



KHADAS

Something a little different.

Shenzhen Wesion Technology Co., Ltd.

Project:	VIM2			
File:	Khadas			
Date:	Friday, April 12, 2019		Rev:	V14
Designed by:	Gouwa		Sheet:	1 of 10

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P01 POWER
P02 CPU & IR & KEYS
P03 DDR4
P04 EMMC
P05 Ethernet
P06 USB & SDCard
P07 WIFI & BT
P08 HDMI

MCU(U12) Usage:

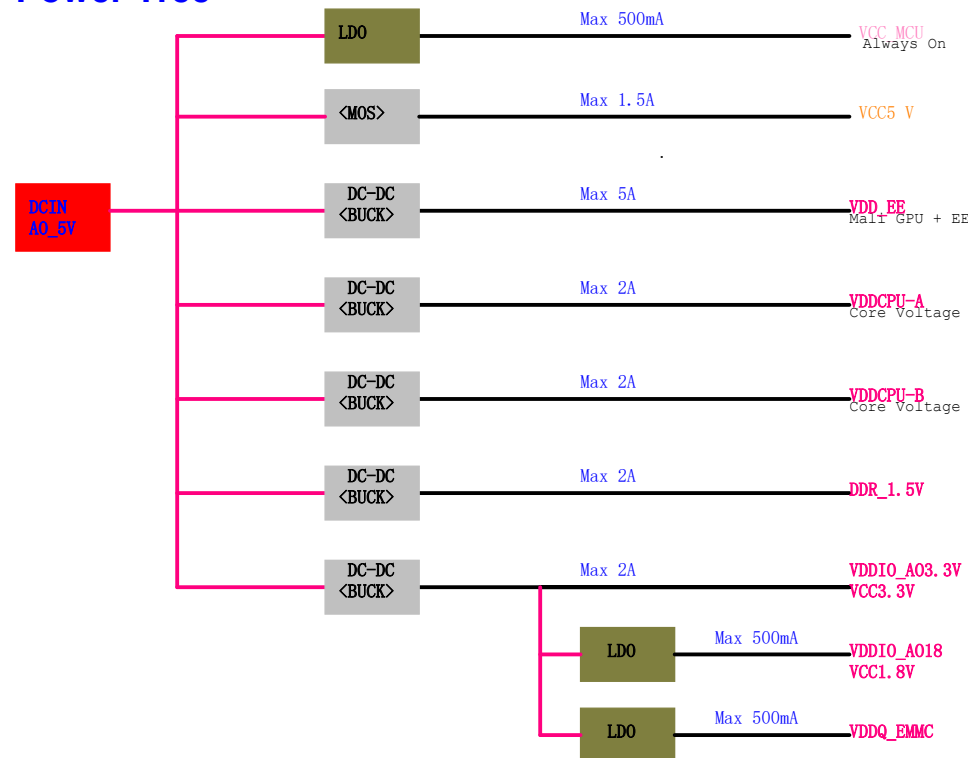
Power ON Sources:

- 1) Power Key
- 2) RTC Timer
- 3) IR Remote
- 4) WOL Events
- 5) Expand Board INT
- 6) DCIN

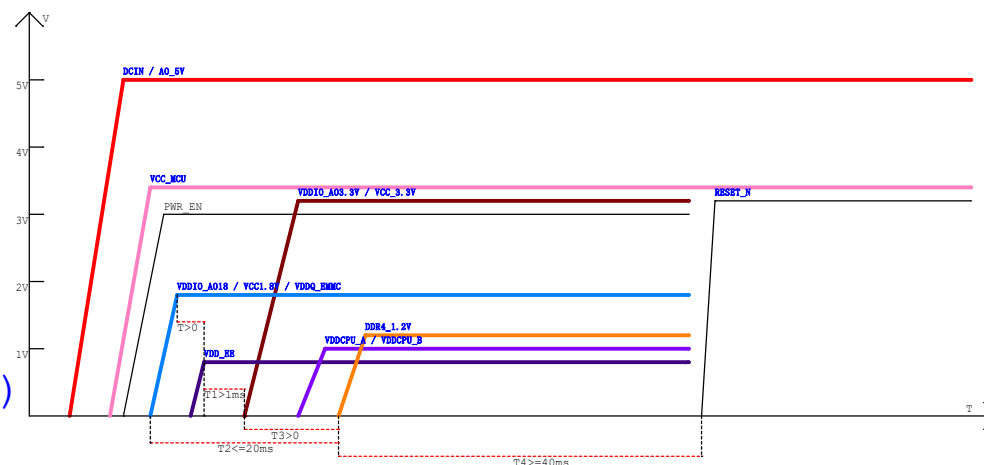
Please visit <http://docs.khadas.com>
for further details:

- 1) KBI(Khadas Bootloader Instructions)
- 2) EEPROM Usage
- 3) ADC for Expand Boards Detection
- 4) STM8S003F3

Power Tree

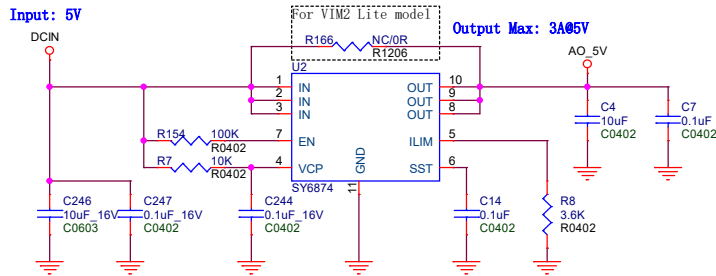


Power On Sequence :



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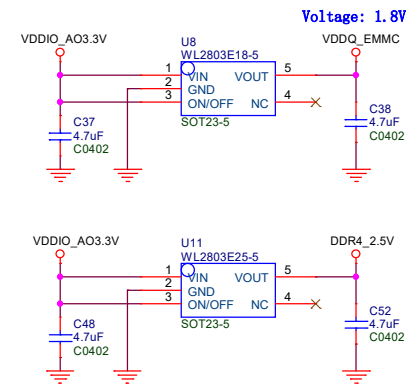
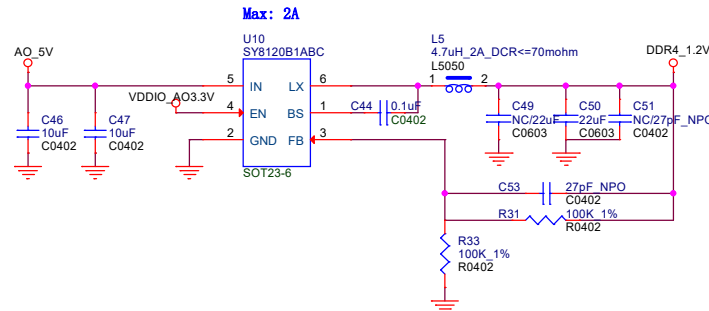
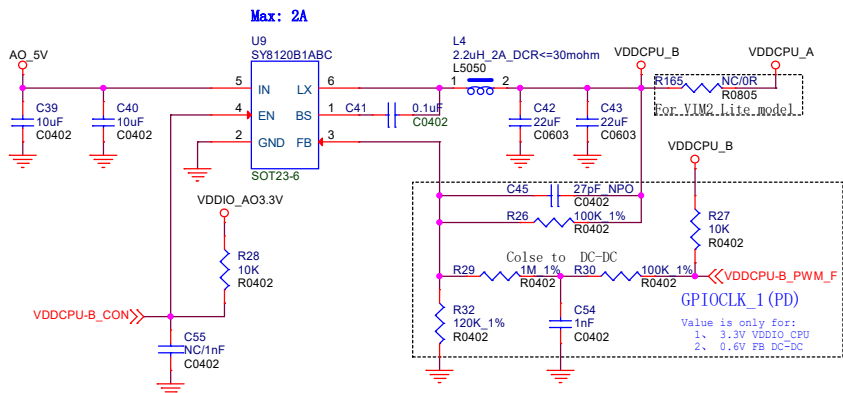
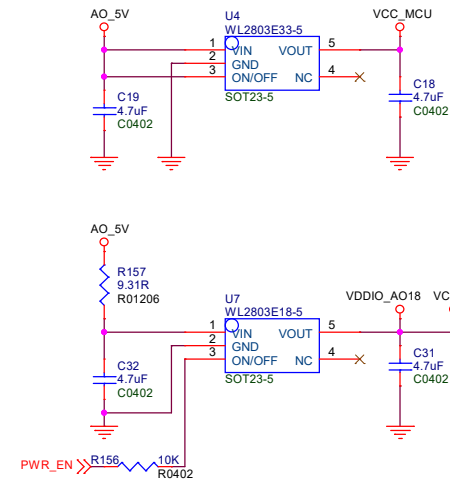
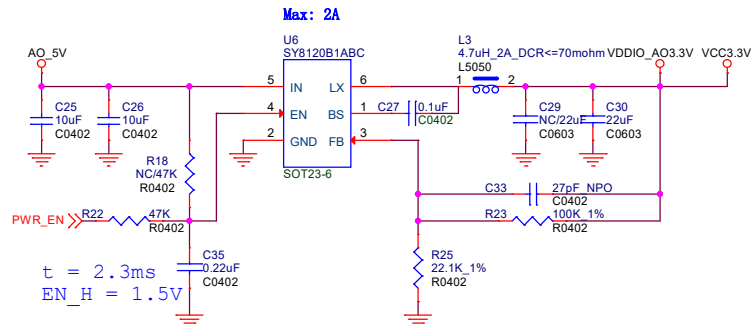
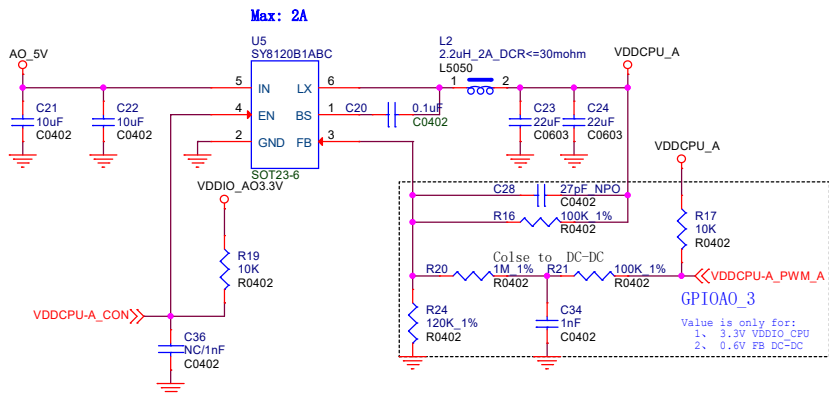
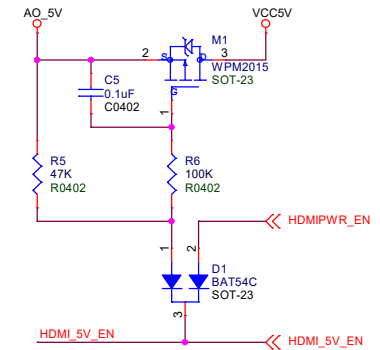
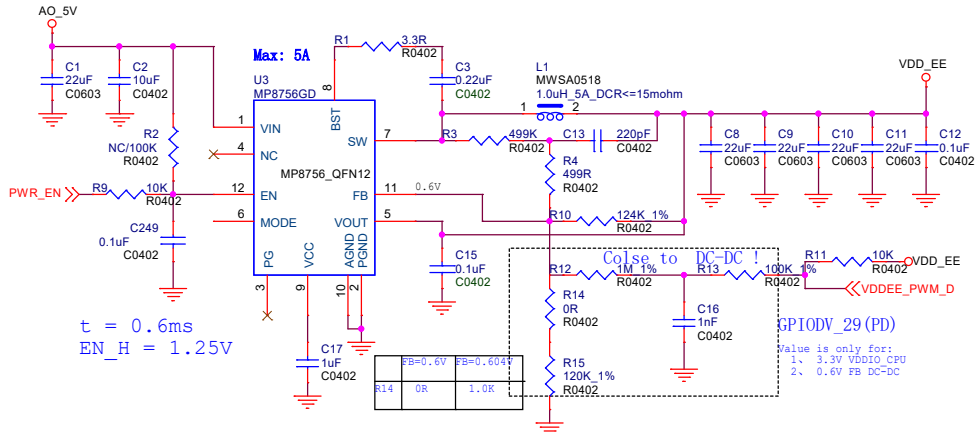
System Power Sources:
1. USB-C Connector (J9)
2. VIN Pads for Pogo Pin (J16)

