Displaytech Ltd.®
a seacomp company

Website: www.displaytech-us.com

Embedded Demonstration Board Product Specification

EMB043TFTDEMO

4.3” Color TFT Display Demonstration Board

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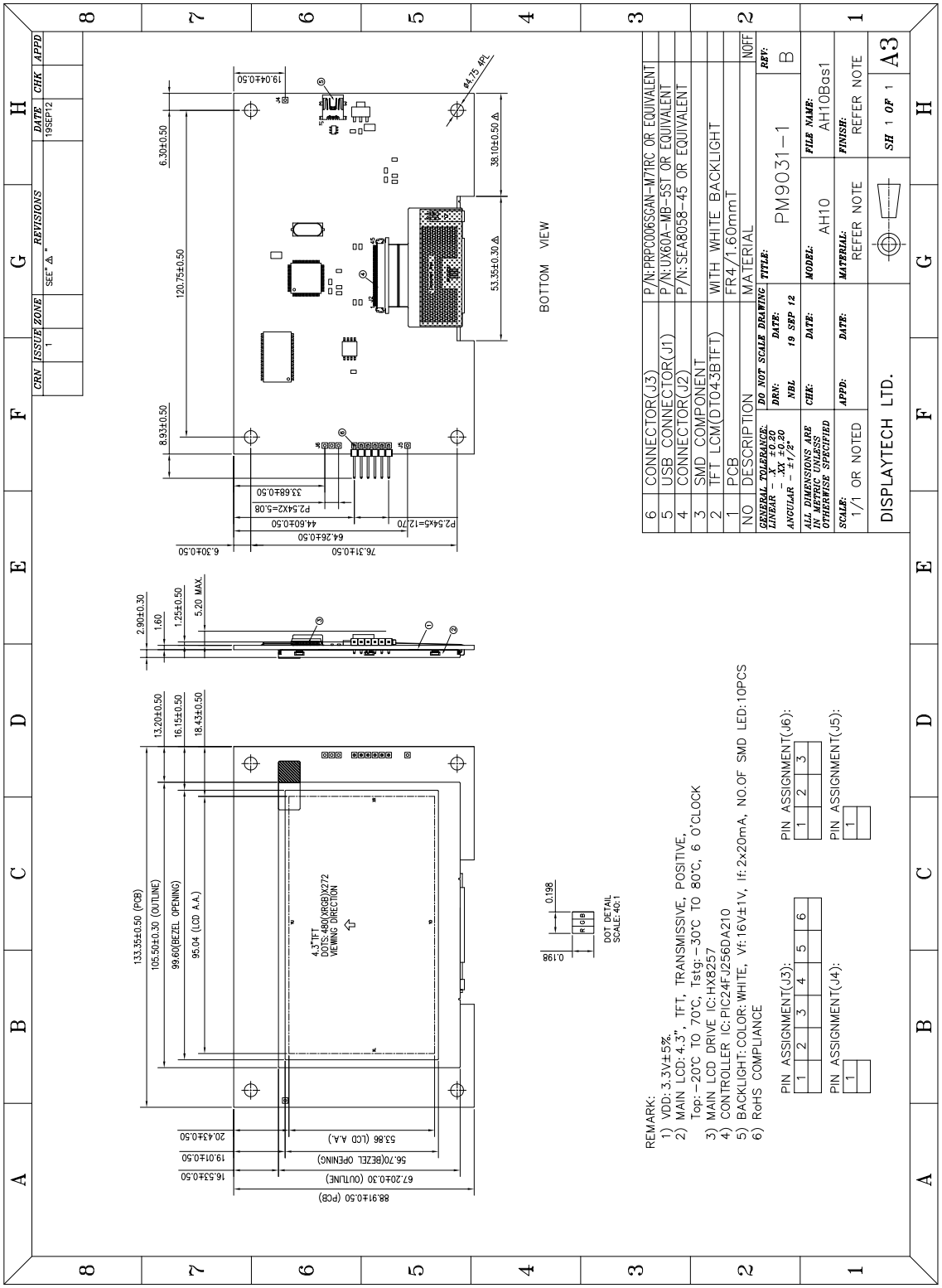
1. Introduction

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.

