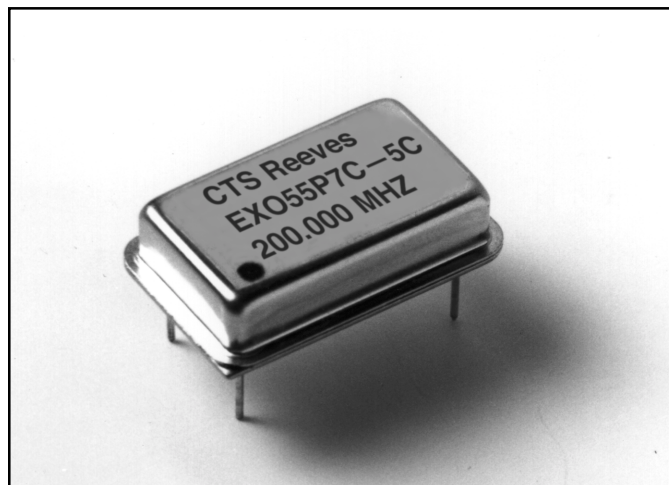


Features:

- Complementary Output Available
- Tight Frequency Stability Available
- Optimal Jitter Performance
- Stabilities as tight as ± 25 ppm



The EXO55 series is an ECL compatible clock oscillator that is perfect for server and Gigabit Ethernet applications requiring tight stability and reliable performance. It comes in a 14 pin DIP package and is available over a wide range of frequencies. Complementary outputs and enhanced stabilities are also available.

Electrical Specifications:

Specifications (Load = 50Ω into $V_{CC} - 2.0VDC$)

PARAMETER	SYMBOL	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
Supply Voltage	V_{CC}	Operating	4.94	5.20	5.46	V
		Absolute Maximum			7.0	V
Supply Current	I_{CC}				100	mA
Start-up Time	T_s				10	ms
Output Voltage-HI	V_{OH}	0 to 70°C	$V_{CC} - 1.02$		$V_{CC} - .74$	V
		-40 to 85°C	$V_{CC} - 1.06$		$V_{CC} - .65$	V
Output Voltage-LO	V_{OL}	0 to 70°C	$V_{CC} - 1.95$		$V_{CC} - 1.60$	V
		-40 to 85°C	$V_{CC} - 1.95$		$V_{CC} - 1.57$	V
Symmetry	Duty	Measured at 50% of waveform	40		60	%
Rise & Fall Time	T_r, T_f	Measure from 20% to 80% of waveform		1.5	2.5	ns
Jitter		peak-peak		30	50	ps

Pin Connections

PIN	FUNCTION
1	NC or Comp Out
7	Case/CKT GND
8	Output
14	Vcc

Storage Temperature: -55°C to +125°C
Temperature Cycle: 25 cycles, -55°C to +125°C
per MIL-STD-883, Method 1010
Constant Acceleration: 5000g's, 0.5mS,
3 shocks per direction,
per MIL-STD-883, Method 2002
Sinusoidal Vibration: 0.06" D.A., 10 to 55 Hz and
30g's, 55 to 2000 Hz,
3 cycles per direction,
per MIL-STD-883, Method 2007
Random Vibration: 20G^{RMS}, 20 to 2000 Hz,
per MIL-STD-883, Method 2026
Lead Integrity: per MIL-STD-883,
Method 2004 conditions B1 and B2
Hermeticity: 3 x 10⁴ ATM-cc/sec,
per MIL-STD-883,
Method 1014 conditions B1 and B2
Moisture Resistance: 10 cycles,
per MIL-STD-883,
Method 1014 with step 7 subcycle omitted

Corrosion Resistance: 24 hours,
per MIL-STD-883,
Method 1009 condition A

Solderability: per MIL-STD-883,
Method 2003 or MIL-STD-202,
Method 208. Except 1 hr. Pre-conditioning

Quality: In accordance with MIL-1-45208

Resistance to Soldering Heat: per MIL-STD-202,
Method 210 conditions A and C

Marking Permanence: per MIL-STD-883,
Method 2015

Thermal Resistance: per MIL-STD-883,
Method 1012.1

Electrostatic Discharge Sensitivity: per MIL-STD-883,
Method 3015 ECL output models-> 4KV
(Class 2- not sensitive)
CMOS output models-> 2KV
(Class 1 - not sensitive)

Steady-State Life: 1000 hrs. @ 125°C per MIL-STD-883,
Method 1005, disregarding frequency shift

Frequency Aging: <10 ppm shift in 30 days
@ 85°C ambient

EXO55P7

Oscillator Type	Tolerance	Temp Range	Frequency
Blank = Single Output C = Complementary Output	2 = 100 ppm 3 = 50 ppm 5 = 25 ppm*	C = 0 to 70°C I = -40 to 85°C	

56 400 REIMANN AVE. • SANDWICH, IL 60548
Phone: 815-786-8411 • Fax: 815-786-3600 • E-Mail: www.ctsreeves.com