



Website: www.displaytech-us.com

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

| Item | Specification | Unit |
|-------------------------------------|----------------------|-------------|
| 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 |

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

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.