

# VFXO203

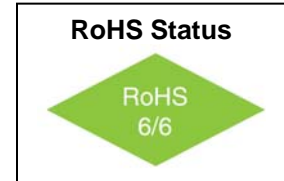
## XO – Ultra Low Power

### 3.2x2.5mm SMD, CMOS



#### Features

- 0.8MHz to 110MHz Frequency Range
- 3.3V, 2.5V, or 1.8V Supply Voltage
- Tight symmetry
- Low power consumption



#### Applications

- Portable Communications
- Test & Measurement
- Gigabit Ethernet

#### Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Frequency Range	F	3.3V 2.5V 1.8V	0.8		110 90 75	MHz	Consult Factory for Standard Frequencies
Frequency Stability	$\Delta F/F$	Over all conditions of :- Operating Temperature; Supply Voltage; 1 Year Aging; shock & vibration			$\pm 100$ $\pm 50$ $\pm 25$ $\pm 20$	ppm	Order Code A Order Code B Order Code C Order Code D
Operating Temperature	T		-10° -20° -40°		+60° +70° +85°	°C	Order Code C Order Code D Order Code G
Output			CMOS 15pF				
Supply Voltage	Vcc		2.97 2.25 1.62	3.30 2.50 1.80	3.63 2.75 1.98	V	Order Code E Order Code G Order Code H
Supply Current	Icc MAX	0.8MHz $\leq$ Fo < 20MHz 20MHz $\leq$ Fo < 40MHz 40MHz $\leq$ Fo < 80MHz 80MHz $\leq$ Fo < 90MHz 90MHz < Fo	<b>3.3V</b>	<b>2.5V</b>	<b>1.8V</b>	mA	Max Current across entire temp range
			10	8	6		
			15	10	7		
			15	10	10		
			20	15	-		
25	-	-					
TRISTATE		Output Active Output in High Imp. State	0.7		0.3	V	



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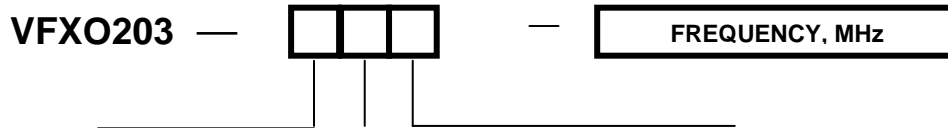
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### Electrical Specifications

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Note
Duty Cycle			45	50	55	%	
Rise / Fall Time	Tr/Tf	10% to 90% of V <sub>DD</sub>			5.0	ns	
Logic "1" Level	Voh		90% V <sub>DD</sub>		-	V	
Logic "0" Level	Vol		-		10% V <sub>DD</sub>	V	
Start up time					8	ms	
RMS Jitter	1σ	12KHz to 20MHz			20	ps	
Storage Temperature	Ts		-55		+125°	°C	

### How to Order



Code	Output
A	±100ppm
B	± 50ppm
C	± 25ppm
D	± 20ppm

Code	Output
C	-10°C ~ 60°C
D	-20°C ~70°C
G	-40°C ~ 85°C

Code	Output
E	3.3V
G	2.5V
H	1.8V

#### Available Frequency Stabilities over Operating Temperature Ranges

Code	Temperature Range	±100ppm	±50ppm	±25ppm	±20ppm
C	-10°C to 60°C	*	*	*	*
D	-20°C to 70°C	*	*	*	*
G	-40°C to 85°C	*	*	*	



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**Environmental and Mechanical**

Parameter	Specification
Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-883, Method 1011, Condition A
Vibration	Per MIL-STD-883, Method 2007, Condition A
Soldering Conditions	260°C for 10s max
Hermetic Seal	Leak rate less than $5 \times 10^{-8}$ atm.cc/s of helium

