



Features and Benefits

Frequency range: 6-190MHz
Supply voltage: 3.3V or 5.0V
Steady current: 12-100mA Max
Output waveform: Sinewave
Frequency stability vs. operating temperature: 0.5ppm
Aging: 1.0ppm per year
Phase noise@100KHz: -145dBc/Hz
Operating temperature: -40°C to +85°C
Size: 18.5x12x8.5mm

Typical Applications

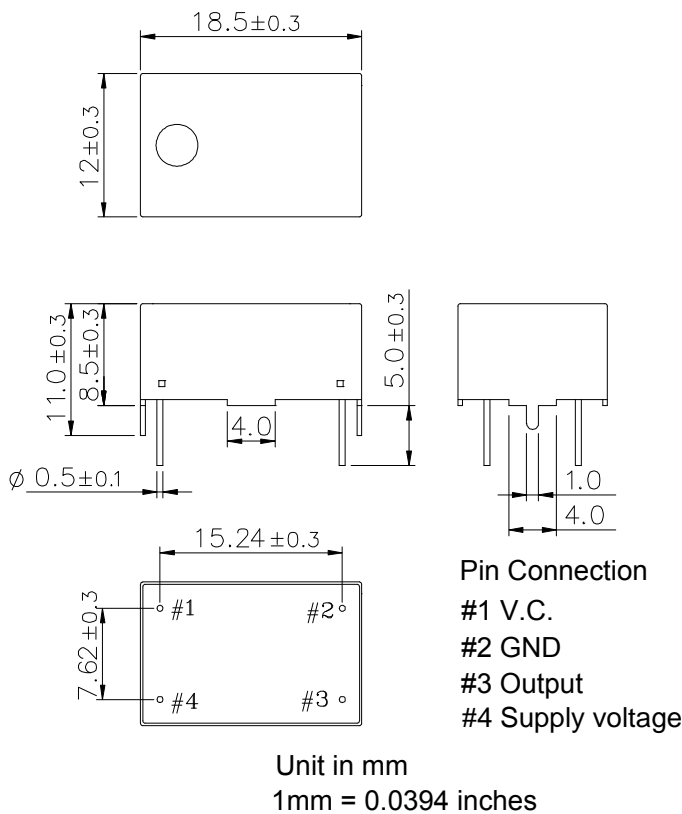
UHF Synthesizers
SATCOM System
Portable Microwave Applications

Description

TCXO1812BE_Sine offers wide temperature operation with outstanding frequency stability and low phase noise performance.

Mechanical Drawing & Pin Connections

Drawing No: MD200052-1





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F _{nom}		6		190	MHz	
RF Output							
Signal Waveform			Sinewave				
Level		V _{cc} =5V		10		dBm	
		V _{cc} =3.3V		0		dBm	
Load				50		ohm	
Power Supply							
Supply Voltage	V _{cc}	±5%		5.0		V	
		±5%		3.3			
		at +25°C to Δf/f=1e-8		120		sec	
Input Current		6MHz			12	mA	
		190MHz			100	mA	
Frequency Adjustment Range							
Frequency Adjustment			±3ppm min by internal trimmer			ppm	
Output Pulling Range			±5.0ppm or ±10ppm min				
ΔF/ΔV			ΔF/ΔV >±20ppm is available, please contact us				
Control Voltage Range			1.65V ± 1.5V (V _{cc} : 3.3V), 2.5V ± 2.0V (V _{cc} : 5.0V)				
Frequency Stability							
Versus Operating Temperature Range			±0.5		±5.0	ppm	See ordering information
Versus supply voltage		±5% change	±0.1		±0.2	ppm	
Versus Load		±10% change, 15pF load			±0.2	ppm	
Aging 1 st Year					±1.0	ppm	
SSB Phase noise (20MHz)		10Hz		-80		dBc/Hz	
		100Hz		-120		dBc/Hz	
		1kHz		-135		dBc/Hz	
		10kHz		-140		dBc/Hz	
		100kHz		-145		dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range	See ordering information						
Storage temperature range	-55°C to +125°C						
Shock	MIL-STD-883C, Method 2002, Condition B						
Solderability	MIL-STD-883C, Method 2003						
Seal integrity	MIL-STD-883C, Method 1014, Condition C & A2						
Vibration	MIL-STD-883C, Method 2007, Condition A						
Marking	MIL-STD-202F, Method 215						



Ordering Information

TCXO1812BE_Sine	-	10MHz	-	x	x	x	x
Group				01	02	03	04

For example, TCXO1812BE_Sine-10MHz-1-1-2-2 denotes the TCXO has the following specifications:

Temperature Range: 0°C to +50°C
 Stability Over Temperature: ±0.5ppm
 Supply Voltage: 5V
 Pulling Range: ±10.0ppm min
 Frequency: 10MHz

01	Temperature Range
Code	Specification
1	0°C to +50°C
2	-10°C to +60°C
3	-20°C to +70°C
4	-30°C to +75°C
5	-40°C to +80°C
6	-40°C to +85°C

02	Stability
Code	Spec
1	±0.5ppm
2	±1.0ppm
3	±1.5ppm
4	±2.0ppm
5	±2.5ppm
6	±3.0ppm
7	±3.5ppm
8	±5.0ppm

03	Supply Voltage
Code	Specification
1	3.3V
2	5V

04	Pulling Range
Code	Specification
1	±5.0ppm min
2	±10.0ppm min