



**UCE4027LGH**

**v1.04.02**

## **Open Source Report**

This document aims to describe the Open Source Software which are embedded in product  
UCE4027LGH

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# UCE4027LGH

## Open Source Report

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<b>Product</b>	UCE4027LGH
<b>Version</b>	v1.04.02
<b>Open Source Modules</b>	1515

## Open Source Report

Module Name	Module Version	Module License
bionic/linker/linker	4a81bd9	BSDlike
frameworks/base/core/jni/libandroid_runtime	fbcd9b	Apache-2.0
system/keymaster/libkeymaster_portable.vendor	65efdbd	Apache-2.0
frameworks/hardware/interfaces/vr/composer/1.0/android.frameworks.vr.composer@1.0.vendor	dcc6946	Apache-2.0
frameworks/av/apex/com.android.media.libbase	58a3660	Apache-2.0
system/core/libkeyutils/libkeyutils.recovery	3160811	Apache-2.0
frameworks/av/media/libaudioclient/libaudioclient	58a3660	Apache-2.0
external/protobuf/libprotobuf-cpp-lite	10b0fd4	Apache-2.0
frameworks/av/drm/libmediadrmlibmediadrmmetrics_lite	58a3660	Apache-2.0
frameworks/av/media/libstagefrighthflac/dec/libstagefrighthflacdec	ef20ef1	Apache-2.0
frameworks/rs/librsdriver.vendor	9822b04	Apache-2.0
system/core/libprocessgroup/libprocessgroup.recovery	3160811	Apache-2.0
external/speex/libspeexresampler	fb97af1	BSDlike
system/core/libutils/libutilscallstack	3160811	Apache-2.0
frameworks/base/cmds/incident_helper/incident_helper	e8bd84b	Apache-2.0
frameworks/av/services/audiopolicy/managerdefault/libaudiopolicymanagerdefault	58a3660	Apache-2.0
external/perfetto/heapprofd_client	c4161c4	Apache-2.0
system/media/camera/libcamera_metadata.vendor	70724d3	Apache-2.0
system/framework/oat/arm/am	unknown	Apache-2.0
hardware/interfaces/tv/cec/2.0/android.hardware.tv.cec@2.0.vendor	c6824d8	Apache-2.0
system/media/alsa_utils/libalsautils	70724d3	Apache-2.0
hardware/interfaces/nfc/1.0/android.hardware.nfc@1.0.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libartpalette	4c6ce46	Apache-2.0
packages/apps/certinstaller/certinstaller	062594e	Apache-2.0
external/libjpeg-turbo/libjpeg	94a6b62	zlib, BSDlike, IJG
frameworks/rs/driver/runtime/libclcore.bc	9822b04	SunPro
hardware/interfaces/radio/deprecated/1.0/android.hardware.radio.deprecated@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/media/libstagefrighthbqhelper/libstagefrighthbqhelper	ef20ef1	Apache-2.0
hardware/interfaces/keymaster/4.0/android.hardware.keymaster@4.0.vendor	c6824d8	Apache-2.0
system/core/watchdog/watchdogd.recovery	3160811	Apache-2.0
system/core/adb/libadb	3160811	Apache-2.0
external/libdrm/libdrm.vendor	2493ca2	MITlike

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Module Name	Module Version	Module License
frameworks/av/media/mediaserver/mediaserver	ef20ef1	Apache-2.0
frameworks/native/cmds/atrace/atrace	16d1d36	Apache-2.0
hardware/interfaces/audio/5.0/android.hardware.audio@5.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.libmp3extractor	58a3660	Apache-2.0
external/hyphenation-patterns/hyph-pa	unknown	MIT
system/libhidl/transport/token/1.0/android.hidl.token@1.0.vendor	65c02b0	Apache-2.0
packages/apps/tvsettings/settings/tvsettings	7622210	Apache-2.0
frameworks/base/cmds/bootanimation/libbootanimation	e8bd84b	Apache-2.0
frameworks/av/services/audiopolicy/engine/default/libaudiopolicyengine/default	58a3660	Apache-2.0
vendor/altimedia/libclientsdk_android10_lghvd	unknown	Apache-2.0
external/noto-fonts/cjk/notosansCJK-regular.ttc	cc5b6cd	SIL OFL 1.1
external/minijail/libminijail.recovery	47c0fe9	BSDlike
external/gptfdisk/sgdisk	29ca980	GPL-v2
hardware/interfaces/graphics/bufferqueue/2.0/android.hardware.graphics.bufferqueue@2.0.vendor	c6824d8	Apache-2.0
vendor/synaptics/vsxxx/interfaces/display/2.0/com.synaptics.display@2.0.vendor	e3fb2c7	Apache-2.0
system/framework/oat/arm/input	unknown	Apache-2.0
system/core/adb/libadb.recovery	3160811	Apache-2.0
hardware/libhardware/modules/audio_remote_submix/audio_r_submix.default	da60173	Apache-2.0
frameworks/av/media/codecs/components/amr_nb_wb/libcodecs2_soft_amrwbdec	ef20ef1	Apache-2.0
system/gsid/gsi_tool	16530ed	Apache-2.0
external/hyphenation-patterns/hyph-ta	unknown	MIT
out/target/common/obj/apps/contactsprovider__auto_generated_rro_product/contactsprovider__auto_generated_rro_product.intermediates/	unknown	Apache-2.0
hardware/interfaces/configstore/utls/android.hardware.configstore-utls.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libunwindstack	4c6ce46	Apache-2.0
frameworks/av/media/codecs2/hidl/1.0/utls/libcodecs2_hidl@1.0	58a3660	Apache-2.0
hardware/interfaces/bluetooth/1.0/android.hardware.bluetooth@1.0	c6824d8	Apache-2.0
external/curl/libcurl.vendor	cbb2e5b	MIT
external/libldac/libldacbt_abr.vendor	93195ee	Apache-2.0
frameworks/av/media/libstagefrighth/libstagefrighth_codecbase	ef20ef1	Apache-2.0
hardware/interfaces/graphics/common/1.0/android.hardware.graphics.common@1.0	c6824d8	Apache-2.0
bionic/libc/libstdc++	4a81bd9	BSDlike
packages/apps/settingsintelligence/settingsintelligence	c725f6e	Apache-2.0

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Module Name	Module Version	Module License
hardware/interfaces/media/bufferpool/2.0/ android.hardware.media.bufferpool@2.0	c6824d8	Apache-2.0
hardware/interfaces/gnss/1.1/android. hardware.gnss@1.1	c6824d8	Apache-2.0
hardware/interfaces/graphics/composer/2.1/ android.hardware.graphics.composer@2.1. vendor	c6824d8	Apache-2.0
frameworks/av/media/libstagefright/omx/ libstagefright_omx_utils	ef20ef1	Apache-2.0
system/usr/share/bmd/RFFStd_501	unknown	Apache-2.0
frameworks/base/test-base/android.test.base	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libhwbinder	58a3660	Apache-2.0
external/mksh/sh.recovery	046a342	BSDlike
frameworks/av/media/libstagefright/codecs/flac/ dec/libstagefright_soft_flacdec.vendor	ef20ef1	Apache-2.0
frameworks/opt/net/voip/src/jni/rtp/librtp_jni	de4c172	Apache-2.0
system/core/logd/auditctl	3160811	Apache-2.0
external/hyphenation-patterns/hyph-hy	unknown	MIT
frameworks/base/packages/printspooler/ printspooler	158af09	Apache-2.0
frameworks/av/media/libstagefright/codecs/m4 v_h263/enc/libstagefright_soft_mpeg4enc. vendor	ef20ef1	Apache-2.0
frameworks/base/cmds/uiautomator/cmds/ uiautomator/uiautomator	158af09	Apache-2.0
system/hardware/interfaces/wifi/keystore/1.0/ android.system.wifi.keystore@1.0	1e8362f	Apache-2.0
hardware/interfaces/gnss/2.0/android. hardware.gnss@2.0.vendor	c6824d8	Apache-2.0
vendor/synaptics/common/health/2.0/android. hardware.health@2.0-service.berlin	88a02ce	Apache-2.0
system/core/sdcard/sdcard	3160811	Apache-2.0
frameworks/native/libs/binderthreadstate/ libbinderthreadstate.vendor	f1318d1	Apache-2.0
hardware/interfaces/wifi/1.3/android.hardware. wifi@1.3.vendor	c6824d8	Apache-2.0
frameworks/av/media/codec2/components/aac/ libcodec2_soft_aacdec	ef20ef1	Apache-2.0
prebuilts/clang/host/linux-x86/libclang_rt. asan-arm-android	68bcd6a	Apache-2.0
frameworks/av/apex/com.android.media. libmidiextractor	58a3660	Apache-2.0
hardware/interfaces/bluetooth/a2dp/1.0/ android.hardware.bluetooth.a2dp@1.0.vendor	c6824d8	Apache-2.0
external/perfetto/trigger_perfetto	c4161c4	Apache-2.0
hardware/interfaces/graphics/composer/2.3/ android.hardware.graphics.composer@2.3. vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libstagefright_bufferqueue_helper	58a3660	Apache-2.0
system/core/bootstat/bootstat	3160811	Apache-2.0
external/boringssl/libssl.vendor	98697a9	BSDlike
hardware/interfaces/camera/device/3.5/ android.hardware.camera.device@3.5	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
vendor/synaptics/common/fts/fts	22c8f25	Apache-2.0
frameworks/av/media/libnbaio/libnbaio_mono	58a3660	Apache-2.0
frameworks/av/media/libeffects/config/libeffectsconfig.vendor	58a3660	Apache-2.0
external/hyphenation-patterns/hyph-mr	unknown	MIT
hardware/interfaces/power/1.2/android.hardware.power@1.2	c6824d8	Apache-2.0
system/core/libbacktrace/libbacktrace.vendor	3160811	Apache-2.0
frameworks/av/media/libstagefright/codecs/on2/enc/libstagefright_soft_vpxenc.vendor	ef20ef1	Apache-2.0
bionic/libc/bionic/scudo/libscudo_wrapper	4a81bd9	BSDlike
frameworks/base/media/lib/signer/com.android.mediadrmsigner	e8bd84b	Apache-2.0
frameworks/av/media/libmedia/libmedia_helper	ef20ef1	Apache-2.0
frameworks/av/media/libaaudio/src/libaaudio	58a3660	Apache-2.0
frameworks/base/cmds/idmap2/idmap2d	e8bd84b	Apache-2.0
vendor/synaptics/vsxxx/interfaces/display/2.0/com.synaptics.display@2.0	e3fb2c7	Apache-2.0
hardware/interfaces/audio/common/all-versions/default/android.hardware.audio.common@4.0-util	c6824d8	Apache-2.0
hardware/interfaces/radio/1.4/android.hardware.radio@1.4.vendor	c6824d8	Apache-2.0
system/framework/oat/arm/dpm	unknown	Apache-2.0
frameworks/av/media/libstagefright/codecs/on2/dec/libstagefright_soft_vpxdec.vendor	ef20ef1	Apache-2.0
system/libfmq/libfmq	9e02d27	Apache-2.0
system/core/libsysutils/libsysutils	3160811	Apache-2.0
bionic/libc/libc_scudo	4a81bd9	BSDlike
external/lz4/lib/liblz4.vendor	4a2a1bb	BSDlike
system/lib/liblcore_debug	unknown	Apache-2.0
hardware/interfaces/audio/effect/5.0/android.hardware.audio.effect@5.0.vendor	c6824d8	Apache-2.0
frameworks/base/media/mca/filterfw/libfilterfw	e8bd84b	Apache-2.0
external/bzip2/libbz	1b9ad09	BSDlike
frameworks/av/apex/com.android.media.swcodec.libstagefright_amrnb_common	58a3660	Apache-2.0
system/iorap/iorapd	441263b	Apache-2.0
hardware/interfaces/tv/input/1.0/android.hardware.tv.input@1.0	c6824d8	Apache-2.0
system/framework/arm/boot-ims-common	unknown	Apache-2.0
frameworks/native/services/surfaceflinger/libsurfaceflingerprop	f1318d1	Apache-2.0
external/libldac/libldacbt_abr	93195ee	Apache-2.0
system/core/libappfuse/libappfuse	3160811	Apache-2.0
system/vold/secdiscard	ec9f29e	Apache-2.0
system/libhwbinder/libhwbinder_noltpgo.vendor	39c64e3	Apache-2.0

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Module Name	Module Version	Module License
hardware/interfaces/camera/provider/2.4/default/android.hardware.camera.provider@2.4-external-service	c6824d8	Apache-2.0
system/framework/boot	unknown	Apache-2.0
hardware/interfaces/audio/common/4.0/android.hardware.audio.common@4.0.vendor	c6824d8	Apache-2.0
system/etc/textclassifier/textclassifier	unknown	Apache-2.0
frameworks/hardware/interfaces/sensorservice/1.0/android.frameworks.sensorservice@1.0.vendor	dcc6946	Apache-2.0
frameworks/wilhelm/src/libwilhelm	1ddc48b	Apache-2.0, MITlike
frameworks/av/media/libaudiohal/impl/libaudiohal@5.0	58a3660	Apache-2.0
system/core/gatekeeperd/gatekeeperd	3160811	Apache-2.0
frameworks/av/media/libstagefright/codecs/aacdec/libstagefright_soft_aacdec.vendor	ef20ef1	Apache-2.0
system/core/init/init_second_stage	3160811	Apache-2.0
system/core/libmeminfo/tools/librank	3160811	Apache-2.0
frameworks/av/media/codec2/components/amr_nb_wb/libcodec2_soft_amrnbenc	ef20ef1	Apache-2.0
system/security/keystore-engine/libkeystore-engine	92cb71b	Apache-2.0
frameworks/av/media/audioserver/audioserver	58a3660	Apache-2.0
system/libhidl/transport/base/1.0/android.hidl.base-v1.0-java	65c02b0	Apache-2.0
system/netd/bpf_progs/netd.o_netd.o	cb8e5e2	Apache-2.0
system/bt/audio_a2dp_hw/audio.a2dp.default	d238f47	Apache-2.0
frameworks/native/services/sensorservice/libensorservice	f1318d1	Apache-2.0
frameworks/av/media/codec2/core/libcodec2	58a3660	Apache-2.0
hardware/interfaces/neuralnetworks/1.1/android.hardware.neuralnetworks@1.1	c6824d8	Apache-2.0
hardware/interfaces/sensors/2.0/android.hardware.sensors@2.0	c6824d8	Apache-2.0
hardware/interfaces/tv/cec/1.0/android.hardware.tv.cec@1.0	c6824d8	Apache-2.0
system/etc/fs_config_files	unknown	Apache-2.0
system/bin/sgdisk	unknown	GPL-v2
hardware/interfaces/vibrator/1.1/android.hardware.vibrator@1.1	c6824d8	Apache-2.0
frameworks/native/services/surfaceflinger/layerproto/liblayers_proto	f1318d1	Apache-2.0
system/core/libcutils/libcutils.vendor	3160811	Apache-2.0
hardware/interfaces/configstore/1.1/android.hardware.configstore@1.1	c6824d8	Apache-2.0
system/netd/libnetdbpf/libnetdbpf	cb8e5e2	Apache-2.0
hardware/interfaces/power/1.1/android.hardware.power@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/services/mediadrmservice/mediadrmservice	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.libbacktrace	4c6ce46	Apache-2.0
system/framework/oat/arm/locksettings	unknown	Apache-2.0

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Module Name	Module Version	Module License
hardware/interfaces/graphics/allocator/3.0/android.hardware.graphics.allocator@3.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/wifi/hostapd/1.0/android.hardware.wifi.hostapd@1.0.vendor	c6824d8	Apache-2.0
vendor/syna-release/linux/vmlinux	c51cdd9	GPL-v2
system/core/adb/libadb_services.recovery	3160811	Apache-2.0
frameworks/native/cmds/service/service	16d1d36	Apache-2.0
frameworks/base/media/jni/libmedia_jni_utils	158af09	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.bufferqueue@2.0	58a3660	Apache-2.0
frameworks/av/services/minijail/libavservices_minijail_vendor	58a3660	Apache-2.0
hardware/interfaces/memtrack/1.0/default/android.hardware.memtrack@1.0-impl	c6824d8	Apache-2.0
system/bpf/bpfloader/bpfloader	1870e4f	Apache-2.0
system/libhwbinder/libhwbinder	39c64e3	Apache-2.0
vendor/synaptics/vsxxx/interfaces/display/2.1/com.synaptics.display@2.1	e3fb2c7	Apache-2.0
art/build/apex/com.android.runtime.release.libart-dexlayout	4c6ce46	Apache-2.0
hardware/interfaces/sensors/1.0/android.hardware.sensors@1.0	c6824d8	Apache-2.0
hardware/interfaces/tetheroffload/config/1.0/android.hardware.tetheroffload.config@1.0.vendor	c6824d8	Apache-2.0
system/gsid/gsid	16530ed	Apache-2.0
system/netd/resolv/dnsresolver_aidl_interface-v2-cpp	unknown	Apache-2.0
frameworks/minikin/libs/minikin/libminikin	773645c	Apache-2.0
hardware/interfaces/camera/device/3.2/default/camera.device@3.2-impl	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libcrypto	4c6ce46	Apache-2.0
vendor/synaptics/common/kmsglogd/kmsglogd	22c8f25	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.media.c2@1.0	58a3660	Apache-2.0
frameworks/opt/net/wifi/service/libwifi-service	d062cb8	Apache-2.0
system/etc/textclassifier/textclassifier.smartselection	unknown	Apache-2.0
hardware/interfaces/vibrator/1.3/android.hardware.vibrator@1.3.vendor	c6824d8	Apache-2.0
frameworks/native/cmds/dumpstate/dumpstate	f1318d1	Apache-2.0
system/bt/binder/libbluetooth-binder	d238f47	Apache-2.0
art/build/apex/com.android.runtime.release.dexlist	4c6ce46	Apache-2.0
system/framework/boot-ims-common	unknown	Apache-2.0
external/e2fsprogs/lib/e2p/libext2_e2p.recovery	b00fd7d	GPL-v2
packages/screensavers/basic/basicdreams	undefined	Apache-2.0
vendor/lib/modules/cpm	unknown	GPL-v2
external/hyphenation-patterns/hyph-fr	unknown	MIT



