

# XO5160 Series

14 pin DIP, 5.0 Volt, HCMOS/TTL, 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

**Ordering Information**

XO5160 A R1 -R 00.0000 MHz

Product Series \_\_\_\_\_

Stability/Temperature \_\_\_\_\_

A: ±0.075 ppm, 0°C to +60°C  
 B: ±0.15 ppm, -20°C to +70°C  
 C: ±0.25 ppm, -40°C to +85°C

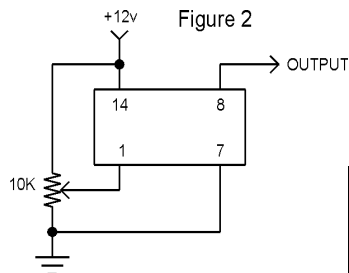
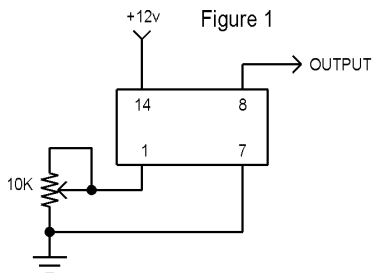
Frequency Adjustment Method: \_\_\_\_\_

R1: External Resistor Adjust (See Figure 1)  
 V5: Voltage Adjust (See Figure 2)

RoHS Compliance \_\_\_\_\_

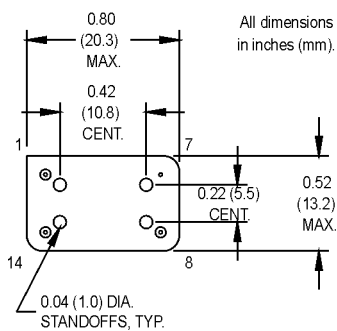
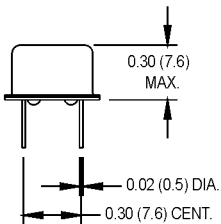
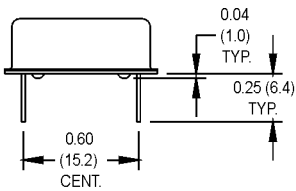
Blank: non-RoHS compliant part  
 -R: RoHS compliant part

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
Frequency Range	F	10	20	MHz	
Operating Temperature	T <sub>A</sub>	(See Ordering Information)		°C	
Stability Over Temperature	ΔF/F	(See Ordering Information)		ppm	
Short Term Stability			5 x 10 <sup>-11</sup>		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 <sub>cc</sub>	+4.8	+5.2	Volts	
Warm-Up Time		To spec after 30 secs.			0°C
Warm-Up Current			250	mA	After 10 secs.
Supply Current	I <sub>cc</sub>		70	mA	+30°C
			110	mA	-20°C
Output Signal					HCMOS/TTL Compatible
Rise/Fall Time	T <sub>r</sub> /T <sub>f</sub>		7	ns	Ref. 10% and 90%
Logic "0" Level	V <sub>ol</sub>		0.4	Volts	
Logic "1" Level	V <sub>oh</sub>	V <sub>cc</sub> - 0.5		Volts	
Symmetry	Sym		40/60	%	Ref. To 1/2 V <sub>cc</sub>
Output Load			15 pF HCMOS 10 LS TTL		
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
			-70	dBc/Hz	
			-100	dBc/Hz	
			-130	dBc/Hz	
			-140	dBc/Hz	
Environmental	Mechanical Shock	2000 g, 0.3 mS, 1/2 sine			
	Vibration	2000 Hz, 10 g			
	Storage Temperature	-55°C to +125°C			
	Hermeticity	Per MIL-STD-202, Method 112			
	Solderability	EIAJ-STD-002			

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