

# Kernel driver vexpress

Supported systems:

- ARM Ltd. Versatile Express platform

Prefix: 'vexpress'

Datasheets:

- "Hardware Description" sections of the Technical Reference Manuals for the Versatile Express boards:
  - <http://infocenter.arm.com/help/topic/com.arm.doc.subset.boards.express/index.html>
- Section "4.4.14. System Configuration registers" of the V2M-P1 TRM:
  - <http://infocenter.arm.com/help/index.jsp?topic=/com.arm.doc.dui0447-/index.html>

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## Description

Versatile Express platform (<http://www.arm.com/versatileexpress/>) is a reference & prototyping system for ARM Ltd. processors. It can be set up from a wide range of boards, each of them containing (apart of the main chip/FPGA) a number of microcontrollers responsible for platform configuration and control. These microcontrollers can also monitor the board and its environment by a number of internal and external sensors, providing information about power lines voltages and currents, board temperature and power usage. Some of them also calculate consumed energy and provide a cumulative use counter.

The configuration devices are `_not_` memory mapped and must be accessed via a custom interface, abstracted by the "vexpress\_config" API.

As these devices are non-discoverable, they must be described in a Device Tree passed to the kernel. Details of the DT binding for them can be found in Documentation/devicetree/bindings/hwmon/vexpress.txt.