K1601TE Series
14 pin DIP, 5.0 Volt, CMOS/TTL, TCVCXO

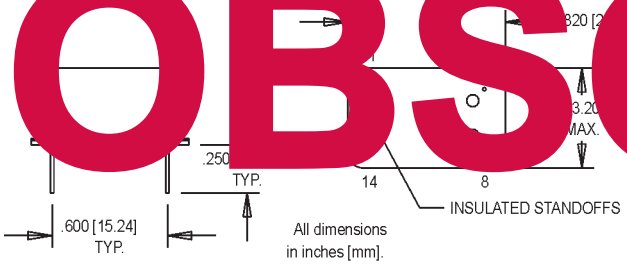
- Former Champion Technologies, Inc. Product
- Phase-Locked-Loops, Clocking "Sync" to NTSC Video Standards, Reference Signal, Signal Tracking

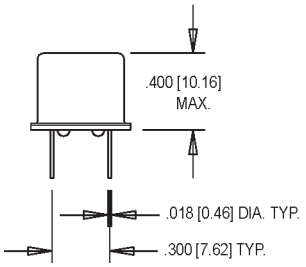
Ordering Information

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)

OBSOLETE





Pin Connections

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

	PARAMETER	Symbol					Units
Electrical Specifications	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	Vdd	+5.0 ±5%				V
	Input Current	Idd	<20				mA
	Symmetry (Duty Cycle)		45/55 < 14 MHz; 40/60 ≥ 14 MHz				%
	Start up Time		<20				ms
	Phase Noise (Typical)	10 Hz -70	100 Hz -95	1KHz -120	10 KHz -140	100 KHz -150	dBc/Hz
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	
	Maximum Soldering Conditions	+260°C for 10 secs.					
	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	