



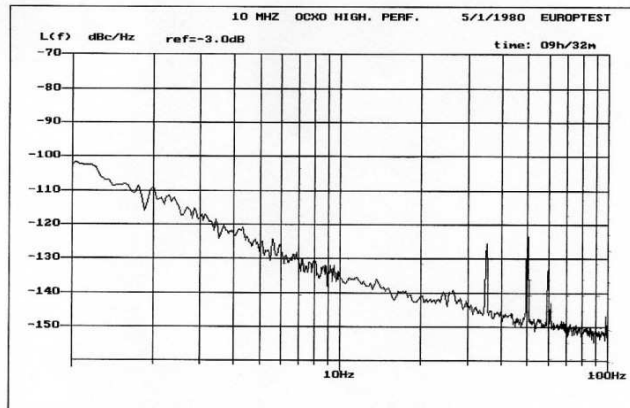
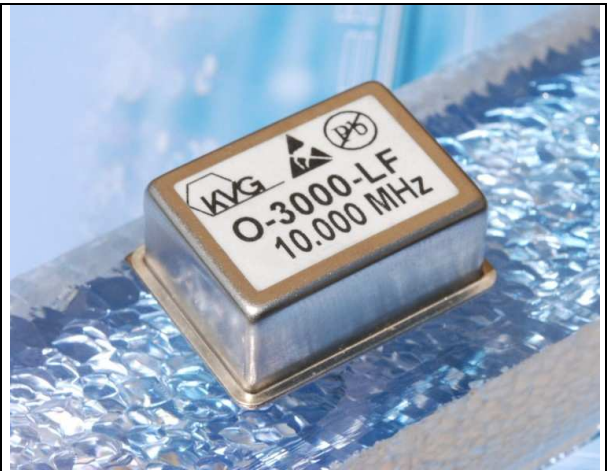
ROHS-Compliant Product

NWO.30.801216-LF



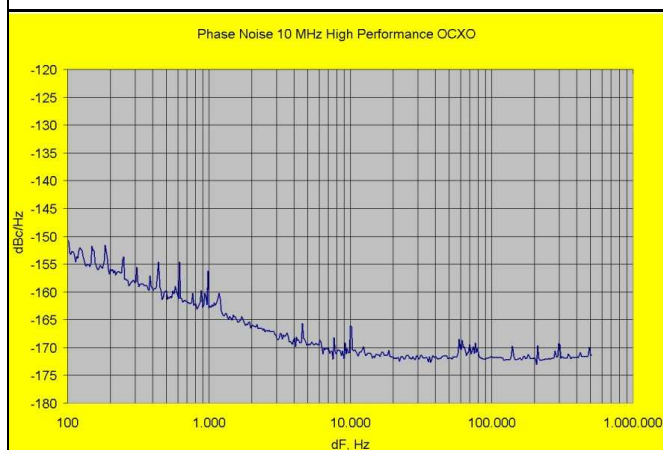
Description:

O.30.801216-LF is a 10 MHz high performance 'Oven Controlled Crystal Oscillator' (OCXO) offering exceptional low phase noise and tight frequency stability. The part comes in a robust but still small hermetically sealed CO8 metal can package what makes it also suitable for humid environmental conditions.



FEATURES:

- Small CO-8 package
- Fast Warm-up Time
- Low Power Consumption
- Tight Frequency Stability
- Excellent Long-Term Stability
- Very Low Phase Noise
- El. Frequency Tuning Input
- Reference Voltage Output
- RoHS-Compliant (lead-free)



APPLICATIONS:

- Instrument Reference
- Microwave Communication
- Clock Reference for Microwave Signal Source
- Test & Measurement
- Telecom Systems



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1. Specification	
Nominal frequency:	10.000 MHz
Frequency stability in the temperature range -40 °C to +85 °C: vs. supply voltage changes $V_S \pm 10\%$: vs. load changes 50 Ohm $\pm 10\%$:	$< \pm 7 \times 10^{-9}$ $< \pm 5 \times 10^{-10}$ $< \pm 5 \times 10^{-10}$
Long term stability after 30 days of operation: per day: per year: within 10 years:	$\leq \pm 5 \times 10^{-10}$ $\leq \pm 5 \times 10^{-8}$ $\leq \pm 3 \times 10^{-7}$
Short term stability (Allan Deviation for tau = 1 s):	$\leq 5 \times 10^{-12}$
Frequency control range by external voltage:	$\geq \pm 4 \times 10^{-7}$
Frequency control voltage V_C range:	0 to +5 V
Reference Voltage output V_{REF} :	+5 V $\pm 5\%$
Supply voltage V_S :	+12 V $\pm 10\%$
Current consumption at steady state @ +25 °C: @ -40 °C: Peak current consumption during warm-up:	≤ 200 mA ≤ 500 mA ≤ 600 mA
Warm up time @ +25 °C to $dF/F_0 \leq \pm 5 \times 10^{-8}$: (referred to F_0 after 1 hour)	≤ 10 min
Output signal: Level: Load: Harmonics:	Sine wave $\geq +3$ dBm 50 Ohm ≤ -30 dBc
Phase noise: 10 Hz: 100 Hz: 1 kHz: 10 kHz: 100 kHz:	≤ -130 dBc/Hz ≤ -150 dBc/Hz ≤ -155 dBc/Hz ≤ -165 dBc/Hz ≤ -165 dBc/Hz
Temperature ranges Operating: Storage:	-40 °C ... +85 °C -40 °C ... +85 °C



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2. Environmental conditions

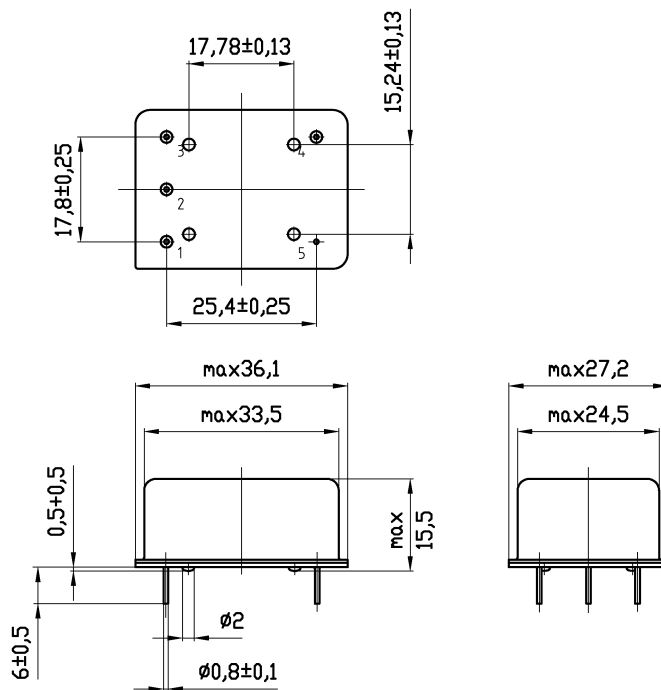
According to KVG Product Qualification Procedure AA-QM-200

3. Marking

Manufacturer's name, Date code (week/year);
Specification;
Center frequency

4. Case

Case style: BF9-IS-S-15.5



max. height incl. stand-offs: 15.5 mm

1. Pin configuration

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