

# CRYSTAL OSCILLATORS

LVPECL

ACTUAL SIZE: ☐
**SMEN-156250-2CL4T00** CERAMIC PACKAGE


## APPLICATIONS

- ▶ SONET/SDH
- ▶ Fiber Channel
- ▶ Ethernet

## FEATURES

- ▶ LVPECL Complementary Output
- ▶ Low Phase Jitter ( 12KHz to 20MHz )  
Under 0.3 ps ( RMS )
- ▶ RoHS Compliant

## Specification

### MODEL

|                                        |          |                                                     |           |
|----------------------------------------|----------|-----------------------------------------------------|-----------|
| FREQUENCY RANGE                        | MHz      | 13.500 ~ 200.000                                    |           |
| FREQUENCY STABILITY*                   | ppm      | ± 25 ~ ± 100                                        |           |
| OPERATING TEMPERATURE                  | °C       | - 20 ~ + 70 Or Specify ( - 40 ~ + 125 is available) |           |
| STORAGE TEMPERATURE                    | °C       | - 55 ~ + 125                                        |           |
| POWER SUPPLY VOLTAGE                   | VDC      | +2.5 ± 5%                                           | +3.3 ± 5% |
| OUTPUT VOLTAGE HIGH (V <sub>OH</sub> ) | V (Min.) | 1.475                                               | 2.275     |
| OUTPUT VOLTAGE LOW (V <sub>OL</sub> )  | V (Max.) | 1.095                                               | 1.680     |
| OUTPUT LOAD ( Connect to VDC -2V)      | Ω        | 50                                                  |           |
| OUTPUT SYMMETRY                        | %        | 45 ~ 55                                             | 45 ~ 55   |

### INPUT CURRENT

|                     |           |    |    |
|---------------------|-----------|----|----|
| 13.500 ~ 200.000MHz | mA (Max.) | 50 | 50 |
|---------------------|-----------|----|----|

### INPUT VOLTAGE

|                                          |          |      |      |
|------------------------------------------|----------|------|------|
| INPUT ENABLE VOLTAGE (V <sub>IH</sub> )  | V (Min.) | 1.75 | 2.31 |
| INPUT DISABLE VOLTAGE (V <sub>IL</sub> ) | V (Max.) | 0.75 | 0.99 |

### RISE / FALL TIME (20% to 80% / 80% to 20% Output Swing)

|                                 |           |     |     |
|---------------------------------|-----------|-----|-----|
| 13.500 ~ 99.999MHz              | ns (Max.) | 1.0 | 1.0 |
| 100.000 ~ 200.000MHz            | ns (Max.) | 0.5 | 0.5 |
| PHASE JITTER RMS (Fj:12K~20MHz) | ps (Max.) | 0.3 |     |
| AGING                           | ppm/Year  | ± 3 |     |

\*Inclusive of 25°C±3°C & Operating Temperature Range.

\*\*Specification subject to change without notice.

## Pin Connection

| PIN No. | Connection     |
|---------|----------------|
| #1      | Enable/Disable |
| #2      | N.C.           |
| #3      | GND            |
| #4      | Output Q       |
| #5      | Output QN      |
| #6      | VDC            |

## Enable/Disable Function

| Pin #1     | Pin #4 & Pin #5 |
|------------|-----------------|
| HIGH(OPEN) | Output          |
| LOW        | High Impedance  |

## Dimension(mm)

