

## Product Features

1. Output Frequency: 1 ~ 204MHz
2. Frequency Stability:  $\pm 50$  ppm
3. Supply Voltage: 3.3V
4. Operating Temperature: -40~105°C
5. Output Type: CMOS
6. Phase Jitter: 1ps (Max.) @100MHz, 3.3V
7. RoHS and REACH Compliant, Pb-free, Halogen-free
8. Fast Delivery
9. Wide pull range and good linearity.
10. Industry Standard Package:  
5.0 x 3.2 x 1.2 mm

Application:

- SDH/ SONET, Ethernet, Base Stations, etc.



● Table 1 . Electrical Specifications

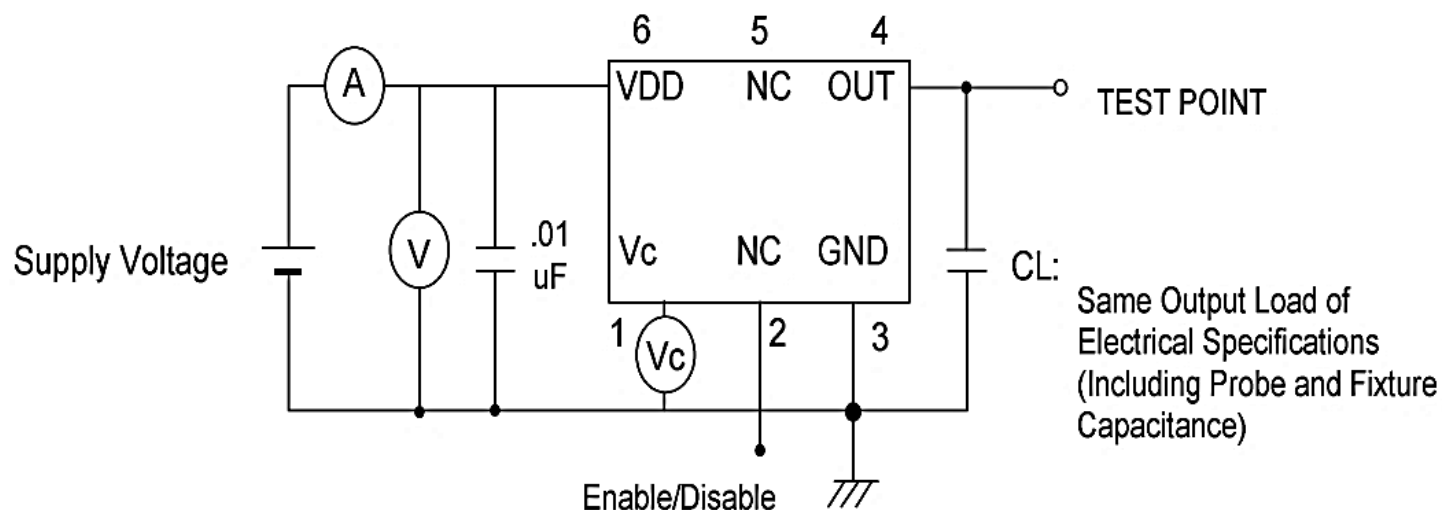
Test condition  
Ambient temperature: 25  $\pm$  5°C  
Relative humidity: 40% ~ 70%

