

K1524A Series

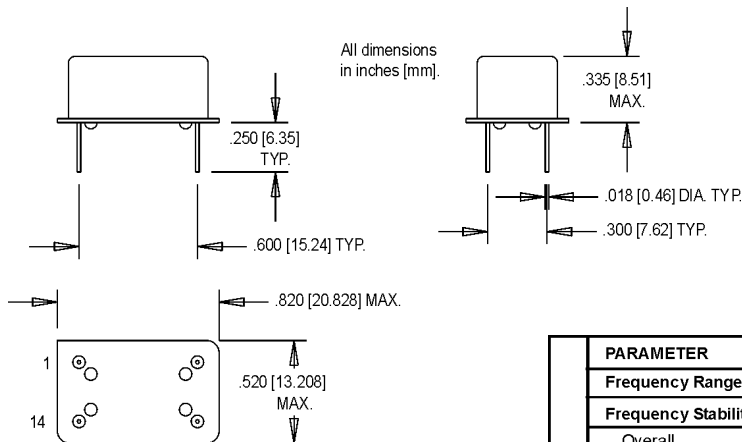
14 pin DIP, 5.0 Volt, CMOS/TTL, VCXO



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

Ordering Information

	K1524AA	M	-R	00.0000	MHz
Product Series					
Temperature Range					
Blank:	0°C to +70°C				
M:	-40°C to +85°C				
RoHS Compliance					
Blank:	non-RoHS compliant part				
-R:	RoHS compliant part				
Frequency (customer specified)					



Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	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	T _A	-40		+85	°C	
	Storage Temperature	T _S	-40		+125	°C	
	Input Voltage	Vdd	4.75	5.0	5.25	V	
	Input Current	I _{dd}			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
Environmental	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
			-65	-95	-120	-140	-150
							Offset from carrier
	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
	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

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MtronPTI Lead Free Solder Profile

240°C

All the remaining surface mount,
both crystal and oscillator.

