

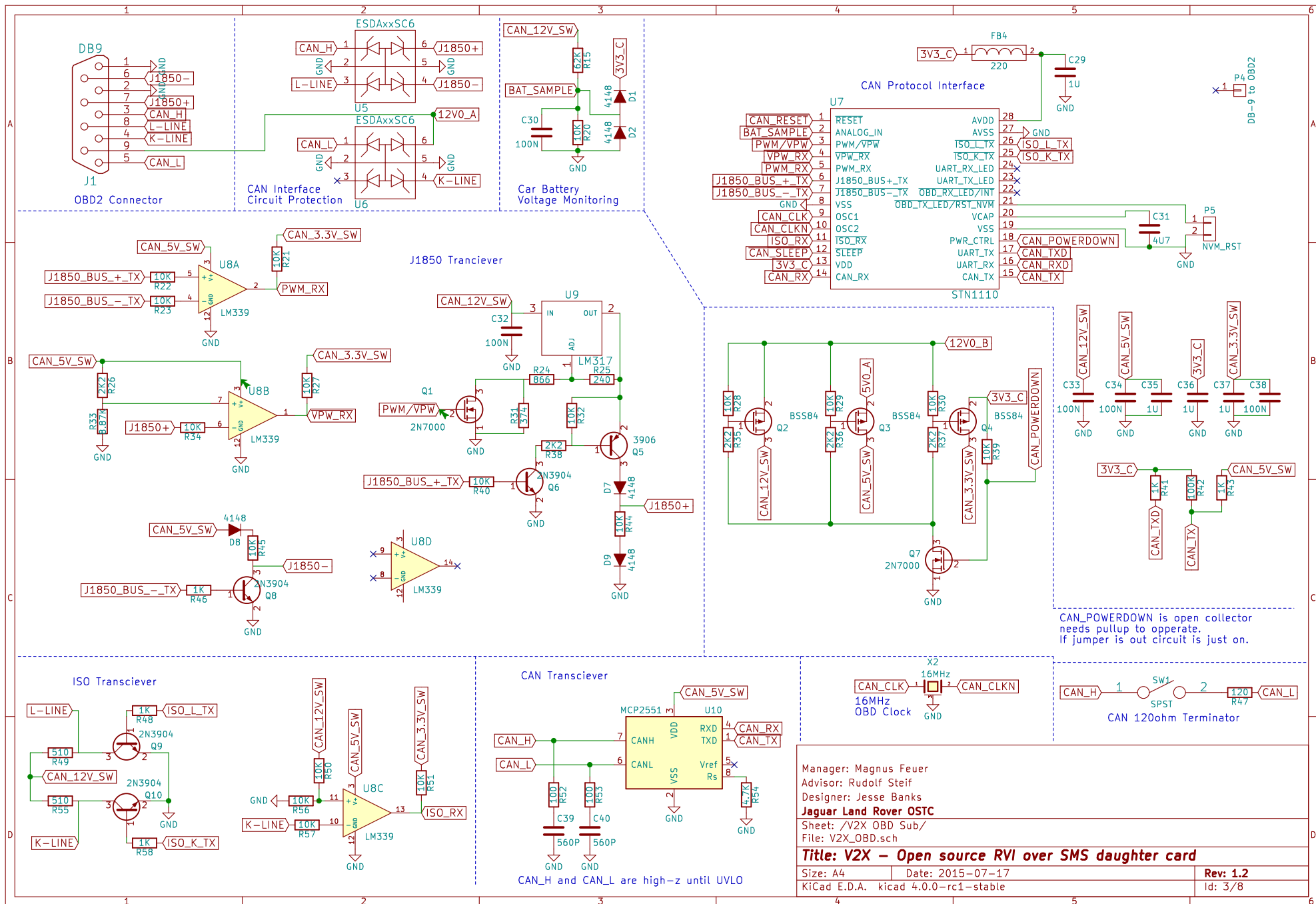
**Jaguar Land Rover OSTC**

Title: V2X - Open

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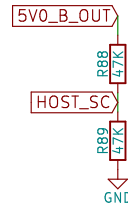
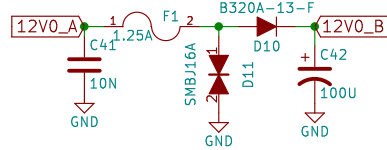
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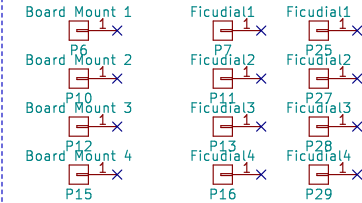


