

Clock Oscillators Surface Mount Type

KC7050P-L3 Series



LVDS/ 3.3V/ 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	Tolerance $\times 10^{-6}$	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 3 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 (3.3V)
- 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	+5.0	V	
Supply Voltage	V_{CC}	Freq. Tol.Code: 0, S, F	+2.97	+3.63	V	
		Freq. Tol.Code: U, G	+3.14	+3.46		
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)	tr/ tf	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 SIA-3000	—	2	ps	
1 Sigma Jitter	J_{Sigma}		—	4	ps	
Peak to Peak Jitter	J_{PK-PK}		—	30	ps	

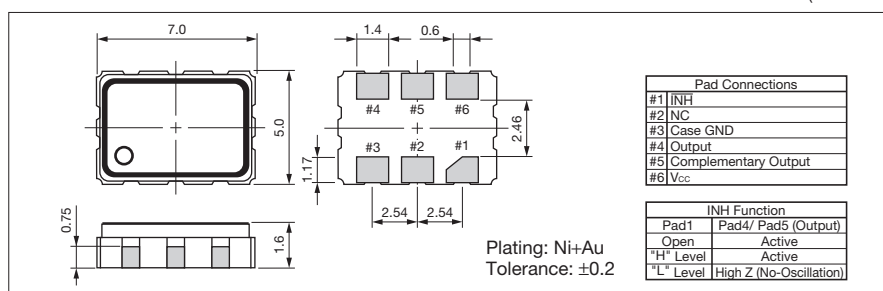
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

