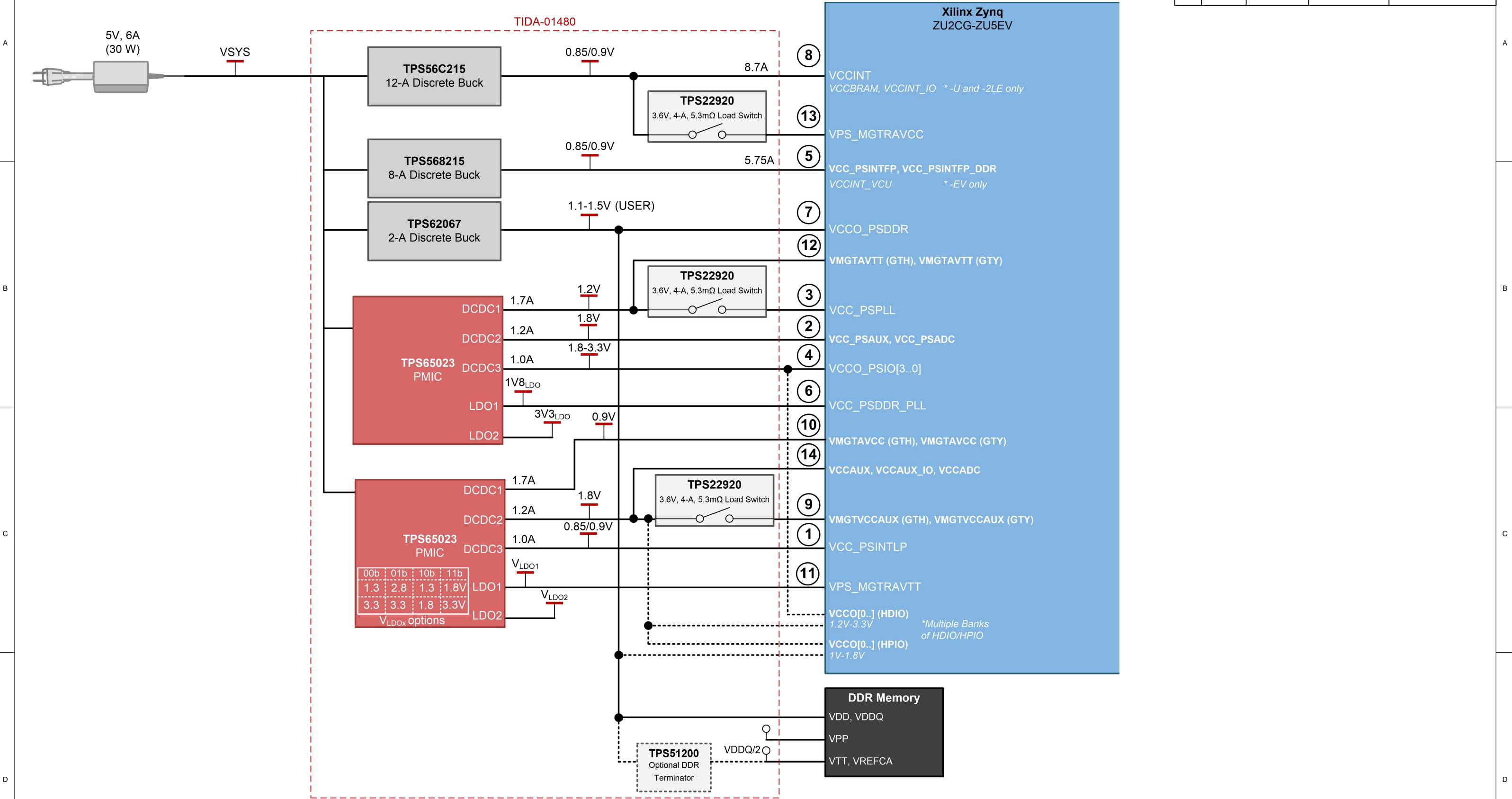


Variant 005 (fully populated) shown. For block diagrams of other Variants, refer to the TIDA-01480 Design Guide (TIDUDN1)

