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# **Embedded Demonstration Board Product Specification**

## **EMB043TFTDEMO**

*4.3" Color TFT Display Demonstration Board*

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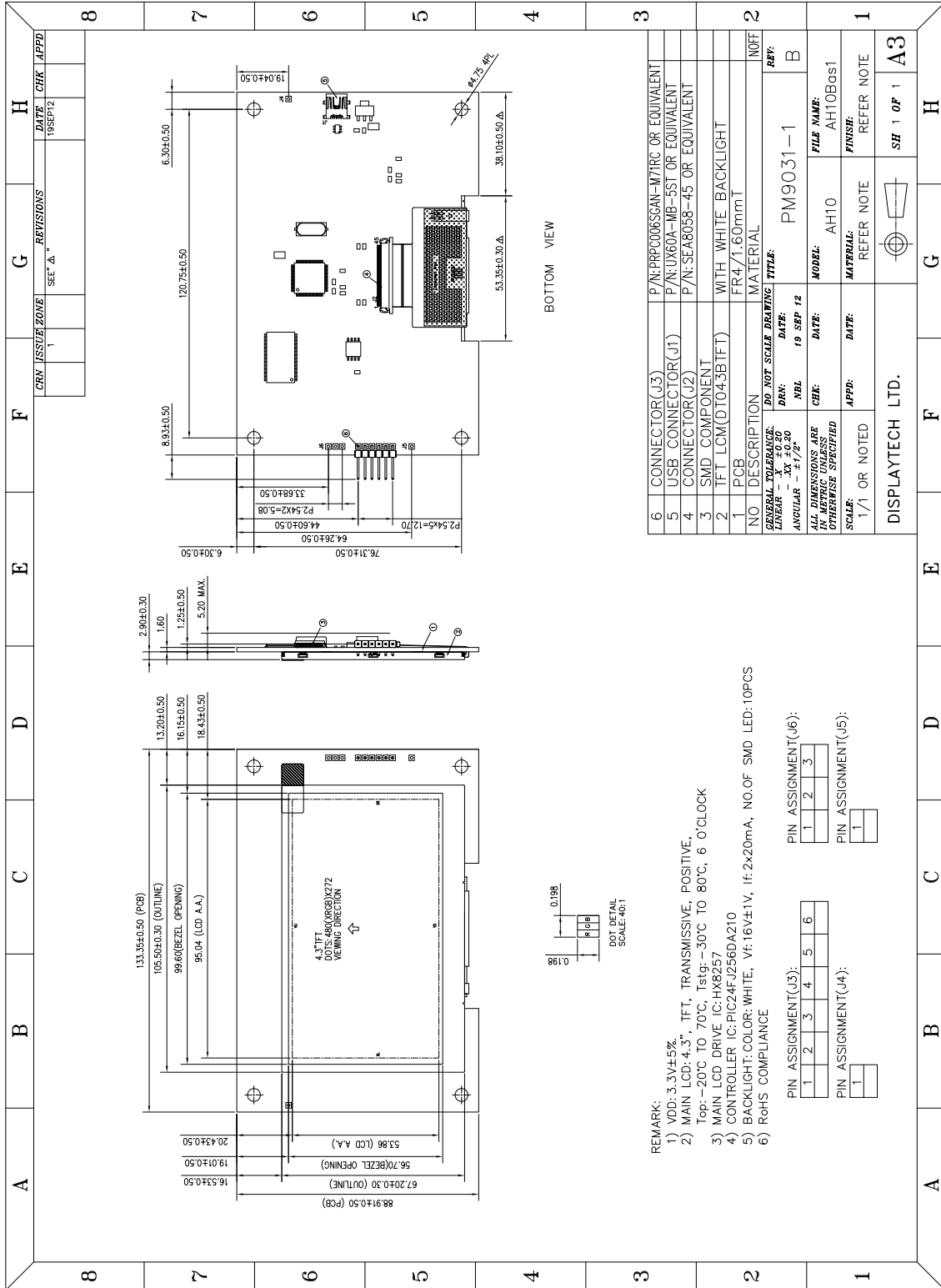
## 1. Introduction

The Displaytech EMB043TFTDEMO is a demonstration and development board for the Displaytech DT043BTFT 4.3" color TFT display. The display is controlled by a Microchip PIC24FJ256DA210 microcontroller with integrated graphics controller. Furthermore, the demonstration board includes on-board external SRAM for extra frame-buffer memory as well as SPI flash for storing fonts and images.