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Module Name	Module Version	Module License
external/mdnsresponder/mdnsd	ef76ab6	Apache-2.0
external/e2fsprogs/lib/uuid/libext2_uuid.recovery	b00fd7d	BSDlike
system/framework/oat/arm/sm	unknown	Apache-2.0
frameworks/base/cmds/bootanimation/bootanimation	e8bd84b	Apache-2.0
hardware/interfaces/audio/common/all-versions/default/android.hardware.audio.common-util	c6824d8	Apache-2.0
system/libhidl/transport/allocator/1.0/utils/libhidlallocatorutils.vendor	65c02b0	Apache-2.0
vendor/lib/modules/8997mlan	unknown	GPL-v2
frameworks/av/media/libaudiohal/impl/libaudiohal@2.0	58a3660	Apache-2.0
frameworks/base/cmds/statsd/statsd	e8bd84b	Apache-2.0
hardware/interfaces/bluetooth/1.0/default/android.hardware.bluetooth@1.0-impl	c6824d8	Apache-2.0
system/core/libprocessgroup/libprocessgroup	3160811	Apache-2.0
art/build/apex/com.android.runtime.release.libopenjdkjvmti	4c6ce46	Apache-2.0
vendor/lib/modules/bt8xxx	C3X14113	GPL-v2
system/core/libvndk-support/libvndk-support	3160811	Apache-2.0
system/etc/security/otacerts	unknown	Apache-2.0
hardware/interfaces/bluetooth/audio/2.0/android.hardware.bluetooth.audio@2.0	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-und-ethi	unknown	MIT
hardware/interfaces/graphics/common/1.1/android.hardware.graphics.common@1.1	c6824d8	Apache-2.0
vendor/synaptics/amber/audiosettings/2.0/com.synaptics.audiosettings@2.0	b358c11	Apache-2.0
frameworks/hardware/interfaces/vr/composer/1.0/android.frameworks.vr.composer@1.0	dcc6946	Apache-2.0
system/core/libprocessgroup/setup/libprocessgroup_setup.recovery	3160811	Apache-2.0
hardware/interfaces/neuralnetworks/1.2/android.hardware.neuralnetworks@1.2.vendor	c6824d8	Apache-2.0
external/mksh/sh	046a342	BSDlike
packages/providers/userdictionaryprovider/userdictionaryprovider	f22d4e7	Apache-2.0
external/hyphenation-patterns/hyph-nb	unknown	MIT
hardware/interfaces/audio/effect/all-versions/default/android.hardware.audio.effect@5.0-impl	c6824d8	Apache-2.0
frameworks/base/cmds/content/content	158af09	Apache-2.0
hardware/interfaces/memtrack/1.0/default/android.hardware.memtrack@1.0-service	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libopus	58a3660	Apache-2.0
frameworks/av/media/libstagefright/codecs/gsm/dec/libstagefright_soft_gsmdec.vendor	ef20ef1	Apache-2.0
external/libyuv/files/libyuv	2db5718	BSDlike
hardware/interfaces/nfc/1.1/android.hardware.nfc@1.1.vendor	c6824d8	Apache-2.0

## Open Source Report

Module Name	Module Version	Module License
hardware/interfaces/wifi/hostapd/1.1/android. hardware.wifi.hostapd@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/media/ndk/libmediandk	ef20ef1	Unicode, Apache-2.0
system/libhidl/minijail/libhwminijail	65c02b0	Apache-2.0
system/core/debuggerd/libdebuggerd_client	3160811	Apache-2.0
packages/apps/camera2/camera2	f7232d7	Apache-2.0
hardware/interfaces/media/omx/1.0/android. hardware.media.omx@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/media/codec2/components/ mpeg2/libcodec2_soft_mpeg2dec	58a3660	Apache-2.0
vendor/synaptics/common/fts/ftsbox	22c8f25	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libhidltransport	58a3660	Apache-2.0
hardware/interfaces/graphics/allocator/2.0/ android.hardware.graphics.allocator@2.0	c6824d8	Apache-2.0
frameworks/hardware/interfaces/ cameraservice/service/2.0/android.frameworks. cameraservice.service@2.0.vendor	dcc6946	Apache-2.0
hardware/interfaces/tv/input/1.0/android. hardware.tv.input@1.0.vendor	c6824d8	Apache-2.0
vendor/realtek/bluetooth/rtkbt/code/ libbt-vendor/src/libbt-vendor	df457b6	Apache-2.0
frameworks/av/apex/com.android.media. libhwbinder	58a3660	Apache-2.0
system/gatekeeper/libgatekeeper.vendor	c9e9e63	Apache-2.0
hardware/interfaces/camera/device/3.3/ android.hardware.camera.device@3.3.vendor	c6824d8	Apache-2.0
frameworks/av/media/codec2/hidl/1.0/utills/ libcodec2_hidl_client@1.0	58a3660	Apache-2.0
hardware/ril/reference-ril/libreference-ril	2cf1869	Apache-2.0
external/tinyalsa/libtinyalsa.vendor	e84b02b	BSDlike
art/build/apex/com.android.runtime.release. core-oj	4c6ce46	Apache-2.0
hardware/libhardware/libhardware	da60173	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_mpeg4enc	58a3660	Apache-2.0
system/core/base/libbase.recovery	3160811	Apache-2.0
system/etc/boot-image	unknown	Apache-2.0
packages/providers/downloadprovider/ downloadprovider	7536cfa	Apache-2.0
hardware/interfaces/vr/1.0/android.hardware. vr@1.0	c6824d8	Apache-2.0
frameworks/av/services/audiopolicy/manager/ libaudiopolicymanager	58a3660	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_hevcenc	58a3660	Apache-2.0
system/hardware/interfaces/suspend/1.0/ default/android.system.suspend@1.0-service	1e8362f	Apache-2.0
system/ashmemd/libashmemd_client	android-mainline-10.0.0_r10	Apache-2.0
external/libopus/libopus	fcc38fd	BSDlike
hardware/interfaces/audio/common/ all-versions/default/android.hardware.audio. common@5.0-util.vendor	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
art/build/apex/com.android.runtime.release.libadbconnection	4c6ce46	Apache-2.0
external/libldac/libldacbt_enc.vendor	93195ee	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_gsmdec	58a3660	Apache-2.0
hardware/interfaces/graphics/allocator/3.0/android.hardware.graphics.allocator@3.0	c6824d8	Apache-2.0
external/toybox/toybox.recovery	1e03c6d	BSDlike
frameworks/av/media/mtp/libmtp	ef20ef1	Apache-2.0
external/libcap/libcap	2db20a0	BSDlike
system/timezone/apex/com.android.tzdata.apex_icu_tzdata.dat	2caa43b	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_h263enc	58a3660	Apache-2.0
frameworks/av/media/codecs/components/hevc/libcodec2_soft_hevcenc	58a3660	Apache-2.0
hardware/interfaces/configstore/utills/android.hardware.configstore-utills	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libdexfile	4c6ce46	Apache-2.0
external/peretto/peretto	c4161c4	Apache-2.0
frameworks/av/media/libmediaplayer2/libmedia2_jni_core	58a3660	Apache-2.0
hardware/interfaces/gnss/measurement_corrections/1.0/android.hardware.gnss.measurement_corrections@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/audio/4.0/android.hardware.audio@4.0	c6824d8	Apache-2.0
system/core/libutils/libutils.recovery	3160811	Apache-2.0
vendor/synaptics/vsxxx/power/power/1.2/service/android.hardware.power@1.2-service.berlin	4c50d4c	Apache-2.0
frameworks/base/test-mock/android.test.mock	e8bd84b	Apache-2.0
frameworks/rs/cpu_ref/librscpuref	9822b04	Apache-2.0
external/brotli/libbrotli	e1fc10a	MIT
vendor/synaptics/vsxxx/interfaces/display/2.1/com.synaptics.display@2.1.vendor	e3fb2c7	Apache-2.0
frameworks/native/cmds/dumpsys/dumpsys_vendor	16d1d36	Apache-2.0
system/apex/apexd/apex_aidl_interface-cpp	08cc8be	Apache-2.0
external/libevent/libevent	7b67f80	BSDlike
frameworks/base/media/mca/filterpacks/libfilterpack_imageproc	e8bd84b	Apache-2.0
frameworks/native/opengl/libs/libglesv1_cm	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libion	58a3660	Apache-2.0
packages/apps/htmlviewer/htmlviewer	ba5580e	Apache-2.0
frameworks/native/services/schedulerservice/libschedulerservicehidl	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_amrnbenc	58a3660	Apache-2.0
frameworks/native/cmds/dumpstate/libdumpstateaidl	f1318d1	Apache-2.0

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Module Name	Module Version	Module License
external/libpng/libpng.recovery	5aff830	BSDlike
art/libdexfile/libdexfile_support	4c6ce46	Apache-2.0
frameworks/av/media/libstagefright/omx/libstagefright_omx_utils.vendor	ef20ef1	Apache-2.0
frameworks/av/media/libmediametrics/libmediametrics	58a3660	Apache-2.0
frameworks/base/libs/incident/libincident	e8bd84b	Apache-2.0
hardware/libhardware/modules/usbaudio/audio.usb.default	da60173	Apache-2.0
external/mksh/sh_vendor	046a342	BSDlike
system/extras/partition_tools/liblpdump	14ac430	Apache-2.0
external/hyphenation-patterns/hyph-as	unknown	MIT
external/iptables/iptables/ip6tables	6938ab6	GPL-v2
hardware/interfaces/keymaster/4.0/android.hardware.keymaster@4.0	c6824d8	Apache-2.0
system/extras/squashfs_utils/libsquashfs_utils.recovery	14ac430	Apache-2.0
hardware/interfaces/soundtrigger/2.2/android.hardware.soundtrigger@2.2.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.libcutils	58a3660	Apache-2.0
frameworks/base/libs/protoutil/libprotoutil	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libstagefright_flacdec	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_g711alawdec	58a3660	Apache-2.0
hardware/interfaces/broadcastradio/1.1/android.hardware.broadcastradio@1.1.vendor	c6824d8	Apache-2.0
hardware/interfaces/boot/1.0/android.hardware.boot@1.0	c6824d8	Apache-2.0
packages/modules/networkstack/inprocessnetworkstack	c5fb7dc	Apache-2.0
external/boringssl/libcrypto.vendor	98697a9	BSDlike
hardware/interfaces/secure_element/1.1/android.hardware.secure_element@1.1.vendor	c6824d8	Apache-2.0
hardware/interfaces/wifi/1.1/android.hardware.wifi@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/media/libmediaplayerservice/libmediaplayerservice	ef20ef1	Apache-2.0
frameworks/av/drm/drmservice/drmservice	ef20ef1	Apache-2.0
hardware/interfaces/biometrics/face/1.0/android.hardware.biometrics.face@1.0.vendor	c6824d8	Apache-2.0
external/e2fsprogs/lib/ext2fs/libext2fs	b00fd7d	GPL-v2
vendor/synaptics/common/dumpstate/1.0/android.hardware.dumpstate@1.0-service.berlin	22c8f25	Apache-2.0
system/core/libqtaguid/libqtaguid	3160811	Apache-2.0
art/build/apex/com.android.runtime.release.libpac	4c6ce46	Apache-2.0
external/hyphenation-patterns/hyph-pt	unknown	MIT
frameworks/av/media/codec2/components/g711/libcodec2_soft_g711alawdec	ef20ef1	Apache-2.0
system/core/fs_mgr/libfs_mgr.recovery	3160811	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/media/libstagefrighthttp/libstagefrighthttp_support	ef20ef1	Apache-2.0
frameworks/av/media/libstagefrighthttp/codecs/amrnb/enc/libstagefrighthttp_soft_amrnbenc.vendor	ef20ef1	Apache-2.0
external/hyphenation-patterns/hyph-tk	unknown	MIT
hardware/interfaces/vibrator/1.1/android.hardware.vibrator@1.1.vendor	c6824d8	Apache-2.0
system/core/base/libbase.vendor	3160811	Apache-2.0
frameworks/native/cmds/service/vndservice	16d1d36	Apache-2.0
frameworks/native/libs/sensorprivacy/libsensorprivacy	f1318d1	Apache-2.0
frameworks/av/media/libstagefrighthttp/codecs/common/libstagefrighthttp_enc_common.vendor	ef20ef1	Apache-2.0
art/build/apex/com.android.runtime.release.libnativehelper	4c6ce46	Apache-2.0
system/server_configurable_flags/libflags/server_configurable_flags	1d7caad	Apache-2.0
system/extras/libfec/libfec.recovery	14ac430	Apache-2.0
packages/providers/tvprovider/tvprovider	ae862e5	Apache-2.0
vendor/synaptics/amber/sdk/lib/libavformat	undefined	LGPL-v2.1
system/security/keystore/keystore	92cb71b	Apache-2.0
hardware/interfaces/graphics/composer/2.1/android.hardware.graphics.composer@2.1	c6824d8	Apache-2.0
hardware/interfaces/drm/1.2/android.hardware.drm@1.2.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.common@1.0	58a3660	Apache-2.0
external/e2fsprogs/contrib/android/e2fsdroid	b00fd7d	GPL-v2
external/libpcap/libpcap	1974a6a	BSDlike
hardware/interfaces/keymaster/4.0/support/libkeymaster4support.vendor	c6824d8	Apache-2.0
system/media/bootanimation	unknown	Apache-2.0
frameworks/av/media/libstagefrighthttp/codecs/amrnb/dec/libstagefrighthttp_soft_amrdec.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_hevcdec	58a3660	Apache-2.0
frameworks/base/startup/view_compiler/viewcompiler	e8bd84b	Apache-2.0
system/core/libmetricslogger/libmetricslogger	3160811	Apache-2.0
frameworks/av/media/codecs2/components/mpeg4_h263/libcodec2_soft_mpeg4enc	ef20ef1	Apache-2.0
system/core/libunwindstack/libunwindstack	3160811	Apache-2.0
frameworks/base/packages/backupstoreconfirmation/backupstoreconfirmation	e8bd84b	Apache-2.0
system/framework/boot-ext	unknown	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libfmq	58a3660	Apache-2.0
external/hyphenation-patterns/hyph-bg	unknown	MIT
frameworks/base/packages/ctsshim/ctsshimprebuilt	e8bd84b	Apache-2.0

