S5D9 Lab Basic Tutorials Summary Table

By
Michael Li

(2/2/2018)

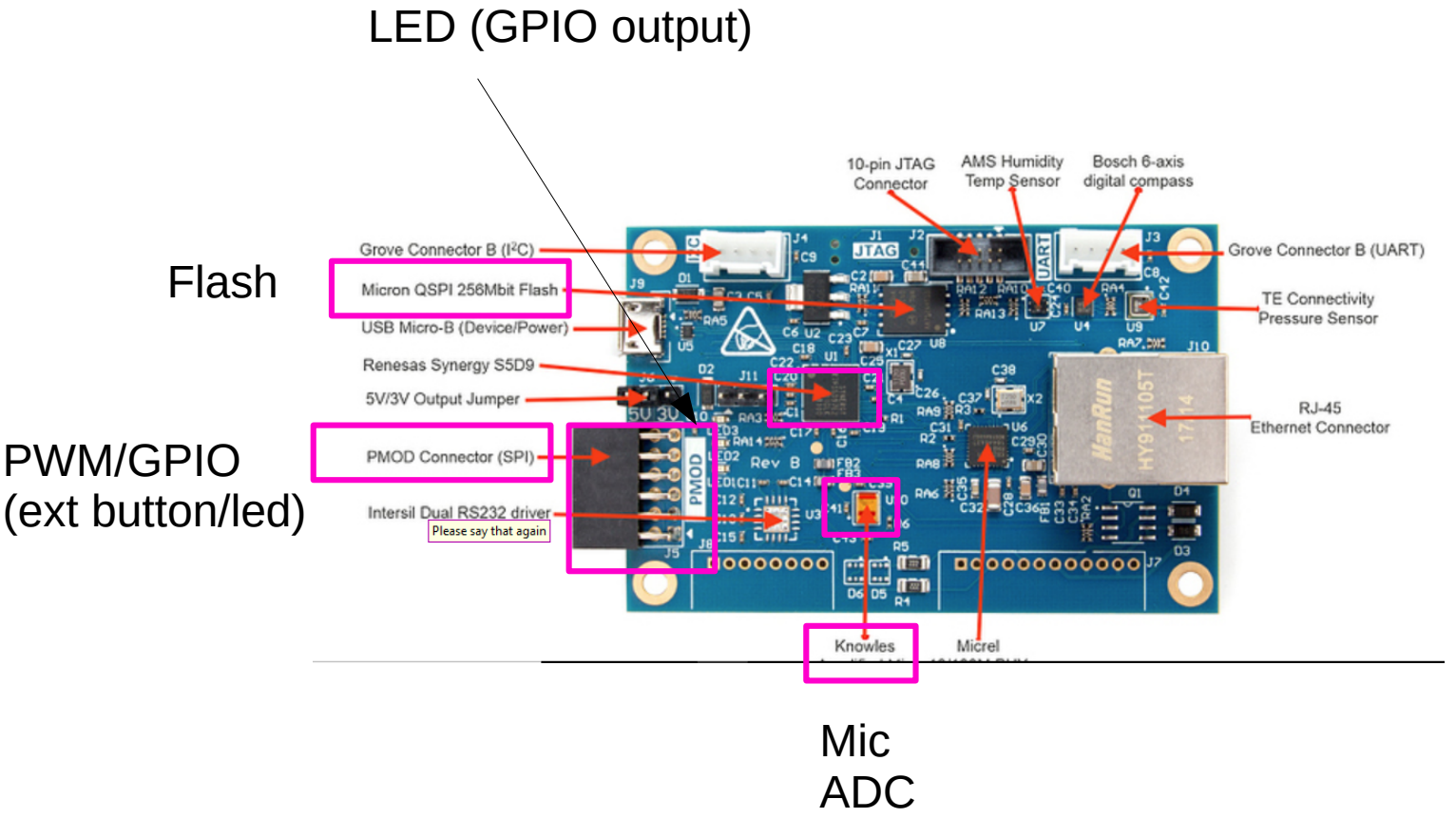
https://www.miketechuniverse.com

E2 Studio 5.4.0.023
SSP 1.3.0

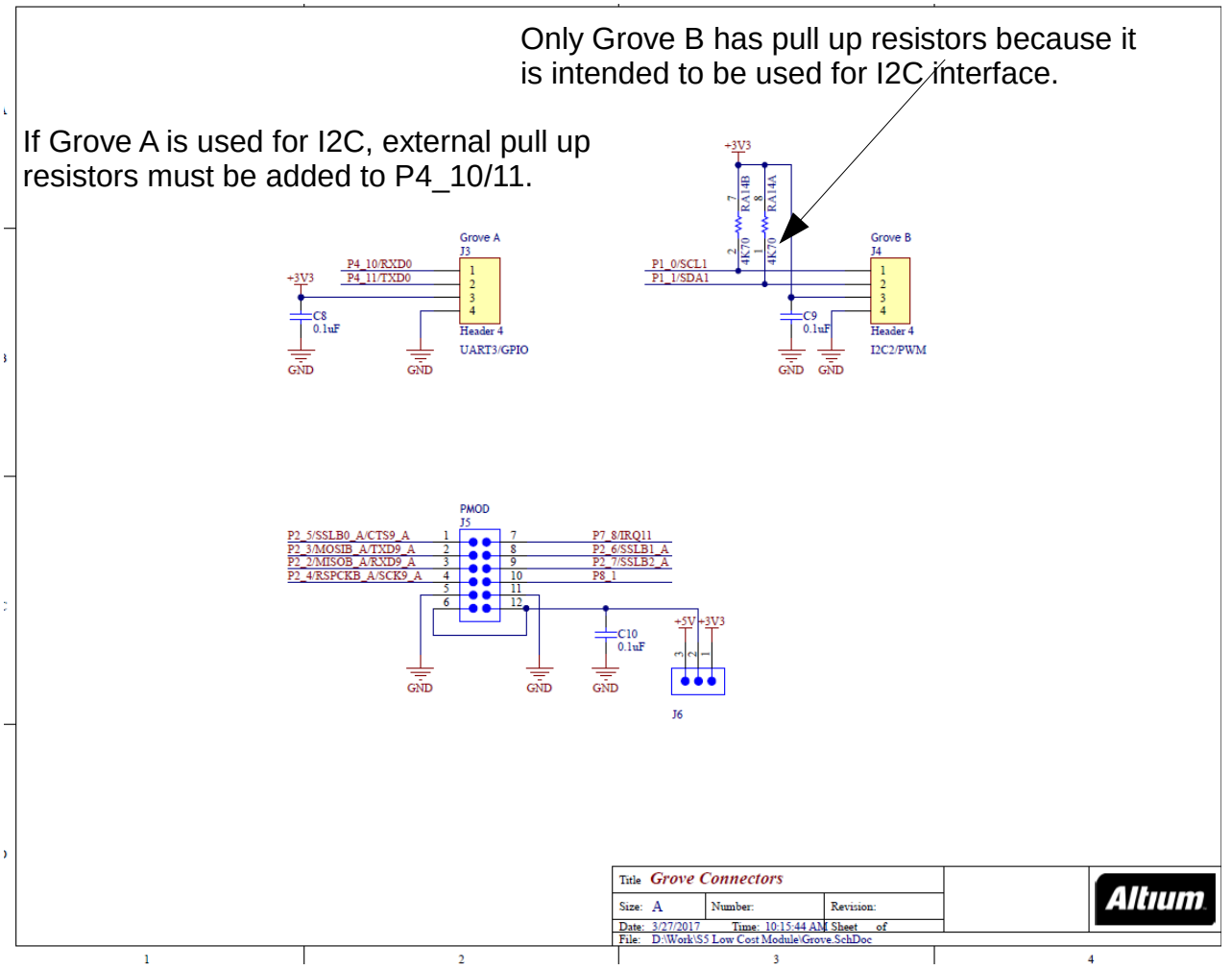
Renesas S5D9 Basic Tutorials

S5D9 Features	**Component/pin**	**Test Method**	**Project File Name**
Output toggle	LED1 (GPIO)	LED blink (loop delay)	S5D9 Lab LED pin write with loop delay
Timer	LED1 (GPIO)	LED blink (timer)	S5D9 Lab LED pin write with timer
Timer interrupt	LED1 (GPIO)	LED blink (timer interrupt)	S5D9 Lab LED pin write with timer interrupt
Input interrupt	Ext Button (GPIO)	Button Press detection	S5D9 Lab GPIO input offboard
PWM Timer	PMOD / Servo Motor	Motor shaft's position	S5D9 Lab PWM GPT Timer
Watch Dog Timer	LED1/2 (GPIO)	Automatic timed shutdown	S5D9 Lab WDT
QPI Flash Memory	Micron Flash Memory	Flash Memory read/write	S5D9 Lab QPI Flash Micron
ADC	Mic	Microphone input level	S5D9 Lab ADC MIC

