

Microchip Technology announces serial EEPROM family on new single I/O bus

UNI/O memory devices are the first single I/O EEPROMs to support any data rate from 10 - 100 KHz; The only 1 - 16K EEPROMs available in 3-pin SOT-23 package

New Delhi, Delhi, May 6, 2008 /[India PRwire](#)/ -- Microchip Technology Inc., a leading provider of microcontroller and analog semiconductors, has announced a new 10-member family of serial EEPROM devices with a single I/O bus interface. The devices are based upon Microchip's patent-pending UNI/O memory-device protocol (refer to USPTO patent number 7,376,020; to be issued on May 20, 2008). The 11XX010, 11XX020, 11XX040, 11XX080 and 11XX160 are the first single I/O EEPROM devices that can support any data rate from 10 kHz to 100 kHz; and the only 1 Kbit, 2 Kbit, 4 Kbit, 8 Kbit and 16 Kbit EEPROMs available in a 3-pin SOT-23 package (in addition to other higher pin count packages). With their powerful combination of features and small-footprint packages, the devices and bus are well positioned to help designers reduce system size and cost.

The UNI/O bus and EEPROM devices were developed in response to market trends toward smaller consumer-electronic products with more features and functionality. With this new bus, only one I/O port is needed for communication between the EEPROM device and the microcontroller (MCU). As a result, a smaller MCU can be used, which reduces overall design size. Additionally, a smaller MCU means that smaller connectors can be used - a single I/O reduces the number of signals needed for communication with the EEPROM - which enables the use of a lower pin count connector.

"Microchip has over 30 years of knowledge and experience in serial non-volatile memory products, which we used to design an entirely new EEPROM family that is smaller and more versatile than any other EEPROM devices on the market," said Randy Drwinga, vice president of Microchip's Memory Products Division. "As we saw the need for mainstream serial EEPROM devices that only required a single I/O port for communication, we developed both the UNI/O memory devices and a new single I/O bus protocol to make this new product family a reality."

The UNI/O memory devices' small size and smallest possible I/O resource usage should not be mistaken for lower technology. These devices include advanced features previously only found on larger or more expensive devices, including status registers; software write protection for ¼, ½ or full array; noise filtering, and robust ESD protection for the highest reliability.

With the ability to track the host MCU's serial data rate over the range of 10 kHz to 100 kHz, most clock frequencies used by the MCU can be supported. Evaluation is simplified because the UNI/O memory devices are available in 8-pin packages with pin-outs that overlay any standard I2C or SPI EEPROM socket. This means that a customer's existing hardware can be used with the available UNI/O software drivers for a quick test.

Key applications for the UNI/O memory devices include portable/handheld and battery-powered devices in the **Automotive** (air bags, sensors and anti-lock brake systems); **Medical** (glucose test-strip calibration and various patient-monitoring devices); **Consumer Electronic** (printer cartridges, rechargeable batteries and PC Cards); and **Industrial** markets (portable instrumentation and data loggers), among others.

Development Support

The UNI/O memory devices are supported by the new MPLAB Starter Kit for Serial Memory Products (Part # DV243003) and the MPLAB PM3 Universal Device Programmer (Part # DV007004). These products are available today, at <http://www.microchipdirect.com/>.

Additionally, software drivers are available for Microchip's PIC MCUs today, at <http://www.microchip.com/>. Drivers for other popular MCUs are expected to be available in the future.

Part Numbers, Packaging, Pricing & Availability

The 1 Kbit through 16 Kbit devices are offered in two versions - the 11LCXX0 versions operate from 2.5V to 5.5V,

and the 11AAXX0 versions operate from 1.8V to 5.5V. All of the 11XX010, 11XX020, 11XX040, 11XX080 and 11XX160 memory devices are available in 3-pin SOT-23 packages; as well as 8-pin PDIP, MSOP, SOIC and 2 x 3 mm TDFN packages.

Samples of the 11XX160 EEPROM devices are available today at <http://sample.microchip.com/>, and volume-production quantities of these devices can be ordered today at <http://www.microchipdirect.com/>. Samples of the 11XX010, 11XX020, 11XX040 and 11XX080 devices are expected to be available at <http://sample.microchip.com/> in June, and volume-production quantities can be ordered in June at <http://www.microchipdirect.com/>.

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