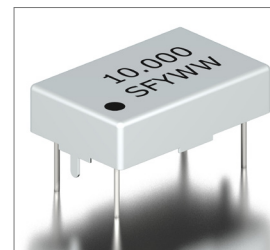


Features

- $\pm 1.0\text{ppm}$ (Frequency Stability) Available
- Clipped Sinewave
- (VC)TCXO

Applications

- Communication equipment
- Base Station
- FAX



Part Numbering Guide

STC FS K 33 R 48 V E - 10.000M

SUNTSU TCXO

FULL SIZE

CLIPPED SINEWAVE

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 : $\pm 1.0\text{ppm}$

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

FREQUENCY
MHz

PULLABILITY

BLANK : TCXO

D : $\pm 20.0\text{ppm}$

E : $\pm 12.00\text{ppm}$

G : $\pm 5.0\text{ppm}$



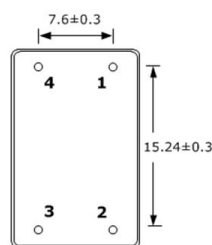
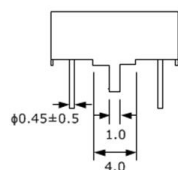
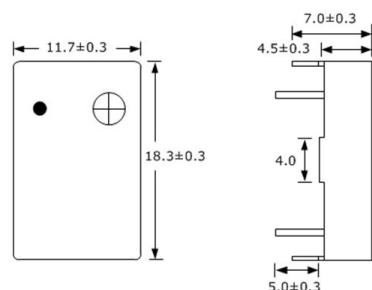
Cage Code: 4GUT4

To customize your parameters contact a Suntsu representative.

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Range	MHz	6.0		200	
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} $\pm 5\%$ change.
Freq. Stability vs. Load	ppm	-0.2		+0.2	$\pm 10\%$ change
Freq. Stability vs. Aging	ppm	-1.0		+1.0	1 Year, $\pm 3.1\text{ppm}$ for 10 Years
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 (Clipped Sinewave)	k Ω /pF			10//10	
Output Logic Levels	V _{P-P}	0.8			
Symmetry (Duty Cycle)	%	40	50	60	
Start-Up Time	ms			3	
Frequency Adjustment	ppm	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		

Outline Drawing & Part Marking

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



Frequency in MHz

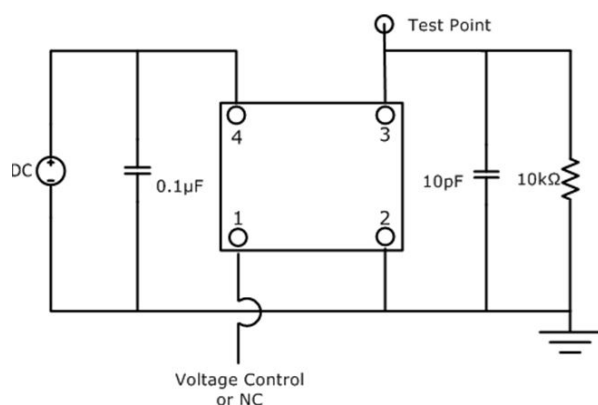
Line 1: X X.X X X
Line 2: S F Y W W

Suntsu
Manufacturing
Identifier

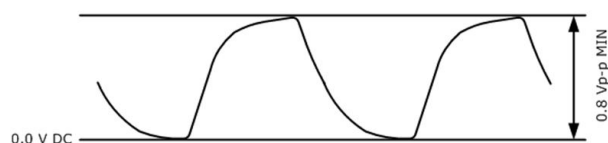
Week
Year

PIN	FUNCTION
1	V _C (VCTCXO) or NC (TCXO)
2	GND
3	OUTPUT
4	V _{DD}

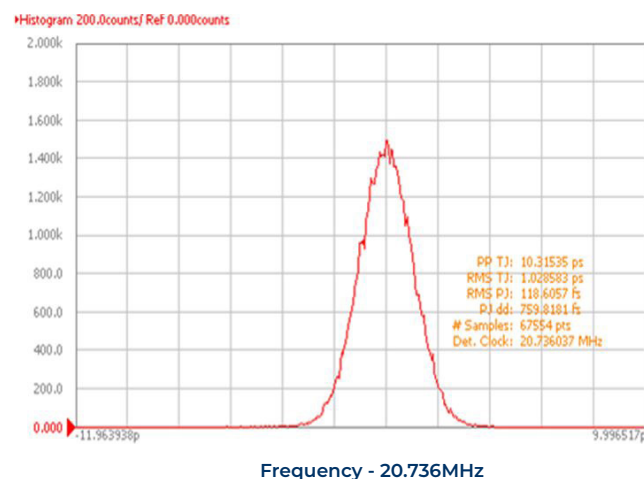
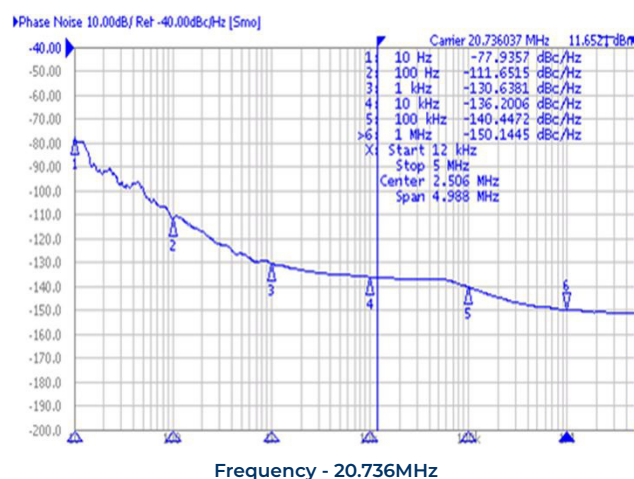
Test Circuit (Clipped Sinewave)



Waveform (Clipped Sinewave)



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



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