



Features and Benefits

- 10MHz Frequency
- 5V Supply voltage
- Clipped sine wave Output waveform
- ±100ppb Stability Vs -30°C --+70°C
- 9.7x7.5x4.1mm Size
- 145dBc/Hz @1KHz phase noise value

Typical Applications

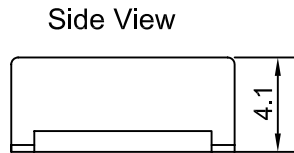
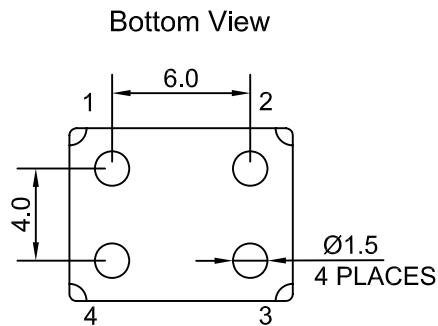
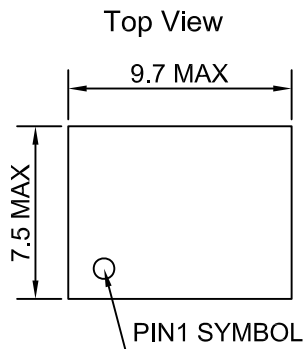
- Small Cell, Portable Telecommunication Device
- Test and Instrumentation
- Synthesizer, Digital switch, Reference Timing Circuit
- Packet Timing Protocol ATCOM System

Description

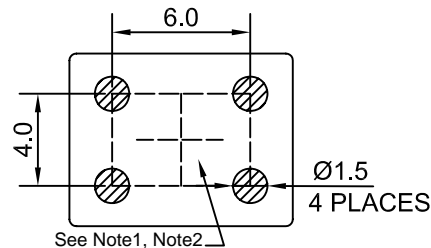
OCXO9700S-10MHz-A-V are designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD180010-1



Recommended Solder PAD Layout



Pin Connections

Pin	Function
1	Control Voltage
2	Ground
3	RF Output
4	Supply Voltage

Unit in mm
1mm = 0.0394 inches

Note1: Copper in this area should be kept to a minimum to reduce heat loss from OCXO.

Note2: Bottom side reflow is forbidden unless specified in specification.

Note3: Aqueous cleaning is forbidden.

Note4: Test condition: A 0.1uF and 10uF X7R decoupling capacitor is required close to unit.



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			10		MHz	
RF Output							
Signal Waveform			Clipped sine wave				
Load	R _L		10pf//10kohm				
Level Voltage	V _L		0.8			Vp-p	
Spurious					-60	dBc	
Power Supply							
Supply Voltage	V _s			5		V	
Power		Steady state, +25°C		0.3	0.4	W	
Current		Warm-up			250	mA	
Frequency Adjustment Range							
Slope			positive				
Control voltage			0.5	2.5	4.5	V	
Range			-5		+5	ppm	
Input Impedance			100			Kohm	
Frequency Stability							
Versus Operating Temperature Range		-30°C~+70°C ref to 25°C	-100		+100	ppb	
Initial Frequency Accuracy		In 5 minutes @ +25°C, referenced to 1 hour	-0.1		+0.1	ppm	
Versus supply voltage		±5% change	-5		+5	ppb	
Aging Per Day		Aging after 30 days of operation	-3		+3	ppb	
Aging 1 st Year			-0.6		+0.6	ppm	
Aging 10 Year			-3		+3	ppm	
Phase noise		10Hz		-98	-92	dBc/Hz	
		100Hz		-126	-120	dBc/Hz	
		1kHz		-145	-140	dBc/Hz	
		10kHz		-152	-150	dBc/Hz	
Environmental, Mechanical Conditions							
Operating temperature range		-30°C to 70°C					