

XA-SK-AUDIO Slice Card Hardware Guide

REV A

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1 Slice Card Overview

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1.1 Pack Contents

- ▶ One XA-SK-AUDIO Slice Card

1.2 4 Channel Audio

Four input and four output channels are provided on the Slice Card via an I2S interface to two CS4270 stereo audio codecs with a shared 2-wire bus for configuration. The xSOFTip I2S driver component drives all 4 channels in both directions at sample rates up to 192 KHz and takes care of codec configuration. Audio clock generation is provided via a CS2100-CP programmable PLL.

1.3 MIDI

MIDI In and MIDI out connectors are provided. A stand alone MIDI xSOFTip component to work with this Slice Card is under development.

1.4 SPDIF Transmit

An SPDIF digital audio output is provided on the board. A stand alone SPDIF transmit xSOFTip component to work with this Slice Card is under development.

2 XA-SK-AUDIO 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	TRIANGLE	CIRCLE	PIN	Description
BCLK	1A	1A	B2	I2S Bit Clock
DAC_DATA0	1D	1D	B4	I2S DAC DATA Channel 0
MCLK	1E	1E	A3	I2S Master Clock
LRCLK	1H	1H	A4	I2S LR Clock
SPDIF_OUT	1K	1K	B10	SPDIF transmit
UART_RX	1I	1I	B15	I2S ADC DATA Channel 0
I2C_SCL	1L	1L	A15	I2S ADC DATA Channel 1
MIDI_IN	1J	1J	A8	From MIDI Connector
MCLK_FSEL	4E1	4E1	B7	MCLK Function Select
CODEC_RST_N	4E2	4E2	A6	Codec Reset
LED	4E3	4E3	A7	User LED output
SCL	4F0	4F0	B9	I2C clock for codec configuration
SDA	4F1	4F1	B11	I2C data for codec configuration
DAC_DATA1	8D0	1M	B12	I2S DAC DATA Channel 1
PLL_SYNC	1P	1P	B18	PLL
MIDI_OIUT	8D7	NC	A13	To MIDI connector



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