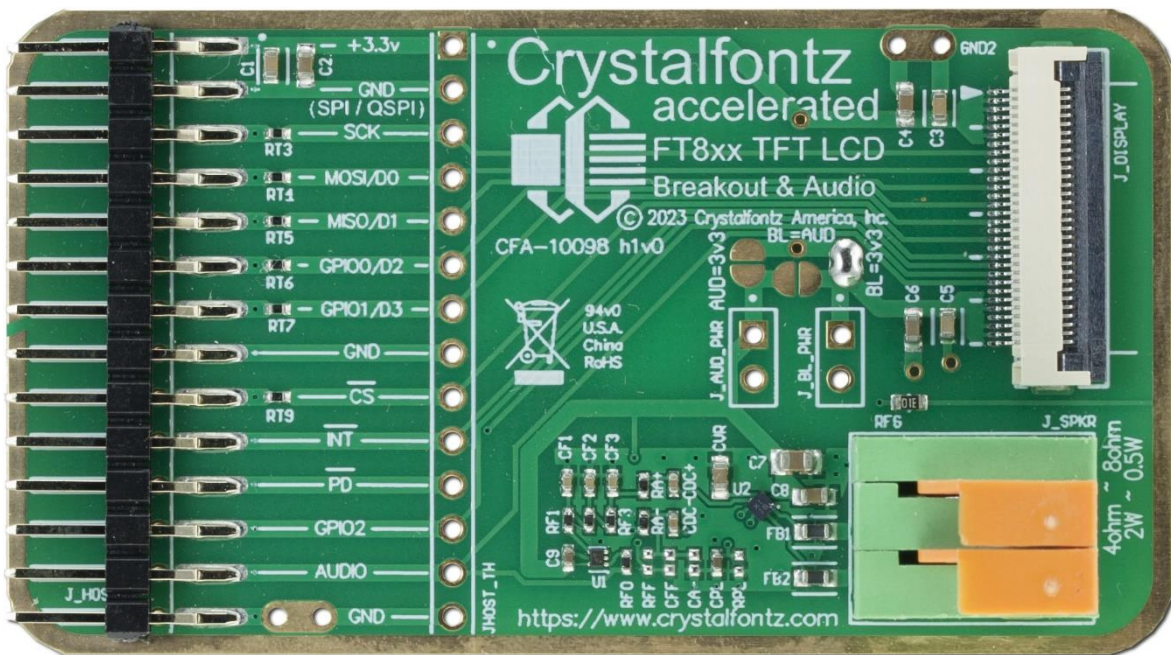




BREAKOUT / AUDIO BOARD
FOR
CRYSTALFONTZ DISPLAYS WITH
EVE GRAPHICS ACCELERATOR

DATASHEET



CFA10098

2023-09-11

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1. General Information

Datasheet Revision History

Datasheet Release: 2023-09-11
Datasheet for the CFA10098 EVE Breakout Board

Product Change Notifications

You can check for or subscribe to [Part Change Notices](#) for this display module on our website.

Variations

Slight variations between lots are normal (e.g., contrast, color, or intensity).

Volatility

This display module has volatile memory.

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2. Introduction

The Crystalfontz CFA10098 is a breakout and audio amplification board intended for development use with Crystalfontz FT8xx and BT81x EVE accelerated TFT displays.

This board provides easy to use 0.1-in header pins ideal for testing, prototyping and one-off use with microcontroller based boards and other host interfaces.

Example source-code for the attached EVE accelerated TFT display product is provided on our website and [on Github](#).

3. Key Features

- Easy to use 0.1 inch header pins
- 30-position connector for flat-cable connection to the Crystalfontz EVE accelerated displays
- Jumper configurable power and audio options
- EVE compatible PWM audio filter and 2W Class D speaker amplifier

4. Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Logic Supply Power	VCC (3v3)	0.0	4.0	V
Backlight Supply Power	BL_PWR	<i>see display module datasheet used in conjunction with this adapter board</i>		V
Audio Power Supply	AUD_PWR	0.0	6.0	V
Speaker Load Resistance	RJ_SPKR	3.2	-	ohms

Notes:

- *These are stress ratings only. Extended exposure to the absolute maximum ratings listed above may affect device reliability or cause permanent damage.*

5. Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Logic Supply Power	VCC (3v3)	(note 1)	3.3	(note 1)	V
Backlight Supply Power	BL_PWR	<i>see display module datasheet used in conjunction with this adapter board</i>		V	
Audio Power Supply	AUD_PWR	2.5	3.3	5.5	V
Speaker Load Resistance	RJ_SPKR	4.0	4.0	8.0	ohms

