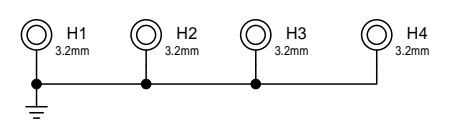
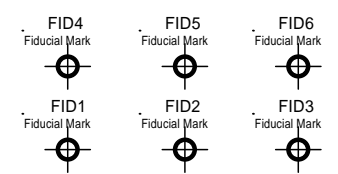


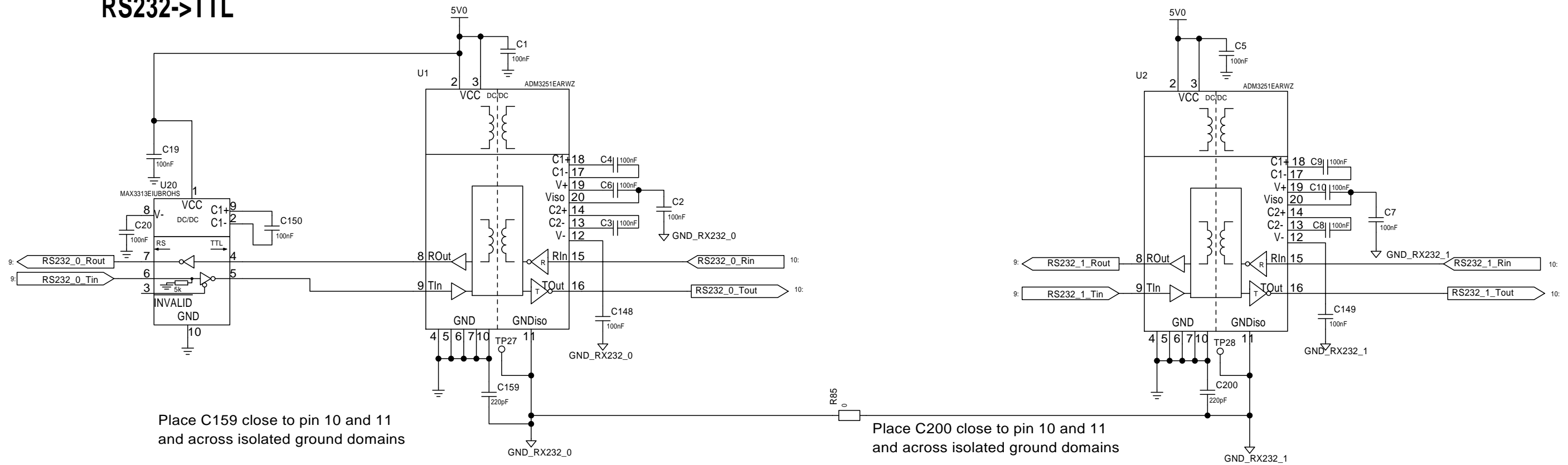
M2.5 holes must be placed along the board edge by the the power connector, and be embedded in a copper GND area on both sides of the PCB. The area should have GND vias for good connectivity to board GND.



### RS232->TTL

### RS232\_0

### RS232\_1



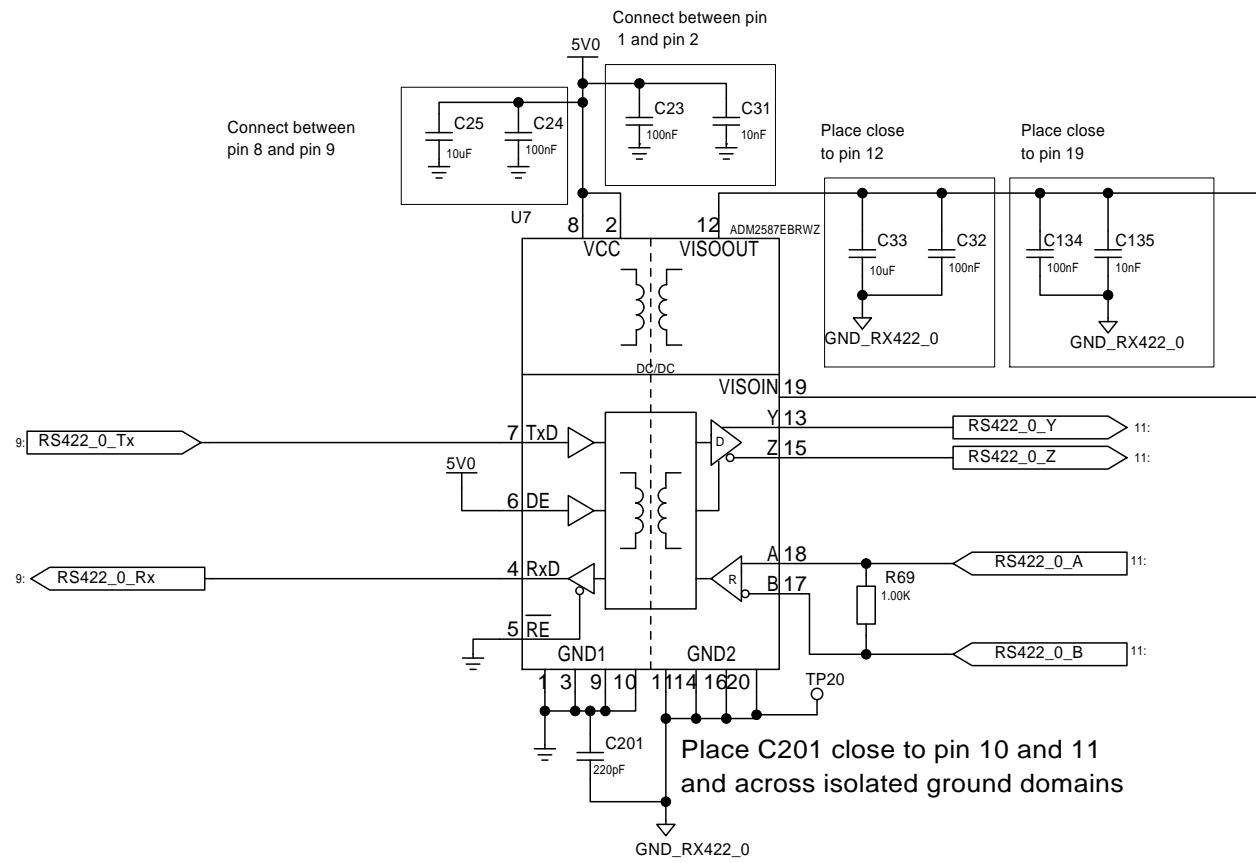
Place C159 close to pin 10 and 11  
and across isolated ground domains

