XO5120 Series

1.4x1 inch, TTL 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

XO512x XXX

Product Series
- **5121:** AT/Sine
- **5122:** AT/HCMOS/TTL
- **5123:** SC/Sine
- **5124:** SC/HCMOS/TTL

Assigned Customer Specific

Optional Temperature Ranges and Frequency Stabilities (F/T)		
OTR °C	**SC-Cut**	**AT-Cut**
0 to +50	$\pm5x10^{-9}$	$\pm3x10^{-8}$
0 to +70	$\pm1x10^{-8}$	$\pm5x10^{-8}$
-10 to +70	$\pm2x10^{-8}$	$\pm5x10^{-8}$
-30 to +70	$\pm3x10^{-8}$	$\pm5x10^{-8}$
-40 to +70	$\pm4x10^{-8}$	$\pm8x10^{-8}$
-45 to +85	$\pm5x10^{-8}$	$\pm1x10^{-7}$

	PARAMETER	Symbol	Min.	Typ.	Max.	Units	Condition
Electrical Specifications	Frequency Range	F	10	100		MHz	
	Operating Temperature	T_A	0 to +70			°C	
	Stability Over Temperature	ΔF/F			$\pm1.0 \times 10^{-8}$	ppm	
					$\pm5.0 \times 10^{-8}$		
	Short Term Stability				5×10^{-11}		0.1 to 30 secs.
	Aging (First Year)				$\pm1.5 \times 10^{-7}$	ppm	SC Cut
					$\pm2.0 \times 10^{-7}$	ppm	AT Cut
	Frequency vs. Supply				±0.1	ppm	
	Frequency vs. Load				±0.01	ppm	
	Supply Voltage	Vdc	5 Vdc ±5%			Volts	
	Warm-Up Time @ 25°C		To within $\pm1 \times 10^{-7}$ of Fo in 2 min.				
	Warm-Up Current						
	Supply Current	Icc					
	Output Signal		Sinewave/HCMOS/TTL				
	Rise/Fall Time	Tr/Tf					
	Logic "0" Level	Vol					
	Logic "1" Level	Voh					
	Symmetry	Sym					
	Output Load						
	Frequency Adjustment (Pin 1)						
	Tuning Slope		Positive				
	Input Impedance (Pin 1)						
	Phase Noise		AT-Cut	SC-Cut			@ 10 MHz
	1 Hz		-90	-80		dBc/Hz	
	10 Hz		-120	-115		dBc/Hz	
	100 Hz		-140	-140		dBc/Hz	
	1 kHz		-150	-145		dBc/Hz	
	10 kHz		-155	-150		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