

## Low Power 2.5 x 3.2 SMD Oscillator

ISM46 Series

### Product Features:

Freq. Range: 312.5 kHz to 60.000 MHz  
Supply Voltage: +1.00 VDC  
Tri-State Function on Pin 1  
LVCMOS Compatible

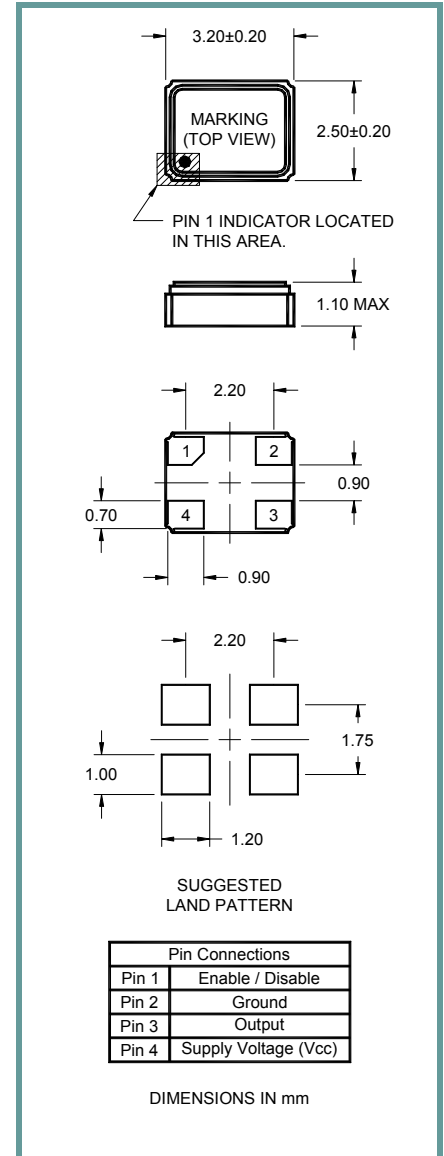
### Applications:

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

<b>Frequency Range</b>	312.500 kHz to 60.000 MHz
<b>Frequency Stability vs Temperature</b>	See Part Number Guide Below
<b>Output Waveform</b>	LVCMOS
<b>Logic "0"</b>	0.1 V of Vcc max
<b>Logic "1"</b>	0.9 V of Vcc min
<b>Rise / Fall Time</b>	6 nSec max for (10% to 90% of waveform)
<b>Duty Cycle (50% of waveform)</b>	See Part Number Guide Below
<b>Start-up Time</b>	10.0 mSec typ.
<b>Load</b>	15 pF
<b>Aging</b>	±3 ppm per year max
<b>Tri-State Function (Pin 1)</b>	
<b>Tri-State Operation</b>	Voh = 70% of Vcc min or no connection to Enable Output Vol = 30% of Vcc or grounded to Disable Out (High Impedance)
<b>Enable / Disable Time</b>	Enable: 1.0 mSec max Disable: 200 nSec max
<b>Disable Current</b>	20 µA max
<b>Supply Voltage (Vcc)</b>	+1.00 VDC ±5%
<b>Current Consumption</b>	
312.000 kHz to 30.000 MHz	2.0 mA max
30.000 MHz to 60.000 MHz	4.0 mA max
<b>Temperature Ranges</b>	
<b>Operating</b>	See Part Number Guide Below
<b>Storage</b>	-50°C to +100°C

### Notes:

- It is recommended that a 0.01 µF bypass capacitor be connected between Vdd (Pin 4) and Ground (Pin 2) to minimize power supply noise



## Part Number Guide

Package	Operating Temperature	Temperature Stability	Duty Cycle	Frequency
ISM46-	1 = 0°C to +70°C	A = ±25 ppm	5 = 45/55 max	-Frequency
	6 = -10°C to +70°C	B = ±50 ppm	6 = 40/60 max	
	3 = -20°C to +70°C	C = ±100 ppm		
	2 = -40°C to +85°C			

Sample Part Number: **ISM46-3B6-16.000000MHz**

This a 2.5 X 3.2 SMD Oscillator with an operating frequency of 16.000000 MHz with a temperature stability of ±50 ppm thru a temperature range of -20°C to +70°C . The supply voltage is +1.00 VDC with a duty cycle of 40/60.

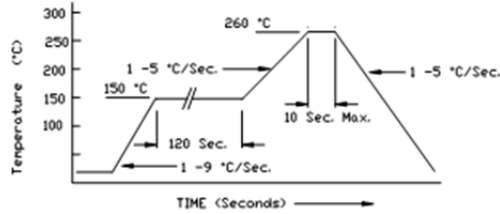
### Notes:

- Not all options are available at all frequencies and temperature ranges.
- Please consult with sales department for any other parameters or options.
- Oscillator specification subject to change without notice.

## Low Power 2.5 x 3.2 SMD Oscillator

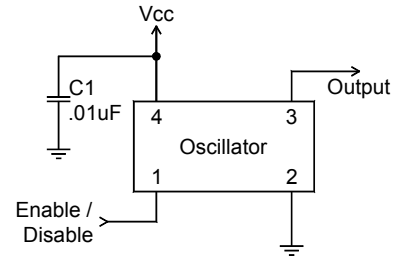
ISM46 Series

### Pb Free Solder Reflow Profile:



Units are backward compatible with 240C reflow processes

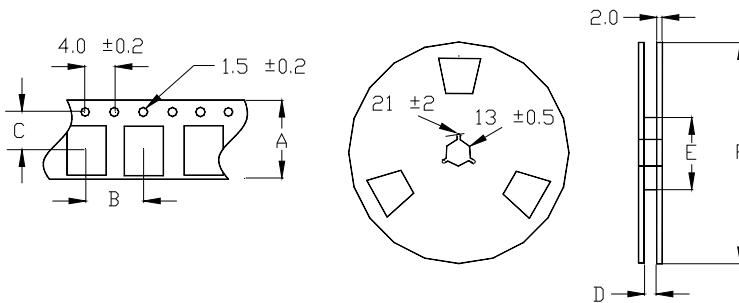
### Typical Application:



### 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 metallization).

### Tape and Reel Information:



Quantity per Reel	3000
A	8.0 ±0.2
B	4.0 ±0.1
C	3.5 ±0.2
D	9.0 ±0.3
E	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)
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: I-Date Code (yww)  
Line 2: Frequency