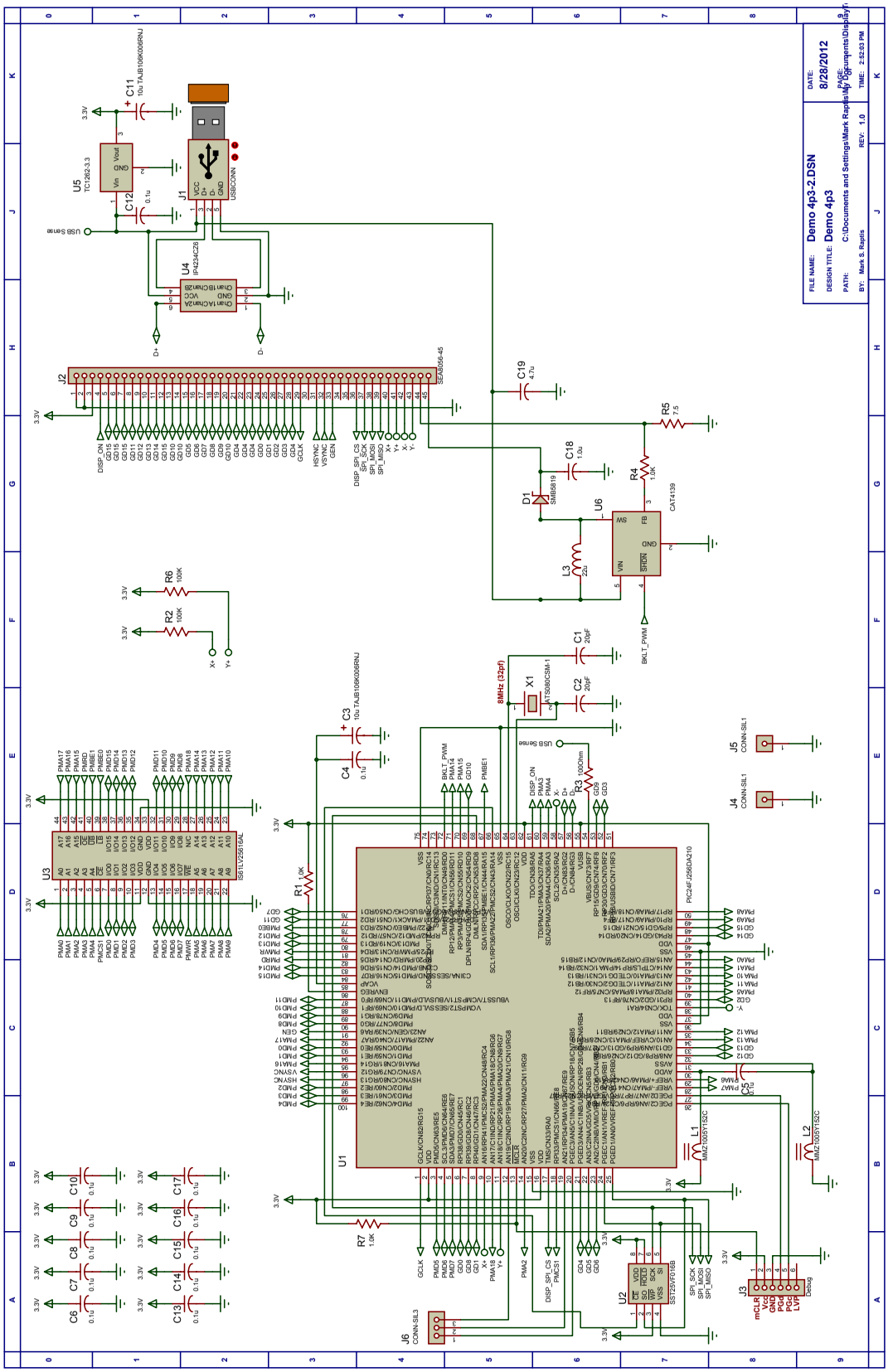
2. General Specifications

Item	Specification	Unit
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
DESIGN TITLE: Demo 4p3
PATH: C:\Documents and Settings\Mark Raptis\My Documents\Displaytech\Demo 4p3\
BY: Mark S. Raptis
DATE: 8/28/2012
PAGE:
REV: 1.0
TIME: 2:52:03 PM
U1
PIC24F256DA210
U2
SST25VF016B
U3
IS61LV25616AL
U4
IP4224CZ6
U5
TC1262-3.3
U6
CAT4139
J1
USBCONN
J2
SEAF056-45
J3
Debug
J4
CONN-SIL1
J5
CONN-SIL1
J6
CONN-SIL3
X1
8MHz (32pf)
D1
SMB5819
L1
MMZ1005Y152C
L2
MMZ1005Y152C
USB Sense
BKLT_PWM
DISP_ON
DISP_SPI_CS
SPI_SCK
SPI_MOSI
SPI_MISO

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

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.