LOXIM Launches Cutting-Edge Solution for Vibrating Mesh Nebulizer with Chip (LX8201-0B)

SHENZHEN, CHINA, March 7, 2025 /EINPresswire.com/ -- Recently Shenzhen Loxim Technologies Co., Ltd. (LOXIM) has unveiled its latest innovation, the LX8201-0B chip, a dedicated drive solution for vibrating mesh nebulizer. It brings breakthrough to industry of liquid atomization applications/devices, delivering enhanced performance and cost efficiency.

Technology Innovations and Features

The LX8201-0B chip targets two pain points, well-known by electronic engineers:
1. Inconsistent Atomization Performance: Traditional circuits suffer from parameter variations of discrete component, leading to unstable atomization output.
2. Mismatch of Resonant Frequency: Existing frequency-sweeping approach fails to precisely track the resonant frequency shifts of piezoelectric ceramic plates during operation.

LOXIM's solution integrates proprietary hardware design and software algorithms, to eliminate parameter fluctuations and dynamically align driving signals with real-time resonant frequencies. The chip supports a 108±4 kHz driving frequency, which covers 95% of nebulizer devices using vibrating mesh in the market.

Performance and Cost Benefits

Field tests from internal lab and initial customer data demonstrate significant improvements:
- 20% Higher Consistency: Uniform atomization output across diverse operating conditions.

- 30% Power Reduction: Optimized frequency matching minimizes energy waste.
- 20% Cost Savings: Simplified circuit design reduces reliance on discrete components, lowering BOM costs.

A demonstration circuit board developed by LOXIM highlights these advancements, featuring a compact layout with integrated boost conversion and atomization control modules. With this one-stop solution of chip, it not only enhances performance but also help on cost saving and energy efficiency. The chip’s ultra-low standby current (<20μA) makes it ideal for battery-powered portable devices.

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