CONFIGURATION

CTRL_PROG

CTRL_ADDR

R1 2.37K

R2 17.4K

CTRL_RPROG

CTRL_RADDR

CONNECT THESE NETS TO GND

HF POLE

CTRL_VCCIN_SNS_IC_P — R40 — CTRL_VCCIN_SNS_P

C3 0.1UF

CTRL_VCCIN_SNS_IC_N — R5 — CTRL_VCCIN_SNS_N

R13 0

INTERNAL SW DISABLE

INSTALL TO DISABLE INTERNAL SWITCHER

3.3V_VDD

DNI

R11 0

DNP

CTRL_VX

VIN SENSE

VDDH

R14 4.75K

CTRL_SNS_VIN

R15 19.6K

C14 1UF

INPUT SNS AMPLIFIER

3.3V_VDD

DNI DNP

R43 0

R42 200

DNP

U2 MAX40310FAUT+

C13 0.1UF

CTRL_SNS_IN_P — R46 2.05K — R50 0 — OUT

VDD

RS+ — SNS_IIN_AMP_P

RS- — SNS_IIN_AMP_N

NC GND

CTRL_SNS_IN_N — RS4 0

CONNECT TO 1.8V_INT_SW IF THE INTERNAL SWITCHER IS USED

1.8V_CTRL — R3 4.7 — C1 0.1UF

SVID

SVA IN — R6 0 — SVID_A

SVD IN — R7 0 — SVID_D

SVC IN — R8 150 — SVID_C

CTRL_PROG — PROG

CTRL_ADDR — ADDR

AVDD1P8

DGND

DVDD1P8

CTRL_OEN — OE

CTRL_OVPB_OUT — OVP

CTRL_VRHOTB — VR_HOT

CTRL_FAULTB — FAULT

CTRL_PGD_VCCIN — CORE_PGD

VSA_PGD

CTRL_PIN_ALERTB

CTRL_VCCIN_SNS_IC_P

CTRL_VCCIN_SNS_IC_N

U1 MULTIPHASE CONTROLLER

ISNS

R37 300 — PT_ISNS7

R38 300 — PT_ISNS6

R31 300 — PT_ISNS5

R32 300 — PT_ISNS4

R34 300 — PT_ISNS3

R35 300 — PT_ISNS2

R36 300 — PT_ISNS1

R33 300 — PT_ISNS0

1.8V_PT

CTRL_SNS_IN_N — SNS_IIN_AMP_N

CTRL_SNS_IN_P — SNS_IIN_AMP_P

CTRL_SNS_VIN

TSNS

PT_TSNS3

PT_TSNS2

PT_TSNS1

PT_TSNS0

DNP C11 DNI 0.1UF

DNP C12 DNI 0.1UF

DNP C18 DNI 0.1UF

DNP C19 DNI 0.1UF

C16 0.1UF — RS2 10 — SNS_IIN_N

C17 0.1UF — RS3 10 — SNS_IIN_P

C18 0.1UF

PMBUS

SMA IN — R9 0

SMC IN — R10 0

SMD IN — R11 0

3.3V_VDD

C7 10UF

C6 0.1UF

C5 0.1UF

1.8V_INT_SW

C8 22U

C9 22U

L3 1.5UH

CTRL_VX

PWM

PT_PWM0 — R16 — OUT

PT_PWM1 — R17 — OUT

PT_PWM2 — R18 — OUT

PT_PWM3 — R19 — OUT

PT_PWM4 — R20 — OUT

PT_PWM5 — R21 — OUT

PT_PWM6 — R22 — OUT

PT_PWM7 — OUT

DNI DNP R60 0 — DNI DNP R61 0 — DNI DNP R44 0 — DNI DNP R47 0 — DNI DNP R48 0 — DNI DNP R49 0 — DNI DNP R51 0 — DNP R52 0

