

Product Document



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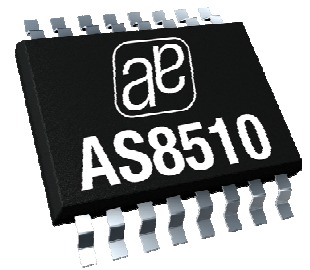
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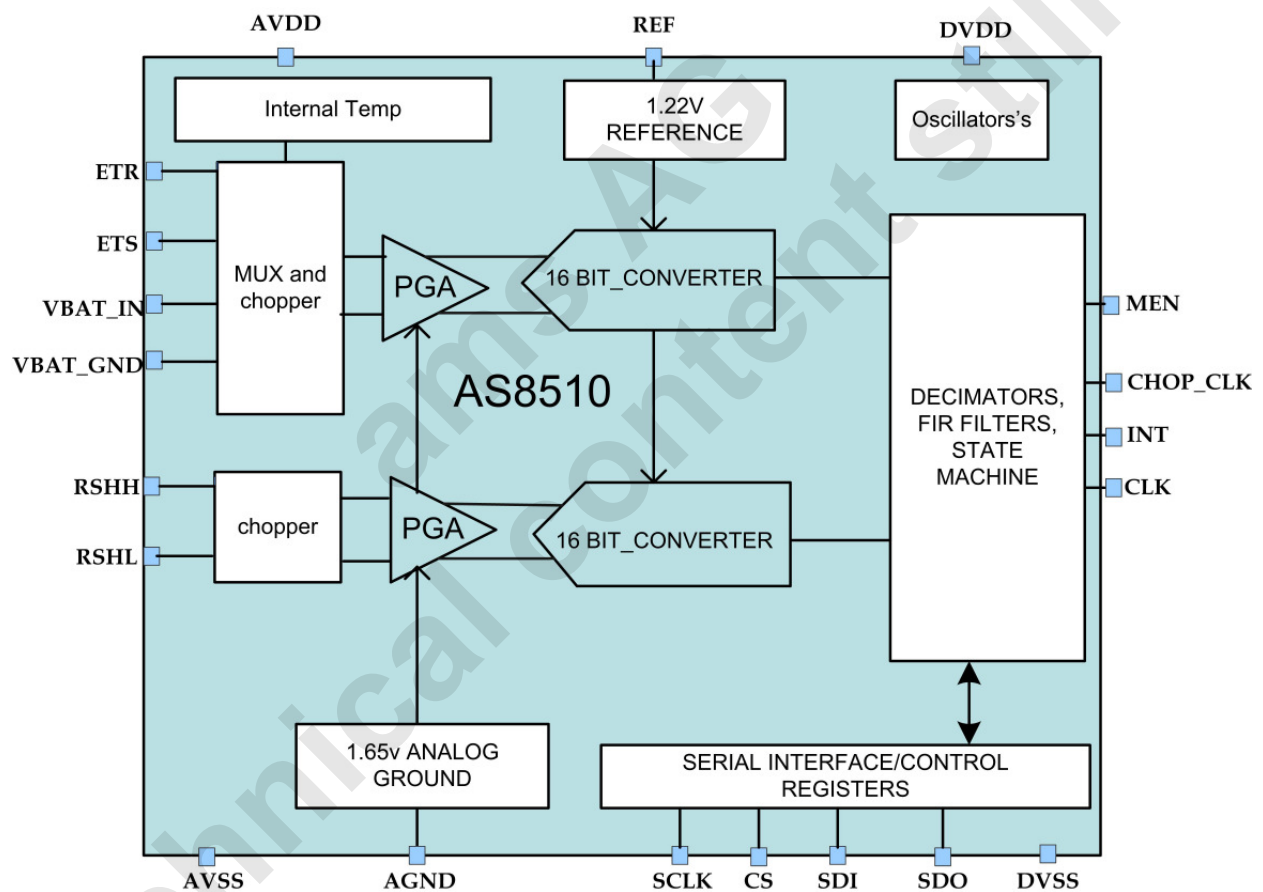
AS8510

