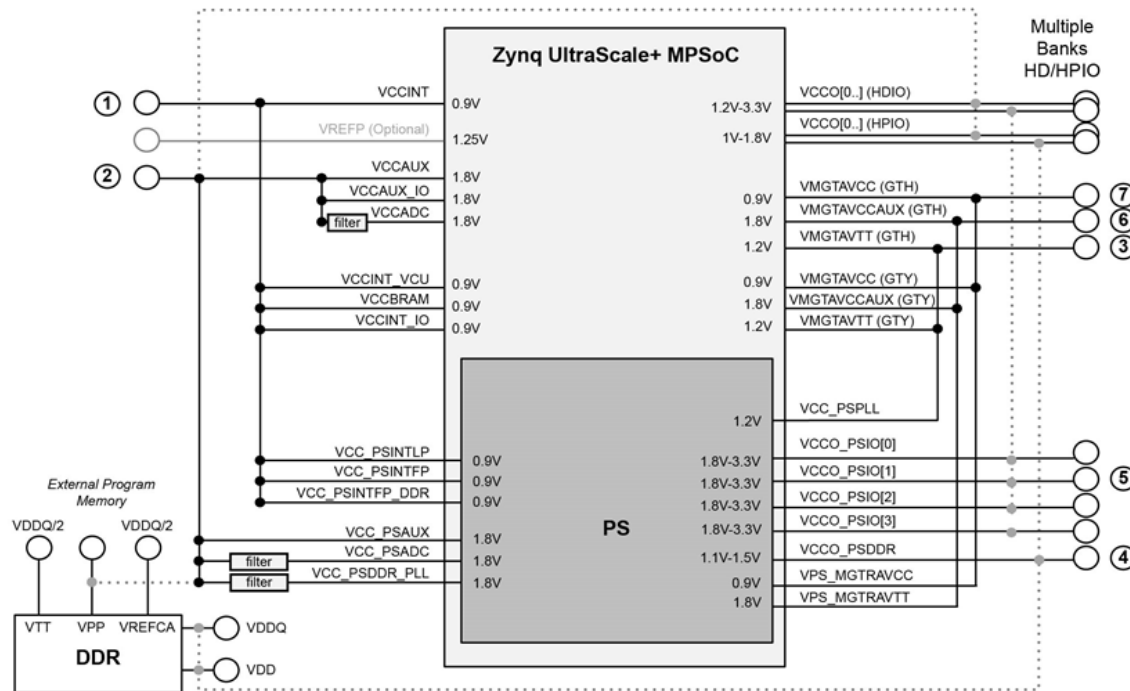


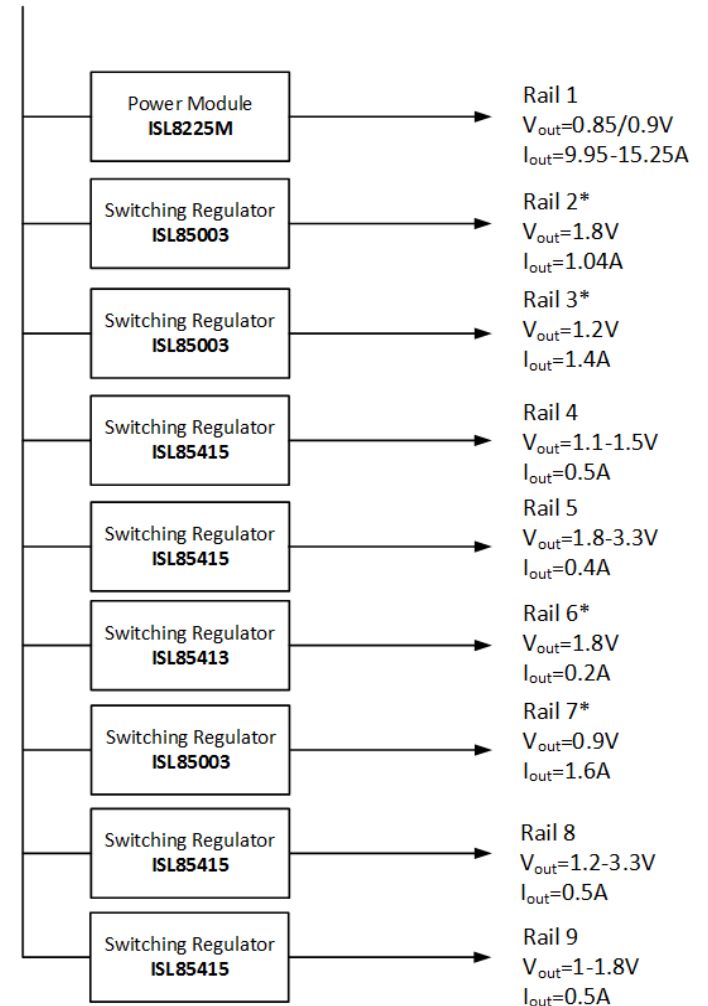
USECASE 3 #2



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Rail	Voltage	Power Supply Rails
Rail 1	0.85/0.9V	VCCINT, VCC_PSINTFP, VCC_PSINTLP, VCC_PSINTFP_DDR, VCCINT_VCU, VCCINT_IO, VCCBRAM
Rail 2*	1.8V*	VCC_PSAUX, VCCCAUX, VCCCAUX_IO, VCC_PSDDR_PLL, VCCADC, VCC_PSADC
Rail 3*	1.2V*	VMGTAVTT(GTH), VMGTAVTT(GTY), VCC_PSPLL
Rail 4	1.1-1.5V	VCCO_PSDDR
Rail 5	1.8-3.3V	VCCO_PSIO
Rail 6*	1.8V*	VMGTAVCC(GTH), VMGTAVCC(GTY), VPS_MGTRAVTT
Rail 7*	0.9V*	VMGTAVCC(GTH), VMGTAVCC(GTY), VPS_MGTRAVCC
Rail 8	1.2-3.3V	HDIO_VCCO
Rail 9	1-1.8V	HPIO_VCCO