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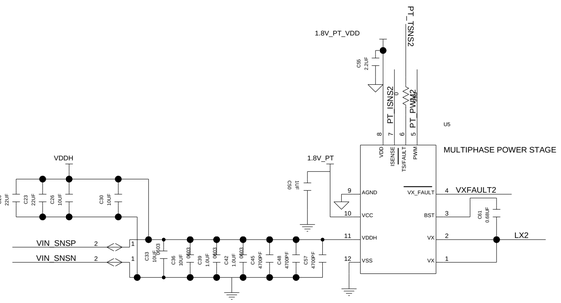
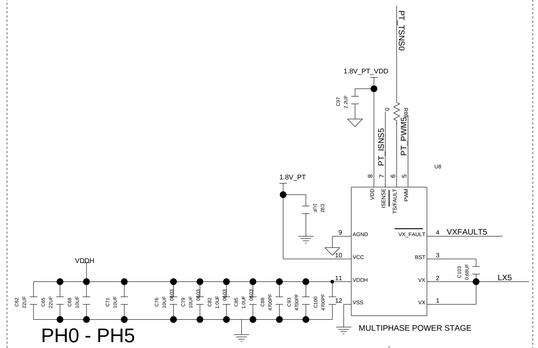
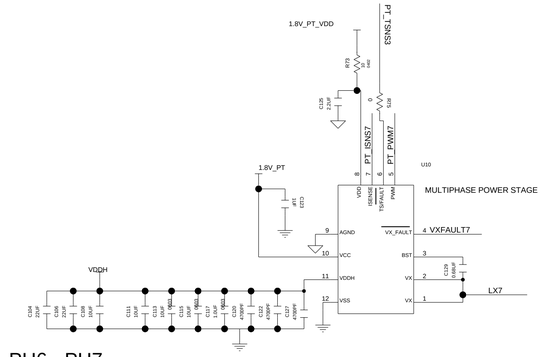


