

CANRec - Feature #740

Measure VDD

09.03.2026 14:54 - Maximilian Seesslen

Status:	Neu	Beginn:	09.03.2026
Priorität:	Normal	Abgabedatum:	
Zugewiesen an:		% erledigt:	0%
Kategorie:		Geschätzter Aufwand:	0.00 Stunde
Zielversion:		Aufgewendete Zeit:	0.00 Stunde
CS Zielversion:			

Beschreibung

The device often fails because of voltage drops.
VBus can not be monitored, no connection.

The internal reference 1,2V is quite stable. But when reading it, it gets compared to VDDA. The higher the raw ADC value is, the lower VDDA is.

$$VDD = 3.3V * (VREFINT_CAL / ADC_VREFINT)$$

Example

$$VDD = 3.3 * 1210 / 1500 = 2.66V$$

V_BAT can be measured way more accurate when VDDA is known.

$$V_BAT = VDD / 4095 * ADC_VAL$$

Or after voltage divider:

$$V_IN = (VDD * ADC_VAL * (R1 + R2)) / (R2 * 4095)$$

Historie

#1 - 09.03.2026 15:05 - Maximilian Seesslen

- Beschreibung aktualisiert