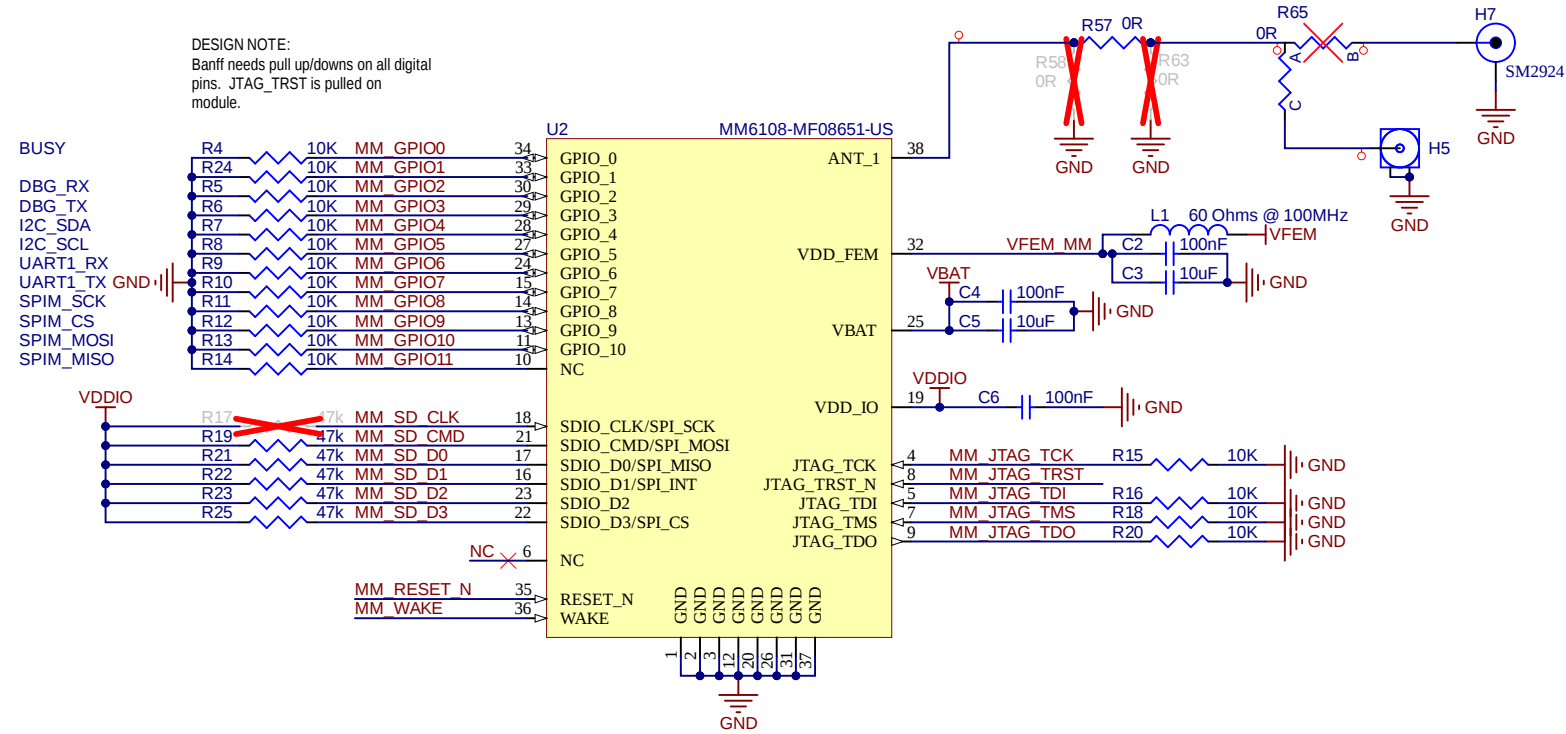
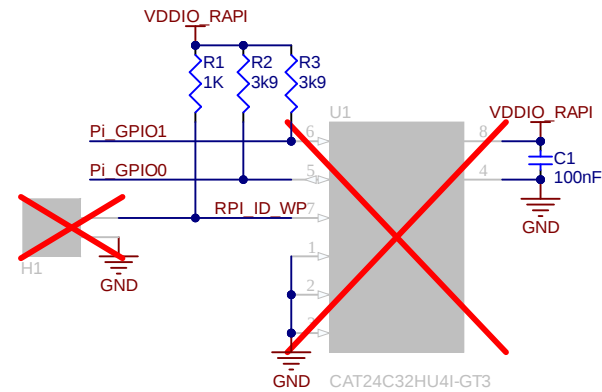


