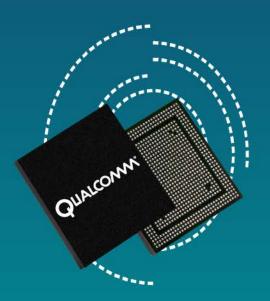




QTI Android™ Support

80-VM922-1 D



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Revision History

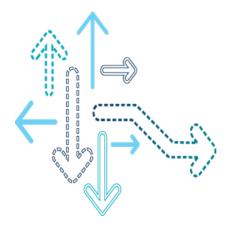
Revision	Date	Description
А	Nov 2008	Initial release
В	Jun 2009	Numerous changes were made to this document. It should be read in its entirety.
С	Dec 2011	Added sample release schedule and key documentation (MSM8960™); updated release distribution model, customer support model, case management and handling, and documentation and resources
D	Oct 2013	Numerous changes were made to this document; it should be read in its entirety.

Contents

- Software Release and Distribution
- **Customer Support**
- Case Management and Handling
- **Documentation and Resources**
- References
- Questions?

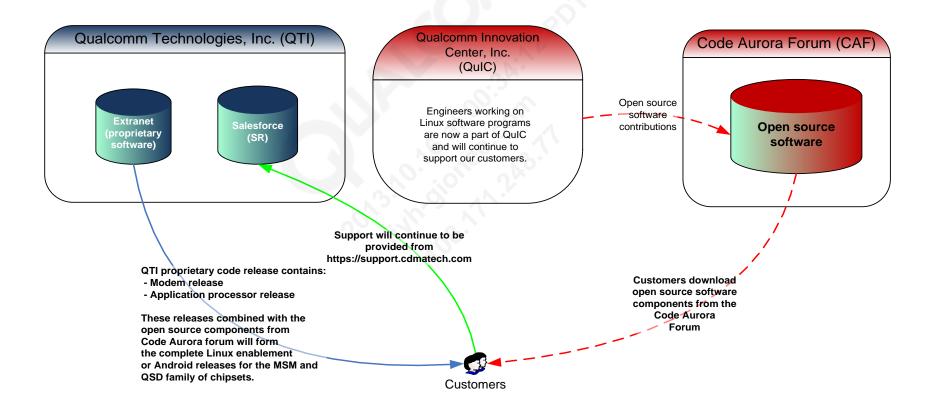
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Software Release and Distribution

