Shield2Go Adapter for Raspberry Pi

Quick Start Guide

V1.0.1

Introduction

The Shield2Go Adapter for Raspberry Pi is a PCB adapter to connect Infineon‘s Shield2Go series with Raspberry Pi boards.

Infineon‘s Shield2Go form factor is a comprehensive shield design derived from the XMC 2Go evaluation board. All boards share a common pin out design, i.e. pins are hard coded to specific functions like SPI or I2C. This enabled a generic PCB evaluation board design for Infineon‘s portfolio like the DPS310 Pressure Shield2Go, the TLV493D-A1B6 3DMagnetic Shield2Go, the TLI4970-D050T4 CurrentSense Shield2Go or the OPTIGA™ Trust X Security Shield2Go.

Moreover, easy to use software examples are available for this adapter to speed up development of the Shield2Go boards and systems compatible with the Raspberry Pi ecosystem. All software is released into the public domain and available as open source libraries on GitHub.

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Evaluation Board Notes

- Supply voltage is typ. 3.3V
- The adapter supports up to 3 Shield2Go boards simultaneously
- **The following restrictions apply:**
  - **Sockets 1,2 do not support I2S, but SPI**
  - **Socket 3 supports I2S, but not SPI**
  - A1 and A2 are not connected to the Raspberry Pi, because it does not have an ADC
  - I2C bus is parallel between Socket 1, 2, 3, hence devices must not share an I2C address
  - UART bus is parallel between Socket 1, 2, 3

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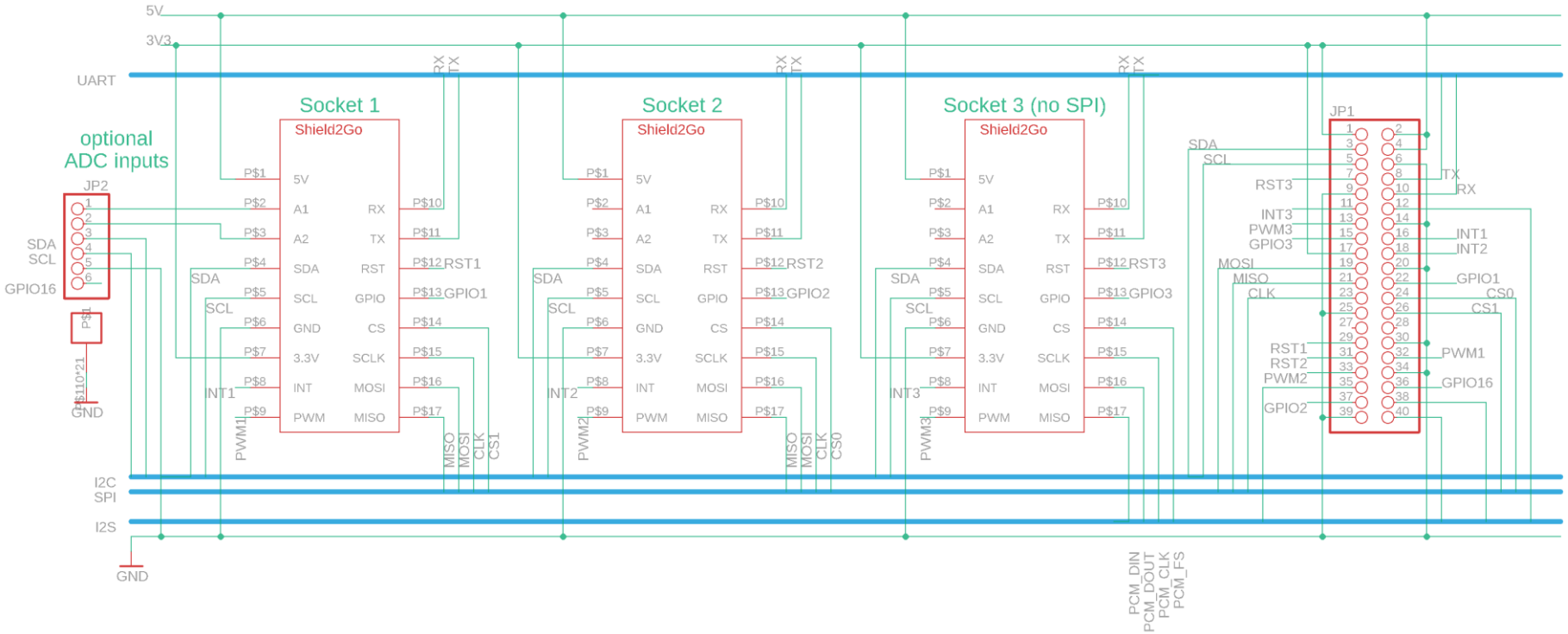
Compatible Raspberry Pi Boards

The adapter board is compatible with all Raspberry Pi boards with 40 pin header:

- Full-size Raspberry Pi models:
  - 4B, 3B+, 3B, 3A+, 2B v1.2, 2B, 1B+
- Raspberry Pi Zero models:
  - Zero, Zero W, Zero WH

