

MASKS & CARTRIDGES

Dynamic-filter electronic mask

A connected mask development prototype combining a modular housing, dual-fan architecture and local environmental monitoring. Explore the design and discuss evaluation samples or development requirements.

Development status	Prototype; not released as a certified respirator
Controller	ESP32-C3
Monitoring components	AHT20, BMP280, optical particulate sensor
Airflow architecture	Dual-fan design
Housing	Modular threaded filter chamber
Filter reminder	Usage-time counter; not a validated protection-life estimate
Finished dimensions	Not supplied in dimensioned drawings

SPECIFICATION NOTES

No complete-device filtration, fit, UV exposure or antimicrobial test report was supplied. Performance and use conditions remain under evaluation.

Patent application documents describe a filing, not a granted patent or product certification.

SOURCE

User-supplied design papers, firmware and prototype photograph