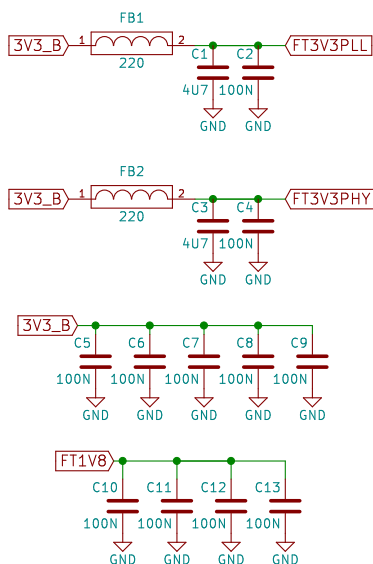
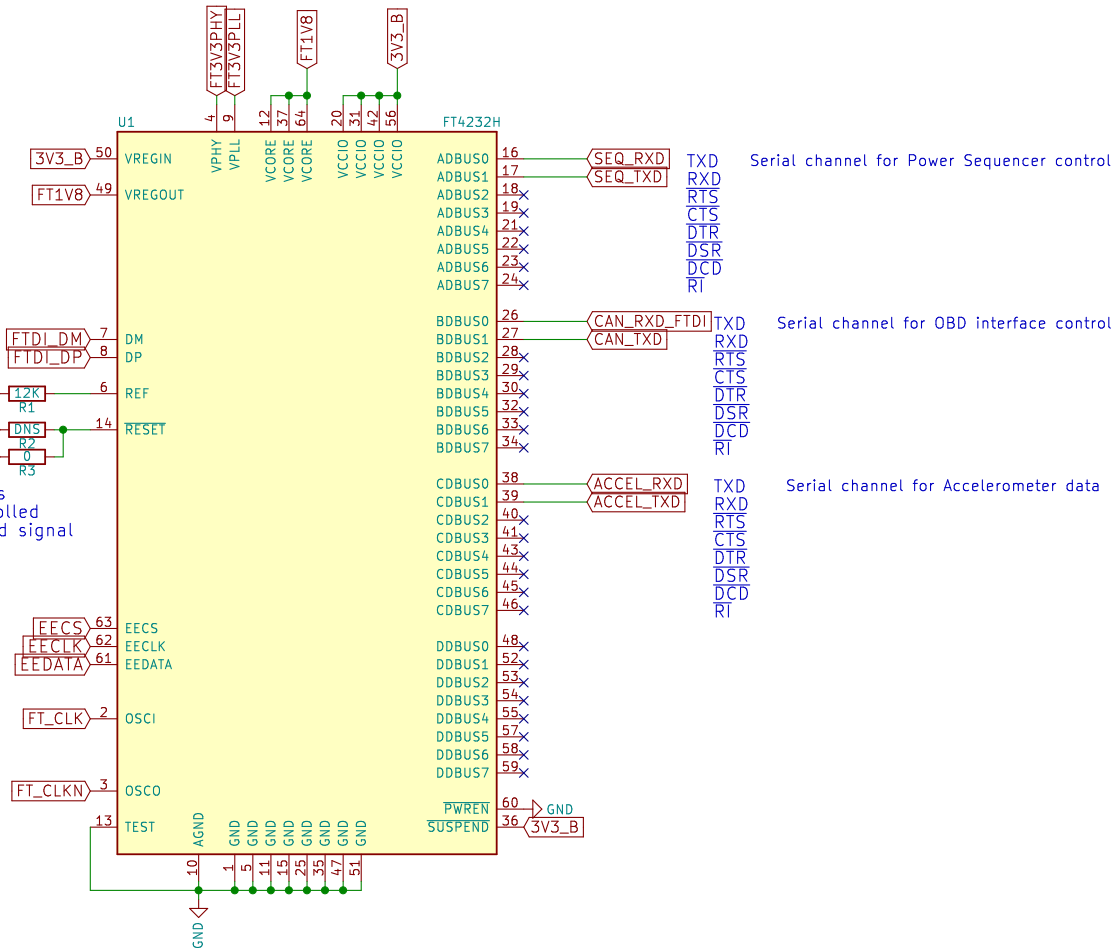