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Module Name	Module Version	Module License
external/freetype/libft2	71d744c	BSDlike
frameworks/av/media/libstagefright/codecs/hevcddec/libstagefright_soft_hevcddec.vendor	ef20ef1	Apache-2.0
system/libhidl/transport/memory/1.0/default/android.hidl.memory@1.0-impl.vendor	65c02b0	Apache-2.0
art/build/apex/com.android.runtime.release.libziparchive	4c6ce46	Apache-2.0
hardware/interfaces/fastboot/1.0/android.hardware.fastboot@1.0.recovery	c6824d8	Apache-2.0
system/core/init/init_first_stage	3160811	Apache-2.0
frameworks/av/media/libstagefright/codecs/aacenc/libstagefright_soft_aacenc.vendor	ef20ef1	Apache-2.0
system/usr/share/zoneinfo/tzdata	unknown	MIT
vendor/firmware/mrvl/sdsd8997_combo_v4	unknown	Apache-2.0
frameworks/base/media/native/midi/libamidi	e8bd84b	Apache-2.0
frameworks/av/media/libstagefright/bqhelper/libstagefright_bufferqueue_helper.vendor	ef20ef1	Apache-2.0
system/core/watchdog/watchdogd	3160811	Apache-2.0
hardware/interfaces/camera/provider/2.4/default/android.hardware.camera.provider@2.4-external	c6824d8	Apache-2.0
system/core/liblog/liblog.recovery	3160811	Apache-2.0
frameworks/opt/net/wifi/libwifi_system_iface/libwifi-system-iface.vendor	d062cb8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.media@1.0	58a3660	Apache-2.0
frameworks/av/services/mediaresourcecmanager/libresourcecmanagerservice	58a3660	Apache-2.0
system/netd/server/ndc	cb8e5e2	Apache-2.0
frameworks/native/opengl/libs/libglesv2	f1318d1	Apache-2.0
system/framework/arm/boot-okhttp	unknown	Apache-2.0
hardware/interfaces/graphics/mapper/3.0/android.hardware.graphics.mapper@3.0	c6824d8	Apache-2.0
frameworks/native/services/inputflinger/libinputreader	f1318d1	Apache-2.0
frameworks/hardware/interfaces/cameraservice/device/2.0/android.frameworks.cameraservice.device@2.0.vendor	dcc6946	Apache-2.0
hardware/interfaces/graphics/bufferqueue/1.0/android.hardware.graphics.bufferqueue@1.0.vendor	c6824d8	Apache-2.0
bionic/libc/libc.recovery	4a81bd9	BSDlike
external/iptables/iptables/iptables	6938ab6	GPL-v2
hardware/interfaces/contexthub/1.0/android.hardware.contexthub@1.0.vendor	c6824d8	Apache-2.0
vendor/synaptics/vsxxx/syncq/libsyncq	e3fb2c7	Apache-2.0
system/framework/boot-core-libart	unknown	Apache-2.0
frameworks/av/services/audioflinger/libaudioflinger	58a3660	Apache-2.0
hardware/interfaces/vibrator/1.2/android.hardware.vibrator@1.2.vendor	c6824d8	Apache-2.0
packages/modules/captiveportallogin/platformcaptiveportallogin	fe62b3b	Apache-2.0

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Module Name	Module Version	Module License
art/build/apex/com.android.runtime.release.libart	4c6ce46	Apache-2.0
hardware/interfaces/atrace/1.0/android.hardware.atrace@1.0	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.apex_icu.dat	4c6ce46	Apache-2.0
system/core/adb/adb	3160811	Apache-2.0
system/keymaster/libkeymaster_portable	65efdbd	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libstagefright_bufferpool@2.0	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.oatdump	4c6ce46	Apache-2.0
frameworks/base/ext	e8bd84b	Apache-2.0
packages/modules/networkstack/libnetworkstackutilsjni	c5fb7dc	Apache-2.0
art/build/apex/com.android.runtime.release.libm	4c6ce46	Apache-2.0
bootable/recovery/recovery	2a37b45	Apache-2.0
frameworks/base/packages/services/proxy/proxyhandler	e8bd84b	Apache-2.0
hardware/interfaces/usb/gadget/1.0/android.hardware.usb.gadget@1.0.vendor	c6824d8	Apache-2.0
system/framework/oat/arm/hid	unknown	Apache-2.0
frameworks/base/cmds/sm/sm	158af09	Apache-2.0
hardware/interfaces/vibrator/1.3/android.hardware.vibrator@1.3	c6824d8	Apache-2.0
system/extras/partition_tools/lpdump	14ac430	Apache-2.0
system/framework/arm/boot-ext	unknown	Apache-2.0
system/netd/apex/com.android.resolv.apex_pubkey	cb8e5e2	Apache-2.0
system/framework/boot-telephony-common	unknown	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.bufferqueue@1.0	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libstagefright_foundation	58a3660	Apache-2.0
frameworks/base/core/res/framework-res	67957b7	Apache-2.0
hardware/interfaces/usb/1.2/android.hardware.usb@1.2.vendor	c6824d8	Apache-2.0
external/libcap/libcap.vendor	2db20a0	BSDlike
art/build/apex/com.android.runtime.release.libopenjdkjvm	4c6ce46	Apache-2.0
external/libvpx/libvpx	fff265b	BSDlike
art/build/apex/com.android.runtime.release.libc_malloc_debug	4c6ce46	Apache-2.0
external/neven/libfftem	a1182cb	Apache-2.0
hardware/interfaces/graphics/composer/2.1/utills/hwc2on1adapter/libhwc2on1adapter	c6824d8	Apache-2.0
frameworks/wilhelm/src/libopenmaxal	1ddc48b	Apache-2.0, MITlike
vendor/synaptics/amber/audiosettings/2.0/impl/com.synaptics.audiosettings@2.0-service	b358c11	Apache-2.0
hardware/interfaces/vibrator/1.2/android.hardware.vibrator@1.2	c6824d8	Apache-2.0





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Module Name	Module Version	Module License
frameworks/native/cmds/dumpstate/libdumpstateutil	f1318d1	Apache-2.0
hardware/interfaces/audio/core/all-versions/default/android.hardware.audio@5.0-impl	c6824d8	Apache-2.0
external/libxml2/libxml2.vendor	e040d79	MIT
system/core/libbacktrace/libbacktrace.recovery	3160811	Apache-2.0
external/dng_sdk/libdng_sdk	c285687	BSD
hardware/interfaces/camera/device/1.0/default/camera.device@1.0-impl	c6824d8	Apache-2.0
frameworks/native/services/sensorservice/hidl/libensorservicehidl	f1318d1	Apache-2.0
hardware/libhardware_legacy/libpower	86d26ee	Apache-2.0
hardware/interfaces/power/1.3/android.hardware.power@1.3	c6824d8	Apache-2.0
hardware/interfaces/neuralnetworks/1.0/android.hardware.neuralnetworks@1.0.vendor	c6824d8	Apache-2.0
bionic/linker/ld-android	4a81bd9	BSDlike
frameworks/av/apex/com.android.media.libhidlbase	58a3660	Apache-2.0
frameworks/base/cmds/input/inputlib	158af09	Apache-2.0
hardware/interfaces/wifi/offload/1.0/android.hardware.wifi.offload@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libhardware	58a3660	Apache-2.0
frameworks/wilhelm/src/libopensles	1ddc48b	Apache-2.0, MITlike
system/extras/libfec/libfec	14ac430	Apache-2.0
hardware/interfaces/input/classifier/1.0/android.hardware.input.classifier@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/audio/common/2.0/android.hardware.audio.common@2.0	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.libmkvextractor	58a3660	Apache-2.0
frameworks/av/media/libstagefright/omx/libstagefright_softomx_plugin.vendor	ef20ef1	Apache-2.0
system/connectivity/wificond/wificond	d9304f7	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libsfplugin_ccodec_utils	58a3660	Apache-2.0
hardware/libhardware/modules/gralloc/gralloc.default	da60173	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_amrwbdec	58a3660	Apache-2.0
system/core/libbinderwrapper/libbinderwrapper	3160811	Apache-2.0
vendor/lib/modules/vpu	unknown	GPL-v2
frameworks/native/services/powermanager/libpowermanager	f1318d1	Apache-2.0
external/e2fsprogs/lib/ext2fs/libext2fs.recovery	b00fd7d	GPL-v2
hardware/interfaces/audio/common/4.0/android.hardware.audio.common@4.0	c6824d8	Apache-2.0
system/framework/boot-framework	unknown	Apache-2.0
hardware/interfaces/wifi/1.2/android.hardware.wifi@1.2.vendor	c6824d8	Apache-2.0
system/netd/server/oemnetd_aidl_interface-cpp	cb8e5e2	Apache-2.0

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Module Name	Module Version	Module License
system/framework/boot-voip-common	unknown	Apache-2.0
hardware/interfaces/contexthub/1.0/android.hardware.contexthub@1.0	c6824d8	Apache-2.0
frameworks/base/cmds/hid/jni/libhidcommand_jni	158af09	Apache-2.0
vendor/synaptics/vsxxx/interfaces/display/2.1/impl/handlers/libdisplayhandler	e3fb2c7	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_mpeg4dec	58a3660	Apache-2.0
frameworks/av/media/libstagefrighthw/codecs/avcenc/libstagefrighthw_soft_avcenc.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.android.hidl.memory.token@1.0	58a3660	Apache-2.0
frameworks/av/media/libstagefrighthw/omx/libstagefrighthw_softomx.vendor	ef20ef1	Apache-2.0
system/keymaster/libkeymaster4.vendor	65efdbd	Apache-2.0
frameworks/av/media/ndk/libmediandk_utils	ef20ef1	Unicode, Apache-2.0
frameworks/base/cmds/bu/bu	158af09	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_g711mlawdec	58a3660	Apache-2.0
system/core/usb/usb	3160811	Apache-2.0
hardware/interfaces/automotive/evs/1.0/android.hardware.automotive.evs@1.0.vendor	c6824d8	Apache-2.0
frameworks/base/packages/settingsprovider/settingsprovider	67df1f1	Apache-2.0
frameworks/base/cmds/requestsync/requestsync	158af09	Apache-2.0
external/zlib/libz.recovery	661c183	BSDlike
system/framework/wifi-service.jar	unknown	Apache-2.0
frameworks/av/media/codecs/hidl/services/android.hardware.media.c2@1.0-service	58a3660	Apache-2.0
vendor/lib/modules/amp_core	unknown	GPL-v2
external/libtextclassifier/libtextclassifier_hash	55a7382	Apache-2.0
bionic/linker/linker.recovery	4a81bd9	BSDlike
frameworks/native/libs/input/libinput	f1318d1	Apache-2.0
system/core/run-as/run-as	3160811	Apache-2.0
vendor/synaptics/vsxxx/media/libstagefrighthw/libstagefrighthw	e3fb2c7	Apache-2.0
system/core/debuggerd/tombstoned	3160811	Apache-2.0
frameworks/av/media/libstagefrighthw/codecs/amrwbenc/libstagefrighthw_soft_amrwbenc.vendor	ef20ef1	Apache-2.0
hardware/interfaces/graphics/allocator/2.0/android.hardware.graphics.allocator@2.0.vendor	c6824d8	Apache-2.0
vendor/synaptics/vsxxx/hdmi_cec/hdmi_cec/hdmi_cec.bg5ct	5780125	Apache-2.0
system/core/libziparchive/libziparchive	3160811	Apache-2.0
frameworks/base/media/jni/libmedia_jni	158af09	Apache-2.0
frameworks/native/services/bufferhub/libbufferhubservice	f1318d1	Apache-2.0
art/build/apex/com.android.runtime.release.libnativebridge	4c6ce46	Apache-2.0

## Open Source Report

Module Name	Module Version	Module License
frameworks/base/packages/wallpaperbackup/wallpaperbackup	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.libfaceextractor	58a3660	Apache-2.0
external/dnsmasq/src/dnsmasq	2.51	GPL-v2
frameworks/base/framework	e8bd84b	Apache-2.0
frameworks/av/media/libstagefrightht/omx/libstagefrightht_omx.vendor	ef20ef1	Apache-2.0
hardware/interfaces/automotive/vehicle/2.0/android.hardware.automotive.vehicle@2.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/power/1.0/android.hardware.power@1.0	c6824d8	Apache-2.0
vendor/synaptics/playready/mediadrmservice/android.hardware.drm@1.1-service.playready	7408a29	Apache-2.0
external/libnl/libnl.vendor	173d924	LGPL-v2.1
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.mapper@2.1	58a3660	Apache-2.0
system/extras/simpleperf/simpleperf	14ac430	Apache-2.0
external/fsck_msdos/fsck_msdos	20691cc	BSDlike
hardware/interfaces/renderscript/1.0/android.hardware.renderscript@1.0	c6824d8	Apache-2.0
frameworks/base/location/lib/com.android.location.provider	e8bd84b	Apache-2.0
frameworks/av/media/libstagefrightht/httplive/libstagefrightht_httplive	ef20ef1	Apache-2.0
packages/providers/contactsprovider/contactsprovider	b8b76ad	Apache-2.0
system/libhidl/libhidlcache/libhidlcache.vendor	65c02b0	Apache-2.0
frameworks/av/media/bufferpool/2.0/libstagefrightht_bufferpool@2.0	58a3660	Apache-2.0
frameworks/native/libs/graphicsenv/libgraphicsenv	f1318d1	Apache-2.0
packages/apps/keychain/keychain	undefined	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libscudo_wrapper	58a3660	Apache-2.0
system/core/toolbox/grep.recovery	3160811	Apache-2.0
hardware/interfaces/gnss/1.0/android.hardware.gnss@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/tetheroffload/control/1.0/android.hardware.tetheroffload.control@1.0.vendor	c6824d8	Apache-2.0
frameworks/base/cmds/telecom/telecom	158af09	Apache-2.0
system/netd/libnetdutils/libnetdutils	cb8e5e2	Apache-2.0
frameworks/compile/libbcc/bcinfo/libbcinfo.vendor	fca09e6	Apache-2.0, MITlike
external/ppp/pppd/pppoptp-android	3ea5ca1	BSDlike
bionic/libc/libc.bootstrap	4a81bd9	BSDlike
external/libldac/libldacbt_enc	93195ee	Apache-2.0
art/libartpalette/libartpalette-system	4c6ce46	Apache-2.0
system/extras/squashfs_utils/libsquashfs_utils	14ac430	Apache-2.0

## Open Source Report

Module Name	Module Version	Module License
system/libhidl/transport/memory/1.0/android.hidl.memory@1.0	65c02b0	Apache-2.0
external/perfetto/libperfetto_android_internal	c4161c4	Apache-2.0
hardware/interfaces/soundtrigger/2.0/default/android.hardware.soundtrigger@2.0-core.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.apex_pubkey	4c6ce46	Apache-2.0
system/framework/oat/arm/monkey	unknown	Apache-2.0
system/core/libprocessgroup/setup/libprocessgroup_setup	3160811	Apache-2.0
vendor/altimedia/libtvcoext_png_1.6.23	unknown	libpng
system/ashmemd/ashmemd	android-mainline-10.0.0_r10	Apache-2.0
art/build/apex/com.android.runtime.release.dalvikvm	4c6ce46	Apache-2.0
external/android-clat/clatd	1ccc24c	Apache-2.0
hardware/rii/librilutils/librilutils	2cf1869	Apache-2.0
frameworks/av/media/codec2/components/flac/libcodec2_soft_flacenc	ef20ef1	Apache-2.0
system/core/adb/adb.recovery	3160811	Apache-2.0
frameworks/av/media/libmedia/libmedia_omx	ef20ef1	Apache-2.0
system/core/reboot/reboot	3160811	Apache-2.0
frameworks/av/apex/com.android.media.libaacextractor	58a3660	Apache-2.0
external/libtextclassifier/libtextclassifier_annotator_universal_model	55a7382	Apache-2.0
hardware/libhardware_legacy/libhardware_legacy.vendor	86d26ee	Apache-2.0
frameworks/av/media/libeffects/loudness/libldnhncr	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.common@1.2	58a3660	Apache-2.0
system/bin/sload_f2fs	unknown	LGPL-v2.1, GPL-v2
frameworks/rs/cpp/librscpp	9822b04	Apache-2.0
system/core/libutils/libutils.vendor	3160811	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_avcdec	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.libart-disassembler	4c6ce46	Apache-2.0
system/framework/boot-apache-xml	unknown	Apache-2.0
external/jsoncpp/libjsoncpp.recovery	ef504fb	MIT
external/hyphenation-patterns/hyph-hi	unknown	MIT
hardware/interfaces/keymaster/3.0/android.hardware.keymaster@3.0	c6824d8	Apache-2.0
external/conscrypt/apex/com.android.conscrypt.libjavacrypto	292a0b5	Apache-2.0
hardware/interfaces/media/1.0/android.hardware.media@1.0.vendor	c6824d8	Apache-2.0
out/target/common/obj/apps/settingsprovider__auto_generated_rro_vendor_intermediates/settingsprovider__auto_generated_rro_vendor	undefined	Apache-2.0

