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(57) Abstract :

The present invention discloses a compact AI-based heat management device (100) comprising micro-fan (110), thermoelectric cooler (120), sensors (140), smart ventilation valve (130), and AI module (150). The AI predicts processor heat spikes and activates cooling elements in advance, ensuring optimal performance without throttling. The device (100) integrates with the OS via a communication unit (170) for adaptive cooling, minimal power usage, and low noise in a sub-5mm form factor.

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