



# Isolated EDBG Card

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## Isolated EDBG Card Information Sheet

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### Introduction

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The Isolated EDBG Card is an add-on daughter card designed to program and debug the SAM/PIC32C microcontroller-based plug-in modules (PIMs) which are mounted on the following high-voltage boards:

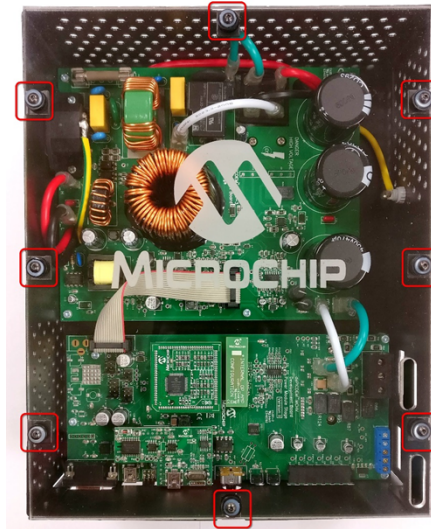
- [dsPICDEM MCHV-2 Development Board \(High Voltage\)- DM330023-2](#)
- [dsPICDEM MCHV-3 Development Board \(High Voltage\) - DM330023-3](#)

### 1. Installing Isolated EDBG Card

**Note:** Ensure that the board is de-energized before implementing the following steps.

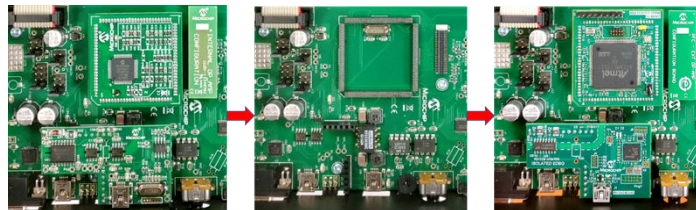
1. Remove the protective clear acrylic (plexiglass) shield by unscrewing the eight hexagon screws.

**Figure 1-1. Removing the Protective Shield on the dsPICDEM MCHV-3 Development Board**



2. The dsPICDEM MCHV-2/3 development board is shipped along with a pre-mounted dsPIC33 motor control PIM, Pickit On Board (PKOB) debugger card and an Internal OPAMP matrix board.
  - 2.1. Replace the dsPIC33 PIM with the SAM/PIC32C Motor Control PIM required for the application.
  - 2.2. Replace the PKOB debugger card with the Isolated EDBG debugger card.
  - 2.3. Install appropriate OPAMP matrix board that is compatible with the SAM/PIC32C Motor Control PIM. Refer to the respective PIM information sheet for additional information on a compatible OPAMP matrix board.

**Figure 1-2. Replacing PIM, Debugger, and Matrix Board**



3. Re-install the protective clear acrylic (plexiglass) shield and secure it with eight hexagon screws. For safety reasons, it is recommended not to operate the dsPICDEM MCHV-2/3 development board without the protective clear acrylic (plexiglass) shield.

## 2. Using Isolated EDBG Card for Programming

To establish communication between MPLAB<sup>®</sup> X or Atmel Studio IDE, and the dsPICDEM MCHV-2/3 development board:

1. Connect a mini-USB cable between the PC running the IDE and the programming and debugging port as shown in the following figure.

