

## OVEN CONTROLLED CRYSTAL OSCILLATORS (OCXO)

### 9100 Series

Main applications: Communications equipment, Measuring instruments etc.

- Features: 1. Excellent aging characteristics  
 2. Wide frequency range (9168A Series)  
 3. Anti-microphonic noise (9140A-BGE71, 9140A-CEE70)

Item	Measuring Condition	Model	9161A		9150A	9150B		9140A
			Spec. Code		Q	B		C
			G000	F000	AA00	EE40	DE40	FA00
Standard Nominal Frequency (MHz)			10					25
Supply Voltage			+30VDC		+24VDC	+12VDC		
Power Consumption			45W <sup>MAX</sup>		8.5W <sup>MAX</sup>	5W <sup>MAX</sup>		1.4W <sup>MAX</sup>
Output Voltage			+10~+12dBm		0~+2dBm	1 Vrms <sup>MM</sup>		0dBm ± 1dB
Load			50 Ω			1kΩ		50 Ω
Operating Temp. Range			-55~85℃		0~50℃	-10~60℃		0~50℃
Operable Temp. Range			-62~95℃		-10~60℃	-20~70℃		-10~70℃
Frequency Stability	Short Term Stability	$\Delta f/f(2, \tau)$ 1 sec	$1 \times 10^{-10}$		$5 \times 10^{-11}$	$5 \times 10^{-10}$	$1 \times 10^{-10}$	—
	Aging	After 24H(*1) or 48H(*2) or 240H(*3) operation	$\pm 1 \times 10^{-9}/\text{day} (*2)$		$\pm 5 \times 10^{-9}/\text{day} (*2)$	$\pm 2 \times 10^{-9}/\text{day} (*1)$	$\pm 2 \times 10^{-9}/\text{day} (*1)$	$\pm 5 \times 10^{-9}/\text{day} (*2)$
			$\pm 5 \times 10^{-9}/\text{year} (*2)$		$\pm 2 \times 10^{-9}/\text{year} (*2)$	$\pm 1 \times 10^{-9}/\text{year} (*1)$	$\pm 5 \times 10^{-9}/\text{year} (*1)$	$\pm 5 \times 10^{-9}/\text{year} (*3)$
	Temp. Charact.	Temp. Range	-55~85℃		0~50℃	-10~60℃		0~50℃
		Tolerance	$\pm 1 \times 10^{-7}$	$\pm 5 \times 10^{-8}$	$\pm 2 \times 10^{-8}$	$\pm 3 \times 10^{-8}$	$\pm 1 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
	Supply Volt Change	Condition	+30V ± 5%		+24V ± 10%	+12V ± 10%		±12V ± 5%
		Specification	$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 1 \times 10^{-9}$	$\pm 2 \times 10^{-9}$	$\pm 5 \times 10^{-9}$	$\pm 2 \times 10^{-9}$
Vibration	Tot amp. 1.5 mm Freq. 10~55 Hz 3 planes/30 min each	$\pm 5 \times 10^{-9}$			$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 5 \times 10^{-9}$	
Shock	Natural Drop from 5 cm height, 3 planes/3 times each	$\pm 5 \times 10^{-9}$			$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-9}$	$\pm 5 \times 10^{-9}$	
Frequency Trim Range	By Internal Trimmer	$\pm 3 \times 10^{-3}$ MHz			$\pm 1 \times 10^{-4}$ MHz			
Case Code		61A		50A		50B	40A-1	

(mm)

NO. 61A

NO. 50A

NO. 50B

NO. 40A-1

