

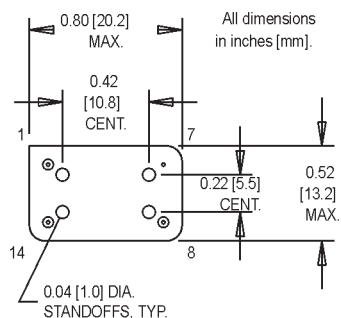
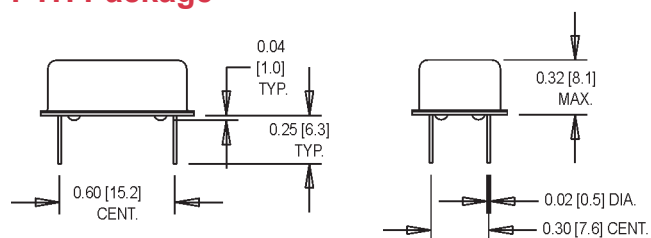
XO5165 Series

14 pin DIP, Stratum 3, 5.0 or 3.3 Volt, HCMOS, OCXO



- Stratum 3 Application
- Standard DIP/DIL package offering tight stabilities, fast warm-up, and low current
- SMT Surfboard Option

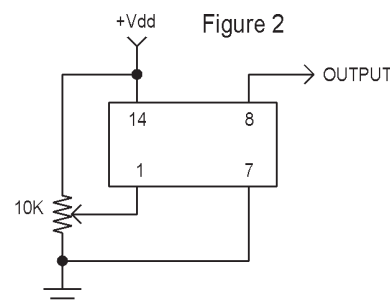
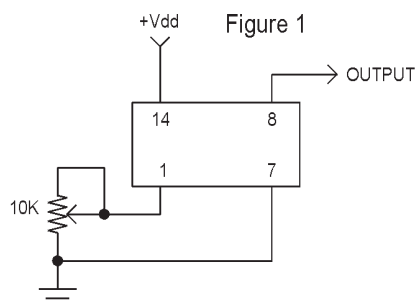
PTH Package



Ordering Information

	XO5165	A	5	R1	D	-R	00.0000 Mhz
Product Series							
Temperature Range							
A: 0°C to +70°C							
B: -20°C to +70°C							
C: -40°C to +85°C							
Power Supply							
3: 3.3V ±0.15V							
5: 5.0V ±0.25V							
Frequency Adjustment Method							
R1: External Resistor Adjust (See Figure 1)							
V5: Voltage Adjust (See Figure 2)							
Package Configuration							
D: 14 pin DIP							
S: Surfboard							
RoHS Compliance							
Blank: non-RoHS compliant part							
-R: RoHS compliant part							
Frequency (Customer Specified)							

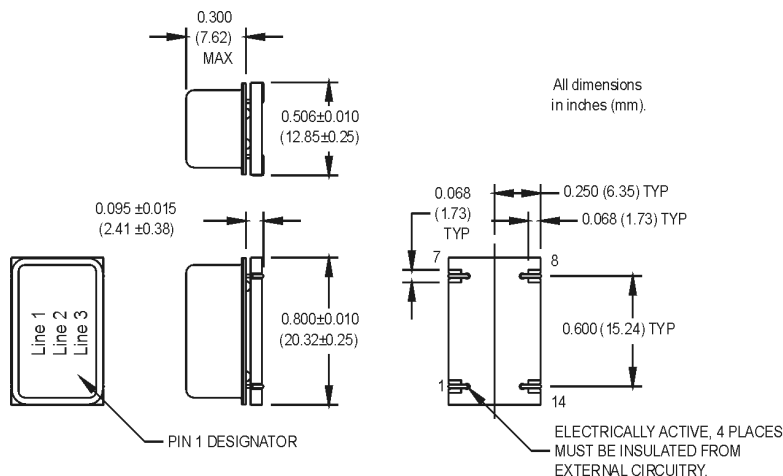
M7011Sxxx - Contact factory for datasheets.



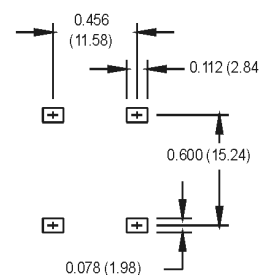
SMT Package

Pin Connections

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



SUGGESTED SOLDER PAD LAYOUT



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14 pin DIP, Stratum 3, 5.0 or 3.3 Volt, HCMOS, OCXO



	Electrical Specifications						
	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
	Frequency Range	F	10		20	MHz	
	Operating Temperature	T _A	(See Ordering Information)			°C	
	Short Term Stability			5 x 10 ⁻¹⁰			0.1 to 30 secs.
	Holdover Stability				±0.28	ppm	24 hours
	Overall Stability				±4.6	ppm	15 years
	Supply Voltage	V _{dd}	(See Ordering Information)				
	Warm-Up Time		To spec after 30 secs.				0°C
	Warm-Up Current				250	mA	During first 10 secs.
	Supply Current	I _{dd}			70 110 110 160	mA mA mA mA	+30°C @ 5.0 V +30°C @ 3.3 V -20°C @ 5.0 V -20°C @ 3.3 V
	Output Signal						HCMOS/TTL Compatible
	Rise/Fall Time	Tr/Tf			7	ns	Ref. 10% and 90%
	Logic "0" Level	Vol			0.4	Volts	
	Logic "1" Level	Voh	V _{dd} - 0.5			Volts	
	Symmetry	Sym			45/55	%	Ref. To ½ 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)		4.7 K			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	
Environmental	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					
	Max Soldering Conditions	+245°C for 10 secs. Max. (DIP version only)					
	Max Soldering Conditions	+220°C for 10 secs. Max. (SMT version only)					

HCMOS Load – see load circuit diagram #2.

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