



LegalInformation:OpenSTLinux licenses - v1.0.0



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A quality version of this page, approved on 2 April 2020, was based off this revision.

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1 Top Software license agreement (SLA) and third-party licences

Contents of SPDX license images

| | |
|--------------|---|
| MACHINE | stm32mp1 |
| IMAGE | st-image-weston-openstlinux-weston-stm32mp1 |
| DISTRO | openstlinux-weston |
| VERSION | 2.6-openstlinux-4.19-thud-mp1-19-02-20 |
| OE branch | thud |

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SLA0048 Rev4/March 2018

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1.2 gcnano userland multi binary

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1.3 Firmware-cypress-bcm4343

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1.4 Firmware-broadcom_bcm43xx

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BROADCOM BCM43XX

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2 Boot partition:

List of packages used during the different boot phases:

| Recipe Name | Version | License |
|------------------|---------|-----------------------------|
| linux-stm32mp | 4.19 | GPLv2 |
| optee-os-stm32mp | 3.3.0 | BSD-2-Clause & BSD-3-Clause |
| tf-a-stm32mp | 2.0 | BSD-3-Clause |
| u-boot-stm32mp | 2018.11 | GPLv2+ |



3 Kernel partitions:

3.1 bootfs partition:

| | |
|--------------|--|
| Image | st-image-bootfs-openstlinux-weston-stm32mp1 |
|--------------|--|

| Recipe Name | Package Name | Version | License | Description |
|-------------------------|-------------------------|---------|-----------------------------|--|
| linux-stm32mp | kernel-imagebootfs | 4.19 | GPLv2 | Linux STM32MP Kernel |
| u-boot-stm32mp-extlinux | u-boot-stm32mp-extlinux | 2.0 | MIT | Provide 'extlinux.conf' file for U-Boot |
| u-boot-stm32mp-splash | u-boot-stm32mp-splash | 2018.11 | No license to ST trademarks | Universal Boot Loader Splash Screen for stm32mp embedded devices |

3.2 rootfs partition:

| | |
|--------------|--|
| Image | st-image-weston-openstlinux-weston-stm32mp1 |
|--------------|--|

| Recipe Name | Package Name | Version | License | Description |
|---------------------|------------------------------|---------|-------------------|--|
| adwaita-icon-theme | adwaita-icon-theme-symbolic | 3.28.0 | CC-BY-SA-3.0 | GTK+ icon theme |
| alsa-lib | alsa-conf | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA sound library |
| alsa-plugins | alsa-plugins | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA Plugins |
| alsa-plugins | alsa-plugins-pulseaudio-conf | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA Plugins |
| alsa-state | alsa-state | 0.2.0 | MIT | Alsa scenario files to enable alsa state restoration |
| alsa-state-stm32mp1 | alsa-state-stm32mp1 | 1.0 | MIT | Alsa scenario files to enable alsa state restoration |



| Recipe Name | Package Name | Version | License | Description |
|-------------|----------------------------|---------|-----------------------|--|
| alsa-state | alsa-states | 0.2.0 | MIT | Alsa scenario files to enable alsa state restoration |
| alsa-utils | alsa-utils | 1.1.6 | GPLv2+ | ALSA sound utilities |
| alsa-utils | alsa-utils- aconnect | 1.1.6 | GPLv2+ | ALSA sequencer connection manager |
| alsa-utils | alsa-utils-alsabat | 1.1.6 | GPLv2+ | Command-line sound tester for ALSA sound card driver |
| alsa-utils | alsa-utils-alsactl | 1.1.6 | GPLv2+ | Saves/restores ALSA-settings in /etc /asound.state |
| alsa-utils | alsa-utils-alsaloop | 1.1.6 | GPLv2+ | ALSA PCM loopback utility |
| alsa-utils | alsa-utils- alsamixer | 1.1.6 | GPLv2+ | ncurses-based control for ALSA mixer and settings |
| alsa-utils | alsa-utils-alsatplg | 1.1.6 | GPLv2+ | Converts topology text files into binary format for kernel |
| alsa-utils | alsa-utils-alsaucm | 1.1.6 | GPLv2+ | ALSA Use Case Manager |
| alsa-utils | alsa-utils-amixer | 1.1.6 | GPLv2+ | Command-line control for ALSA mixer and settings |
| alsa-utils | alsa-utils-aplay | 1.1.6 | GPLv2+ | Play (and record) sound files using ALSA |
| alsa-utils | alsa-utils- aseqdump | 1.1.6 | GPLv2+ | Shows the events received at an ALSA sequencer port |
| alsa-utils | alsa-utils-aseqnet | 1.1.6 | GPLv2+ | Network client/server for ALSA sequencer |
| alsa-utils | alsa-utils-iecset | 1.1.6 | GPLv2+ | ALSA utility for setting/showing IEC958 (S/PDIF) status bits |
| alsa-utils | alsa-utils-midi | 1.1.6 | GPLv2+ | Miscellaneous MIDI utilities for ALSA |
| alsa-utils | alsa-utils- speakertest | 1.1.6 | GPLv2+ | ALSA surround speaker test utility |
| apt | apt | 1.2.24 | GPLv2.0+ | Advanced front-end for dpkg |
| avahi | avahi-daemon | 0.7 | GPLv2+ & LGPLv2.1+ | Avahi IPv4LL network address configuration daemon |
| babeltrace | babeltrace | 1.5.6 | MIT & GPLv2 | Babeltrace - Trace Format Babel Tower |
| base-files | base-files | 3.0.14 | GPLv2 | Miscellaneous files for the base system |



| Recipe Name | Package Name | Version | License | Description |
|-----------------|-----------------|-------------------------------------|----------------------|--|
| base-passwd | base-passwd | 3.5.29 | GPLv2+ | Base system master password /group files |
| bash | bash | 4.4.18 | GPLv3+ | An sh-compatible command language interpreter |
| bc | bc | 1.07.1 | GPLv3+ | Arbitrary precision calculator language |
| bind | bind-libs | 9.11.4 | ISC & BSD | ISC Internet Domain Name Server |
| blktool | blktool | 4-7 | GPLv2+ | Tune low-level block device parameters |
| blktrace | blktrace | 1.2.0 +gitAUTOINC +cca113f2fe | GPLv2 | Generates traces of I/O traffic on block devices |
| bluez5 | bluez5 | 5.50 | GPLv2+ & LGPLv2.1+ | Linux Bluetooth Stack Userland V5 |
| busybox | busybox | 1.29.2 | GPLv2 & bzip2 | Tiny versions of many common UNIX utilities in a single small executable |
| busybox | busybox-syslog | 1.29.2 | GPLv2 & bzip2 | Tiny versions of many common UNIX utilities in a single small executable |
| busybox | busybox-udhcpc | 1.29.2 | GPLv2 & bzip2 | Tiny versions of many common UNIX utilities in a single small executable |
| ca-certificates | ca-certificates | 20180409 | GPL-2.0+ & MPL-2.0 | Common CA certificates |
| can-utils | can-utils | 0.0 +gitrAUTOINC C+4c8fb05cb4 | GPLv2 & BSD-3-Clause | Linux CAN network development utilities |
| ckernit | ckernit | 302 | BSD-3-Clause | ckernit version 302-r0 |
| consolekit | consolekit | 0.4.6 | GPLv2+ | Framework for defining and tracking users, login sessions, and seats |
| coreutils | coreutils | 8.30 | GPLv3+ | The basic file, shell and text manipulation utilities |
| cpufrequtil | | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-------------------------|---------|--|---|
| s | cpufrequtils | 008 | GPLv2 | cpufrequtils version 008-r5 |
| curl | curl | 7.61.0 | MIT | Command line tool and library for client-side URL transfers |
| dbus | dbus-1 | 1.12.10 | GPLv2+ | D-Bus message bus |
| debiannutills | debiannutills | 4.8.6 | GPLv2 & SMAIL_GPL | Miscellaneous utilities specific to Debian |
| debiannutills | debiannutills-run-parts | 4.8.6 | GPLv2 & SMAIL_GPL | Miscellaneous utilities specific to Debian |
| dhcp | dhcp-client | 4.4.1 | ISC | Internet Software Consortium DHCP package |
| dhcp | dhcp-libs | 4.4.1 | ISC | Internet Software Consortium DHCP package |
| dosfstools | dosfstools | 4.1 | GPLv3 | DOS FAT Filesystem Utilities |
| dpkg | dpkg | 1.18.24 | GPLv2.0+ | Package maintenance system from Debian |
| dpkg | dpkg-start-stop | 1.18.24 | GPLv2.0+ | Package maintenance system from Debian |
| dropbear | dropbear | 2018.76 | MIT & BSD-3-Clause & BSD-2-Clause & PD | A lightweight SSH and SCP implementation |
| e2fsprogs | e2fsprogs | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| e2fsprogs | e2fsprogs-badblocks | 1.44.3 | GPLv2 | Ext2 Filesystem Utilities |
| e2fsprogs | e2fsprogs-e2fsck | 1.44.3 | GPLv2 | Ext2 Filesystem Utilities |
| e2fsprogs | e2fsprogs-mke2fs | 1.44.3 | GPLv2 | Ext2 Filesystem Utilities |
| e2fsprogs | e2fsprogs-resize2fs | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| elfutils | elfutils | 0.174 | (GPLv3 & Elfutils-Exception) | Utilities and libraries for handling compiled object files |
| encodings | encodings | 1.0.4 | PD | The Xorg font encoding files |
| | | | | Display or change ethernet card |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------|-------------------------------|------------------------------------|---------------------------------|--|
| ethtool | ethtool | 4.17 | GPLv2+ | settings |
| evtest | evtest | 1.33 +AUTOINC+a b140a2dab | GPLv2 | Simple tool for input event debugging |
| fb-test | fb-test | 1.1.0 | GPLv2 | Test suite for Linux framebuffer |
| file | file | 5.34 | BSD | File classification tool |
| font-alias | font-alias | 1.0.3 | MIT | X font aliases |
| font-util | font-util | 1.3.1 | BSD & MIT | X.Org font package creation /installation utilities |
| fontconfig | fontconfig-utils | 2.12.6 | MIT-style & MIT & PD | Generic font configuration library |
| gdb | gdbserver | 8.2 | GPLv2 & GPLv3 & LGPLv2 & LGPLv3 | GNU debugger |
| glib-networking | glib-networking | 2.54.1 | LGPLv2 | GLib networking extensions |
| glibc-locale | glibc-binary-localedata-en-us | 2.28 | GPLv2 & LGPLv2.1 | binary locale definition for en-us |
| glibc-locale | glibc-gconv | 2.28 | GPLv2 & LGPLv2.1 | Locale data from glibc |
| glibc-locale | glibc-gconv-iso8859-1 | 2.28 | GPLv2 & LGPLv2.1 | gconv module for character set iso8859-1 |
| glmark2 | glmark2 | 2017.07 +AUTOINC+5 e0e448ca2 | GPLv3+ & SGlv1 | OpenGL (ES) 2.0 benchmark |
| gobject-introspection | gobject-introspection | 1.58.0 | LGPLv2+ & GPLv2+ | Middleware layer between GObject-using C libraries and language bindings |
| gptfdisk | gptfdisk | 1.0.4 | GPLv2 | Utility for modifying GPT disk partitioning |
| grep | grep | 3.1 | GPLv3 | GNU grep utility |
| gststreamer 1.0 | gststreamer1.0 | 1.14.2 | LGPLv2+ | GStreamer 1.0 multimedia framework |
| gststreamer | gststreamer1.0- | | (GPLv3+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|---|---------|------------------------------|---------------------------------------|
| 1.0-libav | libav | 1.14.2 | GPLv3+) | Libav-based GStreamer 1.x plugin |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-accurip | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for accurip |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-adpcmdec | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for adpcmdec |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-adpcmenc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for adpcmenc |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-aiff | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for aiff |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-asfmux | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for asfmux |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-audiobuffersplit | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for audiobuffersplit |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-audiofxbad | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for audiofxbad |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-audiolatency | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for audiolatency |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-audiomixmatrix | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for audiomixmatrix |
| gstreamer | gstreamer1.0- | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|---------------------------------------|---------|------------------------------|---------------------------------------|
| 1.0-plugins-bad | plugins-bad-audiovisualizers | 1.14.2 | LGPLv2+ & LGPLv2.1+ | GStreamer plugin for audiovisualizers |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-autoconvert | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for autoconvert |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-bayer | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for bayer |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-bluez | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for bluez |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-bz2 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for bz2 |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-camerabin | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for camerabin |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-coloreffects | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for coloreffects |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-compositor | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for compositor |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-curl | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for curl |
| gstreamer 1.0-plugins- | gstreamer1.0- | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|--|---------|------------------------------|------------------------------------|
| bad | plugins-bad-dashdemux | 1.14.2 | LGPLv2+ & LGPLv2.1+ | GStreamer plugin for dashdemux |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-debugutilsbad | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for debugutilsbad |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-decklink | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for decklink |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-dtls | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for dtls |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-dvb | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for dvb |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-dvbsuboverlay | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for dvbsuboverlay |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-dvdspu | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for dvdspu |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-faac | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for faac |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-faceoverlay | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for faceoverlay |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-fbdevsink | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for fbdevsink |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|---|---------|------------------------------|---|
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-festival | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for festival |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-fieldanalysis | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for fieldanalysis |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-freeverb | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for freeverb |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-frei0r | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for frei0r |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-gaudieffects | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for gaudieffects |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-gdp | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for gdp |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-geometrictransform | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for geometrictransform |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-hls | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for hls |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-id3tag | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for id3tag |
| gststreamer1.0- | | | GPLv2+ & LGPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|---|---------|------------------------------|--|
| plugins-bad | gststreamer1.0-plugins-bad-inter | 1.14.2 | LGPLv2.1+ | GStreamer plugin for inter |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-interlace | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for interlace |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-ipcpipeline | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for ipcpipeline |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-ivfparse | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for ivfparse |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-ivtc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for ivtc |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-jp2kdecimator | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for jp2kdecimator |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-jpegformat | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for jpegformat |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-kms | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for kms |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-legacyrawparse | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for legacyrawparse |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-meta | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | Plugins for the GStreamer multimedia framework 1.x |



| Recipe Name | Package Name | Version | License | Description |
|-------------------------------|---|---------|------------------------------|----------------------------------|
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- midi | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for midi |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- mpegpsdemux | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for mpegpsdemux |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- mpegpsmux | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for mpegpsmux |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- mpegtsdemux | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for mpegtsdemux |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- mpegtsmux | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for mpegtsmux |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- mxmf | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for mxmf |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- netsim | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for netsim |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- pcapparse | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for pcapparse |
| gststreamer 1.0- plugins- bad | gststreamer1.0- plugins- bad- pnm | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for pnm |
| gststreamer 1.0- | | | GPLv2+ & LGPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|--|---------|------------------------------|------------------------------------|
| plugins-bad | gststreamer1.0-plugins-bad-proxy | 1.14.2 | LGPLv2.1+ | GStreamer plugin for proxy |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-removesilence | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for removesilence |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-rfbsrc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for rfbsrc |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-rsvg | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for rsvg |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-rtpnvif | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for rtpnvif |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-sbc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for sbc |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-sdpelem | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for sdpelem |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-segmentclip | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for segmentclip |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-shm | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for shm |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-siren | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for siren |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|--|---------|------------------------------|--------------------------------------|
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-smooth | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for smooth |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-smoothstreaming | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for smoothstreaming |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-sndfile | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for sndfile |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-speed | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for speed |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-stereo | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for stereo |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-subenc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for subenc |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-timecode | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for timecode |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-ttmlsubs | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for ttmlsubs |
| gststreamer1.0-plugins-bad | gststreamer1.0-plugins-bad-uvch264 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for uvch264 |
| gststreamer1.0- | gststreamer1.0-plugins-bad- | | GPLv2+ & LGPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|--|---------|------------------------------|--|
| plugins-bad | vcsrc | 1.14.2 | LGPLv2.1+ | GStreamer plugin for vcsrc |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-videofiltersbad | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for videofiltersbad |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-videoframe-audiolevel | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for videoframe-audiolevel |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-videoparsersbad | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for videoparsersbad |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-videosignal | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for videosignal |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-vmnc | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for vmnc |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-waylandsink | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for waylandsink |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-webp | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for webp |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-y4mdec | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for y4mdec |
| gstreamer 1.0-plugins-bad | gstreamer1.0-plugins-bad-yadif | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | GStreamer plugin for yadif |



| Recipe Name | Package Name | Version | License | Description |
|------------------------------|---|---------|------------------|--|
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-adder | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for adder |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-alsa | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for alsa |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-app | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for app |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-apps | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-audioconvert | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audioconvert |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-audiomixer | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiomixer |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-audiorate | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiorate |
| gststreamer 1.0-plugins-base | gststreamer1.0-plugins-base-audioresample | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audioresample |
| gststreamer 1.0- | gststreamer1.0-plugins-base- | | | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|------------------------------------|---------|------------------|--|
| plugins-base | audiotestsrc | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiotestsrc |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-encoding | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for encoding |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-gio | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for gio |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-meta | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-ogg | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for ogg |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-opengl | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for opengl |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-pango | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for pango |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-pbtypes | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for pbtypes |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-playback | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for playback |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-rawparse | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for rawparse |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|---|---------|------------------|--|
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-subparse | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for subparse |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-tcp | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for tcp |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-theora | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for theora |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-typefindfunctions | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for typefindfunctions |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videoconvert | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videoconvert |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videorate | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videorate |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videoscale | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videoscale |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videotestsrc | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videotestsrc |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-volume | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for volume |
| gststreamer1.0- | gststreamer1.0-plugins-base- | | | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|--|---------|--------------------|-----------------------------------|
| plugins-base | vorbis | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for vorbis |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-ximagesink | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for ximagesink |
| gstreamer 1.0-plugins-base | gstreamer1.0-plugins-base-xvimagesink | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for xvimagesink |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-alaw | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for alaw |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-alpha | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for alpha |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-alphacolor | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for alphacolor |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-apatag | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for apetag |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-audiofx | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for audiofx |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-audioparsers | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for audioparsers |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-auparse | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for auparse |



| Recipe Name | Package Name | Version | License | Description |
|-------------------------------|---|---------|--------------------|----------------------------------|
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- autodetect | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for autodetect |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good-avi | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for avi |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- cairo | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for cairo |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- cutter | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for cutter |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- debug | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for debug |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- deinterlace | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for deinterlace |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- dtmf | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for dtmf |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- effectv | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for effectv |
| gststreamer 1.0- plugins-good | gststreamer1.0- plugins-good- equalizer | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for equalizer |
| gststreamer 1.0- | | | | |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|---|---------|--------------------|----------------------------------|
| plugins-good | gststreamer1.0-plugins-good-flac | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for flac |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-flv | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for flv |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-flxdec | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for flxdec |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-gdkpixbuf | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for gdkpixbuf |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-goom | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for goom |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-goom2k1 | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for goom2k1 |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-gtk | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for gtk |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-icydemux | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for icydemux |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-id3demux | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for id3demux |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-imagefreeze | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for imagefreeze |



| Recipe Name | Package Name | Version | License | Description |
|--------------------------------|---|---------|--------------------|--|
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- interleave | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for interleave |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- isomp4 | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for isomp4 |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- jpeg | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for jpeg |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- lame | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for lame |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- level | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for level |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- matroska | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for matroska |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- meta | 1.14.2 | GPLv2+ & LGPLv2.1+ | Plugins for the GStreamer multimedia framework 1.x |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- mpg123 | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for mpg123 |
| gststreamer 1.0- plugins- good | gststreamer1.0- plugins- good- mulaw | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for mulaw |
| gststreamer 1.0- | gststreamer1.0- plugins- good- | | | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|---|---------|--------------------|------------------------------------|
| plugins-good | multifile | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for multifile |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-multipart | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for multipart |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-navigatortest | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for navigatortest |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-ossaudio | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for ossaudio |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-png | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for png |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-pulseaudio | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for pulseaudio |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-replaygain | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for replaygain |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-rtp | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for rtp |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-rtpmanager | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for rtpmanager |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-rtsp | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for rtsp |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|--|---------|--------------------|-----------------------------------|
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-shapewipe | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for shapewipe |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-smpte | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for smpte |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-soup | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for soup |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-spectrum | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for spectrum |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-speex | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for speex |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-taglib | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for taglib |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-udp | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for udp |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-video4linux2 | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for video4linux2 |
| gststreamer1.0-plugins-good | gststreamer1.0-plugins-good-videobox | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for videobox |
| gststreamer1.0- | gststreamer1.0-plugins-good- | | | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------|---------------------------------------|---------|------------------------------|----------------------------------|
| plugins-good | videocrop | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for videocrop |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-videofilter | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for videofilter |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-videomixer | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for videomixer |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-wavenc | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for wavenc |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-wavparse | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for wavparse |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-ximagesrc | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for ximagesrc |
| gstreamer 1.0-plugins-good | gstreamer1.0-plugins-good-y4menc | 1.14.2 | GPLv2+ & LGPLv2.1+ | GStreamer plugin for y4menc |
| gstreamer 1.0-plugins-ugly | gstreamer1.0-plugins-ugly-a52dec | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for a52dec |
| gstreamer 1.0-plugins-ugly | gstreamer1.0-plugins-ugly-asf | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for asf |
| gstreamer 1.0-plugins-ugly | gstreamer1.0-plugins-ugly-dvdpcmdec | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for dvdpcmdec |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|---|---------|------------------------------|--|
| gststreamer1.0-plugins-ugly | gststreamer1.0-plugins-ugly-dvdsb | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for dvdsb |
| gststreamer1.0-plugins-ugly | gststreamer1.0-plugins-ugly-meta | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gststreamer1.0-plugins-ugly | gststreamer1.0-plugins-ugly-mpeg2dec | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for mpeg2dec |
| gststreamer1.0-plugins-ugly | gststreamer1.0-plugins-ugly-realmedia | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for realmedia |
| gststreamer1.0-plugins-ugly | gststreamer1.0-plugins-ugly-xingmux | 1.14.2 | GPLv2+ & LGPLv2.1+ & LGPLv2+ | GStreamer plugin for xingmux |
| gststreamer1.0-rtsp-server | gststreamer1.0-rtsp-server-meta | 1.14.2 | LGPLv2 | A library on top of GStreamer for building an RTSP server |
| gststreamer1.0-rtsp-server | gststreamer1.0-rtsp-server-rtspclientsink | 1.14.2 | LGPLv2 | GStreamer plugin for rtspclientsink |
| gtk+3 | gtk+3-demo | 3.22.30 | LGPLv2 & LGPLv2+ & LGPLv2.1+ | Multi-platform toolkit for creating GUIs |
| gtk+3 | gtk+3-locale-en | 3.22.30 | LGPLv2 & LGPLv2+ & LGPLv2.1+ | Multi-platform toolkit for creating GUIs - en translations |
| hdparm | hdparm | 9.56 | BSD | Utility for viewing/manipulating IDE disk drive/driver parameters |
| hicolor-icon-theme | hicolor-icon-theme | 0.17 | GPLv2 | Default icon theme that all icon themes automatically inherit from |
| | | | BSD-3- | User space daemon for extended |



| Recipe Name | Package Name | Version | License | Description |
|-------------|---------------------------------|---------|---------|---|
| hostapd | hostapd | 2.6 | Clause | IEEE 802.11 management |
| i2c-tools | i2c-tools | 4.0 | GPLv2+ | Set of i2c tools for linux |
| iproute2 | iproute2 | 4.18.0 | GPLv2+ | TCP / IP networking and traffic control utilities |
| iptables | iptables | 1.6.2 | GPLv2+ | Tools for managing kernel packet filtering capabilities |
| iptables | iptables-module-ebt-802-3 | 1.6.2 | GPLv2+ | iptables module ebt-802-3 |
| iptables | iptables-module-ebt-ip | 1.6.2 | GPLv2+ | iptables module ebt-ip |
| iptables | iptables-module-ebt-log | 1.6.2 | GPLv2+ | iptables module ebt-log |
| iptables | iptables-module-ebt-mark-m | 1.6.2 | GPLv2+ | iptables module ebt-mark-m |
| iptables | iptables-module-ip6t-ah | 1.6.2 | GPLv2+ | iptables module ip6t-ah |
| iptables | iptables-module-ip6t-dnat | 1.6.2 | GPLv2+ | iptables module ip6t-dnat |
| iptables | iptables-module-ip6t-dnpt | 1.6.2 | GPLv2+ | iptables module ip6t-dnpt |
| iptables | iptables-module-ip6t-dst | 1.6.2 | GPLv2+ | iptables module ip6t-dst |
| iptables | iptables-module-ip6t-eui64 | 1.6.2 | GPLv2+ | iptables module ip6t-eui64 |
| iptables | iptables-module-ip6t-frag | 1.6.2 | GPLv2+ | iptables module ip6t-frag |
| iptables | iptables-module-ip6t-hbh | 1.6.2 | GPLv2+ | iptables module ip6t-hbh |
| iptables | iptables-module-ip6t-hl | 1.6.2 | GPLv2+ | iptables module ip6t-hl |
| iptables | iptables-module-ip6t-icmp6 | 1.6.2 | GPLv2+ | iptables module ip6t-icmp6 |
| iptables | iptables-module-ip6t-ipv6header | 1.6.2 | GPLv2+ | iptables module ip6t-ipv6header |
| iptables | iptables-module-ip6t-log | 1.6.2 | GPLv2+ | iptables module ip6t-log |