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Module Name	Module Version	Module License
system/libhidl/transport/allocator/1.0/android.hidl.allocator@1.0.vendor	65c02b0	Apache-2.0
external/llvm/libllvm_android	9b8d82b	BSDlike
system/core/init/init_second_stage.recovery	3160811	Apache-2.0
system/core/fs_mgr/liblp/liblp	3160811	Apache-2.0
frameworks/opt/net/wifi/service/wifi-service	d062cb8	Apache-2.0
external/e2fsprogs/lib/e2p/libext2_e2p	b00fd7d	GPL-v2
frameworks/av/media/codec2/components/opus/libcodec2_soft_opusenc	58a3660	Apache-2.0
hardware/interfaces/graphics/composer/2.2/android.hardware.graphics.composer@2.2	c6824d8	Apache-2.0
system/media/radio/libradio_metadata.vendor	70724d3	Apache-2.0
frameworks/av/media/codec2/hidl/client/libcodec2_client	58a3660	Apache-2.0
system/security/keystore-engine/libkeystore-engine-wifi-hidl	92cb71b	Apache-2.0
hardware/interfaces/camera/provider/2.4/android.hardware.camera.provider@2.4	c6824d8	Apache-2.0
frameworks/base/cmds/dpm/dpm	158af09	Apache-2.0
hardware/interfaces/wifi/supplicant/1.0/android.hardware.wifi.supplicant@1.0.vendor	c6824d8	Apache-2.0
external/perfetto/libperfetto	c4161c4	Apache-2.0
hardware/interfaces/health/1.0/android.hardware.health@1.0	c6824d8	Apache-2.0
hardware/interfaces/audio/2.0/android.hardware.audio@2.0	c6824d8	Apache-2.0
external/boringssl/libcrypto.recovery	98697a9	BSDlike
external/tremolo/libvorbisidec.vendor	291c86f	BSDlike
hardware/interfaces/audio/2.0/android.hardware.audio@2.0.vendor	c6824d8	Apache-2.0
system/gsid/gsi_aidl_interface-cpp	16530ed	Apache-2.0
system/hardware/interfaces/net/netd/1.1/android.system.net.netd@1.1	1e8362f	Apache-2.0
vendor/marvell/wireless/wlan/libwifi-hal/libwifi-mrvl	73b3ec9	Apache-2.0
bootable/recovery/minadb/libminadb_services.recovery	2a37b45	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.allocator@3.0	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.libbase	4c6ce46	Apache-2.0
system/core/libpackagelistparser/libpackagelistparser.recovery	3160811	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.allocator@2.0	58a3660	Apache-2.0
vendor/synaptics/vsxxx/development/ampaudiofeedback/ampaudiofeedback	e3fb2c7	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_flacenc	58a3660	Apache-2.0
hardware/interfaces/boot/1.0/default/android.hardware.boot@1.0-impl-wrapper.recovery	c6824d8	Apache-2.0
system/media/camera/libcamera_metadata	70724d3	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/media/libstagefright/codecs/amrnb/common/libstagefright_amrnb_common	ef20ef1	Apache-2.0
hardware/interfaces/radio/config/1.2/android.hardware.radio.config@1.2.vendor	c6824d8	Apache-2.0
hardware/interfaces/gnss/visibility_control/1.0/android.hardware.gnss.visibility_control@1.0	c6824d8	Apache-2.0
frameworks/base/media/lib/remotedisplay/com.android.media.remotedisplay	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.media.omx@1.0	58a3660	Apache-2.0
system/bin/make_f2fs	unknown	LGPL-v2.1, GPL-v2
frameworks/hardware/interfaces/stats/1.0/android.frameworks.stats@1.0.vendor	dcc6946	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libutils	58a3660	Apache-2.0
external/pdfium/libpdfium	e0719da	BSDlike
system/core/libsparse/libsparse	undefined	Apache-2.0
external/sonic/libsonic	043398f	Apache-2.0
frameworks/native/cmds/install/otapreopt_chroot	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libprocessgroup	58a3660	Apache-2.0
frameworks/native/opengl/libs/libegl	f1318d1	Apache-2.0
external/cn-cbor/libcn-cbor.vendor	d42fc3b	MIT
frameworks/av/media/libstagefright/omx/libstagefright_omx	ef20ef1	Apache-2.0
system/netd/apex/com.android.resolv.libnetd_resolv	cb8e5e2	Apache-2.0
hardware/interfaces/keymaster/3.0/android.hardware.keymaster@3.0.vendor	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-gu	unknown	MIT
frameworks/av/apex/com.android.media.swcodec.mediaswcodec	58a3660	Apache-2.0
hardware/interfaces/gatekeeper/1.0/android.hardware.gatekeeper@1.0	c6824d8	Apache-2.0
frameworks/av/media/codec2/components/mpeg4_h263/libcodec2_soft_h263dec	ef20ef1	Apache-2.0
out/target/common/obj/apps/settingsprovider__auto_generated_rro_product/settingsprovider__auto_generated_rro_product	unknown intermediates/	Apache-2.0
external/libtextclassifier/libtextclassifier_actions_suggestions_universal_model	55a7382	Apache-2.0
system/gsid/libgsi	16530ed	Apache-2.0
system/bpf/libbpf_android/libbpf_android	1870e4f	Apache-2.0
external/e2fsprogs/e2fsck/e2fsck	b00fd7d	GPL-v2
system/framework/arm/boot-voip-common	unknown	Apache-2.0
frameworks/av/media/libstagefright/foundation/libstagefright_foundation	ef20ef1	Apache-2.0
frameworks/av/media/codec2/vndk/libcodec2_vndk	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.liblzma	4c6ce46	Apache-2.0
system/hardware/interfaces/suspend/1.0/android.system.suspend@1.0	1e8362f	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_common	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_vp9enc	58a3660	Apache-2.0
external/noto-fonts/cjk/notoserifcjk-regular.ttc	cc5b6cd	SIL OFL 1.1
system/libhidl/transport/memory/1.0/default/android.hidl.memory@1.0-impl	65c02b0	Apache-2.0
system/core/debuggerd/libtombstoned_client	3160811	Apache-2.0
hardware/interfaces/secure_element/1.0/android.hardware.secure_element@1.0.vendor	c6824d8	Apache-2.0
system/extras/partition_tools/aidl/liblpdump_interface-cpp	14ac430	Apache-2.0
hardware/interfaces/power/1.2/android.hardware.power@1.2.vendor	c6824d8	Apache-2.0
frameworks/rs/cpu_ref/librscpuref.vendor	9822b04	Apache-2.0
hardware/interfaces/health/storage/1.0/android.hardware.health.storage@1.0	c6824d8	Apache-2.0
frameworks/av/drm/mediadrm/plugins/clearkey/default/libdrmclearkeyplugin	58a3660	Apache-2.0
system/libhidl/transport/token/1.0/utills/android.hidl.token@1.0-utills	65c02b0	Apache-2.0
system/core/libkeyutils/libkeyutils	3160811	Apache-2.0
frameworks/base/packages/services/pacprocessor/pacprocessor	e8bd84b	Apache-2.0
hardware/interfaces/cas/native/1.0/android.hardware.cas.native@1.0	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.liboggextractor	58a3660	Apache-2.0
hardware/rii/libril/libril	2cf1869	Apache-2.0
frameworks/av/media/libaudioclient/libaudiopolicy	58a3660	Apache-2.0
external/libxml2/libxml2	e040d79	MIT
frameworks/native/services/inputflinger/libinputflinger	f1318d1	Apache-2.0
hardware/interfaces/camera/device/3.5/default/camera.device@3.5-impl	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-sl	unknown	MIT
art/build/apex/com.android.runtime.release.libnativeloader	4c6ce46	Apache-2.0
frameworks/av/apex/com.android.media.libbinderthreadstate	58a3660	Apache-2.0
system/framework/arm/boot-bouncycastle	unknown	Apache-2.0
external/conscrypt/apex/com.android.conscrypt.libc++	292a0b5	Apache-2.0
bootable/recovery/applypatch/applypatch	d6a3e47	BSDlike, Apache-2.0
system/framework/arm/boot-android.test.base	unknown	Apache-2.0
hardware/interfaces/health/storage/1.0/android.hardware.health.storage@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/tetheroffload/config/1.0/android.hardware.tetheroffload.config@1.0	c6824d8	Apache-2.0
system/framework/oat/arm/appwidget	unknown	Apache-2.0
system/libhidl/transport/memory/1.0/android.hidl.memory@1.0.vendor	65c02b0	Apache-2.0

## Open Source Report

Module Name	Module Version	Module License
frameworks/av/media/libstagefright/codecs/flac/enc/libstagefright_soft_flacenc.vendor	ef20ef1	Apache-2.0
system/core/libcrypto_utils/libcrypto_utils.recovery	3160811	Apache-2.0
hardware/interfaces/camera/device/3.3/default/camera.device@3.3-impl	c6824d8	Apache-2.0
hardware/interfaces/audio/effect/2.0/android.hardware.audio.effect@2.0.vendor	c6824d8	Apache-2.0
product/app/Camera2/oat/arm/Camera2	unknown	Apache-2.0
hardware/interfaces/graphics/allocator/2.0/default/android.hardware.graphics.allocator@2.0-service	c6824d8	Apache-2.0
external/iproute2/lib/libiprouteutil	305dbad	GPL-v2
art/build/apex/com.android.runtime.release.libnpt	4c6ce46	Apache-2.0
system/framework/arm/boot-apache-xml	unknown	Apache-2.0
art/build/apex/com.android.runtime.release.libicuuc	4c6ce46	Apache-2.0
system/framework/oat/arm/content	unknown	Apache-2.0
system/hw servicemanager/hw servicemanager	c7c5db8	Apache-2.0
external/e2fsprogs/contrib/android/e2fsdroid_static	unknown	GPL-v2
system/media/audio_route/libaudioroute.vendor	70724d3	BSDlike
frameworks/av/media/codec2/components/vpx/libcodec2_soft_vp8dec	ef20ef1	Apache-2.0
frameworks/av/media/libstagefright/codecs/mp3dec/libstagefright_soft_mp3dec.vendor	ef20ef1	Apache-2.0
frameworks/base/packages/sharedstoragebackup/sharedstoragebackup	e8bd84b	Apache-2.0
system/etc/ipconfig	unknown	Apache-2.0
hardware/interfaces/media/bufferpool/1.0/android.hardware.media.bufferpool@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/cmds/screenrecord/screenrecord	58a3660	Apache-2.0
frameworks/native/services/surfaceflinger/timestats/timestatsproto/libtimestats_proto	f1318d1	Apache-2.0
hardware/interfaces/camera/provider/2.5/android.hardware.camera.provider@2.5	c6824d8	Apache-2.0
frameworks/native/cmds/dumpstate/libdumpstateutil.vendor	f1318d1	Apache-2.0
external/e2fsprogs/lib/et/libext2_com_err	b00fd7d	GPL-v2
packages/providers/mediaprovider/mediaprovider	09e5506	Apache-2.0
system/security/keystore/libkeystore_aidl	92cb71b	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libbase	58a3660	Apache-2.0
frameworks/base/packages/systemui/systemui	40d20ae	Apache-2.0
system/core/lmkd/lmkd	3160811	Apache-2.0
system/security/keystore/libkeystore_parcelables	92cb71b	Apache-2.0
system/libhid/libhidmemory/libhidmemory	65c02b0	Apache-2.0



## Open Source Report

Module Name	Module Version	Module License
frameworks/av/media/libstagefright/codecs/vorbis/dec/libstagefright_soft_vorbisdec.vendor	ef20ef1	Apache-2.0
frameworks/hardware/interfaces/schedulerservice/1.0/android.frameworks.schedulerservice@1.0	dcc6946	Apache-2.0
frameworks/av/media/codec2/components/opus/libcodec2_soft_opusdec	58a3660	Apache-2.0
external/hyphenation-patterns/hyph-de-ch-1901	unknown	MIT
frameworks/av/services/oboeservice/libaaudioservice	58a3660	Apache-2.0
system/core/libkeyutils/mini-keyctl	3160811	Apache-2.0
system/core/logcat/logcat	3160811	Apache-2.0
art/build/apex/com.android.runtime.release.okhttp	4c6ce46	Apache-2.0
system/gatekeeper/libgatekeeper	c9e9e63	Apache-2.0
frameworks/base/media/packages/bluetoothmidiservice/bluetoothmidiservice	e8bd84b	Apache-2.0
hardware/interfaces/fastboot/1.0/android.hardware.fastboot@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/neuralnetworks/1.0/android.hardware.neuralnetworks@1.0	c6824d8	Apache-2.0
frameworks/av/media/libmedia/libmedia	ef20ef1	Apache-2.0
bionic/libdl/libdl_android	4a81bd9	BSDlike
hardware/interfaces/usb/gadget/1.0/android.hardware.usb.gadget@1.0	c6824d8	Apache-2.0
system/libhidl/transport/memory/token/1.0/android.hidl.memory.token@1.0	65c02b0	Apache-2.0
art/build/apex/com.android.runtime.release.libdl	4c6ce46	Apache-2.0
frameworks/native/cmds/servicemanager/vndservicemanager	f1318d1	Apache-2.0
hardware/interfaces/thermal/2.0/android.hardware.thermal@2.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/authsecret/1.0/android.hardware.authsecret@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/media/libeffects/downmix/libdownmix	ef20ef1	Apache-2.0
packages/modules/networkpermissionconfig/platformnetworkpermissionconfig	e853abe	Apache-2.0
external/pcre/libpcrecpp	9bfe473	BSD
frameworks/av/media/libheif/libheif	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.android.hardware.cas.native@1.0	58a3660	Apache-2.0
hardware/interfaces/configstore/1.0/android.hardware.configstore@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.android.hidl.token@1.0-utils	58a3660	Apache-2.0
external/bcc/libbpf	db83b15	Apache-2.0
vendor/lib/modules/pvrsvkm	unknown	GPL-v2
art/build/apex/com.android.runtime.release.libartbase	4c6ce46	Apache-2.0
vendor/synaptics/common/gatekeeper/trusty/gatekeeper.bg5ct	22c8f25	Apache-2.0
external/libchrome/libchrome	adc5c3d	BSDlike

## Open Source Report

Module Name	Module Version	Module License
frameworks/native/libs/sensor/libsensor	f1318d1	Apache-2.0
system/usr/share/bmd/RFFspeed_501	unknown	Apache-2.0
hardware/interfaces/audio/common/5.0/ android.hardware.audio.common@5.0	c6824d8	Apache-2.0
system/core/logwrapper/liblogwrap.recovery	3160811	Apache-2.0
system/lib/libclcore_neon	unknown	Apache-2.0
bionic/libdl/libdl.recovery	4a81bd9	BSDlike
hardware/interfaces/cas/1.1/android.hardware. cas@1.1.vendor	c6824d8	Apache-2.0
frameworks/hardware/interfaces/bufferhub/1.0/ android.frameworks.bufferhub@1.0	dcc6946	Apache-2.0
system/vold/vdc	ec9f29e	Apache-2.0
hardware/interfaces/graphics/mapper/3.0/ android.hardware.graphics.mapper@3.0. vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release. dex2oat	4c6ce46	Apache-2.0
system/framework/oat/arm/telecom	unknown	Apache-2.0
system/libhidl/transport/safe_union/1.0/android. hidl.safe_union@1.0	65c02b0	Apache-2.0
frameworks/rs/driver/runtime/ libclcore_debug_g.bc	9822b04	SunPro
system/core/toolbox/toolbox	3160811	Apache-2.0
frameworks/rs/librscachedir	9822b04	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcap	58a3660	Apache-2.0
system/libhidl/libhidlbase	65c02b0	Apache-2.0
bootable/recovery/bootloader_message/ libbootloader_message	2a37b45	Apache-2.0
vendor/synaptics/vsxxx/interfaces/audiobt/1.0/ com.synaptics.audiobt@1.0	e3fb2c7	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcutils	58a3660	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libvpx	58a3660	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_opusdec	58a3660	Apache-2.0
external/compiler-rt/libcompiler_rt	570d574	MIT
system/libhwbinder/libhwbinder.recovery	39c64e3	Apache-2.0
system/core/libprocessgroup/cgrouprc/ libcgrouprc.recovery	3160811	Apache-2.0
external/toybox/toybox_vendor	1e03c6d	BSDlike
system/core/libmemtrack/libmemtrack.vendor	3160811	Apache-2.0
art/build/apex/com.android.runtime.release. libjdpw	4c6ce46	Apache-2.0
frameworks/av/media/libstagefright/codecs/ common/libstagefright_enc_common	ef20ef1	Apache-2.0
hardware/interfaces/broadcastradio/1.1/ android.hardware.broadcastradio@1.1	c6824d8	Apache-2.0
system/core/toolbox/toolbox.recovery	3160811	Apache-2.0
frameworks/av/soundtrigger/libsoundtrigger	58a3660	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/media/libnblog/libnblog	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_hidl@1.0	58a3660	Apache-2.0
hardware/interfaces/drm/1.0/android.hardware.drm@1.0.vendor	c6824d8	Apache-2.0
frameworks/base/libs/usb/com.android.future.usb.accessory	e8bd84b	Apache-2.0
frameworks/av/media/codec2/vndk/libcodec2_vndk.vendor	58a3660	Apache-2.0
frameworks/av/media/libaudiohal/libaudiohal_deathhandler	58a3660	Apache-2.0
hardware/interfaces/memtrack/1.0/android.hardware.memtrack@1.0.vendor	c6824d8	Apache-2.0
system/core/libcutils/libcutils	3160811	Apache-2.0
hardware/interfaces/graphics/composer/2.1/default/android.hardware.graphics.composer@2.1-impl	c6824d8	Apache-2.0
hardware/qcom/wlan/cld80211-lib/libcld80211	bdf118c	BSDlike
art/build/apex/com.android.runtime.release.libdexfile_external	4c6ce46	Apache-2.0
external/libcap/libcap.recovery	2db20a0	BSDlike
frameworks/av/media/libstagefright/codecs/mpeg2dec/libstagefright_soft_mpeg2dec.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_vndk	58a3660	Apache-2.0
external/mtpd/mtpd	ca7860c	Apache-2.0
vendor/altimedia/libciadapt_android10_lghvd	unknown	Apache-2.0
hardware/interfaces/dumpstate/1.0/android.hardware.dumpstate@1.0	c6824d8	Apache-2.0
frameworks/base/packages/printspooler/jni/libprintspooler_jni	158af09	Apache-2.0
frameworks/av/media/codec2/components/vpx/libcodec2_soft_vp8enc	ef20ef1	Apache-2.0
hardware/interfaces/boot/1.0/android.hardware.boot@1.0.recovery	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-cy	unknown	MIT
external/google-fruit/libfruit	002c22e	Apache-2.0
system/libhid/libhidtransport.vendor	65c02b0	Apache-2.0
external/tinyxml2/libtinyxml2.vendor	14b323f	BSDlike
frameworks/av/apex/com.android.media.swcodec.android.hidl.memory@1.0	58a3660	Apache-2.0
frameworks/base/packages/externalstorageprovider/externalstorageprovider	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_aacdec	58a3660	Apache-2.0
system/core/libziparchive/unzip.recovery	3160811	Apache-2.0
frameworks/base/packages/ctsshim/ctsshimprivprebuilt	e8bd84b	Apache-2.0
frameworks/native/cmds/lshal/liblshal	f1318d1	Apache-2.0
frameworks/av/media/codec2/components/avc/libcodec2_soft_avcenc	58a3660	Apache-2.0

