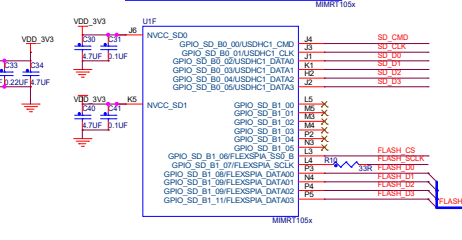
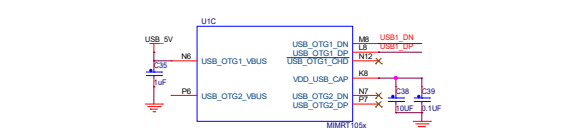
[illegible]

SWD_Debug

[illegible]

The circuit diagram, titled "Power", illustrates the power supply stage of a USB-to-serial adapter. A USB Micro connector provides input signals: D+ (pin 1), D- (pin 2), VBUS (pin 3), and GND (pins 4 and 5). The D+ signal is connected to pin 4 through resistor R5 (0Ω), which also connects to the USB_OTG1_ID pin of the microcontroller. The D- signal is connected to pin 3 through resistor R6 (0Ω), which also connects to the USB1_DP pin. The VBUS signal is connected to pin 2 through resistor R12 (0Ω), which also connects to the USB1_DN pin. The GND pins are connected to ground. A transformer FB2 (330 OHM) steps up the VBUS voltage. Its secondary winding is connected to a bridge rectifier U3 (SP9038AHIT) via pin 1. The rectifier's output is connected to a voltage doubler consisting of capacitors C1 (10μF) and C2 (1μF) in series, with resistors R7 (250Ω) and R8 (249Ω) forming a divider. This network produces a 5V rail (RAW_5V) and a 2V rail (T2). The 5V rail powers the DC-DC converter U2 (PMEC0200CT) and the microcontroller's VDD_3V3 pin. The 2V rail is used as feedback for the DC-DC converter. The DC-DC converter's output (pin 3) is connected to the IN pin of the LVT111LV330CT voltage regulator U1. The regulator's TAB_VOLT pin (pin 4) is connected to the 5V rail through resistor R9 (1k) and to ground through capacitor C3 (10μF). The regulator's GND pin (pin 1) is connected to ground through capacitor C4 (10μF).

[illegible][illegible]

The diagram illustrates the USB interface circuit for the USB-10403-10811 module. It features a USB connector (J5) connected to a microcontroller (U1) and a USB-to-UART bridge (U2). The microcontroller is connected to the bridge via I2C (SDA, SCL) and UART (TX, RX) lines. The bridge is connected to a USB connector (J6) and a USB-to-UART bridge (U3). The microcontroller is also connected to a USB connector (J7) and a USB-to-UART bridge (U4).

Sensor MPU9250

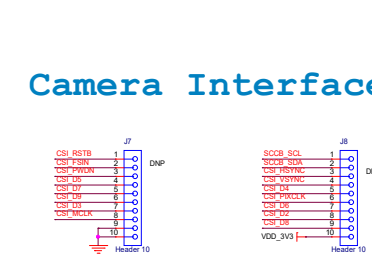
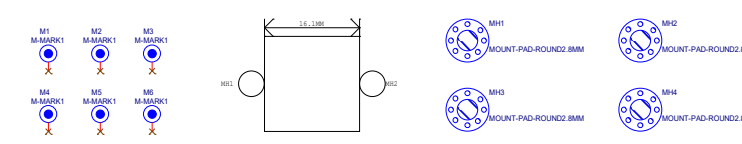


Figure 1 shows the pin connections for the J7 and J8 headers. The J7 header (left) has 10 pins: CSI_RSTB (1), CSI_PWDN (2), CSI_D5 (4), CSI_D7 (5), CSI_D8 (6), CSI_D6 (7), VDD_WKUP (8), and pins 9 and 10 are connected to ground. The J8 header (right) has 10 pins: SC0B_SCL (1), SC0B_SDA (2), CSI_RSTB_NC (3), CSI_VSYNCL (4), CSI_D4 (5), CSI_PWDLL (6), CSI_D6 (7), CSI_D8 (8), CSI_D5 (9), and VDD_3V3 (10).



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Date:	Thursday, June 14, 2018		Sheet	1	of 2

- v1.8修改
- 1.在RT的M7引脚处加上了复位按钮
 - 2.USB的ID与RT相连
 - 3.取消了schottky二极管
 - 4.USB与GND之间加了330OHM磁珠
 - 5.由于RST_B的上拉电阻之前画了两个，去掉了一个
 - 6.RT引脚名字做了修改，添上了所用引脚的功能名
 - 7.防止上电后引脚各电平不一样，FLASH四根数据线均加上了上拉电阻
 - 8.修改了部分网标名字，方便理解
 - 9.添加R10 R15 R16 R17 R18匹配电阻
 - 10.R23改为0ohm
 - 11.flash,camera的总线使用了总线符号
 - 12.电解电容footprint改为Radial Can - SMD
 - 13.LDO改为TI公司的TLV1117LV33DCYR
 - 14.没有miniSD卡卡槽，改为了microSD卡卡槽
 - 15.增加了一个2.54MM的电源插座
 - 16.增加了摄像头插头，间距1.27MM
 - 17.增加了mark点和螺丝孔

张诗婧