

XA-SK-SCR480 Slice Card Hardware Guide

REV A

Publication Date: 2012/10/23
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1 Slice Card Overview

IN THIS CHAPTER

- ▶ Pack Contents
 - ▶ Parallel RGB565
 - ▶ Resistive Touch Controller
-

1.1 Pack Contents

- ▶ One XA-SK-SCR480 Slice Card
- ▶ One Kentec K430WQA-V4-F 480x272 Colour Resistive Touch Screen with cable

1.2 Parallel RGB565

This slice provides power supply electronics and a 40-pin ZIF connector for the included LCD, plus a low cost resistive touch screen controller that interfaces to the LCD and to the XCore via a 2-wire interface. The touch functionality is only accessible when the Slice is placed in the TRIANGLE slot.

The parallel RGB interface is driven directly from the xSOFTip LCD controller component running on the xCORE using 1 16 bit port and 4 1-bit ports. The xSOFTip LCD controller is capable of driving screens with resolutions up to 800x600 (in conjunction with the XA-SK-SDRAM Slice Card and xSOFTip SDRAM controller component).

1.3 Resistive Touch Controller

An Analog Devices Touch Screen Controller ADC is provided on the Slice Card and interfaced to the xCORE via an I2C bus and an interrupt line. This can be used to provide resistive touch co-ordinate information to software applications written for this Slice.

2 XA-SK-GPIO Functional Pins

This table shows the port mapping for each of the Slice Card Signal IO, and the Slicekit Slot connector pin it is located on.

Function	STAR	TRIANGLE	SQUARE	PIN	Description
1 bit	NC	1A	NC	B2	
1 bit	NC	1D	NC	B4	
I2C_SCL	NC	1E	NC	A3	I2C clock for touch controller
I2C_SDA	NC	1H	NC	A4	I2C data for touch controller
1 bit	1C	1K	1C	B10	LCD Vsync
PENIRQ#	1B	1J	1B	A8	Interrupt from touch controller
1 bit	1G	1I	1G	B15	LCD Hsync
LCD_DE	1F	1L	1F	A15	LCD Data Enable
LCD_R0	16A0	16B0	16A0	B6	LCD Parallel RGB Data
LCD_R1	16A1	16B1	16A1	B7	LCD Parallel RGB Data
LCD_R2	16A2	16B2	16A2	B9	LCD Parallel RGB Data
LCD_R3	16A3	16B3	16A3	B11	LCD Parallel RGB Data
LCD_R4	16A4	16B4	16A4	A9	LCD Parallel RGB Data
LCD_G0	16A5	16B5	16A5	A11	LCD Parallel RGB Data
LCD_G1	16A6	16B6	16A6	A6	LCD Parallel RGB Data
LCD_G2	16A7	16B7	16A7	A7	LCD Parallel RGB Data
LCD_G3	16A8	16B8	16A8	B12	LCD Parallel RGB Data
LCD_G4	16A9	16B9	16A9	B13	LCD Parallel RGB Data
LCD_G5	16A10	16B10	16A10	B17	LCD Parallel RGB Data
LCD_B0	16A11	16B11	16A11	B18	LCD Parallel RGB Data
LCD_B1	16A12	16B12	16A12	A17	LCD Parallel RGB Data
LCD_B2	16A13	16B13	16A13	A18	LCD Parallel RGB Data
LCD_B3	16A14	16B14	16A14	A12	LCD Parallel RGB Data
LCD_B4	16A15	16B15	16A15	A13	LCD Parallel RGB Data



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