

<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

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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 ÅA

Data interface level :L <0.8 @ 3.3 H> 2.7@3.3 V

Operating temperature range :-20 ~ + 50 ÅC

Operating humidity range :0 to 99%

MTBF :â ¥ 3 Year

Size :65 Å 42 Å 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	Constant value (0x42)
2	0 Constant value (0x4d)
3	1 Frame length
4	2
5	3 PM1.0 concentration unit ($\hat{1}/4g/m3$)
6	4
7	5 PM2.5 concentration unit ($\hat{1}/4g/m3$)
8	6
9	7 PM10 concentration unit ($\hat{1}/4g/m3$)
10	8
11	9 PM1.0 concentration unit under atmospheric environment ($\hat{1}/4g/m3$)
12	10
13	11 PM2.5 concentration unit under atmospheric environment ($\hat{1}/4g/m3$)
14	12
15	13 PM10 concentration unit under atmospheric environment ($\hat{1}/4g/m3$)
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