## Open Source Report

Module Name	Module Version	Module License
hardware/interfaces/tv/cec/1.0/default/android. hardware.tv.cec@1.0-impl	c6824d8	Apache-2.0
system/netd/client/libnetd_client	cb8e5e2	Apache-2.0
system/core/libprocinfo/libprocinfo	3160811	Apache-2.0
hardware/interfaces/soundtrigger/2.1/android. hardware.soundtrigger@2.1	c6824d8	Apache-2.0
system/security/keystore/keystore_cli_v2	92cb71b	Apache-2.0
frameworks/av/apex/com.android.media. libhidlmemory	58a3660	Apache-2.0
hardware/interfaces/fastboot/1.0/android. hardware.fastboot@1.0	c6824d8	Apache-2.0
system/framework/boot-okhttp	unknown	Apache-2.0
hardware/interfaces/biometrics/fingerprint/2.1/ android.hardware.biometrics.fingerprint@2.1. vendor	c6824d8	Apache-2.0
vendor/synaptics/vsxxx/interfaces/audiobt/1.0/ default/com.synaptics.audiobt@1.0-impl	e3fb2c7	Apache-2.0
external/protobuf/libprotobuf-cpp-full.vendor	10b0fd4	Apache-2.0
frameworks/base/packages/inputdevices/ inputdevices	158af09	Apache-2.0
product/etc/security/avb/system_other	unknown	Apache-2.0
system/core/storaged/storaged	3160811	Apache-2.0
vendor/synaptics/amber/sdk/lib/libavcodec	undefined	LGPL-v2.1
hardware/interfaces/camera/device/3.2/ android.hardware.camera.device@3.2.vendor	c6824d8	Apache-2.0
hardware/interfaces/memtrack/1.0/android. hardware.memtrack@1.0	c6824d8	Apache-2.0
hardware/interfaces/gnss/ measurement_corrections/1.0/android. hardware.gnss.measurement_corrections@1.0	c6824d8	Apache-2.0
frameworks/av/services/mediaextractor/ libmediaextractorservice	ef20ef1	Apache-2.0
hardware/interfaces/radio/config/1.1/android. hardware.radio.config@1.1.vendor	c6824d8	Apache-2.0
frameworks/base/packages/ companiondevicemanager/ companiondevicemanager	158af09	Apache-2.0
frameworks/base/libs/androidfw/libandroidfw	158af09	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_vp8enc	58a3660	Apache-2.0
vendor/synaptics/vsxxx/interfaces/wowlan/1.0/ impl/com.synaptics.wowlan@1.0-service	e3fb2c7	Apache-2.0
hardware/interfaces/power/1.0/android. hardware.power@1.0.vendor	c6824d8	Apache-2.0
system/server_configurable_flags/ disaster_recovery/flags_health_check	1d7caad	Apache-2.0
system/libhidl/transport/safe_union/1.0/android. hidl.safe_union@1.0.vendor	65c02b0	Apache-2.0
frameworks/av/media/libeffects/lvm/wrapper/ libbundlewrapper	ef20ef1	Apache-2.0
bootable/recovery/bootloader_message/ libbootloader_message.recovery	2a37b45	Apache-2.0
system/ashmemd/ashmemd_aidl_interface-cpp	android-mainline-10.0.0_r10	Apache-2.0
hardware/interfaces/drm/1.2/android.hardware. drm@1.2	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/apex/com.android.media.swcodec.libmedia_codecserVICeregistrant	58a3660	Apache-2.0
hardware/interfaces/camera/device/3.3/android.hardware.camera.device@3.3	c6824d8	Apache-2.0
vendor/altimedia/libtvcoext_boost_1.53.0	unknown	BSL-v1.0
system/core/libziparchive/unzip	3160811	Apache-2.0
frameworks/av/media/libeffects/visualizer/libvisualizer	ef20ef1	Apache-2.0
hardware/interfaces/camera/common/1.0/android.hardware.camera.common@1.0	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.profman	4c6ce46	Apache-2.0
hardware/interfaces/graphics/common/1.1/android.hardware.graphics.common@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.libmpeg2extractor	58a3660	Apache-2.0
frameworks/base/native/webview/loader/libwebviewchromium_loader	e8bd84b	Apache-2.0
hardware/interfaces/vibrator/1.0/android.hardware.vibrator@1.0	c6824d8	Apache-2.0
frameworks/native/libs/ui/libui	16d1d36	Apache-2.0
external/one-true-awk/awk	c120841	BSDlike
bionic/libdl/libdl.bootstrap	4a81bd9	BSDlike
frameworks/av/services/mediacodec/android.hardware.media.omx@1.0-service	ef20ef1	Apache-2.0
system/extras/libfscrypt/libfscrypt.recovery	14ac430	Apache-2.0
system/security/keystore/libkeystore-wifi-hidl	92cb71b	Apache-2.0
vendor/firmware/fw/zsp_vorbis	unknown	BSD
hardware/interfaces/media/c2/1.0/android.hardware.media.c2@1.0	c6824d8	Apache-2.0
frameworks/native/services/surfaceflinger/surfaceflinger	f1318d1	Apache-2.0
hardware/interfaces/media/c2/1.0/android.hardware.media.c2@1.0.vendor	c6824d8	Apache-2.0
frameworks/native/libs/vr/libbufferhub/libbufferhub	f1318d1	Apache-2.0
frameworks/base/packages/services/pacprocessor/jni/libjni_pacprocessor	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.android.hidl.token@1.0	58a3660	Apache-2.0
system/libhidl/transport/memory/token/1.0/android.hidl.memory.token@1.0.vendor	65c02b0	Apache-2.0
external/pcre/libpcre2.recovery	9bfe473	BSD
hardware/interfaces/health/2.0/android.hardware.health@2.0	c6824d8	Apache-2.0
vendor/synaptics/vsxxx/interfaces/audiobt/1.0/com.synaptics.audiobt@1.0.vendor	e3fb2c7	Apache-2.0
system/core/liblog/liblog	3160811	Apache-2.0
system/core/libprocinfo/libprocinfo.vendor	3160811	Apache-2.0
external/libjpeg-turbo/libjpeg.vendor	94a6b62	zlib, BSDlike, IJG
hardware/interfaces/keymaster/4.0/support/libkeymaster4support	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
hardware/interfaces/camera/device/3.2/ android.hardware.camera.device@3.2	c6824d8	Apache-2.0
system/core/toolbox/grep_vendor	3160811	Apache-2.0
frameworks/hardware/interfaces/ display/service/1.0/android.frameworks. display/service@1.0.vendor	dcc6946	Apache-2.0
system/extras/ext4_utils/libext4_utils	14ac430	Apache-2.0
system/core/base/libbase	3160811	Apache-2.0
vendor/synaptics/vsxxx/media/ media_online_debug/mediadebugclient	e3fb2c7	BSDlike, Apache-2.0
external/newfs_msdos/newfs_msdos	c71c986	BSDlike
system/core/libdiskconfig/libdiskconfig	3160811	Apache-2.0
external/speex/libspeexresampler.vendor	fb97af1	BSDlike
hardware/interfaces/camera/provider/2.4/ default/android.hardware.camera.provider@2.4 -legacy	c6824d8	Apache-2.0
frameworks/av/drm/mediadrm/plugins/clearkey/ hidl/android.hardware.drm@1.2-service. clearkey	58a3660	Apache-2.0
hardware/interfaces/configstore/1.1/android. hardware.configstore@1.1.vendor	c6824d8	Apache-2.0
system/core/libsysutils/libsysutils.vendor	3160811	Apache-2.0
system/extras/ext4_utils/libext4_utils.recovery	14ac430	Apache-2.0
frameworks/av/media/libaudiohal/libaudiohal	58a3660	Apache-2.0
external/hyphenation-patterns/hyph-es	unknown	MIT
system/keymaster/libpuresoftkeymasterdevice. vendor	65efdbd	Apache-2.0
external/protobuf/libprotobuf-cpp-lite.vendor	10b0fd4	Apache-2.0
frameworks/av/drm/mediacas/plugins/clearkey/ libclearkeycasplugin	58a3660	Apache-2.0
system/core/libnetutils/libnetutils.vendor	3160811	Apache-2.0
hardware/interfaces/gnss/visibility_control/1.0/ android.hardware.gnss.visibility_control@1.0. vendor	c6824d8	Apache-2.0
external/conscrypt/apex/com.android. conscrypt.conscrypt	292a0b5	Apache-2.0
external/e2fsprogs/lib/support/libext2_quota	b00fd7d	GPL-v2
external/iproute2/lib/libnetlink	305dbad	GPL-v2
vendor/lib/hw/btmp.default	unknown	Apache-2.0
hardware/interfaces/health/1.0/android. hardware.health@1.0.vendor	c6824d8	Apache-2.0
system/core/rootdir/avb/q-gsi.avbpubkey	3160811	Apache-2.0
hardware/interfaces/cas/native/1.0/android. hardware.cas.native@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_avcenc	58a3660	Apache-2.0
hardware/interfaces/soundtrigger/2.1/android. hardware.soundtrigger@2.1.vendor	c6824d8	Apache-2.0
frameworks/av/media/libstagefright/xmlparser/ libstagefright_xmlparser.vendor	ef20ef1	Apache-2.0
system/core/mkbootimg/ libmkbootimg_abi_check.vendor	3160811	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/media/codec2/components/amr_nb_wb/libcodec2_soft_amrnbdec	ef20ef1	Apache-2.0
hardware/interfaces/graphics/common/1.2/android.hardware.graphics.common@1.2	c6824d8	Apache-2.0
system/libhidl/transport/token/1.0/utils/android.hidl.token@1.0-utils.vendor	65c02b0	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_mpeg2dec	58a3660	Apache-2.0
frameworks/base/packages/dynamicsysteminstallationservice/dynamicsysteminstallationservice	158af09	Apache-2.0
system/core/libunwindstack/libunwindstack.recovery	3160811	Apache-2.0
hardware/libhardware/libhardware.recovery	da60173	Apache-2.0
external/libyuv/files/libyuv.vendor	2db5718	BSDlike
frameworks/av/services/camera/libcameraservice/libcameraservice	ef20ef1	Apache-2.0
vendor/synaptics/vsxxx/pod/libpod_vendor	e3fb2c7	Apache-2.0
system/core/libion/libion.vendor	3160811	Apache-2.0
system/core/healthd/charger.recovery	3160811	Apache-2.0
vendor/synaptics/vsxxx/audio/audio.primary.bg5ct	df495a7	Apache-2.0
frameworks/base/cmds/app_process/app_process	158af09	Apache-2.0
frameworks/hardware/interfaces/schedulerservice/1.0/android.frameworks.schedulerservice@1.0.vendor	dcc6946	Apache-2.0
frameworks/av/apex/com.android.media.libbinder	58a3660	Apache-2.0
external/e2fsprogs/misc/blkid	b00fd7d	GPL-v2
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_vorbisdec	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_vp9dec	58a3660	Apache-2.0
external/libvpx/libvpx.vendor	fff265b	BSDlike
art/build/apex/com.android.runtime.release.libandroidio	4c6ce46	Apache-2.0
vendor/synaptics/vsxxx/interfaces/wowlan/1.0/com.synaptics.wowlan@1.0.vendor	e3fb2c7	Apache-2.0
external/conscrypt/apex/com.android.conscrypt.libssl	292a0b5	Apache-2.0
hardware/interfaces/camera/device/3.5/android.hardware.camera.device@3.5.vendor	c6824d8	Apache-2.0
frameworks/base/rs/jni/librs_jni	e8bd84b	Apache-2.0
external/libpng/libpng	5aff830	BSDlike
frameworks/rs/driver/runtime/liblcore_debug.bc	9822b04	SunPro
art/build/apex/com.android.runtime.release.libdexfile_support	4c6ce46	Apache-2.0
system/extras/simpleperf/simpleperf_app_runner/simpleperf_app_runner	14ac430	Apache-2.0
hardware/interfaces/cas/1.1/default/android.hardware.cas@1.1-service	c6824d8	Apache-2.0
frameworks/av/services/mediacodec/registrant/libmedia_codecserregistrant	ef20ef1	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/media/codec2/components/avc/libcodecs2_soft_avcdec	58a3660	Apache-2.0
external/neven/rffspeed_501.bmd	a1182cb	Apache-2.0
system/hardware/interfaces/wifi/keystore/1.0/default/libwifikeystorehal	1e8362f	Apache-2.0
system/framework/arm/boot-framework	unknown	Apache-2.0
system/core/fastboot/fastbootd	3160811	Apache-2.0
system/core/libstats/libstatssocket	3160811	Apache-2.0
frameworks/native/libs/binderthreadstate/libbinderthreadstate	f1318d1	Apache-2.0
packages/apps/camera2/jni/libjni_jpegutil	f7232d7	Apache-2.0
external/protobuf/libprotobuf-cpp-full	10b0fd4	Apache-2.0
frameworks/base/cmds/screenshot/screenshot	e8bd84b	Apache-2.0
external/hyphenation-patterns/hyph-hr	unknown	MIT
system/core/libunwindstack/libunwindstack.vendor	3160811	Apache-2.0
hardware/interfaces/neuralnetworks/1.1/android.hardware.neuralnetworks@1.1.vendor	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-et	unknown	MIT
system/core/libsparse/libsparse.recovery	undefined	Apache-2.0
prebuilts/clang/host/linux-x86/libclang_rt.ubsan_standalone-arm-android	68bcd6a	Apache-2.0
frameworks/native/opengl/libs/libetc1	f1318d1	Apache-2.0
external/harfbuzz_ng/libharfbuzz_ng	5c6da22	BSDlike, MITlike
packages/providers/calendarprovider/calendarprovider	960c914	Apache-2.0
frameworks/base/cmds/am/am	158af09	Apache-2.0
hardware/interfaces/audio/effect/2.0/android.hardware.audio.effect@2.0	c6824d8	Apache-2.0
system/hardware/interfaces/net/netd/1.1/android.system.net.netd@1.1.vendor	1e8362f	Apache-2.0
hardware/interfaces/audio/effect/5.0/android.hardware.audio.effect@5.0	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.mapper@2.0	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.dexdump	4c6ce46	Apache-2.0
frameworks/base/packages/localtransport/localtransport	e8bd84b	Apache-2.0
external/libcxx/libc++.recovery	29cbbe6	BSDlike
art/build/apex/com.android.runtime.release.libc_malloc_hooks	4c6ce46	Apache-2.0
system/core/libnativeloader/libnativeloader_lazy	3160811	Apache-2.0
frameworks/base/libs/input/libinputservice	e8bd84b	Apache-2.0
frameworks/native/libs/gui/libgui	f1318d1	Apache-2.0
hardware/libhardware/modules/audio/audio.primary.default	da60173	Apache-2.0
system/keymaster/libkeymaster_messages.vendor	65efdbd	Apache-2.0