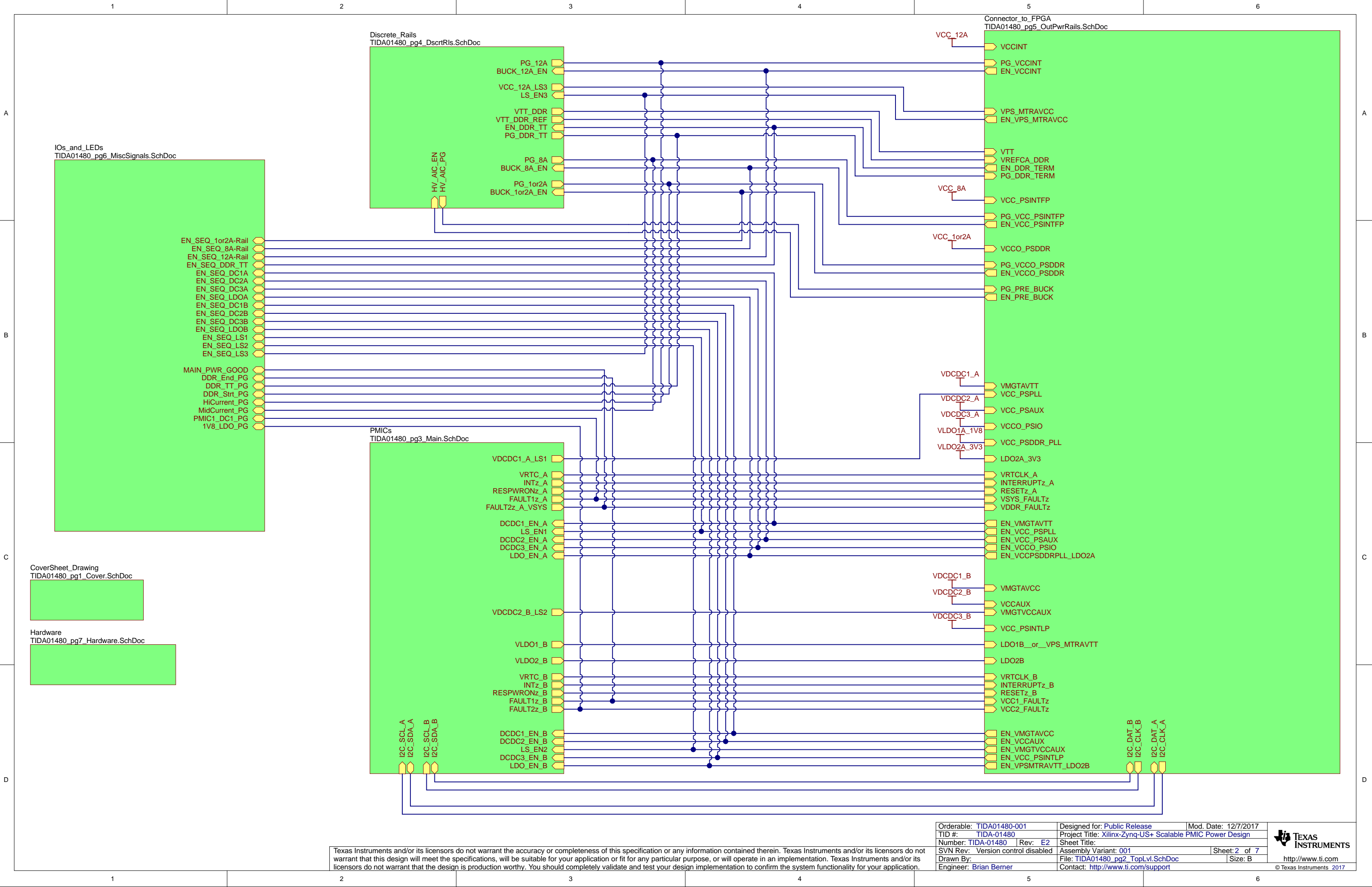
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	2017-11-14	Brian Berner	1st Build
E2	N/A	2017-12-06	Brian Berner	1st Web Release



