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Revisions			
Rev	Description	Date	Approved
X1	Preliminary Release	01/22/2015	Mario Guardado

D

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OrCAD Capture 16.5

		<b>Wireless Connectivity Operation</b> 6501 William Cannon Drive West Austin, TX 78735-8598	
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Designer: M. Force		Drawing Title: <b>FRDM-MC-LVPMSM</b>	
Drawn by: M. Force		Page Title: <b>TITLE PAGE</b>	
Approved: Mario Guardado	Size C	Document Number SCH-XXXXX PDF: SPF-XXXXX	Rev X1
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FREEDOM PMSM MOTOR DRIVER SHIELD

1. Unless Otherwise Specified:
- All resistors are in ohms, 1% or 5%, 1/16 Watt
  - All capacitors are in uF, 10%, 50V
  - All voltages are DC
  - All polarized capacitors are aluminum electrolytic


2. Interrupted lines coded with the same letter or letter combinations are electrically connected.

3. Device type number is for reference only. The number varies with the manufacturer.

4. Special signal usage:
- \_B Denotes - Active-Low Signal
  - <> or [] Denotes - Vectored Signals

5. Interpret diagram in accordance with American National Standards Institute specifications, current revision, with the exception of logic block symbology.

MCU Peripheral / Port Map		
Function	MCU Peri	MCU Port
PWM_AT	FTM0_CH0	PTC1
PWM_AB	FTM0_CH1	PTC2
PWM_BT	FTM0_CH2	PTC5
PWM_BB	FTM0_CH3	PTC4
PWM_CT	FTM0_CH4	PTD4
PWM_CB	FTM0_CH5	PTD5
CUR_A	ADC0_SE8	PTB0
CUR_B	ADC1_DP0	ADC1_DP0
CUR_C	ADC0_DP0	ADC0_DP0
VOLT_DCB	ADC0_SE13	PTB3
CUR_DCB	ADC1_SE18	ADC1_SE18
HALL_A / ENC_A	FTM2_CH0	PTB18
HALL_B / ENC_B	FTM2_CH1	PTB19
HALL_C / ENC_I	FTM1_CH1	PTA13

