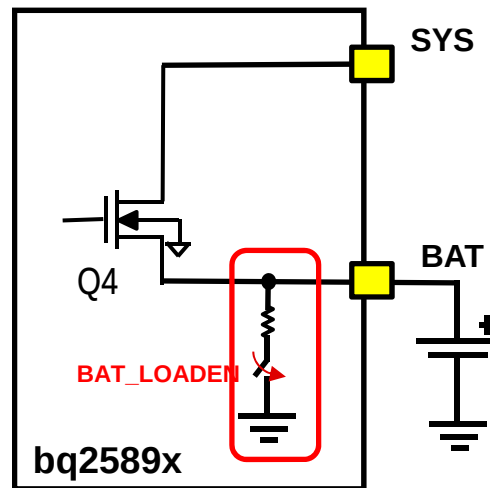


bq2589x BAT_LOADEN Application Note

- bq2589x provides an internal battery load (IBATLOAD) (min. 15mA) to facilitate battery detection.
- The BAT_LOADEN bit controls the status of the battery load
 - 1 : Enable battery load on BAT pin
 - 0 : Disable battery load on BAT pin
- The host can use this load together with the internal ADC to determine battery presence. A recommended host control sequence is shown as an example



bq2589x BATLOAD_EN Application Note (con't)

- Sample Host Sequence

1. Enable battery charging
2. Set Disable charge (CHARGE_CONFIG = 0) when charge is done (CHRG_STAT = 11)
3. Enable battery load (BAT_LOADEN = 1) for a10ms to discharge BAT
4. Use battery monitor to measure BAT voltage by
 - a) Enable one-shot ADC conversion (CONV_START = 1) and (CONV_RATE = 0)
 - b) Read BAT voltage at BATV register for battery voltage V(BAT)
5. If V(BAT) > 4V, then battery is attached, otherwise battery is not presence
 - a) Host can decide to disable charge by setting (CHARG_CONFIG = 0) when battery is not presence or to enable charge when recharge threshold requirements is met (CHARGE_CONFIG = 1)
6. Disable battery load (BAT_LOADEN = 0)

- Register Reference

BAT_LOADEN = REG03[7]
CHG_CONFIG = REG03[4]
CONV_START = REG02[7]
CONV_RATE = REG02[6]
CHRG_STAT = REG0B[4:3]
BATV = REG0E[6:0]