



ROHS-Compliant Product

# OCXO A100 Series



| 1. Specification                                                                       |                                                                          |                                 |                                 |                                              |                                 |                                 |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------------------------|---------------------------------|---------------------------------|
| Type:                                                                                  | A101                                                                     | A121                            | A111                            | A102                                         | A122                            | A112                            |
| Frequency range:                                                                       | 5 ... 20 MHz                                                             |                                 |                                 |                                              |                                 |                                 |
| Standard Frequencies:                                                                  | 5.0; 10.0; 13.0; 16.384 MHz                                              |                                 |                                 |                                              |                                 |                                 |
| Frequency stability<br>in the temperature range - 25°C . + 70°C:                       | <±5x10 <sup>-8</sup>                                                     |                                 | <±1x10 <sup>-7</sup>            |                                              |                                 |                                 |
| Frequency stability<br>vs. supply voltage changes UB ± 5 %:<br>vs. load changes ± 5 %: | < ± 5x10 <sup>-9</sup><br>< ± 5x10 <sup>-9</sup>                         |                                 |                                 |                                              |                                 |                                 |
| Aging<br>per day:<br>per year after 30 days of operation:                              | ± 1x10 <sup>-9</sup> / day<br>± 5x10 <sup>-7</sup> / year                |                                 |                                 |                                              |                                 |                                 |
| Frequency correction<br>external trimmer:<br>Option U:                                 | ± 3 ppm by external trimmer 20 kOhm<br>± 3 ppm by ext. voltage 0 ... 4 V |                                 |                                 |                                              |                                 |                                 |
| Supply voltage UB:                                                                     | 12 V ± 10 %                                                              |                                 |                                 |                                              |                                 |                                 |
| Power consumption:<br>@ - 25°C:<br>@ + 25°C:<br>@ + 70°C:<br>during warm-up:           | ≤ 2.2 W<br>≤ 1.0 W<br>≤ 0.6 W<br>≤ 3.0 W                                 |                                 |                                 |                                              |                                 |                                 |
| Output voltage :<br>type<br>level min:<br>High; Low voltage:<br>load :<br>duty cycle:  | Sinus<br>3V <sub>pp</sub><br>-<br>500 Ω<br>-                             | Sinus<br>0dBm<br>-<br>50 Ω<br>- | HCMOS<br>4; 0.4V<br>-<br>40/60% | Sinus<br>3V <sub>pp</sub><br>-<br>500 Ω<br>- | Sinus<br>0dBm<br>-<br>50 Ω<br>- | HCMOS<br>4; 0.4V<br>-<br>40/60% |
| Phase noise:<br>100 Hz:<br>1 kHz:<br>10 kHz:                                           | -120 dBc / Hz<br>-140 dBc / Hz<br>-150 dBc / Hz                          |                                 |                                 |                                              |                                 |                                 |



ROHS-Compliant Product

# OCXO A100 Series



|                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warm-up time<br>@ - 25°C:<br>@ + 25°C:                                                                                                  | < 12 min.<br>< 5 min.                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Temperature ranges<br>Operating:<br>Operable:<br>Storage:                                                                               | -25°C ... + 70°C<br>-30°C ... + 75°C<br>-55°C ... + 85°C                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>2. Environmental conditions</b>                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| According to KVG Product Qualification Procedure AA-QM-200                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>3. Marking</b>                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Manufacturer's name, date code(week/year)<br>Specification<br>Center frequency                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>4. Case</b>                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>Case style: BF-20</b></p> <p>IEC49000-08<br/>DIN IEC49000-08</p> <p>max 36,1<br/>max 27,2<br/>max 19,4<br/>6±0,5<br/>40,8±0,1</p> | <p><b>1.Pin configuration</b></p> <ol style="list-style-type: none"><li>1. Trimmer, SL</li><li>2. Trimmer, CW</li><li>3. Supply voltage <math>U_B</math></li><li>4. RF-output</li><li>5. Ground, case, trimmer</li></ol> <p><b>Option U</b></p> <ol style="list-style-type: none"><li>1. Pulling voltage <math>U_z</math></li><li>2. N.C.</li><li>3. Supply voltage <math>U_B</math></li><li>4. RF-output</li><li>5. Ground, case,</li></ol> |