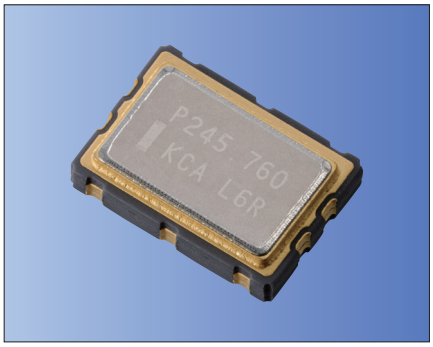
Voltage Controlled Crystal Oscillators (VCXO)
Surface Mount Type KV7050R-P3 Series

KYOCERA

LV-PECL/ 3.3V/ 7.0×5.0mm



RoHS Compliant

Features

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

Table 1

Freq. Tol. Code	Freq. Tol. × 10^{-6}	Operating Temperature Range (°C)	Note
G	±50	−40 to +85	Please contact us for available frequencies.

How to Order

KV7050R 622.080 P 3 G D 00
① ② ③ ④ ⑤ ⑥ ⑦

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

Packaging (Tape & Reel 1000 pcs./ reel)

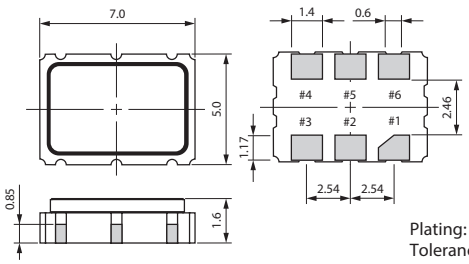
Specifications

Item	Symbol	Conditions		Min.	Max.	Unit
Output Frequency Range[Note1]	fo			10	800	MHz
Frequency Tolerance @Vc=+1.65V	f_tol	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	Temp.: −40 to +85°C	−50	+50	×10^{-6}
Absolute Pull Range	APR			±100	—	×10^{-6}
Control Voltage	Vc			0	+3.3	V
Storage Temperature Range	T_stg			−55	+125	°C
Operating Temperature Range	T_use			−40	+85	°C
Max. Supply Voltage	—			−0.5	+4.2	V
Supply Voltage	Vcc			+2.97	+3.63	V
Linearity	—	Vc=0V to +3.3V		−10	+10	%
Current Consumption	Icc			—	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[Note2]	VOL			—	Vcc−1.620	V
High Level Output Voltage[Note2]	VOH			Vcc−1.025	—	V
Output Load	—	LV-PECL Output		50		ohm
Low Level Input Voltage	VIL			—	30% Vcc	V
High Level Input Voltage	VIH			70% Vcc	—	V
Input Resistance	—			150	—	k ohm
Disable Time	t_dis			—	200	ns
Enable Time	t_ena			—	2	ms
Start-up Time	t_str	@Minimum operating voltage to be 0 sec.		—	10	ms
Phase Jitter	Jphase	@622.08MHz	BW : 12kHz to 20MHz	Typ. 3.0		ps
Phase Noise	—	@622.08MHz	@10Hz offset	Typ. −40		dBc/ Hz
			@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)



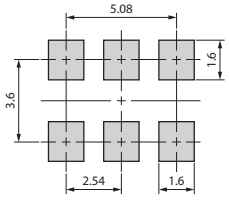
Plating: Ni+Au
Tolerance: ±0.2

Pad Connections	
#1	Vc
#2	INH
#3	Case GND
#4	Output
#5	Complementary Output
#6	Vcc

Frequency Select Function	
Pad2	Pad4/ Pad5 (Output)
Open	Active
"H" Level	Active
"L" Level	High Z(Non-Oscillation)

Recommended Land Pattern

(Unit: mm)



Note: 0.01µF capacitor between Vcc and GND is recommended for bypass purpose.

As of August 2021