# **RUT8xx Firmware checksum list**

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# Summary

A **checksum** is a sequence of hexadecimal symbols generated after running an algorithm called a cryptographic hash function on a file. Calculating a checksum and comparing it with the one provided by the file source can be used as a file authenticity check method.

For example, if you download a file like a firmware image, you should be able to calculate that file's checksum and, if the file is authentic, the checksum should match the one provided by the file's source. If the checksums don't match, it means the file's contents were tampered with, for example, by a malicious third party attacker. This file is probably dangerous and shouldn't be trusted.

To help authenticate Teltonika's RUT850 router firmware files, we are providing a list of checksums for firmware files that can be download from the **<u>RUT850 Firmware Downloads</u>** page.

Checksums for RUT8xx firmwares can be calculated with the help of the **md5sum** application or by checking the checksum displayed in the router's WebUI after uploading a firmware image. The values using both methods are different, so we are providing list of values for both different methods.

### CLI

You can calculate the checksum of a firmware image file using *md5sum*. This command should work on most Linux distros or you can upload the firmware into the router and calculate the checksum via a <u>command line interface</u>.

When you select a firmware image file for upload via the System -> Firmware page, the file gets uploaded into /*tmp*/ directory with the name *firmware.img*. So the command to calculate the checksum should look like this:

```
md5sum /tmp/firmware.img
41b1ad166ffa08cb166b32fa67741f8d /tmp/firmware.img
```

Bellow the command is the expected response (for RUT850\_R\_00.00.469 FW in this example), which contains the checksum and the path to the file. If the checksum of the firmware file you downloaded doesn't match with the one provided here, your file must have been tampered with and **you** 

#### shouldn't proceed with the firmware update.

Checksums for RUT850 firmwares (CLI) are as follows:

• FW ver.: checksum • RUT850 R 00.01.04: 68db5103de5bfaaafd53a9c56a9cd3e6 • RUT850 R 00.01.03.5: 4aec007d30ecfa42c4783d4f1e1b4f23 • RUT850 R 00.01.03.4: 81ae032d0fd84f40fcb8ea215e5ac220 • RUT850 R 00.01.03.2: 349e0a71e92928bcc1157d55a03d7ff6 • RUT850 R 00.01.03.1: 7fd578068b7f344c7899e0ff61fd6bd3 • RUT850 R 00.01.03: 4a10f370b69394831fb34548a602fb3a • RUT850 R 00.01.02: 85b4860bb1d447f5d3dcc12df5081cc2 • RUT850 R 00.01.00: 8cc56b982d7621c1687c8a87f7ea0914 • RUT850 R 00.00.533: 3e31914dd25327801a6d8bf10a8e134f • RUT850 R 00.00.528: 05c0f750d5e79095d235ddb5397b7ecf • RUT850 R 00.00.525: 68c0055f3936403ddfe1dd4fb7e6c1b2 • RUT850 R 00.00.517: 4c8fdd82c7483cd8c8825dd525e5db66 • RUT850 R 00.00.516: 9ab884c5870da2d4b0f603d47c7e92cb • RUT850 R 00.00.509: f7f87421a023d9addece482dc388ff5f • RUT850 R 00.00.501: 95a448daab25490ab0d270e77e15cf56 • RUT850 R 00.00.484: df8ed051e584844ec268d47d00e42495 • RUT850 R 00.00.480: 4388a4694264097d3d5eb8937574dc39 • RUT850 R 00.00.469: 41b1ad166ffa08cb166b32fa67741f8d

### WebUI

You can also check the checksum of a firmware file via the router's WebUI. When you upload a firmware image file and click upgrade, the firmware is uploaded and you are redirected to another window, where you have to confirm the upgrade. In this window, the checksum is displayed as well, but it is different than the one you get from CLI.

Checksums for RUT850 firmwares (WebUI) are as follows:

```
• FW ver.: checksum
    • RUT850 R 00.01.03.5: 8d9a003b51356f0fe8dfc0403c4e2227
    • RUT850 R 00.01.03.4: d98968386bba2e4678dedf089373d148
    • RUT850 R 00.01.03.2: 04b7a489d4af9a83a9b9d44c01382c87
    • RUT850 R 00.01.03.1: 4e5e3e81fb8ddaa0f2051290c76d3a55
    • RUT850 R 00.01.03: 754e7ad4c2ba1ead8ed21ebf5733daa3
    • RUT850 R 00.01.02: 377ce7fcd56e0877fc1c3d62cfa554d2
    • RUT850 R 00.01.00: d1397c13136c01eb9f9941cd717badf3
    • RUT850 R 00.00.533: 2c637edc2bf439e19bc4ed0d7357203d
    • RUT850 R 00.00.528: beab4fa04d83d8f125c7f9cd64d877f0
    • RUT850 R 00.00.525: 8ea4fc1c4139dfcad8e50389fd3b2818

    RUT850 R 00.00.517: 8c920897a6dc85c274ebe8b88844dd6d

    • RUT850 R 00.00.516: 5a4ce4d34472598c4f4f6cb80485cf4c
    • RUT850 R 00.00.509: cd7d8c686fb1accc540a14d561641067
    • RUT850 R 00.00.501: e1a345fa7d6468c81394e6aefdc919a6
    • RUT850 R 00.00.484: f0d0936bc7d44545210713f27a03233a
    • RUT850 R 00.00.480: f763bb57c6bc97d7dea6564cb3c46b08
    • RUT850 R 00.00.469: f1a408262d8a729afbd9a26853128866
```

## Bootloader

The Bootloader's checksum is not displayed in the WebUI before upgrade. So you can only calculate the checksum yourself using *md5sum*. As mentioned previously, this can be done with most Linux distros or by uploading the file into router and calculating the checksum from there. However, since the process for the Bootloader upgrade is different than for a firmware upgrade, you'll have to upload the file using a different method. Instructions on how to upload files into a router can be seen **here**.

RUT850 BL ver. 2.0.1 checksum: 18ee08285543144043a530a3d2312c29

#### STM8

Cheksums for RUT850\_STM\_10.0.0.hex:

- CLI: ae818d7faccd0158e1dbfd176c619564
- WebUI: 5eca299f682fd0476c66d55da255bfbf