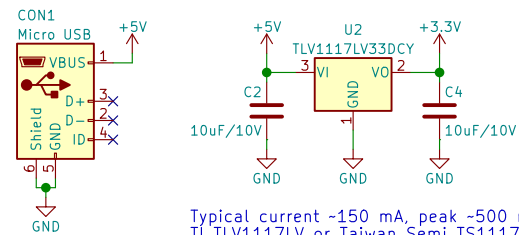


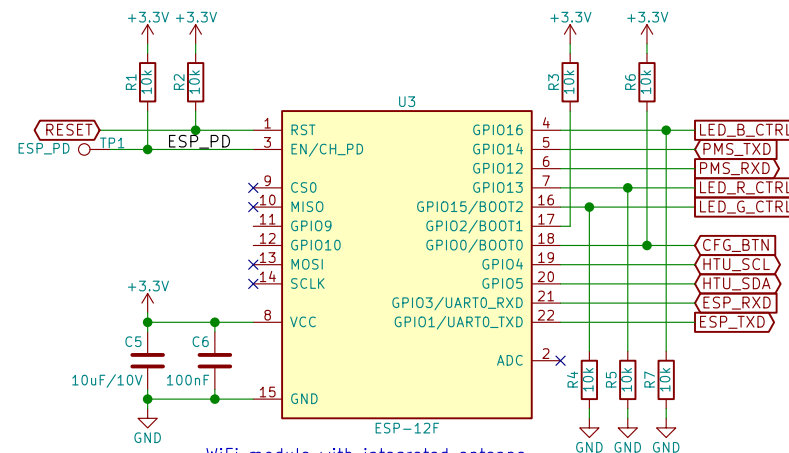
Power supply

Default power supply input – micro USB charger.
500mA minimum.



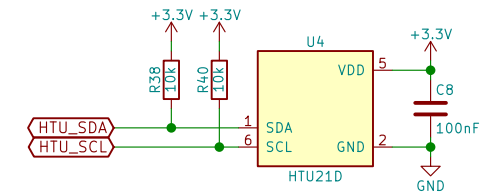
Typical current ~150 mA, peak ~500 mA.
TI TLV1117LV or Taiwan Semi TS1117B can be used.
ST LD1117, ON Semi NCP1117 can be unstable
with ceramic capacitor!

WiFi/processing module

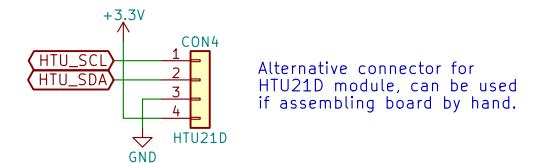


WiFi module with integrated antenna.
Improved version of ESP-12E.
Typical current ~50mA, peak >400mA

Humidity and temperature sensor

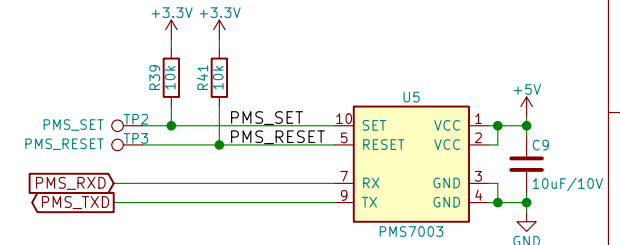


HTU21D, HDC1080, SI7020 can be used.
According to datasheet, central pad
should be left floating.
Current consumption negligible.

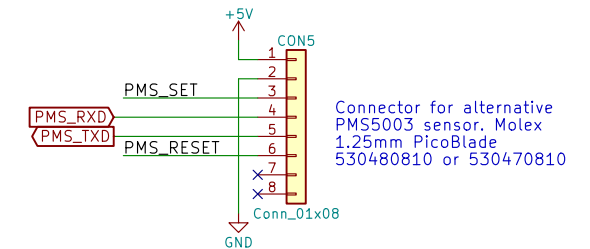


Alternative connector for
HTU21D module, can be used
if assembling board by hand.

