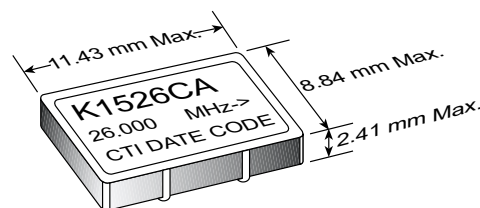


5V 9x11mm Surface Mount Voltage Controlled Crystal Oscillators

- **Applications:** Phase-Locked Loops (PLL's); Clock Recovery; Reference Signal Tracking; Synthesizers; Frequency Modulation/Demodulation
- Ceramic Construction, Medal Lid
- 2.0 to 80 MHz Frequency Range
- 0.5V to 4.5V Control Voltage
- ± 25 ppm Stability
- -40°C to 85°C Operating Temperature Option
- Tape and Reel Available
- Ground Shielded Top and Bottom 4-Pin SOJ-20 Footprint
- J-Leads Seam-sealed, Resistance Welded Hermetic Package



ELECTRICAL SPECIFICATIONS

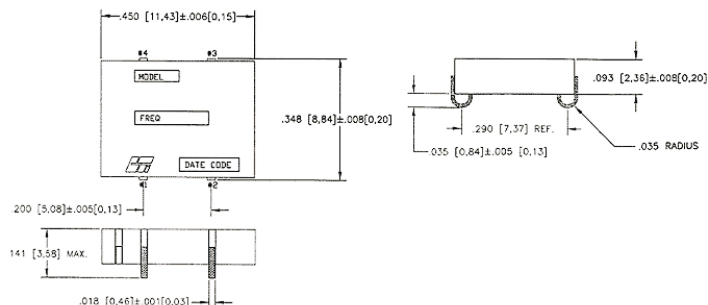
MODEL	K1526CA		K1526CD	K1526CE
Frequency Range (MHz)	2 to 55	55.1 to 80	2 to 55	2 to 33
Frequency Stability (ppm)				
Overall	Inclusive of calibration, temperature, voltage, load, shock, vibration, aging			
0°C to 70°C	± 25	± 40	± 25	± 32
-40°C to $+85^{\circ}\text{C}$	± 50	± 60	± 50	± 50
Frequency Control Function:	(for custom deviation range, Vc range, transfer function, etc. -- consult factory)			
Deviation (ppm)				
Minimum	± 100	± 80	± 80	± 200
Maximum	± 150	± 160	± 130	-
Linearity	$<10\%$			
Modulation Bandwidth $\pm(3\text{dB})$	$>20\text{ KHz}$			
Nominal Control Voltage (V)	2.5			
Control Voltage Range (V)	0.5 to 4.5			0 to 5
Transfer Function	Positive			
Input Impedance	$>50\text{ K}\Omega$ @ 10 KHz			
Temperature Range ($^{\circ}\text{C}$)				
Operating	-40°C to $+85^{\circ}\text{C}$			
Storage	-40°C to $+125^{\circ}\text{C}$			
Supply Voltage (V)	$+5.0 \pm 10\%$			
Input Current (mA)	<30			
Start Up Time (ms)	<10			
Symmetry (%) TTL/CMOS	40/60			
Start up Time (ms)	<10			
Typical SSB Phase Noise (dBc/Hz)	10Hz		-65	
Offset from Carrier	100Hz		-95	
	1KHz		-115	
	10KHz		-130	
	100KHz		-140	

PART NUMBERING GUIDE

K1526CXX - Specify Frequency

- "Blank" = TTL/CMOS 40%/60%
- "C" = CMOS 45%/55%
- "T" = TTL 45%/55%
- "Blank" = 0°C to 70°C Operating Temp.
- "M" = -40°C to $+85^{\circ}\text{C}$ Operating Temp.
- Model Selection: See Table Above

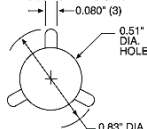
5V 9x11mm Surface Mount Voltage Controlled Crystal Oscillators



PIN	FUNCTION
1	Voltage Control
2	Gnd & Ground Plane
3	Output
4	+ V _{CC}

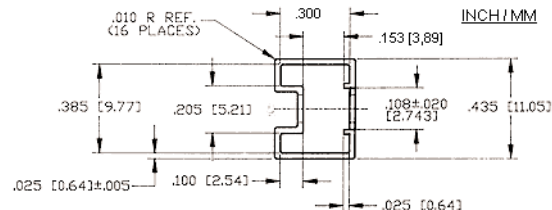
TAPE & REEL SPECIFICATIONS

Tape & Reel
Shipping Tape
 Size: 24mm
 Material: Black PVC,
 Conductive .012" thick
Shipping Reel
 Size: 13" diameter
 Material: Plastic

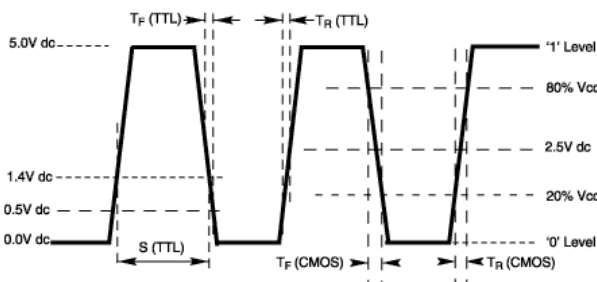


13" Reel
 Tape Length: 16.5 yds
 Max. No. of Pockets: 750
 Leader Length: 16" min.
 Trailer Length: 14" min.
 Q.C. Sample Quantity: 10 pcs.
 Product/Reel: 500
 Cover Tape Thickness: .002"
 Cover Peel Strength: 75g
 Note: Minimum Order is 500

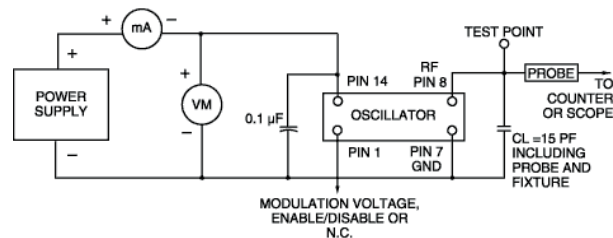
SHIPPING TUBE CROSS SECTION



OUTPUT WAVEFORM



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 210D, Cond. J	235°C; 30 seconds
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