

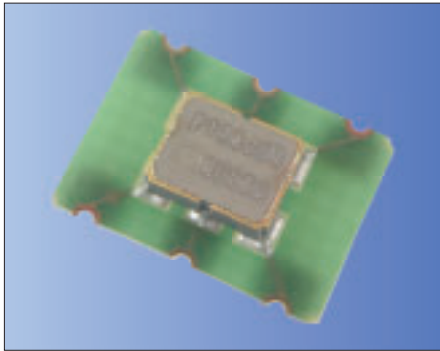


Clock Oscillators Surface Mount Type

KC7050L-P2/ KC7050L-P3 Series



LV-PECL/ 3.3V or 2.5V/ 7.0×5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- Highly reliable with seam welding
- LV-PECL output
- Supply voltage $V_{CC} = 3.3V, 2.5V$
- $\pm 25 \times 10^{-6}$ available
- Low Phase Noise

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	-40 to +85	Please contact us for available frequencies.
F	± 100		
G	± 50		
6	± 50	-40 to +105	

How to Order

KC7050L 100.000 P J 00
 ① ② ③ ④ ⑤ ⑥ ⑦

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

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

Item	Symbol	Conditions	Specifications		Units	
			KC7050L-P2	KC7050L-P3		
Output Frequency Range ^{Note1}	f_o		25 to 170		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	$\pm 50/ -40$ to +105°C		ppm	
			$\pm 100/ -40$ to +85°C			
			$\pm 50/ -40$ to +85°C			
			$\pm 50/ 0$ to +70°C			
			$\pm 30/ 0$ 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	—		-0.3 to +4.0		V	
Supply Voltage	V_{CC}		+2.25 to +2.75	+2.97 to +3.63	V	
Current Consumption	I_{CC}	$\leq 156.25\text{MHz}$	60 max.		mA	
		$156.25\text{MHz} <$	70 max.			
Stand-by Current	I_{std}		20 max.		μA	
Symmetry	SYM	50ohm @crossing point	50 \pm 5		%	
Rise/ Fall Time (20% V_{CC} to 80% V_{CC} Maximum Loaded)	tr/ tf	50ohm	0.6 max. ($V_{CC}: 2.25$ to 2.75V) 0.4 max. ($V_{CC}: 2.97$ to 3.63V)		ns	
Low Level Output Voltage ^{Note2}	V_{OL}		$V_{CC} - 1.810$ to $V_{CC} - 1.620$		V	
High Level Output Voltage ^{Note2}	V_{OH}		$V_{CC} - 1.025$ to $V_{CC} - 0.880$		V	
Output Load	R_L		50		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}		150 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	Measured with Wavecrest SIA-3000	2 max.		ps	
1 Sigma Jitter	J_{σ}		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
		@156.25MHz $V_{CC} = 3.3V$	@10Hz offset	Typ. -77		
			@100Hz offset	Typ. -103		
			@1kHz offset	Typ. -133		
			@10kHz offset	Typ. -143		
			@100kHz offset	Typ. -149		
			@1MHz offset	Typ. -149		
@10MHz offset	Typ. -154					

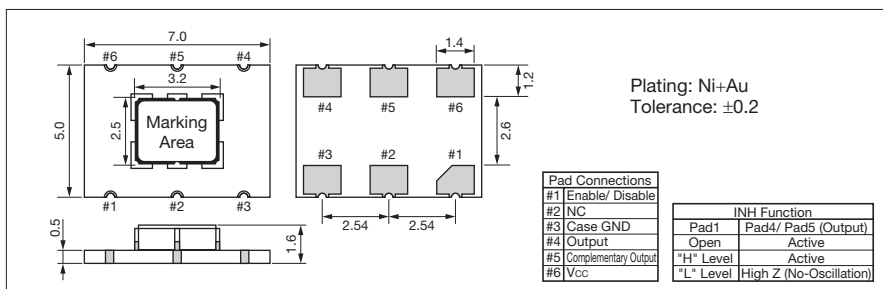
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

