



Features and Benefits

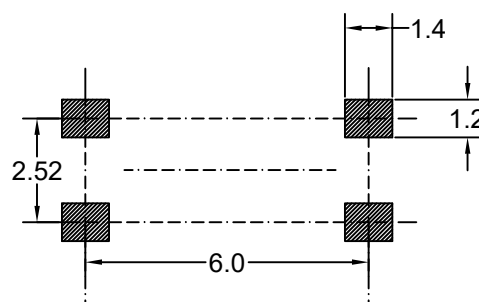
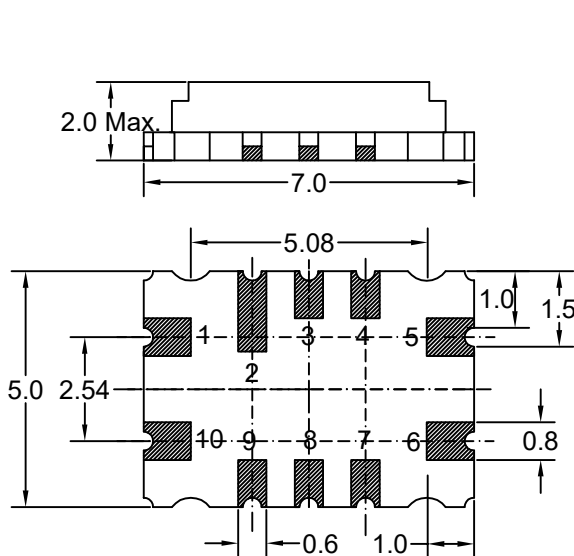
Frequency range: 8-52MHz
Supply voltage: 2.8V/3V/3.3V
Current: 7mA
Output waveform: Clipped sine/HCMOS
Frequency stability vs. temperature: ± 2 PPM from -55°C to +125°C
Aging: ± 1 PPM per year
Phase noise: -146dBc/Hz@10KHz:
Operating temperature: -55°C to +125°C
Size: 7x5x2 mm

Typical Applications

Portable Wireless Communications
Geothermal equipment
Fire fighter equipment
Downhole and Well drilling equipment
Avionics

Mechanical Drawing & Pin Connections

Drawing No: MD220003-1



PIN#	Function
#1	*Control Voltage or N.C.
#5	GND
#6	Output
#10	Supply Voltage
#2,3,4,7,8,9	N.C.

*Note: PIN#1 N.C. :for without control voltage TCXO

Unit in mm
1mm = 0.0394 inches

**Specifications**

Oscillator Specification		Sym	Condition	Value			Unit	Note
				Min.	Typ.	Max.		
Operational Frequency		f ₀		8		52	MHz	
Standard Frequencies				10; 12.8; 16; 19.2; 20; 25.6; 30.72; 40			MHz	
RF Output								
HCMOS	Output high			0.8*V _{cc}			V	
	Output low					0.2*V _{cc}	V	
	Load				10		pF	
Clipped Sine	Level			0.8			V	Ampl. value
	Load			10K//10pF				
Power Supply								
Voltage		V _{cc}	±5%	2.8/3/3.3			V	See ordering information
Current			HCMOS			7	mA	
			Clipped sine			5	mA	
Frequency Control								
Control Voltage Range		V _c		1.5/1.65			V	See ordering information
Tuning Range				±5			ppm	
Frequency Stability								
Versus Temperature						±2.0	ppm	See ordering information
Versus Supply Voltage			±5%			±0.4	ppm	
Versus Load			±5%			±0.2	ppm	
Aging			1 st year			±1.0	ppm	
Phase noise For 20MHz frequency			100 Hz		-113		dBc/Hz	
			1 KHz		-133			
			10 KHz		-146			
Environmental Conditions								
Operating temperature range			-55°C to +125°C (See ordering information)					



Ordering Information

TCXO7500AN-WT-XXMHz	-	01	02	03	04	05
Group		Code				

For example, TCXO7500AN-WT-10MHz-15321 denotes the TCXO has the following specifications:

Frequency: 10MHz
Stability Over Temperature: ± 2 ppm
Temperature Range: -55°C to +125°C
Supply Voltage: 3.3V
Control Voltage: 1.65V
Output Waveform: HCMOS

01	Frequency Stability
Code	Specification
1	± 2 PPM
2	± 1 PPM
3	± 0.5 PPM
4	± 0.28 PPM

02	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C
3	-55°C to +85°C
4	-40°C to +125°C
5	-55°C to +125°C

03	Supply Voltage
Code	Specification
1	2.8 V
2	3.0 V
3	3.3 V

04	Control Voltage	Range
Code	Specification	Specification
1	1.50 V	0.5-2.5 V
2	1.65 V	0.65-2.65 V

05	Output Waveform
Code	Specification
1	HCMOS
2	Clipped Sine

Availability of certain stability vs. operating temperature range for 20 MHz	± 2 PPM	± 1 PPM	± 0.5 PPM	± 0.28 PPM
-20°C to +70°C	Available	Available	Available	Available*
-40°C to +85°C	Available	Available	Available*	Available*
-55°C to +85°C	Available	Available*	Conditional	Conditional
-40°C to +125°C	Available	Conditional	Conditional	Conditional
-55°C to +125°C	Available	Conditional	Conditional	Conditional

Note: *Only available for without control voltage TCXO.