

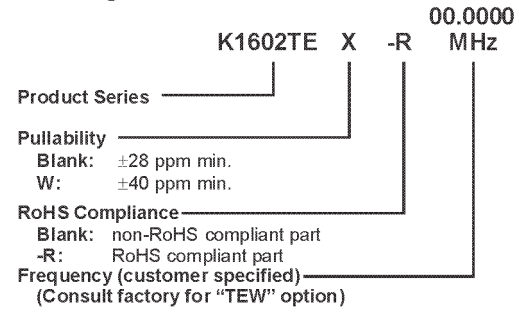
K1602TE Series

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

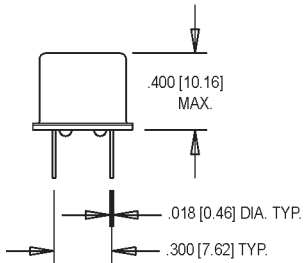
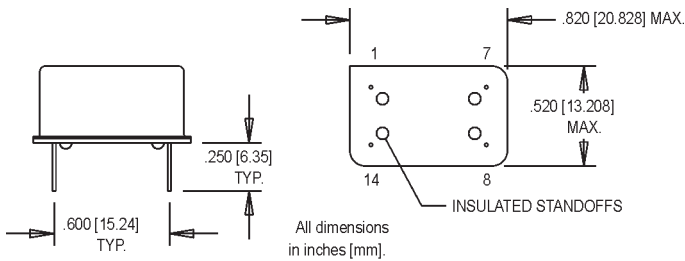


- Former **Champion** Product
TECHNOLOGIES, INC.
- Phase-Locked Loops Clocking “Sync” to NTSC Video Standards, Reference Signal, Signal Tracking

Ordering Information



M6034Sxxx - Contact factory for datasheet.



Pin Connections

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

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition/Notes
Electrical Specifications	Frequency Range	F	2.0 to 35.0, 38.88 to 40.0			MHz	
	Operating Temperature	T _A	-40		+85	°C	
	Storage Temperature	T _S	-40		+85	°C	
	Frequency Stability	ΔF/F			±7.0	ppm	See Note 1
	Aging (10 Year)		-2		+2	ppm	
	Control Voltage	V _c	0.5	2.5	4.5	V	Positive Monotonic Slope
	Tuning Range			±28 (“TEW” model ±40)		ppm	See Ordering Information
	Modulation Bandwidth	f _m	20			kHz	±3dB
	Input Impedance	Z _{in}	50k			Ohms	@ 10 kHz
	Input Voltage	V _{dd}	4.75	5.0	5.25	V	
	Input Current	I _{dd}			20	mA	
	Output Type						HCMOS/TTL
	Load					5 TTL or 15 pF HCMOS max.	See Note 2
	Symmetry (Duty Cycle)						See Note 3
	< 14 MHz			45		55	%
	≥ 14 MHz			40		60	%
	Logic “1” Level	V _{oh}	4.5				V
	Logic “0” Level	V _{ol}			0.5		V
Rise/Fall Time	T _r /T _f			3.5	9.0	ns	
Start Up Time					20	ms	
Phase Noise (typical)		10 Hz	100 Hz	1 kHz	10 kHz	100 kHz	Offset from carrier
@ 20 MHz		-80	-108	-125	-132	-155	dBc/Hz
Environmental	Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 mS duration, ½ sinewave)					
	Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
	Hermeticity	Per MIL-STD-202, Method 112, (1x10 ⁻⁸ atm. cc/s of Helium)					
	Thermal Cycle	Per MIL-STD-883, Method 1010, Condition B (-55°C to +125°C, 15 min. dwell, 10 cycles)					
	Solderability	Per EIAJ-STD-002					
Max Wave Soldering Conditions	See solder profile, Figure 2						

1. Inclusive of calibration, temperature, voltage, load and aging.
2. TTL Load – see load circuit diagram #1. HCMOS load – see load circuit diagram #2.
3. Symmetry is measured at 1.4 V with TTL load, and at 50% V_{dd} with HCMOS load.

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

Please see www.mtronpti.com for our complete offering and detailed datasheets. Contact us for your application specific requirements: MtronPTI 1-800-762-8800.