

CHECK YOUR AIR QUALITY WITH PORTABLE PM2.5 MONITOR



HOW IS THE AIR QUALITY IN YOUR COUNTRY?

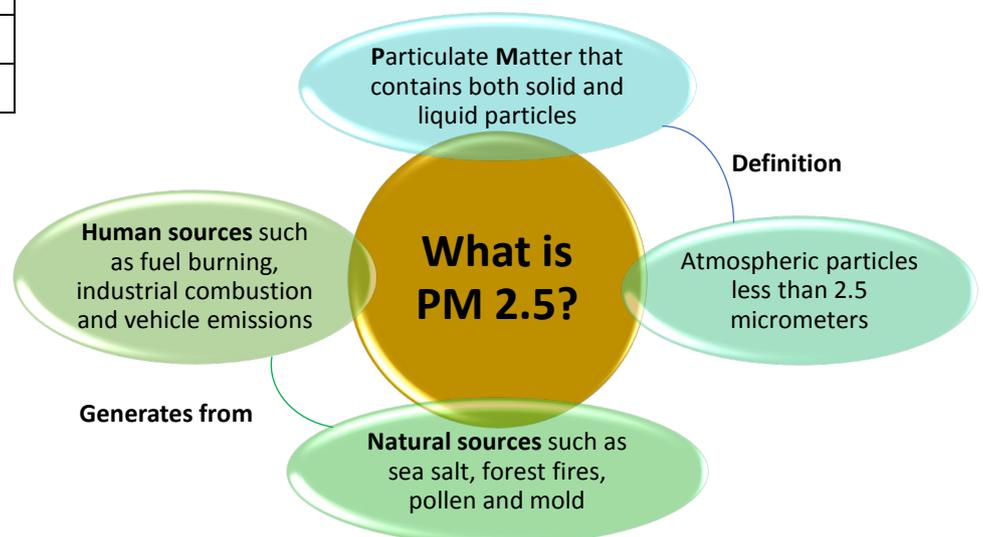


Source: World Air Quality Index (<http://aqicn.org/map/>)

Color codes

Green	Good
Yellow	Moderate
Orange	Unhealthy for sensitive groups
Red	Unhealthy
Purple	Very Unhealthy
Magenta	Hazardous

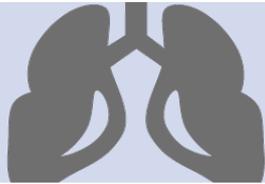
Want to know how is the air quality in your country? Check it out from the World Air Quality Index site as follows:
<https://aqicn.org/map/world/#@g/5.1993/8.6133/2z>



PROBLEMS CAUSED BY PM2.5



Health issues, such as throat, nose, eyes irritation in the short term*



Lung cancer increases by 15-27% when PM2.5 air concentrations increased by 10 $\mu\text{g}/\text{m}^3$ *



Exposure to PM pollution decrease lifespan by 8.6 months*



A lack of healthy workforce reduces economic productivity, causing high economic costs

*Source: <https://foodthesis.com/pm-2-5-health-effects-and-remedies/>

PROTECT YOURSELF WITH PORTABLE PM 2.5 MONITOR

RENESAS QUICK SOLUTION MAKES DEVELOPMENT EASIER WITH THE FOLLOWING BENEFITS

- Shorten development time as users could start development with existing system. **RL78/L12** MCU supports 3 types of LCD driving method - Capacitor Split, Internal Voltage Boosting and Resistance Division.

Easy to develop with flexibility in MCU

- DC-DC converter IC (**ISL97656**) has flexible switching frequency that could be tuned to suit user's system accordingly.
- Battery Charger IC (**ISL6294**) is easy to design as it could operate by itself with built in FET, diode, etc..

Easy to develop with flexibility in Analog devices

- Reduce board size with **RL78/L12** various built in functions (data flash, oscillation circuit etc..)
- Battery size is reduced as charger IC (**ISL6294**) could operate with a low power consumption system.

Smaller battery and board size makes portability come true

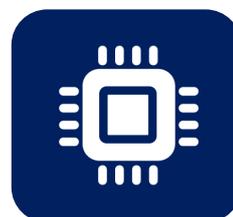
9 times battery life extended, as compared to existing models

- Current to drive LCD panel is reduced greatly due to **RL78/L12** best-in-class standby current of 0.64 μA that reduces power consumption.

CLICK ON THE ICONS TO FIND OUT MORE



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[Circuit Diagram](#)



[Video](#)