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## Storage Microcontroller v.2.0 Upgrade

**Background:** Initially used microcontroller unit (MCU) Microchip PIC16F1939-I/P is 8MIPS MCU with instruction cycle of 125ns. Unfortunately its speed appeared to be insufficient to serve GR8BIT system with standard 3.58MHz system clock, and required specific changes to the design (addition of buffer) and specifications (additional wait state for Storage subsystem I/O).

**Changes:** We are pleased to announce support for Microchip PIC18F46K22-I/P microcontroller and release of microcode version 2.0 for this MCU. This MCU features 16MIPS performance, and requires neither GR8BIT design changes nor additional wait states at 3.58MHz system clock speed. This MCU is pin-compatible with PIC16F1939, and is used as a direct replacement for the latter.

**Microcode availability:** You can download latest microcode for new storage solution based on PIC18F46K22 from the site <http://www.gr8bit.ru>. Please note that Driver Kernel is copyrighted by MSX Licensing Corporation, and only entities possessing either MSX license or GR8BIT license are allowed to use its source and executable.

**Support for PIC16F1939:** The latest and final release of microcode and ROM code package for this MCU is 1.0b. Support and critical fixes will be available within 6 months from the date of release of this Design Note.

### Resources:

- Microchip, Inc. (2009) *PIC16F939* information page, available online at <http://www.microchip.com/wwwproducts/Devices.aspx?dDocName=en538148> (accessed on Apr 04, 2012)
- Microchip, Inc. (2009) *PIC18F46K22* information page, available online at <http://www.microchip.com/wwwproducts/Devices.aspx?dDocName=en547757> (accessed on Apr 04, 2012)

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End of DN0001 "Storage Microcontroller v.2.0 Upgrade"