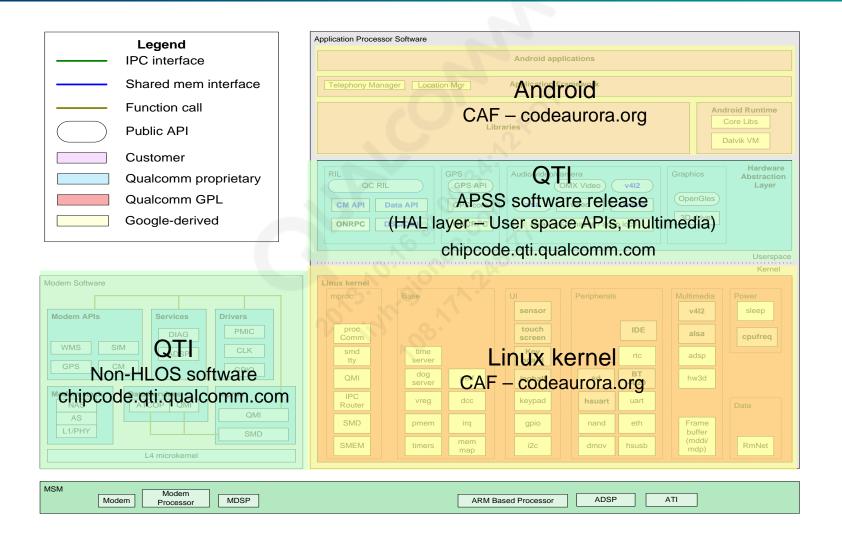


Getting the Source – Overview

Linux releases distribution and support



Android™ Release Distribution



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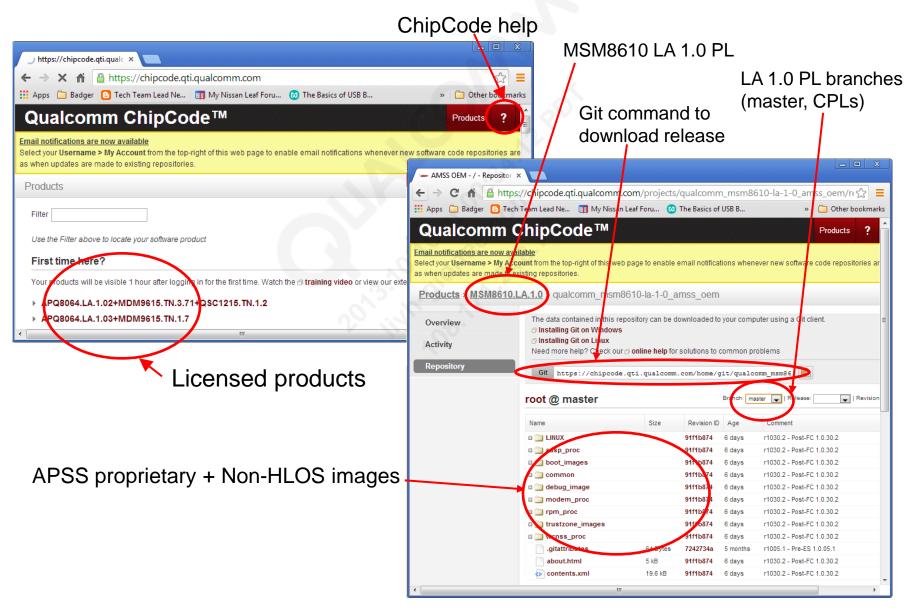
Sample Release Schedule

Sample Release Schedule **OEM Internal Repository** 12/1/2013 1/1/2014 2/1/2014 11/1/2013 3/1/2014 10/6/2013 4/1/2014 4/11/2014 OEM Integration/ Customization 12/14/2013 1/31/2014 3/31/2014 FC Release ES Release CS release CAF 11/1/2013 12/1/2013 1/1/2014 2/1/2014 3/1/2014 4/1/2014 4/11/2014 10/12/2013 Android PLs (Head) are shared across multiple Tagged release Tagged release chipsets. The latest is pushed to CAF when any release Tagged release occurs for any of the chipsets on this same PL Tagged release Post CS QuIC Release plan... 11/1/2013 12/1/2013 1/1/2014 2/1/2014 3/1/2014 10/6/2013 4/1/2014 4/11/2014 Development Release Branch

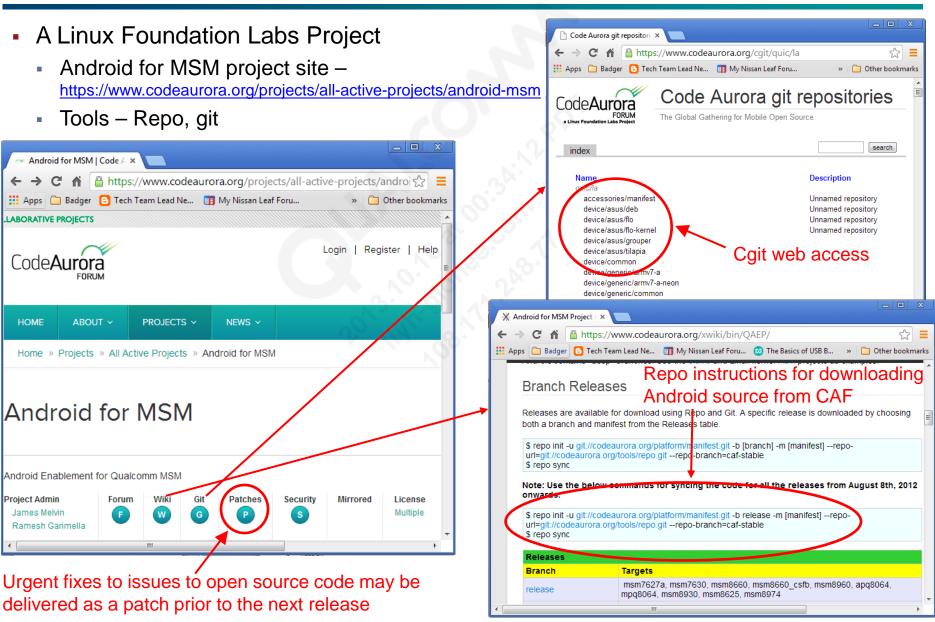
Release Distribution Model – Android Releases

