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