



STM32MPU distribution for Android licenses



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A quality version of this page, approved on 2 September 2021, was based off this revision.

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SLA0048 Rev4/March 2018

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1.2 gcnano userland multi binary

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1.3 Firmware-cypress-bcm4343

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1.4 Firmware-broadcom_bcm43xx

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BROADCOM BCM43XX

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1.5 Firmware-atheros

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License

2 Partitions

2.1 FSBL partition

Name	Version	License
tf-a-stm32mp1	2.2	BSD-3-Clause

2.2 SSBL partition

Name	Version	License
u-boot-stm32mp1	2020.01	GPLv2+

2.3 TEE partitions

2.3.1 Header partition

Name	Version	License
optee_os-stm32mp1	3.9.0	BSD-2-Clause & BSD-3-Clause

2.3.2 Pager partition

Name	Version	License
optee_os-stm32mp	3.9.0	BSD-2-Clause & BSD-3-Clause

2.3.3 Pageable partition

Name	Version	License
optee_os-stm32mp	3.9.0	BSD-2-Clause & BSD-3-Clause

2.4 Splash partition

Name	Version	License
stmicroelectronics.bmp	NA	No license to ST trademarks



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2.5 Boot partition

Name	Version	License
linux-stm32mp1	5.4	GPLv2

2.6 DTB partition

Name	Version	License
linux-stm32mp1	5.4	GPLv2

2.7 Super partition

2.7.1 Vendor logical partition

All modules follows the official AOSP licence rule^[1]

Module Name	License	Description
/lib/modules/*.ko	GPL-2.0	All kernels modules
/firmware/copro/*	Apache-2.0 & MIT & BSD-3-Clause	STM32MP1 Firmware examples for CM4
/firmware/Cube-M4-examples/*	Apache-2.0 & MIT & BSD-3-Clause	STM32MP1 Firmware examples for CM4
htc_9271.fw	Proprietary (firmware-atheros)	WiFi firmware
rtl8723aufw_A.bin	Proprietary (firmware-cypress & firmware-broadcom)	Wi-Fi with BT firmware (rev A)
rtl8723aufw_B.bin	Proprietary (firmware-cypress & firmware-broadcom)	Wi-Fi with BT firmware (rev B)
rtl8723aufw_B_NoBT.bin	Proprietary (firmware-cypress & firmware-broadcom)	Wi-Fi only firmware (rev B)
lib/optee_armtz/*	BSD-2-Clause	Trusted application
applypatch	Apache-2.0	Script to apply patch
awk	BSD-3-Clause	Linux parsing tool
boringssl_self_test32	Apache-2.0	boringsssl test
dumpsys	Apache-2.0	Binary
fw_cortex_m4_eval.sh	Apache-2.0	Script to manage embedded firmware examples



License		
Module Name	License	Description
grep	BSD-2-Clause	Linux parsing tool
initdriver	Apache-2.0	Initialise driver
logwrapper	Apache-2.0	Wrap logs to logcat
sh	MirOS	Shell
tee-supplciant	BSD-2-Clause	OP-TEE supplciant
toolbox	Apache-2.0	Various Linux tools
toybox_vendor	0BSD	Various Linux tools
vndservice	Apache-2.0	service dedicated for vendor application
xtest	GPL-2.0	OP-TEE test binary
android.hardware.audio.service	Apache-2.0	Audio HAL service binary
android.hardware.boot@1.1-service	Apache-2.0	Boot HAL service binary
android.hardware.camera.provider@2.4-service.stm32mp1	Apache-2.0	Camera provider HAL service binary
android.hardware.cas@1.2-service	Apache-2.0	Cas HAL service binary
android.hardware.copro@1.0-service.stm32mp1	Apache-2.0	Copro HAL service binary
android.hardware.dumpstate@1.1-service.eval	Apache-2.0	Dumpstate HAL service binary
android.hardware.graphics.allocator@2.0-service	Apache-2.0	Graphics alloctor HAL service binary
android.hardware.graphics.composer@2.1-service	Apache-2.0	Graphics composer HAL service binary
android.hardware.health@2.1-service	Apache-2.0	Health HAL service binary
android.hardware.keymaster@3.0-service.optee	Apache-2.0	Keymaster HAL service binary
android.hardware.lights-service.stm32mp1	Apache-2.0	Light HAL service binary
android.hardware.media.omx@1.0-service	Apache-2.0	Media OMX HAL service binary
android.hardware.memtrack@1.0-service	Apache-2.0	Memtrack HAL service binary



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Module Name	License	Description
android.hardware.oemlock@1.0-service.stm32mp1	Apache-2.0	OEMLOCK HAL service binary
android.hardware.power-service.example	Apache-2.0	Power HAL service binary
android.hardware.thermal@2.0-service.stm32mp1	Apache-2.0	Thermal HAL service binary
android.hardware.usb@1.1-service.stm32mp1	Apache-2.0	USB HAL service binary
android.hardware.wifi@1.0-service	Apache-2.0	Wi-Fi HAL service binary
hostapd	BSD-3-Clause	Hostapd dameon
wait_for_keymaster_optee	Apache-2.0	Binary
wpa_supplicant	BSD-3-Clause	Manage Wifi connection
android.hardware.audio.common-util.so	Apache-2.0	Audio library
android.hardware.audio.common@6.0-util.so	Apache-2.0	Audio library
libGAL.so	Proprietary (gcnano-userland)	Graphics library
libGLSLC.so	Proprietary (gcnano-userland)	Graphics library
libVSC.so	Proprietary (gcnano-userland)	Graphics library
libalsautils.so	Apache-2.0	Audio library
libaudiohalcm.so	Apache-2.0	Audio library
libavservices_minijail.so	Apache-2.0	System library
libdrm.so	MIT	Graphics library
libdrm_vivante.so	Proprietary (gcnano-userland)	Graphics library
libeffects.so	Apache-2.0	Audio library
libeffectsconfig.so	Apache-2.0	System library
libhidltransport.so	Apache-2.0	System library
libhwbinder.so	Apache-2.0	Audio library
libhwc2on1adapter.so	Apache-2.0	Graphics library
libhwc2onfbadapter.so	Apache-2.0	Graphics library
libkeymaster3device.so	Apache-2.0	Security library
libkeymaster4_1support.so	Apache-2.0	Security library



License		
Module Name	License	Description
libkeymaster4support.so	Apache-2.0	Security library
libkeymaster_messages.so	Apache-2.0	Security library
libkeymaster_portable.so	Apache-2.0	Security library
libkeystore-engine-wifi-hidl.so	Apache-2.0	Security library
libkeystore-wifi-hidl.so	Apache-2.0	Security library
libnbaio_mono.so	Apache-2.0	Audio library
libopus.so	BSD-3-Clause	Codec library
libprotobuf-cpp-full-3.9.1.so	BSD-3-Clause	System library
libprotobuf-cpp-lite-3.9.1.so	BSD-3-Clause	System library
libpuresoftkeymasterdevice.so	Apache-2.0	Security library
libreference-ril.so	Apache-2.0	Telecom library
libril.so	Apache-2.0	Telecom library
librilutils.so	Apache-2.0	Telecom library
libsoft_attestation_cert.so	Apache-2.0	Security library
libstagefright_amrnb_common.so	Apache-2.0	Codec library
libstagefright_enc_common.so	Apache-2.0	Codec library
libstagefright_flacdec.so	Apache-2.0	Codec library
libstagefright_soft_aacdec.so	Apache-2.0	Codec library
libstagefright_soft_aacenc.so	Apache-2.0	Codec library
libstagefright_soft_amrdec.so	Apache-2.0	Codec library
libstagefright_soft_amrnbenc.so	Apache-2.0	Codec library
libstagefright_soft_amrwbenc.so	Apache-2.0	Codec library
libstagefright_soft_avcdec.so	Apache-2.0	Codec library
libstagefright_soft_avcenc.so	Apache-2.0	Codec library
libstagefright_soft_flacdec.so	Apache-2.0	Codec library
libstagefright_soft_flacenc.so	Apache-2.0	Codec library
libstagefright_soft_g711dec.so	Apache-2.0	Codec library
libstagefright_soft_gsmdec.so	Apache-2.0	Codec library
libstagefright_soft_hevcdec.so	Apache-2.0	Codec library
libstagefright_soft_mp3dec.so	Apache-2.0	Codec library
libstagefright_soft_mpeg2dec.so	Apache-2.0	Codec library



