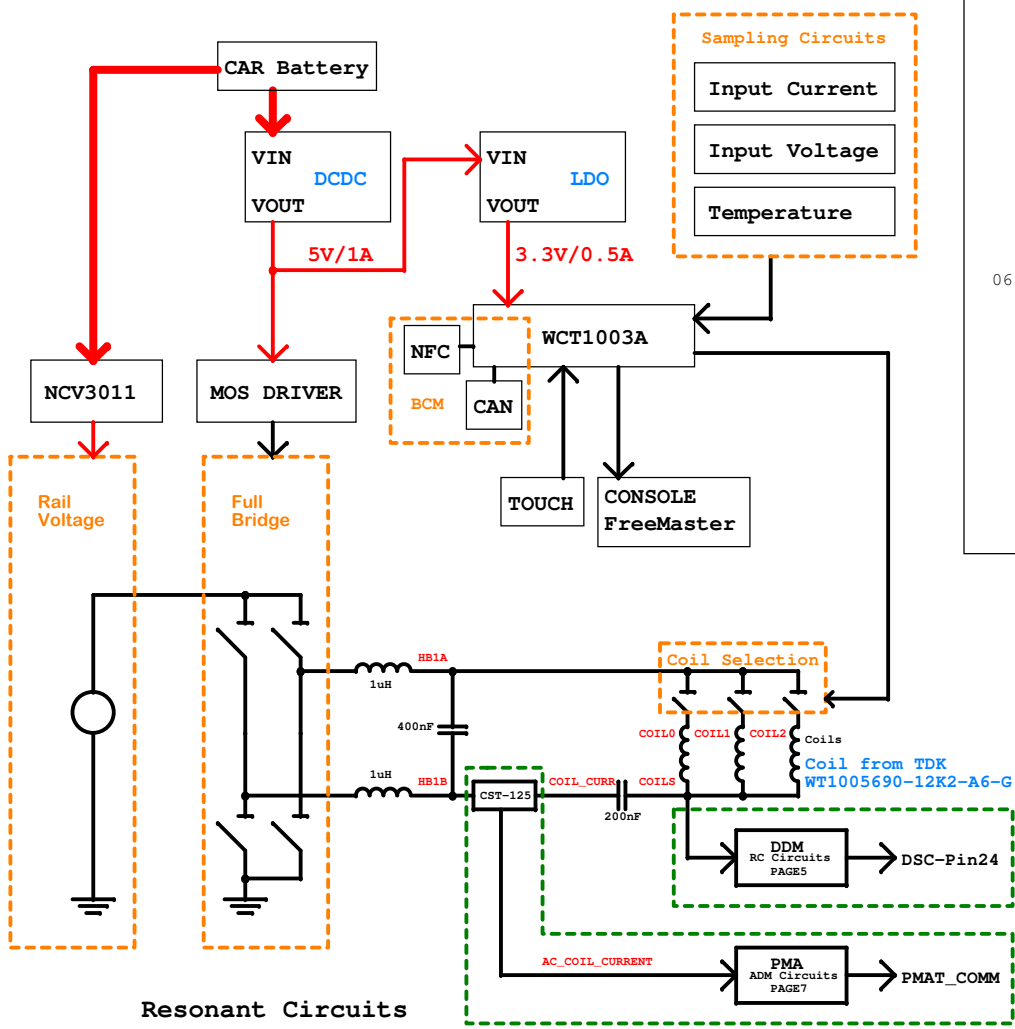


# System Block Diagram



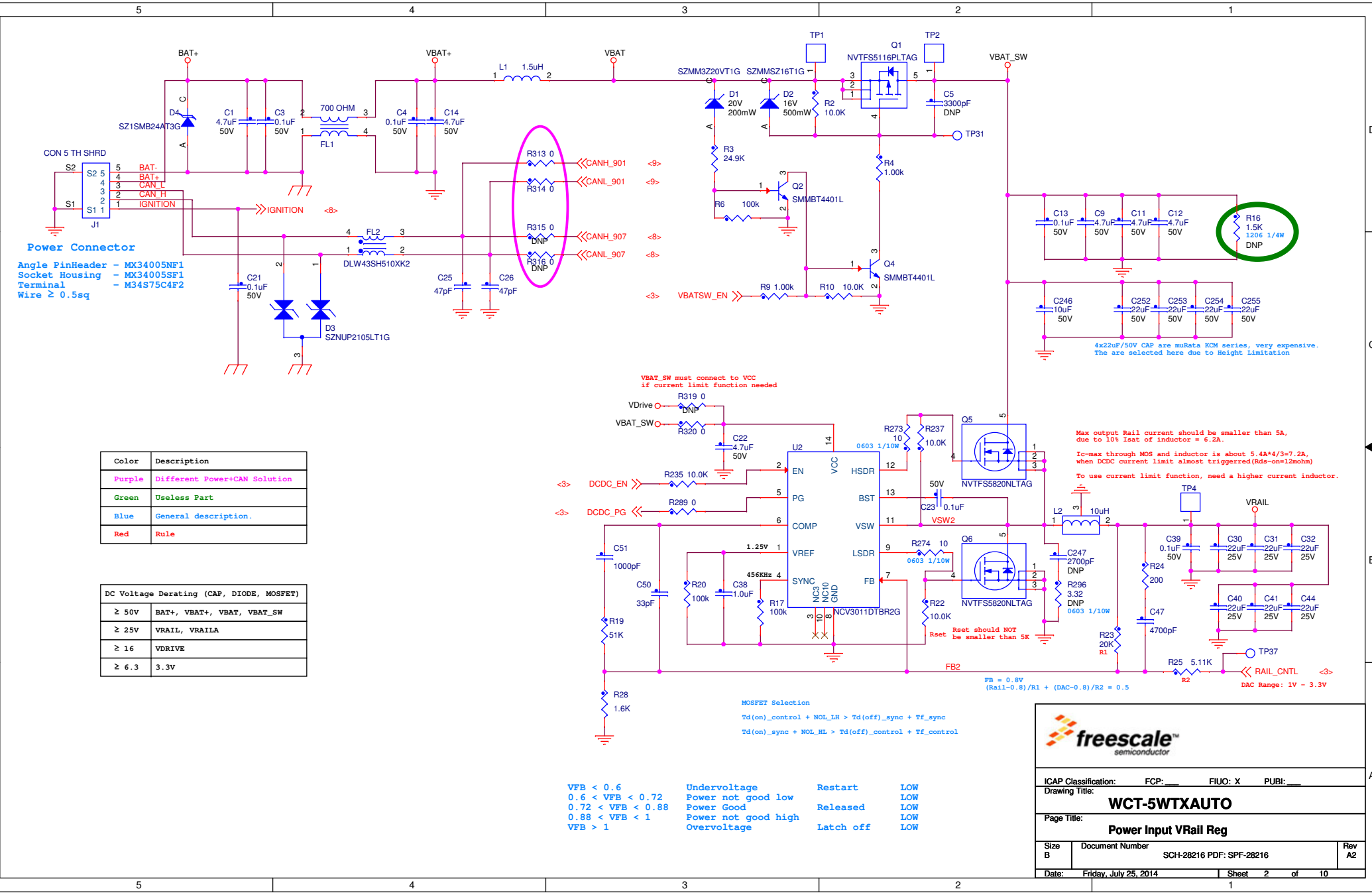
## REVISION HISTORY

DATE	REV	CHANGE DESCRIPTION
01/17/2014	A	- Initial Release.
05/04/2014	A1	- Change U4 to MWCT1003A. - Change C61 to 0.1uF. - Change C47 to 4700pF. - Change C50 to 33pF. - Change R24 to 200R. - POP R313, R314. - POP R322, R323, R324, R331, R335, R337. - DNP R315, R316. - DNP R35, C57. - DNP J18. - DNP C187, D34, Q33, Q34, Q35, R204, R205, R206, R207, R208, R209. - DNP all components on page6. - DNP all components on page8. - Change R328 and C259 to series connection with Pin4-U25. - Update U6 part number to MLX90132RLQ-AEA-000. - Update U18 Agile number to 315-79832.
