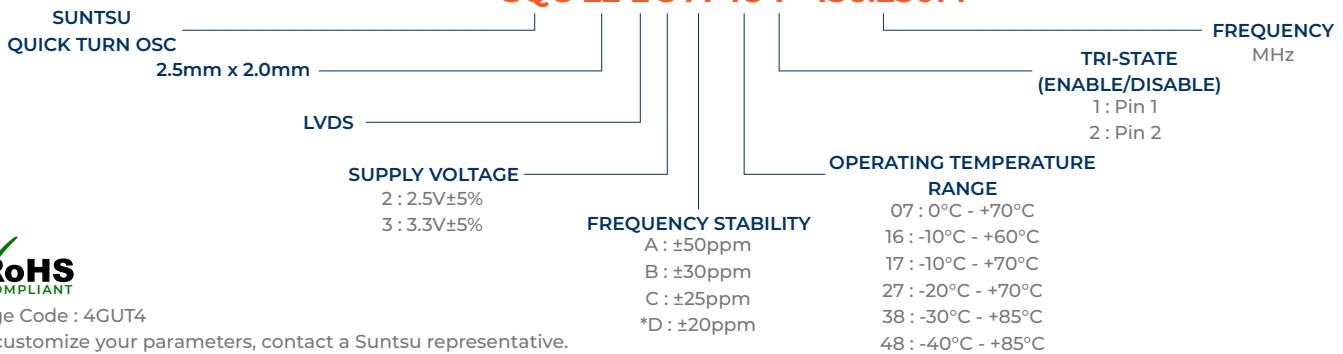


Features
• $\pm 20$ ppm (Frequency Stability) Available
• Wide Frequency Range
• LVDS
• Programmed Oscillator
• Tape and Reel

Applications
• Ethernet (10G/40G/100G)
• Base Stations
• Wi-Fi
• DSL/ADSL
• Communications


**Part Numbering Guide**
**SQG 22 L 3 A 48 1 - 156.250M**


Cage Code : 4GUT4

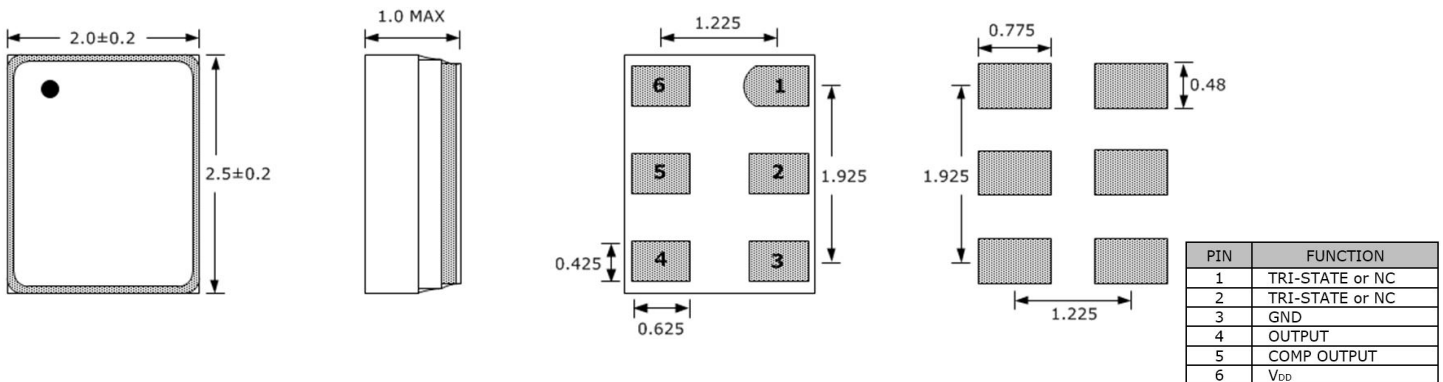
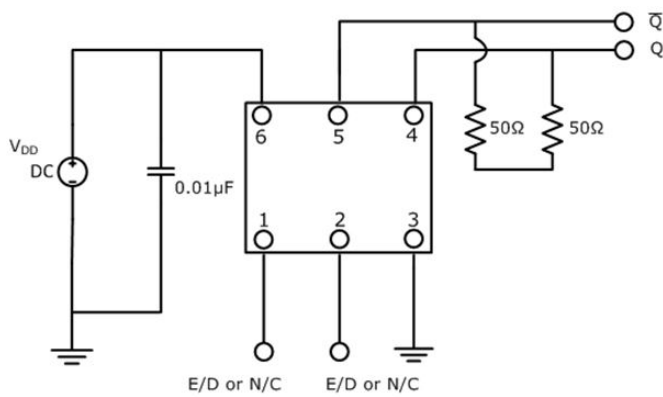
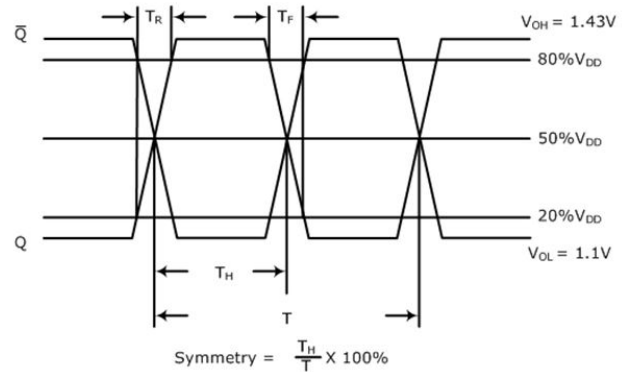
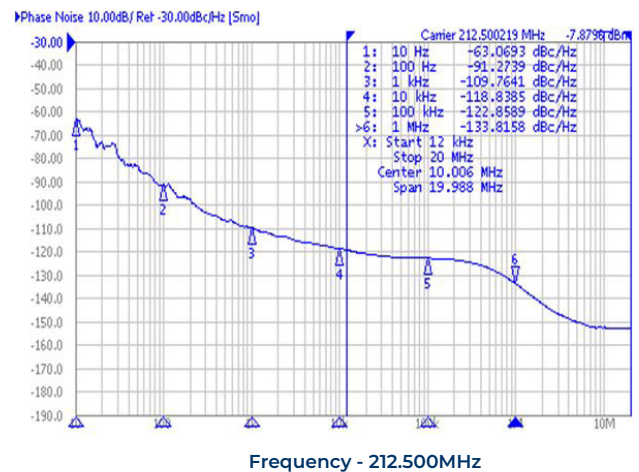
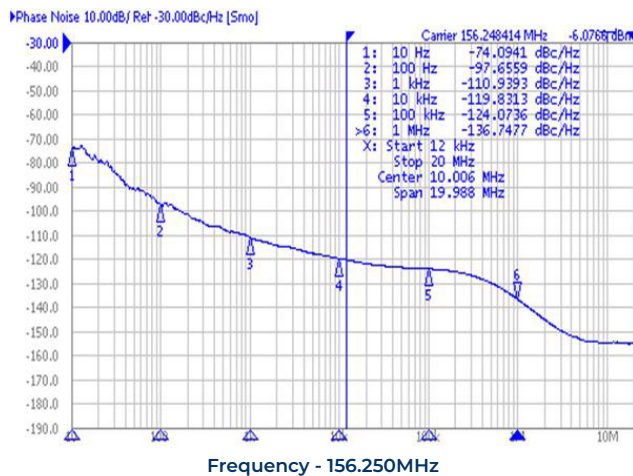
To customize your parameters, contact a Suntsu representative.

