



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



I605 Series

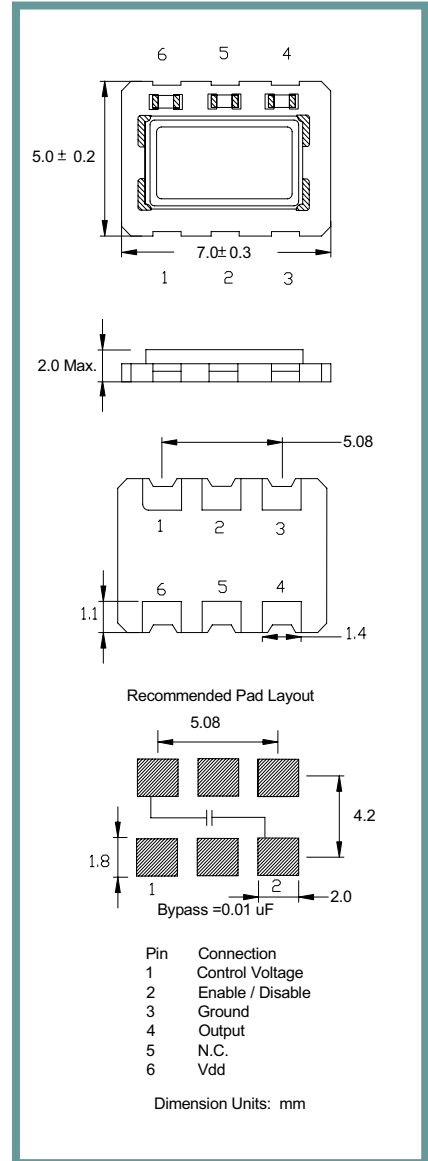
**Product Features:**

- 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

<b>Frequency</b>	1 MHz to 750.000 MHz
<b>Output Level</b> HC-MOS TTL	'0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min. '0' = 0.4 VDC Max., '1' = 2.4 VDC Min.
<b>Duty Cycle</b>	50% ±5%
<b>Rise / Fall Time</b>	10.0 nS Max.
<b>Output Load</b>	15pF, Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL
<b>Frequency Stability</b>	50 ppm Max.
<b>Start-up Time</b>	10 mS Max.
<b>Supply Voltage</b>	See Input Voltage Table, tolerance ±5 %
<b>Control Voltage</b>	1.65 VDC ±1.5 VDC for 3.3 VDC, 2.5 VDC ±2.0 VDC for 5.0 VDC
<b>Pull Range</b>	See Pullability Table
<b>Current</b>	50 mA Max**
<b>Linearity</b>	10% Max.
<b>Temperature</b> Operating Storage	See Operating Temperature Table in Part Number Guide -55° C to +125° C
<b>Phase Jitter</b>	<10 pS RMS



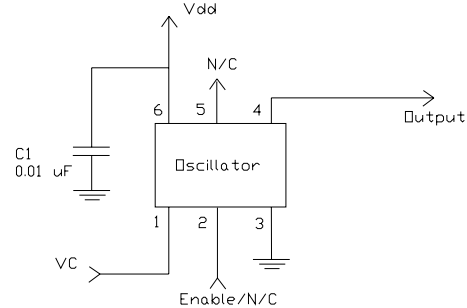
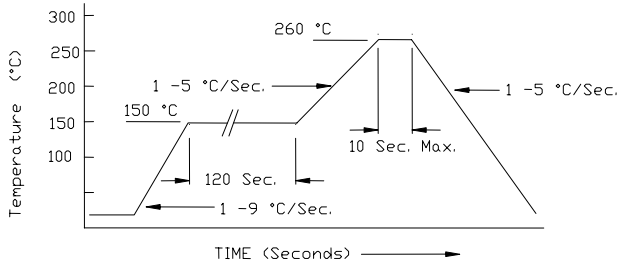
Part Number Guide		Sample Part Number: I605-1BC3H-20.000				
Package	Operating Temperature	Stability (in ppm)	Pullability	Supply Voltage	Enable / Disable	Frequency
I605 -	1 = 0° C to +70° C	*D = ±15	B = ±50 PPM Min.	5 = 5.0 VDC	H = Enable	- 20.000 MHz
	6 = -10° C to +70° C	A = ±25	C = ±100 PPM Min.	3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

**Pb Free Solder Reflow Profile:**

**Typical Application:**

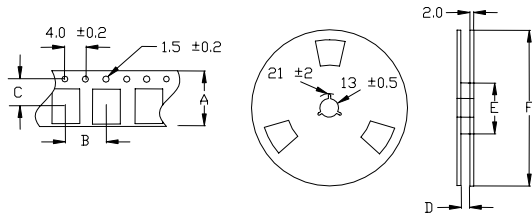


\*Units are backward compatible with 240C reflow processes

**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	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 <sup>-8</sup> atm cc/s
Solvent Resistance	MIL-STD-202, Method 215

**Marking**

Line 1: ILSI and Date Code  
Line 2: Frequency