PH2 - PH1

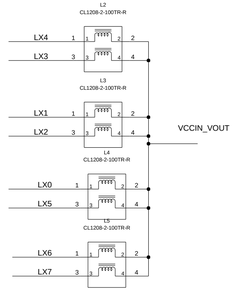


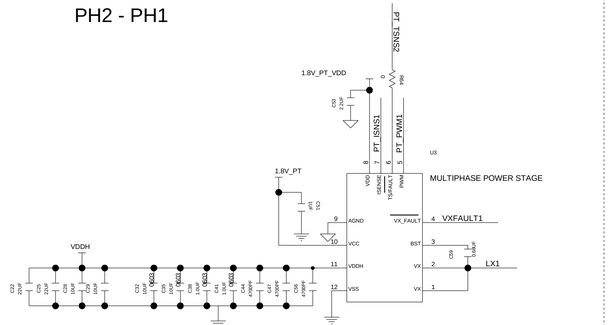
PH0 - PH5



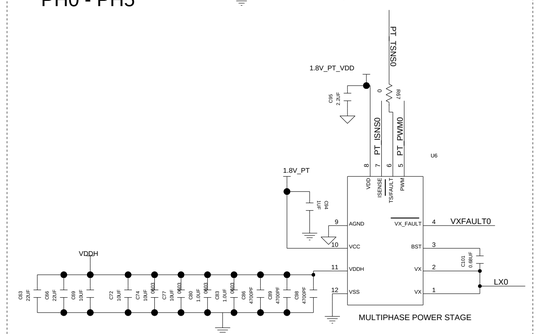
PH6 - PH7

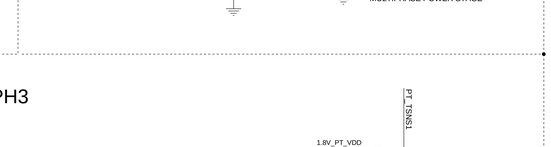
COUPLED INDUCTORS

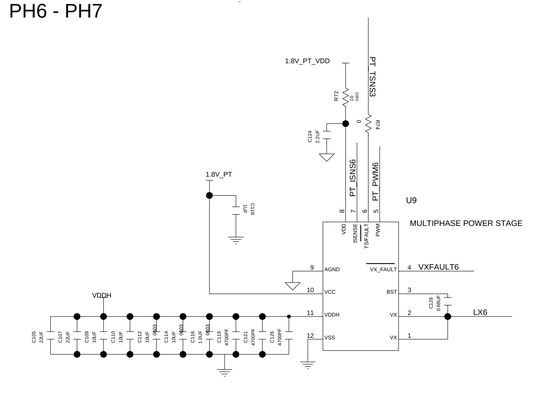




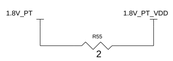
PH4 - PH3



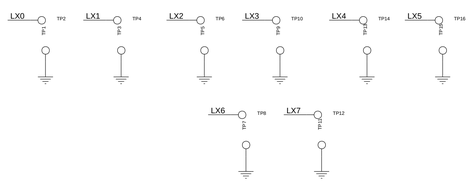




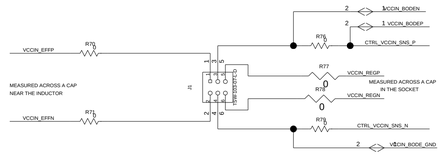
VDD FILTER RESISTOR



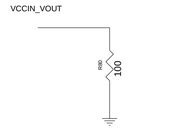
TEST POINT



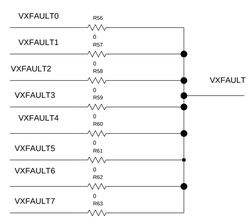
FEEDBACK



BLEEDER RESISTOR



VX FAULT



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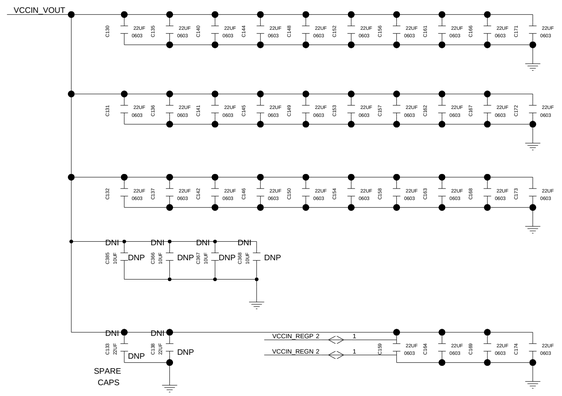
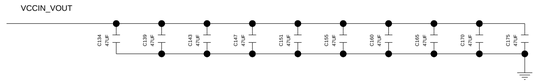
VCCIN