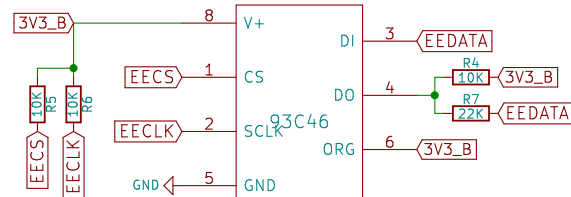
Power Filtering



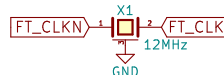
FTDI RESET signal is automatically controlled by HUB port enabled signal



FTDI Device Configuration EEPROM



12MHz FTDI USB Clock



Manager: Magnus Feuer
Advisor: Rudolf Steif
Designer: Jesse Banks
Jaguar Land Rover OSTC

Sheet: /V2X_FTDI Sub/
File: V2X_FTDI.sch

Title: V2X – Open source RVI over SMS daughter card

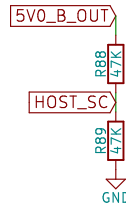
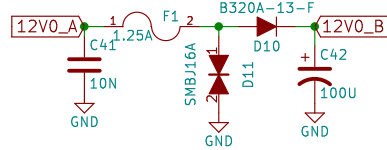
Size: A4 Date: 2015-07-17

Rev: 1.2

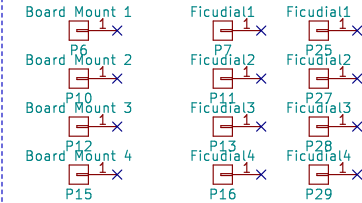
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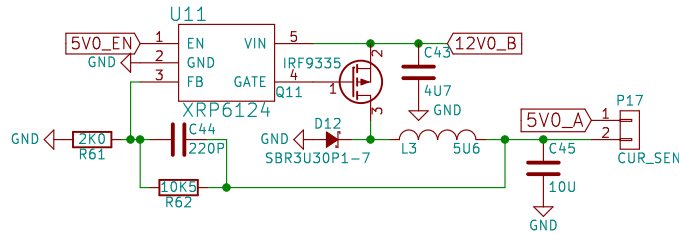
Vehicle Power Input Filtering and ESD Spike Suppression



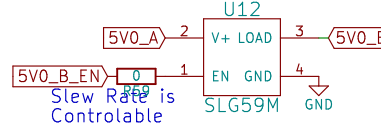
Short Circuit Detection
5V0_B_OUT is post poly fuse
Sample using logic level (maybe A2D)
Logic '0' signal (<1.5V) indicates poly fuse is set, host output is in protect.
Logic '1' signal (approx 2.4V) indicates poly fuse is clear, normal operation.
An A2D value that is too high might indicate the Host is not attached.



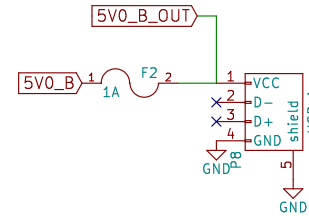
5V @ 1.25A DC-DC Power Supply



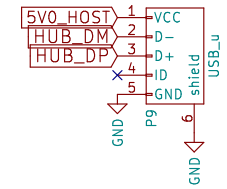
HOST 5V0 rail



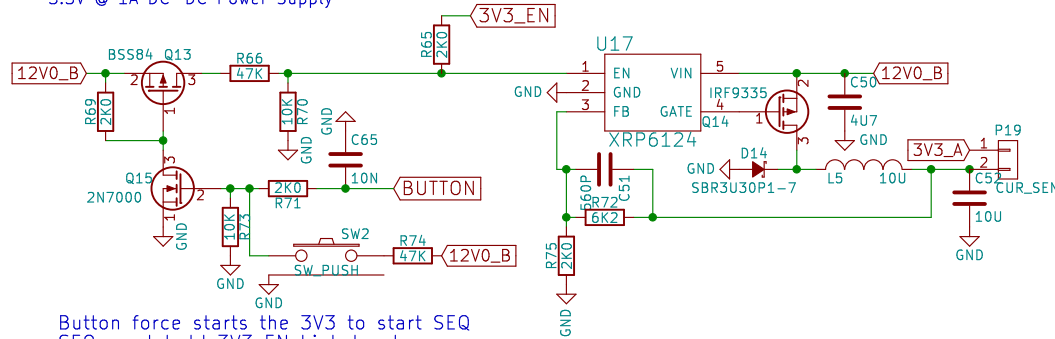
HOST Power Connection



HUB Data, HOST Power

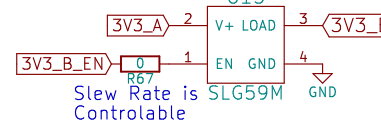


3.3V @ 1A DC-DC Power Supply

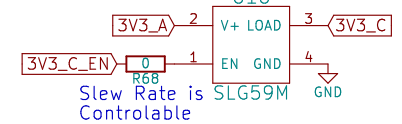


Button force starts the 3V3 to start SEQ
SEQ must hold 3V3_EN high to stay on
BUTTON is soft button signal once running
3V3_EN pulled low kills supply regardless if button pressed