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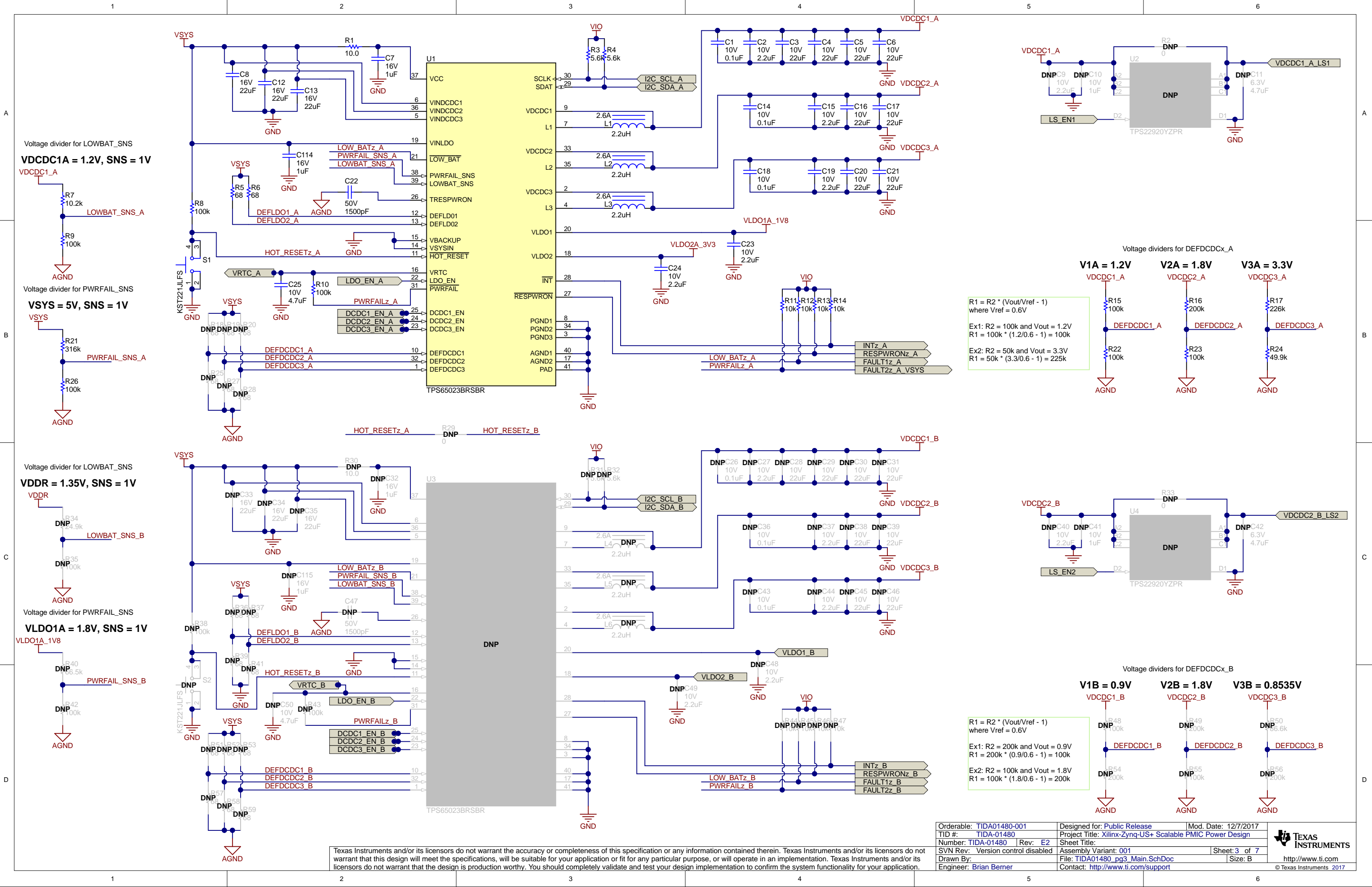
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Number: <a href="#">TIDA-01480</a>	Rev: <a href="#">E2</a>	Assembly Variant: <a href="#">001</a>	
SVN Rev: <a href="#">Version control disabled</a>	File: <a href="#">TIDA01480_pg1_Cover.SchDoc</a>	Size: B	
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Drawn By:		Engineer: <a href="#">Brian Berner</a>		Contact: <a href="#">http://www.ti.com/support</a>	



