



Voltage Controlled Crystal Oscillators (VCXO) Surface Mount Type KV7050B-C3 Series



CMOS/ 3.3V/ 7.0×5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- CMOS output
- High frequency to 170MHz
- Highly reliable with seam welding
- Supply voltage $V_{CC}=3.3V$
- Excellent Jitter performance

Table 1

Freq. Tol. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	± 50	-10 to +70	Standard specifications
S	± 30	-10 to +70	Please contact us for available frequencies.
G	± 50	-40 to +85	

How to Order

KV7050B 24.5760 C 3 □ □ 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
 - ② Output Frequency
 - ③ Output Type (CMOS)
 - ④ Supply Voltage (3.3V)
 - ⑤ Frequency Tolerance (See Table 1)
 - ⑥ Symmetry/ INH Function/ Input Resistance
 - ⑦ Individual Specification (STD Specification is "00")
- Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

Item	Symbol	Conditions	Min.	Max.	Unit	
Output Frequency Range ^{Note1}	f_o		15	78	MHz	
Frequency Tolerance ^{Note2}	f_{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Temp.: -10 to +70°C/ -40 to +85°C	-50	+50	$\times 10^{-6}$
			Temp.: -10 to +70°C	-30	+30	
Absolute Pull Range	APR	$1.5 \leq f_o \leq 30\text{MHz}$ $30 < f_o \leq 78\text{MHz}$	± 100 ± 50	—	$\times 10^{-6}$	
Control Voltage	V_c		0	+3.3	V	
Storage Temperature Range	T_{stg}		-55	+125	°C	
Operating Temperature Range	T_{use}	Standard Specifications Extend (Option)	-10 -40	+70 +85	°C	
Max. Supply Voltage	—	$1.5 \leq f_o \leq 78\text{MHz}$	-0.5	+7.0	V	
Supply Voltage	V_{CC}		+2.97	+3.63	V	
Current Consumption	I_{CC}	$1.5 \leq f_o \leq 78\text{MHz}$	—	15	mA	
Disable Current	I_{dis}	$1.5 \leq f_o \leq 78\text{MHz}$	—	10	mA	
Symmetry	SYM	@50% V_{CC}	45	55	%	
Rise/ Fall Time (10% V_{CC} to 90% V_{CC})	T_r/ T_f	$1.5 \leq f_o \leq 30\text{MHz}$ $30 < f_o \leq 78\text{MHz}$	—	8 5	ns	
Low Level Output Voltage	V_{OL}		—	10% V_{CC}	V	
High Level Output Voltage	V_{OH}		90% V_{CC}	—	V	
Output Load	L _{CMOS}	CMOS Output	—	15	pF	
Input Voltage Range	V_{IN}		0	+3.3	V	
Low Level Input Voltage	V_{IL}		—	30% V_{CC}	V	
High Level Input Voltage	V_{IH}		70% V_{CC}	—	V	
Input Resistance	—	Code@ : D	100	—	k ohm	
		Code@ : G	5	—	Mohm	
Disable Time	t_{dis}	$1.5 \leq f_o \leq 30\text{MHz}$ $30 < f_o \leq 78\text{MHz}$	—	100 200	ns	
Enable Time	t_{ena}	$1.5 \leq f_o \leq 78\text{MHz}$	—	100	ns	
Start-up Time	t_{st}	@Minimum operating voltage to be 0 sec.	—	10	ms	

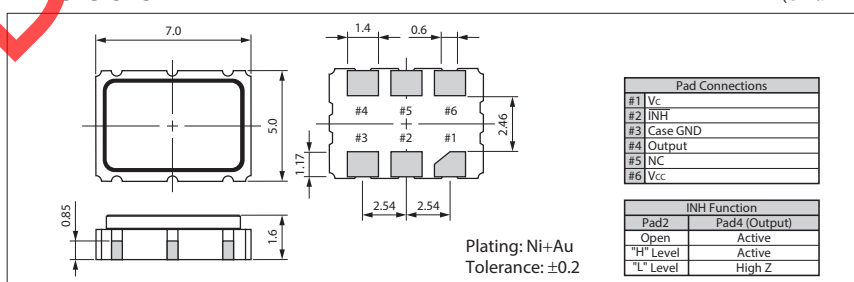
Note : All electrical characteristics are defined at the maximum load and operating temperature range.

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

Note2: Please contact us for the Frequency tolerance of -40 to +85°C.

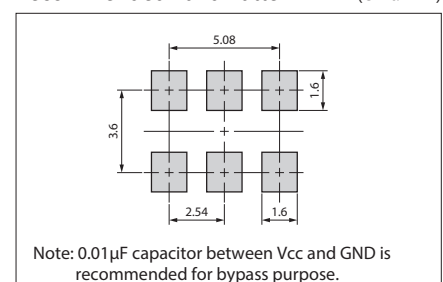
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



Voltage Controlled Crystal Oscillators

