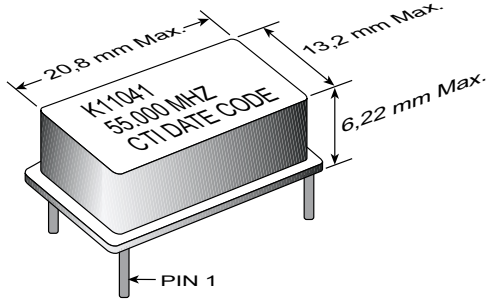
Champion TECHNOLOGIES, INC.

K11041 Series

5V Clock Driver For 32-Bit Micro-processors

- 40MHz to 70MHz Frequency Range
- TTL Compatible Waveform
- Load Capacity of 50pF
- Rise Time of 1.7ns Max., Fall Time of 1.6ns Max. for Meeting Tight Electrical Specifications of the High Speed Motorola MC68030 and MC68040
- Tri-State Output
- "M" Models Operate -40°C to 85°C
- Replaces Model K11040T



K11041 Capabilities

The Champion Technologies K11041 Data Clock Oscillator is designed specifically to drive the Motorola MC68030 and MC68040 families of 32-bit microprocessors. This device also provides precise timing for 486 and Pentium® processors. Meeting these stringent requirements also makes the K11041 ideal for other applications requiring tightly controlled duty cycle, low voltage, fast rise and fall times.

Popular frequencies of the K11041 Series Clocks are 40.000 MHz, 60.000 MHz and 66.667 MHz. Other frequencies available.

Pentium® is a registered trademark of Intel Corp.

ELECTRICAL SPECIFICATIONS

MODEL	K11041
Frequency Range (MHz)	Discrete Frequencies to 140MHz
Frequency Stability (ppm)	
Overall	Inclusive of calibration, temperature, voltage, load, shock,vibration, aging
0°C to 70°C	±100
Temperature Range (°C)	
Operating	0°C to +70°C
Storage	-55°C to +125°C
Supply Voltage (V)	+5 ±5%
Supply Current (mA)	50 (C_L = 50pF)
Output TTL	
Symmetry (%)	45/55 @ Vm
"0" Level (VOL)	0.4V min. @ IOL = +24mA
"1" Level (VOH)	2.5V min. @ I_{OH} = -24mA
Start Up Time (ms)	< 20
Phase Jitter (ps)	< 100

OBSOLETE

PART NUMBERING GUIDE

K11041X - Specify Frequency

- "Blank" = 0°C to 70°C Operating Temperature
- "M" = -40°C to 85°C Operating Temperature

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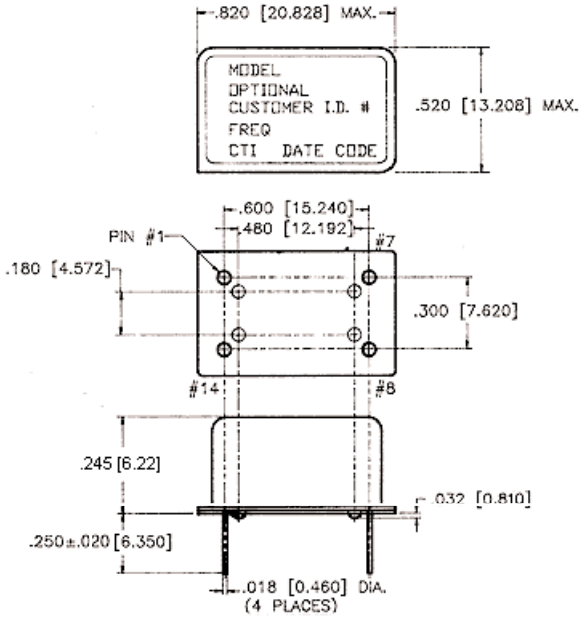
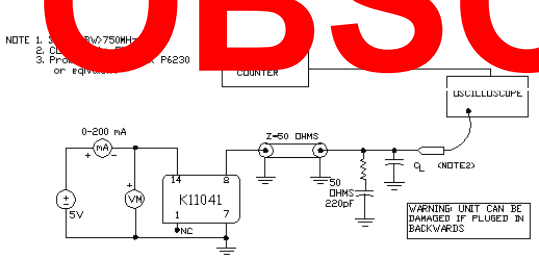


PIN	FUNCTION
1	Tri-State*
2	Ground
3	Output
4	+ V_{CC}

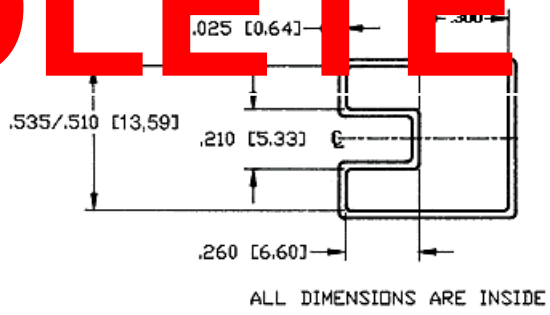
** Input tied internally to +3.3V dc. External input if any, should not be less than +3V and not greater than +3.8V dc.*

Tri-State Control*	
PIN 1	PIN 8
Low (V_L = 1.35V Max.)	High Impedance
Open*	F_O

TEST CIRCUIT DIAGRAM



SHIPPING TUBE CROSS SECTION



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