

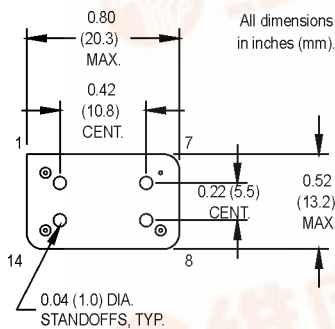
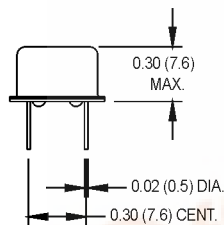
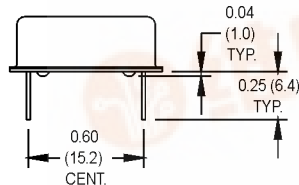
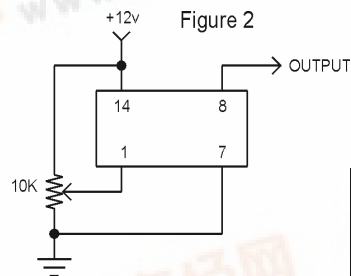
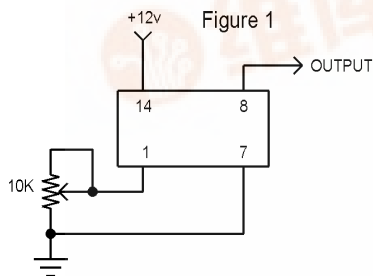


XO5160 Series

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 (+)

	ELECTRICAL SPECIFICATIONS					
	PARAMETER	Symbol	Min.	Max.	Units	Condition
	Frequency Range	F	10	20	MHz	
	Operating Temperature	T _A	(See Ordering Information)		°C	
	Stability Over Temperature	ΔF/F	(See Ordering Information)		ppm	
	Short Term Stability			5 x 10 ⁻¹¹		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}	+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 _{cc}		70	mA	+30°C
				110	mA	-20°C
	Output Signal					HCMOS/TTL 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	Sym		40/60	%	Ref. To 1/2 V _{cc}
	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			-70	dBc/Hz	
	10 Hz			-100	dBc/Hz	
	100 Hz			-130	dBc/Hz	
	1 kHz			-140	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				