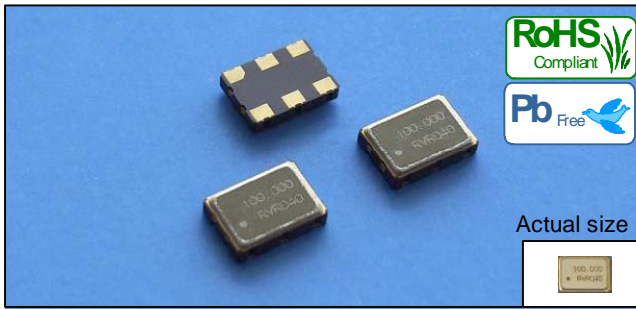


# SURFACE MOUNT CRYSTAL CLOCK OSCILLATOR FCXO-75HC



## Features

- Provides 100MHz HCSL output for interfacing to standard PCIe devices.
- Low Jitter(non-PLL)
- Ceramic package and metal lid assures extreme accuracy and high reliability.
- Lead-free soldering is available.
- Applications: PCI Express, Server, SAS, Network Switch/Router, SATA, Telecom Switch, Graphics Card, Media Box

## Specifications

| Item                          | Symbol   | Specifications   |           |           |  |
|-------------------------------|----------|------------------|-----------|-----------|--|
|                               |          | Min.             | Typ.      | Max.      | Note   |
| Frequency                     | F0       | 100 MHz          |           |           | As specified                                     |
| Frequency Stability           | FT       | ±50 ppm          |           |           | See ※1 below                                     |
| Storage temperature range     |          | -55°C            |           | +125°C    |  |
| Operating temperature range   | TR       | -40°C            |           | +85°C     | As specified                                     |
| Supply voltage                | Vcc      | 2.97V            | 3.30V     | 3.63V     |  |
| Current consumption           | Icc/OE   |                  | 50mA      | 60mA      |  |
| Disable current               | Icc/OD   |                  |           | 25mA      |  |
| Logic type                    | LT       | HCSL             |           |           |  |
| Output voltage "0"level       | VoL      | -0.15V           |           | 0.15V     |  |
| Output voltage "1"level       | VoH      |                  | 0.70V     | 0.85V     |  |
| Output load                   |          | See Test Circuit |           |           | output requires termination                      |
| Symmetry                      | SYM      | 45%              |           | 55%       | Mesured 50% of waveform                          |
| Rise time / Fall time         | TR/TF    |                  |           | 700ps     | Mesured from VoL=0.175V to VoH=0.525V            |
| Phase jitter                  | RMS(1-σ) |                  |           | 1ps       | Offset frequency: 12kHz to 20MHz                 |
| Output Phase Jitter-PCIe Gen2 |          |                  | 1.8ps RMS | 2.5ps RMS | As defined by PCI-SIG for PCIeG2 reference clock |

※1 Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance(25°C), aging(5 years at 40°C average effective ambient temperature), shock and vibration.

## Output Enable /Disable Function

| Item                                 | Min. | Typ. | Max.  | Note                     |
|--------------------------------------|------|------|-------|--------------------------|
| Input Voltage(OE pin),Output Enable  | 2.2V |      |       | or open                  |
| Input Voltage(OE pin),Output Disable |      |      | 0.8V  | Outputs disabled to Hi-Z |
| Output Disabel Delay                 |      |      | 200ns |                          |
| Output Enabel Delay                  |      |      | 10ms  |                          |

- Bypass capacitor should be connected between V<sub>DD</sub> and GND due to the stabilized operation for the crystal oscillator.
- Please consult us for customized specifications.
- All specifications and markings subjected to change without notice.