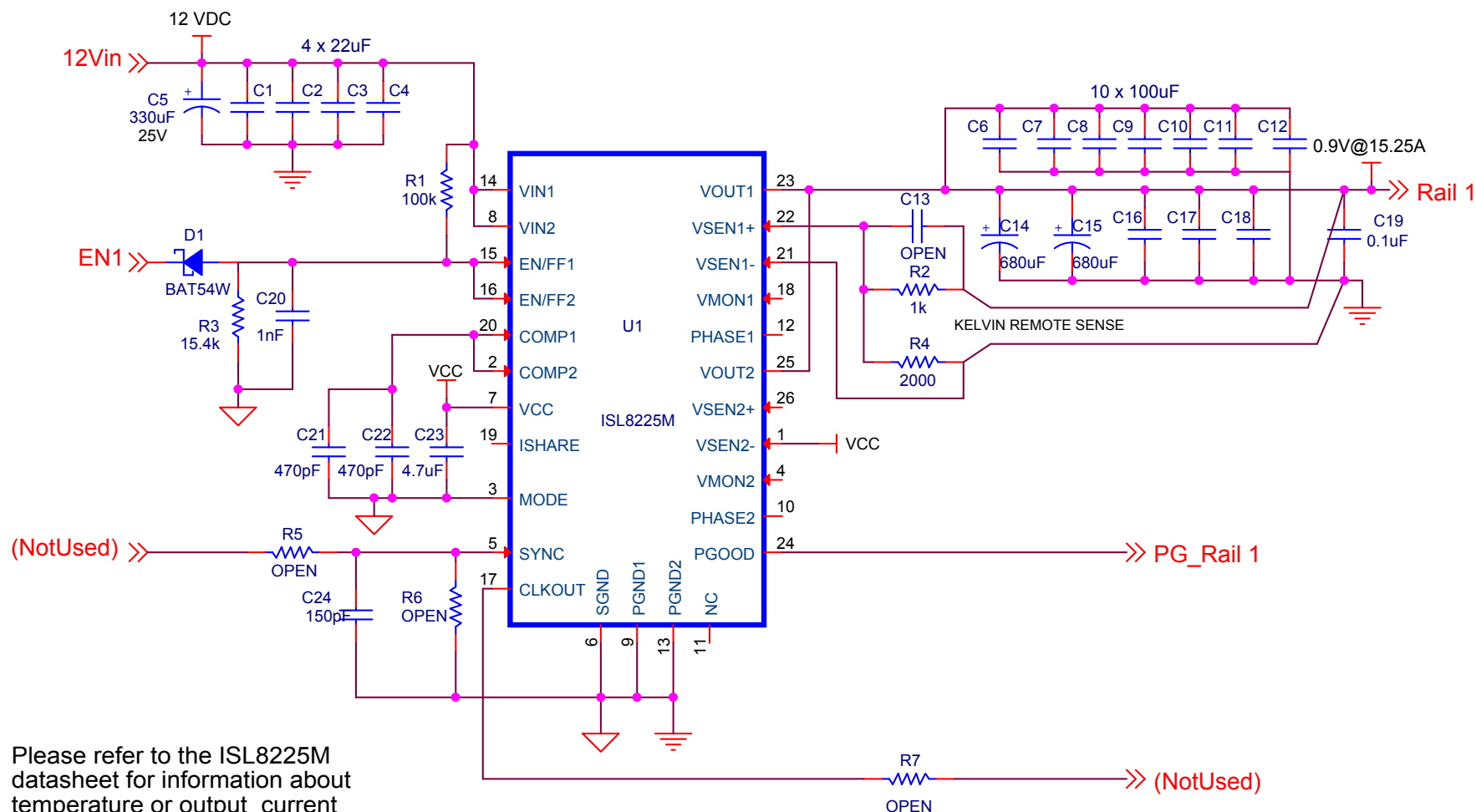
12 V_{in}



Title	ZYNQ US+ MPSoC Power Rails	
Size B	Document Number <Doc>	Rev A
Date:	Thursday, March 09, 2017	Sheet 1 of 10

ISL8225M SINGLE OUTPUT (40A)

VIN RANGE:
4.5V to 20V



Please refer to the ISL8225M
datasheet for information about
