



DOMAIN TECHNOLOGIES INC.

Users Guide version 1.0

DT42448DB

Audio Daughterboard

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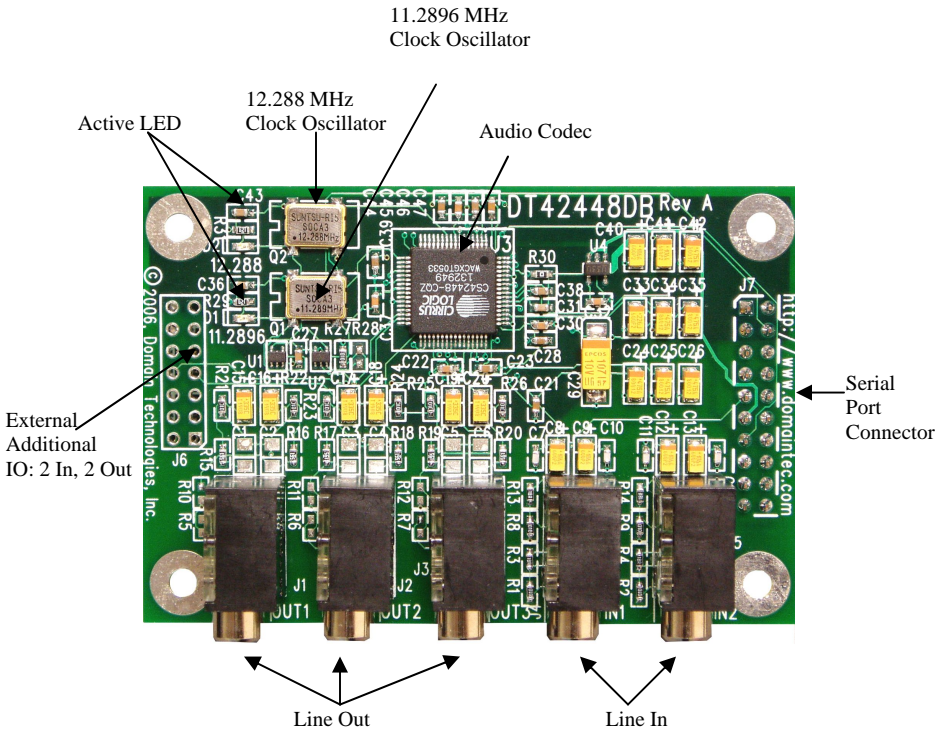
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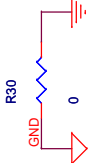
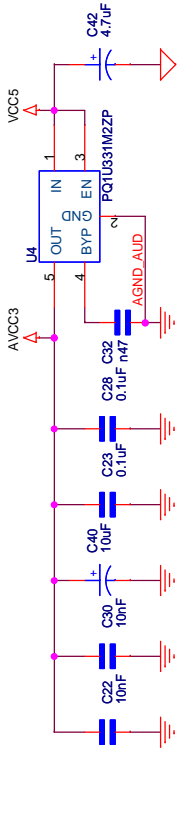
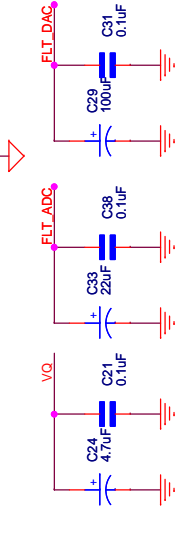
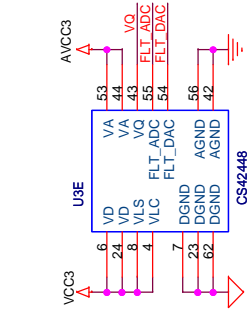
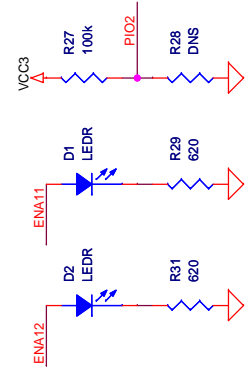
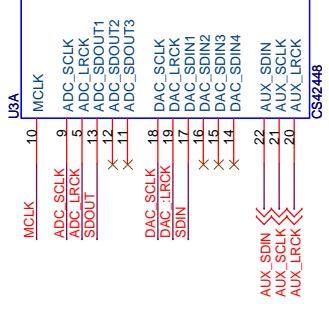
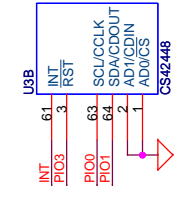
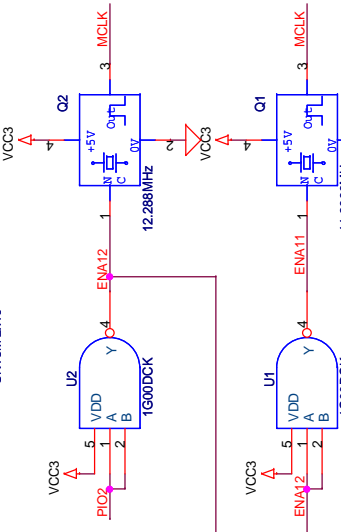
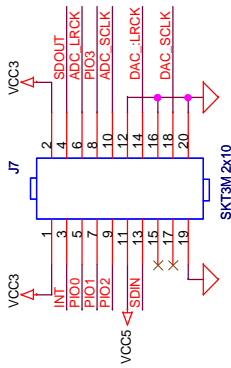
1. Introduction