Notes:

1. *Functional operation should be restricted to the limits in the display datasheet used in conjunction with this adapter board*



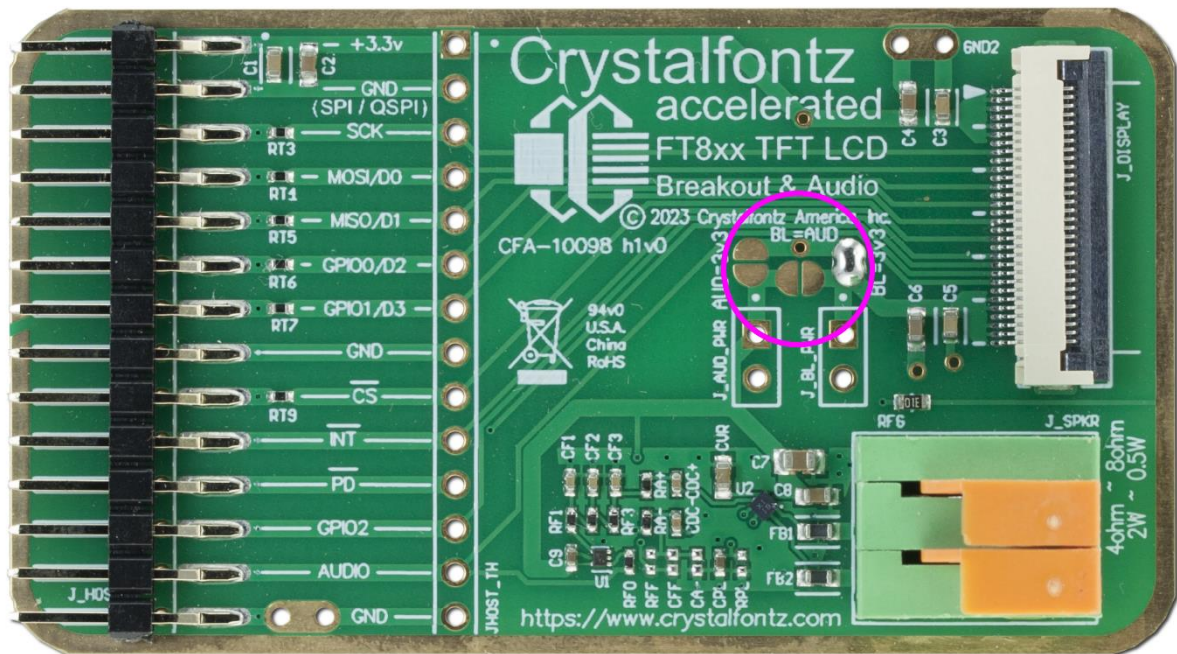
6. Jumper Locations and Functions

By default, backlight power is sourced from pin-1 on the JHOST header (typically 3.3V). This jumper is shipped closed with solder.

If a separate power supply is required for the display backlight, open the BL=3v3 jumper, then use the BL_PWR header pins to supply power. Soldering 0.1" headers into the through holes allows for easy connections to these pins.

By default, a separate power supply is required for the speaker audio amplifier, use the AUD_PWR header pins to supply power. If 3.3v is sufficient, the AUD=3.3v can be closed.

Close the BL=AUD jumper to supply both the backlight and audio power from a single source.

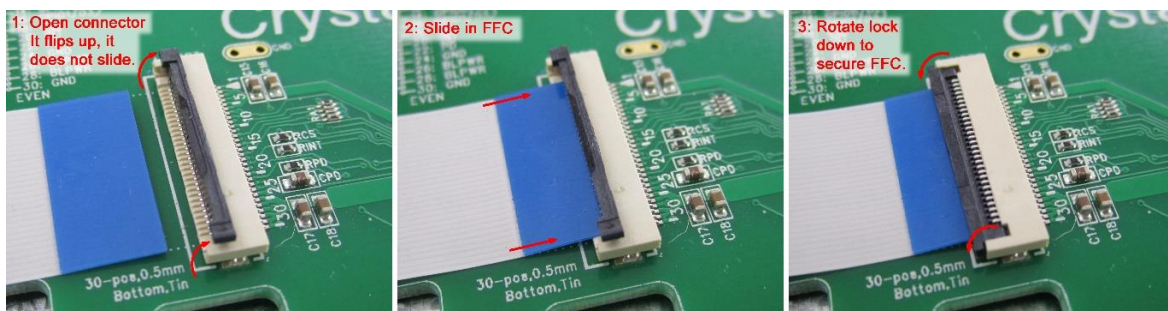


power steering jumper locations

7. Connection Information

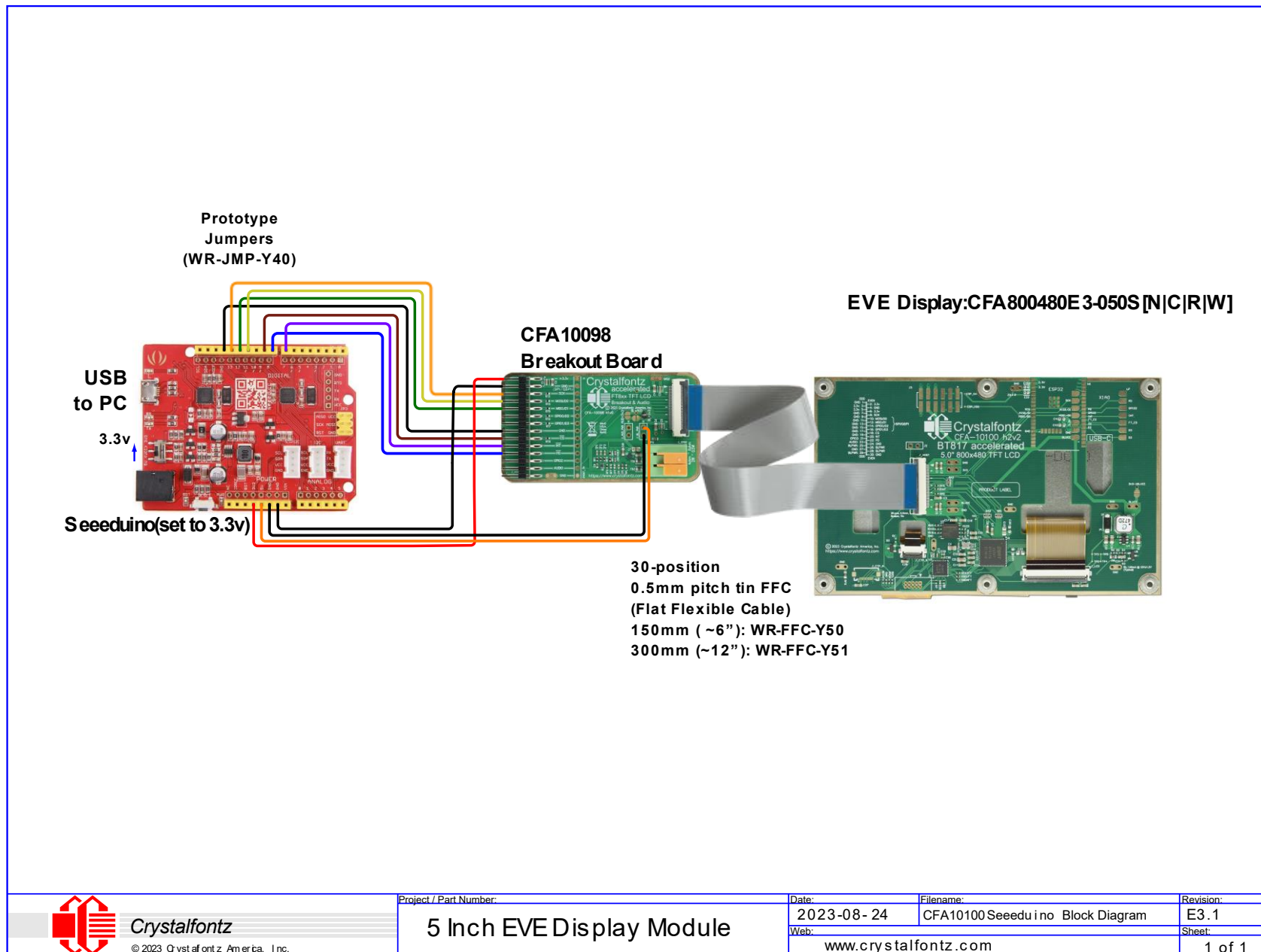
7.1. ZIF Connector Use With Flat-Flex-Cable (FFC)

Please take note of the orientation of the flat-flex-cable, and use of the locking clip in the following photos.