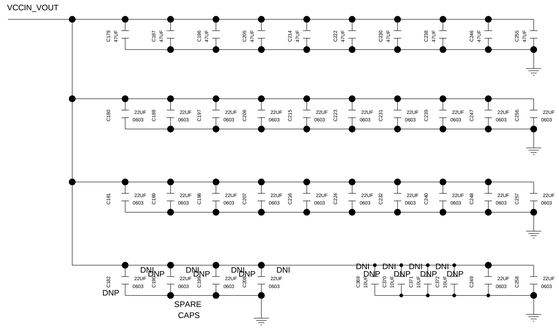
TOP CAVITY
34(+6)X0603



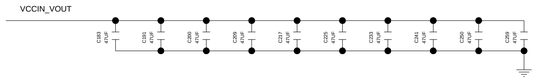
TOP OPENING
10X0805



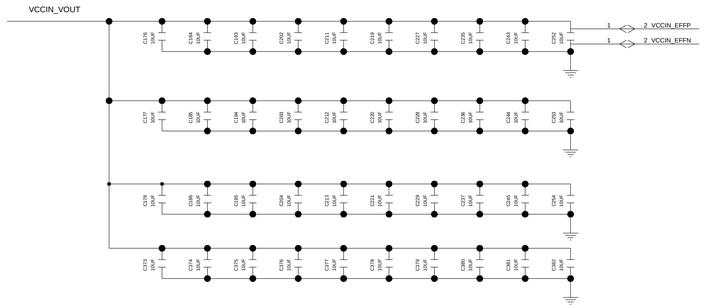
BOT CAVITY
32(+8)X0603



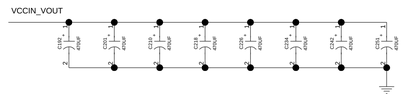
BOT OPENING
10X0805



NEXT TO CL
40X0805



BOT BULK CAPS



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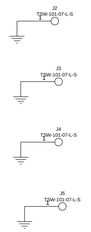
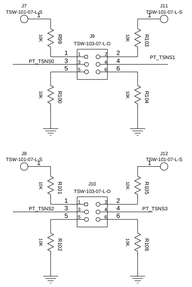
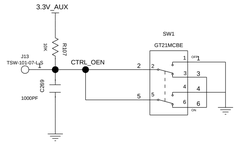
GND PINS



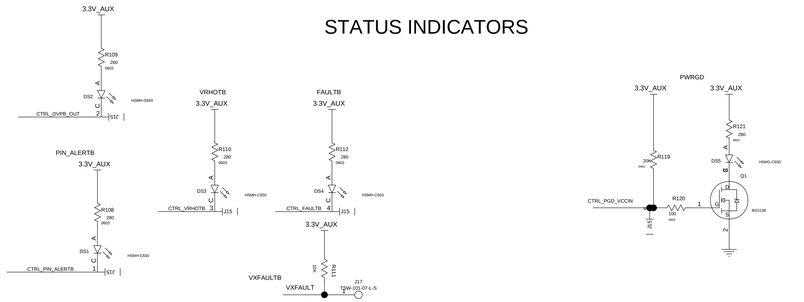
TSNS PULL UP/DOWN



OE SWITCH



STATUS INDICATORS



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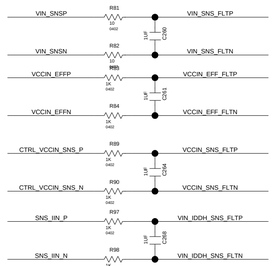
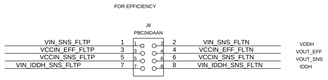
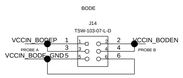


