



20 x 12.6 x 7.2 mm

FUNDAMENTAL FREQUENCY, LOW JITTER 5.0V or 3.3Vdc FULL-SIZE DIP CRYSTAL CLOCK OSCILLATORS ACPE and ACPEL

FEATURES:

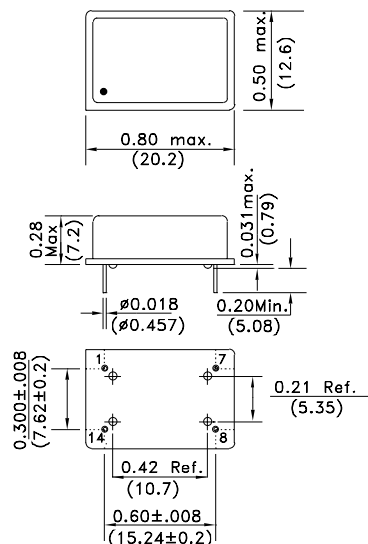
- Low jitter PECL logic.
- Tight overall frequency stability.
- Fast rise and fall times.
- Complementary output.
- Wide frequency range.

APPLICATIONS:

- Gigabit ethernet.
- Data telecommunications and networking.
- xDSL, Stratum IV.
- SONET/SDH.

STANDARD SPECIFICATIONS

PARAMETERS	ACPE	ACPEL
Frequency Range (F_0)	10.00MHz - 200MHz	
Operating Temperature (T_{OPR})	0°C to +70°C (see options)	
Storage Temperature (T_{STO})	-55°C to +105°C	
Frequency Stability ($\Delta F/F_0$)	± 100 ppm max. (See Options)	
Supply Voltage (V_{CC})	+5Vdc $\pm 5\%$	+3.3Vdc $\pm 5\%$
Supply Current (I_{DD})	100mA max.	
Duty cycle or Symmetry	40/60% max. measured 50% waveform	
Rise and Fall times (T_r/T_f)	2ns max. measured at 20% to 80% level	
Output	PECL square wave 10KH compatible	
Output and E/D options (pin 1)	No connection or Complementary output or E/D	
Output load	50 Ω terminated into 3VDC or Thevenin equivalent	
Output voltage	VOH = $V_{CC} - 1.025V$ min., $V_{CC} - 0.74V$ max. VOL = $V_{CC} - 1.95V$ min., $V_{CC} - 1.60V$ max.	
Period Jitter	3.5ps RMS max.	
Enable/Disable option (pin 1)	VIL = $V_{CC} - 1.62V$ max., VIH = $V_{CC} - 1.025V$ min. (Output is in "0" state when disabled)	
Start-up time	10ms max.	



Dimensions: Inches (mm)

PIN NUMBER	FUNCTION
1	NC or $\bar{Q}$ or E/D
7	GND / Case
8	Output
14	V_{CC}

* Output must be terminated into 50 Ω to +3VDC or Thevenin equivalent.

Environmental and mechanical specifications, see appendix C. Group 1.

Value added, see appendix D.

Test circuit and waveforms, see appendix B

Marking, see appendix G. Recommended handling, see appendix F.

Application notes, see appendix A.

ORDERING OPTIONS

ACPEX - Frequency - Temperature - Overall Frequency Stability - Pin 1 option - Value Added

Blank or L

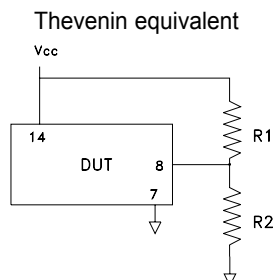
XX.XXXX MHz

-D for -10°C to +60°C
-E for -20°C to +70°C
-F for -30°C to +70°C
-N for -30°C to +85°C
-L for -40°C to +85°C

-Y for ± 10 ppm max.
-J for ± 20 ppm max.
-R for ± 25 ppm max.
-K for ± 30 ppm max.
-H for ± 35 ppm max.
-C for ± 50 ppm max.

-Blank = N/C
-QBAR = Complementary output
-A = Enable/Disable

-G Gull Wing
-QXX (Trimmed Leads)



Vdd	R1	R2
5.0V	82 Ω	130 Ω
3.3V	130 Ω	82 Ω



NOTE: Left blank if standard • All specifications and markings subject to change without notice

29 Journey • Aliso Viejo, CA 92656 • USA

(949) 448-7070 • FAX: (949) 448-8484

E-MAIL: abinfo@abracon.com • INTERNET ADDRESS: www.abracon.com

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED