



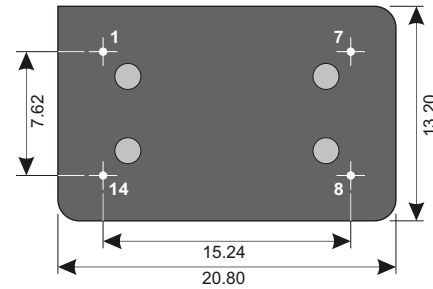
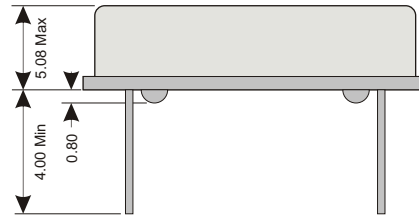
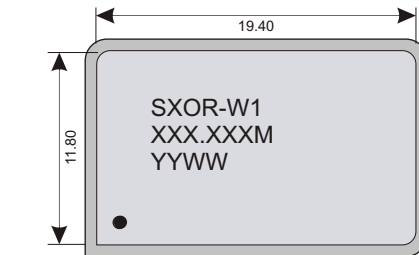
### Specifications

|                                    |                         |                       |                |
|------------------------------------|-------------------------|-----------------------|----------------|
| <b>Package</b>                     |                         | SXOR-W1               |                |
| <b>Frequency Range (fo)</b>        |                         | 0.500MHz ~ 125.000MHz |                |
| <b>Logic Family</b>                |                         | TTL                   |                |
| <b>Freq. Stability (Df/fo)</b>     |                         | ±100ppm               |                |
| <b>Aging/Year (fa)</b>             |                         | 5ppm                  |                |
| <b>Temp. Range</b>                 | <b>Operating (TOPR)</b> | 0°C ~ +70°C           | -55°C ~ +125°C |
|                                    | <b>Storage (TSTG)</b>   | -55°C ~ +125°C        | -65°C ~ +150°C |
| <b>Phase Jitter RMS (12-20MHz)</b> |                         | 1pS Max               |                |

### Electrical - TTL

|                                       |                           |                   |  |
|---------------------------------------|---------------------------|-------------------|--|
| <b>Power Supply</b>                   | <b>Voltage (VDD)</b>      | 5.0Vdc ±10%       |  |
|                                       | <b>INPUT Current</b>      |                   |  |
|                                       | 0.5 ~ 25.0MHz             | 30mA Max          |  |
|                                       | 25.1 ~ 70.0MHz            | 70mA Max          |  |
|                                       | 70.1 ~ 100.0MHz           | 80mA Max          |  |
|                                       | 100.0MHz ~ 125.0MHz       | 90mA Max          |  |
| <b>Stand-by current</b>               |                           | 10uA Max          |  |
| <b>Output</b>                         | <b>Load</b>               | 10TTL             |  |
|                                       | <b>Voltage (VOL Max.)</b> | 0.45 Vcc Max      |  |
|                                       | <b>Voltage (VOH Min.)</b> | 2.40 Vcc Min      |  |
| <b>Start-up Time</b>                  |                           | 1mS Typ; 10mS Max |  |
| <b>Rise (TR) &amp; Fall (TF) Time</b> |                           |                   |  |
|                                       | 0.5 ~ 25.0MHz             | 10nS Max          |  |
|                                       | 25.1 ~ 70.0MHz            | 5nS Max           |  |
|                                       | 70.1 ~ 125.0MHz           | 4nS Max           |  |
| <b>Symmetry/Duty</b>                  |                           | 45/55 @ 50% Level |  |

### Dimensions (mm)



Lead Free



EU RoHS  
EU RoHS  
Leaf  
Compliant



Reach  
Compliant



China  
RoHS  
Compliant



Conflict  
Minerals  
Free

### Enable / Disable

| U Option (Page 2)   | Default                 | U2                      |
|---------------------|-------------------------|-------------------------|
| 70%Vcc Min (Pin 1)  | Enabled Active (Pin 8)  | Disabled High Z (Pin 8) |
| N/C or Open (Pin 1) | Enabled Active (Pin 8)  | Disabled High Z (Pin 8) |
| 30%Vcc Max (Pin 1)  | Disabled High Z (Pin 8) | Enabled Active (Pin 8)  |
| Enable Time         | 10mS Max                | 10mS Max                |
| Disable Time        | 100nS Max               | 100nS Max               |

