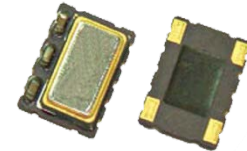




Features and Benefits

High Precision: ± 0.2 ppm over -40 to $+85^{\circ}\text{C}$; ± 2 ppm over -40 to $+105^{\circ}\text{C}$
CMOS and Clipped Sine wave (without DC-cut capacitor) output optional
7.0 x 5.0 x 1.9 mm ceramic SMD package

Picture of Part



Typical Applications

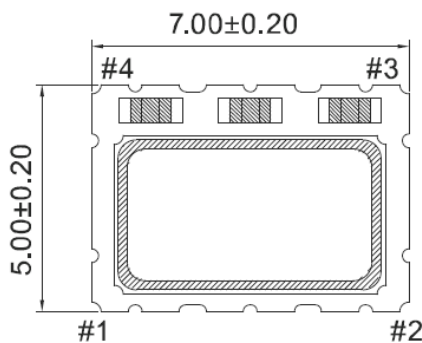
WLAN/WiMax/WIFI
Wireless Communications
Femtocell, Base Stations

Description

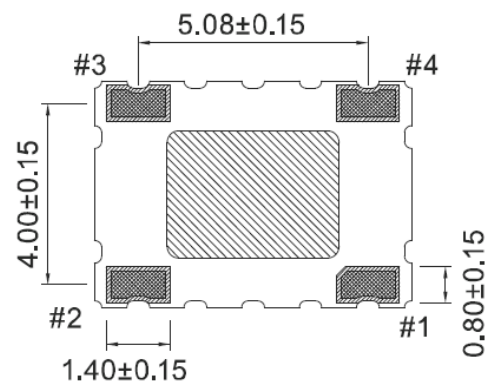
The TCXO7500S-ET is a high precision TCXO specially designed for extended temperature operation from $+85^{\circ}\text{C}$ to $+105^{\circ}\text{C}$

Mechanical Drawing & Pin Connections

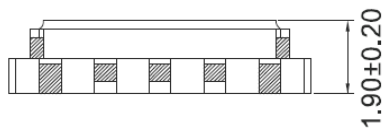
[TOP VIEW]



[BOTTOM VIEW]



[SIDE VIEW]



Pin	Function
1	V_{CON} : V_C = TCXO GND/NC: TCXO
2	GND
3	Output
4	V_{DD}



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	F _{nom}		5		52	MHz	
Standard Frequency		10, 12.8, 16.384, 19.2, 19.44, 20, 25, 26					
CMOS	Logic Level 1		4.5			V	
	Logic Level 0				0.5		
	Duty Cycle		45		55	%	
	Load			15		pF	
Clipped Sine Wave	Output Level		0.8			V _{P-P}	
	Load			10		KΩ // pF	
Power Supply							
Voltage	V _{DD}	±5% variation	4.75	5.0	5.25	V	3.3V typ. option
Supply Current (CMOS output)	I _S				6.0	mA	
Supply Current (Clipped Sine Wave)	I _S				3.5		
Warm-up Time:					2	mS	
Frequency Control							
Control Voltage Range (VCTCXO)			0.5		2.5	V	
Pulling Range (VCTCXO)			±5.0			ppm	
V _C Input Impedance (VCTCXO)			100			KΩ	
Frequency Stability							
Versus temperature							
Tolerance at 25°C		1 hour after reflow	-2.0		+2.0	ppm	
Versus ±5% change in supply voltage			-0.1		+0.1	ppm	
Versus ±5% change in load			-0.05		+0.05	ppm	
First Year Aging			-1.0		1.0	ppm/year	
Phase noise (typ.) at 10 MHz		@ 100 Hz		-130		dBc/Hz	
		@ 1 KHz		-145			
		@ 10 KHz		-154			
Environmental Conditions							
Operating temperature range		-40 to +85°C (-40 to +105°C option)					
Storage temperature range		-55 to +125°C					

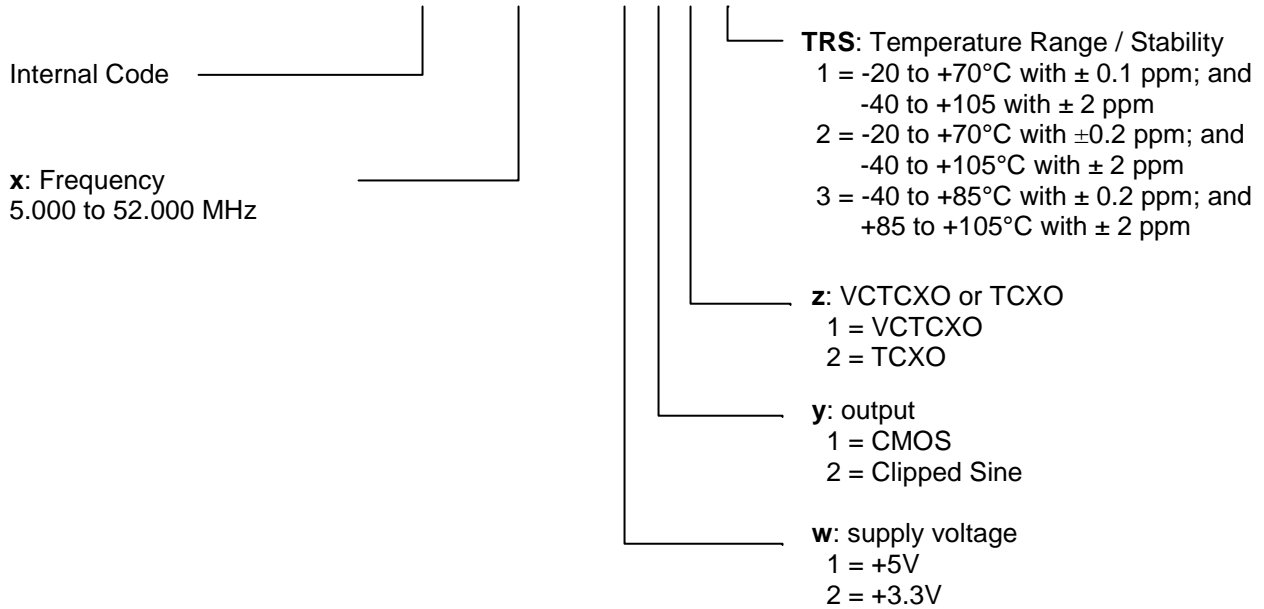
Note

Not all combinations of options are shown. Other specifications may be available upon request.



Ordering System

TCXO7500S-ET-xMHz-w-y-z-TRS



Example

TCXO7500S-ET-10.000MHz-2-1-1-3

Frequency: 10.000 MHz
Supply Voltage: +3.3V
Output: CMOS
VCTCXO Function
TRS: -40 to +85°C with ± 0.2 ppm; and +85 to +105°C with ± 2 ppm