



VCXO-V7XXX-LF



1. Specification																						
Test Conditions: $V_S = +12\text{ V}$; $V_C = +5\text{ V}$; $T_A = +25\text{ °C}$ if not stated otherwise																						
Nominal Frequency F_N :	100.000 MHz																					
Frequency stability overall including: - initial frequency tolerance after reflow soldering, - vs. temperature range -40 °C to $+85\text{ °C}$, - vs. supply voltage changes $V_S \pm 5\%$, - vs. load changes $\pm 10\%$, - aging at $+25\text{ °C}$ over 10 years	$\leq \pm 40\text{ ppm}$																					
Frequency control range:	$\geq \pm 50\text{ ppm}$																					
Frequency control voltage V_C :	0 to $+10.0\text{ V}$																					
Transfer function / Linearity:	positive / 10 %																					
Control voltage input impedance:	$\geq 50\text{ kOhm}$																					
Modulation Bandwidth (-3 dB cut-off frequency):	$\geq 1\text{ kHz}$																					
Supply voltage V_S :	$+12.0\text{ V} \pm 5\%$																					
Current consumption:	$\leq 30\text{ mA}$																					
Output signal type: Output level: Nominal output load:	sine wave $\geq +10\text{ dBm}$ 50 Ohm																					
Harmonics: Sub-Harmonics:	$\leq -25\text{ dBc}$ $\leq -100\text{ dBc (none)}$																					
Phase noise @ f_m :	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">typ.</th> <th style="text-align: center;">max.</th> </tr> </thead> <tbody> <tr> <td>10 Hz:</td> <td style="text-align: center;">$\leq -90\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -85\text{ dBc / Hz}$</td> </tr> <tr> <td>100 Hz:</td> <td style="text-align: center;">$\leq -120\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -115\text{ dBc / Hz}$</td> </tr> <tr> <td>1 kHz:</td> <td style="text-align: center;">$\leq -145\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -140\text{ dBc / Hz}$</td> </tr> <tr> <td>10 kHz:</td> <td style="text-align: center;">$\leq -170\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -167\text{ dBc / Hz}$</td> </tr> <tr> <td>100 kHz:</td> <td style="text-align: center;">$\leq -175\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -172\text{ dBc / Hz}$</td> </tr> <tr> <td>1 MHz:</td> <td style="text-align: center;">$\leq -178\text{ dBc / Hz}$</td> <td style="text-align: center;">$\leq -173\text{ dBc / Hz}$</td> </tr> </tbody> </table>		typ.	max.	10 Hz:	$\leq -90\text{ dBc / Hz}$	$\leq -85\text{ dBc / Hz}$	100 Hz:	$\leq -120\text{ dBc / Hz}$	$\leq -115\text{ dBc / Hz}$	1 kHz:	$\leq -145\text{ dBc / Hz}$	$\leq -140\text{ dBc / Hz}$	10 kHz:	$\leq -170\text{ dBc / Hz}$	$\leq -167\text{ dBc / Hz}$	100 kHz:	$\leq -175\text{ dBc / Hz}$	$\leq -172\text{ dBc / Hz}$	1 MHz:	$\leq -178\text{ dBc / Hz}$	$\leq -173\text{ dBc / Hz}$
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Temperature ranges Operating: Storage:	$-40\text{ °C} \dots +85\text{ °C}$ $-55\text{ °C} \dots +90\text{ °C}$																					
2. Environmental conditions																						
According to KVG Product Qualification Procedure AA-QM-200																						

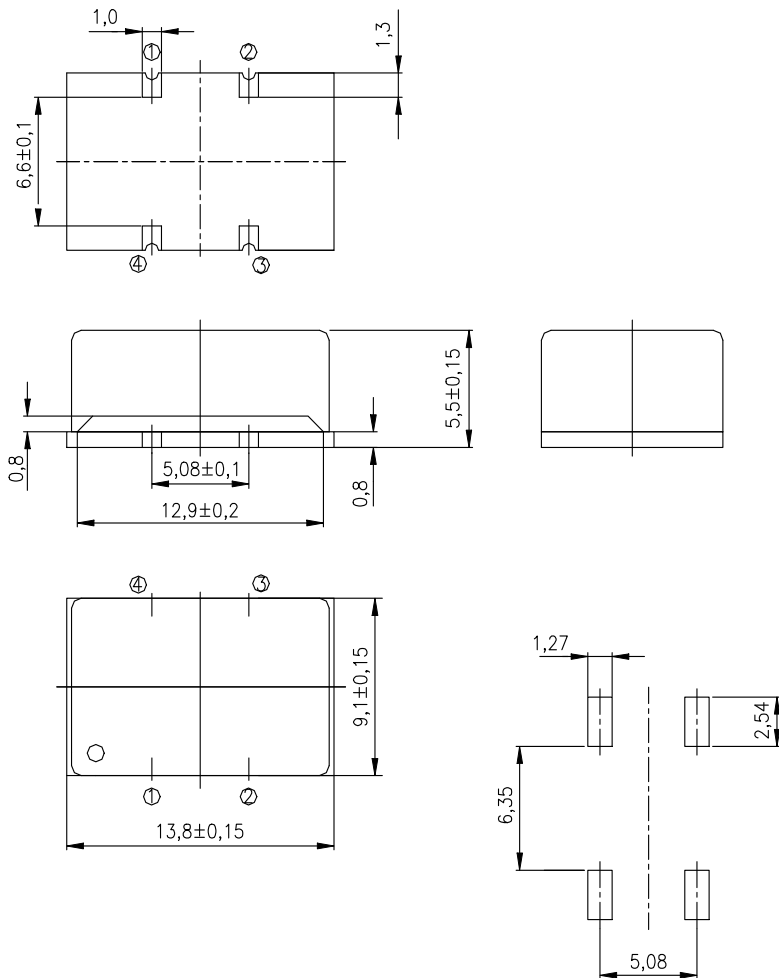
4				KVG Quartz Crystal Technology GmbH
3				P.O. Box 61
2				D-74924 Neckarbischofsheim
1		12.08.2014	Dannenmaier	Tel. +49 (0) 7263 / 648-0
ED	Description	Date	Name	Fax. +49 (0) 7263 / 6196