\* For Frequency stability option D, contact a Suntsu representative.

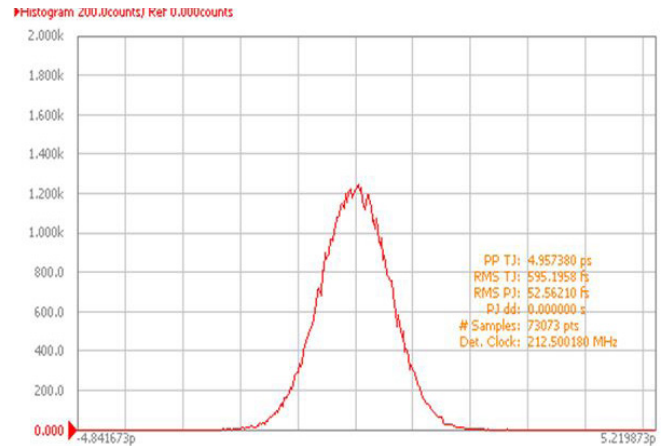
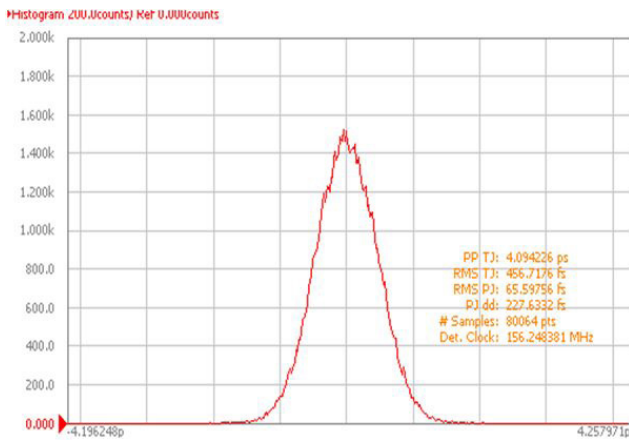
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	8		1500	
Frequency Stability (Includes Initial Tolerance at 25°C, Frequency Stability over Operating Temperature, Output Load Change, Supply Voltage Change, and First Year Aging at 25°C.)	ppm	-20		+20	See part numbering guide for options
Operating Temperature	°C	-40		+85	See part numbering guide for options
Storage Temperature	°C	-55		+125	
Supply Voltage (V <sub>DD</sub> ) - 2.5V option	V	2.375	2.5	2.625	
Supply Voltage (V <sub>DD</sub> ) - 3.3V option	V	3.125	3.3	3.465	
Current (I <sub>DD</sub> ) - 2.5V option	mA			35	
Current (I <sub>DD</sub> ) - 3.3V option	mA			40	
Output Load (LVDS)	$\Omega$			100	
Output Logic Levels High (V <sub>OH</sub> )	V		1.43	1.6	
Output Logic Levels Low (V <sub>OL</sub> )	V	0.9	1.1		
Differential Output Voltage (V <sub>OD</sub> )	mV	247	330	454	
Differential Output Error (pV <sub>OD</sub> )	mV			50	
Offset Voltage (V <sub>OS</sub> )	V	1.125	1.250	1.375	
Offset Error (pV <sub>OS</sub> )	mV			50	
Rise (TR) and Fall (TF) Time	ns			1	
Symmetry (Duty Cycle)	%	45	50	55	
Tri-State Input Voltage - Enable	V	0.7*V <sub>DD</sub>			No Connection
Tri-State Input Voltage - Disable	V			0.3*V <sub>DD</sub>	
Start-Up Time	ms			10	
Phase Jitter (12kHz ~ 20MHz)	ps		0.5	1.5	

