



Clock Oscillators Surface Mount Type

KC3225L-L2/ KC3225L-L3 Series



LVDS/ 3.3V or 2.5V/ 3.2x2.5mm



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	Tol. × 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

KC3225L 125.000 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
J : 45/ 55%, Stand-by
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

Specifications

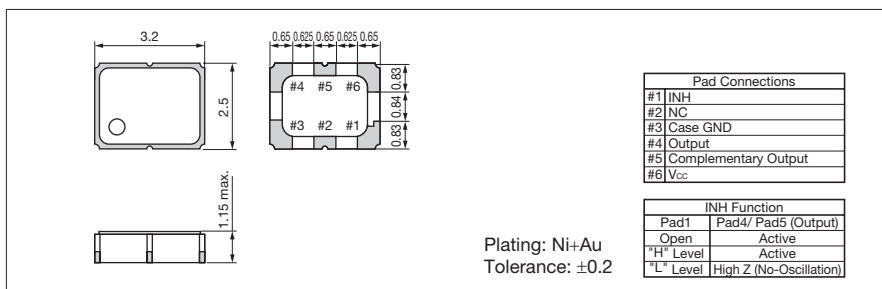
Item	Symbol	Conditions	Specifications		Units	
			KC3225L-L2	KC3225L-L3		
Output Frequency Range ^{Note1}	f _o		25 to 175		MHz	
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	±50/ -40 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 Extend (Option)	0 to +70/ -40 to +85		°C	
			-40 to +105			
Max. Supply Voltage	—		-0.5 to +5.0		V	
Supply Voltage	V _{cc}		+2.375 to +2.625	+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% V _{cc} to 80% V _{cc} Maximum Loaded)	tr/ tf	100ohm	0.6 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	R _L	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	Measured with Wavecrest SIA-3000	2 max.		ps	
1 Sigma Jitter	J _{sigma}		4 max.		ps	
Peak to Peak Jitter	J _{PK-PK}		30 max.		ps	
Phase Jitter	J _{Phase}	@156.25MHz V _{cc} = 3.3V	BW : 12kHz to 20MHz	0.3 max.	ps	
						Typ. -77
						Typ. -103
						Typ. -133
						Typ. -143
						Typ. -149
						Typ. -149
	Typ. -154					
Phase Noise	—	@156.25MHz V _{cc} = 3.3V			dBc/ Hz	
						Typ. -77
						Typ. -103
						Typ. -133
						Typ. -143
						Typ. -149
						Typ. -149

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)

