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PAGE2 - POWER, MODULE, GPIO, JTAG

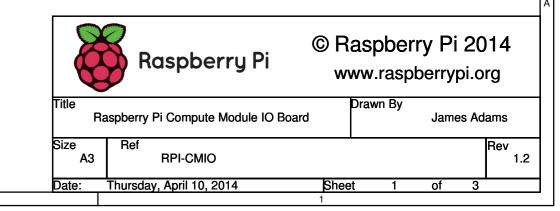
PAGE3 - CSI, DSI, HDMI, USB

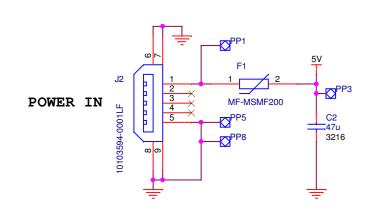
REVISION HISTORY:

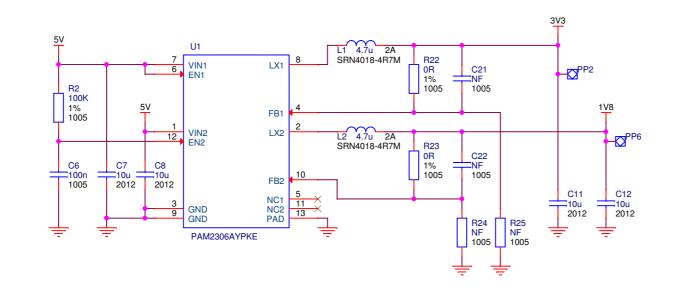
23/01/2014 - V1.0

18/02/2014 - V1.1

10/04/2014 - V1.2 - Production Version







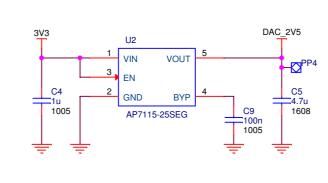
R26 R27 100K 100K 1% 1% 1005 1005

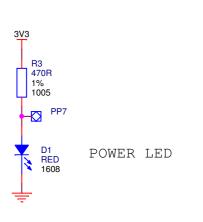
GPIO 28, 29, 44, 45 DO NOT HAVE PULLS ENABLED AT BOOT SO PROVIDE 100K PULL DOWNS TO AVOID THEM FLOATING

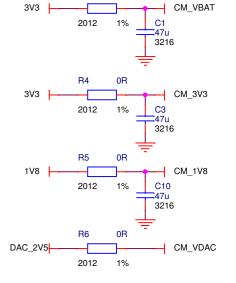
R28 R29 100K 100K 1% 1% 1005 1005

EMMC_DISABLE_N

GPIO0-27_VREF



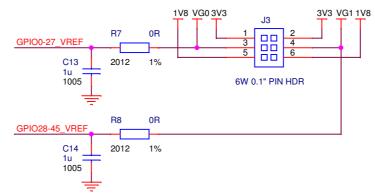


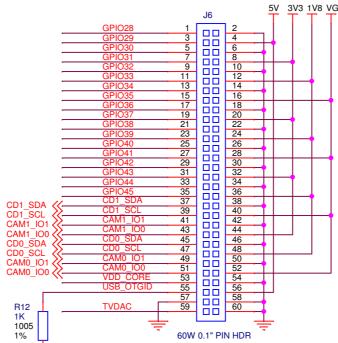


GPIO BANK 0/1 VOLTAGE SELECT:

Jumper Positions VG0 / VG1: 1-3 / 2-4 = 3V3 3-5 / 4-6 = 1V8

NC = external source





GPIO0-27_VREF

GPIO28-45_VRE

DDR2 SODIMM

CM_1V8

CM_3V3

Route bold-ringed signals as matched length 90R differential pair

VDD_CORE used for module test only (do not use in normal operation, do not draw current from this pin!)

Route ringed signals as matched length 100R differential pairs

MODULE BOOT OPTIONS:

- BCM2835 BootROM boot from USB:
 J4 set to enable USB boot
 Plug host into micro USB socket J15 (VBUSB=5V)
- GPIO47_1V8 high at boot (input with 50k pullup)
- EMMC_DISABLE_N therefore LOW
- On power up BCM2835 can't access eMMC so boots from USB
- Once booted, 2835 USB boot SW forces GPIO47_1V8 LOW to enable access to eMMC

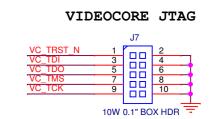
BCM2835 BootROM boot from eMMC:

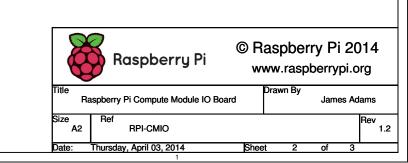
- Nothing plugged into micro USB socket J15 (VBUSB=0V)
- OR J4 set to disable USB Boot
- EMMC_DISABLE_N therefore HIGH
- On power up BCM2835 boots from eMMC GPIO47_1V8 used as status LED

