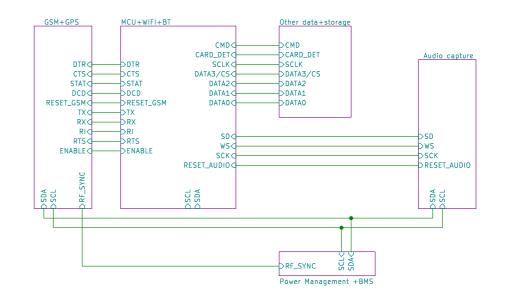
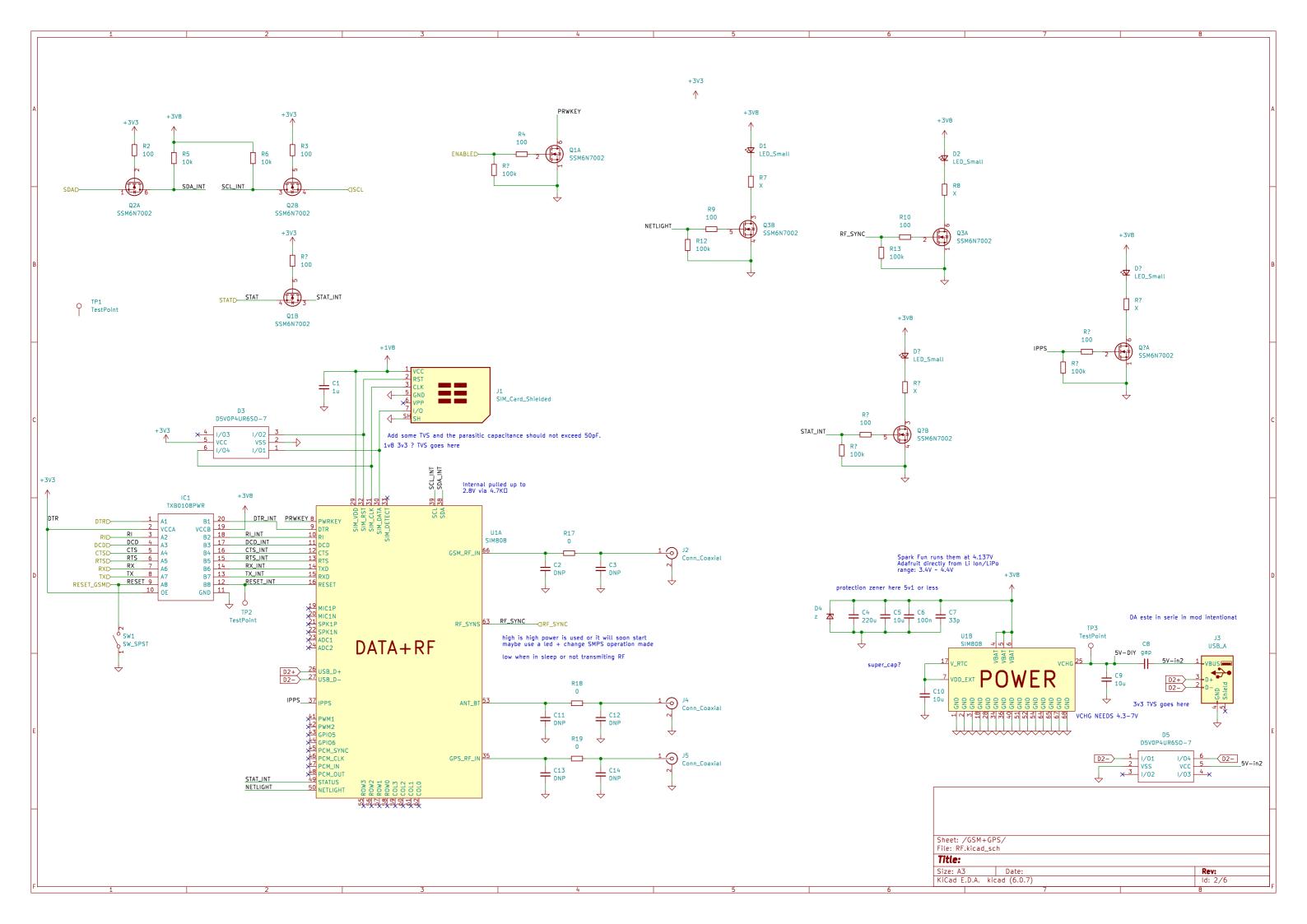
All SMD caps ceramic are 0603 16V X7R or better unless other notes are made All SMD resistors are 0603 Stack up:
4 layer FR4 sig gnd gnd+sig sig All non power traces should aim to be 50 ohm single ended impedance unless other requirements are in place Delata(T) aimed for is 20C or less



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Size: A3 Date: Rev:
KiCad E.D.A. kicad (6.0.7) Id: 1/6



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U2
ESP32-S3-MINI-1
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GPI019/U1RTS/ADC2_CH8/CLK_OUT2/USB_D- 23
                                                                                                                                                                     4 GPI00/B00T
EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U0TXD/GPI043/CLK_0UT1 39
U0RXD/GPI044/CLK_0UT2 40
GPI021 25
GPI026 26
                                                                                                                                                                      5 GPI01/TOUCH1/ADC1_CH0
                                                                                                                                                                     6 GPI02/TOUCH2/ADC1_CH1
7 GPI03/TOUCH3/ADC1_CH2
8 GPI04/TOUCH4/ADC1_CH3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GPI026 GPI026 GPI045 44 GPI046 44 GPI048/SPICLK_N/SUBSPICLK_N_DIFF 30 GPI047/SPICLK_P/SUBSPICLK_P_DIFF 27 SPII04/GPI033/FSPIH0/SUBSPID 32 SPII05/GPI034/FSPICS0/SUBSPICS0 29 SPII06/GPI036/FSPICK/SUBSPICS 32 SPII06/GPI036/FSPICK/SUBSPICK 32 SPIDQS/GPI037/FSPIQ/SUBSPIQ 34 GPI038/FSPIWP/SUBSPIWP 34 GPI038/FSPIWP/SUBSPIWP 34 GPI038/FSPIWP/SUBSPIWP 34 GPI038/FSPIWP/SUBSPIWP 35 GPI038/FSPIWP 35 GPI0
                                                                                                                                                                 GPIO4/TOUCH4/ADC1_CH3
GPIO5/TOUCH5/ADC1_CH4
GPIO6/TOUCH5/ADC1_CH5
GPIO6/TOUCH5/ADC1_CH5
GPIO6/TOUCH7/ADC1_CH6
GPIO8/TOUCH7/ADC1_CH7/SUBSPICS1
GPIO9/TOUCH9/ADC1_CH8/FSPIHD/SUBSPIHD
GPIO10/TOUCH10/ADC1_CH9/FSPICS0/FSPIIO4/SUBSPICS0
GPIO11/TOUCH11/ADC2_CH0/FSPIO/FSPIIO5/SUBSPICS0
GPIO11/TOUCH11/ADC2_CH0/FSPIO/FSPIIO5/SUBSPICS0
GPIO11/TOUCH11/ADC2_CH0/FSPIO/FSPIIO5/SUBSPICIO
                                                                                                                                                                      16 GPIO12/TOUCH12/ADC2_CH1/FSPICLK/FSPIO6/SUBSPICLK
17 GPIO13/TOUCH13/ADC2_CH2/FSPIQ/FSPII07/SUBSPIQ
                                                                                                                                                                   GPI015/TUUCH13/ADUC_LTZ/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/TSTIN/
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MTD0/GPI040/CLK_OUT2 37
MTDI/GPI041/CLK_OUT1 37
MTMS/GPI042 38
                                                                                                                                                                   21 GPI017/U1TXD/ADC2_CH6
22 GPI018/U1RXD/ADC2_CH7/CLK_OUT3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GND 1
GND 42
GND 43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPI020/U1CTS/ADC2_CH9/CLK_0UT1/USB_D+
