

libsamsung-RIL

Samsung-RIL is the free software Radio Interface Layer that implements the Samsung IPC protocol and interfaces [libsamsung-ipc](#) and the Android framework:

```
Modem <=> Linux kernel <=> libsamsung-ipc <=> Samsung-RIL <=> Android framework <=> Android applications
```

Samsung-RIL is device-independent: it means that all the device-specific code takes place in [libsamsung-ipc](#), not in Samsung-RIL directly.

Development

The [Samsung-RIL source code](#) is hosted by the Replicant project. The latest version is available on the master branch. It is aimed that Samsung-RIL can work on any Android version from gingerbread to jellybean in the master branch.

Other project using it or having used it

- [webos-ports](#).

Status

For now, CDMA messages are not supported at all.

Global status:

RIL request/response	Functionality	Status
RIL_REQUEST_GET_SIM_STATUS	SIM status report	Working
RIL_REQUEST_ENTER_SIM_PIN	SIM pin unlock	Working
RIL_REQUEST_ENTER_SIM_PUK	SIM puk unlock	Should work, untested
RIL_REQUEST_ENTER_SIM_PIN2	SIM pin2 unlock	Should work, untested
RIL_REQUEST_ENTER_SIM_PUK2	SIM puk unlock	Should work, untested
RIL_REQUEST_CHANGE_SIM_PIN	SIM pin change	Working
RIL_REQUEST_CHANGE_SIM_PIN2	SIM pin2 change	Should work, untested
RIL_REQUEST_ENTER_NETWORK_DEPERSONALIZATION	Network restriction unlock	Missing
RIL_REQUEST_GET_CURRENT_CALLS	Current calls report	Working
RIL_REQUEST_DIAL	Outgoing call	Working
RIL_REQUEST_GET_IMSI	IMSI report	Working
RIL_REQUEST_HANGUP	End call	Working
RIL_REQUEST_HANGUP_WAITING_OR_BACKGROUND	End waiting/bg call	Missing
RIL_REQUEST_HANGUP_FOREGROUND_RESUME_BACKGROUND	End current call and resume waiting call	Missing
RIL_REQUEST_SWITCH_WAITING_OR_HOLDING_AND_ACTIVE	Switch current/waiting-holding calls	Missing
RIL_REQUEST_SWITCH_HOLDING_AND_ACTIVE	Switch current/holding calls	Missing
RIL_REQUEST_CONFERENCE	Start a conference call	Missing
RIL_REQUEST_UDUB	Send user determined used busy	Missing
RIL_REQUEST_LAST_CALL_FAIL_CAUSE	Last call termination cause	Working

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RIL_REQUEST_SIGNAL_STRENGTH	Signal strength	Working
RIL_REQUEST_VOICE_REGISTRATION_STATE	GSM registration state report	Working
RIL_REQUEST_DATA_REGISTRATION_STATE	GPRS registration state report	Working
RIL_REQUEST_OPERATOR	Operator report	Working
RIL_REQUEST_RADIO_POWER	Modem power control	Working
RIL_REQUEST_DTMF	DTMF tones	Working
RIL_REQUEST_SEND_SMS	Send SMS	Working
RIL_REQUEST_SEND_SMS_EXPECT_MORE	Send multiple SMS	Working
RIL_REQUEST_SETUP_DATA_CALL	Start GPRS call	Working
RIL_REQUEST_SIM_IO	SIM I/O	Working
RIL_REQUEST_SEND_USSD	Send USSD message	Working
RIL_REQUEST_CANCEL_USSD	Cancel USSD	Should work, untested
RIL_REQUEST_GET_CLIR	Get caller identity restriction	Missing
RIL_REQUEST_SET_CLIR	Set caller identity restriction	Missing
RIL_REQUEST_QUERY_CALL_FORWARD_STATUS	Call forwarding status	Missing
RIL_REQUEST_SET_CALL_FORWARD	Set call forwarding	Missing
RIL_REQUEST_QUERY_CALL_WAITING	Get waiting call's status	Missing
RIL_REQUEST_SET_CALL_WAITING	Enable/disable waiting state on current call	Missing
RIL_REQUEST_SMS_ACKNOWLEDGE	Ask for acknowledgment of the latest sent SMS	Working
RIL_REQUEST_GET_IMEI	Retrieve IMEI	Working
RIL_REQUEST_GET_IMEISV	Retrieve IMEISV	Working
RIL_REQUEST_ANSWER	Answer incoming call	Working
RIL_REQUEST_DEACTIVATE_DATA_CALL	Stop GPRS call	Working
RIL_REQUEST_QUERY_FACILITY_LOCK	Get a facility lock status	Working
RIL_REQUEST_SET_FACILITY_LOCK	Set a facility lock status	Working
RIL_REQUEST_CHANGE_BARRING_PASSWORD	Change call barring password	Missing
RIL_REQUEST_QUERY_NETWORK_SELECTION_MODE	Get network selection mode	Working
RIL_REQUEST_SET_NETWORK_SELECTION_AUTOMATIC	Set automatic network selection mode	Working
RIL_REQUEST_SET_NETWORK_SELECTION_MANUAL	Set manual network selection mode	Working
RIL_REQUEST_QUERY_AVAILABLE_NETWORKS	Query available networks	Working
RIL_REQUEST_DTMF_START	Start DTMF tone	Working
RIL_REQUEST_DTMF_STOP	Stop DTMF tone	Working
RIL_REQUEST_BASEBAND_VERSION	Get modem firmware version	Working
RIL_REQUEST_SEPARATE_CONNECTION	Separate a call from a multi-party call and make it the active call	Missing

