```
//----------------------------------------------
Release version = 5.7.12
branch = 5.7.0_release_branch
tag = v5.7.12
date: 8.4.2024

General Comments:
1) Tested with RES 5.8.37

*************ARM***************
version 5.7.12
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.3
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.7
branch = 5.7.0_release_branch

Changes:
RS-3517: move display backlight out of misc/cosmos driver
      - Using a driver provided by TI with a more standard
        Linux interface instead of the one previously accessed
        via the misc/cosmos driver

//----------------------------------------------
Release version = 5.7.11
branch = 5.7.0_release_branch
tag = v5.7.11
date: 5.6.2024

General Comments:
1) Tested with RES 5.8.37

*************ARM***************
version 5.7.11
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.3
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.6
branch = 5.7.0_release_branch

Changes:
```

+ RS-3491: fix to mute false audio PA short to ground error at power-up

```
//------------------------------------------------
Release version = 5.7.10
branch = 5.7.0_release_branch
tag = v5.7.10
date: 3.36.2024
```

General Comments:
1) Tested with RES 5.8.34

*************ARM***************
version 5.7.8
branch = 5.7.0_release_branch

*************DSP**************
version 5.7.3
branch = 5.7.0_release_branch

*************BSP**************
version 5.7.6
branch = 5.7.0_release_branch

Changes:

RS-3480: enable kernel preemption (to reduce IPC message latency and eliminate audio issues during tone generation)
RS-3479: Adding support for system alias

```
//------------------------------------------------
Release version = 5.7.9
branch = 5.7.0_release_branch
tag = v5.7.9
date: 12.30.2023
```

General Comments:
1) Tested with RES 5.8.34

*************ARM***************
version 5.7.7
branch = 5.7.0_release_branch

*************DSP**************
version 5.7.2
branch = 5.7.0_release_branch

*************BSP**************
version 5.7.5
branch = 5.7.0_release_branch

Changes:

+ RS-3444: Add support for VIC to mobile
+ RS-3235: Add retries to transmit IPC messages
+ RS-3290: Add USB command support to provision VIC
+ RS-3291: Add support for DSP to add DES,DES-XL, or ADP key to .neo keys (i.e.
    codeplug keys)
+ RS-3293: add zerioze codeplug keys message
+ RS-3294: add delete codeplug key message
+ RS-3296: add codeplug inventory message
+ RS-3297: add OTAR enabled flag to encryption enabled ARM->DSP message for VIC
support
+ RS-3295: Adding VIC status message
+ RS-2842: increased C-ACE response timeout for auth key storage-related operations
+ RS-3325 Added support for provisioning FIPS3 VIC user, and FIPS3 user login
+ RS-3345 added support for StoreKey and DeleteKey
+ RS-3396: create a pseudo-random MI using software becauase the VIC is too slow.
Fixes ADP transmit on Phase II traffic channels
+ RS-3398: remove check for codeplug key from keystorage prior to query. Fixes
observed power up race condition resulting in false report of key fail with a code
plug key
+ TUNA-418: Replace DSP trace ID with string
+ TUNA-453: Fix mishandled DSP to GPP trace event message when transaction IDs
match, a rare event, but does occur immediately after power-up
+ TUNA-121: split Traceable class from TraceManager class file
+ RS-3152: Supporting VIC version in versions menu
+ RS-3319: use software encryption for LLA if VIC is populated
+ RS-2842: added support for LLA key inventory via sideport
+ RS-3419: fix trace logEvent to include data for DSP_PACKET_SENT
+ RS-3445: remove dependency on encryption option to query encryption device, patch
per Jim Gilley
+ RS-3378: add check for mobile GPS hardware option
+ [TUNA-246] MBT #845: Implemented dedicated GPS channel.
+ [TUNA-251] MBT #2361 enter gps info menu on press and hold
+ [TUNA-218] MBT #2377 gps info lat/long displayed on menu list screen upon channel
change
+ [TUNA-250] MBT #2359 on ptt don't exit gps info menu
+ [RS-3378] MBT# 2534: Fixed issue where UIController was sending off a message to
an uninitialized mailbox
+ [TUNA-299] GPS Main Menu allows allow ENT button but add error messages for
disabled menu items.
+ TUNA-333: send GPS location information upon press of GPS button. Press-and-hold
enters GPS menu. Allow Tier1 location information sent on TX mixed mode channel
independent of selected Tx mode
+ TUNA-336: if radio is rx'ing a transmission delay periodic GPS location reporting
+ TUNA-337: enable GPS tier 1 periodic trigger to work with conventional scan
+ [TUNA-220] MBT #2484: Fixed issue where GPS debug information wouldn't work on a
trunking channel.
+ TUNA-395: Fix seg fault caused by using incorrect GPS coordinate formatted string
ID. This bug was added when we switched to decimal degrees format

