



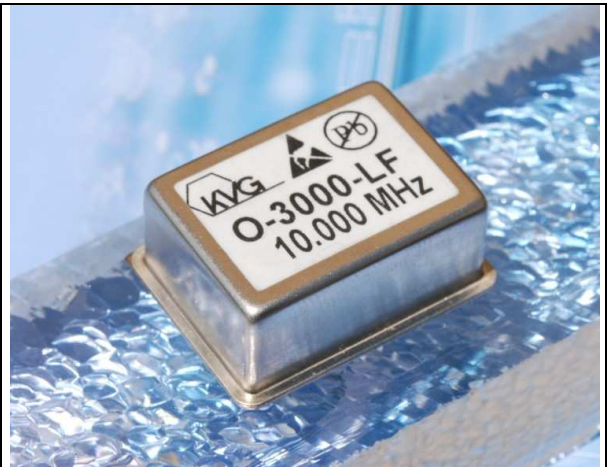
ROHS-Compliant Product

O.30.803954-LF



Description:

O.30.803954-LF is a 10.000 MHz high performance 'Oven Controlled Crystal Oscillator' (OCXO) offering exceptional low phase noise **LPN** 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. Low G-Sensitivity **LGS** makes it a preferred part for any vehicle mounted application.



APPLICATIONS:

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

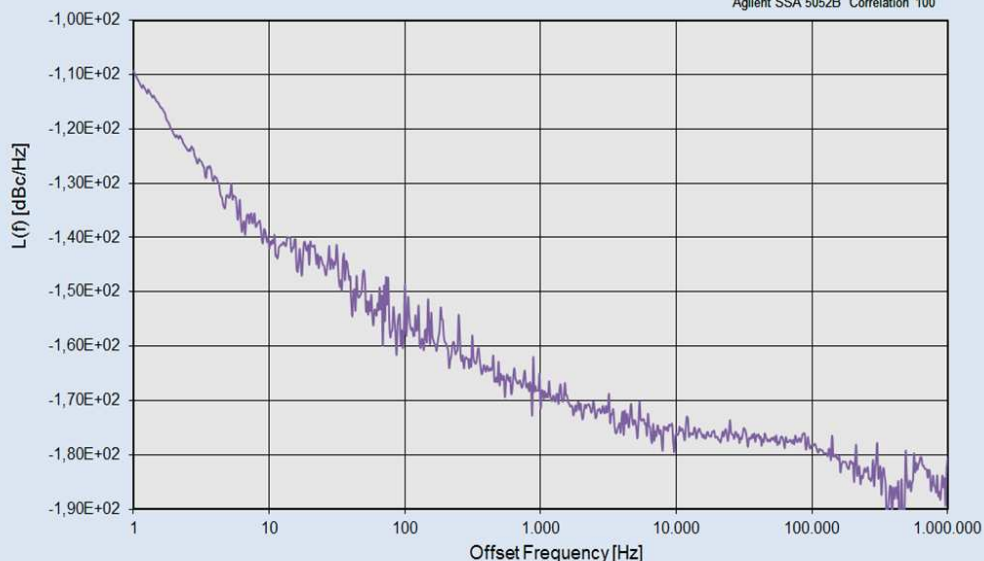
FEATURES:

- Small CO-8 package
- Fast Warm-up Time
- Tight Frequency Stability
- Excellent Long-Term Stability
- Very Low Phase Noise
- Low G-Sensitivity
- El. Frequency Tuning Input
- Reference Voltage Output



Phase Noise VLPN/LGS OCXO 10.000 MHz

Agilent SSA 5052B Correlation 100



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O.30.803954-LF**1. Specification (preliminary)****Test conditions: $V_S = +12\text{ V}$; $V_C = +5.0\text{ V}$; $T_A = +25\text{ °C}$ except when otherwise stated**

Nominal frequency F_N :	10.000 MHz	
Frequency stability in the temperature range -20 °C to +70 °C: vs. supply voltage changes $V_S \pm 5\%$: vs. load changes 50 Ohm $\pm 5\%$:	$\leq \pm 5 \times 10^{-8}$ $\leq \pm 1 \times 10^{-9}$ $\leq \pm 1 \times 10^{-9}$	
Long term stability (aging) after 30 days of continuous 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 $\tau = 1\text{ s}$): (after 24 h of continuous operation)	$\leq 2 \times 10^{-12}$ typ.	
Frequency control range by external voltage: (referred to nominal frequency F_N)	$\geq \pm 4 \times 10^{-7}$	
Frequency control voltage V_C range:	0 to +10 V	
Reference Voltage output V_{REF} :	+10 V $\pm 5\%$	
Supply voltage V_S :	+12 V $\pm 5\%$	
Current consumption at steady state @ +25 °C: Peak current consumption during warm-up:	$\leq 150\text{ mA}$ $\leq 500\text{ mA}$	
Warm up time @ +25 °C to $dF/F_0 \leq \pm 1 \times 10^{-7}$: (referred to F_0 after 1 hour)	$\leq 10\text{ min}$	
Output signal type: Level: Load: Harmonics: Spurious:	Sine wave $\geq +9\text{ dBm}$ 50 Ohm $\leq -30\text{ dBc}$ $\leq -80\text{ dBc}$	
Phase noise: 1 Hz: 10 Hz: 100 Hz: 1 kHz: 10 kHz: 100 kHz:	<u>Typ.</u> $\leq -115\text{ dBc/Hz}$ $\leq -145\text{ dBc/Hz}$ $\leq -160\text{ dBc/Hz}$ $\leq -168\text{ dBc/Hz}$ $\leq -172\text{ dBc/Hz}$ $\leq -173\text{ dBc/Hz}$	<u>Max.</u> $\leq -110\text{ dBc/Hz}$ $\leq -140\text{ dBc/Hz}$ $\leq -155\text{ dBc/Hz}$ $\leq -165\text{ dBc/Hz}$ $\leq -170\text{ dBc/Hz}$ $\leq -170\text{ dBc/Hz}$
G-Sensitivity (2g tipover) each axis:	$\leq 1 \times 10^{-9}/g$	
Temperature ranges Operating: Storage:	-20 °C ... +70 °C -40 °C ... +85 °C	

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ED	Description	Date	Name	Fax. +49 (0) 7263 / 6196



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2. Environmental conditions

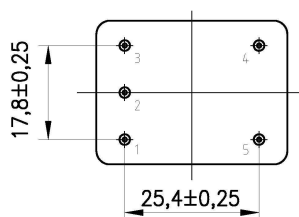
According to KVG Product Qualification Procedure AA-QM-200

3. Marking

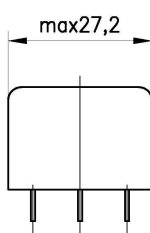
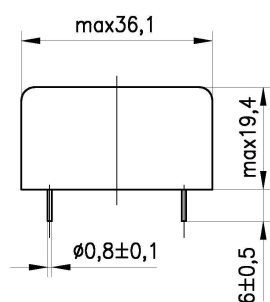
Manufacturer's name, Date code (week/year);
Specification;
Center frequency

4. Case

Case style: BF9-IS-19.4



IEC49(C0)188
DIN IEC49(C0)188:C0-08



max. height incl. stand-offs: 20.5 mm

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

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