SUNTSU

Metal Full Size Dip CMOS (VC)TCXO

STCFSC Series

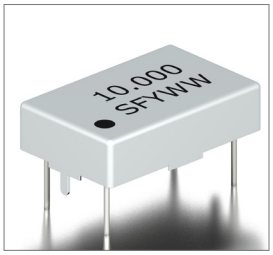
18.3mm x 11.7mm

Features

- ±1.0ppm (Frequency Stability) Available
- CMOS
- (VC)TCXO

Applications

- Communication equipment
- Base Station
- FAX



Part Numbering Guide

STC FS C 33 R 48 V E - 10.000M

- **SUNTSU TCXO**
- **FULL SIZE**
- **CMOS**
- **SUPPLY VOLTAGE**
  - 33 : 3.3V±5%
  - 50 : 5.0V±5%
- **FREQUENCY STABILITY**
  - N : ±5.0ppm
  - O : ±2.5ppm
  - P : ±2.0ppm
  - Q : ±1.5ppm
  - R : ±1.0ppm
- **OPERATING TEMPERATURE RANGE**
  - 07 : -0°C - +70°C
  - 16 : -10°C - +60°C
  - 17 : -10°C - +70°C
  - 27 : -20°C - +70°C
  - 37 : -30°C - +75°C
  - 38 : -30°C - +85°C
  - 48 : -40°C - +70°C
- **TCXO/VCTCXO**
  - BLANK : TCXO
  - V : VCTCXO
- **PULLABILITY**
  - BLANK : TCXO
  - D : ±20.0ppm
  - E : ±12.0ppm
  - G : ±5.0ppm
- **FREQUENCY**
  - MHz

RoHS COMPLIANT

Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	1		250	~160MHz at 5.0V
Frequency Tolerance at +25°C	ppm	-1.5		+1.5	
Freq. Stability vs. Op Temp.	ppm	-1.0		+1.0	See part numbering guide for options.
Freq. Stability vs. Supply Voltage	ppm	-0.3		+0.3	V_{DD} ±5% Change
Freq. Stability vs. Load	ppm	-0.2		+0.2	±10% Change
Freq. Stability vs. Aging/Year	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}) - 3.3V Option	V	3.135	3.3	3.465	
Supply Voltage (V_{DD}) - 5.0V Option	V	4.750	5.0	5.250	
Current (I_{DD})	mA			50	
Current (VC, VCTCXO) - 3.3V Option	V	0.3		3.0	
Current (VC, VCTCXO) - 5.0V Option	V	0.5		4.5	
Pullability (VCTCXO)	PPM	±5.0		±12.0	See part numbering guide for options.
Linearity (VCTCXO)	%			10	
Output Load (CMOS)	pF			15	
Output Logic Level - High (V_{OH})	V	0.9*V_{DD}			
Output Logic Level - Low (V_{OL})	V			0.1*V_{DD}	
Rise (T_R) And Fall (T_F) Time	ns			5	
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			3	
Frequency Adjustment	ppm	-3		+3	
Phase Noise (Typical) 10Hz Offset	dBc/Hz		-80		
Phase Noise (Typical) 100Hz Offset	dBc/Hz		-120		
Phase Noise (Typical) 1KHz Offset	dBc/Hz		-135		
Phase Noise (Typical) 10KHz Offset	dBc/Hz		-140		
Phase Noise (Typical) 100KHz Offset	dBc/Hz		-145		

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Specifications are subject to change without notice.

Suntsu Electronics, Inc.
142 TECHNOLOGY DR., SUITE 150
IRVINE, CA 92618

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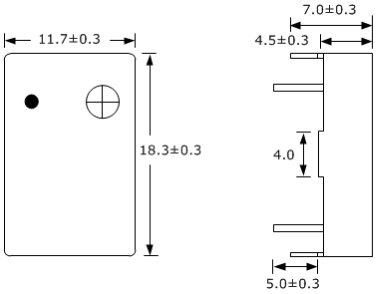
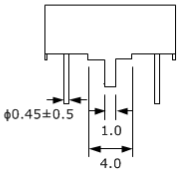
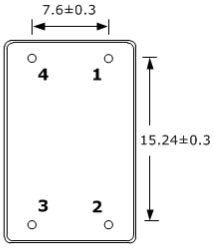
Outline Drawing & Part Marking