+ RS-3378: only access the UBLOX object if it is present
+ RS-3461: make if explicit for the VIC given the mobile will also have FIPSCOM
+ TUNA-11: GPS working with new eva-m8m driver
+ TUNA-389: Fixing GPS UBX configuration messaging and the UBX queuing mechanism
for when there is no response expected.
+ TUNA-305: add ioctl auto-retry for I2C-1 devices
+ TUNA-412: restructure received GPS display modes
+ RS-3402: add method to return the constellation index from the talker ID
+ RS-3408: remove GPS position acquisition timer logic from Tier1
+ RS-3421: ignore NMEA messages in Tier1 state off
+ RS-3415: add function to send configure GNSS
+ RS-3395: enable GPIO for GNSS one-time initialization
+ RS-3425: Always enable GPS option for BKR products
+ RS-3378: simplify GPS manager logic detecting UBlox monitor or not

//--
Release version = 5.7.8
branch = 5.7.0_release_branch
tag = v5.7.8
date: 8.30.2023

General Comments:
1) Tested with RES 5.8.30

*************ARM***************
version 5.7.6
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.1
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.4
branch = 5.7.0_release_branch

Changes:
+ RS-3439: Added ignition power down timer for mobile units (cherry-pick from
60d9ce)
+ RS-3439: Changes to fix blocking of power button when ignition timer set.
(cherry-pick 4e5f31)

//--
Release version = 5.7.7
branch = 5.7.0_release_branch
tag = v5.7.7
date: 6.23.2023

General Comments:
1) Tested with RES 5.8.28

```
*************ARM***************
version 5.7.5
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.1
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.4
branch = 5.7.0_release_branch
```

Changes:

+ RS-3406: fix LLA keyloading with KVL-5000: Add support for PPP echo LCP commands,
remove compression option, reset upper layer state machine upon config request to
LCP layer
+ RS-3377: use common U-Blox GPS driver for two mobile GPS options

```
//----------------------------------------------
Release version = 5.7.6
branch = 5.7.0_release_branch
tag = v5.7.6
date: 5.18.2023
```

General Comments:
1) Tested with RES 5.8.24

```
*************ARM***************
version 5.7.4
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.1
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.4
branch = 5.7.0_release_branch
```

Changes:
+ RS-3389: add support for low power mobile

```
//----------------------------------------------
Release version = 5.7.5
branch = 5.7.0_release_branch
tag = v5.7.5
date: 5.4.2023
```

General Comments:
1) Tested with RES 5.8.24

*************ARM***************
version 5.7.3
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.1
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.3
branch = 5.7.0_release_branch

Changes:
+ RS-3382: always enable GPS on mobile product
+ Fixing DFSI frame sequencing when TX interrupts RX

//--
Release version = 5.7.4
branch = 5.7.0_release_branch
tag = v5.7.4
date: 2.17.2023

General Comments:
1) Tested with RES 5.8.24

*************ARM***************
version 5.7.2
branch = 5.7.0_release_branch

*************DSP***************
version 5.7.0
branch = 5.7.0_release_branch

*************BSP***************
version 5.7.3
branch = 5.7.0_release_branch

Changes:
+ RS-3353: Modify AHS text message alert tones
+ RS-3351: add v2 GPIO initialization to mobile, RCH and HHCH
  RS-3351: increase scope of hwver() function so GPIO init can call it
  RS-3351: add V2 GPIOs to the HHCH header file

//--
Release version = 5.7.3
branch = 5.7.0_release_branch

```
tag = v5.7.3

General Comments:
1) Tested with RES 5.8.24

*************ARM**************
version 5.7.1
branch = 5.7.0_release_branch

*************DSP**************
version 5.7.0
branch = 5.7.0_release_branch

*************BSP**************
version 5.7.2
branch = 5.7.0_release_branch

Changes:

+ RS-3351: Add support for new mobile logic board; more fixes

//------------------------------------------------
Release version = 5.7.2
branch = 5.7.0_release_branch
tag = v5.7.2

General Comments:
1) Tested with RES 5.8.21

*************ARM**************
version 5.7.1
branch = 5.7.0_release_branch

*************DSP**************
version 5.7.0
branch = 5.7.0_release_branch

*************BSP**************
version 5.7.2
branch = 5.7.0_release_branch

Changes:

+ RS-3351: (fixes) Add support for new mobile logic board

//------------------------------------------------
Release version = 5.7.1
branch = 5.7.0_release_branch
tag = v5.7.1
```

General Comments:
1) Tested with RES 5.8.21

*************ARM**************
version 5.7.1
branch = 5.7.0_release_branch

*************DSP**************
version 5.7.0
branch = 5.7.0_release_branch

*************BSP**************
version 5.7.1
branch = 5.7.0_release_branch

Changes:

+ RS-3351: Add support for new mobile logic board

//---
Release version = 5.7.0
branch = 5.7.0_release_branch
tag = v5.7.0

General Comments:
1) Tested with RES 5.8.20

*************ARM**************
version 5.7.0
branch = 5.7.0_release_branch
tag = v5.7.0

+ RS-3197: Handle all defined parameter types in case statements to avoid marking
the parm shadow dirty and forcing a shadow save on every power off

*************DSP**************
version 5.7.0
branch = 5.7.0_release_branch
tag = v5.7.0

*************BSP**************
version 5.7.0
branch = 5.7.0_release_branch
tag = v5.7.0

+ RS-3205: change x-tester flash test to check entire flash

//---
Release version = 5.5.0s

```
branch = 5.5.0_release_branch
tag = v5.5.0s

General Comments:
1) Tested with RES 5.8.14


*************ARM**************
version 5.5.0s
branch = 5.5.0_release_branch
tag = v5.5.0s

+ RS-3133: Fixing parms shadow save interfering with a clone
+ PA-3124: Remove requirement that MSB of ESN is 0x10


*************DSP**************
version 5.5.0m
branch = 5.5.0_release_branch
tag = v5.5.0s


*************BSP**************
version 5.5.0o
branch = 5.5.0_release_branch
tag = v5.5.0s


//-------------------------------------------
Release version = 5.5.0r
branch = 5.5.0_release_branch
tag = v5.5.0r

General Comments:
1) Tested with RES 5.8.14


*************ARM**************
version 5.5.0r
branch = 5.5.0_release_branch
tag = v5.5.0r

+ RS-3121: Grounding pin 11 on DB-25 mobile connector results in a EXT PTT with
address 0, which was ignored with RS-3113, but other dependencies exist in the code
with address 0. To simplify, removed ignore for address zero (DB-25 pin 11 then
works).  RCH & HHCH can't report PTT events until address assignment


//-------------------------------------------
Release version = 5.5.0q
branch = 5.5.0_release_branch
tag = v5.5.0q

General Comments:
1) Tested with RES 5.8.14
```

**************ARM**************
version 5.5.0q
branch = 5.5.0_release_branch
tag = v5.5.0q

+ RS-3115: Prevent an unknown parameter type from cancelling a clone
+ RS-3113: Fix issue where mobile can get stuck in transmit due to dynamic control
head address assignments during transmit. Ignore PTT press commands from control
heads until they get an address assigned.
+ TUNA-439: hardware workaround - hard limit keypad backlight PWM duty cycle % when
external PTT is pressed to avoid PWM switching frequency from coupling onto
external mic
+ TUNA-401: When a channel change interrupts a voice announcement, cancel the voice
announcement.
+ TUNA-399: Add support for voice announcement gain
+ RS-3109: Added 0-9,*,# to the list of programmable softkeys. Users can now
program these keys to whatever functions they wish.
+ RS-3106: Display GPS coordinates in Degrees Decimal (DD) format

**************DSP**************
version 5.5.0m
branch = 5.5.0_release_branch
tag = v5.5.0q

+ TUNA-401: Handle the cancel voice annunciation message which is primarily used
when a channel change interrupts the announcement.
+ TUNA-399: Add support for voice announcement gain

**************BSP**************
version 5.5.0o
branch = 5.5.0_release_branch
tag = v5.5.0q

+ RS-3111: add xtester to test memory for factory
+ TUNA-42: Identify and fix differences from usb-skeleton - needed to build and
work for RS-3111

//--
Release version = 5.5.0p
branch = 5.5.0_release_branch
tag = v5.5.0p

General Comments:
1) Tested with RES 5.8.8

**************ARM**************
version 5.5.0p
branch = 5.5.0_release_branch
tag = v5.5.0p

+ RS-3107: Dual mode scan conventional table in memory: last entry is for the selected channel, and is not guaranteed to be valid. Add logic to ensure an invalid channel is not scanned

*************DSP**************
version 5.5.0l
branch = 5.5.0_release_branch
tag = v5.5.0p

NO CHANGE

*************BSP**************
version 5.5.0n
branch = 5.5.0_release_branch
tag = v5.5.0p

NO CHANGE

//--
Release version = 5.5.0n
branch = 5.5.0_release_branch
tag = v5.5.0n

General Comments:
1) Tested with RES 5.8.8

*************NOTE**************
 VERION 5.5.0o skipped to avoid name confusion
*************NOTE**************

*************ARM**************
version 5.5.0n
branch = 5.5.0_release_branch
tag = v5.5.0n

+ RS-2701: Extended size of picklist display line to accomodate more than 99 entries
+ TUNA-366: Initializing domain controller mailboxes before initializing the domains to avoid dropping messages on startup.
+ [TUNA-360] Adding null terminator to radio name string.
+ [TUNA-241] MBT #2461: Add support to mute all transmissions from the radio's own unit ID.
+ RS-3090: Force a parms shadow save after reading from parms file on startup to be ready for a legacy clone as soon as possible.
+ RS-3091: Disable PA fault detection upon a transmit test tx timeout event to avoid false fault detection
+ RS-3087: When cloning from DPH to KNG, keep the existing state for the Allow Cxcss Selection On All Channels zone parameter.
+ RS-3093: Tier1 data transmissions are not available when the channel rx mode is

analog
+ RS-3085: For cloning to a DPH, create a backlight always on option from the existing KNG backlight settings.
+ RS-3088: When cloning from DPH to KNG, keep the existing channels 17 and up in the KNG and replace channels 1-16 with the DPH channels.
+ RS-3084: Fix DPH G2 tx power cloning bug. DPH L bit means forced low power transmit, otherwise tx power is selectable. KNG2 has 4 settings: Low, Selectable Low, Selectable High, and High. New cloning map of L bit to KNG2 is Low else Selectable High on the KNG2. From KNG2 to DPH, only Low sets the L bit
+ RS-3086: Fixing UCG menu when legacy cloning. This fixes the behavior of being unable to exit the main menu.
+ RS-3081: [KF-2711] Parse VA_VOICE_BLOCK_RESP even if it's an invalid transaction ID
+ RS-3080: MBT# 2556 Fixed backlight/softpower down issue where backlight didn't turn off
+ RS-3079: fix so mobile external I/O continues to work even if mobileIOEnable.dat file is empty in the storage partition, which occurs after a firmware update post 5.5.0f and before a configuration update
+ RS-3078: Fixing buffer lengths for date/time strings.
+ RS-3076: PR feedback to add nmealength check

*************DSP***************
version 5.5.0l
branch = 5.5.0_release_branch
tag = v5.5.0n

+ KF-2711: Fix skipping playback of Voice Annunciation while scanning

*************BSP***************
version 5.5.0n
branch = 5.5.0_release_branch
tag = v5.5.0n

+ RS-3075: handle flash-erase return values

      - return proper error values when failing to erase
      - check the return value in flasher
      - add bad-block error in the return value checks

+ RS-3075: blink the red LED in the x-loader hang function

      - Also use the hang() function in some other spots that
        manually hang with an infinite loop

//--
Release version = 5.5.0m
branch = 5.5.0_release_branch
tag = v5.5.0m

General Comments:
1) Tested with RES 5.8.1

*************ARM**************
version 5.5.0m
branch = 5.5.0_release_branch
tag = v5.5.0m

+ TUNA-303: fix to open etc/releaseversion.txt by changing permissions to read-only
+ RS-3072: If a remote control command to set the volume is received stop volume
updates via the volume knob

*************DSP**************
version 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0m

NO CHANGE

*************BSP**************
version 5.5.0m
branch = 5.5.0_release_branch
tag = v5.5.0m

+ TUNA-303: mount all but /storage and /log partitions as read-only

//---
Release version = 5.5.0l
branch = 5.5.0_release_branch
tag = v5.5.0l

General Comments:
1) Tested with RES 5.8.1

*************ARM**************
version 5.5.0l
branch = 5.5.0_release_branch
tag = v5.5.0l

+ [BKPRT-92] KF-2690: Fixes UI confusion after priority scan turned on while zone
scan on

*************DSP**************
version 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0l

NO CHANGE

*************BSP**************

version 5.5.0l
branch = 5.5.0_release_branch
tag = v5.5.0l

+ Fixed spelling issue with "Production" in Makefile

//--
Release version = 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0k

General Comments:
1) BSP has 6 additional commits to makefiles that do not affect the code
2) DSP has 2 additional commits to makefiles that do not affect the code
3) ARM has 15 additional commits to makefiles (and tools, and reversions) that do
not affect the code

