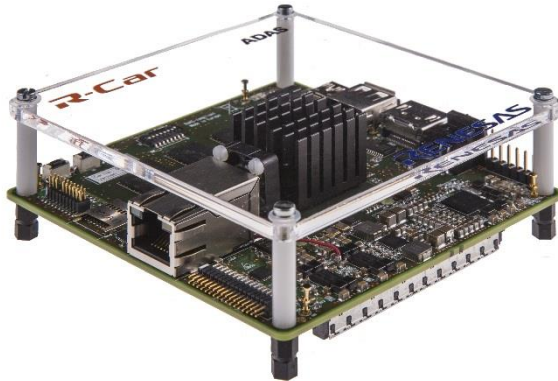




Quick Start

The ADAS Starter Kit



We are pleased that you have chosen [ADAS Starter Kit](#) by Renesas for your ARM platform development. We hope you are enjoying the small form factor and powerful hardware for realizing your ADAS solutions. This platform provides a connector, which allows the extension of various peripheral hardware like CAN, multiple video inputs, 1 Gbit Ethernet, PCIe or even an FPGA for rapid prototyping. Please check our website for optional extension cards or further updates:

<http://www.renesas.eu/startnow>

1. Hardware

- ADAS Starter Kit board
 - R-Car ADAS with
 - 4x ARM® Cortex®-A15 @1.4 GHz, with NEON
 - 4x ARM® Cortex®-A7 @780 MHz, with NEON
 - 2 GBytes of DDR3-1600 memory
 - 64 MB of QSPI NOR Flash memory (boot source)
 - microSD-card slot
 - HDMI output
 - UART (available via FT232R on a mini-B USB connector)
 - USB 2.0 host (USB-A connector)
 - 10/100 Mbit Ethernet (RJ45 connector)
 - High-pincount, high-bandwidth connector for optional extensions
 - JTAG connector for debugging (20-pin MiPi connector, 1.27mm)
 - 4 LEDs and 8 DIP switches (general purpose)
- USB cable (USB-A to mini-B)
- Power supply (15 V, 1.2 A)

2. Installation

This kit is not shipped with any installation media.

The ADAS Starter Kit board can be booted via a pre-loaded u-Boot both from SD-card or Ethernet network via TFTP and NFS. We recommend using the Yocto Project for generation of Linux Root-File-System. The installation is fully described on following webpage:

<http://elinux.org/R-Car/Boards/Yocto190>

3. Software Connection for Debug by USB/UART

Connect the USB-cable to SCIFA0 (CN9) on ADAS Starter Kit and with the PC's USB port. The drivers are automatically installed for MS Windows7.

A virtual COM port is provided and can be accessed by a terminal emulator software (e.g. PuTTY, Tera Term)

Default settings:

COM-port	Please check the port-number in device manager (e.g. COM4)
Baud rate	38 400
Data bits	8
Stop bits	1
Parity	None

4. Software development

Toolchain

Of course, you are able to develop your software directly on the ADAS Starter Kit target device. However, it is recommended to make use of a cross-development toolchain.

The Yocto Project provides a pre-build software development kit (SDK) for cross-compilation:

<http://downloads.yoctoproject.org/releases/yocto/yocto-1.6.1/toolchain/>

You can also generate the toolchain yourself:

```
bitbake meta-toolchain or bitbake <image> -c populate_sdk
```

IDE

We propose to use the [Renesas e2studio](#) as cross-development IDE for C/C++

It is based on Eclipse and provides a pre-defined toolchain setup for quick start development:

<http://www.renesas.eu/startnow>

5. Support

Online technical support and information is available at:

<http://renesasrulz.com/>

Technical Contact Details

Worldwide: <http://www.renesas.eu/contact/>

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