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FOR IMMEDIATE RELEASE

Jackson Labs Technologies, Inc. delivers the Mini-PCIe LTE-Lite™ module, an embedded GPS-Disciplined Frequency Standard

The "Mini-PCIe LTE-Lite™" is the first true GPS-Disciplined high-precision Timing, Frequency, Position, and Velocity reference in an industry-standard Mini-PCIe form-factor.



Las Vegas, NV, April 9th, 2015 – Jackson Labs Technologies, Inc, a designer and manufacturer of cutting-edge GPS, timing and frequency equipment, today announced the availability of the industry's very first Mini-PCIe GPS-Disciplined Oscillator (GPSDO). The Mini-PCIe module supports nanosecond timing for NTP, SNTP, GPSD, PTP/1588 and other industry-standard applications and is suited for mission-critical financial transaction timing, and any other application requiring a high-precision timing, frequency, and position reference.

The Mini-PCIe Frequency and Timing module has an integrated 65-channel GPS receiver with WAAS, QZSS, and SBAS support, filtered power supplies, and a software-disciplined ultra-stable crystal oscillator designed into an industry-standard Mini-PCIe form-factor. The Mini-PCIe module uses true analog crystal disciplining for superior phase noise, Allan Deviation (ADEV), and jitter performance on its on-board 20MHz and 1PPS CMOS outputs.

The Mini-PCIe module provides better than one part per billion (1ppb) frequency accuracy and better than 10 nanoseconds timing accuracy on average in a Mini-PCIe form factor that can be integrated into servers, embedded PC's, tablets, and notebook computers, and can also be externally connected to any computer via a standard USB cable with the support of a standard Mini-PCIe to USB adaptor.

The Mini-PCIe module includes a latest generation 65 channels GPS receiver with WAAS, EGNOS, MSAS, and QZSS support with indoor-GPS reception capability. The unit is available with standard frequency choices such as 2.048MHz, 5MHz, 10MHz, 19.2MHz, 20MHz (nominal), 26MHz, 30.72MHz, 40MHz and others and provides a 1PPS (pulse per



second) output through the Mini PCIe connector as well as dedicated CMOS 1PPS and LOCK-OK outputs. The Mini-PCIe module also includes a synthesized CMOS frequency output that can generate one of seven selectable frequencies that are phase-locked to the crystal oscillator and can range from 2.048MHz to 90MHz.

The Mini-PCIe module provides better than 1E-012 (one part per trillion) frequency accuracy averaged over 24 hours with GPS lock, and provides better than 25ppb typical frequency accuracy over 24 hours in holdover (flywheel) mode when GPS signals are not available. It provides time and date information to the PC-internal clock with 25ppb/24Hrs typical accuracy during periods without GPS reception, allowing transaction time-stamping with sub microsecond accuracy over prolonged periods of time even without GPS reception.

The Mini-PCIe module provides a number of standard GPS NMEA serial output sentences on its integrated COM port for easy software integration and access to the Position, Time, and Velocity (PVT) data as well as oscillator lock and health status information. No software is required to operate the unit, making it as easy to use as plugging the module into a PC and monitoring the integrated LOCK-OK CMOS output to indicate the unit is ready. The Mini-PCIe module can also be plugged into industry-standard servers that do not have integrated Mini-PCIe slots by using a standard PCIe to Mini-PCIe adaptor card.

When integrated into a typical PC, the Mini-PCIe modules' internal oscillator has an exceptionally low spur and phase noise performance of -92dBc/Hz at 10Hz offset and a noise floor of less than -155dBc/Hz allowing the unit to directly control RF transceivers as well as baseband processors without any additional phase noise or spur filtering being required.

Mini-PCIe GPSDO module samples ship from stock, and are priced at \$220 each.

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About Jackson Labs Technologies, Inc.:

Located in Las Vegas, NV, Jackson Labs Technologies, Inc. is a privately held company that is setting new standards in timing and frequency generation for the telecom, defense, engineering, test & measurement, broadcast, and research markets. Jackson Labs Technologies, Inc.: The Next Generation of Timing & Frequency. To learn more, visit www.jackson-labs.com.