FOR EFFICIENCY

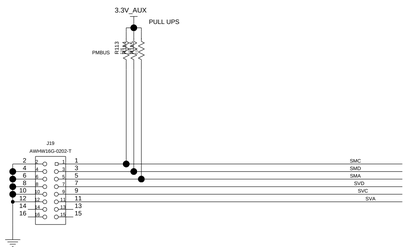


RPROG\RADDR

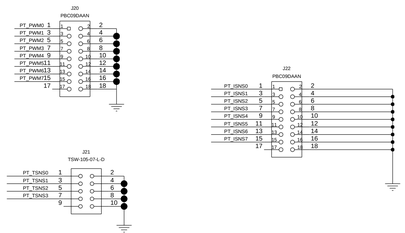
BODE PLOT



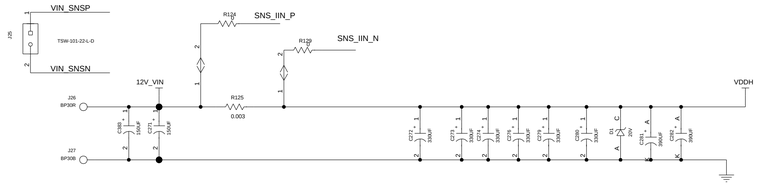
PMBUS\SVID



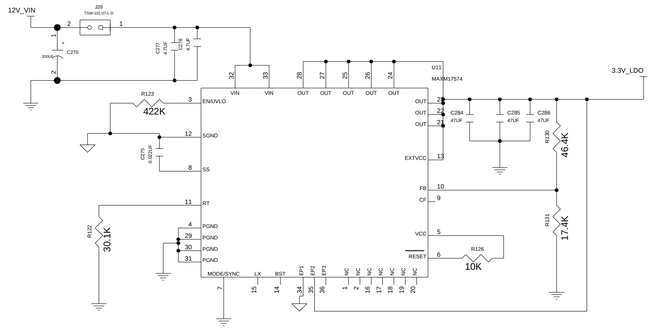
PWM \ ISNS \ TSNS



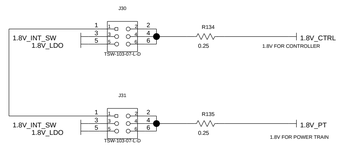
12V INPUT STAGE



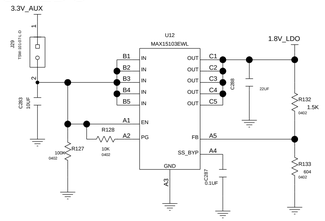
3.3V LDO



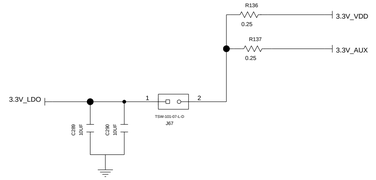
1.8V INPUT STAGE



1.8V LDO



3.3V INPUT STAGE



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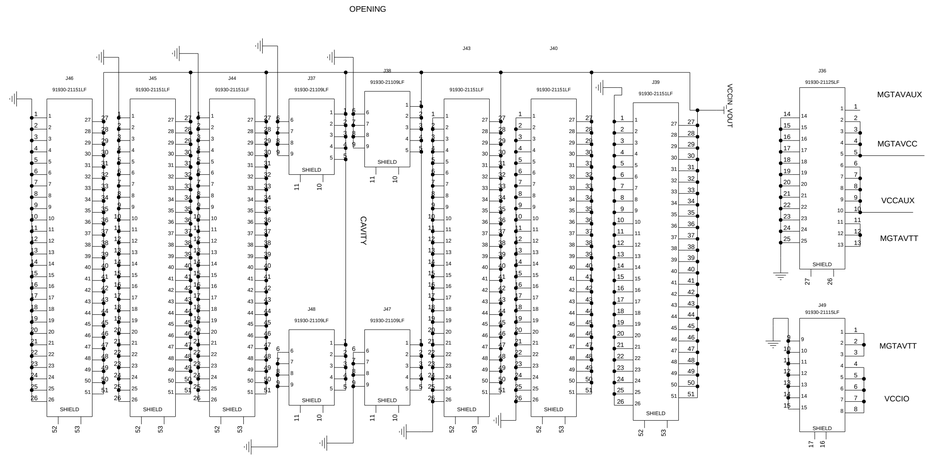
VERSAL PLATFORM



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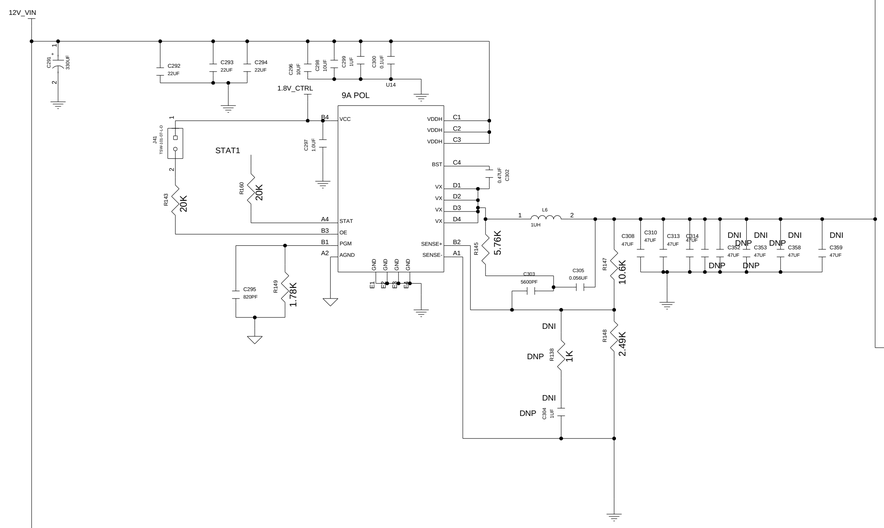

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