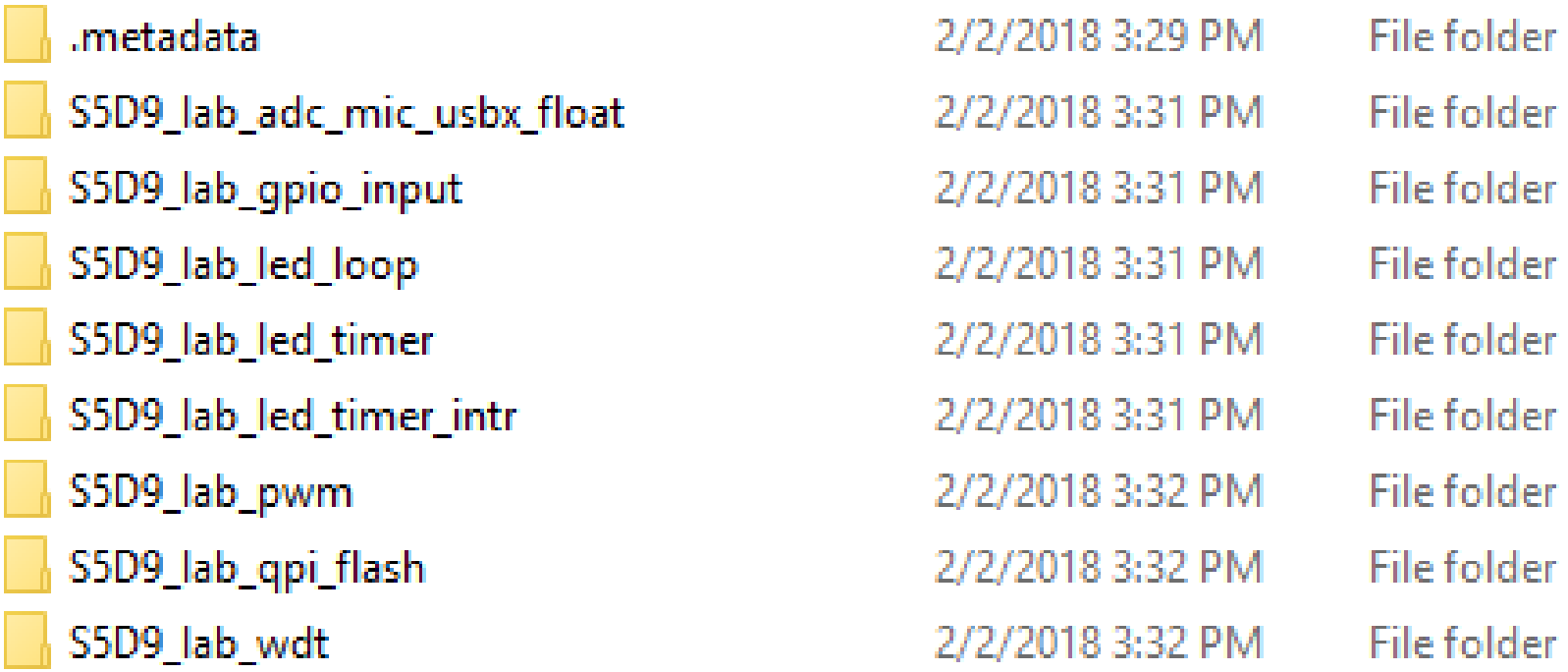
Component and Pin Location



Schematic


Only Grove B has pull up resistors because it is intended to be used for I2C interface.
If Grove A is used for I2C, external pull up resistors must be added to P4_10/11.
Grove A
J3
P4_10/RXD0
P4_11/TXD0
+3V3
C8
0.1uF
Header 4
UART3/GPIO
GND
+3V3
RA14B
RA14A
4K70
4K70
P1_0/SCL1
P1_1/SDA1
Grove B
J4
C9
0.1uF
Header 4
I2C2/PWM
PMOD
J5
P2_5/SSLB0_A/CTS9_A
P2_3/MOSIB_A/TXD9_A
P2_2/MISOB_A/RXD9_A
P2_4/RSPCKB_A/SCK9_A
P7_8/IRQ11
P2_6/SSLB1_A
P2_7/SSLB2_A
P8_1
C10
0.1uF
+5V
+3V3
J6
Title Grove Connectors
Size: A
Number:
Revision:
Date: 3/27/2017
Time: 10:15:44 AM
Sheet of
File: D:\Work\S5 Low Cost Module\Grove.SchDoc
Altium

Project Directories



Renesas Synergy Platform S5D9 IoT Fast Prototyping Kit (product page 2)

- Synergy S5D9 MCU with ARM CM4F @120MHz, 2M Flash and 640KB SDRAM
- External 256Mbits serial Nor QSPI flash for extra data and application storage
- Integrated acoustic, motion, pressure, temperature and humidity sensors
- 10/100Base-T Ethernet port for wireline connectivity to cloud
- USB 2.0 full speed as device and 5V power input
- Three colored LEDs (RED, GREEN, YELLOW)
- 10-pin JTAG connector for debug
- Two Grove expansion connectors (UART and I2C) for connectivity for additional sensors
- One PMOD expansion connector (SPI) for connectivity for additional peripherals