| Recipe Name | Package Name | Version | License | Description |
|-------------|---------------------------------|---------|---------|---------------------------------|
| iptables | iptables-module-ip6t-masquerade | 1.6.2 | GPLv2+ | iptables module ip6t-masquerade |
| iptables | iptables-module-ip6t-mh | 1.6.2 | GPLv2+ | iptables module ip6t-mh |
| iptables | iptables-module-ip6t-netmap | 1.6.2 | GPLv2+ | iptables module ip6t-netmap |
| iptables | iptables-module-ip6t-redirect | 1.6.2 | GPLv2+ | iptables module ip6t-redirect |
| iptables | iptables-module-ip6t-reject | 1.6.2 | GPLv2+ | iptables module ip6t-reject |
| iptables | iptables-module-ip6t-rt | 1.6.2 | GPLv2+ | iptables module ip6t-rt |
| iptables | iptables-module-ip6t-snat | 1.6.2 | GPLv2+ | iptables module ip6t-snat |
| iptables | iptables-module-ip6t-snpt | 1.6.2 | GPLv2+ | iptables module ip6t-snpt |
| iptables | iptables-module-ip6t-srh | 1.6.2 | GPLv2+ | iptables module ip6t-srh |
| iptables | iptables-module-ipt-ah | 1.6.2 | GPLv2+ | iptables module ipt-ah |
| iptables | iptables-module-ipt-clusterip | 1.6.2 | GPLv2+ | iptables module ipt-clusterip |
| iptables | iptables-module-ipt-dnat | 1.6.2 | GPLv2+ | iptables module ipt-dnat |
| iptables | iptables-module-ipt-ecn | 1.6.2 | GPLv2+ | iptables module ipt-ecn |
| iptables | iptables-module-ipt-icmp | 1.6.2 | GPLv2+ | iptables module ipt-icmp |
| iptables | iptables-module-ipt-log | 1.6.2 | GPLv2+ | iptables module ipt-log |
| iptables | iptables-module-ipt-masquerade | 1.6.2 | GPLv2+ | iptables module ipt-masquerade |
| iptables | iptables-module-ipt-netmap | 1.6.2 | GPLv2+ | iptables module ipt-netmap |
| iptables | iptables-module-ipt-realm | 1.6.2 | GPLv2+ | iptables module ipt-realm |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--------------------------------|---------|---------|--------------------------------|
| iptables | iptables-module-ipt-redirect | 1.6.2 | GPLv2+ | iptables module ipt-redirect |
| iptables | iptables-module-ipt-reject | 1.6.2 | GPLv2+ | iptables module ipt-reject |
| iptables | iptables-module-ipt-snat | 1.6.2 | GPLv2+ | iptables module ipt-snat |
| iptables | iptables-module-ipt-ttl | 1.6.2 | GPLv2+ | iptables module ipt-ttl |
| iptables | iptables-module-ipt-uloog | 1.6.2 | GPLv2+ | iptables module ipt-uloog |
| iptables | iptables-module-xt-addrtype | 1.6.2 | GPLv2+ | iptables module xt-addrtype |
| iptables | iptables-module-xt-audit | 1.6.2 | GPLv2+ | iptables module xt-audit |
| iptables | iptables-module-xt-bpf | 1.6.2 | GPLv2+ | iptables module xt-bpf |
| iptables | iptables-module-xt-cgroup | 1.6.2 | GPLv2+ | iptables module xt-cgroup |
| iptables | iptables-module-xt-checksum | 1.6.2 | GPLv2+ | iptables module xt-checksum |
| iptables | iptables-module-xt-classify | 1.6.2 | GPLv2+ | iptables module xt-classify |
| iptables | iptables-module-xt-cluster | 1.6.2 | GPLv2+ | iptables module xt-cluster |
| iptables | iptables-module-xt-comment | 1.6.2 | GPLv2+ | iptables module xt-comment |
| iptables | iptables-module-xt-connbytes | 1.6.2 | GPLv2+ | iptables module xt-connbytes |
| iptables | iptables-module-xt-connlimit | 1.6.2 | GPLv2+ | iptables module xt-connlimit |
| iptables | iptables-module-xt-connmark | 1.6.2 | GPLv2+ | iptables module xt-connmark |
| iptables | iptables-module-xt-connsecmark | 1.6.2 | GPLv2+ | iptables module xt-connsecmark |
| iptables | iptables-module-xt-contrack | 1.6.2 | GPLv2+ | iptables module xt-contrack |



| Recipe Name | Package Name | Version | License | Description |
|-------------|------------------------------|---------|---------|------------------------------|
| iptables | iptables-module-xt-cpu | 1.6.2 | GPLv2+ | iptables module xt-cpu |
| iptables | iptables-module-xt-ct | 1.6.2 | GPLv2+ | iptables module xt-ct |
| iptables | iptables-module-xt-dccp | 1.6.2 | GPLv2+ | iptables module xt-dccp |
| iptables | iptables-module-xt-devgroup | 1.6.2 | GPLv2+ | iptables module xt-devgroup |
| iptables | iptables-module-xt-dscp | 1.6.2 | GPLv2+ | iptables module xt-dscp |
| iptables | iptables-module-xt-ecn | 1.6.2 | GPLv2+ | iptables module xt-ecn |
| iptables | iptables-module-xt-esp | 1.6.2 | GPLv2+ | iptables module xt-esp |
| iptables | iptables-module-xt-hashlimit | 1.6.2 | GPLv2+ | iptables module xt-hashlimit |
| iptables | iptables-module-xt-helper | 1.6.2 | GPLv2+ | iptables module xt-helper |
| iptables | iptables-module-xt-hmark | 1.6.2 | GPLv2+ | iptables module xt-hmark |
| iptables | iptables-module-xt-idletimer | 1.6.2 | GPLv2+ | iptables module xt-idletimer |
| iptables | iptables-module-xt-ipcomp | 1.6.2 | GPLv2+ | iptables module xt-ipcomp |
| iptables | iptables-module-xt-iprange | 1.6.2 | GPLv2+ | iptables module xt-iprange |
| iptables | iptables-module-xt-ipvs | 1.6.2 | GPLv2+ | iptables module xt-ipvs |
| iptables | iptables-module-xt-led | 1.6.2 | GPLv2+ | iptables module xt-led |
| iptables | iptables-module-xt-length | 1.6.2 | GPLv2+ | iptables module xt-length |
| iptables | iptables-module-xt-limit | 1.6.2 | GPLv2+ | iptables module xt-limit |
| iptables | iptables-module-xt-mac | 1.6.2 | GPLv2+ | iptables module xt-mac |



| Recipe Name | Package Name | Version | License | Description |
|-------------|------------------------------|---------|---------|------------------------------|
| iptables | iptables-module-xt-mangle | 1.6.2 | GPLv2+ | iptables module xt-mangle |
| iptables | iptables-module-xt-mark | 1.6.2 | GPLv2+ | iptables module xt-mark |
| iptables | iptables-module-xt-multiport | 1.6.2 | GPLv2+ | iptables module xt-multiport |
| iptables | iptables-module-xt-nfacct | 1.6.2 | GPLv2+ | iptables module xt-nfacct |
| iptables | iptables-module-xt-nflog | 1.6.2 | GPLv2+ | iptables module xt-nflog |
| iptables | iptables-module-xt-nfqueue | 1.6.2 | GPLv2+ | iptables module xt-nfqueue |
| iptables | iptables-module-xt-notrack | 1.6.2 | GPLv2+ | iptables module xt-notrack |
| iptables | iptables-module-xt-osf | 1.6.2 | GPLv2+ | iptables module xt-osf |
| iptables | iptables-module-xt-owner | 1.6.2 | GPLv2+ | iptables module xt-owner |
| iptables | iptables-module-xt-physdev | 1.6.2 | GPLv2+ | iptables module xt-physdev |
| iptables | iptables-module-xt-pkttype | 1.6.2 | GPLv2+ | iptables module xt-pkttype |
| iptables | iptables-module-xt-policy | 1.6.2 | GPLv2+ | iptables module xt-policy |
| iptables | iptables-module-xt-quota | 1.6.2 | GPLv2+ | iptables module xt-quota |
| iptables | iptables-module-xt-rateest | 1.6.2 | GPLv2+ | iptables module xt-rateest |
| iptables | iptables-module-xt-recent | 1.6.2 | GPLv2+ | iptables module xt-recent |
| iptables | iptables-module-xt-rpfilter | 1.6.2 | GPLv2+ | iptables module xt-rpfilter |
| iptables | iptables-module-xt-sctp | 1.6.2 | GPLv2+ | iptables module xt-sctp |
| iptables | iptables-module-xt-secmark | 1.6.2 | GPLv2+ | iptables module xt-secmark |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--------------------------------|---------|---------|---|
| iptables | iptables-module-xt-set | 1.6.2 | GPLv2+ | iptables module xt-set |
| iptables | iptables-module-xt-socket | 1.6.2 | GPLv2+ | iptables module xt-socket |
| iptables | iptables-module-xt-standard | 1.6.2 | GPLv2+ | iptables module xt-standard |
| iptables | iptables-module-xt-state | 1.6.2 | GPLv2+ | iptables module xt-state |
| iptables | iptables-module-xt-statistic | 1.6.2 | GPLv2+ | iptables module xt-statistic |
| iptables | iptables-module-xt-string | 1.6.2 | GPLv2+ | iptables module xt-string |
| iptables | iptables-module-xt-synproxy | 1.6.2 | GPLv2+ | iptables module xt-synproxy |
| iptables | iptables-module-xt-tcp | 1.6.2 | GPLv2+ | iptables module xt-tcp |
| iptables | iptables-module-xt-tcpmss | 1.6.2 | GPLv2+ | iptables module xt-tcpmss |
| iptables | iptables-module-xt-tcpoptstrip | 1.6.2 | GPLv2+ | iptables module xt-tcpoptstrip |
| iptables | iptables-module-xt-tee | 1.6.2 | GPLv2+ | iptables module xt-tee |
| iptables | iptables-module-xt-time | 1.6.2 | GPLv2+ | iptables module xt-time |
| iptables | iptables-module-xt-tos | 1.6.2 | GPLv2+ | iptables module xt-tos |
| iptables | iptables-module-xt-tproxy | 1.6.2 | GPLv2+ | iptables module xt-tproxy |
| iptables | iptables-module-xt-trace | 1.6.2 | GPLv2+ | iptables module xt-trace |
| iptables | iptables-module-xt-u32 | 1.6.2 | GPLv2+ | iptables module xt-u32 |
| iptables | iptables-module-xt-udp | 1.6.2 | GPLv2+ | iptables module xt-udp |
| iptables | iptables-modules | 1.6.2 | GPLv2+ | Tools for managing kernel packet filtering capabilities |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-------------------------------|-----------|--------------|--|
| iputils | iputils | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-arping | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-clockdiff | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-ping | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-rarpd | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-rdisc | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-tftpd | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-tracepath | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iputils | iputils-traceroute6 | s20180629 | BSD & GPLv2+ | Network monitoring tools |
| iw | iw | 4.14 | BSD | nl80211 based CLI configuration utility for wireless devices |
| kbd | kbd | 2.0.4 | GPLv2+ | Keytable files and keyboard utilities |
| kbd | kbd-consolefonts | 2.0.4 | GPLv2+ | Keytable files and keyboard utilities |
| kbd | kbd-keymaps | 2.0.4 | GPLv2+ | Keytable files and keyboard utilities |
| linux-stm32mp | kernel-4.19.9 | 4.19 | GPLv2 | Linux STM32MP Kernel |
| linux-stm32mp | kernel-module-6lowpan-4.19.9 | 4.19 | GPLv2 | 6lowpan kernel module |
| linux-stm32mp | kernel-module-8021q-4.19.9 | 4.19 | GPLv2 | 8021q kernel module |
| linux-stm32mp | kernel-module-act-bpf-4.19.9 | 4.19 | GPLv2 | act-bpf kernel module |
| linux-stm32mp | kernel-module-act-csum-4.19.9 | 4.19 | GPLv2 | act-csum kernel module |
| linux-stm32mp | kernel-module-act-gact-4.19.9 | 4.19 | GPLv2 | act-gact kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|-----------------------------------|
| linux-stm32mp | kernel-module-act-ife-4.19.9 | 4.19 | GPLv2 | act-ife kernel module |
| linux-stm32mp | kernel-module-act-meta-mark-4.19.9 | 4.19 | GPLv2 | act-meta-mark kernel module |
| linux-stm32mp | kernel-module-act-meta-skbprio-4.19.9 | 4.19 | GPLv2 | act-meta-skbprio kernel module |
| linux-stm32mp | kernel-module-act-meta-skbtcindex-4.19.9 | 4.19 | GPLv2 | act-meta-skbtcindex kernel module |
| linux-stm32mp | kernel-module-act-mirred-4.19.9 | 4.19 | GPLv2 | act-mirred kernel module |
| linux-stm32mp | kernel-module-act-nat-4.19.9 | 4.19 | GPLv2 | act-nat kernel module |
| linux-stm32mp | kernel-module-act-pedit-4.19.9 | 4.19 | GPLv2 | act-pedit kernel module |
| linux-stm32mp | kernel-module-act-police-4.19.9 | 4.19 | GPLv2 | act-police kernel module |
| linux-stm32mp | kernel-module-act-sample-4.19.9 | 4.19 | GPLv2 | act-sample kernel module |
| linux-stm32mp | kernel-module-act-skbmod-4.19.9 | 4.19 | GPLv2 | act-skbmod kernel module |
| linux-stm32mp | kernel-module-act-tunnel-key-4.19.9 | 4.19 | GPLv2 | act-tunnel-key kernel module |
| linux-stm32mp | kernel-module-act-vlan-4.19.9 | 4.19 | GPLv2 | act-vlan kernel module |
| linux-stm32mp | kernel-module-adv7180-4.19.9 | 4.19 | GPLv2 | adv7180 kernel module |
| linux-stm32mp | kernel-module-adv7511-4.19.9 | 4.19 | GPLv2 | adv7511 kernel module |
| linux-stm32mp | kernel-module-adxl34x-4.19.9 | 4.19 | GPLv2 | adxl34x kernel module |
| linux-stm32mp | kernel-module-adxl34x-i2c-4.19.9 | 4.19 | GPLv2 | adxl34x-i2c kernel module |
| linux- | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| stm32mp | adxl34x-spi-4.19.9 | 4.19 | GPLv2 | adxl34x-spi kernel module |
| linux-stm32mp | kernel-module-aes-arm-4.19.9 | 4.19 | GPLv2 | aes-arm kernel module |
| linux-stm32mp | kernel-module-aes-arm-bs-4.19.9 | 4.19 | GPLv2 | aes-arm-bs kernel module |
| linux-stm32mp | kernel-module-aes-arm-ce-4.19.9 | 4.19 | GPLv2 | aes-arm-ce kernel module |
| linux-stm32mp | kernel-module-ah4-4.19.9 | 4.19 | GPLv2 | ah4 kernel module |
| linux-stm32mp | kernel-module-ah6-4.19.9 | 4.19 | GPLv2 | ah6 kernel module |
| linux-stm32mp | kernel-module-algif-aead-4.19.9 | 4.19 | GPLv2 | algif-aead kernel module |
| linux-stm32mp | kernel-module-algif-rng-4.19.9 | 4.19 | GPLv2 | algif-rng kernel module |
| linux-stm32mp | kernel-module-algif-skcipher-4.19.9 | 4.19 | GPLv2 | algif-skcipher kernel module |
| linux-stm32mp | kernel-module-analogix-dp-4.19.9 | 4.19 | GPLv2 | analogix-dp kernel module |
| linux-stm32mp | kernel-module-arc4-4.19.9 | 4.19 | GPLv2 | arc4 kernel module |
| linux-stm32mp | kernel-module-arp-tables-4.19.9 | 4.19 | GPLv2 | arp-tables kernel module |
| linux-stm32mp | kernel-module-arpt-mangle-4.19.9 | 4.19 | GPLv2 | arpt-mangle kernel module |
| linux-stm32mp | kernel-module-arptable-filter-4.19.9 | 4.19 | GPLv2 | arptable-filter kernel module |
| linux-stm32mp | kernel-module-atmel-hlcdc-4.19.9 | 4.19 | GPLv2 | atmel-hlcdc kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-------------------------------------|---------|---------|------------------------------|
| linux-stm32mp | kernel-module-atmel-hlcdc-dc-4.19.9 | 4.19 | GPLv2 | atmel-hlcdc-dc kernel module |
| linux-stm32mp | kernel-module-atmel-mxt-ts-4.19.9 | 4.19 | GPLv2 | atmel-mxt-ts kernel module |
| linux-stm32mp | kernel-module-authenc-4.19.9 | 4.19 | GPLv2 | authenc kernel module |
| linux-stm32mp | kernel-module-authencesn-4.19.9 | 4.19 | GPLv2 | authencesn kernel module |
| linux-stm32mp | kernel-module-axp20x-pek-4.19.9 | 4.19 | GPLv2 | axp20x-pek kernel module |
| linux-stm32mp | kernel-module-b53-common-4.19.9 | 4.19 | GPLv2 | b53-common kernel module |
| linux-stm32mp | kernel-module-b53-mdio-4.19.9 | 4.19 | GPLv2 | b53-mdio kernel module |
| linux-stm32mp | kernel-module-b53-mmap-4.19.9 | 4.19 | GPLv2 | b53-mmap kernel module |
| linux-stm32mp | kernel-module-b53-spi-4.19.9 | 4.19 | GPLv2 | b53-spi kernel module |
| linux-stm32mp | kernel-module-b53-srab-4.19.9 | 4.19 | GPLv2 | b53-srab kernel module |
| linux-stm32mp | kernel-module-batman-adv-4.19.9 | 4.19 | GPLv2 | batman-adv kernel module |
| linux-stm32mp | kernel-module-bcm-sf2-4.19.9 | 4.19 | GPLv2 | bcm-sf2 kernel module |
| linux-stm32mp | kernel-module-bcm7xxx-4.19.9 | 4.19 | GPLv2 | bcm7xxx kernel module |
| linux-stm32mp | kernel-module-bcmsysport-4.19.9 | 4.19 | GPLv2 | bcmsysport kernel module |
| linux-stm32mp | kernel-module-bluetooth-4.19.9 | 4.19 | GPLv2 | bluetooth kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|---------------------------------|
| linux-stm32mp | kernel-module-bluetooth-6lowpan-4.19.9 | 4.19 | GPLv2 | bluetooth-6lowpan kernel module |
| linux-stm32mp | kernel-module-br-netfilter-4.19.9 | 4.19 | GPLv2 | br-netfilter kernel module |
| linux-stm32mp | kernel-module-brcmfmac-4.19.9 | 4.19 | GPLv2 | brcmfmac kernel module |
| linux-stm32mp | kernel-module-brcmutil-4.19.9 | 4.19 | GPLv2 | brcmutil kernel module |
| linux-stm32mp | kernel-module-bridge-4.19.9 | 4.19 | GPLv2 | bridge kernel module |
| linux-stm32mp | kernel-module-btbcm-4.19.9 | 4.19 | GPLv2 | btbcm kernel module |
| linux-stm32mp | kernel-module-btintel-4.19.9 | 4.19 | GPLv2 | btintel kernel module |
| linux-stm32mp | kernel-module-btmrvtl-4.19.9 | 4.19 | GPLv2 | btmrvtl kernel module |
| linux-stm32mp | kernel-module-btmrvtl-sdio-4.19.9 | 4.19 | GPLv2 | btmrvtl-sdio kernel module |
| linux-stm32mp | kernel-module-btrtl-4.19.9 | 4.19 | GPLv2 | btrtl kernel module |
| linux-stm32mp | kernel-module-btusb-4.19.9 | 4.19 | GPLv2 | btusb kernel module |
| linux-stm32mp | kernel-module-cbc-4.19.9 | 4.19 | GPLv2 | cbc kernel module |
| linux-stm32mp | kernel-module-ccm-4.19.9 | 4.19 | GPLv2 | ccm kernel module |
| linux-stm32mp | kernel-module-cec-4.19.9 | 4.19 | GPLv2 | cec kernel module |
| linux-stm32mp | kernel-module-cfg80211-4.19.9 | 4.19 | GPLv2 | cfg80211 kernel module |
| linux-stm32mp | kernel-module-chacha20-generic-4.19.9 | 4.19 | GPLv2 | chacha20-generic kernel module |
| | kernel-module-chacha20-neon- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|-----------------------------|
| linux-stm32mp | 4.19.9 | 4.19 | GPLv2 | chacha20-neon kernel module |
| linux-stm32mp | kernel-module-clk-rk808-4.19.9 | 4.19 | GPLv2 | clk-rk808 kernel module |
| linux-stm32mp | kernel-module-clk-s2mps11-4.19.9 | 4.19 | GPLv2 | clk-s2mps11 kernel module |
| linux-stm32mp | kernel-module-cls-basic-4.19.9 | 4.19 | GPLv2 | cls-basic kernel module |
| linux-stm32mp | kernel-module-cls-bpf-4.19.9 | 4.19 | GPLv2 | cls-bpf kernel module |
| linux-stm32mp | kernel-module-cls-cgroup-4.19.9 | 4.19 | GPLv2 | cls-cgroup kernel module |
| linux-stm32mp | kernel-module-cls-flow-4.19.9 | 4.19 | GPLv2 | cls-flow kernel module |
| linux-stm32mp | kernel-module-cls-flower-4.19.9 | 4.19 | GPLv2 | cls-flower kernel module |
| linux-stm32mp | kernel-module-cls-fw-4.19.9 | 4.19 | GPLv2 | cls-fw kernel module |
| linux-stm32mp | kernel-module-cls-matchall-4.19.9 | 4.19 | GPLv2 | cls-matchall kernel module |
| linux-stm32mp | kernel-module-cls-route-4.19.9 | 4.19 | GPLv2 | cls-route kernel module |
| linux-stm32mp | kernel-module-cls-rsvp-4.19.9 | 4.19 | GPLv2 | cls-rsvp kernel module |
| linux-stm32mp | kernel-module-cls-rsvp6-4.19.9 | 4.19 | GPLv2 | cls-rsvp6 kernel module |
| linux-stm32mp | kernel-module-cls-tcindex-4.19.9 | 4.19 | GPLv2 | cls-tcindex kernel module |
| linux-stm32mp | kernel-module-cls-u32-4.19.9 | 4.19 | GPLv2 | cls-u32 kernel module |
| linux-stm32mp | kernel-module-cm36651-4.19.9 | 4.19 | GPLv2 | cm36651 kernel module |
| linux-stm32mp | kernel-module-cmac-4.19.9 | 4.19 | GPLv2 | cmac kernel module |
| linux-stm32mp | kernel-module-cpcap-adc-4.19.9 | 4.19 | GPLv2 | cpcap-adc kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| linux-stm32mp | kernel-module-cpcap-pwrbutton-4.19.9 | 4.19 | GPLv2 | cpcap-pwrbutton kernel module |
| linux-stm32mp | kernel-module-crc-ccitt-4.19.9 | 4.19 | GPLv2 | crc-ccitt kernel module |
| linux-stm32mp | kernel-module-crc-itu-t-4.19.9 | 4.19 | GPLv2 | crc-itu-t kernel module |
| linux-stm32mp | kernel-module-crc32-arm-ce-4.19.9 | 4.19 | GPLv2 | crc32-arm-ce kernel module |
| linux-stm32mp | kernel-module-cros-ec-core-4.19.9 | 4.19 | GPLv2 | cros-ec-core kernel module |
| linux-stm32mp | kernel-module-cros-ec-i2c-4.19.9 | 4.19 | GPLv2 | cros-ec-i2c kernel module |
| linux-stm32mp | kernel-module-cros-ec-keyb-4.19.9 | 4.19 | GPLv2 | cros-ec-keyb kernel module |
| linux-stm32mp | kernel-module-cros-ec-spi-4.19.9 | 4.19 | GPLv2 | cros-ec-spi kernel module |
| linux-stm32mp | kernel-module-cryptd-4.19.9 | 4.19 | GPLv2 | cryptd kernel module |
| linux-stm32mp | kernel-module-crypto-simd-4.19.9 | 4.19 | GPLv2 | crypto-simd kernel module |
| linux-stm32mp | kernel-module-crypto-user-4.19.9 | 4.19 | GPLv2 | crypto-user kernel module |
| linux-stm32mp | kernel-module-ctr-4.19.9 | 4.19 | GPLv2 | ctr kernel module |
| linux-stm32mp | kernel-module-cyapatp-4.19.9 | 4.19 | GPLv2 | cyapatp kernel module |
| linux-stm32mp | kernel-module-da9063-4.19.9 | 4.19 | GPLv2 | da9063 kernel module |
| linux-stm32mp | kernel-module-da9063-wdt-4.19.9 | 4.19 | GPLv2 | da9063-wdt kernel module |
| | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|----------------------------|
| linux-stm32mp | des-generic-4.19.9 | 4.19 | GPLv2 | des-generic kernel module |
| linux-stm32mp | kernel-module-drbg-4.19.9 | 4.19 | GPLv2 | drbg kernel module |
| linux-stm32mp | kernel-module-dsa-core-4.19.9 | 4.19 | GPLv2 | dsa-core kernel module |
| linux-stm32mp | kernel-module-dumb-vga-dac-4.19.9 | 4.19 | GPLv2 | dumb-vga-dac kernel module |
| linux-stm32mp | kernel-module-ebt-802-3-4.19.9 | 4.19 | GPLv2 | ebt-802-3 kernel module |
| linux-stm32mp | kernel-module-ebt-among-4.19.9 | 4.19 | GPLv2 | ebt-among kernel module |
| linux-stm32mp | kernel-module-ebt-arp-4.19.9 | 4.19 | GPLv2 | ebt-arp kernel module |
| linux-stm32mp | kernel-module-ebt-arpreply-4.19.9 | 4.19 | GPLv2 | ebt-arpreply kernel module |
| linux-stm32mp | kernel-module-ebt-dnat-4.19.9 | 4.19 | GPLv2 | ebt-dnat kernel module |
| linux-stm32mp | kernel-module-ebt-ip-4.19.9 | 4.19 | GPLv2 | ebt-ip kernel module |
| linux-stm32mp | kernel-module-ebt-ip6-4.19.9 | 4.19 | GPLv2 | ebt-ip6 kernel module |
| linux-stm32mp | kernel-module-ebt-limit-4.19.9 | 4.19 | GPLv2 | ebt-limit kernel module |
| linux-stm32mp | kernel-module-ebt-log-4.19.9 | 4.19 | GPLv2 | ebt-log kernel module |
| linux-stm32mp | kernel-module-ebt-mark-4.19.9 | 4.19 | GPLv2 | ebt-mark kernel module |
| linux-stm32mp | kernel-module-ebt-mark-m-4.19.9 | 4.19 | GPLv2 | ebt-mark-m kernel module |
| linux-stm32mp | kernel-module-ebt-nflog-4.19.9 | 4.19 | GPLv2 | ebt-nflog kernel module |
| linux-stm32mp | kernel-module-ebt-pkttype-4.19.9 | 4.19 | GPLv2 | ebt-pkttype kernel module |
| linux- | kernel-module-ebt- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-------------------------------------|---------|---------|------------------------------|
| stm32mp | redirect-4.19.9 | 4.19 | GPLv2 | ebt-redirect kernel module |
| linux-stm32mp | kernel-module-ebt-snat-4.19.9 | 4.19 | GPLv2 | ebt-snat kernel module |
| linux-stm32mp | kernel-module-ebt-stp-4.19.9 | 4.19 | GPLv2 | ebt-stp kernel module |
| linux-stm32mp | kernel-module-ebt-vlan-4.19.9 | 4.19 | GPLv2 | ebt-vlan kernel module |
| linux-stm32mp | kernel-module-ebtable-broute-4.19.9 | 4.19 | GPLv2 | ebtable-broute kernel module |
| linux-stm32mp | kernel-module-ebtable-filter-4.19.9 | 4.19 | GPLv2 | ebtable-filter kernel module |
| linux-stm32mp | kernel-module-ebtable-nat-4.19.9 | 4.19 | GPLv2 | ebtable-nat kernel module |
| linux-stm32mp | kernel-module-ebtables-4.19.9 | 4.19 | GPLv2 | ebtables kernel module |
| linux-stm32mp | kernel-module-ecb-4.19.9 | 4.19 | GPLv2 | ecb kernel module |
| linux-stm32mp | kernel-module-ecdh-generic-4.19.9 | 4.19 | GPLv2 | ecdh-generic kernel module |
| linux-stm32mp | kernel-module-echainiv-4.19.9 | 4.19 | GPLv2 | echainiv kernel module |
| linux-stm32mp | kernel-module-edt-ft5x06-4.19.9 | 4.19 | GPLv2 | edt-ft5x06 kernel module |
| linux-stm32mp | kernel-module-em-canid-4.19.9 | 4.19 | GPLv2 | em-canid kernel module |
| linux-stm32mp | kernel-module-em-cmp-4.19.9 | 4.19 | GPLv2 | em-cmp kernel module |
| linux-stm32mp | kernel-module-em-meta-4.19.9 | 4.19 | GPLv2 | em-meta kernel module |
| linux-stm32mp | kernel-module-em-nbyte-4.19.9 | 4.19 | GPLv2 | em-nbyte kernel module |
| linux- | kernel-module-em- | | | |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------|-----------------------------------|----------|-------------|----------------------------|
| stm32mp | text-4.19.9 | 4.19 | GPLv2 | em-text kernel module |
| linux-stm32mp | kernel-module-em-u32-4.19.9 | 4.19 | GPLv2 | em-u32 kernel module |
| linux-stm32mp | kernel-module-esp4-4.19.9 | 4.19 | GPLv2 | esp4 kernel module |
| linux-stm32mp | kernel-module-esp4-offload-4.19.9 | 4.19 | GPLv2 | esp4-offload kernel module |
| linux-stm32mp | kernel-module-esp6-4.19.9 | 4.19 | GPLv2 | esp6 kernel module |
| linux-stm32mp | kernel-module-esp6-offload-4.19.9 | 4.19 | GPLv2 | esp6-offload kernel module |
| linux-stm32mp | kernel-module-exynosdrm-4.19.9 | 4.19 | GPLv2 | exynosdrm kernel module |
| linux-stm32mp | kernel-module-ff-memless-4.19.9 | 4.19 | GPLv2 | ff-memless kernel module |
| linux-stm32mp | kernel-module-flexcan-4.19.9 | 4.19 | GPLv2 | flexcan kernel module |
| linux-stm32mp | kernel-module-fou-4.19.9 | 4.19 | GPLv2 | fou kernel module |
| linux-stm32mp | kernel-module-fou6-4.19.9 | 4.19 | GPLv2 | fou6 kernel module |
| linux-stm32mp | kernel-module-fsl-dcu-drm-4.19.9 | 4.19 | GPLv2 | fsl-dcu-drm kernel module |
| linux-stm32mp | kernel-module-g-ether-4.19.9 | 4.19 | GPLv2 | g-ether kernel module |
| gcnano-driver-stm32mp | kernel-module-galcore-4.19.9 | 6.2.4.p3 | GPLv1 & MIT | galcore kernel module |
| linux-stm32mp | kernel-module-garp-4.19.9 | 4.19 | GPLv2 | garp kernel module |
| linux-stm32mp | kernel-module-gcm-4.19.9 | 4.19 | GPLv2 | gcm kernel module |
| linux-stm32mp | kernel-module-genet-4.19.9 | 4.19 | GPLv2 | genet kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|--------------------------------------|
| linux-stm32mp | kernel-module-gf128mul-4.19.9 | 4.19 | GPLv2 | gf128mul kernel module |
| linux-stm32mp | kernel-module-ghash-arm-ce-4.19.9 | 4.19 | GPLv2 | ghash-arm-ce kernel module |
| linux-stm32mp | kernel-module-ghash-generic-4.19.9 | 4.19 | GPLv2 | ghash-generic kernel module |
| linux-stm32mp | kernel-module-goodix-4.19.9 | 4.19 | GPLv2 | goodix kernel module |
| linux-stm32mp | kernel-module-gre-4.19.9 | 4.19 | GPLv2 | gre kernel module |
| linux-stm32mp | kernel-module-gspca-main-4.19.9 | 4.19 | GPLv2 | gspca-main kernel module |
| linux-stm32mp | kernel-module-hci-uart-4.19.9 | 4.19 | GPLv2 | hci-uart kernel module |
| linux-stm32mp | kernel-module-hsr-4.19.9 | 4.19 | GPLv2 | hsr kernel module |
| linux-stm32mp | kernel-module-i2c-arb-gpio-challenge-4.19.9 | 4.19 | GPLv2 | i2c-arb-gpio-challenge kernel module |
| linux-stm32mp | kernel-module-i2c-cros-ec-tunnel-4.19.9 | 4.19 | GPLv2 | i2c-cros-ec-tunnel kernel module |
| linux-stm32mp | kernel-module-ieee802154-4.19.9 | 4.19 | GPLv2 | ieee802154 kernel module |
| linux-stm32mp | kernel-module-ieee802154-socket-4.19.9 | 4.19 | GPLv2 | ieee802154-socket kernel module |
| linux-stm32mp | kernel-module-ife-4.19.9 | 4.19 | GPLv2 | ife kernel module |
| linux-stm32mp | kernel-module-ina2xx-4.19.9 | 4.19 | GPLv2 | ina2xx kernel module |
| linux-stm32mp | kernel-module-inet-diag-4.19.9 | 4.19 | GPLv2 | inet-diag kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| linux-stm32mp | kernel-module-ip-gre-4.19.9 | 4.19 | GPLv2 | ip-gre kernel module |
| linux-stm32mp | kernel-module-ip-set-4.19.9 | 4.19 | GPLv2 | ip-set kernel module |
| linux-stm32mp | kernel-module-ip-tables-4.19.9 | 4.19 | GPLv2 | ip-tables kernel module |
| linux-stm32mp | kernel-module-ip-tunnel-4.19.9 | 4.19 | GPLv2 | ip-tunnel kernel module |
| linux-stm32mp | kernel-module-ip-vs-4.19.9 | 4.19 | GPLv2 | ip-vs kernel module |
| linux-stm32mp | kernel-module-ip-vti-4.19.9 | 4.19 | GPLv2 | ip-vti kernel module |
| linux-stm32mp | kernel-module-ip6-gre-4.19.9 | 4.19 | GPLv2 | ip6-gre kernel module |
| linux-stm32mp | kernel-module-ip6-tables-4.19.9 | 4.19 | GPLv2 | ip6-tables kernel module |
| linux-stm32mp | kernel-module-ip6-tunnel-4.19.9 | 4.19 | GPLv2 | ip6-tunnel kernel module |
| linux-stm32mp | kernel-module-ip6-udp-tunnel-4.19.9 | 4.19 | GPLv2 | ip6-udp-tunnel kernel module |
| linux-stm32mp | kernel-module-ip6-vti-4.19.9 | 4.19 | GPLv2 | ip6-vti kernel module |
| linux-stm32mp | kernel-module-ip6t-ah-4.19.9 | 4.19 | GPLv2 | ip6t-ah kernel module |
| linux-stm32mp | kernel-module-ip6t-eui64-4.19.9 | 4.19 | GPLv2 | ip6t-eui64 kernel module |
| linux-stm32mp | kernel-module-ip6t-frag-4.19.9 | 4.19 | GPLv2 | ip6t-frag kernel module |
| linux-stm32mp | kernel-module-ip6t-hbh-4.19.9 | 4.19 | GPLv2 | ip6t-hbh kernel module |
| linux-stm32mp | kernel-module-ip6t-ipv6header-4.19.9 | 4.19 | GPLv2 | ip6t-ipv6header kernel module |
| linux-stm32mp | kernel-module-ip6t-masquerade-4.19.9 | 4.19 | GPLv2 | ip6t-masquerade kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| linux-stm32mp | kernel-module-ip6t-mh-4.19.9 | 4.19 | GPLv2 | ip6t-mh kernel module |
| linux-stm32mp | kernel-module-ip6t-npt-4.19.9 | 4.19 | GPLv2 | ip6t-npt kernel module |
| linux-stm32mp | kernel-module-ip6t-reject-4.19.9 | 4.19 | GPLv2 | ip6t-reject kernel module |
| linux-stm32mp | kernel-module-ip6t-rpfilter-4.19.9 | 4.19 | GPLv2 | ip6t-rpfilter kernel module |
| linux-stm32mp | kernel-module-ip6t-rt-4.19.9 | 4.19 | GPLv2 | ip6t-rt kernel module |
| linux-stm32mp | kernel-module-ip6t-synproxy-4.19.9 | 4.19 | GPLv2 | ip6t-synproxy kernel module |
| linux-stm32mp | kernel-module-ip6table-filter-4.19.9 | 4.19 | GPLv2 | ip6table-filter kernel module |
| linux-stm32mp | kernel-module-ip6table-mangle-4.19.9 | 4.19 | GPLv2 | ip6table-mangle kernel module |
| linux-stm32mp | kernel-module-ip6table-nat-4.19.9 | 4.19 | GPLv2 | ip6table-nat kernel module |
| linux-stm32mp | kernel-module-ip6table-raw-4.19.9 | 4.19 | GPLv2 | ip6table-raw kernel module |
| linux-stm32mp | kernel-module-ipcomp-4.19.9 | 4.19 | GPLv2 | ipcomp kernel module |
| linux-stm32mp | kernel-module-ipcomp6-4.19.9 | 4.19 | GPLv2 | ipcomp6 kernel module |
| linux-stm32mp | kernel-module-ipip-4.19.9 | 4.19 | GPLv2 | ipip kernel module |
| linux-stm32mp | kernel-module-ipt-ah-4.19.9 | 4.19 | GPLv2 | ipt-ah kernel module |
| linux-stm32mp | kernel-module-ipt-clusterip-4.19.9 | 4.19 | GPLv2 | ipt-clusterip kernel module |
| linux-stm32mp | kernel-module-ipt-ecn-4.19.9 | 4.19 | GPLv2 | ipt-ecn kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|---------------------------------|
| linux-stm32mp | kernel-module-ipt-masquerade-4.19.9 | 4.19 | GPLv2 | ipt-masquerade kernel module |
| linux-stm32mp | kernel-module-ipt-reject-4.19.9 | 4.19 | GPLv2 | ipt-reject kernel module |
| linux-stm32mp | kernel-module-ipt-rpfilter-4.19.9 | 4.19 | GPLv2 | ipt-rpfilter kernel module |
| linux-stm32mp | kernel-module-ipt-synproxy-4.19.9 | 4.19 | GPLv2 | ipt-synproxy kernel module |
| linux-stm32mp | kernel-module-iptables-filter-4.19.9 | 4.19 | GPLv2 | iptables-filter kernel module |
| linux-stm32mp | kernel-module-iptables-mangle-4.19.9 | 4.19 | GPLv2 | iptables-mangle kernel module |
| linux-stm32mp | kernel-module-iptables-nat-4.19.9 | 4.19 | GPLv2 | iptables-nat kernel module |
| linux-stm32mp | kernel-module-iptables-raw-4.19.9 | 4.19 | GPLv2 | iptables-raw kernel module |
| linux-stm32mp | kernel-module-ipv6-4.19.9 | 4.19 | GPLv2 | ipv6 kernel module |
| linux-stm32mp | kernel-module-jitterentropy-rng-4.19.9 | 4.19 | GPLv2 | jitterentropy-rng kernel module |
| linux-stm32mp | kernel-module-l2tp-core-4.19.9 | 4.19 | GPLv2 | l2tp-core kernel module |
| linux-stm32mp | kernel-module-lan78xx-4.19.9 | 4.19 | GPLv2 | lan78xx kernel module |
| linux-stm32mp | kernel-module-lcd-4.19.9 | 4.19 | GPLv2 | lcd kernel module |
| linux-stm32mp | kernel-module-led-class-flash-4.19.9 | 4.19 | GPLv2 | led-class-flash kernel module |
| linux-stm32mp | kernel-module-leds-cpcap-4.19.9 | 4.19 | GPLv2 | leds-cpcap kernel module |
| linux-stm32mp | kernel-module-leds-max77693-4.19.9 | 4.19 | GPLv2 | leds-max77693 kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|----------------------------------|
| linux-stm32mp | kernel-module-leds-max8997-4.19.9 | 4.19 | GPLv2 | leds-max8997 kernel module |
| linux-stm32mp | kernel-module-libcrc32c-4.19.9 | 4.19 | GPLv2 | libcrc32c kernel module |
| linux-stm32mp | kernel-module-llc-4.19.9 | 4.19 | GPLv2 | llc kernel module |
| linux-stm32mp | kernel-module-llc2-4.19.9 | 4.19 | GPLv2 | llc2 kernel module |
| linux-stm32mp | kernel-module-mac80211-4.19.9 | 4.19 | GPLv2 | mac80211 kernel module |
| linux-stm32mp | kernel-module-macvlan-4.19.9 | 4.19 | GPLv2 | macvlan kernel module |
| linux-stm32mp | kernel-module-macvtap-4.19.9 | 4.19 | GPLv2 | macvtap kernel module |
| linux-stm32mp | kernel-module-max14577-regulator-4.19.9 | 4.19 | GPLv2 | max14577-regulator kernel module |
| linux-stm32mp | kernel-module-max77693-4.19.9 | 4.19 | GPLv2 | max77693 kernel module |
| linux-stm32mp | kernel-module-max77693-haptic-4.19.9 | 4.19 | GPLv2 | max77693-haptic kernel module |
| linux-stm32mp | kernel-module-max77693-regulator-4.19.9 | 4.19 | GPLv2 | max77693-regulator kernel module |
| linux-stm32mp | kernel-module-max77802-regulator-4.19.9 | 4.19 | GPLv2 | max77802-regulator kernel module |
| linux-stm32mp | kernel-module-max8997-haptic-4.19.9 | 4.19 | GPLv2 | max8997-haptic kernel module |
| linux-stm32mp | kernel-module-max8997-regulator-4.19.9 | 4.19 | GPLv2 | max8997-regulator kernel module |
| linux-stm32mp | kernel-module-max8998-4.19.9 | 4.19 | GPLv2 | max8998 kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|-------------------------------------|
| linux-stm32mp | kernel-module-mdio-bcm-unimac-4.19.9 | 4.19 | GPLv2 | mdio-bcm-unimac kernel module |
| linux-stm32mp | kernel-module-media-4.19.9 | 4.19 | GPLv2 | media kernel module |
| linux-stm32mp | kernel-module-microchip-4.19.9 | 4.19 | GPLv2 | microchip kernel module |
| linux-stm32mp | kernel-module-mip6-4.19.9 | 4.19 | GPLv2 | mip6 kernel module |
| linux-stm32mp | kernel-module-ml86v7667-4.19.9 | 4.19 | GPLv2 | ml86v7667 kernel module |
| linux-stm32mp | kernel-module-mms114-4.19.9 | 4.19 | GPLv2 | mms114 kernel module |
| linux-stm32mp | kernel-module-mpls-gso-4.19.9 | 4.19 | GPLv2 | mpls-gso kernel module |
| linux-stm32mp | kernel-module-mrp-4.19.9 | 4.19 | GPLv2 | mrp kernel module |
| linux-stm32mp | kernel-module-mwifiex-4.19.9 | 4.19 | GPLv2 | mwifiex kernel module |
| linux-stm32mp | kernel-module-mwifiex-sdio-4.19.9 | 4.19 | GPLv2 | mwifiex-sdio kernel module |
| linux-stm32mp | kernel-module-mxsfb-4.19.9 | 4.19 | GPLv2 | mxsfb kernel module |
| linux-stm32mp | kernel-module-netlink-diag-4.19.9 | 4.19 | GPLv2 | netlink-diag kernel module |
| linux-stm32mp | kernel-module-nf-conncount-4.19.9 | 4.19 | GPLv2 | nf-conncount kernel module |
| linux-stm32mp | kernel-module-nf-contrack-4.19.9 | 4.19 | GPLv2 | nf-contrack kernel module |
| linux-stm32mp | kernel-module-nf-contrack-amanda-4.19.9 | 4.19 | GPLv2 | nf-contrack-amanda kernel module |
| linux-stm32mp | kernel-module-nf-contrack-broadcast-4.19.9 | 4.19 | GPLv2 | nf-contrack-broadcast kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|--------------------------------------|
| linux-stm32mp | kernel-module-nf-contrack-ftp-4.19.9 | 4.19 | GPLv2 | nf-contrack-ftp kernel module |
| linux-stm32mp | kernel-module-nf-contrack-h323-4.19.9 | 4.19 | GPLv2 | nf-contrack-h323 kernel module |
| linux-stm32mp | kernel-module-nf-contrack-irc-4.19.9 | 4.19 | GPLv2 | nf-contrack-irc kernel module |
| linux-stm32mp | kernel-module-nf-contrack-netbios-ns-4.19.9 | 4.19 | GPLv2 | nf-contrack-netbios-ns kernel module |
| linux-stm32mp | kernel-module-nf-contrack-netlink-4.19.9 | 4.19 | GPLv2 | nf-contrack-netlink kernel module |
| linux-stm32mp | kernel-module-nf-contrack-pptp-4.19.9 | 4.19 | GPLv2 | nf-contrack-pptp kernel module |
| linux-stm32mp | kernel-module-nf-contrack-proto-gre-4.19.9 | 4.19 | GPLv2 | nf-contrack-proto-gre kernel module |
| linux-stm32mp | kernel-module-nf-contrack-sip-4.19.9 | 4.19 | GPLv2 | nf-contrack-sip kernel module |
| linux-stm32mp | kernel-module-nf-contrack-snmpp-4.19.9 | 4.19 | GPLv2 | nf-contrack-snmpp kernel module |
| linux-stm32mp | kernel-module-nf-contrack-tftp-4.19.9 | 4.19 | GPLv2 | nf-contrack-tftp kernel module |
| linux-stm32mp | kernel-module-nf-defrag-ipv4-4.19.9 | 4.19 | GPLv2 | nf-defrag-ipv4 kernel module |
| linux-stm32mp | kernel-module-nf-defrag-ipv6-4.19.9 | 4.19 | GPLv2 | nf-defrag-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-dup-ipv4-4.19.9 | 4.19 | GPLv2 | nf-dup-ipv4 kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---------------------------------------|---------|---------|--------------------------------|
| linux-stm32mp | kernel-module-nf-dup-ipv6-4.19.9 | 4.19 | GPLv2 | nf-dup-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-log-arp-4.19.9 | 4.19 | GPLv2 | nf-log-arp kernel module |
| linux-stm32mp | kernel-module-nf-log-common-4.19.9 | 4.19 | GPLv2 | nf-log-common kernel module |
| linux-stm32mp | kernel-module-nf-log-ipv4-4.19.9 | 4.19 | GPLv2 | nf-log-ipv4 kernel module |
| linux-stm32mp | kernel-module-nf-log-ipv6-4.19.9 | 4.19 | GPLv2 | nf-log-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-log-netdev-4.19.9 | 4.19 | GPLv2 | nf-log-netdev kernel module |
| linux-stm32mp | kernel-module-nf-nat-4.19.9 | 4.19 | GPLv2 | nf-nat kernel module |
| linux-stm32mp | kernel-module-nf-nat-amanda-4.19.9 | 4.19 | GPLv2 | nf-nat-amanda kernel module |
| linux-stm32mp | kernel-module-nf-nat-ftp-4.19.9 | 4.19 | GPLv2 | nf-nat-ftp kernel module |
| linux-stm32mp | kernel-module-nf-nat-h323-4.19.9 | 4.19 | GPLv2 | nf-nat-h323 kernel module |
| linux-stm32mp | kernel-module-nf-nat-ipv4-4.19.9 | 4.19 | GPLv2 | nf-nat-ipv4 kernel module |
| linux-stm32mp | kernel-module-nf-nat-ipv6-4.19.9 | 4.19 | GPLv2 | nf-nat-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-nat-irc-4.19.9 | 4.19 | GPLv2 | nf-nat-irc kernel module |
| linux-stm32mp | kernel-module-nf-nat-pptp-4.19.9 | 4.19 | GPLv2 | nf-nat-pptp kernel module |
| linux-stm32mp | kernel-module-nf-nat-proto-gre-4.19.9 | 4.19 | GPLv2 | nf-nat-proto-gre kernel module |
| linux-stm32mp | kernel-module-nf-nat-sip-4.19.9 | 4.19 | GPLv2 | nf-nat-sip kernel module |
| linux- | kernel-module-nf- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|----------------------------------|
| stm32mp | nat-snmp-basic-4.19.9 | 4.19 | GPLv2 | nf-nat-snmp-basic kernel module |
| linux-stm32mp | kernel-module-nf-nat-tftp-4.19.9 | 4.19 | GPLv2 | nf-nat-tftp kernel module |
| linux-stm32mp | kernel-module-nf-reject-ipv4-4.19.9 | 4.19 | GPLv2 | nf-reject-ipv4 kernel module |
| linux-stm32mp | kernel-module-nf-reject-ipv6-4.19.9 | 4.19 | GPLv2 | nf-reject-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-socket-ipv4-4.19.9 | 4.19 | GPLv2 | nf-socket-ipv4 kernel module |
| linux-stm32mp | kernel-module-nf-socket-ipv6-4.19.9 | 4.19 | GPLv2 | nf-socket-ipv6 kernel module |
| linux-stm32mp | kernel-module-nf-synproxy-core-4.19.9 | 4.19 | GPLv2 | nf-synproxy-core kernel module |
| linux-stm32mp | kernel-module-nf-tables-4.19.9 | 4.19 | GPLv2 | nf-tables kernel module |
| linux-stm32mp | kernel-module-nfnetlink-4.19.9 | 4.19 | GPLv2 | nfnetlink kernel module |
| linux-stm32mp | kernel-module-nfnetlink-acct-4.19.9 | 4.19 | GPLv2 | nfnetlink-acct kernel module |
| linux-stm32mp | kernel-module-nfnetlink-cthelper-4.19.9 | 4.19 | GPLv2 | nfnetlink-cthelper kernel module |
| linux-stm32mp | kernel-module-nfnetlink-ctimeout-4.19.9 | 4.19 | GPLv2 | nfnetlink-ctimeout kernel module |
| linux-stm32mp | kernel-module-nfnetlink-log-4.19.9 | 4.19 | GPLv2 | nfnetlink-log kernel module |
| linux-stm32mp | kernel-module-nfnetlink-osf-4.19.9 | 4.19 | GPLv2 | nfnetlink-osf kernel module |
| | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|-------------------------------|
| linux-stm32mp | nfnetlink-queue-4.19.9 | 4.19 | GPLv2 | nfnetlink-queue kernel module |
| linux-stm32mp | kernel-module-nft-counter-4.19.9 | 4.19 | GPLv2 | nft-counter kernel module |
| linux-stm32mp | kernel-module-nft-ct-4.19.9 | 4.19 | GPLv2 | nft-ct kernel module |
| linux-stm32mp | kernel-module-nft-hash-4.19.9 | 4.19 | GPLv2 | nft-hash kernel module |
| linux-stm32mp | kernel-module-nft-limit-4.19.9 | 4.19 | GPLv2 | nft-limit kernel module |
| linux-stm32mp | kernel-module-nft-log-4.19.9 | 4.19 | GPLv2 | nft-log kernel module |
| linux-stm32mp | kernel-module-nft-masq-4.19.9 | 4.19 | GPLv2 | nft-masq kernel module |
| linux-stm32mp | kernel-module-nft-nat-4.19.9 | 4.19 | GPLv2 | nft-nat kernel module |
| linux-stm32mp | kernel-module-nft-numgen-4.19.9 | 4.19 | GPLv2 | nft-numgen kernel module |
| linux-stm32mp | kernel-module-nft-objref-4.19.9 | 4.19 | GPLv2 | nft-objref kernel module |
| linux-stm32mp | kernel-module-nft-queue-4.19.9 | 4.19 | GPLv2 | nft-queue kernel module |
| linux-stm32mp | kernel-module-nft-quota-4.19.9 | 4.19 | GPLv2 | nft-quota kernel module |
| linux-stm32mp | kernel-module-nft-redir-4.19.9 | 4.19 | GPLv2 | nft-redir kernel module |
| linux-stm32mp | kernel-module-nft-reject-4.19.9 | 4.19 | GPLv2 | nft-reject kernel module |
| linux-stm32mp | kernel-module-nhc-dest-4.19.9 | 4.19 | GPLv2 | nhc-dest kernel module |
| linux-stm32mp | kernel-module-nhc-fragment-4.19.9 | 4.19 | GPLv2 | nhc-fragment kernel module |
| linux-stm32mp | kernel-module-nhc-hop-4.19.9 | 4.19 | GPLv2 | nhc-hop kernel module |
| linux- | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|--|
| stm32mp | nhc-ipv6-4.19.9 | 4.19 | GPLv2 | nhc-ipv6 kernel module |
| linux-stm32mp | kernel-module-nhc-mobility-4.19.9 | 4.19 | GPLv2 | nhc-mobility kernel module |
| linux-stm32mp | kernel-module-nhc-routing-4.19.9 | 4.19 | GPLv2 | nhc-routing kernel module |
| linux-stm32mp | kernel-module-nhc-udp-4.19.9 | 4.19 | GPLv2 | nhc-udp kernel module |
| linux-stm32mp | kernel-module-nsh-4.19.9 | 4.19 | GPLv2 | nsh kernel module |
| linux-stm32mp | kernel-module-ntc-thermistor-4.19.9 | 4.19 | GPLv2 | ntc-thermistor kernel module |
| linux-stm32mp | kernel-module-nxp-ptn3460-4.19.9 | 4.19 | GPLv2 | nxp-ptn3460 kernel module |
| linux-stm32mp | kernel-module-openvswitch-4.19.9 | 4.19 | GPLv2 | openvswitch kernel module |
| linux-stm32mp | kernel-module-ov5640-4.19.9 | 4.19 | GPLv2 | ov5640 kernel module |
| linux-stm32mp | kernel-module-p8022-4.19.9 | 4.19 | GPLv2 | p8022 kernel module |
| linux-stm32mp | kernel-module-panel-samsung-l9040-4.19.9 | 4.19 | GPLv2 | panel-samsung-l9040 kernel module |
| linux-stm32mp | kernel-module-panel-samsung-s6e63j0x03-4.19.9 | 4.19 | GPLv2 | panel-samsung-s6e63j0x03 kernel module |
| linux-stm32mp | kernel-module-panel-samsung-s6e8aa0-4.19.9 | 4.19 | GPLv2 | panel-samsung-s6e8aa0 kernel module |
| linux-stm32mp | kernel-module-parade-ps8622-4.19.9 | 4.19 | GPLv2 | parade-ps8622 kernel module |
| linux- | kernel-module-pci- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|----------------------------------|
| stm32mp | epf-test-4.19.9 | 4.19 | GPLv2 | pci-epf-test kernel module |
| linux-stm32mp | kernel-module-phy-am335x-4.19.9 | 4.19 | GPLv2 | phy-am335x kernel module |
| linux-stm32mp | kernel-module-phy-am335x-control-4.19.9 | 4.19 | GPLv2 | phy-am335x-control kernel module |
| linux-stm32mp | kernel-module-phy-cpcap-usb-4.19.9 | 4.19 | GPLv2 | phy-cpcap-usb kernel module |
| linux-stm32mp | kernel-module-phy-exynos-usb2-4.19.9 | 4.19 | GPLv2 | phy-exynos-usb2 kernel module |
| linux-stm32mp | kernel-module-phy-generic-4.19.9 | 4.19 | GPLv2 | phy-generic kernel module |
| linux-stm32mp | kernel-module-phylink-4.19.9 | 4.19 | GPLv2 | phylink kernel module |
| linux-stm32mp | kernel-module-platform-lcd-4.19.9 | 4.19 | GPLv2 | platform-lcd kernel module |
| linux-stm32mp | kernel-module-psample-4.19.9 | 4.19 | GPLv2 | psample kernel module |
| linux-stm32mp | kernel-module-psnap-4.19.9 | 4.19 | GPLv2 | psnap kernel module |
| linux-stm32mp | kernel-module-pwm-atmel-hlcdc-4.19.9 | 4.19 | GPLv2 | pwm-atmel-hlcdc kernel module |
| linux-stm32mp | kernel-module-pwm-fan-4.19.9 | 4.19 | GPLv2 | pwm-fan kernel module |
| linux-stm32mp | kernel-module-pwm-fsl-ftm-4.19.9 | 4.19 | GPLv2 | pwm-fsl-ftm kernel module |
| linux-stm32mp | kernel-module-qt1070-4.19.9 | 4.19 | GPLv2 | qt1070 kernel module |
| linux-stm32mp | kernel-module-r8152-4.19.9 | 4.19 | GPLv2 | r8152 kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|-----------------------------------|
| linux-stm32mp | kernel-module-r8a66597-hcd-4.19.9 | 4.19 | GPLv2 | r8a66597-hcd kernel module |
| linux-stm32mp | kernel-module-raw-diag-4.19.9 | 4.19 | GPLv2 | raw-diag kernel module |
| linux-stm32mp | kernel-module-rpmsg-client-sample-4.19.9 | 4.19 | GPLv2 | rpmsg-client-sample kernel module |
| linux-stm32mp | kernel-module-rt2800lib-4.19.9 | 4.19 | GPLv2 | rt2800lib kernel module |
| linux-stm32mp | kernel-module-rt2800usb-4.19.9 | 4.19 | GPLv2 | rt2800usb kernel module |
| linux-stm32mp | kernel-module-rt2x00lib-4.19.9 | 4.19 | GPLv2 | rt2x00lib kernel module |
| linux-stm32mp | kernel-module-rt2x00usb-4.19.9 | 4.19 | GPLv2 | rt2x00usb kernel module |
| linux-stm32mp | kernel-module-rtc-bq32k-4.19.9 | 4.19 | GPLv2 | rtc-bq32k kernel module |
| linux-stm32mp | kernel-module-rtc-cpcap-4.19.9 | 4.19 | GPLv2 | rtc-cpcap kernel module |
| linux-stm32mp | kernel-module-rtc-da9063-4.19.9 | 4.19 | GPLv2 | rtc-da9063 kernel module |
| linux-stm32mp | kernel-module-rtc-hym8563-4.19.9 | 4.19 | GPLv2 | rtc-hym8563 kernel module |
| linux-stm32mp | kernel-module-rtc-max8997-4.19.9 | 4.19 | GPLv2 | rtc-max8997 kernel module |
| linux-stm32mp | kernel-module-rtc-max8998-4.19.9 | 4.19 | GPLv2 | rtc-max8998 kernel module |
| linux-stm32mp | kernel-module-rtc-rk808-4.19.9 | 4.19 | GPLv2 | rtc-rk808 kernel module |
| linux-stm32mp | kernel-module-rtc-rs5c372-4.19.9 | 4.19 | GPLv2 | rtc-rs5c372 kernel module |
| linux-stm32mp | kernel-module-rtc-rx8581-4.19.9 | 4.19 | GPLv2 | rtc-rx8581 kernel module |
| linux-stm32mp | kernel-module-rtc-s35390a-4.19.9 | 4.19 | GPLv2 | rtc-s35390a kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| linux-stm32mp | kernel-module-rtc-s5m-4.19.9 | 4.19 | GPLv2 | rtc-s5m kernel module |
| linux-stm32mp | kernel-module-rtl-usb-4.19.9 | 4.19 | GPLv2 | rtl-usb kernel module |
| linux-stm32mp | kernel-module-rtl8192c-common-4.19.9 | 4.19 | GPLv2 | rtl8192c-common kernel module |
| linux-stm32mp | kernel-module-rtl8192cu-4.19.9 | 4.19 | GPLv2 | rtl8192cu kernel module |
| linux-stm32mp | kernel-module-rtlwifi-4.19.9 | 4.19 | GPLv2 | rtlwifi kernel module |
| linux-stm32mp | kernel-module-samsung-keypad-4.19.9 | 4.19 | GPLv2 | samsung-keypad kernel module |
| linux-stm32mp | kernel-module-sch-cbq-4.19.9 | 4.19 | GPLv2 | sch-cbq kernel module |
| linux-stm32mp | kernel-module-sch-choke-4.19.9 | 4.19 | GPLv2 | sch-choke kernel module |
| linux-stm32mp | kernel-module-sch-codel-4.19.9 | 4.19 | GPLv2 | sch-codel kernel module |
| linux-stm32mp | kernel-module-sch-drr-4.19.9 | 4.19 | GPLv2 | sch-drr kernel module |
| linux-stm32mp | kernel-module-sch-dsmark-4.19.9 | 4.19 | GPLv2 | sch-dsmark kernel module |
| linux-stm32mp | kernel-module-sch-fq-4.19.9 | 4.19 | GPLv2 | sch-fq kernel module |
| linux-stm32mp | kernel-module-sch-fq-codel-4.19.9 | 4.19 | GPLv2 | sch-fq-codel kernel module |
| linux-stm32mp | kernel-module-sch-gred-4.19.9 | 4.19 | GPLv2 | sch-gred kernel module |
| linux-stm32mp | kernel-module-sch-hfsc-4.19.9 | 4.19 | GPLv2 | sch-hfsc kernel module |
| linux-stm32mp | kernel-module-sch-hhf-4.19.9 | 4.19 | GPLv2 | sch-hhf kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|------------------------------------|---------|---------|-----------------------------|
| linux-stm32mp | kernel-module-sch-htb-4.19.9 | 4.19 | GPLv2 | sch-htb kernel module |
| linux-stm32mp | kernel-module-sch-mqprio-4.19.9 | 4.19 | GPLv2 | sch-mqprio kernel module |
| linux-stm32mp | kernel-module-sch-multiq-4.19.9 | 4.19 | GPLv2 | sch-multiq kernel module |
| linux-stm32mp | kernel-module-sch-netem-4.19.9 | 4.19 | GPLv2 | sch-netem kernel module |
| linux-stm32mp | kernel-module-sch-pie-4.19.9 | 4.19 | GPLv2 | sch-pie kernel module |
| linux-stm32mp | kernel-module-sch-plug-4.19.9 | 4.19 | GPLv2 | sch-plug kernel module |
| linux-stm32mp | kernel-module-sch-prio-4.19.9 | 4.19 | GPLv2 | sch-prio kernel module |
| linux-stm32mp | kernel-module-sch-qq-4.19.9 | 4.19 | GPLv2 | sch-qq kernel module |
| linux-stm32mp | kernel-module-sch-red-4.19.9 | 4.19 | GPLv2 | sch-red kernel module |
| linux-stm32mp | kernel-module-sch-sfb-4.19.9 | 4.19 | GPLv2 | sch-sfb kernel module |
| linux-stm32mp | kernel-module-sch-sfq-4.19.9 | 4.19 | GPLv2 | sch-sfq kernel module |
| linux-stm32mp | kernel-module-sch-tbf-4.19.9 | 4.19 | GPLv2 | sch-tbf kernel module |
| linux-stm32mp | kernel-module-sch-teql-4.19.9 | 4.19 | GPLv2 | sch-teql kernel module |
| linux-stm32mp | kernel-module-seqiv-4.19.9 | 4.19 | GPLv2 | seqiv kernel module |
| linux-stm32mp | kernel-module-sha1-arm-4.19.9 | 4.19 | GPLv2 | sha1-arm kernel module |
| linux-stm32mp | kernel-module-sha1-arm-ce-4.19.9 | 4.19 | GPLv2 | sha1-arm-ce kernel module |
| linux-stm32mp | kernel-module-sha1-arm-neon-4.19.9 | 4.19 | GPLv2 | sha1-arm-neon kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|---------------------------------------|
| linux-stm32mp | kernel-module-sha2-arm-ce-4.19.9 | 4.19 | GPLv2 | sha2-arm-ce kernel module |
| linux-stm32mp | kernel-module-sha256-arm-4.19.9 | 4.19 | GPLv2 | sha256-arm kernel module |
| linux-stm32mp | kernel-module-sha512-arm-4.19.9 | 4.19 | GPLv2 | sha512-arm kernel module |
| linux-stm32mp | kernel-module-sha512-generic-4.19.9 | 4.19 | GPLv2 | sha512-generic kernel module |
| linux-stm32mp | kernel-module-sii9234-4.19.9 | 4.19 | GPLv2 | sii9234 kernel module |
| linux-stm32mp | kernel-module-sit-4.19.9 | 4.19 | GPLv2 | sit kernel module |
| linux-stm32mp | kernel-module-snd-hwdep-4.19.9 | 4.19 | GPLv2 | snd-hwdep kernel module |
| linux-stm32mp | kernel-module-snd-soc-ak4642-4.19.9 | 4.19 | GPLv2 | snd-soc-ak4642 kernel module |
| linux-stm32mp | kernel-module-snd-soc-cpcap-4.19.9 | 4.19 | GPLv2 | snd-soc-cpcap kernel module |
| linux-stm32mp | kernel-module-snd-soc-fsl-sai-4.19.9 | 4.19 | GPLv2 | snd-soc-fsl-sai kernel module |
| linux-stm32mp | kernel-module-snd-soc-sgtl5000-4.19.9 | 4.19 | GPLv2 | snd-soc-sgtl5000 kernel module |
| linux-stm32mp | kernel-module-snd-soc-simple-card-4.19.9 | 4.19 | GPLv2 | snd-soc-simple-card kernel module |
| linux-stm32mp | kernel-module-snd-soc-simple-scu-card-4.19.9 | 4.19 | GPLv2 | snd-soc-simple-scu-card kernel module |
| linux- | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|---------------------------------------|
| stm32mp | snd-soc-sti-sas-4.19.9 | 4.19 | GPLv2 | snd-soc-sti-sas kernel module |
| linux-stm32mp | kernel-module-snd-soc-tlv320aic23-4.19.9 | 4.19 | GPLv2 | snd-soc-tlv320aic23 kernel module |
| linux-stm32mp | kernel-module-snd-soc-tlv320aic23-i2c-4.19.9 | 4.19 | GPLv2 | snd-soc-tlv320aic23-i2c kernel module |
| linux-stm32mp | kernel-module-snd-soc-ts3a227e-4.19.9 | 4.19 | GPLv2 | snd-soc-ts3a227e kernel module |
| linux-stm32mp | kernel-module-snd-soc-wm8753-4.19.9 | 4.19 | GPLv2 | snd-soc-wm8753 kernel module |
| linux-stm32mp | kernel-module-snd-soc-wm8903-4.19.9 | 4.19 | GPLv2 | snd-soc-wm8903 kernel module |
| linux-stm32mp | kernel-module-snd-soc-wm8978-4.19.9 | 4.19 | GPLv2 | snd-soc-wm8978 kernel module |
| linux-stm32mp | kernel-module-snd-usb-audio-4.19.9 | 4.19 | GPLv2 | snd-usb-audio kernel module |
| linux-stm32mp | kernel-module-snd-usbmidi-lib-4.19.9 | 4.19 | GPLv2 | snd-usbmidi-lib kernel module |
| linux-stm32mp | kernel-module-soc-camera-4.19.9 | 4.19 | GPLv2 | soc-camera kernel module |
| linux-stm32mp | kernel-module-soc-camera-platform-4.19.9 | 4.19 | GPLv2 | soc-camera-platform kernel module |
| linux-stm32mp | kernel-module-soc-mediabus-4.19.9 | 4.19 | GPLv2 | soc-mediabus kernel module |
| linux- | kernel-module-spi- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------------------------|---------|---------|-------------------------------|
| stm32mp | gpio-4.19.9 | 4.19 | GPLv2 | spi-gpio kernel module |
| linux-stm32mp | kernel-module-spi-rockchip-4.19.9 | 4.19 | GPLv2 | spi-rockchip kernel module |
| linux-stm32mp | kernel-module-st-lsm6dsx-4.19.9 | 4.19 | GPLv2 | st-lsm6dsx kernel module |
| linux-stm32mp | kernel-module-st-lsm6dsx-i2c-4.19.9 | 4.19 | GPLv2 | st-lsm6dsx-i2c kernel module |
| linux-stm32mp | kernel-module-st-lsm6dsx-spi-4.19.9 | 4.19 | GPLv2 | st-lsm6dsx-spi kernel module |
| linux-stm32mp | kernel-module-st-pressure-4.19.9 | 4.19 | GPLv2 | st-pressure kernel module |
| linux-stm32mp | kernel-module-st-pressure-i2c-4.19.9 | 4.19 | GPLv2 | st-pressure-i2c kernel module |
| linux-stm32mp | kernel-module-st-pressure-spi-4.19.9 | 4.19 | GPLv2 | st-pressure-spi kernel module |
| linux-stm32mp | kernel-module-st-sensors-4.19.9 | 4.19 | GPLv2 | st-sensors kernel module |
| linux-stm32mp | kernel-module-st-sensors-i2c-4.19.9 | 4.19 | GPLv2 | st-sensors-i2c kernel module |
| linux-stm32mp | kernel-module-st-sensors-spi-4.19.9 | 4.19 | GPLv2 | st-sensors-spi kernel module |
| linux-stm32mp | kernel-module-st1232-4.19.9 | 4.19 | GPLv2 | st1232 kernel module |
| linux-stm32mp | kernel-module-sti-drm-4.19.9 | 4.19 | GPLv2 | sti-drm kernel module |
| linux-stm32mp | kernel-module-stm32-cec-4.19.9 | 4.19 | GPLv2 | stm32-cec kernel module |
| linux-stm32mp | kernel-module-stm32-dcmi-4.19.9 | 4.19 | GPLv2 | stm32-dcmi kernel module |
| linux- | kernel-module-stp- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|----------------------------|
| stm32mp | 4.19.9 | 4.19 | GPLv2 | stp kernel module |
| linux-stm32mp | kernel-module-strparser-4.19.9 | 4.19 | GPLv2 | strparser kernel module |
| linux-stm32mp | kernel-module-tap-4.19.9 | 4.19 | GPLv2 | tap kernel module |
| linux-stm32mp | kernel-module-tcp-bic-4.19.9 | 4.19 | GPLv2 | tcp-bic kernel module |
| linux-stm32mp | kernel-module-tcp-diag-4.19.9 | 4.19 | GPLv2 | tcp-diag kernel module |
| linux-stm32mp | kernel-module-tcp-htcp-4.19.9 | 4.19 | GPLv2 | tcp-htcp kernel module |
| linux-stm32mp | kernel-module-tcp-westwood-4.19.9 | 4.19 | GPLv2 | tcp-westwood kernel module |
| linux-stm32mp | kernel-module-tls-4.19.9 | 4.19 | GPLv2 | tls kernel module |
| linux-stm32mp | kernel-module-ts-bm-4.19.9 | 4.19 | GPLv2 | ts-bm kernel module |
| linux-stm32mp | kernel-module-ts-fsm-4.19.9 | 4.19 | GPLv2 | ts-fsm kernel module |
| linux-stm32mp | kernel-module-ts-kmp-4.19.9 | 4.19 | GPLv2 | ts-kmp kernel module |
| linux-stm32mp | kernel-module-tun-4.19.9 | 4.19 | GPLv2 | tun kernel module |
| linux-stm32mp | kernel-module-tunnel4-4.19.9 | 4.19 | GPLv2 | tunnel4 kernel module |
| linux-stm32mp | kernel-module-tunnel6-4.19.9 | 4.19 | GPLv2 | tunnel6 kernel module |
| linux-stm32mp | kernel-module-uas-4.19.9 | 4.19 | GPLv2 | uas kernel module |
| linux-stm32mp | kernel-module-udp-diag-4.19.9 | 4.19 | GPLv2 | udp-diag kernel module |
| linux-stm32mp | kernel-module-udp-tunnel-4.19.9 | 4.19 | GPLv2 | udp-tunnel kernel module |
| linux-stm32mp | kernel-module-unix-diag-4.19.9 | 4.19 | GPLv2 | unix-diag kernel module |
| linux- | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|------------------------------------|
| stm32mp | usb-f-uvc-4.19.9 | 4.19 | GPLv2 | usb-f-uvc kernel module |
| linux-stm32mp | kernel-module-uvcvideo-4.19.9 | 4.19 | GPLv2 | uvcvideo kernel module |
| linux-stm32mp | kernel-module-v4l2-common-4.19.9 | 4.19 | GPLv2 | v4l2-common kernel module |
| linux-stm32mp | kernel-module-v4l2-dv-timings-4.19.9 | 4.19 | GPLv2 | v4l2-dv-timings kernel module |
| linux-stm32mp | kernel-module-v4l2-fwnode-4.19.9 | 4.19 | GPLv2 | v4l2-fwnode kernel module |
| linux-stm32mp | kernel-module-v4l2-tpg-4.19.9 | 4.19 | GPLv2 | v4l2-tpg kernel module |
| linux-stm32mp | kernel-module-veth-4.19.9 | 4.19 | GPLv2 | veth kernel module |
| linux-stm32mp | kernel-module-vf610-adc-4.19.9 | 4.19 | GPLv2 | vf610-adc kernel module |
| linux-stm32mp | kernel-module-videobuf2-common-4.19.9 | 4.19 | GPLv2 | videobuf2-common kernel module |
| linux-stm32mp | kernel-module-videobuf2-dma-contig-4.19.9 | 4.19 | GPLv2 | videobuf2-dma-contig kernel module |
| linux-stm32mp | kernel-module-videobuf2-memops-4.19.9 | 4.19 | GPLv2 | videobuf2-memops kernel module |
| linux-stm32mp | kernel-module-videobuf2-v4l2-4.19.9 | 4.19 | GPLv2 | videobuf2-v4l2 kernel module |
| linux-stm32mp | kernel-module-videobuf2-vmalloc-4.19.9 | 4.19 | GPLv2 | videobuf2-vmalloc kernel module |
| linux-stm32mp | kernel-module-videodev-4.19.9 | 4.19 | GPLv2 | videodev kernel module |
| | kernel-module-virtio-crypto- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--|---------|---------|---|
| linux-stm32mp | 4.19.9 | 4.19 | GPLv2 | virtio-crypto kernel module |
| linux-stm32mp | kernel-module-vivid-4.19.9 | 4.19 | GPLv2 | vivid kernel module |
| linux-stm32mp | kernel-module-vmw-vsock-virtio-transport-4.19.9 | 4.19 | GPLv2 | vmw-vsock-virtio-transport kernel module |
| linux-stm32mp | kernel-module-vmw-vsock-virtio-transport-common-4.19.9 | 4.19 | GPLv2 | vmw-vsock-virtio-transport-common kernel module |
| linux-stm32mp | kernel-module-vport-gre-4.19.9 | 4.19 | GPLv2 | vport-gre kernel module |
| linux-stm32mp | kernel-module-vsock-4.19.9 | 4.19 | GPLv2 | vsock kernel module |
| linux-stm32mp | kernel-module-vsock-diag-4.19.9 | 4.19 | GPLv2 | vsock-diag kernel module |
| linux-stm32mp | kernel-module-xtables-4.19.9 | 4.19 | GPLv2 | xtables kernel module |
| linux-stm32mp | kernel-module-xfrm-algo-4.19.9 | 4.19 | GPLv2 | xfrm-algo kernel module |
| linux-stm32mp | kernel-module-xfrm-ipcomp-4.19.9 | 4.19 | GPLv2 | xfrm-ipcomp kernel module |
| linux-stm32mp | kernel-module-xfrm4-mode-beet-4.19.9 | 4.19 | GPLv2 | xfrm4-mode-beet kernel module |
| linux-stm32mp | kernel-module-xfrm4-mode-transport-4.19.9 | 4.19 | GPLv2 | xfrm4-mode-transport kernel module |
| linux-stm32mp | kernel-module-xfrm4-mode-tunnel-4.19.9 | 4.19 | GPLv2 | xfrm4-mode-tunnel kernel module |
| linux-stm32mp | kernel-module-xfrm4-tunnel-4.19.9 | 4.19 | GPLv2 | xfrm4-tunnel kernel module |
| | kernel-module- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|---|---------|---------|------------------------------------|
| linux-stm32mp | xfrm6-mode-beet-4.19.9 | 4.19 | GPLv2 | xfrm6-mode-beet kernel module |
| linux-stm32mp | kernel-module-xfrm6-mode-ro-4.19.9 | 4.19 | GPLv2 | xfrm6-mode-ro kernel module |
| linux-stm32mp | kernel-module-xfrm6-mode-transport-4.19.9 | 4.19 | GPLv2 | xfrm6-mode-transport kernel module |
| linux-stm32mp | kernel-module-xfrm6-mode-tunnel-4.19.9 | 4.19 | GPLv2 | xfrm6-mode-tunnel kernel module |
| linux-stm32mp | kernel-module-xfrm6-tunnel-4.19.9 | 4.19 | GPLv2 | xfrm6-tunnel kernel module |
| linux-stm32mp | kernel-module-xt-addrtype-4.19.9 | 4.19 | GPLv2 | xt-addrtype kernel module |
| linux-stm32mp | kernel-module-xt-bpf-4.19.9 | 4.19 | GPLv2 | xt-bpf kernel module |
| linux-stm32mp | kernel-module-xt-cgroup-4.19.9 | 4.19 | GPLv2 | xt-cgroup kernel module |
| linux-stm32mp | kernel-module-xt-classify-4.19.9 | 4.19 | GPLv2 | xt-classify kernel module |
| linux-stm32mp | kernel-module-xt-cluster-4.19.9 | 4.19 | GPLv2 | xt-cluster kernel module |
| linux-stm32mp | kernel-module-xt-comment-4.19.9 | 4.19 | GPLv2 | xt-comment kernel module |
| linux-stm32mp | kernel-module-xt-connbytes-4.19.9 | 4.19 | GPLv2 | xt-connbytes kernel module |
| linux-stm32mp | kernel-module-xt-connlabel-4.19.9 | 4.19 | GPLv2 | xt-connlabel kernel module |
| linux-stm32mp | kernel-module-xt-connlimit-4.19.9 | 4.19 | GPLv2 | xt-connlimit kernel module |
| linux-stm32mp | kernel-module-xt-connmark-4.19.9 | 4.19 | GPLv2 | xt-connmark kernel module |
| linux-stm32mp | kernel-module-xt-connsecmark-4.19.9 | 4.19 | GPLv2 | xt-connsecmark kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|----------------------------|
| linux-stm32mp | kernel-module-xt-contrack-4.19.9 | 4.19 | GPLv2 | xt-contrack kernel module |
| linux-stm32mp | kernel-module-xt-cpu-4.19.9 | 4.19 | GPLv2 | xt-cpu kernel module |
| linux-stm32mp | kernel-module-xt-dccp-4.19.9 | 4.19 | GPLv2 | xt-dccp kernel module |
| linux-stm32mp | kernel-module-xt-devgroup-4.19.9 | 4.19 | GPLv2 | xt-devgroup kernel module |
| linux-stm32mp | kernel-module-xt-dscp-4.19.9 | 4.19 | GPLv2 | xt-dscp kernel module |
| linux-stm32mp | kernel-module-xt-ecn-4.19.9 | 4.19 | GPLv2 | xt-ecn kernel module |
| linux-stm32mp | kernel-module-xt-esp-4.19.9 | 4.19 | GPLv2 | xt-esp kernel module |
| linux-stm32mp | kernel-module-xt-hashlimit-4.19.9 | 4.19 | GPLv2 | xt-hashlimit kernel module |
| linux-stm32mp | kernel-module-xt-helper-4.19.9 | 4.19 | GPLv2 | xt-helper kernel module |
| linux-stm32mp | kernel-module-xt-hl-4.19.9 | 4.19 | GPLv2 | xt-hl kernel module |
| linux-stm32mp | kernel-module-xt-hmark-4.19.9 | 4.19 | GPLv2 | xt-hmark kernel module |
| linux-stm32mp | kernel-module-xt-idletimer-4.19.9 | 4.19 | GPLv2 | xt-idletimer kernel module |
| linux-stm32mp | kernel-module-xt-ipcomp-4.19.9 | 4.19 | GPLv2 | xt-ipcomp kernel module |
| linux-stm32mp | kernel-module-xt-iptable-4.19.9 | 4.19 | GPLv2 | xt-iptable kernel module |
| linux-stm32mp | kernel-module-xt-l2tp-4.19.9 | 4.19 | GPLv2 | xt-l2tp kernel module |
| linux-stm32mp | kernel-module-xt-led-4.19.9 | 4.19 | GPLv2 | xt-led kernel module |
| linux-stm32mp | kernel-module-xt-length-4.19.9 | 4.19 | GPLv2 | xt-length kernel module |
| linux-stm32mp | kernel-module-xt-limit-4.19.9 | 4.19 | GPLv2 | xt-limit kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|---------|---------|----------------------------|
| linux-stm32mp | kernel-module-xt-log-4.19.9 | 4.19 | GPLv2 | xt-log kernel module |
| linux-stm32mp | kernel-module-xt-mac-4.19.9 | 4.19 | GPLv2 | xt-mac kernel module |
| linux-stm32mp | kernel-module-xt-mark-4.19.9 | 4.19 | GPLv2 | xt-mark kernel module |
| linux-stm32mp | kernel-module-xt-multiport-4.19.9 | 4.19 | GPLv2 | xt-multiport kernel module |
| linux-stm32mp | kernel-module-xt-nat-4.19.9 | 4.19 | GPLv2 | xt-nat kernel module |
| linux-stm32mp | kernel-module-xt-netmap-4.19.9 | 4.19 | GPLv2 | xt-netmap kernel module |
| linux-stm32mp | kernel-module-xt-nfacct-4.19.9 | 4.19 | GPLv2 | xt-nfacct kernel module |
| linux-stm32mp | kernel-module-xt-nflog-4.19.9 | 4.19 | GPLv2 | xt-nflog kernel module |
| linux-stm32mp | kernel-module-xt-nfqueue-4.19.9 | 4.19 | GPLv2 | xt-nfqueue kernel module |
| linux-stm32mp | kernel-module-xt-osf-4.19.9 | 4.19 | GPLv2 | xt-osf kernel module |
| linux-stm32mp | kernel-module-xt-owner-4.19.9 | 4.19 | GPLv2 | xt-owner kernel module |
| linux-stm32mp | kernel-module-xt-physdev-4.19.9 | 4.19 | GPLv2 | xt-physdev kernel module |
| linux-stm32mp | kernel-module-xt-pkttype-4.19.9 | 4.19 | GPLv2 | xt-pkttype kernel module |
| linux-stm32mp | kernel-module-xt-policy-4.19.9 | 4.19 | GPLv2 | xt-policy kernel module |
| linux-stm32mp | kernel-module-xt-quota-4.19.9 | 4.19 | GPLv2 | xt-quota kernel module |
| linux-stm32mp | kernel-module-xt-rateest-4.19.9 | 4.19 | GPLv2 | xt-rateest kernel module |
| linux-stm32mp | kernel-module-xt-realm-4.19.9 | 4.19 | GPLv2 | xt-realm kernel module |
| linux-stm32mp | kernel-module-xt-recent-4.19.9 | 4.19 | GPLv2 | xt-recent kernel module |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-----------------------------------|--------------------------|----------------------|---|
| linux-stm32mp | kernel-module-xt-redirect-4.19.9 | 4.19 | GPLv2 | xt-redirect kernel module |
| linux-stm32mp | kernel-module-xt-sctp-4.19.9 | 4.19 | GPLv2 | xt-sctp kernel module |
| linux-stm32mp | kernel-module-xt-secmark-4.19.9 | 4.19 | GPLv2 | xt-secmark kernel module |
| linux-stm32mp | kernel-module-xt-state-4.19.9 | 4.19 | GPLv2 | xt-state kernel module |
| linux-stm32mp | kernel-module-xt-statistic-4.19.9 | 4.19 | GPLv2 | xt-statistic kernel module |
| linux-stm32mp | kernel-module-xt-string-4.19.9 | 4.19 | GPLv2 | xt-string kernel module |
| linux-stm32mp | kernel-module-xt-tcpmss-4.19.9 | 4.19 | GPLv2 | xt-tcpmss kernel module |
| linux-stm32mp | kernel-module-xt-tcpudp-4.19.9 | 4.19 | GPLv2 | xt-tcpudp kernel module |
| linux-stm32mp | kernel-module-xt-tee-4.19.9 | 4.19 | GPLv2 | xt-tee kernel module |
| linux-stm32mp | kernel-module-xt-time-4.19.9 | 4.19 | GPLv2 | xt-time kernel module |
| linux-stm32mp | kernel-module-xt-u32-4.19.9 | 4.19 | GPLv2 | xt-u32 kernel module |
| linux-stm32mp | kernel-modules | 4.19 | GPLv2 | Linux STM32MP Kernel |
| kmod | kmod | 25+gitAUTOINC+aca4eca103 | GPL-2.0+ & LGPL-2.1+ | Tools for managing Linux kernel modules |
| kmscube | kmscube | git | MIT | kmscube version git-r0 |
| liba52 | liba52-0 | 0.7.4 | GPLv2+ | ATSC A/52 surround sound stream decoder |
| acl | libacl1 | 2.2.52 | LGPLv2.1+ | Utilities for managing POSIX Access Control Lists |
| libaio | libaio1 | 0.3.111 | LGPLv2.1+ | Asynchronous I/O library |
| alsa-plugins | libasound-module-conf-pulse | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for conf-pulse |
| alsa- | libasound-module- | | LGPLv2.1 & | |



