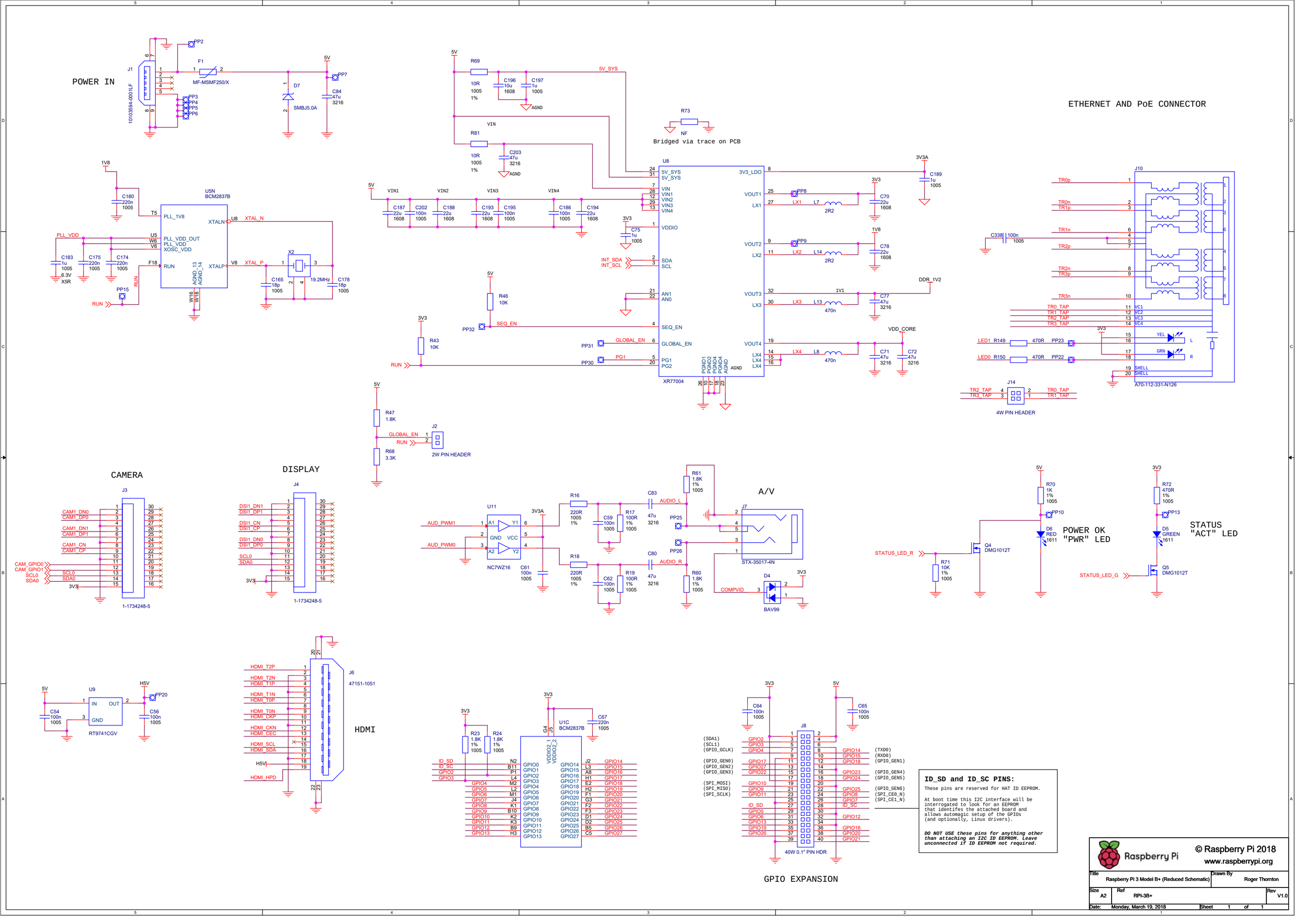
POWER IN
J1
10103594-0001LF
F1
MF-MSMF250/X
D7
SMBJ5.0A
C84
47u
3216
5V
PP2
PP3
PP4
PP5
PP6
PP7
ETHERNET AND PoE CONNECTOR
J10
A70-112-331-N126
TR0p
TR0n
TR1p
TR1n
TR2p
TR2n
TR3p
TR3n
TR0_TAP
TR1_TAP
TR2_TAP
TR3_TAP
C338
100n
1005
LED1 R149
LED0 R150
470R
PP23
PP22
YEL
GRN
SHELL
J14
4W PIN HEADER
U5N
BCM2837B
PLL_1V8
PLL_VDD_OUT
PLL_VDD
XOSC_VDD
RUN
XTALN
XTALP
XTAL_N
XTAL_P
X2
19.2MHz
C165
18p
1005
C178
18p
1005
C180
220n
1005
C183
1u
1005
6.3V
X5R
C175
220n
1005
C174
220n
1005
PP15
1V8
R69
10R
1005
1%
C196
10u
1608
C197
1u
1005
AGND
VIN
R81
C203
47u
3216
R73
NF
Bridged via trace on PCB
U8
XR77004
5V_SYS
VIN
VIN1
VIN2
VIN3
VIN4
VDDIO
SDA
SCL
AN1
AN0
SEQ_EN
GLOBAL_EN
PG1
PG2
3V3_LDO
VOUT1
LX1
VOUT2
LX2
VOUT3
LX3
VOUT4
LX4
PGND1
PGND2
PGND4
PGND5
C187
22u
1608
C202
100n
1005
C188
22u
1608
C193
22u
1608
C195
100n
1005
C186
100n
1005
C194
22u
1608
C75
1u
1005
INT_SDA
INT_SCL
R46
10K
PP32
R43
10K
PP31
PP30
GLOBAL_EN
PG1
R47
1.8K
R68
3.3K
J2
2W PIN HEADER
3V3A
C189
1u
1005
PP8
PP9
L7
2R2
L14
2R2
C70
22u
1608
C78
22u
1608
DDR_1V2
1V1
L13
470n
C77
47u
3216
VDD_CORE
L8
470n
C71
47u
3216
C72
47u
3216
CAMERA
J3
1-1734248-5
CAM_DN0
CAM_DP0
CAM_DN1
CAM_DP1
CAM_CN
CAM_CP
CAM_GPIO0
CAM_GPIO1
SCL0
SDA0
DISPLAY
J4
1-1734248-5
DSI1_DN1
DSI1_DP1
DSI1_CN
DSI1_CP
DSI1_DN0
DSI1_DP0
A/V
U11
NC7WZ16
AUD_PWM1
AUD_PWM0
GND
VCC
A1
A2
Y1
Y2
R16
220R
1005
1%
R17
100R
1%
1005
C59
100n
1005
C61
100n
1005
R18
220R
1005
1%
R19
100R
1%
1005
C62
100n
1005
C83
47u
3216
C80
47u
3216
AUDIO_L
AUDIO_R