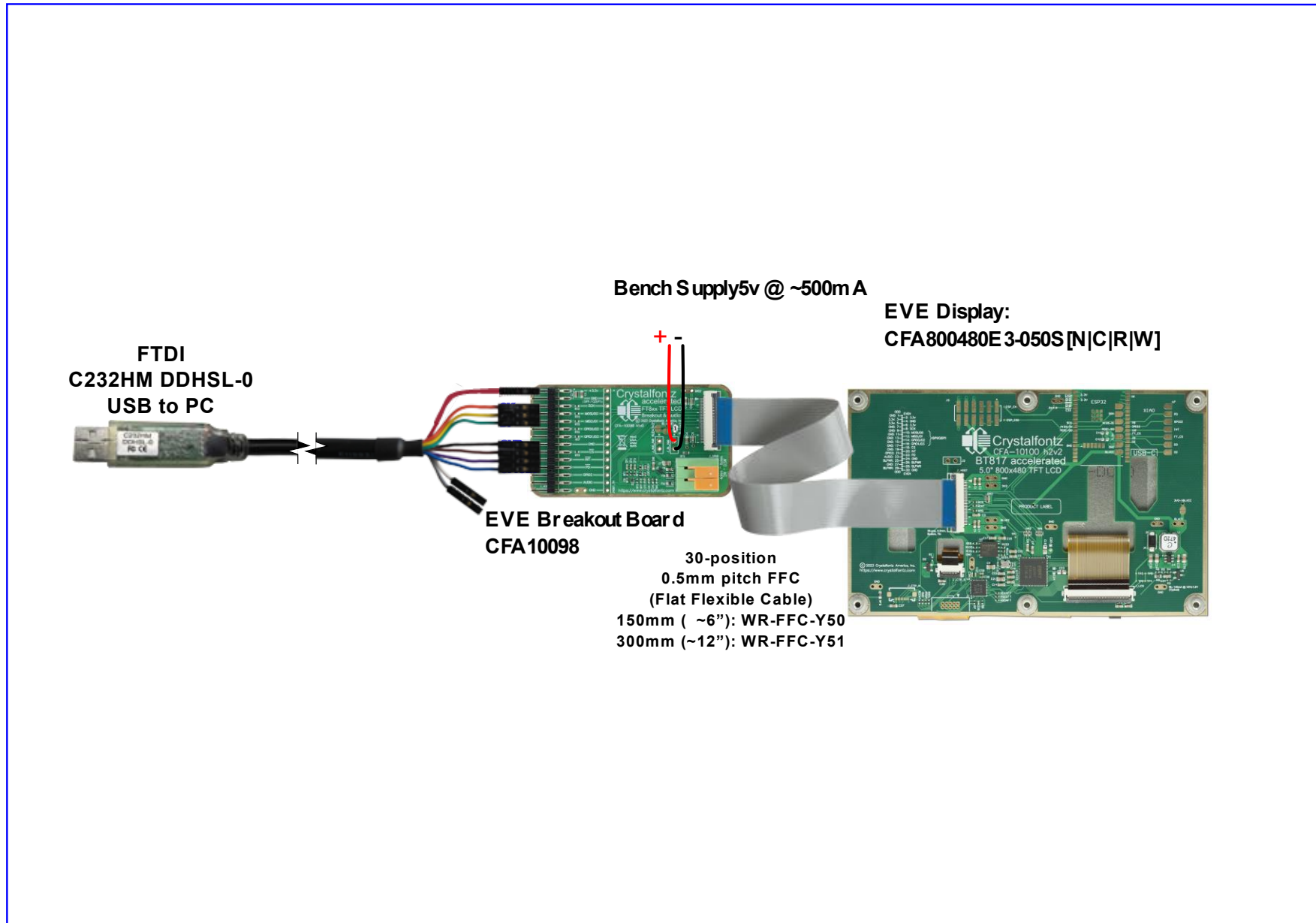
7.2. Example Display Connection #1

This example shows connection of the CFA10098 to a 5" EVE display, and a Seedeuino microcontroller board.



7.3. Example Display Connection #2

This example shows connection of the CFA10098 to a 5" EVE display, and a FTDI C232HM USB programming cable.



 Crystalfontz <small>© 2023 Crystalfontz America, Inc.</small>	Project / Part Number:	Date:	Filename:	Revision:	
	<h2>5" EVE Display Module</h2>	2023-05-23	CFA10100 USB Block Diagram	E3	
		Web:	www.crystalfontz.com		Sheet:
					1 of 1