Manager: Magnus Feuer	
Advisor: Rudolf Steif	
Designer: Jesse Banks	
<b>Jaguar Land Rover OSTC</b>	
Sheet: /V2X OBD Sub/	
File: V2X_OBD.sch	
<b>Title: V2X – Open source RVI over SMS daughter card</b>	
Size: A4	Date: 2015-07-17
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<b>Rev: 1.2</b>	
Id: 3/8	

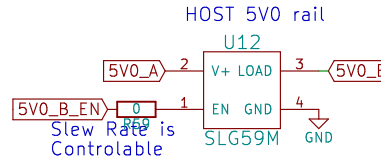
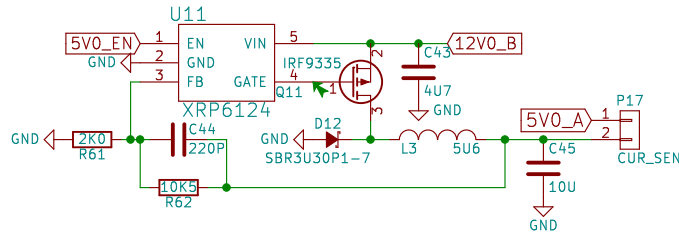
# Vehicle Power Input Filtering and ESD Spike Suppression



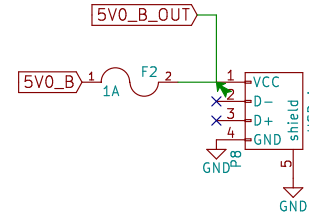
**Short Circuit Detection**  
5V0\_B\_OUT is post poly fuse  
Sample using logic level (maybe A2D)  
Logic '0' signal (<1.5V) indicates poly fuse is set, host output is in protect.  
Logic '1' signal (approx 2.4V) indicates poly fuse is clear, normal operation.  
An A2D value that is too high might indicate the Host is not attached.



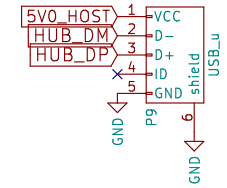
## 5V @ 1.25A DC-DC Power Supply



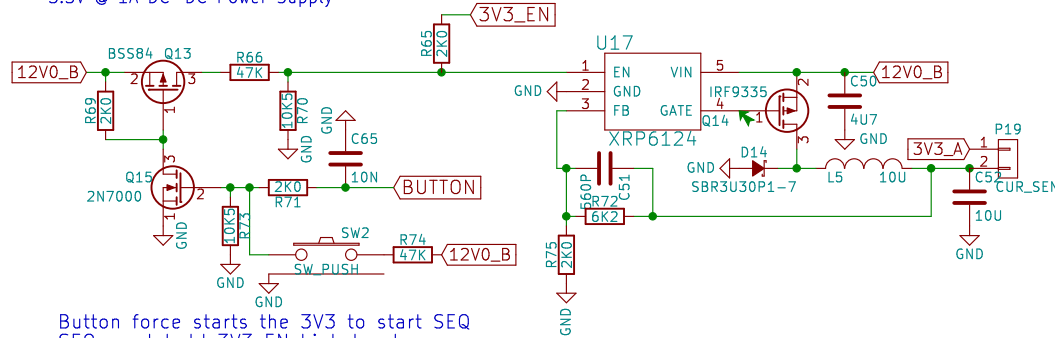
## HOST Power Connection



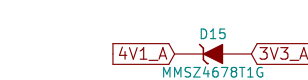
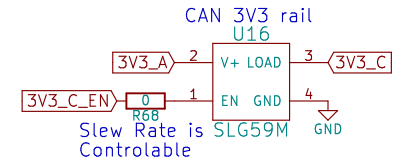
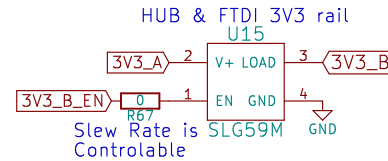
## HUB Data, HOST Power