MM6108-MF08 Module



Raspberry Pi "HAT" ID

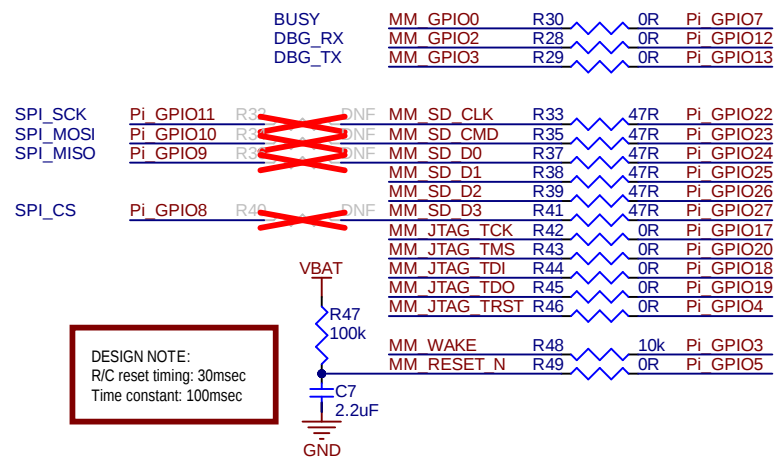


Raspberry Pi Pin Mux Options

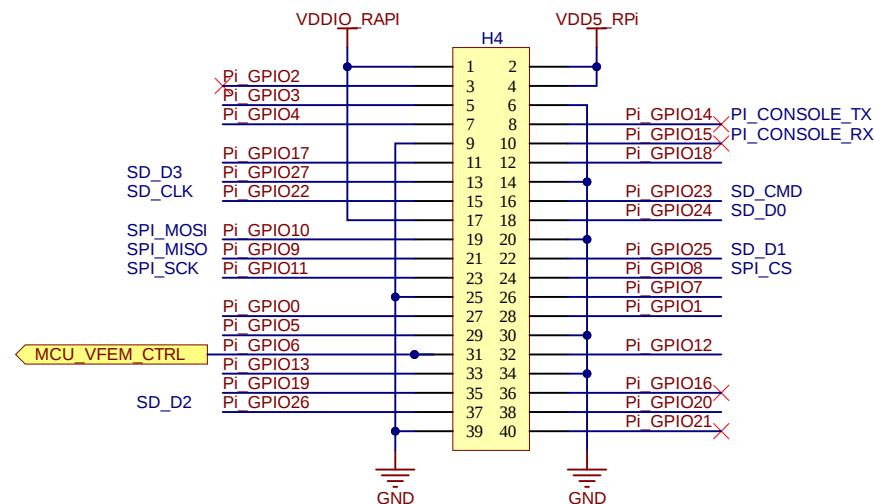
GPIO	Default Pull	ALT0	ALT1	ALT2	ALT3	ALT4	ALT5
0	High	SDA0	SA5	PCLK	SPI3_CEO_N	TXD2	SDA6
1	High	SCL0	SA4	DE	SPI3_MISO	RXD2	SCL6
2	High	SDA1	SA3	LCD_VSYNC	SPI3_MOSI	CTS2	SDA3
3	High	SCL1	SA2	LCD_HSYNC	SPI3_SCLK	RTS2	SCL3
4	High	GPCLK0	SA1	DPLD0	SPI4_CEO_N	TXD3	SDA3
5	High	GPCLK1	SA0	DPLD1	SPI4_MISO	RXD3	SCL3
6	High	GPCLK2	SOE_N	DPLD2	SPI4_MOSI	CTS3	SDA4
7	High	SPI0_CEO_N	SWE_N	DPLD3	SPI4_SCLK	RTS3	SCL4
8	High	SPI0_CEO_N	SD0	DPLD4	-	TXD4	SDA4
9	Low	SPI0_MISO	SD1	DPLD5	-	RXD4	SCL4
10	Low	SPI0_MOSI	SD2	DPLD6	-	CTS4	SDA5
11	Low	SPI0_SCLK	SD3	DPLD7	-	RTS4	SCL5
12	Low	PWM0	SD4	DPLD8	SPI5_CEO_N	TXD5	SDA5
13	Low	PWM1	SD5	DPLD9	SPI5_MISO	RXD5	SCL5
14	Low	TXD0	SD6	DPLD10	SPI5_MOSI	CTS5	TXD1
15	Low	RXD0	SD7	DPLD11	SPI5_SCLK	RTS5	RXD1
16	Low	FL0	SD8	DPLD12	CTS0	SPI1_CEO_N	CTS1
17	Low	FL1	SD9	DPLD13	RTS0	SPI1_CEO_N	RTS1
18	Low	PCMLCK	SD10	DPLD14	SPI6_CEO_N	SPI1_CEO_N	PWM0
19	Low	PCMLFS	SD11	DPLD15	SPI6_MISO	SPI1_MISO	PWM1
20	Low	PCMLDIN	SD12	DPLD16	SPI6_MOSI	SPI1_MOSI	GPCLK0
21	Low	PCMLDOUT	SD13	DPLD17	SPI6_SCLK	SPI1_SCLK	GPCLK1
22	Low	SD0_CLK	SD14	DPLD18	SD1_CLK	ARM_TRST	SDA6
23	Low	SD0_CMD	SD15	DPLD19	SD1_CMD	ARM_RTCK	SCL6
24	Low	SD0_DAT0	SD16	DPLD20	SD1_DAT0	ARM_TDO	SPI3_CEO_N
25	Low	SD0_DAT1	SD17	DPLD21	SD1_DAT1	ARM_TCK	SPI4_CEO_N
26	Low	SD0_DAT2	TE0	DPLD22	SD1_DAT2	ARM_TDI	SPI5_CEO_N
27	Low	SD0_DAT3	TE1	DPLD23	SD1_DAT3	ARM_TMS	SPI6_CEO_N

Table 5: Raspberry Pi 4 GPIO Alternate Functions

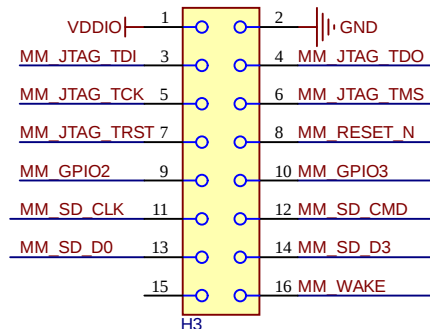
Module to Raspberry Pi Connections



Connector to Raspberry Pi



Debug Header



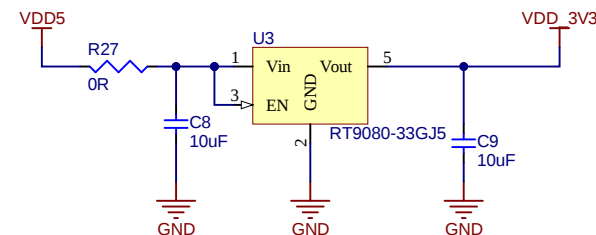
Revision History	
1.0	First Release
2.0	Updated to use a single type of 10uF cap. Fix SDIO resistor silkscreen. USB Power routing improvements.
3.0	Add jumper to short VDDIO and VDD3V3
4.0	Change to edge mount SMA connector
4.1	Remove unused parts and optimised BOM for low power
5.0	Update to 16 pin debug header and remove unsupported sensor header
6.0	Swapped voltage regulators to single RT9080-33GJ5.
7.0	Added LDO to VFEM, with voltage output selection controlled by Raspberry Pi GPIO.
8.0	Change to SM2932 edge launch SMA. Added 47 Ohm resistors to SDIO lines.
8.1	Change from SM2932 to SM2924 (Long to short SMA variant)

