



# XC5N SERIES ( HC/ACMOS ), 2.5 VDC TRISTATE 5 x 7 mm, SMD

## FEATURES:

- Wide Frequency Range
- Excellent Jitter Performance
- Military Screening Tests Available

## APPLICATIONS::

- Optical Networking, SONET/SDH
- Broadband Data Transmission
- High Shock & Vibration Environments

Frequency Range 1.0 MHz to 190 MHz  
 Frequency Accuracy Over Operating Temperature See Options Below  
 Operating Temperature Range See Options Below  
 Storage Temperature Range -62 °C to +125 °C

Input Voltage + 2.5 VDC  $\pm$  10%  
 Input Current @ +2.5 VDC (No Load )  
 1.0 MHz to 8.0 MHz 3 mA Max.  
 8.1 MHz to 32.0 MHz 5 mA Max.  
 32.1 MHz to 64.0 MHz 20 mA Max.  
 64.1 MHz to 100.0 MHz 35 mA Max.  
 100.1 MHz to 190.0 MHz 55 mA Max.

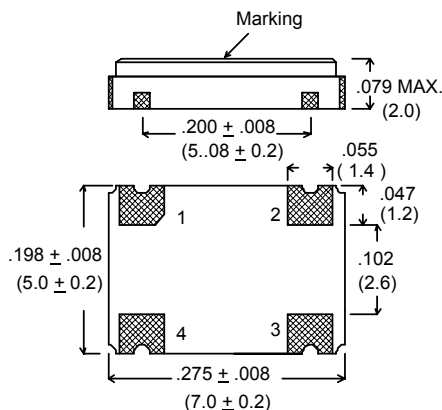
Output HC/ACMOS Compatible  
 Output Load 15 pf // 10K  
 High Level 0.9 V<sub>DD</sub> Min.  
 Low Level 0.1 V<sub>DD</sub> Max.  
 Symmetry @ 50% Level 60/40% ( 55/45% Optional )  
 Rise & Fall Times ( 20% to 80% of Output )  
 $\leq$  40 MHz 6 nS Max.  
 40.0 to 70.0 MHz 5 nS Max.  
 70.1 to 190 MHz 3 nS Max.

Enable / Disable Input Function  
 Open or High (  $\geq$  0.7 V<sub>CC</sub> ) Normal Output  
 Low (  $\leq$  0.3 V<sub>CC</sub> ) Output disabled into a HI-Z state

Start-Up Time 10 mS Max.  
 Phase Jtter (RMS, 10 KHz to 20 MHz Integrated ) 0.3 pS Typical

Aging @ +25 °C  $\pm$  0.0005% (  $\pm$  5 PPM ) / year Max.

Package – Seal Hermetic, Conforms to MIL-PRF-55310  
 Pad Finish 0.3  $\mu$ m Min. gold plate over Nickel  
 Solder Reflow Temp/Time 260 °C Max for 10 Seconds Max.



Dimensions are in inches (mm)  
 All dimensions are typical unless otherwise specified

Pad #	Function
1	E/D
2	GND
3	OUTPUT
4	V <sub>DD</sub>

An External 0.01uF Bypass Capacitor is required between VDD and GND.

**Contact Xsis Engineering** for special requirements such as, Output Symmetry, Start-up Time, Frequency Accuracy, Complementary Outputs, Multiple Outputs, etc.

## ORDERING INFORMATION ( Select from options below ) :

XC5N – [ ] [ ] [ ] – FREQUENCY

### Frequency Accuracy Options

- 1 =  $\pm$  50 PPM -10 °C to +70 °C
- 2 =  $\pm$  25 PPM -10 °C to +70 °C
- 3 =  $\pm$  100 PPM -40 °C to +85 °C
- 4 =  $\pm$  50 PPM -40 °C to +85 °C
- 5 =  $\pm$  25 PPM -40 °C to +85 °C
- 6 =  $\pm$  100 PPM -55 °C to +125 °C
- 7 =  $\pm$  75 PPM -55 °C to +125 °C
- 8 =  $\pm$  20 PPM -40 °C to +85 °C

### Symmetry Options

- A = 60/40%
- B = 55/45%

### Screening Options

- X = No Screening
- M = 100% Screening

**Example:** XC5N - 6AM - 24.000 MHz = HC/ACMOS, 2.5 V, Tristate Output, 60/40% Symmetry  $\pm$  100 PPM Frequency Accuracy Over -55°C to +125 °C, 100% Screened