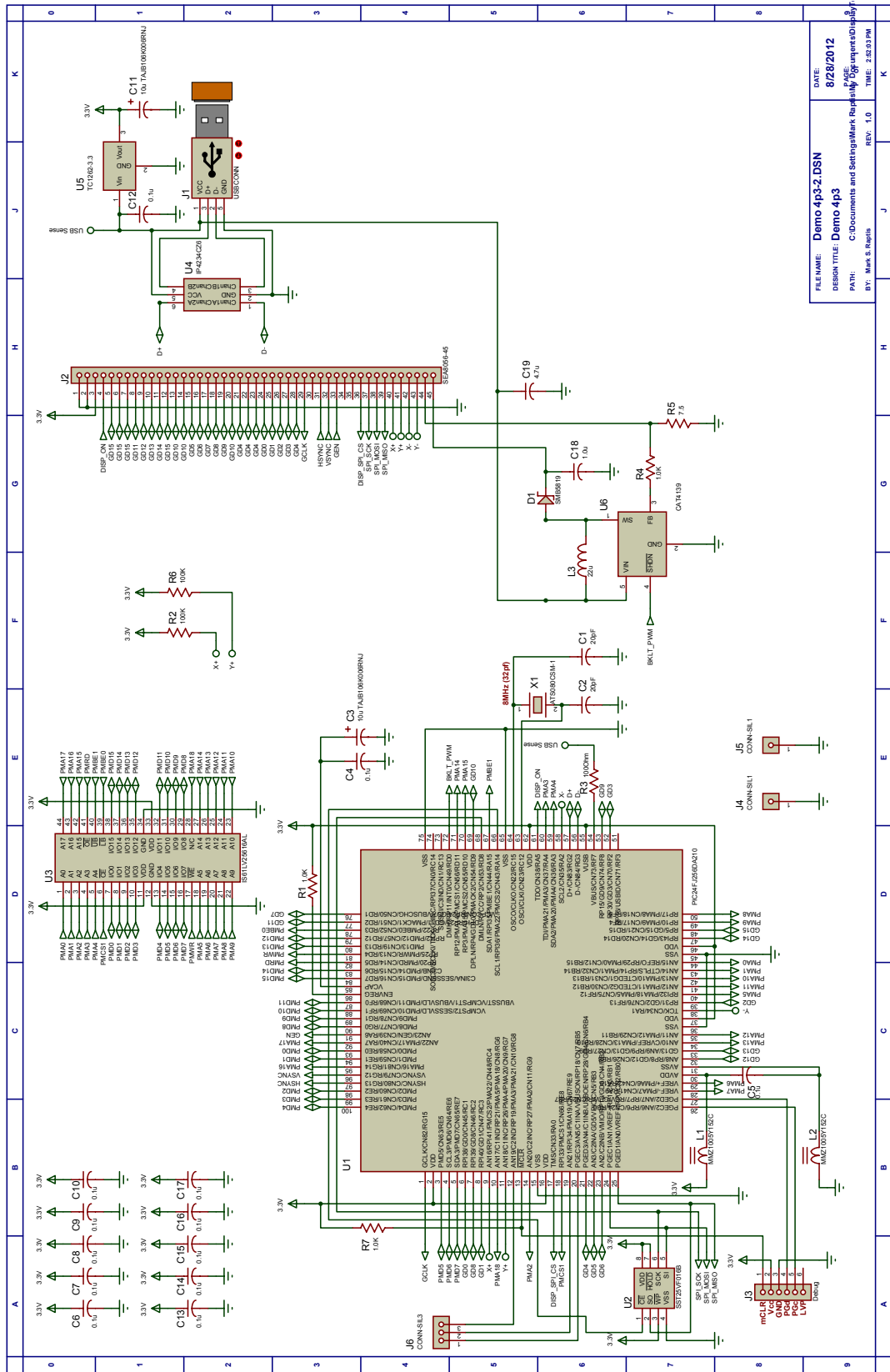
## 2. General Specifications

<b>Item</b>	<b>Specification</b>	<b>Unit</b>
LCD Resolution (Horizontal)	480	Line
LCD Resolution (Vertical)	272	Line
PCB Size (Horizontal)	5.25	Inch
PCB Size (Vertical)	3.5	Inch
Interface	USB and PICKit	---
TFT Driver IC	Himax HX8257-A	---
Microcontroller/Graphics Controller	PIC24FJ256DA210	---
SRAM Size	512	KB
External SPI Flash Size	2	MB
Power Supply	5 (from USB)	V

### 3. Mechanical Drawing



### 4. Schematic



FILE NAME: Demo 4p3-2.DSN	DATE: 8/28/2012
DESIGN TITLE: Demo 4p3	TIME: 2:52:33 PM
PATH: C:\Documents and Settings\Mark Regan\My Documents\Displaytech	
BY: Mark S Regan	REV: 1.0

## **5. Example Firmware**

Example firmware running the Microchip Graphics Object Layer demonstration can be obtained from the Displaytech forum, at:

[https://www.dropbox.com/s/vglpxbcd1rjvzpa/SEA\\_EMB043TFTDEMO\\_SW\\_SRC\\_REV1.0.zip](https://www.dropbox.com/s/vglpxbcd1rjvzpa/SEA_EMB043TFTDEMO_SW_SRC_REV1.0.zip)

Note: Microchip's MPLABX IDE and X16 compiler will be required to run the demo. Both are available at <http://www.microchip.com>.

### **5.1. Programming**

To program the EMB043TFTDEMO, connect a Microchip Pickit3 programmer (available at <http://www.microchipdirect.com>) to the 6-pin header and the supplied USB cable to the USB-Mini connector.

Open the firmware package in MPLAB and build the project in release mode. Select the PICKit3 as the programmer and program the device.