

XO5164 Series

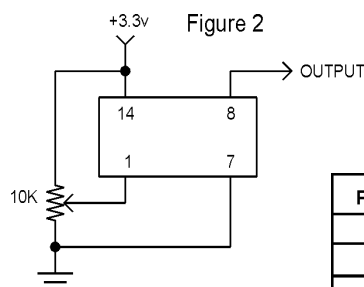
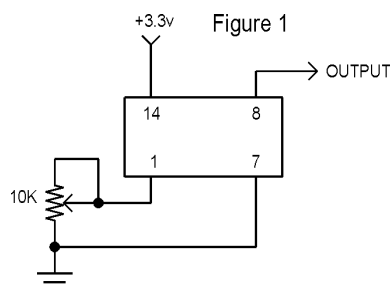
14 pin DIP, 3.3 Volt, HCMOS, OCXO



- Standard DIP/DIL package offering tight stabilities, fast warm-up, and low current
- Ideal for PCS base stations, cellular base stations, phase locking, and SAR/SAT applications
- 3.3V Operation

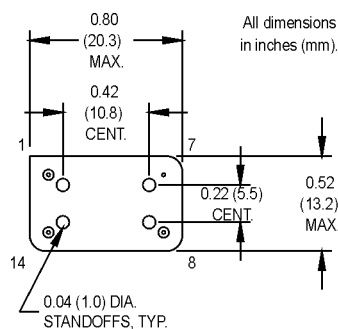
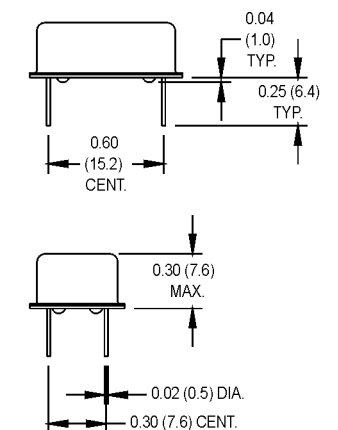
Ordering Information

	XO5164	A	R1	-R	00.0000
Product Series					
Stability/Temperature					
A: ± 0.075 ppm, 0°C to $+60^{\circ}\text{C}$					
B: ± 0.15 ppm, -20°C to $+70^{\circ}\text{C}$					
Frequency Adjustment Method					
R1: External Resistor Adjust (See Figure 1)					
V5: Voltage Adjust (See Figure 2)					
RoHS Compliance					
Blank: non-RoHS compliant part					
-R: RoHS compliant part					
Frequency (Customer Specified)					



Pin Connections

PIN	FUNCTION
1	Frequency Adjust
7	Case ground & supply return
8	R.F. Output
14	Supply (+)



	PARAMETER	Symbol	Min.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	10	20	MHz	
	Operating Temperature	T _A	(See Ordering Information)			
	Stability Over Temperature	$\Delta F/F$	(See Ordering Information)			
	Short Term Stability			5×10^{-10}		0.1 to 30 secs.
	Aging (First Year)			± 0.7	ppm	
	Aging (10 Years)			± 4.0	ppm	
	Frequency Vs. Supply			± 0.1	ppm	
	Frequency Vs. Load			± 0.01	ppm	
	Supply Voltage	V _{CC}	+3.15	+3.45	Volts	
	Warm-Up Time		To spec after 60 secs.			0°C
	Warm-Up Current			250	mA	After 10 secs.
	Supply Current	I _{CC}		100	mA	+30°C
				160	mA	-20°C
	Output Signal		HCMOS Compatible			
	Rise/Fall Time	T _r /T _f		7	ns	Ref. 10% and 90%
	Logic "0" Level	V _{OL}		0.4	Volts	
	Logic "1" Level	V _{OH}	V _{CC} - 0.5		Volts	
	Symmetry			40/60	%	Ref. To 1/2 V _{CC}
	Output Load			15 pf HCMOS 10 LS TTL		
Environmental	Frequency Adjustment (Pin 1)		± 4		ppm	See Figure 1 or 2
	Tuning Slope		Positive			
	Input Impedance (Pin 1)		4.7K		ohms	
	Phase Noise					(BW = 1 Hz) Offset from carrier
	1 Hz			-80	dBc/Hz	
	10 Hz			-110	dBc/Hz	
	100 Hz			-135	dBc/Hz	
	1 kHz			-145	dBc/Hz	
	Mechanical Shock		2000 g, 0.3 mS, 1/2 sine			
	Vibration		2000 Hz, 10 g			
Environmental	Storage Temperature		-55°C to +125°C			
	Hermeticity		Per MIL-STD-202, Method 112			
	Solderability		EIAJ-STD-002			

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