| Recipe Name | Package Name | Version | License | Description |
|--------------|----------------------------------|---------|--------------------|---|
| plugins | ctl-arcam-av | 1.1.6 | GPLv2+ | Alsa plugin for ctl-arcam-av |
| alsa-plugins | libasound-module-ctl-oss | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for ctl-oss |
| alsa-plugins | libasound-module-ctl-pulse | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for ctl-pulse |
| alsa-plugins | libasound-module-pcm-oss | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-oss |
| alsa-plugins | libasound-module-pcm-pulse | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-pulse |
| alsa-plugins | libasound-module-pcm-speex | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-speex |
| alsa-plugins | libasound-module-pcm-upmix | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-upmix |
| alsa-plugins | libasound-module-pcm-usb-stream | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-usb-stream |
| alsa-plugins | libasound-module-pcm-vdownmix | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for pcm-vdownmix |
| alsa-plugins | libasound-module-rate-samplerate | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for rate-samplerate |
| alsa-plugins | libasound-module-rate-speexrate | 1.1.6 | LGPLv2.1 & GPLv2+ | Alsa plugin for rate-speexrate |
| alsa-lib | libasound2 | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA sound library |
| atk | libatk-1.0-0 | 2.28.1 | GPLv2+ & LGPLv2+ | Accessibility toolkit for GNOME |
| at-spi2-atk | libatk-bridge-2.0-0 | 2.26.2 | LGPLv2 | AT-SPI 2 Toolkit Bridge |
| at-spi2-core | libatspi0 | 2.28.0 | LGPLv2 | Assistive Technology Service Provider Interface (dbus core) |
| attr | libattr1 | 2.4.47 | LGPLv2.1+ | Utilities for manipulating filesystem extended attributes |
| avahi | libavahi-client3 | 0.7 | GPLv2+ & LGPLv2.1+ | Avahi IPv4LL network address configuration daemon |
| avahi | libavahi-common3 | 0.7 | GPLv2+ & LGPLv2.1+ | Avahi IPv4LL network address configuration daemon |
| | | | GPLv2+ & | Avahi IPv4LL network address |



