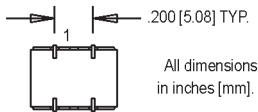
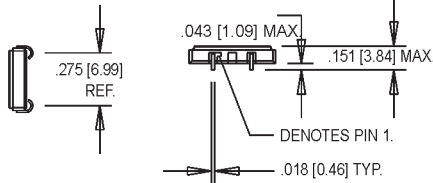
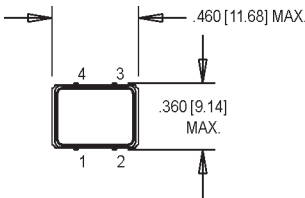


# K1526C & K1536C Series

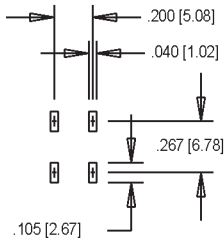
## 9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO



- 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

### 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)				

Electrical Specifications	PARAMETER	Symbol					Units	Condition	
	Model		K1526CA K1536CA		K1526CD K1536CD	K1526CE			
	Frequency Range	F	2 to 55	55.1 to 80	2 to 55	2 to 33	MHz		
	Frequency Stability:	ΔF/F							
	Overall		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		
	Linearity		<10				%		
	Modulation Bandwidth (±3dB)	fm	>20				KHz		
	Nominal Control Voltage		2.5 1.65				V V	K1526C K1536C	
	Control Voltage	Vc					0 to 5	V	
			0.5 to 4.5 0.3 to 3.0				V V	K1526C K1536C	
	Transfer Function		Positive						
	Input Impedance		>50KΩ @ 10 kHz						
	Operating Temperature	Ta	-40 to +85				°C		
	Storage Temperature	Ts	-40 to +125				°C		
	Input Voltage	Vdd	+5.0 ±10% +3.3 ±10%				V V	K1526C K1536C	
	Input Current	Idd	<30				mA		
Symmetry (Duty Cycle)		40/60				%			
Start up Time		<10				ms			
Phase Noise (Typical)	10 Hz -65	100 Hz -95	1 kHz -115	10 kHz -130	100 kHz -140	dBc/Hz			
Environmental	Temperature Cycle	MIL-STD-883, Method 1010, Condition B				-55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell			
	Mechanical Shock	MIL-STD-883, Method 2002, Condition B				1500 g's			
	Vibration	MIL-STD-883, Method 2007, Condition B				20-2000 Hz; 0.06 inch; 15 g's; 3 planes			
	Humidity Steady State	MIL-STD-202, Method 103				40°C; 90%-95% R.H.; 56 days			
	Thermal Shock	MIL-STD-883, Method 1011.7, Condition B				100°C to 0°C; Water-to-Water; 15 cycles			
	Electrostatic Discharge	MIL-STD-883, Method 3015, Class II				2 KV to 4 KV Threshold			
	Solderability	MIL-STD-883, Method 2022.2				Solder dip; Meniscograph Criteria			
	Hermeticity	MIL-STD-883, Method 1014.8, Condition A1				Mass spectro. 2 x 10-8 atoms. CC/sec He			
	Resistance to Soldering	See "Figure 2" on page 147							
	Lead Integrity	MIL-STD-883, Method 2004.5, Cond. A,B1				Lead tension & bend stress			
Marking Permanence	MIL-STD-883, Method 2015.8				Resistance to solvents				
Life Test	MIL-STD-883, Method 1005.6				125°C, powered, 1000 hours minimum				

M-tron reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of such product.

M-tron Industries, Inc., PO Box 630, Yankton, SD 57078-0630, USA Phone: 605-665-9321 or 1-800-762-8800 Fax: 605-665-1709 Website: [www.mtron.com](http://www.mtron.com)  
M-tron Industries Limited, 1104 Shanghai Industrial Investment Building, 48-62 Hennessy Road, Wanchai, Hong Kong, China Phone: 852-2866-8023 Fax: 852-2529-1822