Adapter Board Manual

High Precision Data Acquisition IC



www.austriamicrosystems.com/Data_Acquisition_IC/AS8510



Picture 1: Block Diagram of AS8510

General Description

Adapter Board Description



Picture 2: Adapter Board AS8510

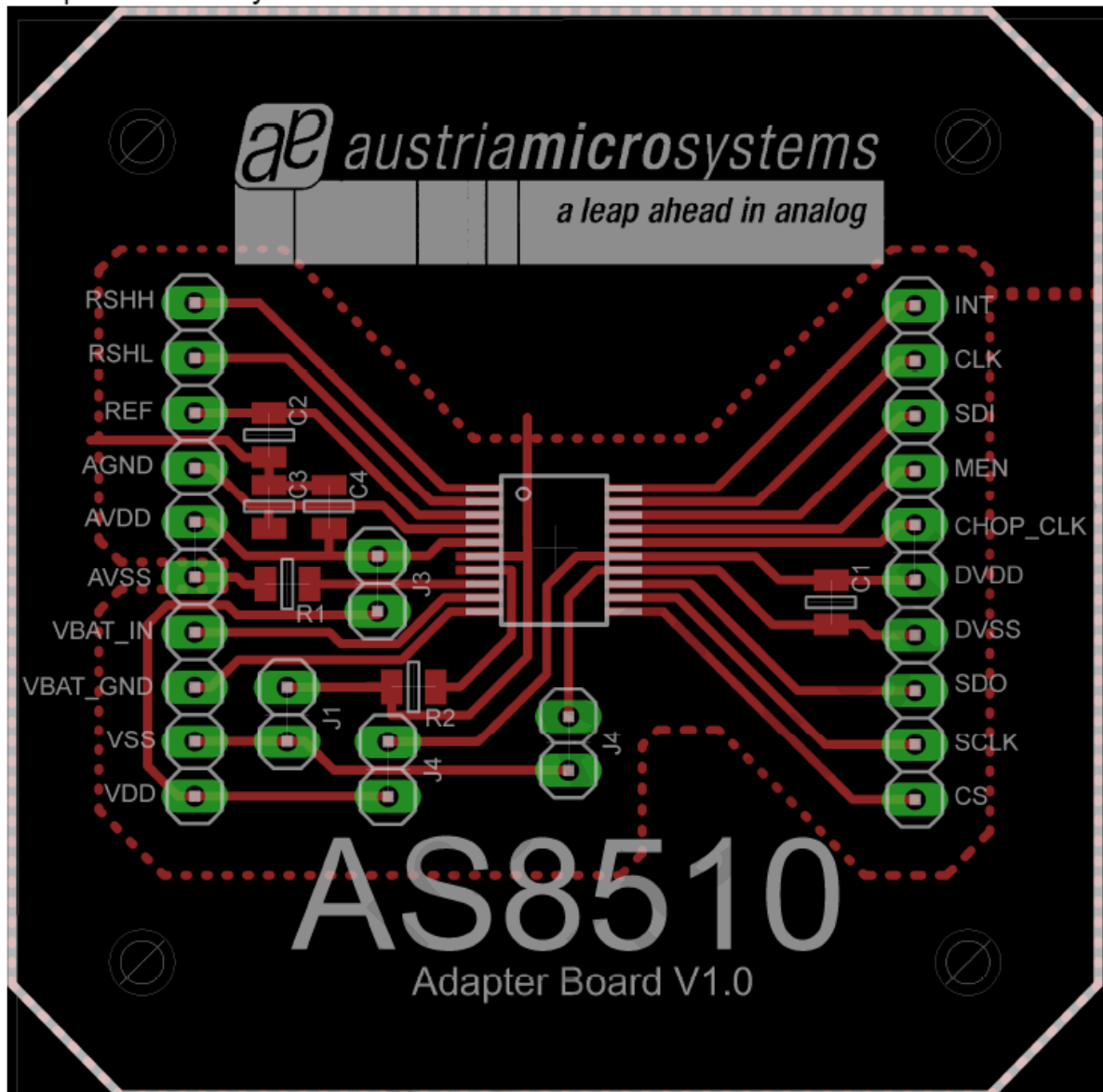
This board supports quick start by providing foot prints and interconnect tracks for AS8510, smoothing capacitors, input resistors, connectors and jumper posts.

