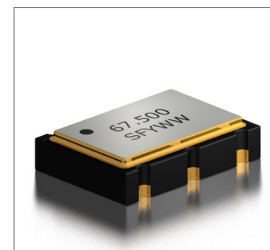


Features

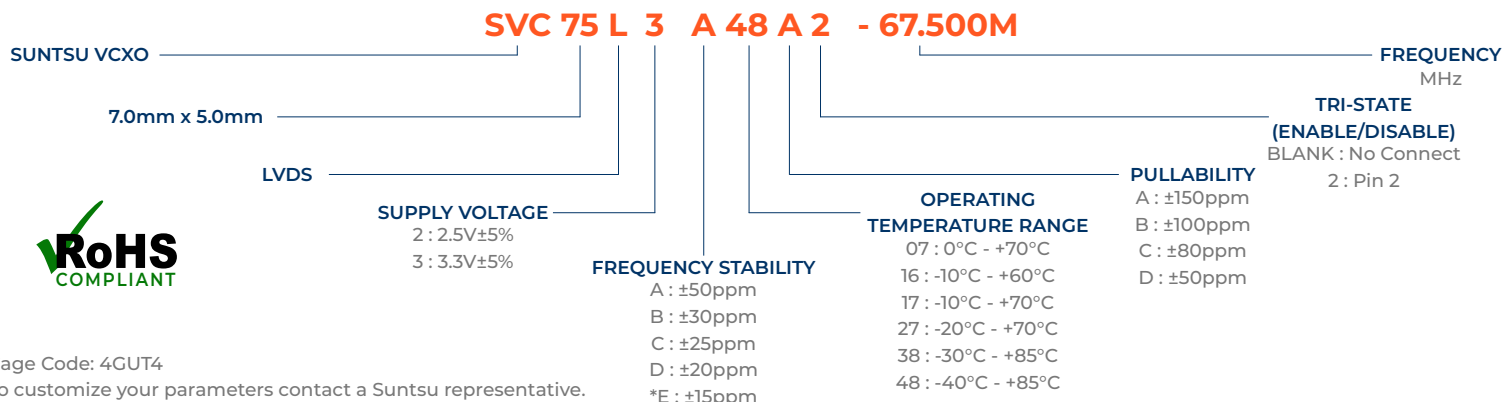
- ± 20 ppm (Frequency Stability) Available
- Miniature Package
- LVDS
- Fundamental or PLL (Phase Lock Loop) Available
- Tape and Reel

Applications

- Fiber Channel
- Gigabit Ethernet
- PCI Express
- SONET



Part Numbering Guide



Cage Code: 4GUT4

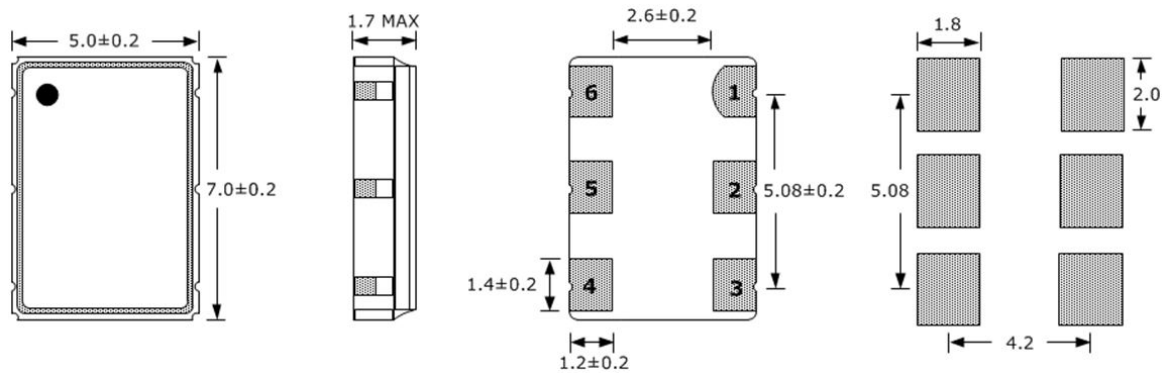
To customize your parameters contact a Suntsu representative.

* For frequency stability option E contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	9.5		80	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Op 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	Only available with AT-Cut Fundamental.
Supply Voltage (V _{DD}) 3.3V Option	V	3.135	3.3	3.465	Available with AT-Cut Fundamental and PLL.
Current (I _{DD}) 2.5V Option	mA			50	
Current (I _{DD}) 3.3V Option	mA			60	
Current Voltage (V _C) 2.5V Option	V	0.2		2.3	
Current Voltage (V _C) 3.3V Option	V	0.3		3.0	
Pullability	ppm	± 50	± 100	± 150	See part numbering guide for options.
Linearity	%			10	
Output Load (LVDS)	Ω			100	
Output Logic HIGH Level (V _{OH})	V		1.43	1.6	
Output Logic LOW Level (V _{OL})	V	0.9	1.1		
Rise (T _R) And Fall (T _F) Time	ns		0.4	0.8	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			10	
Phase Jitter (12KHz ~ 20MHz)	ps		0.4	1	AT-Cut Fundamental.
Phase Jitter (12KHz ~ 20MHz)	ms		3	5	PLL (Phase Lock Loop).

