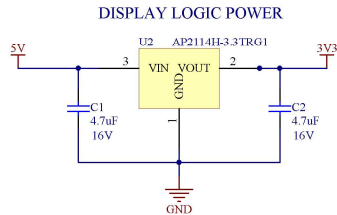
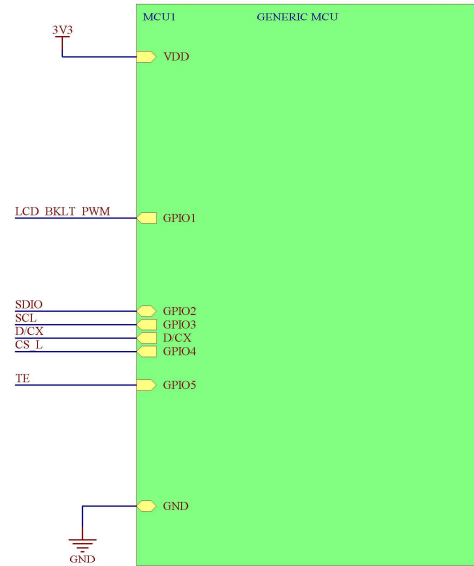


REVISION HISTORY			
REV	DESCRIPTION	INITIALS	DATE
A1	INITIAL RELEASE	PRW	10/5/2020

## DT024ETFT-IPS Serial Data Reference Design (SERIAL CONFIGURATION AND IMAGE DATA)

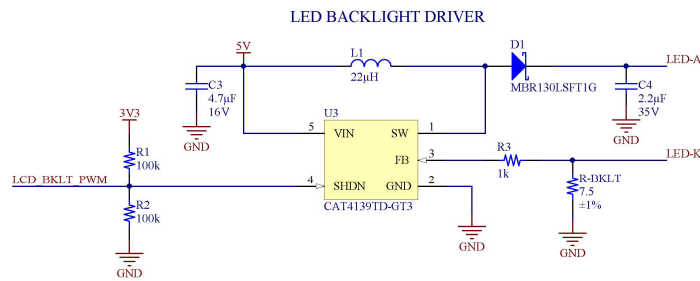
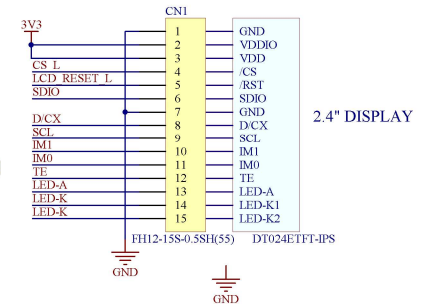


▲ THESE SERIAL DATA SIGNALS ARE NOT FULLY COMPATIBLE WITH STANDARD SPI DATA PROTOCOLS. CUSTOM DRIVERS ARE NEEDED TO USE SPI HARDWARE PORTS.  
A BIT-BANGED IMPLEMENTATION IS AVAILABLE IN THE SAMPLE DRIVER CODE.



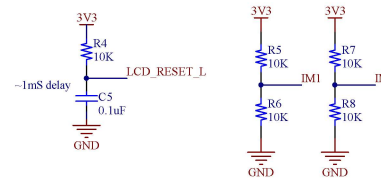
▲ LEAVE TE PIN OPEN WHEN NOT IN USE

▲ THE DISPLAY DRIVER (IL9341) MUST BE CONFIGURED TO GENERATE FRAME RATE SIGNALS INTERNALLY, SIMILAR TO MCU MODE.  
DISPLAY IMAGE DATA IS WRITTEN THROUGH THE SERIAL INTERFACE TO THE DISPLAY DRIVER GRAPHICS RAM (GRAM) MEMORY.



▲ BACKLIGHT OPTIONS:  
\*\*FOR DARK SCREEN (BACKLIGHT OFF) AT BOOT TIME: POPULATE R2, DEPOPULATE R1  
\*\*FOR NORMAL SCREEN (BACKLIGHT ON) AT BOOT TIME: POPULATE R1, DEPOPULATE R2.

▲ BACKLIGHT CURRENT TBD  
BACKLIGHT CURRENT RESISTOR SELECTION:  
I-BKLT = 3 R-BKLT  
FOR DT024ETFT-IPS: I-BKLT = 40mA, R-BKLT = 7.5 Ohm  
FOR DT024ETFT-IPS-SHB: I-BKLT = 70mA, R-BKLT =



▲ \*\*FOR 4-WIRE 8-BIT SERIAL COMMUNICATION: POPULATE R5 & R8, DEPOPULATE R6 & R7 (IM1=HIGH, IM0=LOW)  
\*\*FOR 3-WIRE 9-BIT SERIAL COMMUNICATION: POPULATE R6 & R7, DEPOPULATE R5 & R8 (IM1=LOW, IM0=HIGH)  
SEE IL9341 DATASHEET FOR DETAILS.

Project: DT024ETFT-IPS		<b>Displaytech</b> <small>a seacom company</small>	
Title: DT024ETFT-IPS Reference Design			
Size: A3	Doc Number: 1	Revision: A1	Drawn By: PRW
Date: 10/6/2020	Time: 12:58:22 PM	Sheet: 1 of 1	Approved:
File: DT024ETFT-IPS_SERIAL_SchDoc			Date:
			SIACOMP Displaytech 2546 Gateway Road Carlsbad, CA 92009 USA