

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:

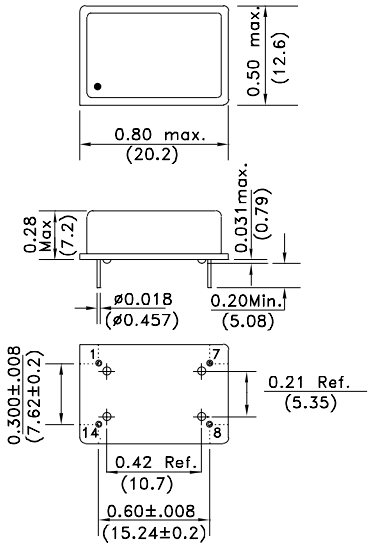
- Low jitter PECL logic.
- Tight overall frequency stability.
- Fast rise and fall times.
- Complementary output.
- Wide frequency range.

APPLICATIONS:

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

STANDARD SPECIFICATIONS

PARAMETERS	ACPE	ACPEL
Frequency Range (F_O)	**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 ($\Delta F/ Fo$)	±100ppm max. *(See Options)*	
Supply Voltage (V_{CC})	+5Vdc ±5%	+3.3Vdc ±5%
Supply Current (Idd)	100mA max.	
Duty cycle or Symmetry	40/60% max. measured 50% waveform	
Rise and Fall times (Tr/Tf)	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	50Ω terminated into 3VDC or Thevenin equivalent	
Output voltage	VOH = Vcc -1.025V min., Vcc - 0.74V max. VOL = Vcc -1.95V min., Vcc - 1.60V max.	
Period Jitter	3.5ps RMS max.	
Enable/Disable option (pin 1)	VIL= Vcc -1.62V max., VIH = Vcc -1.025V min. (Output is in "0" state when disabled)	
Start-up time	10ms max.	

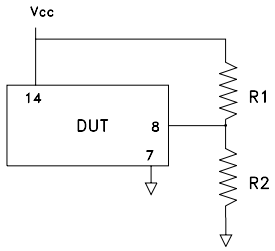


Dimensions: Inches (mm)

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

* Output must be terminated into 50Ω to +3VDC or Thevenin equivalent.
Environmental and mechanical specifications, see appendix C. Group 1.
Value added, see appendix D.
Teat circuit and waveforms, see appendix B
Marking, see appendix G. Recommended handling, see appendix F.
Application notes, see appendix A.

Thevenin equivalent



Vdd	R1	R2
5.0V	82Ω	130Ω
3.3V	130Ω	82Ω

ORDERING OPTIONS

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

- ACPEX: Blank or L
- Frequency: XX.XXXX MHz
- Temperature:
  - -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
- Overall Frequency Stability:
  - -Y for ± 10ppm max.
  - -J for ± 20ppm max.
  - -R for ± 25ppm max.
  - -K for ± 30ppm max.
  - -H for ± 35ppm max.
  - -C for ± 50ppm max.
- Pin 1 option:
  - -Blank = N/C
  - -QBAR = Complementary output
  - -A = Enable/Disable
- Value Added:
  - -G Gull Wing
  - -QXX (Trimmed Leads)

ABRACON CORPORATION

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

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