

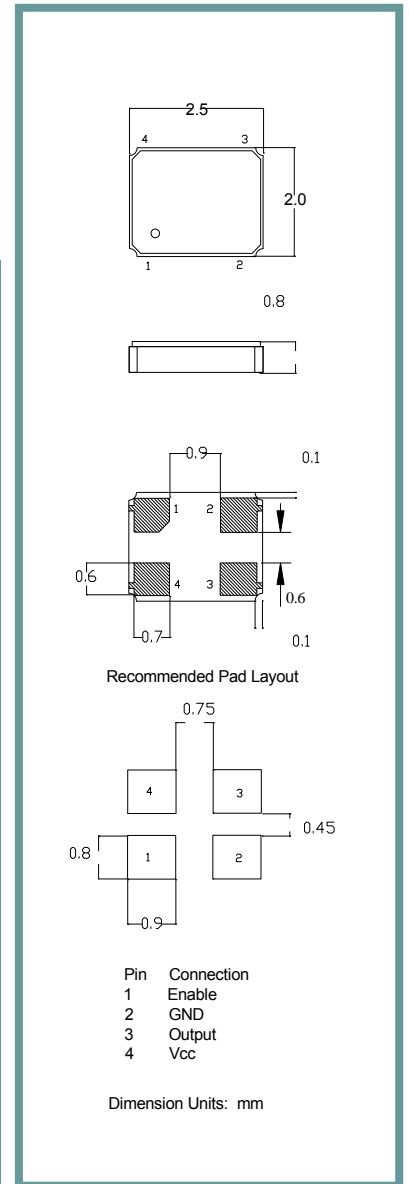
Product Features:

Low Jitter, Non-PLL Based Output
 CMOS/TTL Compatible Logic Levels
 Compatible with Leadfree Processing

Applications:

Fibre Channel
 Server & Storage
 Sonet /SDH
 802.11 / Wifi
 T1/E1, T3/E3
 System Clock

Frequency	1.000 MHz to 60.000 MHz
Output Level HC-MOS TTL	'0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min. '0' = 0.4 VDC Max., '1' = 2.4 VDC Min.
Duty Cycle	Specify 50% ±10% or ±5% See Table in Part Number Guide
Rise / Fall Time	5 nS Max. @ Vcc = +3.3 VDC, 10 nS Max. @ Vcc = +5 VDC ***
Output Load	Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL See Table in Part Number Guide
Frequency Stability	See Frequency Stability Table (Includes room temperature tolerance and stability over operating temperature)
Start-up Time	10 mS Max.
Enable / Disable Time	100 nS Max. N.C. or ≥ 70% Vdd = Enable. ≤ 30% Vdd = Disable.
Supply Voltage	See Input Voltage Table, tolerance ±5 %
Current	25 mA Max. ***
Operating	See Operating Temperature Table in Part Number Guide
Storage	-55° C to +125° C
Jitter: RMS(1sigma) 1 MHz-60 MHz	5 pS RMS (1 sigma) Max. accumulated jitter (20K adjacent periods)
Max Integrated 1 MHz-60 MHz	1.5 pS RMS (1 sigma -12KHz to 20MHz)
Max Total Jitter 1 MHz-60 MHz	50 pS p-p (100K adjacent periods)



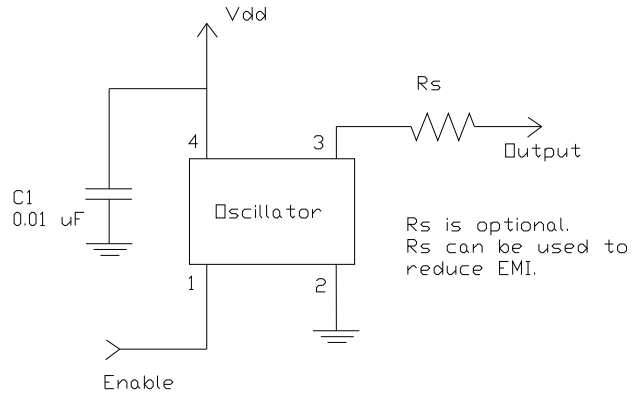
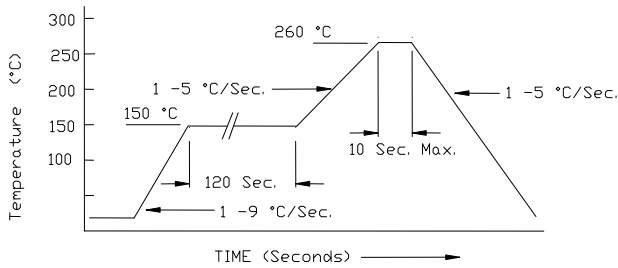
Part Number Guide		Sample Part Number: ISM95 - 3251BH - 20.000					
Package	Input Voltage	Operating Temperature	Symmetry (Duty Cycle)	Output	Stability (in ppm)	Enable / Disable	Frequency
ISM95 -	5 = 5.0 V	1 = 0° C to +70° C	5 = 45 / 55 Max.	1 = 10TTL / 15 pF HC-MOS	**A = ±25	H = Enable	- 20.000 MHz
	3 = 3.3 V	8 = -10° C to +60° C	6 = 40 / 60 Max.	6 = 30 pF	B = ±50	O = N/C	
	7 = 3.0 V	6 = -10° C to +70° C		5 = 50 pF HC-MOS (<40 MHz)	C = ±100		
	2 = 2.7 V	3 = -20° C to +70° C					
	6 = 2.5 V	4 = -30° C to +75° C					
	1 = 1.8 V*	2 = -40° C to +85° C					

NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 4) and GND (pin 2) to minimize power supply noise.

* Not available at all frequencies. ** Not available for all temperature ranges. *** Frequency, supply, and load related parameters.

Pb Free Solder Reflow Profile:

Typical Application:

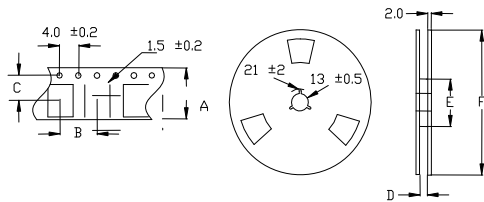


*Units are backward compatible with 240C reflow processes

Package Information:

MSL = N.A. (package does not contain plastic; storage life is unlimited under normal room conditions).
Termination = e4 (Au over Ni over W base metalization).

Tape and Reel Information:



Quantity per Reel	3000
A	8 +/- .3
B	4 +/- .2
C	3.5 +/- .2
D	9 +/- .1 or 12 +/- .3
E	60 / 80
F	180

Environmental Specifications

Thermal Shock	MIL-STD-883, Method 1011, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Mechanical Vibration	MIL-STD-883, Method 2007, Condition A
Resistance to Soldering Heat	J-STD-020C, Table 5-2 Pb-free devices (except 2 cycles max)
Hazardous Substance	Pb-Free / RoHS / Green Compliant
Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Terminal Strength	MIL-STD-883, Method 2004, Test Condition D
Gross Leak	MIL-STD-883, Method 1014, Condition C
Fine Leak	MIL-STD-883, Method 1014, Condition A2, R1=2x10 ⁻⁸ atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

Marking

Line 1: ILSI and Date Code (YWW)
Line 2: Frequency

PROPRIETARY AND CONFIDENTIAL

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION, AND SUCH INFORMATION MAY NOT BE DISCLOSED TO OTHERS FOR ANY PURPOSE NOR USED FOR MANUFACTURING PURPOSES WITHOUT WRITTEN PERMISSION FROM ILSI America.