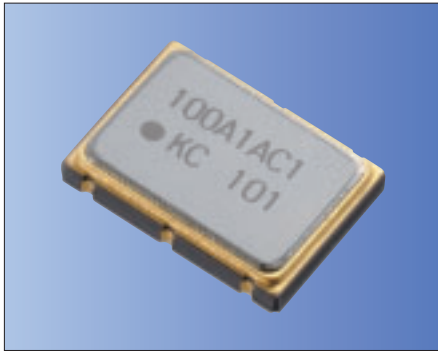


# SAW Clock Oscillators Surface Mount Type KC7050Y-L2 Series



LVDS/ 2.5V/ 7.0x5.0mm



RoHS Compliant

## Features

- Low Voltage 2.5V
- Excellent Jitter performance
- LVDS output
- Operation at Fundamental high frequency
- $\pm 50 \times 10^{-6}$  available

Table 1

Freq. Tol. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
1	$\pm 100$	0 to +70	Standard specifications
0	$\pm 50$		With only certain frequencies
A	$\pm 100$	-5 to +85	

## How to Order

KC7050Y 312.500 L 2 1 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 <sup>Note1</sup>	$f_o$		75	700	MHz
Frequency Tolerance <sup>Note2</sup>	$f_{tol}$	Initial tolerance, Operating temperature range, Rated power supply voltage change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: 0 to +70°C Op. Temp.: 0 to +70°C Op. Temp.: -5 to +85°C	-50 +50 -100 +100 -100 +100	$\times 10^{-6}$
Storage Temperature Range	$T_{stg}$		-55	+125	°C
Operating Temperature Range	$T_{use}$	Standard Specifications	0	+70	°C
Max. Supply Voltage	—		-0.3	+5	V
Supply Voltage	$V_{cc}$	2.5V	+2.38	+2.63	V
Current Consumption (Standard Loaded)	$I_{cc}$		—	70	mA
Symmetry	SYM	100ohm @crossing point	45	55	%
Rise/ Fall Time (20% to 80% Output Level Standard Loaded)	$t_r / t_f$	100ohm	—	400	ps
Low Level Output Voltage <sup>Note3</sup>	$V_{OL}$	Typ. 1.1V	0.9	—	V
High Level Output Voltage <sup>Note3</sup>	$V_{OH}$	Typ. 1.43V	—	1.6	V
Differential Output Voltage <sup>Note3</sup>	$V_{OD}$	Typ. 330mV	247	454	mV
Differential Output Voltage Error <sup>Note3</sup>	$dV_{OD}$	$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		0.2 typ.		ps
1 Sigma Jitter	$J_{\sigma}$	Measured with Wavecrest DTS-2079 V/S/ 6.3.1	2 typ.		ps
Peak to Peak Jitter	JPK-PK		20 typ.		ps

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

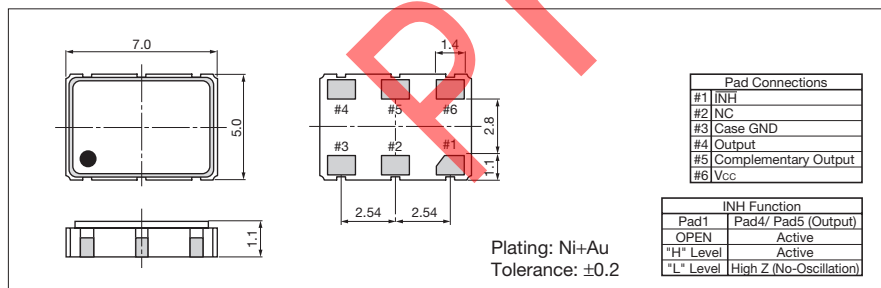
Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: Aging (10 years @25°C) specification is available.

Note3: DC characteristic

## Dimensions

(Unit: mm)



## Recommended Land Pattern

(Unit: mm)