06/13/2014	A2	- Change R22 to 10K. - Change R73, R83, R94, R208 to 5.11K.

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Drawing Title: **WCT-5WTXAUTO**  
Page Title: **Revision History**

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**Power Connector**  
 Angle PinHeader - MX34005NF1  
 Socket Housing - MX34005SF1  
 Terminal - M34S75C4F2  
 Wire ≥ 0.5sq

Color	Description
Purple	Different Power+CAN Solution
Green	Useless Part
Blue	General description.
Red	Rule

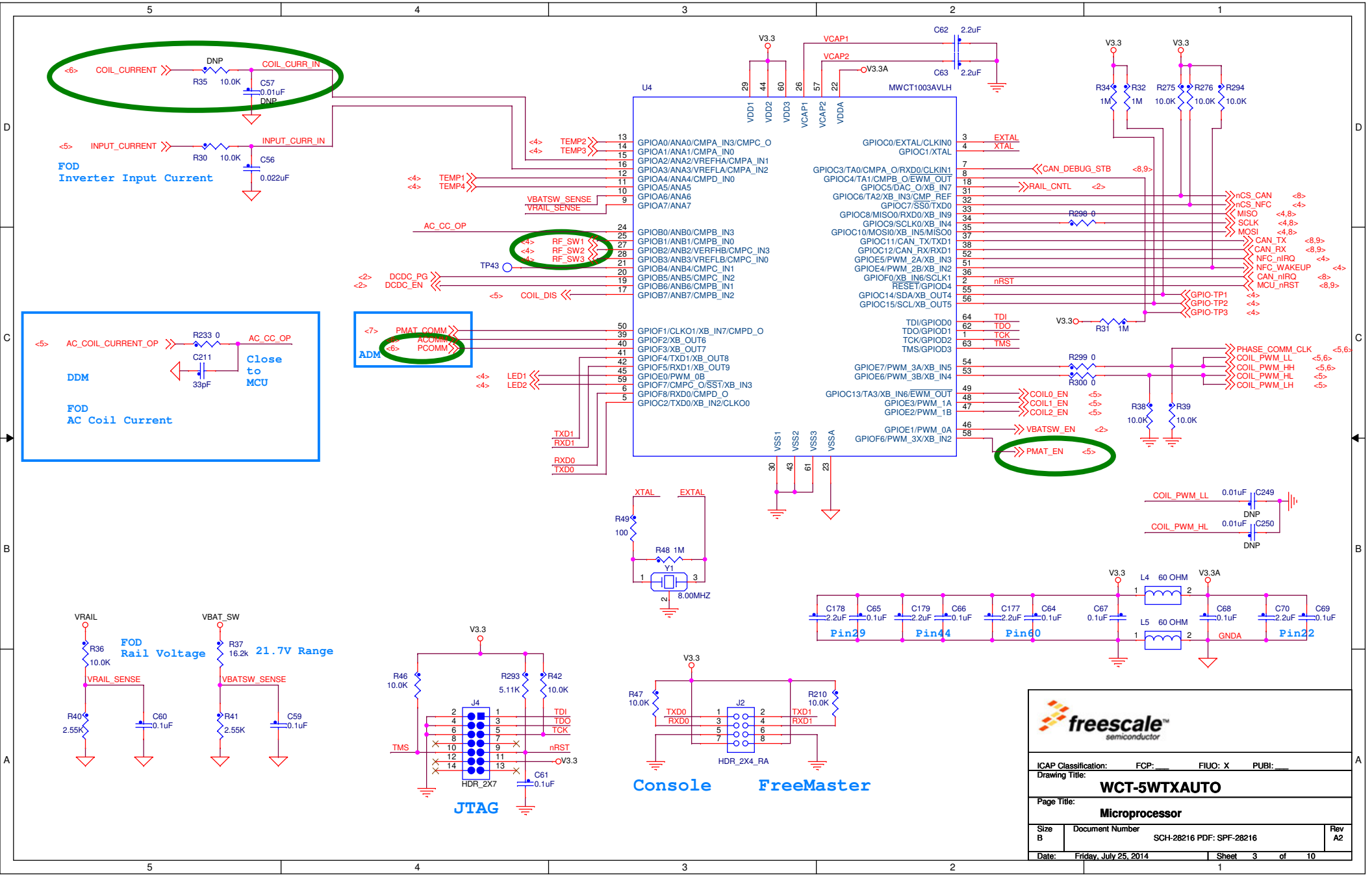
DC Voltage Derating (CAP, DIODE, MOSFET)	
≥ 50V	BAT+, VBAT+, VBAT, VBAT_SW
≥ 25V	VRAIL, VRAILA
≥ 16	VDRIVE
≥ 6.3	3.3V

