



Voltage Controlled Crystal Oscillators (VCXO)

Surface Mount Type KV5032G Series Dual Selectable



LV-PECL or LVDS/ 3.3V or 2.5V/ 5.0×3.2mm



RoHS Compliant

Features

- High frequency to 800MHz
- Dual frequency selectable
- LV-PECL output or LVDS output
- Miniature ceramic package
- Compact and low profile (5.0×3.2×1.2mm max.)
- Low current consumption

Applications

- WDM/ Networking

Table 1

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

How to Order

KV5032G 622A644 □ □ G F 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Series
- ② Output Frequency/ Selection Frequency
- ③ Output Type (P : LV-PECL or L : LVDS)
- ④ Supply Voltage (3 : 3.3V or 2 : 2.5V)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%)
- ⑦ Individual Specification (STD Specification is "00")

Packaging (Tape & Reel 1000 pcs./ reel)

Specifications

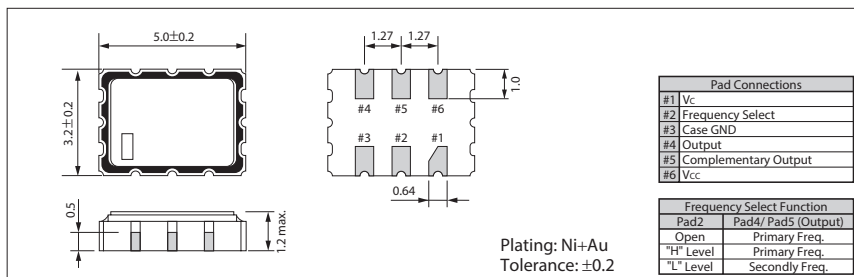
Item	Symbol	Conditions	Min.	Max.	Unit	
Output Frequency Range ^{Note1}	f1	Primary Output/ #2 "H" -Level or Open	10	800	MHz	
	f2	Secondary Output/ #2 "L" -Level	10	800		
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Aging (1 year @25°C), Shock and vibration	-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	+2.75	V	
			+2.97	+3.63		
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 (2.97≤V _{cc} ≤3.63V)	—	100		
		LVDS Output (2.25≤V _{cc} ≤2.75V, 2.77≤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	—	0.4	ns	
		LVDS Output 100ohm	—	0.6		
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}	LVDS Output	Typ. 330mV	175	454	mV
Differential Output Voltage Error ^{Note2}	dV _{OD}		dV _{OD} = V _{OD1} -V _{OD2}	—	50	mV
Offset Voltage	V _{OS}	LVDS Output	Typ. 1.25V	1.125	1.375	V
Offset Voltage Error	dV _{OS}		dV _{OS} = V _{OS1} -V _{OS2}	—	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	
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.	—	10	ms	
Phase Jitter	J _{Phase}	@622.08MHz	BW : 12kHz to 20MHz		ps	
Phase Noise	—	@622.08MHz	@10Hz offset			Typ. -40
			@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

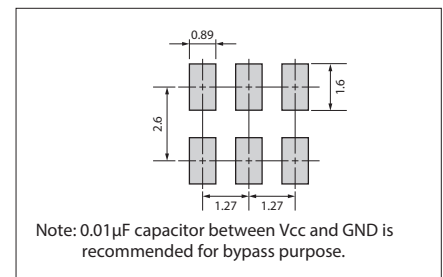
Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)



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