**Morse Micro**

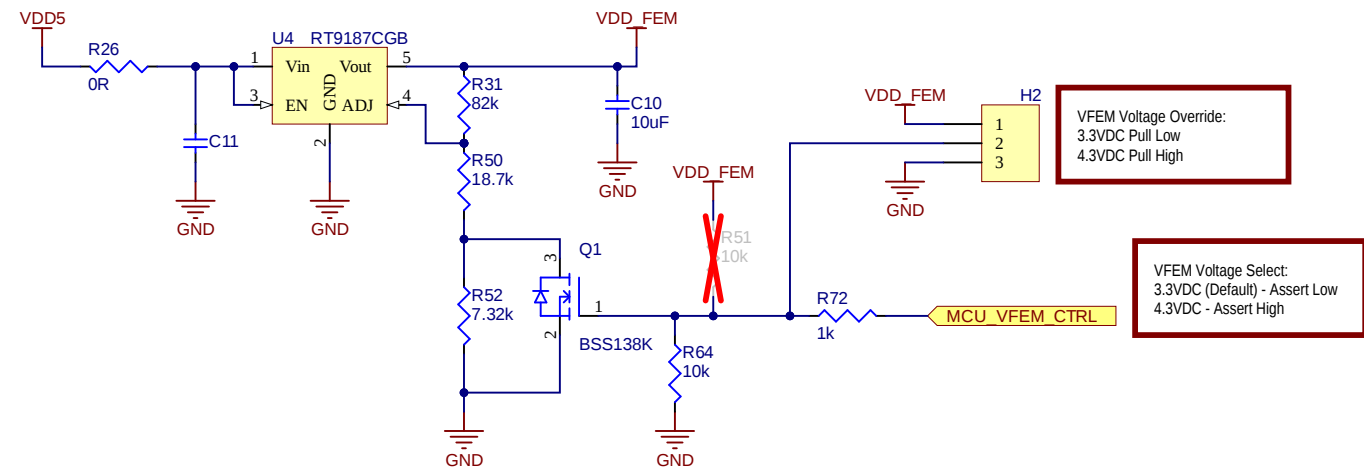
Level 8, 10-14 Waterloo Street
Surry Hills, NSW 2010
AUSTRALIA (c) Copyright 2021

Drawn: Chad	Title MMECH06 Module and Interfaces	
Checked:	PCBA No: MMECH06.PrjPcb	Size: A3
Approved:	Drawing No:	Drawing Revision: 8.1
Date Released: 20/10/2024	File: MMECH06_Module.SchDoc	Sheet 1 of 2

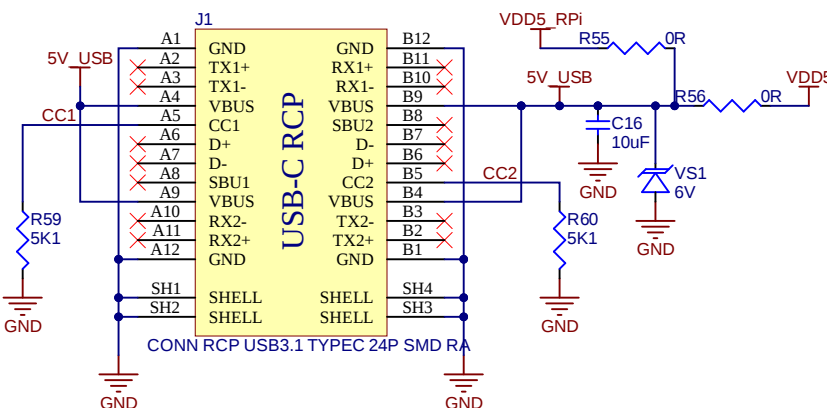
3.3V Regulator



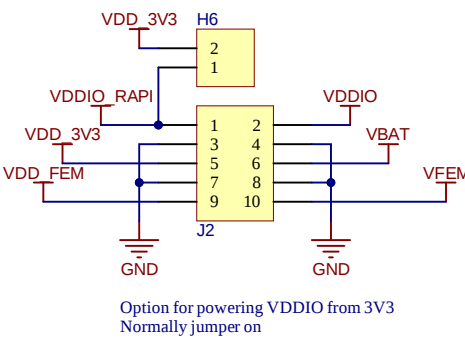
Adjustable Regulator for FEM (3.3V or 4.3V)



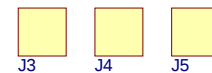
USB Type-C 5V Rated Input



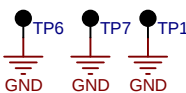
Power Select



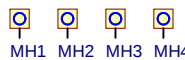
Jumper Headers



Test Points



Mouting Holes



Fiducials



Power Indication