RIL_REQUEST_SET_MUTE	Set audio mute status	Working
RIL_REQUEST_GET_MUTE	Get audio mute status	Missing
RIL_REQUEST_QUERY_CLIP	Get CLIP status	Missing
RIL_REQUEST_LAST_DATA_CALL_FAIL_CAUSE	Retrieve last GPRS call fail cause	Working
RIL_REQUEST_DATA_CALL_LIST	Retrieve GPRS call list	Working
RIL_REQUEST_RESET_RADIO	Deprecated	Deprecated
RIL_REQUEST_OEM_HOOK_RAW	OEM-specific uses, Samsung Service Mode	Working
RIL_REQUEST_OEM_HOOK_STRINGS	OEM-specific uses, no use	N/A
RIL_REQUEST_SCREEN_STATE	Indicate screen state	Working
RIL_REQUEST_SET_SUPP_SVC_NOTIFICATION	Enable/disable supplementary network notifications	Missing
RIL_REQUEST_WRITE_SMS_TO_SIM	Write SMS to SIM	Working
RIL_REQUEST_DELETE_SMS_ON_SIM	Delete SMS on SIM	Working
RIL_REQUEST_SET_BAND_MODE	Set RF band mode	Missing
RIL_REQUEST_QUERY_AVAILABLE_BAND_MODE	Query available RF band modes	Missing
RIL_REQUEST_STK_GET_PROFILE	Get STK profile	Missing
RIL_REQUEST_STK_SET_PROFILE	Set STK profile	Missing
RIL_REQUEST_STK_SEND_ENVELOPE_COMMAND	Send SAT command to the SIM	Missing
RIL_REQUEST_STK_SEND_TERMINAL_RESPONSE	Send response to the SIM	Missing
RIL_REQUEST_STK_HANDLE_CALL_SETUP_REQUESTED_FROM_SIM	Allow or deny SIM call setup	Missing
RIL_REQUEST_EXPLICIT_CALL_TRANSFER	Connect two calls and disconnect from both	Missing
RIL_REQUEST_SET_PREFERRED_NETWORK_TYPE	Set preferred network type	Working
RIL_REQUEST_GET_PREFERRED_NETWORK_TYPE	Get preferred network type	Working
RIL_REQUEST_GET_NEIGHBORING_CELL_IDS	Request neighboring cell ids	Missing
RIL_REQUEST_SET_LOCATION_UPDATES	Enable or disable cell id change notification	Missing
RIL_REQUEST_CDMA_SET_SUBSCRIPTION_SOURCE		
RIL_REQUEST_CDMA_SET_ROAMING_PREFERENCE		
RIL_REQUEST_CDMA_QUERY_ROAMING_PREFERENCE		
RIL_REQUEST_SET_TTY_MODE	Set TTY mode	Missing
RIL_REQUEST_QUERY_TTY_MODE	Get TTY mode	Missing
RIL_REQUEST_CDMA_SET_PREFERRED_VOICE_PRIVACY_MODE		
RIL_REQUEST_CDMA_QUERY_PREFERRED_VOICE_PRIVACY_MODE		
RIL_REQUEST_CDMA_FLASH		
RIL_REQUEST_CDMA_BURST_DTMF		