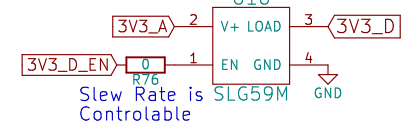
HUB & FTDI 3V3 rail



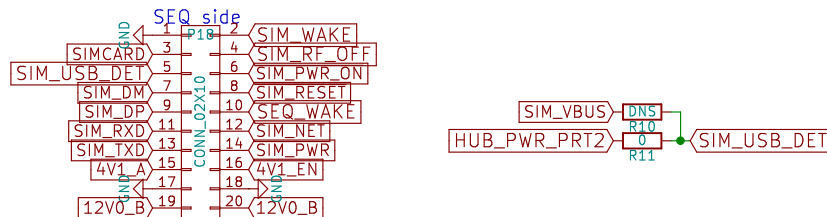
CAN 3V3 rail



Accelerometer 3V3 rail



GSM+GPS board header

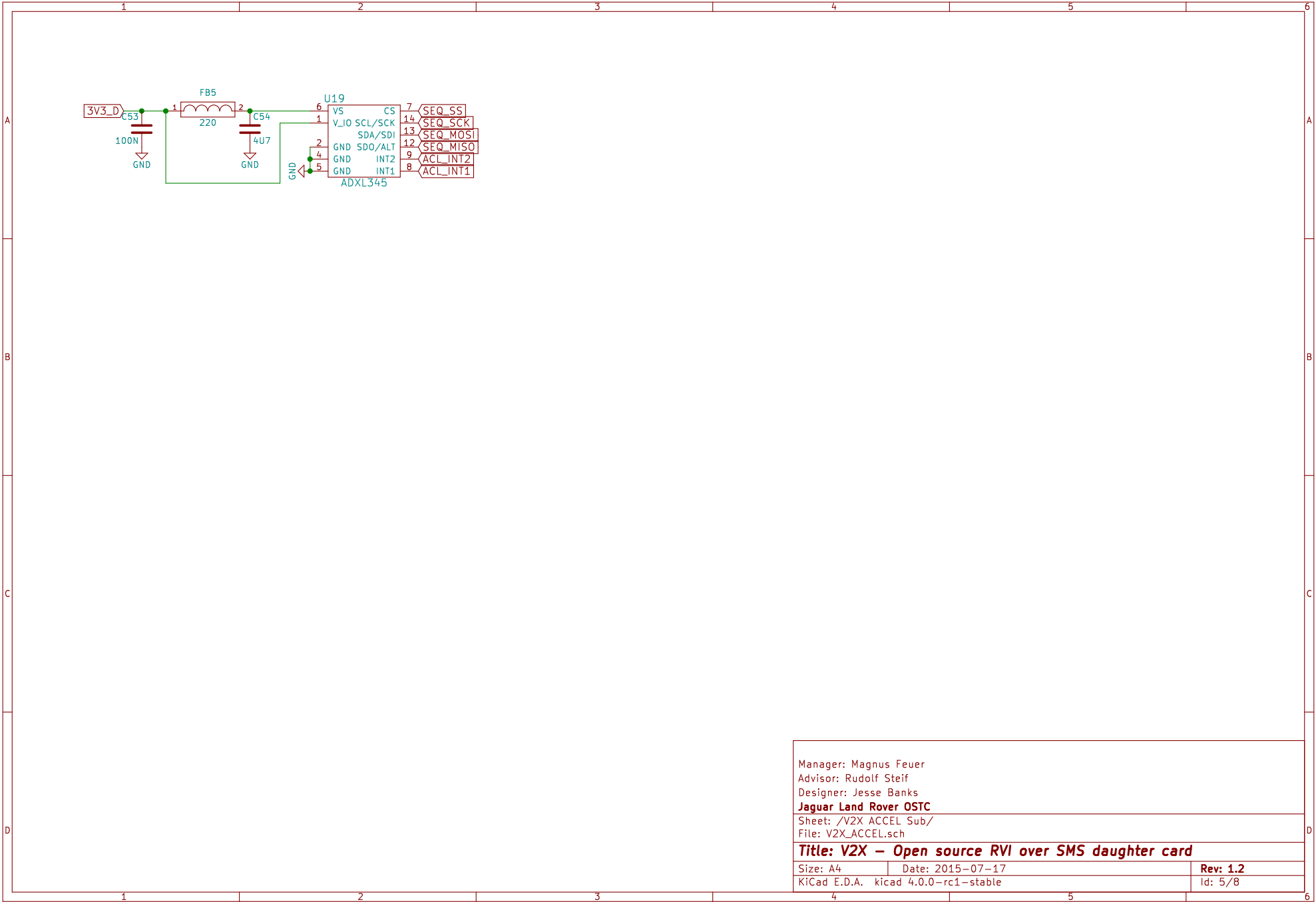


Manager: Magnus Feuer
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Designer: Jesse Banks
Jaguar Land Rover OSTC
Sheet: /V2X Power Sub/
File: V2X_PWR.sch

Title: V2X – Open source RVI over SMS daughter card

Size: USLetter Date: 2015-07-17
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Advisor: Rudolf Steif
Designer: Jesse Banks

Jaguar Land Rover OSTC

Sheet: /V2X ACCEL Sub/

File: V2X_ACCEL.sch

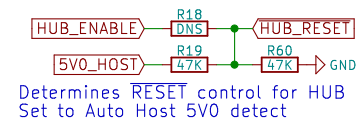
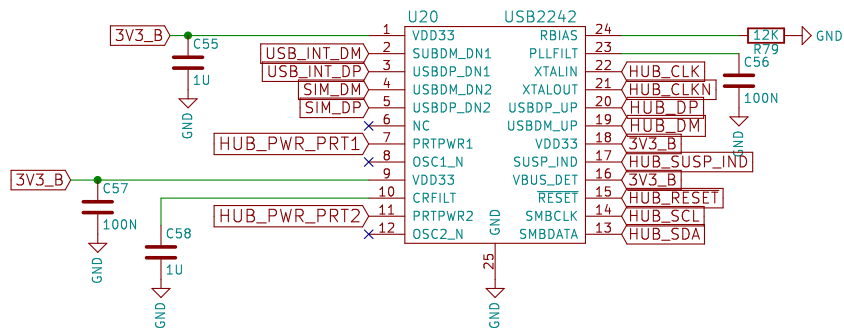
Title: V2X – Open source RVI over SMS daughter card

Size: A4 Date: 2015-07-17

