

RGF's Top Indoor Air Quality Monitors for the Home



Home air quality monitors are an excellent way to measure air quality inside your home. While price and performance vary, some products offer an affordable, reliable solution to track a few important factors that impact the health of our indoor air. RGF® recently evaluated a variety of IAQ monitors to see how they are stacked up.

Indoor air quality (IAQ) is generally impacted by three major categories of air pollutants:

- Particulate matter or PM (Dust, pollen, and pet dander)
- Gases or Volatile Organic Compounds (VOCs) from household cleaners and building materials
- Germs (Bacteria and viruses)

Finding an affordable device to monitor all these air pollutants is challenging, so we focused on a few key critical pollutants that can greatly impact our day-to-day lives. Exposure to fine airborne particles (PM 2.5) like pet dander, pollen, and mold spores can lead to allergy-like symptoms and aggravation of existing medical issues. VOCs like formaldehyde are emitted from household materials and can have short and long-term impacts on health.

Along with standard features like temperature, humidity, and carbon dioxide (CO₂), most IAQ monitors can also measure airborne gases (VOCs) and particulate matter (PM 2.5). Your IAQ score, typically displayed on the device or through a connected smartphone app, can be either a combination of all these factors or individual scores for each.

Our review included ten commercially available IAQ monitors designed for use in the home. Looking at particulate and VOCs as significant factors impacting IAQ, some monitoring devices performed better than others. We also evaluated each device on ease of installation, ease of use, graphical display, and connectivity.

[Airthings Wave Plus](#) is a smart, battery-powered device that was easy to set up and connect with the Wave Plus smartphone app. A color-coded visual indicator of an air quality score with the smartphone app provides more detail on temperature, humidity, radon, CO₂, pressure, and VOCs.

The [AWAIR Element](#) is a good-looking and intuitive device providing a creative visual indication of air quality on the device for temperature, humidity, CO₂, VOCs, and PM 2.5. This monitor was easily

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paired with the Awair app providing detailed air quality scores and charts.

[Amazon's Smart Air Quality Monitor](#) reliably measured temperature, humidity, carbon monoxide, VOCs, and PM 2.5 but only displayed a single indicator light on the device. Connection to the Alexa app offered a more detailed IAQ analysis. This monitor was the most affordable of those that met our review criteria.

Although the [IQI Air Quality Monitor](#) requires a hard-wired power connection and the user interface was very limited, it offers excellent sensitivity to all the standard air quality pollutants with additional scores for formaldehyde, PM 1.0, PM 2.5, and PM 10. This

monitor is perhaps better suited to commercial applications.

Prices of the monitors tested range from \$70 to \$300, and when paired with a reliable whole home air purification system can make a significant improvement to your everyday quality of life. After all, Clean Air is Life™. Let RGF® help protect yours.

RGF® manufactures the industry leading REME HALO® and HALO LED™ whole-home air purifiers and has been active in the IAQ industry for over 35 years. We thought this was an area where consumers could benefit from our experience and research capabilities.

Research credit; Paul Siegl and Larry Fletcher. Article by Tony Julian and Paul Siegl.



Airthings Wave Plus



AWAIR ELEMENT



Amazon's Smart Air Quality Monitor



IQI Air Quality Monitor