**Outline Drawing & Land Pattern**

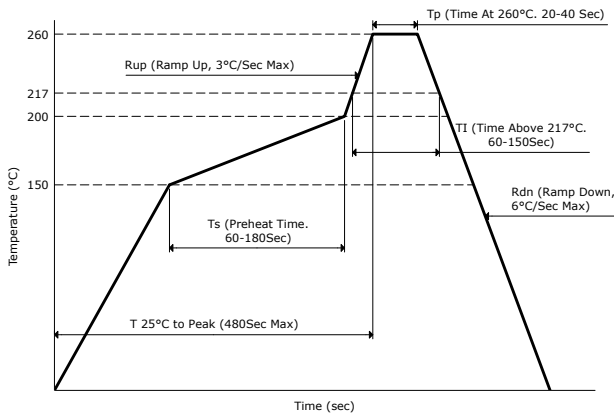
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.


**Test Circuit (LVDS)**

**Waveform (LVDS)**

**Typical Phase Noise Performance (Measured By Agilent E5052A)**


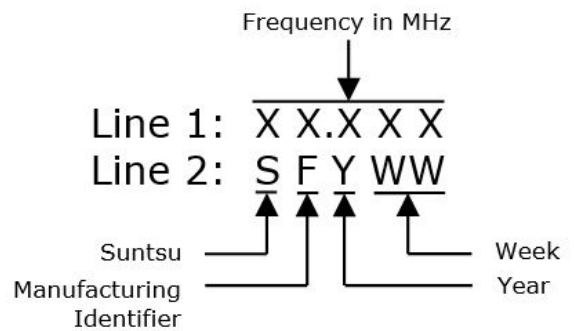
### Typical Jitter Performance (Measured By Agilent E5052A)



### Reflow Profile



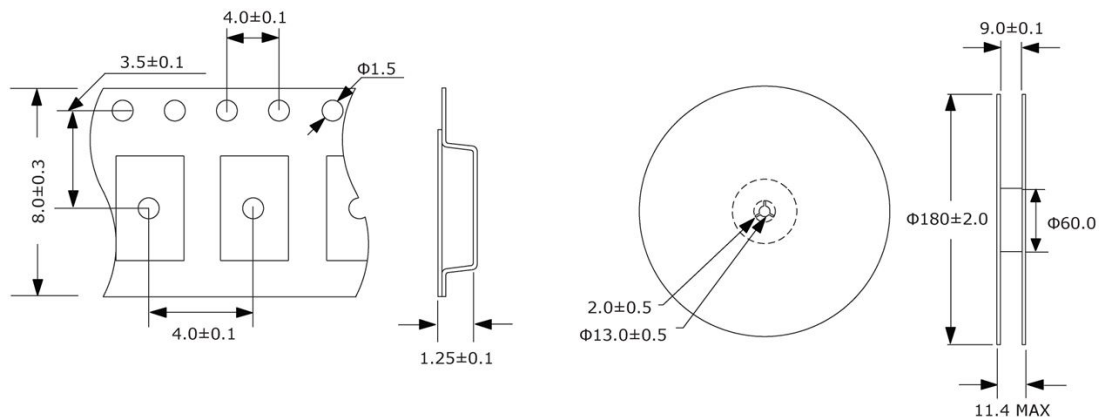
### Part Marking



### Tape And Reel Dimensions

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

3,000pcs/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