Voltage divider for LOWBAT\_SNS  
**VDCDC1A = 1.2V, SNS = 1V**

Voltage divider for PWRFAIL\_SNS  
**VSYS = 5V, SNS = 1V**

Voltage divider for LOWBAT\_SNS  
**VDDR = 1.35V, SNS = 1V**

Voltage divider for PWRFAIL\_SNS  
**VLDO1A = 1.8V, SNS = 1V**

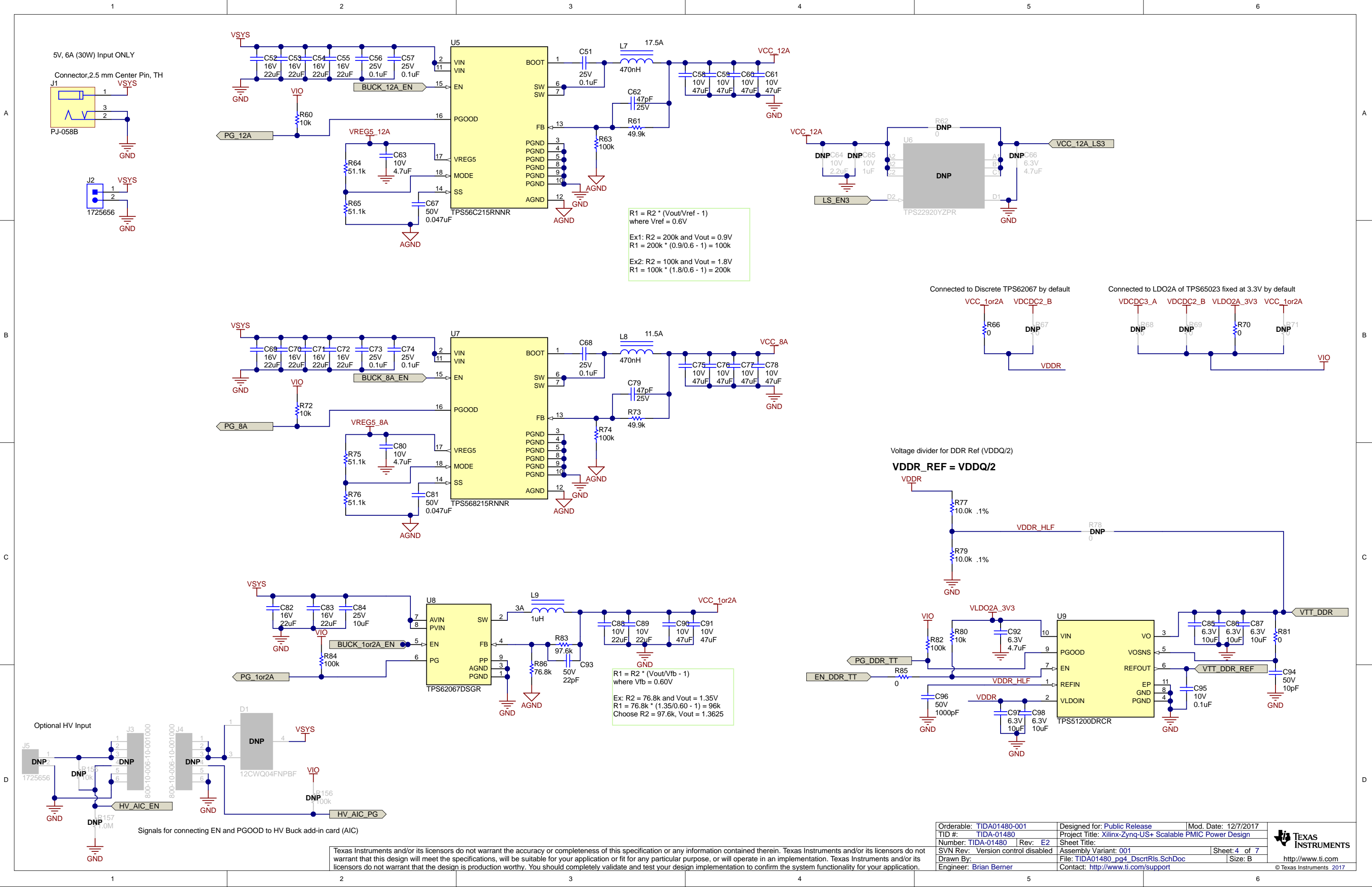
Voltage dividers for DEFDCDCx\_A  
**V1A = 1.2V**  
**V2A = 1.8V**  
**V3A = 3.3V**