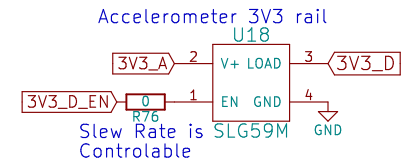
## 3.3V @ 1A DC-DC Power Supply



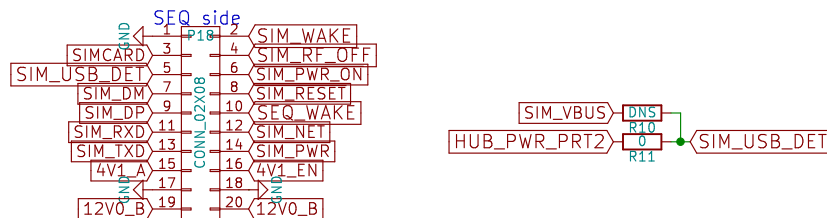
Button force starts the 3V3 to start SEQ  
SEQ must hold 3V3\_EN high to stay on  
BUTTON is soft button signal once running  
3V3\_EN pulled low kills supply regardless if button pressed



SEQ will disable the 3V3 Supply and siphon power from 4V1 while in SMS standby receive power state.



## GSM+GPS board header

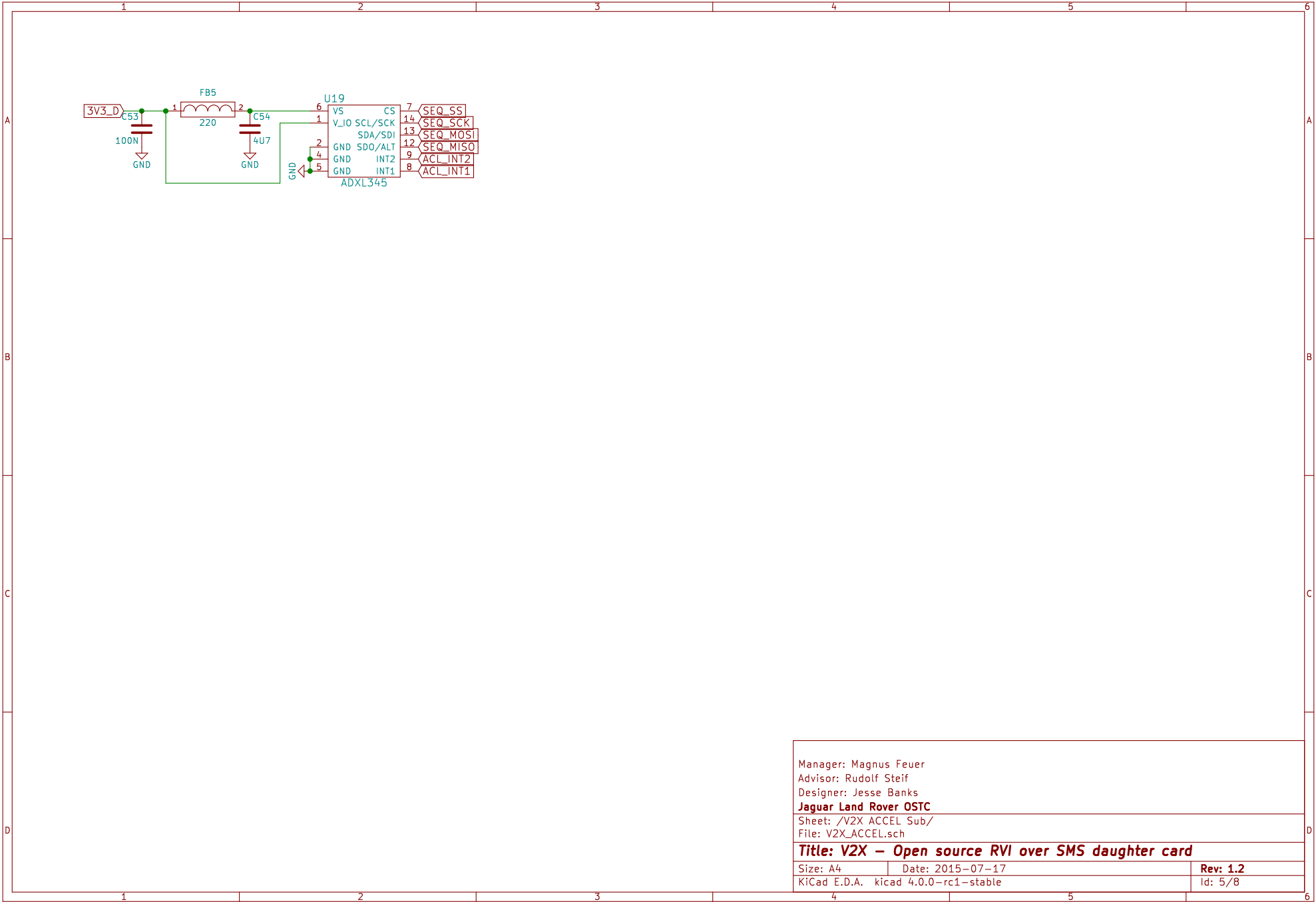


Manager: Magnus Feuer  
Advisor: Rudolf Steif  
Designer: Jesse Banks  
**Jaguar Land Rover OSTC**  
Sheet: /V2X Power Sub/  
File: V2X\_PWR.sch

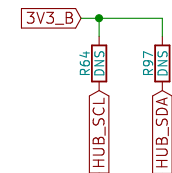
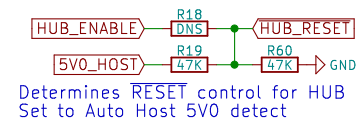
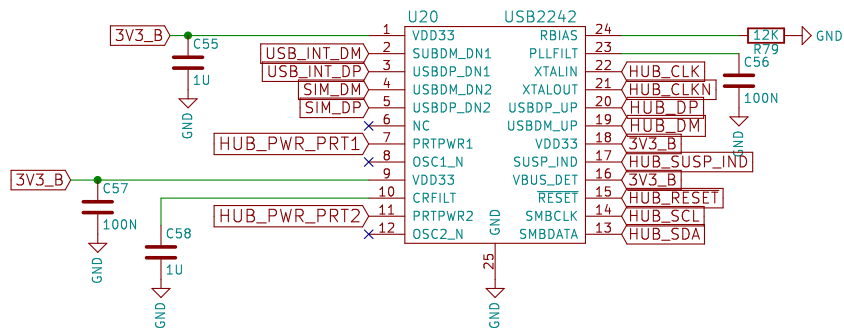
**Title: V2X – Open source RVI over SMS daughter card**

Size: USLetter Date: 2015-07-17  