The populated board may either be supplied by a single 3.3V source through VDD and VSS connector posts if JP1-4 are set, or from two 3.3V sources of equal voltage to supply digital DVDD/DVSS and analog AVDD/AVSS section of the AS8510 separately without jumpers. In that case both supplies have to be powered up simultaneously.

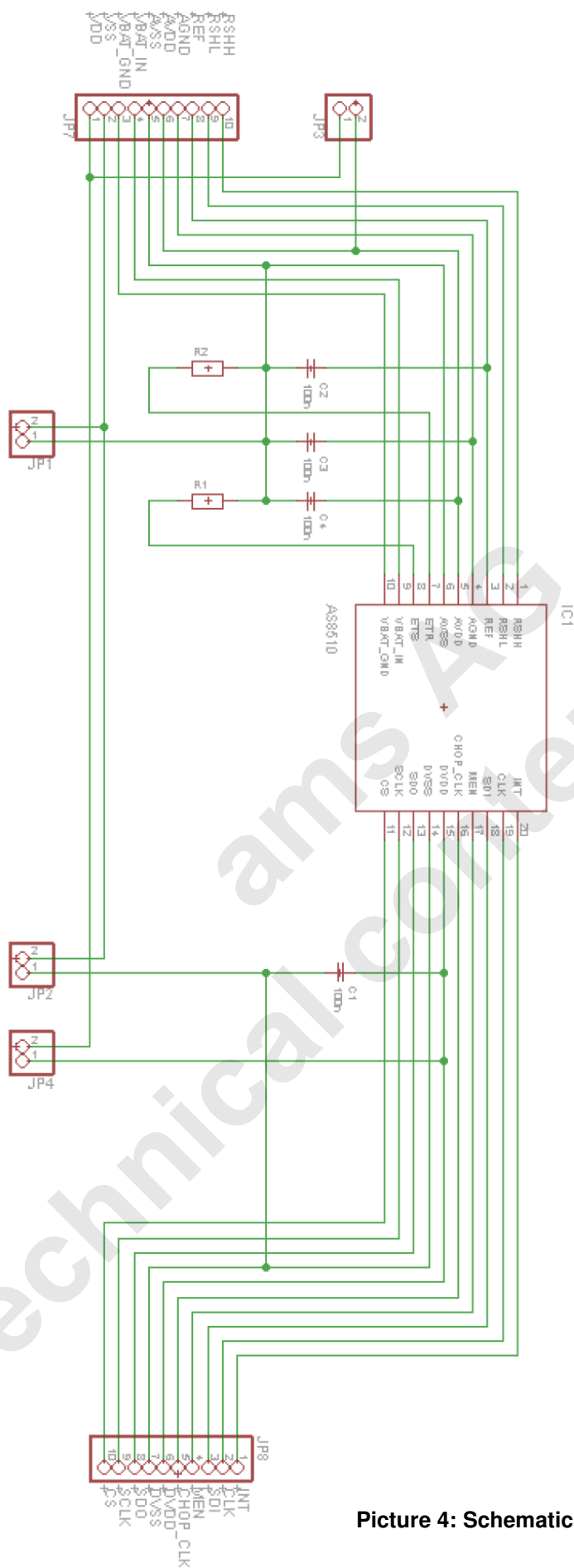
After internal power on reset the device enters stop mode. The device will start operating in normal mode when D[0] of MOD_CTL_REG 0A is set to 1 through SPI interface. Signals may be provided through fully differential RSHH / RSHL and/or VBAT_IN / VBAT_GND input terminals to integrated programmable gain amplifier. Common mode range is +300 mV to – 160 mV versus VSS. There are 4 gain steps programmable to support input voltages in the +/- 8 mV up to +/-160 mV full range

Programmable gain amplifiers can be by-passed to accept input voltages up to +/-1V at 0-1V common mode versus VSS.

There are 2 more input channels ETR and ETS available multiplexed with VBAT/VBAT_GND signal path. These are single ended input channels versus AVSS. Input signals can be generated by forcing current through external 100 Ohm resistors through programmable current source.



Picture 3: Adapter Board AS8510 Layout



Picture 4: Schematic Adapterboard AS8510

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