



TTL / CMOS • FULL-SIZE DIP • 5 Vdc or 3.3 Vdc
VOLTAGE-CONTROLLED CRYSTAL OSCILLATORS
ACVX1222 and ACVX1222L

FEATURES:

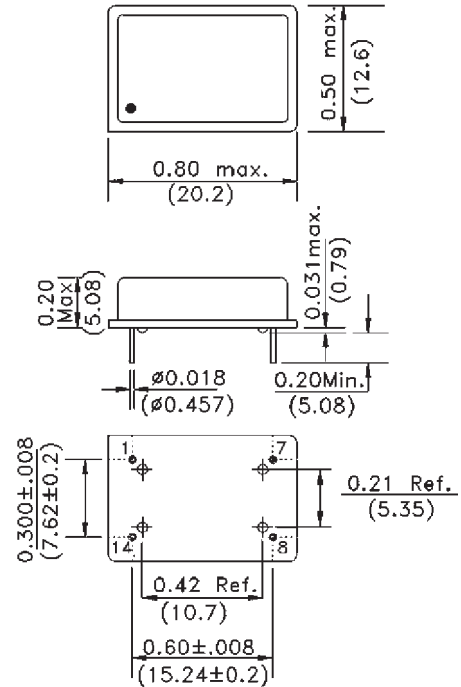
- 14-Pin DIP 5Vdc or 3.3Vdc / 5mm Height.
- Tight Symmetry (45/55%) Available.
- Large Frequency Deviation Available.
- Good Linearity (10%).

APPLICATIONS:

- Phase Locked Loops (PLLs).
- Reference Signal Tracking.
- Clock Recovery.
- Synthesizers.

STANDARD SPECIFICATIONS

PARAMETERS	ACVX 1222	ACVX 1222L
Frequency Range (F ₀)	1 MHz - 200 MHz	
Operating Temperature (T _{OPR})	0°C to +70°C (See Options)	
Storage Temperature (T _{STO})	-40°C to +85°C	
Frequency Stability -vs- Temp. -vs- Aging -vs- Vdd	± 100 ppm max. (See Options) ± 5 ppm / year max. ± 5 ppm max.	
Supply Voltage (Vdd)	5 Vdc ± 5%	3.3 Vdc ± 5%
Input Current (I _{dd})	25 mA max. for F ≤ 26 MHz 60 mA max. for F ≤ 70 MHz 30 mA max. for F ≤ 45 MHz 90 mA max. for F ≤ 200 MHz	
Duty Cycle or Symmetry	40 / 60% max. @ 1/2 Vdd (See Options)	
Rise and Fall Times (T _R / T _F)	10 ns max.	
Output Load	TTL / CMOS (15 pF or 10TTL gate)	
Output Voltage (V _{OH}) (V _{OL})	0.9 * Vdd min. 0.4 Vdc max.	
Transfer Function	Positive	
Voltage Control (Vc)	0.5 Vdc to 4.5 Vdc	0.3 Vdc to 3 Vdc
Center Voltage	2.5 Vdc ± 0.5 Vdc	1.5 Vdc ± 0.25 V
Frequency Deviation	± 100 ppm min. (See Options)	
Linearity	± 10% max.	
Start-up Time (T _{osc})	10 ms max.	



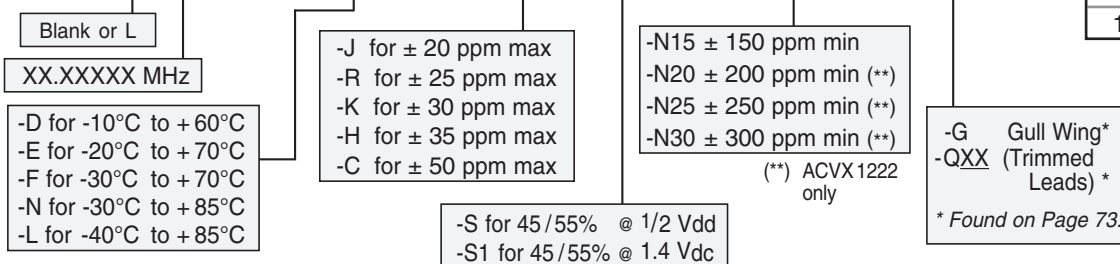
Please Inquire factory for higher frequencies, other pulling specs., control voltage range or linearity.
 For test circuit, waveforms, please see page 67.
 Environmental and mechanical specifications on page 68, Group 1. Marking, see page 79.

TYPICAL PHASE NOISE

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

ORDERING OPTIONS

ACVX1222X - Frequency - Temperature - Stability - Duty Cycle - Pulling - Value Added



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



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

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