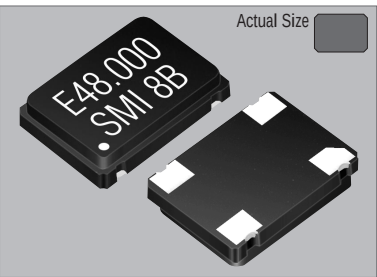
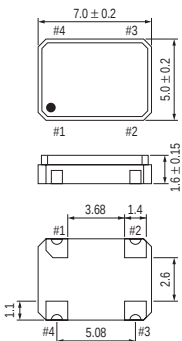


91SMO-LP



91SMO-LP



OSC WITHOUT TRI-STATE

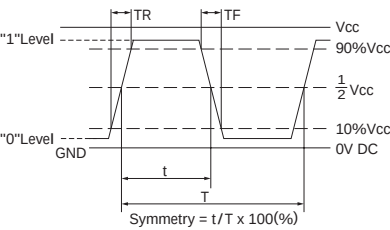
PIN	CONNECTION
1	N.C.
2	GND
3	OUTPUT
4	Vcc

OSC WITH TRI-STATE

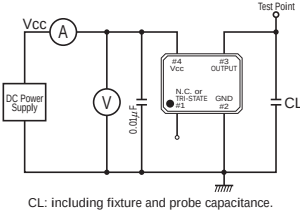
PIN	CONNECTION
1	"L" : "H" or OPEN
2	GND
3	Z : OUTPUT
4	Vcc

Z : high impedance

OUTPUT WAVEFORM



TEST CIRCUIT



CL: including fixture and probe capacitance.

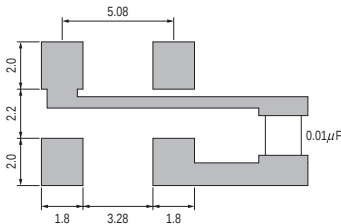
STANDARD SPECIFICATIONS

Part No.	91SMO-LP							
Frequency Range	1.800 MHz to 80.000 MHz				1.800 MHz to 66.666 MHz			
Standard Frequencies (MHz)	1.843200	8.192000	17.734475	25.000000	33.333000	41.472000	55.000000	
	2.048000	9.830400	18.432000	25.175000	33.868800	43.180000	55.296000	
	2.457600	10.000000	18.937500	25.426500	34.200000	43.243200	56.250000	
	3.579545	11.059200	19.069928	25.750000	34.574400	44.236800	57.600000	
	3.686400	12.000000	19.200000	26.660000	34.576000	44.900000	60.000000	
	4.000000	12.288000	19.312500	27.000000	35.251200	45.000000	62.196000	
	4.096000	12.441600	19.440000	28.224000	36.000000	46.000000	63.566400	
	4.354500	12.500000	19.660800	28.322000	36.864000	48.000000	64.000000	
	4.433619	13.330000	20.000000	28.375000	37.000000	48.933000	65.536000	
	4.915200	13.600000	20.160000	28.636360	37.632000	48.152000	66.000000	
	5.000000	14.318180	20.284000	29.491200	38.912000	49.800000	66.666000	
	5.068800	14.745600	20.736000	30.000000	39.000000	50.000000	67.500000	
	6.000000	15.000000	22.000000	30.159000	39.321600	50.113630	67.737600	
	6.144000	15.360000	22.118400	30.720000	39.398400	52.900000	71.500000	
	7.108000	16.000000	22.500000	31.500000	39.460000	53.000000	80.000000	
	7.200000	16.384000	23.587000	32.000000	39.936000	53.125000		
7.372800	16.500000	24.000000	32.727270	40.000000	53.203425			
7.680000	16.666000	24.192000	33.000000	40.500000	53.693175			
8.000000	16.666700	24.576000	33.330000	40.550400	54.000000			
Frequency Stability	91SMO(A)-LP.....±100 ppm	91SMO(E)-LP.....±100 ppm	91SMO(S)-LP.....±100 ppm	91SMO(X)-LP.....±100 ppm				
	91SMO(B)-LP.....±50 ppm	91SMO(F)-LP.....±50 ppm	91SMO(T)-LP.....±50 ppm	91SMO(Y)-LP.....±50 ppm				
	91SMO(BS)-LP.....±30 ppm	91SMO(FS)-LP.....±30 ppm	91SMO(TS)-LP.....±30 ppm	91SMO(YS)-LP.....±30 ppm				
	over all conditions	over all conditions	over all conditions	over all conditions				
Operating Conditions		-10°C to +70°C(±100ppm & ±50ppm) / -10°C to +60°C(±30ppm)						
Operating temperature		-55°C to +125°C						
Storage temperature		+5V DC ±0.5V						
Input voltage(Vcc)								
Tri-state control voltage		NO TRI-STATE	Pin#1=Open Pin#1=VccX0.9min. Pin#1=VccX0.1max. →#3=High-Impedance	→#3=Output →#3=Output	NO TRI-STATE	Pin#1=Open Pin#1=2.2V min. Pin#1=0.8V max.	→#3=Output →#3=Output →#3=High-Impedance	
Input Current	10 mA max. (1.800 MHz to 30.000 MHz)			20 mA max. (1.800 MHz to 20.000 MHz)				
	15 mA max. (30.00 MHz to 35.000 MHz)			35 mA max. (20.00 MHz to 50.000 MHz)				
	30 mA max. (35.00 MHz to 66.000 MHz)			60 mA max. (50.00 MHz to 66.666 MHz)				
	50 mA max. (66.00 MHz to 80.000 MHz)							
Output (-10°C to +70°C)		50% ±10% at 1/2Vcc level						
Symmetry		10 ns max.						
Rise and fall times		Vcc X 0.1V max.						
"0" Level		Vcc X 0.9V min.						
"1" Level								
Load		15 pF max.		50 pF max.				
Enable / Disable Phase delay time		NO TRI-STATE 100 ns max.		NO TRI-STATE		100 ns max.		
Reflow Soldering Conditions		+240°C ±5°C for 10 seconds +150°C ±10°C for 1 to 2 minutes (preheating)						

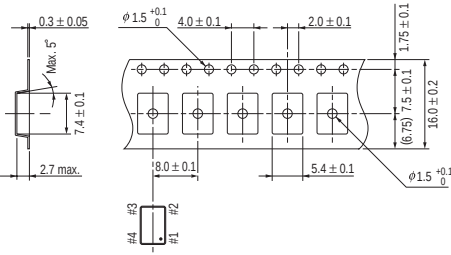
PACKAGE DATA

Item	Package	91SMO-LP
COVER		Ceramic
BASE		Ceramic
SEALING		Glass-frit
TERMINAL PLATING		Gold

SOLDERING PATTERN



TAPE SPECIFICATIONS



500pcs. per reel (178mm dia.)