VFB < 0.6	Undervoltage	Restart	LOW
0.6 < VFB < 0.72	Power not good low	Released	LOW
0.72 < VFB < 0.88	Power Good	Released	LOW
0.88 < VFB < 1	Power not good high	Released	LOW
VFB > 1	Overvoltage	Latch off	LOW

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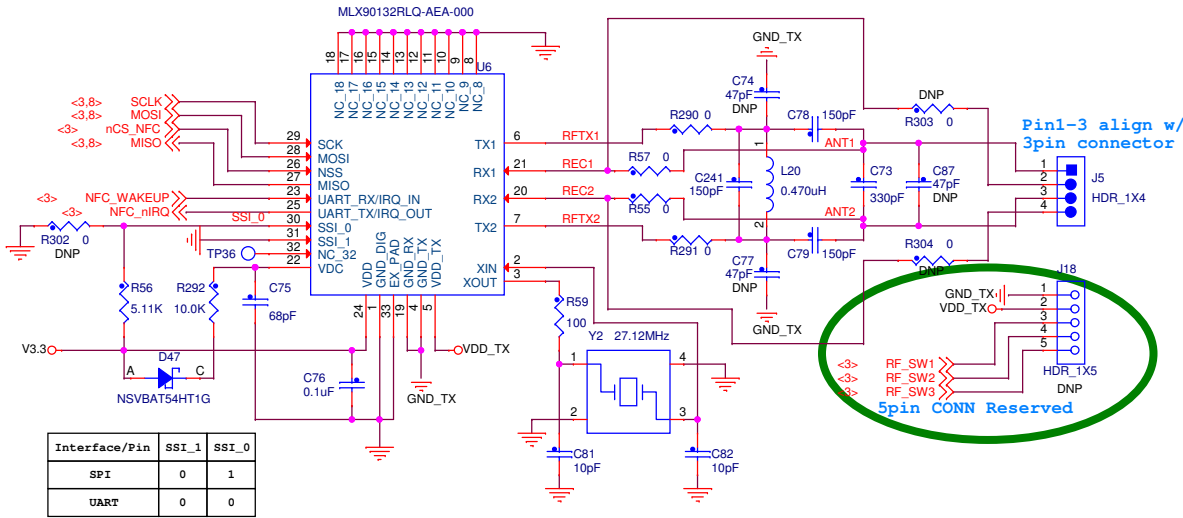
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 Page Title: **Power Input VRail Reg**

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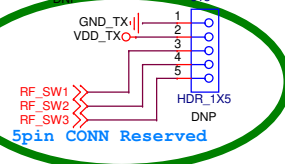
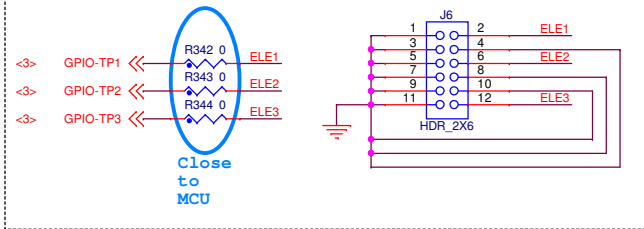


ICAP Classification: FCP: _____ FIUO: X PUBLI: _____			
Drawing Title: <b>WCT-5WTXAUTO</b>			
Page Title: <b>Microprocessor</b>			
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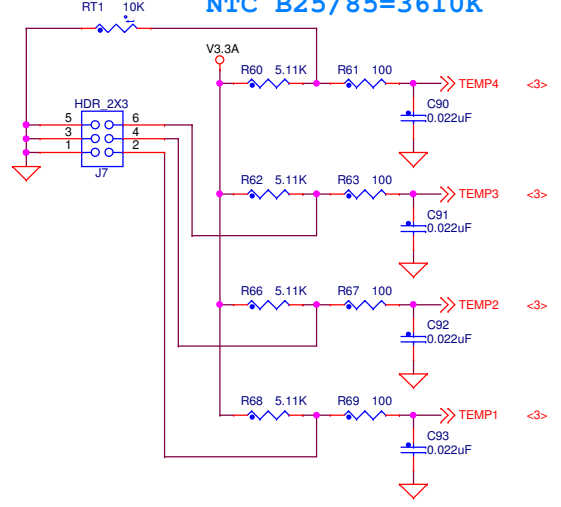
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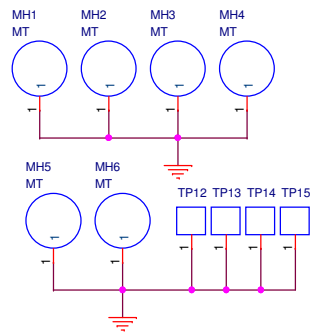
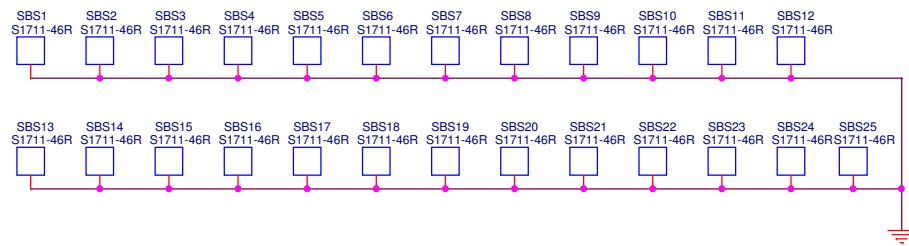
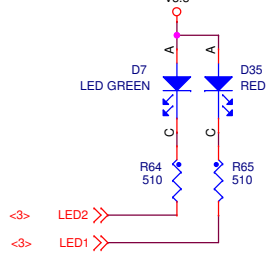
### GPIO Touch