Output Current Limit:
I = 11K / R8

Output Current Limit Program Table

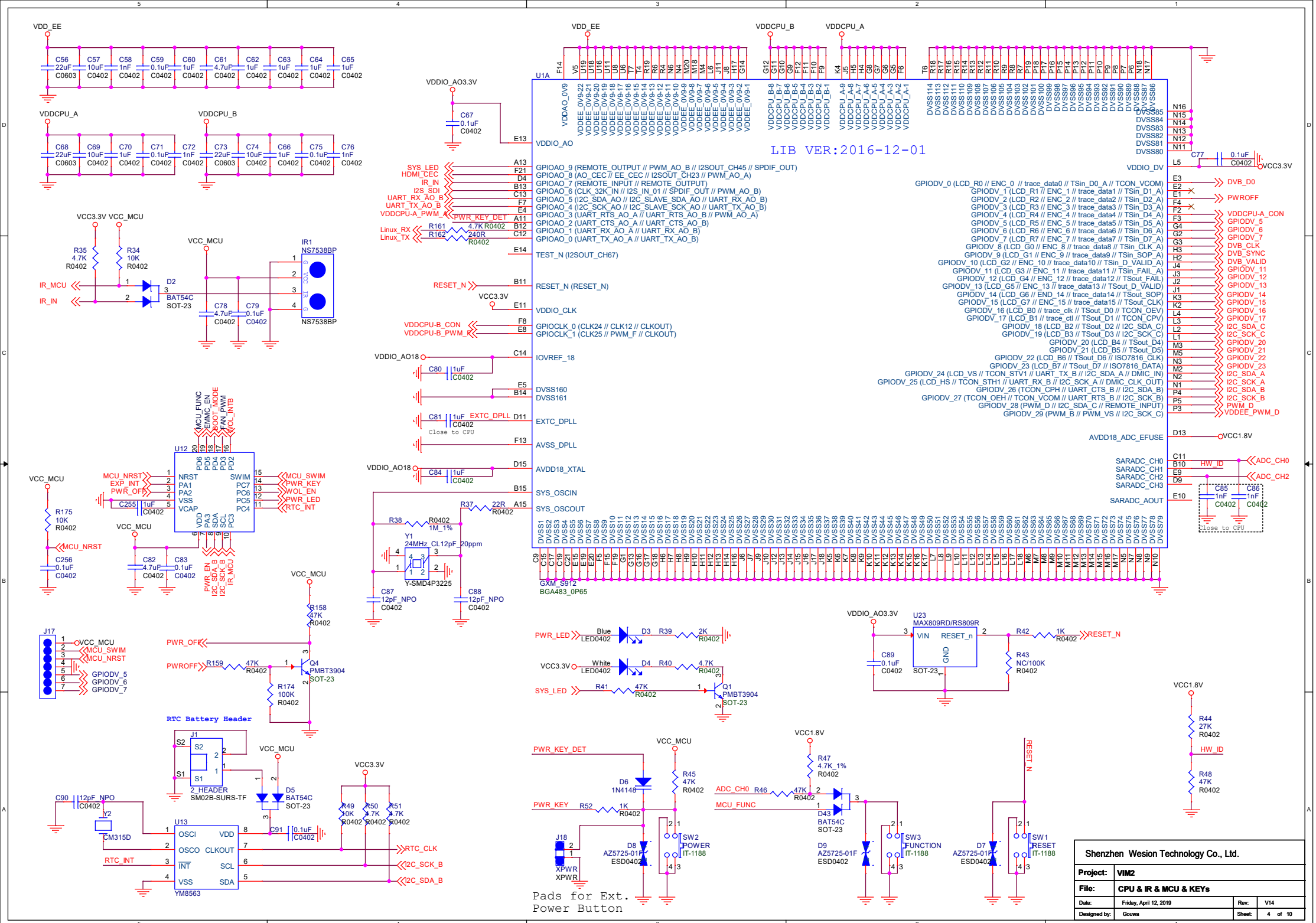
Current Limit Resistance	1.1K	1.5K	2.2K	3.3K	4.7K	6.8K	10K	15K	22K
Output Current Limit	1.0A	1.5A	2.2A	3.3A	4.7A	6.8A	10A	15A	22A

