

LED's

R2 4.7K, 1% USART3_RX

R5 4.7K, 1% USART3_TX

R6 1K, 1% GND

BOOT1

VDD

R4 4.7K, 1%

TEST

J1 JMP-2PIN

GND



The diagram shows a 10K potentiometer (R7) connected to VDD, GND, and a SELECT line. The potentiometer is labeled SW2 and SW-BOURNS-7914S. The wiper is connected to the SELECT line.

3.3V TTL Levels

CN11 HDR100-3

USART3_TX

USART3_RX

GND

1
2
3

The diagram shows a 5V to 3.3V DC-DC converter. The input is 5V, connected to the VIN pin of the LD3985M33R. A 1uF capacitor (C6) is connected between the input and ground. The INH pin is connected to ground. The GND pin is connected to ground. The BYPASS pin is connected to ground through a 10nF capacitor (C8). The VOUT pin is connected to the output, which is a 3.3V line. A 100nF capacitor (C4) is connected between the output and ground. A 1uF capacitor (C5) is connected between the output and ground. The output is connected to a 3.3V LED (LED5) through a 1k resistor (R17). The LED is labeled LED-RED, V.

The schematic diagram illustrates the USB interface circuit for the EMIF02-USB03F2 module. The circuit is powered by VDD and GND. A USB-to-UART bridge IC (U3, STMP2141) is connected to the USB interface. The USB signals are connected to the DM, DP, ID, and GND pins of the connector. The UART signals are connected to the D+, D-, D+, and D- pins of the connector. Key components include resistors R24, R25, R26, R27, R28, R30, and capacitors C9 and C10.

Components and Connections:

- U3 (STMP2141):** USB-to-UART bridge IC.
 - IN (5) connected to +5V.
 - EN (4) connected to GND.
 - OUT (1) connected to VDD.
 - FAULT (3) connected to GND.
 - GND (2) connected to GND.
- U4 (EMIF02-USB03F2):** USB-to-serial IC.
 - VBUS (B3) connected to VBUS.
 - D+ (C3) connected to DM.
 - D- (D3) connected to DP.
 - D+ (A3) connected to ID.
 - D- (C1) connected to GND.
 - D+ (D1) connected to GND.
 - D- (D2) connected to GND.
 - D+ (B1) connected to GND.
 - D- (C2) connected to GND.
 - GND connected to GND.
- Resistors:**
 - R24 (47K, 1%) connected between VDD and OUT (1) of U3.
 - R25 (10K, 1%) connected between +5V and IN (5) of U3.
 - R26 (0 Ohm) connected between OTG_PWR_ON and EN (4) of U3.
 - R27 (22, 1%) connected between VBUS and D+ (C3) of U4.
 - R28 (22, 1%) connected between DM and D- (D3) of U4.
 - R30 (0 Ohm) connected between DP and D+ (A3) of U4.
- Capacitors:**
 - C9 (4.7uF, 16V, TANT) connected between VDD and GND.
 - C10 (100nF) connected between VDD and GND.
- Connector (CN2):** Molex Mini-B-SMT connector.
 - 1: VBUS
 - 2: DM
 - 3: DP
 - 4: ID
 - 5: GND
 - 6: SHIELD1
 - 7: SHIELD2
 - 8: SHIELD3
 - 9: SHIELD4

Note: All non-polarized capacitors packages are 0603 unless otherwise noted.
Note: All resistor packages are 0603 unless otherwise noted.

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TITLE: SmartMic Circuit Board

REV:
C

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