### Temperature Sensing NTC B25/85=3610K



### Status LEDs



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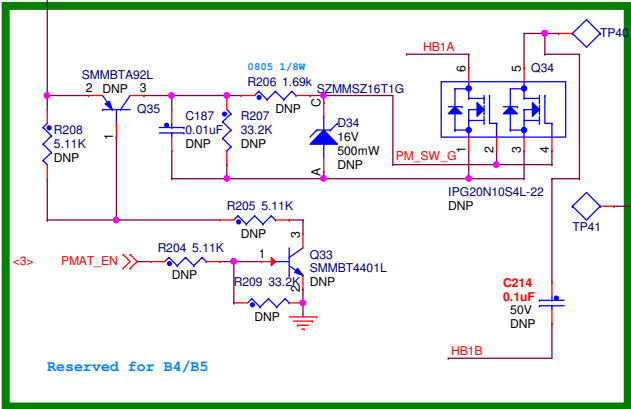
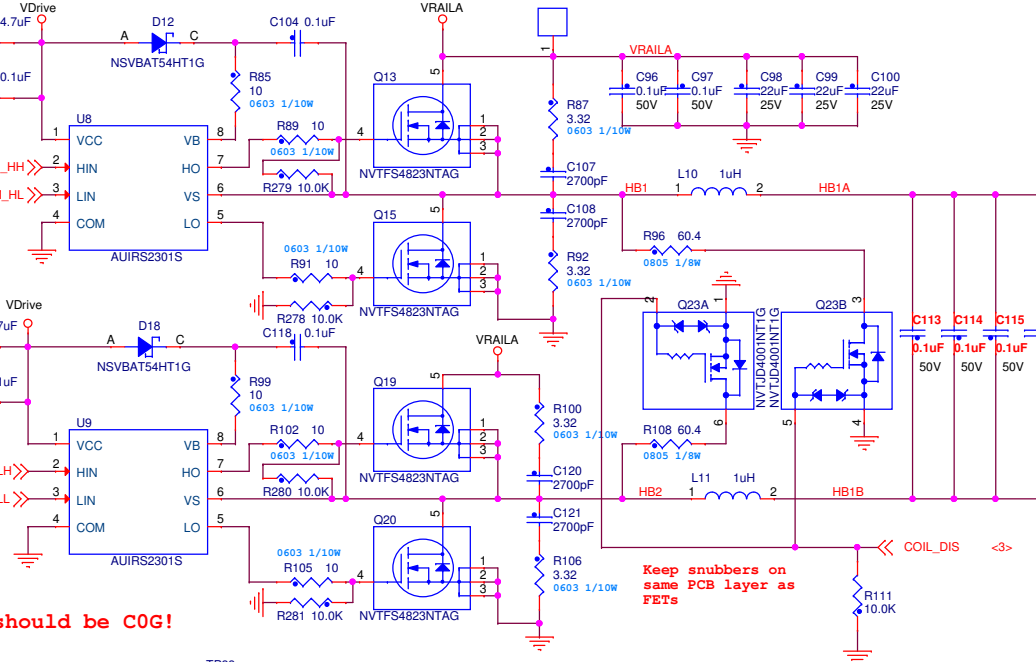
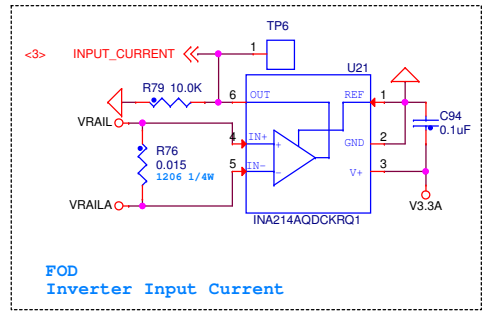
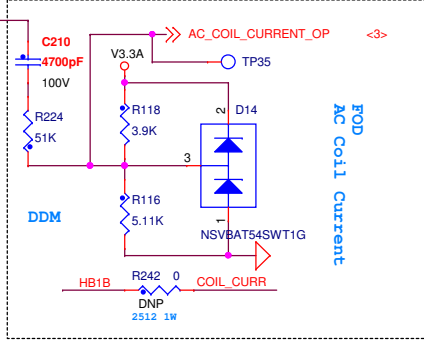
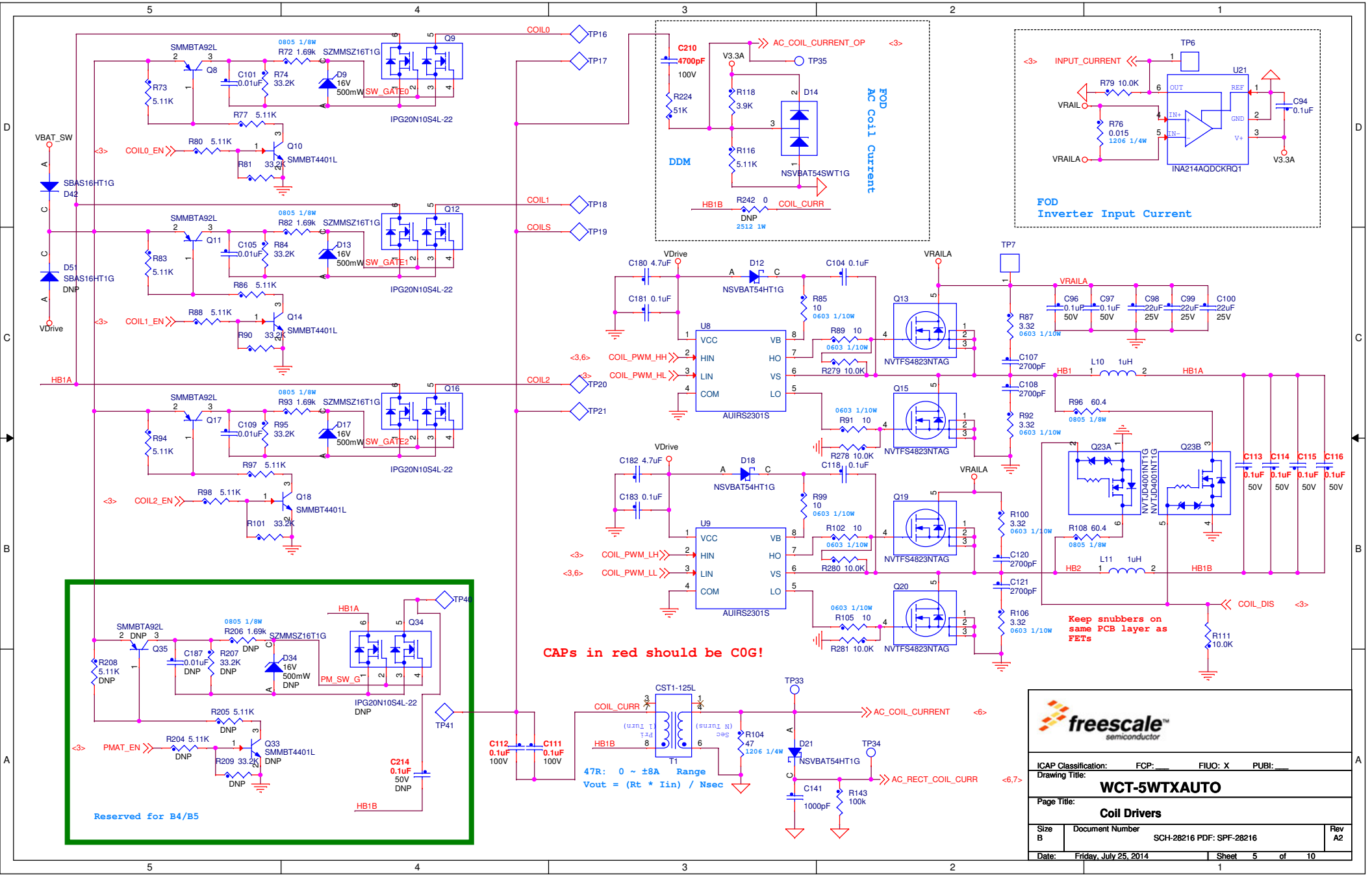
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Drawing Title: **WCT-5WTXAUTO**