PP25
PP26
R61
1.8K
1%
1005
R60
1.8K
1%
1005
J7
STX-35017-4N
COMPVID
D4
BAV99
STATUS_LED_R
Q4
DMG1012T
R71
10K
1%
1005
R70
1K
1%
1005
PP10
D6
RED
1611
POWER OK
"PWR" LED
R72
470R
1%
1005
PP13
D5
GREEN
1611
STATUS
"ACT" LED
STATUS_LED_G
Q5
DMG1012T
U9
RT9741CGV
IN
OUT
GND
C54
100n
1005
C56
100n
1005
H5V
PP20
HDMI
J6
47151-1051
HDMI_T2P
HDMI_T2N
HDMI_T1P
HDMI_T1N
HDMI_T0P
HDMI_T0N
HDMI_CKP
HDMI_CKN
HDMI_CEC
HDMI_SCL
HDMI_SDA
HDMI_HPD
U1C
BCM2837B
VDDIO2_1
VDDIO2_2
C67
220n
1005
R23
1.8K
1%
1005
R24
1.8K
1%
1005
ID_SD
ID_SC
GPIO2
GPIO3
GPIO0
GPIO1
GPIO4
GPIO5
GPIO6
GPIO7
GPIO8
GPIO9
GPIO10
GPIO11
GPIO12
GPIO13
GPIO14
GPIO15
GPIO16
GPIO17
GPIO18
GPIO19
GPIO20
GPIO21
GPIO22
GPIO23
GPIO24
GPIO25
GPIO26
GPIO27
GPIO
EXPANSION
J8
40W 0.1" PIN HDR
C64
100n
1005
C65
100n
1005
(SDA1)
(SCL1)
(GPIO_GCLK)
(GPIO_GEN0)
(GPIO_GEN2)
(GPIO_GEN3)
(SPI_MOSI)
(SPI_MISO)
(SPI_SCLK)
(TXD0)
(RXD0)
(GPIO_GEN1)
(GPIO_GEN4)
(GPIO_GEN5)
(GPIO_GEN6)
(SPI_CE0_N)
(SPI_CE1_N)
ID_SD and ID_SC PINS:
These pins are reserved for HAT ID EEPROM.
At boot time this I2C interface will be interrogated to look for an EEPROM that identifies the attached board and allows automagic setup of the GPIOs (and optionally, Linux drivers).
DO NOT USE these pins for anything other than attaching an I2C ID EEPROM. Leave unconnected if ID EEPROM not required.
Raspberry Pi
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Title
Raspberry Pi 3 Model B+ (Reduced Schematic)
Drawn By
Roger Thornton
Size
A2
Ref
RPI-3B+
Rev
V1.0
Date:
Monday, March 19, 2018
Sheet
1
of
1