



LAPIS Semiconductor - a ROHM Group Company - announces NEW Low-Power Microcontrollers Featuring RC Analog-to-Digital Converters

Unique sensor interface simplifies component count, cost and power while enabling accurate measurement of temperature, humidity or carbon monoxide in small battery-operated devices.

SAN DIEGO, Calif. – October 17, 2011 – The newest members to the ML610Q4xx series low-power microcontrollers from [LAPIS Semiconductor](http://www.rohm.com) (formerly OKI Semiconductor) will give designers even more choices when creating products that provide comprehensive control over the operation of battery-powered devices used for the measurement and display of temperature, humidity and carbon monoxide (CO) in industrial and commercial environments. These new devices feature an RC-type analog-to-digital converter (RC-ADC) that provides accurate ($\pm 1.0^{\circ}\text{C}$) temperature measurement using only passive components.

RC-type ADCs simplify the external circuit and the software necessary to perform measurements and require less power than systems employing a separate ADC to convert the sensor input. The ML610Q4xx series offers versions with either FLASH memory or masked ROM to store the program that controls the display, user interface, communication ports and the taking of measurements. The newest members of the family feature in-circuit programmable FLASH which benefits designers by allowing on-chip, non-volatile data storage and the ability to make program changes in the field.

“Environmental sensing and monitoring products typically require a microcontroller to take measurements, manage collected data, display information, manage user inputs and provide communication of recorded data,” said Alec Melnick, ROHM’s Sr. Product Marketing Manager. “This new series of devices with RC-ADCs are providing product designers exceptional measurement and control capabilities with extended battery life and fewer components.”

Development kits, evaluation boards, debug hardware and PC-based software development tools are available to facilitate the design of ML610Q4xx series-based products.

To learn more about these products go to this web site.

<http://www.rohm.com/us/low-power-micro.html>

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Pricing: (small qty through US distribution is indicated by a *, MOQ OEM otherwise):

ML610Q439-NNNTB03A7 - US\$6.30*

128K Bytes FLASH, 144 TQFP, 1024 LCD Segments, Commercial Temp (-20C to 70C)

ML610Q482-NNNTB03A7 - US\$2.97*

64K Bytes FLASH, 48 TQFP, 0 LCD Segments, Commercial Temp (-20C to 70C)

ML610Q407-NNNTB03A7 –US\$2.99*

16K Bytes ROM, 100TQFP, 145 LCD Segments, Commercial Temp (-20C to 70C)

ML610401-NNNTB03A7 – Contact Factory

6K Bytes ROM, 64TQFP, 55 LCD Segments, Commercial Temp (-20C to 70C)

ML610401P-NNNWA – Contact Factory

6K Bytes ROM, die, 55 LCD Segments, Extended Temp (-40C to 85C)

ML610Q419P-NNNTB03A7 – Available in Q4CY11*

64K Bytes FLASH / 4K Data FLASH, 100 TQFP, 192 LCD Segments, Extended Temp (-40C to 85C)

Pricing valid through 12/12

Availability: Samples Now
Delivery: Stock to 16 weeks ARO

For more information, editors should contact:

Lapis Semiconductor
Alec Melnick,
Sr. Product Marketing Manager
6815 Flanders Drive, Suite 150
San Diego, CA 92121
Phone: 508-982-2975
Email: amelnick@rohms Semiconductor.com

Agency Contact
WelComm, Inc.
Greg Evans, P.E.
San Diego, CA 92111
Phone: 858-279-2100
Email: greg@welcomm.com

About ROHM Semiconductor:

ROHM Semiconductor is an industry leader in system LSI, discrete components and module products, utilizing the latest in semiconductor technology. ROHM's proprietary production system, which includes some of the most advanced automation technology, is a major factor in keeping it at the forefront of the electronic component manufacturing industry. In addition to its development of electronic components, ROHM has also developed its own production system so that it can focus on specific aspects of customized product development. ROHM employs highly skilled engineers with expertise in all aspects of design, development and production. This allows ROHM the flexibility to take on a wide range of applications and projects and the capability to serve valuable clients in the automotive, telecommunication and computer sectors, as well as consumer OEMs.

LAPIS Semiconductor (formerly OKI Semiconductor) is a ROHM Group Company.