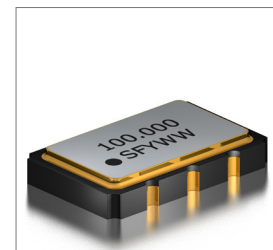


Features
• ± 20 ppm (Frequency Stability) Available
• Ceramic Package
• LVDS
• Programmed VCXO
• Tape and Reel

Applications
• Micro Processors
• FPGA
• Storage Area/Networking
• Digital Video
• Portable Computers


Part Numbering Guide
SQV 53 L 3 A 48 A 2 - 100.000M

 SUNTSU QUICK
TURN VCXO

5.0mm x 3.2mm

LVDS

SUPPLY VOLTAGE

 2 : 2.5V $\pm 5\%$

 3 : 3.3V $\pm 5\%$
FREQUENCY STABILITY

 A : ± 50 ppm

 B : ± 30 ppm

 C : ± 25 ppm

 D : ± 20 ppm

 *E : ± 15 ppm

**OPERATING
TEMPERATURE RANGE**

07 : 0°C - +70°C

16 : -10°C - +60°C

17 : -10°C - +70°C

27 : -20°C - +70°C

38 : -30°C - +85°C

48 : -40°C - +85°C

FREQUENCY
MHz

**TRI-STATE
(ENABLE/DISABLE)**
BLANK : No Connect
2 : Pin 2

PULLABILITY

 A : ± 150 ppm

 B : ± 100 ppm

 C : ± 80 ppm

 D : ± 50 ppm


Cage Code: 4GUT4

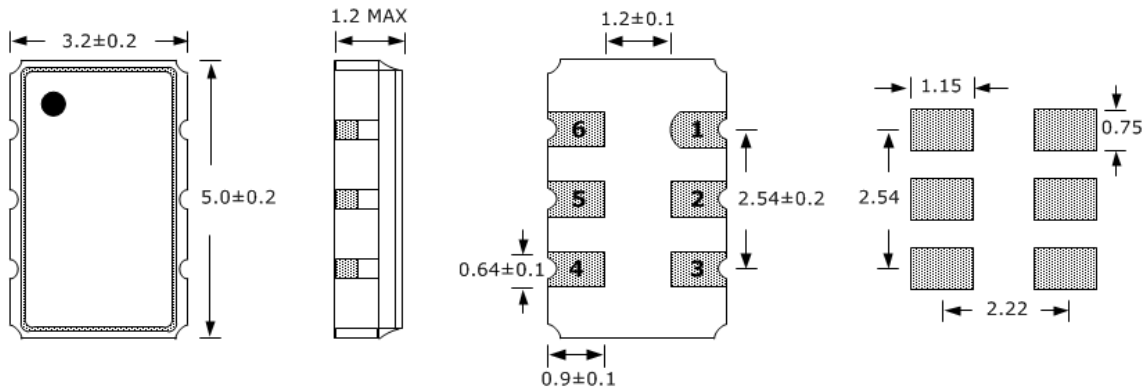
To customize your parameters contact a Suntsu representative.

* For frequency stability option E contact a Suntsu representative.

