

# XO5161 Series

## 14 pin DIP, 12.0 Volt, HCMOS/TTL, OCXO



- Standard DIP/DIL package (20.3 x 13.2 x 7.6 mm) 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**

XO5161 A R1 -R 00.0000 MHz

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

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

A: ±0.05 ppm, 0°C to +60°C  
 B: ±0.10 ppm, -20°C to +70°C  
 C: ±0.20 ppm, -40°C to +85°C

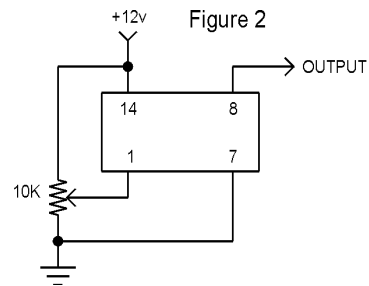
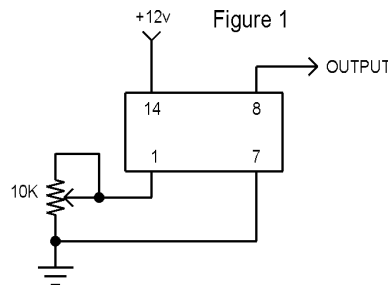
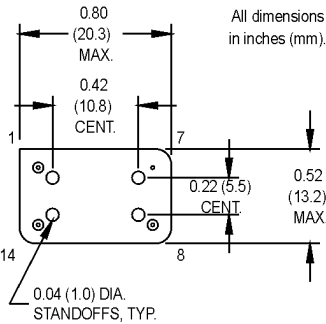
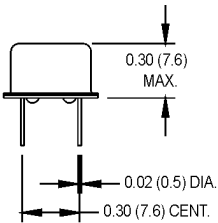
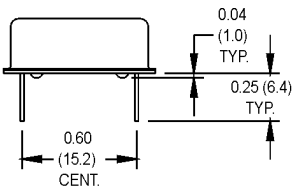
Frequency Adjustment Method: \_\_\_\_\_

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.	Typ.	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>	+11.5		+12.5	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>			25 40	mA	+30°C -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 ½ 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)		4.7 K			ohms	
Phase Noise						(BW = 1 Hz) Offset from carrier
1 Hz			-60		dBc/Hz	
10 Hz			-90		dBc/Hz	
100 Hz			-120		dBc/Hz	
1 kHz			-130		dBc/Hz	
Mechanical Shock		2000 g, 0.3 ms, ½ 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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