- QTI releases include:
 - All proprietary code releases (available via Qualcomm ChipCode™ <u>https://chipcode.qti.qualcomm.com</u>)
 - Non-HLOS release
 - Modem, Boot, RPM, TZ, LPASS/ADSP, WCNSS, BT/WLAN/FM
 - Android OS release
 - Proprietary user space code (HAL)
- CAF provides:
 - Open source code
 - Android and Linux kernels, including all CAF contributions for Linux/Android MSM™ releases
 - Repo is used to pull down the source
 - \$ repo init -u <u>git://codeaurora.org/platform/manifest.git</u> -b [branch] -m [manifest] --repourl=<u>git://codeaurora.org/tools/repo.git</u>
 \$ repo sync
 - Instructions for downloading are provided at the following link:
 - https://www.codeaurora.org/xwiki/bin/QAEP/

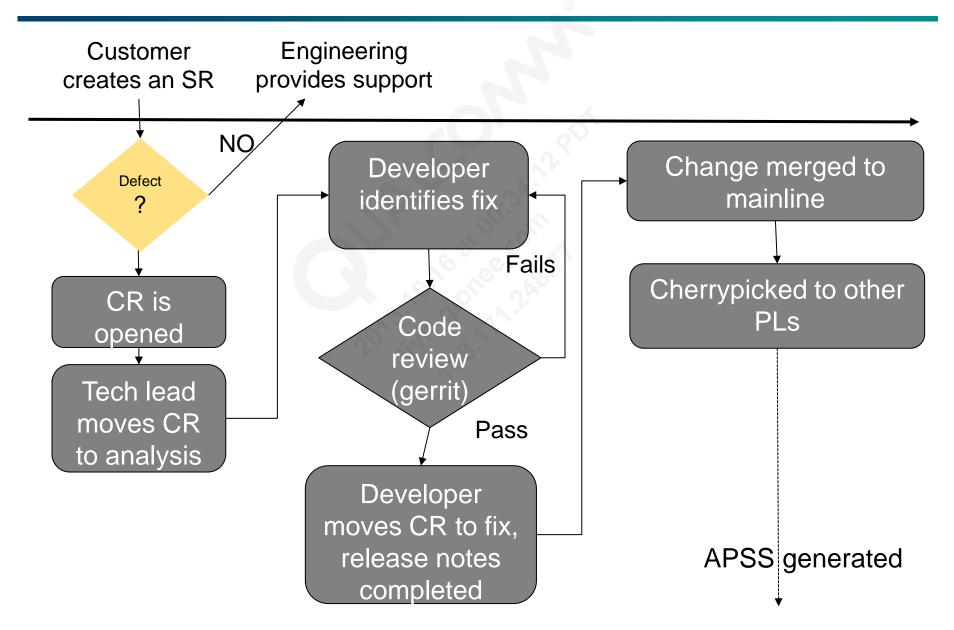