Page Title: **Interfaces**

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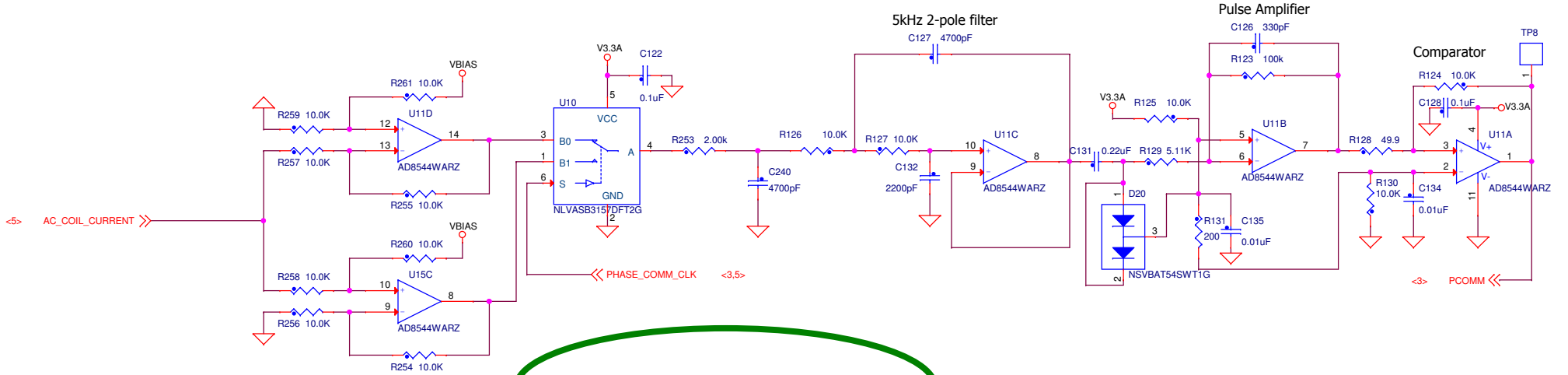
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Caps in red should be COG!

