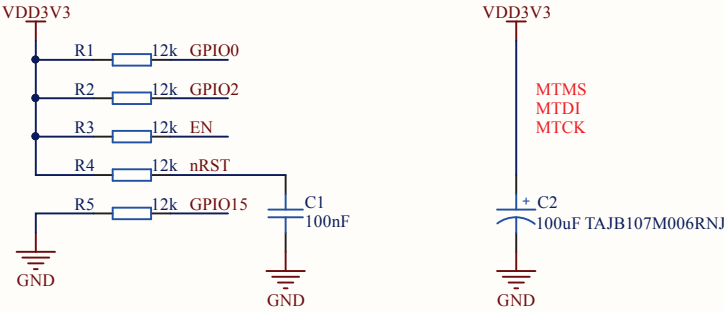


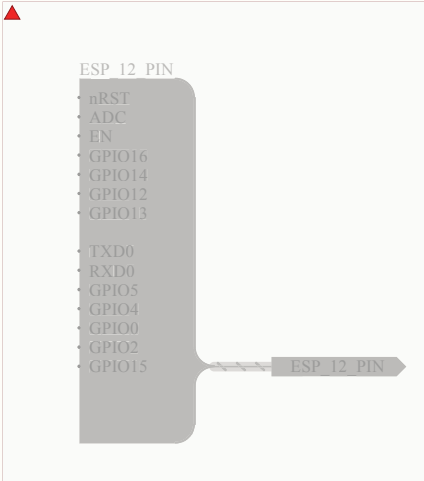
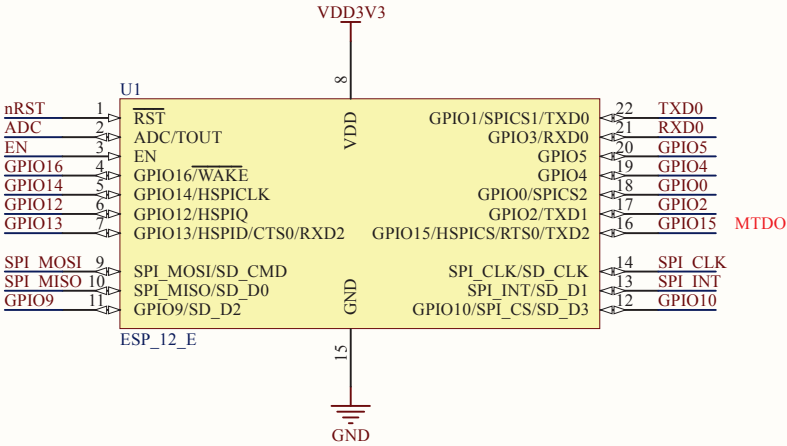
NODE MCU DEVKIT V1.0


| | | |
|---|------------------------|-------------------|
|  | VER | DATE |
| | <i>1.0</i> | <i>25/01/2015</i> |
| | ORGANIZATION | |
| | <i>NODE MCU TEAM</i> | |
| | WEBSITE | |
| | <i>WWW.NODEMCU.COM</i> | |