The compact (2" x 3") DT42448DB creates a 4 input channel and 6 output channel audio test system by providing dual stereo audio input and triple stereo output (5.1) to any ZSP board with a SPORT serial connector. The board features Cirrus Logic Cs42448 with six 24-bit A/D and eight 24-bit D/A Converters. With two external clock sources, it supports sampling rates of 192 -11 kHz. In 4 channel mode, it supports sampling rates of 96kHz-11kHz. It features logarithmic digital volume controlled by the ZSP through the I²C Host Control Port. It features 3 stereo lines out and 2 stereo lines in; additional stereo in/out lines are optional. The board also features a serial interface to all channels.

2. Description

The active oscillator is indicated by the board LEDs. PIO2 controls which oscillator is used. PIO3 is used for reset. PIO0 and PIO1 are used for I²C access. The DT42448DB board is described below:



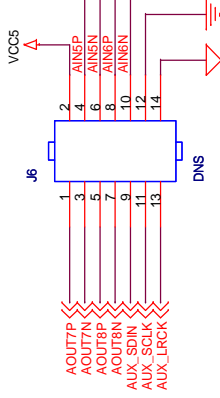
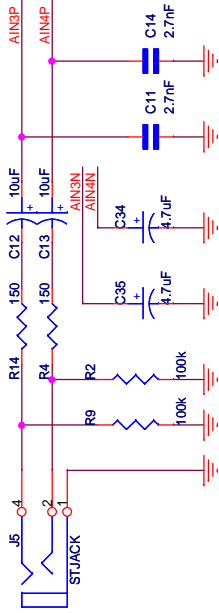
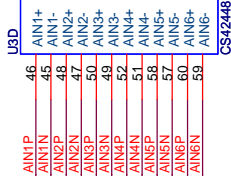
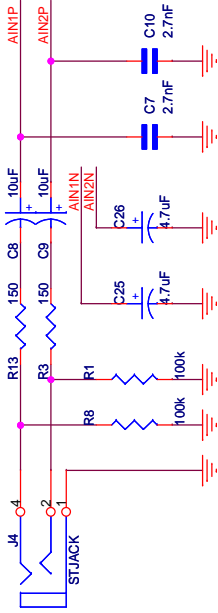


