

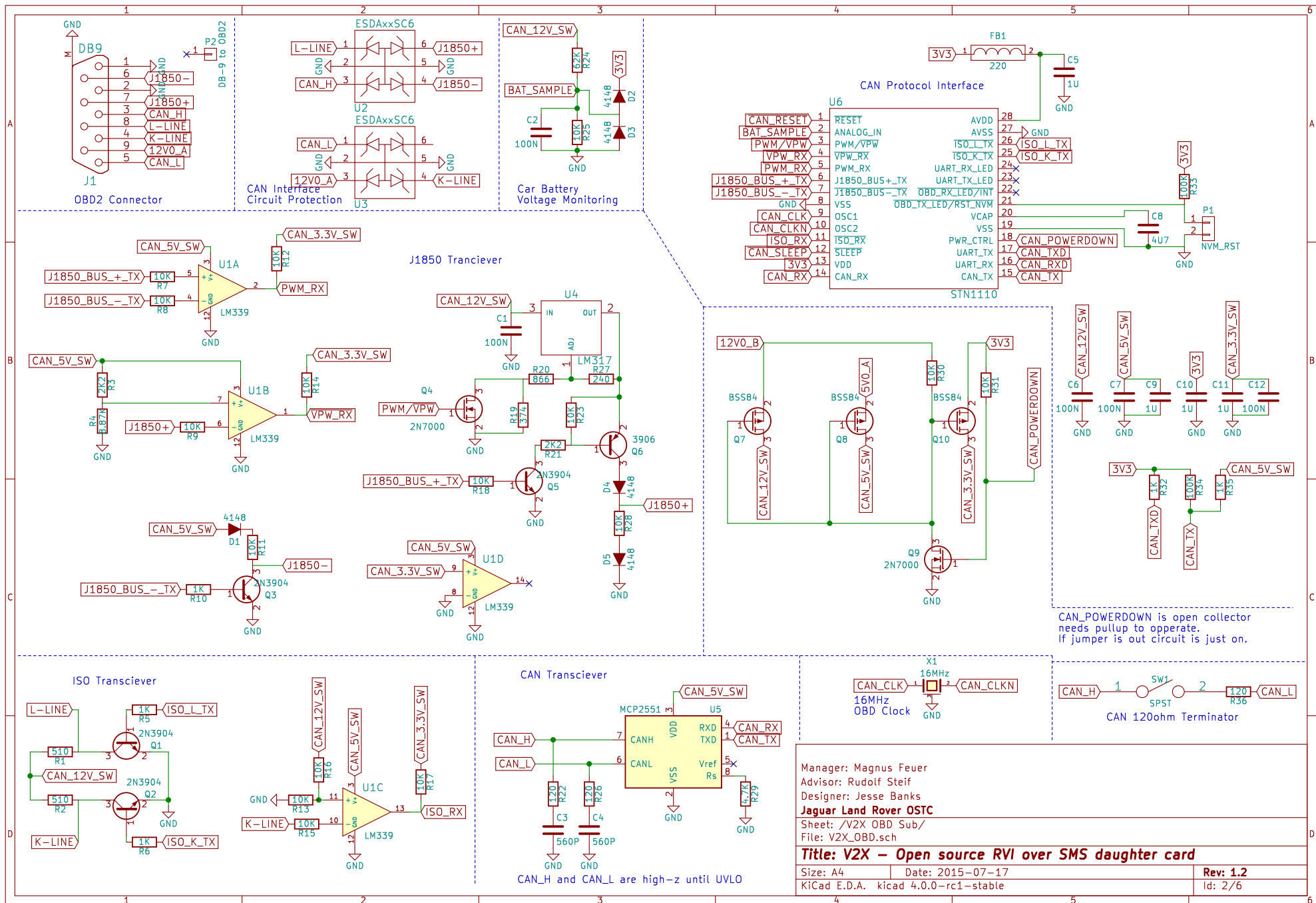
Manager: Magnus Feuer
Advisor: Rudolf Steif
Designer: Jesse Banks
Jaguar Land Rover OSTC

Sheet: /
File: V2X.sch

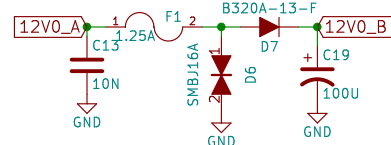
Title: V2X – Open source RVI over SMS daughter card

Size: USLetter Date: 2015-07-17
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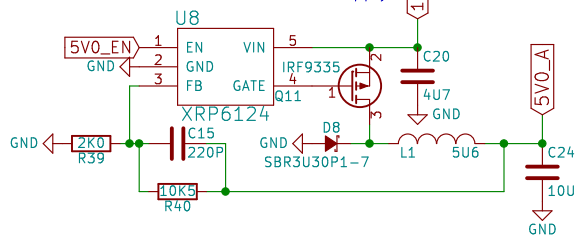
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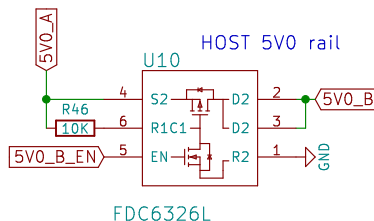
Vehicle Power Input Filtering and ESD Spike Suppression