ESP-12 CORE

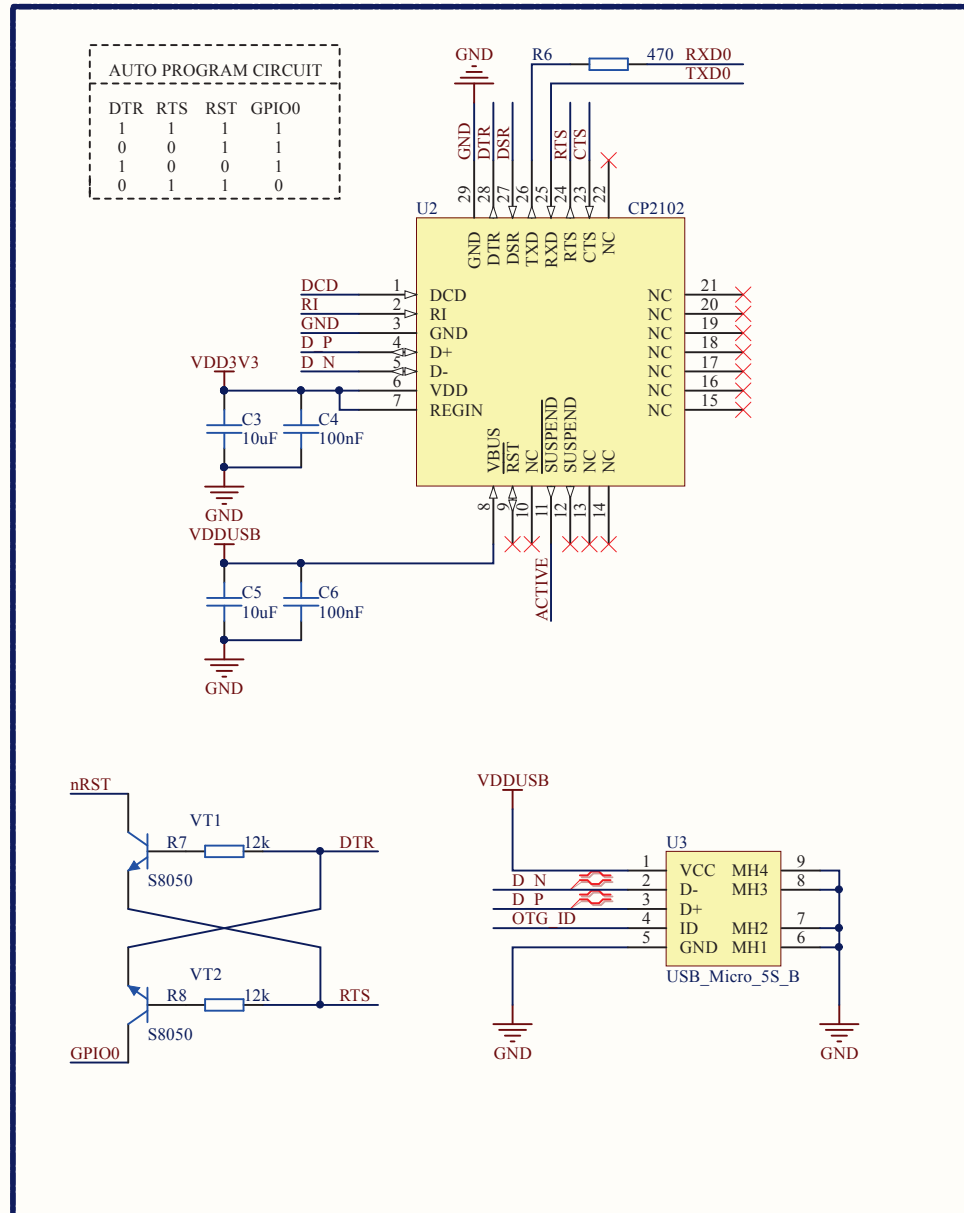



MATTERS NEEDING ATTENTION
On every boot/reset/wakeup,
GPIO15 MUST keep LOW, GPIO2 MUST keep HIGH.
GPIO0 HIGH -> RUN MODE, LOW -> FLASH MODE.
When you need to use the sleep mode, GPIO16 and RST should be connected,
and GPIO16 will output LOW to reset the system at the time of wakeup.



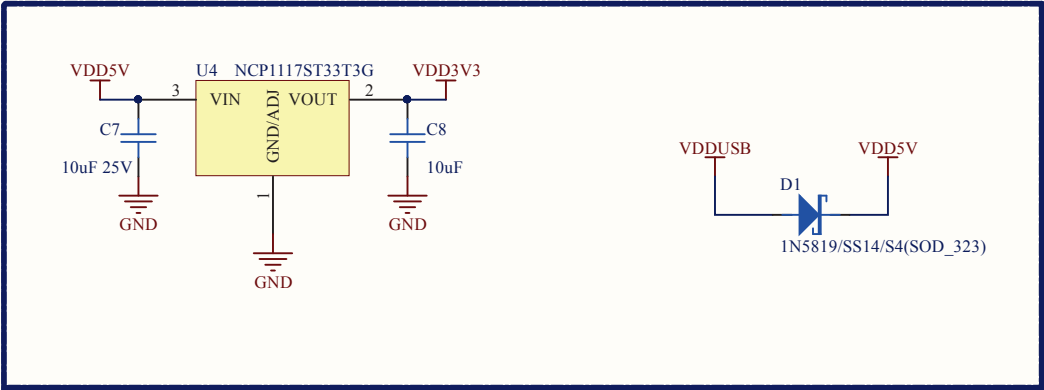
| | | |
|---|---------------------|-------------|
|  | VER | DATE |
| | 1.0 | 20/11/2014 |
| | ORGANIZATION | |
| | NODE MCU TEAM | |
| | WEBSITE | |
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USB TO UART



