



Mustang Demonstration Board User Manual
Rev 1.0
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1. Change Log

Revision	Description	Editor
1.0	Release	SMS

2. Introduction

This document provides the user with basic setup, connections, and usage of the FLE Mustang Demonstration PCB.

The Demonstration PCB is used to allow stand-alone development/evaluation of the FLE Mustang. Through the use of this PCB, the user can explore functions such as

Ethernet<>Serial Bridge Interface (One, Two, or Three Serial Ports)

Ethernet<>I2C Interface

Ethernet<>SPI Interface

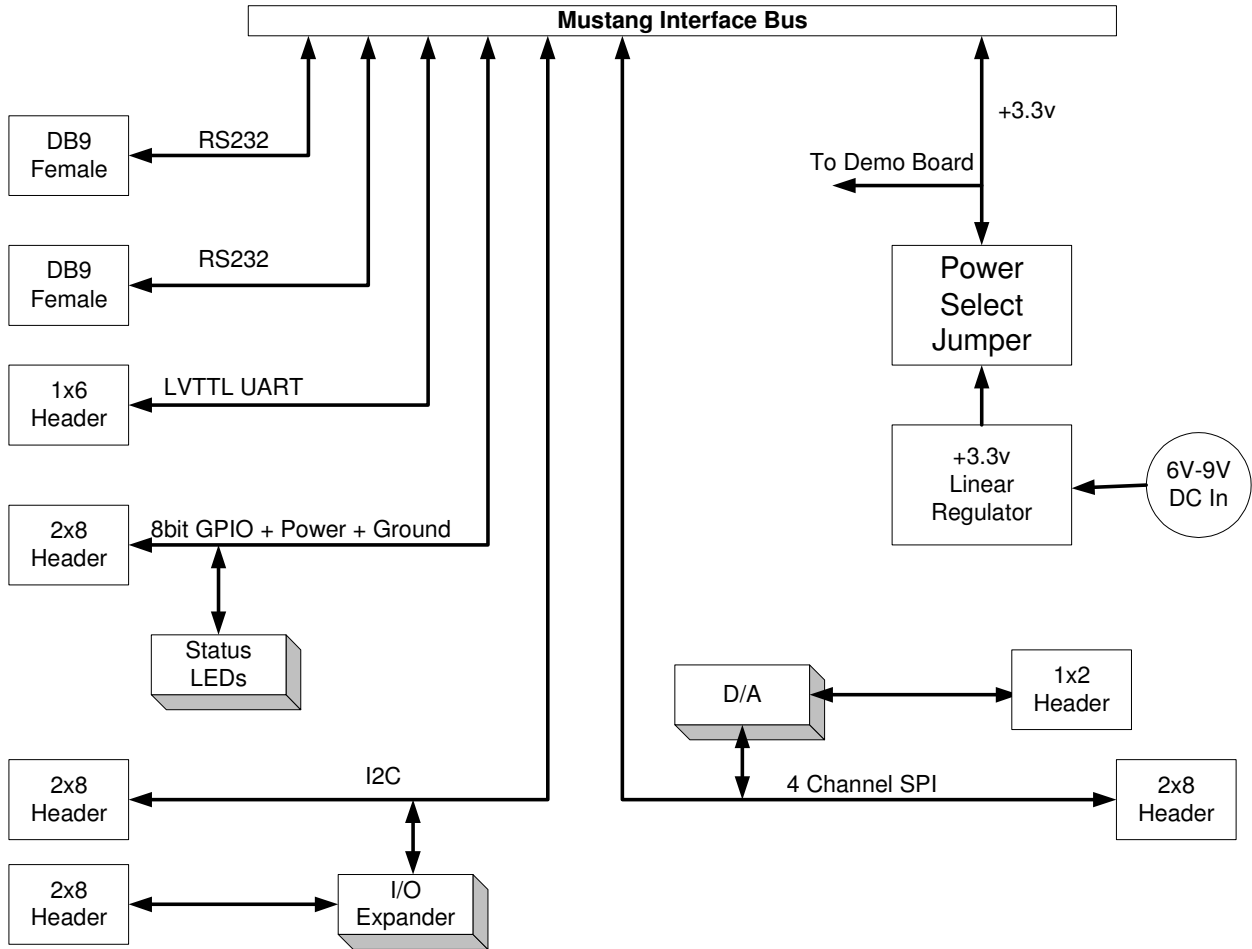
Ethernet<>GPIO Interface (8-bit)

StaticHTML WebServer

Remote Firmware Update

SMTP Email Creation for Email Alerts/Notifications

3. Demonstration PCB Hardware Architecture



3.1. Hardware Description

The Hardware design of the Demonstration PCB provides both direct connections to the Mustang Interface Bus and on-board devices to allow evaluation of potential downstream devices.

The Demonstration PCB provides the following on-board hardware

- 3.3V Linear Regulator → “Benchtop” evaluation without Powered Ethernet Network
- Two DB9 Female RS232 Ports for connection with a host/target hardware
- One 1x6 Header for connection to a LVTTL UART interface
- One 2x8 Header for direct connection to the Mustang GPIO Interface
- Eight on-board Status LEDs driven from the GPIO Interface
- One 2x8 Header for direct connection to the Mustang I2C Interface
- One 2x8 Header for additional I/O Expansion via the PCF8574 I2C I/O Expander
- One 2x8 Header for direct connection to the 4-channel SPI Interface
- One 1x2 Header for evaluation of the DAC 7513 D/A Converter

4. Setup And Testing

In order to setup and begin evaluation of the Mustang, follow these steps

Step #1) ENSURE THAT THE POWER SELECT JUMPER IS CONFIGURED FOR EITHER POWERED ETHERNET OR EXTERNAL SUPPLY MODE.

Step #2) Connect the Mustang to the Demonstration PCB

Step #3) Connect the DB9 Serial cable between Uart#1 and a Host PC

Step #4) Set the host PC for 115,200 8 N 1 baud and begin a terminal program (Hyperterm/etc)

Step #5) Apply power to the Mustang

Step #6) Observe the boot sequence on the Serial Port.

Step #7) Mustang is now ready for use. Read the Mustang Application notes for a quick guide to using the Mustang.