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# **Embedded Demonstration Board Product Specification**

## **EMB035TFTDEMO**

*3.5" Color TFT Display Demonstration Board*

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## 1. Introduction

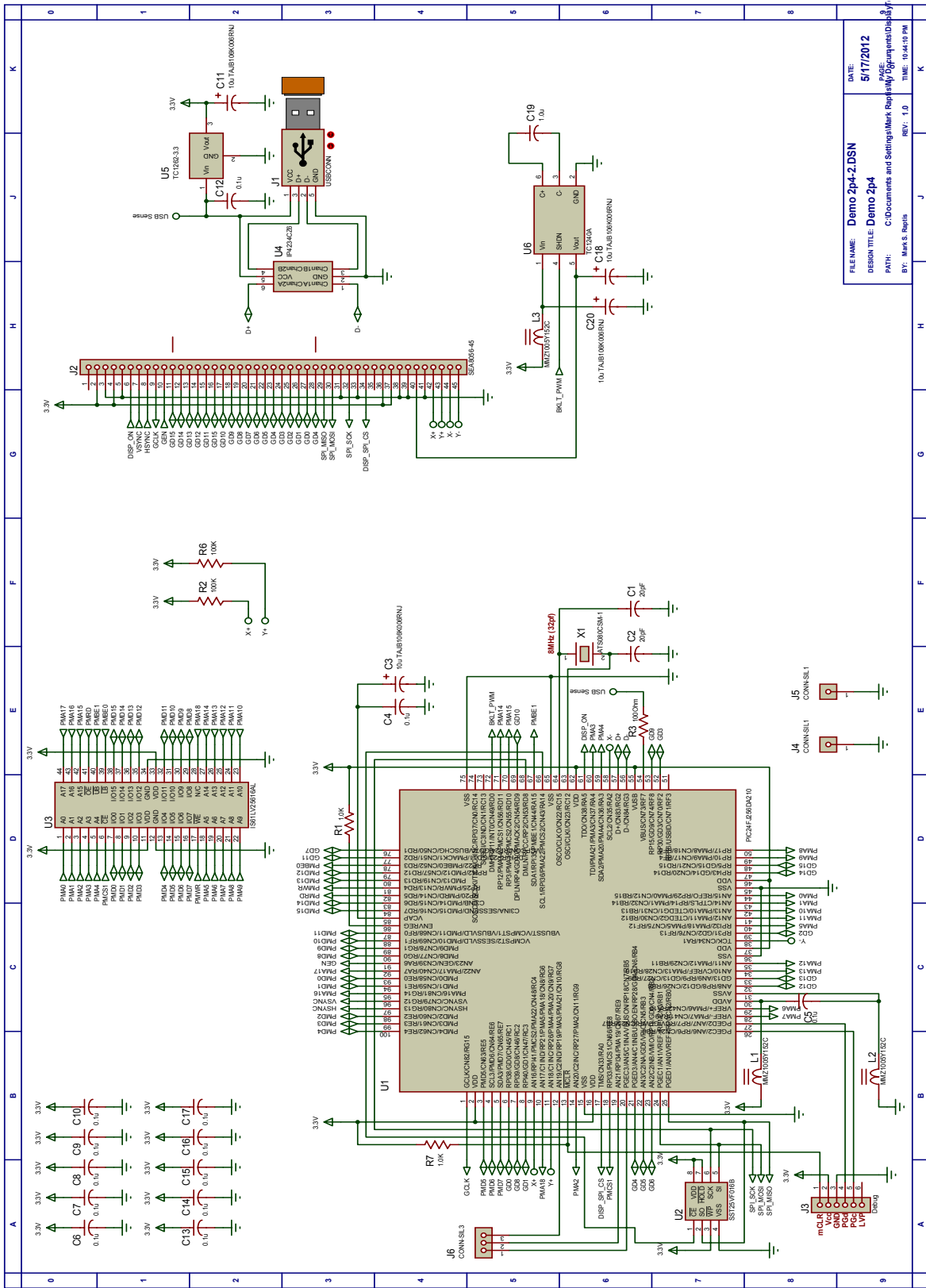
The Displaytech EMB035TFTDEMO is a demonstration and development board for the Displaytech DT035TFT 3.5" color TFT display. The display is controlled by a Microchip PIC24FJ256DA210 microcontroller with integrated graphics controller. Furthermore, the demonstration board includes on-board external SRAM 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)	320	Line
LCD Resolution (Vertical)	240	Line
PCB Size (Horizontal)	3.5	Inch
PCB Size (Vertical)	2.5	Inch
Interface	USB and PICKit	---
TFT Driver IC	NT39016D	---
Microcontroller/Graphics Controller	PIC24FJ256DA210	---
SRAM Size	512	KB
External SPI Flash Size	2	MB
Power Supply	5 (from USB)	V



4. Schematic



FILE NAME: Demo 2p4-2.DSN	DATE: 5/17/2012
DESIGN TITLE: Demo 2p4	PAGE: 8
PATH: C:\Documents and Settings\Mark Repp\My Documents\Display	TIME: 10:44:19 PM
BY: Mark S. Repp	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/1h2bm62ogzsqe3x/SEA\\_EMB035TFTDEMO\\_SW\\_SRC\\_REV1.0.zip](https://www.dropbox.com/s/1h2bm62ogzsqe3x/SEA_EMB035TFTDEMO_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 EMB035TFTDEMO, 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.