| | | |
|---|---------------------|-------------|
|  | VER | DATE |
| | 0.9 | 20/11/2014 |
| | ORGANIZATION | |
| | NODE MCU TEAM | |
| WEBSITE | | |
| WWW.NODEMCU.COM | | |

POWER



Working Output: 3.3V 800mA
Working Current Limit: 1000mA
Max Current: 1000mA
Max Supply Voltage: 20V
Voltage Dropout: 1.2V@800mA


| | | |
|--|---------------------|-----------------|
| | VER | DATE |
| | 1.0 | 28/01/2015 |
| | ORGANIZATION | |
| | NODE MCU TEAM | |
| | WEBSITE | |
| | | WWW.NODEMCU.COM |

IO CONN

| J1 | | | J2 | | | | | |
|--------|----------|-----|-------|----|--------|--------|---------|--------|
| ADC EX | A0 | 1 | PIN1 | 1 | D0 | GPIO16 | | |
| ADC | | 2 | PIN2 | 2 | D1 | GPIO5 | | |
| RESV | | 3 | PIN3 | 3 | D2 | GPIO4 | | |
| SD D3 | GPIO10 | D12 | PIN4 | 4 | D3 | GPIO0 | | |
| SD D2 | GPIO9 | D11 | PIN5 | 5 | D4 | GPIO2 | TXD1 | |
| SD D1 | SPI INT | 6 | PIN6 | 6 | VDD3V3 | | | |
| SD CMD | SPI MOSI | 7 | PIN7 | 7 | GND | | | |
| SD D0 | SPI MISO | 8 | PIN8 | 8 | D5 | GPIO14 | HSPICLK | |
| SD CLK | SPI CLK | 9 | PIN9 | 9 | D6 | GPIO12 | HSPIQ | |
| GND | | 10 | PIN10 | 10 | D7 | GPIO13 | RXD2 | HSPID |
| VDD3V3 | | 11 | PIN11 | 11 | D8 | GPIO15 | TXD2 | HSPICS |
| EN | | 12 | PIN12 | 12 | D9 | RXD0 | GPIO3 | |
| nRST | | 13 | PIN13 | 13 | D10 | TXD0 | GPIO1 | |
| GND | | 14 | PIN14 | 14 | GND | | | |
| VDD5V | | 15 | PIN15 | 15 | VDD3V3 | | | |

