

14 Pin DIP ACMOS Clock Oscillator Series

CONNOR WINFIELD



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Description:

The Connor-Winfield's AC6xG series are 14 Pin DIP, 5.0V ACMOS Output logic, fixed frequency Crystal Oscillator (XO) designed for applications requiring high frequency precision clock over the industrial temperature range and has a CMOS / TTL compatible output.



Features:

5.0 Vdc Operation
Frequency Stability:
AC61 - ± 25 ppm
AC62 - ± 50 ppm
AC63 - ± 100 ppm
AC64 - ± 20 ppm
Temperature Range: -40 to 85°C
ACMOS Output Logic
14 Pin DIP Through Hole Package
RoHS 5/6 Compliant

Absolute Maximum Ratings

Parameter	Minimum	Nominal	Maximum	Units	Notes
Storage Temperature	-55	-	125	°C	
Supply Voltage (Vcc)	-0.5	-	7.0	Vdc	

Model Specifications

Model	Frequency Tolerance	Minimum	Nominal	Maximum	Units	Notes
Model AC61	Frequency Tolerance	-25	-	25	ppm	1
Model AC62	Frequency Tolerance	-50	-	50	ppm	1
Model AC63	Frequency Tolerance	-100	-	100	ppm	1
Model AC64	Frequency Tolerance	-20	-	20	ppm	1

Operating Specifications

Parameter	Minimum	Nominal	Maximum	Units	Notes
Frequency Range(Fo)	10.0	-	150	MHz	
Operating Temp Range	0	-	70	°C	
Supply Voltage (Vcc)	4.75	5.0	5.25	Vdc	
Supply Current (Icc)	-	-	100	mA	
Period Jitter	-	3	5	ps rms	
Integrated Phase Jitter	-	0.3	1.0	ps rms	
SSB Phase Noise at 10Hz offset	-	-40	-	dBc/Hz	
SSB Phase Noise at 100Hz offset	-	-85	-	dBc/Hz	
SSB Phase Noise at 1KHz offset	-	-120	-	dBc/Hz	
SSB Phase Noise at 10KHz offset	-	-140	-	dBc/Hz	
SSB Phase Noise at 100KHz offset	-	-145	-	dBc/Hz	
SSB Phase Noise at 1MHz offset	-	-145	-	dBc/Hz	
Start Up Time	-	-	10	ms	

ACMOS Output Characteristics

Parameter	Minimum	Nominal	Maximum	Units	Notes
Load	-	50	-	pF	
Voltage High (Voh)	4.4	-	-	V	
Voltage Low (Vol)	-	-	0.44	V	
Current High (Ioh)	-	-	-24	mA	
Current Low (Iol)	24	-	-	mA	
Duty Cycle at 50% of Vcc	45	50	55	%	
Rise / Fall Time:	-	-	1	ns	2

Package Characteristics

Package Hermetically sealed 14 Pin DIP metal package with case ground.

Notes:

- Includes calibration @ 25°C, frequency stability vs. change in temperature, supply voltage and load variations, shock and vibration and 10 years aging.
- Measured from 0.5 to 2.4 V.

Warning:

Do not insert oscillator into a hot circuit. Failure to comply will damage the oscillator.



