

K1524A Series

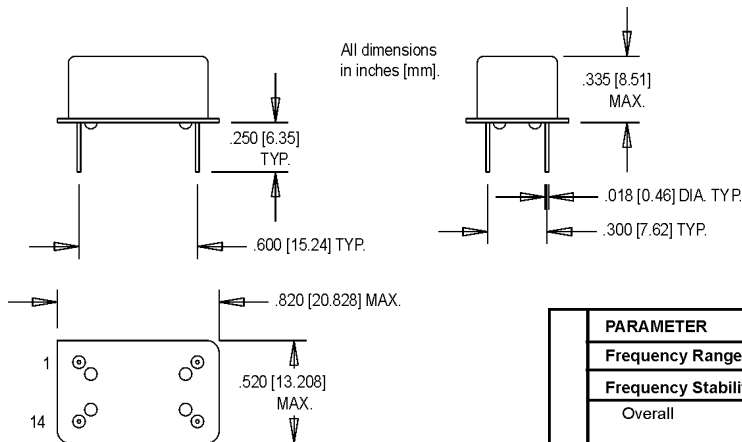
14 pin DIP, 5.0 Volt, CMOS/TTL, VCXO



- 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
Product Series				MHz
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
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	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	

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