

# Li-Po battery management example

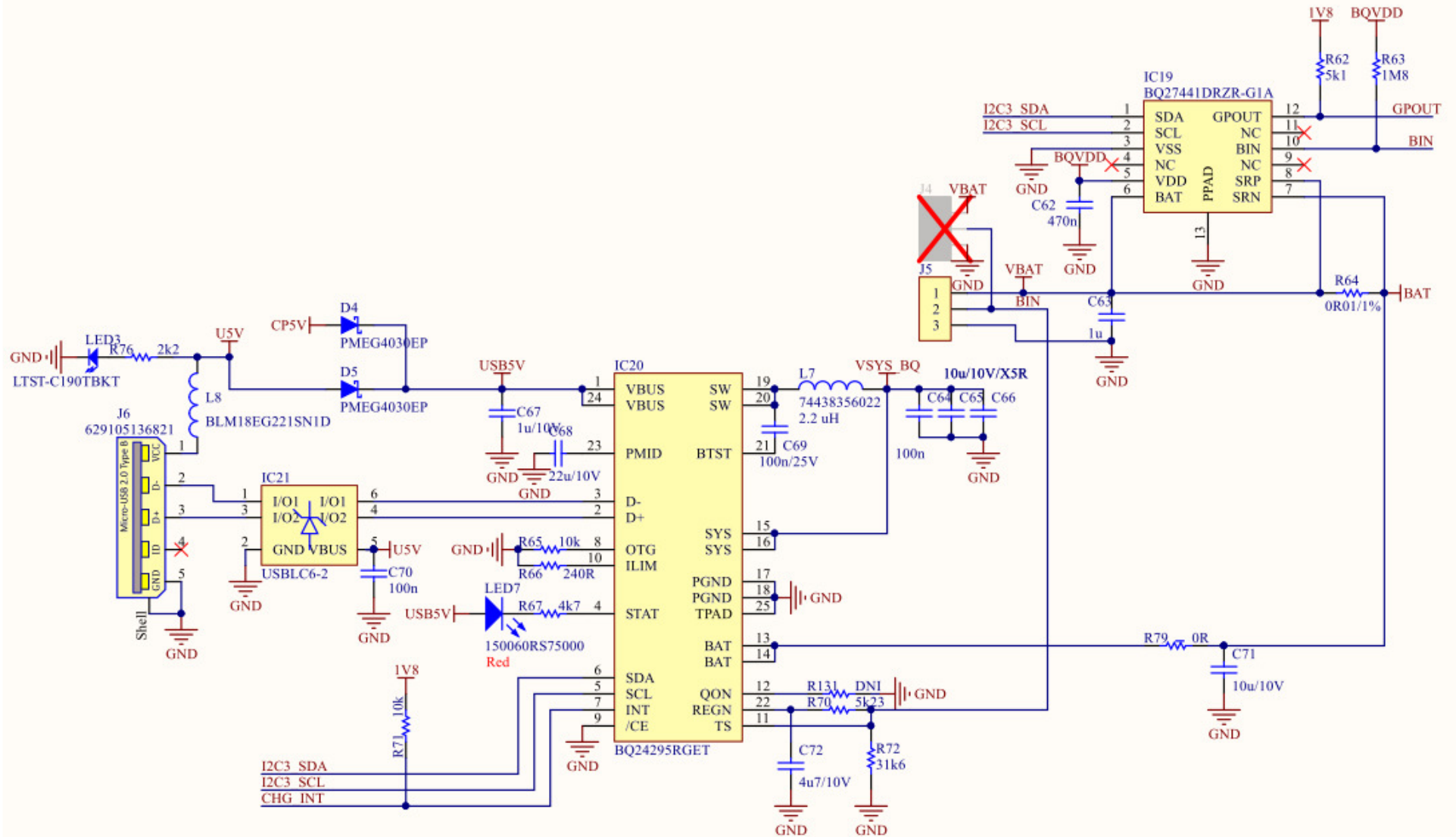
[bq24295, bq27441-g1,  
lp503759is3, R5402N]