ChipCode



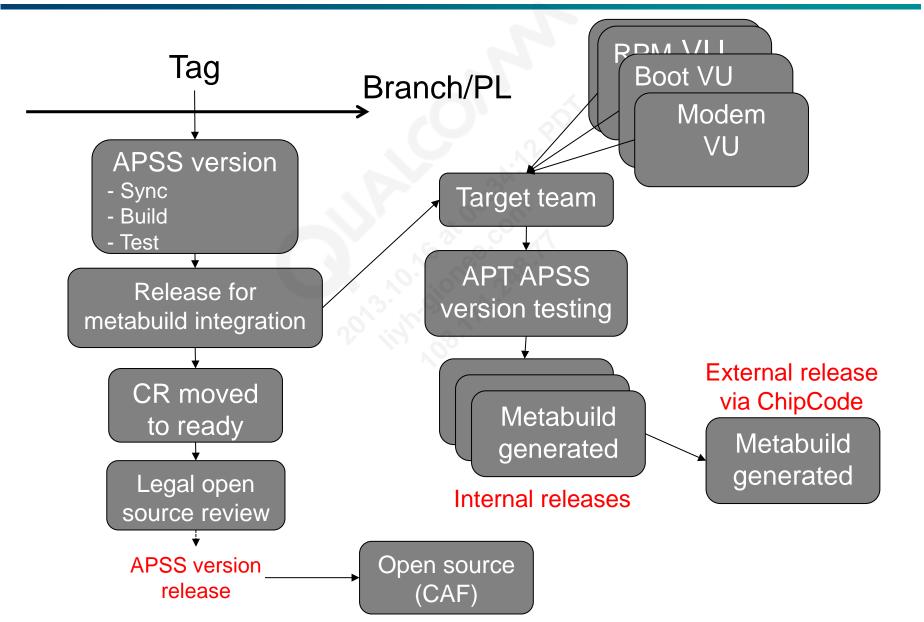
CAF



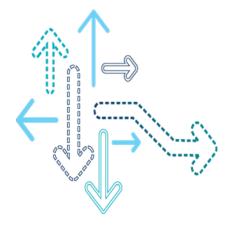
SR→CR→Fix (for Normal Release)



APSS Version – Release Candidate Generation



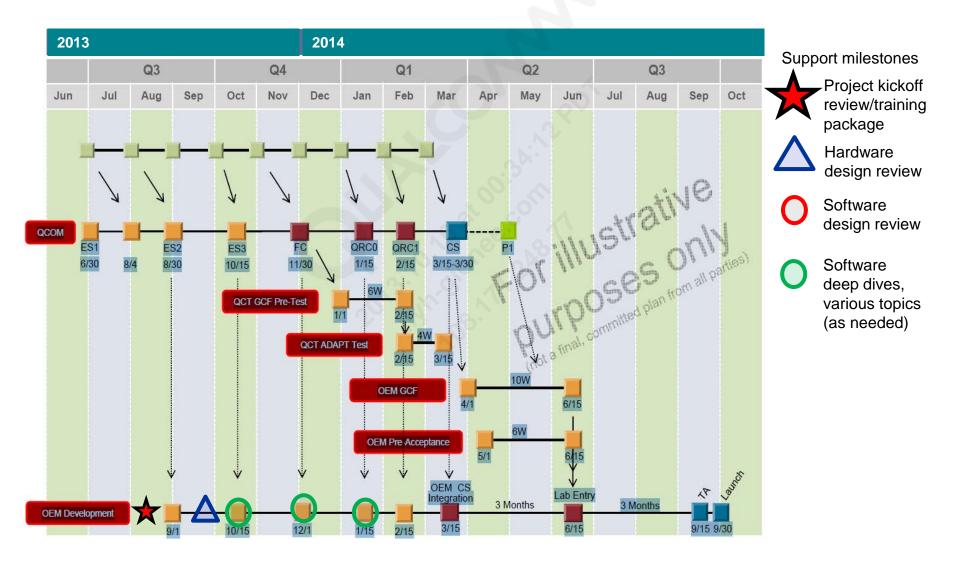
Customer Support



QTI Support Team

- Customer engineering team
 - Technical Account Manager (TAM)
 - Works with customer directly on this account; point of contact for any training, support, escalations
 - Closely follows customer's project progress to ensure successful and timely launch
 - Product applications engineering
 - Hardware customer engineering
 - Baseband
 - RF
 - Software customer engineering
 - Platform (OS, drivers, RF)
 - Protocols
 - Multimedia
 - Wireless connectivity

