

# OVEN CONTROLLED CRYSTAL OSCILLATOR

## CONNECTORIZED MODEL: OXO10-1-412

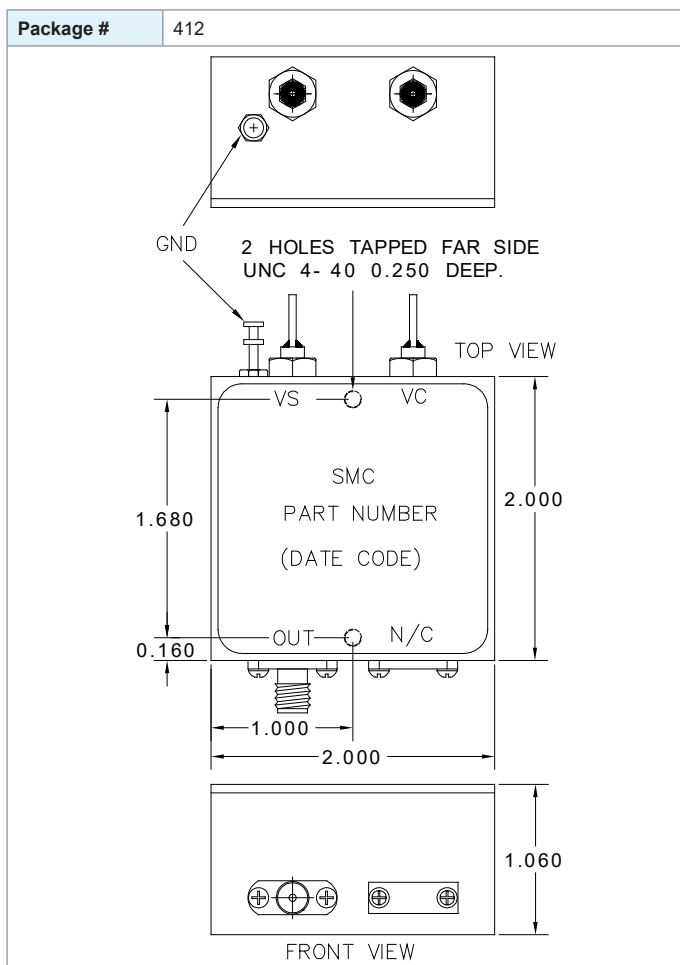
### FEATURES:

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



### SPECIFICATIONS (Rev. A 11/30/16)

Nominal Frequency $F_N$	10.000 MHz
<b>Frequency Stability</b>	
Within operating range	$\leq \pm 7 \times 10^{-9}$
vs. supply voltage changes $V_s \pm 10\%$	$\leq \pm 5 \times 10^{-10}$
vs. load changes 50 Ohm $\pm 10\%$	$\leq \pm 5 \times 10^{-10}$
<b>Aging (after 30 days of continuous operation)</b>	
Per day	$\leq \pm 5 \times 10^{-10}$
Per Year	$\leq \pm 5 \times 10^{-9}$
10 Years	$\leq \pm 3 \times 10^{-7}$
Frequency Tuning Range	$\geq \pm 4 \times 10^{-7}$
Tuning Voltage Range $V_c$	0 to 5 V
Supply Voltage $V_s$	+12.0 V $\pm 10\%$
<b>Supply Current <math>I_s</math></b>	
Steady State @ +25 °C	$\leq 200$ mA
Steady State @ +40 °C	$\leq 500$ mA
During Warm-up	$\leq 600$ mA
<b>Warm Up Time</b>	
To $dF/F_0 < \pm 5 \times 10^{-9}$ referred to $F_0$ after 1 hour	$\leq 10$ min.
Output signal type	Sine wave
Initial output level	$\geq +3$ dBm
Output load impedance:	50 Ohm
Harmonics:	$\leq -30$ dBc
<b>Typical Phase Noise</b>	
10 Hz	-130 dBc/Hz
100 Hz	-150 dBc/Hz
1 kHz	-155 dBc/Hz
10 kHz	-165 dBc/Hz
100 kHz	-165 dBc/Hz
<b>Temperature Ranges</b>	
Operating	-40 °C ... +75 °C
Storage	-40 °C ... +85 °C



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PERFORMANCE PLOTS

Phase Noise 10 MHz High Performance OCXO