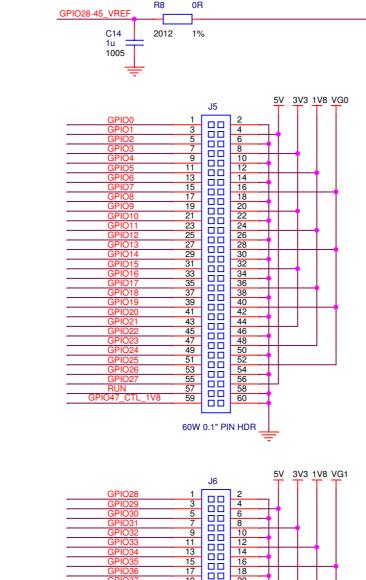
- BCM2835 BootROM boot from eMMC with GPIO boot select: - Set J4 to disable USB boot
- EMMC_DISABLE_N therefore always HIGH
- On power up BCM2835 boots from eMMC - BCM2835 boot SW reads GPI047_1V8 (GPI047_CTL_1V8) if low perform 'alternate' boot
- (e.g. can boot into safe mode, or USB mass storage...)

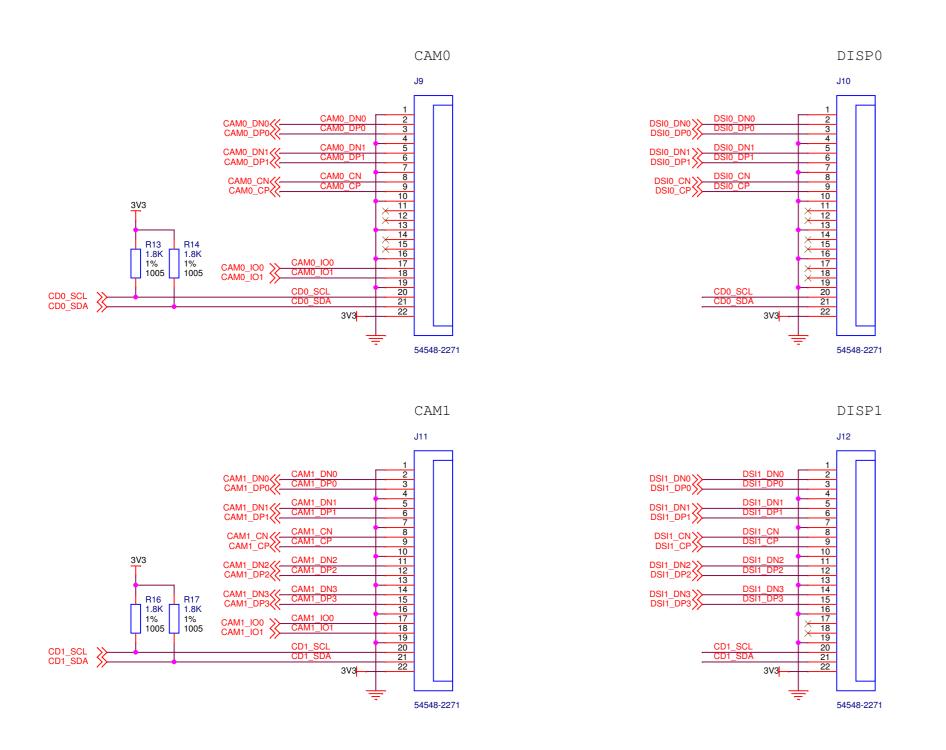
 Once booted GPIO47_1V8 used as status LED

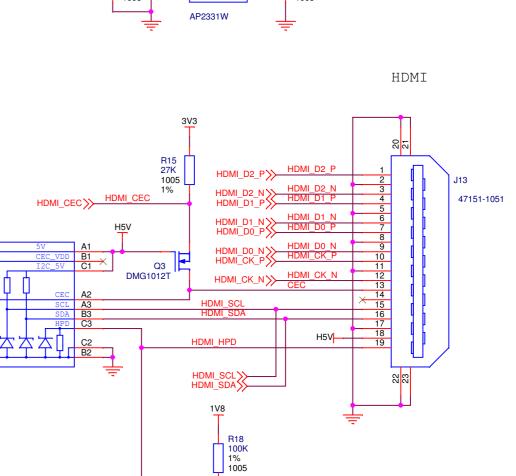
EMMC_DISABLE_N R9 470R 1% 1005 USB BOOT ENABLE: →D PP9 Jumper Positions: 1-2 = USB BOOT ENABLED 2-3 = USB BOOT DISABLED GREEN 3W 0.1" PIN HDR R10 47K 1% 1005 STATUS "ACT" LED Q2 DMG1012T GPIO47_CTL 1V8 1005 1%











——>>>GPIO46_1V8

Q4 DMG1012T

