

LS7211N, LS7212N, LS7215, LS7216 PRESS RELEASE

PROGRAMMABLE DIGITAL DELAY TIMER ICs

LSI/CSI announces the addition of four new devices to its family of Programmable Digital Delay Timers. Designated **LS7211N**, **LS7212N**, **LS7215** and **LS7216**, these ICs provide delay times programmable from microseconds to days using 8 Binary-Weighted Delay bits. An external clock or oscillator can be used as the time base for these ICs. The on-chip oscillator for **LS7211N**, **LS7215** is controlled by an external RC while the on-chip oscillator for the **LS7212N**, **LS7216** is controlled by an external crystal.

The ICs can be operated in either of **4 Operating Modes**:

1. One-Shot
2. Delayed Operate
3. Delayed Release
4. Dual Delay.

Selectable prescalers are available to generate delays in units of minutes from 50Hz / 60Hz frequency sources (**LS7211N**, **LS7215**) and delays in units of seconds or minutes from a Watch Crystal (**LS7212N**, **LS7216**).

According to Pete Visconti, LSI/CSI's VP of Sales and Marketing, the ability of **LS7215** and **LS7216** to latch Binary-Weighted Delay bits from a shared 8-bit Bus opens up applications for these ICs to be used in a wide range of uC based systems. Typical applications include Time Delay Relays for Medical Equipment, HVAC, Automotive, Security Systems, Lighting Controls, etc.

Providing added flexibility, the **LS7215** and **LS7216** have an Open-Drain Output in addition to the standard push-pull Output available on the **LS7211N** and **LS7212N**. This added output allows the IC to direct drive a Relay coil returned to the same voltage as the chip VDD or, using one external transistor, the IC can control a Relay coil returned to a voltage as high as 110V with a chip VDD as low as 3V. The push-pull Output can be used to light an LED to indicate that the Relay coil is energized.

Other features include:

- Wide Operating voltage range: 3V to 18V
- Low Current Drain
- Direct drive of Relays
- Triggered input for delay initiation
- Reset Input for Delay abort

LS7211N and **LS7212N** are available in 18-Pin DIP and SOIC packages.

LS7215 and **LS7216** are available in 20-Pin DIP and SOIC packages.