

Clock Oscillators Surface Mount Type

KC7050P-L2/ KC7050P-L3 Series



LVDS/ 3.3V or 2.5V/ 7.0x5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage $V_{CC} = 3.3V$
- $\pm 25 \times 10^{-6}$ 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		
6	± 50	-40 to +105	

How to Order

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

- ① Series
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (2 : 2.5V or 3 : 3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)
J : Low Phase Noise
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

Item	Symbol	Specifications		Units	Conditions
		KC7050P-L2	KC7050P-L3		
Output Frequency Range ^{Note1}	f_o	25 to 175		MHz	
Frequency Tolerance	f_{tol}	$\pm 50/ -40$ to +105°C		ppm	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration
		$\pm 100/ -40$ to +85°C			
		$\pm 50/ -40$ to +85°C			
		$\pm 50/ 0$ to +70°C			
		$\pm 30/ 0$ to +70°C			
		$\pm 25/ 0$ to +70°C			
Storage Temperature Range	T_{stg}	-55 to +125		°C	
Operating Temperature Range	T_{use}	0 to +70		°C	Standard Specifications 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}	70 max.		mA	
Stand-by Current	I_{std}	30 max.		μA	
Symmetry	SYM	50 \pm 5		%	100ohm @crossing point
Rise/ Fall Time (20% V_{CC} to 80% V_{CC} Maximum Loaded)	tr/ tf	0.6 max.		ns	100ohm
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}	50 max.		mV	$dV_{OD} = V_{OD1} - V_{OD2} $
Offset Voltage	V_{OS}	1.125 to 1.375		V	
Offset Voltage Error	dV_{OS}	50 max.		mV	$dV_{OS} = V_{OS1} - V_{OS2} $
Output Load	RL	100		ohm	LVDS Output
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}	10 max.		ms	@Minimum operating voltage to be 0 sec.
Deterministic Jitter	DJ	2 max.		ps	
1 Sigma Jitter	J_{Sigma}	4 max.		ps	Measured with Wavecrest SIA-3000
Peak to Peak Jitter	J_{PK-PK}	30 max.		ps	

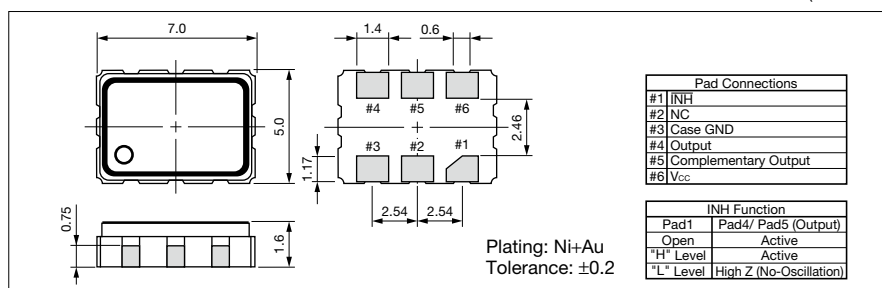
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

