ILSI

Pb Free
RoHS

5 mm x 7 mm Ceramic Package SMD VCXO, TTL / HC-MOS

I605 Series

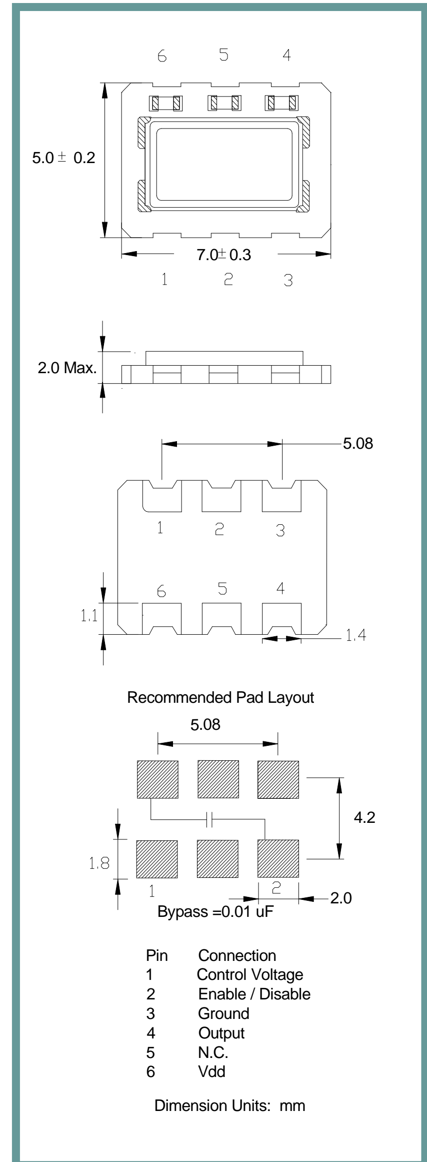
Product Features:

Small Surface Mount Package
Based Output for many frequencies
CMOS/TTL Compatible Logic Levels
Compatible with Leadfree Processing

Applications:

SD/HD Video
Wireless Base Stations
Sonet /SDH
VoIP
T1/E1, T3/E3

Frequency	1 MHz to 170.000 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	50% ±5%
Rise / Fall Time	10.0 nS Max.
Output Load	15pF, Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 TTL
Frequency Stability	50 ppm Max.
Start-up Time	10 mS Max.
Supply Voltage	See Input Voltage Table, tolerance ±5 %
Control Voltage	1.65 VDC ±1.5 VDC for 3.3 VDC, 2.5 VDC ±2.0 VDC for 5.0 VDC
Pull Range	See Pullability Table
Current	50 mA Max**
Linearity	10% Max.
Temperature Operating Storage	 See Operating Temperature Table in Part Number Guide -55° C to +125° C
Phase Jitter	<3 pS RMS



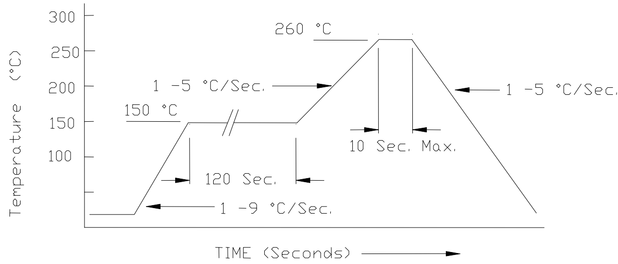
Part Number Guide			**Sample Part Number: I605-1BC3H-20.000**			
Package	**Operating Temperature**	**Stability (in ppm)**	**Pullability**	**Supply Voltage**	**Enable / Disable**	**Frequency**
I605 -	1 = 0° C to +70° C	*D = ±15	B = ±50 PPM Min.	5 = 5.0 VDC	H = Enable	- 20.000 MHz
	6 = -10° C to +70° C	A = ±25	C = ±100 PPM Min.	3 = 3.3 VDC		
	3 = -20° C to +70° C	B = ±50				
	4 = -30° C to +75° C	C = ±100				
	2 = -40° C to +85° C					

NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 6) and GND (pin 3) to minimize power supply noise.
* Not available at all frequencies. ** Frequency, supply, and load related parameters.

5 mm x 7 mm Ceramic Package SMD VCXO, TTL / HC-MOS

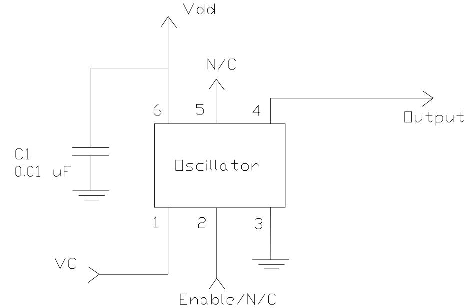
I605 Series

Pb Free Solder Reflow Profile:



*Units are backward compatible with 240C reflow processes

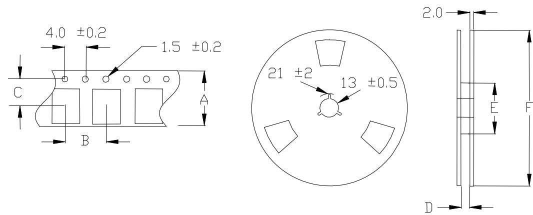
Typical Application:



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	1000
A	16 +/-.3
B	8 +/-.2
C	7.5 +/-.2
D	17.5 +/-1
E	50 / 60 / 80
F	180 / 250

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
Line 2: Frequency