

Project/Board:

Rail Name:

Target Vout:

Ambient (C):

Step 1 - Load & phases

I_out (A)	N_phases	I_phase (A)	F_sw (kHz)
Target eff (%)	Vin (V)	Freq window (kHz)	Notes

Step 2 - Loss/thermal quick calc

Rds_on HS (mOhm)	Rds_on LS (mOhm)	Qg (nC)	Theta_JA (C/W)	Theta_JC (C/W)
Est. cond. loss (W)	Est. sw. loss (W)	Case temp (C)	Heatsink/airflow	

Step 3 - Pin-compatible candidates (3 picks)

Part Number	Package	PWM level	Polarity	Compat controller	Pros/Tradeoffs	Pick?

Step 4 - Final checks

- ☐ Footprint matches (pad, exposed pad, pin 1)
- ☐ PWM level and tri-state match controller
- ☐ IMON/TSENSE pinout and scaling verified
- ☐ UVLO/OC/OT thresholds within range
- ☐ Thermal via array and copper area OK
- ☐ Inductor placement and SW keep-out
- ☐ Efficiency grid 3x3 measured
- ☐ Sourcing plan: main + backup