Place C200 close to pin 10 and 11  
and across isolated ground domains

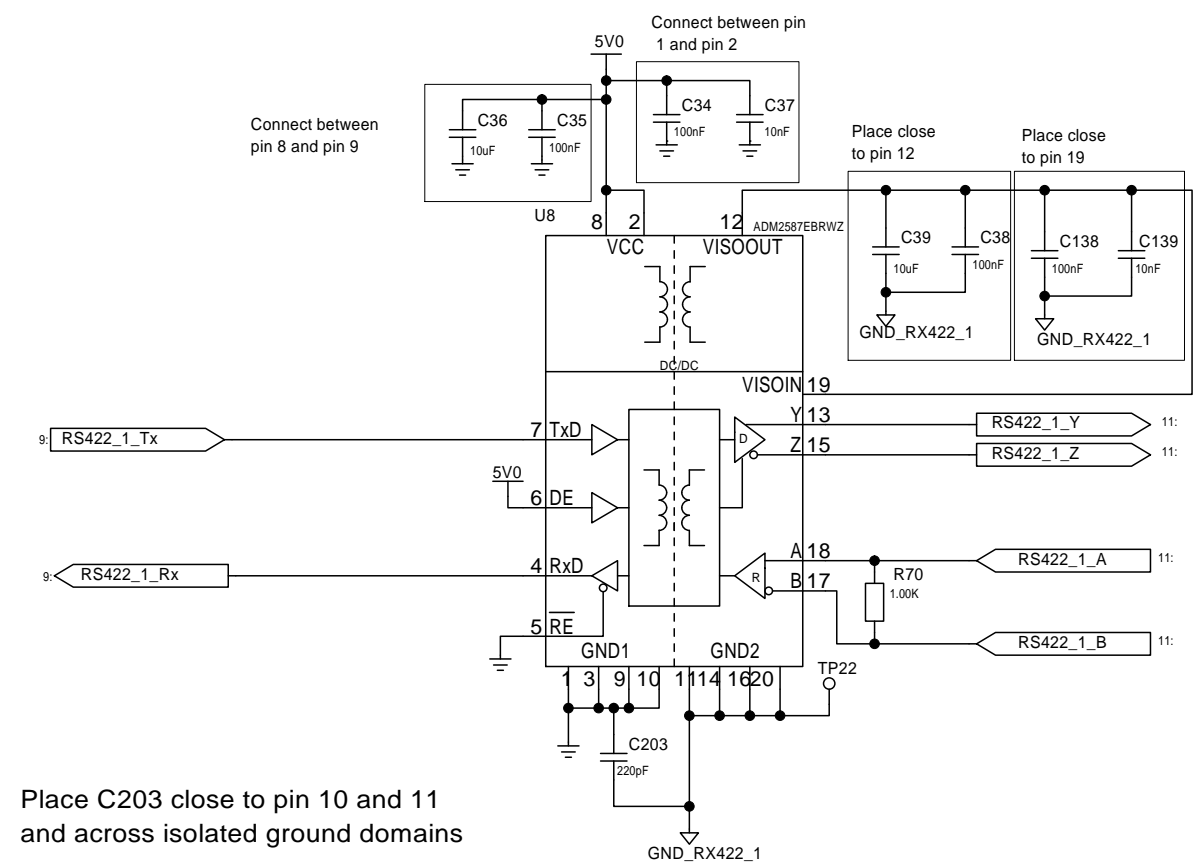
Current consumption:  
DC-DC converter enabled: 110mA (Vcc =5.5V, No load)  
DC-DC converter enabled: 145mA (Vcc = 5.5V, 3kohm load)

Design Title	
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Isolated RS232	
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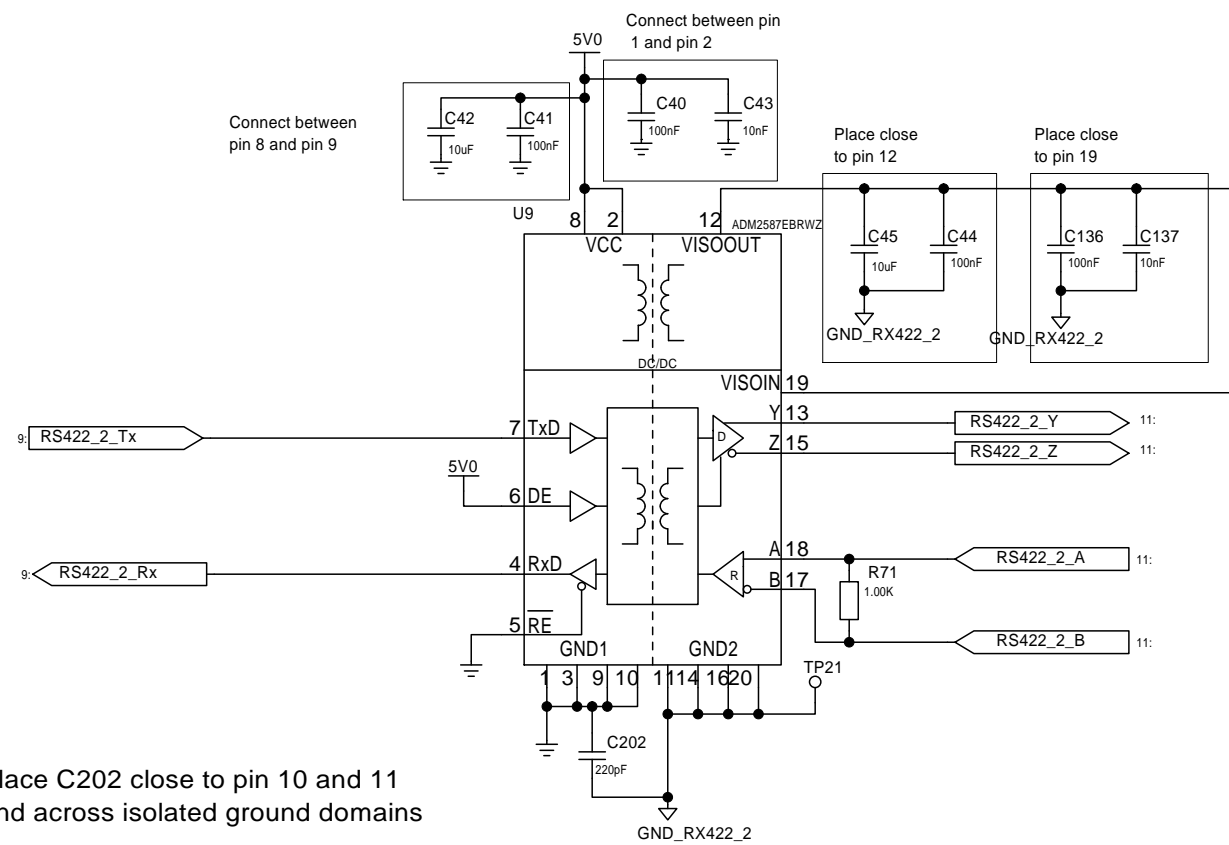
### RS422\_0