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Module Name	License	Description
libstagefright_soft_mpeg4dec.so	Apache-2.0	Codec library
libstagefright_soft_mpeg4enc.so	Apache-2.0	Codec library
libstagefright_soft_opusdec.so	Apache-2.0	Codec library
libstagefright_soft_rawdec.so	Apache-2.0	Codec library
libstagefright_soft_vorbisdec.so	Apache-2.0	Codec library
libstagefright_soft_vpxdec.so	Apache-2.0	Codec library
libstagefright_soft_vpxenc.so	Apache-2.0	Codec library
libstagefright_softomx.so	Apache-2.0	Codec library
libstagefright_softomx_plugin.so	Apache-2.0	Codec library
libteec.so	BSD-2-Clause	Security library
libtinycompress.so	BSD-3-Clause	Audio library
libvorbisidec.so	BSD-3-Clause	Codec library
libvpx.so	BSD-3-Clause	Codec library
libwebrtc_audio_preprocessing.so	BSD-3-Clause	Audio library
libwifi-hal.so	Apache-2.0	Network library
libwpa_client.so	BSD-3-Clause	Network library
libEGL_VIVANTE.so	Proprietary (gcnano-userland)	Graphics library
libGLESv1_CM_VIVANTE.so	Proprietary (gcnano-userland)	Graphics library
libGLESv2_VIVANTE.so	Proprietary (gcnano-userland)	Graphics library
android.hardware.audio.effect@6.0-impl.so	Apache-2.0	HAL library
android.hardware.audio@6.0-impl.so	Apache-2.0	HAL library
android.hardware.boot@1.0-impl-1.1.so	Apache-2.0	HAL library
android.hardware.graphics_allocator@2.0-impl.so	Apache-2.0	HAL library
android.hardware.graphics_composer@2.1-impl.so	Apache-2.0	HAL library
android.hardware.graphics_mapper@2.0-impl-2.1.so	Apache-2.0	HAL library
android.hardware.health@2.0-impl-		



License

Module Name	License	Description
2.1-stm32mp1.sd.so	Apache-2.0	HAL library
android.hardware.memtrack@1.0-impl.so	Apache-2.0	HAL library
audio.primary.default.so	Apache-2.0	HAL library
audio.primary.stm.so	Apache-2.0	HAL library
audio.r_submix.default.so	Apache-2.0	HAL library
audio.usb.default.so	Apache-2.0	HAL library
gralloc.default.so	Apache-2.0	HAL library
gralloc.stm.so	Proprietary (gcnano-userland)	HAL library
hwcomposer.drm_stm32mp1.so	Apache-2.0	HAL library
local_time.default.so	Apache-2.0	HAL library
memtrack.stm.so	Apache-2.0	HAL library
power.default.so	Apache-2.0	HAL library
vibrator.default.so	Apache-2.0	HAL library
libclearkeycasplugin.so	Apache-2.0	Security library
libdrmclearkeyplugin.so	Apache-2.0	Security library
libaudiopreprocessing.so	Apache-2.0	Audio library
libbundlewrapper.so	Apache-2.0	Audio library
libdownmix.so	Apache-2.0	Audio library
libdynproc.so	Apache-2.0	Audio library
libeffectproxy.so	Apache-2.0	Audio library
libldnhncr.so	Apache-2.0	Audio library
libreverbwrapper.so	Apache-2.0	Audio library
libvisualizer.so	Apache-2.0	Audio library

2.7.2 System logical partition

All modules follows the official AOSP licence rule^[2]

Module Name	License	Description
BasicDreams	Apache-2.0	Application
Bluetooth	Apache-2.0	Application
BluetoothMidiService	Apache-2.0	Application



License		
Module Name	License	Description
BookmarkProvider	Apache-2.0	Application
CertInstaller	Apache-2.0	Application
CompanionDeviceManager	Apache-2.0	Application
EasterEgg	Apache-2.0	Application
ExtShared	Apache-2.0	Application
HTMLViewer	Apache-2.0	Application
KeyChain	Apache-2.0	Application
PacProcessor	Apache-2.0	Application
PlatformCaptivePortalLogin	Apache-2.0	Application
PrintRecommendationService	Apache-2.0	Application
PrintSpooler	Apache-2.0	Application
SecureElement	Apache-2.0	Application
SimAppDialog	Apache-2.0	Application
Traceur	Apache-2.0	Application
WallpaperBackup	Apache-2.0	Application
BackupRestoreConfirmation	Apache-2.0	Private Application
BlockedNumberProvider	Apache-2.0	Private Provider
BuiltInPrintService	Apache-2.0	Private Provider
CalendarProvider	Apache-2.0	Private Provider
CellBroadcastServiceModulePlatform	Apache-2.0	Private Provider
ContactsProvider	Apache-2.0	Private Provider
CoproService	Apache-2.0	Private Service
DocumentsUI	Apache-2.0	Private Application
DownloadProvider	Apache-2.0	Private Provider
DownloadProviderUi	Apache-2.0	Private Application
DynamicSystemInstallationService	Apache-2.0	Private Service
ExternalStorageProvider	Apache-2.0	Private Provider
FusedLocation	Apache-2.0	Private Application
InProcessNetworkStack	Apache-2.0	Private Application
InputDevices	Apache-2.0	Private Application
LocalTransport	Apache-2.0	Private Application



License		
Module Name	License	Description
ManagedProvisioning	Apache-2.0	Private Application
MediaProviderLegacy	Apache-2.0	Private Provider
MtpService	Apache-2.0	Private Service
PackagesInstaller	Apache-2.0	Private Application
PlatformNetworkPermissionConfig	Apache-2.0	Private Application
ProxyHandler	Apache-2.0	Private Application
SettingsProvider	Apache-2.0	Private Provider
SharedStorageBackup	Apache-2.0	Private Application
Shell	Apache-2.0	Private Application
SoundPicker	Apache-2.0	Private Application
StatementService	Apache-2.0	Private Service
Telecom	Apache-2.0	Private Service
TelephonyProvider	Apache-2.0	Private Service
TeleService	Apache-2.0	Private Service
UserDictionaryProvider	Apache-2.0	Private Provider
VpnDialogs	Apache-2.0	Private Application
com.android.adbd.apex	Apache-2.0	APEX framework package
com.android.apex.cts.shim.apex	Apache-2.0	APEX framework package
com.android.art.release.apex	Apache-2.0	APEX framework package
com.android.conscrypt.apex	Apache-2.0	APEX framework package
com.android.extservices.apex	Apache-2.0	APEX framework package
com.android.i18n.apex	Apache-2.0	APEX framework package
com.android.ipsec.apex	Apache-2.0	APEX framework package
com.android.media.apex	Apache-2.0	APEX framework package
		APEX framework



