



# Voltage Controlled Crystal Oscillators (VCXO)

## Surface Mount Type KV7050G-P3 Series Dual Selectable



LV-PECL/ 3.3V/ 7.0×5.0mm



RoHS Compliant

### Features

- High frequency to 800MHz
- Dual Selectable
- LV-PECL output
- Miniature ceramic package
- for WDM, Networking Applications

Table 1

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

### How to Order

KV7050G 622A644 P 3 G F 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency/ Selection Frequency
- ③ Output Type (LV-PECL)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry (45/ 55%)
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

Item	Symbol	Conditions	Min.	Max.	Unit
Output Frequency Range <sup>Note1</sup>	f1	Primary Output/ #2 "H"-Level or Open	10	800	MHz
	f2	Secondary Output/ #2 "L"-Level	10	800	MHz
Frequency Tolerance @V <sub>c</sub> =+1.65V	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	+50	× 10 <sup>-6</sup>
Absolute Pull Range	APR		±100	—	× 10 <sup>-6</sup>
Control Voltage	V <sub>c</sub>		0	+3.3	V
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>		+2.97	+3.63	V
Linearity	—	V <sub>c</sub> =0V to +3.3V	-10	+10	%
Current Consumption	I <sub>cc</sub>		—	100	mA
Symmetry	SYM	50ohm @crossing point	45	55	%
Rise/ Fall Time (20% to 80% Output Level)	Tr/ Tf	50ohm	—	0.4	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>		V <sub>cc</sub> -1.025	—	V
Output Load	—	LV-PECL Output	—	50	ohm
Low Level Input Voltage	V <sub>IL</sub>		—	30% V <sub>cc</sub>	V
High Level Input Voltage	V <sub>IH</sub>		70% V <sub>cc</sub>	—	V
Input Resistance	—		TYP	1	Mohm
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
			@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	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	

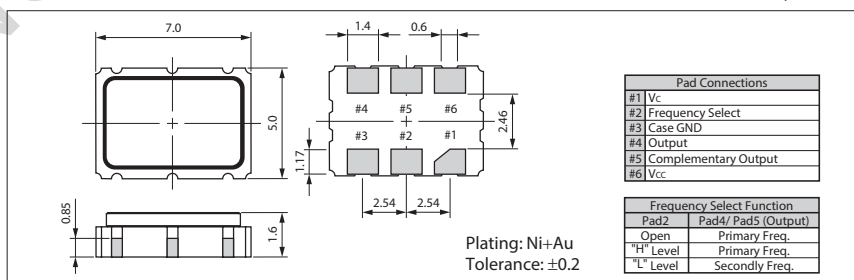
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

Note2: DC characteristic

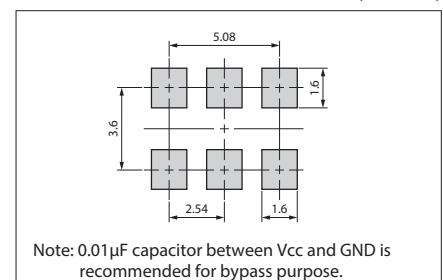
### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)



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