



**Pb Free**

**RoHS Compliant**

### Features

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

**Table 1**

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

### How to Order

**KC7050P 125.000 L 2 0 E 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0×5.0mm SMD)
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ Enable Function (45/55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000pcs./reel)

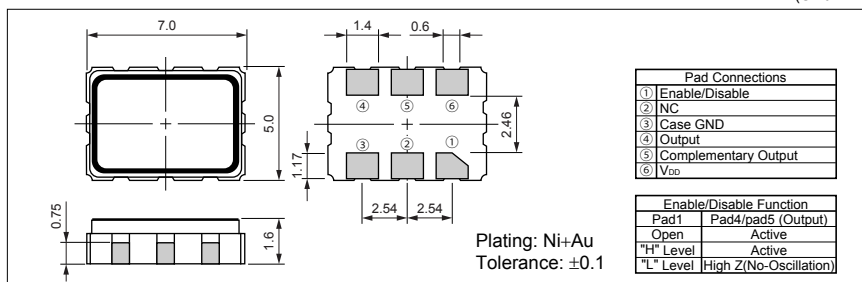
### Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	Fo		75	170	MHz	
Frequency Tolerance	F <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			Op. Temp.: -10 to +70°C/ -40 to +85°C	-50	+50	
			Op. Temp.: -10 to +70°C/ -40 to +85°C	-30	+30	
			Op. Temp.: -10 to +70°C	-25	+25	
Storage Temperature Range	T <sub>stg</sub>		-55	+125	°C	
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	0	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+5	V	
Supply Voltage	V <sub>DD</sub>		2.375	2.625	V	
Current Consumption	I <sub>DD</sub>		—	70	mA	
Stand-by Current	I <sub>std</sub>		—	30	μA	
Symmetry	SYM	100 ohm @50% Output Swing	45	55	%	
Rise/Fall Time (20% V <sub>CC</sub> to 80% V <sub>CC</sub> )	Tr/Tf	100 ohm	—	0.6	nS	
Output Voltage-"L"	V <sub>OL</sub>	Typ. 1.1V	0.9	—	V	
Output Voltage-"H"	V <sub>OH</sub>	Typ. 1.43V	—	1.6	V	
Differential Output Voltage	V <sub>OD</sub>	Typ. 330mV	247	454	mV	
Differential Output Voltage Error	dV <sub>OD</sub>	dV <sub>OD</sub> = V <sub>OD1</sub> -V <sub>OD2</sub>	—	50	mV	
Offset Voltage	V <sub>OS</sub>	Typ. 1.25V	1.125	1.375	V	
Offset Voltage Error	dV <sub>OS</sub>	dV <sub>OS</sub> = V <sub>OS1</sub> -V <sub>OS2</sub>	—	50	mV	
Output Load	L <sub>LVDS</sub>	LVDS Output	100		ohm	
Input Voltage Range	V <sub>IN</sub>		0	V <sub>DD</sub>	V	
Input Voltage-"L"	V <sub>IL</sub>		—	30% V <sub>DD</sub>	V	
Input Voltage-"H"	V <sub>IH</sub>		70% V <sub>DD</sub>	—	V	
Disable Time	—		—	200	nS	
Enable Time	—		—	5	mS	
Start-up Time	ST	@Minimum Operation Voltage to be 0 sec.	—	10	mS	
Deterministic Jitter (DJ)	DJ	Measured with Wavecrest DTS-2079 VIS/ 6.3.1	—	2	pS	
1Sigma jitter	1sigma		—	4	pS	
Peak to Peak Jitter	Pk-Pk		—	30	pS	

Note: All electrical characteristics are defined at the maximum load and operating temperature range.  
 Please contact us for inquiries about operating temperature range, available frequencies and other conditions.

### Dimensions

(Unit : mm)



### Recommended Land Pattern

(Unit : mm)

