

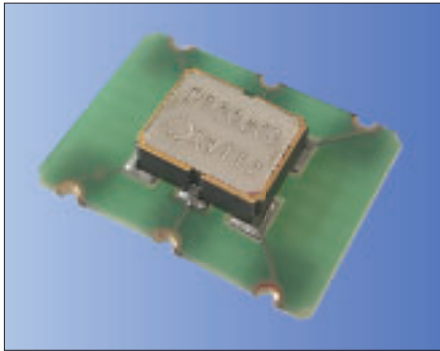


Voltage Controlled Crystal Oscillators (VCXO)

Surface Mount Type KV7050L Series



LV-PECL/ 3.3V/ 7.0x5.0mm



RoHS Compliant

Features

- Miniature ceramic package
- LV-PECL output
- High frequency to 170MHz
- Low Phase Noise

Table 1

Freq. Code	Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
O	± 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

KV7050L 100.000 P 3 J 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/ APR (45/ 55%, Disable/ APR50) J : Low Phase Noise
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range ^{Note1}	fo		100	170	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	Op. Temp.: -10 to +70°C/ -40 to +85°C	-50	+50	$\times 10^{-6}$
			Op. Temp.: -10 to +70°C	-30	+30	
Absolute Pull Range	APR	Standard specifications Extend (Option)	± 50 ± 100	—	$\times 10^{-6}$	
Frequency Aging	f _{age}	Per 20years @25°C	-20	+20	$\times 10^{-6}$	
Control Voltage	V _c		0	+3.3	V	
Storage Temperature Range	T _{stg}		-55	+125	°C	
Operating Temperature Range	T _{use}	Standard specifications	0	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.3	+5.0	V	
Supply Voltage	V _{cc}		+2.97	+3.63	V	
Current Consumption	I _{cc}		—	85	mA	
Disable Current	I _{dis}		—	5	mA	
Symmetry	SYM	50ohm @crossing point	45	55	%	
Rise/ Fall Time (20% to 80% Output Level)	tr/ tf	50ohm	—	0.7	ns	
Low Level Output Voltage ^{Note3}	V _{OL}		—	V _{cc} -1.620	V	
High Level Output Voltage ^{Note3}	V _{OH}		V _{cc} -1.025	—	V	
Output Load	—	LV-PECL Output	—	50	ohm	
Input Voltage Range	V _{IN}		0	+3.3	V	
Low Level Input Voltage ^{Note3}	V _{IL}		—	30% V _{cc}	V	
High Level Input Voltage ^{Note3}	V _{IH}		70% V _{cc}	—	V	
Input Resistance	—		10	—	M ohm	
Disable Time	t _{dis}		—	200	ns	
Enable Time	t _{ena}		—	20	μ s	
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.	—	10	ms	
Phase Jitter	J _{Phase}	@122.88MHz	—	0.3	ps	
Phase Noise	—	@122.88MHz	BW : 12kHz to 20MHz		dBc/ Hz	
			@10Hz offset	Typ. -71		
			@100Hz offset	Typ. -102		
			@1kHz offset	Typ. -128		
			@10kHz offset	Typ. -146		
			@100kHz offset	Typ. -152		
			@1MHz offset	Typ. -156		
@10MHz offset	Typ. -157					

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

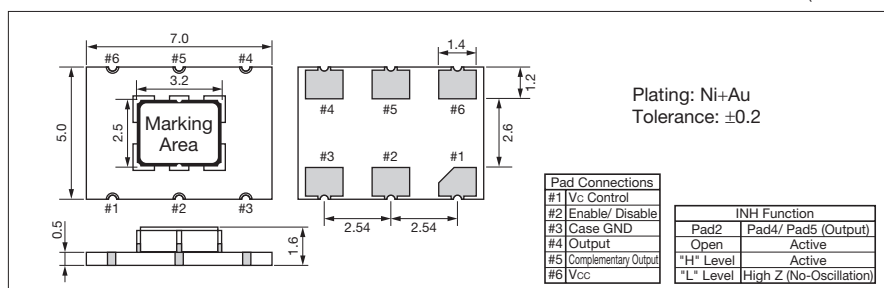
Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.

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

Note3: DC characteristic

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