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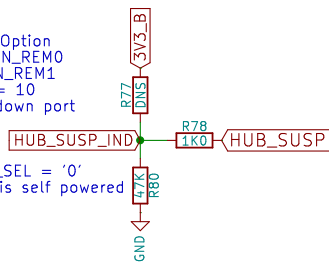


Manager: Magnus Feuer		
Advisor: Rudolf Steif		
Designer: Jesse Banks		
Jaguar Land Rover OSTC		
Sheet: /V2X ACCEL Sub/		
File: V2X_ACCEL.sch		
Title: V2X – Open source RVI over SMS daughter card		
Size: A4	Date: 2015-07-17	Rev: 1.2
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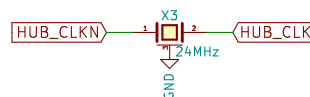
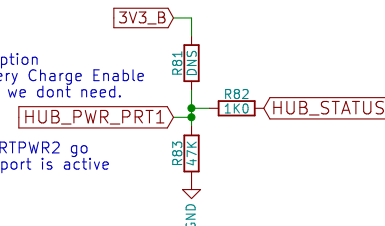
Boot Strapping Option  
 SUSP\_IND = NON\_REM0  
 SMBDATA = NON\_REM1  
 NON\_REM[1:0] = 10  
 means neither down port  
 is removable

SMBCLK = CFG\_SEL = '0'  
 Means the hub is self powered



Boot Strapping Option  
 PRT1N = Battery Charge Enable  
 0 = feature off, we dont need.