temperature or output current
derating as influenced by the
operating frequency.

Title
ISL8225M-Single-1

Size A Document Number
<Doc>

Date: Sheet 2 of 10

Rev
<RevCo>

5	4	3	2	1
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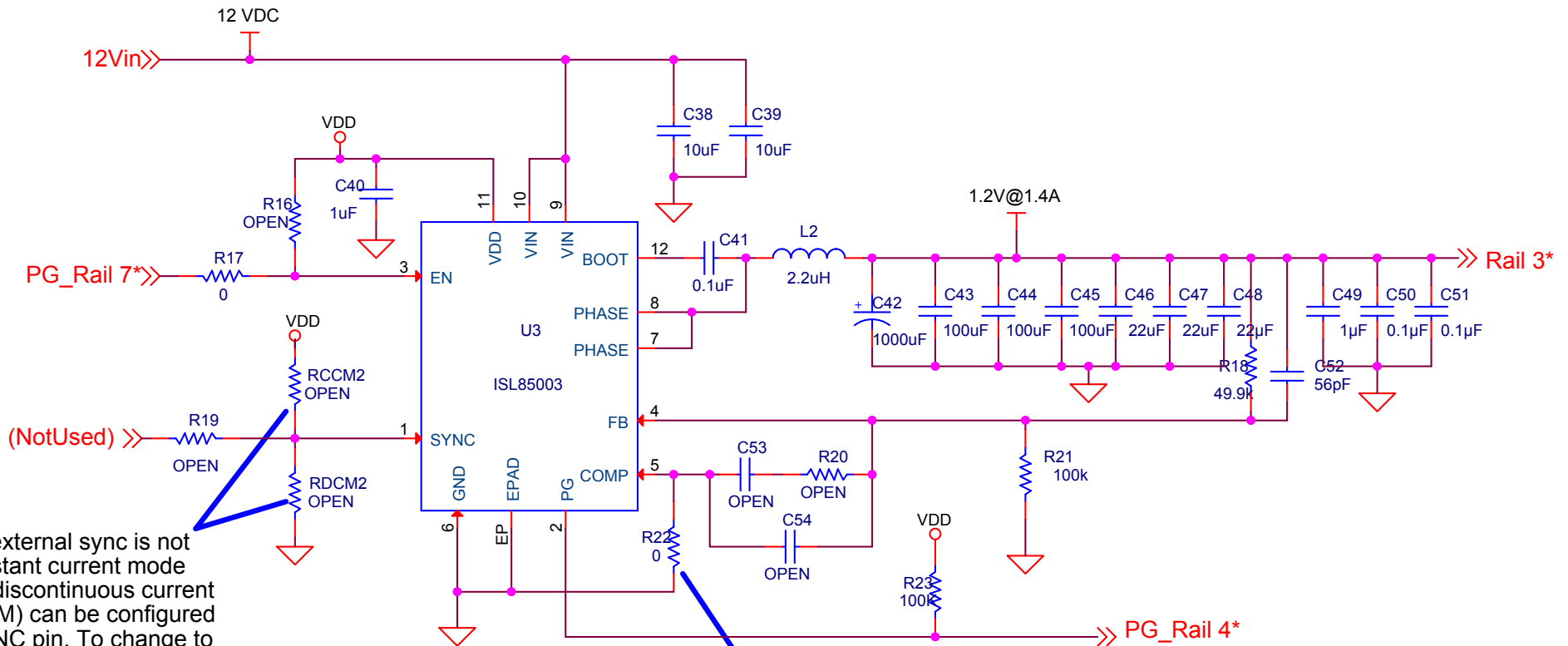
→

