



Features and Benefits

Frequency range: 0.75-800MHz
Supply voltage: 3.3V or 5.0V
Steady current: 25-100mA Max
Output waveform: PECL
Frequency stability vs. operating temperature: ± 0.5 ppm
Aging: ± 1.0 ppm per year
Phase noise@100KHz: -145dBc/Hz
Operating temperature: -40°C to +85°C
Size: 18.3x11.7x7.0mm

Typical Applications

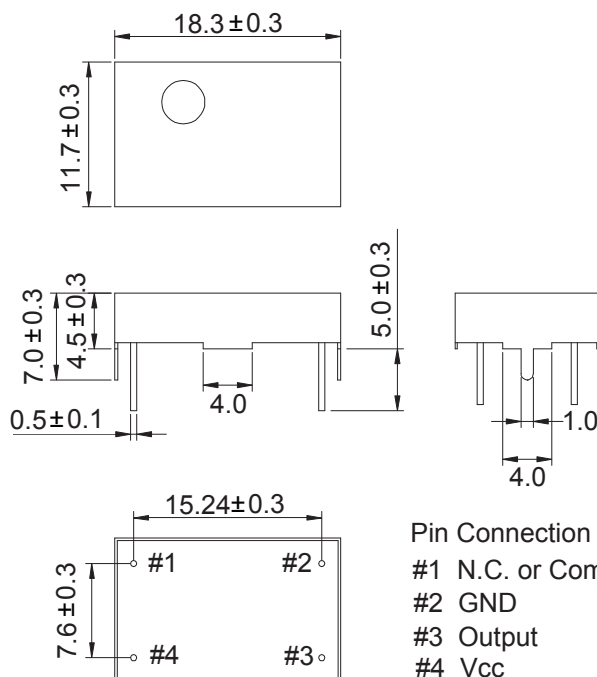
UHF Synthesizers
SATCOM System
Portable Microwave Applications

Description

TCXO1811BE_PECL offers wide temperature operation with outstanding frequency stability and low phase noise performance.

Mechanical Drawing & Pin Connections

Drawing No: MD230004-1



Unit in mm
1mm = 0.0394 inches



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TCXO1811BE_PECL

14 PIN DIP Package PECLTCXO

Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F _{nom}		0.75		800	MHz	
RF Output							
Signal Waveform			PECL				
High Level Logic 1			V _{cc} -1.025			V	
Low Level Logic 0					V _{cc} -1.62	V	
Duty Cycle		±5%		50		%	
Rise Time					1	nS	
Fall Time			1			nS	
Differential Output			V _{od} (LVDS)				
Offset Voltage			V _{os} (LVDS)				
Power Supply							
Supply Voltage	V _{cc}	±5%		5.0		V	
		±5%		3.3			
Input Current		24MHz			25	mA	
		800MHz			100	mA	
Frequency Adjustment Range							
Frequency Adjustment		by internal trimmer	±3.0			ppm	
Frequency Stability							
Versus Operating Temperature			±0.5		±5.0	ppm	See ordering information
Versus supply voltage		±5% change	±0.1		±0.3	ppm	
Versus Load		15pF±10%			±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

TCXO1811BE_PECL	-	10MHz	-	x	x	x
Group				01	02	03

For example, TCXO1811BE_PECL-10MHz-1-1-2 denotes the TCXO has the following specifications:

Temperature Range:	0°C to +50°C
Stability Over Temperature:	±0.5ppm
Supply Voltage:	5V
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	Specification
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