Positive ECL Compatible HS-1810 Series

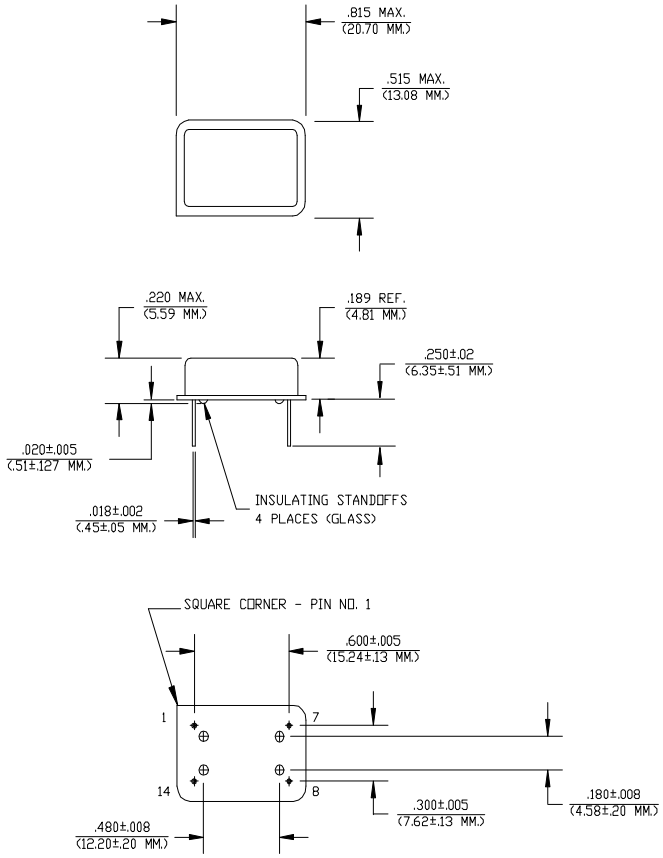
Description

The HS-1810 Series of quartz crystal oscillators provide MECL 10k and 10kH Series compatible signals in industry standard four-pin DIP hermetic packages. Systems designers may now specify space-saving, cost-effective packaged PECL oscillators to meet their timing requirements. This device is intended to operate on positive voltage for PECL applications.

Features

- Wide frequency range—60.0MHz to 210.0MHz
- User specified tolerance from ±20ppm
- Case at electrical ground
- Will withstand vapor phase temperatures of 253°C for 4 minutes maximum
- MECL 10k and 10kH Series compatible output on Pin 8
- All metal, resistance weld, hermetically sealed package
- High shock resistance, to 3000g

Pin	Connection
1	/Enable
7	V_{EE} Grd & Case
8	Output
14	V_{CC}+5.0V

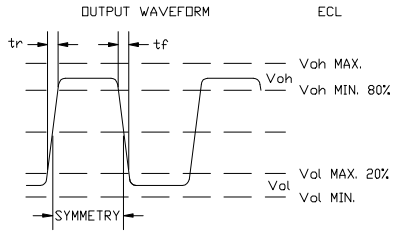


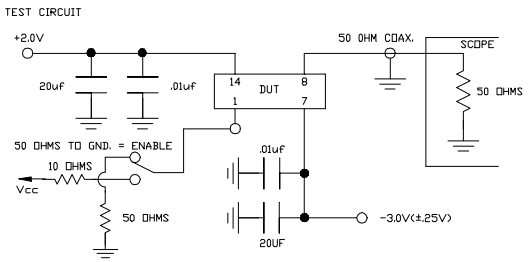
NEL FREQUENCY CONTROLS, INC.
357 Beloit Street, P.O. Box 457, Burlington WI 53105-0457 U.S.A. Phone (262) 763-3591 FAX (262) 763-2881
Email: nelsales@nelfc.com www.nelfc.com

Continued
Positive ECL Compatible HS-1810 Series

Operating Conditions and Output Characteristics

	PARAMETER	CONDITIONS	MINIMUM	MAXIMUM
General Characteristics	Supply voltage (V_{CC})	-----	4.75V	5.25V
	Supply current (I_{CC})	V_{CC} or ground current	0.0 mA	80 mA
	Output current (I_O)	Low level output current	0.0 mA	±50.0 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	-----	60.0MHz	210.0MHz
	Symmetry	@2.01V level	45/55%	55/45%
	Logic 0 (V_{OL})(2)	-----	3.05V	3.40V
	Logic 1 (V_{OH})(2)	-----	3.98V	4.26V
	Rise & fall time (t_r,t_f)	20-80% V_O	-----	2.25 ns
	Footnote: (2)V_{OL}, V_{OH}, referenced to ground (V_{EE}) with V_{CC}=5V Note: /EN pin must be logic low to enable and logic high to disable. Capacitance on pin should be less than 25pf external to the oscillator. Pin 8 is logic low when disabled.			





This information has been carefully prepared and is believed to be entirely reliable. However, no responsibility is assumed for inaccuracies. NEL reserves the right to make changes at any time in order to improve design and supply the best product possible.

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 SJ-1819 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.

NEL FREQUENCY CONTROLS, INC.
357 Beloit Street, P.O. Box 457, Burlington WI 53105-0457 U.S.A. Phone (262) 763-3591 FAX (262) 763-2881
Email: nelsales@nelfc.com www.nelfc.com