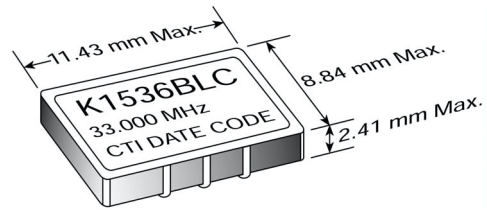


- **Applications:** Phase-Locked Loops (PLL's); Clock Recovery; Reference Signal Tracking; Synthesizers; Frequency Modulation/Demodulation
- Ceramic Construction, Medal Lid
- 2.0 to 80 MHz Frequency Range
- 0.3V to 3.3V Control Voltage
- ±25ppm Stability (Typical)
- -40°C to 85°C Operating Temperature Option
- Tape and Reel Available
- Ground Shielded Top and Bottom 6-Pin SOJ-20 Footprint
- J-Leads Seam-sealed, Resistance Welded Hermetic Package



## ELECTRICAL SPECIFICATIONS

MODEL	K1536BLC	
<b>Frequency Range (MHz)</b>	2 to 55	55.1 to 80
<b>Frequency Stability (ppm)</b>		
Overall (Typical)	Inclusive of calibration, temperature, voltage, load, shock, vibration, aging	
0°C to 70°C	±25	±40
-40°C to +85°C	±50	±60
<b>Frequency Control Function:</b>	(for custom MTL, Vc range, transfer function, etc. -- consult factory)	
Deviation (Typical)	±120	±100
Minimum Tuning Limit 0°C to 70°C	±60	±40
Minimum Tuning Limit -40°C to 85°C	±50	±20
Linearity	<10%	
Modulation Bandwidth (±3dB)	>20 KHz	
Nominal Control Voltage (V)	1.65	
Control Voltage Range (V)	0.3 to 3.0	
Transfer Function	Positive	
Input Impedance	>50 K Ω @ 10 KHz	
<b>Temperature Range (°C)</b>		
Operating	-40°C to +85°C	
Storage	-40°C to +125°C	
<b>Supply Voltage (V)</b>	+3.3 ±10%	
<b>Input Current (mA)</b>	<30	
<b>Start Up Time (ms)</b>	<10	
<b>Symmetry (%) CMOS</b>	40/60	
<b>Start up Time (ms)</b>	<10	
<b>Typical SSB Phase Noise (dBc/Hz)</b>	10Hz	-65
<b>Offset from Carrier</b>	100Hz	-95
	1KHz	-115
	10KHz	-130
	100KHz	-140

## PART NUMBERING GUIDE

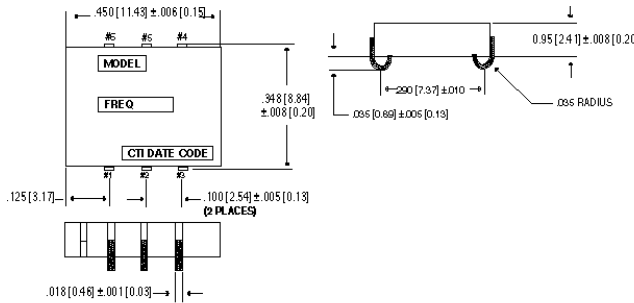
**K1536BLC X X** - Specify Frequency

“Blank” = CMOS 40%/60%

“C” = CMOS 45%/55%

“Blank” = 0°C to 70°C Operating Temp.

“M” = -40°C to +85°C Operating Temp.

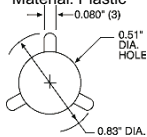


PIN	FUNCTION
1	Voltage Control
2	Tri-State
3	Gnd & Ground Plane
4	Output
5	N/C
6	+ V <sub>CC</sub>

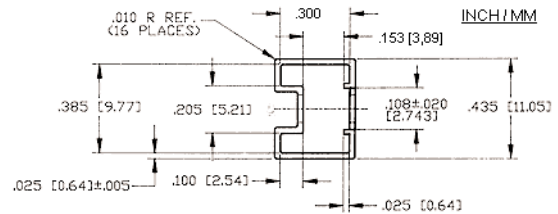
### TAPE & REEL SPECIFICATIONS

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

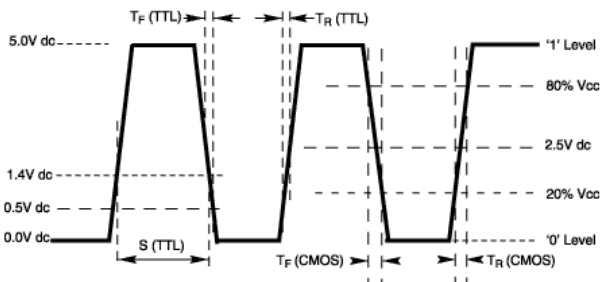
**13" Reel**  
 Tape Length 16.5 yds  
 Max. No. of Pockets: 750  
 Leader Length: 16" min.  
 Trailer Length: 14" min.  
 Q.C. Sample Quantity: 10 pcs.  
 Product/Reel: 500  
 Cover Tape Thickness: .002"  
 Cover Peel Strength: 75g  
 Note: Minimum Order is 500



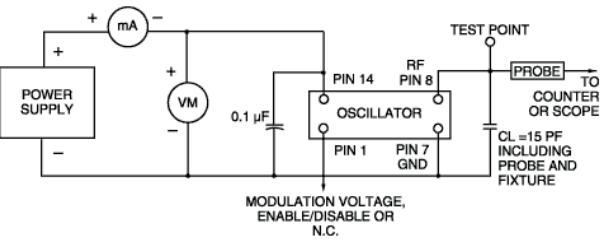
### SHIPPING TUBE CROSS SECTION



### 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