Hosonic

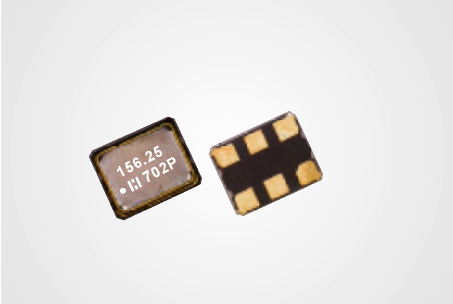
# SMD CRYSTAL OSCILLATOR

RoHS Compliant

Pb Free

## • D3SP Series

## 3225 LV- PECL OSC




**FEATURES**

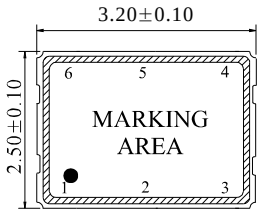
- 3.2*2.5*1.2mm package
- Tri-State function available
- Low Jitter and Noise
- PECL output
- Ideal for Fiber-optic communication applications, FTTH and SONET/SDH applications, Sever, FCHBA, Fibre Channel, Gigabit Ethernet, and Serial ATA

## Electrical Specifications

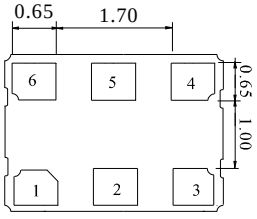
| Parameter | | Condition | D3SP | |
|---|---|---|---|---|
| Frequency Range | F0 | | 25~212.5MHz | |
| Output Specification | | | LV-PECL | |
| Frequency Stability* | | All Condition | ±25ppm, ±50ppm, ±100ppm | |
| Operating Temperature Range | $T_{OPR}$ | | -20℃~+70℃(-40℃~+85℃ option) | |
| Storage Temperature Range | $T_{STG}$ | | -55℃~+125℃ | |
| Power supply Voltage | $V_{DD}$ | | 3.3V+/-5% | 2.5V+/-5% |
| Supply Current | $I_{DD}$ | | 90mA Max | |
| Output Symmetry | Sym | At ½Vpp | 40/60%(45/55% Option) | |
| Rise time | $T_r$ | 20%Vpp~80%Vpp | 1nS Max | |
| Fall Time | $T_f$ | 80%Vpp~20%Vpp | 1nS Max | |
| Output Voltage | $V_{OH}$ | | $V_{DD}$-1.025V Min. | |
| | $V_{OL}$ | | $V_{DD}$-1.62V Max. | |
| Output Load | | | 50Ω to $V_{DD}$-2.0V | |
| Integrated phase jitter (RMS) | | Integrated 12KHz to 20MHz | 1pS Max | |
| Start Time | Ts | | 10mS Max | |
| Aging(First Year) | | 25℃±3℃ | ±2ppm Max | |
| Pin 1,tri-state function | | | Pin 1=H or open....Output active at pin 4,5 | |
| | | | Pin 1=L.....high impedance at pin 4,5 | |
| Packing Unit | | | 1000pcs/reel | |

**Include: 25℃ tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration*

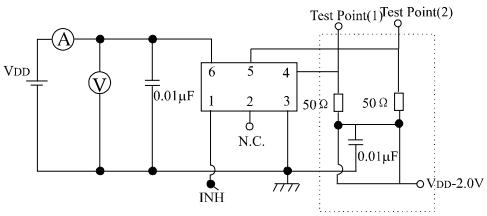
## Mechanical Dimensions(mm)




Top View



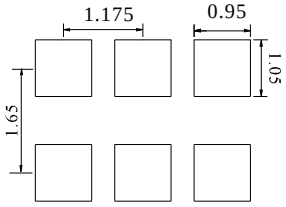

Test Circuit



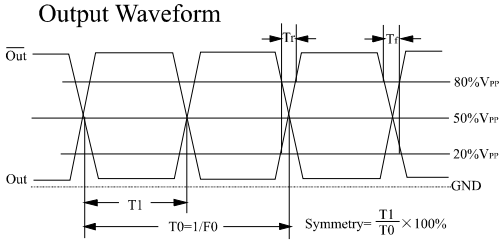


| Pin | Connection |
|---|---|
| #1 | Tri-State |
| #2 | N.C. |
| #3 | GND |
| #4 | Comp. Output |
| #5 | Out |
| #6 | $V_{DD}$ |

Recommended Solder Pattern




Output Waveform




**Note: 0.01uF bypass capacitor should be placed between $V_{DD}$(Pin6) and GND(Pin3) to Minimize power supply line noise