

Release Notes For Unmanaged Software Development Kit

Preview Release UM 3.8.0 PRE1

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Section 1: About This Document

This PRE1 release is a preview version of UM SW for BCM56071N/BCM56072 A0 device support. The UM software driver for this switch device is currently in active development and testing, thus it is likely there will be issues found. As the UM software driver has not reached GA status in this interim release, this release will not be supported in any field deployment by customers.

Preview UM releases are non-GA releases for the BCM56071N/BCM56072 device(s), which are provided to help customers move forward in their product development cycle. The preview release is pulled from a recent snapshot from the UM development branch. The software preview release criteria is basic or incremental functional support for the BCM56071N/BCM56072 device(s) of interest.

This preview release supports the following targets:

- BCM56071N/BCM56072 A0 SVK

Section 2: BCM56071N/BCM56072 Support

The Broadcom BCM56071N/BCM56072 devices are a class of high-performance, non-blocking network switching devices supporting up to a maximum of 3x (4x10G Serdes core) and 4x (4x25G Serdes core), as well as various combinations of these port configurations.

2.1. Status of BCM56071N/BCM56072 A0 UM Release

Table 1. BCM56070/BCM56072 Status of UM features

Feature	Maturity
UART with 115200 bps	Beta
PHYMOD driver	Preview
CPU TX/RX	Preview
Flash Driver	Beta
Persistence	Preview
Loader	Beta
Dual Image	Beta
Vendor Config	Preview
VLAN APIs	Preview
Statistic APIs	Preview
MMU setting per customer requirement	Under Development
Various Port Configs by Vendor Config	Under Development
PORT APIs	Under Development
QoS	Under Development
COE	Under Development
Pass Through Mode	Under Development
BroadSync Firmware	Under Development
SYNCE APIs	Preview
1-Step TC APIs	Under Development
Interrupt Mode	Preview
GPIO APIs	Beta
M0 Code for LED	Under Development
M0 Code for Hardware Linkscan	Under Development
Exception Handler	Preview
WatchDog Mechanism	Preview
Temperature query API	Under Development
Example Code of Simple SPI Management	Under Development

Section 3: Build Steps

3.1. Toolchain

The BCM5607X platforms use the below toolchain to develop code.

1. Download the GNU GCC ARM Embedded 4.8 update, and install it.
<https://launchpad.net/gcc-arm-embedded/4.8/4.8-2014-q1-update>
2. Change TOOLCHAIN_DIR and TOOLPREFIX in \$UM/systems/\$PLATFORM/src/tools.mk to the location where the toolchain is installed. \$PLATFORM bcm95607x.

3.2. Build the Image File for BCM5607X UM+

1. set \$UM to your UM directory
2. Go to the \$UM/systems/bcm95607x directory and create an output directory (outputs).

```
cd $UM/systems/bcm95607x
mkdir outputs
```
3. Type the following to build the loader (bcm95607x-loader.bin) and firmware (bcm95607x-umplus.flash), and save the loader and firmware to the output directory.

```
make target=loader
cp bcm95607x-loader.bin outputs/
make target=umplus
cp bcm95607x-umplus.flash outputs/
```
4. Go to the output directory and generate a single image (bcm95607x-umplus.image) for the BCM5607X platform.

```
cd outputs/
../../../../tools/mkflashimage.pl bcm95607x-loader.bin bcm95607x-umplus.flash
bcm95607x-umplus.image
```