



Ph Free

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	Tolerance $\times 10^{-6}$	Operating Temperature Range (°C)	Note
<b>O</b>	$\pm 50$	0 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 1000 pcs./ reel)

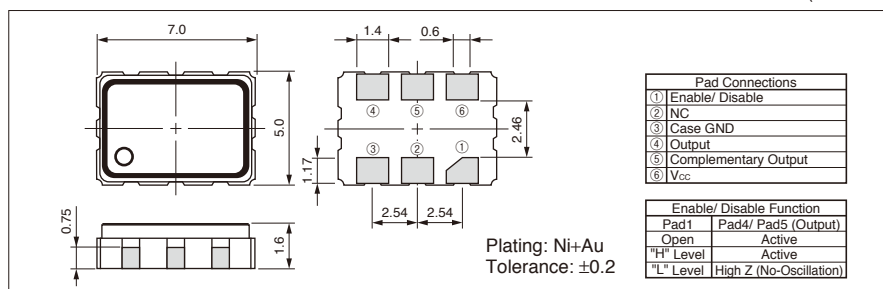
**Specifications**

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	$f_o$		50	190	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	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			Op. Temp.: 0 to +70°C/ -40 to +85°C	-50	+50	
			Op. Temp.: 0 to +70°C	-30	+30	
			Op. Temp.: 0 to +70°C	-25	+25	
Storage Temperature Range	$T_{stg}$		-55	+125	°C	
Operating Temperature Range	$T_{use}$	Standard Specifications	0	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+5	V	
Supply Voltage	$V_{CC}$		2.375	2.625	V	
Current Consumption	$I_{CC}$		—	70	mA	
Stand-by Current	$I_{std}$		—	30	$\mu A$	
Symmetry	SYM	100ohm @50% Output Swing	45	55	%	
Rise/ Fall Time (20% to 80% Output Level)	$t_r/ t_f$	100ohm	—	0.6	nS	
Low Level Output Voltage	$V_{OL}$	Typ. 1.1V	0.9	—	V	
High Level Output Voltage	$V_{OH}$	Typ. 1.43V	—	1.6	V	
Differential Output Voltage	$V_{OD}$	Typ. 330mV	247	454	mV	
Differential Output Voltage Error	$dV_{OD}$	$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		—	2	pS	
1 Sigma Jitter	JSigma	Measured with Wavcrest DTS-2079 VISI 6.3.1	—	4	pS	
Peak to Peak Jitter	JPK-PK		—	30	pS	

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

**Dimensions**

(Unit: mm)



**Recommended Land Pattern**

(Unit: mm)