### Connections

|               |                  |
|---------------|------------------|
| <b>Pin 1</b>  | Enable / Disable |
| <b>Pin 7</b>  | Ground           |
| <b>Pin 8</b>  | Output           |
| <b>Pin 14</b> | Vdd              |



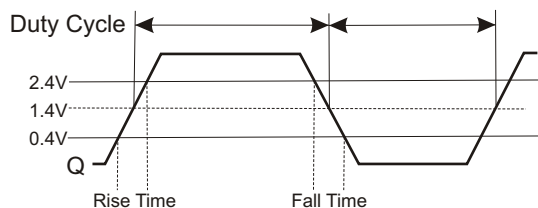
### Absolute Maximum Ratings

|                      |                      |
|----------------------|----------------------|
| Maximum Storage Temp | -40°C to +90°C       |
| Voltage (VDD)        | 4.0 VDC              |
| Input Voltage        | -0.5Vdc ~ Vdd+0.5Vdc |

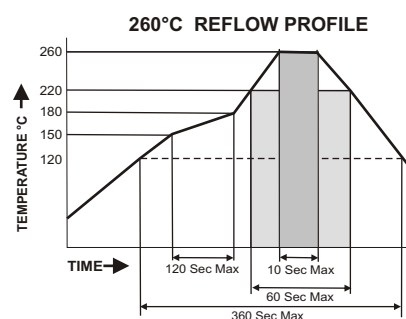
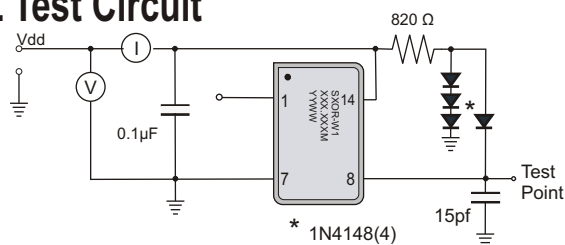
### Environmental And Mechanical

|             |   |
|-------------|---|
| Temperature | 10 Cycles of -30°C (30Mins), Normal (1Hr), 85°C (30Mins), Normal (1Hr)  |
| Shock       | Accelerated at 1000G for 1mS in each perpendicular axis.  |
| Vibration   | 4 Cycles of 20G acceleration at 20 - 2,000Hz within 4 Minutes in each perpendicular axis.                               |
| Solder      | Peak Temperature of 260°C Max for 10 Seconds with preheat of 160°C for 90±10% for 10 Seconds for a Maximum of 2 Cycles. |

### Waveform



### TTL Test Circuit



### Part Number

**SXOR-W1 - XXX.XXX M-SX RX UX**

| Stability          | OP Temp         | Enable / Disable |
|--------------------|-----------------|------------------|
| S1 ±50ppm          | R4 -20 ~ +70°C  | U2 Lo Enable     |
| S2 ±25ppm          | R6 -40 ~ +85°C  |                  |
| S3 ±10ppm          | R7 -55 ~ +125°C |                  |
| SC Cust. Stability | RC Cust. Temp.  |                  |

Enable / Disable: **Default:** Enabled Hi  
 Operating Temperature Range: **Default:** 0°C ~ +70°C  
 Stability: **Default:** ±100ppm  
 Frequency: 0.500MHz ~125.000MHz; must be specified  
 Standard RoHS Compliant 20.8 x 13.2mm (4)Pin Full-Size Dip Thru-Hole Oscillator

Example: **SXOR-W1-100.000M** 100.000MHz, 5.0V ±100ppm Oscillator operating at 0°C ~ +70°C  
 Example: **SXOR-W1-100.000M-S2R7** 100.000MHz, 5.0V ±25ppm Oscillator operating at -55°C ~ +125°C,  
 (-65°C ~ +150°C Storage)