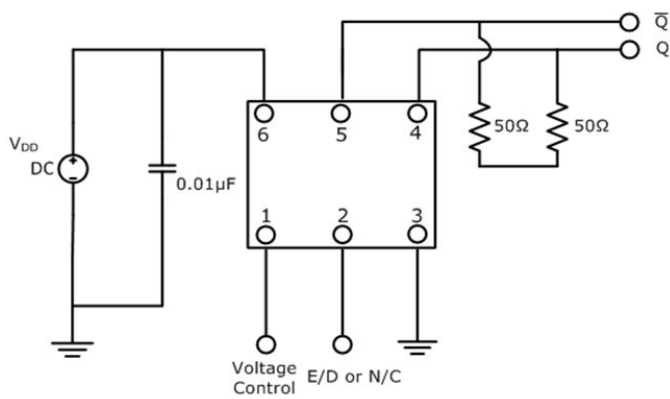
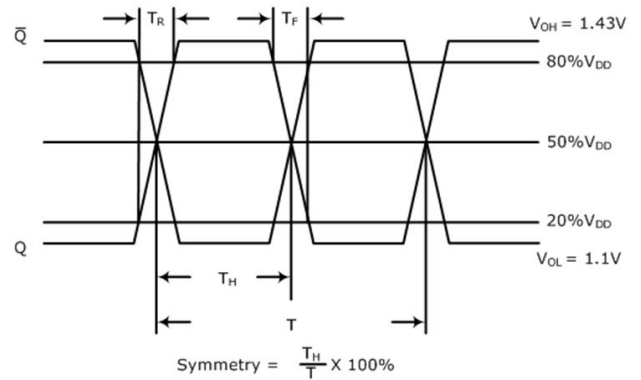
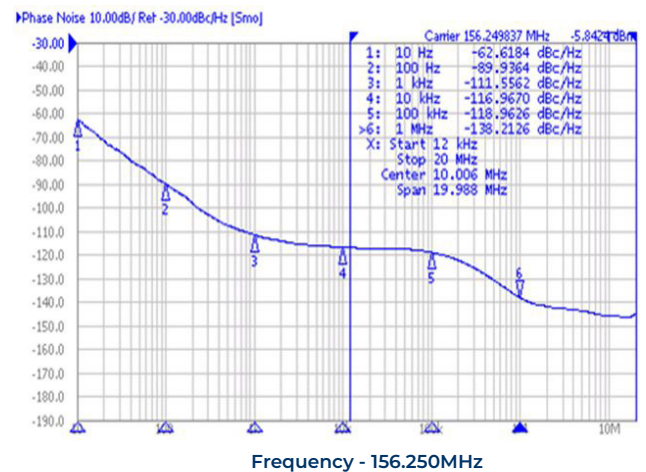
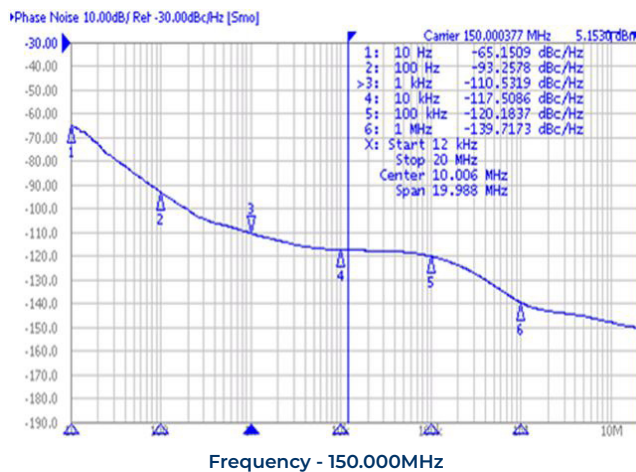
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	8		1500	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Op Temp, Output Load Change, Supply Voltage Change, and First Year Aging at 25°C.)	ppm	-20		+20	See part numbering guide for options.
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Storage Temperature	°C	-55		+125	
Supply Voltage (V _{DD}) 2.5V Option	V		2.5	2.625	
Supply Voltage (V _{DD}) 3.3V Option	V	3.135	3.3	3.465	See part numbering guide for options.
Current (I _{DD}) 2.5V Option	mA			65	
Current (I _{DD}) 3.3V Option	mA			70	
Current Voltage (V _c) 2.5V Option	V	0		2.5	
Current Voltage (V _c) 3.3V Option	V	0		3.3	
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		
Differential Output Voltage (V _{OD})	mV	247	330	454	
Differential Output Error (pV _{OD})	mV			50	
Offset Voltage (V _{OS})	V	1.125	1.250	1.375	
Offset Error (pV _{OS})	mV			50	
Rise (T _r) And Fall (T _f) Time	ns			1	
Symmetry (Duty Cycle)	%	45	50	55	
Tri-State Input Voltage - Enable	V	0.7*V _{DD}			
Tri-State Input Voltage - Disable	V			0.3*V _{DD}	
Start-Up Time	ms			10	
Phase Jitter (12KHz ~ 20MHz)	ps		0.7	1.5	

Outline Drawing & Land Pattern

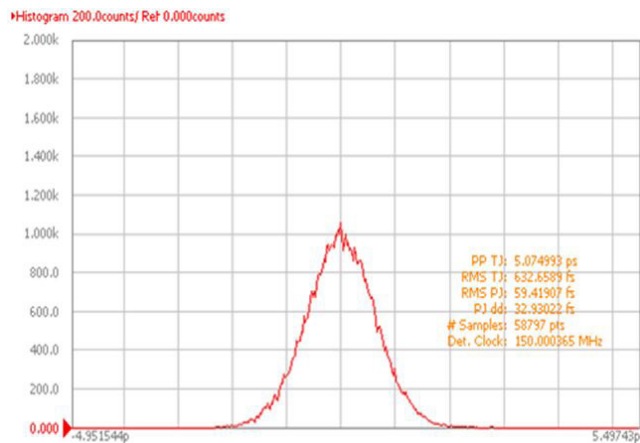
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



