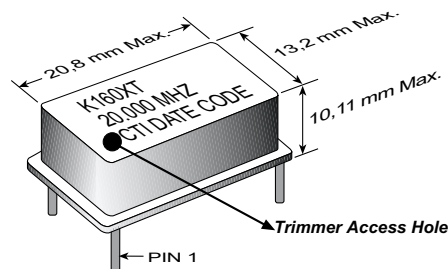


5V Temperature Compensated Crystal Oscillators

- ♦ **Applications:** Phase Locked Loops
Clocking "Sync" to NTSC Video Standards;
Reference Signal; Signal Tracking
- ♦ 2.0 to 30.0 MHz Frequency Range
- ♦ ± 1 ppm Stability; 0°C to 55°C Op. Temperature
- ♦ ± 2 ppm Stability; -40°C to 85°C Op. Temperature
- ♦ TTL/CMOS Output
- ♦ Non Hermetic Package



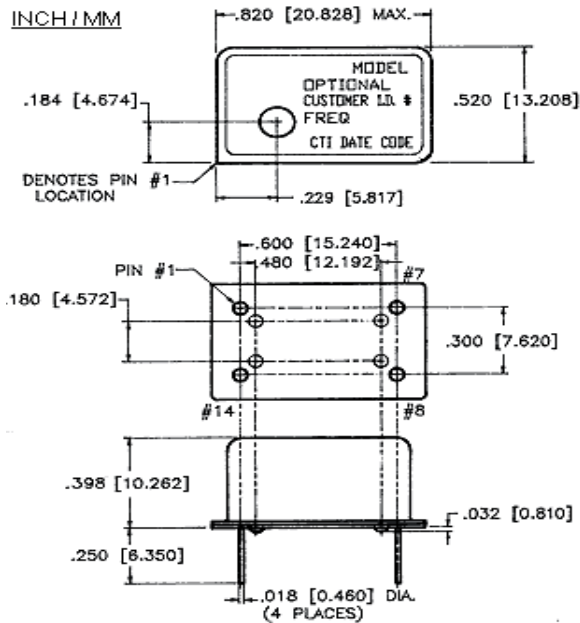
ELECTRICAL SPECIFICATIONS

Model	K1601T	K1602T
Frequency Range (MHz)	2.0 to 30	
Input Current (mA)	< 20	
Frequency Control Function	(For Custom Deviation Range, Vc Range, etc. - Consult Factory)	
Manual Adjusted (ppm)	± 5 min.	
Frequency Stability (ppm)		
Overall	(Inclusive of Calibration, Temperature, Voltage, Load and Aging)	
25°C Calibration	± 1.5	
Aging 10 Years (ppm)	± 2.0	
Over Operating Temperature	± 1.0	± 2.0
Temperature Range (°C)		
Operating	0°C to +55°C	-40°C to +85°C
Storage	-40°C to +85°C	
Supply Voltage (V)	+5.0V $\pm 5\%$	
Symmetry TTL/CMOS	45/55 < 14MHz; 40/60 $\geq$ 14MHz	
"0" Level (V_{OL})	0.5 max.	
"1" Level (V_{OH})	4.5 min.	
Rise Time (ns)	3.5 Typical, 9.0 max.	
Fall Time (ns)	2.0 Typical, 8.0max	
Start Up Time (ms)	<20	

PART NUMBERING GUIDE

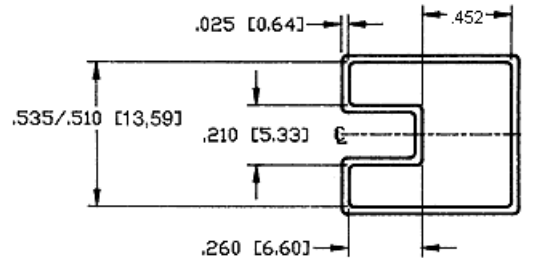
K160XT - Specify Frequency

"1" = 0°C to 55°C Operating Temp.
 "2" = -40°C to +85°C Operating Temp.



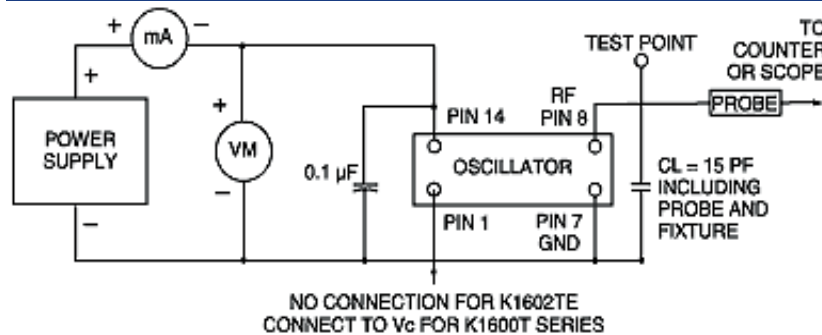
PIN	FUNCTION
1	N/C
7	Gnd/ & Case Gnd
8	Output
14	+ V _{CC}

SHIPPING TUBE CROSS SECTION



ALL DIMENSIONS ARE INSIDE

TEST CIRCUIT DIAGRAM



MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

TEST METHODS	REFERENCE PROCEDURES	DESCRIPTION
Temperature Cycle	MIL-STD-833, Mtd 1010, Cond. B	-55°C to +125°C; Air-to-Air; 100 cycles; 10 min. dwell
Mechanical Shock	MIL-STD-883, Mtd 2002, Cond. B	1500 g's
Vibration	MIL-STD 883, Mtd 2007, Cond. B	20-2000 Hz; 0.06 inch; 15g's; 3 planes
Humidity Steady State	MIL-STD-202, Mtd 103	40°C; 90%-95% R.H.; 56 days
Thermal Shock	MIL-STD-883, Mtd 1011.7 Cond. B	100°C to 0°C; Water-to-Water; 15 cycles
Electrostatic Discharge	MIL-STD-883, Mtd 3015 Class II	2 KV to 4 KV Threshold
Solderability	MIL-STD-883, Mtd 2022.2	Solder dip; Meniscograph Criteria
Hermeticity	MIL-STD-883, Mtd 1014.8, Cond. A1	Mass spectro. 2 x 10 ⁻⁸ atmos. CC/sec He
Resistance to Soldering	MIL-STD-202, Mtd 210A, Cond. C	260°C; 10 seconds: 1 inch/sec.
Lead Integrity	MIL-STD-883, Mtd 2004.5, Cond. A, B1	Lead tension & bend stress
Marking Permanence	MIL-STD-883, Mtd 2015.8	Resistance to solvents
Life Test	MIL-STD-883, Mtd 1005.6	125°C, powered, 1000 hours minimum