



Website: www.displaytech-us.com

Embedded Demonstration Board Product Specification

EMB028TFTDEMO

2.8" Color TFT Display Demonstration Board

Table of Contents

1. INTRODUCTION	3
2. GENERAL SPECIFICATIONS	3
3. MECHANICAL DRAWING	4
4. EXAMPLE FIRMWARE	5
4.1. PROGRAMMING.....	6

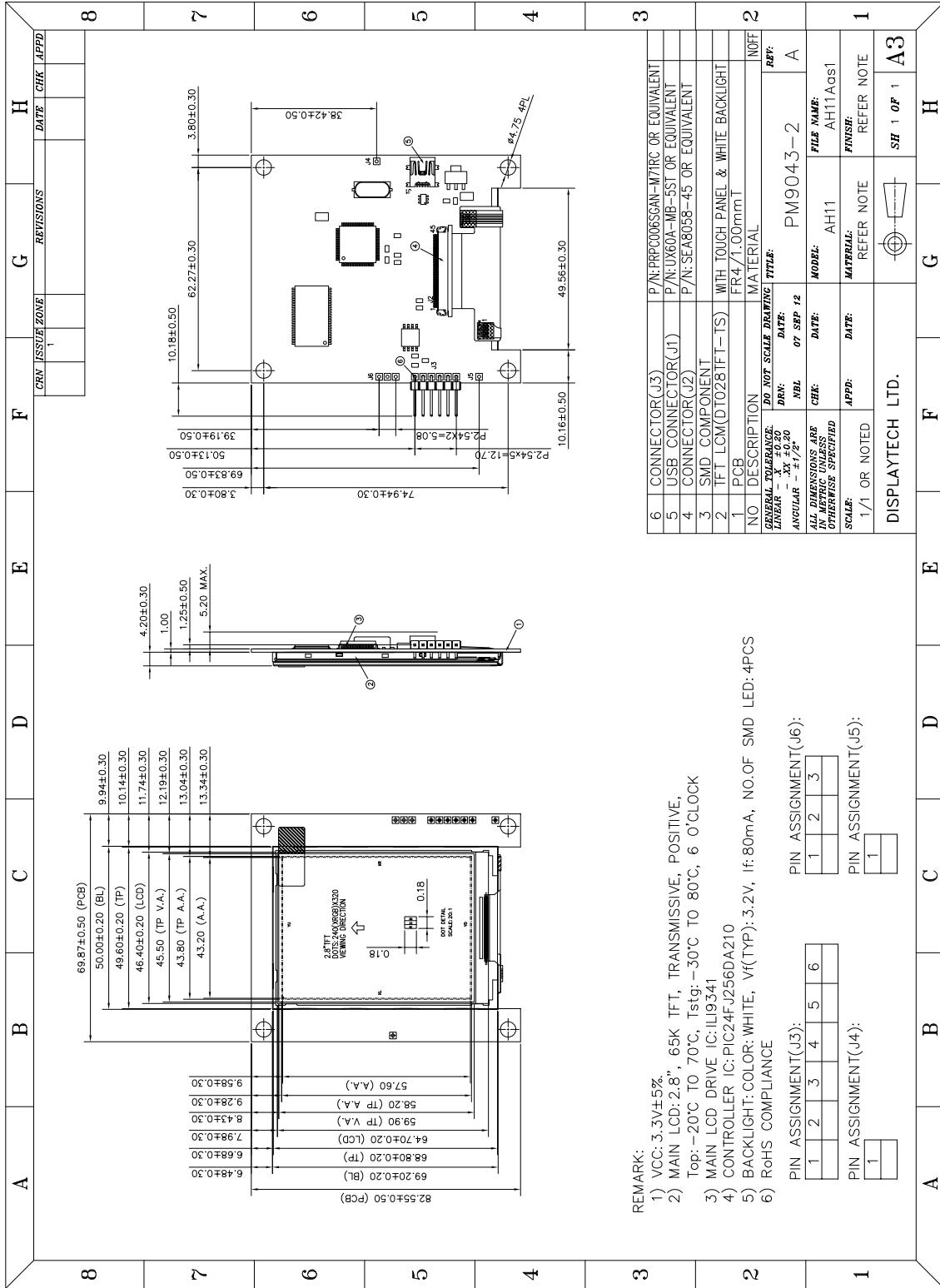
1. Introduction

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



REMARK:

- VCC: 3.3V±5%
- MAIN LCD: 2.8", 65K TFT, TRANSMISSIVE, POSITIVE, Top: -20°C TO 70°C, Tstg: -30°C TO 80°C, 6 O'CLOCK
- MAIN LCD DRIVE IC: ILI9341
- CONTROLLER IC: PIC24FJ256DA210
- BACKLIGHT: COLOR: WHITE, Vf(TYP): 3.2V, If: 80mA, NO.OF SMD LED: 4PCS
- RoHS COMPLIANCE

PIN ASSIGNMENT(J3):

1	2	3	4	5	6
---	---	---	---	---	---

PIN ASSIGNMENT(J6):

