

Electrical Specifications

Nominal Frequency (F_0): 77.76MHz
(available from 50 MHz to 125MHz)

Frequency Stability (for 10 MHz)

vs. temperature, $< \pm 0.2\text{ppm}$
vs. Power Supply ($\pm 5\%$), $< \pm 2\text{ppb}$
vs. Load ($\pm 10\%$), $< \pm 2\text{ppb}$
Aging after 30 days continuous operation
 $< \pm 3\text{ppm}$ for 10 years

Frequency Adjustment (none for example, fixed)

Available
Method, external voltage, $0V_{DC}$ to $+4V_{DC}$
Range: sufficient for > 10 -years aging adjustment
Modulation bandwidth, $> 1\text{KHz}$
Slope, Positive

Output (100EL PECL)

Level, '0' $< 1.49V_{DC}$
'1' $> 2.17V_{DC}$
 T_R/T_F , 300psec, typical
Duty Cycle, 45/55%, typical
Load,

Warm Up Time @ 25°C

To within 0.1ppm of final frequency, < 2.0 minutes

SSB Phase Noise (maximum for 10 MHz)

-90dBc/Hz @ 1Hz offset
-120dBc/Hz @ 10Hz offset
-140dBc/Hz @ 100Hz offset
-150dBc/Hz @ 1kHz offset
-150dBc/Hz @ 10kHz offset

Oscillator Disable (TTL/CMOS Level Input)

LOW (or Floating), Oscillator ENABLED
HIGH, Oscillator DISABLED

Oven Ready (Open Collector Output)

LOW, oven NOT ready (3mA sink, maximum)
HIGH, oven ready

Power Supply Voltage: $+3.3V_{DC} \pm 5\%$

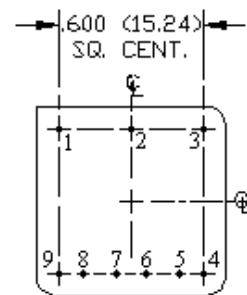
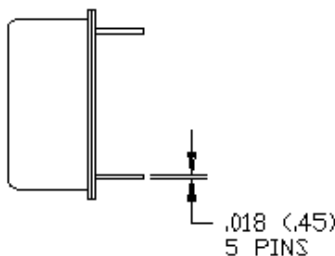
(available from +5V to +15V)

Power Consumption

$< 2.5\text{W}$ during warm up
 $< 1.25\text{W}$ steady state at 25°C

Operating Temperature Range: 0°C to +70°C

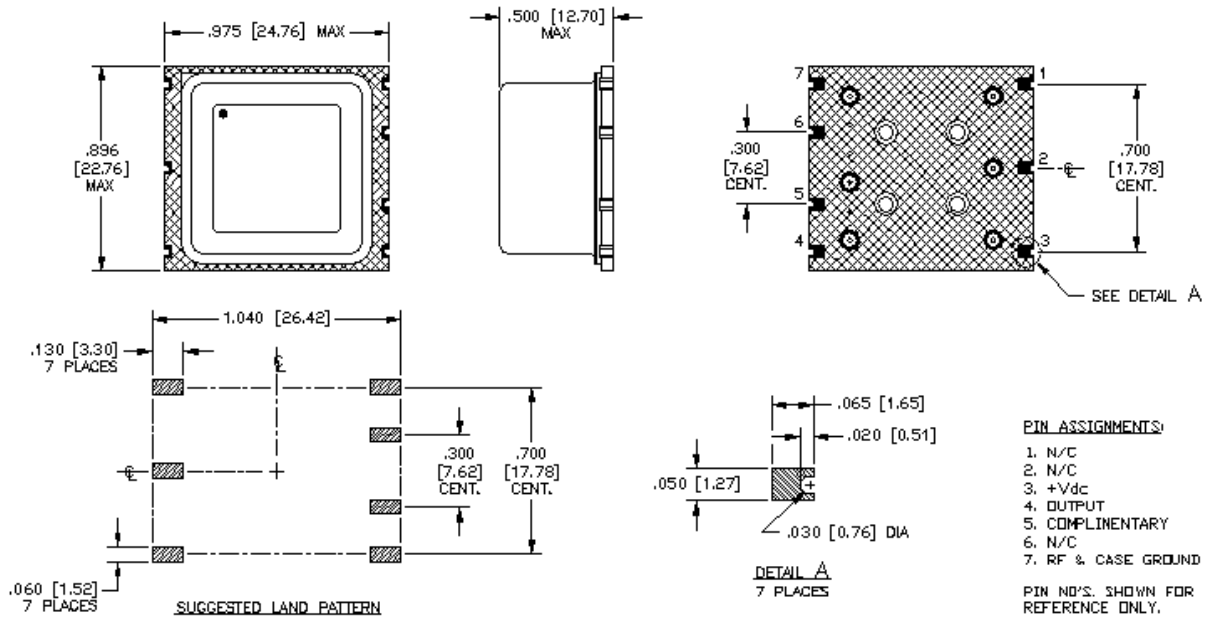
(available from -40°C to 85°C)



Standard Thru-Hole 9-pin Outline Drawing for the XO528X Family

Model XO5285-XXX Oven Controlled Crystal Oscillator

DIMENSIONS ARE IN INCHES (MM)



Example of a SMD Implementation of the XO528X Family