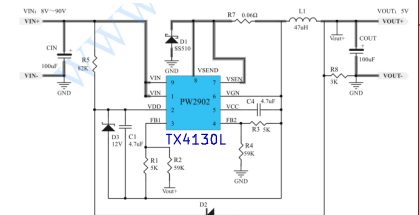


https://datasheet.lcsc.com/lcsc/1912231403_XDS-TX4130L_C448635.pdf
<https://www.pwchip.com/en/product/PW2902-174.html>



典型应用电路图: Vout= 5V/2A

TX4130L:
 VFB: min=369 typ=380 max=391 mV
 VCS: min=145 typ=150 max=155 mV

R1 = R3
 R2 = R4
 Vout= VFB * (R2+R1)/R1
 Iout=VCS/R7 (R7=0.06R -> Io=2.6A)
 Frequency: Fixed 140kHz
 Inductance: 33uH-100uH

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Sheet: /driver/
 File: driver.kicad_sch

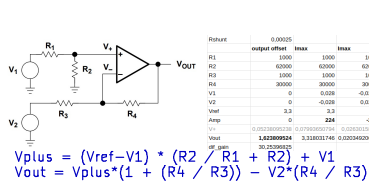
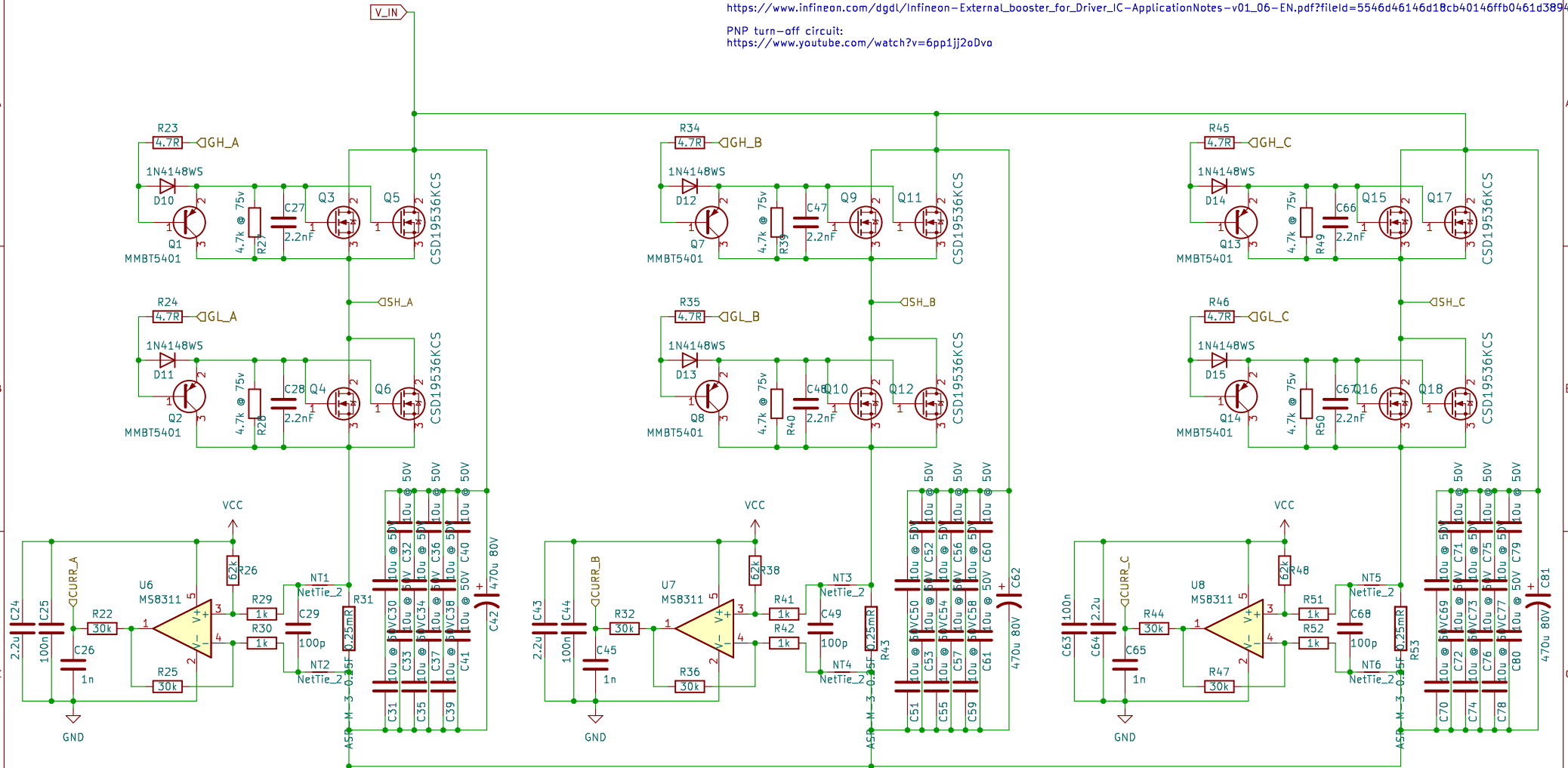
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Rev:
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External booster drive:
https://www.infineon.com/dgdl/Infineon-External_booster_for_Driver_IC-ApplicationNotes-v01_06-EN.pdf?fileId=5546d46146d18cb40146ffb0461d3894

PNP turn-off circuit:
<https://www.youtube.com/watch?v=6pp1jj2oDvo>

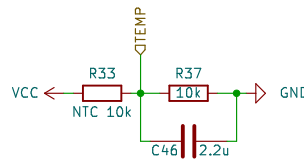


$$V_{plus} = (V_{ref} - V_1) \cdot \left(\frac{R_2}{R_1 + R_2} \right) + V_1$$

$$V_{out} = V_{plus} \cdot \left(1 + \left(\frac{R_4}{R_3} \right) \right) - V_2 \cdot \left(\frac{R_4}{R_3} \right)$$

Calculate cut-off freq of low pass filter, pg 3:
https://www.st.com/resource/en/application_note/an4304-how-to-filter-the-input-of-a-highside-current-sensing-stmicroelectronics.pdf

Current sensing:
https://www.ti.com/lit/eb/slly154a/slly154a.pdf?ts=1678787132262&ref_url=https%253A%252F%252Fwww.startpage.com%252Fpg%204%2Cpg%2015



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Sheet: /power/

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Title: F-Of-C

Size: A4

Date:

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Rev:

Id: 7/4