Sample Customer Development Schedule and Support

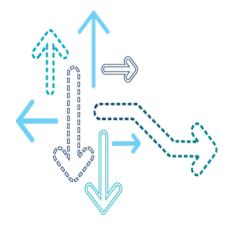


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Customer Support Model

- Project kickoff/requirements review/training package
 - Goal Review project requirements, identify timeline and milestones
 - Introduce/deliver training package, i.e., presentation/documents/videos
 - Training allows the customer to get started
- Hardware design review
 - Baseband schematic and placement (including Thermal) review
 - RF/GPS schematic review
- Software design review
 - Goal Identify any gaps in features vs expectations
 - Walkthrough of the various software subsystems, identifying how it works in MSM
- Software deep dives
 - Goal Go through detailed walkthrough of key areas, features, operations, and debugging (as-needed basis; topic varies)
 - Areas Power management, camera, stability, performance

Case Management and Handling



Case Management and Handling

- Case support is communicated via https://support.cdmatech.com/login/.
- Cases are routed to the correct engineers based on the problem code selected.
- The following slides show the various problem areas that cases can be opened against.

Linux BSP

Problem Area 1	Problem Area 2	Problem Area 3
BSP – Apps Proc	Base OS service	ACPI
BSP – Apps Proc	Base OS service	ACPU clock driver
BSP – Apps Proc	Base OS service	Bus clock driver
BSP – Apps Proc	Base OS service	Clock driver
BSP – Apps Proc	Base OS service	GPIO
BSP – Apps Proc	Base OS service	Interrupts
BSP – Apps Proc	Base OS service	Memory management
BSP – Apps Proc	Base OS service	System time
BSP – Apps Proc	Base OS service	Timers
BSP – Apps Proc	Base OS service	WHCK - GPS
BSP – Apps Proc	Base OS service	WHCK – MBN
BSP – Apps Proc	Base OS service	WHCK – USB
BSP – Apps Proc	Boot	ADC/PMIC
BSP – Apps Proc	Boot	Apps boot loader
BSP – Apps Proc	Boot	Boot loader 3 (SBL1, SBL2, SBL3)
BSP – Apps Proc	Boot	Boot performance
BSP – Apps Proc	Boot	Clock
BSP – Apps Proc	Boot	EEPROM
BSP – Apps Proc	Boot	eHostDL tools
BSP – Apps Proc	Boot	Flash tools
BSP – Apps Proc	Boot	FOTA
BSP – Apps Proc	Boot	Others
BSP – Apps Proc	Boot	PBL
BSP – Apps Proc	Boot	SD image update
BSP – Apps Proc	Boot	System debug image
BSP – Apps Proc	Build/integration	Applications build
BSP – Apps Proc	Build/integration	Boot loader build
BSP – Apps Proc	Build/integration	HLOS build
BSP – Apps Proc	Build/integration	Kernel build
BSP – Apps Proc	Certification/logo issues	NA

Linux BSP (cont.)

Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Apps Proc	Core diag	DCI	
BSP – Apps Proc	Core diag	OnDevice/SD logging	
BSP – Apps Proc	Core diag	Other	
BSP – Apps Proc	Core diag	Port disconnect	
BSP – Apps Proc	Core diag	Socket logging	
BSP – Apps Proc	Core diag	UART logging	
BSP – Apps Proc	Device update	Framework	
BSP – Apps Proc	eMMC	Partitioning	
BSP – Apps Proc	eMMC	Tools	
BSP – Apps Proc	Factory	Provisioning (nonmodem)	
BSP – Apps Proc	Factory	Test framework	
BSP – Apps Proc	File system	Apps file system	
BSP – Apps Proc	File system	Remote file system (for modem)	
BSP – Apps Proc	Memory mgmt	General	
BSP – Apps Proc	Memory mgmt	ION/SMMU	
BSP – Apps Proc	Memory mgmt	PMEM	
BSP – Apps Proc	Multiprocessor communication	QMI kernel driver	
BSP – Apps Proc	Multiprocessor communication	RPC	
BSP – Apps Proc	Multiprocessor communication	SMD	
BSP – Apps Proc	NA	NA	
BSP – Apps Proc	Other system services	Peripheral image loader/Kickstart	
BSP – Apps Proc	Other system services	Relocateable image	
BSP – Apps Proc	Other system services	Subsystem restart	
BSP – Apps Proc	Other system services	Thermal management	
BSP – Apps Proc	Peripheral buses	(S)SBI	
BSP – Apps Proc	Peripheral buses	DMOV/BAM	
BSP – Apps Proc	Peripheral buses	Ethernet devices	
BSP – Apps Proc	Peripheral buses	GSBI (QUP)	
BSP – Apps Proc	Peripheral buses	Handset	
BSP – Apps Proc	Peripheral buses	I2C	
BSP – Apps Proc	Peripheral buses	MMC/eMMC	

Linux BSP (cont.)

Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Apps Proc	Peripheral buses	PCIe	
BSP – Apps Proc	Peripheral buses	SATA	
BSP – Apps Proc	Peripheral buses	SD	
BSP – Apps Proc	Peripheral buses	SDCC	
BSP – Apps Proc	Peripheral buses	SDIO	
BSP – Apps Proc	Peripheral buses	SPI	
BSP – Apps Proc	Peripheral buses	SPMI	
BSP – Apps Proc	Peripheral buses	TSIF	
BSP – Apps Proc	Peripheral buses	UART	
BSP – Apps Proc	Peripheral HID devices	Keypad/keyboard	
BSP – Apps Proc	Peripheral HID devices	Touchscreen/touchpanel	
BSP – Apps Proc	Peripheral HID devices	Trackball/mouse/pointer/others	
BSP – Apps Proc	Power management	Clock freq/voltage scaling (DCVS)/MP-DCVS	
BSP – Apps Proc	Power management	DMM (Dynamic mem mgmt)	
BSP – Apps Proc	Power management	Low-power modes (SWFI/PC/VDDmin)	
BSP – Apps Proc	Power management	Optimization	
BSP – Apps Proc	Power management	RPM interface	
BSP – Apps Proc	Power Mgmt	Suspend/Resume	
BSP – Apps Proc	QCMB-API	Android/Linux	
BSP – Apps Proc	QCMB-API	Connection manager	
BSP – Apps Proc	QCMB-API	Extensibility path	
BSP – Apps Proc	QCMB-API	Location sensor/GPS	
BSP – Apps Proc	QCMB-API	QMI – QBI	
BSP – Apps Proc	Security	Code signing	
BSP – Apps Proc	Security	Crypto API	
BSP – Apps Proc	Security	Cryptoengine	
BSP – Apps Proc	Security	Fuse/QFPROM	
BSP – Apps Proc	Security	HDCP	
BSP – Apps Proc	Security	PHK/SHK	
BSP – Apps Proc	Security	PIL auth	
BSP – Apps Proc	Security	PIL auth	

Linux BSP (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
BSP – Apps Proc	Security	QSEE
BSP – Apps Proc	Security	SECAPI
BSP – Apps Proc	Security	Secure image download
BSP – Apps Proc	Security	SFS/SFP
BSP – Apps Proc	Security	TrustZone
BSP – Apps Proc	Security	TrustZone kernel API
BSP – Apps Proc	Security	Tzapps
BSP – Apps Proc	Security	Widevine
BSP – Apps Proc	Security	WMDRM
BSP – Apps Proc	Sensors (QC)	Apps processor-based
BSP – Apps Proc	Sensors (QC)	DSPS-based
BSP – Apps Proc	Sensors (QC)	HLOS APIs
BSP – Apps Proc	Stability	Debug tools/ETB/features
BSP – Apps Proc	Stability	Device hang/freeze/lockup
BSP – Apps Proc	Stability	Device reset
BSP – Apps Proc	Stability	ETB
BSP – Apps Proc	Stability	Kernel
BSP – Apps Proc	Stability	Userspace/application level
BSP – Apps Proc	USB (on QC chip)	Diag/Obex class driver
BSP – Apps Proc	USB (on QC chip)	Download
BSP – Apps Proc	USB (on QC chip)	Host mode (on QC chip)
BSP – Apps Proc	USB (on QC chip)	Mass Storage class driver
BSP – Apps Proc	USB (on QC chip)	Modem/ACM class driver
BSP – Apps Proc	USB (on QC chip)	Peripheral mode (on QC chip)
BSP – Apps Proc	USB (on QC chip)	QMI/ECM class driver

