

TFT LCD BoosterPack (BOOSTXL-K350QVG-S1) for the Launchpad User Guide

1 BOOSTXL-K350QVG-S1 Overview

The BOOSTXL-K350QVG-S1 is a TFT graphic LCD BoosterPack (see [Figure 1](#)).

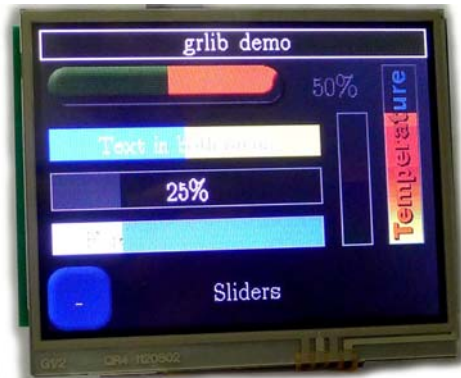


Figure 1. LCD boosterpack

Feature:

- Kentec TFT LCD (P/N: K350QVG-V2-F)
 - 3.5 inch QVGA (320x240 resolution);
 - SPI interface (4-wire/default or 3-wire mode);
 - With 4-wire resistive touch screen;
 - White LED backlight;
- With LED backlight driver circuit.
- Open source hardware and software for download
- Hardware compatible with TI Launchpad: MSP-EXP430F5529LP, EK-TM4C123GXL, EK-TM4C1294XL, LAUNCHXL-F28027, LAUNCHXL-F28027F, LAUNCHXL-RM42, LAUNCHXL-TMS57004, etc.