*************ARM***************
version 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0k

+ RS-3059: Merge commit '9da6df3' into bugfix/RS-3059-gps-ublox-8-fix
+ RS-3059: Discard non GPS GSV messages.
+ RS-3059 Fix GPS U-blox 8 message handler
+ [TUNA-174] BKPRT-20: MBT# 2540: Fixed Scan List seg fault issue
+ RS-3044 add parenthesis to logic expressions
+ RS-3044: Making switch/button consistent
+ RS-3044: Finish cherry-pick of RS-2846
+ RS-3044: Merged in RS-2846-enhancement-mode-scan-update-nee (pull request #223)
+ RS-2893 Backport RS-2769 to 5.5

*************DSP***************
version 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0k

NO CHANGE

*************BSP***************
version 5.5.0k
branch = 5.5.0_release_branch
tag = v5.5.0k

+ RS-3033: Remove RELM splash screen completly
+ RS-3033: Added suport for ILI9327 display

//--
Release version = 5.5.0j
branch = 5.5.0_release_branch

tag = v5.5.0j

General Comments:
1) DSP version tag was created but GLVersion was not updated
2) BSP has 1 additional commit to makefiles that do not affect the code
3) ARM has 3 additional commits to makefiles that do not affect the code

*************ARM**************
version 5.5.0j
branch = 5.5.0_release_branch
tag = v5.5.0j

+ RS-2892 Complete backport after cherry-picking from 5.6.0
+ RS-2892 Cleanup degbug and unused func defs before merge
+ RS-2892 Change UCG menu default to disable
+ RS-2992 UCG selection for cloning to GPH/DPH works
+ RS-2892 Add "INVALID_STATE" error to trace manager
+ RS-2795 Added UCG menu for DPH clone - unfinished The menu pops up and you can
interact with it, but selecting an option does not continue the cloning process
+ RS-2892 Refactoring UILCCM to remove some non-standard style choices
+ KF-2758: Only initialize keyset options if we have an encryption module

*************DSP**************
version 5.5.0a
branch = 5.5.0_release_branch
tag = v5.5.0j

NO CHANGE

*************BSP**************
version 5.5.0j
branch = 5.5.0_release_branch
tag = v5.5.0j

+ RS-2891 Removing RELM logo completly

//--
Release version = 5.5.0i
branch = 5.5.0_release_branch
tag = v5.5.0i

General Comments:
1) DSP version tag was created but GLVersion was not updated
2) BSP both tags exist on same commit; localversion.rc is set to 5.5.0c, all
releaseversion.txt are set to 5.5.0i

*************ARM**************
version 5.5.0i
branch = 5.5.0_release_branch
tag = v5.5.0i

NO CHANGE

**************DSP**************
version 5.5.0a
branch = 5.5.0_release_branch
tag = v5.5.0i

NO CHANGE

**************BSP**************
version 5.5.0c
branch = 5.5.0_release_branch
tag = v5.5.0c & v5.50i

+ dual-mic fix
+ Updated LZO to 2.1.0 (latest stable)

//--
Release version = 5.5.0h
branch = 5.5.0_release_branch
tag = v5.5.0h

General Comments:

**************ARM**************
version 5.5.0h
branch = 5.5.0_release_branch
tag = v5.5.0h

+ MBT# 2230: Keypad Auto PTT feature

**************DSP**************
version 5.5.0a
branch = 5.5.0_release_branch
tag = v5.5.0a

NO CHANGE

**************BSP**************
version 5.5.0b
branch = 5.5.0_release_branch
tag = v5.5.0b

NO CHANGE

//--
Release version = 5.5.0g
branch = 5.5.0_release_branch

tag = v5.5.0g

General Comments:

*************ARM**************
version 5.5.0g
branch = 5.5.0_release_branch
tag = v5.5.0g

+ KF-887: fixed issue where toggling the 'I/O Enable' button would set the pin
enables to the parms instead of all true for mobile I/O
+ KF-887: Reworked mobile I/O to support new dynamic addressing

*************DSP**************
version 5.5.0a
branch = 5.5.0_release_branch
tag = v5.5.0a

NO CHANGE

*************BSP**************
version 5.5.0b
branch = 5.5.0_release_branch
tag = v5.5.0b

NO CHANGE

//--
Release version = 5.5.0f
branch = 5.5.0_release_branch
tag = v5.5.0f

General Comments:
1) Baseline for README.txt

*************ARM**************
version 5.5.0f
branch = 5.5.0_release_branch
tag = v5.5.0f

Baseline

*************DSP**************
version 5.5.0a
branch = 5.5.0_release_branch
tag = v5.5.0a

Baseline

```
*************BSP**************
version 5.5.0b
branch = 5.5.0_release_branch
tag = v5.5.0b

Baseline
```