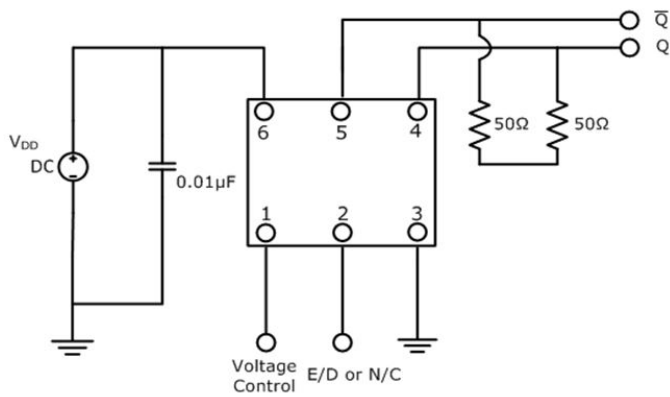
Outline Drawing & Land Pattern

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

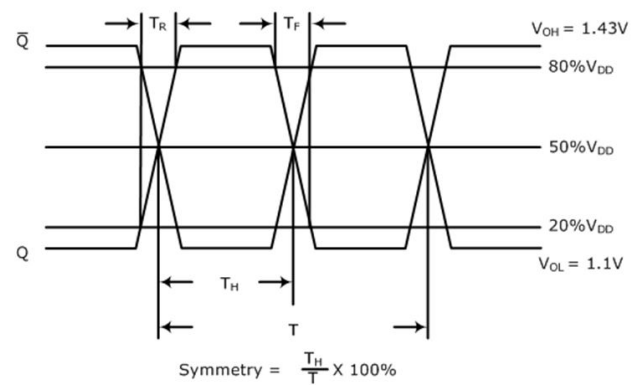


PIN	FUNCTION
1	VOLTAGE CONTROL
2	TRI-STATE or NC
3	GND
4	OUTPUT
5	COMP OUTPUT
6	V _{DD}

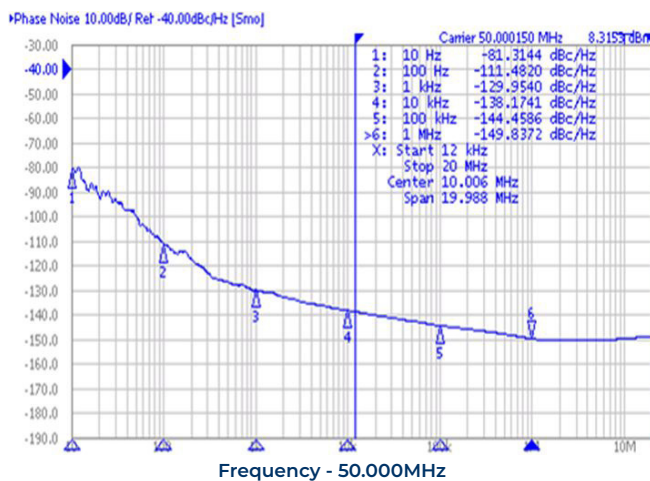
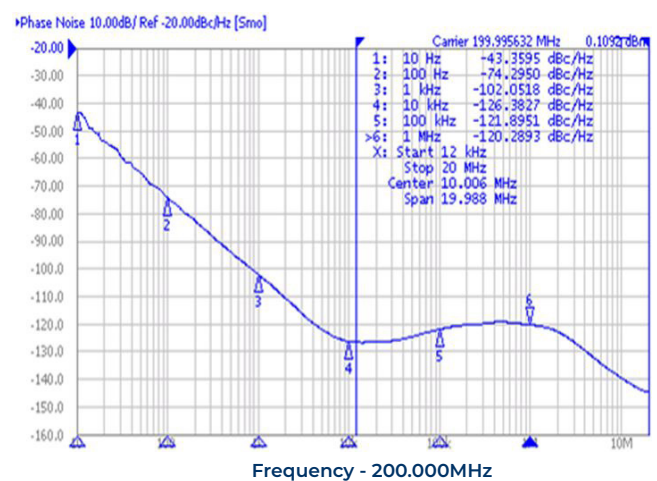
Test Circuit (LVDS)



Waveform (LVDS)

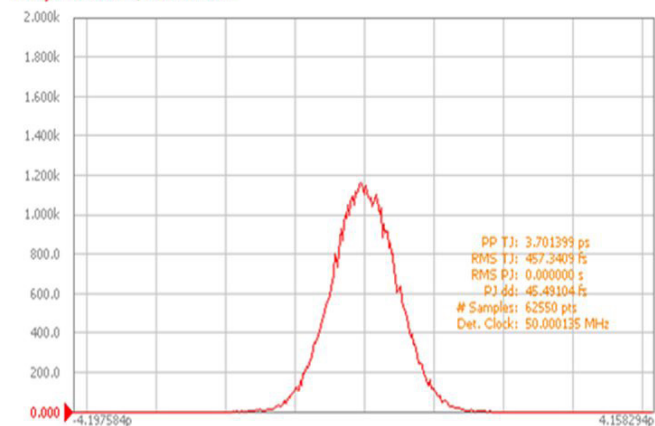


Typical Phase Noise Performance (Measured By Agilent E5052A)



