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Newsletter 06/2010

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welcome to the June 2010 issue of ROHM Semiconductor Email Newsletter. If you want to change your contact details or if you do not want to receive the Newsletter anymore please use the link at the end of this page.

BD26502: Dot Matrix LED Driver (7x17)

Easily enable colourful illumination and information display

BD26502GUL is a Matrix LED Driver, that can control 7x17 (119 dots) LED Matrices by internal 7-channel PMOS high side switch and 17 channel constant current circuit. Together with the integrated division control circuit and the pattern generator this enables the user to do an easy configuration of a text, character or illumination display without increasing the load of the microcontroller, connected via SPI or I2C interface. With BD26502 it is fast and easy to integrate information and illumination functionality to mobile phones, home appliances and other consumer devices.

The built-in 13-pattern generator with slope function significantly reduces the load of the microcontroller. All dots can be selected randomly. It is compatible with both single- and full-color LEDs for illumination.

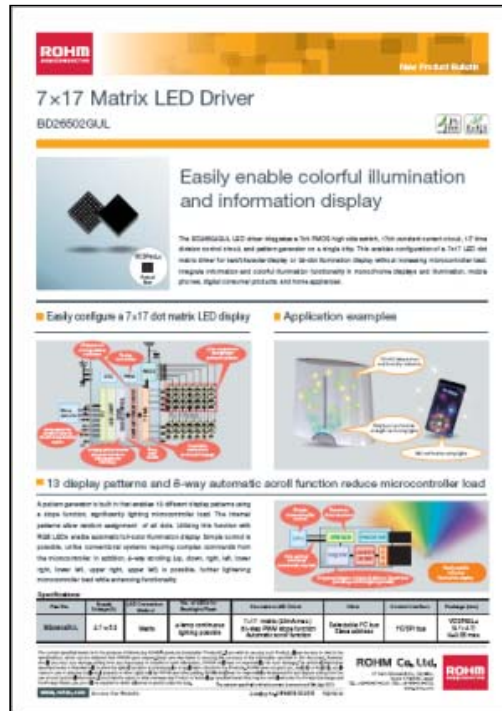
A more detailed pattern generation using a microcontroller is also possible. In addition, 8-way automatic scrolling (up/down/right/left/upper right/lower right/upper left/lower left) can be configured, further lightening microcontroller load. If more than 119 dots are required you can easily expand the number by using more than one driver due to its built-in synchronous function.

Only one external component (resistor) is required for setting the maximum current (unlike conventional solutions that need a reference voltage filter capacitor and oscillator frequency-setting capacitor). Together with the small package, the result is a smaller board size and more simple design.

Some of the key features are:

- * Max. 7×17 matrix display possible
- * Monochrome 119 dots, Color (RGB) 39 dots
- * Integrated pattern generator (13 patterns per dot) and 7×17 two-page RAM (to reduce MCU load)
- * Automatic Slope function (cycle time, slope time can be set for each dot)
- * 8-way scroll function
- * Brightness control (individual on/off control via 16-step DAC (0-20mA), 64-step PWM control)
- * Only one external component (resistor) is required (to set max. current)
- * Thin, compact WL-CSP (VCSP50L4: 4.1 × 4.1 × 0.55mm max.)

 [More Information on www.rohmeurope.com](http://www.rohmeurope.com)



ROHM New Product Release
7x17 Matrix LED Driver
BD29502GUL

Easily enable colorful illumination and information display

The BD29502GUL LED driver integrates a 7x17 matrix LED driver, 13 display patterns, 8-way automatic scroll function, 16-step DAC, and 64-step PWM control on a single chip. This enables configuration of a 7x17 LED matrix driver for backlit displays or color illumination display with a minimum microcontroller load. Compact illumination and colorful illumination functionality in monochrome displays and illumination, more precise, digital control products, and more applications.

- Easily configure a 7x17 dot matrix LED display
- Application examples
- 13 display patterns and 8-way automatic scroll function reduce microcontroller load

A pattern generator is built in the on-chip 13 different display patterns using a slope function, significantly lightening microcontroller load. The internal pattern allows selection assignment of all data, linking the function with RGB LEDs enables automatic color illumination display. Simple control is possible. Unlike conventional systems requiring complex commands from the microcontroller in addition to the writing bit, down, right, left, lower right, lower left, upper right, upper left, in parallel, further lightening microcontroller load with increasing functionality.

