

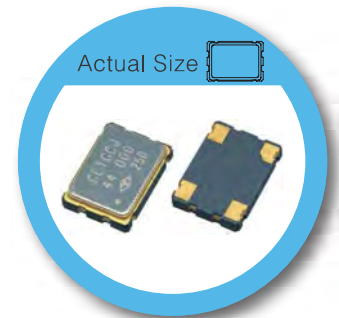
OC Type 7.0 x 5.0 mm SMD Crystal Oscillator

FEATURE

- Typical 7.0 x 5.0 x 1.3 mm ceramic SMD package.
- Output frequency up to 166MHz
- Tr-state enable/disable.

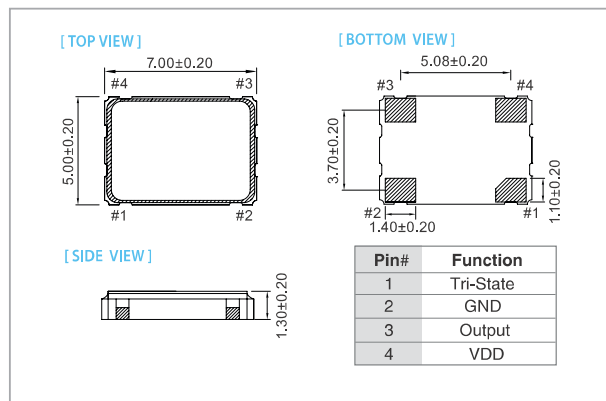
TYPICAL APPLICATION

- xDSL, WLAN, Fiber/10G-Bit Ethernet
- Notebook, PDA
- PC main board, VGA card

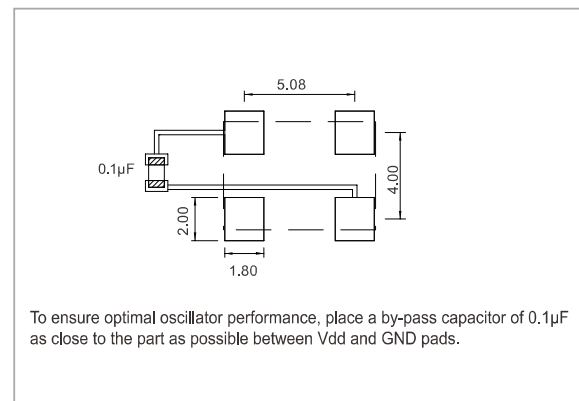


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

| Parameter | 3.3V | | 2.5V | | 1.8V | | unit |
|--|--|----------------------|----------------------|----------------------|----------------------|----------------------|------|
| | Min. | Max. | Min. | Max. | Min. | Max. | |
| Supply Voltage Variation(V_{DD}) | V _{DD} -10% | V _{DD} +10% | V _{DD} -10% | V _{DD} +10% | V _{DD} -10% | V _{DD} +10% | V |
| Frequency Range | 0.0137 | 166 | 0.0137 | 133 | 0.0137 | 125 | MHz |
| Standard Frequency | 2.048, 25, 26, 27, 50, 66, 667, 100, 125 | | | | | | |
| Supply Current | | | | | | | mA |
| 13.7 kHz ≤ F _o ≤ 70 kHz | — | 1 | — | 1 | — | 1 | |
| 0.3125 MHz ≤ F _o < 35.328 MHz (A1) | — | 10 | — | 8 | — | 7 | |
| 30 MHz ≤ F _o < 75 MHz | — | 20 | — | 18 | — | 15 | |
| 75 MHz ≤ F _o < 133 MHz | — | 35 | — | 30 | — | 25 | |
| 133 MHz ≤ F _o | — | 45 | — | 40 | — | — | |
| Output Level (CMOS) Output High (Logic "1") | 2.97 | — | 2.25 | — | 1.62 | — | V |
| Output Low (Logic "0") | — | 0.33 | — | 0.25 | — | 0.18 | |
| Transition Time: Rise/Fall Time | | | | | | | nSec |
| 13.7 kHz ≤ F _o ≤ 70 kHz | — | 50 | — | 50 | — | 50 | |
| 0.3125 MHz ≤ F _o < 100 MHz | — | 5 | — | 5 | — | 5 | |
| 100 MHz ≤ F _o | — | 3 | — | 3 | — | 3 | |
| Start Time | — | 5 | — | 5 | — | 5 | mSec |
| Output Drive Capability (CL) | — | 15 | — | 15 | — | 15 | pF |
| Tri-State (Input to Pin1) Enable (High voltage or floating) | 2.31 | — | 1.75 | — | 1.26 | — | V |
| Disable (Low voltage or GND) | — | 0.99 | — | 0.75 | — | 0.54 | |
| Period Jitter(Pk-Pk) | — | 40 | — | 40 | — | 40 | pSec |
| RMS Phase Jitter (Integrated 12 kHz~20 MHz) | — | 1 | — | 1 | — | 1 | pSec |
| Standby Current | — | 10 | — | 10 | — | 10 | µA |
| Aging (@ 25°C 1st year) | — | ±3 | — | ±3 | — | ±3 | ppm |
| Storage Temp. Range | -55 | 125 | -55 | 125 | -55 | 125 | °C |

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15pF.

FREQ. STABILITY vs. TEMP. RANGE

| Temp. (°C) | ppm | | |
|------------|-----|-----|-----|
| | ±20 | ±25 | ±50 |
| -10 ~ +60 | ○ | ○ | ○ |
| -20 ~ +70 | △ | ○ | ○ |
| -40 ~ +85 | △ | ○ | ○ |
| -40 ~ +125 | × | × | ○ |

* ○: Available △: Conditional X: Not available

* Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration

Note: not all combination of options are available. Other specifications may be available upon request.