



Features and Benefits

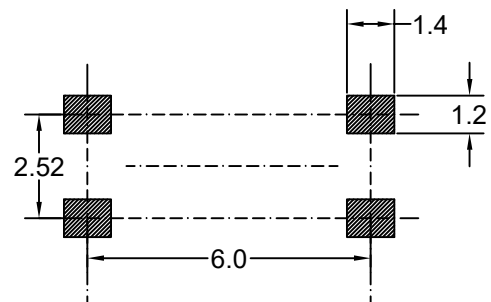
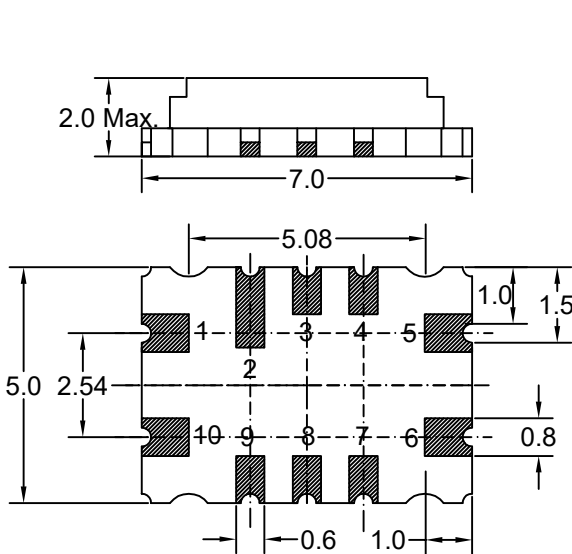
- Frequency range: 8-52MHz
- Supply voltage: 2.8V/3V/3.3V
- Current: 7mA
- Output waveform: Clipped sine/HCMOS
- Frequency stability vs. temperature: ± 2 PPM from -55°C to +125°C
- Aging: ± 1 PPM per year
- Phase noise: -146dBc/Hz@10KHz:
- Operating temperature: -55°C to +125°C
- Size: 7x5x2 mm

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: ±2ppm
 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.