License		
Module Name	License	Description
com.android.media.provider.apex	Apache-2.0	package
com.android.media.swcodec.apex	Apache-2.0	APEX framework package
com.android.neuralnetworks.apex	Apache-2.0	APEX framework package
com.android.os.statsd.apex	Apache-2.0	APEX framework package
com.android.permission.apex	Apache-2.0	APEX framework package
com.android.resolv.apex	Apache-2.0	APEX framework package
com.android.runtime.apex	Apache-2.0	APEX framework package
com.android.sdkext.apex	Apache-2.0	APEX framework package
com.android.tethering.inprocess.apex	Apache-2.0	APEX framework package
com.android.tzdata.apex	Apache-2.0	APEX framework package
com.android.vndk.current.apex	Apache-2.0	APEX framework package
com.android.wifi.apex	Apache-2.0	APEX framework package
abb	Apache-2.0	Binary
adbd	Apache-2.0	Binary
am	Apache-2.0	Binary
apexd	Apache-2.0	Binary
appops	Apache-2.0	Binary
app_process32	Apache-2.0	Binary
appwidget	Apache-2.0	Binary
atrace	Apache-2.0	Binary
audioserver	Apache-2.0	Binary
auditctl	Apache-2.0	Binary



License		
Module Name	License	Description
awk	BSD-3-Clause	Binary
bcc	Apache-2.0	Binary
blank_screen	Apache-2.0	Binary
blkid	GPL-2.0	Binary
bmgr	Apache-2.0	Binary
bootanimation	Apache-2.0	Binary
bootstat	Apache-2.0	Binary
boringsssl_self_test32	Apache-2.0	Binary
bpfloader	Apache-2.0	Binary
bu	Apache-2.0	Binary
bugreport	Apache-2.0	Binary
bugreportz	Apache-2.0	Binary
bzip2	BSD-3-Clause	Binary
cameraserver	Apache-2.0	Binary
charger	Apache-2.0	Binary
clatd	Apache-2.0	Binary
cmd	Apache-2.0	Binary
content	Apache-2.0	Binary
crash_dump32	Apache-2.0	Binary
credstore	Apache-2.0	Binary
dalvikvm	Apache-2.0	Binary
debuggerd	Apache-2.0	Binary
device_config	Apache-2.0	Binary
dex2oat	Apache-2.0	Binary
dmctl	Apache-2.0	Binary
dnsmasq	GPL-2.0	Binary
dpm	Apache-2.0	Binary
drmserver	Apache-2.0	Binary
dumpstate	Apache-2.0	Binary
dumpsys	Apache-2.0	Binary
e2freefrag	GPL-2.0	Binary



License		
Module Name	License	Description
e2fsck	GPL-2.0	Binary
e2fsdroid	GPL-2.0	Binary
flags_health_check	Apache-2.0	Binary
fsck.f2fs	GPL-2.0	Binary
fsck_msdos	BSD-3-Clause	Binary
fsverity_init	Apache-2.0	Binary
gatekeeperd	Apache-2.0	Binary
gpuservice	Apache-2.0	Binary
grep	BSD-2	Binary
gsi_tool	Apache-2.0	Binary
gsid	Apache-2.0	Binary
heapprofd	Apache-2.0	Binary
hid	Apache-2.0	Binary
hw servicemanager	Apache-2.0	Binary
idmap2	Apache-2.0	Binary
idmap2d	Apache-2.0	Binary
ime	Apache-2.0	Binary
incident	Apache-2.0	Binary
incident_helper	Apache-2.0	Binary
incident-helper-cmd	Apache-2.0	Binary
incidentd	Apache-2.0	Binary
init	Apache-2.0	Binary
input	Apache-2.0	Binary
installd	Apache-2.0	Binary
iorap.cmd.compiler	Apache-2.0	Binary
iorap.cmd.maintenance	Apache-2.0	Binary
iorapd	Apache-2.0	Binary
iorap.inode2filename	Apache-2.0	Binary
iorap.prefetcherd	Apache-2.0	Binary
ip	GPL-2.0	Binary
ip6tables	GPL-2.0	Binary



License		
Module Name	License	Description
iptables	GPL-2.0	Binary
keystore	Apache-2.0	Binary
keystore_cli_v2	Apache-2.0	Binary
ldd	Apache-2.0	Binary
ld.mc	BSD-3-Clause	Binary
librank	Apache-2.0	Binary
linker	BSD-3-Clause	Binary
linkerconfig	Apache-2.0	Binary
lmd	Apache-2.0	Binary
locksettings	Apache-2.0	Binary
logcat	Apache-2.0	Binary
logd	Apache-2.0	Binary
logwrapper	Apache-2.0	Binary
lpdump	Apache-2.0	Binary
lpdumpd	Apache-2.0	Binary
lshal	Apache-2.0	Binary
make_f2fs	Apache-2.0	Binary
mdnsd	Apache-2.0	Binary
mediaextractor	Apache-2.0	Binary
mediametrics	Apache-2.0	Binary
mediaserver	Apache-2.0	Binary
migrate_legacy_obb_data.sh	Apache-2.0	Binary
mini-keyctl	Apache-2.0	Binary
mke2fs	GPL-2.0	Binary
monkey	Apache-2.0	Binary
mtpd	Apache-2.0	Binary
ndc	Apache-2.0	Binary
netd	Apache-2.0	Binary
netutils-wrapper-1.0	Apache-2.0	Binary
newfs_msdos	BSD-2	Binary
notify_traceur.sh	Apache-2.0	Binary



License		
Module Name	License	Description
perfetto	Apache-2.0	Binary
ping	BSD-3-Clause	Binary
ping6	BSD-3-Clause	Binary
pm	Apache-2.0	Binary
pppd	BSD-3-Clause	Binary
procrank	Apache-2.0	Binary
racoon	BSD-3-Clause	Binary
reboot	BSD-3-Clause	Binary
recovery-persist	Apache-2.0	Binary
recovery-refresh	Apache-2.0	Binary
requestsync	Apache-2.0	Binary
resize2fs	GPL-2.0	Binary
rss_hwm_reset	Apache-2.0	Binary
run-as	Apache-2.0	Binary
schedtest	Apache-2.0	Binary
screencap	Apache-2.0	Binary
screenrecord	Apache-2.0	Binary
sdcard	Apache-2.0	Binary
secdiscard	Apache-2.0	Binary
secilc	BSD-3-Clause	Binary
sensorservice	Apache-2.0	Binary
service	Apache-2.0	Binary
servicemanager	Apache-2.0	Binary
settings	Apache-2.0	Binary
set-verity-state	Apache-2.0	Binary
sgdisk	GPL-2.0	Binary
sh	BSD-3-Clause	Binary
showmap	Apache-2.0	Binary
simpleperf	Apache-2.0	Binary
simpleperf_app_runner	Apache-2.0	Binary
sload_f2fs	Apache-2.0	Binary



License		
Module Name	License	Description
sm	Apache-2.0	Binary
snapshotctl	Apache-2.0	Binary
ss	GPL-2.0	Binary
stored	Apache-2.0	Binary
surfaceflinger	Apache-2.0	Binary
svc	Apache-2.0	Binary
tc	GPL-2.0	Binary
tcpdump	BSD-3-Clause	Binary
telecom	Apache-2.0	Binary
tinycap	BSD-3-Clause	Binary
tinymix	BSD-3-Clause	Binary
tinypcminfo	BSD-3-Clause	Binary
tinyplay	BSD-3-Clause	Binary
tombstoned	Apache-2.0	Binary
toolbox	BSD-2-Clause	Binary
toybox	0BSD	Binary
traced	Apache-2.0	Binary
traced_perf	Apache-2.0	Binary
traced_probes	Apache-2.0	Binary
trigger_perfetto	Apache-2.0	Binary
tune2fs	GPL-2.0	Binary
tzdatacheck	Apache-2.0	Binary
uiautomator	Apache-2.0	Binary
uncrypt	Apache-2.0	Binary
unzip	Apache-2.0	Binary
update_engine	Apache-2.0	Binary
update_verifier	Apache-2.0	Binary
usbd	Apache-2.0	Binary
vdc	Apache-2.0	Binary
viewcompiler	Apache-2.0	Binary
vold	Apache-2.0	Binary



