Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

TCXO1812BE_HCMOS
DIP Package HCMOS TCXO

Features and Benefits

Frequency range: 1KHz--800MHz
Supply voltage: 3.3V or 5.0V
Steady current: 15-100mA Max
Output waveform: HCMOS
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

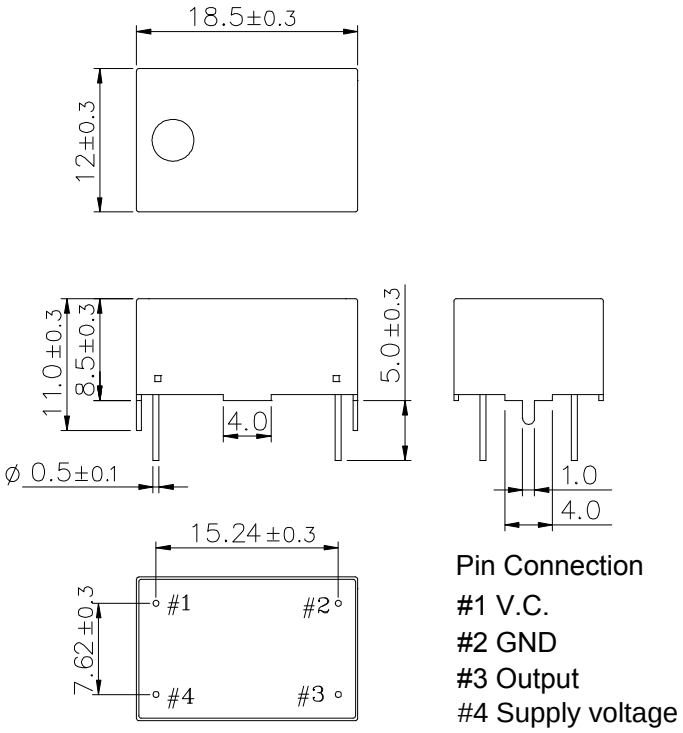
UHF Synthesizers
SATCOM System
Portable Microwave Applications

Description

TCXO1812BE_HCMOS offers wide temperature operation with outstanding frequency stability and low phase noise performance.

Mechanical Drawing & Pin Connections

Drawing No: **MD200052-1**



Pin Connection
#1 V.C.
#2 GND
#3 Output
#4 Supply voltage

Unit in mm
1mm = 0.0394 inches

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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F_{nom}	All combination of Frequency range Vs. Package type might not be available ,please contact factory.	1KHz		800MHz		
RF Output							
Signal Waveform				HCMOS			
Load	R_L			15		pF	
H-Level Voltage	V_H		90% Vcc			V	
L- Level Voltage	V_L				10% Vcc	V	
Duty Cycle			40		60	%	
Rise/Fall time					10	ns	
Power Supply							
Supply Voltage	V_{cc}	±5%		5.0		V	
		±5%		3.3			
Input Current		1KHz			15	mA	
		40MHz			30	mA	
		800MHz			100	mA	
Frequency Adjustment Range							
Frequency Adjustment			±3ppm min by internal trimmer				
Output Pulling Range			±5.0ppm or ±10ppm min				
△F/△V			△F/△V >±20ppm is available, please contact us				
Control Voltage Range			1.65V ± 1.5V (Vcc : 3.3V), 2.5V ± 2.0V (Vcc : 5.0V)				
Frequency Stability							
Versus Operating Temperature Range			±0.5		±5.0	ppm	See ordering information
Versus supply voltage		±5% change	±0.1		±0.3	ppm	
Versus Load		±10% change,15pF load			±0.2	ppm	
Aging 1st 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

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Ordering Information

TCXO1812BE_HCMOS	-	10MHz	-	x	x	x	x
Group				01	02	03	04

For example, TCXO1812BE_HCMOS-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
Frequency: 10MHz
Pulling Range: ±10ppm min

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	±5ppm min
2	±10ppm min