

R1380 Series, R3390 Series

XO – 3.3V

HCMOS/TTL



NOT RECOMMENDED FOR NEW DESIGNS. PLEASE REFER TO [CB3](#).

Features

- 500KHz to 165MHz frequency range, fixed output
- Stability options of $\pm 100\text{ppm}$ to $\pm 20\text{ppm}$
- Start up time is less than 5ms
- Tristate
- RMS jitter 6ps



RoHS Status

RoHS
6/6

Applications

- DSL
- Gigabit Ethernet
- Fibre Channel
- VoIP

Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F		0.5		165	MHz	
Frequency Stability	$\Delta F/F$	Operating Temperature at 25°C	± 20		± 100	ppm	See Chart
Operating Temperature	T		0°		+70°	°C	
Aging		First Year After First Year		3 1		ppm ppm/yr	
Supply Voltage	V _{CC}		3.0	3.3	3.6	V	
RMS Jitter					6	ps	
Output Levels		“0” Level, sinking 16 mA “1” Level CMOS, sourcing 8 mA	V _{DD} -0.4		0.4	V	
Symmetry		CMOS, @ 50% V _{DD}		48/52	45/55	%	
Rise and Fall Times		CMOS, 15 pF CMOS, 30 pF CMOS, 50 pF		3.0 4.0 6.0	4 5 8	ns	20 to 80% (<60 MHz)
		CMOS, 15 pF CMOS, 30 pF		2.0 3.0	2.5 4.5		20 to 80% (>60 MHz)



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Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Supply Current	I _{cc}	3 to 10MHz		3.0	4.5	mA	
		10.1 to 20MHz		5.0	6.0		
		20.1 to 30MHz		10.0	15.0		
		30.1 to 50MHz		35.0	40.0		
		50.1 to 67MHz		40.0	50.0		
		67.1 to 125MHz		60.0	70.0		
Input Requirements for Pin 1		“1”: On – Pin 1 may float or 2.4V min., sourcing 400 μA “0”: Disable or Tristate – Pin 1 requires 0.4V, sinking 400 μA					

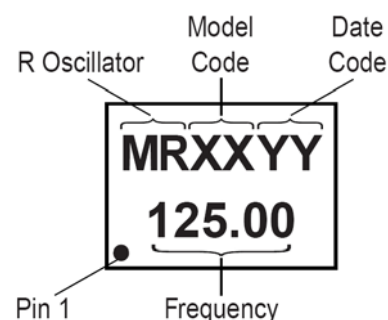
Environmental and Mechanical Conditions

Parameter	Condition
Shock	1000 Gs, 0.35 ms, 1/2 sine wave, 3 shocks in each plane
Vibration	10-2000 Hz of 0.06" d.a. or 20 Gs, whichever is less
Humidity	Resistant to 85° R.H. at 85°C
Leak	MIL STD 883, Method 1014, condition A1
Pads	0.3 - 1 μ m gold over Ni (10 to 40 μ inches of gold) Over 1.27 - 8.89 μ m Ni (50 to 350 μ inches of Ni)
Case	Ceramic with hermetic resistance-welded metal lid
Marking	Epoxy ink or laser engraved
Resistance to Solvents	MIL STD 202, Method 215

Marking Specifications

FIXED OUTPUT		TRISTATE		Frequency Stability
Model	Marking Code ID*	Model	Marking Code ID*	
R1380	E	R3390	G	± 100 ppm
R1381	AL	R3391	Q	± 25 ppm
R1382	F	R3392	H	± 50 ppm
R1388	BV	R3398	BY	± 20 ppm
R1389	BW	R3399	BZ	± 32 ppm

*See Marking Specification



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Waveforms

“3390” is
model type



Fig.1 R3392-20M with 25pf load



Fig.2 R3392-20M without load

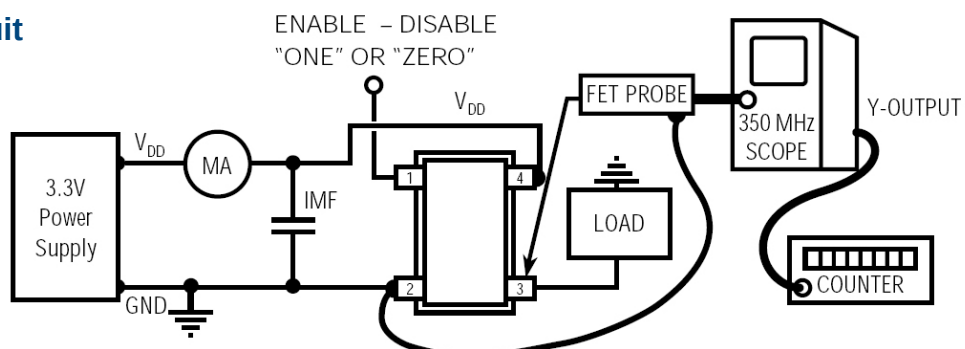
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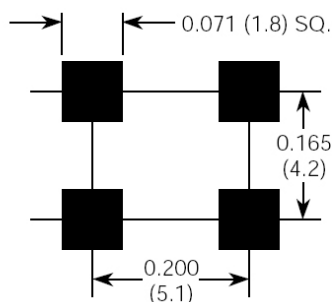


Test Circuit



To adapt Fet probe to receptacle
use Tektronix Part #103-0164-00

To connect output to scope use
use Tektronix Part #131-0258-00 (receptacle)



SUGGESTED PC PADS

Millimeters are shown in ().

	Fixed Output Models	Tristate Models
Pad 1	NOT USED	Floating or 1 : Oscillator runs Ground or 0 : Disable or Tristate
Pad 2		Ground and Case
Pad 3		Output
Pad 4		+3.3V, V _{DD}