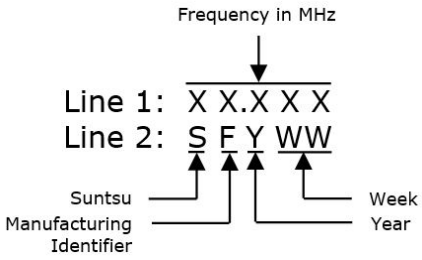
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



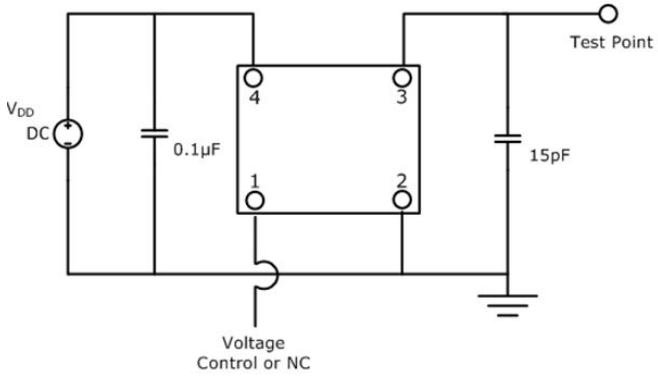




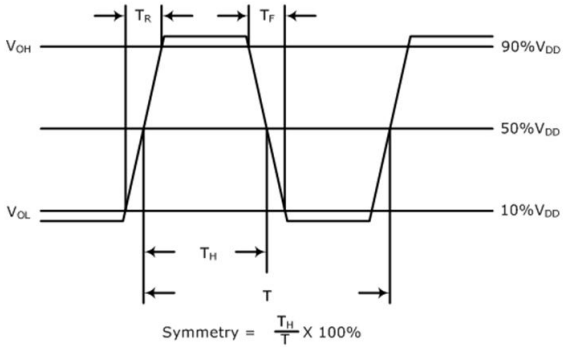
PIN	FUNCTION
1	V_C(VCTCXO) or NC (TCXO)
2	GND
3	OUTPUT
4	V_{DD}



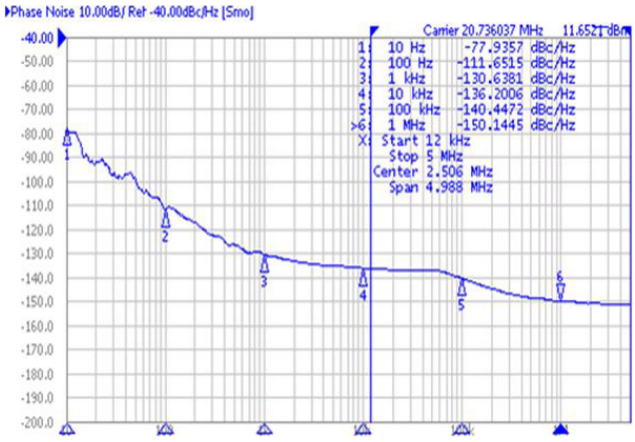
Test Circuit (CMOS)



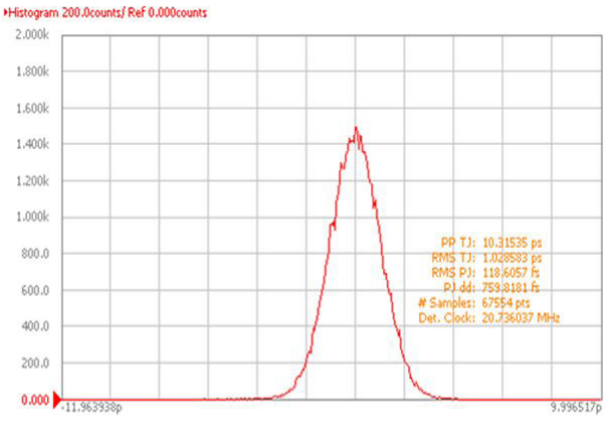
Waveform (CMOS)



Typical Phase Noise And Jitter Performance (Measured By Agilent E5052A)



Frequency - 20.736MHz



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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

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