### RS422\_1

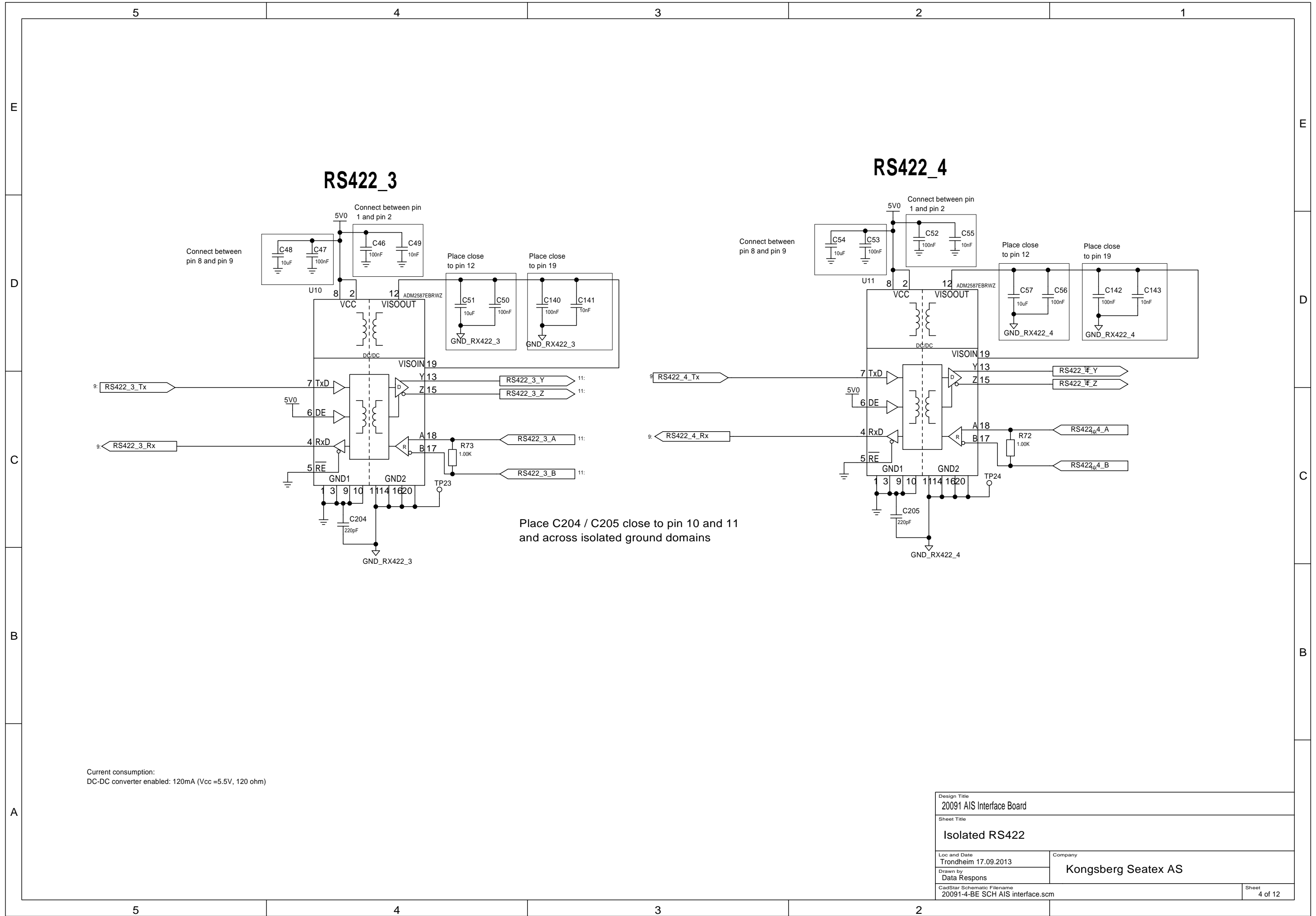


### RS422\_2



Current consumption:  
DC-DC converter enabled: 120mA (Vcc = 5.5V, 120 ohm)

Design Title 20091 AIS Interface Board	
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### RS422\_3

### RS422\_4

Connect between pin 8 and pin 9

Connect between pin 8 and pin 9

Connect between pin 1 and pin 2

Connect between pin 1 and pin 2

Place close to pin 12

Place close to pin 19

Place close to pin 12

Place close to pin 19

Place C204 / C205 close to pin 10 and 11 and across isolated ground domains

Current consumption:  
DC-DC converter enabled: 120mA (Vcc =5.5V, 120 ohm)

Design Title 20091 AIS Interface Board	
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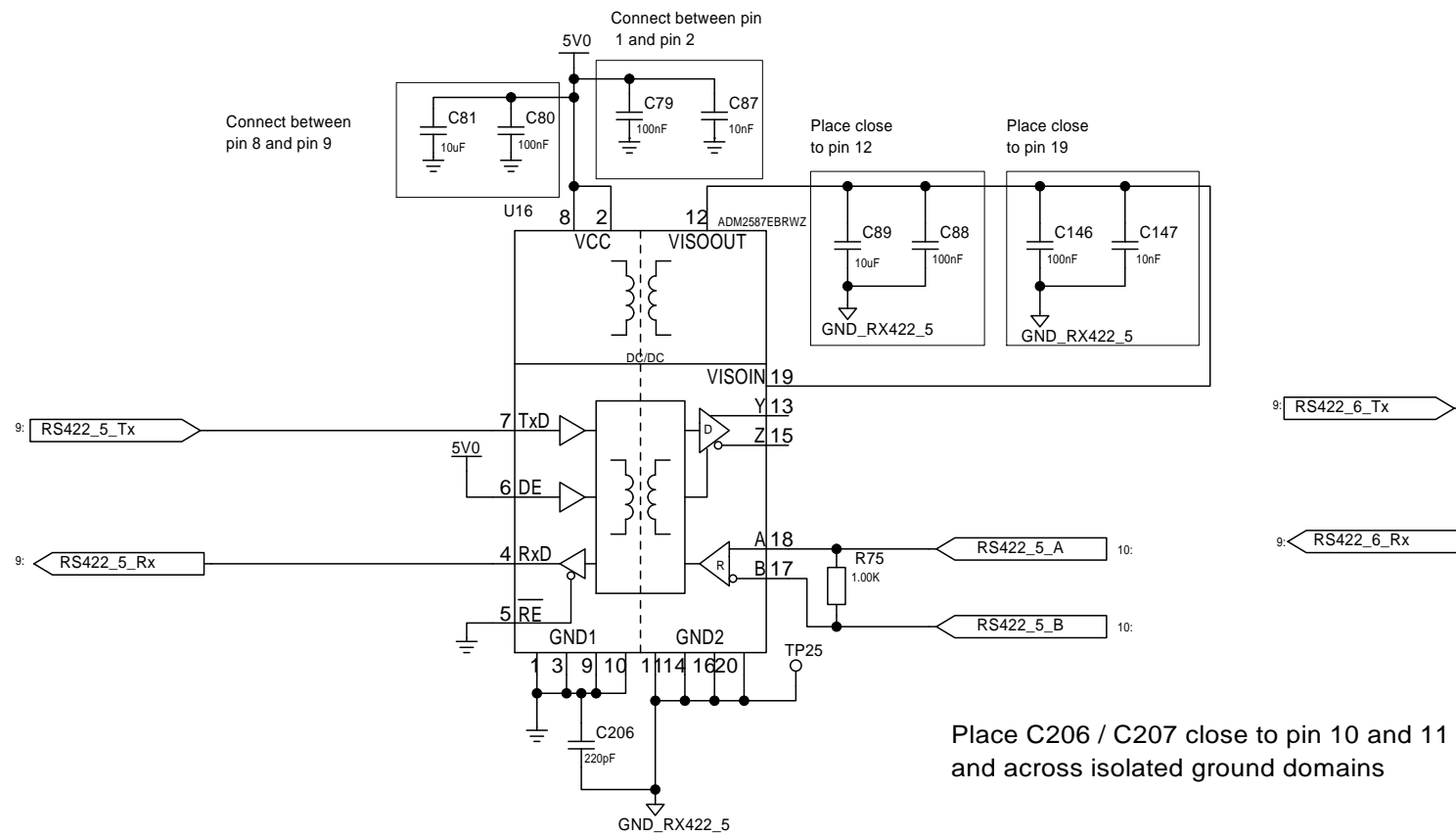
4

