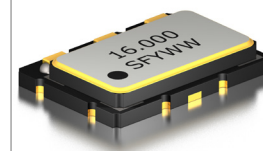


Features

- $\pm 0.5\text{ppm}$ (Frequency Stability) Available
- CMOS
- (VC)TCXO
- Tape and Reel

Applications

- GPS
- Mobile Communication Equipment
- Base Stations
- WLAN/WiMAX/WiFi



Part Numbering Guide

STC 75 C 33 R 48 V E - 16.000M

SUNTSU TCXO

7.0mm x 5.0mm

CMOS

SUPPLY VOLTAGE

33 : 3.3V $\pm 5\%$
50 : 5.0V $\pm 5\%$

FREQUENCY STABILITY

N : $\pm 5.0\text{ppm}$
O : $\pm 2.5\text{ppm}$
P : $\pm 2.0\text{ppm}$
Q : $\pm 1.5\text{ppm}$
R : $\pm 1.0\text{ppm}$
F : $\pm 0.5\text{ppm}$

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

TCXO/VCTCXO

BLANK : TCXO
V : VCTCXO

FREQUENCY
MHz

PULLABILITY

BLANK : TCXO
E : $\pm 12.0\text{ppm}$
F : $\pm 8.0\text{ppm}$
G : $\pm 5.0\text{ppm}$



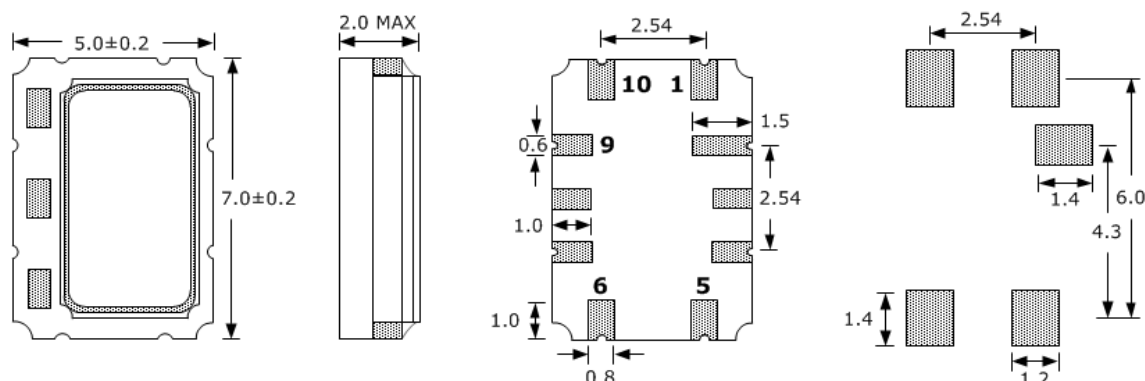
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	5		40	
Frequency Tolerance at +25°C	ppm	-2.0		+2.0	1 hour after Reflow
Freq. Stability vs. Op Temp.	ppm	-0.5		+0.5	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppm	-0.5		+0.5	V _{DD} $\pm 5\%$ Change
Freq. Stability vs. Load	ppm	-0.2		+0.2	$\pm 10\%$ Change
Freq. Stability vs. Aging	ppm	-1.0		+1.0	1 Year
Operating Temperature	°C	-40		+85	See part numbering guide for options.
Storage Temperature	°C	-55		+125	
Supply Voltage (V _{DD})	V	3.135	3.3	3.465	See part numbering guide for options.
Current (I _{DD})	mA			6	
Current Voltage (VC, VCTCXO)	V	0		V _{DD}	Center Voltage: V _{DD} *50%
Pullability (VCTCXO)	ppm	± 5.0		± 12.0	See part numbering guide for options.
Linearity (VCTCXO)	%			10	
Output Load (CMOS)	pF			15	
Output Logic HIGH Level (V _{OH})	V	0.9*V _{DD}			
Output Logic LOW Level (V _{OL})	V			0.1*V _{DD}	
Rise (T _R) And Fall (T _F) Time	ns			5	
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			2	
VC Input Impedance (VCTCXO)	k Ω	100			
Phase Noise (Typical) 100Hz Offset	dBc/Hz		-120		
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-140		
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-148		