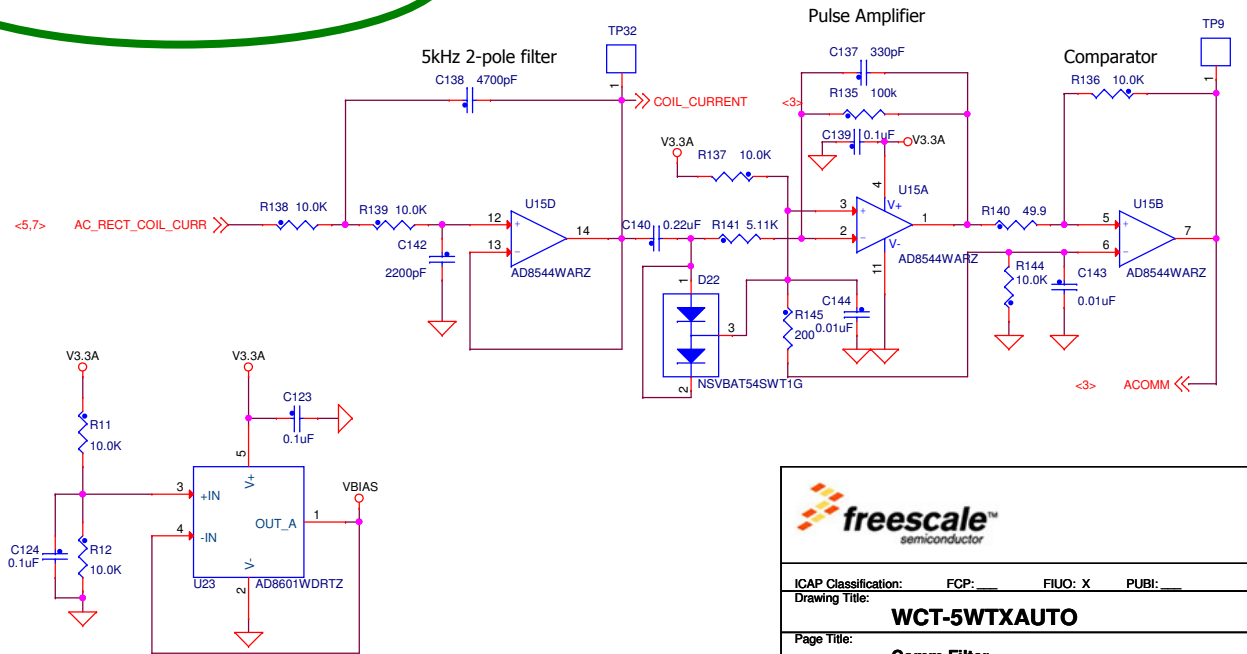
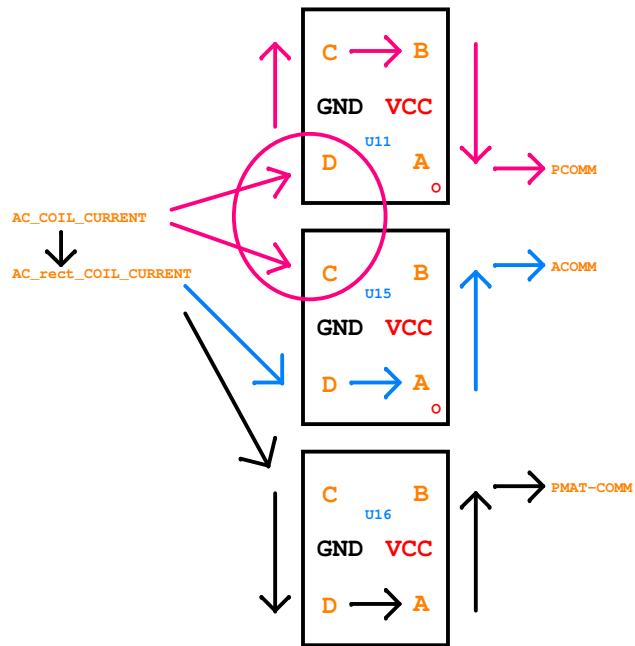


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Drawing Title: <b>WCT-5WTXAUTO</b>			
Page Title: <b>Coil Drivers</b>			
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DNP all components on this page

**Layout Guide**



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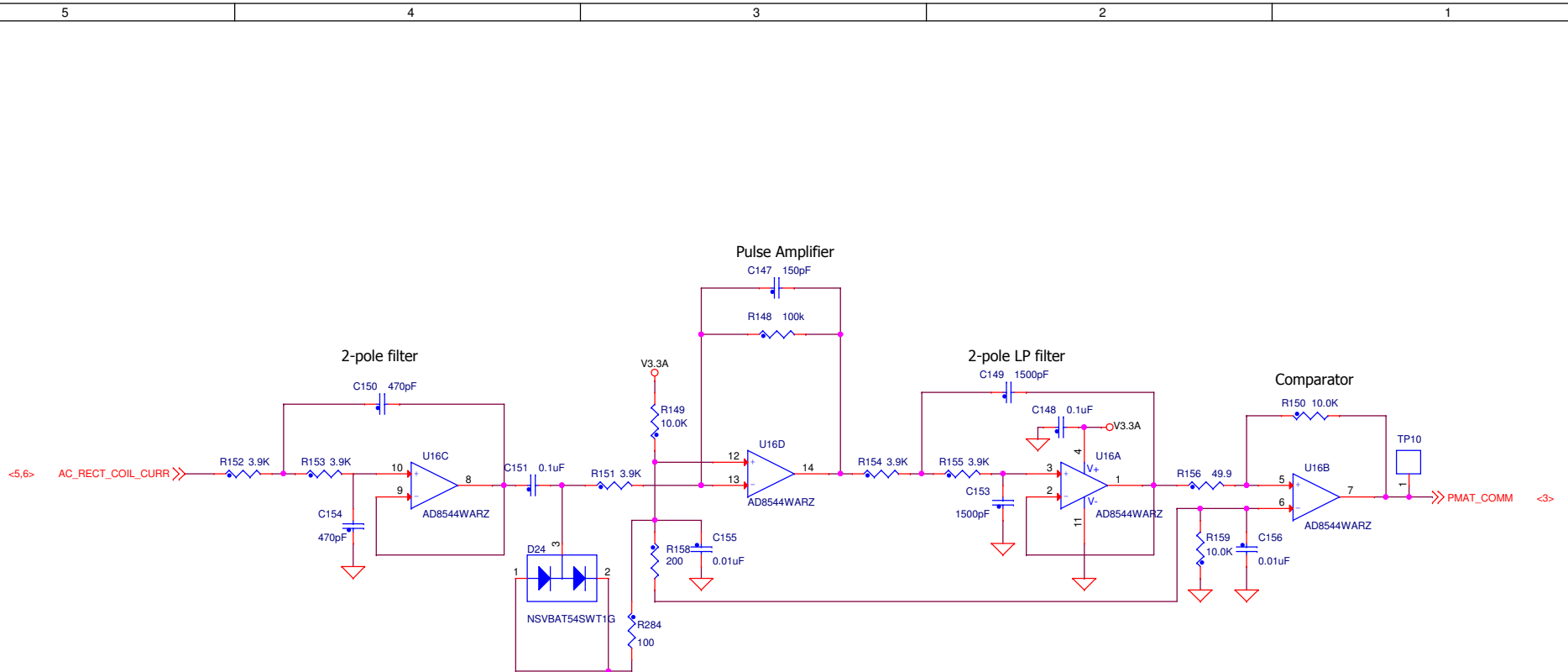
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Drawing Title: **WCT-5WTXAUTO**