3

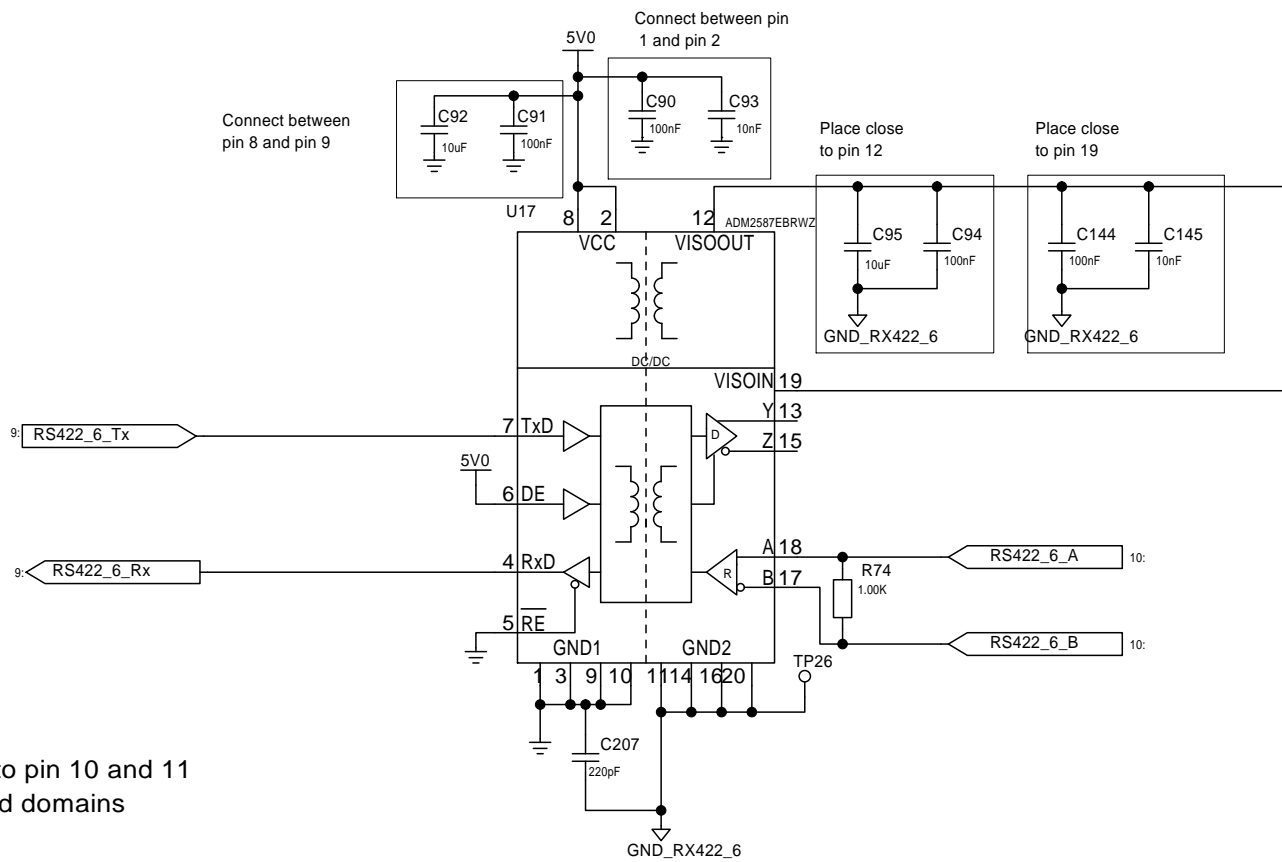
2

1

### RS422\_5



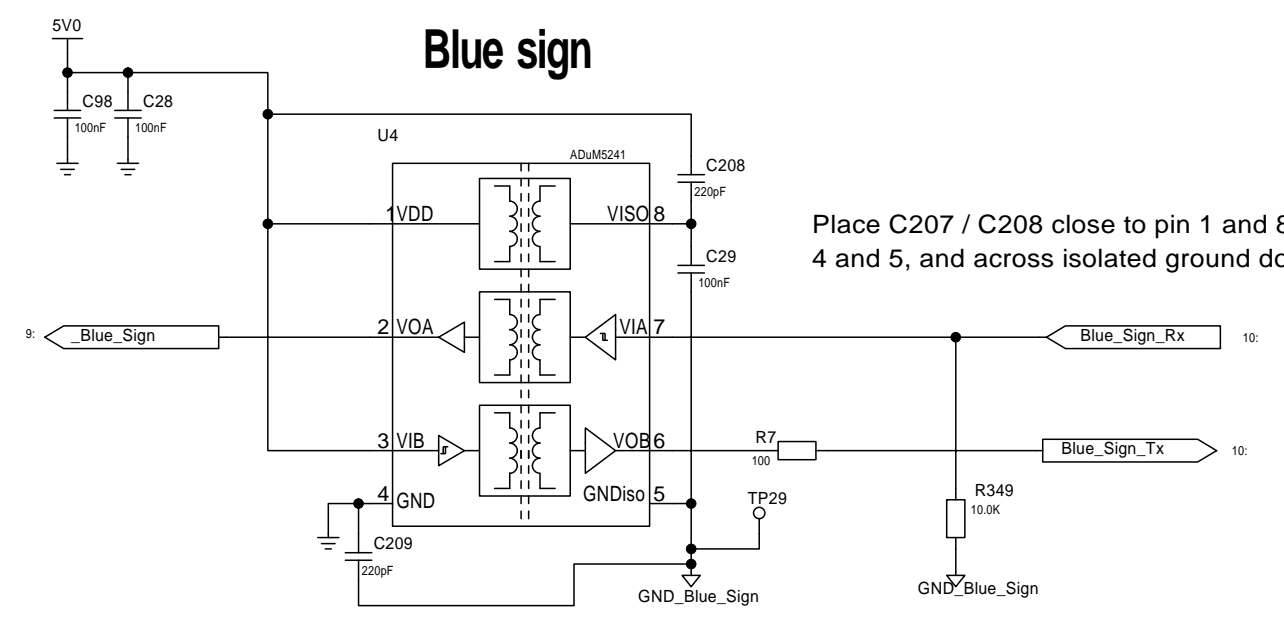
### RS422\_6



Design Title	
20091 AIS Interface Board	
Sheet Title	
Isolated RS422	
Loc and Date	Company
Trondheim 17.09.2013	Kongsberg Seatex AS
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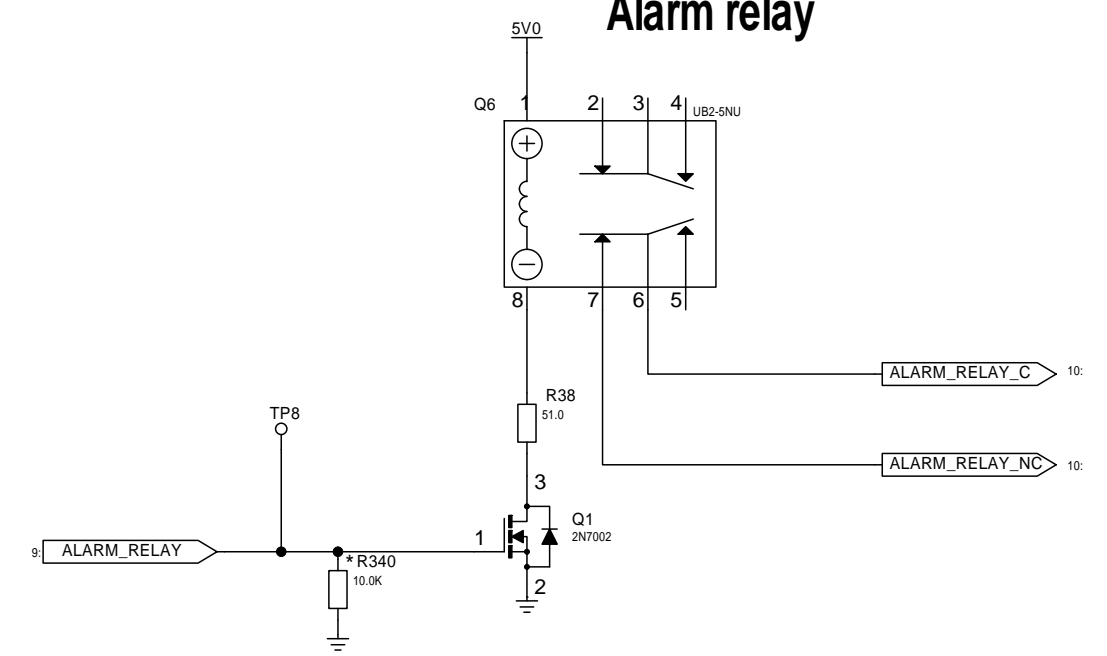
5 4 3 2 1