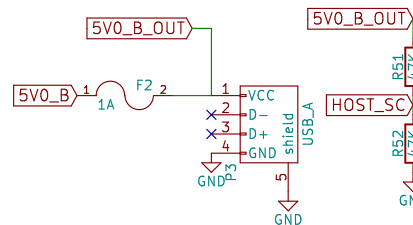
5V @ 1A DC-DC Power Supply



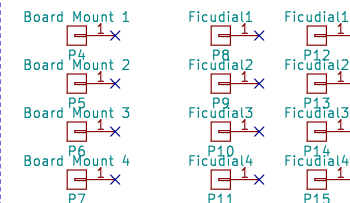
HOST 5V0 rail



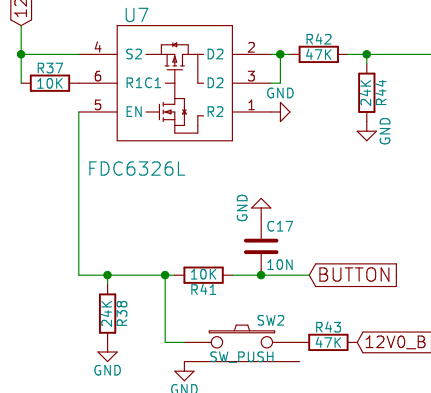
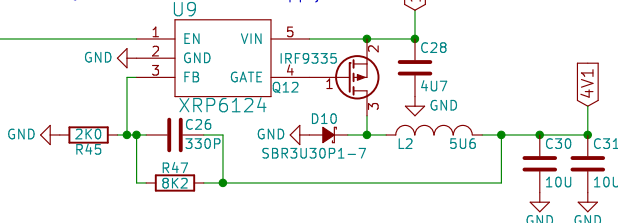
HOST Power Connection



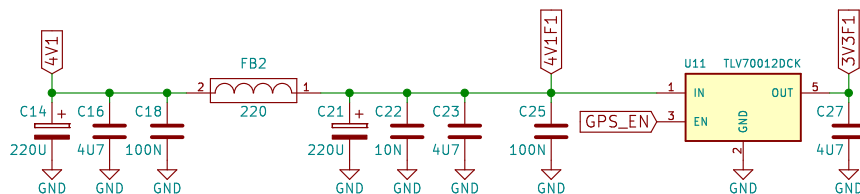
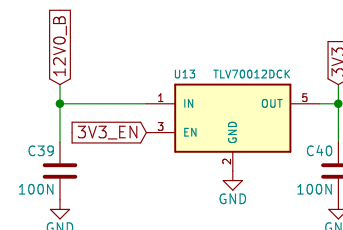
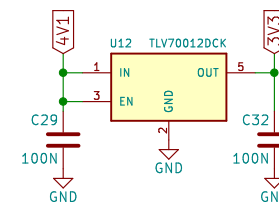
Short Circuit Detection
5V0_B_OUT is post poly fuse
Sample using logic level (maybe A2D)
Logic '0' signal (<1.5V) indicates poly
fuse is set, host output is in protect.
Logic '1' signal (approx 2.4V) indicates
poly fuse is clear, normal operation.
An A2D value that is too high might
indicate the Host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



4.1V @ 1.5A DC-DC Power Supply



Button starts the 4V1 -> 3V3 supplies
Must hold 4V1_EN high to stay on
BUTTON is input signal once running



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File: V2X_PWR.sch

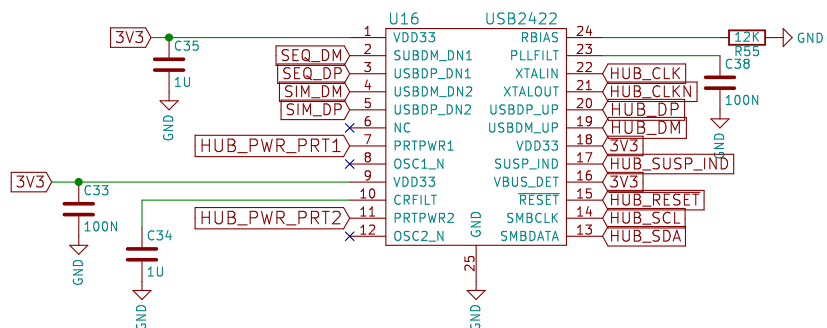
Title: V2X – Open source RVI over SMS daughter card

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Bootstrapping Options

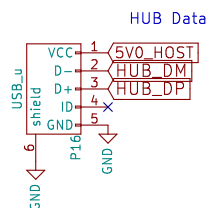
GND ← **47K** ← HUB_SCL 0: Default configuration: Strap options enabled, hub as "self-powered"