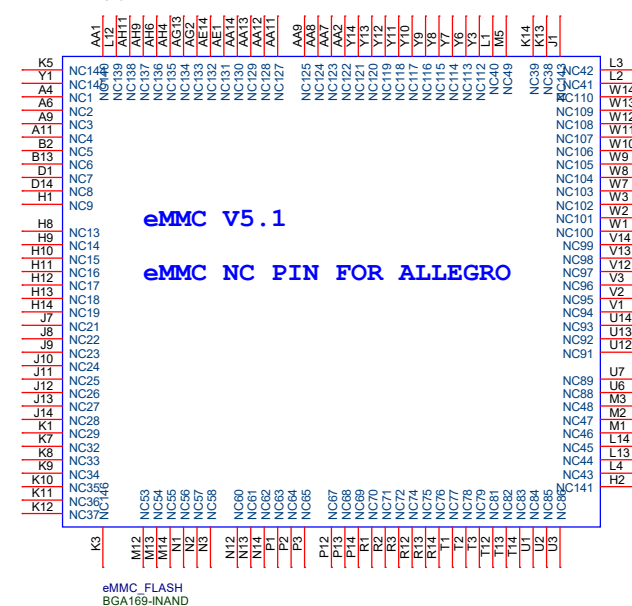
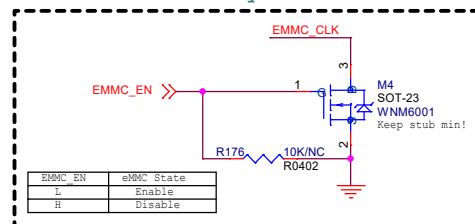
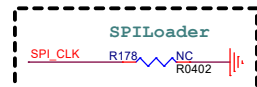
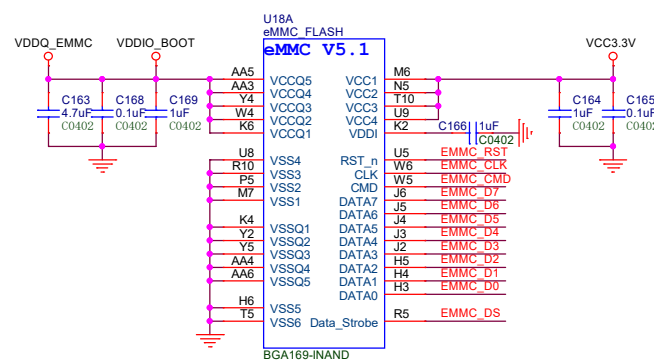
SY6874 Features:
Clamping Output Voltage Threshold
Short-circuit Protection
Thermal Shutdown Protection & Auto Recovery



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Pin 1 to 20 connection diagram for the U16 module. The diagram shows a 20-pin connector on the right with pins numbered 1 to 20. On the left, the corresponding signals are listed: DCIN (pin 1), HUB_DM3 and HUB_DP3 (pins 2-5), DVB_CLK and GPIOVD_20 (pin 6), DVB_D0 (pin 7), DVB_SYNC and DVB_VALID (pins 8-9), GPIOVD_11 and SPDIF (pins 10-11), GPIOVD_12 and EXP_INT (pins 12-13), I2C_SCK_B and I2C_SDA_B (pins 14-15), and VCC3.3V (pin 16). A U16 module is shown on the left with pins 1 to 16 connected to the signals. A ground symbol is shown at the bottom left.

Pin 1-10 connection diagram for the STM32F401ZGT6. The diagram shows a 10-pin connector with the following connections:

- Pin 1: VCC3.3V
- Pin 2: C248 (14.7uF)
- Pin 3: C4042
- Pin 4: I2C_SDA_C
- Pin 5: I2C_SCK_C
- Pin 6: EXP_INT
- Pin 7: GPIODV_16
- Pin 8: GPIODV_17
- Pin 9: VCC_MCU
- Pin 10: Ground

Pull-up $4.\overline{7}K$ first.

GPIO Header

40P H SMT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

5V 5V USB_DM USB_DP GND IO0 IO1 IO2 GND I2S_SCL I2S_MCLK I2S_SDO I2S_LRCK I2S_SDI GND PWM_IOT IO0 IO1 EXP_INT GPIODV_13

12C0_SCK 12C0_SDA 12C1_SCK 12C1_SDA 3V3 GND I2S_SCL I2S_MCLK I2S_SDO I2S_LRCK I2S_SDI GND PWM_D RTC_CLK GPIOH_5 EXP_INT GPIODV_13

AO_5V VCC1.8V VCC3.3V VCC3.3V

C173 10uF C0402 C174 0.1uF C0402 C177 0.1uF C178 22uF C0603 C180 22uF C0603 C181 0.1uF C0402

HUB_DM1 HUB_DP1 GPIODV_21 GPIODV_22 GPIODV_23 ADC_CH0 ADC_CH2 SPDIF UART_RX_AO_B UART_TX_AO_B Linux_RX Linux_TX

R73 4.7K R74 4.7K R0402

CHANGES

PTN	VTM	VIM2
VCC5V	GPIOV_21	

CHANGES

PIN	VIM	VIM2
6	VCC5V	GPIOV_2
7	HUB_DM2	GPIOV_2
8	HUB_DP2	GPIOV_2
11	GND	VCC1V8
38	PWR_EN	EXP_INT
39	PWM_F	GPIOV_1

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