3. Marking

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

4. Case

Package style: BF157-5.5B



Pin configuration

1. Control voltage V_C
2. GND, case
3. RF Output
4. Supply voltage V_S

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ROHS-Compliant Product

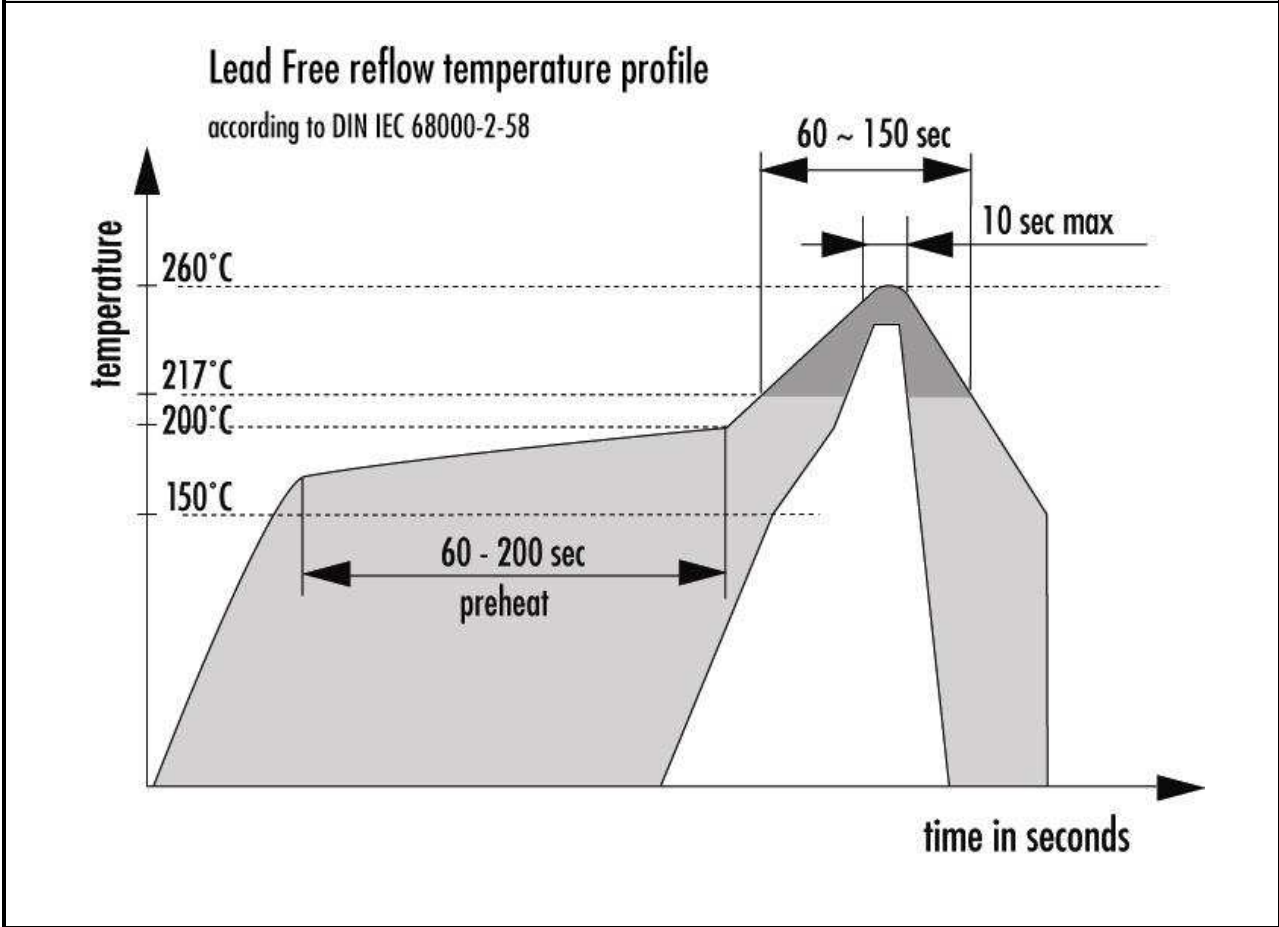
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5. ROHS Info

Moisture Sensitivity Level: 2
 Termination finish: Gold over Nickel (Au-Ni)
 Max. reflow temperature: +260 °C

6. Soldering profile



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