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Module Name	Module Version	Module License
vendor/synaptics/netflix/netflixreceiver/native/libnetflixreceiver	0549b8e	Apache-2.0
frameworks/av/media/codec2/components/vpx/libcodec2_soft_vp9dec	ef20ef1	Apache-2.0
system/tools/hidl/utills/libhidl-gen-utills	4f82a05	Apache-2.0
system/vold/vold_prepare_subdirs	ec9f29e	Apache-2.0
system/core/libmeminfo/tools/showmap	3160811	Apache-2.0
hardware/interfaces/wifi/supplicant/1.1/android.hardware.wifi.supplicant@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/media/libeffects/proxy/libeffectproxy	58a3660	Apache-2.0
system/core/libziparchive/libziparchive.vendor	3160811	Apache-2.0
system/libhidl/libhidltransport.recovery	65c02b0	Apache-2.0
vendor/altimedia/libtvcoext_freetype_2.6.0	unknown	FTL-v2
frameworks/av/media/codec2/sfplugin/utills/libsfplugin_ccodec_utills	58a3660	Apache-2.0
system/keymaster/libsoftkeymasterdevice.vendor	65efdbd	Apache-2.0
frameworks/av/media/libeffects/preprocessing/libaudiopreprocessing	ef20ef1	Apache-2.0
external/jsoncpp/libjsoncpp	ef504fb	MIT
frameworks/av/apex/com.android.media.swcodec.libavservices_minijail_vendor	58a3660	Apache-2.0
frameworks/av/media/libstagefright/foundation/libstagefright_foundation.vendor	ef20ef1	Apache-2.0
external/libbrillo/libbrillo	d4a88f4	BSDlike
frameworks/av/apex/com.android.media.swcodec.libui	58a3660	Apache-2.0
system/lib/libclcore_g	unknown	Apache-2.0
frameworks/base/media/jni/soundpool/libsoundpool	158af09	Apache-2.0
system/tools/hidl/hashing/libhidl-gen-hash	4f82a05	Apache-2.0
frameworks/av/media/codec2/components/hevc/libcodec2_soft_hevcdec	58a3660	Apache-2.0
hardware/interfaces/health/2.0/android.hardware.health@2.0.recovery	c6824d8	Apache-2.0
system/netd/server/netd_event_listener_interface-v1-cpp	cb8e5e2	Apache-2.0
external/jsoncpp/libjsoncpp.vendor	ef504fb	MIT
frameworks/base/obex/javax.obex	158af09	BSDlike
external/hyphenation-patterns/hyph-de-1996	unknown	MIT
hardware/interfaces/drm/1.0/default/android.hardware.drm@1.0-impl	c6824d8	Apache-2.0
frameworks/base/native/graphics/jni/libjnigraphics	e8bd84b	Apache-2.0
hardware/interfaces/light/2.0/android.hardware.light@2.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/cas/1.0/android.hardware.cas@1.0.vendor	c6824d8	Apache-2.0
system/core/fs_mgr/liblp/liblp.recovery	3160811	Apache-2.0
frameworks/base/cmds/idmap2/idmap2	e8bd84b	Apache-2.0

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Module Name	Module Version	Module License
external/e2fsprogs/lib/blkid/libext2_blkid	b00fd7d	GPL-v2
external/e2fsprogs/misc/libext2_misc	b00fd7d	GPL-v2
external/toybox/toybox	1e03c6d	BSDlike
hardware/interfaces/camera/device/3.4/ android.hardware.camera.device@3.4.vendor	c6824d8	Apache-2.0
frameworks/native/cmds/servicemanager/ servicemanager	f1318d1	Apache-2.0
system/framework/arm/ boot-telephony-common	unknown	Apache-2.0
frameworks/hardware/interfaces/ cameraservice/common/2.0/android. frameworks.cameraservice.common@2.0. vendor	dcc6946	Apache-2.0
hardware/interfaces/confirmationui/support/ android.hardware.confirmationui-support-lib. vendor	c6824d8	Apache-2.0
frameworks/av/services/medialog/ libmedialogservice	58a3660	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_opusenc	58a3660	Apache-2.0
frameworks/av/media/codecs/sfplugin/ libsfplugin_ccodec	58a3660	Apache-2.0
hardware/interfaces/wifi/supplicant/1.2/android. hardware.wifi.suplicant@1.2.vendor	c6824d8	Apache-2.0
system/core/libziparchive/libziparchive. recovery	3160811	Apache-2.0
vendor/synaptics/vsxxx/power/power/1.2/impl/ android.hardware.power@1.2-impl-berlin	6f2e2c4	Apache-2.0
external/e2fsprogs/misc/mke2fs.recovery	b00fd7d	GPL-v2
frameworks/av/camera/libcamera_client	ef20ef1	Apache-2.0
external/hyphenation-patterns/hyph-bn	unknown	MIT
art/build/apex/com.android.runtime.release. bouncycastle	4c6ce46	Apache-2.0
system/framework/boot-bouncycastle	unknown	Apache-2.0
hardware/interfaces/boot/1.0/default/android. hardware.boot@1.0-impl	c6824d8	Apache-2.0
system/core/libcrypto_utils/libcrypto_utils. vendor	3160811	Apache-2.0
external/e2fsprogs/lib/blkid/libext2_blkid. recovery	b00fd7d	GPL-v2
external/conscrypt/apex/com.android. conscrypt.apex_pubkey	292a0b5	Apache-2.0
bootable/recovery/uncrypt/uncrypt	2a37b45	Apache-2.0
system/libhid/libhidlbase.vendor	65c02b0	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libc_scudo	58a3660	Apache-2.0
hardware/interfaces/confirmationui/1.0/android. hardware.confirmationui@1.0	c6824d8	Apache-2.0
external/libexif/libexif.vendor	d9e89d4	LGPL-v2.1
frameworks/av/apex/com.android.media. swcodec.libbinder	58a3660	Apache-2.0
frameworks/native/services/audiomanager/ libaudiomanager	f1318d1	Apache-2.0
system/update_engine/update_engine	30176dd	Apache-2.0

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Module Name	Module Version	Module License
frameworks/av/services/mediaanalytics/mediametrics	58a3660	Apache-2.0
system/framework/oat/arm/wifi-service	unknown	Apache-2.0
development/cmds/monkey/monkeylib	98f649d	Apache-2.0
external/e2fsprogs/misc/tune2fs	b00fd7d	GPL-v2
hardware/interfaces/graphics/mapper/2.0/android.hardware.graphics.mapper@2.0	c6824d8	Apache-2.0
system/core/toolbox/grep	3160811	Apache-2.0
external/iputils/ping6	2c7b625	BSDlike
external/hyphenation-patterns/hyph-be	unknown	MIT
system/libvintf/libvintf	57d58ff	Apache-2.0
hardware/interfaces/gnss/2.0/android.hardware.gnss@2.0	c6824d8	Apache-2.0
hardware/interfaces/broadcastradio/2.0/android.hardware.broadcastradio@2.0.vendor	c6824d8	Apache-2.0
external/minijail/libminijail	47c0fe9	BSDlike
hardware/interfaces/input/common/1.0/android.hardware.input.common@1.0	c6824d8	Apache-2.0
vendor/synaptics/common/keymaster/4.0/service/android.hardware.keymaster@4.0-service.syna	22c8f25	Apache-2.0
frameworks/native/libs/nativewindow/libnativewindow	16d1d36	Apache-2.0
external/hyphenation-patterns/hyph-or	unknown	MIT
vendor/synaptics/common/thermal/1.1/android.hardware.thermal@1.1-service.berlin	ec70629	Apache-2.0
art/build/apex/com.android.runtime.release.libprofile	4c6ce46	Apache-2.0
frameworks/av/apex/com.android.media.android.hidl.memory@1.0	58a3660	Apache-2.0
system/vold/wait_for_keymaster	ec9f29e	Apache-2.0
system/core/healthd/charger	3160811	Apache-2.0
frameworks/av/media/img_utils/libimg_utils	58a3660	Apache-2.0
frameworks/base/native/android/libandroid	e8bd84b	Apache-2.0
external/googletest/googletest/libgtest_prod	c871e1d	BSDlike
vendor/synaptics/common/fastboot/1.0/android.hardware.fastboot@1.0-impl-recovery-berlin	22c8f25	Apache-2.0
frameworks/compile/libbcc/tools/bcc/bcc	fca09e6	Apache-2.0, MITlike
frameworks/opt/telephony/telephony-common	104fe96	Apache-2.0
frameworks/av/media/libstagefright/codecs/opus/dec/libstagefright_soft_opusdec.vendor	ef20ef1	Apache-2.0
frameworks/av/services/mediacodec/mediaswcodec	ef20ef1	Apache-2.0
hardware/interfaces/ir/1.0/android.hardware.ir@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/media/bufferpool/2.0/libstagefright_bufferpool@2.0.vendor	58a3660	Apache-2.0
frameworks/av/media/libeffects/dynamicsproc/libdynproc	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libminijail	58a3660	Apache-2.0

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Module Name	Module Version	Module License
system/core/libcutils/libcutils.recovery	3160811	Apache-2.0
frameworks/base/cmds/idmap2/libidmap2	e8bd84b	Apache-2.0
bootable/recovery/fuse_sideload/libfusesideload.recovery	2a37b45	Apache-2.0
hardware/interfaces/audio/effect/4.0/android.hardware.audio.effect@4.0	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_amrwbenc	58a3660	Apache-2.0
packages/apps/secureelement/secureelement	4bd2e85	Apache-2.0
frameworks/av/media/libmedia/libmedia_omx_client	ef20ef1	Apache-2.0
bootable/recovery/recovery_ui/librecovery_ui.recovery	2a37b45	Apache-2.0
external/tinyalsa/libtinyalsa	e84b02b	BSDlike
frameworks/av/media/codecs2/components/flac/libcodec2_soft_flacdec	ef20ef1	Apache-2.0
bionic/libm/libm.bootstrap	4a81bd9	BSDlike
system/hardware/interfaces/wifi/keystore/1.0/android.system.wifi.keystore@1.0.vendor	1e8362f	Apache-2.0
frameworks/native/cmds/installd/otapreopt	f1318d1	Apache-2.0
frameworks/base/cmds/hid/hid	158af09	Apache-2.0
hardware/interfaces/ir/1.0/android.hardware.ir@1.0	c6824d8	Apache-2.0
hardware/interfaces/drm/1.0/android.hardware.drm@1.0	c6824d8	Apache-2.0
system/libhwbinder/libhwbinder.vendor	39c64e3	Apache-2.0
frameworks/av/media/libstagefright/codecs/g711dec/libstagefright_soft_g711dec.vendor	ef20ef1	Apache-2.0
external/wpa_supplicant_8/wpa_supplicant/wpa_supplicant	b9ab4a8	BSDlike
frameworks/base/packages/vpndialogs/vpndialogs	e8bd84b	Apache-2.0
system/core/libpixelflinger/libpixelflinger	3160811	Apache-2.0
frameworks/native/cmds/installd/installd	f1318d1	Apache-2.0
frameworks/native/libs/binder/ndk/libbinder_ndk	16d1d36	Apache-2.0
external/libcxx/libc++.vendor	29cbbe6	BSDlike
system/framework/boot-android.test.base	unknown	Apache-2.0
system/core/logd/logd	3160811	Apache-2.0
packages/apps/bluetooth/bluetooth	c3fb441	Apache-2.0
hardware/interfaces/configstore/1.0/android.hardware.configstore@1.0	c6824d8	Apache-2.0
bootable/recovery/minadbd/minadbd	2a37b45	Apache-2.0
external/libopus/libopus.vendor	fcc38fd	BSDlike
external/ppp/pppd/pppol2tp-android	3ea5ca1	BSDlike
vendor/synaptics/common/bootctrl/bootctrl.bg5ct	22c8f25	Apache-2.0
hardware/interfaces/drm/1.0/default/android.hardware.drm@1.0-service	c6824d8	Apache-2.0
hardware/interfaces/camera/provider/2.4/default/android.hardware.camera.provider@2.4	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
-impl		
hardware/interfaces/gnss/1.1/android.hardware.gnss@1.1.vendor	c6824d8	Apache-2.0
system/core/libasynco/libasynco.recovery	3160811	Apache-2.0
hardware/interfaces/bluetooth/a2dp/1.0/android.hardware.bluetooth.a2dp@1.0	c6824d8	Apache-2.0
frameworks/base/cmds/svc/svclib	158af09	Apache-2.0
external/libexif/libexif	d9e89d4	LGPL-v2.1
hardware/interfaces/graphics/bufferqueue/1.0/android.hardware.graphics.bufferqueue@1.0	c6824d8	Apache-2.0
hardware/libhardware/modules/local_time/local_time.default	da60173	Apache-2.0
hardware/interfaces/sensors/1.0/android.hardware.sensors@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_amrnbdec	58a3660	Apache-2.0
external/tinyxml2/libtinyxml2	14b323f	BSDlike
external/piex/libpiex	266dae4	Apache-2.0
vendor/synaptics/vsxxx/interfaces/berlinpower/1.1/default/com.synaptics.berlinpower@1.1-service	e3fb2c7	Apache-2.0
frameworks/base/services/services	e8bd84b	Apache-2.0
external/compiler-rt/libcompiler_rt.vendor	570d574	MIT
frameworks/base/cmds/media/media	158af09	Apache-2.0
external/iproute2/ip/ip	305dbad	GPL-v2
hardware/interfaces/automotive/audiocontrol/1.0/android.hardware.automotive.audiocontrol@1.0.vendor	c6824d8	Apache-2.0
frameworks/native/cmds/cmd/cmd	16d1d36	Apache-2.0
hardware/interfaces/camera/metadata/3.4/android.hardware.camera.metadata@3.4.vendor	c6824d8	Apache-2.0
hardware/interfaces/power/stats/1.0/android.hardware.power.stats@1.0.vendor	c6824d8	Apache-2.0
system/core/logwrapper/logwrapper_vendor	3160811	Apache-2.0
frameworks/base/media/lib/tvremote/com.android.media.tv.remoteprovider	e8bd84b	Apache-2.0
frameworks/av/media/codec2/components/aac/libcodec2_soft_aacenc	ef20ef1	Apache-2.0
external/e2fsprogs/contrib/android/e2fsdroid.recovery	b00fd7d	GPL-v2
frameworks/av/apex/com.android.media.android.hidl allocator@1.0	58a3660	Apache-2.0
frameworks/compile/libbcc/lib/libbcc	fca09e6	Apache-2.0, MITlike
external/minijail/libminijail.vendor	47c0fe9	BSDlike
external/hyphenation-patterns/hyph-mn-cyrl	unknown	MIT
system/core/lmkd/libpsi/libpsi	3160811	Apache-2.0
hardware/libhardware_legacy/libhardware_legacy	86d26ee	Apache-2.0
vendor/synaptics/vsxxx/interfaces/display/2.1/impl/com.synaptics.display@2.1-service	e3fb2c7	Apache-2.0
external/hyphenation-patterns/hyph-hu	unknown	MIT