1000

1

[illegible][illegible]

ISL85003 SINGLE OUTPUT (3A)



When an external sync is not used, constant current mode (CCM) or discontinuous current mode (DCM) can be configured on the SYNC pin. To change to DCM mode, remove RCCM, and change RDCM to 0 ohms.

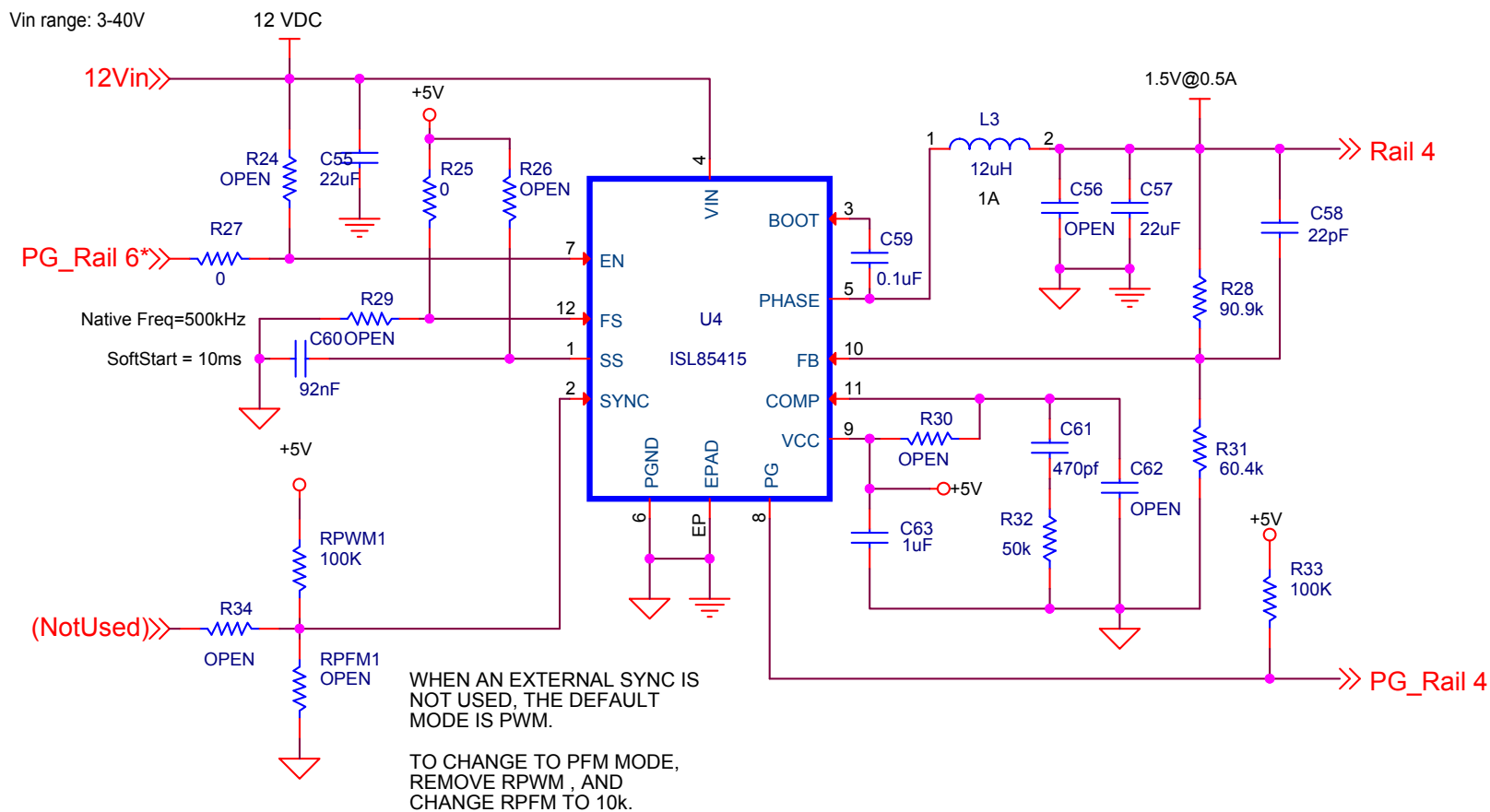
If custom compensation is desired, remove the ground connection on the COMP pin to enable external compensation.