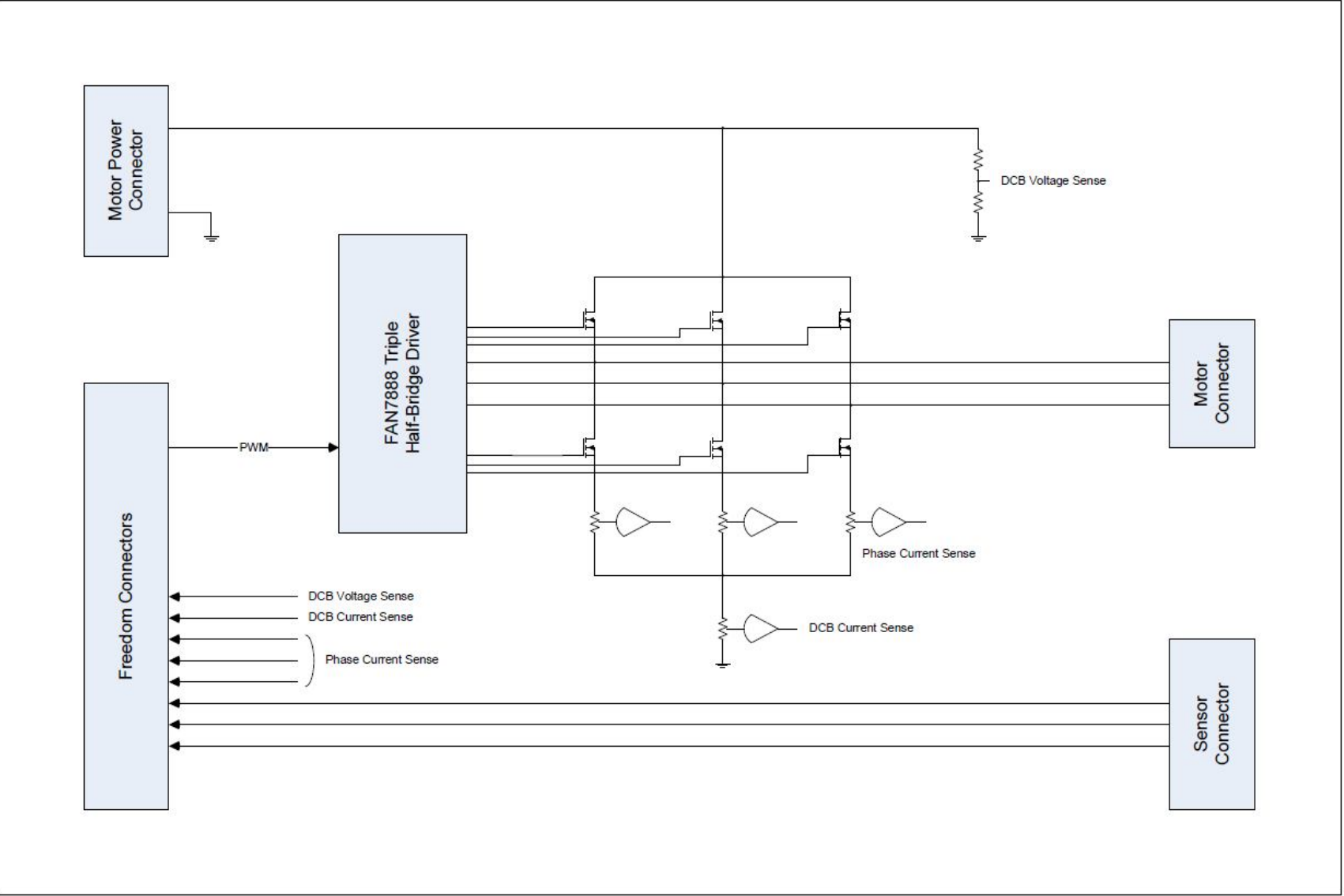


ICAP Classification:FCP:-X-FIUO:PUBI:...

Drawing Title:**FRDM-MC-LVPMSM**

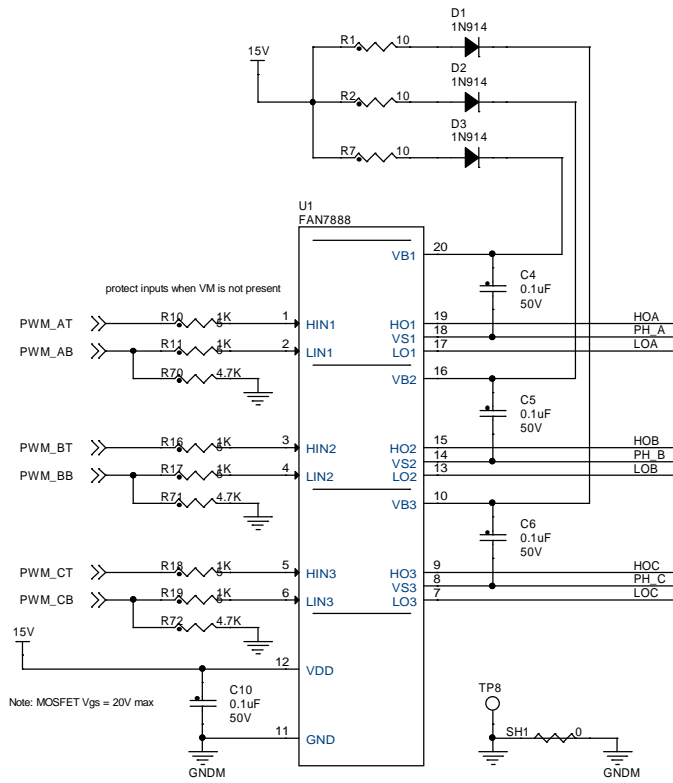
Page Title:**NOTES**

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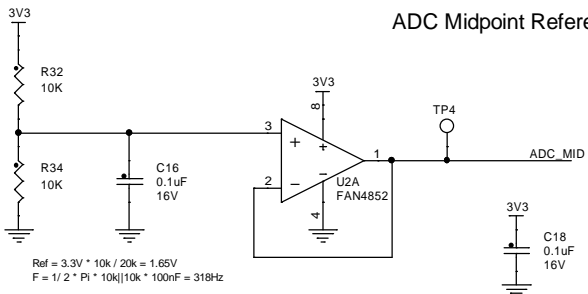


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Page Title: <b>BLOCK DIAGRAM</b>			
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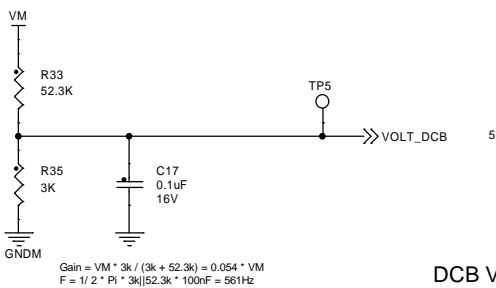
MOSFET Gate Drivers