### Blue sign

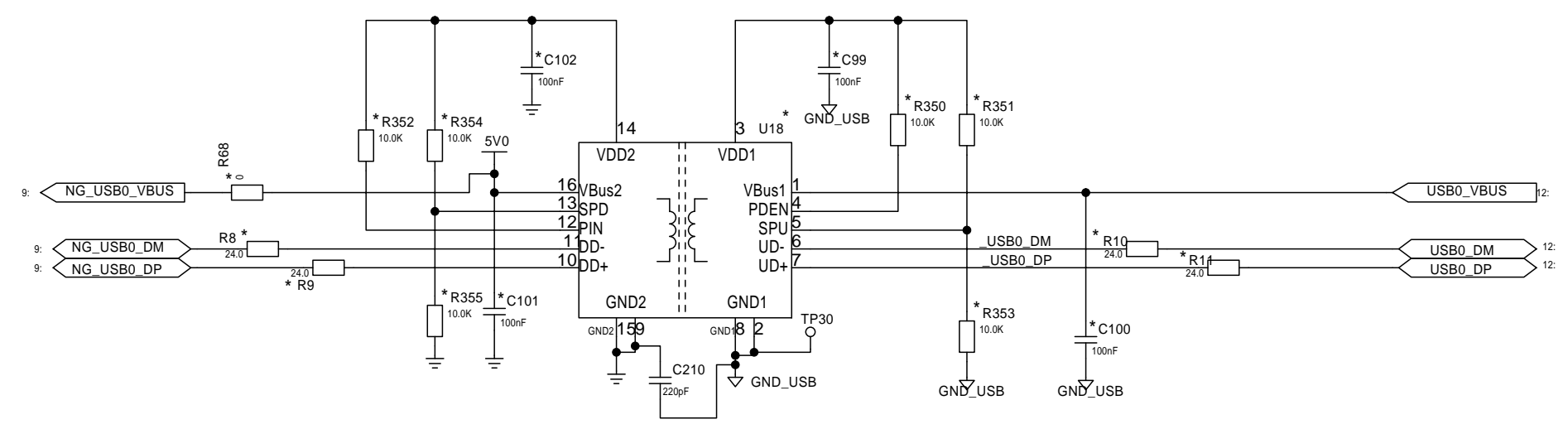


Place C207 / C208 close to pin 1 and 8, 4 and 5, and across isolated ground domains

