

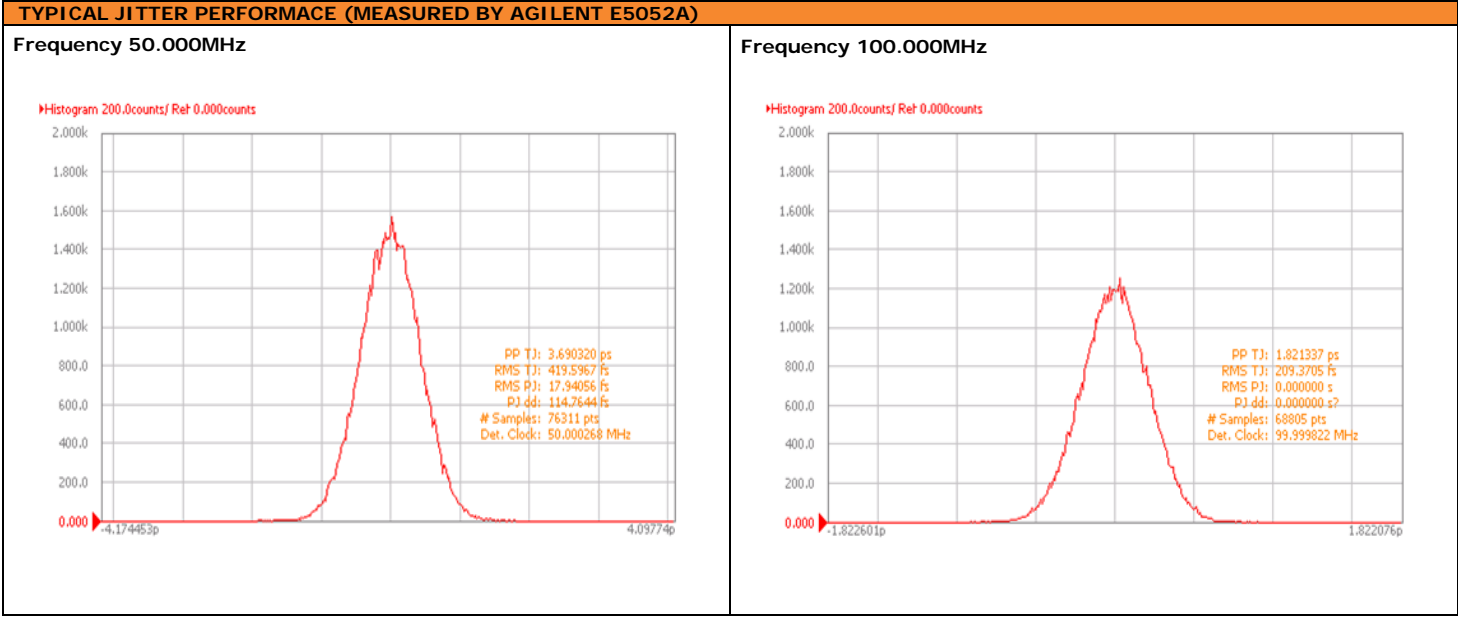
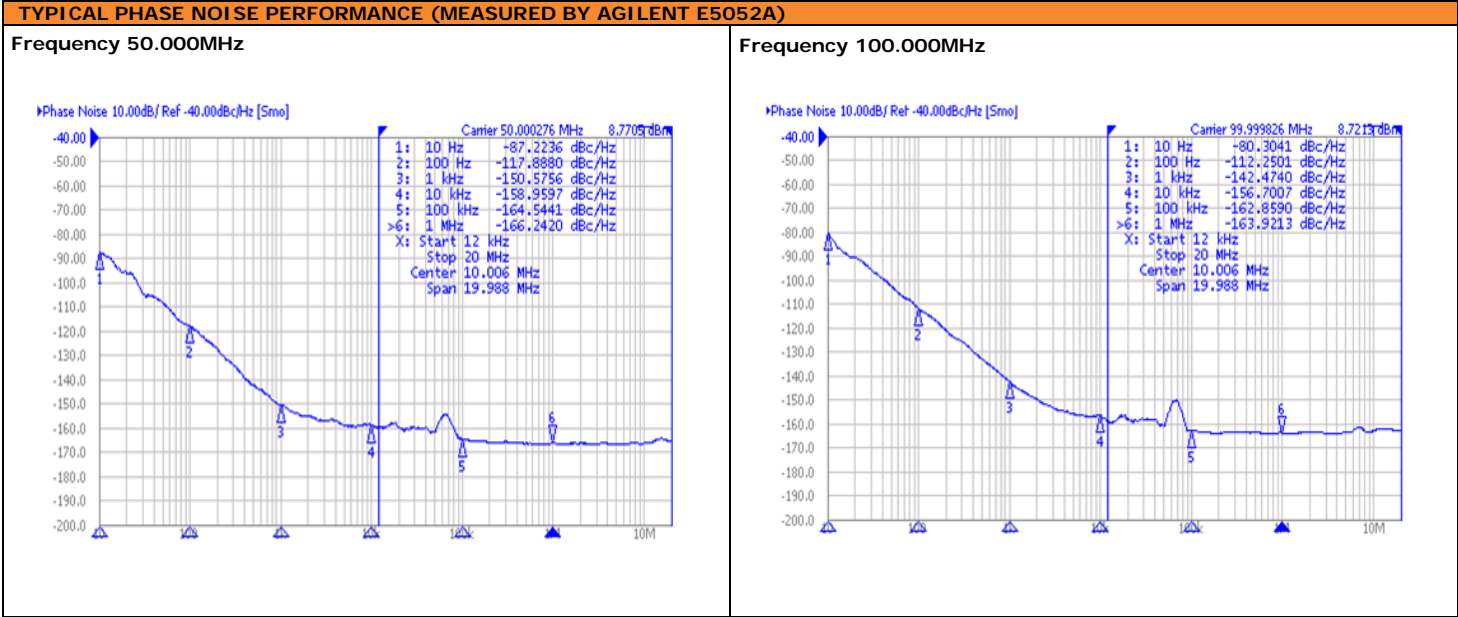
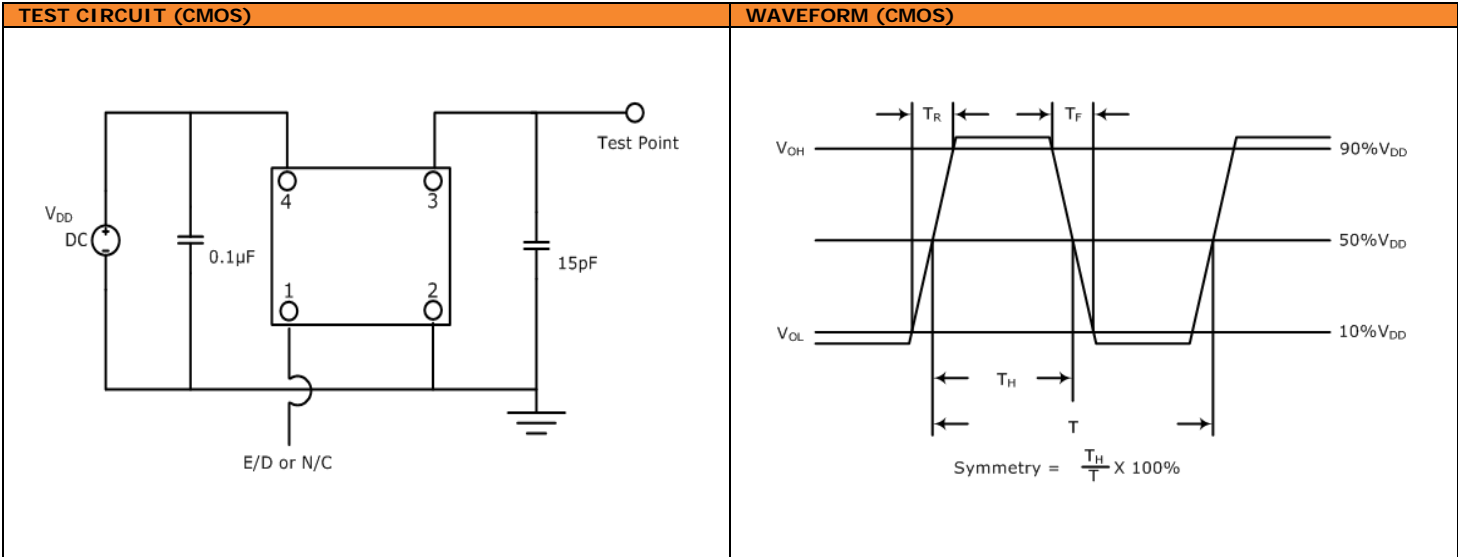
FEATURES	APPLICATIONS
<ul style="list-style-type: none"> ±20ppm (Frequency Stability) Available Ceramic Package CMOS RoHS Compliant Tape and Reel 	<ul style="list-style-type: none"> Micro Processors SONET/SDH/DWDM Storage Area/Networking Digital Video Base Stations



