



Surface Mount Oscillator, OCXO
FR-4 Package, 25.4 mm X 22.1 mm



I414 Series

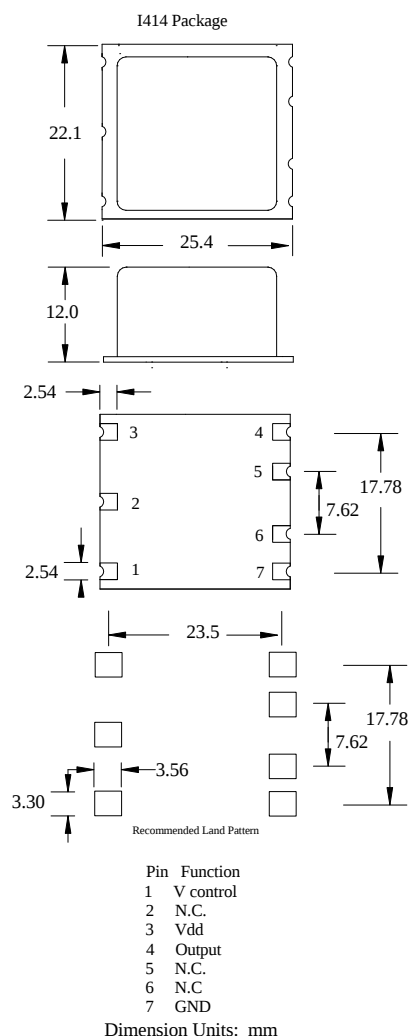
Product Features:

Available in Both Sinewave and
HCMOS outputs
RoHS Compliant

Applications:

Telecommunications
Data Communications
Instrumentation
Test and Measurement

Frequency	10.000 MHz, 13.000 MHz and 20.000 MHz
Output Level HC-MOS Sine	'0' = 10% Vcc Max., '1' = 90% VDC typ. +4dBm, ± 3 dBm
Duty Cycle (HC-MOS)	50% $\pm 5\%$
Rise / Fall Time	10 nS Max. @ Fo < 16 Mhz, 5 nS Max. @ Fo > 16 Mhz.
Output Load HC-MOS Sine	15 pF 50 ohms
Frequency Stability	See Frequency Stability Table
Supply Voltage	3.3 V $\pm 5\%$
Current (Warm Up) Current @ 25 ° C	1200 mA Max. 400 mA
Control Voltage Pullability	1.65VDC ± 1.65 VDC $\geq$ ± 0.5 PPM
Operating	See Operating Temperature Table in Part Number Guide
Storage	-40° C to +85° C



Part Number Guide

Sample Part Number: I414-325A4V-20.000 MHz

Package	Input Voltage	Operating Temperature	Symmetry (Duty Cycle)	Output	Frequency Stability (in ppm)	Voltage Control	Frequency
I414 -	3 = 3.3V	7 = 0° C to +50° C	5 = 45 / 55 Max.	3 = 15pF HC-MOS	Y = ± 0.5	V = Controlled	-20.000 MHz
		1 = 0° C to +70° C		A = Sine	1 = ± 0.25	F = Fixed	
		6 = -10° C to +75° C			2 = ± 0.1		
		3 = -20° C to +70° C			4 = ± 0.02		
		2 = -40° C to +85° C					

NOTE: A 0.01 μ F bypass capacitor is recommended between Vcc (pin 4) and GND (pin 2) to minimize power supply noise.
* Frequency, supply, and load related parameters.



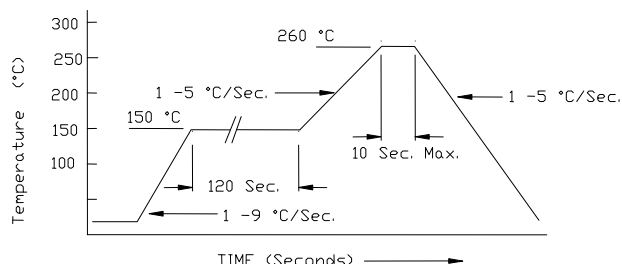
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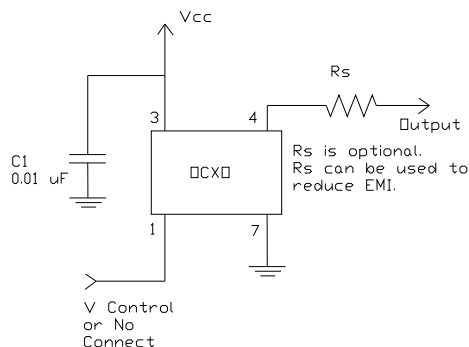
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Pb Free Solder Reflow Profile:

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 = e1 (Sn / Cu / Ag over Ni over Kovar base metal).

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: XXXXXX (Part Number detail = I414-XXXXXX-Freq.)
Line 2: Frequency