Core BSP

Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Other Proc	ALL	ALL	
BSP – Other Proc	Boot – Modem Proc	Code signing/authentication	
BSP – Other Proc	Boot – Modem Proc	DBL	
BSP – Other Proc	Boot – Modem Proc	eFuse	
BSP – Other Proc	Boot – Modem Proc	eSD/eMMC	
BSP – Other Proc	Boot – Modem Proc	FSBL	
BSP – Other Proc	Boot – Modem Proc	FTL	
BSP – Other Proc	Boot – Modem Proc	MPU	
BSP – Other Proc	Boot – Modem Proc	OEMSBL	
BSP – Other Proc	Boot – Modem Proc	OSBL	
BSP – Other Proc	Boot – Modem Proc	PBL	
BSP – Other Proc	Boot – Modem Proc	QCSBL	
BSP – Other Proc	Build	Modem build	
BSP – Other Proc	Build	RPM/TZ/BOOT build	
BSP – Other Proc	Core diag	DCI	
BSP – Other Proc	Core diag	Initialization	
BSP – Other Proc	Core diag	Other	
BSP – Other Proc	Core diag	Security	
BSP – Other Proc	Core diag	Sleep issues	
BSP – Other Proc	Debug tools/features	Error handler/error notification	
BSP – Other Proc	Debug tools/features	F3 messages	
BSP – Other Proc	Debug tools/features	RAMDUMP (USB DLOAD)	
BSP – Other Proc	Debug tools/features	SMEMLOG	
BSP – Other Proc	Debug tools/features	Trace32/JTAG	
BSP – Other Proc	Debug tools/features	Watchdog (hardware watchdog/dog task/dog keep alive)	
BSP – Other Proc	Download	Emergency UART	
BSP – Other Proc	Download	Emergency USB	
BSP – Other Proc	Download	eMMC download	
BSP – Other Proc	Download	USB download	

Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Other Proc	Drivers – Memory	Demand paging/loading	
BSP – Other Proc	Drivers – Memory	Flash – Nand	
BSP – Other Proc	Drivers – Memory	Flash – NOR	
BSP – Other Proc	Drivers – Memory	Flash – OneNand	
BSP – Other Proc	Drivers – Memory	FLASH/MTD	
BSP – Other Proc	Drivers – Memory	jflash script	
BSP – Other Proc	Drivers – Memory	jnand script	
BSP – Other Proc	Drivers – Memory	LPDDR2	
BSP – Other Proc	Drivers – Memory	LPDDR3	
BSP – Other Proc	Drivers – Memory	MBIB configuration	
BSP – Other Proc	Drivers – Memory	Memory interface	
BSP – Other Proc	Drivers – Memory	MIBIB configuration	
BSP – Other Proc	Drivers – Memory	MIBIB configuration	
BSP – Other Proc	Drivers – Memory	OneDRAM configuration	
BSP – Other Proc	Drivers – Memory	Others	
BSP – Other Proc	Drivers – Memory	Partition/flash layout configuration	
BSP – Other Proc	Drivers – Memory	PCDDR3	
BSP – Other Proc	Drivers – Memory	PSRAM configuration	
BSP – Other Proc	Drivers – Memory	QFIT tool	
BSP – Other Proc	Drivers – Memory	RAM layout configuration	
BSP – Other Proc	Drivers – Memory	SDRAM configuration	
BSP – Other Proc	Drivers – Memory SMI configuration		
BSP – Other Proc	Drivers – Memory	SMI configuration	
BSP – Other Proc	Drivers – MPROC	Framework (SMEM/SMD/router)	
BSP – Other Proc	Drivers – MPROC	Protocols (SMSM/PROC COMM/ONPCRC/SIO)	
BSP – Other Proc	Drivers – MPROC	RPC interface (exported API/client/server)	
BSP – Other Proc	Drivers – MPROC	SMSM driver	

