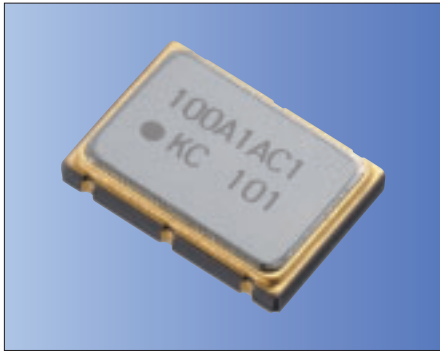


SAW Clock Oscillators Surface Mount Type KC7050Y-L2 Series



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. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
1	± 100	0 to +70	Standard specifications
0	± 50		With only certain frequencies
A	± 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 ^{Note1}	f_o		75	700	MHz	
Frequency Tolerance ^{Note2}	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 -100 -100	+50 +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 ^{Note3}	V_{OL}	Typ. 1.1V	0.9	—	V	
High Level Output Voltage ^{Note3}	V_{OH}	Typ. 1.43V	—	1.6	V	
Differential Output Voltage ^{Note3}	V_{OD}	Typ. 330mV	247	454	mV	
Differential Output Voltage Error ^{Note3}	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	R_L	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_{st}	@Minimum operating voltage to be 0 sec.	—	10	ms	
Deterministic Jitter (DJ)	DJ		0.2 typ.		ps	
1 Sigma Jitter	J_{sigma1}	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.

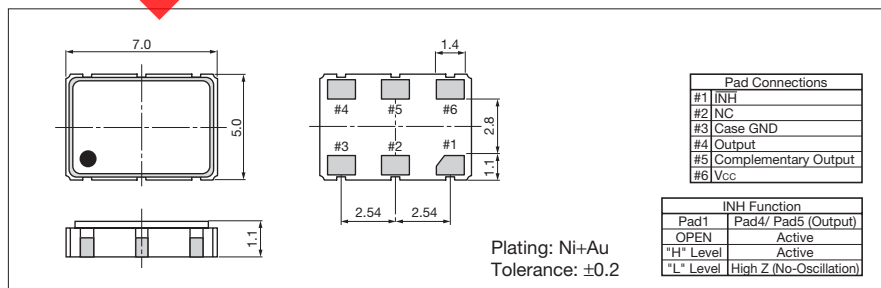
Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

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

Note3: DC characteristic.

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

