

Electrical Characteristics VCA1 Series Oscillator								
Parameter	Symbol	Minimum		Typical		Maximum		Unit
		5.0 V	3.3 V	5.0 V	3.3 V	5.0 V	3.3 V	
Frequency Range	f_0	0.032768		-		160		MHz
Operating Temperature Range	T_0	0 to 70 or -40 to 85						°C
Storage Temperature	T_S	-55 to 125						°C
Stability Options ¹		$\pm 20, \pm 25, \pm 50, \pm 100$						PPM
Supply Voltage	V_{DD}	4.5	3.0	5.0	3.3	5.5	3.6	V
Supply Current	I_{DD}							mA
0.032768 to 2.0 MHz						10	8	
2.0 to 30.0 MHz						15	10	
30.0 to 50.0 MHz						40	20	
50.0 to 160 MHz					50	35		
Output Levels								
High	V_{OH}	4.5	3.0	-				V
Low	V_{OL}			-		0.5	0.3	V
Output Rise/Fall Time ²	$t_{R/F}$							ns
0.032768 to 2.0 MHz		-		-		10	12	
2.0 to 20.0 MHz		-		-		8	10	
20.0 to 160 MHz	-		-		5	6		
Tri-state (Input to Pin 1)								
Output Enable		4.0	2.0	-				V
Output Disable (High Imp)				-		0.8	0.5	V
Output Symmetry/Duty Cycle	-	55/45 or 60/40						%
Start-up Time	t_{SU}	-				10		ms
Output Load Options	-	TTL or HCMOS, 15 or 50 pF						-

1. Inclusive of calibration tolerance at 25°C, operating temperature, supply voltage, load, shock and vibration.

2. Transition times are measured between 10% and 90% of V_{DD} , with a maximum output load of 15 pF.

Parameter	Description
Mechanical Shock	MIL-STD 883 Method 2022.3, Test A
Mechanical Vibration	MIL-STD 883 Method 2007.1, Test A
Temperature Cycle	MIL-STD 883 Method 1010, Test A
Gross Leak Test	All units 100% leak tested in deionized water
Fine Leak Test	All units tested to MIL-STD 883, Method 1014
Resistance to Solvents	MIL-STD-883, Method 2015