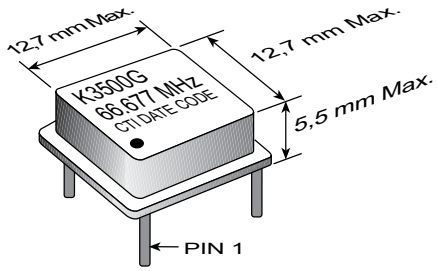
K3500G Series

8 pin DIP, 3.3 Volt, CMOS, Clock Oscillator

THIS PRODUCT IS NOT RECOMMENDED FOR NEW DESIGNS.
PLEASE REFER TO THE M3H PRODUCT SERIES.

- 4-pin Package, Compatible with 8-pin DIL
- 1.0MHz to 70MHz Frequency Range
- CMOS Compatible
  Tight Symmetry (45/55%) Available
- Tri-State Option Available
- ±100ppm Stability Standard - K3500GC
  Tighter Stabilities Available
  ±25ppm Stability:- K3500GA
  ±50ppm Stability:- K3500GB
- Case Ground for EMI Protection



ELECTRICAL SPECIFICATIONS

MODEL	K3500GA	K3500GB	K3500GC
Frequency Range (MHz)	1.0 to 125		
Frequency Stability (ppm)			
Overall	Inclusive of calibration, temperature, voltage, load, shock,vibration, aging		
0°C to 70°C	±25	±50	±100
-40°C to 85°C	N/A	±50	±100
Temperature Range (°C)			
Operating	-40°C to +85°C		
Storage	-55°C to +125°C		
Supply Voltage (V)	+3.3 ±5%		
Supply Current (mA)	<30		
Output CMOS			
"0" Level (V_{OL})	0.9 V_{CC}		
"1" Level (V_{OH})	0.1 V_{CC}		
Load	Up to 80MHz 50pF; >80MHz 30pF		
T_R & T_F (ns)	<10		
Symmetry (%)	40/60		
Jitter (Typical)	10ps RMS @ 100MHz		
Start up Time (ms)	<10		

PART NUMBERING GUIDE

K3500GXXXX - Specify Frequency

- "Blank" = Fixed Frequency
- "E" = Tri-State
- "Blank" = 0°C to 70°C Operating Temperature
- "M" = -40°C to 85°C Operating Temperature
- "Blank" = 40/60% Symmetry
- "S" = 45/55 Symmetry
- "A" ±25ppm Frequency Stability (Available 0/70°C only)
- "B" = ±50 ppm Frequency Stability
- "C" = ±100ppm Frequency Stability
- "D" = ±20ppm Frequency Stability

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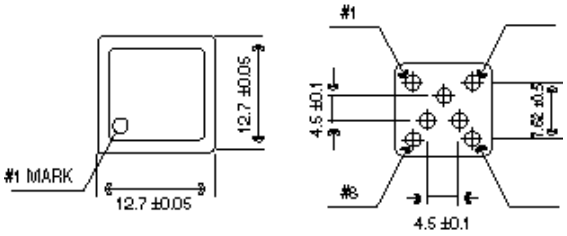
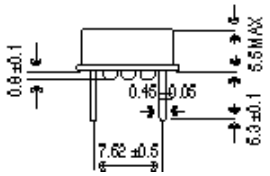
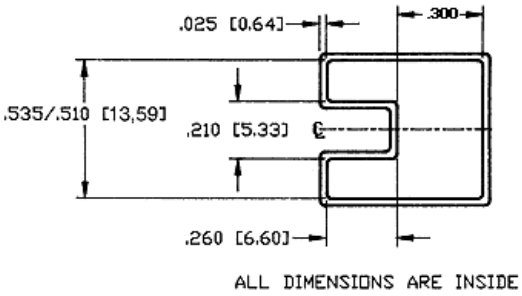


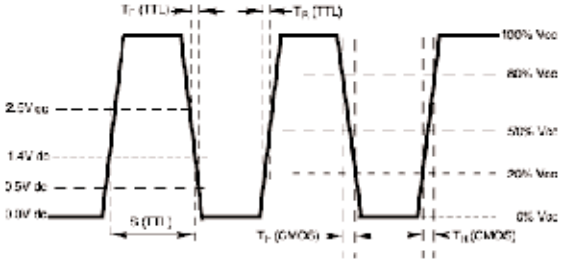


PIN	FUNCTION
1	N/C / Tri-State
2	Ground
3	Output
4	+ V_{CC}

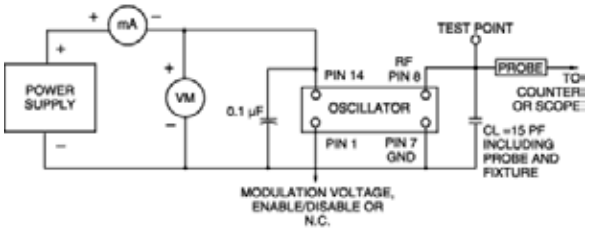
SHIPPING TUBE CROSS SECTION



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