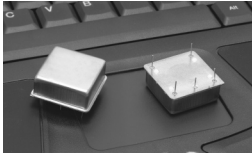


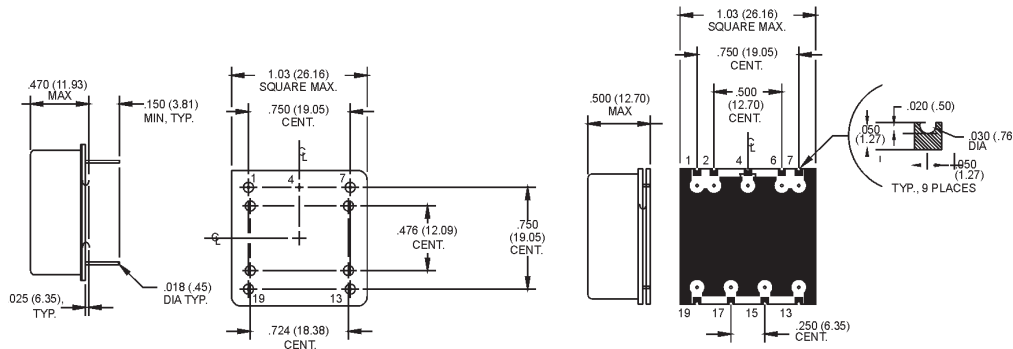
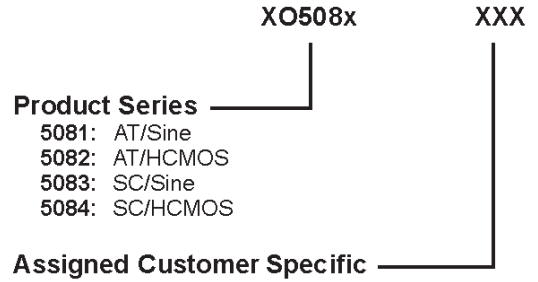
# XO5080 Series

## 1x1 inch, 5.0 Volt, HCMOS or Sinewave, OCXO



- Surface mount package offering both AT and SC-cut crystals
- Ideal for microwave radios (short haul), base stations, and test equipment applications where size and package style (SMT) are critical

### Ordering Information



Dimensions are in inches (mm)

PIN CONNECTIONS	
1.	RF OUTPUT
2.	N/C
4.	CASE GROUND & SUPPLY RETURN
6.	N/C
7.	FREQUENCY ADJUST OR Vref
13.	Vref (OPTIONAL)
15.	N/C
17.	OVEN READY (OPTIONAL)
19.	SUPPLY (+)

Pin numbers shown for ref. only.  
Numbers are not marked on unit.

Optional Temperature Ranges and Frequency Stabilities (F/T)		
OTR °C	SC-Cut	AT-Cut
0 to +50	$\pm 5 \times 10^{-9}$	$\pm 2 \times 10^{-8}$
0 to +70	$\pm 10 \times 10^{-9}$	$\pm 2 \times 10^{-8}$
-10 to +70	$\pm 10 \times 10^{-9}$	$\pm 2 \times 10^{-8}$
-30 to +70	$\pm 10 \times 10^{-9}$	$\pm 3 \times 10^{-8}$
-40 to +70	$\pm 10 \times 10^{-9}$	$\pm 3 \times 10^{-8}$
-40 to +85	$\pm 20 \times 10^{-9}$	$\pm 4 \times 10^{-8}$

	PARAMETER		Symbol	Minimum	Typical	Maximum	Units	Condition
	Frequency Range		$F_{ON}$	10	100	100	MHz	
Electrical Specifications	Operating Temperature		$T_A$		-40 to +85		°C	Consult Factory
	Stability Over Temperature		$\Delta F/F$	$\pm 20$	$\pm 30$		ppb	AT-Cut
			$\Delta F/F$	$\pm 5$	$\pm 30$		ppb	SC-Cut
	Short Term Stability				0.1		ppb	AT-Cut
					0.01		ppb	SC-Cut
	Daily Aging				$\pm 1.0$		ppb	AT-Cut
	Yearly Aging				$\pm 0.5$		ppm	AT-Cut
	Daily Aging				$\pm 0.1$		ppb	SC-Cut
	Yearly Aging				$\pm 0.3$		ppm	SC-Cut
	Frequency vs. Supply				$\pm 1$		ppb	
	Frequency vs. Load				$\pm 1$		ppb	
	Supply Voltage		$V_S$		3.3 to 12		Volts	Consult Factory
	Power Consumption							
			@ Warm-Up			3.5	Watts	
			Steady State @ 25°C			1.25	Watts	
	Warm-Up Time @ 25°C				To within $\pm 1 \times 10^{-7}$ in 3 minutes			Minutes
	HCMOS Output Signal				$V_S = +3.3V$ or $+5V$			
			Rise/Fall Time		5nsec	7nsec		
			Logic "0" Level	0.2			Volts	
			Logic "1" Level			$V_S - 0.2$	Volts	
		Symmetry	40		60	%		
		Output Load		10		pF		
Sinewave Output Signal								
		Level		+3		dBm		
		Output Load		50		$\Omega$		
Frequency Adjustment (Pin 7)				Positive				
		Slope						
		External Voltage	$V_C$	0	10	Volts	Consult Factory	
		Range		$\pm 4$		ppm	AT-Cut	
		Range		$\pm 2$		ppm	SC-Cut	
		Input Impedance (Pin 7)		20		K $\Omega$		
Phase Noise				AT-Cut	SC-Cut			
		Typical @ 10MHz						
		1 Hz		-80	-90	dBc/Hz		
		10 Hz		-115	-120	dBc/Hz		
		100 Hz		-140	-140	dBc/Hz		
		1 kHz		-145	-150	dBc/Hz		
		10 kHz		-150	-155	dBc/Hz		
Environmental	Mechanical Shock		Per MIL-STD-202, Method 213, Condition C					
	Vibration		Per MIL-STD-202, Method 201 & 204					
	Storage Temperature		-55°C to 125°C					
	Hermeticity		Per MIL-STD-202, Method 112					
	Solderability		Per EIAJ-STD-002					

MtronPTI reserves the right to make changes to the product(s) and service(s) described herein without notice. No liability is assumed as a result of their use or application.

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