| Recipe Name | Package Name | Version | License | Description |
|-------------|-------------------|---------|----------------------------|---|
| avahi | libavahi-core7 | 0.7 | LGPLv2.1+ | configuration daemon |
| binutils | libbfd | 2.31 | GPLv3 | GNU binary utilities |
| util-linux | libblkid1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libblkid |
| bzip2 | libbz2-1 | 1.0.6 | bzip2 | Very high-quality data compression program |
| glibc | libc6 | 2.28 | GPLv2 & LGPLv2.1 | GLIBC (GNU C Library) |
| glibc | libc6-dbg | 2.28 | GPLv2 & LGPLv2.1 | GLIBC (GNU C Library) - Debugging files |
| glibc | libc6-thread-db | 2.28 | GPLv2 & LGPLv2.1 | GLIBC (GNU C Library) |
| cairo | libcairo-gobject2 | 1.14.12 | MPL-1 & LGPLv2.1 | The Cairo library GObject wrapper library |
| cairo | libcairo2 | 1.14.12 | MPL-1 & LGPLv2.1 | The Cairo 2D vector graphics library |
| libcap | libcap2 | 2.25 | GPLv2 | Library for getting/setting POSIX.1e capabilities |
| e2fsprogs | libcom-err2 | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| libcroco | libcroco | 0.6.12 | LGPLv2 & LGPLv2.1 | Cascading Style Sheet (CSS) parsing and manipulation toolkit |
| libxcrypt | libcrypt1 | 4.1.1 | LGPLv2.1 | Extended cryptographic library (from glibc) |
| openssl | libcrypto1.1 | 1.1.1 | openssl | Secure Socket Layer |
| curl | libcurl4 | 7.61.0 | MIT | Command line tool and library for client-side URL transfers |
| libdaemon | libdaemon0 | 0.14 | LGPLv2.1+ | Lightweight C library which eases the writing of UNIX daemons |
| dbus | libdbus-1-3 | 1.12.10 | GPLv2+ | D-Bus message bus |
| dbus-glib | libdbus-glib-1-2 | 0.110 | GPLv2+ | High level language (GLib) binding for D-Bus |
| libdrm | libdrm-etnaviv1 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |



| Recipe Name | Package Name | Version | License | Description |
|------------------|-------------------|---------|------------------------------|--|
| libdrm | libdrm-freedreno1 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libdrm | libdrm-intel1 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libdrm | libdrm-tests | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libdrm | libdrm2 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| elfutils | libdw1 | 0.174 | (GPLv3 & Elfutils-Exception) | Utilities and libraries for handling compiled object files |
| e2fsprogs | libe2p2 | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| elfutils | libelf1 | 0.174 | (GPLv3 & Elfutils-Exception) | Utilities and libraries for handling compiled object files |
| libepoxy | libepoxy0 | 1.5.2 | MIT | OpenGL function pointer management library |
| liberation-fonts | liberation-fonts | 2.00.1 | OFL-1.1 | Liberation(tm) Fonts |
| libevdev | libevdev | 1.5.9 | MIT-X | Wrapper library for evdev devices |
| expat | libexpat1 | 2.2.6 | MIT | A stream-oriented XML parser library |
| e2fsprogs | libext2fs2 | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| faac | libfaac | 1.29 | LGPLv2+ | Freeware Advanced Audio Coder (MPEG2-AAC, MPEG4-AAC) |
| util-linux | libfdisk1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libfdisk |
| libffi | libffi6 | 3.2.1 | MIT | A portable foreign function interface library |
| fftw | libfftwf | 3.3.8 | GPLv2 | fftw version 3.3.8-r0 |
| | | | GFDL-1.2 & | |



| Recipe Name | Package Name | Version | License | Description |
|-------------|-------------------------------|------------------|----------------------------|--|
| flac | libflac8 | 1.3.2 | GPLv2+ & LGPLv2.1+ & BSD | Free Lossless Audio Codec |
| fontconfig | libfontconfig1 | 2.12.6 | MIT-style & MIT & PD | Generic font configuration library |
| libfontenc | libfontenc1 | 1.1.3 | MIT | X font encoding library |
| ncurses | libformw5 | 6.1 +20180630 | MIT | ncurses formw library |
| freetype | libfreetype6 | 2.9.1 | GPLv2+ | Freetype font rendering library |
| fribidi | libfribidi0 | 1.0.5 | LGPLv2.1+ | Free Implementation of the Unicode Bidirectional Algorithm |
| libgcc | libgcc1 | 8.2.0 | GPL-3.0-with-GCC-exception | GNU cc and gcc C compilers |
| libgcrypt | libgcrypt | 1.8.3 | LGPLv2.1+ | General purpose cryptographic library based on the code from GnuPG |
| gdk-pixbuf | libgdk-pixbuf-2.0-0 | 2.36.11 | LGPLv2 | Image loading library for GTK+ |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-gif | 2.36.11 | LGPLv2 | GDK pixbuf loader for gif |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-jpeg | 2.36.11 | LGPLv2 | GDK pixbuf loader for jpeg |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-png | 2.36.11 | LGPLv2 | GDK pixbuf loader for png |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-xpm | 2.36.11 | LGPLv2 | GDK pixbuf loader for xpm |
| mesa-gl | libgl-mesa | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| mesa-gl | libglapi0 | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| glib-2.0 | libglib-2.0-0 | 2.58.0 | LGPLv2.1+ & BSD & PD | A general-purpose utility library |
| glib-2.0 | libglib-2.0-utils | 2.58.0 | LGPLv2.1+ & BSD & PD | A general-purpose utility library |
| | | | | GNU multiprecision arithmetic |



| Recipe Name | Package Name | Version | License | Description |
|------------------------------|---------------------------|---------|------------------------------|--|
| gmp | libgmp10 | 6.1.2 | LGPLv3+ | library |
| gnutls | libgnutls30 | 3.6.3 | LGPLv2.1+ | GNU Transport Layer Security Library |
| libgpg-error | libgpg-error | 1.32 | GPLv2+ & LGPLv2.1+ | Small library that defines common error values for all GnuPG components |
| libgpiod | libgpiod-tools | 1.1.1 | LGPLv2.1+ | C library and tools for interacting with the linux GPIO character device |
| libgpiod | libgpiod2 | 1.1.1 | LGPLv2.1+ | C library and tools for interacting with the linux GPIO character device |
| gststreamer 1.0-plugins-bad | libgstadaptivedemux-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstadaptivedemux-1.0 library |
| gststreamer 1.0-plugins-base | libgstallocators-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstallocators-1.0 library |
| gststreamer 1.0-plugins-base | libgstapp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstapp-1.0 library |
| gststreamer 1.0-plugins-base | libgstaudio-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstaudio-1.0 library |
| gststreamer 1.0-plugins-bad | libgstbadaudio-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstbadaudio-1.0 library |
| gststreamer 1.0-plugins-bad | libgstbadvideo-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstbadvideo-1.0 library |
| gststreamer 1.0- | | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---|----------------------------------|---------|------------------------------------|--|
| plugins-bad | libgstbasecamera binsrc-1.0-0 | 1.14.2 | LGPLv2+ & LGPLv2.1+ | gststreamer gstbasecamerabinsrc-1.0 library |
| gststreamer 1.0- plugins- bad | libgstcodecparsers -1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstcodecparsers-1.0 library |
| gststreamer 1.0- plugins- base | libgstfft-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstfft-1.0 library |
| gststreamer 1.0- plugins- base | libgstgl-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstgl-1.0 library |
| gststreamer 1.0- plugins- bad | libgstinsertbin-1.0- 0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstinsertbin-1.0 library |
| gststreamer 1.0- plugins- bad | libgstisoff-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstisoff-1.0 library |
| gststreamer 1.0- plugins- bad | libgstmpegts-1.0- 0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstmpegts-1.0 library |
| gststreamer 1.0- plugins- base | libgstpbutils-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gstpbutils-1.0 library |
| gststreamer 1.0- plugins- bad | libgstphotography- 1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstphotography-1.0 library |
| gststreamer 1.0- plugins- bad | libgstplayer-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gstplayer-1.0 library |



| Recipe Name | Package Name | Version | License | Description |
|------------------------------|-----------------------------|---------|------------------------------|--|
| gststreamer 1.0-plugins-base | libgststriff-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststriff-1.0 library |
| gststreamer 1.0-plugins-base | libgststrtp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststrtp-1.0 library |
| gststreamer 1.0-plugins-base | libgststrtsp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststrtsp-1.0 library |
| gststreamer 1.0-rtsp-server | libgststrtspserver-1.0-0 | 1.14.2 | LGPLv2 | gststreamer gststrtspserver-1.0 library |
| gststreamer 1.0-plugins-base | libgststsdp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststsdp-1.0 library |
| gststreamer 1.0-plugins-base | libgststtag-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststtag-1.0 library |
| gststreamer 1.0-plugins-bad | libgststuridownloader-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gststuridownloader-1.0 library |
| gststreamer 1.0-plugins-base | libgststvideo-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gststreamer gststvideo-1.0 library |
| gststreamer 1.0-plugins-bad | libgststwayland-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ & LGPLv2.1+ | gststreamer gststwayland-1.0 library |
| gststreamer 1.0-plugins- | | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|--------------------|------------------------------------|------------------------------|---|
| bad | libgstwebrtc-1.0-0 | 1.14.2 | LGPLv2+ & LGPLv2.1+ | gstreamer gstwebrtc-1.0 library |
| gtk+3 | libgtk-3.0 | 3.22.30 | LGPLv2 & LGPLv2+ & LGPLv2.1+ | Multi-platform toolkit for creating GUIs |
| libgudev | libgudev-1.0-0 | 232 | LGPLv2.1 | GObject wrapper for libudev |
| harfbuzz | libharfbuzz0 | 1.8.8 | MIT | Text shaping library |
| libice | libice6 | 1.0.9 | MIT-style | ICE: Inter-Client Exchange library |
| libidn2 | libidn2-0 | 2.0.5 | LGPLv3) | Internationalized Domain Name support library |
| libiio | libiio-iiod | 0.15 +gitAUTOINC +6ecff5d46e | LGPLv2.1+ | Library for interfacing with IIO devices |
| libiio | libiio-tests | 0.15 +gitAUTOINC +6ecff5d46e | LGPLv2.1+ | Library for interfacing with IIO devices |
| libiio | libiio0 | 0.15 +gitAUTOINC +6ecff5d46e | LGPLv2.1+ | Library for interfacing with IIO devices |
| libinput | libinput10 | 1.11.3 | MIT | Library to handle input devices in Wayland compositors |
| libjpeg-turbo | libjpeg62 | 2.0.0 | BSD-3-Clause | Hardware accelerated JPEG compression/decompression library |
| json-c | libjson-c4 | 0.13.1 | MIT | C bindings for apps which will manipulate JSON data |
| kmod | libkmod2 | 25+gitAUTOINC +aca4eca103 | LGPL-2.1+ | Tools for managing Linux kernel modules |
| libdrm | libkms1 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libtool | libltdl7 | 2.4.6 | GPLv2 & LGPLv2.1 | Generic library support script |
| xz | liblzma5 | 5.2.4 | PD | Utilities for managing LZMA compressed files |
| lzo | liblzo2-2 | 2.10 | GPLv2+ | Lossless data compression library |
| | | 6.1 | | |



| Recipe Name | Package Name | Version | License | Description |
|-------------|------------------|------------------|-----------------------------|---|
| ncurses | libmenuw5 | +20180630 | MIT | ncurses menuw library |
| libmnl | libmnl0 | 1.0.4 | LGPLv2.1+ | Minimalistic user-space Netlink utility library |
| util-linux | libmount1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libmount |
| lame | libmp3lame0 | 3.100 | LGPLv2+ | High quality MP3 audio encoder |
| mpeg2dec | libmpeg2-0 | 0.5.1 | GPLv2+ | Library and test program for decoding MPEG-2 and MPEG-1 video streams |
| ncurses | libncurses5 | 6.1 +20180630 | MIT | ncurses ncurses library |
| ncurses | libncursesw5 | 6.1 +20180630 | MIT | ncurses ncursesw library |
| libnl | libnl-3-200 | 3.4.0 | LGPLv2.1 | A library for applications dealing with netlink sockets |
| libnl | libnl-genl-3-200 | 3.4.0 | LGPLv2.1 | A library for applications dealing with netlink sockets |
| libnss-mdns | libnss-mdns | 0.10 | LGPLv2.1+ | Name Service Switch module for Multicast DNS (zeroconf) name resolution |
| libogg | libogg0 | 1.3.3 | BSD | Ogg bitstream and framing library |
| orc | liborc-0.4-0 | 0.4.28 | BSD-2-Clause & BSD-3-Clause | ORC orc-0.4 library |
| libpam | libpam | 1.3.0 | BSD | Linux-PAM (Pluggable Authentication Modules) |
| libpam | libpam-runtime | 1.3.0 | BSD | Linux-PAM (Pluggable Authentication Modules) |
| ncurses | libpanel5 | 6.1 +20180630 | MIT | ncurses panel library |
| ncurses | libpanelw5 | 6.1 +20180630 | MIT | ncurses panelw library |
| libpcap | libpcap1 | 1.8.1 | BSD | Interface for user-level network packet capture |



| Recipe Name | Package Name | Version | License | Description |
|----------------|------------------|---------|--------------------------------|--|
| pciutils | libpci3 | 3.6.2 | GPLv2+ | PCI utilities |
| libpciaccess | libpciaccess0 | 0.14 | MIT & MIT-style | Generic PCI access library for X |
| libpcre | libpcre1 | 8.42 | BSD | Perl Compatible Regular Expressions |
| perl | libperl5 | 5.24.4 | GPL-1.0+ | Perl scripting language |
| pixman | libpixman-1-0 | 0.34.0 | MIT & MIT-style & PD | Pixman: Pixel Manipulation library |
| libpng | libpng16-16 | 1.6.35 | Libpng | PNG image format decoding library |
| popt | libpopt0 | 1.16 | MIT | Library for parsing command line options |
| pulseaudio | libpulse-simple0 | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| pulseaudio | libpulse0 | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| pulseaudio | libpulsecommon | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| pulseaudio | libpulsecore | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| python3 | libpython3.5m1.0 | 3.5.6 | PSFv2 | The Python Programming Language |
| readline | libreadline7 | 7.0 | GPLv3+ | Library for editing typed command lines |
| librsvg | librsvg-2-2 | 2.40.20 | LGPLv2+ | Library for rendering SVG files |
| libsamplerate0 | libsamplerate0 | 0.1.9 | BSD-2-Clause | Audio Sample Rate Conversion library |
| sbc | libsbc1 | 1.3 | LGPLv2.1+ | SBC Audio Codec |
| lmsensors | libsensors4 | 3.4.0 | GPLv2+ & LGPLv2.1+ | lm_sensors |
| libsm | libsm6 | 1.2.2 | MIT-style | SM: Session Management library |
| util-linux | libsmartcols1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libsmartcols |



| Recipe Name | Package Name | Version | License | Description |
|--------------|---------------|------------------|----------------------------|--|
| libsndfile1 | libsndfile1 | 1.0.28 | LGPLv2.1 | Audio format Conversion library |
| libsoup-2.4 | libsoup-2.4 | 2.62.3 | LGPLv2 | An HTTP library implementation in C |
| speex | libspeex1 | 1.2.0 | BSD | Speech Audio Codec |
| speexdsp | libspeexdsp1 | 1.2rc3 | BSD | A patent-free DSP library |
| sqlite3 | libsqlite3-0 | 3.23.1 | PD | Embeddable SQL database engine |
| e2fsprogs | libss2 | 1.44.3 | GPLv2 & LGPLv2 & BSD & MIT | Ext2 Filesystem Utilities |
| openssl | libssl1.1 | 1.1.1 | openssl | Secure Socket Layer |
| gcc-runtime | libstdc++6 | 8.2.0 | GPL-3.0-with-GCC-exception | GNU standard C++ library |
| sysfsutils | libsysfs2 | 2.1.0 | LGPLv2.1 | Tools for working with sysfs |
| systemd | libsystemd0 | 239 | GPLv2 & LGPLv2.1 | Systemd systemd library |
| taglib | libtag1 | 1.11.1 | MPL-1 | Library for reading and editing the meta-data of popular audio formats |
| libtheora | libtheora | 1.1.1 | BSD | Theora Video Codec |
| tiff | libtiff5 | 4.0.9 | BSD-2-Clause | Provides support for the Tag Image File Format (TIFF) |
| ncurses | libtinfo5 | 6.1 +20180630 | MIT | ncurses tinfo library |
| libtirpc | libtirpc3 | 1.0.3 | BSD | Transport-Independent RPC library |
| systemd | libudev1 | 239 | GPLv2 & LGPLv2.1 | Systemd udev library |
| libunistring | libunistring2 | 0.9.10 | GPLv2 | Library for manipulating C and Unicode strings |
| libunwind | libunwind | 1.2.1 | MIT | Library for obtaining the call-chain of a program |
| liburcu | liburcu | 0.10.1 | LGPLv2.1+ & MIT-style | Userspace RCU (read-copy-update) library |
| libusb1 | libusb-1.0-0 | 1.0.22 | LGPLv2.1+ | Userspace library to access USB (version 1.0) |
| | | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|-------------------|---------|-----------------------|--|
| util-linux | libuuid1 | 2.32.1 | LGPLv2.1+ & BSD | util-linux libuuid |
| v4l-utils | libv4l | 1.12.3 | GPLv2 & LGPLv2.1 | v4l2 and IR applications |
| libvorbis | libvorbis | 1.3.6 | BSD | Ogg Vorbis Audio Codec |
| libwebp | libwebp | 1.0.0 | BSD | WebP is an image format designed for the Web |
| weston | libweston-5 | 5.0.0 | MIT | Helper library for implementing 'wayland window managers'. |
| libx11 | libx11-6 | 1.6.6 | MIT & MIT-style & BSD | Xlib: C Language X Interface library |
| libx11 | libx11-locale | 1.6.6 | MIT & MIT-style & BSD | Xlib: C Language X Interface library |
| libx11 | libx11-xcb1 | 1.6.6 | MIT & MIT-style & BSD | Xlib: C Language X Interface library |
| libxau | libxau6 | 1.0.8 | MIT-style | Xau: X Authority Database library |
| libxaw | libxaw7-7 | 1.0.13 | MIT-X | X Athena Widget Set |
| libxcb | libxcb-composite0 | 1.13 | MIT | XCB library module for composite |
| libxcb | libxcb-dri2-0 | 1.13 | MIT | XCB library module for dri2 |
| libxcb | libxcb-glx0 | 1.13 | MIT | XCB library module for glx |
| libxcb | libxcb-render0 | 1.13 | MIT | XCB library module for render |
| libxcb | libxcb-shape0 | 1.13 | MIT | XCB library module for shape |
| libxcb | libxcb-shm0 | 1.13 | MIT | XCB library module for shm |
| libxcb | libxcb-xfixes0 | 1.13 | MIT | XCB library module for xfixes |
| libxcb | libxcb-xkb1 | 1.13 | MIT | XCB library module for xkb |
| libxcb | libxcb1 | 1.13 | MIT | XCB: The X protocol C binding library |
| libxcomposite | libxcomposite1 | 0.4.4 | MIT-style | Xcomposite: X Composite extension library |
| libxcursor | libxcursor1 | 1.1.15 | MIT-style | Xcursor: X Cursor management library |
| libxdamage | libxdamage1 | 1.1.4 | MIT | Xdamage: X Damage extension library |
| libxdmcp | libxdmcp6 | 1.1.2 | MIT-style | XDMCP: X Display Manager Control Protocol library |



| Recipe Name | Package Name | Version | License | Description |
|--------------|---------------|-------------------------------|-----------------------|--|
| libxext | libxext6 | 1.3.3 | MIT-style | XExt: X Extension library |
| libxfixed | libxfixed3 | 5.0.3 | MIT-style | XFixed: X Fixed extension library |
| libxfont2 | libxfont2-2 | 2.0.3 | MIT & MIT-style & BSD | XFont2: X Font rasterisation library |
| libxft | libxft2 | 2.3.2 | MIT | Xft: X FreeType library |
| libxi | libxi6 | 1.7.9 | MIT & MIT-style | XI: X Input extension library |
| libxinerama | libxinerama1 | 1.1.4 | MIT | Xinerama: Xinerama extension library |
| libxkbcommon | libxkbcommon | 0.8.2 | MIT & MIT-style | Generic XKB keymap library |
| libxkbfile | libxkbfile1 | 1.0.9 | MIT-style | XKB: X Keyboard File manipulation library |
| libxml2 | libxml2 | 2.9.8 | MIT | XML C Parser Library and Toolkit |
| libxmu | libxmu6 | 1.1.2 | MIT & MIT-style | Xmu and Xmuu: X Miscellaneous Utility libraries |
| libxpm | libxpm4 | 3.5.12 | BSD | Xpm: X Pixmap extension library |
| libxrandr | libxrandr2 | 1.5.1 | MIT-style | XRandR: X Resize, Rotate and Reflect extension library |
| libxrender | libxrender1 | 0.9.10 | MIT-style | XRender: X Rendering Extension library |
| libxshmfence | libxshmfence1 | 1.3 | MIT-style | Shared memory 'SyncFence' synchronization primitive |
| libxt | libxt6 | 1.1.5 | MIT & MIT-style | Xt: X Toolkit Intrinsics library |
| libxtst | libxtst6 | 1.2.3 | MIT-style | XTest: X Test extension library |
| libxv | libxv1 | 1.0.11 | MIT-style | Xv: X Video extension library |
| libxxf86vm | libxxf86vm1 | 1.1.4 | MIT | XFree86-VM: XFree86 video mode extension library |
| libyaml | libyaml-0-2 | 0.2.1 | MIT | LibYAML is a YAML 1.1 parser and emitter written in C. |
| zlib | libz1 | 1.2.11 | Zlib | Zlib Compression Library |
| | | 0.0 +gitAUTOINC +linux- | | |