PRT1N and PRT2N 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

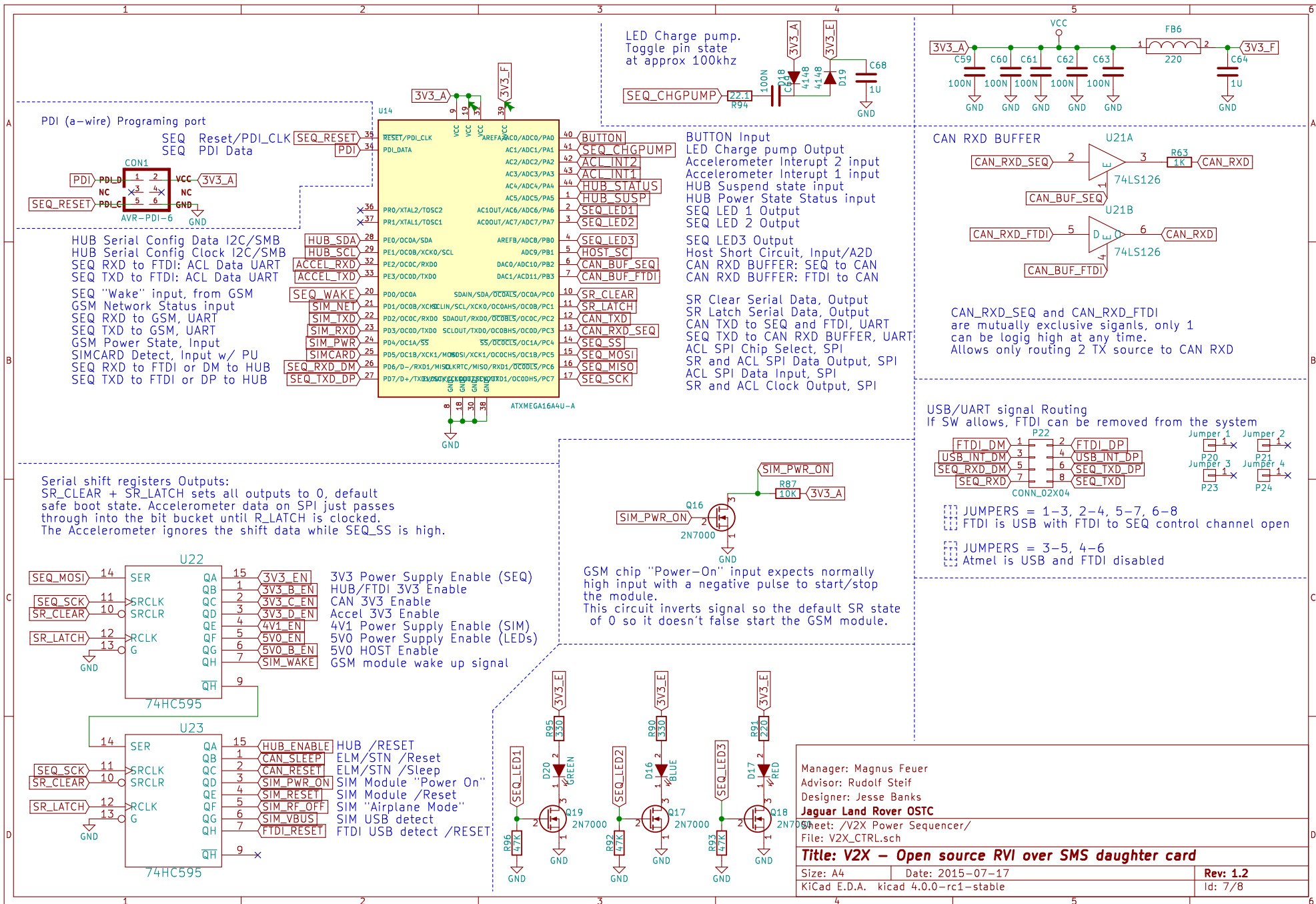
**Title: V2X – Open source RVI over SMS daughter card**

