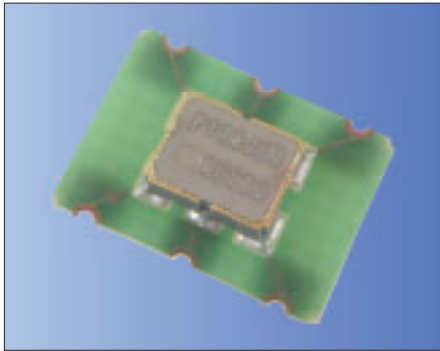


LVDS/ 3.3V or 2.5V/ 7.0×5.0mm



RoHS Compliant

Features

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

Table 1

Freq. Tol. Code	× 10 ⁻⁶	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)

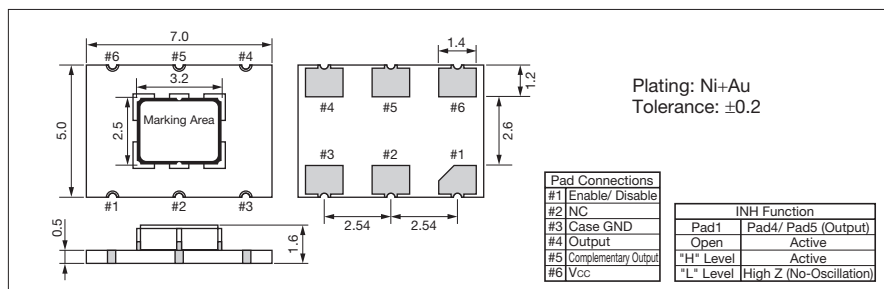
Specifications

Item	Symbol	Conditions	Specifications		Units
			KC7050L-L2	KC7050L-L3	
Output Frequency Range ^{Note1}	f _o		25 to 170		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	±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 _{stg}		-55 to +125		°C
Operating Temperature Range	T _{use}	Standard Specifications	0 to +70/ -40 to +85		°C
		Extend (Option)	-40 to +105		
Max. Supply Voltage	—		-0.3 to +4.0		V
Supply Voltage	V _{cc}		+2.25 to +2.75	+2.97 to +3.63	V
Current Consumption	I _{cc}		50 max.		mA
Stand-by Current	I _{std}		20 max.		µA
Symmetry	SYM	100ohm @crossing point	50±5		%
Rise/ Fall Time (20% Vcc to 80% Vcc Maximum Loaded)	t _r / t _f	100ohm	0.4 max.		ns
Low Level Output Voltage ^{Note2}	V _{OL}		0.9 min. Typ.: 1.1		V
High Level Output Voltage ^{Note2}	V _{OH}		1.6 max. Typ.: 1.43		V
Differential Output Voltage ^{Note2}	V _{OD}		247 to 454 Typ.: 330		mV
Differential Output Voltage Error ^{Note2}	dV _{OD}	dV _{OD} = V _{OD1} - V _{OD2}	50 max.		mV
Offset Voltage	V _{OS}		1.125 to 1.375		V
Offset Voltage Error	dV _{OS}	dV _{OS} = V _{OS1} - V _{OS2}	50 max.		mV
Output Load	RL	LVDS Output	100		ohm
Input Voltage Range	V _{IN}		0 to V _{cc}		V
Low Level Input Voltage	V _{IL}		30% V _{cc} max.		V
High Level Input Voltage	V _{IH}		70% V _{cc} min.		V
Disable Time	t _{dis}		200 max.		ns
Enable Time	t _{ena}		10 max.		ms
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.	10 max.		ms
Deterministic Jitter	DJ		2 max.		ps
1 Sigma Jitter	J _{sigma}	Measured with Wavecrest SIA-3000	4 max.		ps
Peak to Peak Jitter	J _{PK-PK}		30 max.		ps
Phase Jitter	J _{Phase}	@156.25MHz Vcc = 3.3V	BW : 12kHz to 20MHz	0.3 max.	ps
		@156.25MHz Vcc = 3.3V			
Phase Noise	—	@156.25MHz Vcc = 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



Recommended Land Pattern