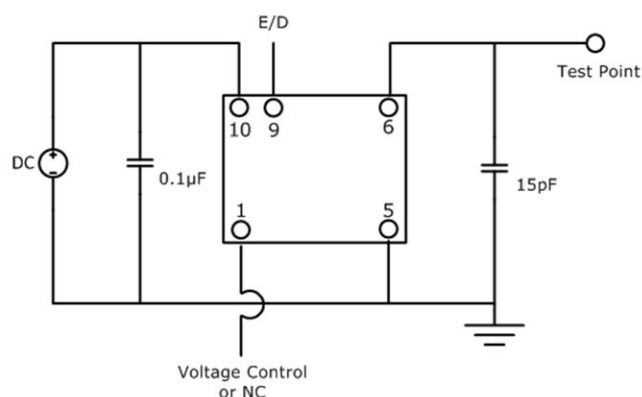
Outline Drawing & Land Pattern

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

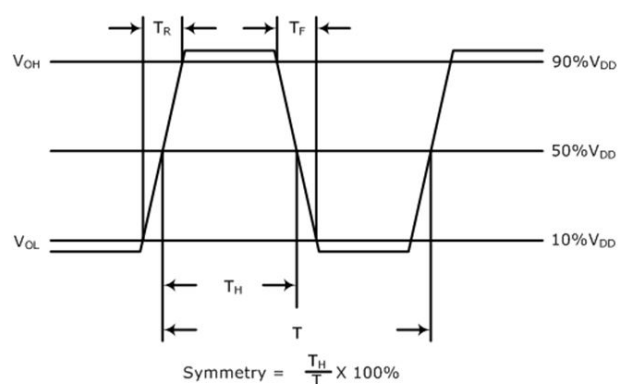


PIN	FUNCTION
1	NC
4	GND
5	OUTPUT
8	TRI-STATE
9	V _{DD}
10	V _C (VCTCXO) or GND (TCXO)

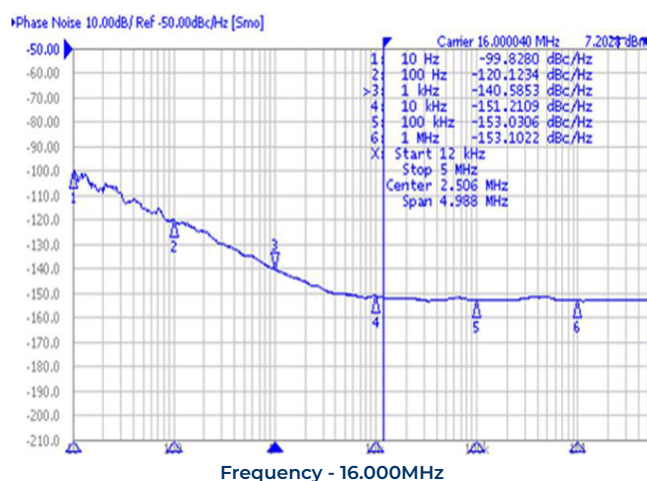
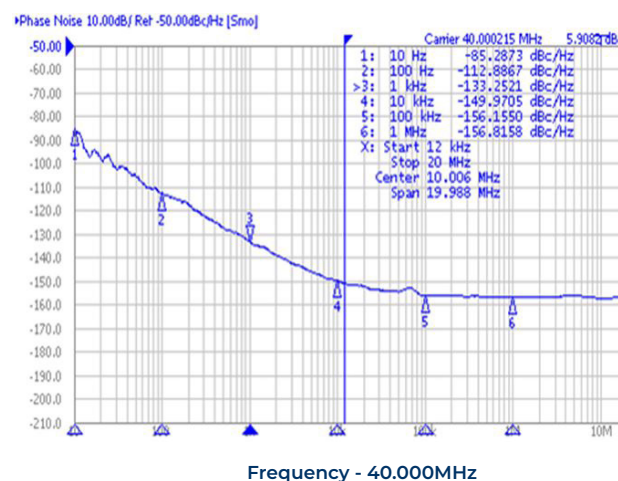
Test Circuit (CMOS)



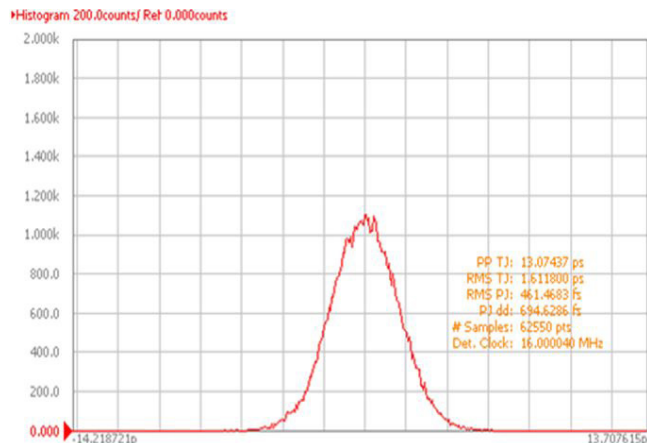
Waveform (CMOS)



