

# Clock Oscillators Surface Mount Type

## KC7050P-H2/ KC7050P-H3 Series



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



RoHS Compliant

### Features

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage  $V_{CC} = 2.5V$
- $\pm 25 \times 10^{-6}$  available

Table 1

Freq. Tol. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	$\pm 50$	0 to +70	Standard specifications
S	$\pm 30$		
U	$\pm 25$		
F	$\pm 100$	-40 to +85	With only certain frequencies
G	$\pm 50$		
6	$\pm 50$	-40 to +105	

### How to Order

KC7050P 100.000 H 2 0 E 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (HCSL)
- ④ Supply Voltage (3 : 3.3V or 2 : 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>	$f_o$		25	175	MHz
Frequency Tolerance	$f_{tol}$	Initial tolerance, Operating temperature range, Rated powersupply voltage change, Aging (1 year @25°C), Shock and vibration	-50	+50	$\times 10^{-6}$
Storage Temperature Range	$T_{stg}$		-55	+125	°C
Operating Temperature Range	$T_{use}$		-40	+85	°C
Max. Supply Voltage	—		-0.3	+4.0	V
Supply Voltage	$V_{CC}$		2.25	3.63	V
Current Consumption	$I_{CC}$		—	55	mA
Stand-by Current	$I_{std}$		—	10	$\mu A$
Symmetry	SYM	50ohm @crossing point	45	55	%
Rise/ Fall Time 0.175V to 0.525V	tr/ tf	50ohm	—	0.5	ns
Low Level Output Voltage <sup>Note2</sup>	$V_{OL}$		-0.15	+0.15	V
High Level Output Voltage <sup>Note2</sup>	$V_{OH}$		+0.60	+0.85	V
Output Load	RL	HCSL Output	—	50	ohm
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	Measured with Wavecrest SIA-3000	—	2	ps
1sigma Jitter	J $\Sigma$		—	4	ps
Peak to Peak Jitter	J $_{PK-PK}$		—	30	ps
Phase Jitter	J $_{Phase}$	BW : 12kHz to 20MHz	—	1	ps
Phase Noise	—	- 77 (@10Hz offset) - 107 (@100Hz offset) - 130 (@1kHz offset) - 142 (@10kHz offset) - 149 (@100kHz offset) - 150 (@1MHz offset) - 152 (@10MHz offset)			dBc/ Hz

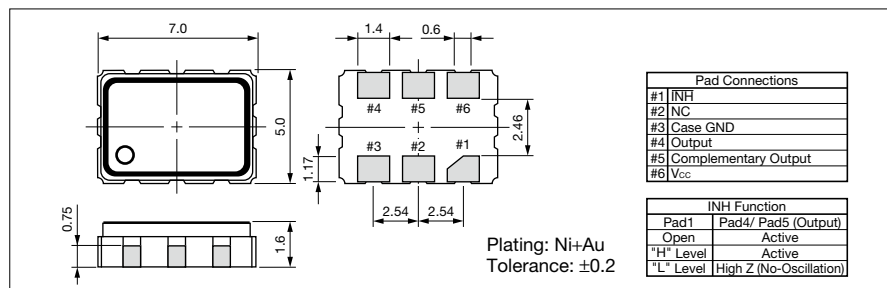
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