License		
Module Name	License	Description
vold_prepare_subdirs	Apache-2.0	Binary
vr	Apache-2.0	Binary
wait_for_keymaster	Apache-2.0	Binary
watchdogd	Apache-2.0	Binary
wificond	Apache-2.0	Binary
wm	Apache-2.0	Binary
ziptool	Apache-2.0	Binary
linker	BSD-3-Clause	Binary
android.hidl.allocator@1.0-service	Apache-2.0	Binary
android.system.suspend@1.0-service	Apache-2.0	Binary
android.frameworks.automotive.display@1.0.so	Apache-2.0	Library
android.frameworks.bufferhub@1.0.so	Apache-2.0	Library
android.frameworks.cameraservice.common@2.0.so	Apache-2.0	Library
android.frameworks.cameraservice.device@2.0.so	Apache-2.0	Library
android.frameworks.cameraservice.service@2.0.so	Apache-2.0	Library
android.frameworks.cameraservice.service@2.1.so	Apache-2.0	Library
android.frameworks.displayservice@1.0.so	Apache-2.0	Library
android.frameworks.schedulerservice@1.0.so	Apache-2.0	Library
android.frameworks.sensorservice@1.0.so	Apache-2.0	Library
android.frameworks.stats@1.0.so	Apache-2.0	Library
android.frameworks.vr.composer@2.0.so	Apache-2.0	Library
android.hardware.atrace@1.0.so	Apache-2.0	Library
android.hardware.audio@2.0.so	Apache-2.0	Library
android.hardware.audio@4.0.so	Apache-2.0	Library
android.hardware.audio@5.0.so	Apache-2.0	Library
android.hardware.audio@6.0.so	Apache-2.0	Library
android.hardware.audio.common@2.0.so	Apache-2.0	Library
android.hardware.audio.common@2.0-util.so	Apache-2.0	Library
android.hardware.audio.common@4.0.so	Apache-2.0	Library
android.hardware.audio.common@4.0-util.so	Apache-2.0	Library
android.hardware.audio.common@5.0.so	Apache-2.0	Library



License		
Module Name	License	Description
android.hardware.audio.common@5.0-util.so	Apache-2.0	Library
android.hardware.audio.common@6.0.so	Apache-2.0	Library
android.hardware.audio.common@6.0-util.so	Apache-2.0	Library
android.hardware.audio.common-util.so	Apache-2.0	Library
android.hardware.audio.effect@2.0.so	Apache-2.0	Library
android.hardware.audio.effect@4.0.so	Apache-2.0	Library
android.hardware.audio.effect@5.0.so	Apache-2.0	Library
android.hardware.audio.effect@6.0.so	Apache-2.0	Library
android.hardware.authsecret@1.0.so	Apache-2.0	Library
android.hardware.automotive.audiocontrol@1.0.so	Apache-2.0	Library
android.hardware.automotive.audiocontrol@2.0.so	Apache-2.0	Library
android.hardware.automotive.can@1.0.so	Apache-2.0	Library
android.hardware.automotive.evs@1.0.so	Apache-2.0	Library
android.hardware.automotive.evs@1.1.so	Apache-2.0	Library
android.hardware.automotive.sv@1.0.so	Apache-2.0	Library
android.hardware.automotive.vehicle@2.0.so	Apache-2.0	Library
android.hardware.biometrics.face@1.0.so	Apache-2.0	Library
android.hardware.biometrics.fingerprint@2.1.so	Apache-2.0	Library
android.hardware.biometrics.fingerprint@2.2.so	Apache-2.0	Library
android.hardware.bluetooth@1.0.so	Apache-2.0	Library
android.hardware.bluetooth@1.1.so	Apache-2.0	Library
android.hardware.bluetooth.a2dp@1.0.so	Apache-2.0	Library
android.hardware.bluetooth.audio@2.0.so	Apache-2.0	Library
android.hardware.boot@1.0.so	Apache-2.0	Library
android.hardware.boot@1.1.so	Apache-2.0	Library
android.hardware.broadcastradio@1.0.so	Apache-2.0	Library
android.hardware.broadcastradio@1.1.so	Apache-2.0	Library
android.hardware.broadcastradio@2.0.so	Apache-2.0	Library
android.hardware.camera.common@1.0.so	Apache-2.0	Library
android.hardware.camera.device@1.0.so	Apache-2.0	Library
android.hardware.camera.device@3.2.so	Apache-2.0	Library



License		
Module Name	License	Description
android.hardware.camera.device@3.3.so	Apache-2.0	Library
android.hardware.camera.device@3.4.so	Apache-2.0	Library
android.hardware.camera.device@3.5.so	Apache-2.0	Library
android.hardware.camera.device@3.6.so	Apache-2.0	Library
android.hardware.camera.metadata@3.2.so	Apache-2.0	Library
android.hardware.camera.metadata@3.3.so	Apache-2.0	Library
android.hardware.camera.metadata@3.4.so	Apache-2.0	Library
android.hardware.camera.metadata@3.5.so	Apache-2.0	Library
android.hardware.camera.provider@2.4.so	Apache-2.0	Library
android.hardware.camera.provider@2.5.so	Apache-2.0	Library
android.hardware.camera.provider@2.6.so	Apache-2.0	Library
android.hardware.cas@1.0.so	Apache-2.0	Library
android.hardware.cas@1.1.so	Apache-2.0	Library
android.hardware.cas@1.2.so	Apache-2.0	Library
android.hardware.cas.native@1.0.so	Apache-2.0	Library
android.hardware.common-V1-ndk_platform.so	Apache-2.0	Library
android.hardware.configstore@1.0.so	Apache-2.0	Library
android.hardware.configstore@1.1.so	Apache-2.0	Library
android.hardware.configstore-utils.so	Apache-2.0	Library
android.hardware.confirmationui@1.0.so	Apache-2.0	Library
android.hardware.confirmationui-support-lib.so	Apache-2.0	Library
android.hardware.contexthub@1.0.so	Apache-2.0	Library
android.hardware.contexthub@1.1.so	Apache-2.0	Library
android.hardware.copro@1.0.so	Apache-2.0	Library
android.hardware.drm@1.0.so	Apache-2.0	Library
android.hardware.drm@1.1.so	Apache-2.0	Library
android.hardware.drm@1.2.so	Apache-2.0	Library
android.hardware.drm@1.3.so	Apache-2.0	Library
android.hardware.dumpstate@1.0.so	Apache-2.0	Library
android.hardware.dumpstate@1.1.so	Apache-2.0	Library
android.hardware.fastboot@1.0.so	Apache-2.0	Library



License		
Module Name	License	Description
android.hardware.gatekeeper@1.0.so	Apache-2.0	Library
android.hardware.gnss@1.0.so	Apache-2.0	Library
android.hardware.gnss@1.1.so	Apache-2.0	Library
android.hardware.gnss@2.0.so	Apache-2.0	Library
android.hardware.gnss@2.1.so	Apache-2.0	Library
android.hardware.gnss. measurement_corrections@1.0.so	Apache-2.0	Library
android.hardware.gnss. measurement_corrections@1.1.so	Apache-2.0	Library
android.hardware.gnss.visibility_control@1.0.so	Apache-2.0	Library
android.hardware.graphics allocator@2.0.so	Apache-2.0	Library
android.hardware.graphics allocator@3.0.so	Apache-2.0	Library
android.hardware.graphics allocator@4.0.so	Apache-2.0	Library
android.hardware.graphics.bufferqueue@1.0.so	Apache-2.0	Library
android.hardware.graphics.bufferqueue@2.0.so	Apache-2.0	Library
android.hardware.graphics.common@1.0.so	Apache-2.0	Library
android.hardware.graphics.common@1.1.so	Apache-2.0	Library
android.hardware.graphics.common@1.2.so	Apache-2.0	Library
android.hardware.graphics.common-V1- ndk_platform.so	Apache-2.0	Library
android.hardware.graphics.composer@2.1.so	Apache-2.0	Library
android.hardware.graphics.composer@2.2.so	Apache-2.0	Library
android.hardware.graphics.composer@2.3.so	Apache-2.0	Library
android.hardware.graphics.composer@2.4.so	Apache-2.0	Library
android.hardware.graphics.mapper@2.0.so	Apache-2.0	Library
android.hardware.graphics.mapper@2.1.so	Apache-2.0	Library
android.hardware.graphics.mapper@3.0.so	Apache-2.0	Library
android.hardware.graphics.mapper@4.0.so	Apache-2.0	Library
android.hardware.health@1.0.so	Apache-2.0	Library
android.hardware.health@2.0.so	Apache-2.0	Library
android.hardware.health@2.1.so	Apache-2.0	Library