| Recipe Name | Package Name | Version | License | Description |
|----------------------------------|--|---------------------|---------------------------------|---|
| linux-firmware | linux-firmware-bcm43430 | firmware-8d87950bfa | Firmware-cypress | Firmware files for use with Linux kernel |
| linux-firmware-bluetooth-bcm4343 | linux-firmware-bluetooth-bcm4343 | 1.0 | Firmware-cypress-bcm4343 | linux-firmware-bluetooth-bcm4343 version 1.0-r0 |
| linux-firmware-bluetooth-bcm4343 | linux-firmware-bluetooth-bcm4343-cypress-license | 1.0 | Firmware-cypress-bcm4343 | linux-firmware-bluetooth-bcm4343 version 1.0-r0 |
| lmsensors-config | lmsensors-config-libsensors | 1.0 | MIT-X | lm_sensors configuration files |
| lmsensors | lmsensors-sensors | 3.4.0 | GPLv2+ & LGPLv2.1+ | lm_sensors |
| glibc-locale | locale-base-en-us | 2.28 | GPLv2 & LGPLv2.1 | Locale data from glibc |
| lrzsz | lrzsz | 0.12.20 | GPLv2+ | Tools for zmodem/xmodem /ymodem file transfer |
| lsb | lsb | 5.0 | GPLv2+ | LSB support for OpenEmbedded |
| lsb-openstlinux | lsb-openstlinux | 1.0 | GPLv2+ | LSB support to check gpu provider |
| lsbinitcripts | lsbinitcripts | 9.79 | GPLv2 | SysV init scripts which are only used in an LSB image |
| ltnng-tools | ltnng-tools | 2.9.5 | GPLv2 & LGPLv2.1 | Linux Trace Toolkit Control |
| ltnng-ust | ltnng-ust | 2.10.1 | LGPLv2.1+ & MIT & GPLv2 | Linux Trace Toolkit Userspace Tracer 2.x |
| m4fwcoredump | m4fwcoredump | 1.0 | MIT | m4fwcoredump version 1.0-r0 |
| m4projects-stm32mp1 | m4projects-stm32mp1 | 1.0.0 | Apache-2.0 & MIT & BSD-3-Clause | STM32MP1 Firmware examples for CM4 |
| v4l-utils | media-ctl | 1.12.3 | GPLv2 & LGPLv2.1 | v4l2 and IR applications |
| memtester | memtester | 4.3.0 | GPLv2 | Utility to test for faulty memory subsystem |



| Recipe Name | Package Name | Version | License | Description |
|-------------|-----------------------|---------------------------------|----------|--|
| mesa-gl | mesa-megadriver | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| minicom | minicom | 2.7.1 | GPLv2+ | Text-based modem control and terminal emulation program |
| mkfontdir | mkfontdir | 1.0.7 | MIT-X | A program to create an index of X font files in a directory |
| mkfontscale | mkfontscale | 1.1.3 | MIT-X | A program to create an index of scalable font files for X |
| mmc-utils | mmc-utils | 0.1 | GPLv2 | Userspace tools for MMC/SD devices |
| mpg123 | mpg123 | 1.25.10 | LGPLv2.1 | Audio decoder for MPEG-1 Layer 1/2/3 |
| mtd-utils | mtd-utils | 2.0.2 +AUTOINC+bc63d36e39 | GPLv2+ | Tools for managing memory technology devices |
| mtd-utils | mtd-utils-ubifs | 2.0.2 +AUTOINC+bc63d36e39 | GPLv2+ | Tools for managing memory technology devices |
| mtdev | mtdev | 1.1.5 | MIT | Multitouch Protocol Translation Library |
| ncurses | ncurses-terminfo-base | 6.1 +20180630 | MIT | The New Curses library |
| netbase | netbase | 5.4 | GPLv2 | Basic TCP/IP networking support |
| netdata | netdata | 1.8.0 +gitAUTOINC+89ed309252 | GPLv3 | Real-time performance monitoring |
| nettle | nettle | 3.4 | GPLv2+ | A low level cryptographic library |
| ntp | ntp | 4.2.8p12 | NTP | Network Time Protocol daemon and utilities |
| ntp | ntp-tickadj | 4.2.8p12 | NTP | Network Time Protocol daemon and utilities |
| openssh | openssh-sftp | 7.8p1+git | BSD | A suite of security-related network utilities based on the SSH protocol including the ssh client and sshd server |
| | | | | A suite of security-related network |



| Recipe Name | Package Name | Version | License | Description |
|-------------------|------------------------------|-------------------------------------|-----------------------------|--|
| openssh | openssh-sftp-server | 7.8p1+git | BSD | utilities based on the SSH protocol including the ssh client and sshd server |
| openssl | openssl | 1.1.1 | openssl | Secure Socket Layer |
| openssl | openssl-conf | 1.1.1 | openssl | Secure Socket Layer |
| optee-client | optee-client | 3.3.0 +gitAUTOINC +c48bc3be9f | BSD-2- Clause | OPTEE Client |
| optee-test | optee-test | 3.3.0 +gitAUTOINC +5659bceaa0 | BSD-2- Clause & GPLv2 | OP-TEE sanity testsuite |
| os-release | os-release | 1.0 | MIT | Operating system identification |
| packagegroup-base | packagegroup-base | 1.0 | MIT | Merge machine and distro options to create a basic machine task /package |
| packagegroup-base | packagegroup-base-alsa | 1.0 | MIT | ALSA sound support |
| packagegroup-base | packagegroup-base-bluetooth | 1.0 | MIT | Bluetooth support |
| packagegroup-base | packagegroup-base-ext2 | 1.0 | MIT | ext2 filesystem support |
| packagegroup-base | packagegroup-base-extended | 1.0 | MIT | Merge machine and distro options to create a basic machine task /package |
| packagegroup-base | packagegroup-base-ipv6 | 1.0 | MIT | IPv6 support |
| packagegroup-base | packagegroup-base-nfs | 1.0 | MIT | NFS network filesystem support |
| packagegroup-base | packagegroup-base-usb-gadget | 1.0 | MIT | USB gadget support |
| packagegroup-base | packagegroup-base-usb-host | 1.0 | MIT | USB host support |
| packagegroup-base | packagegroup-base-wifi | 1.0 | MIT | WiFi support |
| packagegroup- | packagegroup- | | | |



| Recipe Name | Package Name | Version | License | Description |
|-------------------------------------|---|---------|---------|--|
| oup-base | base-zeroconf | 1.0 | MIT | Zeroconf support |
| packagegroup-oup-core-boot | packagegroup-core-boot | 1.0 | MIT | Minimal boot requirements |
| packagegroup-oup-core-eclipse-debug | packagegroup-core-eclipse-debug | 1.0 | MIT | Remote debugging tools for Eclipse integration |
| packagegroup-oup-core-full-cmdline | packagegroup-core-full-cmdline-extended | 1.0 | MIT | Standard full-featured Linux system |
| packagegroup-oup-core-ssh-dropbear | packagegroup-core-ssh-dropbear | 1.0 | MIT | Dropbear SSH client/server |
| packagegroup-oup-core-tools-profile | packagegroup-core-tools-profile | 1.0 | MIT | Profiling tools |
| packagegroup-oup-base | packagegroup-distro-base | 1.0 | MIT | openstlinux-weston extras |
| packagegroup-oup-framework-tools | packagegroup-framework-tools-audio | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-oup-framework-tools | packagegroup-framework-tools-audio-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-oup-framework-tools | packagegroup-framework-tools-core | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-oup-framework-tools | packagegroup-framework-tools-core-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |



| Recipe Name | Package Name | Version | License | Description |
|------------------------------|---|---------|---------|---|
| packagegroup-framework-tools | packagegroup-framework-tools-kernel | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-kernel-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-network | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-network-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-python2 | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-python2-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-python3 | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-python3-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-framework-tools | packagegroup-framework-tools-ui | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup- | packagegroup-framework-tools- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|---------------------------|---------|---------|--|
| framework-tools | ui-base | 1.0 | MIT | packagegroup-framework-tools version 1.0-r0 |
| packagegroup-gstreamer1-0 | packagegroup-gstreamer1-0 | 1.0 | LGPLv2+ | packagegroup-gstreamer1-0 version 1.0-r0 |
| packagegroup-base | packagegroup-machine-base | 1.0 | MIT | Extra packages required to fully support stm32mp1 hardware |
| packagegroup-optee-core | packagegroup-optee-core | 1.0 | LGPLv2+ | OPTEE core packagegroup |
| packagegroup-optee-test | packagegroup-optee-test | 1.0 | LGPLv2+ | OPTEE test packagegroup |
| libpam | pam-plugin-deny | 1.3.0 | BSD | PAM plugin for -deny |
| libpam | pam-plugin-env | 1.3.0 | BSD | PAM plugin for -env |
| libpam | pam-plugin-faildelay | 1.3.0 | BSD | PAM plugin for -faildelay |
| libpam | pam-plugin-group | 1.3.0 | BSD | PAM plugin for -group |
| libpam | pam-plugin-keyinit | 1.3.0 | BSD | PAM plugin for -keyinit |
| libpam | pam-plugin-lastlog | 1.3.0 | BSD | PAM plugin for -lastlog |
| libpam | pam-plugin-limits | 1.3.0 | BSD | PAM plugin for -limits |
| libpam | pam-plugin-loginuid | 1.3.0 | BSD | PAM plugin for -loginuid |
| libpam | pam-plugin-mail | 1.3.0 | BSD | PAM plugin for -mail |
| libpam | pam-plugin-motd | 1.3.0 | BSD | PAM plugin for -motd |
| libpam | pam-plugin-nologin | 1.3.0 | BSD | PAM plugin for -nologin |
| libpam | pam-plugin-permit | 1.3.0 | BSD | PAM plugin for -permit |
| libpam | pam-plugin-rootok | 1.3.0 | BSD | PAM plugin for -rootok |
| libpam | pam-plugin-securetty | 1.3.0 | BSD | PAM plugin for -securetty |
| libpam | pam-plugin-shells | 1.3.0 | BSD | PAM plugin for -shells |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--------------------------------|---------|--------------------------------|--|
| libpam | pam-plugin-unix | 1.3.0 | BSD | PAM plugin for -unix |
| libpam | pam-plugin-warn | 1.3.0 | BSD | PAM plugin for -warn |
| pango | pango | 1.42.4 | LGPLv2.0+ | Framework for layout and rendering of internationalized text |
| pciutils | pciutils | 3.6.2 | GPLv2+ | PCI utilities |
| pciutils | pciutils-ids | 3.6.2 | GPLv2+ | PCI utilities - device ID database |
| perf | perf | 1.0 | GPLv2 | Performance analysis tools for Linux |
| perl | perl | 5.24.4 | GPL-1.0+ | Perl scripting language |
| powertop | powertop | 2.9 | GPLv2 | Power usage tool |
| powertop | powertop-locale-en-us | 2.9 | GPLv2 | Power usage tool - en_US translations |
| procps | procps | 3.3.15 | GPLv2+ & LGPLv2+ | System and process monitoring utilities |
| psplash-drm | psplash-drm | 1.0 | MIT | psplash-drm version 1.0-r0 |
| pulseaudio | pulseaudio | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| pulseaudio | pulseaudio-lib-alsa-util | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio library for alsa-util |
| pulseaudio | pulseaudio-lib-bluez5-util | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio library for bluez5-util |
| pulseaudio | pulseaudio-lib-cli | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio library for cli |
| pulseaudio | pulseaudio-lib-protocol-cli | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio library for protocol-cli |
| pulseaudio | pulseaudio-lib-protocol-native | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio library for protocol-native |
| pulseaudio | pulseaudio-misc | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--------------------------------------|---------|--------------------------------|--|
| pulseaudio | pulseaudio-module-alsa-card | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for alsa-card |
| pulseaudio | pulseaudio-module-alsa-sink | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for alsa-sink |
| pulseaudio | pulseaudio-module-alsa-source | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for alsa-source |
| pulseaudio | pulseaudio-module-always-sink | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for always-sink |
| pulseaudio | pulseaudio-module-augment-properties | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for augment-properties |
| pulseaudio | pulseaudio-module-bluetooth-discover | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for bluetooth-discover |
| pulseaudio | pulseaudio-module-bluetooth-policy | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for bluetooth-policy |
| pulseaudio | pulseaudio-module-bluez5-device | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for bluez5-device |
| pulseaudio | pulseaudio-module-bluez5-discover | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for bluez5-discover |
| pulseaudio | pulseaudio-module-card-restore | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for card-restore |
| pulseaudio | pulseaudio-module-cli-protocol-unix | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for cli-protocol-unix |
| pulseaudio | pulseaudio-module-combine-sink | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for combine-sink |
| | pulseaudio-module-console- | | LGPLv2.1+ & MIT & BSD-3- | |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--|---------|--------------------------------|--|
| pulseaudio | kit | 12.2 | Clause | PulseAudio module for console-kit |
| pulseaudio | pulseaudio-module-default-device-restore | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for default-device-restore |
| pulseaudio | pulseaudio-module-detect | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for detect |
| pulseaudio | pulseaudio-module-device-manager | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for device-manager |
| pulseaudio | pulseaudio-module-device-restore | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for device-restore |
| pulseaudio | pulseaudio-module-filter-apply | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for filter-apply |
| pulseaudio | pulseaudio-module-filter-heuristics | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for filter-heuristics |
| pulseaudio | pulseaudio-module-intended-roles | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for intended-roles |
| pulseaudio | pulseaudio-module-native-protocol-unix | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for native-protocol-unix |
| pulseaudio | pulseaudio-module-null-sink | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for null-sink |
| pulseaudio | pulseaudio-module-position-event-sounds | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for position-event-sounds |
| pulseaudio | pulseaudio-module-rescue-streams | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for rescue-streams |
| pulseaudio | pulseaudio-module-role-cork | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for role-cork |



| Recipe Name | Package Name | Version | License | Description |
|-------------|--|---------|--------------------------------|--|
| pulseaudio | pulseaudio-module-stream-restore | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for stream-restore |
| pulseaudio | pulseaudio-module-suspend-on-idle | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for suspend-on-idle |
| pulseaudio | pulseaudio-module-switch-on-port-available | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for switch-on-port-available |
| pulseaudio | pulseaudio-module-udev-detect | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for udev-detect |
| pulseaudio | pulseaudio-module-x11-cork-request | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for x11-cork-request |
| pulseaudio | pulseaudio-module-x11-publish | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for x11-publish |
| pulseaudio | pulseaudio-module-x11-xshm | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | PulseAudio module for x11-xshm |
| pulseaudio | pulseaudio-server | 12.2 | LGPLv2.1+ & MIT & BSD-3-Clause | Sound server for Linux and Unix-like operating systems |
| python3 | python3-asyncio | 3.5.6 | PSFv2 | Python Asynchronous I/O |
| python3 | python3-codecs | 3.5.6 | PSFv2 | Python codec |
| python3 | python3-compile | 3.5.6 | PSFv2 | Python bytecode compilation support |
| python3 | python3-compression | 3.5.6 | PSFv2 | Python high-level compression support |
| python3 | python3-core | 3.5.6 | PSFv2 | Python interpreter and core modules |
| python3 | python3-crypt | 3.5.6 | PSFv2 | Python basic cryptographic and hashing support |
| python3 | python3-ctypes | 3.5.6 | PSFv2 | Python C types support |
| python3 | python3-datetime | 3.5.6 | PSFv2 | Python calendar and time support |
| python3- | | | BSD-3- | Extensions to the standard Python |



| Recipe Name | Package Name | Version | License | Description |
|--------------------|-------------------------|---------|---------------------|---|
| dateutil | python3-dateutil | 2.7.3 | Clause & Apache-2.0 | datetime module |
| python3 | python3-debugger | 3.5.6 | PSFv2 | Python debugger |
| python3 | python3-difflib | 3.5.6 | PSFv2 | Python helpers for computing deltas between objects |
| python3 | python3-distutils | 3.5.6 | PSFv2 | Python Distribution Utilities |
| python3 | python3-email | 3.5.6 | PSFv2 | Python email support |
| python3-evdev | python3-evdev | 0.7.0 | BSD | Python evdev lib |
| python3 | python3-fcntl | 3.5.6 | PSFv2 | Python's fcntl interface |
| python3 | python3-html | 3.5.6 | PSFv2 | Python HTML processing support |
| python3 | python3-io | 3.5.6 | PSFv2 | Python low-level I/O |
| python3 | python3-json | 3.5.6 | PSFv2 | Python JSON support |
| python3 | python3-logging | 3.5.6 | PSFv2 | Python logging support |
| python3 | python3-math | 3.5.6 | PSFv2 | Python math support |
| python3 | python3-mime | 3.5.6 | PSFv2 | Python MIME handling APIs |
| python3 | python3-misc | 3.5.6 | PSFv2 | The Python Programming Language |
| python3 | python3-multiprocessing | 3.5.6 | PSFv2 | Python multiprocessing support |
| python3 | python3-netclient | 3.5.6 | PSFv2 | Python Internet Protocol clients |
| python3 | python3-netserver | 3.5.6 | PSFv2 | Python Internet Protocol servers |
| python3 | python3-numbers | 3.5.6 | PSFv2 | Python number APIs |
| python3-pexpect | python3-pexpect | 4.6.0 | ISC | A Pure Python Expect like Module for Python |
| python3 | python3-pickle | 3.5.6 | PSFv2 | Python serialisation/persistence support |
| python3 | python3-pkgutil | 3.5.6 | PSFv2 | Python package extension utility support |
| python3 | python3-plistlib | 3.5.6 | PSFv2 | Generate and parse Mac OS X .plist files |
| python3 | python3-pprint | 3.5.6 | PSFv2 | Python pretty-print support |
| python3-ptyprocess | python3-ptyprocess | 0.6.0 | ISC | Run a subprocess in a pseudo terminal |



| Recipe Name | Package Name | Version | License | Description |
|--------------------|--------------------|---------|--------------------|--|
| python3-pycairo | python3-pycairo | 1.15.6 | LGPLv2.1 & MPLv1.1 | Python bindings for the Cairo canvas library |
| python3-pyobject | python3-pyobject | 3.28.3 | LGPLv2.1 | Python GObject bindings |
| python3-pyparsing | python3-pyparsing | 2.2.0 | MIT | Python parsing module |
| python3-pyyaml | python3-pyyaml | 3.13 | MIT | Python support for YAML |
| python3 | python3-resource | 3.5.6 | PSFv2 | Python resource control interface |
| python3-setuptools | python3-setuptools | 40.0.0 | MIT | Download, build, install, upgrade, and uninstall Python packages |
| python3 | python3-shell | 3.5.6 | PSFv2 | Python shell-like functionality |
| python3-six | python3-six | 1.11.0 | MIT | Python 2 and 3 compatibility library |
| python3 | python3-stringold | 3.5.6 | PSFv2 | Python string APIs [deprecated] |
| python3 | python3-terminal | 3.5.6 | PSFv2 | Python terminal controlling support |
| python3 | python3-threading | 3.5.6 | PSFv2 | Python threading & synchronization support |
| python3 | python3-unittest | 3.5.6 | PSFv2 | Python unit testing framework |
| python3 | python3-unixadmin | 3.5.6 | PSFv2 | Python Unix administration support |
| python3 | python3-xml | 3.5.6 | PSFv2 | Python basic XML support |
| v4l-utils | rc-keymaps | 1.12.3 | GPLv2 & LGPLv2.1 | v4l2 and IR applications |
| resize-helper | resize-helper | 1.0 | GPLv2+ | resize-helper version 1.0-r0 |
| rgb | rgb | 1.0.6 | MIT-X | X11 color name database |
| rng-tools | rng-tools | 5 | GPLv2 | Random number generator daemon |
| rpcbind | rpcbind | 0.2.4 | BSD | Universal Addresses to RPC Program Number Mapper |
| run-postinsts | run-postinsts | 1.0 | MIT | Runs postinstall scripts on first boot of the target device |
| shadow | shadow | 4.6 | Artistic-1.0 | Tools to change and administer password and group data |
| | | | | Tools to change and administer |



| Recipe Name | Package Name | Version | License | Description |
|--------------------------------|--------------------------------|---------|------------------|---|
| shadow | shadow-base | 4.6 | Artistic-1.0 | password and group data |
| shadow-securetty | shadow-securetty | 4.6 | MIT | Provider of the machine specific securetty file |
| shared-mime-info | shared-mime-info | 1.10 | GPLv2 | Shared MIME type database and specification |
| slang | slang | 2.3.2 | GPLv2 | The shared library for the S-Lang extension language |
| strace | strace | 4.24 | BSD | System call tracing tool |
| sysfsutils | sysfsutils | 2.1.0 | GPLv2 | Tools for working with sysfs |
| sysprof | sysprof | 3.30.0 | GPLv3+ | System-wide Performance Profiler for Linux |
| sysstat | sysstat | 11.7.4 | GPLv2+ | System performance tools |
| systemd | systemd | 239 | GPLv2 & LGPLv2.1 | A System and service manager |
| systemd | systemd-analyze | 239 | GPLv2 & LGPLv2.1 | A System and service manager |
| systemd-compat-units | systemd-compat-units | 1.0 | MIT | Enhances systemd compatibility with existing SysVinit scripts |
| systemd-conf | systemd-conf | 1.0 | GPLv2 & LGPLv2.1 | Systemd system configuration |
| systemd | systemd-container | 239 | GPLv2 & LGPLv2.1 | Tools for containers and VMs |
| systemd | systemd-extra-utils | 239 | GPLv2 & LGPLv2.1 | A System and service manager |
| systemd-mount-partitions | systemd-mount-partitions | 1.0 | MIT | systemd-mount-partitions version 1.0-r0 |
| systemd-networkd-configuration | systemd-networkd-configuration | 1.0 | MIT | systemd-networkd-configuration version 1.0-r0 |
| systemd-serialgetty | systemd-serialgetty | 1.0 | GPLv2+ | Serial terminal support for systemd |
| systemd | systemd-vconsole-setup | 239 | GPLv2 & LGPLv2.1 | A System and service manager |



| Recipe Name | Package Name | Version | License | Description |
|----------------------|--------------------------|-------------------------------------|--------------------------|---|
| systemtap | systemtap | 4.0 | GPLv2 | Script-directed dynamic tracing and performance analysis tool for Linux |
| systemtap | systemtap-locale-en | 4.0 | GPLv2 | Script-directed dynamic tracing and performance analysis tool for Linux - en translations |
| tcf-agent | tcf-agent | 1.7.0 +gitAUTOINC +a022ef2f1a | EDL-1.0 | Target Communication Framework for the Eclipse IDE |
| tcpdump | tcpdump | 4.9.2 | BSD | A sophisticated network protocol analyzer |
| systemd | udev | 239 | GPLv2 & LGPLv2.1 | A System and service manager |
| systemd | udev-hwdb | 239 | GPLv2 & LGPLv2.1 | A System and service manager |
| opkg-utils | update-alternatives-opkg | 0.3.6 | GPLv2+ | Utility for managing the alternatives system |
| update-rc.d | update-rc.d | 0.8 | GPLv2+ | manage symlinks in /etc/rcN.d |
| usbotg-gadget-config | usbotg-gadget-config | 1.0 | MIT | usbotg-gadget-config version 1.0-r0 |
| usbutils | usbutils | 010 | GPLv2+ | Host side USB console utilities |
| util-linux | util-linux | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-agetty | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-cfdisk | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-fdisk | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-fsck | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |



| Recipe Name | Package Name | Version | License | Description |
|-------------|------------------------|---------|--------------------------|--|
| util-linux | util-linux-getopt | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-ionice | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-losetup | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-lsblk | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-lscpu | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-mkfs | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-mount | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-mountpoint | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-prlimit | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-readprofile | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-runuser | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-sfdisk | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| | | | GPLv2+ & LGPLv2.1+ & | |



| Recipe Name | Package Name | Version | License | Description |
|----------------|------------------------|------------|--------------------------|--|
| util-linux | util-linux-su | 2.32.1 | BSD | A suite of basic system administration utilities |
| util-linux | util-linux-sulogin | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-swaponoff | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-switch-root | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| util-linux | util-linux-umount | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| v4l-utils | v4l-utils | 1.12.3 | GPLv2 & LGPLv2.1 | v4l2 and IR applications |
| valgrind | valgrind | 3.14.0 | GPLv2 & GPLv2+ & BSD | Valgrind memory debugger and instrumentation framework |
| volatile-binds | volatile-binds | 1.0 | MIT | Volatile bind mount setup and configuration for read-only-roots |
| wayland | wayland | 1.16.0 | MIT | Wayland, a protocol between a compositor and clients |
| weston | weston | 5.0.0 | MIT | Weston, a Wayland compositor |
| weston | weston-examples | 5.0.0 | MIT | Weston, a Wayland compositor |
| weston-init | weston-init | 1.0 | MIT | Startup script and systemd unit file for the Weston Wayland compositor |
| weston | weston-xwayland | 5.0.0 | MIT | Weston, a Wayland compositor |
| wifi-suspend | wifi-suspend | 1.0 | MIT | wifi-suspend version 1.0-r0 |
| wireless-regdb | wireless-regdb-static | 2018.05.31 | ISC | Wireless Central Regulatory Domain Database |
| wpa-supPLICANT | wpa-supPLICANT | 2.6 | BSD | Client for Wi-Fi Protected Access (WPA) |
| wpa-supPLICANT | wpa-supPLICANT-cli | 2.6 | BSD | Client for Wi-Fi Protected Access (WPA) |



| Recipe Name | Package Name | Version | License | Description |
|---------------------|---------------------------|---------|-----------------|---|
| wpa-supPLICant | wpa-supPLICant-passphrase | 2.6 | BSD | Client for Wi-Fi Protected Access (WPA) |
| xclock | xclock | 1.0.5 | MIT | analog / digital clock for X |
| xeyes | xeyes | 1.1.2 | MIT-X | X11 eyes that follow the mouse cursor demo |
| xf86-input-evdev | xf86-input-evdev | 2.10.6 | MIT-X | X.Org X server -- event devices (evdev) input driver |
| xf86-input-keyboard | xf86-input-keyboard | 1.9.0 | MIT-X | X.Org X server -- keyboard input driver |
| xf86-input-libinput | xf86-input-libinput | 0.28.0 | MIT-X | Generic input driver for the X.Org server based on libinput |
| xf86-input-mouse | xf86-input-mouse | 1.9.3 | MIT-X | X.Org X server -- mouse input driver |
| xserver-xorg | xf86-video-modesetting | 1.20.1 | MIT-X | X.Org X server -- modesetting display driver |
| xinput | xinput | 1.6.2 | MIT-X | Runtime configuration and test of XInput devices |
| xkbcomp | xkbcomp | 1.4.2 | MIT-X | A program to compile XKB keyboard description |
| xkeyboard-config | xkeyboard-config | 2.24 | MIT & MIT-style | Keyboard configuration database for X Window |
| xorg-minimal-fonts | xorg-minimal-fonts | 1.0 | PD | Xorg minimal fonts data |
| xserver-xf86-config | xserver-xf86-config | 0.1 | MIT-X | X.Org X server configuration file |
| xserver-xorg | xserver-xorg | 1.20.1 | MIT-X | The X.Org X server |
| xserver-xorg | xserver-xorg-xwayland | 1.20.1 | MIT-X | The X.Org X server |
| xterm | xterm | 330 | MIT-X | xterm is the standard terminal emulator for the X Window System |
| xvinfo | xvinfo | 1.1.3 | MIT-X | Print out X-Video extension adaptor information |