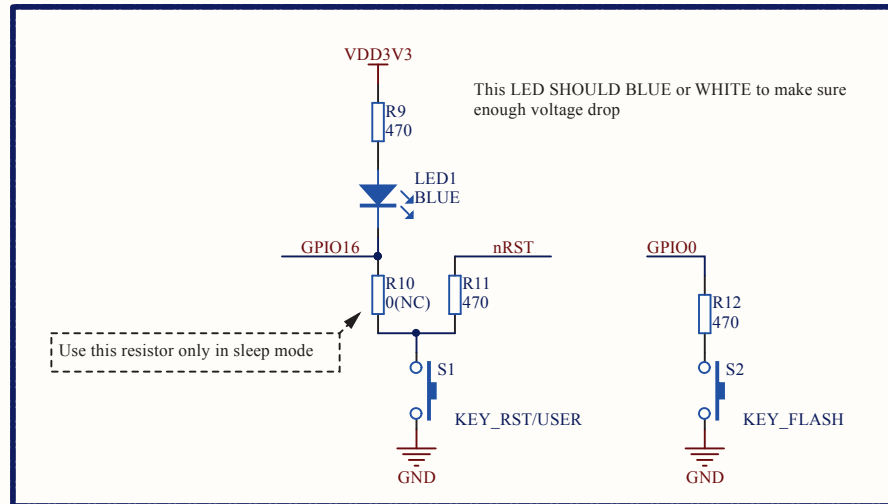
THT_Male_P_1x15

THT_Male_P_1x15



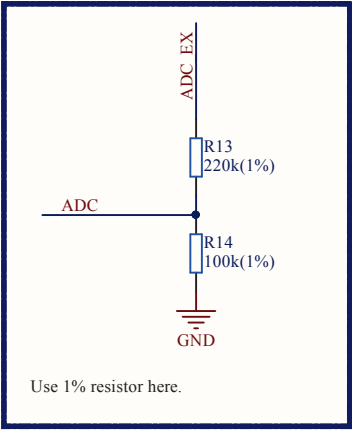
| VER | DATE |
|-----------------|------------|
| 0.9 | 20/11/2014 |
| ORGANIZATION | |
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| WWW.NODEMCU.COM | |

KEY

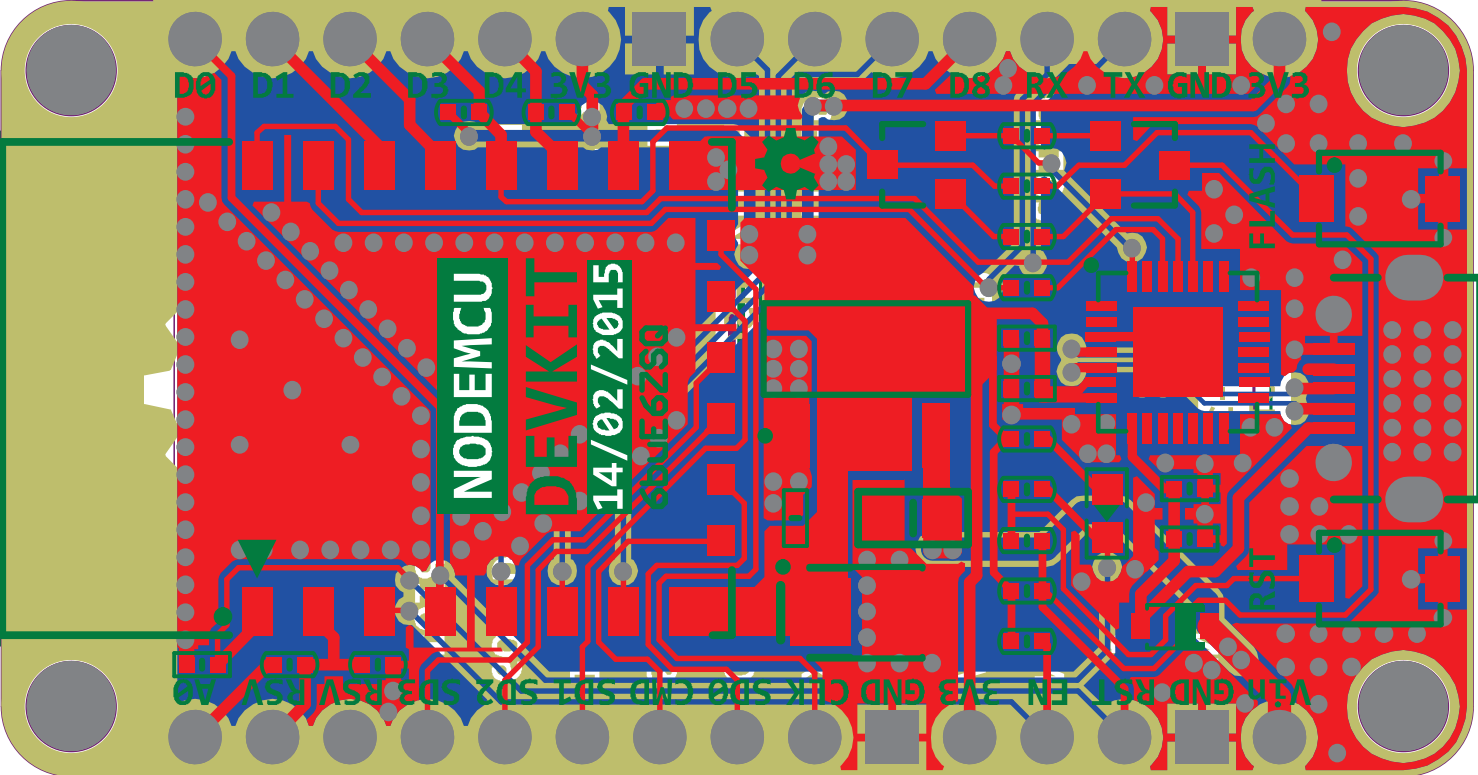


|  | VER | DATE |
|---|-----------------|------------|
| | 0.9 | 20/11/2014 |
| | ORGANIZATION | |
| | NODE MCU TEAM | |
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ADC



|  | VER | DATE |
|---|--------------|-----------------|
| | 0.9 | 20/11/2014 |
| | ORGANIZATION | NODE MCU TEAM |
| | WEBSITE | WWW.NODEMCU.COM |



