

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 i quite stable. But when reading it, it gets compared to VDDA. The higher the raw ADC value is, the lower VDDA is.

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

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

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