Introduction

Author: Cristian Pop, Microchip Technology Inc.

This document will help application designers familiar with the megaAVR® families to migrate to the AVR® Dx MCU families, covering both differences and similarities. The comparison is applicable for most of the megaAVR vs. the AVR Dx products but, in this document, the focus is on the ATmega128 and AVR128DA64, two generations of 128 KB Flash MCUs available in 64-pin packages.

Most of the AVR Dx peripherals are functionally compatible with the megaAVR peripherals (including WDT, RTC, AC, ADC, SPI, USART, TWI, and Timers), but updates to the source code will be required when migrating. The following sections provide details on a few updates, but the migrated code must be fully tested to ensure the target application's intended behavior is the same. The megaAVR and AVR Dx families are not pin-to-pin compatible.

For the AVR Dx family, the names of the pins are the same, but their position has changed from the megaAVR family. For more details, see the *Pin Configurations* and *Pinout* sections, respectively, in the data sheet of each device.