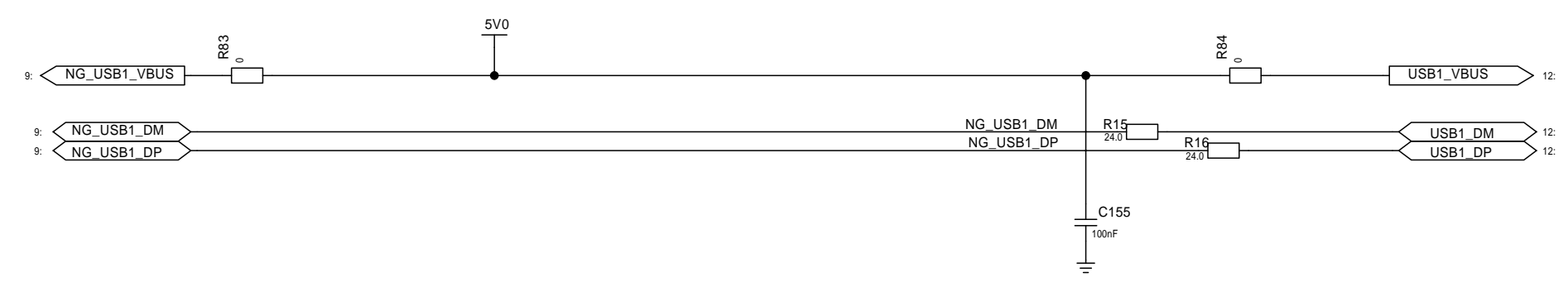
### Alarm relay



### Isolated USB

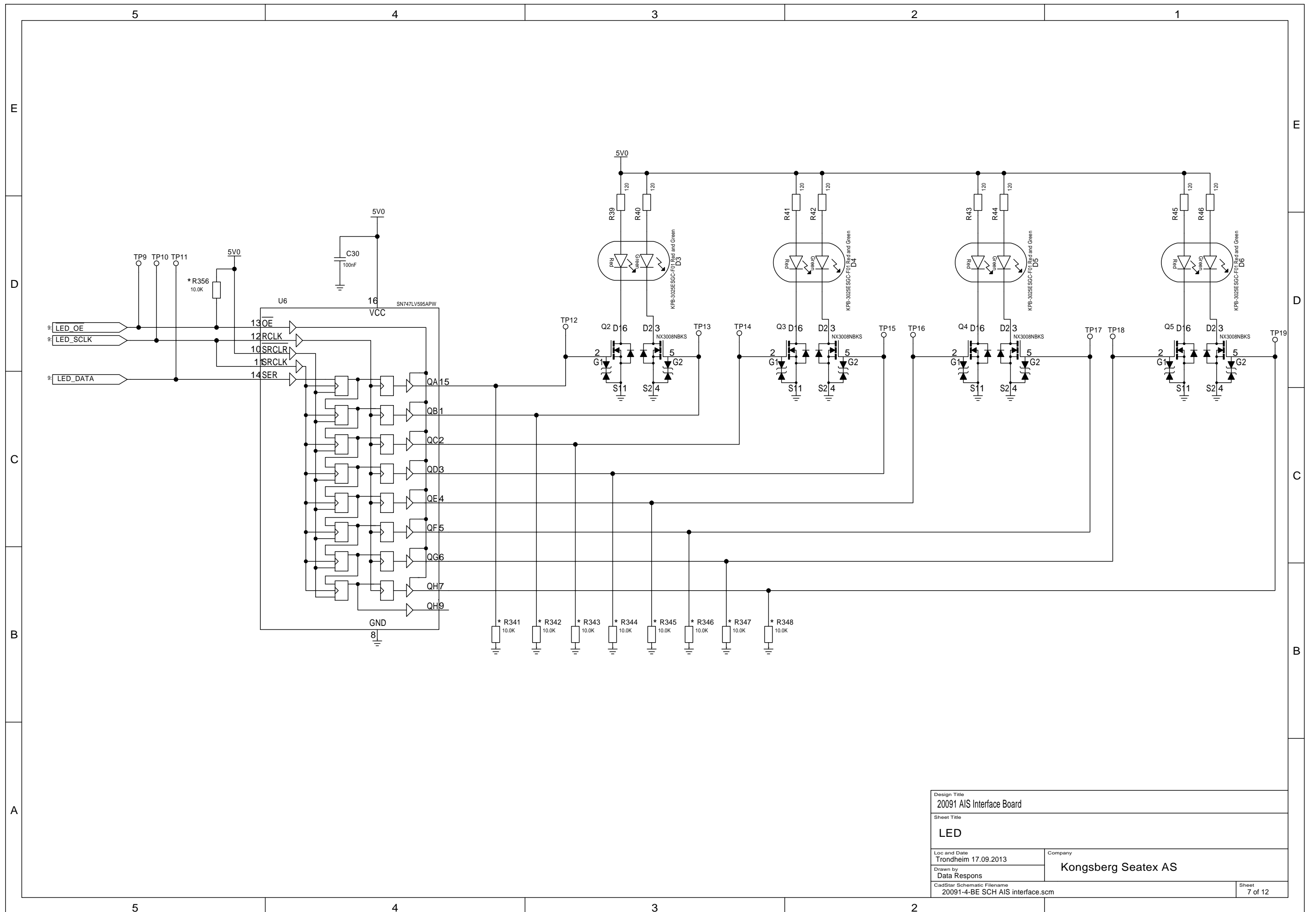


Place C210 / C211 close to pin 8 and 9 and across isolated ground domains

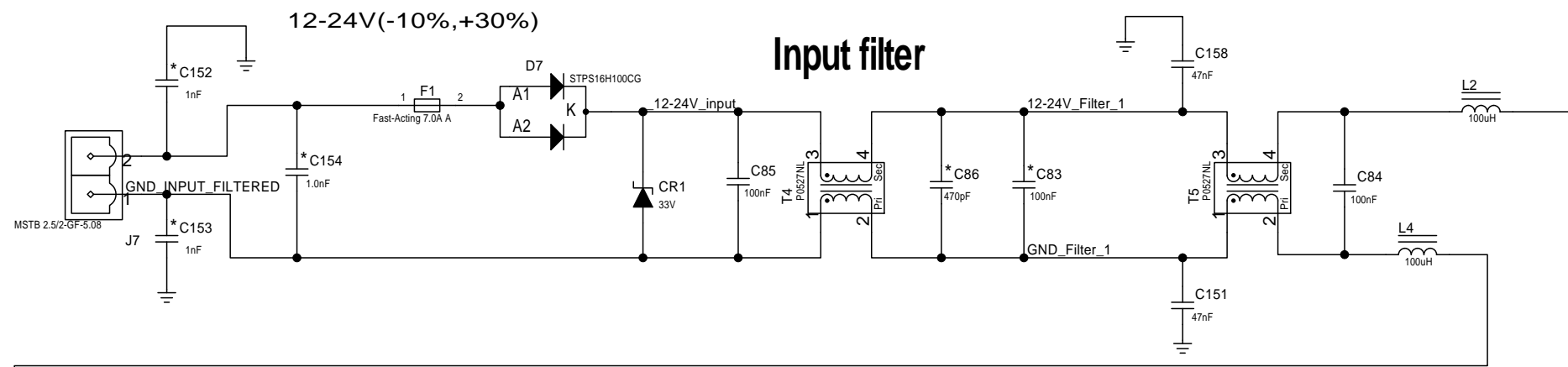


Design Title 20091 AIS Interface Board	
Sheet Title Blue sign & alarm relay	
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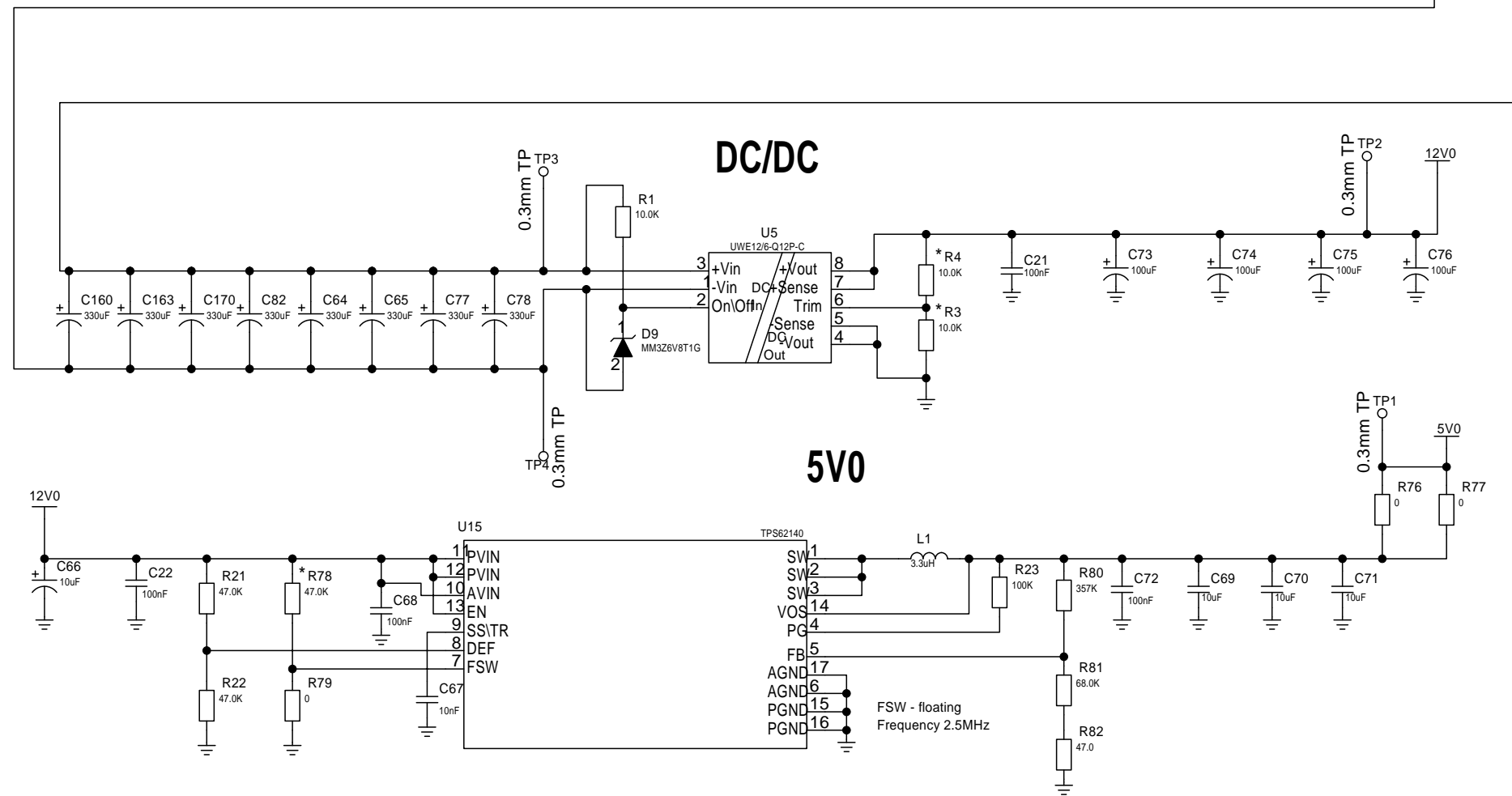
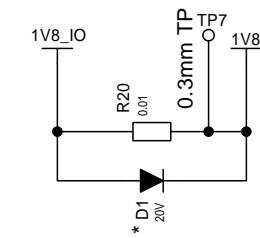
5 4 3 2 1



Design Title	
20091 AIS Interface Board	
Sheet Title	
LED	
Loc and Date	Company
Trondheim 17.09.2013	Kongsberg Seatex AS
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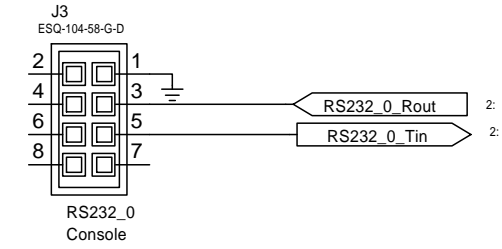
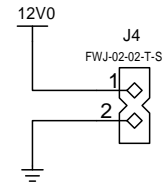
### Power to IO buffer



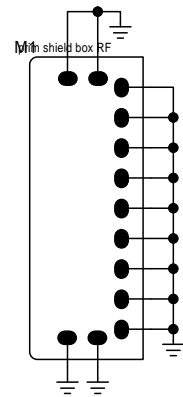
Design Title 20091 AIS Interface Board	
Sheet Title Power	
Loc and Date Trondheim 17.09.2013	Company Kongsberg Seatex AS
Drawn by Data Respons	
CadStar Schematic Filename 20091-4-BE SCH AIS interface.scm	Sheet 8 of 12



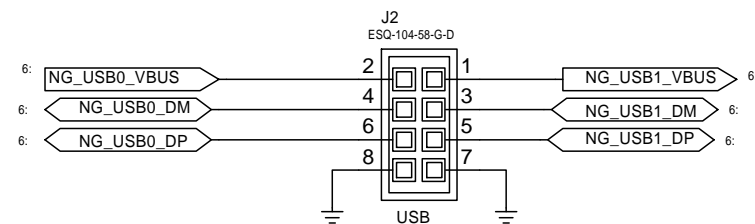
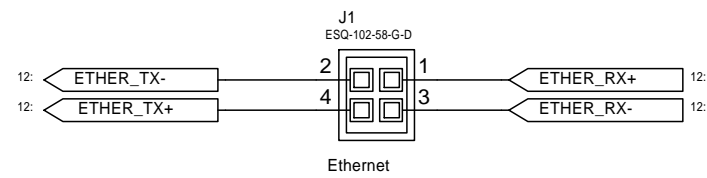
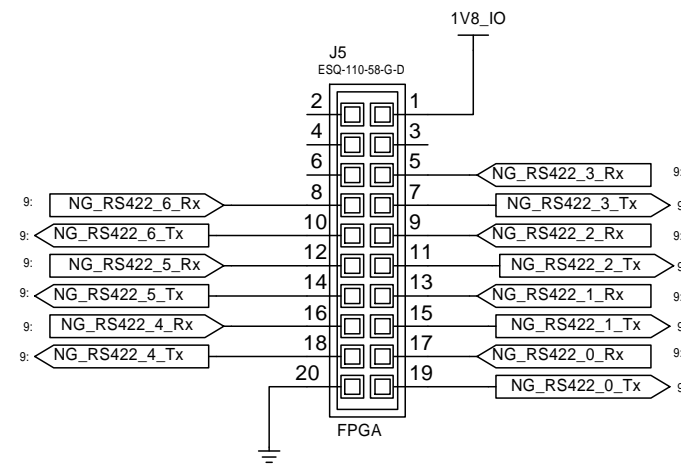
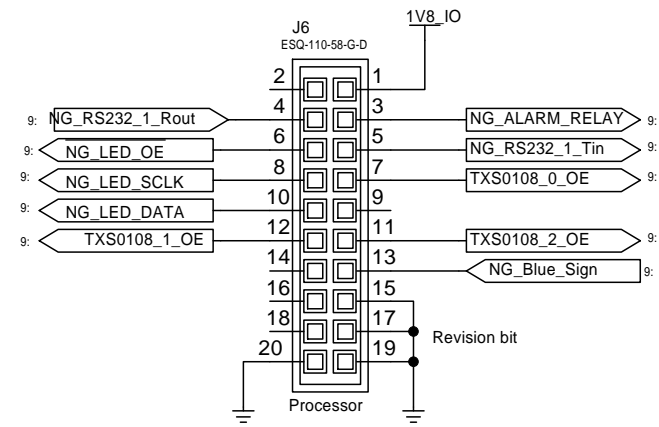
## Power to NG-AIS board



