

## OCXO (Oven Controlled Crystal Oscillator)

**SMD Type**  
**NOC97BG**  
[ 9.7×7.5×4.10 mm ]

Waveform  
**Rectangular  
Clipped Sine**

Stratum 3  
**±4.6 ppm**

Best Stability  
**±5 ppb**

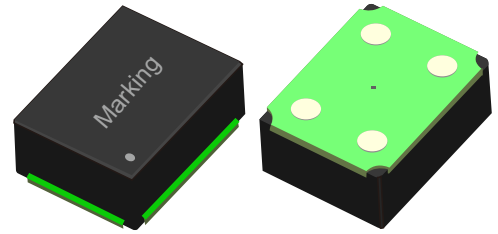
**Voltage Control**

Supply Voltage  
**3.3V / 5.0V**

Frequency Range  
**10 MHz~40 MHz**

### Features

- Oven Controlled Crystal Oscillator (OCXO)
- Dimension 9.7×7.5×4.1 mm, miniaturize 4-pad SMD package
- Frequency range from 10MHz to 40MHz.
- ±20ppb stability over -40°C to +85°C.
- Stratum 3 (Overall ±4.6ppm including 10 years aging.)
- Voltage control (Electronic frequency tuning) is available.
- RoHS Compliant
- Applications: smart cell, digital switch, telecommunication device, synthesizer, test and instrumentation, etc.



### Standard Specifications

#### NOC97BG (SMD 9.7×7.5×4.10 OCXOs)

Parameter	Min.	Typ.	Max.	Unit	Test Condition
<b>Output Frequency</b>	10	-	40	MHZ	Standard frequencies are 10, 12.8, 19.2, 20, 25, 30.72MHz and more.
Wave Form	-	Rectangular Clipped Sine	-	-	Please contact us for detail information
Level	-	-	-	-	
"1" Level	2.4	-	-	V	@ +1.65V or +2.5V
"0" Level	-	-	0.4		
Duty Cycle	45	50	55		
Clipped Sine	0.8	-	-	Vp-p	
Load (Rectangular/Clipped Sine)	15pF / 10KΩ//10pF				
Spurious	-	-	-60	dBc	
<b>Frequency stability</b> Tolerance	-20	-	+20	ppb	
vs. Temperature	±5ppb~±50			ppb	
vs. Supply voltage	-5	-	+5	ppb	±5% Change
vs. Load	-20	-	+20	ppb	
vs. Warm-up	-0.1	-	+0.1	°C	In 5 minutes @ 25°C, reference to 1 hour
vs. Aging	-	-	-	°C	
Daily	-3.0	-	+3.0	ppb	After 30 days continues operation
Yearly	-0.6	-	+0.6	ppm	
10 Years	-3.0	-	+3.0		

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Parameter	Min.	Typ.	Max.	Unit	Test Condition	
Phase noise @ 20MHz	-	-98	-92	dBc/Hz	@ 10Hz	
	-	-126	-120		@ 100Hz	
	-	-145	-140		@ 1KHz	
	-	-152	-150		@ 10KHz	
<b>Electrical Frequency Adjustment</b>	-	-	-			
Range	-	-	-5	ppm	VCO@0 V	
	5	-	-		VCO@ 3.3V	
Control	0	1.65/2.5	3.3V/5.0V	3.3V/5.0V	3.3V or 5.0V supply voltage	
Slope	-	Positive	-	-		
Input impedance	100	-	-	KΩ		
<b>Input Power</b>	Voltage	3.135	3.3	3.465	V	5.0V input voltage is available
	Current	-	-	-350	mA	@ turn on
	Steady State	-	0.3	0.4	W	@ ±25°C
<b>Operating Temperature</b>	-40	-	+85	°C		
<b>Storage Temperature</b>	-40	-	-85	°C		

### Dimensions And Pin-functions (Unit: mm)

