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**FOR IMMEDIATE RELEASE**

**Jackson Labs Technologies, Inc. delivers low-cost ultra-stable frequency reference for the LTE (UMTS) market.**

*“LC\_1x1” is a low-cost Rubidium Frequency Reference Replacement module with very high holdover stability*



**Los Gatos, Calif., October 26<sup>th</sup>, 2011** – Jackson Labs Technologies, Inc, a designer and manufacturer of cutting-edge frequency and timing equipment, today announced the availability of its breakthrough product LC\_1x1, a 10MHz Frequency and Timing Reference. LC\_1x1 is an extremely small Global Positioning System Disciplined Oscillator (GPSDO) that has been designed for cost-sensitive LTE applications. LC\_1x1 is backwards compatible to the popular Jackson Labs Technologies, Inc. FireFly-IIA GPSDO, designed to meet stringent LTE holdover specifications that previously required Rubidium references.

At only 1.6 x 1.9 x 0.8 Inches small, LC\_1x1 provides Stratum-1 long-term performance of typically better than 1 parts per Trillion (1E-012) averaged over 24 hours. LC\_1x1 is available in a low-profile (0.63 inches high) single-oven oscillator version, or a higher performance double-oven oscillator version. The total height of only 0.63 inches allows integration into legacy



applications such as VME enclosures. Both versions support a very wide -40C to +85C operating temperature range with better than +/-5ppb stability over temperature while consuming less than 2.3W at room temperature. The LC\_1x1 GPSDO has a built-in 50-channel GPS receiver with WAAS/EGNOS/MSAS support and -160dBm tracking capability, and works with passive as well as active GPS antennae.

LC\_1x1 provides an OCXO-sourced low-jitter 1PPS LVDS or CMOS output that has a stability of better than 30ns rms (typ. <10ns rms), and a high-accuracy LVDS or CMOS 10MHz Output. The unit can be monitored and controlled by an RS-232 port via standard SCPI Commands, and generates various standard GPS NMEA-0183 output sentences for easy integration into existing infrastructure. The LC\_1x1 board is designed to be soldered into a customer's PC board as a through-hole component, and can also be mounted in a socket. The LC\_1x1 GPSDO features a phase noise floor of -155dBc/Hz.

LC\_1x1 is also available with a ruggedized, extended temp range, low-g sensitivity option for military applications. The LC\_1x1 GPSDO is supported out-of-the-box by various industry-standard software and freeware applications such as GPSD, GPSCon, and Z38xx which provide NTP, SNTP, graphing, and command and control functionality.

Jackson Labs Technologies, Inc. President Said Jackson noted that the LC\_1x1 is an especially good fit for high-volume LTE applications: "The LC\_1x1 GPSDO was specifically designed to meet the conflicting requirements for LTE reference applications requiring low cost, high holdover capability, extended temperature range, low-power, high thermal-stability, and low physical height. LC\_1x1's very high holdover performance that rivals that of Rubidium references allows network operators to respond to system failures with more than 48 hours response time, reducing service costs."

**About Jackson Labs Technologies, Inc.:**

Located in Los Gatos, CA, Jackson Labs Technologies, Inc. is a privately held company that is setting new standards in timing and frequency generation for the engineering, test & measurement, broadcast, defense, and research markets.

To learn more, visit [www.jackson-labs.com](http://www.jackson-labs.com).