2 Outline Dimensions

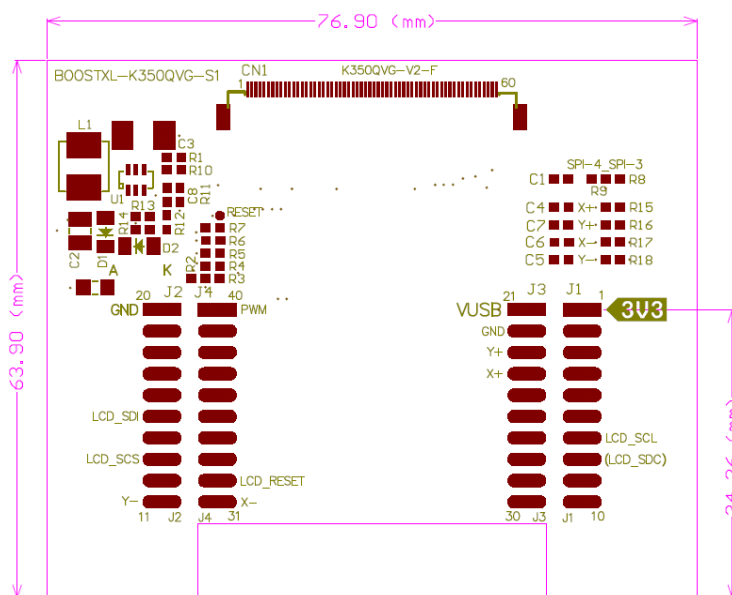


Figure 2. Boosterpack outline dimensions

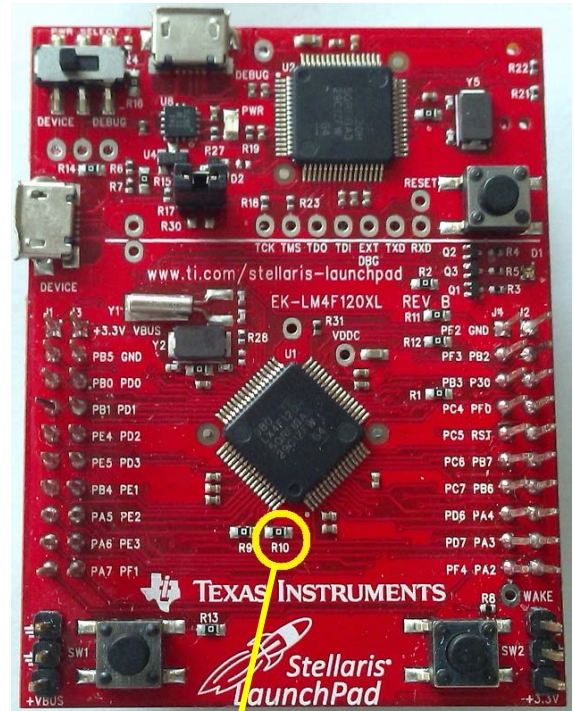
3 BOOSTXL-K350QVG-S1 Interface

Table 1. Pin socket connect to TI LaunchPad MCU board

J1 Pin	Symbol	Description	Note
1	3V3	Power supply	
2	NC	No connection	
3	NC	No connection	
4	NC	No connection	
5	NC	No connection	
6	NC	No connection	
7	LCD_SCL	SPI clock input for LCD	
8	(LCD_SDC)	4-wire SPI mode DC input for LCD	
9	NC	No connection	
10	NC	No connection	
J2 Pin	Symbol	Description	
11	TOUCH_YN	Resistive touch screen terminal (Bottom)	
12	NC	No connection	
13	LCD_SCS	Chip select signal input for LCD	
14	NC	No connection	
15	LCD_SDI	SPI data input for LCD	(1)
16	RESET	Reset signal for MCU	
17	NC	No connection	
18	NC	No connection	
19	NC	No connection	
20	GND	Ground	
J3 Pin	Symbol	Description	
21	5V0	Power supply	
22	GND	Ground	
23	TOUCH_YP	Resistive touch screen terminal (Top)	
24	TOUCH_XP	Resistive touch screen terminal (Left)	(1)
25	NC	No connection	
26	NC	No connection	
27	NC	No connection	
28	NC	No connection	
29	NC	No connection	
30	NC	No connection	
J4 Pin	Symbol	Description	
31	TOUCH_XN	Resistive touch screen terminal (Right)	
32	LCD_RST	Reset signal input for LCD	
33	NC	No connection	
34	NC	No connection	
35	NC	No connection	
36	NC	No connection	
37	NC	No connection	
38	NC	No connection	
39	NC	No connection	
40	LED_ON/OFF	LCD backlight ON/OFF control.	

Note (1)

For the Tiva C Launchpad / EK-TM4C123GXL application, “LCD_SDI / PB7” been connected to “TOUCH_XP/PD1” by “R10” on the Launchpad. You must remove “R10” before application.



Remove “R10” to disconnect “PB7/SSI2Tx” and “PD1/AIN6” on Tiva C Launchpad.