OPEN value components on the COMP pin are place holders if external compensation is used.

Programmable Soft Start is available in the ISL85003A (without synchronization)

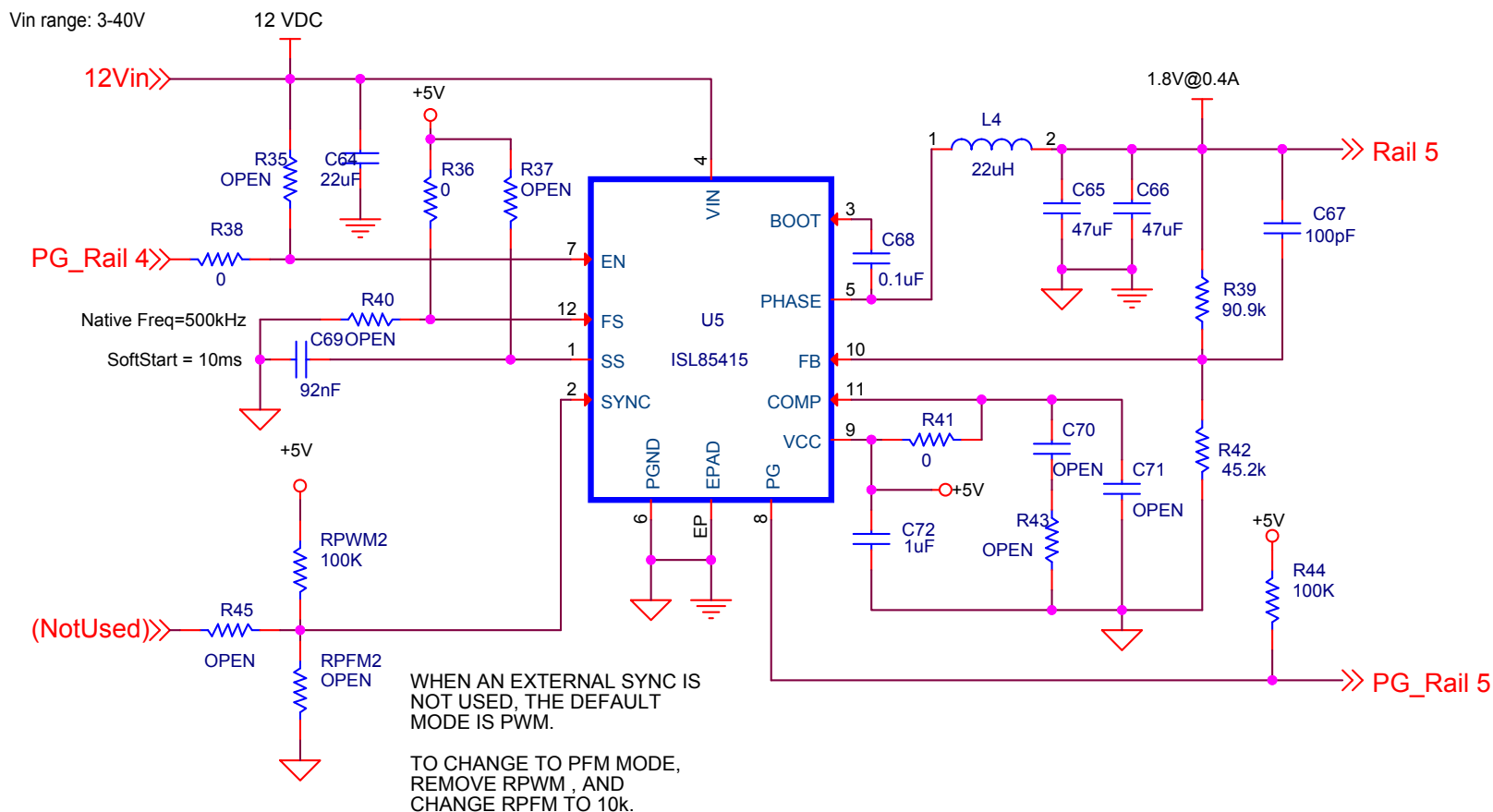
Title		
ISL85003-SINGLE-1		
Size	Document Number	Rev
A	<Doc>	<RevCo>
Date:	Thursday, March 09, 2017	Sheet 4 of 10