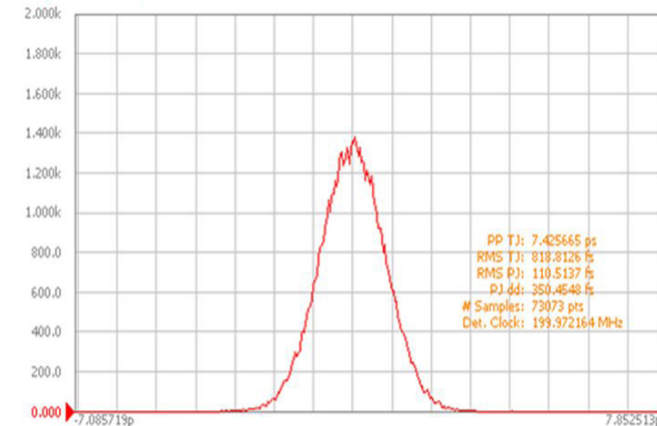
Typical Jitter Performance (Measured By Agilent E5052A)

Histogram 200.0counts/ Ref 0.000counts



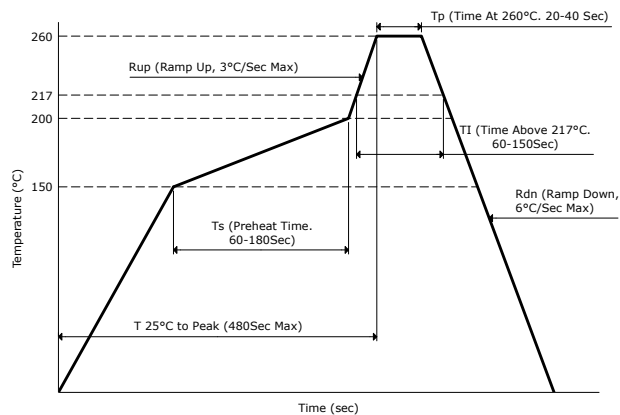
Frequency - 50.000MHz

Histogram 200.0counts/ Ref 0.000counts

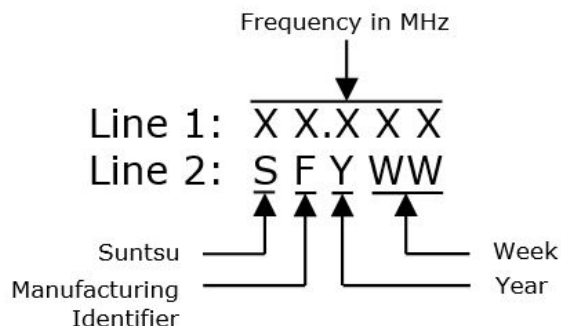


Frequency - 200.000MHz

Reflow Profile



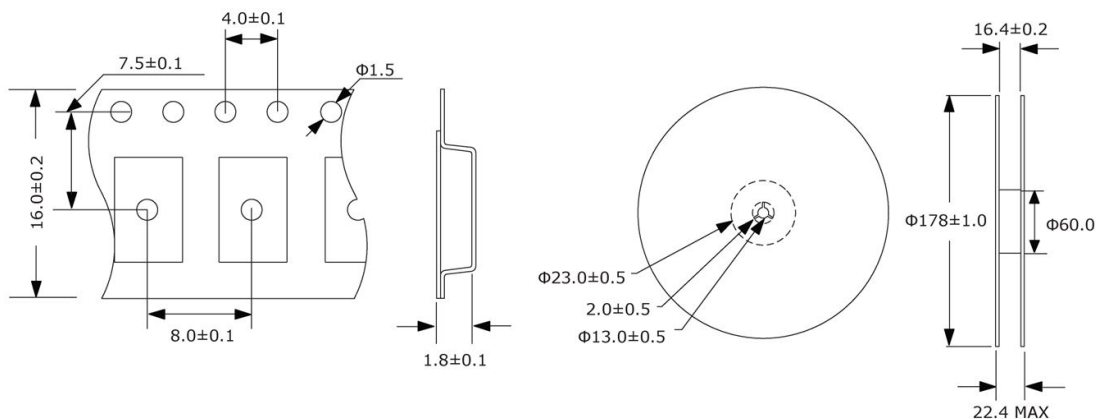
Part Marking



Tape And Reel Dimensions

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

1,000pcs/Reel



Environmental Specifications		Mechanical Specifications	
Temperature Cycling	MIL-STD-883, Method 1010, Condition B	Mechanical Shock	MIL-STD-202, Method 213, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A	Vibration	MIL-STD-883, Method 2007, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C	Moisture Resistance	MIL-STD-883, Method 1004
Solderability	MIL-STD-883, Method 2003	Resistance to Solvents	MIL-STD-202, Method 215
Moisture Sensitivity	J-STD-020, MSL 1	Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K