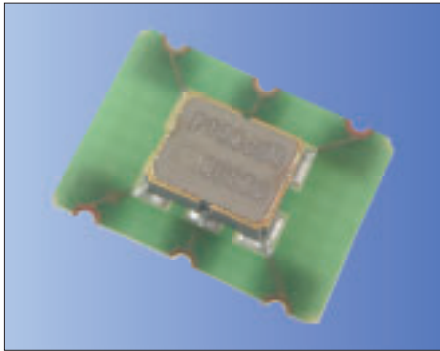


LVDS/ 3.3V or 2.5V/ 7.0×5.0mm



RoHS Compliant

**Features**

- Miniature ceramic package
- Highly reliable with seam welding
- LVDS output
- Supply voltage Vcc = 3.3V, 2.5V
- ±25×10<sup>-6</sup> available
- Low Phase Noise

**Table 1**

Freq. Tol. Code	Freq. Tol. × 10 <sup>-6</sup>	Operating Temperature Range (°C)	Note
0	± 50	0 to +70	Standard specifications
S	± 30		
U	± 25		
F	±100	-40 to +85	Please contact us for available frequencies.
G	± 50		
6	± 50	-40 to +105	

**How to Order**

**KC7050L 100.000 L**   **J 00**  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (LVDS)
- ④ Supply Voltage (3 : 3.3V or 2 : 2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by) J : Low Phase Noise
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

**Specifications**

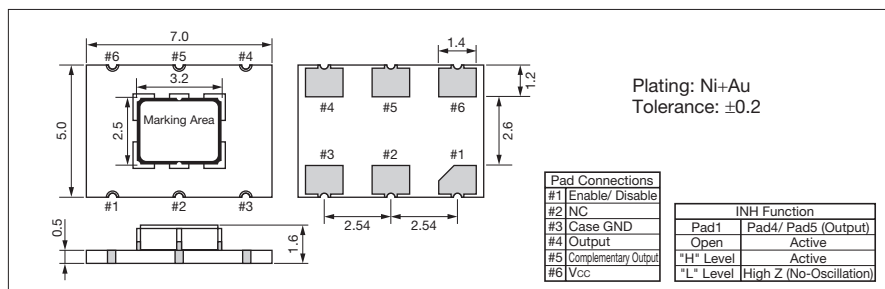
Item	Symbol	Conditions	Specifications		Units
			KC7050L-L2	KC7050L-L3	
Output Frequency Range <sup>Note1</sup>	f <sub>o</sub>		25 to 170		MHz
Frequency Tolerance	f <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	±50/ -40 to +105°C		ppm
			±100/ -40 to +85°C		
			±50/ -40 to +85°C		
			±50/ 0 to +70°C		
			±30/ 0 to +70°C		
Storage Temperature Range	T <sub>stg</sub>		-55 to +125		°C
Operating Temperature Range	T <sub>use</sub>	Standard Specifications Extend (Option)	0 to +70/ -40 to +85		°C
			-40 to +105		
Max. Supply Voltage	—		-0.3 to +4.0		V
Supply Voltage	V <sub>cc</sub>		+2.25 to +2.75	+2.97 to +3.63	V
Current Consumption	I <sub>cc</sub>		50 max.		mA
Stand-by Current	I <sub>std</sub>		20 max.		µA
Symmetry	SYM	100ohm @crossing point	50±5		%
Rise/ Fall Time (20% V <sub>cc</sub> to 80% V <sub>cc</sub> Maximum Loaded)	tr/ tf	100ohm	0.4 max.		ns
Low Level Output Voltage <sup>Note2</sup>	V <sub>OL</sub>		0.9 min. Typ.: 1.1		V
High Level Output Voltage <sup>Note2</sup>	V <sub>OH</sub>		1.6 max. Typ.: 1.43		V
Differential Output Voltage <sup>Note2</sup>	V <sub>OD</sub>		247 to 454 Typ.: 330		mV
Differential Output Voltage Error <sup>Note2</sup>	dV <sub>OD</sub>	dV <sub>OD</sub> =  V <sub>OD1</sub> - V <sub>OD2</sub>	50 max.		mV
Offset Voltage	V <sub>OS</sub>		1.125 to 1.375		V
Offset Voltage Error	dV <sub>OS</sub>	dV <sub>OS</sub> =  V <sub>OS1</sub> - V <sub>OS2</sub>	50 max.		mV
Output Load	RL	LVDS Output	100		ohm
Input Voltage Range	V <sub>IN</sub>		0 to V <sub>cc</sub>		V
Low Level Input Voltage	V <sub>IL</sub>		30% V <sub>cc</sub> max.		V
High Level Input Voltage	V <sub>IH</sub>		70% V <sub>cc</sub> min.		V
Disable Time	t <sub>dis</sub>		200 max.		ns
Enable Time	t <sub>ena</sub>		10 max.		ms
Start-up Time	t <sub>str</sub>	@Minimum operating voltage to be 0 sec.	10 max.		ms
Deterministic Jitter	DJ		2 max.		ps
1 Sigma Jitter	J <sub>sigma</sub>	Measured with Wavecrest SIA-3000	4 max.		ps
Peak to Peak Jitter	J <sub>PK-PK</sub>		30 max.		ps
Phase Jitter	J <sub>Phase</sub>	@156.25MHz V <sub>cc</sub> = 3.3V	BW : 12kHz to 20MHz	0.3 max.	ps
		@156.25MHz V <sub>cc</sub> = 3.3V			
Phase Noise	—	@156.25MHz V <sub>cc</sub> = 3.3V	@10Hz offset	Typ. -77	dBc/ Hz
			@100Hz offset	Typ. -103	
			@1kHz offset	Typ. -133	
			@10kHz offset	Typ. -143	
			@100kHz offset	Typ. -149	
			@1MHz offset	Typ. -149	
@10MHz offset	Typ. -154				

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)