ISL85415 SINGLE OUTPUT (500mA)



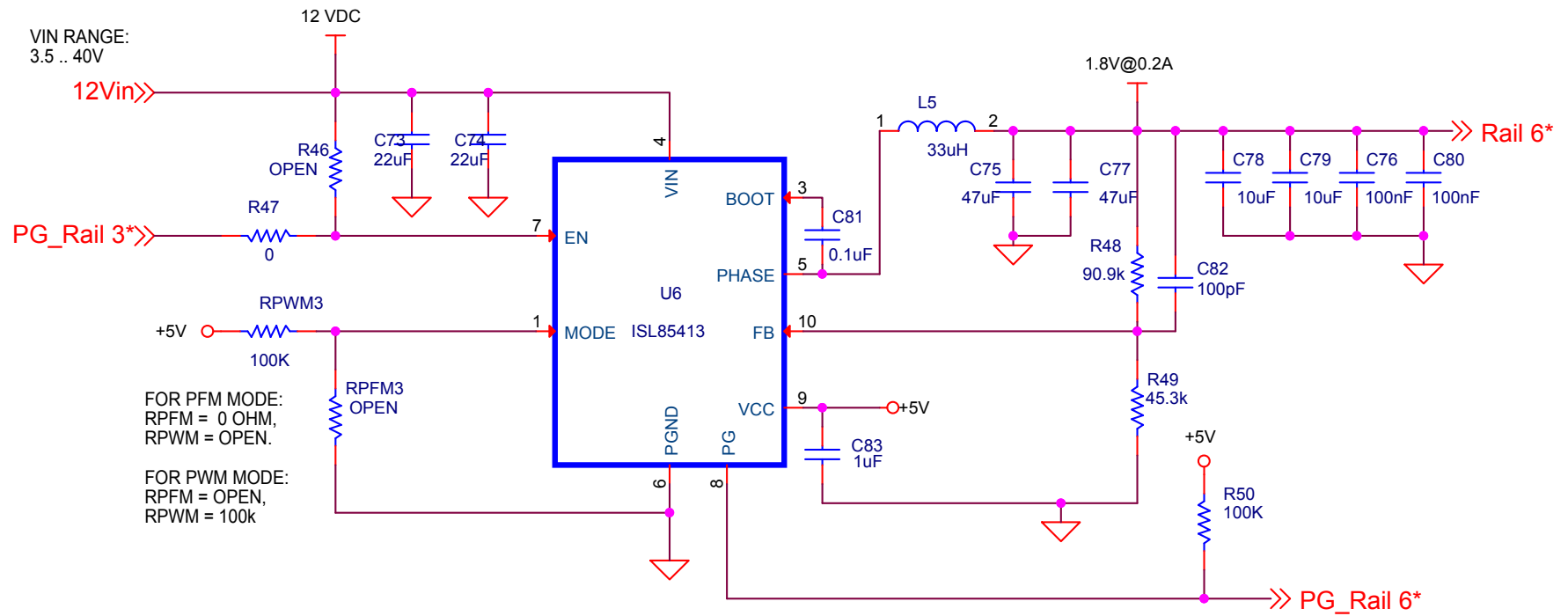
Title		
ISL85415-SINGLE-1		
Size A	Document Number	Rev
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ISL85415 SINGLE OUTPUT (500mA)



Title		
ISL85415-SINGLE-1		
Size	Document Number	Rev
A		
Date:	Thursday, March 09, 2017	Sheet 6 of 10

ISL85413 SINGLE OUTPUT (300mA)



