

K1526C & K1536C

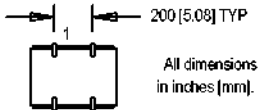
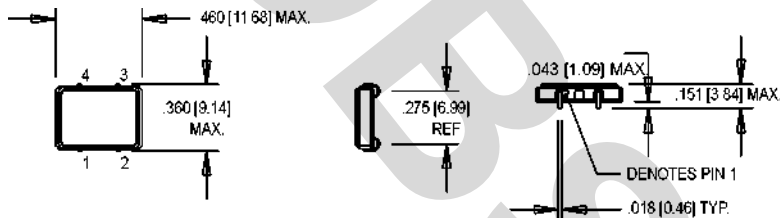
9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO



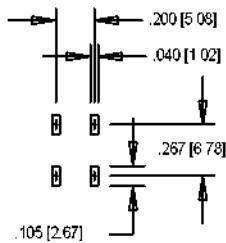
Ordering Information

	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

PARAMETER	Symbol				Units		
Model		K1526CA K1536CA	K1526CD K1536CD	K1526CE			
Frequency Range	F	2 to 55	55.1 to 80	2 to 40	MHz		
Frequency Stability Overall	$\Delta F/F$	Inclusive of Calibration, Temperature, Voltage, Load, and Aging					
0°C to +70°C		±25	±40	±25	ppm		
-40°C to +85°C		±50	±60	±50	ppm		
Pullability Minimum		±100	±80	±80	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	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	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	σ _φ		4		ps RMS	Integrated 12 kHz – 20 MHz	
Phase Noise (Typical) @ 26 MHz		10 Hz -65	100 Hz -95	1 kHz -115	10 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)						
Hemeticity	Per MIL-STD-202, Method 112, (1x10 ⁻⁸ atm, coils 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