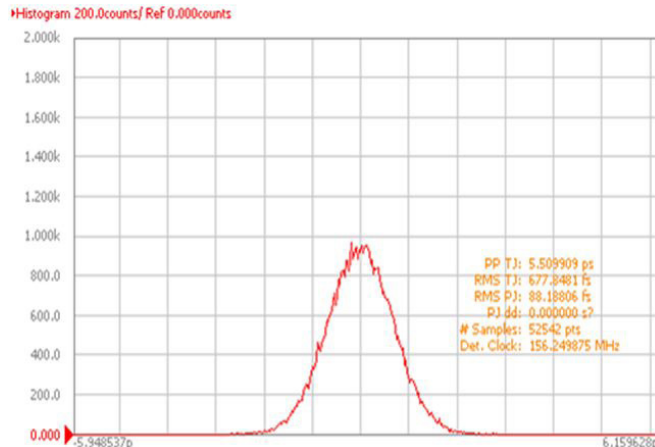
PIN	FUNCTION
1	TRI-STATE or NC
2	E/D or NC
3	GND
4	OUTPUT
5	COMP OUTPUT
6	V _{DD}

Test Circuit (LVDS)

Waveform (LVDS)

Typical Phase Noise Performance (Measured By Agilent E5052A)


Typical Jitter Performance (Measured By Agilent E5052A)

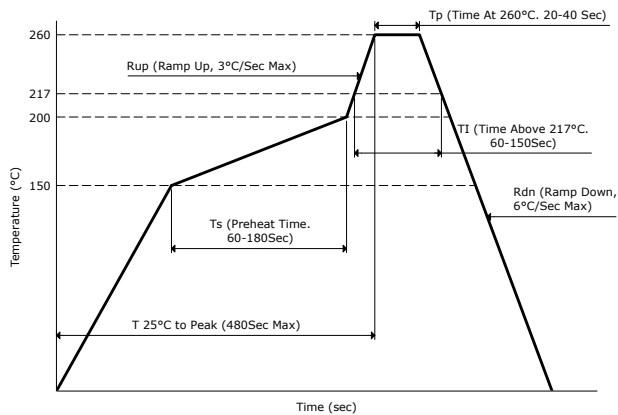


Frequency - 150.000MHz

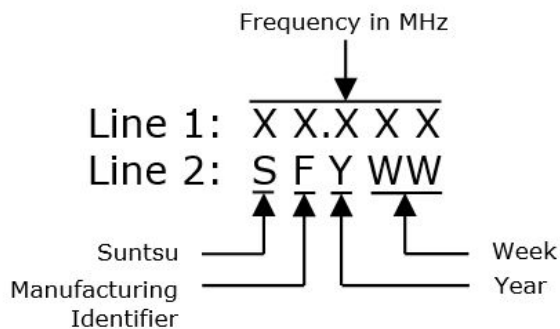


Frequency - 156.250MHz

Reflow Profile



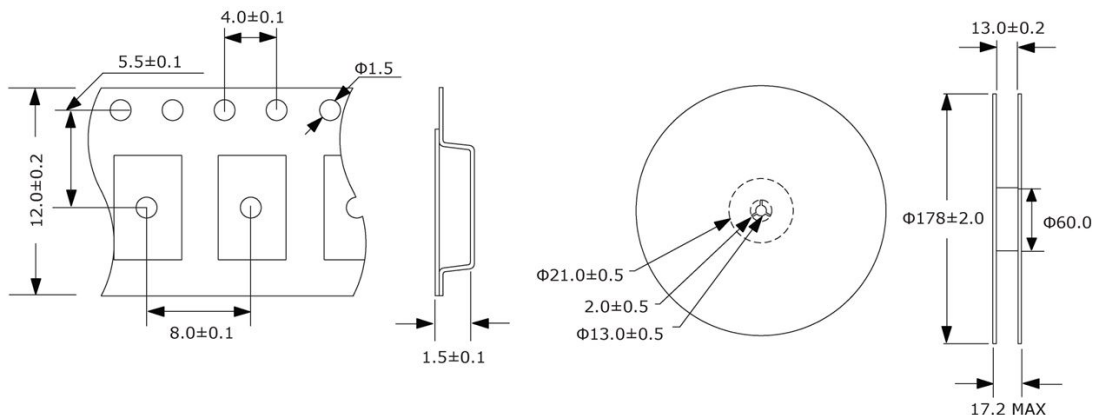
Part Marking



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