Title ISL85413-SINGLE-1

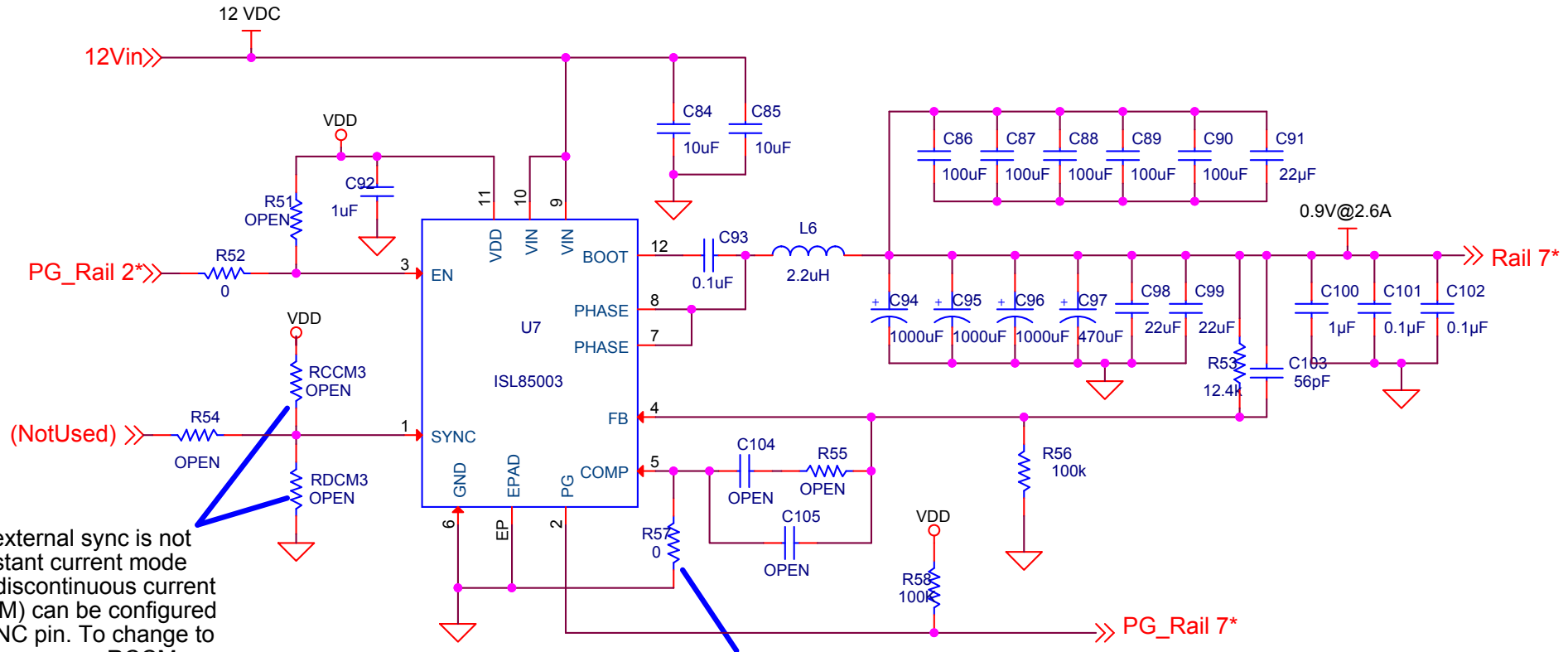
Size A Document Number <Doc>

Rev

Date: Thursday, March 09, 2017

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ISL85003 SINGLE OUTPUT (3A)



Programmable Soft Start is available in the ISL85003A (without synchronization)

Title		
ISL85003-SINGLE-1		
Size	Document Number	Rev
A	<Doc>	<RevCo
Date:	Thursday, March 09, 2017	Sheet 8 of 10

