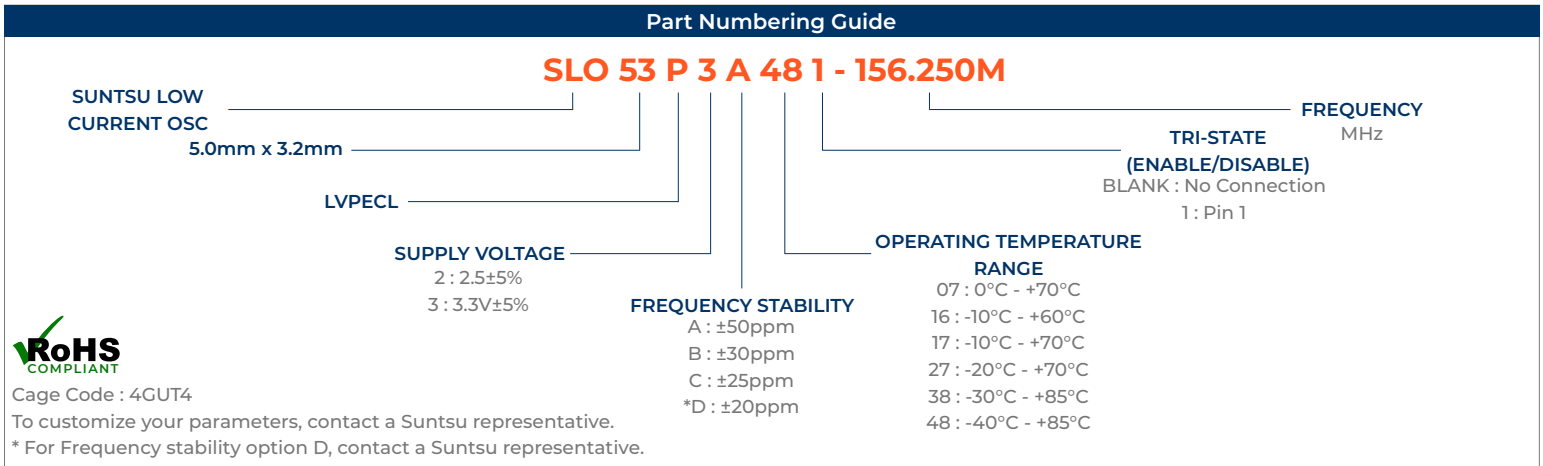
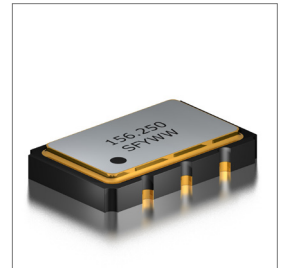


Features
• ± 20 ppm (Frequency Stability) Available
• Ceramic Package
• LVPECL
• Low Current Consumption
• Fundamental or 3rd Overtone Crystal Design

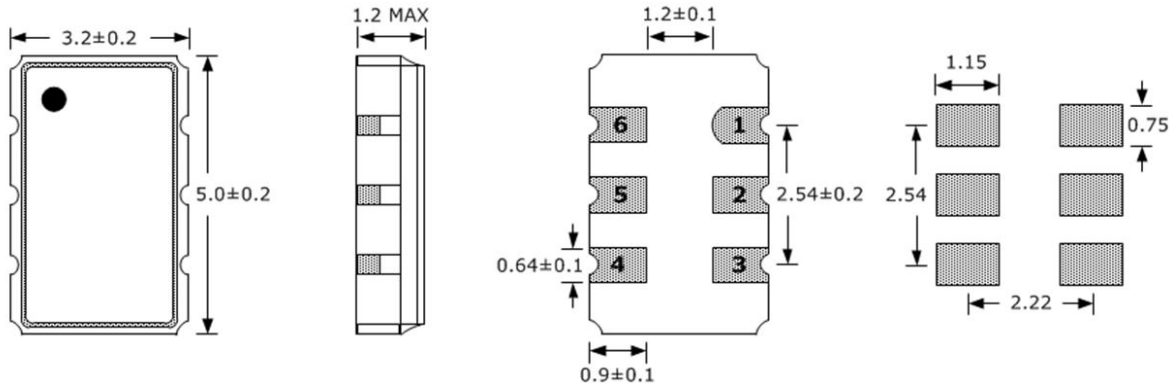
Applications
• Fiber Channel
• Gigabit Ethernet
• PCI Express



Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	100		320	
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	°C	-55		+125	
Supply Voltage (V _{DD}) - 2.5V Option	V	2.375	2.5	2.625	
Supply Voltage (V _{DD}) - 3.3V Option	V	3.135	3.3	3.465	
Current (I _{DD})	mA			50	
Output Load (LVPECL)	Ω			50	50 Ω into V _{DD} -2.0V _{DC}
Output Logic Levels High (V _{OH} at 2.5V)	V	1.415		1.760	
Output Logic Levels Low (V _{OL} at 2.5V)	V	0.670		1.195	
Output Logic Levels High (V _{OH} at 3.3V)	V	2.215		2.420	
Output Logic Levels Low (V _{OL} at 3.3V)	V	1.470		1.745	
Rise (TR) and Fall (TF) Time	ns		0.15	0.3	Measured at 20% to 80% of Waveform
Symmetry (Duty Cycle)	%	45	50	55	
Tri-State Input Voltage - Enable	V	0.7*V _{DD}			No Connection
Tri-State Input Voltage - Disable	V			0.3*V _{DD}	
Start-Up Time	ms			5	
Phase Jitter (12kHz ~ 20MHz)	ps		0.12	0.15	

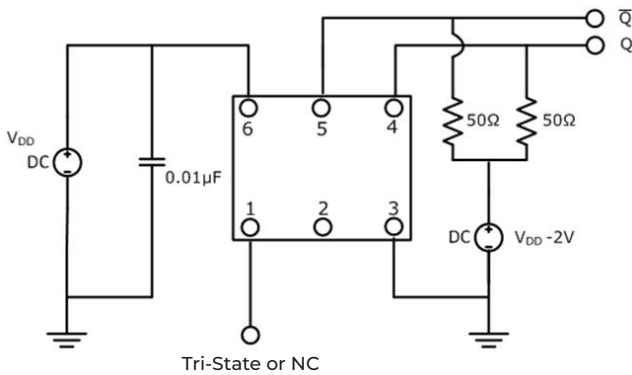
Outline Drawing & Land Pattern

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.

