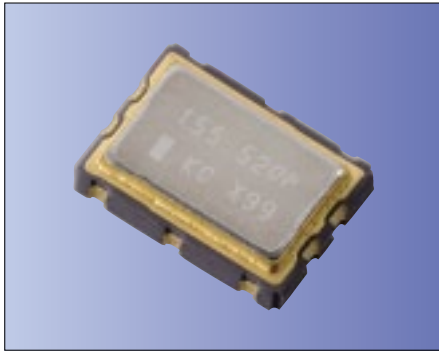


# Voltage Controlled Crystal Oscillators (VCXO)

## Surface Mount Type KV7050C-P3 Series



CMOS/ 3.3V/ 7.0x5.0mm



RoHS Compliant

### Features

- High frequency to 165MHz
- LV-PECL output
- Miniature ceramic package
- Highly reliable with seam welding
- Low Phase Noise

Table 1

Freq. Tol. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	$\pm 50$	0 to +70	Standard specifications
S	$\pm 30$	0 to +70	With only certain frequencies
G	$\pm 50$	-40 to +85	

### How to Order

KV7050C 155.520 P 3 G K 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (7.0x5.0mm SMD VCXO)
- ② Output Frequency
- ③ Output Type (LV-PECL)
- ④ Supply Voltage (3.3V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function/ APR (45/ 55%, Standby, APR50)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

### Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range <sup>Note1</sup>	fo		70	165	MHz	
Frequency Tolerance <sup>Note2</sup>	f <sub>tol</sub>	Initial tolerance, Operating temperature range, Rated power supply voltage change, Shock and vibration	Op. Temp.: 0 to +70°C/ -40 to +85°C	-50	+50	$\times 10^{-6}$
			Op. Temp.: 0 to +70°C	-30	+30	
Absolute Pull Range	APR	Standard Specifications	$\pm 50$	—	$\times 10^{-6}$	
		Extend (Option)	$\pm 100$	—		
Frequency Aging	f <sub>age</sub>	Per 20years @25°C	-15	+15	$\times 10^{-6}$	
Control Voltage	V <sub>c</sub>		0	+3.3	V	
Storage Temperature Range	T <sub>stg</sub>		-55	+90	°C	
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	0	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+5	V	
Supply Voltage	V <sub>CC</sub>		+2.97	+3.63	V	
Current Consumption	I <sub>CC</sub>		—	50	mA	
Disable Current	I <sub>dis</sub>		—	0.1	mA	
Symmetry	SYM	50ohm@crossing point	45	55	%	
Rise/ Fall Time (20% to 80% Output Level)	tr/ tf	50ohm	—	0.5	ns	
Low Level Output Voltage <sup>Note3</sup>	V <sub>OL</sub>		—	V <sub>CC</sub> -1.620	V	
High Level Output Voltage <sup>Note3</sup>	V <sub>OH</sub>		V <sub>CC</sub> -1.025	—	V	
Output Load	—	LV-PECL Output		50	ohm	
Input Voltage Range	V <sub>IN</sub>		0	+3.3	V	
Low Level Input Voltage <sup>Note3</sup>	V <sub>IL</sub>		—	30% V <sub>CC</sub>	V	
High Level Input Voltage <sup>Note3</sup>	V <sub>IH</sub>		70% V <sub>CC</sub>	—	V	
Input Resistance	—		5	—	Mohm	
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.	—	3	ms	
Phase Jitter	J <sub>Phase</sub>	12kHz to 20MHz @122.88MHz	—	0.5	ps	
Phase Noise @122.88MHz	—	- 66 (@10Hz offset) - 97 (@100Hz offset) - 125 (@1kHz offset) - 141 (@10kHz offset) - 146 (@100kHz offset) - 147 (@1MHz offset) - 147 (@10MHz offset)			dBc/ Hz	

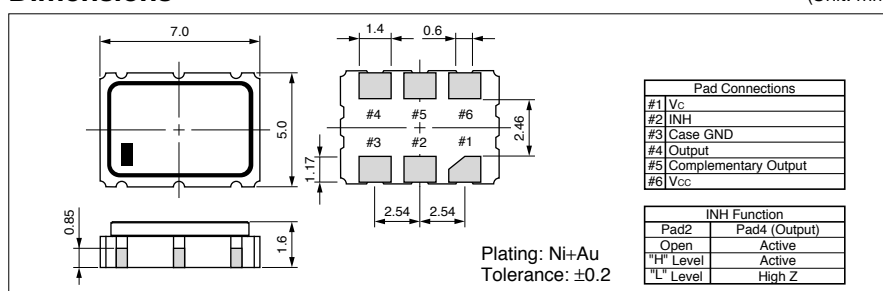
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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)

