



LVDS/ 3.3V or 2.5V/ 7.0×5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage Vcc=3.3V, 2.5V
- ±25×10⁻⁶ available
- Low Phase Noise

Table 1

| Freq. Code | Tol. × 10 ⁻⁶ | Operating Temperature Range (°C) | Note |
|------------|-------------------------|----------------------------------|--|
| 0 | ± 50 | 0 to +70 | Standard specifications |
| S | ± 30 | | |
| U | ± 25 | -40 to +85 | Please contact us for available frequencies. |
| F | ±100 | | |
| G | ± 50 | | |
| 6 | ± 50 | -40 to +105 | |

How to Order

KC7050P 125.000 L □ □ J 00
① ② ③ ④ ⑤ ⑥ ⑦

- ①Series
- ②Output Frequency
- ③Output Type (LVDS)
- ④Supply Voltage (3 : 3.3V or 2 : 2.5V)
- ⑤Frequency Tolerance (See Table 1)
- ⑥Symmetry/ INH Function
J : 45/ 55%
- ⑦Individual Specification (STD Specification is "00".)

Packaging (Tape & Reel 1000 pcs./ reel)

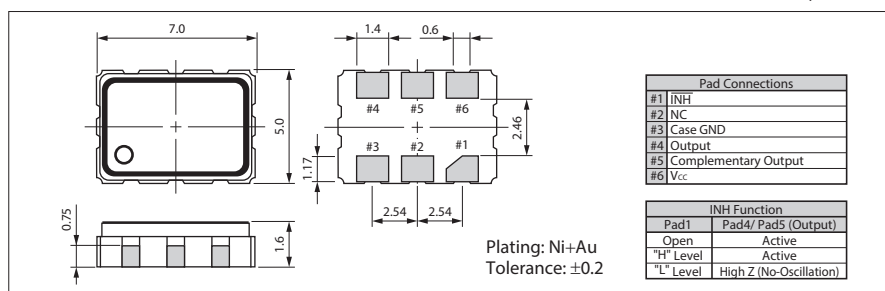
Specifications

| Item | Symbol | Conditions | Specifications | | Unit |
|---|--------------------|---|--------------------------|----------------|-------------------|
| | | | KC7050P-L2 | KC7050P-L3 | |
| Output Frequency Range ^{Note1} | f _o | | 25 to 175 | | 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 | ±50/ -40 to +105°C | | ×10 ⁻⁶ |
| | | | ±100/ -40 to +85°C | | |
| | | | ±50/ -40 to +85°C | | |
| | | | ±50/ 0 to +70°C | | |
| | | | ±30/ 0 to +70°C | | |
| Storage Temperature Range | T _{stg} | | -55 to +125 | | °C |
| Operating Temperature Range | T _{use} | Standard Specifications | 0 to +70/ -40 to +85 | | °C |
| | | Extend (Option) | -40 to +105 | | |
| Max. Supply Voltage | — | | -0.5 to +5.0 | | V |
| Supply Voltage | V _{cc} | | +2.375 to +2.625 | +2.97 to +3.63 | V |
| Current Consumption | I _{cc} | | 50 max. | | mA |
| Stand-by Current | I _{std} | | 20 max. | | µA |
| Symmetry | SYM | 100ohm @crossing point | 50±5 | | % |
| Rise/ Fall Time (20% V _{cc} to 80% V _{cc} Maximum Loaded) | Tr/ Tf | 100ohm | 0.6 max. | | ns |
| Low Level Output Voltage ^{Note2} | V _{OL} | | 0.9 min. Typ.:1.1 | | V |
| High Level Output Voltage ^{Note2} | V _{OH} | | 1.6 max. Typ.:1.43 | | V |
| Differential Output Voltage ^{Note2} | V _{OD} | | 247 to 454 Typ.:330 | | mV |
| Differential Output Voltage Error ^{Note2} | dV _{OD} | dV _{OD} = V _{OD1} -V _{OD2} | 50 max. | | mV |
| Offset Voltage | V _{OS} | | 1.125 to 1.375 | | V |
| Offset Voltage Error | dV _{OS} | dV _{OS} = V _{OS1} -V _{OS2} | 50 max. | | mV |
| Output Load | R _L | LVDS Output | 100 | | ohm |
| Input Voltage Range | V _{IN} | | 0 to V _{cc} | | V |
| Low Level Input Voltage | V _{IL} | | 30% V _{cc} max. | | V |
| High Level Input Voltage | V _{IH} | | 70% V _{cc} min. | | V |
| Disable Time | t _{dis} | | 200 max. | | ns |
| Enable Time | t _{ena} | | 10 max. | | ms |
| Start-up Time | t _{str} | @Minimum operating voltage to be 0 sec. | 10 max. | | ms |
| Deterministic Jitter | DJ | | 2 max. | | ps |
| 1 Sigma Jitter | J _{sigma} | Measured with Wavecrest SIA-3000 | 4 max. | | ps |
| Peak to Peak Jitter | J _{PK-PK} | | 30 max. | | ps |
| Phase Jitter | J _{Phase} | @156.25MHz V _{CC} =3.3V | BW : 12kHz to 20MHz | 0.3max. | 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)

