REV	ENGINEER	DATE	REMARKS
0.0	BAC	2015-08-31	Initial Creation
0.1	BAC	2015-08-24	Mnt Standoffs, +1 BL Jumper, HPM pol
-	-	-	-
-	-	-	-
-	-	-	-

SMT blind threaded mounting standoffs

M1 01712 · M2 01712 · M3 01712 · M4 01712 — 2-56 blind 3mm long

ESD border discharge

RFG 0603 1M 1% 00191

Scope Grounds

GND1 DNP · GND2 DNP

Pull ups for unused SPI mode data lines.

RLD5 0603 1M 1% 00191 · RLD4 0603 1M 1% 00191 · RLD3 0603 1M 1% 00191 · RLD2 0603 1M 1% 00191 · RLD1 0603 1M 1% 00191 · RLD0 0603 1M 1% 00191

5v <=> 3.3v level translators (auto-direction)

U1, U2: TXB0108PWR 12797

ZIF connector to LCD flex tail (FFC/FPC)

3.3v I/O

FCI 62684-342100ALF
CONN FFC TOP 34POS 0.50MM R/A SMD
Mates to Crystalfontz CFAO12864D3 Series

LCD 12795

Backlight control

QBL IRLML2502TRPBF SOT-23-3 20v 4.2A 45 mOhm @ 4.2A, 4.5V
R4 0603 47.5K ±1% 01647 · R5 0603 47.5K ±1% 01647

4x voltage multiplier

CL1 CL2 CL3 C5 C6 0603 25v X5R ±10% 00289

LCD intermediate voltage level decoupling

CLV0 CLV1 CLV2 CLV3 CLV4 0603 25v X5R ±10% 00289

Arduino configuration jumpers to support:

- Hardware SPI [HS]
- 8-bit parallel (contiguous) [P8]
- 8-bit parallel (2x4-bit nibbles) [P4]
- Software SPI (AdaFruit example) [AF]

Single-row 0.1" headers positioned to allow use as an Arduino 128x64 LCD graphic display shield

ARD ARDUINO_UNO_R3_SMT 5v I/O

0.1", 20 position (2x10) header for use as a breakout board

JBREAKOUT Samtec TSM-110-01-L-DV-A 12798

C7 C8 C9 C10 0603 25v X5R ±10% 00289

When not used as an Arduino shield, this board's I/O is not restricted to 5v. Refer to TXB0108PWR data sheet.

R1 R2 0603 47.5K ±1% 01647 · JBSD0 · JPAR · JHPM · 0603 R3 47.5K ±1% 01647

RBLK 1206 5% 12796 (5v-3.5v)/15ohm = 100mA

Backlight current limit

CFA_LOGO_FROM_DWG · WEEE_TRASH_CAN_THING · BLUE_SUN

Crystalfontz America, Inc.

CFA-10072: CFAO12864D3 Breakout / Demo Shield

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REVISION: 0.1