4 Boosterpack circuit diagram

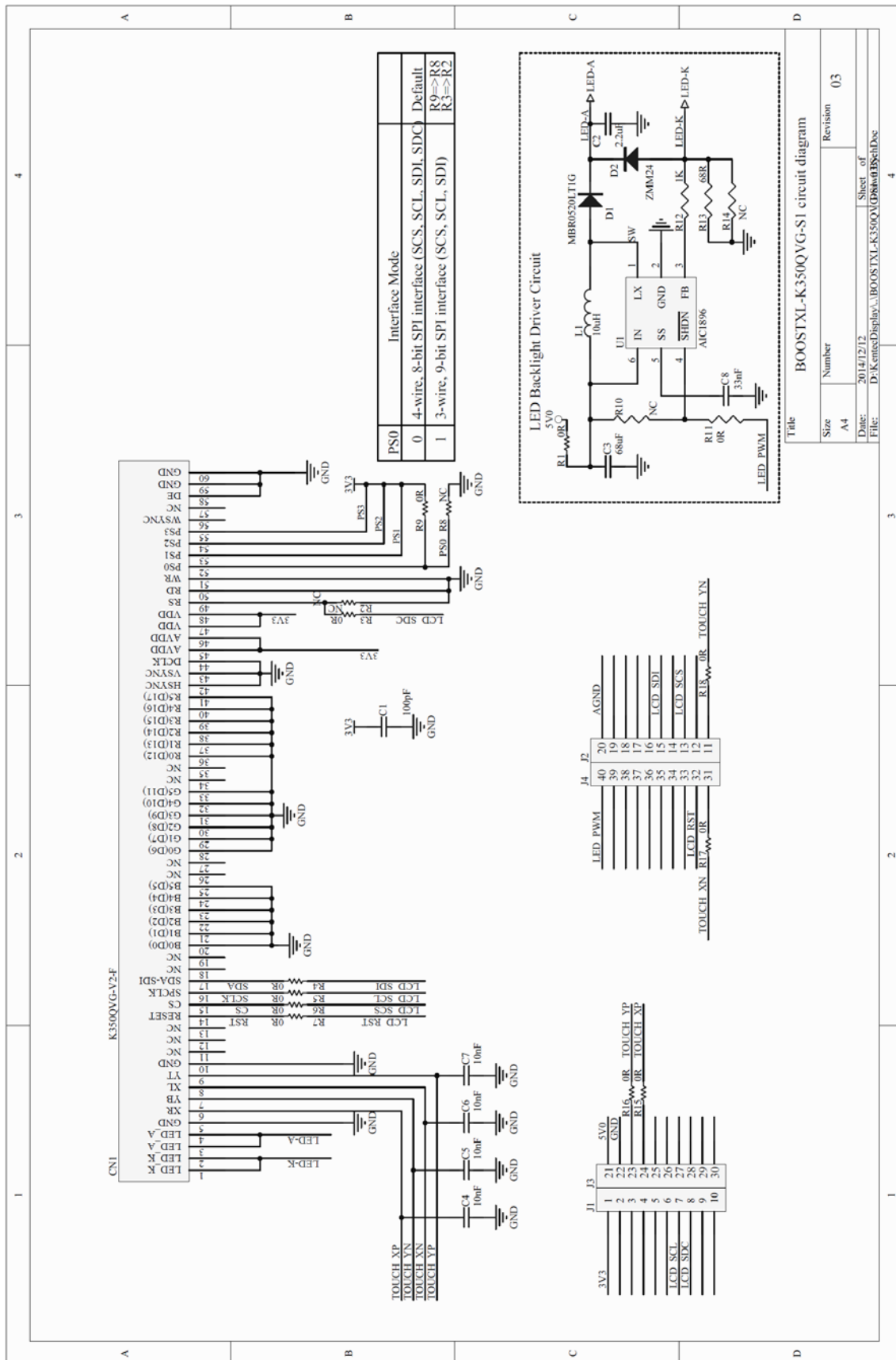


Figure 3. Boosterpack schematic

5 PCB layout

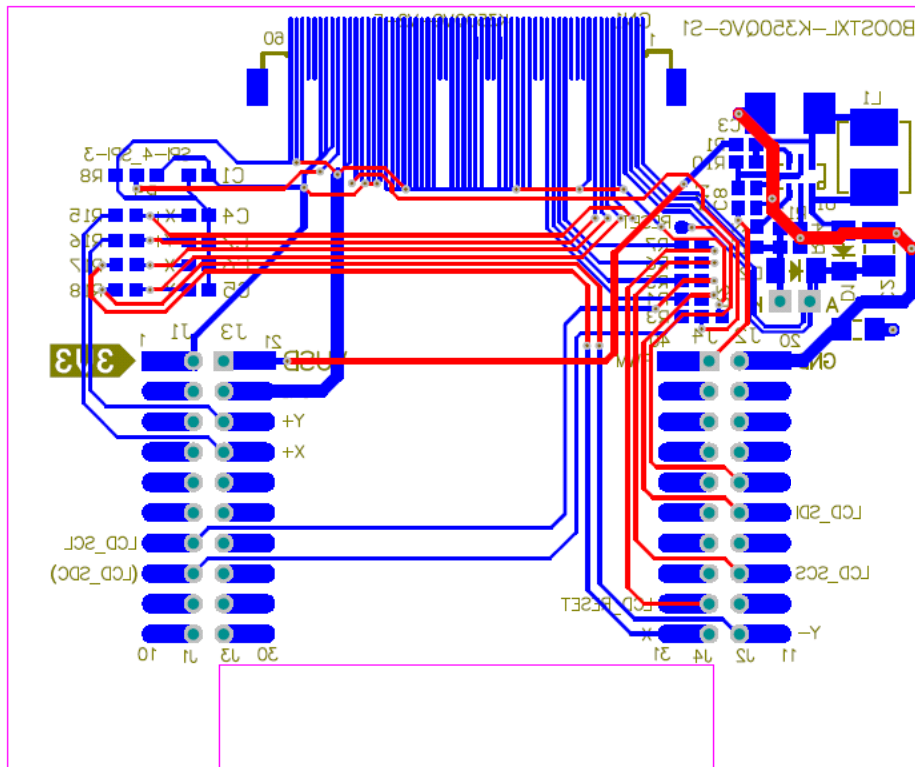


Figure 4. Boosterpack PCB layout (Top and Bottom)

6 LCD driver code examples

Bellow attachment is the source code for reference.

NO.	Document	Attachment
1	Driver source code package for EK-TM4C123GXL	Kentec320x240x16_SSD2119_SPI.c
2	Driver source code package for MSP-EXP430F5529LP	

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