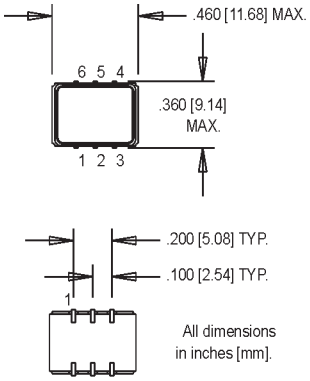
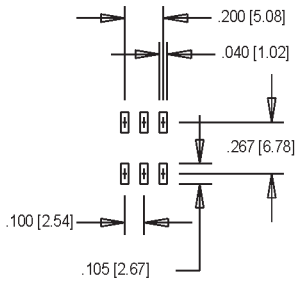
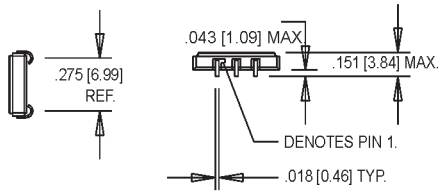
K1526B & K1536B Series
9x11 mm, 5.0 or 3.3 Volt, CMOS/TTL, VCXO

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



SUGGESTED SOLDER PAD LAYOUT





Ordering Information

K15X6BX X X 00.0000 MHz

Product Series
K1526B = 5.0 Volt
K1536B = 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)

Pin Connections

PIN	FUNCTION
1	Voltage Control
2	Tri-state
3	Ground & Gnd Plane
4	Output
5	N/C
6	+Vdd

	PARAMETER	Symbol					Units	Condition
Electrical Specifications	Model		K1526BA K1536BA		K1526BD K1536BD	K1526BE		
	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	K1526B K1536B
	Control Voltage	Vc				0 to 5	V	
			0.5 to 4.5 0.3 to 3.0				V V	K1526B K1536B
	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	K1526B K1536B
	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-toAir; 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		

VCXO

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
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