GPI019/U1RTS/ADC2_CH8/CLK_0UT2/USB_D-
                                                                                                                                                                           27
3 GPI00/B00T
EN
                                                                                                                                                                           39 GPI01/TOUCH1/ADC1_CH0
                                                                                                                                                                      39 GPI01/TOUCH1/ADC1_CH0
38 GPI02/TOUCH2/ADC1_CH1
15 GPI03/TOUCH3/ADC1_CH2
4 GPI04/TOUCH4/ADC1_CH3
5 GPI05/TOUCH5/ADC1_CH3
6 GPI06/TOUCH5/ADC1_CH5
7 GPI07/TOUCH7/ADC1_CH6
12 GPI08/TOUCH8/ADC1_CH7
12 GPI09/TOUCH9/ADC1_CH8/FSPIHD/SUBSPIHD
18 GPI010/TOUCH10/ADC1_CH9/FSPIIO5/FSPIIO4/SUBSPICS0
19 GPI011/TOUCH11/ADC2_CH0/FSPIID/FSPIIO5/SUBSPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             U0TXD/GPI043/CLK_OUT1 37
U0RXD/GPI044/CLK_OUT2 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPI021 23
GPI045 26
GPI046 16
GPI048/SPICLK_N/SUBSPICLK_N_DIFF
GPI047/SPICLK_P/SUBSPICLK_P_DIFF
                                                                                                                                                                      18 GPIO10/TOUCH10/ADC1_CH9/FSPICSO/FSPII04/SUBSPICSO
19 GPIO11/TOUCH11/ADC2_CH0/FSPID/FSPII05/SUBSPID
20 GPIO12/TOUCH12/ADC2_CH1/FSPICLK/FSPII06/SUBSPICLK
21 GPIO13/TOUCH13/ADC2_CH2/FSPIQ/FSPII07/SUBSPICLK
22 GPIO14/TOUCH14/ADC2_CH3/FSPIWP/FSPIDQS/SUBSPIWP
8 GPIO15/UORTS/ADC2_CH4/XTAL_32K_P
9 GPIO15/WOCTS/ADC2_CH4/XTAL_32K_NH5
10 GPIO17/U1TXD/ADC2_CH6
11 GPIO18/U1RXD/ADC2_CH6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPII06/GPI035/FSPID/SUBSPID 28
SPII07/GPI036/FSPICLK/SUBSPICLK
SPIDQS/GPI037/FSPIQ/SUBSPIQ 30
GPI038/FSPIWP/SUBSPIWP 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MTCK/GPI039/CLK_OUT3/SUBSPICS1 32
MTD0/GPI040/CLK_OUT2 33
MTDI/GPI041/CLK_OUT1 34
MTMS/GPI042 35
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GND 41
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                                                                                                                                                                                                                                                                                                                                                                                              SCLKD
                                                                                                                                                                                                                                                                                                                                                                                          DATA1D
                                   DCDD
CTSD
                                        RTSD
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                                           RXD
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RESET_GSMD
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KiCad E.D.A. kicad (6.0.7
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