Page Title: **Comm Filter**

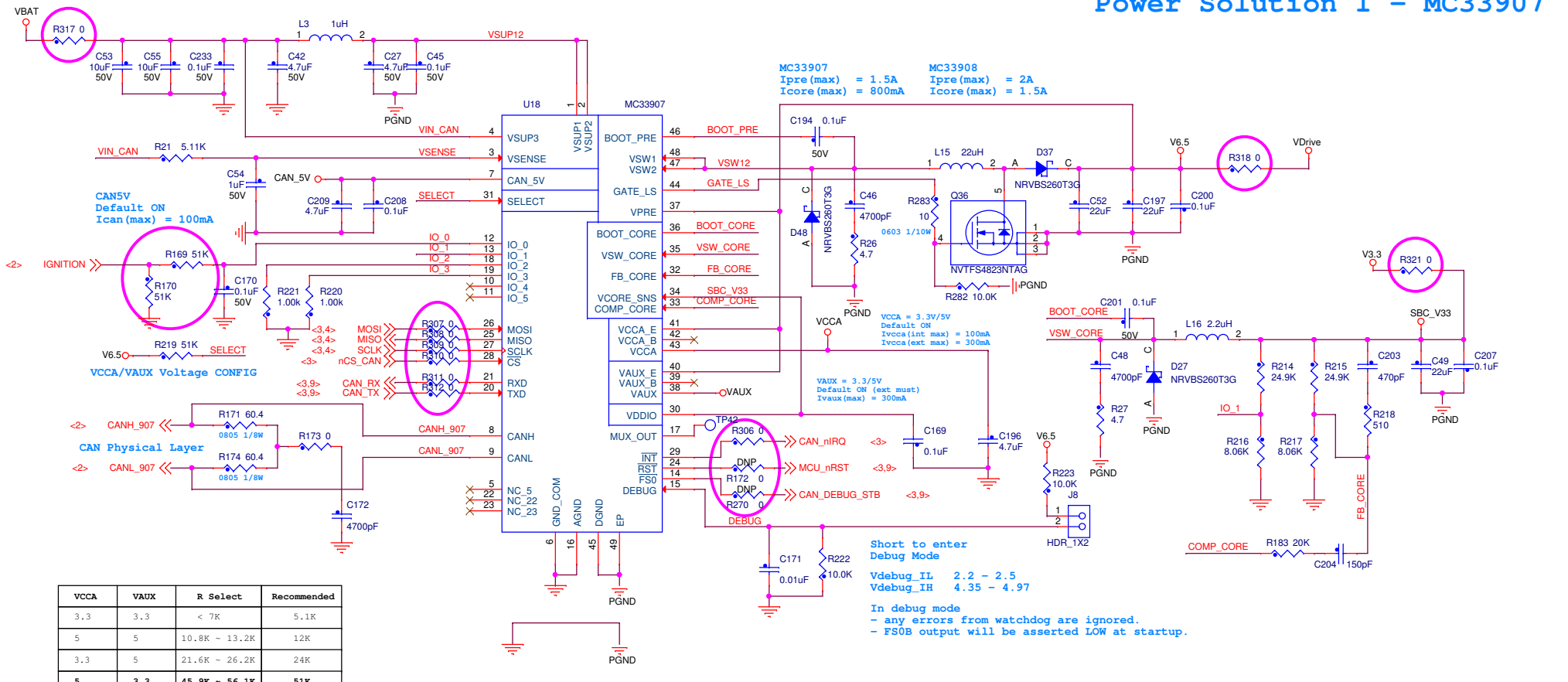
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ICAP Classification:	FCP: _____	FIUO: X PUBLI: _____
Drawing Title:		
<b>WCT-5WTXAUTO</b>		
Page Title:		
<b>PowerMat Comm Filter</b>		
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# Power Solution I - MC33907



MC33907  
Ipre(max) = 1.5A  
Icore(max) = 800mA

MC33908  
Ipre(max) = 2A  
Icore(max) = 1.5A

VCCA	VAUX	R Select	Recommended
3.3	3.3	< 7K	5.1K
5	5	10.8K ~ 13.2K	12K
3.3	5	21.6K ~ 26.2K	24K
5	3.3	45.9K ~ 56.1K	51K

An external resistor between SELECT pin and Ground, make 33907/8 config VCCA and VAUX.  
In case VAUX is not used, the output VCCA voltage configuration is set using external resistor connected between SELECT pin and Vpre pin.

One point connection to avoid perturbation on the GND.  
PGND and GND connected together far from PGND ground plane.

Short to enter Debug Mode  
Vdebug\_IL 2.2 - 2.5  
Vdebug\_IH 4.35 - 4.97  
In debug mode  
- any errors from watchdog are ignored.  
- FS0B output will be asserted LOW at startup.

