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DS50002534A

PIC24F Curiosity Development Board

Quick Start Guide

Overview

The PIC24F Curiosity Development Board is a demonstration, development and experimentation platform based on the PIC24FJ128GA204 eXtreme Low Power (XLP) 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:

- PIC24FJ128GA204 general purpose, 16-bit microcontroller
- PICkit™ On-Board (PKOB) circuit implements basic programming/debugging ability
- $\overline{\text{MCLR}}$ 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
- Small prototyping area + Bluetooth® LE radio footprint
- mikroBUS™ interface for hardware expansion

Board Power-up

The board is intended to be powered through the micro-B USB connector (USB1). An MCP1703 linear regulator (U6) generates the +3.3V rail used by the PIC24FJ128GA204 microcontroller.

Getting Started

Microchip Technology provides several example projects that can be used to get started with the PIC24F 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/curiosity
http://www.microchip.com/pic24fcuriosity
http://www.microchip.com/mplab
http://www.microchip.com/xc16
http://www.microchip.com/mcc

The preprogrammed “out-of-box” demo project for the PIC24F 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 (v3.40 or later recommended), select:

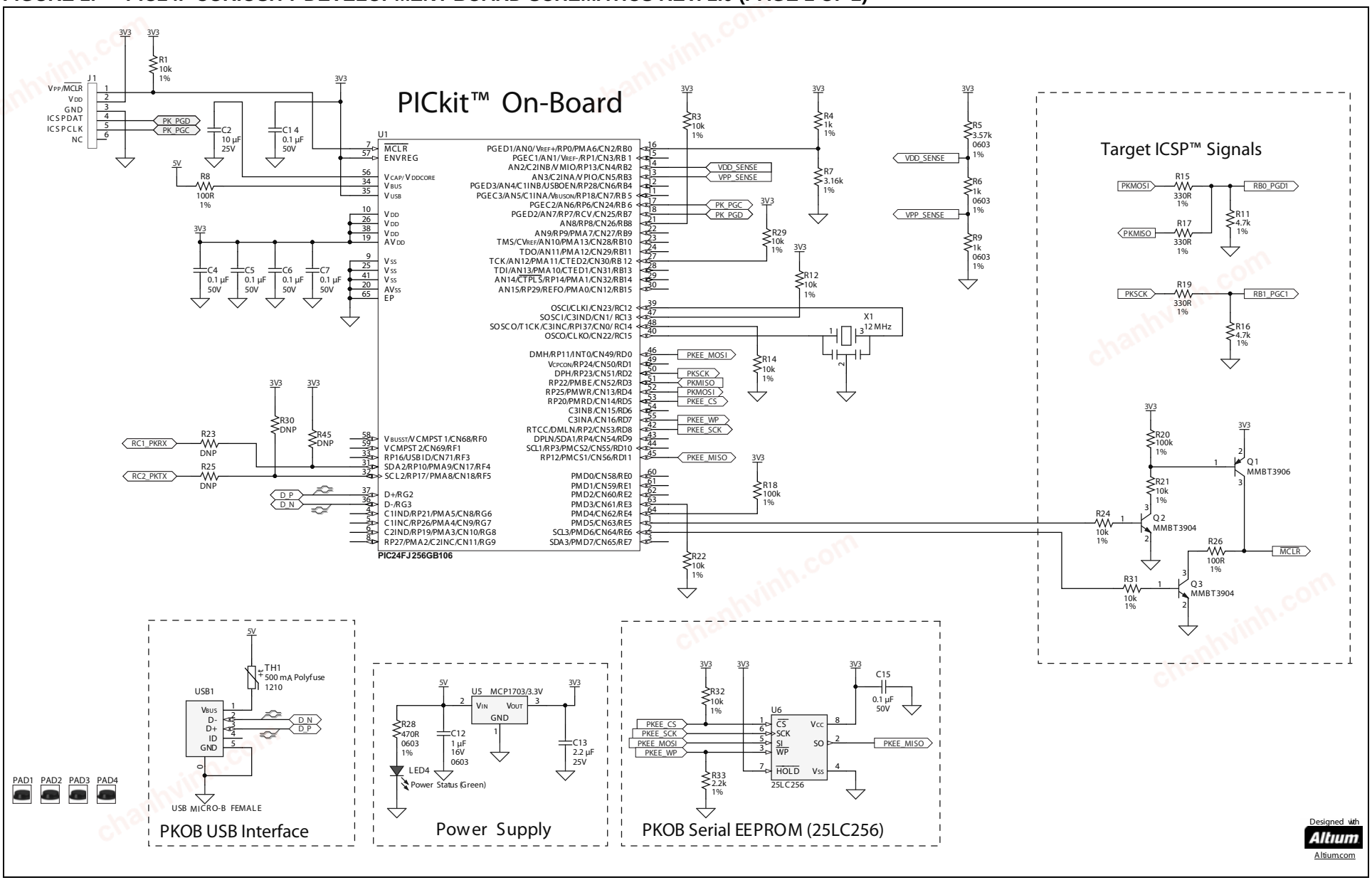
```
Project Properties/Categories: Conf/Hardware Tool/Microchip
Starter Kits/Starter Kits (PKOB)/“PIC24F Curiosit...”
```

Schematics

The schematics for the PIC24F Curiosity Development Board are shown in Figure 1 and Figure 2.

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FIGURE 1: PIC24F CURIOSITY DEVELOPMENT BOARD SCHEMATICS REV. 1.0 (PAGE 1 OF 2)



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FIGURE 2: PIC24F CURIOSITY DEVELOPMENT BOARD SCHEMATICS REV. 1.0 (PAGE 2 OF 2)