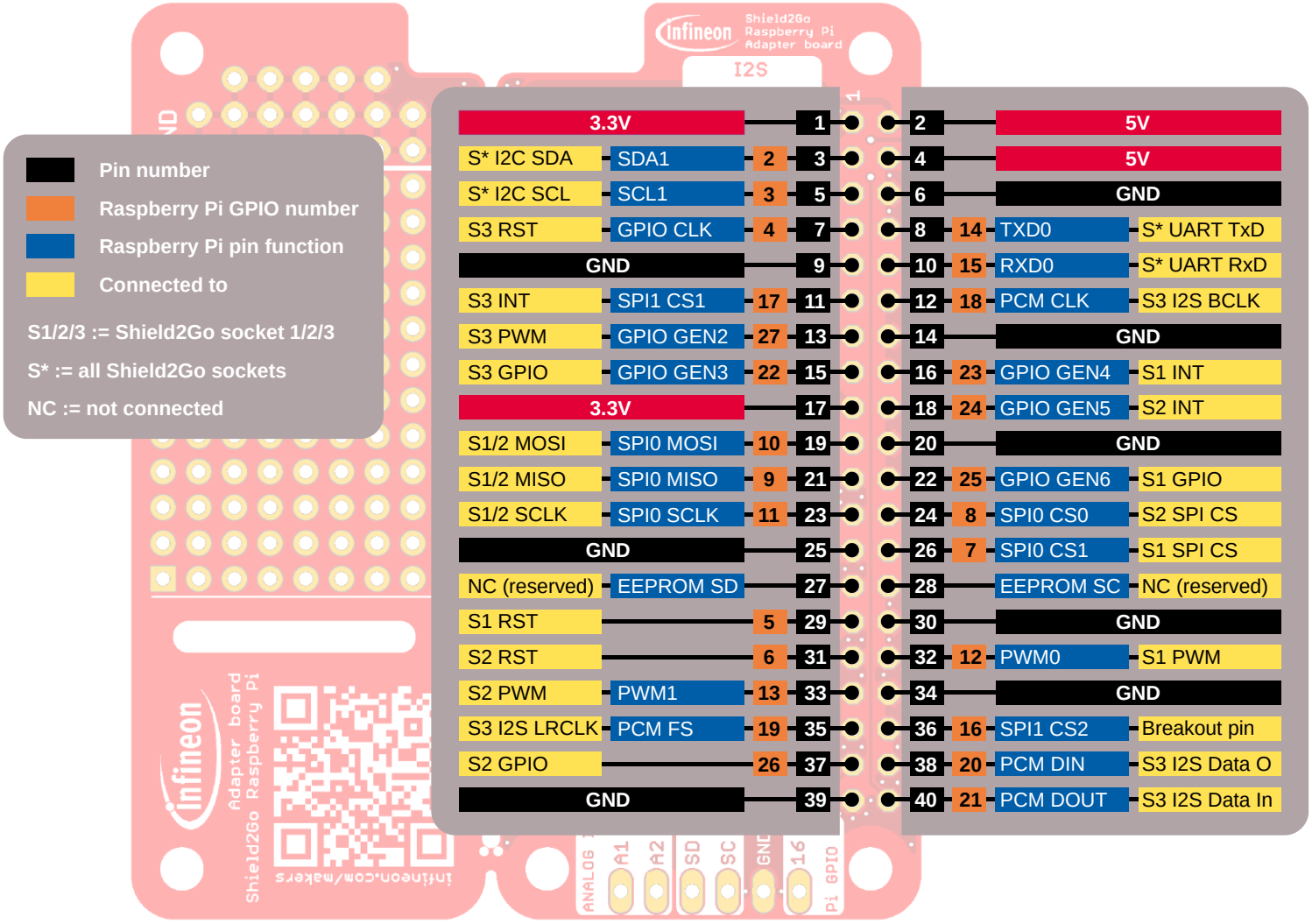
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Evaluation Board Schematic



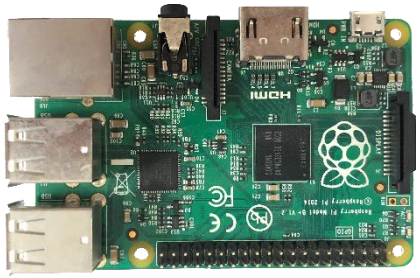
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Evaluation Board Pinout Diagram



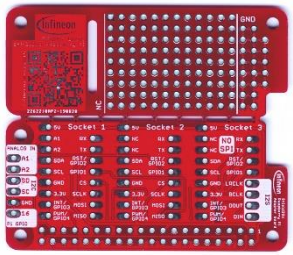
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Getting Started



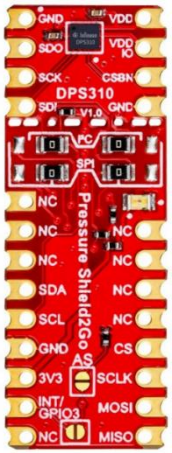
Raspberry Pi

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Shield2Go Adapter

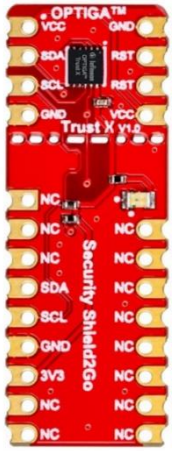
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[DPS310 Shield2Go]



[TLV493D Shield2Go]



[Optiga™ Trust X Shield2Go]

Check out all compatible Shield2Go boards [on GitHub]

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