## Main components

- BQ24295: I2C Controlled 3A Single Cell USB Charger
- BQ27441: System-Side Impedance Track™ Fuel Gauge
- LP-503759-1S-3: Li-Po battery
  - (inside the battery) R5402 Protection module

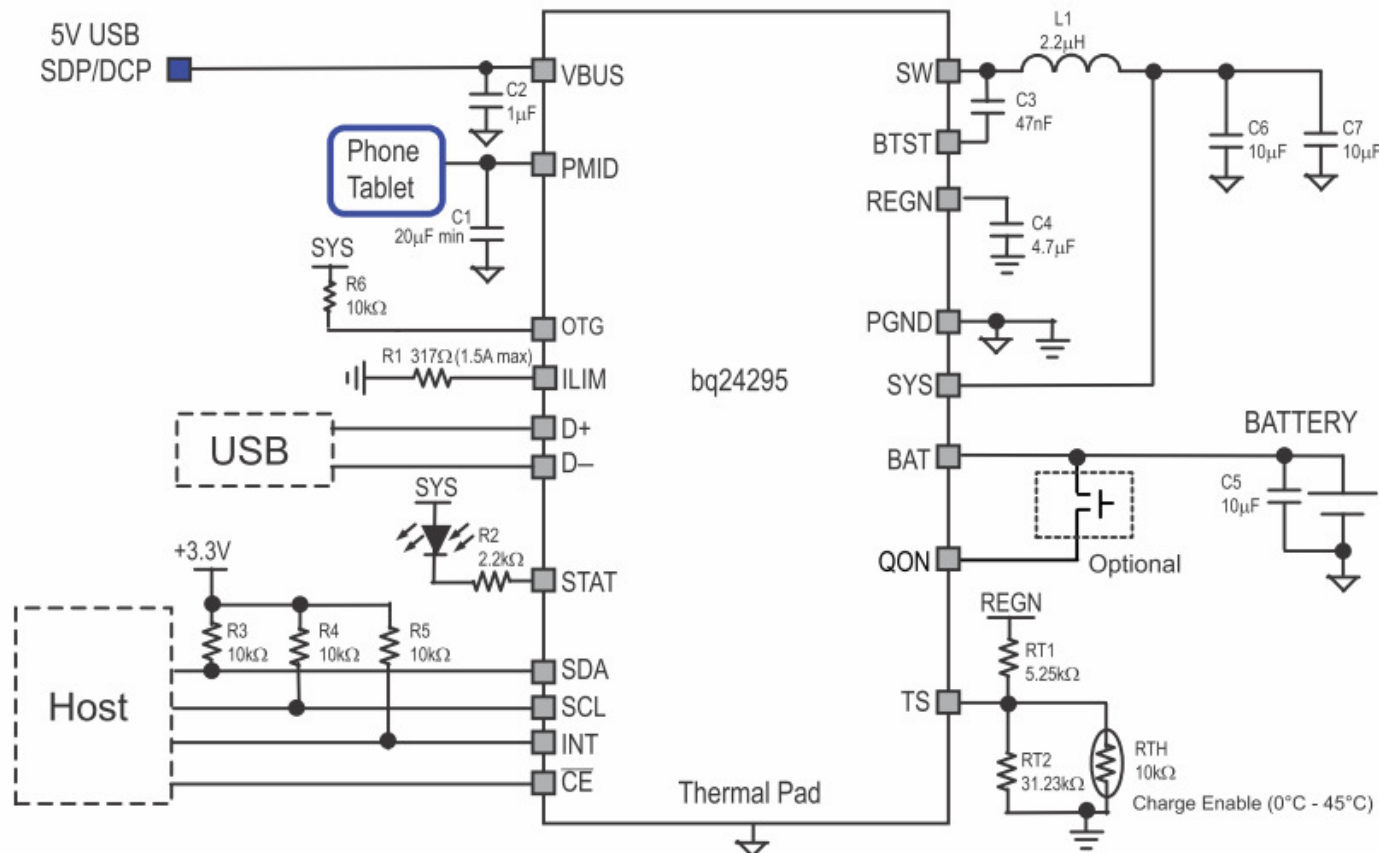
# Schematics



# BQ24295

Highly-integrated switch-mode battery charge management for 1 cell Li-Ion and Li-polymer battery

