

# ARM Allwinner SoCs

This document lists all the ARM Allwinner SoCs that are currently supported in mainline by the Linux kernel. This document will also provide links to documentation and/or datasheet for these SoCs.

## SunXi family

Linux kernel mach directory: arch/arm/mach-sunxi

Flavors:

- ARM926 based SoCs - Allwinner F20 (sun3i)
  - Not Supported
- ARM Cortex-A8 based SoCs - Allwinner A10 (sun4i)
  - Datasheet  
<http://dl.linux-sunxi.org/A10/A10%20Datasheet%20-%20v1.21%20%282012-04-06%29.pdf>
  - User Manual  
<http://dl.linux-sunxi.org/A10/A10%20User%20Manual%20-%20v1.20%20%282012-04-09%2c%20DECRYPTED%29.pdf>
- Allwinner A10s (sun5i)
  - Datasheet  
<http://dl.linux-sunxi.org/A10s/A10s%20Datasheet%20-%20v1.20%20%282012-03-27%29.pdf>
- Allwinner A13 / R8 (sun5i)
  - Datasheet  
<http://dl.linux-sunxi.org/A13/A13%20Datasheet%20-%20v1.12%20%282012-03-29%29.pdf>
  - User Manual  
<http://dl.linux-sunxi.org/A13/A13%20User%20Manual%20-%20v1.2%20%282013-01-08%29.pdf>
- Next Thing Co GR8 (sun5i)
- Single ARM Cortex-A7 based SoCs - Allwinner V3s (sun8i)
  - Datasheet  
[http://linux-sunxi.org/File:Allwinner\\_V3s\\_Datasheet\\_V1.0.pdf](http://linux-sunxi.org/File:Allwinner_V3s_Datasheet_V1.0.pdf)
- Dual ARM Cortex-A7 based SoCs - Allwinner A20 (sun7i)
  - User Manual  
<http://dl.linux-sunxi.org/A20/A20%20User%20Manual%202013-03-22.pdf>
- Allwinner A23 (sun8i)
  - Datasheet  
<http://dl.linux-sunxi.org/A23/A23%20Datasheet%20V1.0%2020130830.pdf>
  - User Manual  
<http://dl.linux-sunxi.org/A23/A23%20User%20Manual%20V1.0%2020130830.pdf>
- Quad ARM Cortex-A7 based SoCs - Allwinner A31 (sun6i)
  - Datasheet  
[http://dl.linux-sunxi.org/A31/A3x\\_release\\_document/A31/IC/A31%20datasheet%20V1.3%2020131106.pdf](http://dl.linux-sunxi.org/A31/A3x_release_document/A31/IC/A31%20datasheet%20V1.3%2020131106.pdf)
  - User Manual

[http://dl.linux-sunxi.org/A31/A3x\\_release\\_document/A31/IC/A31%20user%20manual%20V1.1%2020130630.pdf](http://dl.linux-sunxi.org/A31/A3x_release_document/A31/IC/A31%20user%20manual%20V1.1%2020130630.pdf)

- Allwinner A31s (sun6i)
  - Datasheet  
[http://dl.linux-sunxi.org/A31/A3x\\_release\\_document/A31s/IC/A31s%20datasheet%20V1.3%2020131106.pdf](http://dl.linux-sunxi.org/A31/A3x_release_document/A31s/IC/A31s%20datasheet%20V1.3%2020131106.pdf)
  - User Manual  
[http://dl.linux-sunxi.org/A31/A3x\\_release\\_document/A31s/IC/A31s%20User%20Manual%20%20V1.0%2020130322.pdf](http://dl.linux-sunxi.org/A31/A3x_release_document/A31s/IC/A31s%20User%20Manual%20%20V1.0%2020130322.pdf)
- Allwinner A33 (sun8i)
  - Datasheet  
<http://dl.linux-sunxi.org/A33/A33%20Datasheet%20release%201.1.pdf>
  - User Manual  
<http://dl.linux-sunxi.org/A33/A33%20user%20manual%20release%201.1.pdf>
- Allwinner H2+ (sun8i)
  - No document available now, but is known to be working properly with H3 drivers and memory map.
- Allwinner H3 (sun8i)
  - Datasheet  
[https://linux-sunxi.org/images/4/4b/Allwinner\\_H3\\_Datasheet\\_V1.2.pdf](https://linux-sunxi.org/images/4/4b/Allwinner_H3_Datasheet_V1.2.pdf)
- Allwinner R40 (sun8i)
  - Datasheet  
[https://github.com/tinalinux/docs/raw/r40-v1.y/R40\\_Datasheet\\_V1.0.pdf](https://github.com/tinalinux/docs/raw/r40-v1.y/R40_Datasheet_V1.0.pdf)
  - User Manual  
[https://github.com/tinalinux/docs/raw/r40-v1.y/Allwinner\\_R40\\_User\\_Manual\\_V1.0.pdf](https://github.com/tinalinux/docs/raw/r40-v1.y/Allwinner_R40_User_Manual_V1.0.pdf)
- Quad ARM Cortex-A15, Quad ARM Cortex-A7 based SoCs - Allwinner A80
  - Datasheet  
[http://dl.linux-sunxi.org/A80/A80\\_Datasheet\\_Revision\\_1.0\\_0404.pdf](http://dl.linux-sunxi.org/A80/A80_Datasheet_Revision_1.0_0404.pdf)
- Octa ARM Cortex-A7 based SoCs - Allwinner A83T
  - Datasheet  
[https://github.com/allwinner-zh/documents/raw/master/A83T/A83T\\_Datasheet\\_v1.3\\_20150510.pdf](https://github.com/allwinner-zh/documents/raw/master/A83T/A83T_Datasheet_v1.3_20150510.pdf)
  - User Manual  
[https://github.com/allwinner-zh/documents/raw/master/A83T/A83T\\_User\\_Manual\\_v1.5.1\\_20150513.pdf](https://github.com/allwinner-zh/documents/raw/master/A83T/A83T_User_Manual_v1.5.1_20150513.pdf)
- Quad ARM Cortex-A53 based SoCs - Allwinner A64
  - Datasheet  
[http://dl.linux-sunxi.org/A64/A64\\_Datasheet\\_V1.1.pdf](http://dl.linux-sunxi.org/A64/A64_Datasheet_V1.1.pdf)
  - User Manual  
<http://dl.linux-sunxi.org/A64/Allwinner%20A64%20User%20Manual%20v1.0.pdf>
- Allwinner H6
  - Datasheet  
[https://linux-sunxi.org/images/5/5c/Allwinner\\_H6\\_V200\\_Datasheet\\_V1.1.pdf](https://linux-sunxi.org/images/5/5c/Allwinner_H6_V200_Datasheet_V1.1.pdf)
  - User Manual  
[https://linux-sunxi.org/images/4/46/Allwinner\\_H6\\_V200\\_User\\_Manual\\_V1.1.pdf](https://linux-sunxi.org/images/4/46/Allwinner_H6_V200_User_Manual_V1.1.pdf)
- Allwinner H616

- Datasheet

[https://linux-sunxi.org/images/b/b9/H616\\_Datasheet\\_V1.0\\_cleaned.pdf](https://linux-sunxi.org/images/b/b9/H616_Datasheet_V1.0_cleaned.pdf)

- User Manual

[https://linux-sunxi.org/images/2/24/H616\\_User\\_Manual\\_V1.0\\_cleaned.pdf](https://linux-sunxi.org/images/2/24/H616_User_Manual_V1.0_cleaned.pdf)