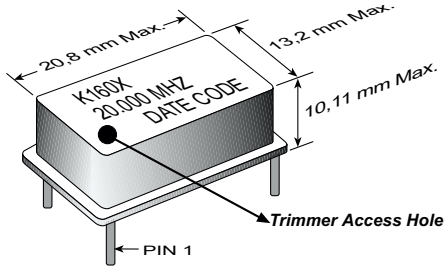
K1601 & K1602 Series

14 pin DIP, 5.0 Volt, Sinewave, TCXO

- **Applications:** Phase Locked Loops Clocking "Sync" to NTSC Video Standards; Reference Signal; Signal Tracking
- 16.0 to 30.0 MHz Frequency Range
- Manual Frequency Adjusted
- ±1ppm Stability; 0°C to 55°C Op. Temperature
- ±2ppm Stability; -40°C to 85°C Op. Temperature
- "Clipped" Sine Wave Output
- Non Hermetic Package



ELECTRICAL SPECIFICATIONS

Model	K1601	K1602
Frequency Range (MHz)	16.0 to 30	
Input Current (mA)	< 2	
Frequency Control Function	(For Custom Deviation Range, Vc Range, etc. - Consult Factory)	
Voltage Control	Included	
Minimum Deviation (ppm)	±28	
Minimum Deviation Sensitivity (ppm/V)	+14	
Linearity (%)	< 10	
Modulation Bandwidth (±3dB)	> 20KHz	
Nominal Control Voltage (V)	2.5	
Control Voltage Range (V)	0.5 to 4.5	
Manual Adjusted (ppm)	±5 min.	
Transfer Function	Positive	
Input Impedance	> 50KΩ @ 10KHz	
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 ±5%	
Output ("Clipped" Sine Wave)	1.0V p-p min., Clipped Sine Wave; 10KΩ/10pF	
Start Up Time (ms)	<5	
SSB Phase Noise (dBC/Hz)	10Hz	-70
Offset from Carrier	100Hz	-95
	1KHz	-120
	10KHz	-140
	100KHz	-150

PART NUMBERING GUIDE

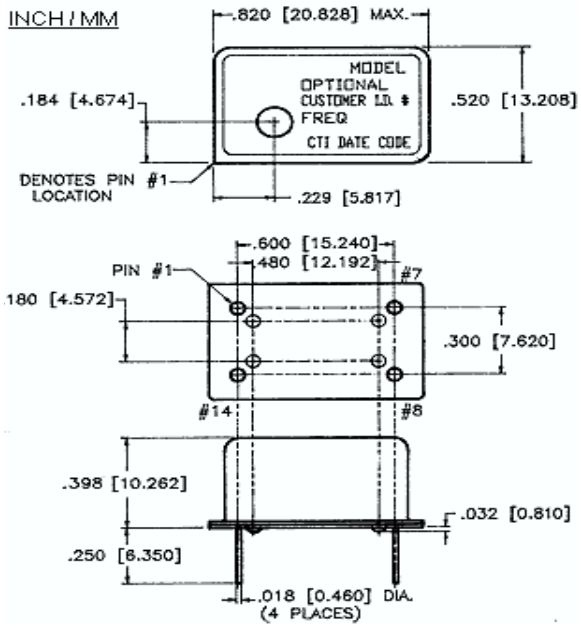
K160X - Specify Frequency

"1"	=	0°C to 55°C Operating Temp.
"1-R	=	RoHS Compliant and 0°C to 55°C Operating Temp.
"2"	=	-40°C to 85°C Operating Temp.
"2-R"	=	RoHS Compliant and -40°C to 85°C Operating Temp.

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.

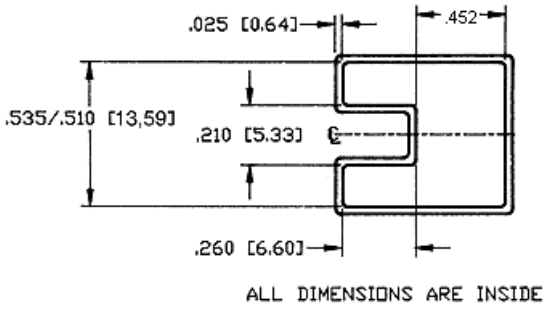
K1601 & K1602 Series

14 pin DIP, 5.0 Volt, Sinewave, TCXO

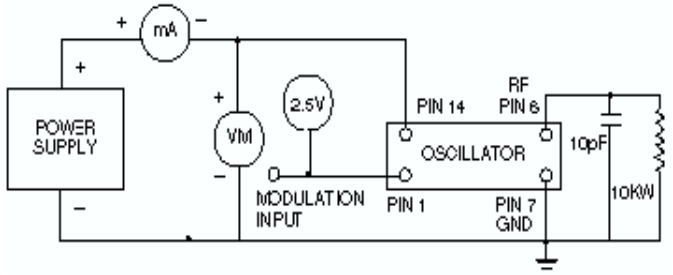


PIN	FUNCTION
1	Voltage Control
7	Gnd/ & Case Gnd
8	Output
14	+ V_{CC}

SHIPPING TUBE CROSS SECTION



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

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