BROADCOM®

Release Notes
For
Unmanaged Software Development Kit

UM 3.6.1

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Section 1: About This Document

These are the Release Notes for the Broadcom Unmanaged Software Development Kit, Release 3.6.1.
This document provides a general description of the release , the chips and platforms supported by the release and resolved issues for release 3.6.1.

Section 2: Product Documentation

The following documents are available through Broadcom's Customer Support Portal, http://support.broadcom.com. They are the primary source of information and should be referenced when using this release:

Document	Description
Unmanaged-SWUM106-RDS	Unmanaged Software Getting Started Guide
Unmanaged-PG106-RDS	Unmanaged Software Porting Guide

Section 3: Release Media

The Software Development Kit is released as a gzipped tar file on Broadcom's Customer Support Portal, http://support.broadcom.com.

Section 4: Support

Questions, feedback, and/or suggestions should be sent to your Broadcom FAE.

Section 5: New in this Release

The following section describes changes, features, and new device support that is introduced in this release.

Section 5.1: New Devices and Systems

Support for the following devices has been introduced in this release.

Family	Devices	Description
BCM53570	BCM53570 B0	High Port Count (1G/2.5G/5G/10G/25G) Ethernet Switch embeds ARM CPU
	BCM53575 B0	24P 1G (SGMII) + 4P 10G + 1P XAUI Ethernet Switch embeds ARM CPU

Section 5.2: New Features

The following section describes several new features and organizational changes introduced in the UM-3.6.1 Release.

Description
Add a board api ,board_ledup_init ,for generic serial LED initialization on BCM5357X platform

Section 6: Device and Platform Support

Section 6.1: SOC/Switch Devices

Table 3: SOC/Switch Devices

Family	Device	Description
BCM53330	BCM53333 A0	BCM53333 Integrated Multilayer Switch and CPU
	BCM53334 A0	BCM53334 Integrated Multilayer Switch and CPU
BCM53390	BCM53393 A0	BCM53393 Integrated Multilayer Switch and CPU
	BCM53394 A0	BCM53394 Integrated Multilayer Switch and CPU
BCM53340	BCM53342 A0	BCM53342 Integrated Multilayer Switch and CPU
	BCM53343 A0	BCM53343 Integrated Multilayer Switch and CPU
	BCM53344 A0	BCM53344 Integrated Multilayer Switch and CPU
	BCM53346 A0	BCM53346 Integrated Multilayer Switch and CPU
BCM53400	BCM53402 A0	BCM53402 Integrated Multilayer Switch and CPU
	BCM53405 A0	BCM53405 Integrated Multilayer Switch and CPU
	BCM53406 A0	BCM53406 Integrated Multilayer Switch and CPU
BCM53450	BCM53454 A0	BCM53454 Integrated Multilayer Switch and CPU
	BCM53456 A0	BCM53456 Integrated Multilayer Switch and CPU
BCM53420	BCM53422 A0	BCM53422 Integrated Multilayer Switch and CPU
	BCM53424 A0	BCM53424 Integrated Multilayer Switch and CPU
	BCM53426 A0	BCM53426 Integrated Multilayer Switch and CPU
BCM53460	BCM53460 A0	BCM53460 Integrated Multilayer Switch and CPU
	BCM53461 A0	BCM53461 Integrated Multilayer Switch and CPU
BCM53540	BCM53547 A0	BCM53547 Integrated Multilayer Switch and CPU
	BCM53548 A0	BCM53548 Integrated Multilayer Switch and CPU
	BCM53549 A0	BCM53549 Integrated Multilayer Switch and CPU
BCM53570	BCM53570 B0	BCM53570 Integrated Multilayer Switch and CPU
	BCM53575 B0	BCM53575 Integrated Multilayer Switch and CPU

Section 6.2: Reference Designs

The following Switch Reference Designs are available from Broadcom and are supported in this software release.

Table 4: Reference Designs

Platform	Description
BCM953334K	24-port GE 53334 Switch Ref Design
BCM953393K	14-port GE 53393 Switch Ref Design
BCM953394K	10-port GE + 4-port 10GE 53394 Switch Ref Design
BCM953406K	12-port GE + 12-port 10GE 53406 Switch Ref Design
BCM953456K	24-port GE + 4-port 10GE 53456 Switch Ref Design
BCM956270K	4-port GE + 8-port 10GE 53460 Switch Ref Design
BCM953547K	24-port GE + 4-port 1/2.5GE 53547 Switch Ref Design
BCM953549K	8-port GE + 4-port 1/2.5GE 53549 Switch Ref Design
BCM953570K	High Port Count (1G/2.5G/5G/10G/25G) 53570 Switch Ref Design

Section 7: Resolved Issues for 3.6.1

The following issues are resolved in version 3.6.1 of the UM.

Number	Release Notes
UM-428	Add BCM5357X B0 platform support
UM-427	Add generic serial LED support on BCM5357X platform

Section 8: UM Externally Licensed Software Components

UM contains a number of third-party externally licensed software components. This appendix contains information regarding these components, the license for each of these components, and where these components are used in UM.

Table 6: EXTERNALLY LICENSED SOFTWARE COMPONENTS

Component	Origin	Location in source tree	License terms and conditions Component
The uIP TCP/IP stack	http://www.sics.se/~adam/old-uip/	src/net/, src/appl/dhcpc/ and include/appl/	See Section 8.1: uIP License terms and conditions
The Contiki OS	http://www.contiki-os.org/	src/net/	See Section 8.2: Contiki License terms and conditions

Section 8.1: uIP License terms and conditions

uIP is developed by Adam Dunkels of the Networked Embedded Systems group at the Swedish Institute of Computer Science. The uIP 1.0 distribution package uip-1.0.tar.gz used in UM was obtained from the following location:
   http://www.sics.se/~adam/old-uip/download.html
Part of the uIP package was modified and used for purposes of inclusion into the UM source tree architecture for IPv4 protocol stack.

Used (and modified) files:
   include/appl/dhcp.h
   src/appl/dhcpc/dhcpc.c
   src/net/lc.h
   src/net/lc-switch.h
   src/net/pt.h
   src/net/uip.[hc]
   src/net/uip_arch.[hc]
   src/net/uip_arp.[hc]
   src/net/uipopt.h

Changed functionality:
   Added option UIP_CONF_ICMP to enable/disable ICMP
   Avoid dropping packets for specific IP address
   Extracted checksum algorithm to a standalone SAL function
   Changed max retry number and timeout interval for DHCP client application
   Added dual stack (IPv4 + IPv6) support

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Section 8.2: Contiki License terms and conditions

Contiki is developed by a group of developers from industry and academia lead by Adam Dunkels. The Contiki 2.5 distribution package contiki-2.5.zip used in UM was obtained from the following location:

   http://www.contiki-os.org/p/download.html

Part of the Contiki package was modified and used for purposes of inclusion into the UM source tree architecture for IPv6 protocol stack.

Used (and modified) files:
   src/net/uip_timers.h
   src/net/uip6.[hc]
   src/net/uip-debug.h
   src/net/uip-ds6.[hc]
   src/net/uip-icmp6.[hc]
   src/net/uip-nd6.[hc]

Changed functionality:
   Added dual stack (IPv4 + IPv6) support
   Revised debugging macro for using with C51 compiler

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