Voltage dividers for DEFDCDCx\_B  
**V1B = 0.9V**  
**V2B = 1.8V**  
**V3B = 0.8535V**

$R1 = R2 * (V_{out}/V_{ref} - 1)$   
where  $V_{ref} = 0.6V$   
  
Ex1:  $R2 = 100k$  and  $V_{out} = 1.2V$   
 $R1 = 100k * (1.2/0.6 - 1) = 100k$   
  
Ex2:  $R2 = 50k$  and  $V_{out} = 3.3V$   
 $R1 = 50k * (3.3/0.6 - 1) = 225k$

$R1 = R2 * (V_{out}/V_{ref} - 1)$   
where  $V_{ref} = 0.6V$   
  
Ex1:  $R2 = 200k$  and  $V_{out} = 0.9V$   
 $R1 = 200k * (0.9/0.6 - 1) = 100k$   
  
Ex2:  $R2 = 100k$  and  $V_{out} = 1.8V$   
 $R1 = 100k * (1.8/0.6 - 1) = 200k$

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$$R1 = R2 * (V_{out}/V_{ref} - 1)$$

where  $V_{ref} = 0.6V$

Ex1:  $R2 = 200k$  and  $V_{out} = 0.9V$   
 $R1 = 200k * (0.9/0.6 - 1) = 100k$

Ex2:  $R2 = 100k$  and  $V_{out} = 1.8V$   
 $R1 = 100k * (1.8/0.6 - 1) = 200k$

$$R1 = R2 * (V_{out}/V_{fb} - 1)$$

where  $V_{fb} = 0.60V$

Ex:  $R2 = 76.8k$  and  $V_{out} = 1.35V$   
 $R1 = 76.8k * (1.35/0.60 - 1) = 96k$   
Choose  $R2 = 97.6k$ ,  $V_{out} = 1.3625$

