

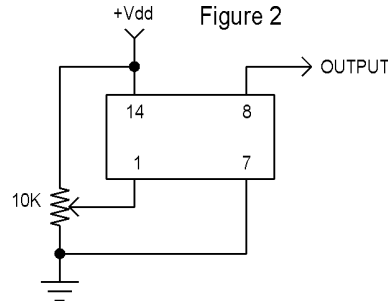
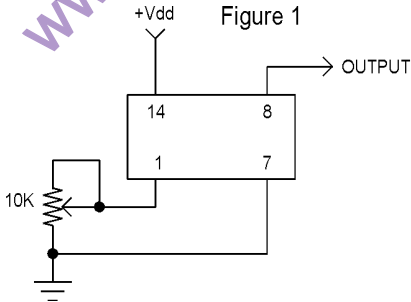
# MXO5165 Series

## 14 DIP, 5.0 or 3.3 Volt, HCMOS, OCXO



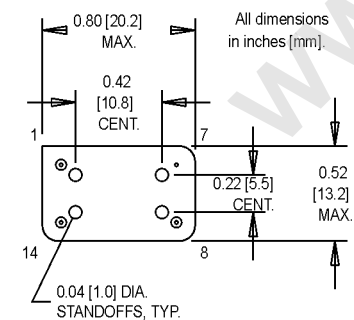
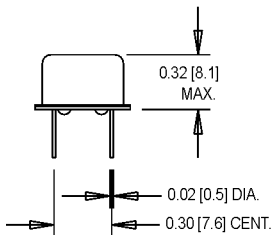
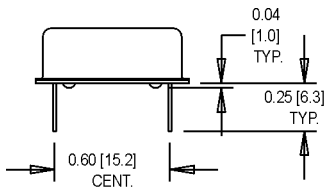
- Standard DIP/DIL package offering tight stabilities, fast warm-up, and low current
- Stratum 3 Application

Ordering Information	
Product Series	MXO5165 A 5 R1 00.0000 MHz
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)
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	
						Electrical Specifications
Frequency Range	F	10	20	MHz		
Operating Temperature	T <sub>A</sub>	(See Ordering Information)				°C
Short Term Stability		5 x 10 <sup>-10</sup>				0.1 to 30 secs.
Holdover Stability			±0.28	ppm	24 hours	
Overall Stability			±4.6	ppm	15 years	
Supply Voltage	V <sub>dd</sub>	(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 <sub>dd</sub>		70	mA	+30°C @ 5.0V	
			110	mA	+30°C @ 3.3V	
			110	mA	-20°C @ 5.0V	
			160	mA	-20°C @ 3.3V	
Output Signal					HCMOS/TTL Compatible	
Rise/Fall Time	Tr/Tf		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>dd</sub> - 0.5		Volts		
Symmetry	Sym		45/55	%	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	1 Hz	
			-100	dBc/Hz	10 Hz	
			-130	dBc/Hz	100 Hz	
			-140	dBc/Hz	1 kHz	
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				
Environmental						

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