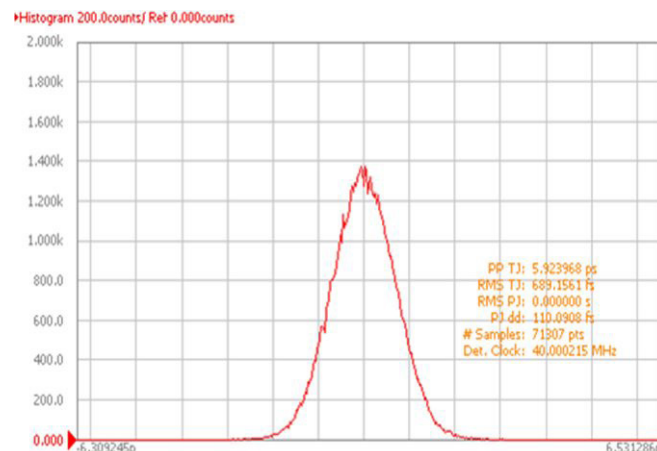
Typical Phase Noise Performance (Measured By Agilent E5052A)



Typical Jitter Performance (Measured By Agilent E5052A)

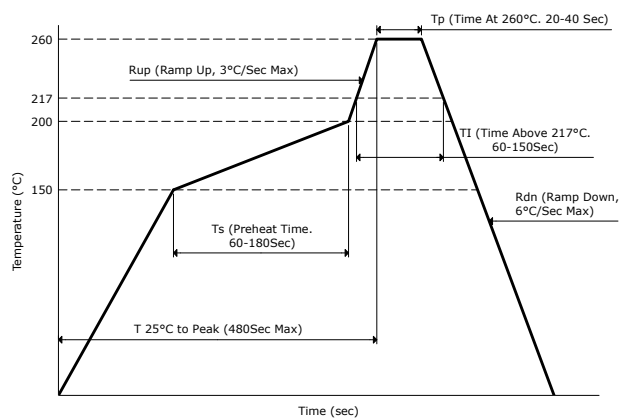


Frequency - 16.000MHz

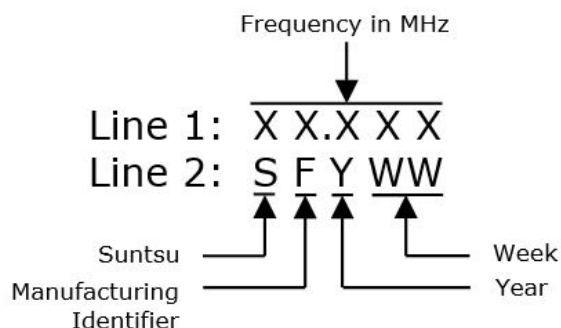


Frequency - 40.000MHz

Reflow Profile



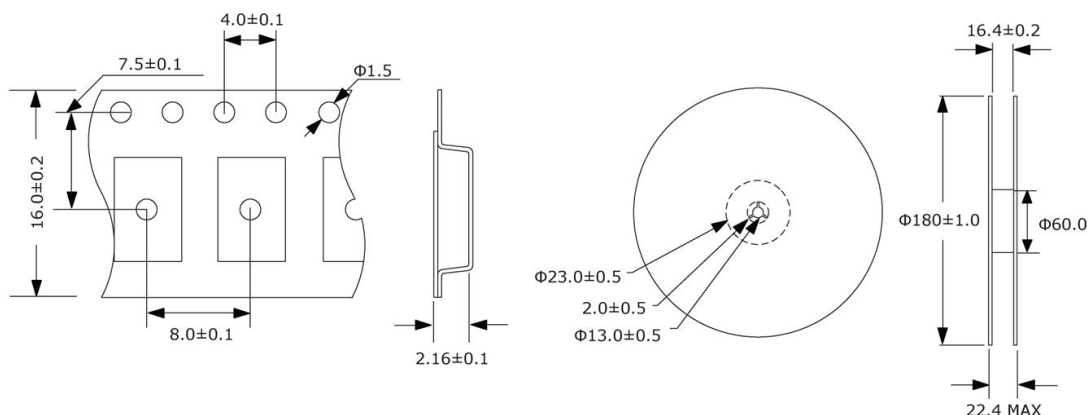
Part Marking



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