**ROHS-Compliant Product**

# O-7000SC Series

## 1. Specification

| | | |
|---|---|---|
| Frequency range: | **10 ... 100 MHz** | |
| Type: | **O-7500SC** | **O-7300SC** |
| Supply voltage $V_S$: | +5.0 V ± 5 % | +3.3 V ± 5 % |
| Frequency stability vs. temperature options: | | |
| ≤ ± 1 x $10^{-8}$ vs. 0 °C to +50 °C: | **755x** | **735x** |
| ≤ ± 2 x $10^{-8}$ vs. –10 °C to +60 °C: | **756x** | **736x** |
| ≤ ± 3 x $10^{-8}$ vs. 0 °C to +70 °C: | **757x** | **737x** |
| ≤ ± 5 x $10^{-8}$ vs. –20 °C to +70 °C: | **758x** | **738x** |
| ≤ ± 1 x $10^{-7}$ vs. –40 °C to +85 °C: | **759x** | **739x** |
| Aging stability option (after 30 days of operation) | | |
| ≤ ± 5 x $10^{-9}$ / day; ≤ ± 5 x $10^{-7}$ / year: | **75x1** | **73x1** |
| ≤ ± 2 x $10^{-9}$ / day; ≤ ± 2 x $10^{-7}$ / year: | **75x2** | **73x2** |
| Frequency stability<br>vs. supply voltage changes $V_S$ ± 5 %:<br>vs. load changes ± 10 %: | ≤ ± 5.0 x $10^{-9}$<br>≤ ± 2.0 x $10^{-9}$ | |
| Frequency control by external tuning voltage: | ≥ ± 1.5 ppm | |
| Tuning voltage range: | +0.5 V to +4.5 V | +0.3 V to +3.0 V |
| Transfer function / Linearity: | Positive / < 10 % | |
| Power consumption @ +25 °C<br>steady state:<br>during warm-up: | <br>≤ 1.0 W<br>≤ 3.0 W | |
| Warm-up time:<br>(for a typical accuracy of < ± 5 x $10^{-8}$ @ +25 °C referred to final frequency after 1 hour) | ≤ 5 min | |
| Output voltage / Load<br>Option **H**:<br>Option **S**: | <br>(LV)**H**CMOS / 1 kOhm // 15 pF<br>**S**inewave / > +3 dBm / 50 Ohm | |
| Phase noise (typical for 10 MHz, $V_S$ = 5 V): | sine | HCMOS |
| 10 Hz: | ≤ -115 dBc / Hz | ≤ -115 dBc / Hz |
| 100 Hz: | ≤ -140 dBc / Hz | ≤ -135 dBc / Hz |
| 1 kHz: | ≤ -155 dBc / Hz | ≤ -145 dBc / Hz |
| 10 kHz: | ≤ -160 dBc / Hz | ≤ -150 dBc / Hz |
| Storage temperature range: | -45 °C ... +90 °C | |

| ED | Description | Date | Name |
|---|---|---|---|
| 4 | | | |
| 3 | | | |
| 2 | phase noise | 13.10.2010 | Rudolph |
| 1 | | 23.08.2007 | Rudolph |

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**Subject to technical modification**

# O-7000SC Series

## 2. Environmental conditions

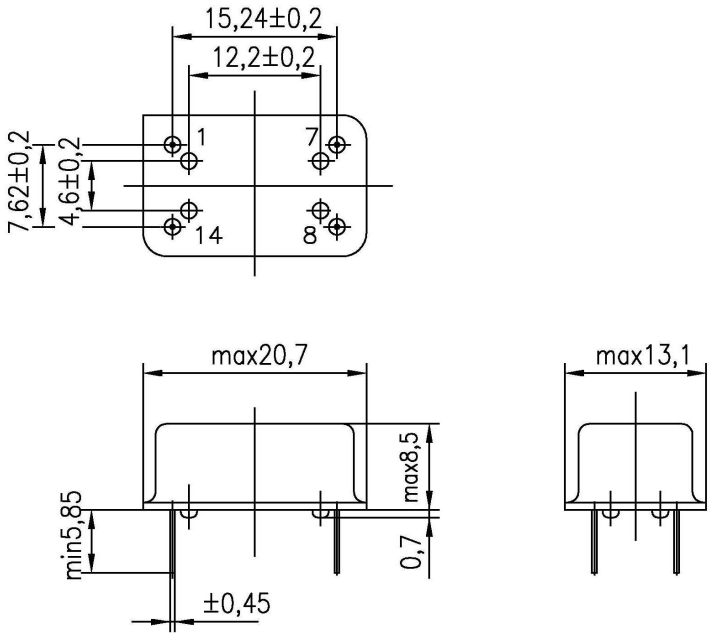
According to KVG Product Qualification Procedure AA-QM-200

## 3. Marking

Manufacturer's name, date code (week/year); Specification; Center frequency

## 4. Case

**BF100-8.5**




**1.Pin configuration**

1. Control voltage $V_C$
7. Ground, case
8. RF output
14. Supply voltage $V_S$

| | | | | |
|---|---|---|---|---|
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