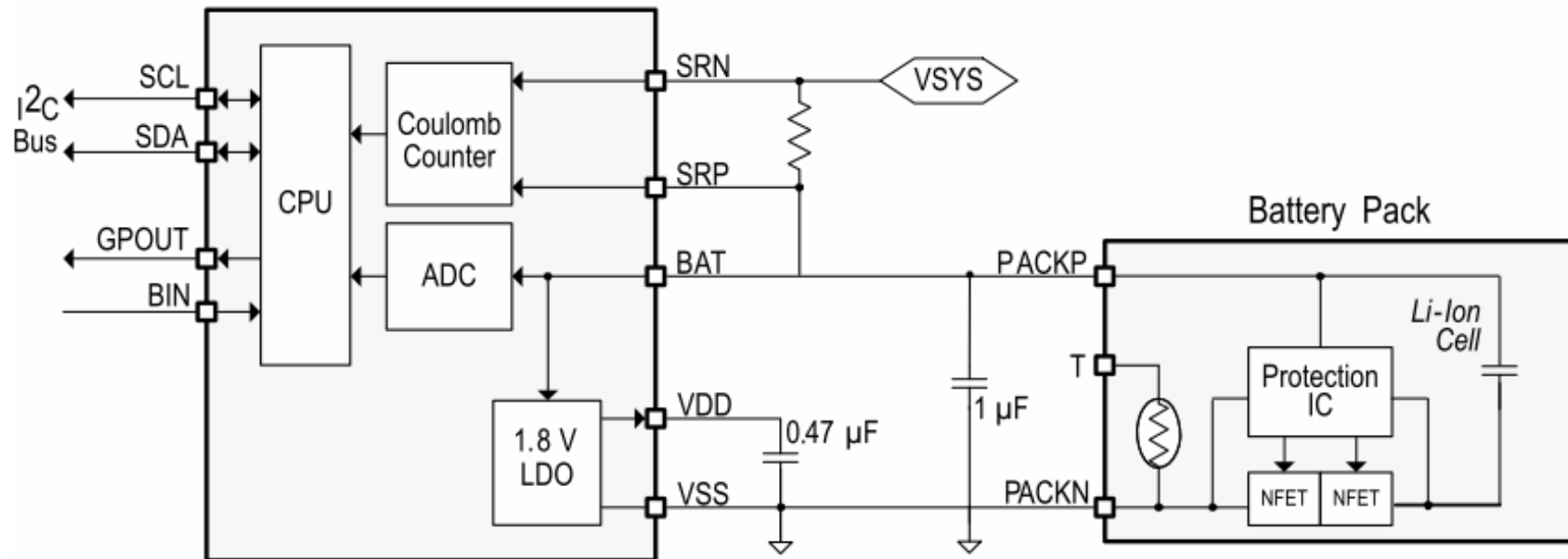
- I2C port for optimal system performance and status reporting
- Autonomous battery charging with or without host management



