

K1524A Series 14 DIP, 5.0 Volt, CMOS/TTL, VCXO



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

Ordering Information

00.0000
MHz

K1524AA X

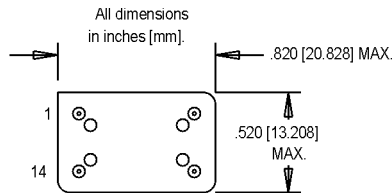
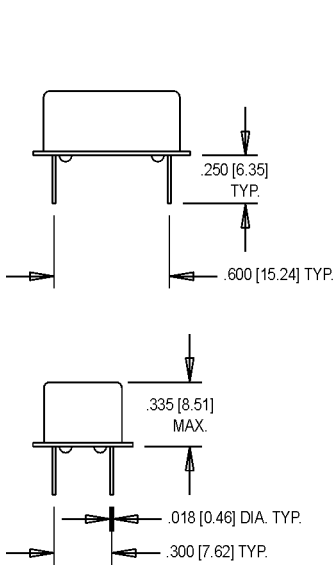
Product Series _____

Temperature Range _____

Blank: 0°C to +70°C

M: -40°C to +85°C

Frequency (customer specified) _____



Pin Connections

PIN	FUNCTION
1	Voltage Control
7	Ground/Case Ground
8	Output
14	+Vdd

	Electrical Specifications							
	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition	
	Frequency Range	F	3		35	MHz		
	Frequency Stability:	$\Delta F/F$						
	Overall		Inclusive of Calibration, Temperature, Voltage, Load, and Aging					
	0°C to +70°C				±50	ppm		
	-40°C to +85°C				±70	ppm		
	Pullability		±300		±525	ppm		
	Linearity				15	%		
	Modulation Bandwidth	fm	>20			kHz	±3dB	
	Control Voltage	Vc	0.5	2.5	4.5	V		
	Transfer Function		Positive					
	Input Impedance		>50K Ω				@ 10 kHz	
	Operating Temperature	Ta	-40		+85	°C		
	Storage Temperature	Ts	-40		+125	°C		
	Input Voltage	Vdd	4.75	5.0	5.25	V		
	Input Current	Idd			26	mA		
	Symmetry (Duty Cycle)		40		60	%	@ 50% Vdd	
	Rise Time (TTL)	Tr			4	ns	20% to 80% Vdd	
	Rise Time (CMOS)	Tr			5	ns	20% to 80% Vdd, CL=15pF	
	Fall Time (TTL)	Tf			4	ns	80% to 20% Vdd	
	Fall Time (CMOS)	Tf			4	ns	80% to 20% Vdd, CL=15pF	
	Logic "1" Level	Voh	Vdd-0.5			V		
	Logic "0" Level	Vol			0.5	V		
	Start up Time				10	ms		
	Phase Noise (Typical)	10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier	
			-65	-95	-120	-140	-150	
	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, Cond. 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, Cond. A1				Mass spectro. 2 x 10 ⁻⁸ atoms. CC/sec He		
	Resistance to Soldering	See Page 147						
	Lead Integrity	MIL-STD-883, Mtd. 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

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