



Instruments, Inc.

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For Immediate Release

Model LPO30, a 30MHz Locking Programmable Oscillator.

NOVATECH INSTRUMENTS, INC. is pleased to introduce the LPO30 30MHz Locking Programmable Oscillator Module.

The LPO30 is a small (60mm by 60mm) module that locks to a user supplied reference frequency and is customer programmed to generate a low noise sine wave output from 1 μ Hz to 30MHz. The LPO30 combines a digital phase locked loop (DPLL) with a 48-bit DDS ASIC, enabling the output to be programmed in exact 1 μ Hz steps with no fractional frequency error. The LPO30 tracks the accuracy and stability of the reference, while the DPLL filters jitter from the reference signal.

Accepting any frequency from 8kHz to 19.44MHz in steps of 8kHz, the LPO30 can use standard telecom sources as references, such as 1.544MHz (T1), 2.048MHz (E1), 4.096MHz, 1MHz, 5MHz, and 10MHz. This makes the LPO30 ideal for recovery of noisy reference clocks and redistributing them. The LPO30 is a ready-made solution for systems that require several different precision frequencies. The user can select one precision master oscillator, such as a Cesium, Rubidium, or Quartz Oven at a standard frequency, and use the LPO30 to generate the other non-standard frequencies. This eliminates the need to purchase expensive long lead-time custom oscillators.

The LPO30 can be programmed to operate in a free-run mode. In this configuration the LPO30 uses its internal temperature compensated crystal oscillator without requiring a reference input, while still maintaining an accuracy of ± 2 ppm.

Programming of LPO30 consists of sending simple serial commands via an asynchronous two-wire interface (RS232 at TTL levels). The programmed settings can be permanently stored in non-volatile EEPROM memory. This permits pre-programmed LPO30s to be embedded into systems as a stand-alone component. The LPO30 can be programmed within the embedded application over the same interface.

To support testing and development, NOVATECH INSTRUMENTS, INC. offers the LPO30 EVAL kit consisting of an LPO30, a carrier board for mounting the LPO30, BNC connectors for Reference Input and Sinewave Output, an AC line adapter and an enclosure, along with WindowsTM-compatible PC software. The carrier board contains buffer amplifiers, filters, a power supply and RS232 serial drivers. The LPO30 sells for \$275 in quantities of 100 units, while the LPO30 EVAL kit is \$995.

See the complete details on our web site: <http://www.novatech-instr.com/>

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enclosed: LPO30 and LPO30 EVAL photos, Data Sheet and Price List.

Photo (LPO30): <http://www.novatech-instr.com/images/lpo30.jpg/>
Photo (LPO30 EVAL): <http://www.novatech-instr.com/images/lpo30ev.jpg/>
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