2.5400x4.8260cm

Bill of Materials

NODE MCU DEVKIT V1.0

Source Data From: NODEMCU_DEVKIT_V1.0.PrjPCB
Project: NODEMCU_DEVKIT_V1.0.PrjPCB
Variant: None

Creation Date: 2015/5/14 12:28:09
Print Date: 14-May-15 12:28:30 PM

| Footprint | Comment | LibRef | Designator | Description | Quantity |
|------------------------|-----------------------------|----------------------------|----------------------------|--|----------|
| SMT_C_0402 | 100nF | SMT_C_0402 | C1, C4, C6 | Surface mount capacitor 0402 | 3 |
| SMT_C_Tantalum_B | 100uF TAJB107M006R NJ | SMT_C_Tantalum_B | C2 | Capacitor, SM Tantalum; Body 3.5 x 2.8 mm (LxW typ) | 1 |
| SMT_C_0402 | 10uF | SMT_C_0402 | C3, C5, C8 | Surface mount capacitor 0402 | 3 |
| SMT_C_0805 | 10uF 25V | SMT_C_0805 | C7 | Surface mount capacitor 0805 | 1 |
| SMT_DIODE_SOD_323 | 1N5819/SS14/S 4(SOD_323) | SMT_DIODE_SCHOTTKY_SOD_323 | D1 | Surface mount schottky diode SOD-323(0805) Package | 1 |
| THT_Male_P_1x15-2.54mm | THT_Male_P_1x15 | THT_Male_P_1x15 | J1, J2 | THT Male pin header strip 1x15 | 2 |
| SMT_LED_0603 | BLUE | SMT_LED_0603 | LED1 | SMT LED | 1 |
| SMT_R_0402 | 12k | SMT_R_0402 | R1, R2, R3, R4, R5, R7, R8 | Surface mount resistor 0402 | 7 |
| SMT_R_0402 | 470 | SMT_R_0402 | R6, R9, R11, R12 | Surface mount resistor 0402 | 4 |
| SMT_R_0402 | 0(NC) | SMT_R_0402 | R10 | Surface mount resistor 0402 | 1 |
| SMT_R_0402 | 220k(1%) | SMT_R_0402 | R13 | Surface mount resistor 0402 | 1 |
| SMT_R_0402 | 100k(1%) | SMT_R_0402 | R14 | Surface mount resistor 0402 | 1 |
| SMT_SW_PTS_820 | KEY_RST/USER | SMT_SW_PTS_820 | S1 | SMT Tactile ?Switch PTS 820 Series | 1 |
| SMT_SW_PTS_820 | KEY_FLASH | SMT_SW_PTS_820 | S2 | SMT Tactile ?Switch PTS 820 Series | 1 |
| ESP_12_E_LCP2102 | ESP_12_E CP2102 | ESP_12_E CP2102 | U1 | ESP-12 Wi-Fi Module by AI-Thinker | 1 |
| USB_MICRO_5S_B | USB_Micro_5S_B | USB_Micro_5S_B | U2 | CP2102 | 1 |
| SOT-223 | USB_Micro_5S_B | USB_Micro_5S_B | U3 | USB micro female SMT with 4 fixed foot | 1 |
| | NCP1117ST33T3G | NCP1117 | U4 | USB micro female SMT with 4 fixed foot | 1 |
| SMT_TRIODE_NPN | S8050 | SMT_TRIODE_NPN | VT1, VT2 | NCP1117, NCV1117. 1.0 A Low-Dropout Positive Fixed and Adjustable Voltage Regulators | 1 |
| | | | | Surface mount NPN transistor, package SOT-23 | 2 |
| | | | | | 34 |

| Approved | Notes |
|----------|-------|
| | |
| | |
| | |