

POWER SUPPLY MONITOR – Supply Voltage Monitor for STM 110/110C

Need for Power Supply Monitoring, e.g. for battery powered applications

The power supply input V_SC1 of the STM 110/110C module can be driven by external energy sources of 2.2 - 5.0 V. Instead of the supplied solar cell, a coin battery can be used in applications with no or not enough light. For more details please see the Application Note "AN203 STM 110 BATTERY POWERED". For example in this case it is useful to have a control of the supply voltage, to know in time when the battery voltage fails below a certain limit to be changed before failure.

Voltage Monitoring Circuitry

The following external circuitry use one of the three available AD inputs to allow the monitoring of the external power supply by every wake up. R1 und R2 (1%) build a voltage divider and are calculated with respect to the maximal expected supply voltage at V_SC1 (5.0 V in this case), the maximal allowed full scale AD input voltage of 2.0 V, and the maximal recommended source input impedance at the AD-Inputs.

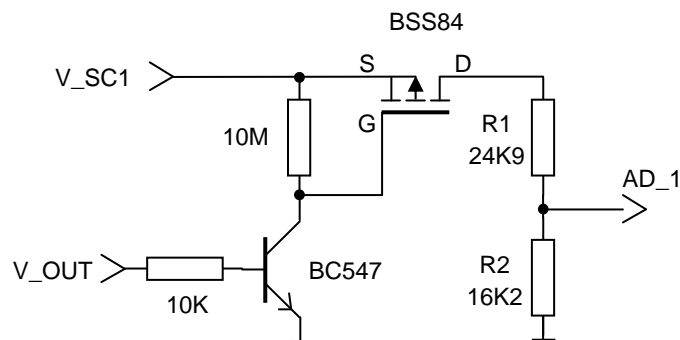


Fig.: Additional external circuitry for power supply monitoring

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