

OVEN CONTROLLED CRYSTAL OSCILLATOR

CONNECTORIZED MODEL: OXO10-1-412

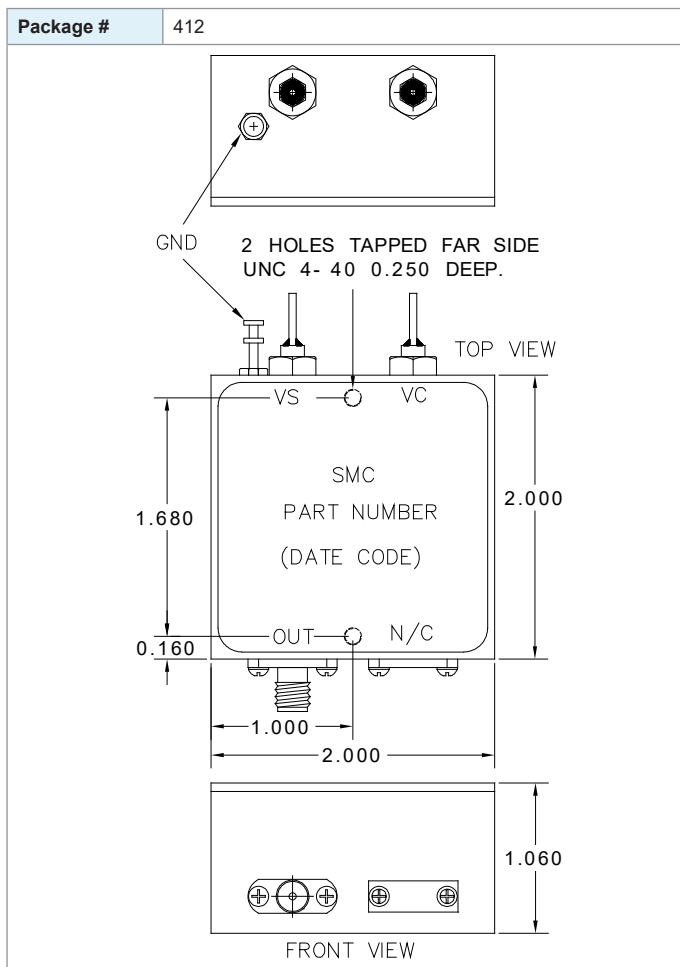
FEATURES:

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



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

| | |
|---|------------------------------|
| Nominal Frequency F_N | 10.000 MHz |
| Frequency Stability | |
| 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 $\pm 10\%$ | $\leq \pm 5 \times 10^{-10}$ |
| Aging (after 30 days of continuous operation) | |
| Per day | $\leq \pm 5 \times 10^{-10}$ |
| Per Year | $\leq \pm 5 \times 10^{-8}$ |
| 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 $\pm 10\%$ |
| Supply Current I_s | |
| Steady State @ +25 °C | ≤ 200 mA |
| Steady State @ +40 °C | ≤ 500 mA |
| During Warm-up | ≤ 600 mA |
| Warm Up Time | |
| To $dF/F_0 < \pm 5 \times 10^{-8}$ referred to F_0 after 1 hour | ≤ 10 min. |
| Output signal type | Sine wave |
| Initial output level | $\geq +3$ dBm |
| Output load impedance: | 50 Ohm |
| Harmonics: | ≤ -30 dBc |
| Typical Phase Noise | |
| 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 |
| Temperature Ranges | |
| Operating | -40 °C ... +75 °C |
| Storage | -40 °C ... +85 °C |



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PERFORMANCE PLOTS

Phase Noise 10 MHz High Performance OCXO