License		
Module Name	License	Description
android.hardware.health.storage@1.0.so	Apache-2.0	Library
android.hardware.identity-support-lib.so	Apache-2.0	Library
android.hardware.input.classifier@1.0.so	Apache-2.0	Library
android.hardware.input.common@1.0.so	Apache-2.0	Library
android.hardware.ir@1.0.so	Apache-2.0	Library
android.hardware.keymaster@3.0.so	Apache-2.0	Library
android.hardware.keymaster@4.0.so	Apache-2.0	Library
android.hardware.keymaster@4.1.so	Apache-2.0	Library
android.hardware.keymaster-V2-ndk_platform.so	Apache-2.0	Library
android.hardware.light@2.0.so	Apache-2.0	Library
android.hardware.media@1.0.so	Apache-2.0	Library
android.hardware.media.bufferpool@1.0.so	Apache-2.0	Library
android.hardware.media.bufferpool@2.0.so	Apache-2.0	Library
android.hardware.media.c2@1.0.so	Apache-2.0	Library
android.hardware.media.c2@1.1.so	Apache-2.0	Library
android.hardware.media.omx@1.0.so	Apache-2.0	Library
android.hardware.memtrack@1.0.so	Apache-2.0	Library
android.hardware.neuralnetworks@1.0.so	Apache-2.0	Library
android.hardware.neuralnetworks@1.1.so	Apache-2.0	Library
android.hardware.neuralnetworks@1.2.so	Apache-2.0	Library
android.hardware.neuralnetworks@1.3.so	Apache-2.0	Library
android.hardware.nfc@1.0.so	Apache-2.0	Library
android.hardware.nfc@1.1.so	Apache-2.0	Library
android.hardware.oemlock@1.0.so	Apache-2.0	Library
android.hardware.power@1.0.so	Apache-2.0	Library
android.hardware.power@1.1.so	Apache-2.0	Library
android.hardware.power@1.2.so	Apache-2.0	Library
android.hardware.power@1.3.so	Apache-2.0	Library
android.hardware.power.stats@1.0.so	Apache-2.0	Library
android.hardware.power-V1-cpp.so	Apache-2.0	Library
android.hardware.radio@1.0.so	Apache-2.0	Library



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Module Name	License	Description
android.hardware.radio@1.1.so	Apache-2.0	Library
android.hardware.radio@1.2.so	Apache-2.0	Library
android.hardware.radio@1.3.so	Apache-2.0	Library
android.hardware.radio@1.4.so	Apache-2.0	Library
android.hardware.radio@1.5.so	Apache-2.0	Library
android.hardware.radio.config@1.0.so	Apache-2.0	Library
android.hardware.radio.config@1.1.so	Apache-2.0	Library
android.hardware.radio.config@1.2.so	Apache-2.0	Library
android.hardware.radio.deprecated@1.0.so	Apache-2.0	Library
android.hardware.renderscript@1.0.so	Apache-2.0	Library
android.hardware.secure_element@1.0.so	Apache-2.0	Library
android.hardware.secure_element@1.1.so	Apache-2.0	Library
android.hardware.secure_element@1.2.so	Apache-2.0	Library
android.hardware.sensors@1.0.so	Apache-2.0	Library
android.hardware.sensors@2.0.so	Apache-2.0	Library
android.hardware.sensors@2.1.so	Apache-2.0	Library
android.hardware.soundtrigger@2.0-core.so	Apache-2.0	Library
android.hardware.soundtrigger@2.0.so	Apache-2.0	Library
android.hardware.soundtrigger@2.1.so	Apache-2.0	Library
android.hardware.soundtrigger@2.2.so	Apache-2.0	Library
android.hardware.soundtrigger@2.3.so	Apache-2.0	Library
android.hardware.tetheroffload.config@1.0.so	Apache-2.0	Library
android.hardware.tetheroffload.control@1.0.so	Apache-2.0	Library
android.hardware.thermal@1.0.so	Apache-2.0	Library
android.hardware.thermal@1.1.so	Apache-2.0	Library
android.hardware.thermal@2.0.so	Apache-2.0	Library
android.hardware.tv.cec@1.0.so	Apache-2.0	Library
android.hardware.tv.cec@2.0.so	Apache-2.0	Library
android.hardware.tv.input@1.0.so	Apache-2.0	Library
android.hardware.tv.tuner@1.0.so	Apache-2.0	Library
android.hardware.usb@1.0.so	Apache-2.0	Library



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Module Name	License	Description
android.hardware.usb@1.1.so	Apache-2.0	Library
android.hardware.usb@1.2.so	Apache-2.0	Library
android.hardware.usb.gadget@1.0.so	Apache-2.0	Library
android.hardware.usb.gadget@1.1.so	Apache-2.0	Library
android.hardware.vibrator@1.0.so	Apache-2.0	Library
android.hardware.vibrator@1.1.so	Apache-2.0	Library
android.hardware.vibrator@1.2.so	Apache-2.0	Library
android.hardware.vibrator@1.3.so	Apache-2.0	Library
android.hardware.vibrator-V1-cpp.so	Apache-2.0	Library
android.hardware.vr@1.0.so	Apache-2.0	Library
android.hardware.weaver@1.0.so	Apache-2.0	Library
android.hardware.wifi@1.0.so	Apache-2.0	Library
android.hardware.wifi@1.1.so	Apache-2.0	Library
android.hardware.wifi@1.2.so	Apache-2.0	Library
android.hardware.wifi@1.3.so	Apache-2.0	Library
android.hardware.wifi@1.4.so	Apache-2.0	Library
android.hardware.wifi.hostapd@1.0.so	Apache-2.0	Library
android.hardware.wifi.hostapd@1.1.so	Apache-2.0	Library
android.hardware.wifi.hostapd@1.2.so	Apache-2.0	Library
android.hardware.wifi.offload@1.0.so	Apache-2.0	Library
android.hardware.wifi.suplicant@1.0.so	Apache-2.0	Library
android.hardware.wifi.suplicant@1.1.so	Apache-2.0	Library
android.hardware.wifi.suplicant@1.2.so	Apache-2.0	Library
android.hardware.wifi.suplicant@1.3.so	Apache-2.0	Library
android.hidl allocator@1.0.so	Apache-2.0	Library
android.hidl.memory@1.0.so	Apache-2.0	Library
android.hidl.memory.block@1.0.so	Apache-2.0	Library
android.hidl.memory.token@1.0.so	Apache-2.0	Library
android.hidl.safe_union@1.0.so	Apache-2.0	Library
android.hidl.token@1.0.so	Apache-2.0	Library
android.hidl.token@1.0-utils.so	Apache-2.0	Library