Features	Package	Dimensions	Operating Voltage	Operating Current	Operating Temperature	Package Lead
Monochrome, 119 dots	4T x 4.1	4.1 x 4.1	1.8V	10mA	-40 to 85°C	0.5mm

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ROHM ML67Q5260 & AuthenTec AES1750

A perfect combination for embedded Smart Sensor Solutions

Today's applications are increasingly requiring more intelligent and convenient human interface devices. Touch displays are already used in a lot of applications. They provide a good interface for customers but to add features like authentication or personalization additional components are required. In order to combine such features into a small and easy-to-use solution, ROHM Semiconductor and AuthenTec have collaborated on a new solution offering.

Fingerprint Authentication is widely accepted today. It is the most cost effective Biometric Technology in the market with proven reliability in tens of millions of Notebook PCs and mobile handsets. With new sensors like AuthenTec's AES1750 this technology is now ready to address also new features like touch navigation in addition to the typical authentication features which can be used for personalization or secure access management.

The AES1750 TruePrint® smart sensor is the first to take full advantage of AuthenTec's new TouchStone™ packaging technology, which provides a perfectly flat, uniformly colored surface for a smooth feel as well as enhanced durability and aesthetics. It is the first sensor to fully integrate AuthenTec's TrueNav™ technology in silicon, enabling designers to use the sensor as a replacement for a wide array of mechanical input control devices including track balls, touch pads, scroll wheels, and optical joysticks, with a significantly thinner component while also offering enhanced security and personalization features for end users.

The new developed ML67Q5260 from ROHM Semiconductor is the perfect companion chip for this sensor. Based on OKI Semiconductor's proven technology this MCU provides hardware accelerated fingerprint authentication, on-chip flash memory for storage of up to 45 fingerprint templates, a free programmable ARM7 microcontroller core and a rich set of peripherals including USB. The ML67Q5260 manages all the features of the sensor and provides an easy software interface

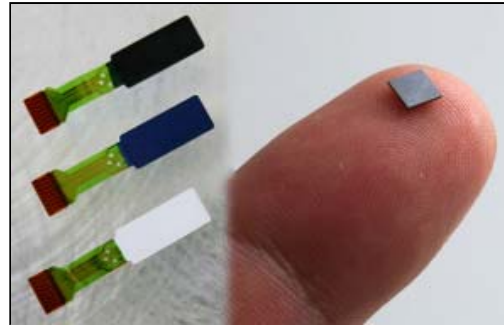
to the host system or even replaces such a system by using the resources of the integrated ARM microcontroller. An ultra-small WCSP package with a size of only 4x4x0.4mm completes the impressive feature set of this device.

Together, ML67Q5260 and AES1750 are building a Smart Sensor Solution which combines all features of an intelligent interface device:

- Personalization - associating different user profiles or functions with each finger
- Navigation - precise cursor control and quick menu scrolling via the fingerprint sensor
- Security - making products more secure by offering proven Fingerprint Authentication Technology

The integration of these functions in just two components significantly reduces the time to market as well as the total bill of material. In addition, the advanced package technology provides designers the flexibility to develop very small and aesthetic products. The high durability and the ultra-hard surface coating of the sensor even allow designing waterproof systems for outdoor usage.

With these features ML67Q5260 and AES1750 are the perfect solution for a wide field of applications like smart remote controls, mobile phones, PNDs or gaming. But also traditional biometric applications like access control or secure network/data access can take advantage of the additional functionality provided by this chipset.



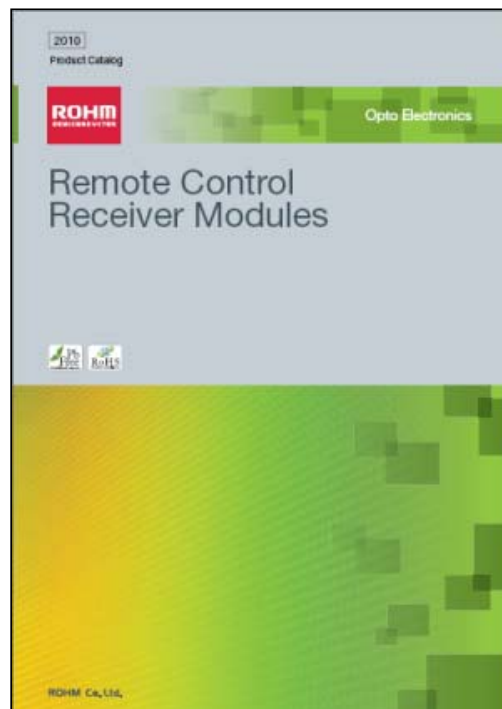
[More Information on www.rohmeurope.com](http://www.rohmeurope.com)

Remote Control Receiver Modules 2010

The ROHM's surface-mount type remote control receiver modules are leading the industry with compactness in its kind. Their outstanding features are resistance to influences from sunlight and power-supply ripple and are highly reliable to drive.

ROHM Semiconductor creates a new catalog for Remote Control Receiver Modules 2010!

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