Low-Power Microcontrollers Feature RC Analog-to-Digital Converters

LAPIS Semiconductor, a ROHM Group Company, has released the newest members to the ML610Q4xx series low-power microcontrollers. The devices offer even more choice when creating 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 (±1.0°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 http://www.rohm.com/us/low-power-micro.html [1]

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

Source URL (retrieved on *03/09/2014 - 4:17pm*):
http://www.wirelessdesignmag.com/product-releases/2011/10/low-power-microcontrollers-feature-rc-analog-digital-converters

Links:
[1] http://www.rohm.com/us/low-power-micro.html