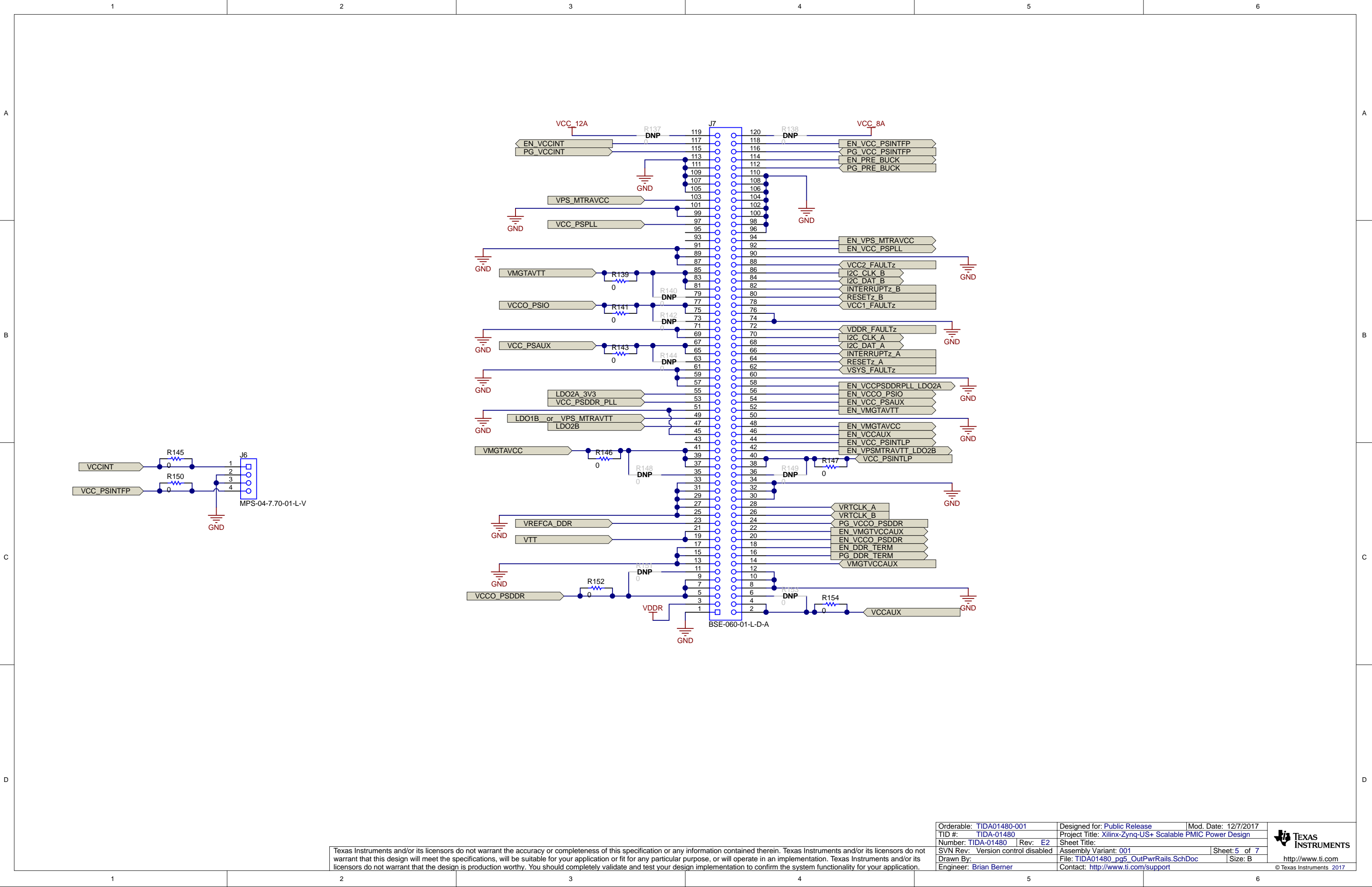
Voltage divider for DDR Ref (VDDQ/2)

**VDDR\_REF = VDDQ/2**

Signals for connecting EN and PGOOD to HV Buck add-in card (AIC)

