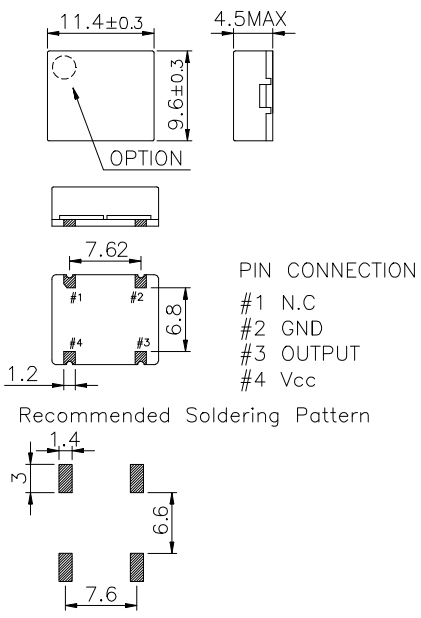
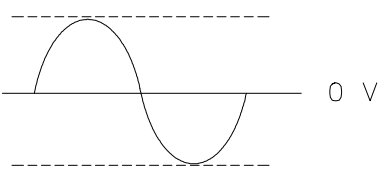
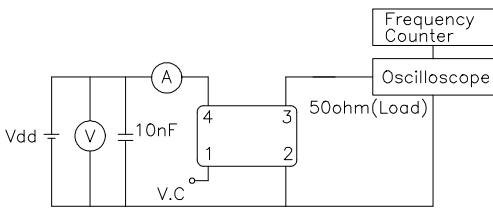


| MECHANICAL DIMENSIONS | ELECTRICAL SPECIFICATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------|----------------------------------------|-----------------|----------------------------------------|--------------------|---------------------------|----------------|---------------------------------------------|-----------|--------------------------|---|----------|----|---------|-----|------|----|---------|---|-------|----|---------|---|-------|----|---------|---|-------|----|---------|---|-------|----|---------|--|--|----|---------|---|------|
|  <p>PIN CONNECTION</p> <ul style="list-style-type: none"> #1 N.C #2 GND #3 OUTPUT #4 Vcc <p>Recommended Soldering Pattern</p> | <table border="1"> <tr> <td>Frequency range</td> <td>10.000MHz to 50.000MHz</td> </tr> </table> | | Frequency range | 10.000MHz to 50.000MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency range | 10.000MHz to 50.000MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>OUTPUT WAVEFORM</p>  | <table border="1"> <tr> <td>Frequency Stability</td> <td>±0.5 ppm to ±5.0ppm</td> </tr> <tr> <td>vs. Temperature</td> <td>±0.1 / ±0.2 ppm max / Vdd ± 5%</td> </tr> <tr> <td>vs. Supply Voltage</td> <td>±0.2 ppm max /15pF ±10%</td> </tr> <tr> <td>vs. Load</td> <td>±1.0 ppm max/ year</td> </tr> <tr> <td>vs. Aging</td> <td></td> </tr> </table> | | Frequency Stability | ±0.5 ppm to ±5.0ppm | vs. Temperature | ±0.1 / ±0.2 ppm max / Vdd ± 5% | vs. Supply Voltage | ±0.2 ppm max /15pF ±10% | vs. Load | ±1.0 ppm max/ year | vs. Aging | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Stability | ±0.5 ppm to ±5.0ppm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| vs. Temperature | ±0.1 / ±0.2 ppm max / Vdd ± 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| vs. Supply Voltage | ±0.2 ppm max /15pF ±10% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| vs. Load | ±1.0 ppm max/ year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| vs. Aging | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>TEST CIRCUIT</p>  | <table border="1"> <tr> <td>Temperature Range</td> <td>See Table 2</td> </tr> <tr> <td>Operating</td> <td>-55°C to 125°C</td> </tr> <tr> <td>Storage</td> <td></td> </tr> </table> | | Temperature Range | See Table 2 | Operating | -55°C to 125°C | Storage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature Range | See Table 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating | -55°C to 125°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Storage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Supply Voltage</td> <td>3.3V ± 5%</td> </tr> <tr> <td></td> <td>5.0V ± 5%</td> </tr> </table> | | Supply Voltage | 3.3V ± 5% | | 5.0V ± 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage | 3.3V ± 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5.0V ± 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Input Current</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sinewave</td> <td>10.00MHz</td> <td>~</td> <td>50.000MHz</td> </tr> <tr> <td></td> <td>12.0mA max</td> <td>~</td> <td>20mA max</td> </tr> </table> | | Input Current | | | | Sinewave | 10.00MHz | ~ | 50.000MHz | | 12.0mA max | ~ | 20mA max | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Input Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sinewave | 10.00MHz | ~ | 50.000MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12.0mA max | ~ | 20mA max | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Output characteristics</td> <td>Level</td> <td>3.3V</td> <td>Sinewave</td> <td>0 dBm typ</td> </tr> <tr> <td></td> <td></td> <td>5.0V</td> <td></td> <td>10 dBm typ</td> </tr> <tr> <td></td> <td>Load</td> <td></td> <td></td> <td>50Ω</td> </tr> </table> | | Output characteristics | Level | 3.3V | Sinewave | 0 dBm typ | | | 5.0V | | 10 dBm typ | | Load | | | 50Ω | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output characteristics | Level | 3.3V | Sinewave | 0 dBm typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 5.0V | | 10 dBm typ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Load | | | 50Ω | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Phase Noise (typical)</td> <td>-80 dBc / Hz @ 10Hz</td> </tr> <tr> <td></td> <td>-120 dBc / Hz @ 100Hz</td> </tr> <tr> <td></td> <td>-135 dBc / Hz @ 1KHz</td> </tr> <tr> <td></td> <td>-140 dBc / Hz @ 10KHz</td> </tr> <tr> <td></td> <td>-145 dBc / Hz @100KHz</td> </tr> </table> | | Phase Noise (typical) | -80 dBc / Hz @ 10Hz | | -120 dBc / Hz @ 100Hz | | -135 dBc / Hz @ 1KHz | | -140 dBc / Hz @ 10KHz | | -145 dBc / Hz @100KHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase Noise (typical) | -80 dBc / Hz @ 10Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -120 dBc / Hz @ 100Hz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -135 dBc / Hz @ 1KHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -140 dBc / Hz @ 10KHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | <table border="1"> <tr> <td>Frequency Adjustment</td> <td>±3ppm min by internal trimmer (OPTION)</td> </tr> </table> | | Frequency Adjustment | ±3ppm min by internal trimmer (OPTION) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Adjustment | ±3ppm min by internal trimmer (OPTION) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>ENVIROMENTAL & MECHANICAL SPECIFICATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Shock</td> <td>MIL-STD-883C, Method 2002, Condition B</td> </tr> <tr> <td>Vibration</td> <td>MIL-STD-883C, Method 2007, Condition A</td> </tr> <tr> <td>Solderability</td> <td>MIL-STD-883C, Method 2003</td> </tr> <tr> <td>Seal integrity</td> <td>MIL-STD-883C, Method 1014, Condition C & A2</td> </tr> <tr> <td>Marking</td> <td>MIL-STD-202F, Method 215</td> </tr> </table> | | Shock | MIL-STD-883C, Method 2002, Condition B | Vibration | MIL-STD-883C, Method 2007, Condition A | Solderability | MIL-STD-883C, Method 2003 | Seal integrity | MIL-STD-883C, Method 1014, Condition C & A2 | Marking | MIL-STD-202F, Method 215 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shock | MIL-STD-883C, Method 2002, Condition B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration | MIL-STD-883C, Method 2007, Condition A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solderability | MIL-STD-883C, Method 2003 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seal integrity | MIL-STD-883C, Method 1014, Condition C & A2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marking | MIL-STD-202F, Method 215 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th colspan="2">TABLE1</th> <th colspan="2">TABLE2</th> </tr> <tr> <th>Symbol</th> <th>Stability</th> <th>Symbol</th> <th>Temp.</th> </tr> </thead> <tbody> <tr> <td>05</td> <td>±0.5ppm</td> <td>0</td> <td>0°C</td> </tr> <tr> <td>10</td> <td>±1.0ppm</td> <td>A</td> <td>50°C</td> </tr> <tr> <td>15</td> <td>±1.5ppm</td> <td>1</td> <td>-10°C</td> </tr> <tr> <td>20</td> <td>±2.0ppm</td> <td>2</td> <td>-20°C</td> </tr> <tr> <td>25</td> <td>±2.5ppm</td> <td>3</td> <td>-30°C</td> </tr> <tr> <td>30</td> <td>±3.0ppm</td> <td>4</td> <td>-40°C</td> </tr> <tr> <td>35</td> <td>±3.5ppm</td> <td></td> <td></td> </tr> <tr> <td>50</td> <td>±5.0ppm</td> <td>F</td> <td>85°C</td> </tr> </tbody> </table> | | TABLE1 | | TABLE2 | | Symbol | Stability | Symbol | Temp. | 05 | ±0.5ppm | 0 | 0°C | 10 | ±1.0ppm | A | 50°C | 15 | ±1.5ppm | 1 | -10°C | 20 | ±2.0ppm | 2 | -20°C | 25 | ±2.5ppm | 3 | -30°C | 30 | ±3.0ppm | 4 | -40°C | 35 | ±3.5ppm | | | 50 | ±5.0ppm | F | 85°C |
| TABLE1 | | TABLE2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Symbol | Stability | Symbol | Temp. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 | ±0.5ppm | 0 | 0°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | ±1.0ppm | A | 50°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | ±1.5ppm | 1 | -10°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | ±2.0ppm | 2 | -20°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | ±2.5ppm | 3 | -30°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | ±3.0ppm | 4 | -40°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | ±3.5ppm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | ±5.0ppm | F | 85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |