

# XO5161 Series

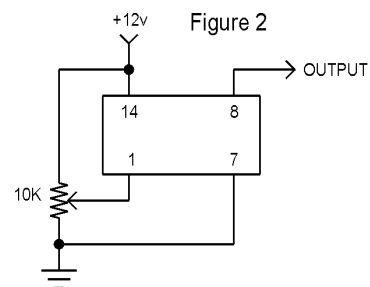
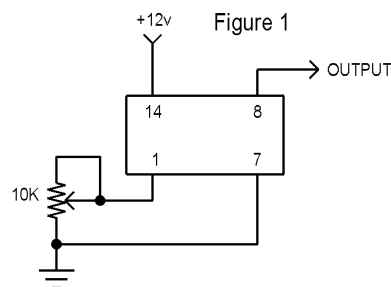
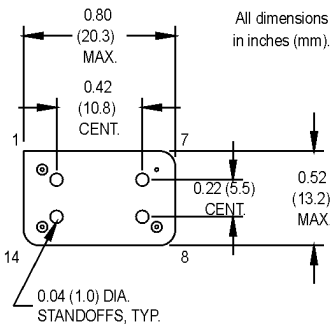
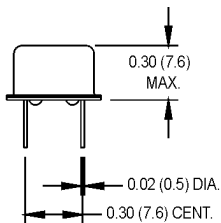
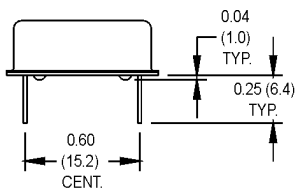
## 14 pin DIP, 12.0 Volt, HCMOS/TTL, OCXO



- 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)						



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>	+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 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
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, 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			

### Pin Connections

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

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