## BQ27441

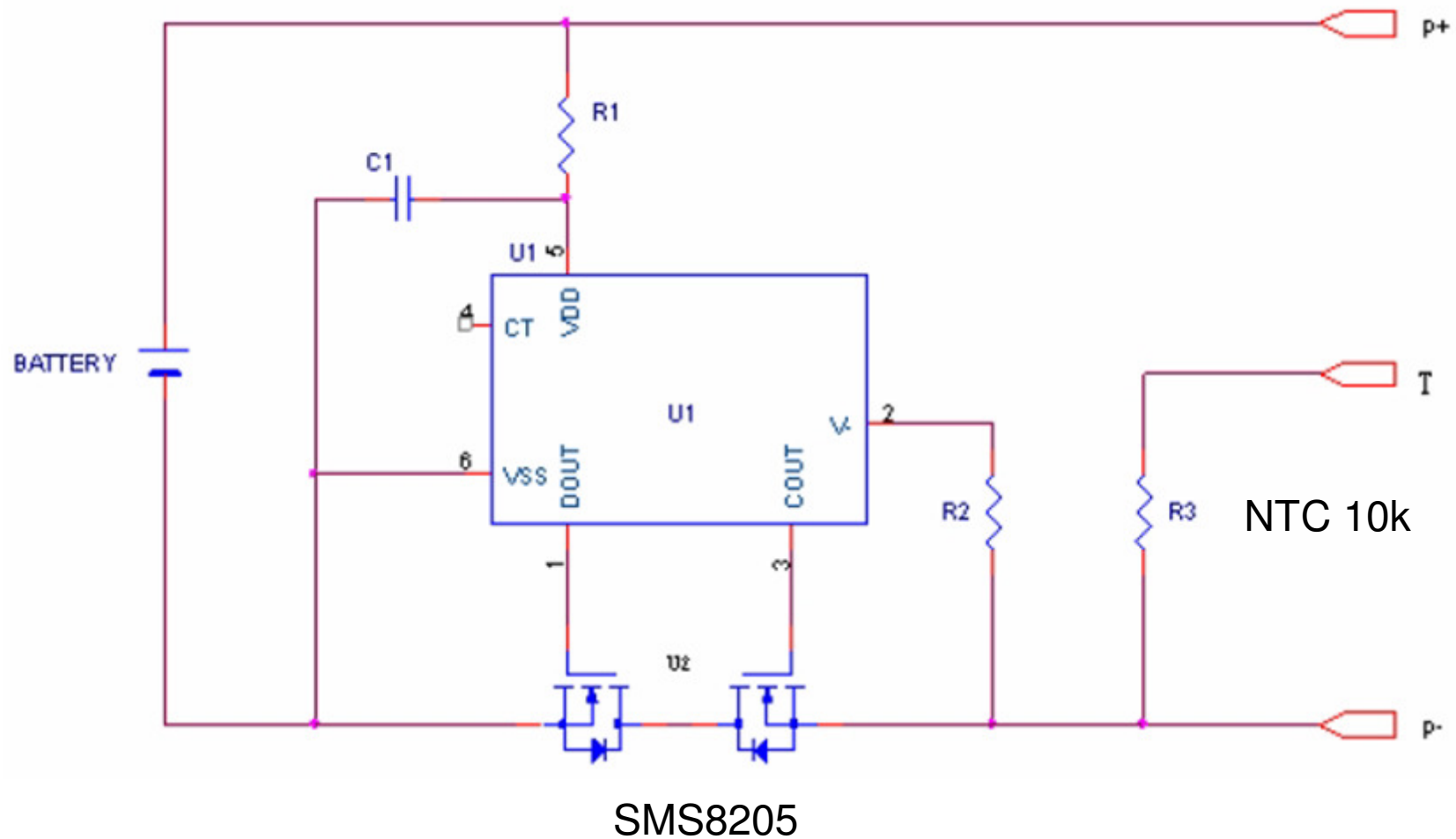
Battery fuel gauging based on Impedance Track™ Technology

- Reports remaining capacity and state-of-charge (SOC)
- Automatically adjusts for battery aging, self-discharge, temperature, and rate changes
- Battery state-of-health (aging) estimation
- 400-kHz I2C serial interface



# LP-503759-1S-3

- Rechargeable Lithium-ion polymer battery



## R5402N101KD-TR-F

CMOS-based protection IC

- VD1 monitors VDD pin voltage during charge
- VD2 monitors VDD pin voltage during discharge
- VD4 senses V- pin voltage for excess charge current
- VD3 senses V- pin voltage for excess discharge current (external short circuit protection)