**Figure 2-1. dsPICDEM MCHV-3 Development Board I/O Interface**



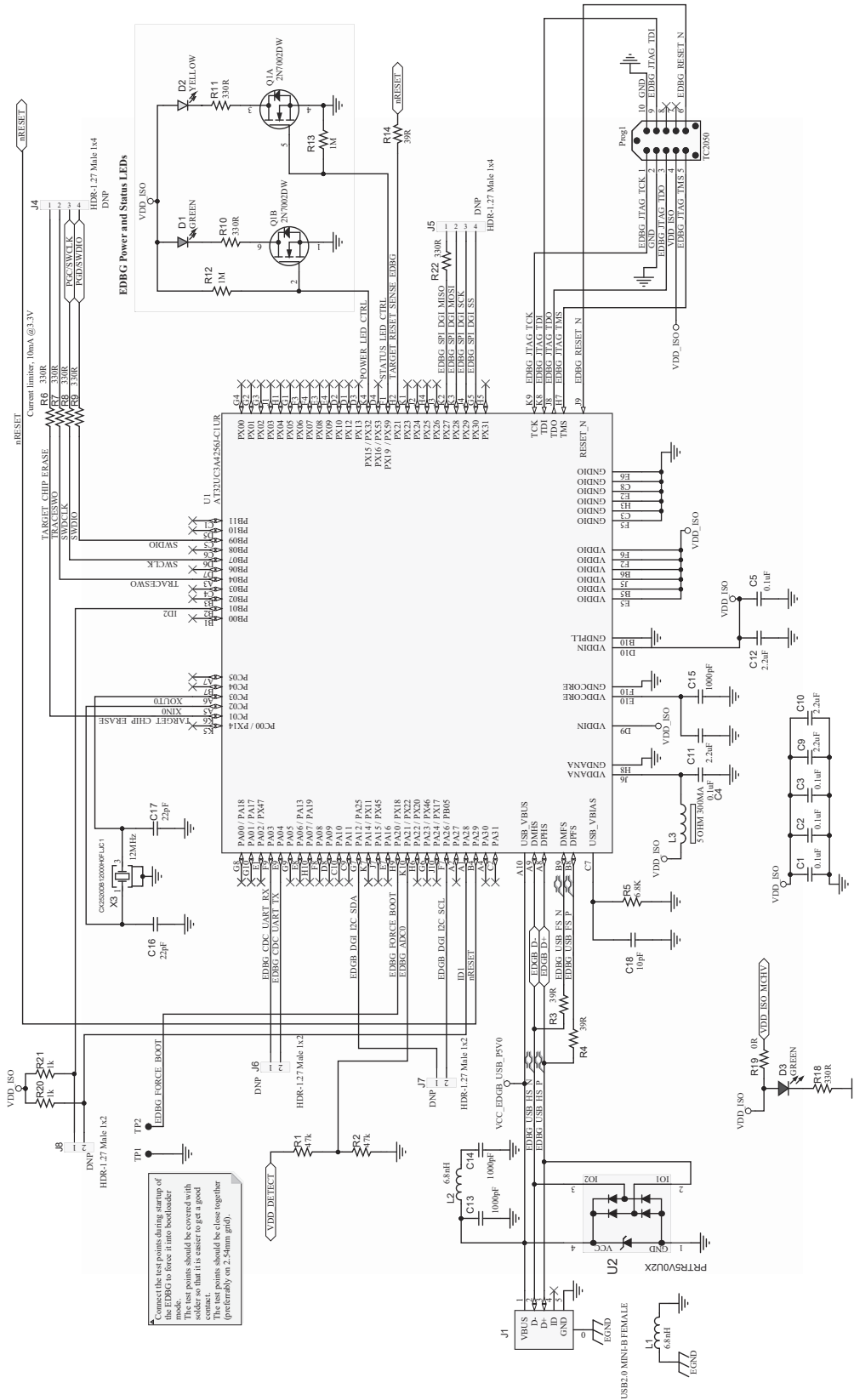
2. Energize the dsPICDEM MCHV-2/3 development board using an AC mains voltage of 90-230 AC RMS.

**Figure 2-2. dsPICDEM MCHV-3 Development Board AC Mains Interface**



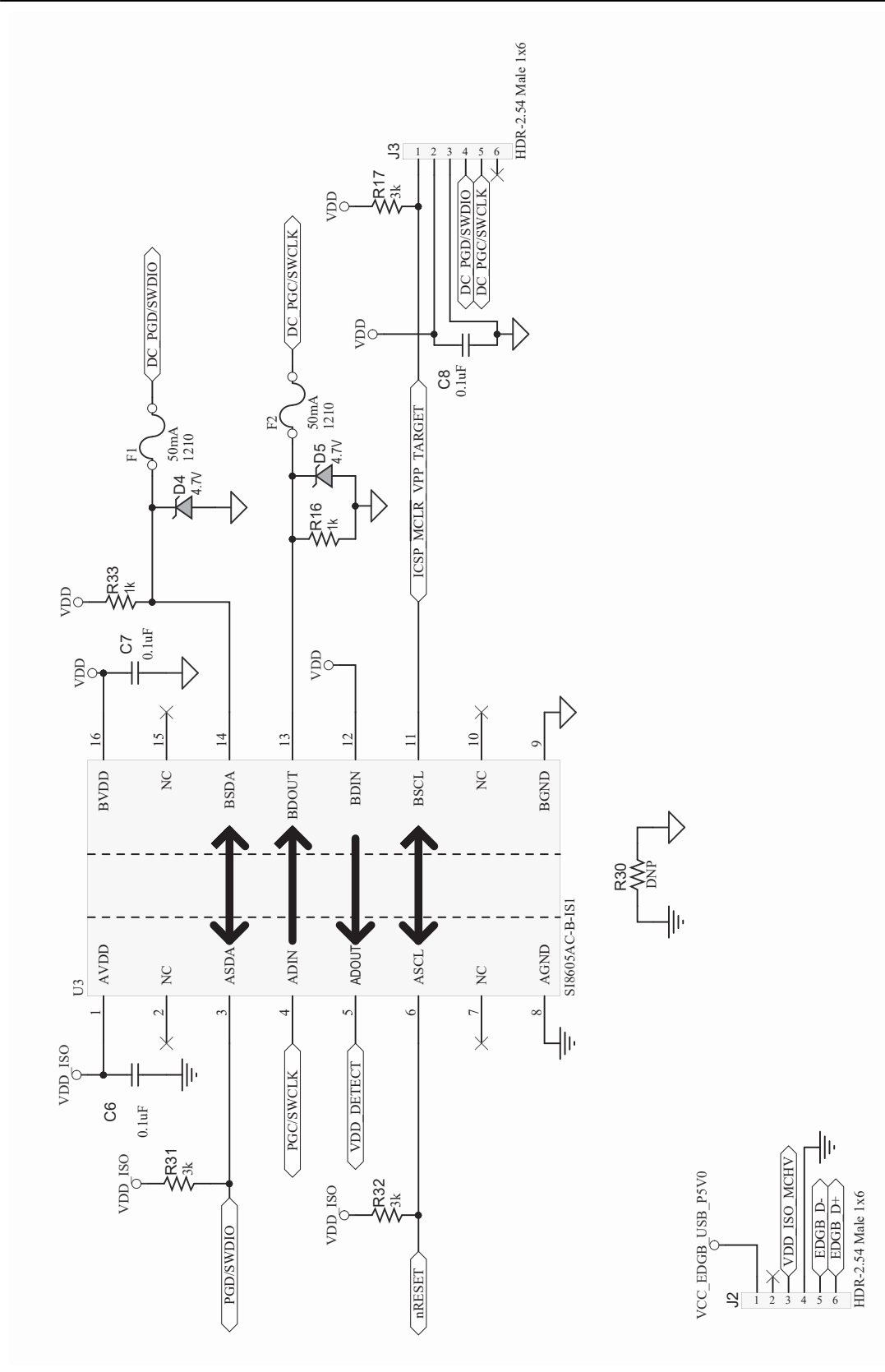
3. Refer to the respective IDE documentation on selecting the programmer and debugger.