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Module Name	Module Version	Module License
external/wpa_supplicant_8/wpa_supplicant/libwpa_client	b9ab4a8	BSDlike
hardware/interfaces/radio/config/1.0/android.hardware.radio.config@1.0.vendor	c6824d8	Apache-2.0
external/tinyxml2/libtinyxml2.recovery	14b323f	BSDlike
art/build/apex/com.android.runtime.release.libz	4c6ce46	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hidl.token@1.0-utils	58a3660	Apache-2.0
system/core/libusbhost/libusbhost	3160811	Apache-2.0
system/core/libmemtrack/libmemtrack	3160811	Apache-2.0
frameworks/native/cmds/ip-up-vpn/ip-up-vpn	f1318d1	Apache-2.0
frameworks/av/media/libaudioprocessing/libaudioprocessing	58a3660	Apache-2.0
hardware/interfaces/camera/device/3.4/default/camera.device@3.4-external-impl	c6824d8	Apache-2.0
frameworks/base/cmds/incidentd/incidentd	e8bd84b	Apache-2.0
system/core/deprecated-adf/libadf/libadf.vendor	3160811	Apache-2.0
frameworks/native/vulkan/libvulkan/libvulkan	f1318d1	Apache-2.0
hardware/interfaces/graphics/common/1.2/android.hardware.graphics.common@1.2.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.core-libart	4c6ce46	Apache-2.0
system/framework/oat/arm/requestsync	unknown	Apache-2.0
frameworks/av/media/libstagefright/codecs/amrnb/common/libstagefright_amrnb_common.vendor	ef20ef1	Apache-2.0
hardware/interfaces/bluetooth/1.0/default/android.hardware.bluetooth@1.0-service	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-ml	unknown	MIT
hardware/interfaces/input/classifier/1.0/android.hardware.input.classifier@1.0	c6824d8	Apache-2.0
system/security/keystore/libkeystore_binder	92cb71b	Apache-2.0
frameworks/opt/net/voip/voip-common	de4c172	Apache-2.0
external/ipsec-tools/racoon	21841d1	BSDlike
hardware/interfaces/bluetooth/audio/2.0/android.hardware.bluetooth.audio@2.0.vendor	c6824d8	Apache-2.0
system/hardware/interfaces/suspend/aidl/suspend_control_aidl_interface-cpp	undefined	Apache-2.0
prebuilts/clang/host/linux-x86/libclang_rt.scudo-arm-android.vendor	68bcd6a	Apache-2.0
packages/modules/modulemetadata/modulemetadata	bf198f3	Apache-2.0
frameworks/av/media/codec2/components/mpeg4_h263/libcodec2_soft_mpeg4dec	ef20ef1	Apache-2.0
frameworks/native/services/gpuservice/gpuservice	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.apex_pubkey	58a3660	Apache-2.0
external/expat/libexpat	3c8c230	MIT
hardware/interfaces/graphics/composer/2.1/utlis/hwc2onfbadapter/libhwc2onfbadapter	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
hardware/interfaces/wifi/1.0/android.hardware.wifi@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/media/bufferpool/2.0/android.hardware.media.bufferpool@2.0.vendor	c6824d8	Apache-2.0
frameworks/native/libs/ui/libui.vendor	16d1d36	Apache-2.0
external/mdnsresponder/libmdnssd.recovery	ef76ab6	Apache-2.0
frameworks/native/services/bufferhub/android.frameworks.bufferhub@1.0-service	f1318d1	Apache-2.0
art/build/apex/com.android.runtime.release.libcui18n	4c6ce46	Apache-2.0
frameworks/av/media/libstagefright/ffmpeg/libstagefright_ffmpeg.vendor	ef20ef1	Apache-2.0
hardware/interfaces/radio/1.1/android.hardware.radio@1.1.vendor	c6824d8	Apache-2.0
external/tcpdump/tcpdump	f50b8b0	BSDlike
vendor/synaptics/vsxxx/interfaces/audiobt/1.0/default/libcombluetooth_audio_session	e3fb2c7	Apache-2.0
frameworks/base/drm/jni/libdrmframework_jni	e8bd84b	Apache-2.0
system/core/libutils/libutilscallstack.vendor	3160811	Apache-2.0
hardware/interfaces/renderscript/1.0/android.hardware.renderscript@1.0.vendor	c6824d8	Apache-2.0
external/perfetto/traced	c4161c4	Apache-2.0
external/boringssl/libssl	98697a9	BSDlike
hardware/interfaces/tv/cec/1.0/default/android.hardware.tv.cec@1.0-service	c6824d8	Apache-2.0
frameworks/hardware/interfaces/sensorservice/1.0/android.frameworks.sensorservice@1.0	dcc6946	Apache-2.0
system/libfmq/libfmq.vendor	9e02d27	Apache-2.0
frameworks/av/media/libstagefright/codecs/m4v_h263/dec/libstagefright_soft_mpeg4dec.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_aacenc	58a3660	Apache-2.0
external/zlib/libz.vendor	661c183	BSDlike
external/hyphenation-patterns/hyph-kn	unknown	MIT
system/netd/server/netd_aidl_interface-v2-cpp	cb8e5e2	Apache-2.0
hardware/interfaces/graphics/bufferqueue/2.0/android.hardware.graphics.bufferqueue@2.0	c6824d8	Apache-2.0
system/libhidl/transport/memory/block/1.0/android.hidl.memory.block@1.0.vendor	65c02b0	Apache-2.0
frameworks/native/cmds/bugreportz/bugreportz	f1318d1	Apache-2.0
system/core/libbacktrace/libbacktrace	3160811	Apache-2.0
frameworks/av/media/codec2/components/aom/libcodec2_soft_av1dec	58a3660	Apache-2.0
frameworks/av/media/libeffects/config/libeffectsconfig	58a3660	Apache-2.0
frameworks/hardware/interfaces/cameraservice/common/2.0/android.frameworks.cameraservice.common@2.0	dcc6946	Apache-2.0
frameworks/opt/net/wifi/libwifi_system_iface/libwifi-system-iface	d062cb8	Apache-2.0
vendor/lib/modules/tsp	unknown	GPL-v2

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Module Name	Module Version	Module License
vendor/synaptics/common/health/2.0/android.hardware.health@2.0-impl-recovery-berlin	88a02ce	Apache-2.0
hardware/interfaces/camera/device/3.4/default/camera.device@3.4-impl	c6824d8	Apache-2.0
external/e2fsprogs/misc/mke2fs	b00fd7d	GPL-v2
external/hyphenation-patterns/hyph-da	unknown	MIT
frameworks/native/libs/vr/libbufferhubqueue/libbufferhubqueue	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.libprocessgroup	58a3660	Apache-2.0
external/apache-http/org.apache.http.legacy	952e3cf	Apache-2.0
hardware/interfaces/soundtrigger/2.2/android.hardware.soundtrigger@2.2	c6824d8	Apache-2.0
hardware/interfaces/gatekeeper/1.0/default/android.hardware.gatekeeper@1.0-impl	c6824d8	Apache-2.0
external/iproute2/misc/ss	305dbad	GPL-v2
frameworks/av/media/libeffects/lvm/wrapper/libverbwrapper	ef20ef1	Apache-2.0
system/libhid/transport/allocator/1.0/default/android.hidl.allocator@1.0-service	65c02b0	Apache-2.0
frameworks/native/libs/android_runtime_lazy/libandroid_runtime_lazy	f1318d1	Apache-2.0
frameworks/native/cmds/lshal/lshal	f1318d1	Apache-2.0
hardware/interfaces/drm/1.1/android.hardware.drm@1.1.vendor	c6824d8	Apache-2.0
system/netd/netutils_wrappers/netutils-wrapper-1.0	cb8e5e2	Apache-2.0
external/libtextclassifier/libtextclassifier	55a7382	Apache-2.0
frameworks/av/media/codec2/core/libcodec2.vendor	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.libjavacore	4c6ce46	Apache-2.0
hardware/interfaces/graphics/mapper/2.1/android.hardware.graphics.mapper@2.1.vendor	c6824d8	Apache-2.0
external/libtextclassifier/libtextclassifier_annotator_en_model	55a7382	Apache-2.0
hardware/interfaces/audio/common/all-versions/default/service/android.hardware.audio@2.0-service	c6824d8	Apache-2.0
system/extras/partition_tools/lpdumpd	14ac430	Apache-2.0
frameworks/av/apex/com.android.media.libamrextactor	58a3660	Apache-2.0
external/piex/libpiex.vendor	266dae4	Apache-2.0
system/hardware/interfaces/net/netd/1.0/android.system.net.netd@1.0	1e8362f	Apache-2.0
art/build/apex/com.android.runtime.release.libc++	4c6ce46	Apache-2.0
hardware/libhardware_legacy/libpower.vendor	86d26ee	Apache-2.0
frameworks/base/native/android/libandroid_net	e8bd84b	Apache-2.0
system/core/libpackagelistparser/libpackagelistparser	3160811	Apache-2.0
frameworks/av/apex/com.android.media.android.hardware.cas@1.0	58a3660	Apache-2.0



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Module Name	Module Version	Module License
frameworks/av/camera/ndk/libcamera2ndk	ef20ef1	Unicode, Apache-2.0
hardware/interfaces/media/1.0/android.hardware.media@1.0	c6824d8	Apache-2.0
frameworks/av/camera/cameraserver/cameraserver	ef20ef1	Apache-2.0
hardware/interfaces/cas/1.0/android.hardware.cas@1.0	c6824d8	Apache-2.0
external/libpng/libpng.vendor	5aff830	BSDlike
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.common@1.1	58a3660	Apache-2.0
vendor/altimedia/libtvcoext_boost_ping	unknown	BSL-v1.0
prebuilts/clang/host/linux-x86/libclang_rt.ubsan_standalone-arm-android.vendor	68bcd6a	Apache-2.0
frameworks/base/packages/statementservice/statementservice	e8bd84b	Apache-2.0
system/keymaster/libsoftkeymasterdevice	65efdbd	Apache-2.0
hardware/interfaces/audio/effect/4.0/android.hardware.audio.effect@4.0.vendor	c6824d8	Apache-2.0
external/libevent/libevent.vendor	7b67f80	BSDlike
frameworks/av/media/codec2/components/amr_nb_wb/libcodec2_soft_amrwbenc	ef20ef1	Apache-2.0
frameworks/rs/librs_internal.vendor	9822b04	Apache-2.0
system/keymaster/libkeymaster_messages	65efdbd	Apache-2.0
frameworks/av/media/codec2/components/mp3/libcodec2_soft_mp3dec	ef20ef1	Apache-2.0
frameworks/av/drm/libdrmframework/libdrmframework	ef20ef1	Apache-2.0
frameworks/base/cmds/idmap/idmap	e8bd84b	Apache-2.0
frameworks/native/libs/gui/libgui.vendor	f1318d1	Apache-2.0
frameworks/base/cmds/bmgr/bmgr	158af09	Apache-2.0
frameworks/native/cmds/bugreport/bugreport	f1318d1	Apache-2.0
out/target/common/obj/apps/inprocessnetworkstack__auto_generated_rro_vendor_intermediates/inprocessnetworkstack__auto_generated_rro_vendor	unknown	Apache-2.0
system/core/libmeminfo/tools/procrank	3160811	Apache-2.0
system/core/libprocessgroup/cgrouprc/libcgrouprc	3160811	Apache-2.0
frameworks/native/libs/vibrator/libvibrator	f1318d1	Apache-2.0
frameworks/av/media/codec2/components/base/libcodec2_soft_common	58a3660	Apache-2.0
hardware/interfaces/sensors/2.0/android.hardware.sensors@2.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/power/stats/1.0/android.hardware.power.stats@1.0	c6824d8	Apache-2.0
frameworks/av/media/libstagefright/xmlparser/libstagefright_xmlparser	ef20ef1	Apache-2.0
hardware/interfaces/light/2.0/android.hardware.light@2.0	c6824d8	Apache-2.0
external/hyphenation-patterns/hyph-eu	unknown	MIT
frameworks/base/cmds/incident/incident	e8bd84b	Apache-2.0
hardware/interfaces/media/omx/1.0/android.hardware.media.omx@1.0	c6824d8	Apache-2.0

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Module Name	Module Version	Module License
system/libhidl/transport/allocator/1.0/utis/libhidlallocatorutis	65c02b0	Apache-2.0
system/core/libsync/libsync	3160811	Apache-2.0
hardware/interfaces/weaver/1.0/android.hardware.weaver@1.0.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libsigchain	4c6ce46	Apache-2.0
system/media/audio_utils/libaudioutils.vendor	70724d3	Apache-2.0
frameworks/compile/libbcc/bcinfo/libbcinfo	fca09e6	Apache-2.0, MITlike
frameworks/av/apex/com.android.media.updatable-media	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.apache-xml	4c6ce46	Apache-2.0
hardware/interfaces/camera/provider/2.4/android.hardware.camera.provider@2.4.vendor	c6824d8	Apache-2.0
hardware/interfaces/camera/device/3.4/android.hardware.camera.device@3.4	c6824d8	Apache-2.0
frameworks/av/media/libmedia/libmedia_omx.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.libutils	58a3660	Apache-2.0
system/vold/vold	ec9f29e	Apache-2.0
external/e2fsprogs/lib/et/libext2_com_err.recovery	b00fd7d	GPL-v2
hardware/interfaces/broadcastradio/1.0/android.hardware.broadcastradio@1.0.vendor	c6824d8	Apache-2.0
system/core/libasyncio/libasyncio	3160811	Apache-2.0
system/core/libmemunreachable/libmemunreachable	3160811	Apache-2.0
art/build/apex/com.android.runtime.release.libexpat	4c6ce46	Apache-2.0
vendor/imagination/rogue/android/bg5ct/android.hardware.graphics.mapper@2.0-impl-2.1-impl	undefined	Apache-2.0
system/core/libnativebridge/libnativebridge_lazy	3160811	Apache-2.0
system/timezone/apex/com.android.tzdata.apex_tzdata	2caa43b	Apache-2.0
system/core/rootdir/avb/s-gsi.avbpubkey	3160811	Apache-2.0
external/e2fsprogs/resize/resize2fs	b00fd7d	GPL-v2
system/netd/server/netd	cb8e5e2	Apache-2.0
hardware/interfaces/bluetooth/1.0/android.hardware.bluetooth@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/graphics/allocator/2.0/default/android.hardware.graphics.allocator@2.0-impl	c6824d8	Apache-2.0
frameworks/native/services/inputflinger/libinputreporter	f1318d1	Apache-2.0
frameworks/native/services/inputflinger/libinputflinger_base	f1318d1	Apache-2.0
frameworks/hardware/interfaces/display/service/1.0/android.frameworks.displayservice@1.0	dcc6946	Apache-2.0
system/core/fs_mgr/libfs_mgr	3160811	Apache-2.0
frameworks/rs/driver/runtime/libclcore_neon.bc	9822b04	SunPro

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Module Name	Module Version	Module License
system/core/rootdir/avb/r-gsi.avbpubkey	3160811	Apache-2.0
frameworks/av/media/codec2/components/vorbis/libcodec2_soft_vorbisdec	ef20ef1	Apache-2.0
hardware/interfaces/nfc/1.2/android.hardware.nfc@1.2.vendor	c6824d8	Apache-2.0
vendor/synaptics/amber/sdk/lib/libavutil	undefined	LGPL-v2.1
vendor/synaptics/vsxxx/interfaces/berlinpower/1.1/com.synaptics.berlinpower@1.1.vendor	e3fb2c7	Apache-2.0
hardware/interfaces/gatekeeper/1.0/android.hardware.gatekeeper@1.0.vendor	c6824d8	Apache-2.0
external/iputils/ping	2c7b625	BSDlike
hardware/interfaces/light/2.0/default/android.hardware.light@2.0-service	c6824d8	Apache-2.0
hardware/interfaces/soundtrigger/2.0/android.hardware.soundtrigger@2.0	c6824d8	Apache-2.0
external/zlib/libz	661c183	BSDlike
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_vp8dec	58a3660	Apache-2.0
frameworks/rs/driver/runtime/libclcore_g.bc	9822b04	SunPro
external/selinux/secilc/secilc	d4c9dbc	BSDlike
system/core/libprocessgroup/libprocessgroup.vendor	3160811	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libbinderthreadstate	58a3660	Apache-2.0
system/apex/apexd/apexd	08cc8be	Apache-2.0
frameworks/base/services/libandroid_servers	e8bd84b	Apache-2.0
hardware/interfaces/oemlock/1.0/android.hardware.oemlock@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/audio/common/all-versions/default/android.hardware.audio.common-util.vendor	c6824d8	Apache-2.0
frameworks/av/media/libeffects/factory/libeffects	58a3660	Apache-2.0
frameworks/av/media/libstagefright/codecs/raw/libstagefright_soft_rawdec.vendor	ef20ef1	Apache-2.0
hardware/interfaces/health/1.0/android.hardware.health@1.0.recovery	c6824d8	Apache-2.0
frameworks/native/services/sensorservice/sensorservice	f1318d1	Apache-2.0
frameworks/av/services/mediaextractor/mediaextractor	ef20ef1	Apache-2.0
frameworks/base/cmds/appwidget/appwidget	158af09	Apache-2.0
vendor/synaptics/common/keymaster/4.0/hal/keymaster4hal	a1a885e	Apache-2.0
external/conscrypt/apex/com.android.conscrypt.libcrypto	292a0b5	Apache-2.0
system/update_engine/update_engine_sideload	30176dd	Apache-2.0
frameworks/av/media/libnbaio/libnbaio	58a3660	Apache-2.0
hardware/interfaces/health/2.0/default/android.hardware.health@2.0-impl-default.recovery	c6824d8	Apache-2.0
frameworks/hardware/interfaces/cameraservice/device/2.0/android.frameworks.cameraservice.device@2.0	dcc6946	Apache-2.0