12Vin range: 3-40V

12VDC

12Vin

PG_Rail 5

Native Freq=500kHz

SoftStart = 10ms

+5V

RPWM4 100K

RPFM4 OPEN

U8 ISL85415

VIN

EN

FS

SS

SYNC

PGND

EPAD

PG

BOOT

PHASE

FB

COMP

VCC

L7 22uH

C106 22uF

R59 OPEN

C107 47uF

C109 47uF

C110 0.1uF

C112 OPEN

C113 OPEN

C114 1uF

R60 0

R61 OPEN

R62 0

R64 OPEN

R65 0

R67 OPEN

R63 90.9k

R66 45.2k

R68 100K

1.8V@0.5A

Rail 8

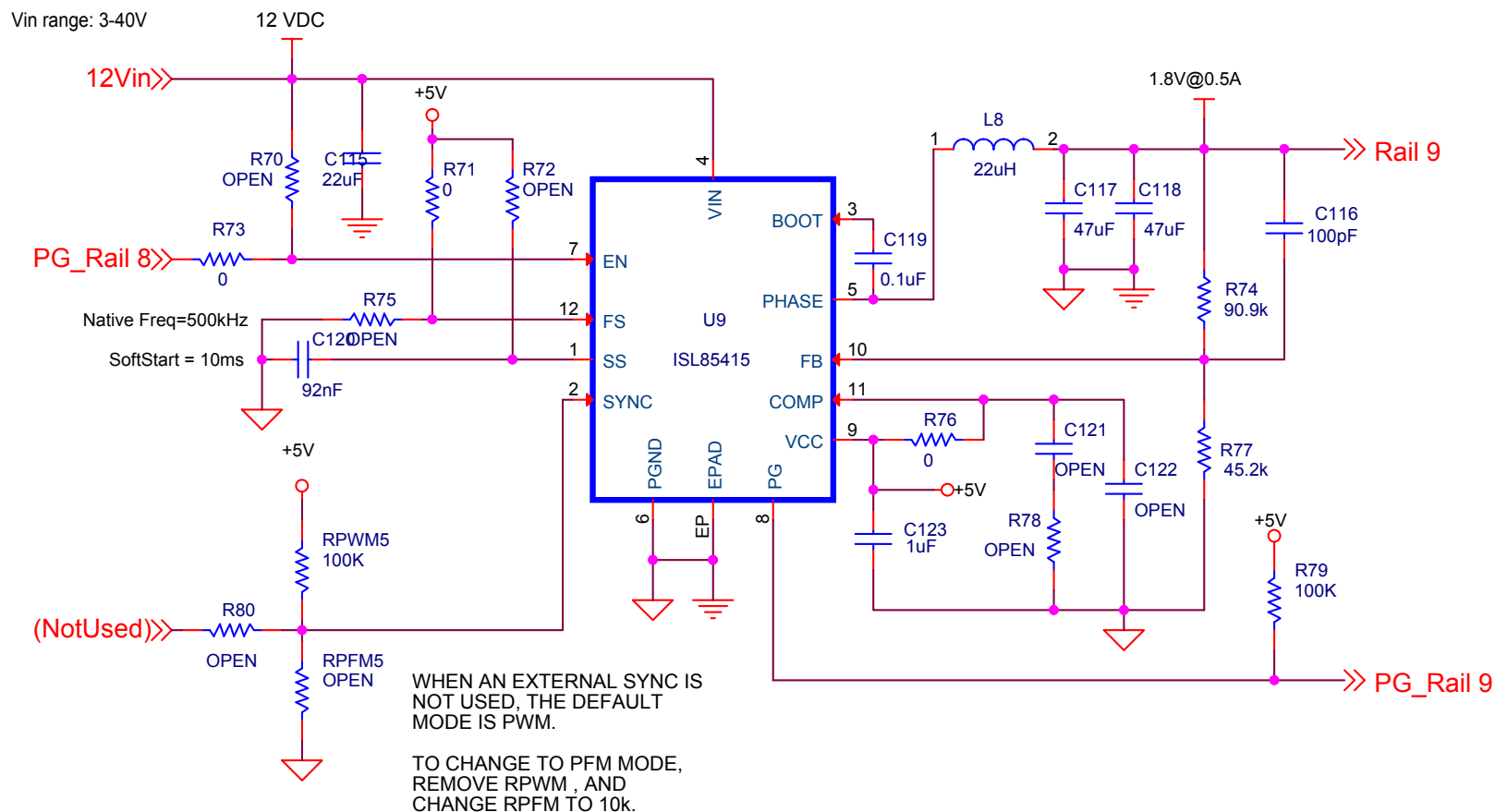
PG_Rail 8

When an external SYNC is not used, the default mode is PWM.

To change to PFM mode, remove RPWM, and change RPFM to 10k.

Title ISL85415-SINGLE-1			
Size A	Document Number		Rev
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ISL85415 SINGLE OUTPUT (500mA)



Title		
ISL85415-SINGLE-1		
Size A	Document Number	Rev
Date:	Thursday, March 09, 2017	Sheet 10 of 10