

Copyright © HiSilicon Technologies Co., Ltd. 2015. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of HiSilicon Technologies Co., Ltd.

Trademarks and Permissions



, and other HiSilicon icons are trademarks of HiSilicon Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between HiSilicon and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

HiSilicon Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: <http://www.hisilicon.com>

Email: support@hisilicon.com



About This Document

Purpose

This document describes the Linux development environment of the Hi3518E V200. This document also explains how to set up the Linux and network development environments, burn the Linux kernel, and root file system, and start Linux-based applications.

After reading this document, customers will clearly understand the Linux development environment.



NOTE

This document uses Hi3518E V200 as an example. Unless otherwise specified, the contents of Hi3518E V200 are consistent with those of Hi3518E V201 and Hi3516C V200.

Related Versions

The following table lists the product versions related to this document.

Product Name	Version
Hi3518E	V200
Hi3518E	V201
Hi3516C	V200

Intended Audience

This document is intended for:

- * Technical support engineers
- * Software development engineers

Change History

Changes between document issues are cumulative. Therefore, the latest document issue contains all changes made in previous issues.



Issue 00B01 (2015-09-20)

This issue is the first draft release.



Contents

About This Document	i
1 Development Environment	1
1.1 Embedded Development Environment	1
1.2 Overview of the Hi3518E V200 Linux Development Environment	2
1.3 Setting Up the Linux Development Environment	3
1.3.1 Installing an OS on the Linux Server.....	3
1.3.2 Installing the Cross Compiler	3
1.3.3 Installing the Hi3518EV200 SDK.....	4
2 U-boot	5
3 Linux Kernel	6
3.1 Kernel Source Codes	6
3.2 Configuring the Kernel.....	6
3.3 Compiling the Kernel and Generating the Kernel Image uImage.....	7
4 Root File System	8
4.1 Introduction to the Root File System.....	8
4.2 Creating a Root File System by Using the BusyBox	9
4.2.1 Obtaining the Source Code of the BusyBox	9
4.2.2 Configuring the BusyBox.....	9
4.2.3 Compiling and Installing the BusyBox.....	10
4.2.4 Creating a Root File System.....	10
4.3 Introduction to File Systems.....	11
4.3.1 CRAMFS	11
4.3.2 JFFS2	12
4.3.3 YAFFS2	13
4.3.4 initrd	13
4.3.5 Squashfs	14
4.3.6 Ext4	14
5 Application Development	16
5.1 Compiling Code.....	16
5.2 Running Applications	16



A Acronyms and Abbreviations 17



Figures

Figure 1-1 Development in embedded mode	1
Figure 1-2 Setting up the Hi3518E V200 Linux development environment	2
Figure 4-1 Structure of the root file system's top directory	8

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/817063062025006025>