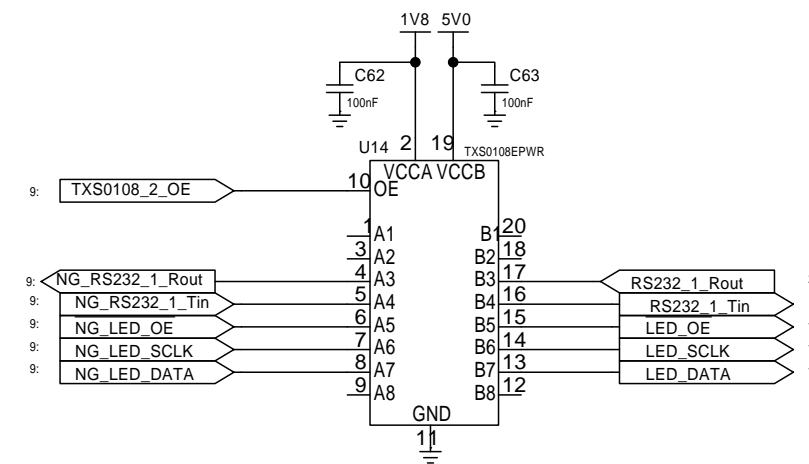
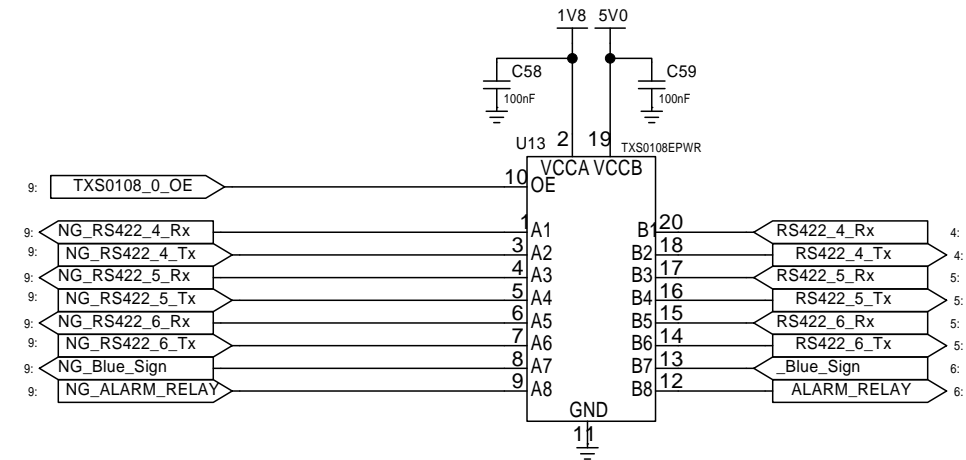
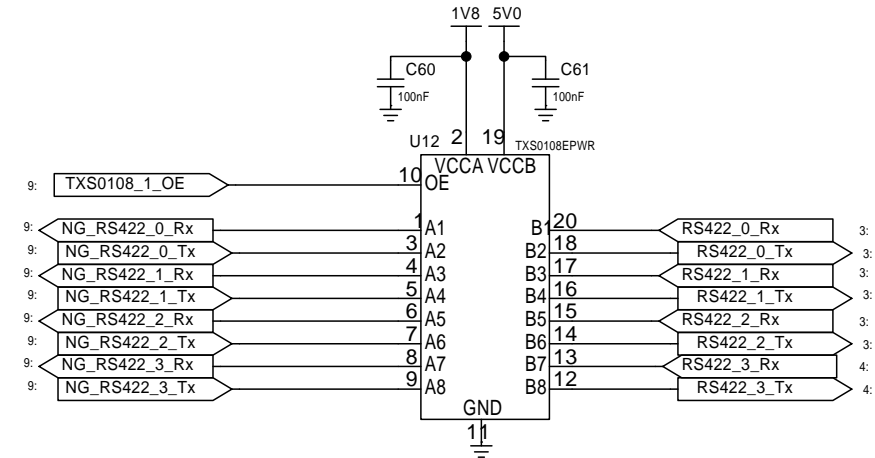
For shielding of connector J8 and J10



