http://git.rot13.org/?p=air-quality;a=blob;f=pms3003.pl;hb=HEAD

PMS3003 series data manual_English_V2.5.pdf

http://www.plantower.com/en/content/?107.html

http://aqicn.org/sensor/pms3003/

https://github.com/avaldebe/AQmon/blob/master/Documents/PMS3003_LOGOELE.pdf (different manufacturer)

http://download.kamami.pl/p563980-PMS3003%20series%20data%20manual_English_V2.5.pdf

Contents: [Dobrica PavlinuÅ¡iÄ 's random unstructured stuff]

spec

Parameters :Index (Unit)
Measuring range: 0.3-1.0um ; 1.0-2.5um ; 2.5-10um

Measurement units: ug/m3
3 Measurement accuracy: ug/m3
4 Response time: <10s
5 Work current: 5V200ma@ Work State 5V2ma@ Standby Fitness

Counting efficiency :50%@0.3um 98% @> = 0.5 um
Response time :â ¤ 10 sec
DC supply voltage :5 V
Operating current :120 mA
Standby Current :â ¤ 200 ÂµA
Data interface level :L <0.8 @ 3.3 H> 2.7@3.3 V
Operating temperature range :-20 ~ + 50 Â°C
Operating humidity range :0 to 99%
MTBF :â ¥ 3 Year
Size :65 Ã 42 Ã 23 mm

pinout

PIN1 :VCC :Power Supply (5V).
PIN2 :GND :Ground.
PIN3 :SET :Standby mode (when 0), operating mode (when 1) TTL 3V3
PIN4 :RXD :Serial receive / TTL level @ 3.3V.
PIN5 :TXD :Serial transmit / TTL level @ 3.3V.
PIN6 :RESET :Module reset / TTL level @ 3.3V.
PIN7,8 :NC :Not connected.

serial

9600

starts with 0x42 0x4d

Byte buffer index Description
1 â Constant value (0x42)
2 0 Constant value (0x4d)
3 1 Frame length
4 2
5 3 PM1.0 concentration unit (Î¼g/m3)
6 4
7 5 PM2.5 concentration unit (Î¼g/m3)
8 6
9 7 PM10 concentration unit (Î¼g/m3)
10 8
11 9 PM1.0 concentration unit under atmospheric environment (Î¼g/m3)
12 10
13 11 PM2.5 concentration unit under atmospheric environment (Î¼g/m3)
14 12
15 13 PM10 concentration unit under atmospheric environment (Î¼g/m3)
16 14
17 15 reserved
18 16
19 17 reserved
20 18
21 19 reserved
22 20
23 21 Control sum
24 22

code

Arduino

doesn't check checksum: https://github.com/suda/PMS3003/blob/master/src/PMS3003.cpp

much better library: https://github.com/fu-hsi/pms

Node MCU

https://github.com/avaldebe/AQmon/blob/master/lua_modules/pms3003.lua