

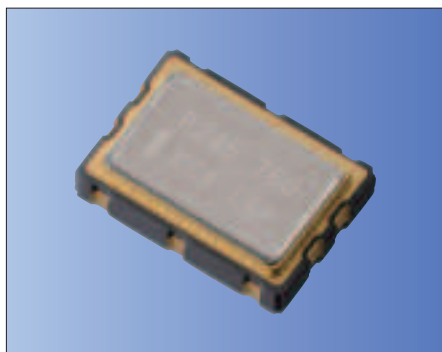


# Clock Oscillators Surface Mount Type

## KC7050R-P3 Series



LV-PECL/ 3.3V/ 7.0×5.0mm



RoHS Compliant

### Features

- High frequency to 900MHz
- LV-PECL output
- Miniature ceramic package
- Highly reliable with seam welding
- for WDM, Networking Applications

Table 1

| Freq. Code | Tol. $\times 10^{-6}$ | Operating Temperature Range (°C) | Note                                         |
|------------|-----------------------|----------------------------------|----------------------------------------------|
| G          | ±50                   | −40 to +85                       | Please contact us for available frequencies. |

### How to Order

KC7050R 622.080 P 3 G D 00  
① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (LV-PECL)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Disable)
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

| Item                                       | Symbol             | Conditions                                                                                                                                                           | Min.                   | Max.                   | Units            |
|--------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------|------------------|
| Output Frequency Range <sup>Note1</sup>    | f <sub>o</sub>     |                                                                                                                                                                      | 10                     | 900                    | MHz              |
| Frequency Tolerance                        | f <sub>tol</sub>   | Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration<br>Op. Temp.: −40 to +85°C | −50                    | +50                    | $\times 10^{-6}$ |
| Storage Temperature Range                  | T <sub>stg</sub>   |                                                                                                                                                                      | −55                    | +125                   | °C               |
| Operating Temperature Range                | T <sub>use</sub>   |                                                                                                                                                                      | −40                    | +85                    | °C               |
| Max. Supply Voltage                        | —                  |                                                                                                                                                                      | −0.5                   | +4.2                   | V                |
| Supply Voltage                             | V <sub>CC</sub>    |                                                                                                                                                                      | +2.97                  | +3.63                  | V                |
| Current Consumption                        | I <sub>CC</sub>    |                                                                                                                                                                      | —                      | 100                    | mA               |
| Disable Current                            | I <sub>DE</sub>    |                                                                                                                                                                      | —                      | 30                     | mA               |
| Symmetry                                   | SYM                | 50ohm @crossing point                                                                                                                                                | 45                     | 55                     | %                |
| Rise/ Fall Time (20% to 80% Output Level)  | tr/ tf             | 50ohm                                                                                                                                                                | —                      | 0.4                    | ns               |
| Low Level Output Voltage <sup>Note2</sup>  | V <sub>OL</sub>    |                                                                                                                                                                      | —                      | V <sub>CC</sub> −1.620 | V                |
| High Level Output Voltage <sup>Note2</sup> | V <sub>OH</sub>    |                                                                                                                                                                      | V <sub>CC</sub> −1.025 | —                      | V                |
| Output Load                                | —                  | LV-PECL Output                                                                                                                                                       | —                      | 50                     | ohm              |
| Low Level Input Voltage <sup>Note2</sup>   | V <sub>IL</sub>    |                                                                                                                                                                      | —                      | 30% V <sub>CC</sub>    | V                |
| High Level Input Voltage <sup>Note2</sup>  | V <sub>IH</sub>    |                                                                                                                                                                      | 70% V <sub>CC</sub>    | —                      | V                |
| Disable Time                               | t <sub>dis</sub>   |                                                                                                                                                                      | —                      | 200                    | ns               |
| Enable Time                                | t <sub>ena</sub>   |                                                                                                                                                                      | —                      | 2                      | ms               |
| Start-up Time                              | t <sub>str</sub>   | @Minimum operating voltage to be 0 sec.                                                                                                                              | —                      | 10                     | ms               |
| Phase Jitter                               | J <sub>Phase</sub> | @622.08MHz<br>BW : 12kHz to 20MHz                                                                                                                                    | Typ. 3.0               |                        | ps               |
| Phase Noise                                | —                  | @622.08MHz                                                                                                                                                           | @10Hz offset           | Typ. −40               | dBc/ Hz          |
|                                            |                    |                                                                                                                                                                      | @100Hz offset          | Typ. −70               |                  |
|                                            |                    |                                                                                                                                                                      | @1kHz offset           | Typ. −95               |                  |
|                                            |                    |                                                                                                                                                                      | @10kHz offset          | Typ. −105              |                  |
|                                            |                    |                                                                                                                                                                      | @100kHz offset         | Typ. −105              |                  |
|                                            |                    |                                                                                                                                                                      | @1MHz offset           | Typ. −125              |                  |
|                                            |                    |                                                                                                                                                                      | @10MHz offset          | Typ. −135              |                  |

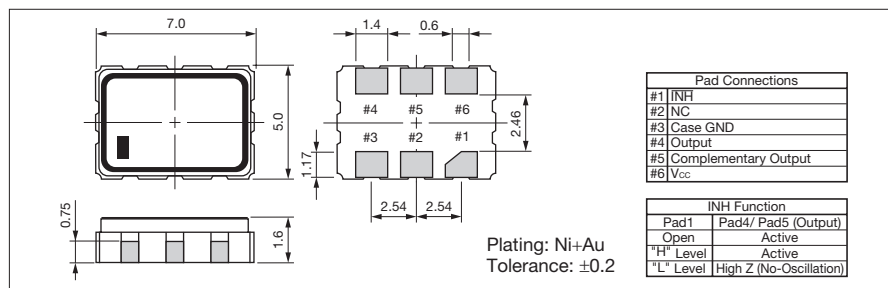
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: DC characteristic

### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)