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Module Name	License	Description
android.system.net.netd@1.0.so	Apache-2.0	Library
android.system.net.netd@1.1.so	Apache-2.0	Library
android.system.suspend@1.0.so	Apache-2.0	Library
android.system.wifi.keystore@1.0.so	Apache-2.0	Library
apex_aidl_interface-V1-cpp.so	Apache-2.0	Library
capture_state_listener-aidl-V1-cpp.so	Apache-2.0	Library
dnsresolver_aidl_interface-V6-cpp.so	Apache-2.0	Library
gsi_aidl_interface-V1-cpp.so	Apache-2.0	Library
heapprofd_client.so	Apache-2.0	Library
ld-android.so	BSD-2-Clause	Library
libaaudio.so	Apache-2.0	Library
libaaudio_internal.so	Apache-2.0	Library
libaaudioservice.so	Apache-2.0	Library
libadbd_auth.so	Apache-2.0	Library
libadbd_fs.so	Apache-2.0	Library
libadf.so	Apache-2.0	Library
libamidi.so	Apache-2.0	Library
libandroid.so	Apache-2.0	Library
libandroid_net.so	Apache-2.0	Library
libandroid_runtime.so	Apache-2.0	Library
libandroid_runtime_lazy.so	Apache-2.0	Library
libandroid_servers.so	Apache-2.0	Library
libandroidfw.so	Apache-2.0	Library
libappfuse.so	Apache-2.0	Library
libartpalette-system.so	Apache-2.0	Library
libasyncio.so	Apache-2.0	Library
libaudioclient.so	Apache-2.0	Library
libaudioeffect_jni.so	Apache-2.0	Library
libaudioflinger.so	Apache-2.0	Library
libaudiofoundation.so	Apache-2.0	Library
libaudiohal.so	Apache-2.0	Library



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Module Name	License	Description
libaudiohal@2.0.so	Apache-2.0	Library
libaudiohal@4.0.so	Apache-2.0	Library
libaudiohal@5.0.so	Apache-2.0	Library
libaudiohal@6.0.so	Apache-2.0	Library
libaudiohal_deathhandler.so	Apache-2.0	Library
libaudiomanager.so	Apache-2.0	Library
libaudiopolicy.so	Apache-2.0	Library
libaudiopolicyenginedefault.so	Apache-2.0	Library
libaudiopolicymanager.so	Apache-2.0	Library
libaudiopolicymanagerdefault.so	Apache-2.0	Library
libaudiopolicyservice.so	Apache-2.0	Library
libaudioprocessing.so	Apache-2.0	Library
libaudio-resampler.so	Apache-2.0	Library
libaudioroute.so	Apache-2.0	Library
libaudiospdif.so	Apache-2.0	Library
libaudioutils.so	Apache-2.0	Library
libavservices_minijail.so	Apache-2.0	Library
libbacktrace.so	Apache-2.0	Library
libbase.so	Apache-2.0	Library
libbcc.so	Apache-2.0	Library
libbcinfo.so	Apache-2.0	Library
libbinder.so	Apache-2.0	Library
libbinder_ndk.so	Apache-2.0	Library
libbinderwrapper.so	Apache-2.0	Library
libblas.so	Apache-2.0	Library
libbluetooth.so	Apache-2.0	Library
libbluetooth_jni.so	Apache-2.0	Library
libbootanimation.so	Apache-2.0	Library
libbootloader_message.so	Apache-2.0	Library
libbpf.so	Apache-2.0	Library
libbpf_android.so	Apache-2.0	Library



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Module Name	License	Description
libbrillo.so	Apache-2.0	Library
libbrillo-binder.so	Apache-2.0	Library
libbrillo-stream.so	Apache-2.0	Library
libbufferhub.so	Apache-2.0	Library
libbufferhubqueue.so	Apache-2.0	Library
libbufferqueueconverter.so	Apache-2.0	Library
libc.so	BSD-3-Clause	Library
libc++.so	BSD-3-Clause	Library
libcamera_client.so	Apache-2.0	Library
libcamera_metadata.so	Apache-2.0	Library
libcamera2ndk.so	Apache-2.0	Library
libcameraservice.so	Apache-2.0	Library
libcap.so	BSD-3-Clause	Library
libcgroupc.so	Apache-2.0	Library
libchrome.so	BSD-3-Clause	Library
libclang_rt.asan-arm-android.so	NCSA	Library
libclang_rt.scudo_minimal-arm-android.so	NCSA	Library
libclang_rt.scudo-arm-android.so	NCSA	Library
libclang_rt.ubsan_standalone-arm-android.so	NCSA	Library
libclcore.bc	Apache-2.0	Library
libclcore_debug.bc	Apache-2.0	Library
libclcore_debug_g.bc	Apache-2.0	Library
libclcore_g.bc	Apache-2.0	Library
libclcore_neon.bc	Apache-2.0	Library
libcn-cbor.so	MIT	Library
libcodec2.so	Apache-2.0	Library
libcodec2_client.so	Apache-2.0	Library
libcodec2_hidl_client@1.0.so	Apache-2.0	Library
libcodec2_hidl_client@1.1.so	Apache-2.0	Library
libcodec2_vndk.so	Apache-2.0	Library
libcompiler_rt.so	MIT	Library



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Module Name	License	Description
libcredstore_aidl.so	Apache-2.0	Library
libcrypto.so	BSD-3-Clause	Library
libcrypto_utils.so	BSD-3-Clause	Library
libcups.so	GPL-2.0 & LGPL-2.0	Library
libcurl.so	MIT	Library
libcutils.so	Apache-2.0	Library
libdataloader.so	Apache-2.0	Library
libdatasource.so	Apache-2.0	Library
libdebuggerd_client.so	Apache-2.0	Library
libdexfile_support.so	Apache-2.0	Library
libdiskconfig.so	Apache-2.0	Library
libdisplayservicehidl.so	Apache-2.0	Library
libdl.so	BSD-3-Clause	Library
libdl_android.so	Apache-2.0	Library
libdng_sdk.so	BSD-3-Clause	Library
libdrm.so	BSD-3-Clause	Library
libdrmframework.so	Apache-2.0	Library
libdrmframework_jni.so	Apache-2.0	Library
libdumpstateaidl.so	Apache-2.0	Library
libdumpstateutil.so	Apache-2.0	Library
libdumputils.so	Apache-2.0	Library
libdynamic_depth.so	Apache-2.0	Library
libeffectsconfig.so	Apache-2.0	Library
libEGL.so	Apache-2.0	Library
libETC1.so	Apache-2.0	Library
libevent.so	BSD-3-Clause	Library
libexif.so	LGPL-2.1	Library
libexpat.so	BSD-3-Clause	Library
libext2_blkid.so	GPL-2.0	Library
libext2_com_err.so	MIT	Library



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Module Name	License	Description
libext2_e2p.so	GPL-2.0	Library
libext2_misc.so	GPL-2.0	Library
libext2_quota.so	GPL-2.0	Library
libext2_uuid.so	GPL-2.0	Library
libext2fs.so	GPL-2.0	Library
libext4_utils.so	Apache-2.0	Library
libf2fs_sparseblock.so	Apache-2.0	Library
libfdtrack.so	BSD-2-Clause	Library
libfec.so	Apache-2.0	Library
libFFTEm.so	Apache-2.0	Library
libfilterfw.so	Apache-2.0	Library
libfilterpack_imageproc.so	Apache-2.0	Library
libfmq.so	Apache-2.0	Library
libfruit.so	Apache-2.0	Library
libfs_mgr.so	Apache-2.0	Library
libfs_mgr_binder.so	Apache-2.0	Library
libft2.so	BSD-3-Clause	Library
libgatekeeper.so	Apache-2.0	Library
libgatekeeper_aidl.so	Apache-2.0	Library
libgfxstats.so	Apache-2.0	Library
libGLESV1_CM.so	Apache-2.0	Library
libGLESV2.so	Apache-2.0	Library
libGLESV3.so	Apache-2.0	Library
libgpuservice.so	Apache-2.0	Library
libgralloctypes.so	Apache-2.0	Library
libgraphicsenv.so	Apache-2.0	Library
libgsi.so	Apache-2.0	Library
libgui.so	Apache-2.0	Library
libhardware.so	Apache-2.0	Library
libhardware_legacy.so	Apache-2.0	Library
libharfbuzz_ng.so	MIT	Library



