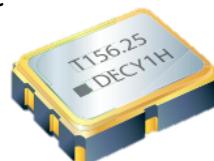


## Product Features

1. 6 pads seam sealed ceramic package
2. 3.3 and 2.5 V operation available
3. Output Type: LVDS
4. Output frequencies 25MHz ~ 250MHz
5. Excellent low phase noise and jitter
6. Tri-state function available
7. RoHS and REACH Compliant , Pb-free , Halogen-free
8. Industry Standard Package :  
7.0 x 5.0 x 1.3 mm

### Application :

- Fiber Channel , Gigabit Ethernet , Serial ATA , Serial Attached SCSI , PCI-Express , SDH / SONET , Ethernet Switch
- Telecom , Networking , Server , Storage , Instrument



Test condition

Ambient temperature :  $25 \pm 5^\circ\text{C}$

Relative humidity : 40% ~ 70%

### ● Table 1 . Electrical Specifications

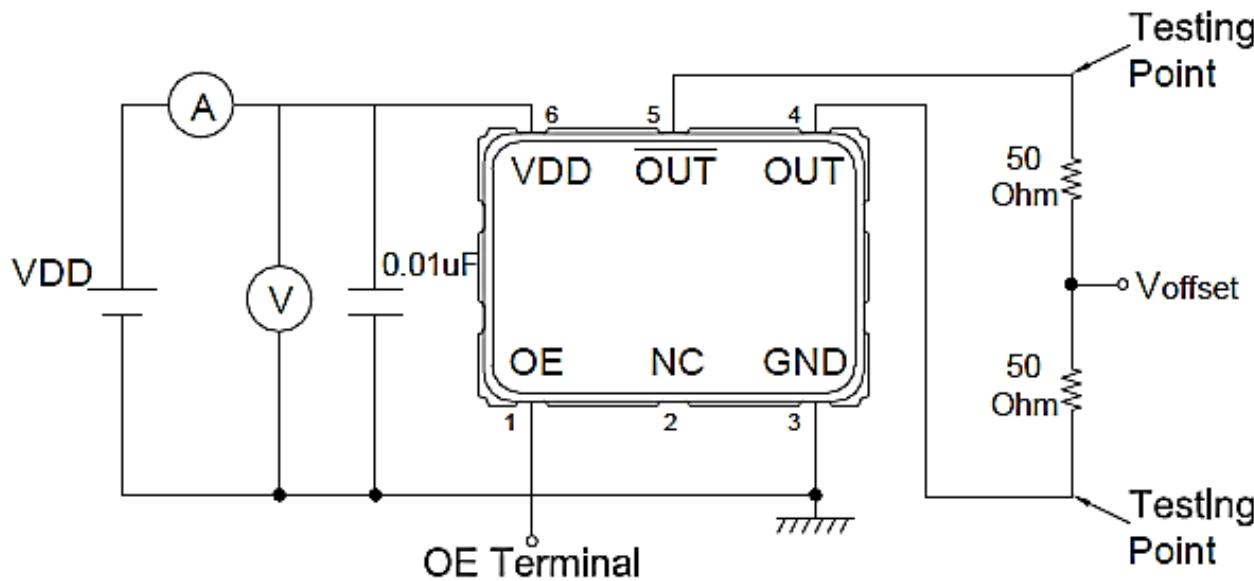
| Parameters                               | Symbol  | Min.                     | Typ.  | Max.   | Units | Conditions & Notes  |  |
|--|---------|--------------------------|-------|--------|-------|---|--|
| <b>Common Electrical Characteristics</b> |         |                          |       |        |       |   |  |
| Nominal Frequency                        | F       | 25 ~ 250                 |       |        | MHz   | Fundamental   |  |
| Frequency Stability                      | ST      | $\pm 25$                 |       |        | ppm   | @ -40~85°C , Note 1   |  |
|  |         | $\pm 35$                 |       |        |       | @ -40~105°C , Note 1  |  |
|  |         | $\pm 70$                 |       |        |       | @ -40~125°C , Note 1  |  |
| Operating Temperature                    | Topr    | -40                      | -     | 125    | °C    |   |  |
| Supply Voltage                           | Vdd     | 2.5 , 3.3 ( $\pm 10\%$ ) |       |        | V     |   |  |
| Start-up Time                            | Tosc    | -                        | -     | 10     | ms    | To 90% of Final Amplitude                                   |  |
| <b>LVDS Electrical Characteristics</b>   |         |                          |       |        |       |   |  |
| Current Consumption                      | Icc     | -                        | -     | 60     | mA    | RL=100Ω   |  |
| Standby Current                          | Icc(ST) | -                        | -     | 30     | uA    | OE = Low  |  |
| Output Voltage High                      | VoH     | -                        | 1.43  | 1.6    | V     |   |  |
| Output Voltage Low                       | VoL     | 0.9                      | 1.1   | -      | V     |   |  |
| Offset Voltage                           | -       | 1.125                    | 1.250 | 1.375  | V     |   |  |
| Output Swing (Single)                    | -       | 247                      | 330   | 454    | mV    | Single Peak-to-Peak   |  |
| Output Swing (Differential)              | Vdiff   | 494                      | 660   | 908    | mV    | Differential Peak-to-Peak                                   |  |
| Rise / Fall Time                         | Tr / Tf | -                        | -     | 0.5    | ns    | 20% ~ 80% Output Swing                                      |  |
| Enable Voltage High                      | -       | 0.7VDD                   | -     | -      | V     | Note 2  |  |
| Enable Voltage Low                       | -       | -                        | -     | 0.3VDD | V     | Note 2  |  |
| Output Enable Delay Time                 | -       | -                        | -     | 2      | ms    |   |  |
| Output Disable Delay Time                | -       | -                        | -     | 200    | ns    |   |  |
| RMS Phase Jitter                         | PJ      | -                        | -     | 0.2    | ps    | Integrated from 12KHz ~ 20MHz<br>@156.25MHz , 3.3V , Note 3 |  |