**RoHS-5/6
COMPLIANT**

Bulletin	AC064
Page	1 of 2
Revision	02
Date	08 Dec 2011



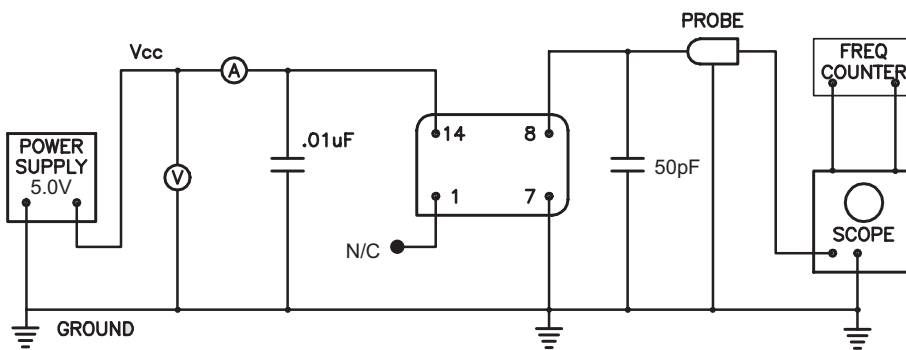
Environmental Characteristics

Vibration:	Vibration per Mil Std 883E Method 2007.3 Test Condition A
Shock:	Mechanical Shock per Mil Std 883E Method 2002.4 Test Condition B.
Solderability	Solderability per Mil Std 883E Method 2003
Soldering Process;	RoHS 5/6 compliant. See soldering profile on page 2.

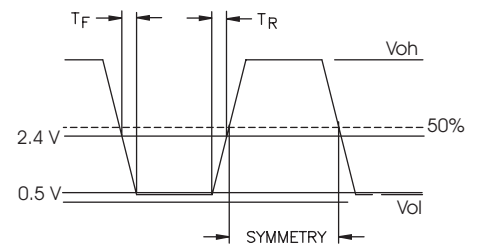
Pin Connections

1:	N/C
7:	Ground
8:	Output
14:	Supply Voltage (Vcc)

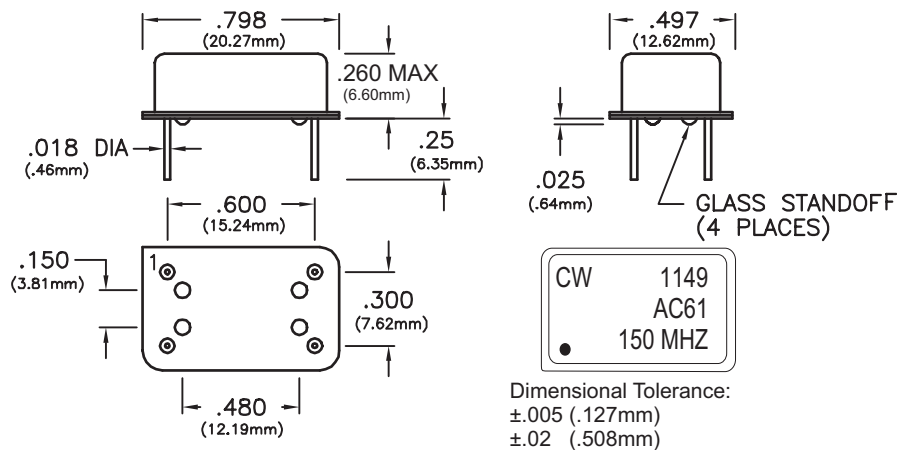
Test Circuit



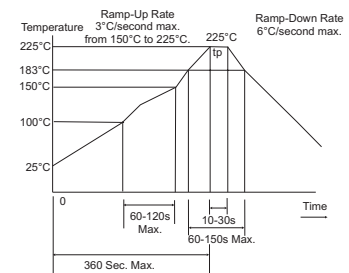
Output Waveform



Package Layout



Solder Profile



Ordering Information

AC	6	1	150.0M
Type: Clock Oscillator ACMOS, 5.0 Vdc 14 Pin DIP Package	Temperature Range 6 = 0 to 70°C	Frequency Stability 1 = ±25 ppm 2 = ±50 ppm 3 = ±100 ppm 4 = ±20 ppm	Output Frequency - Frequency Format -xxx.xM Min. * -xxx.xxxxxM Max. * * Amount of numbers after the decimal point. M = MHz

Example:

AC61-150.0M = 14 Pin DIP, ACMOS, Clock, 5.0Vdc, -40 to 85°C, ±25ppm, Output Frequency 150 MHz
To order an AC61 with an output frequency of:
12.8 MHz = AC61-012.8M
44.736 MHz = AC61-044.736M
50. MHz = AC61-050.0M

Bulletin	AC064
Page	2 of 2
Revision	02
Date	08 Dec 2010