



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage $V_{CC}=2.5V$
- $\pm 25 \times 10^{-6}$ available

Table 1

| Freq. Tol. Code | Tol. $\times 10^{-6}$ | Operating Temperature Range (°C) | Note |
|-----------------|-----------------------|----------------------------------|-------------------------------|
| 0 | ± 50 | 0 to +70 | Standard specifications |
| S | ± 30 | | |
| U | ± 25 | | |
| F | ± 100 | -40 to +85 | With only certain frequencies |
| G | ± 50 | | |

How to Order

KC7050P 125.000 L 2 0 E 00
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0x5.0mm SMD)
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

| Item | Symbol | Conditions | Min. | Max. | Units | |
|--|------------|---|-------------------------------------|--------------|---------|------------------|
| Output Frequency Range ^{Note1} | f_o | | 50 | 190 | MHz | |
| Frequency Tolerance | f_{tol} | Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration | Op. Temp.: -40 to +85°C | -100 | +100 | $\times 10^{-6}$ |
| | | | Op. Temp.: 0 to +70°C/ -40 to +85°C | -50 | +50 | |
| | | | Op. Temp.: 0 to +70°C | -30 | +30 | |
| | | | Op. Temp.: 0 to +70°C | -25 | +25 | |
| Storage Temperature Range | T_{stg} | | -55 | +125 | °C | |
| Operating Temperature Range | T_{use} | Standard Specifications | 0 | +70 | °C | |
| | | Extend (Option) | -40 | +85 | | |
| Max. Supply Voltage | — | | -0.5 | +5 | V | |
| Supply Voltage | V_{CC} | | +2.375 | +2.625 | V | |
| Current Consumption | I_{CC} | | — | 70 | mA | |
| Stand-by Current | I_{std} | | — | 30 | μA | |
| Symmetry | SYM | 100ohm @crossing point | 45 | 55 | % | |
| Rise/ Fall Time (20% to 80% Output Level) | t_r/ t_f | 100ohm | — | 0.6 | ns | |
| Low Level Output Voltage ^{Note2} | V_{OL} | Typ. 1.1V | 0.9 | — | V | |
| High Level Output Voltage ^{Note2} | V_{OH} | Typ. 1.43V | — | 1.6 | V | |
| Differential Output Voltage ^{Note2} | V_{OD} | Typ. 330mV | 247 | 454 | mV | |
| Differential Output Voltage Error ^{Note2} | dV_{OD} | $dV_{OD}= V_{OD1}-V_{OD2} $ | — | 50 | mV | |
| Offset Voltage | V_{OS} | Typ. 1.25V | 1.125 | 1.375 | V | |
| Offset Voltage Error | dV_{OS} | $dV_{OS}= V_{OS1}-V_{OS2} $ | — | 50 | mV | |
| Output Load | RL | LVDS Output | 100 | | ohm | |
| Input Voltage Range | V_{IN} | | 0 | V_{CC} | V | |
| Low Level Input Voltage | V_{IL} | | — | 30% V_{CC} | V | |
| High Level Input Voltage | V_{IH} | | 70% V_{CC} | — | V | |
| Disable Time | t_{dis} | | — | 200 | ns | |
| Enable Time | t_{ena} | | — | 10 | ms | |
| Start-up Time | t_{str} | @Minimum operating voltage to be 0 sec. | — | 10 | ms | |
| Deterministic Jitter (DJ) | DJ | Measured with Wavecrest DTS-2079 VIS/ 6.3.1 | — | 2 | ps | |
| 1 Sigma Jitter | J σ | | — | 4 | ps | |
| Peak to Peak Jitter | J $PK-PK$ | | — | 30 | ps | |

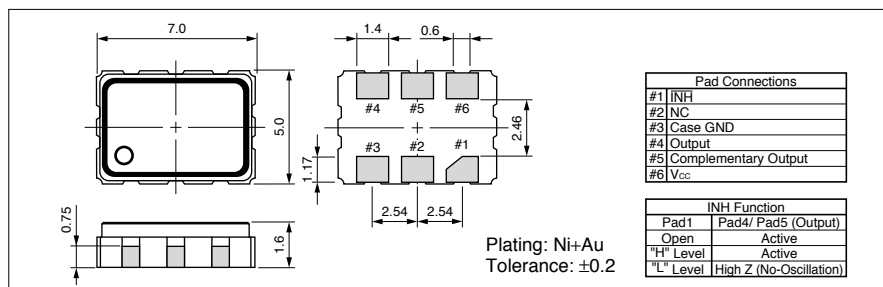
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

