Applications

- Small Cell timing requirements for 3GPP air interfaces
- G.8263 compliant for Base Stations
- Backhaul Equipment supporting Boundary Clocks and Slave Clocks
- SyncE enabled Carrier Ethernet Switches and Routers
- Grand Master Clock and Timing Servers
- Packet Based Time Slave Clocks
- Smart Power Grid Synchronisation Modules
- Transport Equipment Timing Solutions

Highlights

- Temperature stability down to ±5 ppb
- Frequency slope down to 0.5 ppb/°C
- MTIE and TDEV are compliant with G.8263
- Long term stability down to ±1 ppb/day
- Low noise floor: as low as -161 dBc/Hz at 100 kHz offset
- Low power consumption: 350 mW
- Small package size 9.7 x 7.5 mm
- 6 times better reliability (in terms of FITs) compared to discrete solutions
- Industry standard footprint options

Compliance Support

- GR-1244 Stratum 3/3E & GR 254
- ITU-T SDH Slave Equipment Clocks based on G.813, SyncE Ethernet Equipment Clocks based on G.8262
- Packet Based Timing Recovery standards ITU-T G.8263, G.8273.x & G.812 types II and III
- Interfaces ITU-T G.823, G.824, G.8261 & G.8271
Mercury/+™ IC-OCXO Product Brief

Wander Compliance – Mercury™ IC OCXO

Maximum Time Interval Error (MTIE)

Time Deviation (TDEV)

Mercury/+™ IC OCXO for Typical Applications

G.8263 or G.8273.x Compliant Base Stations

Packet Based Timing with SyncE

Synchronisation with G.8263 or G.8273.x Compliant PLL

GPS Timing

Mercury/+™ OCXO

Mercury/+™ IC OCXO for Typical Applications

Packet Based Timing with SyncE

Synchronisation with G.8263 or G.8273.x Compliant PLL

GPS Timing

Mercury/+™ OCXO

Additional Rakon Oscillator and Timing Product Solutions

<table>
<thead>
<tr>
<th>Products Family</th>
<th>Product Series</th>
<th>Key Capabilities</th>
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<tbody>
<tr>
<td>TCXO</td>
<td>Ultra Stable</td>
<td>1.5 to 52 MHz, ±0.05 to 2.0 ppm as wide as -55°C to 105°C and in 7.0 x 5.0 or 5.0 x 3.2 mm packages.</td>
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<tr>
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<td>High Stability</td>
<td>10 to 52 MHz, ±0.5 to 5 ppm over -40 to 85°C and in 3.2 x 2.5, 2.5 x 2.0 or 2.0 x 1.6 mm packages.</td>
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<tr>
<td>VCXO</td>
<td>M / P / R</td>
<td>8 to 1500 MHz with low phase-noise and CMOS/PECL/LVDS in 7.0 x 5.0, 5.0 x 3.2 or 2.5 x 2.0 mm packages.</td>
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<td>C</td>
<td>1.5 to 54 MHz commercial CMOS output in 7.0 x 5.0 or 5.0 x 3.2 or 3.2 x 2.5 mm packages.</td>
</tr>
<tr>
<td>XO</td>
<td>M / P / R</td>
<td>8 to 1500 MHz with &lt;1 ps jitter and CMOS/PECL/LVDS in 7.0 x 5.0, 5.0 x 3.2 or 2.5 x 2.0 mm packages.</td>
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<td>Q</td>
<td>8 to 1500 MHz selectable frequency, 1.0/2.0 ps jitter and CMOS/PECL/LVDS output in 2.5 x 2.0 mm package.</td>
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<td>C</td>
<td>0.75 to 60 MHz commercial CMOS output in 7.0 x 5.0, 5.0 x 3.2, 3.2 x 2.5, 2.5 x 2.0 or 2.0 x 1.6 mm packages.</td>
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<tr>
<td>Crystals</td>
<td>RSX</td>
<td>12 to 48 MHz for Ethernet, WiFi and USB.</td>
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<td></td>
<td>RTF</td>
<td>32 kHz for real time clocks.</td>
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