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Module Name	License	Description
libheif.so	Apache-2.0	Library
libhidcommand_jni.so	Apache-2.0	Library
libhidlallocatorutils.so	Apache-2.0	Library
libhidlbase.so	Apache-2.0	Library
libhidl-gen-hash.so	Apache-2.0	Library
libhidl-gen-utils.so	Apache-2.0	Library
libhidlmemory.so	Apache-2.0	Library
libhwui.so	Apache-2.0	Library
libidmap2.so	Apache-2.0	Library
libidmap2_policies.so	Apache-2.0	Library
libimage_io.so	Apache-2.0	Library
libimg_utils.so	Apache-2.0	Library
libincfs.so	Apache-2.0	Library
libincident.so	Apache-2.0	Library
libincidentpriv.so	Apache-2.0	Library
libinput.so	Apache-2.0	Library
libinputflinger.so	Apache-2.0	Library
libinputflinger_base.so	Apache-2.0	Library
libinputreader.so	Apache-2.0	Library
libinputreporter.so	Apache-2.0	Library
libinputservice.so	Apache-2.0	Library
libion.so	Apache-2.0	Library
libiprouteutil.so	GPL-2.0	Library
libjni_pacprocessor.so	Apache-2.0	Library
libjnigraphics.so	Apache-2.0	Library
libjpeg.so	BSD-3-Clause	Library
libjsoncpp.so	MIT	Library
libkeymaster_messages.so	Apache-2.0	Library
libkeymaster_portable.so	Apache-2.0	Library
libkeymaster4_1support.so	Apache-2.0	Library
libkeymaster4support.so	Apache-2.0	Library



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Module Name	License	Description
libkeystore_aidl.so	Apache-2.0	Library
libkeystore_binder.so	Apache-2.0	Library
libkeystore_parcelables.so	Apache-2.0	Library
libkeystore-attestation-application-id.so	Apache-2.0	Library
libkeystore-engine.so	Apache-2.0	Library
libkeyutils.so	BSD-2-Clause	Library
liblayers_proto.so	Apache-2.0	Library
libldacBT_abr.so	Apache-2.0	Library
libldacBT_enc.so	Apache-2.0	Library
libLLVM_android.so	BSD-3-Clause	Library
liblog.so	Apache-2.0	Library
liblogwrap.so	Apache-2.0	Library
liblp.so	Apache-2.0	Library
liblpdump.so	Apache-2.0	Library
liblpdump_interface-V1-cpp.so	Apache-2.0	Library
liblz4.so	BSD-2-Clause	Library
liblzma.so	Apache-2.0	Library
libm.so	BSD-3-Clause	Library
libmdnssd.so	Apache-2.0	Library
libmedia.so	Apache-2.0	Library
libmedia_codeclist.so	Apache-2.0	Library
libmedia_helper.so	Apache-2.0	Library
libmedia_jni.so	Apache-2.0	Library
libmedia_jni_utils.so	Apache-2.0	Library
libmedia_omx.so	Apache-2.0	Library
libmedia_omx_client.so	Apache-2.0	Library
libmediadm.so	Apache-2.0	Library
libmediadrmmetrics_consumer.so	Apache-2.0	Library
libmediadrmmetrics_full.so	Apache-2.0	Library
libmediadrmmetrics_lite.so	Apache-2.0	Library
libmediaextractorservice.so	Apache-2.0	Library



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Module Name	License	Description
libmedialogservice.so	Apache-2.0	Library
libmediametrics.so	Apache-2.0	Library
libmediametricsservice.so	Apache-2.0	Library
libmediandk.so	Apache-2.0	Library
libmediandk_utils.so	Apache-2.0	Library
libmediaplayerservice.so	Apache-2.0	Library
libmediautils.so	Apache-2.0	Library
libmeminfo.so	Apache-2.0	Library
libmemtrack.so	Apache-2.0	Library
libmemunreachable.so	Apache-2.0	Library
libminijail.so	BSD-3-Clause	Library
libminikin.so	Apache-2.0	Library
libmkbootimg_abi_check.so	Apache-2.0	Library
libmtp.so	LGPL-2.0	Library
libnativebridge_lazy.so	Apache-2.0	Library
libnativedisplay.so	Apache-2.0	Library
libnativeloader_lazy.so	Apache-2.0	Library
libnativewindow.so	Apache-2.0	Library
libnbaio.so	Apache-2.0	Library
libnblog.so	Apache-2.0	Library
libnetd_client.so	Apache-2.0	Library
libnetdbpf.so	Apache-2.0	Library
libnetdutils.so	Apache-2.0	Library
libnetlink.so	GPL-2.0	Library
libnetutils.so	Apache-2.0	Library
libneuralnetworks_packageinfo.so	Apache-2.0	Library
libnl.so	LGPL-2.1	Library
libOpenMAXAL.so	Apache-2.0	Library
libOpenSLES.so	Apache-2.0	Library
libpackagelistparser.so	Apache-2.0	Library
libpcap.so	BSD-3-Clause	Library



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Module Name	License	Description
libpcre2.so	BSD-3-Clause	Library
libpdfium.so	BSD-3-Clause	Library
libpdx_default_transport.so	Apache-2.0	Library
libperpetto.so	Apache-2.0	Library
libperpetto_android_internal.so	Apache-2.0	Library
libpiex.so	Apache-2.0	Library
libpng.so	BSD-3-Clause	Library
libpower.so	Apache-2.0	Library
libpowermanager.so	Apache-2.0	Library
libprintspooler_jni.so	Apache-2.0	Library
libprocessgroup.so	Apache-2.0	Library
libprocessgroup_setup.so	Apache-2.0	Library
libprocinfo.so	Apache-2.0	Library
libprotobuf-cpp-full.so	Apache-2.0	Library
libprotobuf-cpp-lite.so	Apache-2.0	Library
libprotoutil.so	Apache-2.0	Library
libpsi.so	Apache-2.0	Library
libpuresoftkeymasterdevice.so	Apache-2.0	Library
libqtaguid.so	Apache-2.0	Library
libradio_metadata.so	Apache-2.0	Library
libresourcemanager.service.so	Apache-2.0	Library
libRS.so	Apache-2.0	Library
libRS_internal.so	Apache-2.0	Library
librs_jni.so	Apache-2.0	Library
libRSCacheDir.so	Apache-2.0	Library
libRScpp.so	Apache-2.0	Library
libRSCpuRef.so	Apache-2.0	Library
libRSDriver.so	Apache-2.0	Library
librtsp_jni.so	Apache-2.0	Library
libschedulerservicehidl.so	Apache-2.0	Library
libselinux.so	GPL-2.0	Library



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Module Name	License	Description
libsensor.so	Apache-2.0	Library
libsensorprivacy.so	Apache-2.0	Library
libsensorservice.so	Apache-2.0	Library
libsensorservicehidl.so	LGPL-2.1	Library
libservices.so	Apache-2.0	Library
libsfplugin_ccodec.so	Apache-2.0	Library
libsfplugin_ccodec_utils.so	Apache-2.0	Library
libsigchain.so	Apache-2.0	Library
libsoft_attestation_cert.so	Apache-2.0	Library
libsoftkeymasterdevice.so	Apache-2.0	Library
libsonic.so	Apache-2.0	Library
libsonivox.so	Apache-2.0	Library
libsoundpool.so	Apache-2.0	Library
libsparse.so	Apache-2.0	Library
libspeexresampler.so	BSD-3-Clause	Library
libsqlite.so	Apache-2.0	Library
libsquashfs_utils.so	Apache-2.0	Library
libssl.so	BSD-3-Clause	Library
libstagefright.so	Apache-2.0	Library
libstagefright_amrnb_common.so	Apache-2.0	Library
libstagefright_bufferpool@2.0.1.so	Apache-2.0	Library
libstagefright_bufferqueue_helper.so	Apache-2.0	Library
libstagefright_codecbase.so	Apache-2.0	Library
libstagefright_foundation.so	Apache-2.0	Library
libstagefright_framecapture_utils.so	Apache-2.0	Library
libstagefright_http_support.so	Apache-2.0	Library
libstagefright_httplive.so	Apache-2.0	Library
libstagefright_omx.so	Apache-2.0	Library
libstagefright_omx_utils.so	Apache-2.0	Library
libstagefright_xmlparser.so	Apache-2.0	Library
libstatshidl.so	Apache-2.0	Library