### 3. Isolated EDBG Card Schematic



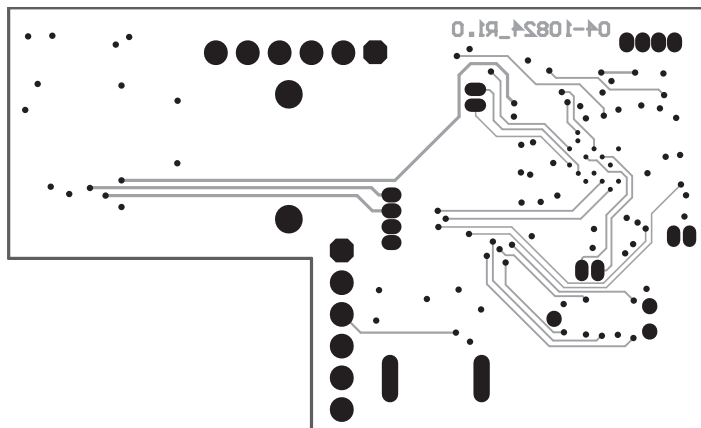
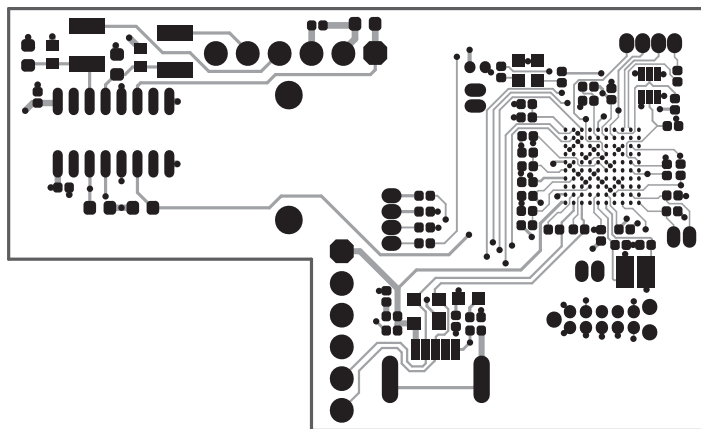
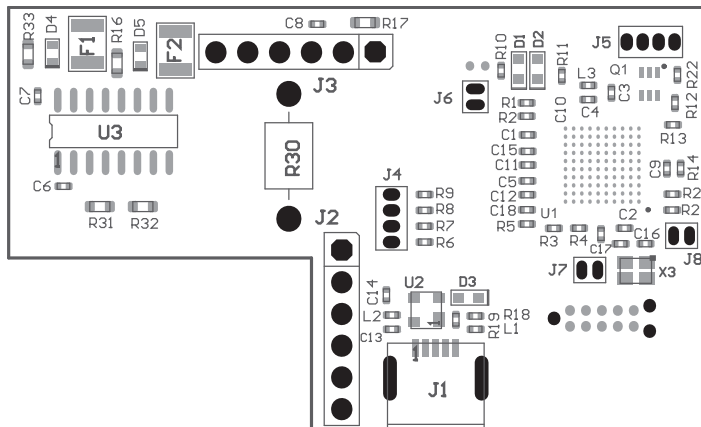
# Isolated EDBG Card

## Isolated EDBG Card Schematic



# Isolated EDBG Card

## Isolated EDBG Card Schematic



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