Particulate matter sensor



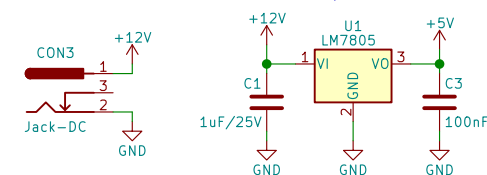
Laser particulate matter sensor.
Max. current 100 mA.



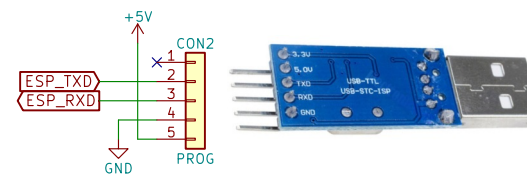
Connector for alternative
PMS5003 sensor. Molex
1.25mm PicoBlade
530480810 or 530470810

Optional power supply input

Optional power supply input – 2.1x5.5 DC barrel jack.
Jack and LM7805 is not installed by default.

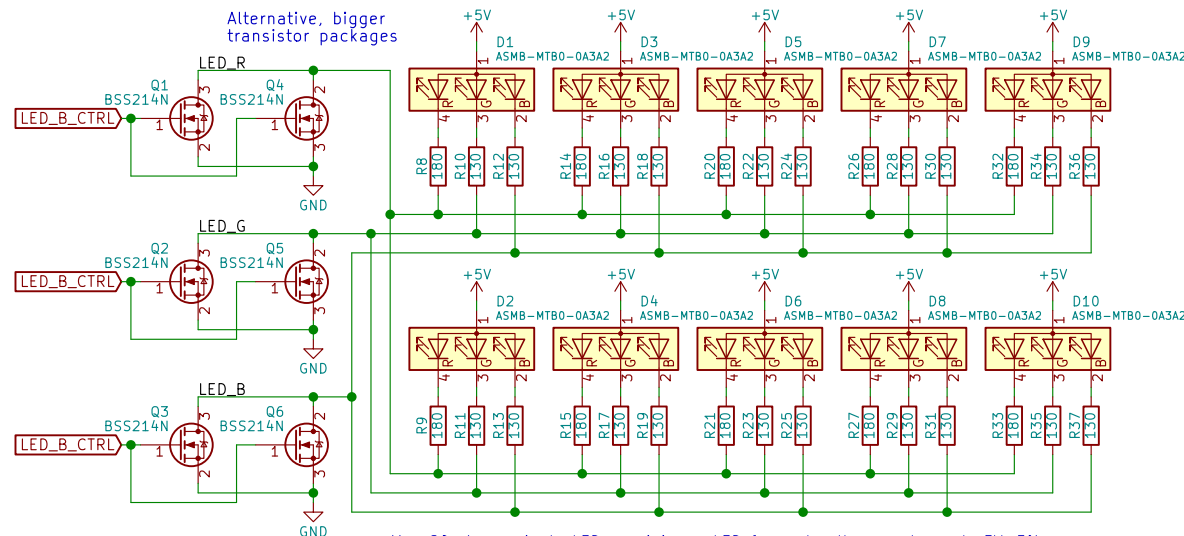


Programming connector



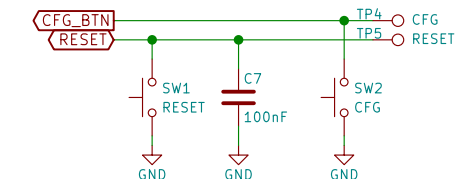
Programming connector – UART to USB adapter.
To enter programming mode, hold CFG button
and press RESET button.

LEDs



Max 20mA per single LED @ minimum LED forward voltage and supply 5V+5%.
Max. total current 200mA for one color, 600mA for all total on, but software
limited to 200mA max.

Buttons



Less-Smog

Sheet: /
File: sensor.sch

Title: ESP8266 Air Quality Sensor

Size: User
KiCad E.D.A. kicad 4.0.7

Date:

Rev:
Id: 1/1