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Module Name	License	Description
libstatslog.so	Apache-2.0	Library
libstc++.so	BSD-3-Clause	Library
libsurfaceflinger.so	Apache-2.0	Library
libSurfaceFlingerProp.so	Apache-2.0	Library
libsync.so	Apache-2.0	Library
libsysutils.so	Apache-2.0	Library
libtimeinstat.so	Apache-2.0	Library
libtimestats.so	Apache-2.0	Library
libtimestats_proto.so	Apache-2.0	Library
libtinyalsa.so	BSD-3-Clause	Library
libtinyxml2.so	BSD-3-Clause	Library
libtombstoned_client.so	Apache-2.0	Library
libui.so	Apache-2.0	Library
libunwindstack.so	Apache-2.0	Library
libusbhost.so	Apache-2.0	Library
libutils.so	Apache-2.0	Library
libutilscallstack.so	Apache-2.0	Library
libvibrator.so	Apache-2.0	Library
libvintf.so	Apache-2.0	Library
libvkjson.so	Apache-2.0	Library
libvndksupport.so	Apache-2.0	Library
libvulkan.so	Apache-2.0	Library
libwebviewchromium_loader.so	Apache-2.0	Library
libwebviewchromium_plat_support.so	Apache-2.0	Library
libwfds.so	Apache-2.0	Library
libwifi-system-iface.so	Apache-2.0	Library
libwilhelm.so	Apache-2.0	Library
libxml2.so	MIT	Library
libyuv.so	BSD-3-Clause	Library
libz.so	Zlib	Library
libziparchive.so	Apache-2.0	Library



License

Module Name	License	Description
netd_aidl_interface-V4-cpp.so	Apache-2.0	Library
netd_event_listener_interface-V1-cpp.so	Apache-2.0	Library
oemnetd_aidl_interface-V1-cpp.so	Apache-2.0	Library
pppol2tp-android.so	BSD-3-Clause	Library
pppopptp-android.so	BSD-3-Clause	Library
server_configurable_flags.so	Apache-2.0	Library
service.incremental.so	Apache-2.0	Library
slicer.so	Apache-2.0	Library
suspend_control_aidl_interface-V1-cpp.so	Apache-2.0	Library
android.hidl.memory@1.0-impl.so	Apache-2.0	Library

2.7.3 System_ext logical partition

All modules follows the official AOSP licence rule^[3]

Module Name	License	Description
CellBroadcastAppPlatform	Apache-2.0	Private Application
Provision	Apache-2.0	Private Application
Settings	Apache-2.0	Private Application
StorageManager	Apache-2.0	Private Application
SystemUI	Apache-2.0	Private Application
WallpaperCropper	Apache-2.0	Private Application
stagefright	Apache-2.0	Binary

2.7.4 Product logical partition

All modules follows the official AOSP licence rule^[4]

Module Name	License	Description
LatinIME	Apache-2.0	Application



License		
Module Name	License	Description
ModuleMetadata	Apache-2.0	Application
QuickSearchBox	Apache-2.0	Application
STAudio	Apache-2.0	STMicroelectronics Application
STCamera	Apache-2.0	STMicroelectronics Application
STCoproM4Echo	Apache-2.0	STMicroelectronics Application
STCoproM4Example	Apache-2.0	STMicroelectronics Application
STGraphics	Apache-2.0	STMicroelectronics Application
STLauncher	Apache-2.0	STMicroelectronics Application
STVideo	Apache-2.0	STMicroelectronics Application
webview	Apache-2.0	Application
AccentColorBlack	Apache-2.0	Overlay package
AccentColorCinnamon	Apache-2.0	Overlay package
AccentColorGreen	Apache-2.0	Overlay package
AccentColorOcean	Apache-2.0	Overlay package
AccentColorOrchid	Apache-2.0	Overlay package
AccentColorPurple	Apache-2.0	Overlay package
AccentColorSpace	Apache-2.0	Overlay package
	Apache-	



License		
Module Name	License	Description
DisplayCutoutEmulationCorner	2.0	Overlay package
DisplayCutoutEmulationDouble	Apache-2.0	Overlay package
DisplayCutoutEmulationHole	Apache-2.0	Overlay package
DisplayCutoutEmulationTall	Apache-2.0	Overlay package
DisplayCutoutEmulationWaterfall	Apache-2.0	Overlay package
FontNotoSerifSource	Apache-2.0	Overlay package
IconPackCircularAndroid	Apache-2.0	Overlay package
IconPackCircularLauncher	Apache-2.0	Overlay package
IconPackCircularSettings	Apache-2.0	Overlay package
IconPackCircularSystemUI	Apache-2.0	Overlay package
IconPackCircularThemePicker	Apache-2.0	Overlay package
IconPackFilledAndroid	Apache-2.0	Overlay package
IconPackFilledLauncher	Apache-2.0	Overlay package
IconPackFilledSettings	Apache-2.0	Overlay package
IconPackFilledSystemUI	Apache-2.0	Overlay package
IconPackFilledThemePicker	Apache-2.0	Overlay package
IconPackRoundedAndroid	Apache-2.0	Overlay package
IconPackRoundedLauncher	Apache-2.0	Overlay package



License		
Module Name	License	Description
IconPackRoundedSettings	Apache-2.0	Overlay package
IconPackRoundedSystemUI	Apache-2.0	Overlay package
IconPackRoundedThemePicker	Apache-2.0	Overlay package
IconShapePebble	Apache-2.0	Overlay package
IconShapeRoundedRect	Apache-2.0	Overlay package
IconShapeSquircle	Apache-2.0	Overlay package
IconShapeTaperedRect	Apache-2.0	Overlay package
IconShapeTeardrop	Apache-2.0	Overlay package
IconShapeVessel	Apache-2.0	Overlay package
NavigationBarMode3Button	Apache-2.0	Overlay package
NavigationBarModeGestural	Apache-2.0	Overlay package
NavigationBarModeGesturalExtraWideBack	Apache-2.0	Overlay package
NavigationBarModeGesturalNarrowBack	Apache-2.0	Overlay package
NavigationBarModeGesturalWideBack	Apache-2.0	Overlay package
SettingsIntelligence	Apache-2.0	Private Application
libjni_latinime	Apache-2.0	Library

**License****2.8 Misc partition**

Name	Version	License
bootloader message	1	Apache-2.0



License

3 Licenses


Official licenses	Link to text of license
Apache-2.0	[Apache-2.0]
0BSD	[Zero-Clause BSD]
BSD-2-Clause	[BSD-2-Clause]
BSD-3-Clause	[BSD-3-Clause]
GPL-2.0	[GPL-2.0]
GPL-2.0-with-classpath-exception	[GPL-2.0-with-classpath-exception]
LGPL-2.0	[LGPL-2.0]
LGPL-2.1	[LGPL-2.1]
MirOS	[MirOS]
MIT	[MIT]
NCSA	[NCSA]
Proprietary (gcnano-userland)	gcnano-userland-license
Proprietary (firmware-atheros)	firmware-atheros-license
Proprietary (firmware-broadcom)	firmware-broadcom-bcm43xx-license
Proprietary (firmware-cypress)	firmware-cypress-bcm4343-license
Zlib	[Zlib]

License name	Authorized variations names			
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4 Archives 

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First Stage Boot Loader

Second Stage Boot Loader

Trusted Execution Environment

Non Applicable

Device Tree Binary (or Blob)



Android Open Source Project

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

BlueTooth

Open Portable Trusted Execution Environment

Hardware Abstraction Layer