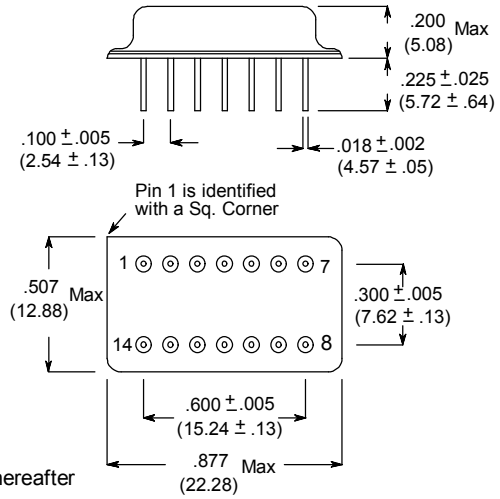
X300A SERIES, ECL

High Reliability Hybrid Microcircuit Crystal Oscillators

- ***Ruggedized crystal mount***
- ***High Shock & Vibration***
- ***Low Profile Package***
- ***Gated Output Available***

Frequency Range	10 MHz to 220 MHz
Frequency Accuracy at + 25 ^{O}C	± 15 PPM
Frequency Stability Vs. Temperature	See Options Below
Operating Temperature Range	See Options Below
Input Voltage	- 4.5 VDC ± 10%
Input Current at -4.5 VDC (No Load)	50 mA Max.
Output	100K Compatible
Load	100 Ω to - 2.0 VDC
Symmetry (at 50% Level)	60/40% Max.
Rise & Fall Times (10% to 90% Level)	2 nS Max.
Enable/Disable Input	See Option Below
Start-up Time	10 mS Max.
Phase Jitter (10 KHz to 20 MHz Integrated)	0.1 pS rms Typical
Frequency Stability Vs. 10% change in Voltage	± 4 PPM Max.
Aging at +70 ^{O}C	± 3 PPM Max. first year, ± 2 PPM Max./ Yr. thereafter
Package & Hermeticity	Conforms to the Requirements of MIL-PRF-55310
Terminations	50 to 80 Microinches gold over 100 to 250 microinches Nickel, Hot Solder Tinning per MIIL-PRF-55310 is optional at additional cost.
Lead Soldering, Temp./Time	260 ^{O}C Max for 10 Seconds Max.
Package Weight & Thermal Resistance (θ_{JC})	XXX Gms typical, 50 ^{O}C / Watt



Dimensions: Inches (mm)

Pin #	Function
14	GND/CASE
7	-4.5 VDC
8	OUTPUT
9	E/D (Optional)
All Others	N/C

NOTE: For PECL applications, Xsis 300 Series ECL oscillators can be operated with +5 VDC ± 10% on Pin 14 and power supply return on Pin 7. The output logic levels will still be referenced to +5 VDC and the case will be at +5 VDC, however, 0.8 V peak to peak output signal can be AC or DC coupled.

Contact Xsis Engineering for any other special requirements.

ORDERING INFORMATION (Select from options below) :

X 3			A		–		– FREQUENCY
Model #			Model #				

Frequency Stability
1 = ± 0.1%
2 = ± 0.05%
3 = ± 100 PPM
4 = ± 50 PPM
5 = ± 20 PPM*
6 = ± 10 PPM*
7 = ± 25 PPM*

*Options 5, 6 & 7 are not available for all operating temperature range options

Operating Temperature Range
1 = 0 ^{O}C to + 70 ^{O}C
2 = - 40 ^{O}C to + 85 ^{O}C
3 = - 55 ^{O}C to +125 ^{O}C
4 = - 55 ^{O}C to +105 ^{O}C
5 = - 40 ^{O}C to + 95 ^{O}C
6 = - 20 ^{O}C to + 70 ^{O}C

G = *Enable/Disable, Leave Blank Otherwise

***Enable/Disable** Input is on Pin 9. A "low" level at the input enables the output.

883B = Mil-Screening, Leave Blank Otherwise
H = Hi-Rel Screening, Leave Blank Otherwise

EXAMPLE: X343A - 883B - 24.000 MHz = 100K ECL Output, ± 0.005% over -55 ^{O}C to +125 ^{O}C, Mil-Screened , and 24.000 MHz

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