Displaytech Ltd.®
a seacomp company

Website: www.displaytech-us.com

Embedded Demonstration Board Product Specification

EMB028TFTDEMO

2.8” Color TFT Display Demonstration Board

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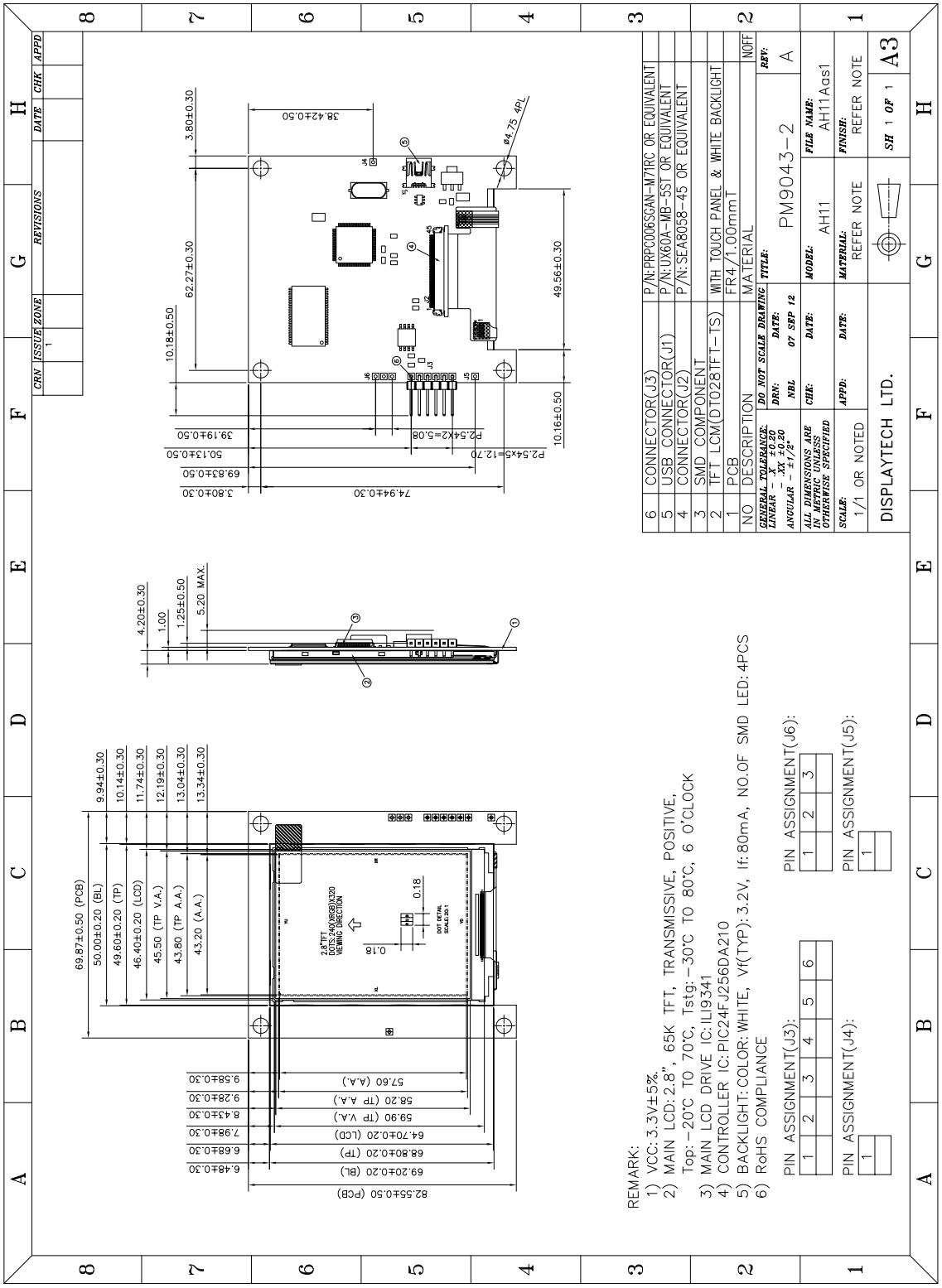
1. Introduction

The Displaytech EMB028TFTDEMO is a demonstration and development board for the Displaytech DT028ATFT 2.8" 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.

