SiTime MEMS timing benefits

<table>
<thead>
<tr>
<th>Complete MEMS clock tree</th>
<th>Most Robust in real world conditions</th>
<th>Integrated MEMS, easy to use</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Precision MEMS TCXO</td>
<td>• 4x better dF/dT, airflow and heat resistant</td>
<td>• No external quartz</td>
</tr>
<tr>
<td>• Stratum 3E MEMS OCXO</td>
<td>• 20x better vibration resistance</td>
<td>• No quartz reliability issues</td>
</tr>
<tr>
<td>• MEMS clock IC/PLL</td>
<td>• Immunity to power supply noise</td>
<td>• No cover or shielding</td>
</tr>
</tbody>
</table>

Application Devices Type Function Key Features

<table>
<thead>
<tr>
<th>ODU</th>
<th>Baseband processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiT535x</td>
<td>Super-TCXOs</td>
</tr>
<tr>
<td>SiT57xx</td>
<td>OCXOs</td>
</tr>
<tr>
<td>SiT9514x</td>
<td>Network synchronizer, Jitter cleaner</td>
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</tbody>
</table>
MEMS Timing Outperforms Quartz

**Better Stability**

- Emerald OCXO
  - +3 ppb
  - -3 ppb

**Better Frequency Slope**

- Emerald OCXO
  - +0.1 ppb/°C
  - -0.1 ppb/°C

**Better Vibration Resistance**

- Quartz TCXO
- Elite Super-TCXO

**Better Aging**

- Emerald and Elite Oscillators
  - Extrapulated Fit at 105°C
  - 20 Year

**Better Allan Deviation**

- Quartz TCXO
- Elite Super-TCXO
  - 38x
  - 2x

**Better PSNR (Power Supply Noise Rejection)**

- Elite Differential Oscillator
- Quartz Differential Oscillator

Learn more about SiTime's Comms-Enterprise timing solutions

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