Rev: 1.2

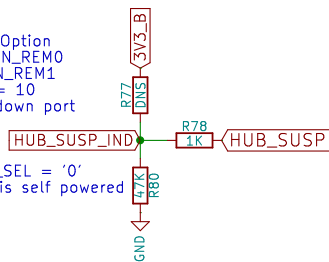
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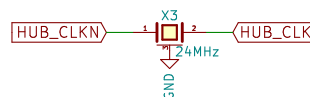
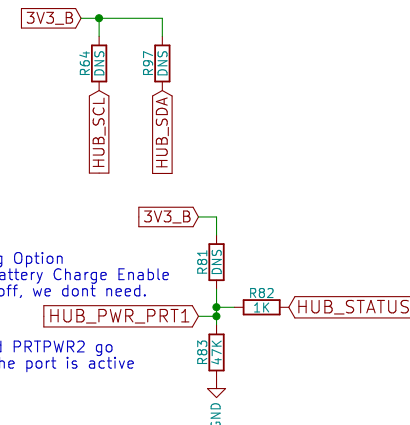
Boot Strapping Option
SUSP_IND = NON_REM0
SMBDATA = NON_REM1
NON_REM[1:0] = 10
means neither down port
is removable

SMBCLK = CFG_SEL = '0'
Means the hub is self powered



Boot Strapping Option
PRT_PWR1 = Battery Charge Enable
0 = feature off, we dont need.

PRT_PWR1 and PRT_PWR2 go
high when the port is active



Manager: Magnus Feuer
Advisor: Rudolf Steif
Designer: Jesse Banks

Jaguar Land Rover OSTC

Sheet: /V2X Hub Sub/
File: V2X_HUB.sch

Title: V2X – Open source RVI over SMS daughter card

Size: A4 Date: 2015-07-17

Rev: 1.2

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