



Features and Benefits

Frequency range: 16.8MHz
Supply voltage: 3.3V
Steady current: 10mA /Max
Output waveform: LVCMOS
Frequency stability vs. operating temperature: ± 0.5 PPM
Aging: ± 1.0 PPM per year
Operating temperature: -40°C to $+85^{\circ}\text{C}$
Size: 7x5x1.75mm

Typical Applications

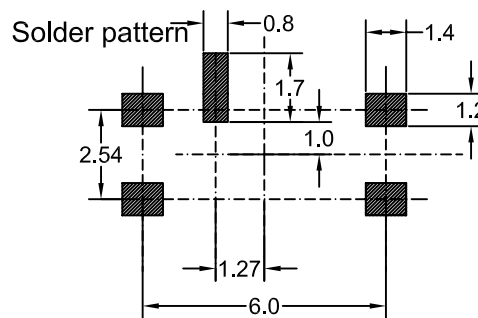
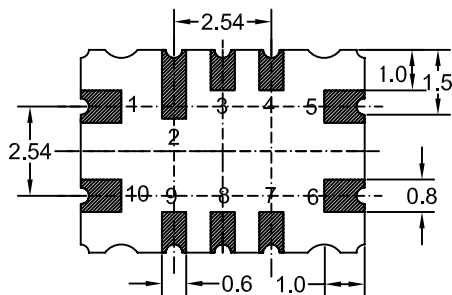
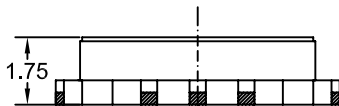
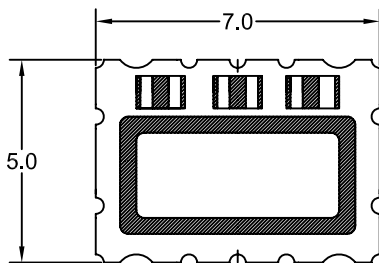
UHF Synthesizers
SATCOM System
Portable Microwave Applications

Description

TCXO7500BT-16.8MHz-A-V offers wide temperature operation from -40°C to $+85^{\circ}\text{C}$ with outstanding frequency stability performance.

Mechanical Drawing & Pin Connections

Drawing No: MD150075-8



Pin Function

- #1 Control Voltage
- #5 GND
- #6 Output
- #9 Tri-state or NC
- #10 Vcc

Do not connect #2, #3, #4, #7, #8

Unit in mm
1mm = 0.0394 inch



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			16.8		MHz	
Output				(LV)CMOS			
Output Level				V _{OH} > 0.9 x V _{cc} V _{OL} < 0.1 x V _{cc}			
Output load					15	pF	
Power Supply							
Voltage	V _{cc}	±5%		3.3		V	
Current Consumption			2		10	mA	
Frequency Control							
Control voltage range	V _c		0.5		2.5	V	
Tuning range					±5	ppm	Tuning Slope Positive
Control voltage input impedance			100			kohm	
Tri-state function			pin9 high or open pin6 oscillation pin9 low or GND pin6 high impedance				
Frequency Stability							
Versus temperature		-40°C to +85°C, ref to (f _{max} +f _{min})/2			±0.5	ppm	
Versus voltage		±5%			±0.1	ppm	
Versus load		±5%			±0.1	ppm	
Tolerance at 25°C			0		+1.0	ppm	
First Year Aging		@+40°C			±1.0	ppm	
G-sensitivity		Per axis		2.0		ppb/g	
Environmental Conditions							
Operating temperature range	-40°C to +85°C						
Storage temperature range	-55°C to +105°C						
Reflow Profiles	≤ 260°C over 10 sec. Max. as per IPC/JEDEC J-STD-020C						
Moisture sensitivity	Level 1(unlimited)						