

K1526C & K1536C

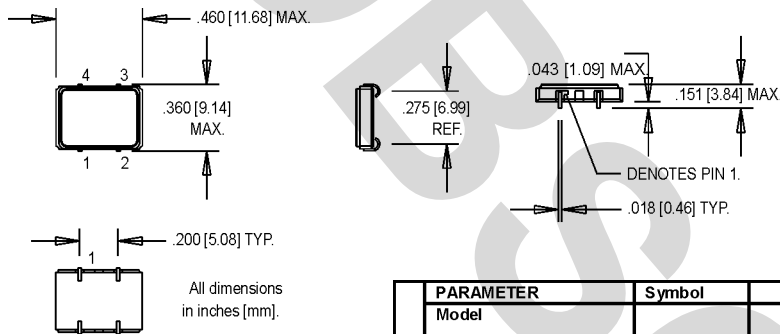
9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO



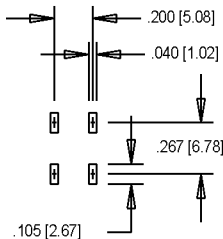
Ordering Information

	K15X6CX	X	X	00.0000 MHz
Product Series				
K1526C = 5.0 Volt				
K1536C = 3.3 Volt				
Model Selection:				
See Electrical Specs				
Temperature Range				
Blank: 0°C to +70°C				
M: -40°C to +85°C				
Symmetry/Logic Compatibility				
Blank: TTL/CMOS 40%/60%				
C: CMOS 45%/55%				
T: TTL 45%/55%				
Frequency (customer specified)				

- Former **Champion** TECHNOLOGIES, INC. Product
- Phase-Locked Loops (PLL's), Clock Recovery, Reference Signal Tracking, Synthesizers, Frequency Modulation/Demodulation



SUGGESTED SOLDER PAD LAYOUT



Pin Connections

PIN	FUNCTION
1	Voltage Control
2	Ground & Gnd Plane
3	Output
4	+Vdd

Electrical Specifications	PARAMETER	Symbol				Units		
	Model		K1526CA K1536CA		K1526CD K1536CD	K1526CE		
	Frequency Range	F	2 to 55	55.1 to 80	2 to 55	2 to 40	MHz	
	Frequency Stability Overall	ΔF/F	Inclusive of Calibration, Temperature, Voltage, Load, and Aging					
	0°C to +70°C		±25	±40	±25	±32	ppm	
	-40°C to +85°C		±50	±60	±50	±50	ppm	
	Pullability							
	Minimum		±100	±80	±80	±200	ppm	
	Maximum		±150	±160	±130		ppm	
PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes		
Operating Temperature	T _A	(See ordering information)						
Storage Temperature	T _S	-40		+125	°C			
Aging								
1 st Year		-3/-5		+3/+5	ppm	<52 MHz / ≥52 MHz		
Thereafter (per year)		-1/-2		+1/+2	ppm	<52 MHz / ≥52 MHz		
Control Voltage	V _C	0.5 0.3 0	2.5 1.65	4.5 3.0 5.0	V V V	K1526C K1536C K1526CE		
Linearity				10	%	Positive Monotonic Slope		
Modulation Bandwidth	f _m	20			kHz	+3 dB		
Input Impedance	Z _{in}	50K			Ohms	@ 10 kHz		
Input Voltage	V _{DD}	4.5 3.0	5.0 3.3	5.5 3.6	V V	K1526C K1536C		
Input Current	I _{DD}			30	mA			
Output Type						CMOS/TTL		
Load				15	pF	HCMOS		
Symmetry (Duty Cycle)		(See ordering information)						
Logic “1” Level	V _{OH}	V _{DD} -0.5			V			
Logic “2” Level	V _{OL}			0.5	V			
Output Current				20	mA			
Rise/Fall Time	T _r /T _f			5	ns	20% to 80% V _{DD} , C _L = 15 pF		
Start up Time				10	ms			
Phase Jitter @ 26 MHz	Φ _J		4		ps RMS	Integrated 12 kHz – 20 MHz		
Phase Noise (Typical) @ 26 MHz		10 Hz -65	1 kHz -95	10 kHz -115	100 kHz -130	100 kHz -140	Offset from carrier dBc/Hz	
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 mS duration, ½ sinewave)						
	Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)						
	Hermeticity	Per MIL-STD-202, Method 112, (1x10-8 atm. cc/s of Helium)						
	Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B (-55°C to +125°C, 15 min. dwell, 10 cycles)						
	Solderability	Per EIAJ-STD-002						
Soldering Conditions	+240°C max. for 10 secs.							

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MtronPTI Lead Free Solder Profile