PART NUMBERING GUIDE	
<p>SUNTSU OSC → SXO 53 C 3 A 48 1 X - 50.000M ← FREQUENCY (MHz)</p> <p>5.0mm x 3.2mm</p> <p>CMOS</p> <p>SUPPLY VOLTAGE 1: 1.8V±5% 2: 2.5V±5% 3: 3.3V±5%</p> <p>FREQUENCY STABILITY A: ±50ppm B: ±30ppm C: ±25ppm *D: ±20ppm</p> <p>Cage Code: 4GUT4 To customize your parameters contact a Suntsu representative. * For frequency stability option D contact a Suntsu representative. ** For operating temperatures up to -55~125°C contact a Suntsu representative.</p>	<p>LOAD BLANK: 15pF X: 30pF Y: 50pF</p> <p>TRI-STATE (ENABLE/DISABLE) BLANK: NO CONNECTION 1: Pin 1</p> <p>OPERATING TEMPERATURE RANGE 07: 0°C to +70°C 16: -10°C to +60°C 17: -10°C to +70°C 27: -20°C to +70°C 38: -30°C to +85°C 48: -40°C to +85°C</p>

ELECTRICAL PARAMETERS		UNITS	MIN.	TYP.	MAX.	REMARKS
Frequency Range		kHz	32.768			
		MHz	1		200	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Operating Temperature, Output Load Change, Supply Voltage Change, and First Year Aging at 25°C.)		ppm	-20		+20	See part numbering guide for options.
Operating Temperature		°C	-40		+85	See part numbering guide for options.
Storage Temperature			-55		+125	
Supply Voltage (V _{DD})	1.8V Option	V	1.710	1.8	1.890	
	2.5V Option		2.375	2.5	2.625	
	3.3V Option		3.135	3.3	3.465	
Current (I _{DD})	Frequency Range		1.8V	2.5V	3.3V	
	32.768kHz	mA	5	5	5	Maximum value.
	1.0000MHz ~ 34.999MHz		8	10	16	Maximum value.
	35.000MHz ~ 59.999MHz		10	20	25	Maximum value.
	60.000MHz ~ 99.999MHz		25	30	40	Maximum value.
100.00MHz ~ 160.00MHz	35		40	50	Maximum value.	
Output Load (CMOS)		pF			15	See part numbering guide for options.
Output Logic Levels	Output Logic High (V _{OH})	V	0.9*V _{DD}			
	Output Logic Low (V _{OL})				0.1*V _{DD}	
Rise (T _R) and Fall (T _F) Time	32.768kHz	ns			200	
	1.0000MHz ~ 34.999MHz				10	
	35.000MHz ~ 99.999MHz				6	
	100.00MHz ~ 160.00MHz				3	
Symmetry (Duty Cycle)		%	45	50	55	
Tri-State Input Voltage	Enable	V	0.7*V _{DD}			No Connection.
	Disable				0.3*V _{DD}	
Start-Up Time		ms			10	
Phase Jitter (12kHz ~ 20MHz)		ps			1	

