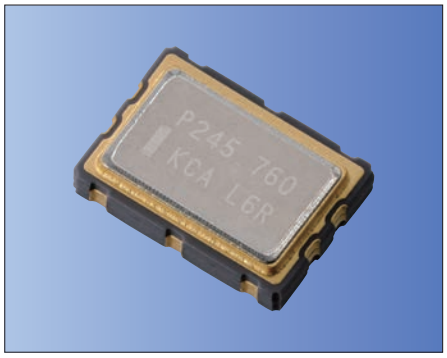
Clock Oscillators Surface Mount Type
KC7050R-P3 Series

KYOCERA

LV-PECL/ 3.3V/ 7.0×5.0mm



RoHS Compliant

Features

- High frequency to 900MHz
- LV-PECL output
- Miniature ceramic package
- Highly reliable with seam welding
- for WDM, Networking Applications

Table 1

Freq. Tol.		Operating Temperature Range (°C)	Note
Code	× 10^{-6}		
G	±50	−40 to +85	Standard specifications With only certain frequencies

How to Order

KC7050R 622.080 P 3 G D 00
① ② ③ ④ ⑤ ⑥ ⑦

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

Packaging (Tape & Reel 1000 pcs./ reel)

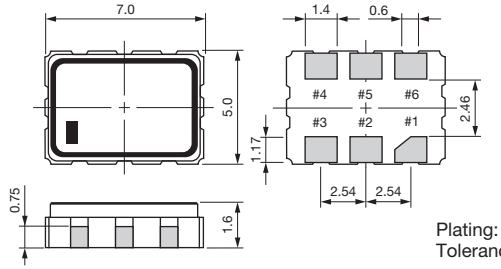
Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range Note1	fo		10	900	MHz
Frequency Tolerance	f_tol	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^{-6}
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
Current Consumption	Icc		—	100	mA
Disable Current	IDE		—	30	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 Note2	VIL		—	30% Vcc	V
High Level Input Voltage Note2	VIH		70% Vcc	—	V
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	12kHz to 20MHz @622.08MHz	TYP	3.0	ps
Phase Noise @622.08MHz Typ.	—	− 40 (@10Hz offset) − 70 (@100Hz offset) − 95 (@1kHz offset) −105 (@10kHz offset) −105 (@100kHz offset) −125 (@1MHz offset) −135 (@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)



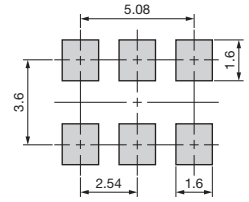
Plating: Ni+Au
Tolerance: ±0.2

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

INH Function	
Pad1	Pad4/ Pad5 (Output)
Open	Active
"H" Level	Active
"L" Level	High Z (No-Oscillation)

Recommended Land Pattern

(Unit: mm)



Note: A capacitor of value 0.01µF and 10µF between Vcc and GND is recommended.