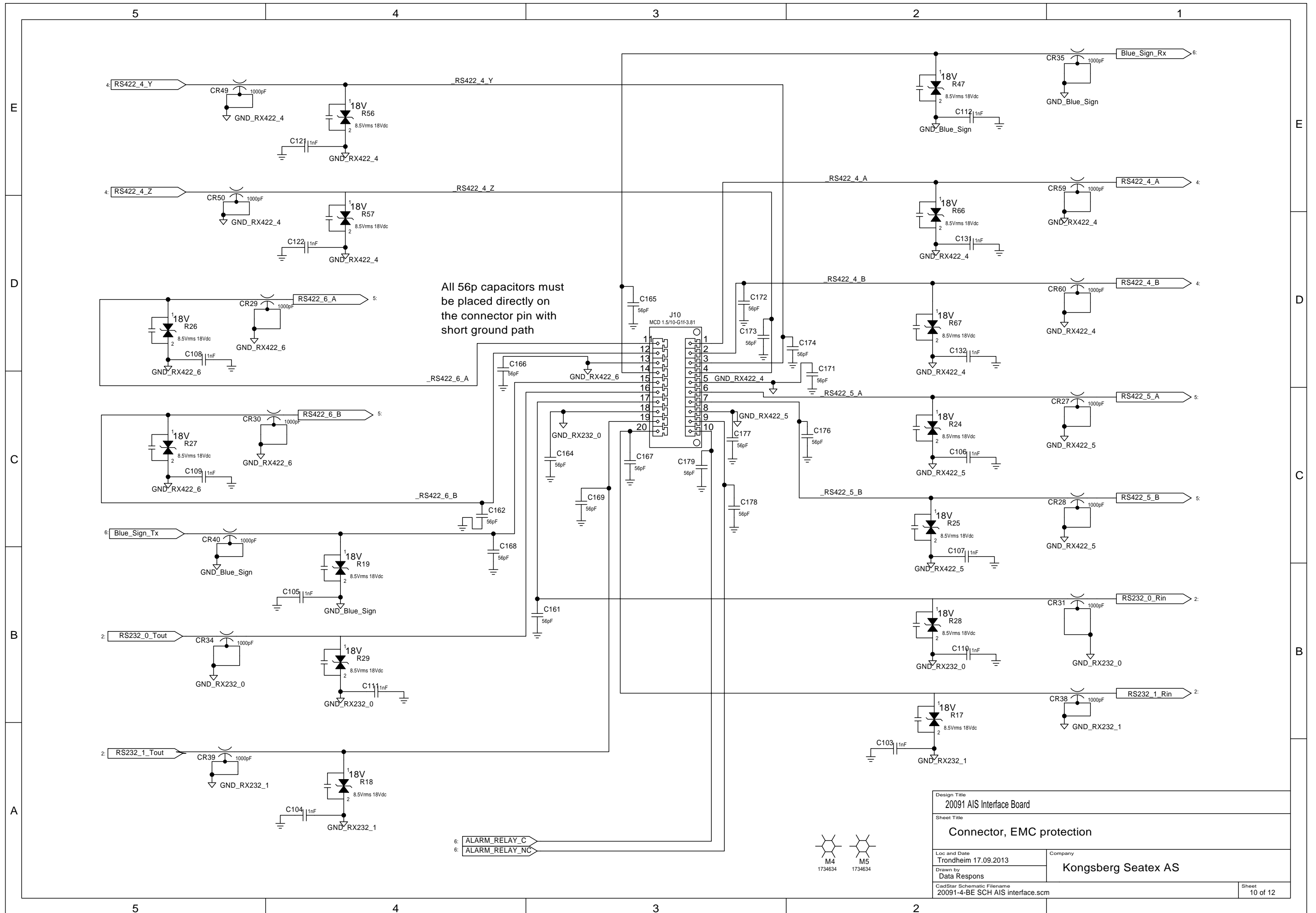
## Interface connectors



## Level converters

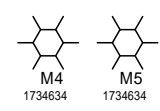


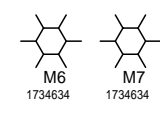
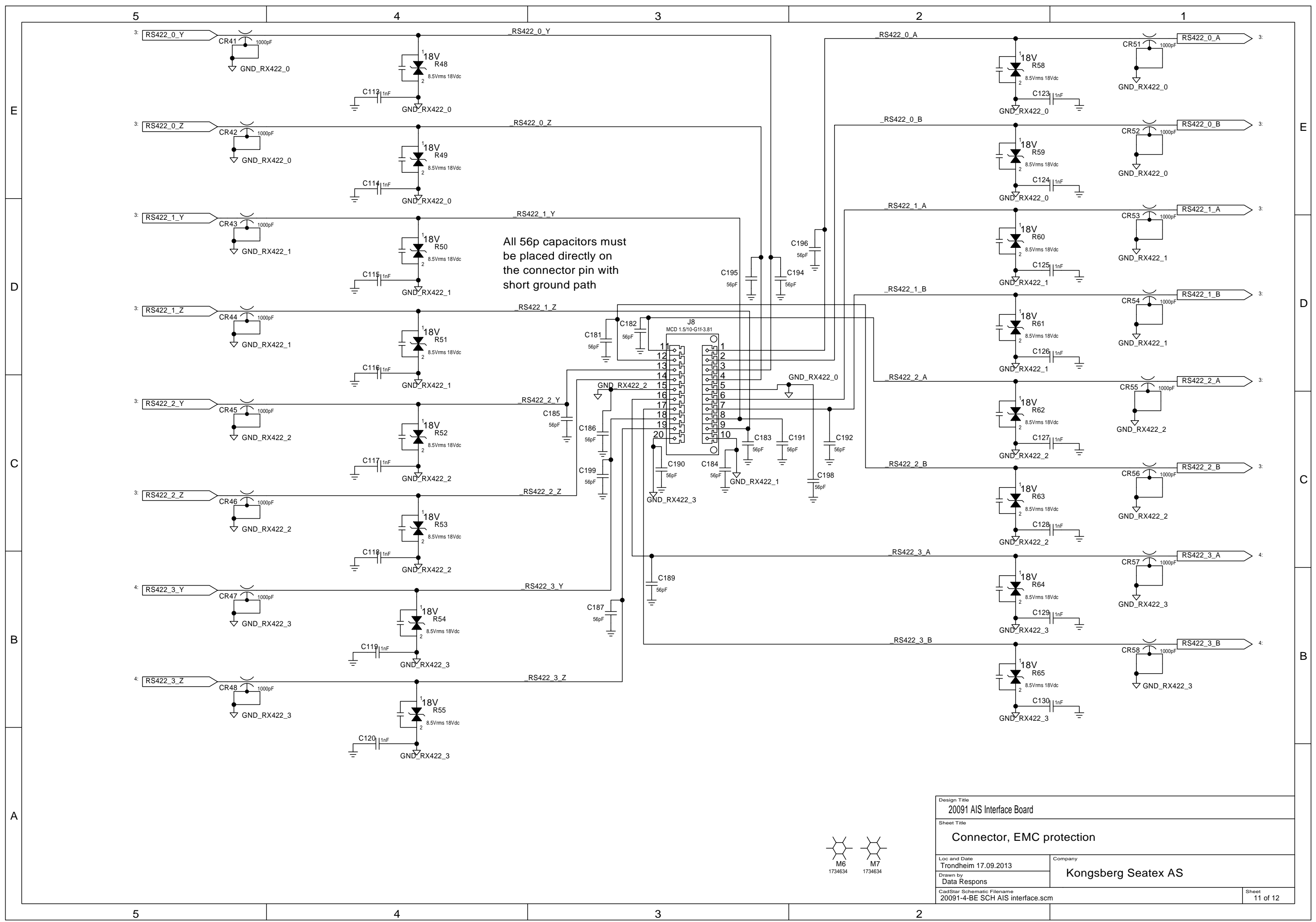
Design Title 20091 AIS Interface Board	
Sheet Title Connector - NG-AIS	
Loc and Date Trondheim 17.09.2013	Company Kongsberg Seatex AS
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All 56p capacitors must be placed directly on the connector pin with short ground path

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Sheet Title Connector, EMC protection	
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5

4

3

2

1

E

E

D

D

C

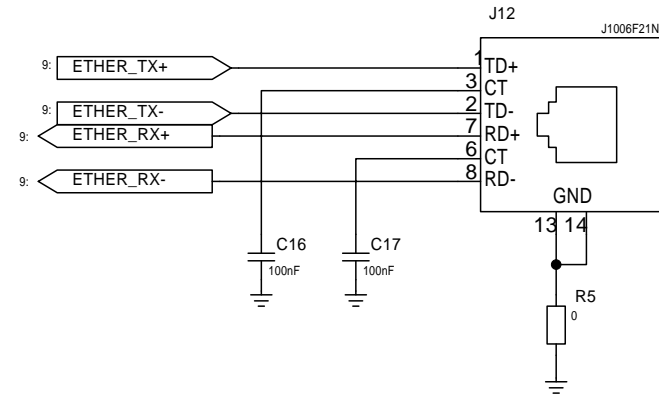
C

B

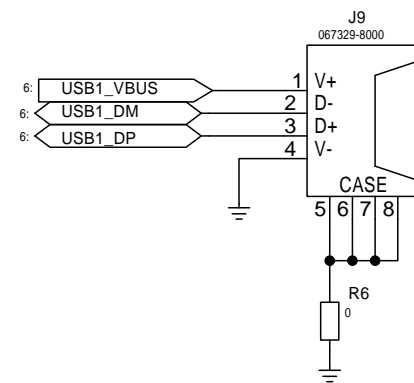
B

A

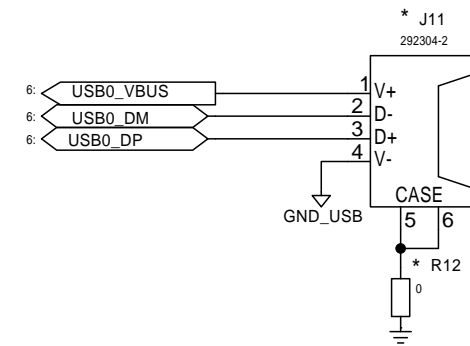
### Ethernet



### USB - master



### USB - slave



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20091 AIS Interface Board	
Sheet Title	
Connector, Ethernet and USB	
Loc and Date	Company
Trondheim 17.09.2013	Kongsberg Seatex AS
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4

3

2