

click on mouse pointer arrow on top of right toolbar
and double-click on sheet to open

Sheet: power

File: power.sch

Sheet: usb

File: usb.sch

Sheet: blinky

File: blinky.sch

Sheet: ram

File: ram.sch

Sheet: serdes

File: serdes.sch

Sheet: gpio

File: gpio.sch

Sheet: gpdi

File: gpdi.sch

Sheet: analog

File: analog.sch

Sheet: wifi

File: wifi.sch

Sheet: flash

File: flash.sch

Root sheet

EMARD

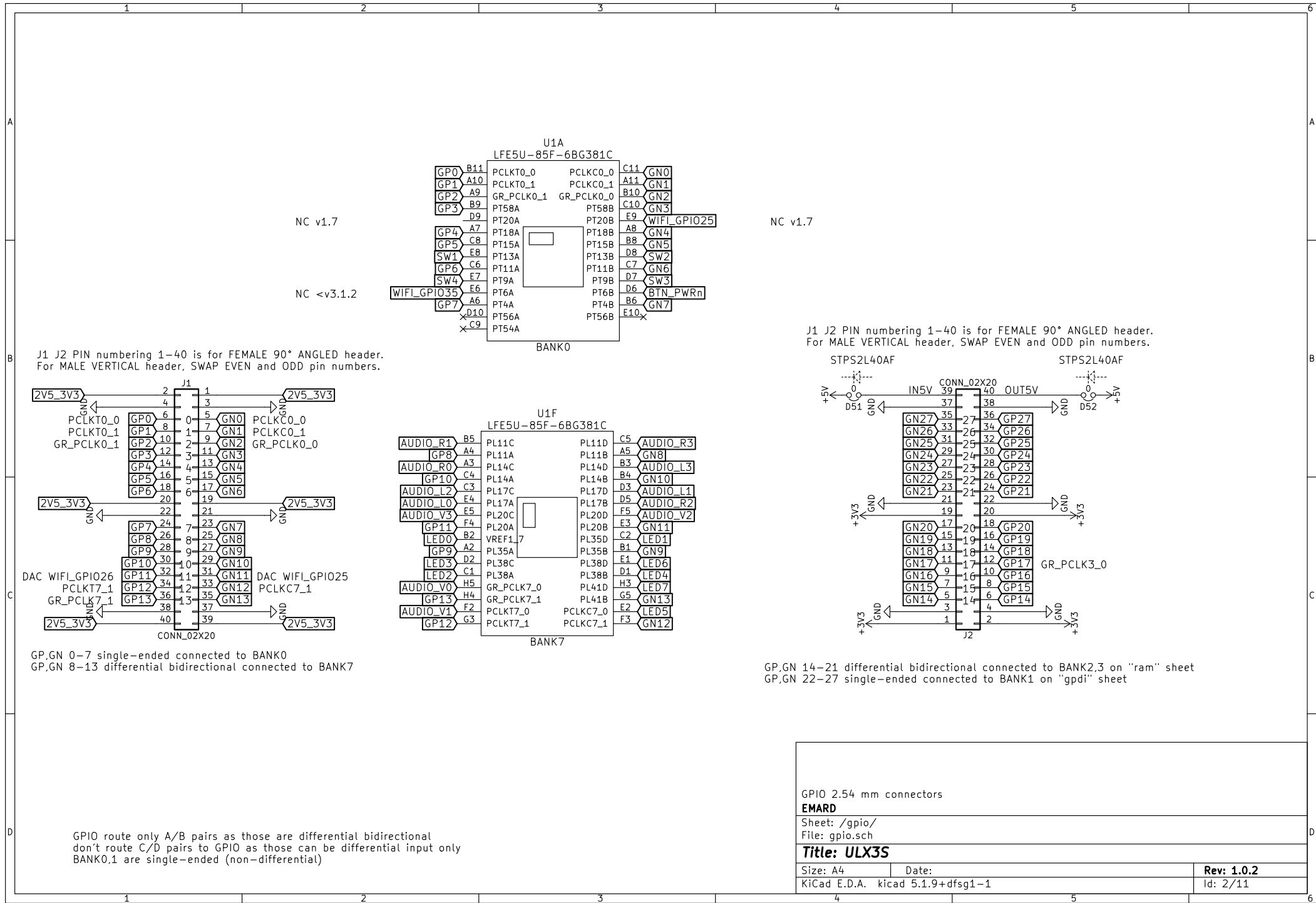
Sheet: /

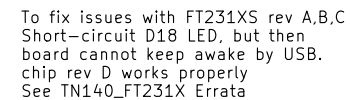
File: ulx3s.sch

Title: ULX3S

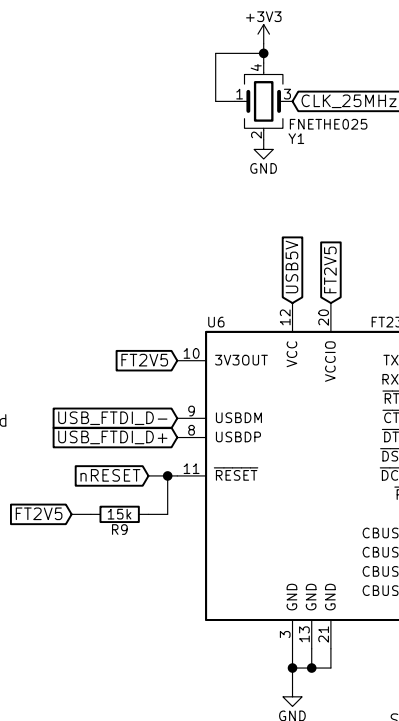
Size: A4Date:KiCad E.D.A. kicad 5.1.9+dfsg1-1

Rev: 3.1.5Id: 1/11

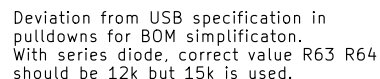




Id: 4/11

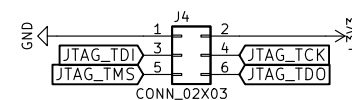
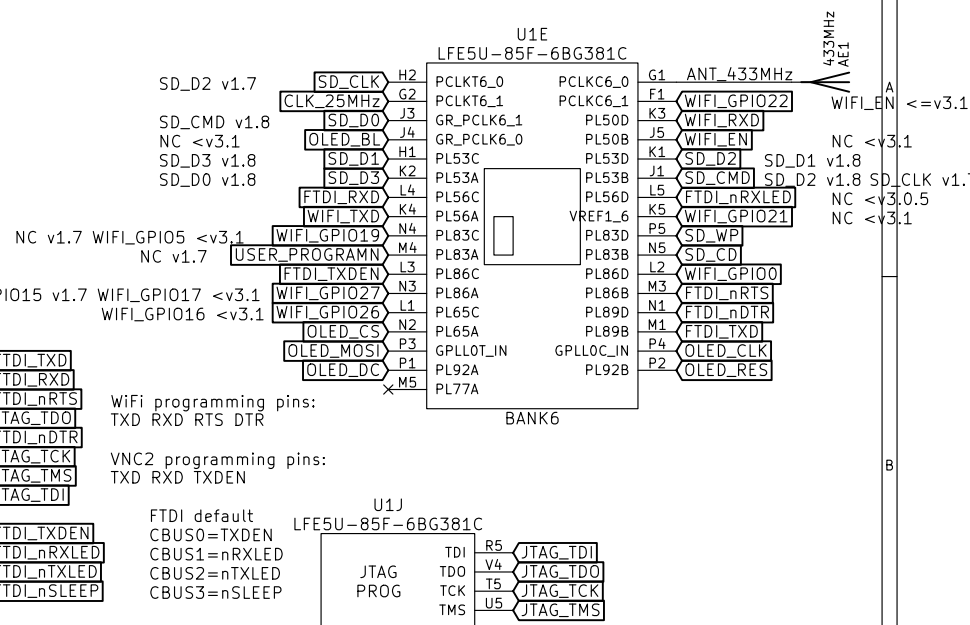


USB pull lines connected to
BANK1 on "qpdi" sheet

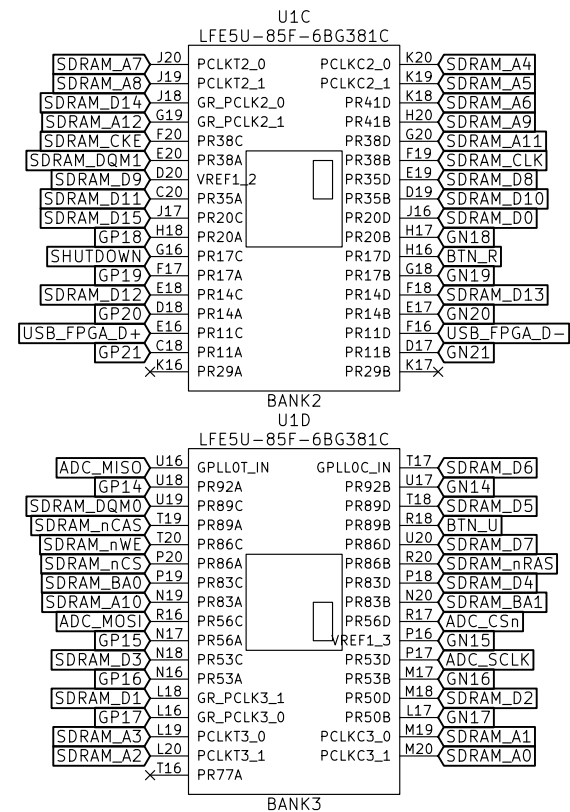


warning:
ULX3S has different pinout
for simpler PCB routing and
because FT230X has weak CTS
drive capability. (Undocumented,
FLEAfpga mail from 13–Nov–2015)
ULX2S pinout was:
TCK = DSR
TMS = RI
TDI = CTS
TDO = DCD

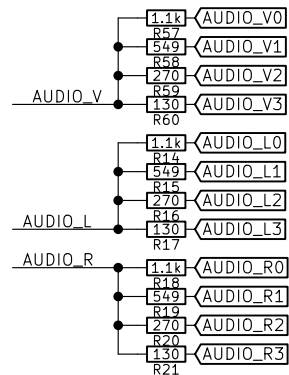
Short circuit R56
for chip rev A,B,C
workaround in
TN140_FT231X Errata



Id: 6/11

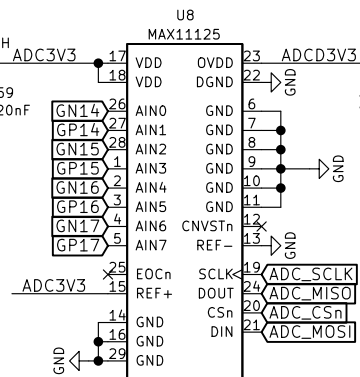


Id: 8/11



pin 1 – sleeve (GND)
pin 2 – tip (left channel)
pin 3 – ring1 (right channel)
pin 4 – ring2 (video)
pin 5 – tip switch
pin 6 – ring1 switch

Output resistance: 75 ohm
Internal resistance of FPGA pin: 10 ohm
 $1/(1/(130+10)+1/(270+10)+1/(549+10)+1/(1100+10))=74.6$



Rev: 1.0.4
Id: 9/11

Id: 11/11