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DS50002589A

Overview

The PIC24FJ256GA7 Curiosity Development Board (DM240016) is a demonstration, development and experimentation platform based on the PIC24FJ256GA705 low-power, low-cost microcontroller. The board has a built-in programmer/debugger and provides all of the hardware necessary to get started developing a complete embedded application. Some key features of the board include:

- PIC24FJ256GA705 general purpose, 16-bit microcontroller
- PICkit™ On-Board (PKOB) circuit implements basic programming/debugging ability
- MCLR Reset button + two general purpose push buttons
- Red/Green/Blue (RGB) LED + two general purpose indicator LEDs
- 10k potentiometer
- 32.768 kHz crystal
- Female headers for access to microcontroller I/O pins
- Circuit prototyping area
- Two mikroBUS™ interfaces for hardware expansion
 - Supports a wide variety of add-on click boards™ from MikroElektronica (www.mikroe.com)

Board Power-up

The board is intended to be powered through the micro-B USB connector (USB1). A MIC5528 linear regulator (U5) generates the +3.3V rail used by the PIC24FJ256GA705 microcontroller.

Getting Started

Microchip Technology provides several example projects that can be used to get started with the PIC24FJ256GA7 Curiosity Development Board. The source code, the MPLAB® X IDE, the XC16 C compiler and the MPLAB Code Configurator (MCC) can be obtained from:

<http://www.microchip.com/pic24fj256ga7curiosity>

<http://www.microchip.com/curiosity>

<http://www.microchip.com/mplab>

<http://www.microchip.com/xc16>

<http://www.microchip.com/mcc>

The preprogrammed “out-of-box” demo project for the PIC24FJ256GA7 Curiosity Development Board implements an RGB color mixing application. In the demo, the potentiometer can be used to adjust each color channel intensity, independently, while the push buttons are used to select the channel to be adjusted.

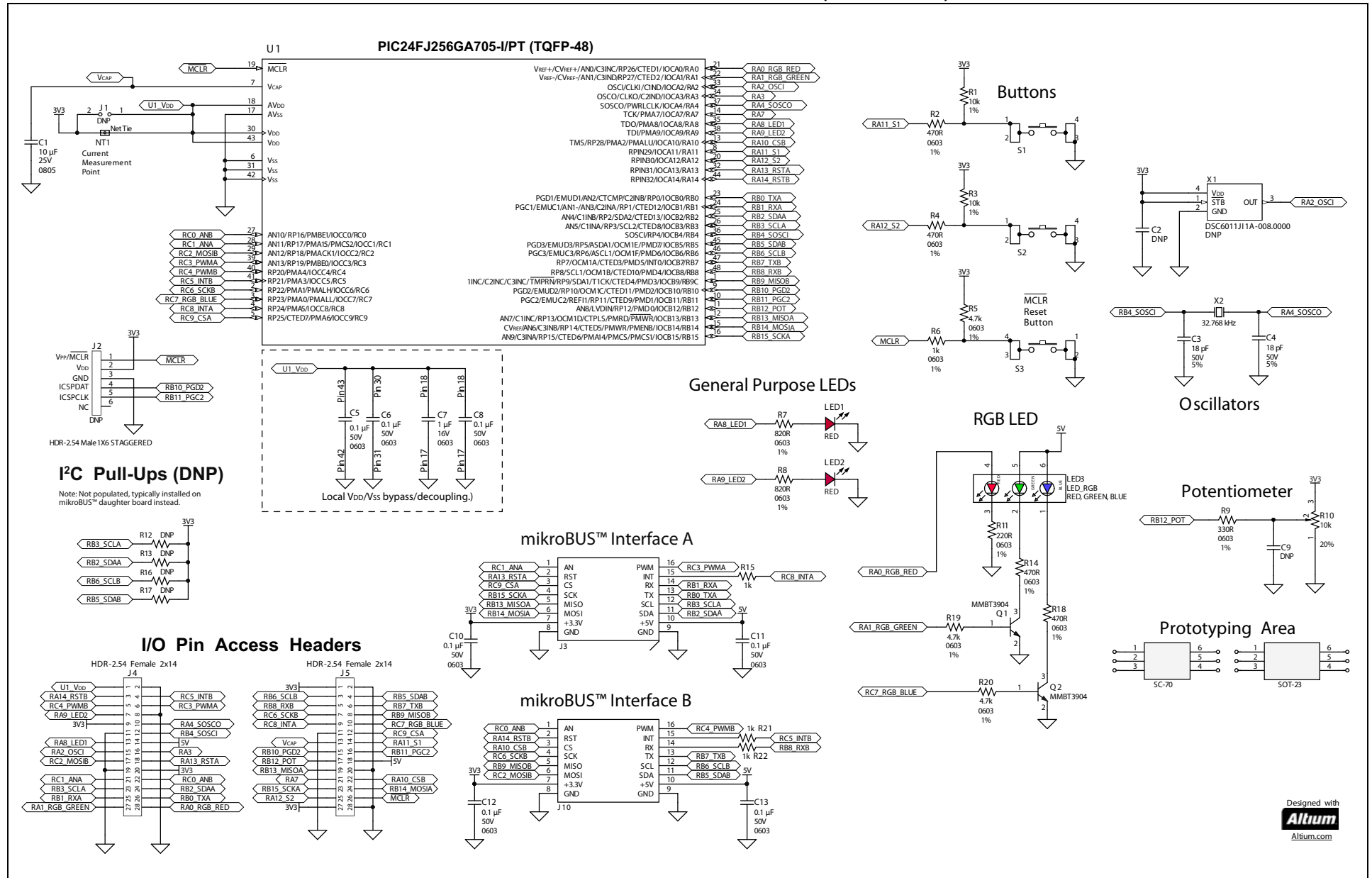
In order to use the PKOB programmer/debugger within the MPLAB X IDE (v3.55 or later recommended), select:

Project Properties/Categories: Conf/Hardware Tool/Microchip Starter Kits/Starter Kits (PKOB)/“PIC24FJ256GA7 C...”

Schematics

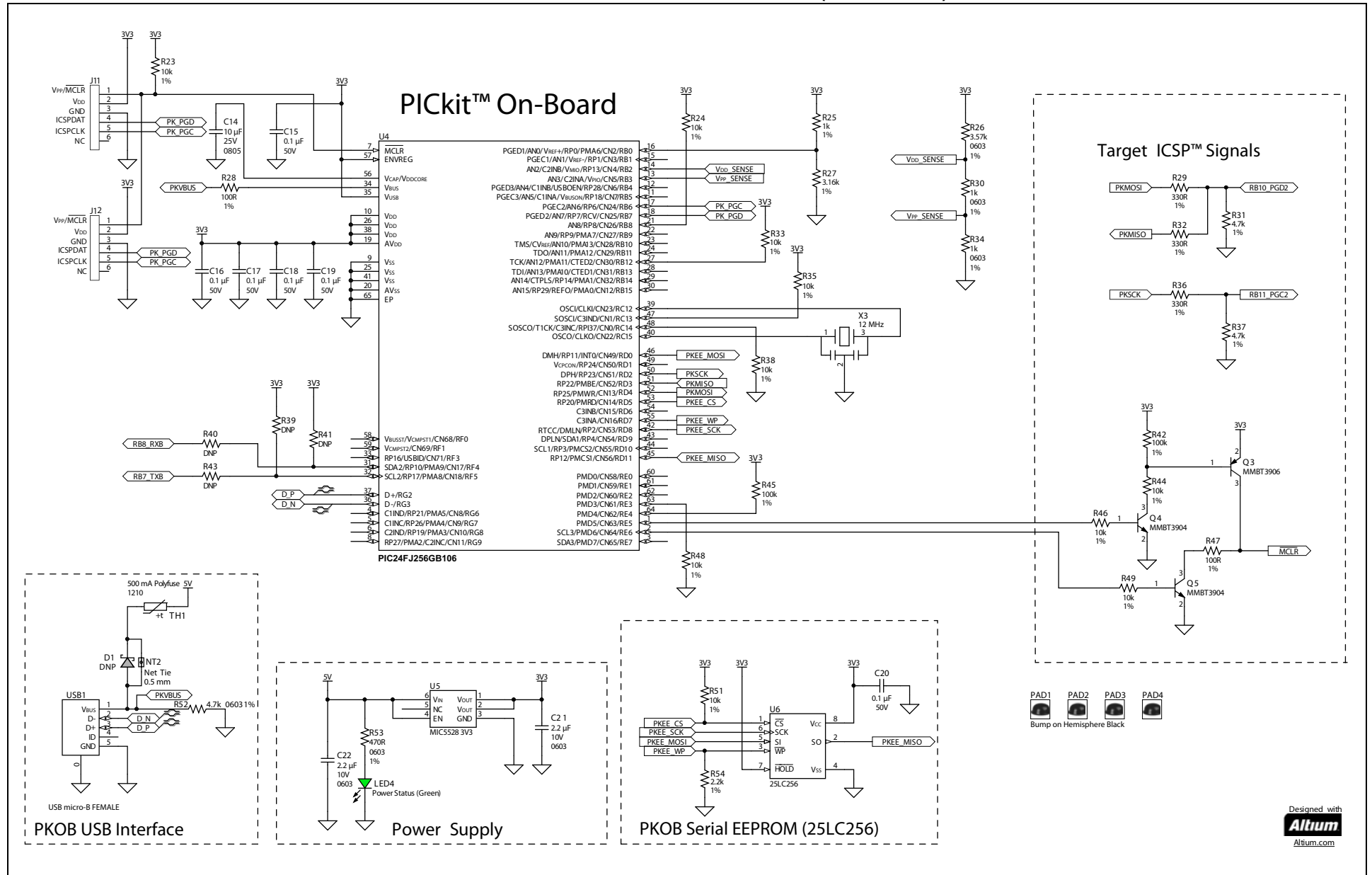
The schematics for the PIC24FJ256GA7 Curiosity Development Board are shown in [Figure 1](#) and [Figure 2](#).

FIGURE 1: PIC24FJ256GA7 CURIOSITY DEVELOPMENT BOARD SCHEMATICS REV. 1.0 (PAGE 1 OF 2)



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FIGURE 2: PIC24FJ256GA7 CURIOSITY DEVELOPMENT BOARD SCHEMATICS REV. 1.0 (PAGE 2 OF 2)



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