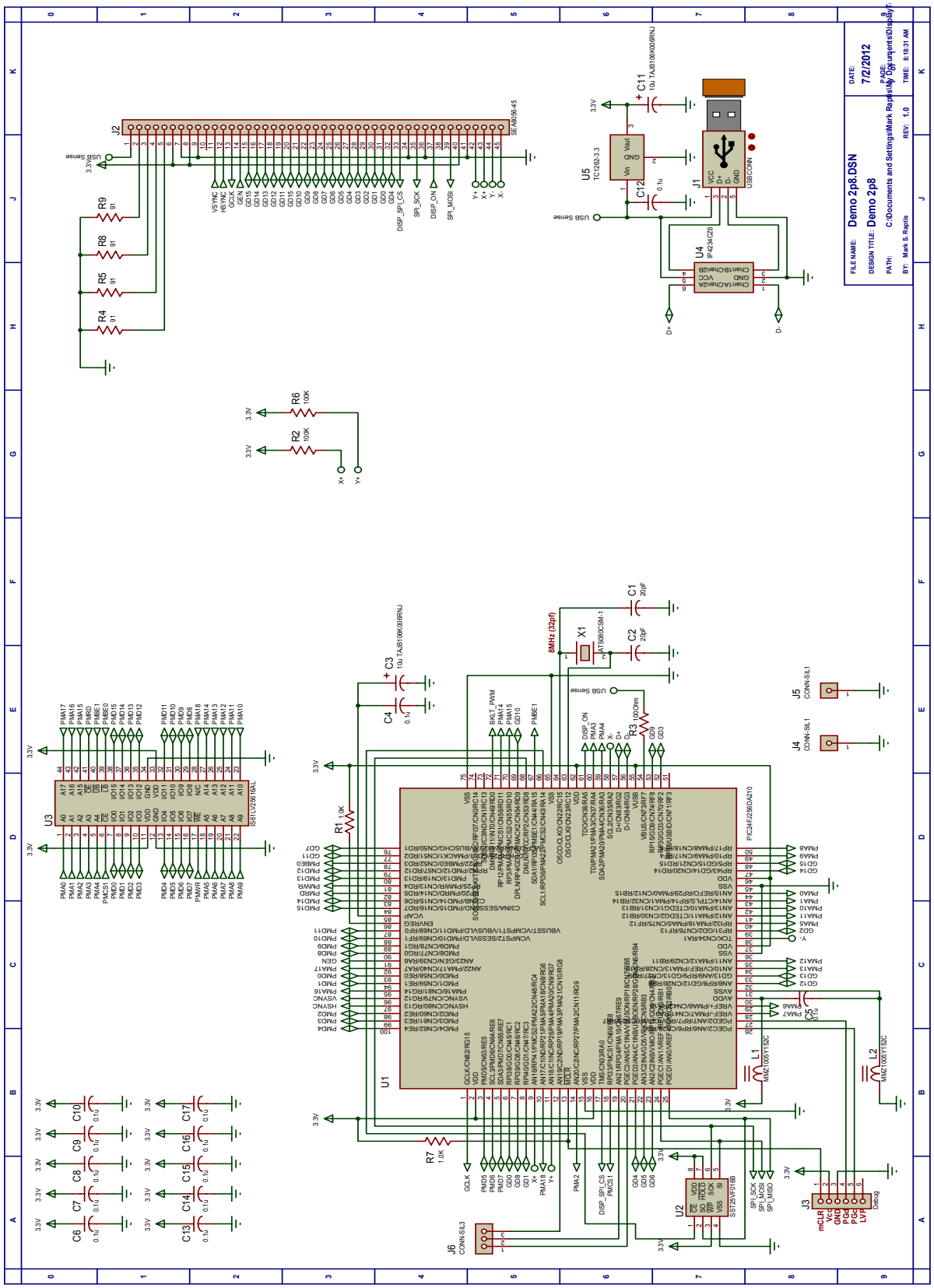
2. General Specifications

Item	Specification	Unit
LCD Resolution (Horizontal)	240	Line
LCD Resolution (Vertical)	320	Line
PCB Size (Horizontal)	2.75	Inch
PCB Size (Vertical)	3.25	Inch
Interface	USB and PICKit	---
TFT Driver IC	Ilitek ILI9341	---
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 2p8.DSN
DESIGN TITLE: Demo 2p8
PATH: C:\Documents and Settings\Mark Rapley\My Documents\Displayt
BY: Mark S. Rapley
DATE: 7/2/2012
REV: 1.0
TIME: 8:18:31 AM
PAGE
8MHz (32pf)
USB Sense
3.3V
U1
U2
U3
U4
U5
J1
J2
J3
J4
J5
J6
X1
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
L1
L2
R1
R2
R3
R4
R5
R6
R7
R8
R9
Debug

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/qlydk52r1tw0wlx/SEA_EMB028TFTDEMO_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 EMB028TFTDEMO, 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.