RIL_REQUEST_CDMA_VALIDATE_AND_WRITE_AKEY		
RIL_REQUEST_CDMA_SEND_SMS		
RIL_REQUEST_CDMA_SMS_ACKNOWLEDGE		
RIL_REQUEST_GSM_GET_BROADCAST_SMS_CONFIG	Get broadcast SMS config	Missing
RIL_REQUEST_GSM_SET_BROADCAST_SMS_CONFIG	Set broadcast SMS config	Missing
RIL_REQUEST_GSM_SMS_BROADCAST_ACTIVATION	Enable or disable broadcast SMS reception	Missing
RIL_REQUEST_CDMA_GET_BROADCAST_SMS_CONFIG		
RIL_REQUEST_CDMA_SET_BROADCAST_SMS_CONFIG		
RIL_REQUEST_CDMA_SMS_BROADCAST_ACTIVATION		
RIL_REQUEST_CDMA_SUBSCRIPTION		
RIL_REQUEST_CDMA_WRITE_SMS_TO_RUIM		
RIL_REQUEST_CDMA_DELETE_SMS_ON_RUIM		
RIL_REQUEST_DEVICE_IDENTITY	Request device identity	Missing
RIL_REQUEST_EXIT_EMERGENCY_CALLBACK_MODE	Leave emergency call mode	Missing
RIL_REQUEST_GET_SMSC_ADDRESS	Get SMSC address	Missing
RIL_REQUEST_SET_SMSC_ADDRESS	Set SMSC address	Missing
RIL_REQUEST_REPORT_SMS_MEMORY_STATUS	Report SIM SMS memory status	Missing
RIL_REQUEST_REPORT_STK_SERVICE_IS_RUNNING	Report whether STK is running	Missing
RIL_REQUEST_CDMA_GET_SUBSCRIPTION_SOURCE		
RIL_REQUEST_ISIM_AUTHENTICATION	Perform AKA challenge/response	Missing
RIL_REQUEST_ACKNOWLEDGE_INCOMING_GSM_SMS_WITH_PDU	Acknowledge incoming SMS with PDU	Missing
RIL_REQUEST_STK_SEND_ENVELOPE_WITH_STATUS	Send SAT envelope status	Missing
RIL_UNSOL_RESPONSE_RADIO_STATE_CHANGED	Radio state changed	Working
RIL_UNSOL_RESPONSE_CALL_STATE_CHANGED	Call state changed	Working
RIL_UNSOL_RESPONSE_VOICE_NETWORK_STATE_CHANGED	Network state changed	Working
RIL_UNSOL_RESPONSE_NEW_SMS	Incoming SMS	Working
RIL_UNSOL_RESPONSE_NEW_SMS_STATUS_REPORT	Incoming SMS status report	Working
RIL_UNSOL_RESPONSE_NEW_SMS_ON_SIM	New SMS on SIM	Missing
RIL_UNSOL_ON_USSD	USSD message	Working
RIL_UNSOL_ON_USSD_REQUEST	Deprecated	Deprecated

RIL_UNSOL_NITZ_TIME_RECEIVED	NITZ time received	Working
RIL_UNSOL_SIGNAL_STRENGTH	Signal strength update	Working
RIL_UNSOL_DATA_CALL_LIST_CHANGED	GPRS call list changed	Working
RIL_UNSOL_SUPP_SVC_NOTIFICATION	Supplementary network notification	Missing
RIL_UNSOL_STK_SESSION_END	STK session ended	Missing
RIL_UNSOL_STK_PROACTIVE_COMMAND	Proactive STK command	Missing
RIL_UNSOL_STK_EVENT_NOTIFY	STK event happened	Missing
RIL_UNSOL_STK_CALL_SETUP	SIM is request call setup	Missing
RIL_UNSOL_SIM_SMS_STORAGE_FULL	SMS storage is full on SIM	Missing
RIL_UNSOL_SIM_REFRESH	SIM has to be reinitialized	Missing
RIL_UNSOL_CALL_RING	Incoming call	Working
RIL_UNSOL_RESPONSE_SIM_STATUS_CHANGED	SIM status changed	Working
RIL_UNSOL_RESPONSE_CDMA_NEW_SMS		
RIL_UNSOL_RESPONSE_NEW_BROADCAST_SMS	Incoming broadcast SMS	Missing
RIL_UNSOL_CDMA_RUIM_SMS_STORAGE_FULL		
RIL_UNSOL_RESTRICTED_STATE_CHANGED	Restricted state changed	Missing
RIL_UNSOL_ENTER_EMERGENCY_CALLBACK_MODE	Enter emergency callback mode	Missing
RIL_UNSOL_CDMA_CALL_WAITING		
RIL_UNSOL_CDMA_OTA_PROVISION_STATUS		
RIL_UNSOL_CDMA_INFO_REC		
RIL_UNSOL_OEM_HOOK_RAW	OEM-specific use	N/A
RIL_UNSOL_RINGBACK_TONE	Start or stop playing ringback tone	Missing
RIL_UNSOL_RESEND_INCALL_MUTE	Resend mute state	N/A
RIL_UNSOL_CDMA_SUBSCRIPTION_SOURCE_CHANGED		
RIL_UNSOL_CDMA_PRL_CHANGED		
RIL_UNSOL_EXIT_EMERGENCY_CALLBACK_MODE	Exit emergency callback mode	Missing
RIL_UNSOL_RIL_CONNECTED		