

# Kernel driver asus\_ec\_sensors

Supported boards:

- PRIME X570-PRO,
- Pro WS X570-ACE,
- ROG CROSSHAIR VIII DARK HERO,
- ROG CROSSHAIR VIII HERO (WI-FI)
- ROG CROSSHAIR VIII FORMULA,
- ROG CROSSHAIR VIII HERO,
- ROG CROSSHAIR VIII IMPACT,
- ROG STRIX B550-E GAMING,
- ROG STRIX B550-I GAMING,
- ROG STRIX X570-E GAMING,
- ROG STRIX X570-F GAMING,
- ROG STRIX X570-I GAMING

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## Description:

ASUS mainboards publish hardware monitoring information via Super I/O chip and the ACPI embedded controller (EC) registers. Some of the sensors are only available via the EC.

The driver is aware of and reads the following sensors:

1. Chipset (PCH) temperature
2. CPU package temperature
3. Motherboard temperature
4. Readings from the T\_Sensor header
5. VRM temperature
6. CPU\_Opt fan RPM
7. VRM heatsink fan RPM
8. Chipset fan RPM
9. Readings from the "Water flow meter" header (RPM)
10. Readings from the "Water In" and "Water Out" temperature headers
11. CPU current
12. CPU core voltage

Sensor values are read from EC registers, and to avoid race with the board firmware the driver acquires ACPI mutex, the one used by the WMI when its methods access the EC.

## Module Parameters

- `mutex_path`: string  
The driver holds path to the ACPI mutex for each board (actually, the path is mostly identical for them). If ASUS changes this path in a future BIOS update, this parameter can be used to override the stored in the driver value until it gets updated.