CMOS Compatible HS-1430 Series

Description

The HS-1430 Series of quartz crystal oscillators provide enable/disable 3-state CMOS compatible signals for bus connected systems. Supplying Pin 1 of the HS-1430 units with a logic “1” or open enables its Pin “8” output. In the disable mode, Pin “8” presents a high impedance to the load.

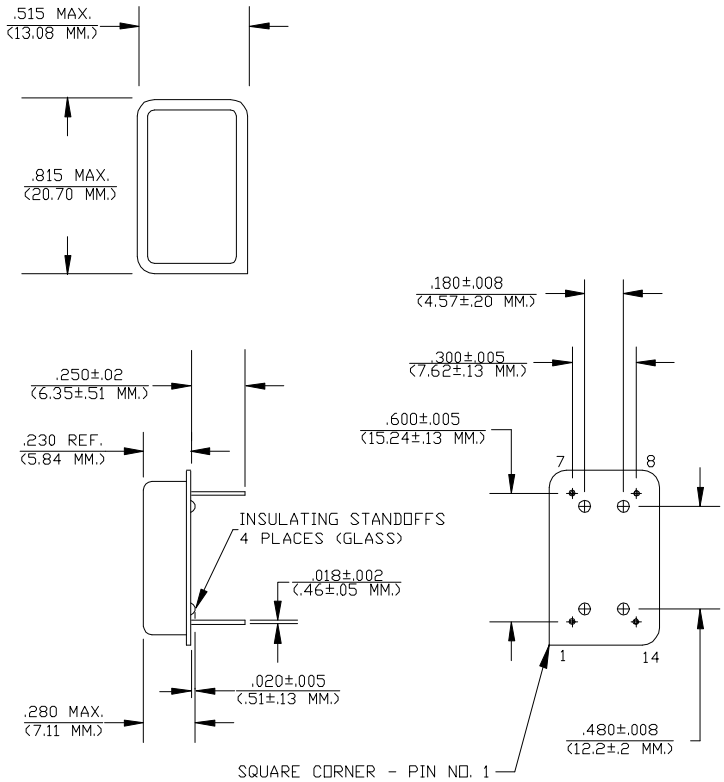
Pin	Connection
1	Enable/Disable
7	Ground
8	Output
14	V_{CC}, V_{DD}

Suggested Applications

The HS-1430 Series oscillators are ideally suited for applications involving more than one clock or source on the same bus. The high impedance state allows ATE (Automatic Test Equipment) board testing without having to remove the oscillator. In multiplexing applications, multiplex clock signals can be made available to a system using the enable/disable 3-state feature.

Features

- Wide frequency range—68.0MHz to 145.0MHz
- User specified tolerance from ±20ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 3000g



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Continued
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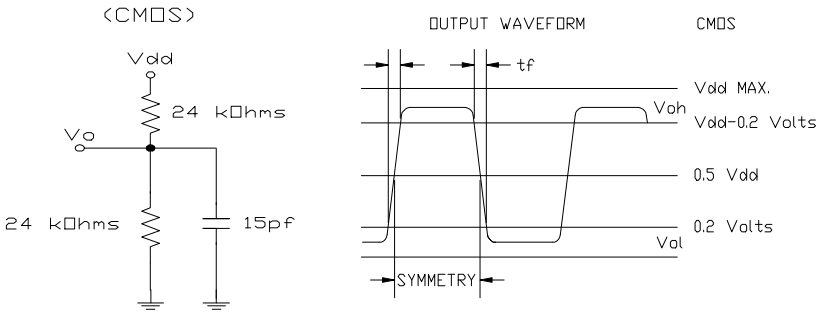
Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{DD})	Supply Breakdown	4.75V -0.5V	5.25V 7.0V(1)
	Supply current (I_{DD})	-----	0.0 mA	80 mA
	Output current (I_O)	Low level output current	0.0 mA	16.0 mA
	Tolerance	User specified	±20ppm	-----
	Operating temperature (T_A)	-----	0°C	70°C
	Storage temperature (T_S)	-----	-55°C	125°C
	Power dissipation (P_D)	-----	-----	420 mW
	Lead temperature (T_L)	Soldering, 10 sec.	-----	300°C
Output Characteristics	Frequency	-----	68.0MHz	145.0MHz
	Symmetry	CMOS, @0.5V_{DD}	40/60%	60/40%
	Logic 0 (V_{OL})	CMOS, driving equivalent load	-----	0.2V
	Logic 1 (V_{OH})	CMOS, driving equivalent load	V_{DD}-0.2V	-----
	Logic 0 (I_{OL} sink)	CMOS, driving equivalent load	-----	600µA
	Logic 1 (I_{OH} source)	CMOS, driving equivalent load	-----	600µA
	Rise & fall time (t_r,t_f)	CMOS @ 10-90% V_{DD}	-----	4 ns
	3-state enable/disable (T_{pz})	-----	-----	5 ms
	Footnote: (1)Over voltage causes the oscillator to draw extreme current, and damage occurs			



Specialty Oscillators for Unique Requirements
If the characteristics listed above do not meet your specific requirements, specialty solutions are often available.

For example, if you need better stability, extended temperature range, or tighter symmetry, NEL can provide a HS-1439 series oscillator to serve your needs.

To let us know your special requirements, complete our Specialty Oscillator sheet. We will respond with the desired specialty oscillator, or discuss with you a solution that most closely meets your needs.

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