TTL / CMOS • HALF-SIZE DIP • 5Vdc or 3.3Vdc

VOLTAGE-CONTROLLED CRYSTAL OSCILLATORS

AHVX1025 and AHVX1025L



12.7 x 12.7 x 5.6 mm

FEATURES:

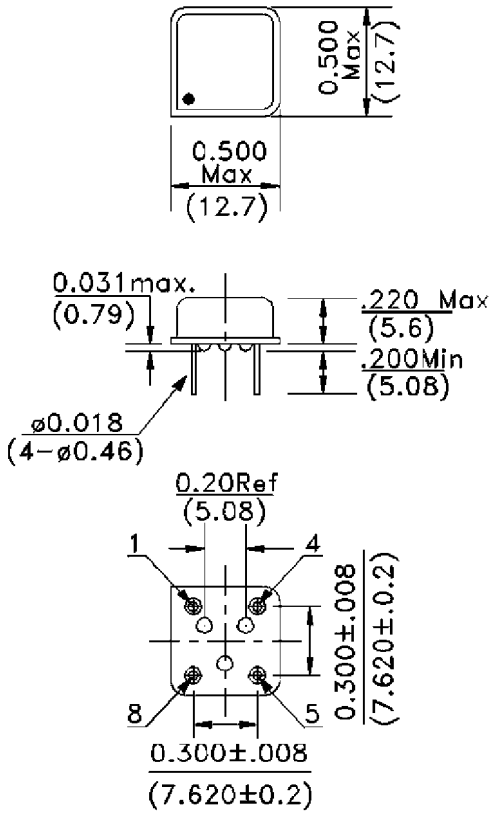
• 8-Pin DIP metal package. • Tight stability and wide pull range. • Tight symmetry. • 5Vdc or 3.3Vdc.

APPLICATIONS:

• Phase locked loops (PLLs) • Clock recovery. • Set-top box.
• Reference signal tracking. • Synthesizers. • Digital transmission.

STANDARD SPECIFICATIONS

PARAMETERS		AHVX1025	AHVX1025L
Frequency Range	(F_O)	**1.0MHz - 200MHz**	
Operating Temperature	(T_{OPR})	0°C to +70°C *(See Options)*	
Storage Temperature	(T_{STO})	-55°C to +125°C	
Frequency Stability	($\Delta F/F_O$)	±50ppm max	
Supply Voltage	(V_{dd})	5Vdc ±5%	3.3Vdc ±5%
Input Current	(Idd)	20mA max. for F ≤ 30MHz 35mA max. for F ≤ 65MHz 45mA max. for F ≤ 125MHz 70mA max. for F ≤ 200MHz	
Duty Cycle or Symmetry		45 / 55% max. @ 1/2Vdd	
Rise and Fall Times	(T_R / T_F)	6ns max.	
Output Load		15pF or 2TTL	
Output Voltage	(V_{OH}) (V_{OL})	0.9 *Vdd min. 0.4Vdc max.	
Transfer Function		Positive	
Voltage Control	(Vc)	2.5Vdc ±2.0Vdc	1.65Vdc ±1.35V
Frequency Deviation		±100ppm min. *(See Options)*	
Linearity		±10% max.	
Input impedance		50K Ω min.	
Period jitter: Absolute		±100ps max. ≤ 60MHz ; ±200ps max. >60MHz	
Period jitter: One sigma		±25ps max. ≤ 60MHz ; ±50ps max. >60MHz	



Dimensions: Inches (mm)

PIN N0.	FUNCTION
1	Voltage Control Vc
4	GND / Case
5	Output
8	Vdd

Test circuit, waveforms, see appendix B.
Environmental and mechanical specifications, see appendix C. Group 1.
Marking, see appendix G. Value added, see appendix D.
Application notes, see appendix A. Reflow profile, see appendix E.
Packaging, see appendix H. Recommended handling, see appendix F.

ORDERING OPTIONS

AHVX1025X - Frequency - Temperature - Overall Frequency Stability - Pulling - Value Added - Packaging

- X: Blank or L
- Frequency: XX.XXXXX 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.

* Please contact us for availability.

- Pulling: -N15 ± 150 ppm min.
- Value Added:
  - -G Gull Wing
  - -G2 Gull Wing
  - -GHT Gull Wing, Reflow capable
  - -QXX (Trimmed leads)
- Packaging:
  - -TY Tray packing
  - -T Tape and reel (Gull Wing type only)

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

ABRACON IS ISO 9001 / QS 9000 CERTIFIED

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