



# Clock Oscillators Surface Mount Type

## KC5032G Series Dual Selectable



LV-PECL or LVDS/ 3.3V or 2.5V/ 5.0x3.2mm



RoHS Compliant

### Features

- High frequency to 900MHz
- Dual frequency selectable
- LV-PECL output or LVDS output
- Miniature ceramic package
- Compact and low profile (5.0x3.2x1.2mm max.)
- Low current consumption

### Applications

- WDM/ Networking

### Table 1

Freq. Tol. Code	× 10 <sup>-6</sup>	Operating Temperature Range (°C)	Note
G	±50	-40 to +85	Please contact us for available frequencies.

### How to Order

KC5032G 622A644   G D 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency/ Selection Frequency
- ③ Output Type (P : LV-PECL or L : LVDS)
- ④ Supply Voltage (3 : 3.3V or 2 : 2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Disable)
- ⑦ Individual Standard (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

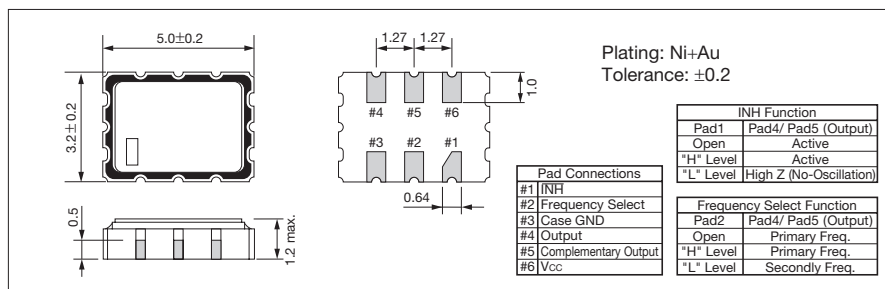
Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range <sup>Note1</sup>	f1	Primary Output/ #2 "H"-Level or Open	10	900	MHz	
	f2	Secondary Output/ #2 "L"-Level	10	900		
Frequency Tolerance	f <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration Op. Temp.: -40 to +85°C	-50	+50	×10 <sup>-6</sup>	
Storage Temperature Range	T <sub>stg</sub>		-55	+125	°C	
Operating Temperature Range	T <sub>use</sub>		-40	+85	°C	
Max. Supply Voltage	—		-0.5	+4.2	V	
Supply Voltage	V <sub>cc</sub>		+2.25 +2.97	+2.75 +3.63	V	
Current Consumption	I <sub>cc</sub>	LV-PECL Output (2.25≤V <sub>cc</sub> ≤2.75V)	—	80	mA	
		LV-PECL Output (2.97<V <sub>cc</sub> <3.63V)	—	100		
		LVDS Output (2.25≤V <sub>cc</sub> ≤2.75V, 2.97≤V <sub>cc</sub> ≤3.63V)	—	40		
Symmetry	SYM	LV-PECL Output 50ohm @crossing point	45	55	%	
		LVDS Output 100ohm @crossing point	45	55		
Rise/ Fall Time (20% to 80% Output Level)	tr/ tf	LV-PECL Output 50ohm LVDS Output 100ohm	—	0.4 0.6	ns	
Low Level Output Voltage <sup>Note2</sup>	V <sub>OL</sub>		—	V <sub>cc</sub> -1.620	V	
High Level Output Voltage <sup>Note2</sup>	V <sub>OH</sub>	LV-PECL Output	V <sub>cc</sub> -1.025	—	V	
Output Load	—		50		ohm	
Low Level Output Voltage <sup>Note2</sup>	V <sub>OL</sub>		0.9	—	V	
High Level Output Voltage <sup>Note2</sup>	V <sub>OH</sub>		—	1.6	V	
Differential Output Voltage <sup>Note2</sup>	V <sub>OD</sub>		Typ. 330mV	175	454	mV
Differential Output Voltage Error <sup>Note2</sup>	dV <sub>OD</sub>	LVDS Output	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	—		100		ohm	
Low Level Input Voltage <sup>Note2</sup>	V <sub>IL</sub>		—	30% V <sub>cc</sub>	V	
High Level Input Voltage <sup>Note2</sup>	V <sub>IH</sub>		70% V <sub>cc</sub>	—	V	
Disable Time	t <sub>dis</sub>		—	200	ns	
Enable Time	t <sub>ena</sub>		—	2	ms	
Start-up Time	t <sub>str</sub>	@Minimum operating voltage to be 0 sec.	—	10	ms	
Phase Jitter	J <sub>Phase</sub>	@622.08MHz	BW : 12kHz to 20MHz	Typ. 3.0		ps
			@10Hz offset	Typ. -40		
			@100Hz offset	Typ. -70		
			@1kHz offset	Typ. -95		
			@10kHz offset	Typ. -105		
			@100kHz offset	Typ. -105		
			@1MHz offset	Typ. -125		
@10MHz offset	Typ. -135					
Phase Noise	—	@622.08MHz	BW : 12kHz to 20MHz	Typ. 3.0		dBc/ Hz
			@10Hz offset	Typ. -40		
			@100Hz offset	Typ. -70		
			@1kHz offset	Typ. -95		
			@10kHz offset	Typ. -105		
			@100kHz offset	Typ. -105		
			@1MHz offset	Typ. -125		
@10MHz offset	Typ. -135					

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)