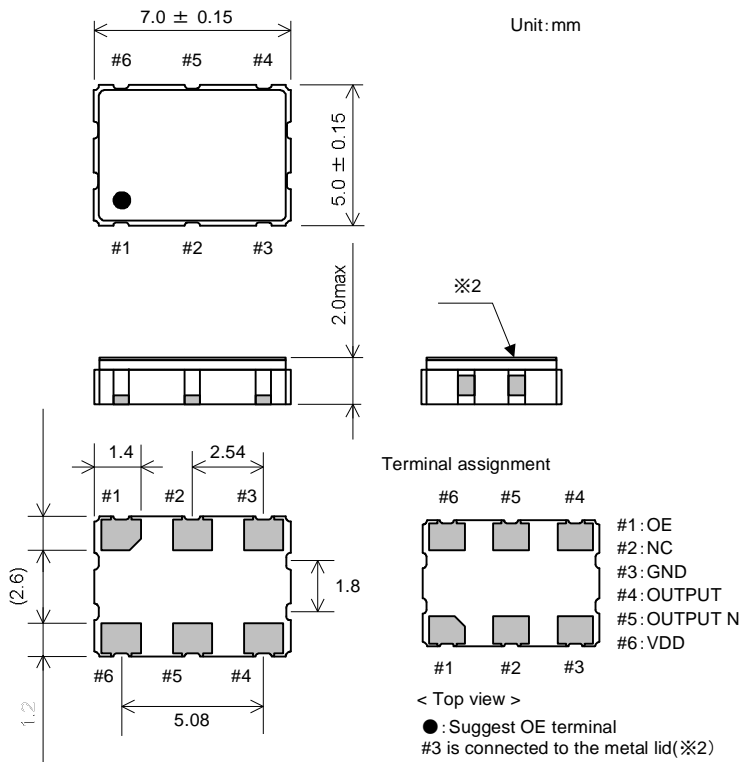
**RIVER** RIVER ELETEC CORPORATION  
URL <http://www.river-ele.co.jp>

Head Office 2-1-1 Fujimigaoka Nirasaki Yamanashi Japan  
Phone 81-551-22-1211 Fax 81-551-22-6645  
Tokyo Office 4-40-14 Nishishinjuku Shinjuku-ku Tokyo Japan  
Phone 81-3-3377-5444 Fax 81-3-3374-2865  
Osaka Office Phone 81-6-6998-4888 Fax 81-6-6998-4899

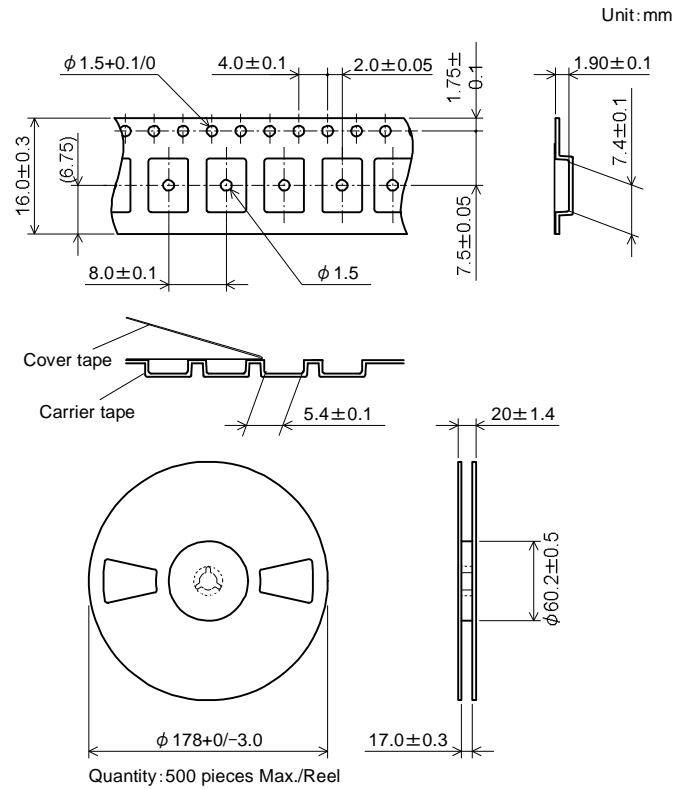
River Electronics(Singapore)Pte.Ltd Phone 65-6258-7874 Fax 65-6258-7366  
Taiwan River Co.,Ltd. Phone 886-2-8988-2811 Fax 886-2-2983-4785  
Xi'an River Electronics Corporation Phone 86-29-88697274 Fax 86-29-88635134

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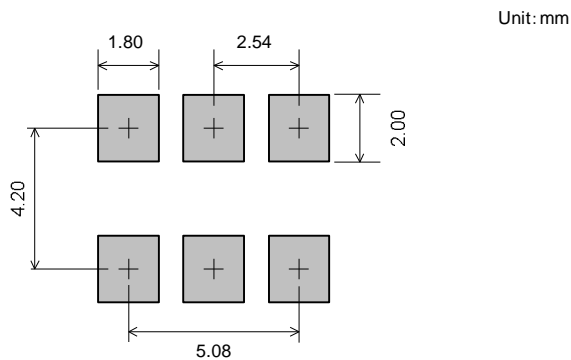
## Dimensions



## Taping



## Land dimensions



## Test Circuit

