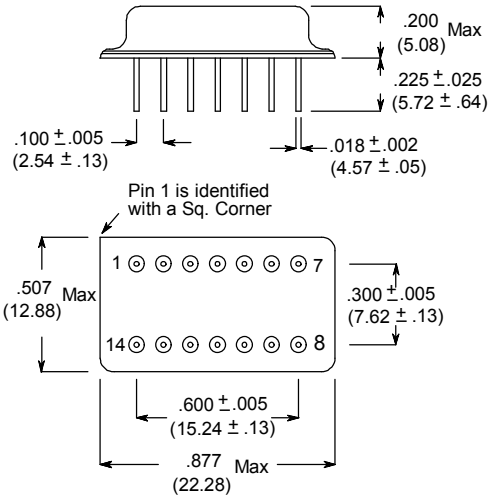
X100 SERIES, 5.0V, TTL

High Reliability Hybrid Microcircuit Crystal Oscillators

(Similar to M55310/16)

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

Frequency Range	60 Hz to 100 MHz
Frequency Accuracy at + 25 ^{O}C	± 15 PPM
Frequency Stability Vs. Temperature	See Options Below
Operating Temperature Range	See Options Below
Input Voltage	+ 5 VDC ± 10%
Input Current at +5.0 VDC (No Load)	
60.0 Hz to 5.0 MHz	30 mA Max.
5.1 MHz to 25.0 MHz	15 mA Max.
25.1 MHz to 40.0 MHz	25 mA Max.
40.1 MHz to 60.0 MHz	35 mA Max.
60.1 MHz to 100.0 MHz	50 mA Max.
Output	TTL (10 Loads)
Symmetry (at 1.4 VDC Level)	60/40%
Rise & Fall Times (0.6 VDC to 2.2 VDC)	
≤ 20 MHz	15 nS Max.
> 20 MHz	5 nS Max.
Enable/Disable Input	See Option Below
Start-up Time	
< 10 MHz	20 mS Max.
≥ 10 MHz	15 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	B+
7	GND/CASE
8	OUTPUT
9	E/D (Optional)
All Others	N/C

Contact Xsis Engineering for any other special requirements.

ORDERING INFORMATION (Select from options below) :

X 1 [ ] [ ] [ ] – [ ] – FREQUENCY

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 Option is available for frequency range of 250 KHz to 100 MHz. Enable/Disable Input is on Pin 9. A "high" level at the input enables the output.

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

EXAMPLE: X143 - 883B - 20.000 MHz = 5V, TTL Output, ± 50 PPM over -55 ^{O}C to +125 ^{O}C, Mil-Screened , and 20.000 MHz

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Xsis Electronics, Inc. 12620 W. 63rd St., Shawnee, KS 66216 Tel. 913-631-0448 Fax. 913-631-1170 email xsis@xsis.com