1	2	3
---	---	---

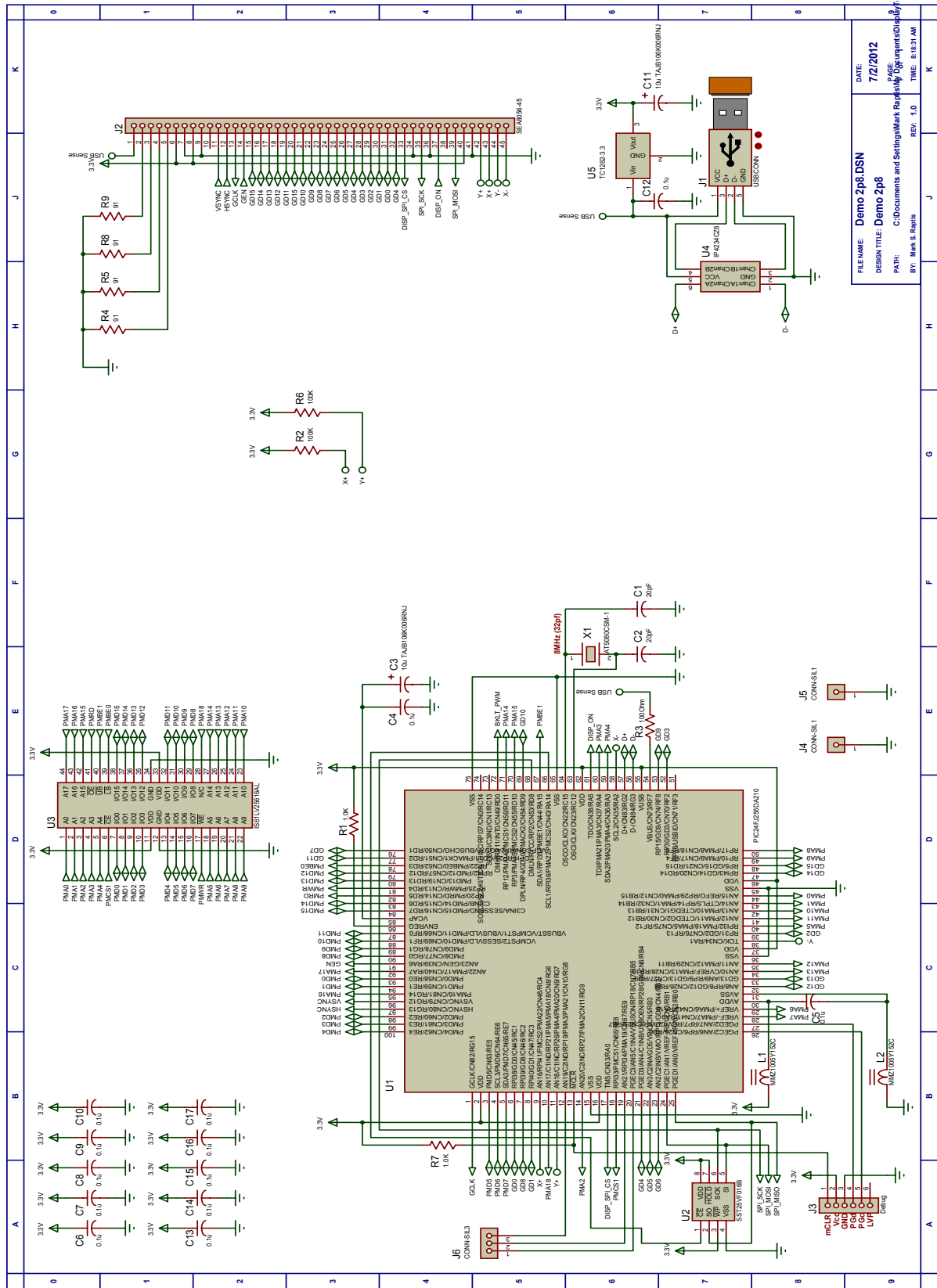
PIN ASSIGNMENT(J4):

1

PIN ASSIGNMENT(J5):

1

4. Schematic



FILE NAME: Demo 2p8.DSN
 DESIGN TITLE: Demo 2p8
 PATH: C:\Documents and Settings\Mark Rapley\My Documents\Display
 DATE: 7/2/2012
 PAGE: 1
 REV. 1.0
 TIME: 8:15:31 AM

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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Display Development Tools](#) category:

Click to view products by [Displaytech](#) manufacturer:

Other Similar products are found below :

[KIT 60121-3](#) [S5U13U11P00C100](#) [KIT 60145-3](#) [S5U13748P00C100](#) [DFR0413](#) [KIT95000-3](#) [LCD-16396](#) [PIM370](#) [1109](#) [MIKROE-2449](#)
[MIKROE-2453](#) [131](#) [DEV-13628](#) [1590](#) [MIKROE-2269](#) [1601](#) [1770](#) [1947](#) [1983](#) [1987](#) [2050](#) [2218](#) [2260](#) [2345](#) [2418](#) [2423](#) [2454](#) [2455](#) [2478](#)
[2674](#) [FIT0477](#) [333](#) [334](#) [TE-M321-SDK](#) [DFR0428](#) [cs-epapersk-03](#) [338](#) [DEV-14442](#) [FIT0478](#) [cs-paperino-01](#) [OM-E-OLE](#)
[ALTHSMCMIPILCD](#) [ASD2421-R](#) [TDP0500T800480PCAP](#) [LCD-14048](#) [cs-epapersk-02](#) [2719](#) [LCD-01](#) [PIM113](#) [3498](#)