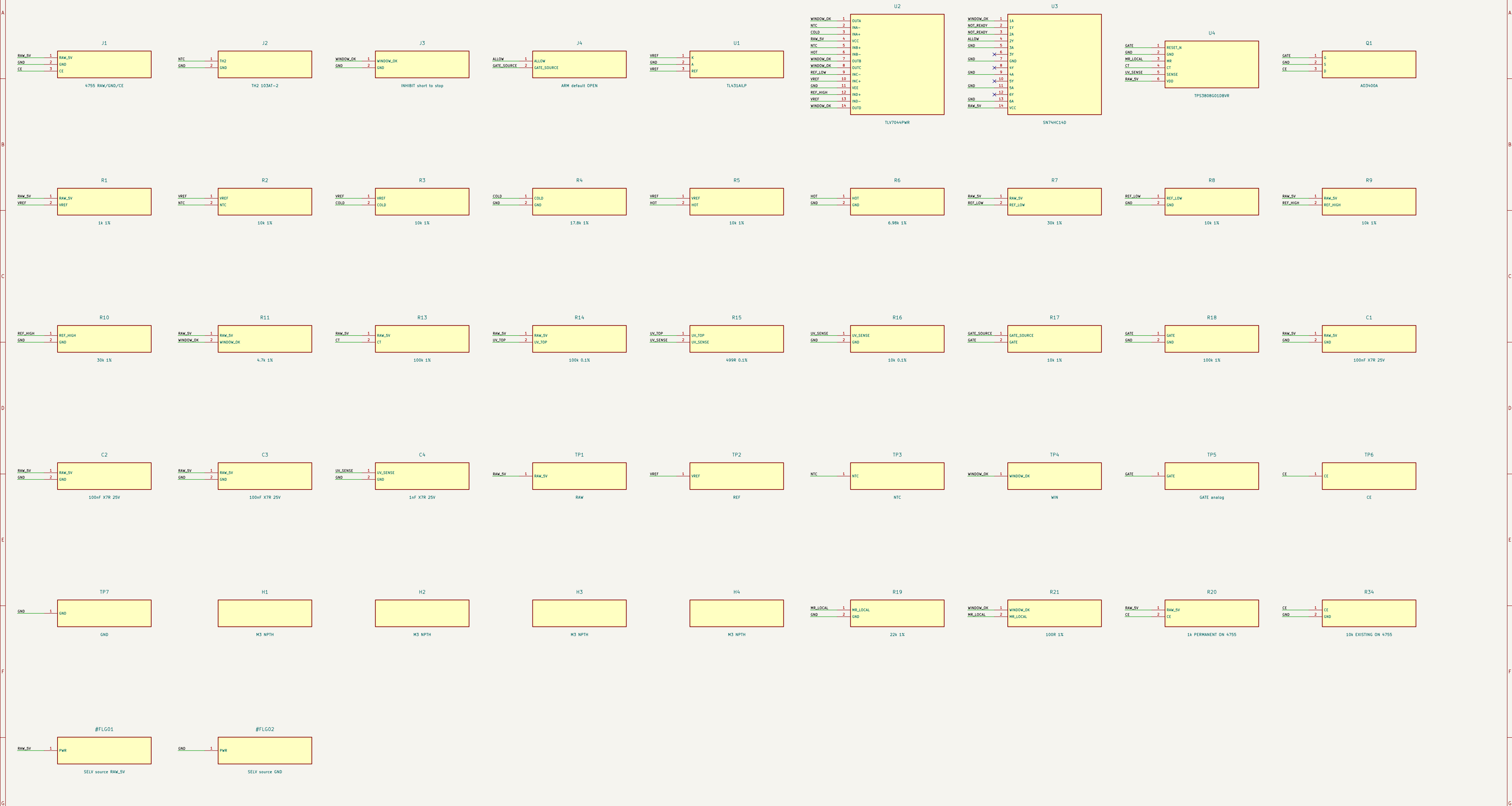




Typed pins and package numbers. R20 stays on charger side; R34 is existing. J4 default OPEN.

J1 carries RAW5V/GND/CE control only. Do not directly parallel ESP32 USB 5V and backup boost output.

TP53808G01 senses RAW5V and WINDOW\_OK; recovery nominal 300ms (180..420ms datasheet). No field release.

No battery or hardware tests yet. Single-fault and thermal attachment verification remain mandatory.

Prototype design: fabrication / unattended field release HOLD