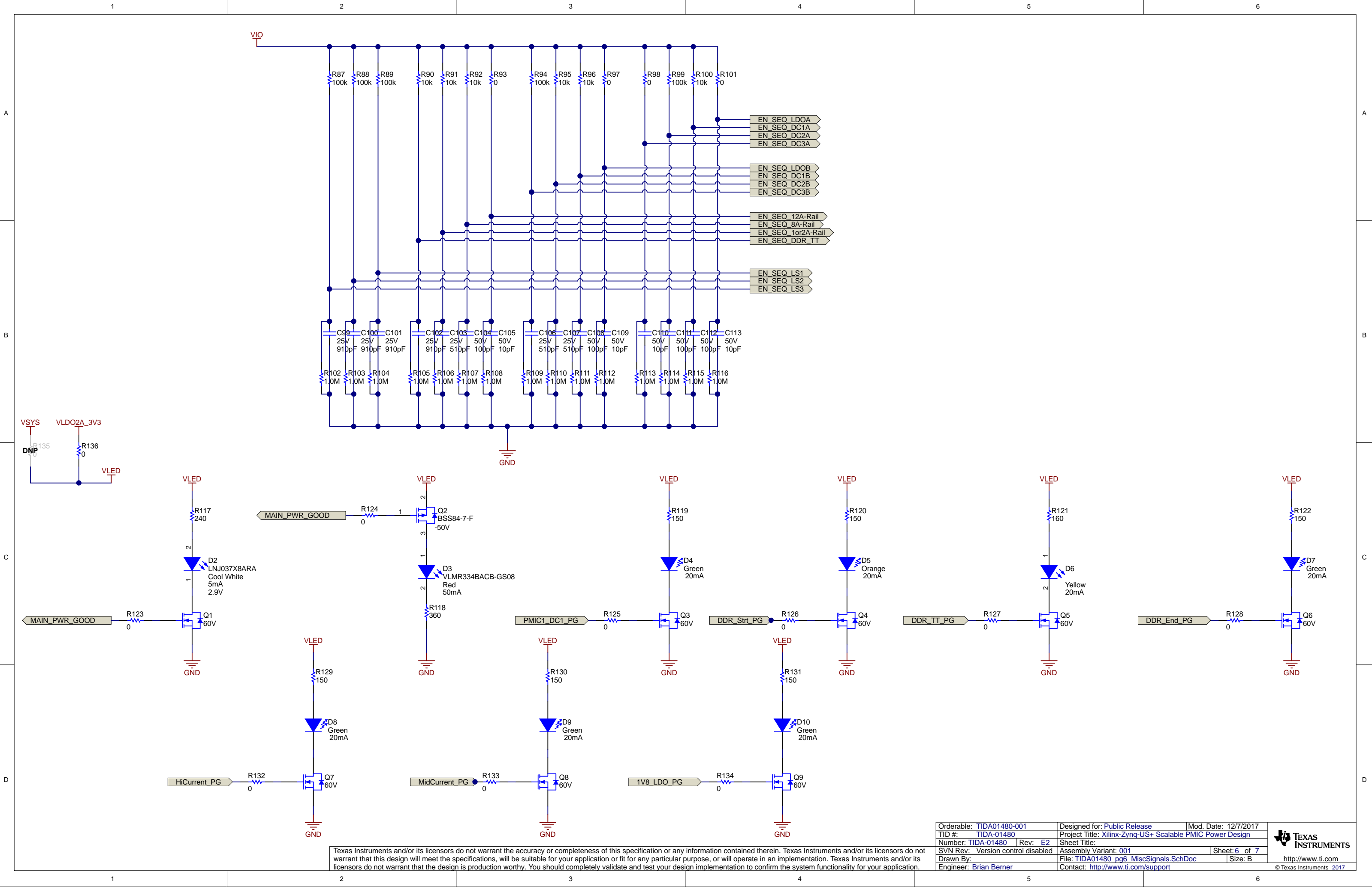
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SVN Rev: <a href="#">Version control disabled</a>	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">4</a> of <a href="#">7</a>
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SVN Rev: <a href="#">Version control disabled</a>	Assembly Variant: <a href="#">001</a>	Sheet: <a href="#">5</a> of <a href="#">7</a>
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