

# OVEN CONTROLLED CRYSTAL OSCILLATOR

## CONNECTORIZED MODEL: OXO100-1-412

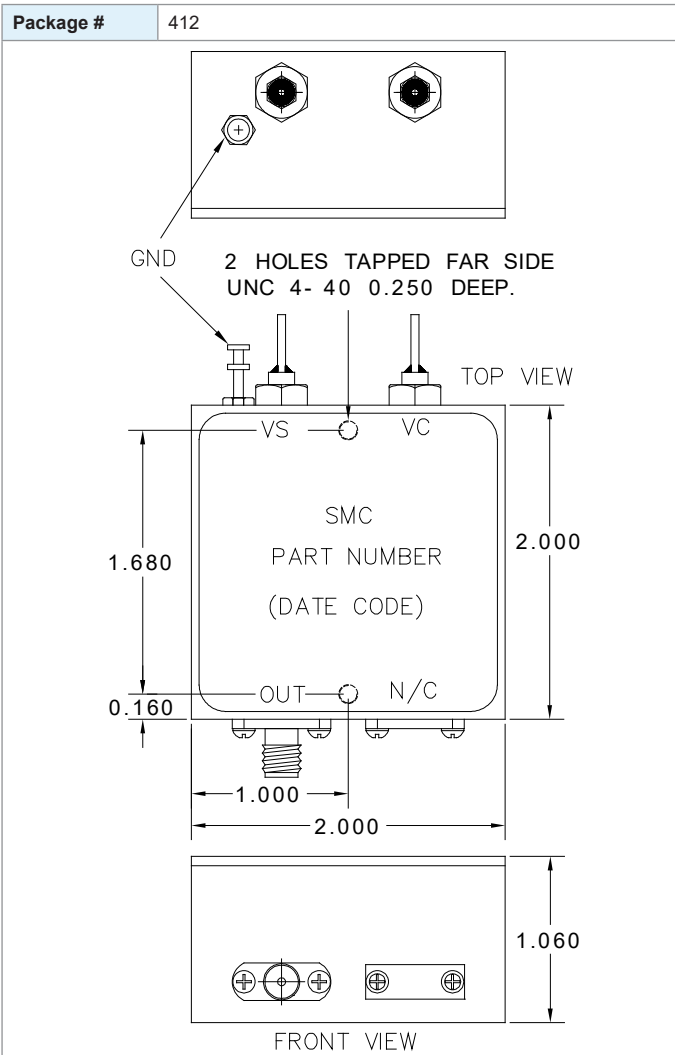
### FEATURES:

- ▶ Exceptionally Low Phase Noise
- ▶ Fast Warm-up Time
- ▶ Low Power Consumption
- ▶ Tight Frequency Stability
- ▶ Excellent Long-Term Stability
- ▶ El. Frequency Tuning Input
- ▶ Reference Voltage Output



### SPECIFICATIONS

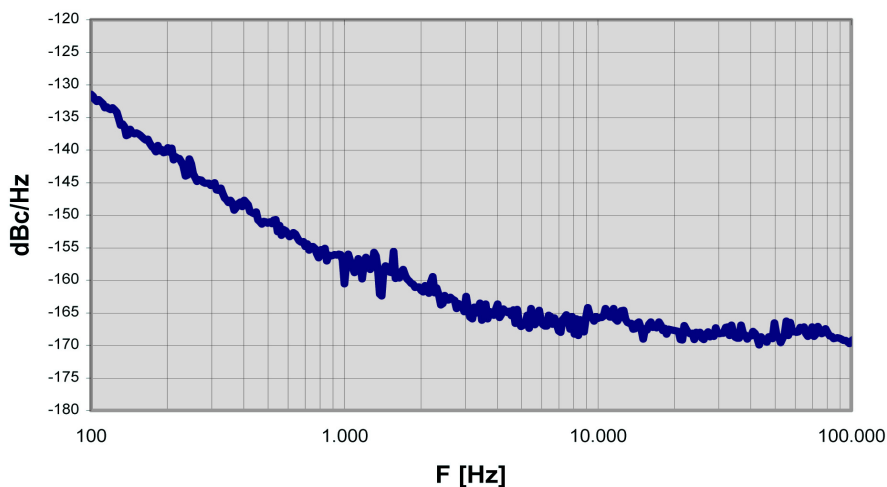
Nominal Frequency $F_N$	100.000 MHz
<b>Initial Frequency Tolerance</b>	
$T_A = +25^\circ\text{C}$ , after power on for 30 min.	$\leq \pm 2 \times 10^{-7}$
<b>Frequency Stability</b>	
Within operating range	$\leq \pm 5 \times 10^{-8}$
vs. supply voltage changes $V_s \pm 5\%$	$\leq \pm 1 \times 10^{-8}$
vs. load changes 50 Ohm $\pm 5\%$	$\leq \pm 5 \times 10^{-9}$
<b>Aging (after 30 days of continuous operation)</b>	
Per day	$\leq \pm 2 \times 10^{-9}$
Per Year	$\leq \pm 1 \times 10^{-7}$
15 Years	$\leq \pm 7 \times 10^{-7}$
<b>Frequency Tuning Range</b>	
	$\geq \pm 1.5$ ppm
<b>Tuning Voltage Range <math>V_c</math></b>	
	0 to 10 V
<b>Reference Voltage Output <math>V_{REF}</math></b>	
	+10 V $\pm 5\%$
<b>Supply Voltage <math>V_s</math></b>	
	+12.0 V $\pm 5\%$
<b>Supply Current <math>I_s</math></b>	
Steady State @ +25 °C	$\leq 150$ mA
During Warm-up	$\leq 400$ mA
<b>Warm Up Time</b>	
To $dF/F_0 < \pm 1 \times 10^{-7}$ referred to $F_0$ after 1 hour	$\leq 5$ min.
<b>Output signal type</b>	
	Sine wave
<b>Initial output level</b>	
	$\geq 7$ dBm
<b>Output load impedance:</b>	
	50 Ohm $\pm 10\%$
<b>Harmonics:</b>	
	$\leq -30$ dBc
<b>Spurious (100 Hz to 5 MHz)</b>	
	$\leq -100$ dBc
<b>Typical Phase Noise</b>	
10 Hz	-100 dBc/Hz
100 Hz	-130 dBc/Hz
1 kHz	-153 dBc/Hz
10 kHz	-165 dBc/Hz
100 kHz	-170 dBc/Hz
<b>Temperature Ranges</b>	
Operating	-40 °C ... +70 °C
Storage	-40 °C ... +85 °C



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PERFORMANCE PLOTS

Phase Noise 100.000 MHz OCXO



Frequency vs. Temp. 100.000 MHz OCXO