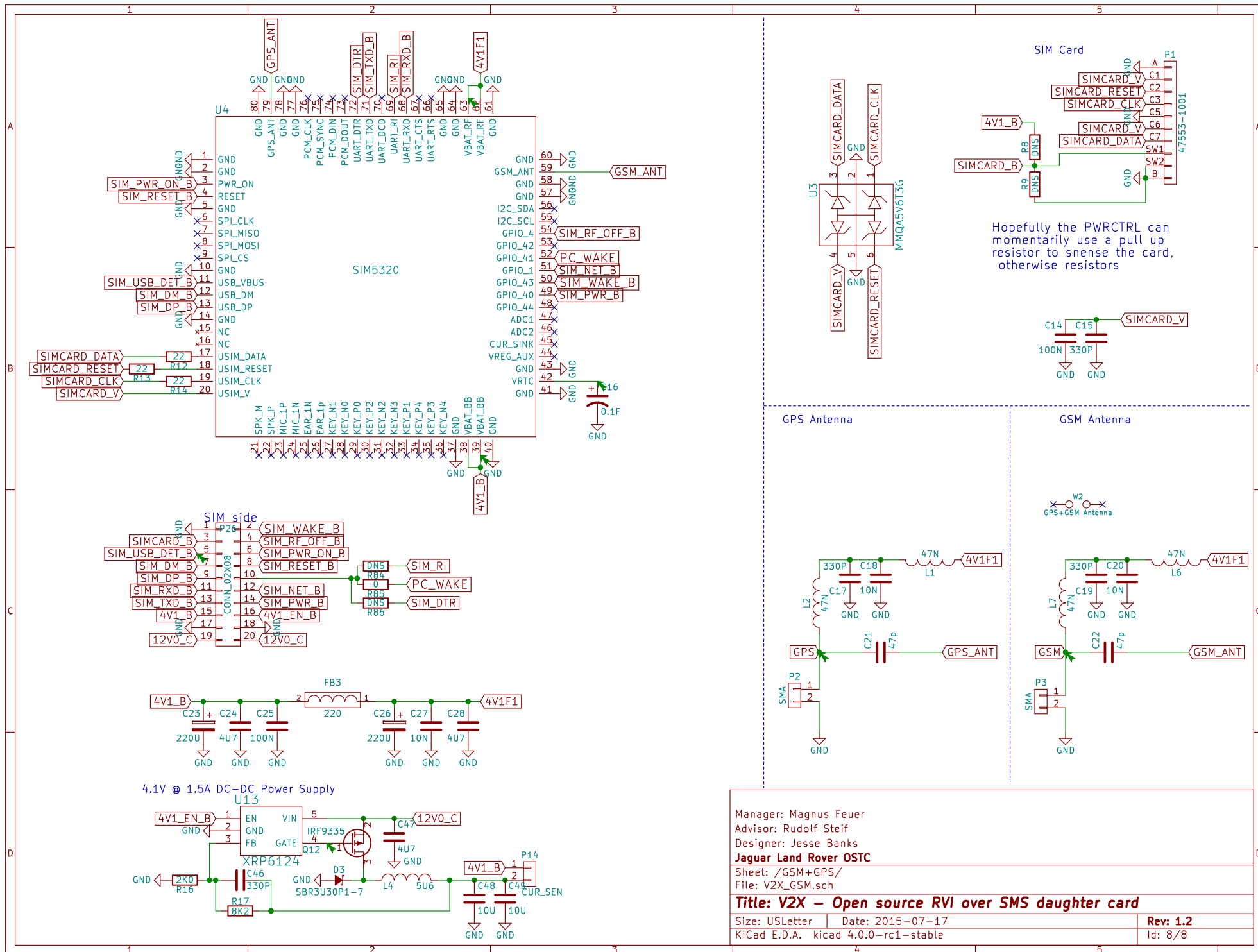
Size: A4 Date: 2015-07-17

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Manager: Magnus Feuer  
 Advisor: Rudolf Steif  
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**Jaguar Land Rover OSTC**  
 Sheet: /GSM+GPS/  
 File: V2X\_GSM.sch

**Title: V2X – Open source RVI over SMS daughter card**

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