

K1601TE Series

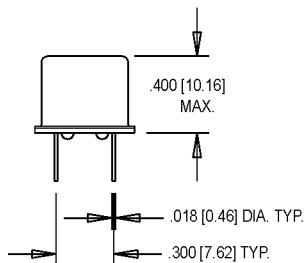
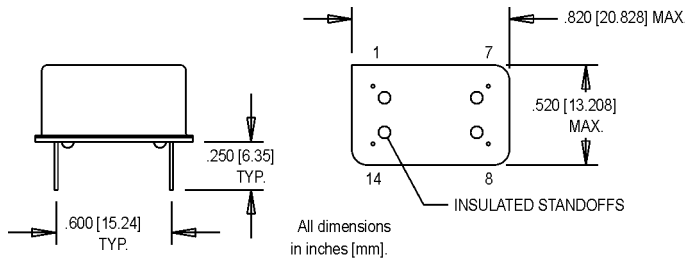
14 pin DIP, 5.0 Volt, CMOS/TTL, TCVCXO



- Former **Champion** TECHNOLOGIES, INC. Product
- Phase-Locked-Loops, Clocking "Sync" to NTSC Video Standards, Reference Signal, Signal Tracking

Ordering Information

	K1601TE	X	-R	00.0000 MHz
Product Series				
Pullability				
Blank:	±28 ppm min.			
W:	±40 ppm min.			
RoHS Compliance				
Blank:	non-RoHS compliant part			
-R:	RoHS compliant part			
Frequency (customer specified)				
(Consult factory for "TEW" option)				



Pin Connections

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

Electrical Specifications	PARAMETER		Symbol				Units	
	Frequency Range		F				2.0 to 35, 38.888, 40.000	MHz
	Frequency Stability		ΔF/F					
	Overall						Inclusive of Calibration, Temperature, Voltage, Load, and Aging	
	25° Calibration						±3.0	ppm
	Aging 10 Years						±2.0	ppm
	Over Operating Temperature						±1.0	ppm
	Minimum Deviation						±2.8 ("TEW" model ±40)	ppm
	Minimum Deviation Sensitivity						+14	ppm/V
	Linearity						10	%
	Modulation Bandwidth (±3dB) fm						>20	KHz
	Nominal Control Voltage						2.5	V
	Control Voltage Range		Vc	0.5 to 4.5				V
	Transfer Function						Positive	
	Input Impedance						>50Ω @ 10 KHz	
	Operating Temperature		T _A	0 to 55				°C
	Storage Temperature		T _S	-40 to 85				°C
	Input Voltage		V _{dd}	+5.0 ±5%				V
	Input Current		I _{dd}	<20				mA
	Symmetry (Duty Cycle)						45/55 < 14 MHz; 40/60 ≥ 14 MHz	%
Start up Time						<20	ms	
Phase Noise (Typical)		10 Hz	100 Hz	1KHz	10 KHz	100 KHz	dBc/Hz	
		-70	-95	-120	-140	-150		
Environmental Specifications	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 pectro. 2 x 10 ⁻⁸ atoms. CC/sec He	
	Lead Integrity		MIL-STD-883, Method 2004.5, Condition 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