| Parameters                | Symbol  | Min.               | Typ. | Max.   | Units   | Notes                           |
|---------------------------|---------|--------------------|------|--------|---------|---------------------------------|
| Nominal Frequency         | F       | 1 ~ 204            |      |        | MHz     |                                 |
| Frequency Tolerance       | FT      | $\pm 50$           |      |        | ppm     | @ -40~105°C, Note 1             |
| Operating Temperature     | Topr    | -40                | 25   | 105    | °C      |                                 |
| Supply Voltage            | Vdd     | 3.3 ( $\pm 10\%$ ) |      |        | V       |                                 |
| Current Consumption       | Icc     | -                  | -    | 40     | mA      |                                 |
| Nominal Control Voltage   | -       | 0.5 x Vdd          |      |        |         |                                 |
| Control Voltage Range     | Vc      | 0~Vdd              |      |        | V       |                                 |
| Standby Current           | Icc(ST) | -                  | -    | 10     | uA      | OE = Low                        |
| Output Load: CMOS         | CL      | 15                 |      |        | pF      |                                 |
| Output Voltage High       | VoH     | 90%Vdd             | -    | -      | V       |                                 |
| Output Voltage Low        | VoL     | -                  | -    | 10%Vdd | V       |                                 |
| Rise Time / Fall Time     | Tr/ Tf  | -                  | -    | 5      | ns      | 10% $\rightarrow$ 90% Vdd Level |
|                           |         | -                  | -    | 4      | ns      | 20% $\rightarrow$ 80% Vdd Level |
| Symmetry(Duty ratio)      | TH/T    | 45                 | ~    | 55     | %       |                                 |
| Start-up Time             | Tosc    | -                  | -    | 10     | ms      | To 90% of Final Amplitude       |
| Output Disable Delay Time | T off   | -                  | -    | 250    | us      |                                 |
| Output Enable Delay Time  | T on    | -                  | -    | 300    | us      |                                 |
| Enable Voltage High       | VIH     | 70%Vdd             | -    | -      | V       |                                 |
| Disable Voltage Low       | VIL     | -                  | -    | 30%Vdd | V       |                                 |
| APR                       | APR     | $\pm 50$           | -    | -      | ppm     | Note2                           |
| Linearity                 | -       | -                  | -    | 10     | %       |                                 |
| Aging                     | -       | $\pm 3$            |      |        | ppm/yr. | 1st. Year at 25°C               |
| RMS Phase Jitter          | PJ      | -                  | -    | 1.0    | ps      | 40MHz~200MHz @ 12KHz~ 20MHz     |

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

Note 2 : APR=(Pull Range) - (Frequency tolerance at 25 °C, variation over temperature, supply voltage variation, and aging.)

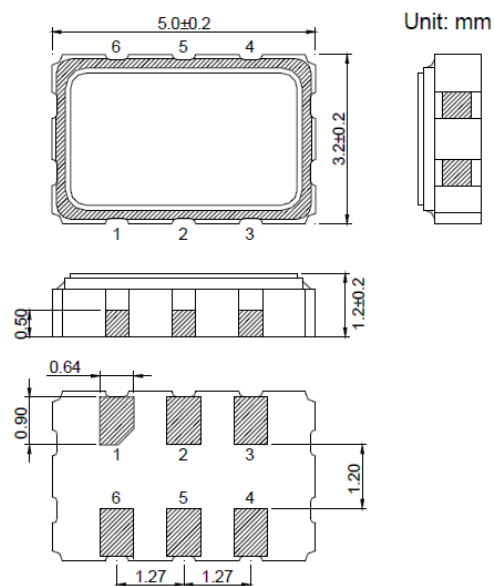
## ● Test Diagram



Note : OE terminal is open connection except OE function test.

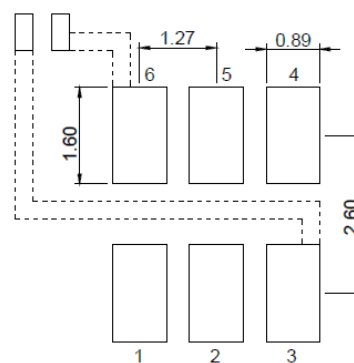
## ● Dimensions & Footprint (Recommended)

Unit: mm



Pin Function:

- 1: Vc
- 2: OE
- 3: GND
- 4: OUT
- 5: NC
- 6: VDD



※ Pad dimension tolerance  $\pm 0.2$  mm

※ Power Supply Decoupling Capacitor is Required.