Note 1 : Inclusive of frequency tolerance at 25°C , variation over temperature , supply voltage variation , 10 years aging and vibration.

Note 2 : Output will be enable if OE is Logic 1 or open ; Output will be disable if OE is Logic 0.

Note 3 : Phase Jitter will be slightly different according to output frequency and supply voltage.

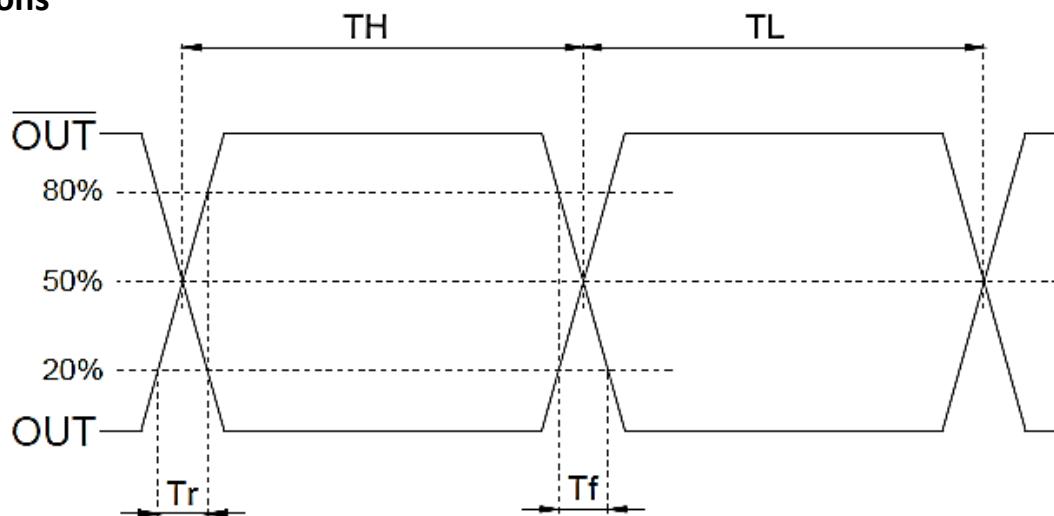
- Test Diagram



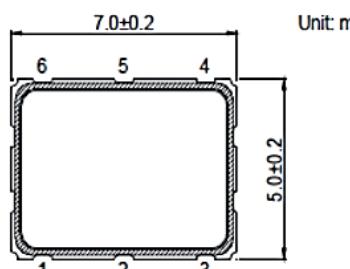
Testing Circuit Note:

1. Above testing circuits cover all the specifications except temperature test & Jitter measurement.
2. All the testing equipment are 50 Ohm terminal.
3. OE terminal is open connection except OE function test.

- Waveform Conditions



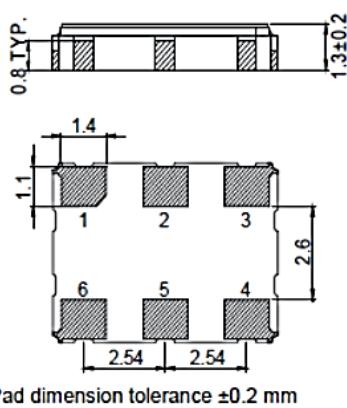
- Dimensions & Footprint (Recommended)



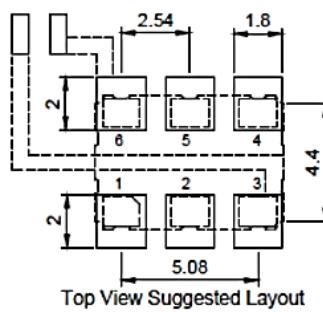
**Pin Function:**

1. OE
2. NC
3. GND
4. OUT
5. OUT
6. VDD

**Land Pattern:**



※ Pad dimension tolerance ±0.2 mm



※ Power Supply Decoupling Capacitor is Required.

※ Pad dimension tolerance ±0.2 mm