



Leaded Oscillator, OCXO
Metal Package, Full Size DIP Compatible



I418/I419 Series

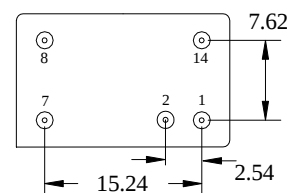
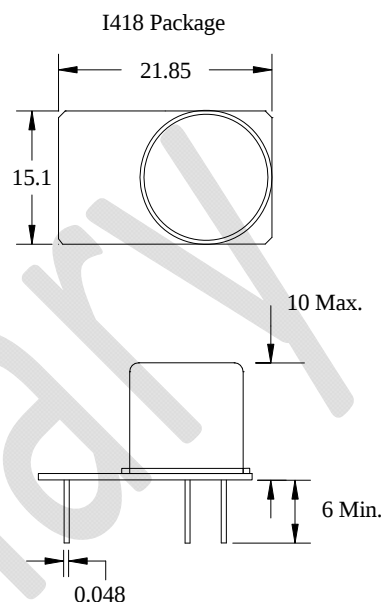
Product Features:

Low Phase Noise
Low Power Consumption
Voltage Control
High Stability

Applications:

Telecommunications
Data Communications
Instrumentation
Test and Measurement

Frequency	10.000 MHz- 30.000 MHz
Output Level Sine HCMOS	+7dBm Min., 9dBm Max. '0' = 10% Vcc Max., '1' = 90% VDC typ.
Output Load Sine HCMOS	50 ohms 15 pf
Harmonics	-25 dBc
Duty Cycle (HC-MOS)	50% $\pm$ 5%
Spurious	-40 dBc
Frequency Stability	See Frequency Stability Table
Supply Voltage	See Voltage Table ($\pm$ 5%)
Current (Warm Up) Current @ 25 ° C (Steady State)	110 mA Max. 23 mA
Voltage Control Voltage Range Pullability Deviation Slope (Positive)	0.0 VDC Min., 5.0 VDC Max. $\pm$ 1.0PPM 10%
Hysteresis (retrace after 30min.)	$\pm$ 20.0 ppb
Allan Variance (1s)	2.00E-11
Warm Up Time	30 sec typ., 60sec max.
Phase Noise	- 90 dBc/Hz @ 1Hz -120 dBc/Hz @ 10Hz -145 dBc/Hz @ 100Hz -155 dBc/Hz @ 1kHz -165 dBc/Hz @ 10kHz -165 dBc/Hz @ 100kHz
Operating	See Operating Temperature Table Below
Storage	-40° C to +85° C



Pin Connection
1 Control Voltage
2 Reference Voltage
7 Gnd
8 Output
14 Vcc

Dimension Units: mm

Part Number Guide

Sample Part Number: I416-5AA3V-10.000 MHz

Package	Input Voltage	Operating Temperature	Output	Frequency Stability (in ppm)	Voltage Control	Frequency
I418 – (Sine) I419 – (HCMOS)	3= 3.3V	7 = 0° C to +50° C	A = Sine	Y = $\pm$ 0.5	V = Controlled	-10.000 MHz
	5 = 5.0V	1 = 0° C to +70° C		1 = $\pm$ 0.25	F = Fixed	
	9 = 12.0V	6 = -10° C to +75° C		2 = $\pm$ 0.1		
		3 = -20° C to +70° C		3 = $\pm$ 0.05		
		A= -30° C to +70° C				

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Specifications subject to change without notice

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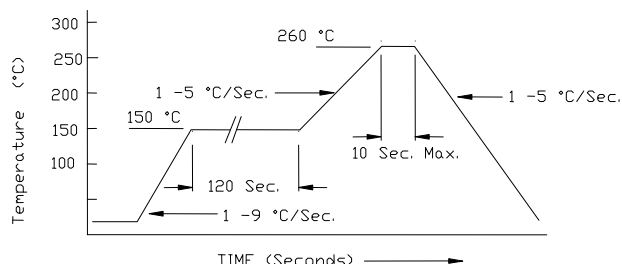
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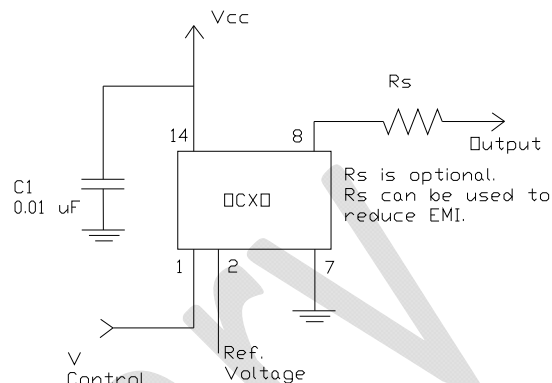
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Pb Free Solder Reflow Profile:

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 = I418-XXXXX-Freq.)
Line 2: Frequency