

Voltage Controlled Crystal Oscillators (VCXO)

Surface Mount Type KV5032R Series



LV-PECL or LVDS/ 3.3V or 2.5V/ 5.0x3.2mm



RoHS Compliant

Features

- High frequency to 900MHz
- LV-PECL output or LVDS output
- Miniature ceramic package
- Compact and low profile (5.0x3.2x1.2mm max.)
- Low current consumption

Applications

- WDM/ Networking

Table 1

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

How to Order

KV5032R 622.080 P 3 G D 00
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency
- ③ Output Type (LV-PECL or LVDS)
- ④ Supply Voltage (3 : 3.3V or 2 : 2.5V)
- 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

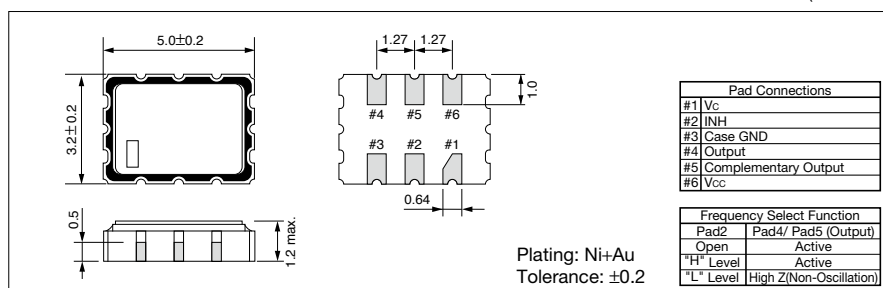
Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range ^{Note1}	f _o		10	900	MHz	
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration Op. Temp.: -40 to +85°C	-50	+50	×10 ⁻⁶	
Absolute Pull Range	APR		±100	—	×10 ⁻⁶	
Control Voltage	V _C		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	V _{CC}		+2.25	+3.63	V	
Linearity	—	V _C = 0V to +3.3V	-10	10	%	
Current Consumption	I _{CC}	LV-PECL Output (2.25 ≤ V _{CC} ≤ 2.75V)	—	80	mA	
		LV-PECL Output (2.75 < V _{CC} ≤ 3.63V)	—	100		
		LVDS Output (2.25 ≤ V _{CC} ≤ 3.63V)	—	40		
Symmetry	SYM	LV-PECL Output 50ohm @crossing point	45	55	%	
		LVDS Output 100ohm @crossing point	45	55		
Rise/ Fall Time (20% to 80% Output Level)	tr/ tf	LV-PECL Output 50ohm LVDS Output 100ohm	—	0.4 0.6	ns	
Low Level Output Voltage ^{Note2}	V _{OL}	LV-PECL Output	—	V _{CC} - 1.620	V	
High Level Output Voltage ^{Note2}	V _{OH}		V _{CC} - 1.025	—	V	
Output Load	—		50		ohm	
Low Level Output Voltage ^{Note2}	V _{OL}	LVDS Output	Typ. 1.1V	—	V	
High Level Output Voltage ^{Note2}	V _{OH}		Typ. 1.43V	—	1.6	V
Differential Output Voltage ^{Note2}	V _{OD}		Typ. 330mV	175	454	mV
Differential Output Voltage Error ^{Note2}	dV _{OD}		—	50	mV	
Offset Voltage	V _{OS}		Typ. 1.25V	1.375	V	
Offset Voltage Error	dV _{OS}		—	50	mV	
Output Load	—		100		ohm	
Low Level Input Voltage ^{Note2}	V _{IL}		—	30% V _{CC}	V	
High Level Input Voltage ^{Note2}	V _{IH}		70% V _{CC}	—	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	J _{Phase}	12kHz to 20MHz @622.08MHz	—	1.0	ps	
Phase Noise @622.08MHz	—	- 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)



Recommended Land Pattern

(Unit: mm)