3.3 usersfs partition:

| | |
|--------------|---|
| Image | st-image-usersfs-openstlinux-weston-stm32mp1 |
|--------------|---|

| Recipe Name | Package Name | Version | License | Description |
|----------------------------|-----------------------------|----------|----------------------|--|
| adwaita-icon-theme | adwaita-icon-theme-symbolic | 3.28.0 | CC-BY-SA-3.0 | GTK+ icon theme |
| ai-hand-char-reco-launcher | ai-hand-char-reco-launcher | 1.0 | GPLv2 & BSD-3-Clause | ai-hand-char-reco-launcher version 1.0-r0 |
| alsa-lib | alsa-conf | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA sound library |
| base-files | base-files | 3.0.14 | GPLv2 | Miscellaneous files for the base system |
| base-passwd | base-passwd | 3.5.29 | GPLv2+ | Base system master password/group files |
| busybox | busybox | 1.29.2 | GPLv2 & bzip2 | Tiny versions of many common UNIX utilities in a single small executable |
| busybox | busybox-udhcpc | 1.29.2 | GPLv2 & bzip2 | Tiny versions of many common UNIX utilities in a single small executable |
| ca-certificates | ca-certificates | 20180409 | GPL-2.0+ & MPL-2.0 | Common CA certificates |
| dbus | dbus-1 | 1.12.10 | GPLv2+ | D-Bus message bus |
| demo-hotspot-wifi | demo-hotspot-wifi | 1.0 | MIT | demo-hotspot-wifi version 1.0-r0 |
| demo-launcher | demo-launcher | 1.0 | BSD-3-Clause | Python script which launch several use-cases |
| fontconfig | fontconfig-utils | 2.12.6 | MIT-style & MIT & PD | Generic font configuration library |
| glibc-locales | glibc-gconv | 2.28 | GPLv2 & LGPLv2.1 | Locale data from glibc |
| glibc-locales | glibc-gconv-iso8859-1 | 2.28 | GPLv2 & LGPLv2.1 | gconv module for character set iso8859-1 |



| Recipe Name | Package Name | Version | License | Description |
|--|--|---------|------------------|--|
| gobject-introspection | gobject-introspection | 1.58.0 | LGPLv2+ & GPLv2+ | Middleware layer between GObject-using C libraries and language bindings |
| gstreamer1.0 | gstreamer1.0 | 1.14.2 | LGPLv2+ | GStreamer 1.0 multimedia framework |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gstreamer1.0-plugins-base-adder | gstreamer1.0-plugins-base-adder | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for adder |
| gstreamer1.0-plugins-base-alsa | gstreamer1.0-plugins-base-alsa | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for alsa |
| gstreamer1.0-plugins-base-app | gstreamer1.0-plugins-base-app | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for app |
| gstreamer1.0-plugins-base-apps | gstreamer1.0-plugins-base-apps | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gstreamer1.0-plugins-base-audioconvert | gstreamer1.0-plugins-base-audioconvert | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audioconvert |
| gstreamer1.0-plugins-base-audiomixer | gstreamer1.0-plugins-base-audiomixer | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiomixer |
| gstreamer1.0-plugins-base-audiorate | gstreamer1.0-plugins-base-audiorate | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiorate |
| gstream | gstreamer1.0- | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|--|---------|------------------|--|
| er1.0-plugins-base | plugins-base-audioresample | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audioresample |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-audiotestsrc | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for audiotestsrc |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-encoding | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for encoding |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-gio | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for gio |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-meta | 1.14.2 | GPLv2+ & LGPLv2+ | Plugins for the GStreamer multimedia framework 1.x |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-ogg | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for ogg |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-opengl | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for opengl |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-pango | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for pango |
| gstreamer1.0-plugins-base | gstreamer1.0-plugins-base-pbtypes | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for pbtypes |
| gstreamer1.0-plugins- | gstreamer1.0- | | GPLv2+ & | |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|---|---------|------------------|--|
| base | plugins-base-playback | 1.14.2 | LGPLv2+ | GStreamer plugin for playback |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-rawparse | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for rawparse |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-subparse | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for subparse |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-tcp | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for tcp |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-theora | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for theora |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-typefindfunctions | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for typefindfunctions |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videoconvert | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videoconvert |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videorate | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videorate |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videoscale | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videoscale |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-videotestsrc | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for videotestsrc |



| Recipe Name | Package Name | Version | License | Description |
|-----------------------------|---|---------|--------------------------|--|
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-volume | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for volume |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-vorbis | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for vorbis |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-ximagesink | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for ximagesink |
| gststreamer1.0-plugins-base | gststreamer1.0-plugins-base-xvimagesink | 1.14.2 | GPLv2+ & LGPLv2+ | GStreamer plugin for xvimagesink |
| hicolor-icon-theme | hicolor-icon-theme | 0.17 | GPLv2 | Default icon theme that all icon themes automatically inherit from |
| alsa-lib | libasound2 | 1.1.6 | LGPLv2.1 & GPLv2+ | ALSA sound library |
| atk | libatk-1.0-0 | 2.28.1 | GPLv2+ & LGPLv2+ | Accessibility toolkit for GNOME |
| at-spi2-atk | libatk-bridge-2.0-0 | 2.26.2 | LGPLv2 | AT-SPI 2 Toolkit Bridge |
| at-spi2-core | libatspi0 | 2.28.0 | LGPLv2 | Assistive Technology Service Provider Interface (dbus core) |
| attr | libattr1 | 2.4.47 | LGPLv2.1+ | Utilities for manipulating filesystem extended attributes |
| util-linux | libblkid1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libblkid |
| bzip2 | libbz2-1 | 1.0.6 | bzip2 | Very high-quality data compression program |
| glibc | libc6 | 2.28 | GPLv2 & LGPLv2.1 | GLIBC (GNU C Library) |
| cairo | libcairo-gobject2 | 1.14.12 | MPL-1 & LGPLv2.1 | The Cairo library GObject wrapper library |



| Recipe Name | Package Name | Version | License | Description |
|------------------|-------------------------------|---------|----------------------------|--|
| cairo | libcairo2 | 1.14.12 | MPL-1 & LGPLv2.1 | The Cairo 2D vector graphics library |
| libcap | libcap2 | 2.25 | GPLv2 | Library for getting/setting POSIX.1e capabilities |
| libxcrypt | libcrypt1 | 4.1.1 | LGPLv2.1 | Extended cryptographic library (from glibc) |
| openssl | libcrypto1.1 | 1.1.1 | openssl | Secure Socket Layer |
| dbus | libdbus-1-3 | 1.12.10 | GPLv2+ | D-Bus message bus |
| libdrm | libdrm2 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libepoxy | libepoxy0 | 1.5.2 | MIT | OpenGL function pointer management library |
| liberation-fonts | liberation-fonts | 2.00.1 | OFL-1.1 | Liberation(tm) Fonts |
| expat | libexpat1 | 2.2.6 | MIT | A stream-oriented XML parser library |
| libffi | libffi6 | 3.2.1 | MIT | A portable foreign function interface library |
| fontconfig | libfontconfig1 | 2.12.6 | MIT-style & MIT & PD | Generic font configuration library |
| freetype | libfreetype6 | 2.9.1 | GPLv2+ | Freetype font rendering library |
| fribidi | libfribidi0 | 1.0.5 | LGPLv2.1+ | Free Implementation of the Unicode Bidirectional Algorithm |
| libgcc | libgcc1 | 8.2.0 | GPL-3.0-with-GCC-exception | GNU cc and gcc C compilers |
| gdbm | libgdbm-compat4 | 1.18 | GPLv3 | Key/value database library with extensible hashing |
| gdbm | libgdbm6 | 1.18 | GPLv3 | Key/value database library with extensible hashing |
| gdk-pixbuf | libgdk-pixbuf-2.0-0 | 2.36.11 | LGPLv2 | Image loading library for GTK+ |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-gif | 2.36.11 | LGPLv2 | GDK pixbuf loader for gif |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-jpeg | 2.36.11 | LGPLv2 | GDK pixbuf loader for jpeg |
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-png | 2.36.11 | LGPLv2 | GDK pixbuf loader for png |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|------------------------------|---------|----------------------|--|
| gdk-pixbuf | libgdk-pixbuf-2.0-loader-xpm | 2.36.11 | LGPLv2 | GDK pixbuf loader for xpm |
| mesa-gl | libgl-mesa | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| mesa-gl | libglapi0 | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| glib-2.0 | libglib-2.0-0 | 2.58.0 | LGPLv2.1+ & BSD & PD | A general-purpose utility library |
| glib-2.0 | libglib-2.0-utils | 2.58.0 | LGPLv2.1+ & BSD & PD | A general-purpose utility library |
| gstreamer1.0-plugins-base | libgstallocators-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstallocators-1.0 library |
| gstreamer1.0-plugins-base | libgstapp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstapp-1.0 library |
| gstreamer1.0-plugins-base | libgstaudio-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstaudio-1.0 library |
| gstreamer1.0-plugins-base | libgstfft-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstfft-1.0 library |
| gstreamer1.0-plugins-base | libgstgl-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstgl-1.0 library |
| gstreamer1.0-plugins-base | libgstpbutils-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstpbutils-1.0 library |
| gstreamer | | | | |



| Recipe Name | Package Name | Version | License | Description |
|---------------------------|-------------------|--------------|------------------------------|--|
| er1.0-plugins-base | libgstriff-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstriff-1.0 library |
| gstreamer1.0-plugins-base | libgstrtp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstrtp-1.0 library |
| gstreamer1.0-plugins-base | libgstrtp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstrtp-1.0 library |
| gstreamer1.0-plugins-base | libgstrtp-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstrtp-1.0 library |
| gstreamer1.0-plugins-base | libgstsd-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstrtp-1.0 library |
| gstreamer1.0-plugins-base | libgsttag-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gsttag-1.0 library |
| gstreamer1.0-plugins-base | libgstvideo-1.0-0 | 1.14.2 | GPLv2+ & LGPLv2+ | gstreamer gstvideo-1.0 library |
| gtk+3 | libgtk-3.0 | 3.22.30 | LGPLv2 & LGPLv2+ & LGPLv2.1+ | Multi-platform toolkit for creating GUIs |
| harfbuzz | libharfbuzz0 | 1.8.8 | MIT | Text shaping library |
| libjpeg-turbo | libjpeg62 | 2.0.0 | BSD-3-Clause | Hardware accelerated JPEG compression /decompression library |
| xz | liblzma5 | 5.2.4 | PD | Utilities for managing LZMA compressed files |
| util-linux | libmount1 | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | util-linux libmount |
| ncurses | libncurses5 | 6.1+20180630 | MIT | ncurses ncurses library |
| libogg | libogg0 | 1.3.3 | BSD | Ogg bitstream and framing library |



| Recipe Name | Package Name | Version | License | Description |
|-----------------|----------------------|----------------------|--|--|
| orc | liborc-0.4-0 | 0.4.28 | BSD-2- Clause & BSD-3- Clause | ORC orc-0.4 library |
| libpam | libpam | 1.3.0 | BSD | Linux-PAM (Pluggable Authentication Modules) |
| libpam | libpam- runtime | 1.3.0 | BSD | Linux-PAM (Pluggable Authentication Modules) |
| ncurses | libpanel5 | 6.1 +201806 30 | MIT | ncurses panel library |
| libpcre | libpcre1 | 8.42 | BSD | Perl Compatible Regular Expressions |
| pixman | libpixman-1-0 | 0.34.0 | MIT & MIT- style & PD | Pixman: Pixel Manipulation library |
| libpng | libpng16-16 | 1.6.35 | Libpng | PNG image format decoding library |
| python3 | libpython3. 5m1.0 | 3.5.6 | PSFv2 | The Python Programming Language |
| readline | libreadline7 | 7.0 | GPLv3+ | Library for editing typed command lines |
| sqlite3 | libsqlite3-0 | 3.23.1 | PD | Embeddable SQL database engine |
| openssl | libssl1.1 | 1.1.1 | openssl | Secure Socket Layer |
| gcc- runtime | libstdc++6 | 8.2.0 | GPL-3.0- with-GCC- exception | GNU standard C++ library |
| systemd | libsystemd0 | 239 | GPLv2 & LGPLv2.1 | Systemd systemd library |
| libtheora | libtheora | 1.1.1 | BSD | Theora Video Codec |
| ncurses | libtinfo5 | 6.1 +201806 30 | MIT | ncurses tinfo library |
| util- linux | libuuid1 | 2.32.1 | GPLv2+ & LGPLv2. 1+ & BSD | util-linux libuuid |
| libvorbis | libvorbis | 1.3.6 | BSD | Ogg Vorbis Audio Codec |
| libx11 | libx11-6 | 1.6.6 | MIT & MIT- style & BSD | Xlib: C Language X Interface library |
| | | | MIT & MIT- | |



| Recipe Name | Package Name | Version | License | Description |
|---------------|----------------|---------|-----------------|--|
| libx11 | libx11-xcb1 | 1.6.6 | style & BSD | Xlib: C Language X Interface library |
| libxau | libxau6 | 1.0.8 | MIT-style | Xau: X Authority Database library |
| libxcb | libxcb-dri2-0 | 1.13 | MIT | XCB library module for dri2 |
| libxcb | libxcb-glx0 | 1.13 | MIT | XCB library module for glx |
| libxcb | libxcb-render0 | 1.13 | MIT | XCB library module for render |
| libxcb | libxcb-shm0 | 1.13 | MIT | XCB library module for shm |
| libxcb | libxcb-xkb1 | 1.13 | MIT | XCB library module for xkb |
| libxcb | libxcb1 | 1.13 | MIT | XCB: The X protocol C binding library |
| libxcomposite | libxcomposite1 | 0.4.4 | MIT-style | Xcomposite: X Composite extension library |
| libxcursor | libxcursor1 | 1.1.15 | MIT-style | Xcursor: X Cursor management library |
| libxdamage | libxdamage1 | 1.1.4 | MIT | Xdamage: X Damage extension library |
| libxdmcp | libxdmcp6 | 1.1.2 | MIT-style | XDMCP: X Display Manager Control Protocol library |
| libxext | libxext6 | 1.3.3 | MIT-style | XExt: X Extension library |
| libxfixes | libxfixes3 | 5.0.3 | MIT-style | XFixes: X Fixes extension library |
| libxft | libxft2 | 2.3.2 | MIT | Xft: X FreeType library |
| libxi | libxi6 | 1.7.9 | MIT & MIT-style | XI: X Input extension library |
| libxkbcommon | libxkbcommon | 0.8.2 | MIT & MIT-style | Generic XKB keymap library |
| libxml2 | libxml2 | 2.9.8 | MIT | XML C Parser Library and Toolkit |
| libxrandr | libxrandr2 | 1.5.1 | MIT-style | XRandR: X Resize, Rotate and Reflect extension library |
| libxrender | libxrender1 | 0.9.10 | MIT-style | XRender: X Rendering Extension library |
| libxtst | libxtst6 | 1.2.3 | MIT-style | XTest: X Test extension library |
| libxv | libxv1 | 1.0.11 | MIT-style | Xv: X Video extension library |
| libxxf86vm | libxxf86vm1 | 1.1.4 | MIT | XFree86-VM: XFree86 video mode extension library |
| zlib | libz1 | 1.2.11 | Zlib | Zlib Compression Library |



| Recipe Name | Package Name | Version | License | Description |
|--------------------------|--------------------------------|-------------------------|---------------------------------|--|
| linux-example-s-stm32mp1 | linux-examples-stm32mp1-userfs | 4.19+AUTOINC+158c3364e9 | MIT | ST STM32MP1 projects for Linux examples |
| m4projects-stm32mp1 | m4projects-stm32mp1-userfs | 1.0.0 | Apache-2.0 & MIT & BSD-3-Clause | STM32MP1 Firmware examples for CM4 |
| mesa-gl | mesa-megadriver | 18.1.9 | MIT | A free implementation of the OpenGL API (OpenGL only, no EGL/GLES) |
| ncurses | ncurses-terminfo-base | 6.1+20180630 | MIT | The New Curses library |
| openssl | openssl | 1.1.1 | openssl | Secure Socket Layer |
| openssl | openssl-conf | 1.1.1 | openssl | Secure Socket Layer |
| libpam | pam-plugin-deny | 1.3.0 | BSD | PAM plugin for -deny |
| libpam | pam-plugin-env | 1.3.0 | BSD | PAM plugin for -env |
| libpam | pam-plugin-faildelay | 1.3.0 | BSD | PAM plugin for -faildelay |
| libpam | pam-plugin-group | 1.3.0 | BSD | PAM plugin for -group |
| libpam | pam-plugin-lastlog | 1.3.0 | BSD | PAM plugin for -lastlog |
| libpam | pam-plugin-limits | 1.3.0 | BSD | PAM plugin for -limits |
| libpam | pam-plugin-mail | 1.3.0 | BSD | PAM plugin for -mail |
| libpam | pam-plugin-motd | 1.3.0 | BSD | PAM plugin for -motd |
| libpam | pam-plugin-nologin | 1.3.0 | BSD | PAM plugin for -nologin |
| libpam | pam-plugin-permit | 1.3.0 | BSD | PAM plugin for -permit |



| Recipe Name | Package Name | Version | License | Description |
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| libpam | pam-plugin-rootok | 1.3.0 | BSD | PAM plugin for -rootok |
| libpam | pam-plugin-securetty | 1.3.0 | BSD | PAM plugin for -securetty |
| libpam | pam-plugin-shells | 1.3.0 | BSD | PAM plugin for -shells |
| libpam | pam-plugin-unix | 1.3.0 | BSD | PAM plugin for -unix |
| libpam | pam-plugin-warn | 1.3.0 | BSD | PAM plugin for -warn |
| pango | pango | 1.42.4 | LGPLv2.0+ | Framework for layout and rendering of internationalized text |
| python3 | python3-2to3 | 3.5.6 | PSFv2 | Python automated Python 2 to 3 code translator |
| python3 | python3-asyncio | 3.5.6 | PSFv2 | Python Asynchronous I/ |
| python3 | python3-audio | 3.5.6 | PSFv2 | Python Audio Handling |
| python3 | python3-codecs | 3.5.6 | PSFv2 | Python codec |
| python3 | python3-compile | 3.5.6 | PSFv2 | Python bytecode compilation support |
| python3 | python3-compression | 3.5.6 | PSFv2 | Python high-level compression support |
| python3 | python3-core | 3.5.6 | PSFv2 | Python interpreter and core modules |
| python3 | python3-crypt | 3.5.6 | PSFv2 | Python basic cryptographic and hashing support |
| python3 | python3-ctypes | 3.5.6 | PSFv2 | Python C types support |
| python3 | python3-curses | 3.5.6 | PSFv2 | Python curses support |
| python3 | python3-datetime | 3.5.6 | PSFv2 | Python calendar and time support |
| python3 | python3-db | 3.5.6 | PSFv2 | Python file-based database support |
| python3 | python3-debugger | 3.5.6 | PSFv2 | Python debugger |
| python3 | python3-difflib | 3.5.6 | PSFv2 | Python helpers for computing deltas between objects |



| Recipe Name | Package Name | Version | License | Description |
|-----------------|-------------------------|---------|---------|---|
| python3 | python3-distutils | 3.5.6 | PSFv2 | Python Distribution Utilities |
| python3 | python3-doctest | 3.5.6 | PSFv2 | Python framework for running examples in docstrings |
| python3 | python3-email | 3.5.6 | PSFv2 | Python email support |
| python3 | python3-fcntl | 3.5.6 | PSFv2 | Python's fcntl interface |
| python3 | python3-html | 3.5.6 | PSFv2 | Python HTML processing support |
| python3 | python3-idle | 3.5.6 | PSFv2 | Python Integrated Development Environment |
| python3 | python3-image | 3.5.6 | PSFv2 | Python graphical image handling |
| python3 | python3-io | 3.5.6 | PSFv2 | Python low-level I/O |
| python3 | python3-json | 3.5.6 | PSFv2 | Python JSON support |
| python3 | python3-logging | 3.5.6 | PSFv2 | Python logging support |
| python3 | python3-mailbox | 3.5.6 | PSFv2 | Python mailbox format support |
| python3 | python3-math | 3.5.6 | PSFv2 | Python math support |
| python3 | python3-mime | 3.5.6 | PSFv2 | Python MIME handling APIs |
| python3 | python3-misc | 3.5.6 | PSFv2 | The Python Programming Language |
| python3 | python3-mmap | 3.5.6 | PSFv2 | Python memory-mapped file support |
| python3 | python3-modules | 3.5.6 | PSFv2 | All Python modules |
| python3 | python3-multiprocessing | 3.5.6 | PSFv2 | Python multiprocessing support |
| python3 | python3-netclient | 3.5.6 | PSFv2 | Python Internet Protocol clients |
| python3 | python3-netserver | 3.5.6 | PSFv2 | Python Internet Protocol servers |
| python3 | python3-numbers | 3.5.6 | PSFv2 | Python number APIs |
| python3-pexpect | python3-pexpect | 4.6.0 | ISC | A Pure Python Expect like Module for Python |
| | python3- | | | |



| Recipe Name | Package Name | Version | License | Description |
|--------------------|--------------------|---------|--------------------|--|
| python3 | pickle | 3.5.6 | PSFv2 | Python serialisation/persistence support |
| python3 | python3-pkgutil | 3.5.6 | PSFv2 | Python package extension utility support |
| python3 | python3-plistlib | 3.5.6 | PSFv2 | Generate and parse Mac OS X .plist files |
| python3 | python3-pprint | 3.5.6 | PSFv2 | Python pretty-print support |
| python3 | python3-profile | 3.5.6 | PSFv2 | Python basic performance profiling support |
| python3-ptyprocess | python3-ptyprocess | 0.6.0 | ISC | Run a subprocess in a pseudo terminal |
| python3-pycairo | python3-pycairo | 1.15.6 | LGPLv2.1 & MPLv1.1 | Python bindings for the Cairo canvas library |
| python3 | python3-pydoc | 3.5.6 | PSFv2 | Python interactive help support |
| python3-pygobject | python3-pygobject | 3.28.3 | LGPLv2.1 | Python GObject bindings |
| python3 | python3-resource | 3.5.6 | PSFv2 | Python resource control interface |
| python3 | python3-runpy | 3.5.6 | PSFv2 | Python helper for locating/executing scripts in module namespace |
| python3-setuptools | python3-setuptools | 40.0.0 | MIT | Download, build, install, upgrade, and uninstall Python packages |
| python3 | python3-shell | 3.5.6 | PSFv2 | Python shell-like functionality |
| python3 | python3-smtpd | 3.5.6 | PSFv2 | Python Simple Mail Transport Daemon |
| python3 | python3-sqlite3 | 3.5.6 | PSFv2 | Python Sqlite3 database support |
| python3 | python3-stringold | 3.5.6 | PSFv2 | Python string APIs [deprecated] |
| python3 | python3-syslog | 3.5.6 | PSFv2 | Python syslog interface |
| python3 | python3-terminal | 3.5.6 | PSFv2 | Python terminal controlling support |



| Recipe Name | Package Name | Version | License | Description |
|------------------|--------------------------|---------|--------------------------|---|
| python3 | python3-threading | 3.5.6 | PSFv2 | Python threading & synchronization support |
| python3 | python3-tkinter | 3.5.6 | PSFv2 | Python Tcl/Tk bindings |
| python3 | python3-typing | 3.5.6 | PSFv2 | Python typing support |
| python3 | python3-unittest | 3.5.6 | PSFv2 | Python unit testing framework |
| python3 | python3-unixadmin | 3.5.6 | PSFv2 | Python Unix administration support |
| python3 | python3-venv | 3.5.6 | PSFv2 | Provides support for creating lightweight virtual environments with their own site directories, optionally isolated from system site directories. |
| python3 | python3-xml | 3.5.6 | PSFv2 | Python basic XML support |
| python3 | python3-xmlrpc | 3.5.6 | PSFv2 | Python XML-RPC support |
| shadow | shadow | 4.6 | Artistic-1.0 | Tools to change and administer password and group data |
| shadow | shadow-base | 4.6 | Artistic-1.0 | Tools to change and administer password and group data |
| shadow-securetty | shadow-securetty | 4.6 | MIT | Provider of the machine specific securetty file |
| shared-mime-info | shared-mime-info | 1.10 | GPLv2 | Shared MIME type database and specification |
| opkg-utils | update-alternatives-opkg | 0.3.6 | GPLv2+ | Utility for managing the alternatives system |
| util-linux | util-linux-sulogin | 2.32.1 | GPLv2+ & LGPLv2.1+ & BSD | A suite of basic system administration utilities |
| wayland | wayland | 1.16.0 | MIT | Wayland, a protocol between a compositor and clients |



4 vendors partition:

| | |
|--------------|---|
| Image | st-image-vendors-openstlinux-weston-stm32mp1 |
|--------------|---|

| Recipe Name | Package Name | Version | License | Description |
|--------------------------------------|--------------------------------------|----------------|------------------|---|
| gcnano-userland-multi-binary-stm32mp | gcnano-userland-multi-binary-stm32mp | 6.2.4.p3 | Proprietary | Vivante libraries OpenGL ES, OpenVG and EGL (multi backend) |
| glibc | libc6 | 2.28 | GPLv2 & LGPLv2.1 | GLIBC (GNU C Library) |
| libdrm | libdrm2 | 2.4.94 | MIT | Userspace interface to the kernel DRM services |
| libffi | libffi6 | 3.2.1 | MIT | A portable foreign function interface library |
| wayland | wayland | 1.16.0 | MIT | Wayland, a protocol between a compositor and clients |



5 OE SPDX LICENSE

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| Adobe | [Adobe] |
| AFL-1.2 | [AFL-1.2] |
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| UCB | [UCB] |
| VSL-1.0 | [VSL-1.0] |
| W3C | [W3C] |
| Watcom-1.0 | [Watcom-1.0] |
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| XSL | [XSL] |
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| Zimbra-1.3 | [Zimbra-1.3] |
| Zlib | [Zlib] |
| ZPL-1.1 | [ZPL-1.1] |
| ZPL-2.0 | [ZPL-2.0] |
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| GPL-3 | | | | |
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| GPLv3.0 | | | | |
| LGPL-2.0 | <table border="1"> <tr><td>LGPLv2</td></tr> <tr><td>LGPLv2.0</td></tr> </table> | LGPLv2 | LGPLv2.0 | |
| LGPLv2 | | | | |
| LGPLv2.0 | | | | |



| License name | Authorized variations names |
|--------------|---|
| LGPL-2.1 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">LGPL2.1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">LGPLv2.1</div> |
| LGPL-3.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">LGPLv3</div> |
| MPL-1.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">MPL-1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">MPLv1</div> |
| MPL-1.1 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">MPLv1.1</div> |
| MPL-2.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">MPLv2</div> |
| MIT | <div style="border: 1px solid black; padding: 2px; display: inline-block;">MIT-X</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">MIT-style</div> |
| OpenSSL | <div style="border: 1px solid black; padding: 2px; display: inline-block;">openssl</div> |
| Python-2.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">PSF</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">PSFv2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Python-2</div> |
| Apache-2.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">Apachev2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Apache-2</div> |
| Artistic-1.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">Artisticv1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">Artistic-1</div> |
| AFL-2.0 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">AFL-2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">AFLv2</div> |
| AFL-1.2 | <div style="border: 1px solid black; padding: 2px; display: inline-block;">AFL-1</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">AFLv1</div> |



| License name | Authorized variations names |
|--------------|-----------------------------|
| EPL-1.0 | EPLv1.0 |
| SGL-1 | SGLv1 |

Information extracted from:

<http://git.openembedded.org/openembedded-core/tree/meta/conf/licenses.conf>

All Text of License are available:

<http://git.openembedded.org/openembedded-core/tree/meta/files/common-licenses>

Das U-Boot -- the Universal Boot Loader (see [U-Boot_overview](#))

Advanced Linux sound architecture

Sony/Philips Digital Interface Format (Protocol (IEC-60958))

Controller Area Network (robust bus mainly used for automotive applications)

Dynamic Host Configuration Protocol (See https://en.wikipedia.org/wiki/Dynamic_Host_Configuration_Protocol for more details)

Open Graphics Library (See <http://www.opengl.org/> for more details)

GUID Partition Table

(Software)Integrated development/design/debugging environment

Read Only

Portable Operating System Interface based on uniX (https://en.wikipedia.org/wiki/POSIX_terminal_interface for more details)

Serial Peripheral Interface

Cascading Style Sheets (web standard)

Direct Rendering Manager (kernel module that gives direct hardware access to DRI clients, find more information on official DRI web site <http://dri.freedesktop.org/wiki/DRM>)

Application programming interface

Khronos Native Platform Graphics Interface (See <http://www.khronos.org/egl/> for more details)

General-Purpose Input/Output (A realization of open ended transmission between devices on an embedded level. These pins available on a processor can be programmed to be used to either accept input or provide output to external devices depending on user desires and applications requirements.)