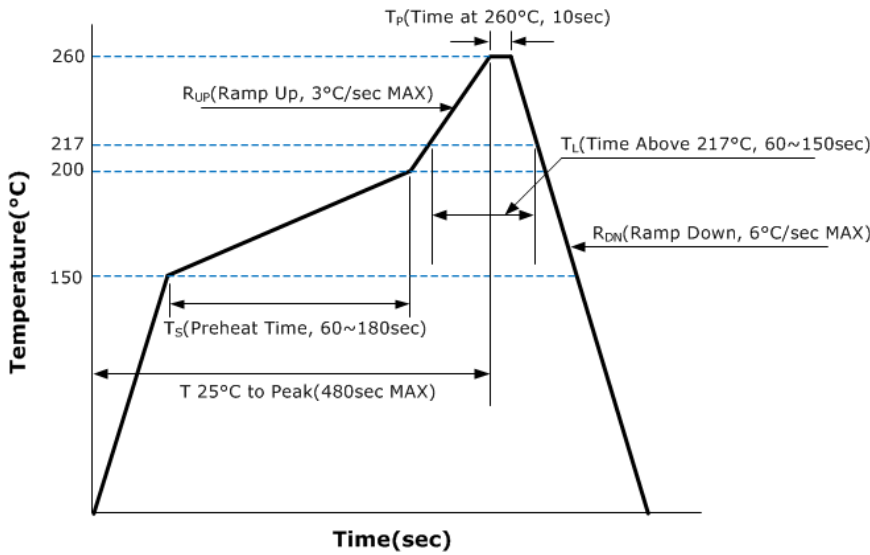
OUTLINE DRAWING											
	<p>RECOMMENDED LAND PATTERN</p>										
	<table border="1"> <thead> <tr> <th>PIN</th> <th>FUNCTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TRI-STATE or NC</td> </tr> <tr> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>OUTPUT</td> </tr> <tr> <td>4</td> <td>V_{DD}</td> </tr> </tbody> </table>	PIN	FUNCTION	1	TRI-STATE or NC	2	GND	3	OUTPUT	4	V _{DD}
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NOTE: Dimensions in millimeters (mm).											



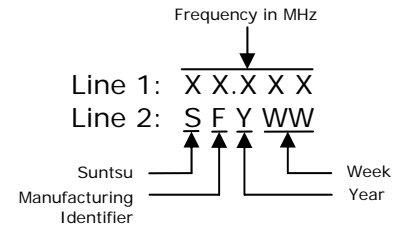
ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003

REFLOW PROFILE

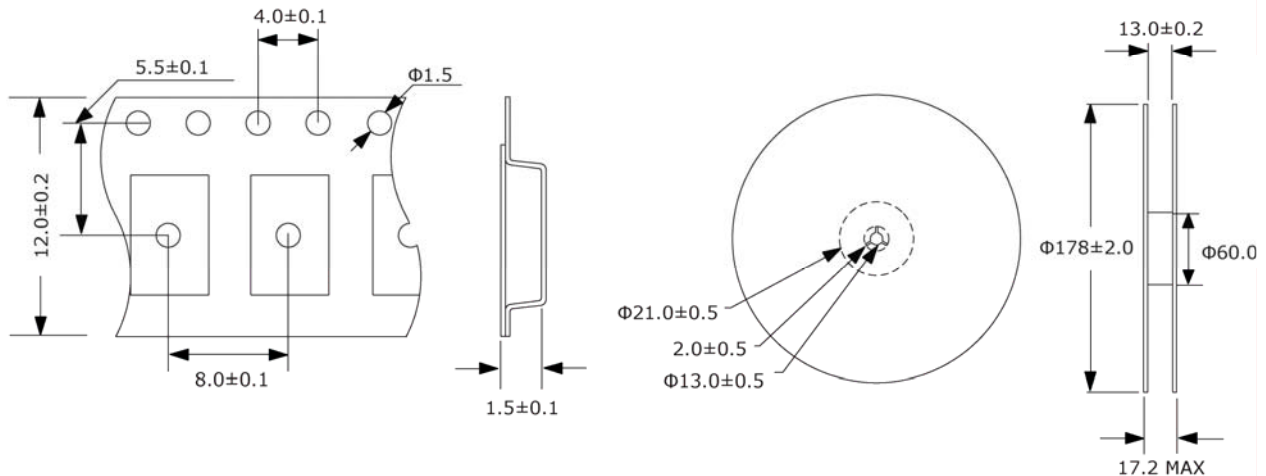


MARKING



TAPE AND REEL DIMENSIONS

1,000pcs/reel



NOTE: Dimensions in millimeters (mm); drawing is not to scale.