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DSP Interface

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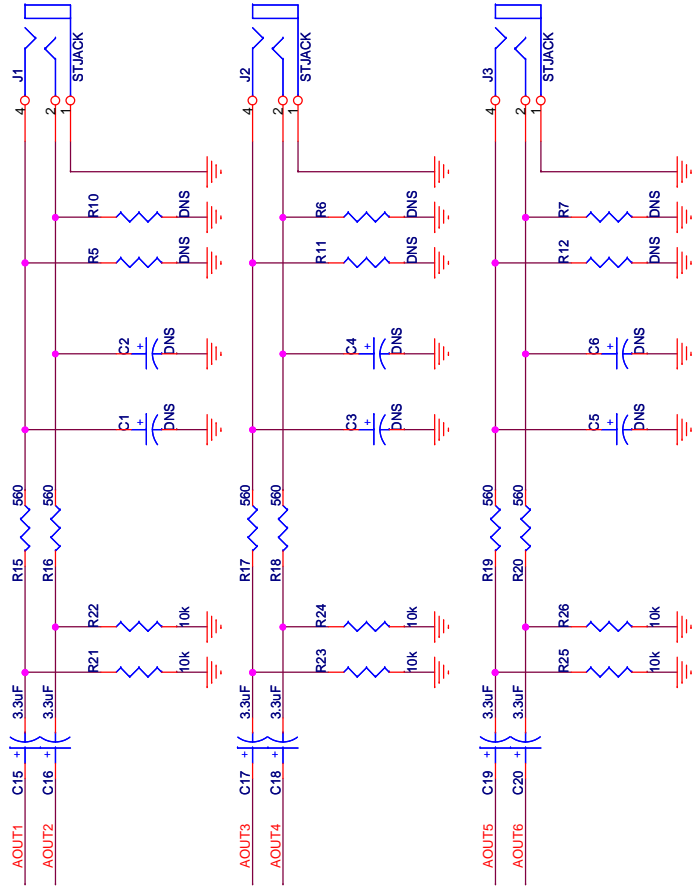
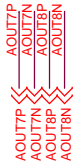
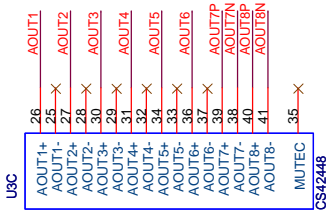
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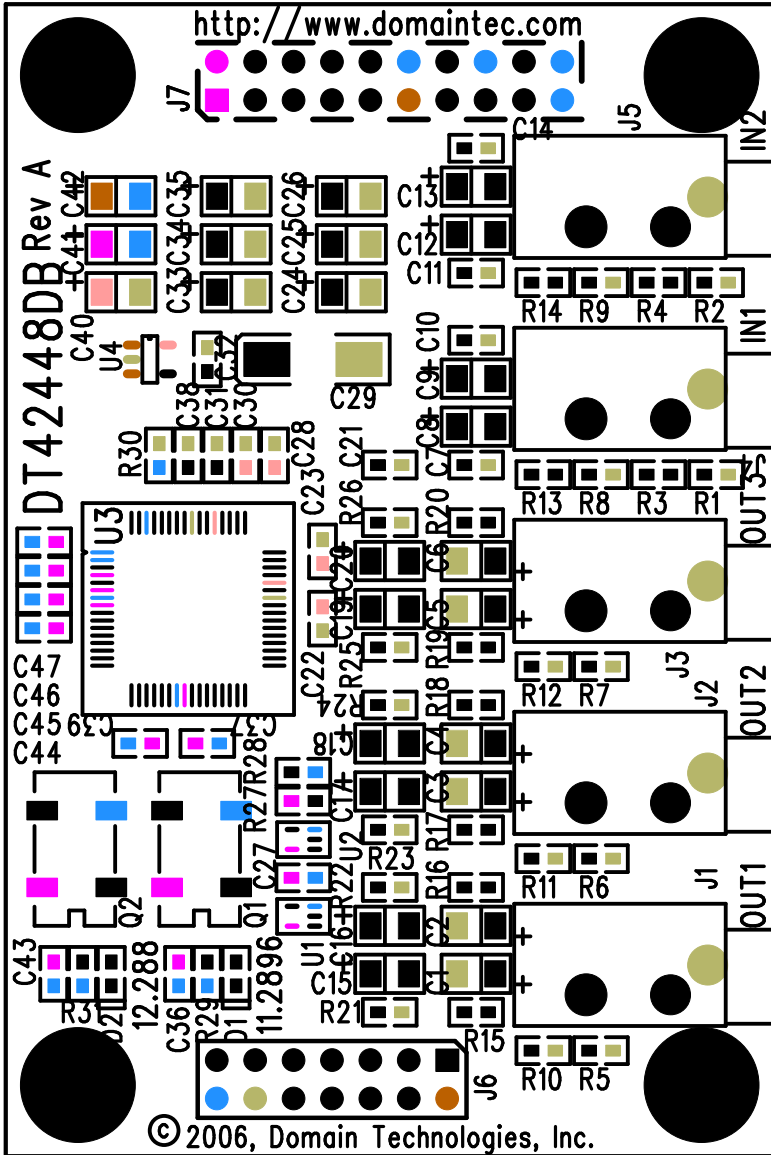
Audio Inputs

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$$C_{\text{ext}} = \frac{1}{4} * P_I * F_s * R_{\text{ext}} + 560$$

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Your Link to DSPs

Evaluation Boards

Domain's evaluation boards promote fast and reliable prototyping. All boards provide external JTAG connectors for optional, faster JTAG emulator. Access to external audio, SLIC, and DAA functionality is provided with daughter boards through SPORT adapters:

Part (Chip)	Flash	SRAM	JTAG	EXT JTAG	HPI	EXT HPI	SP	Audio	SLIC	DAA
DT402EB (ZSP 402ZX)	512KW	256KW	✓	✓	✓	✓	2	Ext	Ext	Ext
DT403LP (ZSP 403LP)	-	128KW	✓	✓	✓	✓	2	2,Ext	Ext	Ext
DT405LP (ZSP 405LP)	256KW	MRAM	✓	✓	✓	✓	2	2,Ext	Ext	Ext
DTVOIP4S1D (ZSP 403LP)	-	128KW	-	✓	-	✓	-	-	4	1
EB403LC (ZSP 403LC)	-	-	✓	✓	✓	-	1	Ext	Ext	Ext

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