GND ← **47K** ← HUB_PWR_PRT1 0: Battery charging feature is not supported for port 1

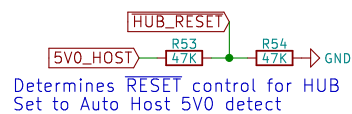
GND ◀ 47K 059 HUB_SUSP_IND (NON_REMO)

3V3 47K HUB_SDA (NON_REM1)

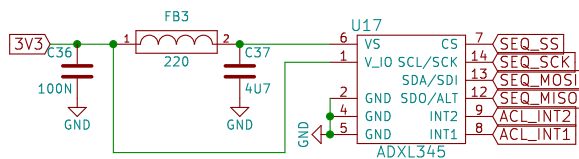
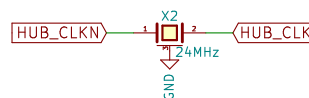
NON_REM[1:0] = 10: ports 1 and 2 are non-removable



HUB Data



Determines RESET control for HUB
Set to Auto Host 5V0 detect



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Jaguar Land Rover OSTC

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File: V2X_ACCY.sch

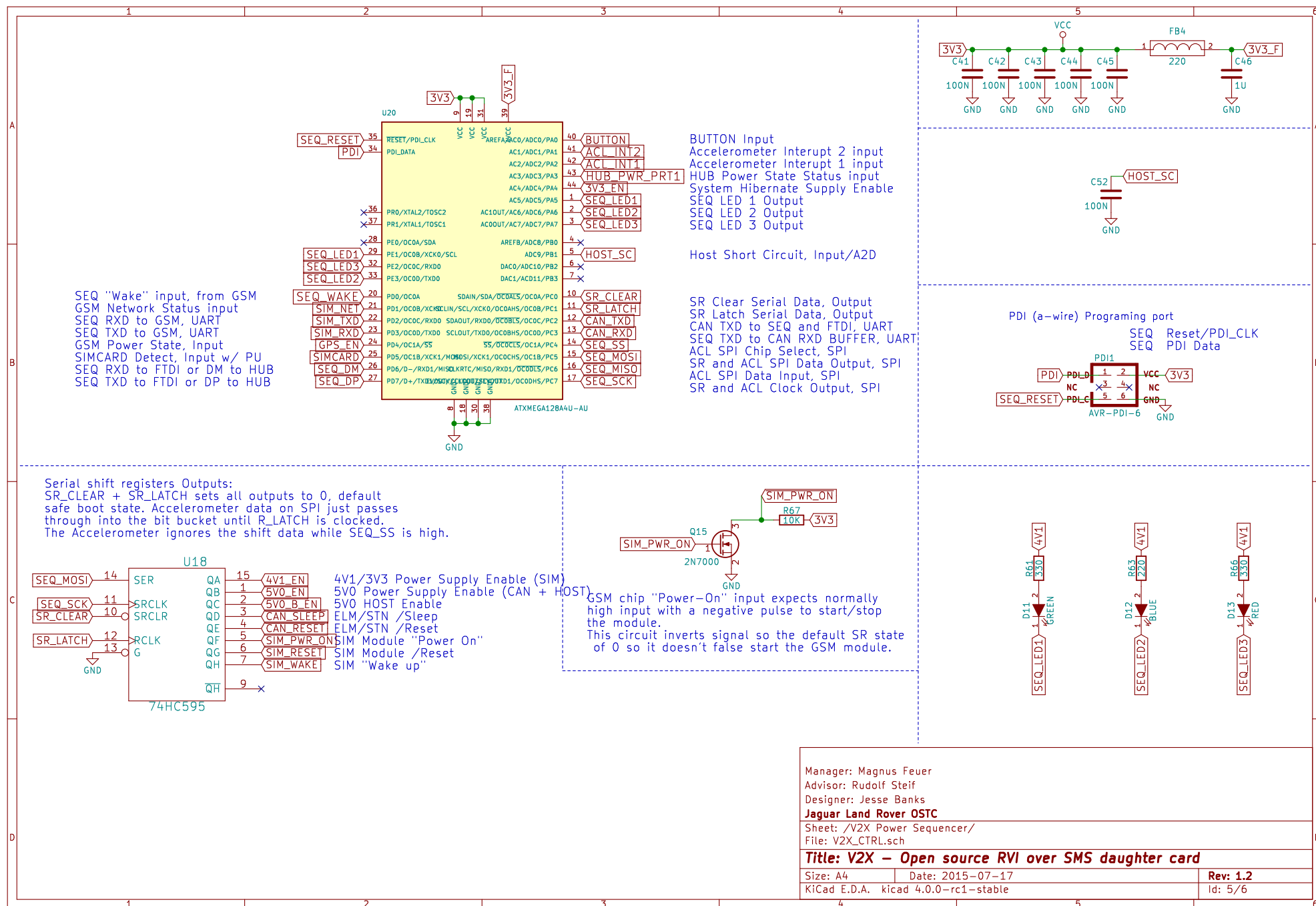
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