



ROHS-Compliant Product

O-3500 Series



1. Specification													
Frequency range :	5.0 ... 120.0 MHz												
Supply voltage V_S (nominal values $\pm 5\%$): +3.3 V: +5.0 V: +12.0 V:	A B C												
Power consumption @ 25°C: during warm-up : steady state :	≤ 3.5 W ≤ 1.5 W												
Warm-up time for a typical accuracy of $< +5 \times 10^{-8}$ @ +25°C referred to final frequency after 1 hour:	≤ 5 min												
Frequency stability vs. temperature options: ± 2.0 ppb vs. 0 °C to +50 °C : ± 3.0 ppb vs. -10 °C to +60 °C : ± 5.0 ppb vs. -20 °C to +70 °C : ± 10.0 ppb vs. -30 °C to +85 °C : ± 30.0 ppb vs. -40 °C to +85 °C :	<table border="1"> <thead> <tr> <th>Temp code</th> <th>Stability Code</th> </tr> </thead> <tbody> <tr> <td>0050</td> <td>A</td> </tr> <tr> <td>1060</td> <td>B</td> </tr> <tr> <td>2070</td> <td>C</td> </tr> <tr> <td>3085</td> <td>D</td> </tr> <tr> <td>4085</td> <td>F</td> </tr> </tbody> </table>	Temp code	Stability Code	0050	A	1060	B	2070	C	3085	D	4085	F
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Frequ.Stability vs. supply voltage changes $V_S \pm 5\%$: vs. load changes $\pm 10\%$:	$\leq \pm 5.0$ ppb $\leq \pm 1.0$ ppb												
Aging stability options (after 30 days of operation) $\leq \pm 1.0$ ppb per day & $\leq \pm 0.1$ ppm per year $\leq \pm 2.0$ ppb per day & $\leq \pm 0.2$ ppm per year $\leq \pm 0.5$ ppb per day & $\leq \pm 0.05$ ppm per year $\leq \pm 0.3$ ppb per day & $\leq \pm 0.03$ ppm per year	V U X Y												
Reference Voltage V_{REF} : in case of $V_S = 3.3$ V (Option A): in case of $V_S = 5.0$ V (Option B): in case of $V_S = 12.0$ V (Option C):	+3.0 V $\pm 5\%$ +4.0 V $\pm 5\%$ +10.0 V $\pm 5\%$												
Frequency control by ext. voltage 0 V ... V_{REF} : in case of $V_S = 3.3$ V (Option A): in case of $V_S = 5.0$ V (Option B): in case of $V_S = 12.0$ V (Option C):	$\geq \pm 0.8$ ppm *) $\geq \pm 0.8$ ppm *) $\geq \pm 1.0$ ppm *) Depends on nominal frequency												
Transfer function / linearity:	positive / 10 %												

4				KVG Quartz Crystal Technology GmbH P.O. Box 61 D-74924 Neckarbischofsheim Tel. +49 (0) 7263 / 648-0 Fax. +49 (0) 7263 / 6196
3				
2	Aging,	19.10.15	Balzer	
1		20.05.15	Dannenmaier	
ED	Description	Date	Name	



O-3500 Series

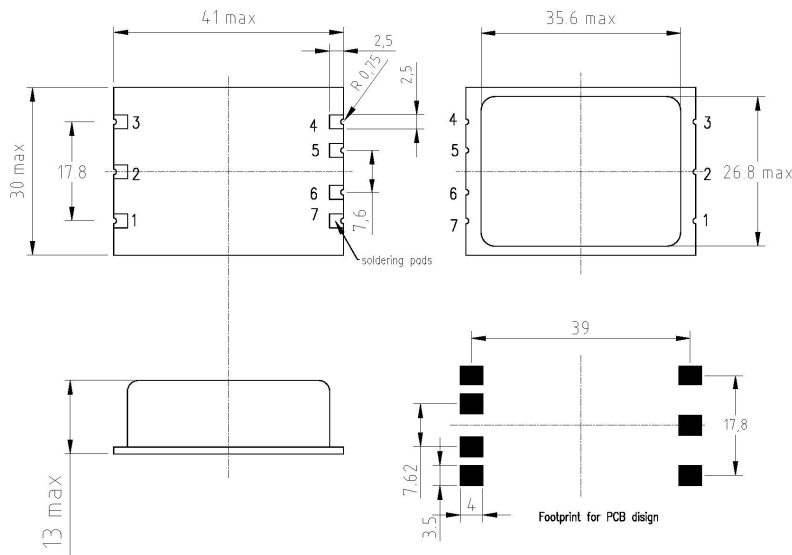


1. Specification continued								
Output signal type options:								
Output signal Option H : level: load:				(LV)HCMOS $V_{OL} \leq 10\% V_S$; $V_{OH} \geq 90\% V_S$ 1 kOhm // 15 pF				
Output signal Options S : level: load:				Sine wave ≥ 3 dBm 50 Ohm				
Phase noise (typical for 10MHz) [dBc/Hz] at offset frequency : 10 Hz 100 Hz 1 kHz 10 kHz				-110 dBc / Hz -130 dBc / Hz -145 dBc / Hz -155 dBc / Hz				
Storage temperature range:				-45 °C ... +90 °C				
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. Ordering Information								
Type Code	Package Code	Supp. Volt.	Temp. Range	Freq. Stab. f(T)	Aging f(t)	Output signal	RoHS compl.	Nominal Frequency
OCX O	36 x 27 SMD		LOW /HIGH	A,B, C, D, F	U, V, X,Y	S; H		XXX.YYY MHz
O-	35	A: 3.3 V B: 5.0 V C: 12.0 V	2070: -20 / +70 °C 4085: -40 / +85 °C	D	U	S	-LF	-10.000 MHz
Example: O-35C4085DUS-LF-10.000 MHz								

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5. Case

Case style: BF9-22-SMD



Height: $H = 22.0 \text{ mm max}$

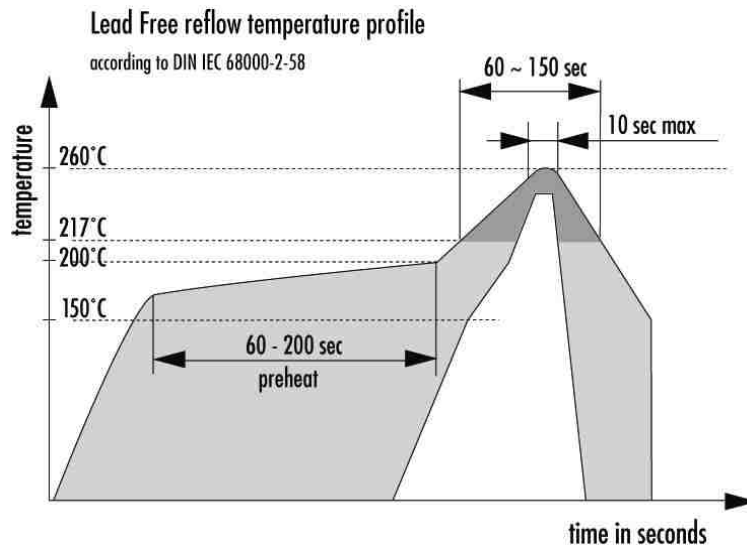
Pin configuration

1. RF output
2. N.C.
3. Ground, case
4. Reference voltage out V_{REF}
5. Control voltage input V_C
6. N.C.
7. Supply voltage V_S

Moisture Sensitivity Level: 1

RoHS-6 compliant

6. Reflow Soldering Profile



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