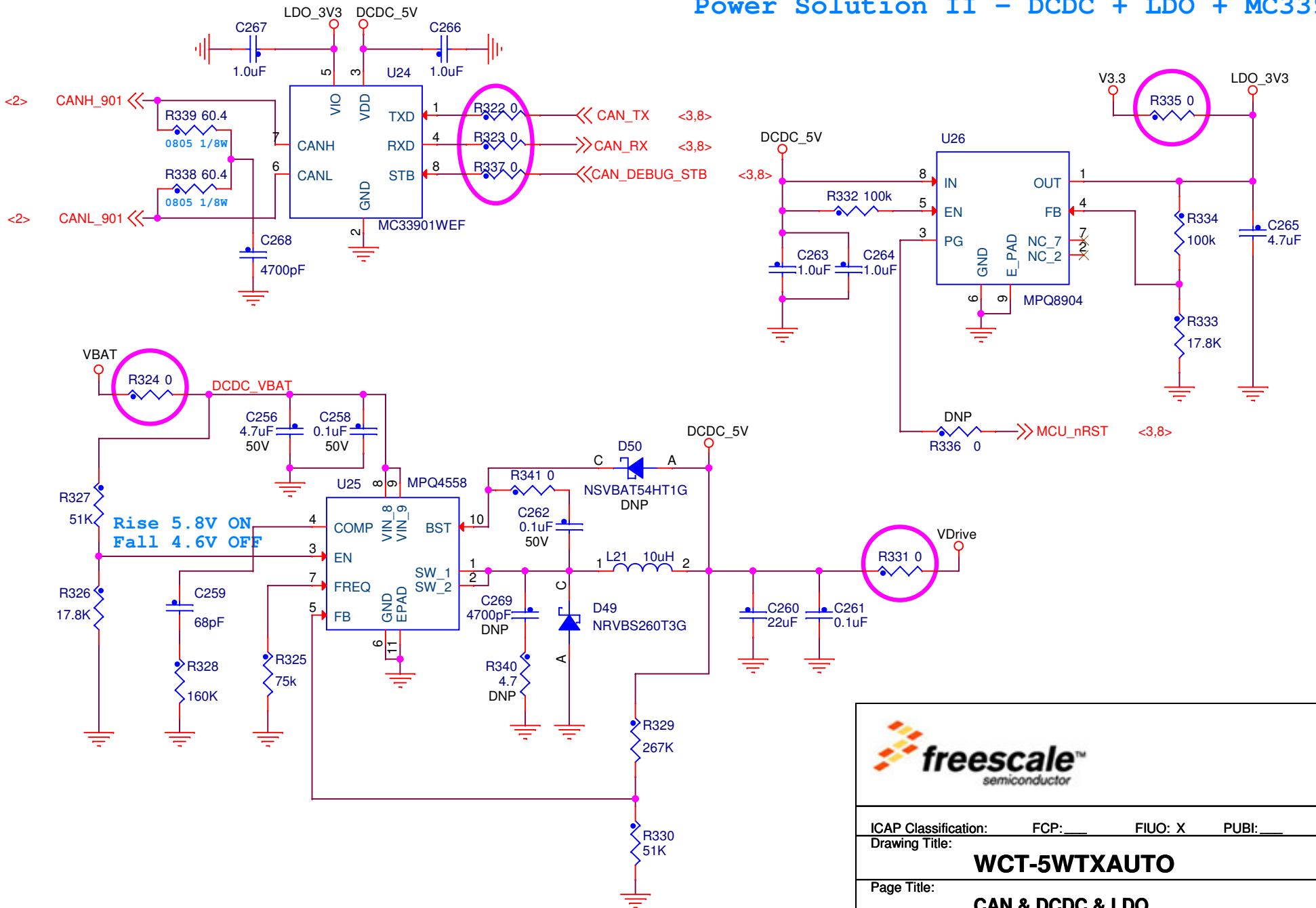
DNP all components on this page

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Drawing Title: **WCT-5WTXAUTO**  
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# Power Solution II - DCDC + LDO + MC33901

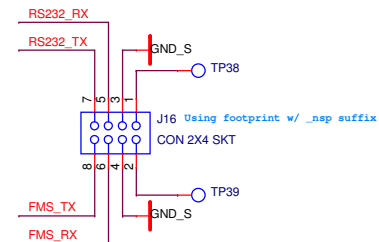
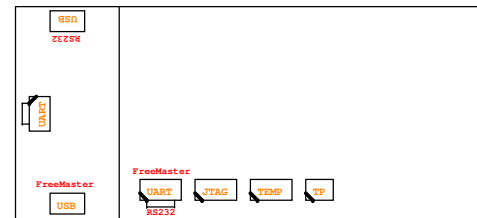
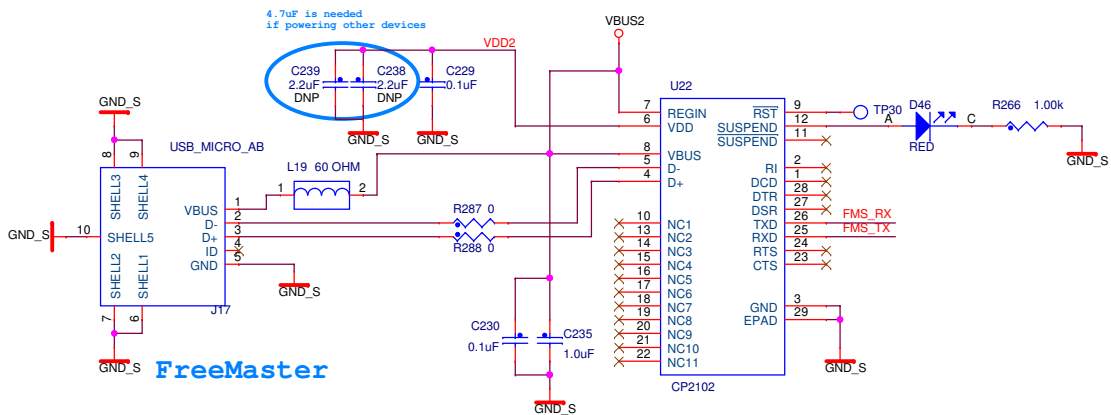
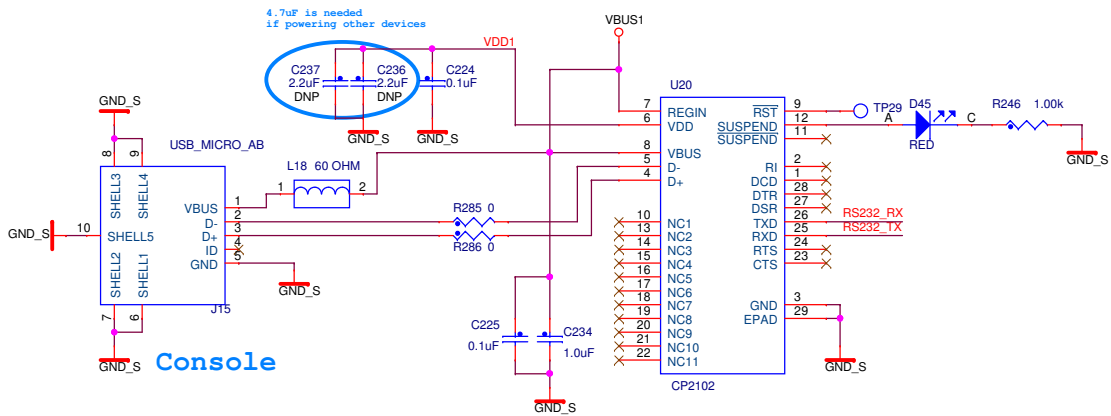


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Drawing Title: **WCT-5WTXAUTO**

Page Title: **Debug Board**

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