HIGH FREQUENCY • INVERTED MESA • TTL / CMOS • FULL-SIZE DIP • 5VDC

VOLTAGE-CONTROLLED CRYSTAL OSCILLATORS

ACVX1224



20.2 x 12.6 x 7.2 mm

FEATURES:

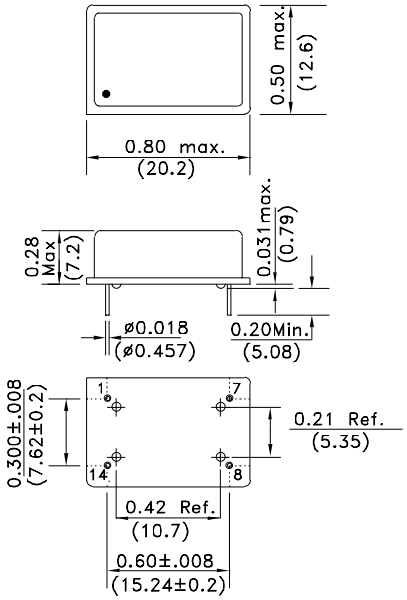
- 14-Pin DIP 5 Vdc.
- Tight symmetry (45/55%) available.
- High stability.
- Large frequency deviation available.
- Inverted mesa crystal.
- Low noise.

APPLICATIONS:

- Phase locked loops (PLLs).
- Reference signal tracking.
- Gigabit ethernet, XDM.
- Synthesizers.

STANDARD SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
Frequency Range (F_O)	**65MHz - 300MHz***
Operating Temperature (T_{OPR})	0°C to +70°C *(See Options)*
Storage Temperature (T_{STO})	-40°C to +85°C
Overall Frequency Stability	±25ppm max. *(See Options)*
Supply Voltage (V_{dd})	5Vdc ±5%
Input Current (Idd)	60mA max.
Duty Cycle or Symmetry	40 / 60% max. @ 1/2V_{dd} *(See Options)*
Rise and Fall Times (T_R / T_F)	6ns max.
Output Load	TTL / CMOS (50pF or 10 TTL gate)
Output Voltage (V_{OH}) (V_{OL})	0.9 *Vdd min. 0.4V_{dc} max.
Transfer Function	Positive
Voltage Control (Vc)	0.5Vdc to 4.5Vdc
Center Voltage	2.5Vdc ±0.5Vdc
Frequency Deviation	±100ppm min. *(See Options)*
Linearity	±10% max.
Start-up Time (T_{OSC})	10ms max.



Dimensions: Inches (mm)

* Under development 160MHz to 300MHz, please call for availability.
Please call us for higher frequencies, other pulling specs., control voltage range or linearity.
Environmental and mechanical specifications, see appendix C. Group 1.
Marking, see appendix G.
Test circuits and waveform, see appendix B.
Value added, see appendix D.
Recommended handling, see appendix F.
Application notes, see appendix A.

TYPICAL PHASE NOISE

OFFSET FREQUENCY (Hz)	PHASE NOISE (dBc/Hz)
10	-70
100	-100
1kHz	-125
10kHz	-150
100kHz	-160

PIN No.	FUNCTION
1	Voltage Control Vc
7	GND / Case
8	Output
14	Vdd

ORDERING OPTIONS

ACVX1224 - Frequency - Temperature - Stability - Duty Cycle - Pulling - Value Added - Packaging

- 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
- Stability: -J for ±20ppm max.
- Duty Cycle: -S for 45/55%@ 1/2Vdd
- Pulling: -N15 ± 150ppm min.
- Value Added: -G Gull Wing; -QXX (Trimmed Leads)
- Packaging: -TY for Tray packing

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

ABRACON IS ISO 9001 / QS 9000 CERTIFIED

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® CORPORATION