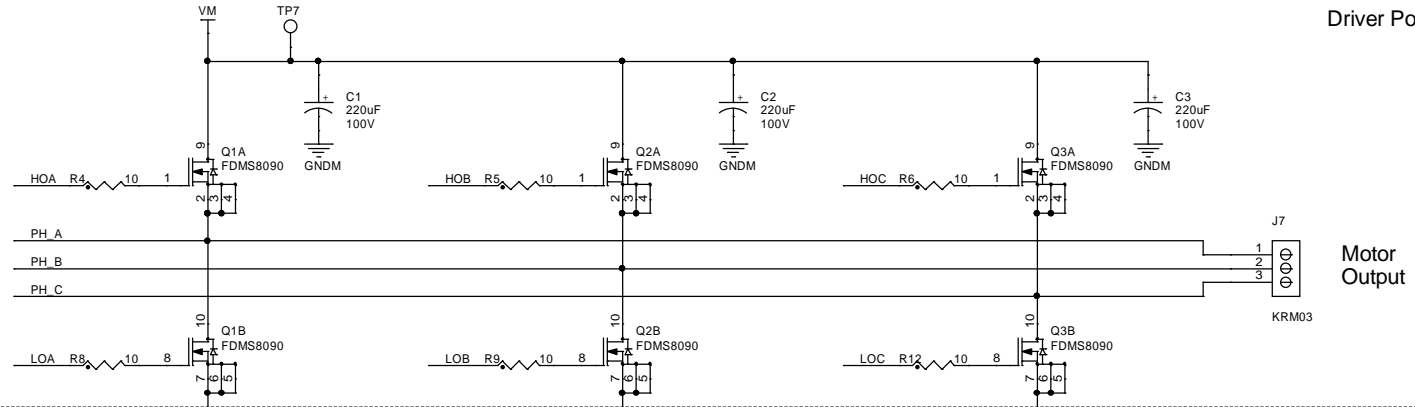
ADC Midpoint Reference



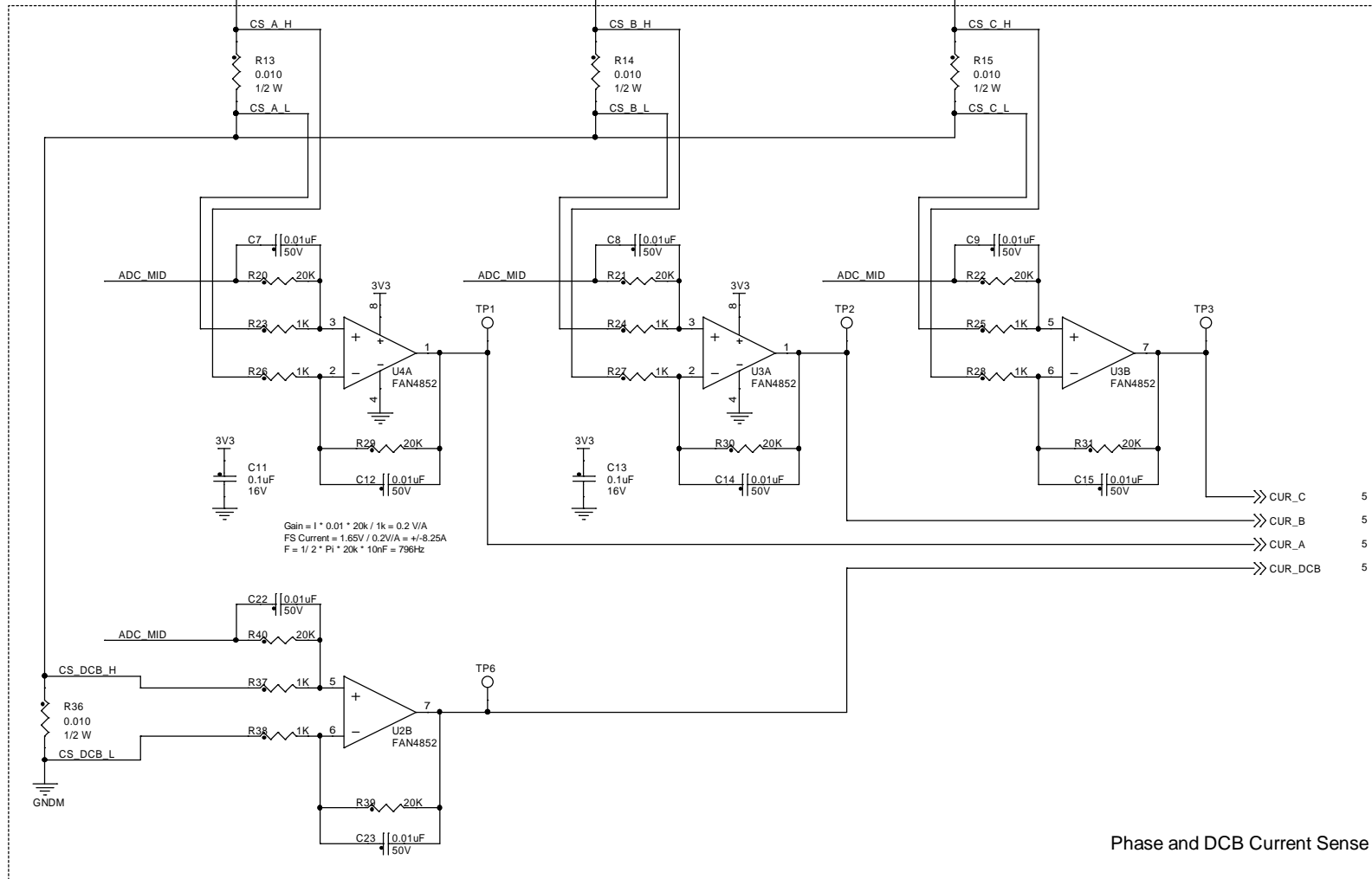
DCB Voltage Sense



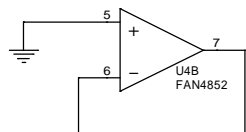
Driver Power Stage



Motor Output



Phase and DCB Current Sense



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