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Module Name	Module Version	Module License
frameworks/base/test-runner/android.test.runner	e8bd84b	Apache-2.0
frameworks/av/apex/com.android.media.libhidltransport	58a3660	Apache-2.0
system/core/libnetutils/libnetutils	3160811	Apache-2.0
libnativehelper/libnativehelper_compat_libc++	bcc2b6f	Apache-2.0
hardware/interfaces/boot/1.0/android.hardware.boot@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/audio/common/5.0/android.hardware.audio.common@5.0.vendor	c6824d8	Apache-2.0
frameworks/native/libs/dumputils/libdumputils	f1318d1	Apache-2.0
frameworks/base/cmds/locksettings/locksettings	e8bd84b	Apache-2.0
external/hyphenation-patterns/hyph-en-gb	unknown	MIT
art/build/apex/com.android.runtime.release.dexoptanalyzer	4c6ce46	Apache-2.0
hardware/interfaces/camera/device/1.0/android.hardware.camera.device@1.0	c6824d8	Apache-2.0
system/core/logwrapper/logwrapper	3160811	Apache-2.0
system/core/toolbox/toolbox_vendor	3160811	Apache-2.0
system/libhid/libhidltransport	65c02b0	Apache-2.0
external/ppp/pppd/pppd	3ea5ca1	BSDlike
system/framework/arm/boot-core-libart	unknown	Apache-2.0
hardware/interfaces/soundtrigger/2.0/android.hardware.soundtrigger@2.0.vendor	c6824d8	Apache-2.0
packages/apps/camera2/jni/libjni_tinyplanet	f7232d7	Apache-2.0
external/hyphenation-patterns/hyph-en-us	unknown	MIT
bootable/recovery/librecovery_ui_ext	2a37b45	Apache-2.0
external/sonivox/arm-wt-22k/libsonivox	11aa919	Apache-2.0
art/build/apex/com.android.runtime.release.libdt_socket	4c6ce46	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libclang_rt.ubsan_standalone-arm-android	58a3660	Apache-2.0
system/netd/bpf_progs/clatd.o_clatd.o	cb8e5e2	Apache-2.0
frameworks/base/packages/shell/shell	e8bd84b	Apache-2.0
hardware/interfaces/dumpstate/1.0/android.hardware.dumpstate@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/drm/1.1/android.hardware.drm@1.1	c6824d8	Apache-2.0
external/curl/libcurl	cbb2e5b	MIT
hardware/interfaces/neuralnetworks/1.2/android.hardware.neuralnetworks@1.2	c6824d8	Apache-2.0
system/timezone/tzdatacheck/tzdatacheck	2caa43b	Apache-2.0
prebuilts/clang/host/linux-x86/libclang_rt.scudo_minimal-arm-android.vendor	68bcd6a	Apache-2.0
frameworks/opt/net/ims/ims-common	f1c2a9b	Apache-2.0
system/core/debuggerd/debuggerd	3160811	Apache-2.0
external/libbrillo/libbrillo-binder	d4a88f4	BSDlike
frameworks/rs/librsdriver	9822b04	Apache-2.0

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Module Name	Module Version	Module License
frameworks/native/libs/binder/libbinder.vendor	16d1d36	Apache-2.0
vendor/synaptics/widevine/liboemcrypto	61a5063	Apache-2.0
system/core/libmeminfo/libmeminfo	3160811	Apache-2.0
system/core/libusbhost/libusbhost.vendor	3160811	Apache-2.0
system/framework/oat/arm/uiautomator	unknown	Apache-2.0
system/libhidl/transport/manager/1.0/android.hidl.manager-v1.0-java	65c02b0	Apache-2.0
system/lib/libf2fs_sparseblock	unknown	LGPL-v2.1, GPL-v2
hardware/interfaces/light/Utils/blank_screen	c6824d8	Apache-2.0
vendor/synaptics/common/bootctrl/post_bootctrl	22c8f25	Apache-2.0
hardware/libhardware/libhardware.vendor	da60173	Apache-2.0
frameworks/av/media/libstagefright/libstagefright	ef20ef1	Apache-2.0
system/media/audio_utils/libaudiospdif	70724d3	Apache-2.0
external/hyphenation-patterns/hyph-ga	unknown	MIT
hardware/interfaces/audio/common/all-versions/default/android.hardware.audio.common@2.0-util	c6824d8	Apache-2.0
frameworks/opt/net/ethernet/ethernet-service	982f8a5	Apache-2.0
external/bzip2/bzip2	1b9ad09	BSDlike
external/libbrillo/libbrillo-stream	d4a88f4	BSDlike
external/expat/libexpat.vendor	3c8c230	MIT
hardware/interfaces/gatekeeper/1.0/default/android.hardware.gatekeeper@1.0-service	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libopenjdk	4c6ce46	Apache-2.0
frameworks/av/services/minijail/libavservices_minijail	58a3660	Apache-2.0
system/bt/main/libbluetooth	d238f47	Apache-2.0
system/core/debuggerd/crash_dump	3160811	Apache-2.0
system/core/adb/abb	3160811	Apache-2.0
hardware/interfaces/thermal/1.0/android.hardware.thermal@1.0	c6824d8	Apache-2.0
hardware/interfaces/boot/1.0/default/android.hardware.boot@1.0-service	c6824d8	Apache-2.0
frameworks/av/media/codecs/components/g711/libcodecs2_soft_g711mlawdec	ef20ef1	Apache-2.0
vendor/altimedia/libtvcoext_jsoncpp_1.7.3	unknown	MIT
frameworks/av/apex/com.android.media.swcodec.android.hidl.memory.token@1.0	58a3660	Apache-2.0
frameworks/av/media/libmedia/libmedia_helper.vendor	ef20ef1	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libc++	58a3660	Apache-2.0
bionic/libc/malloc_hooks/libc_malloc_hooks	4a81bd9	BSDlike
hardware/libhardware/modules/tv_input/tv_input.default	da60173	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.media.bufferpool@2.0	58a3660	Apache-2.0

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Module Name	Module Version	Module License
frameworks/base/native/webview/plat_support/ libwebviewchromium_plat_support	158af09	BSDlike
hardware/interfaces/light/2.0/default/android. hardware.light@2.0-impl	c6824d8	Apache-2.0
frameworks/av/media/codec2/components/ gsm/libcodec2_soft_gsmdec	ef20ef1	Apache-2.0
system/libhid/libhidmemory/libhidmemory. vendor	65c02b0	Apache-2.0
hardware/interfaces/graphics/mapper/2.1/ android.hardware.graphics.mapper@2.1	c6824d8	Apache-2.0
hardware/interfaces/confirmationui/1.0/android. hardware.confirmationui@1.0.vendor	c6824d8	Apache-2.0
frameworks/base/libs/services/libservices	e8bd84b	Apache-2.0
hardware/interfaces/input/common/1.0/android. hardware.input.common@1.0.vendor	c6824d8	Apache-2.0
bootable/recovery/update_verifier/ update_verifier	2a37b45	Apache-2.0
external/one-true-awk/awk_vendor	c120841	BSDlike
frameworks/hardware/interfaces/stats/1.0/ android.frameworks.stats@1.0	dcc6946	Apache-2.0
external/e2fsprogs/misc/libext2_misc.recovery	b00fd7d	GPL-v2
external/webRTC/libwebrtc_audio_preprocessing	cf0ffc9	BSDlike
frameworks/base/media/jni/audioeffect/ libaudioeffect_jni	158af09	Apache-2.0
hardware/interfaces/health/2.0/android. hardware.health@2.0.vendor	c6824d8	Apache-2.0
frameworks/compile/mclinker/tools/mcld/ld.mc	2ac86b5	BSDlike, MITlike
system/core/libutils/libutils	3160811	Apache-2.0
out/target/common/obj/apps/ framework-res__auto_generated_rro_vendor_intermediates/ framework-res__auto_generated_rro_vendor	unknown	Apache-2.0
bionic/linker/ld-android.recovery	4a81bd9	BSDlike
hardware/interfaces/graphics/mapper/2.0/ android.hardware.graphics.mapper@2.0. vendor	c6824d8	Apache-2.0
system/framework/oat/arm/svc	unknown	Apache-2.0
frameworks/rs/librs	9822b04	Apache-2.0
system/extras/libfscrypt/libfscrypt	14ac430	Apache-2.0
hardware/interfaces/vibrator/1.0/android. hardware.vibrator@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.libc++	58a3660	Apache-2.0
system/core/libdiskconfig/libdiskconfig.vendor	3160811	Apache-2.0
system/core/logwrapper/liblogwrap	3160811	Apache-2.0
system/netd/server/ netd_event_listener_interface-cpp	cb8e5e2	Apache-2.0
external/e2fsprogs/lib/uuid/libext2_uuid	b00fd7d	BSDlike
vendor/lib/modules/sd8997	C544	GPL-v2
hardware/interfaces/camera/metadata/3.2/ android.hardware.camera.metadata@3.2. vendor	c6824d8	Apache-2.0
frameworks/native/libs/binderthreadstate/ libbinderthreadstate.recovery	f1318d1	Apache-2.0

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Module Name	Module Version	Module License
system/hardware/interfaces/net/netd/1.0/ android.system.net.netd@1.0.vendor	1e8362f	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libstagefright_enc_common	58a3660	Apache-2.0
frameworks/av/media/codec2/components/raw/ libcodec2_soft_rawdec	ef20ef1	Apache-2.0
hardware/interfaces/camera/common/1.0/ android.hardware.camera.common@1.0. vendor	c6824d8	Apache-2.0
frameworks/native/services/surfaceflinger/ libsurfaceflinger	f1318d1	Apache-2.0
hardware/interfaces/thermal/1.1/android. hardware.thermal@1.1.vendor	c6824d8	Apache-2.0
frameworks/av/services/audiopolicy/service/ libaudiopolicyservice	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release. linker	4c6ce46	Apache-2.0
hardware/interfaces/camera/metadata/3.3/ android.hardware.camera.metadata@3.3. vendor	c6824d8	Apache-2.0
frameworks/av/media/libaudiohal/impl/ libaudiohal@4.0	58a3660	Apache-2.0
hardware/interfaces/audio/4.0/android. hardware.audio@4.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/configstore/1.1/default/ android.hardware.configstore@1.1-service	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libhidmemory	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release. apex_tzdata	4c6ce46	Apache-2.0
external/libtextclassifier/ libtextclassifier_lang_id_model	55a7382	Apache-2.0
external/hyphenation-patterns/hyph-te	unknown	MIT
system/core/libion/libion	3160811	Apache-2.0
frameworks/native/cmds/rss_hwm_reset/ rss_hwm_reset	f1318d1	Apache-2.0
system/core/adb/libadb_services	3160811	Apache-2.0
frameworks/native/services/display/service/ libdisplay-servicehidl	f1318d1	Apache-2.0
out/target/common/obj/apps/ tvsettings__auto_generated_rro_vendor_intermediates/ tvsettings__auto_generated_rro_vendor	unknown	Apache-2.0
hardware/interfaces/gnss/1.0/android. hardware.gnss@1.0	c6824d8	Apache-2.0
hardware/interfaces/vr/1.0/android.hardware. vr@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libcodec2_soft_h263dec	58a3660	Apache-2.0
vendor/lib/modules/rtk_btusb	4.1.5	GPL-v2
system/media/audio_utils/libaudioutils	70724d3	Apache-2.0
vendor/firmware/mrvl/sd8897_uapsta	unknown	Apache-2.0
frameworks/av/apex/com.android.media. libwavextractor	58a3660	Apache-2.0
hardware/interfaces/power/1.1/android. hardware.power@1.1	c6824d8	Apache-2.0
external/libcxx/libc++	29cbbe6	BSDlike

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Module Name	Module Version	Module License
system/core/libcrypto_utils/libcrypto_utils	3160811	Apache-2.0
external/hyphenation-patterns/hyph-de-1901	unknown	MIT
vendor/marvell/wireless/wlan/1.3/android.hardware.wifi@1.0-service.mrvl	73b3ec9	Apache-2.0
system/bin/fsck	unknown	GPL-v2
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_rawdec	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.apex_pubkey	58a3660	Apache-2.0
hardware/interfaces/tv/cec/1.0/android.hardware.tv.cec@1.0.vendor	c6824d8	Apache-2.0
frameworks/av/media/libstagefright/codecs/avcdec/libstagefright_soft_avcdec.vendor	ef20ef1	Apache-2.0
system/libhid/libhidlbase.recovery	65c02b0	Apache-2.0
hardware/interfaces/radio/1.3/android.hardware.radio@1.3.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hidl.token@1.0	58a3660	Apache-2.0
hardware/interfaces/usb/1.1/android.hardware.usb@1.1.vendor	c6824d8	Apache-2.0
bionic/libm/libm.recovery	4a81bd9	BSDlike
frameworks/av/apex/com.android.media.swcodec.libcodec2	58a3660	Apache-2.0
frameworks/native/libs/vr/libpdx_default_transport/libpdx_default_transport	f1318d1	Apache-2.0
frameworks/av/apex/com.android.media.libmp4extractor	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_mp3dec	58a3660	Apache-2.0
system/libhidl/transport/token/1.0/android.hidl.token@1.0	65c02b0	Apache-2.0
system/media/radio/libradio_metadata	70724d3	Apache-2.0
vendor/synaptics/common/libsideband/libsideband	22c8f25	Apache-2.0
hardware/interfaces/power/1.3/android.hardware.power@1.3.vendor	c6824d8	Apache-2.0
frameworks/av/media/codec2/components/vpx/libcodec2_soft_vp9enc	ef20ef1	Apache-2.0
bionic/libc/malloc_debug/libc_malloc_debug	4a81bd9	BSDlike
hardware/interfaces/usb/1.0/android.hardware.usb@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/atrace/1.0/android.hardware.atrace@1.0.vendor	c6824d8	Apache-2.0
system/extras/preopt2cachename/preopt2cachename	14ac430	Apache-2.0
frameworks/hardware/interfaces/cameraservice/service/2.0/android.frameworks.cameraservice.service@2.0	dcc6946	Apache-2.0
bootable/recovery/recovery-persist	2a37b45	Apache-2.0
external/pcre/libpcre2.vendor	9bfe473	BSD
hardware/interfaces/wifi/offload/1.0/android.hardware.wifi.offload@1.0	c6824d8	Apache-2.0
hardware/interfaces/graphics/composer/2.2/android.hardware.graphics.composer@2.2	c6824d8	Apache-2.0



## Open Source Report

Module Name	Module Version	Module License
vendor		
external/perfetto/heapprofd	c4161c4	Apache-2.0
frameworks/native/libs/binder/libbinder	16d1d36	Apache-2.0
external/mdnsresponder/libmdnssd	ef76ab6	Apache-2.0
external/boringssl/libcrypto	98697a9	BSDlike
hardware/libhardware/modules/audio/audio.stub.default	da60173	Apache-2.0
hardware/interfaces/renderscript/1.0/default/android.hardware.renderscript@1.0-impl	c6824d8	Apache-2.0
out/target/common/obj/apps/systemui__auto_generated_rro_vendor_intermediates/systemui__auto_generated_rro_vendor	undefined	Apache-2.0
frameworks/native/cmds/dumpsys/dumpsys	16d1d36	Apache-2.0
frameworks/av/services/soundtrigger/libsoundtriggerservice	58a3660	Apache-2.0
art/build/apex/com.android.runtime.release.libvixl	4c6ce46	Apache-2.0
hardware/interfaces/broadcastradio/1.0/android.hardware.broadcastradio@1.0	c6824d8	Apache-2.0
bootable/recovery/recovery-refresh	2a37b45	Apache-2.0
hardware/interfaces/audio/common/all-versions/default/android.hardware.audio.common@5.0-util	c6824d8	Apache-2.0
hardware/interfaces/graphics/composer/2.3/android.hardware.graphics.composer@2.3	c6824d8	Apache-2.0
frameworks/base/packages/fusedlocation/fusedlocation	158af09	Apache-2.0
system/hardware/interfaces/suspend/1.0/android.system.suspend@1.0.vendor	1e8362f	Apache-2.0
hardware/interfaces/thermal/1.0/android.hardware.thermal@1.0.vendor	c6824d8	Apache-2.0
art/build/apex/com.android.runtime.release.libdt_fd_forward	4c6ce46	Apache-2.0
system/timezone/apex/com.android.tzdata.apex_pubkey	2caa43b	Apache-2.0
system/gsid/libgsi.recovery	16530ed	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hidl.safe_union@1.0	58a3660	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.android.hardware.graphics.mapper@3.0	58a3660	Apache-2.0
external/tensorflow/tensorflow/lite/libtf-lite	b582373	Apache-2.0
external/neven/rffstd_501.bmd	a1182cb	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libhidlbase	58a3660	Apache-2.0
vendor/synaptics/playready/mediadrmlibprhidl	7408a29	Apache-2.0
system/tools/hidl/utills/libhidl-gen-utills.recovery	4f82a05	Apache-2.0
frameworks/av/apex/com.android.media.swcodec.libcodec2_soft_av1dec	58a3660	Apache-2.0
hardware/interfaces/camera/device/1.0/android.hardware.camera.device@1.0.vendor	c6824d8	Apache-2.0
hardware/interfaces/audio/5.0/android.hardware.audio@5.0	c6824d8	Apache-2.0

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<b>Module Name</b>	<b>Module Version</b>	<b>Module License</b>
hardware/interfaces/audio/common/2.0/ android.hardware.audio.common@2.0.vendor	c6824d8	Apache-2.0
frameworks/av/apex/com.android.media. swcodec.libvorbisidec	58a3660	Apache-2.0
frameworks/rs/librs_internal	9822b04	Apache-2.0

## Open Source Report

NOTICE files with complete License text of respective modules are published by the Android build system on the device. It can be found in the Legal/Open Source Licenses section that can be accessed via the device settings menu. Typically this information could be navigated in the device settings as follows. System Settings-> About-> Legal-> Open Source Licenses / Third-Party Licenses.