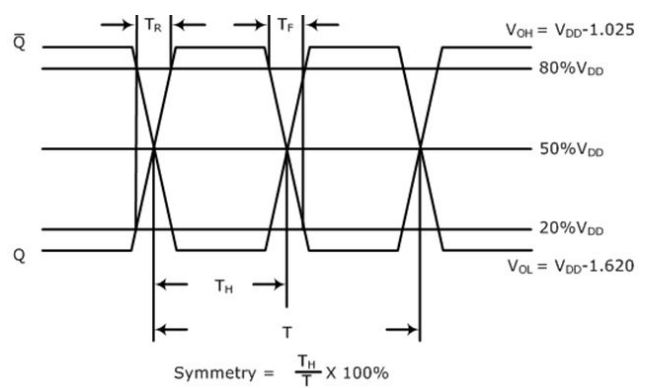


PIN	FUNCTION
1	TRI-STATE or NC
2	NC
3	GND
4	OUTPUT
5	COMP OUTPUT
6	V _{DD}

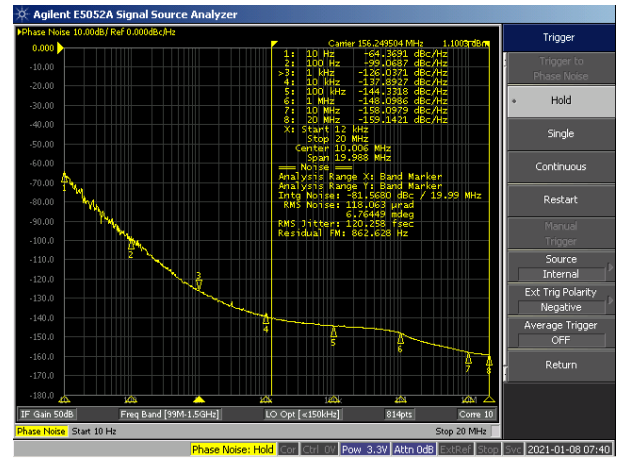
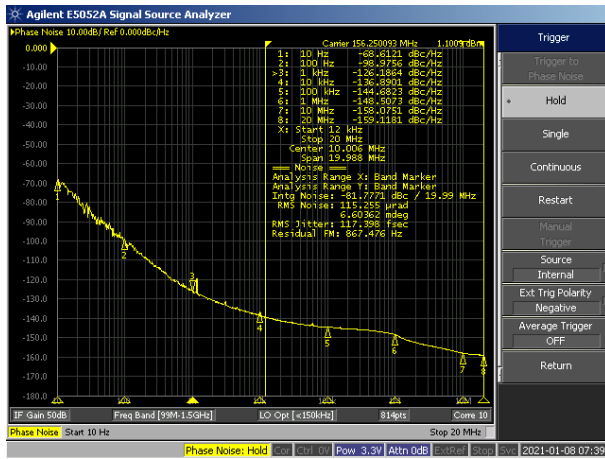
Test Circuit (LVPECL)



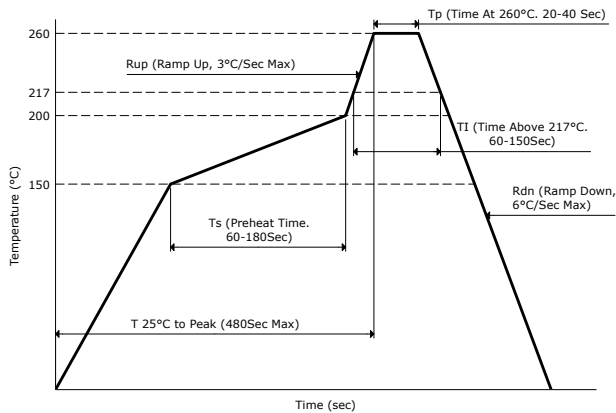
Waveform (LVPECL)



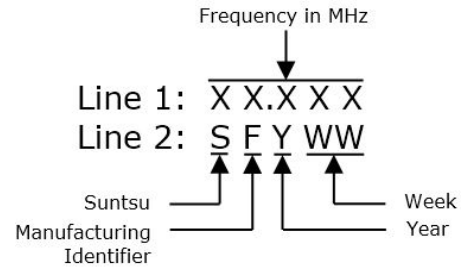
Typical Phase Noise Performance (Measured By Agilent E5052A)



Reflow Profile



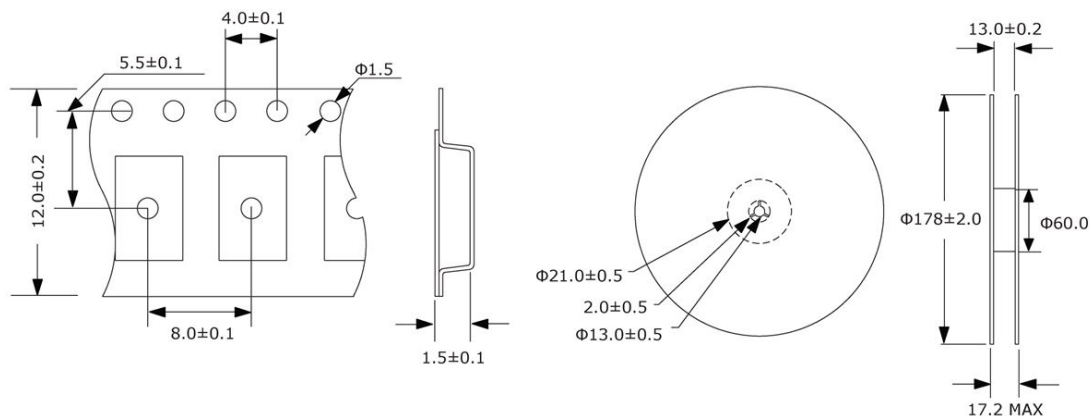
Part Marking



Tape And Reel Dimensions

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.

1,000pcs/Reel



Environmental 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
Solderability	MIL-STD-883, Method 2003
Moisture Sensitivity	J-STD-020, MSL 1

Mechanical Specifications

Mechanical Shock	MIL-STD-202, Method 213, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Resistance to Solvents	MIL-STD-202, Method 215
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K