Ideal for compact, high-density applications:

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

Package:



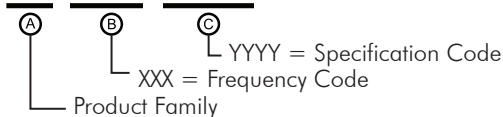
Recommended Land Pattern:



Pin Functions:

| Pin | Function |
|-----|-----------------|
| 1 | OE |
| 2 | Ground |
| 3 | Clock Output |
| 4 | V _{DD} |

Part Ordering Information:

FJ XXX YYYY


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

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 _{OL} | | | 10% V _{DD} | V | |
| Output Logic 1, V _{OH} | 90% V _{DD} | | | V | |
| Output Load | | | 15 | pF | |
| Duty Cycle | 45 | | 55 | % | Measured 50% V _{DD} |
| 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 _{DD} | | | V | or open |
| Input Voltage (pin 1), Output Disable (low power standby) | | | 0.3 V _{DD} | 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

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