Industrial I/O Linux subsystem

System File System (See <https://en.wikipedia.org/wiki/Sysfs> for more details)

MultimediaCard

Open Portable Trusted Execution Environment

Network File System (https://en.wikipedia.org/wiki/Network_File_System)



Operating System

technology for wireless local area networking with devices based on the IEEE 802.11 standards

Open Vector Graphics (See <http://www.khronos.org/opencv/> for more details)

Common Public License

Software Generated Interrupt

Secondary Program Loader. Also known as **U-Boot SPL**

Stable: 23.10.2020 - 16:19 / Revision: 23.10.2020 - 16:16

A quality version of this page, approved on *23 October 2020*, was based off this revision.

Das U-Boot ("the Universal Boot Loader" or U-Boot) is an open-source bootloader that can be used to initialize the platform and load the Linux[®] kernel.

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1 Das U-Boot

- Official website: <https://www.denx.de/wiki/U-Boot>
- Official manual: project documentation and <https://www.denx.de/wiki/DULG/Manual>
- Official **source code** is available under git repository at [1]

```
PC $> git clone https://gitlab.denx.de/u-boot/u-boot.git
```

Read the [README](#) file before starting using U-Boot. It covers the following topics:

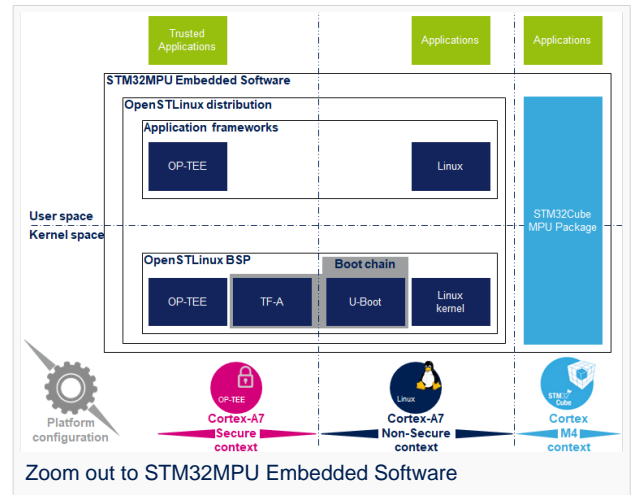
- source file tree structure
- description of CONFIG defines
- instructions for building U-Boot
- brief description of the Hush shell
- list of common environment variables



2 U-Boot overview

The same U-Boot source can generate two pieces of firmware used in SPL and U-Boot STM32 MPU boot chain:

- Trusted boot chain: TF-A as FSBL and U-Boot as SSBL
- Basic boot chain: SPL as FSBL and U-Boot as SSBL



Warning

The basic boot chain cannot be used for product development (see [Boot chains overview](#) for details).

It is provided only as an example of the simplest SSBL and to support upstream U-Boot development. However, several known limitations have been identified when SPL is used in conjunction with the minimal secure monitor provided within U-Boot for basic boot chain. They apply to:

- power
- secure access to registers
- limited features (STM32CubeProgrammer / boot from NAND Flash memory).

No fix is planned for these limitations.

2.1 SPL: FSBL for basic boot

The **U-Boot SPL** or **SPL** is the first stage bootloader (FSBL) for the basic boot chain.

It is a small binary (bootstrap utility) generated from the U-Boot source and stored in the internal limited-size embedded RAM.

SPL main features are the following:

- It is loaded by the ROM code.
- It performs the initial CPU and board configuration (clocks and DDR memory).
- It loads the SSBL (U-Boot) into the DDR memory.

2.2 U-Boot: SSBL

U-Boot is the default second-stage bootloader (SSBL) for STM32 MPU platforms. It is used both for trusted and basic boot chains. SSBL main features are the following:

- It is configurable and expendable.
- It features a simple command line interface (CLI), allowing users to interact over a serial port console.
- It provides scripting capabilities



- It loads the kernel into RAM and gives control to the kernel
- It manages several internal and external devices such as NAND and NOR Flash memories, Ethernet and USB.
- It supports the following features and commands:
 - File systems: FAT, UBI/UBIFS, JFFS
 - IP stack: FTP
 - Display: LCD, HDMI, BMP for splashscreen
 - USB: host (mass storage) or device (DFU stack)

2.3 SPL phases

SPL executes the following main phases in SYSRAM:

- **board_init_f()**: driver initialization including DDR initialization (minimal stack and heap: CONFIG_SPL_STACK_R_MALLOC_SIMPLE_LEN)
- configuration of heap in DDR memory (CONFIG_SPL_SYS_MALLOC_F_LEN)
- **board_init_r()**: initialization of the other drivers activated in the SPL device tree
- loading and execution of U-Boot (or Kernel in Falcon mode^[1]: README.falcon).

2.4 U-Boot phases

U-Boot executes the following main phases in DDR memory:

- **Pre-relocation** initialization (common/board_f.c): minimal initialization (such as CPU, clock, reset, DDR and console) running at the CONFIG_SYS_TEXT_BASE load address.
- **Relocation**: copy of the code to the end of DDR memory.
- **Post-relocation initialization**: (common/board_r.c): initialization of all the drivers.
- **Command execution** through autoboot (CONFIG_AUTOBOOT) or console shell
 - Execution of the boot command (by default bootcmd=CONFIG_BOOTCOMMAND):
for example, execution of the command bootm to:
 - load and check images (such as kernel, device tree and ramdisk)
 - fixup the kernel device tree
 - install the secure monitor (optional) or
 - pass the control to the Linux kernel (or to another target application)



3 U-Boot configuration

The U-Boot binary configuration is based on

- **Kbuild infrastructure** (as in Linux Kernel, you can use `make menuconfig` in U-Boot)

The configurations are based on:

- options defined in Kconfig files (CONFIG_ compilation flags)
- the selected configuration file: `configs/stm32mp*_defconfig`
- **other compilation flags** defined in `include/configs/stm32mp*.h` (these flags are progressively migrated to Kconfig)

The file name is configured through `CONFIG_SYS_CONFIG_NAME`.

For STM32MP15x lines , the `include/configs/stm32mp1.h` file is used.

- **DeviceTree**: U-Boot and SPL binaries include a device tree blob that is parsed at runtime

All the configuration flags (prefixed by CONFIG_) are described in the source code, either in the `README` file or in the `documentation` directory .

For example, `CONFIG_SPL` activates the SPL compilation.

Hence to compile U-Boot, select the `<target>` and the device tree for the board in order to choose a predefined configuration.

Refer to `#U-Boot_build` for examples.

3.1 Kbuild

Like the kernel, the U-Boot build system is based on `configuration symbols` (defined in Kconfig files). The selected values are stored in a `.config` file in the build directory, with the same makefile target. .

Proceed as follows:

- Select a pre-defined configuration (defconfig file in `configs` directory) and generate the first `.config`:

```
PC $> make <config>_defconfig.
```

- Change the U-Boot compile configuration (modify `.config`) by using one of the following five `make` commands:

```
PC $> make menuconfig --> menu based program
PC $> make config --> line-oriented configuration
PC $> make xconfig --> QT program[2]
PC $> make gconfig --> GTK program
PC $> make nconfig --> ncurses menu based program
```

You can then compile U-Boot with the updated `.config`.

Warning: the modification is performed locally in the build directory. It will be lost after a `make distclean`.

Save your configuration to be able to use it as a defconfig file:

```
PC $> make savedefconfig
```

This target saves the current config as a defconfig file in the build directory. It can then be compared with the predefined configuration (`configs/stm32mp*_defconfig`).

The other makefile targets are the following:



```

PC $> make help
....
Configuration targets:
  config      - Update current config utilising a line-oriented program
  nconfig     - Update current config utilising a ncurses menu based
                program
  menuconfig  - Update current config utilising a menu based program
  xconfig     - Update current config utilising a Qt based front-end
  gconfig     - Update current config utilising a GTK+ based front-end
  oldconfig   - Update current config utilising a provided .config as base
  localmodconfig - Update current config disabling modules not loaded
  localyesconfig - Update current config converting local mods to core
  defconfig   - New config with default from ARCH supplied defconfig
  savedefconfig - Save current config as ./defconfig (minimal config)
  allnoconfig - New config where all options are answered with no
  allyesconfig - New config where all options are accepted with yes
  allmodconfig - New config selecting modules when possible
  alldefconfig - New config with all symbols set to default
  randconfig  - New config with random answer to all options
  listnewconfig - List new options
  olddefconfig - Same as oldconfig but sets new symbols to their
                default value without prompting

```

3.2 Device tree

Refer to [doc/README.fdt-control](#) for details.

The board device tree has the same binding as the kernel. It is integrated within the SPL and U-Boot binaries:

- By default, it is appended at the end of the code (CONFIG_OF_SEPARATE).
- It is embedded in the U-Boot binary (CONFIG_OF_EMBED). This is useful for debugging since it enables easy .elf file loading.

A default device tree is available in the defconfig file (by setting CONFIG_DEFAULT_DEVICE_TREE).

You can either select another supported device tree using the DEVICE_TREE make flag. For stm32mp boards, the corresponding file is: `arch/arm/dts/stm32mp*.dts` .

```
PC $> make DEVICE_TREE=<dts-file-name>
```

or provide a precompiled device tree blob (using EXT_DTB option):

```
PC $> make EXT_DTB=boot/<dts-file-name>.dtb
```

The SPL device tree is also generated from this device tree. However to reduce its size, the U-Boot makefile uses the `fdtgrep` tool to parse the full U-Boot DTB and identify all the drivers required by SPL.

To do this, U-Boot uses specific device-tree flags to define if the associated driver is initialized prior to U-Boot relocation and/or if the associated node is present in SPL :

- `u-boot,dm-pre-reloc` => present in SPL, initialized before relocation in U-Boot
- `u-boot,dm-pre-proper` => initialized before relocation in U-Boot
- `u-boot,dm-spl` => present in SPL

In the device tree used by U-Boot, these flags **need to be added in each node** used in SPL or in U-Boot before relocation and for each used handle (clock, reset, pincontrol).



4 U-Boot command line interface (CLI)

Refer to [U-Boot Command Line Interface](#).

If CONFIG_AUTOBOOT is activated, you have CONFIG_BOOTDELAY seconds (2s by default) to enter the console by pressing any key, after the line below is displayed and bootcmd is executed (CONFIG_BOOTCOMMAND):

```
Hit any key to stop autoboot:  2
```

4.1 Commands

The commands are defined in `cmd/*.c`. They are activated through the corresponding `CONFIG_CMD_*` configuration flag.

Use the `help` command in the U-Boot shell to list the commands available on your device:

```
Board $> help
```

Below the list of all commands extracted from [U-Boot Manual](#) (**not-exhaustive**):

- Information Commands
 - `bdinfo` - prints Board Info structure
 - `coninfo` - prints console devices and information
 - `flinfo` - prints Flash memory information
 - `imininfo` - prints header information for application image
 - `help` - prints online help
- Memory Commands
 - `base` - prints or sets the address offset
 - `crc32` - checksum calculation
 - `cmp` - memory compare
 - `cp` - memory copy
 - `md` - memory display
 - `mm` - memory modify (auto-incrementing)
 - `mtest` - simple RAM test
 - `mw` - memory write (fill)
 - `nm` - memory modify (constant address)
 - `loop` - infinite loop on address range
- Flash Memory Commands
 - `cp` - memory copy
 - `flinfo` - prints Flash memory information
 - `erase` - erases Flash memory
 - `protect` - enables or disables Flash memory write protection
 - `mtdparts` - defines a Linux compatible MTD partition scheme
- Execution Control Commands
 - `source` - runs a script from memory
 - `bootm` - boots application image from memory



- go - starts application at address 'addr'
- Download Commands
 - bootp - boots image via network using BOOTP/TFTP protocol
 - dhcp - invokes DHCP client to obtain IP/boot params
 - loadb - loads binary file over serial line (kermit mode)
 - loads - loads S-Record file over serial line
 - rarpboot- boots image via network using RARP/TFTP protocol
 - tftpboot- boots image via network using TFTP protocol
- Environment Variables Commands
 - printenv- prints environment variables
 - saveenv - saves environment variables to persistent storage
 - setenv - sets environment variables
 - run - runs commands in an environment variable
 - bootd - boots default, i.e., run 'bootcmd'
- Flattened Device Tree support
 - fdt addr - selects the FDT to work on
 - fdt list - prints one level
 - fdt print - recursive printing
 - fdt mknod - creates new nodes
 - fdt set - sets node properties
 - fdt rm - removes nodes or properties
 - fdt move - moves FDT blob to new address
 - fdt chosen - fixup dynamic information
- Special Commands
 - i2c - I2C sub-system
- Storage devices
- Miscellaneous Commands
 - echo - echoes args to console
 - reset - Performs a CPU reset
 - sleep - delays the execution for a predefined time
 - version - prints the monitor version

To add a new command, refer to [doc/README.commands](#) .

4.2 U-Boot environment variables

The U-Boot behavior is configured through environment variables.

Refer to [Manual](#) and [README / Environment Variables](#).

On the first boot, U-Boot uses a default environment embedded in the U-Boot binary. You can modify it by changing the content of CONFIG_EXTRA_ENV_SETTINGS in your configuration file (for example ./include/configs/stm32mp1.h) (see [README / - Default Environment](#)).

This environment can be modified and saved in the boot device. When it is present, it is loaded during U-Boot initialization:

- for eMMC/SD card boot (CONFIG_ENV_IS_IN_EXT4), in the bootable ext4 partition "bootfs" in file CONFIG_ENV_EXT4_FILE="uboot.env".
- for NAND boot (CONFIG_ENV_IS_IN_UBI), in the two UBI volumes "config" (CONFIG_ENV_UBI_VOLUME) and "config_r" (CONFIG_ENV_UBI_VOLUME_REDUND).



- for NOR boot (CONFIG_ENV_IS_IN_SPI_FLASH), in the u-boot_env mtd partition (at offset CONFIG_ENV_OFFSET).

4.2.1 env command

The env command allows displaying, modifying and saving the environment in U-Boot console.

```
Board $> help env
env - environment handling commands

Usage:
env default [-f] -a - [forcibly] reset default environment
env default [-f] var [...] - [forcibly] reset variable(s) to their default values
env delete [-f] var [...] - [forcibly] delete variable(s)
env edit name - edit environment variable
env exists name - tests for existence of variable
env print [-a | name ...] - print environment
env print -e [name ...] - print UEFI environment
env run var [...] - run commands in an environment variable
env save - save environment
env set -e name [arg ...] - set UEFI variable; unset if 'arg' not specified
env set [-f] name [arg ...]
```

Example: proceed as follows to restore the default environment and save it. This is useful after a U-Boot upgrade:

```
Board $> env default -a
Board $> env save
```

4.2.2 bootcmd

"bootcmd" variable is the autoboot command. It defines the command executed when U-Boot starts (CONFIG_BOOTCOMMAND).

For stm32mp, CONFIG_BOOTCOMMAND="run bootcmd_stm32mp":

```
Board $> env print bootcmd
bootcmd=run bootcmd_stm32mp
```

"bootcmd_stm32mp" is a script that selects the command to be executed for each boot device (see ./include/configs/stm32mp1.h), based on generic distro scripts:

- for serial/usb: execute the stm32prog command.
- for mmc boot (eMMC, SD card), boot only on the same device (bootcmd_mmc...).
- for nand boot, boot with on ubifs partition on nand (bootcmd_ubi0).
- for nor boot, use the default order eMMC (SDMMC 1)/ NAND / SD card (SDMMC 0) / SDMMC2 (the default bootcmd: distro_bootcmd).

```
Board $> env print bootcmd_stm32mp
```

You can then change this configuration:

- either permanently in your board file (default environment by CONFIG_EXTRA_ENV_SETTINGS or change CONFIG_BOOTCOMMAND value) or
- temporarily in the saved environment:



```
Board $> env set bootcmd run bootcmd_mmc0
Board $> env save
```

Note: To reset the environment to its default value:

```
Board $> env default bootcmd
Board $> env save
```

4.3 Generic Distro configuration

Refer to `doc/README.distro` for details.

This feature is activated by default on ST boards (`CONFIG_DISTRO_DEFAULTS`):

- one boot command (`bootcmd_xxx`) exists for each bootable device.
- U-Boot is independent of the Linux distribution used.
- `bootcmd` is defined in `./include/config_distro_bootcmd.h`

When DISTRO is enabled, the command that is executed by default is `include/config_distro_bootcmd.h` :

```
bootcmd=run distro_bootcmd
```

This script tries any device found in the 'boot_targets' variable and executes the associated bootcmd.

Example for mmc0, mmc1, mmc2, pxe and ubifs devices:

```
bootcmd_mmc0=setenv devnum 0; run mmc_boot
bootcmd_mmc1=setenv devnum 1; run mmc_boot
bootcmd_mmc2=setenv devnum 2; run mmc_boot
bootcmd_pxe=run boot_net_usb_start; dhcp; if pxe get; then pxe boot; fi
bootcmd_ubifs0=setenv devnum 0; run ubifs_boot
```

U-Boot searches for a `extlinux.conf` configuration file for each bootable device. This file defines the kernel configuration to be used:

- bootargs
- kernel + device tree + ramdisk files (optional)
- FIT image

4.4 U-Boot scripting capabilities

"Script files" are command sequences that are executed by the U-Boot command interpreter. This feature is particularly useful to configure U-Boot to use a real shell (hush) as command interpreter.

See [U-Boot script manual](#) for an example.



5 U-Boot build

5.1 Prerequisites

- a PC with Linux and tools:
 - see [PC_prerequisites](#)
 - #ARM cross compiler
- U-Boot source code
 - the latest STMicroelectronics U-Boot version
 - tar.xz file from Developer Package (for example STM32MP1)
 - from GITHUB^[3], with git command

```
PC $> git clone https://github.com/STMicroelectronics/u-boot
```

- from the Mainline U-Boot in official GIT repository ^[4]

```
PC $> git clone https://gitlab.denx.de/u-boot/u-boot.git
```

5.1.1 ARM cross compiler

A cross compiler ^[5] must be installed on your Host (X86_64, i686, ...) for the ARM targeted Device architecture. In addition, the \$PATH and \$CROSS_COMPILE environment variables must be configured in your shell.

You can use gcc for ARM, available in:

- the SDK toolchain (see [Cross-compile with OpenSTLinux SDK](#))

PATH and CROSS_COMPILE are automatically updated.

- an existing package

For example, install gcc-arm-linux-gnueabi on Ubuntu/Debian: (PC \$> sudo apt-get.

- an existing toolchain:
 - latest gcc toolchain provided by arm (<https://developer.arm.com/open-source/gnu-toolchain/gnu-a/downloads/>)
 - gcc v7 toolchain provided by linaro: (<https://www.linaro.org/downloads/>)

For example, to use *gcc-arm-9.2-2019.12-x86_64-arm-none-linux-gnueabi.tar.xz* from arm, extract the toolchain in \$HOME and update your environment with:

```
PC $> export PATH=$HOME/gcc-arm-9.2-2019.12-x86_64-arm-none-linux-gnueabi/bin:$PATH
PC $> export CROSS_COMPILE=arm-none-linux-gnueabi-
```

For example, to use *gcc-linaro-7.2.1-2017.11-x86_64_arm-linux-gnueabi.tar.xz*

from <https://releases.linaro.org/components/toolchain/binaries/7.2-2017.11/arm-linux-gnueabi/>

Unzip the toolchain in \$HOME and update your environment with:

```
PC $> export PATH=$HOME/gcc-linaro-7.2.1-2017.11-x86_64_arm-linux-gnueabi/bin:$PATH
PC $> export CROSS_COMPILE=arm-linux-gnueabi-
```



5.2 Compilation

In the U-Boot source directory, select the <target> and the <device tree> for your configuration and then execute the `make all` command:

```
PC $> make <target>_defconfig
PC $> make DEVICE_TREE=<device-tree> all
```

Optionally `KBUILD_OUTPUT` can be used to change the output directory to compile several targets or not to compile in the source directory. For example:

```
PC $> export KBUILD_OUTPUT=./build/basic
```

`DEVICE_TREE` can also be exported to your environment when only one board is supported. For example:

```
PC $> export DEVICE_TREE=stm32mp157c-ev1
```

Examples from STM32MP15 U-Boot:

Three configurations are supported for STM32MP15x lines :

- **stm32mp15_trusted_defconfig**: trusted boot chain, U-Boot (without SPL) is unsecure and uses Secure monitor from TF-A
- **stm32mp15_optee_defconfig**: trusted boot chain, U-Boot (without SPL) is unsecure and uses Secure monitor from SecureOS = OP-TEE
- **stm32mp15_basic_defconfig**: basic boot chain, with an SPL as FSBL, U-BOOT is secure and installs monitor with PSCI

The board diversity is only managed with the device tree.

```
PC $> export KBUILD_OUTPUT=./build/trusted
PC $> make stm32mp15_trusted_defconfig
PC $> make DEVICE_TREE=stm32mp157c-<board> all
```

```
PC $> export KBUILD_OUTPUT=./build/optee
PC $> export DEVICE_TREE=stm32mp157c-<board>
PC $> make stm32mp15_optee_defconfig
PC $> make all
```

```
PC $> make stm32mp15_basic_defconfig
PC $> make DEVICE_TREE=stm32mp157c-<board> all
```

Use help to list other targets:

```
PC $> make help
```

5.3 Output files

The resulting U-Boot files are located in your build directory (U-Boot or `KBUILD_OUTPUT`).



Two binary formats are used for stm32mp devices:

- STM32 image format (*.stm32), managed by mkimage U-Boot tools and [Signing_tool](#). It is requested by ROM code and TF-A (see [STM32 header for binary files](#) for details).
- ulmage (*.img) format, file including a U-Boot header, managed by SPL and U-Boot (for kernel load)

The U-Boot generated files are the following

- For **Trusted boot chain** (TF-A is used as FSBL, with or without OP-TEE)
 - **u-boot.stm32** : U-Boot binary with STM32 image header, loaded by TF-A
- For **Basic boot chain** (SPL is used as FSBL)
 - **u-boot-spl.stm32** : SPL binary with STM32 image header, loaded by ROM code
 - **u-boot.img** : U-Boot binary with ulmage header, loaded by SPL

The files used to debug with gdb are

- u-boot : elf file for U-Boot
- spl/u-boot-spl : elf file for SPL



6 References

- <https://www.denx.de/wiki/pub/U-Boot/MiniSummitELCE2013/2013-ELCE-U-Boot-Falcon-Boot.pdf>
- <https://en.wikipedia.org/wiki/Xconfig>
- <https://github.com/STMicroelectronics/u-boot>
- <https://gitlab.denx.de/u-boot/u-boot.git> or <https://github.com/u-boot/u-boot>
- https://en.wikipedia.org/wiki/Cross_compiler

Das U-Boot -- the Universal Boot Loader (see [U-Boot_overview](#))

Secondary Program Loader, *Also known as **U-Boot SPL***

Trusted Firmware for Arm Cortex-A

First Stage Boot Loader

Second Stage Boot Loader

Flash memories combine high density and cost effectiveness of EPROMs with the electrical erasability of EEPROMs. For this reason, the Flash memory market is one of the most exciting areas of the semiconductor industry today and new applications requiring in system reprogramming, such as cellular telephones, automotive engine management systems, hard disk drives, PC BIOS software for Plug & Play, digital TV, set top boxes, fax and other modems, PC cards and multimedia CD-ROMs, offer the prospect of very high volume demand.

Random Access Memory (Early computer memories generally had serial access. Memories where any given address can be accessed when desired were then called "random access" to distinguish them from the memories where contents can only be accessed in a fixed order. The term is used today for volatile random-access semiconductor memories.)

Read Only Memory

Central processing unit

Doubledata rate (memory domain)

Microprocessor Unit

High-Definition Multimedia Interface (HDMI standard)

Device Firmware Upgrade

Device Tree Binary (or Blob)

Memory Technology Device

Trivial File Transfer Protocol (https://en.wikipedia.org/wiki/Trivial_File_Transfer_Protocol)

Dynamic Host Configuration Protocol (See https://en.wikipedia.org/wiki/Dynamic_Host_Configuration_Protocol for more details)

Inter-Integrated Circuit (Bi-directional 2-wire bus standard for efficient inter-IC control.)

MultimediaCard

SD memory card (<https://www.sdcard.org>)

Serial Peripheral Interface

Software development kit (A programming package that enables a programmer to develop applications for a specific platform.)

Power State Coordination Interface



Open Portable Trusted Execution Environment