Problem Area 1 Problem Area 2		Problem Area 3
BSP – Other Proc	Drivers – Peripheral	Ethernet devices
BSP – Other Proc	Drivers – Peripheral	GSBI/QUP
BSP – Other Proc	Drivers – Peripheral	12C
BSP – Other Proc	Drivers – Peripheral	Keypad/keyboard
BSP – Other Proc	Drivers – Peripheral	NFC
BSP – Other Proc	Drivers – Peripheral	PCIe PCIe
BSP – Other Proc	Drivers – Peripheral	SATA
BSP – Other Proc	Drivers – Peripheral	SBI
BSP – Other Proc	Drivers – Peripheral	SDCC/MMC/SDIO
BSP – Other Proc	Drivers – Peripheral	SIO/RDM
BSP – Other Proc	Drivers – Peripheral	SPI
BSP – Other Proc	Drivers – Peripheral	SPMI
BSP – Other Proc	Drivers – Peripheral	Touchscreen/touchpanel
BSP – Other Proc	Drivers – Peripheral	Trackball/mouse/pointer/other
BSP – Other Proc	Drivers – Peripheral	TSIF
BSP – Other Proc	Drivers – Peripheral	UART
BSP – Other Proc	Drivers – System	Clock regime (NPA)
BSP – Other Proc	Drivers – System	Clocks
BSP – Other Proc	Drivers – System	CPU regime (NPA)
BSP – Other Proc	Drivers – System	CPUFreq
BSP – Other Proc	Drivers – System	DEM
BSP – Other Proc	Drivers – System	GPIO
BSP – Other Proc	Drivers – System	Hardware driver (HWIO)
BSP – Other Proc	Drivers – System	Interrupt
BSP – Other Proc	Drivers – System	MCPM
BSP – Other Proc	Drivers – System	Modem restart (SSR)
BSP – Other Proc	Drivers – System	PMEM
BSP – Other Proc	Drivers – System	RCINIT/TMC
BSP – Other Proc	Drivers – System	RTC
BSP – Other Proc	Drivers – System	Sleep
BSP – Other Proc	Drivers – System	SPINLOCKARM driver

Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Other Proc	FileSystem	EFS2	
BSP – Other Proc	FileSystem	ext3	
BSP – Other Proc	FileSystem	HFAT	
BSP – Other Proc	FileSystem	Intel – FDI	
BSP – Other Proc	FileSystem	RAMFS	
BSP – Other Proc	FileSystem	SFAT	
BSP – Other Proc	Hexagon™ tools	NA	
BSP – Other Proc	Kernel	Blast/QuRT™	
BSP – Other Proc	Kernel	REX/L4	
BSP – Other Proc	Performance	CPU profile	
BSP – Other Proc	Performance	Flash performance	
BSP – Other Proc	Performance	Memory footprint	
BSP – Other Proc	Performance	RAM performance	
BSP – Other Proc	QFIT	Documentation/installation	
BSP – Other Proc	QFIT	Feature/release/schedule	
BSP – Other Proc	RPM	Boot	
BSP – Other Proc	RPM	Build	
BSP – Other Proc	RPM	Clock	
BSP – Other Proc	RPM	Power management	
BSP – Other Proc	RPM	Stability	
BSP – Other Proc	RPM	System drivers	
BSP – Other Proc	Secure Boot 1.0	BMP apps boot loader	
BSP – Other Proc	Secure Boot 1.0	Config data	
BSP – Other Proc	Secure Boot 3.0	SBL1	
BSP – Other Proc	Secure Boot 3.0	SBL2	
BSP – Other Proc	Secure Boot 3.0	SBL3	
BSP – Other Proc	Secure Boot 3.0	UEFI	
BSP – Other Proc	Security	Crypto	
BSP – Other Proc	Security	Crypto engine	
BSP – Other Proc	Security	eFuses/QFPROM	
BSP – Other Proc	Security	IPSEC	
BSP – Other Proc	Security	MBA	
BSP – Other Proc	Security	MPU/XPU/RPU	

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Problem Area 1	Problem Area 2	Problem Area 3	
BSP – Other Proc	Security	OMA DRM	
BSP – Other Proc	Security	PIL auth service	
BSP – Other Proc	Security	SFS/SFP	
BSP – Other Proc	Security	SSL	
BSP – Other Proc	Security	TrustZone	
BSP – Other Proc	Security	TZapps	
BSP – Other Proc	Sensors	Apps proc-based	
BSP – Other Proc	Sensors	DSPS-based	
BSP – Other Proc	Stability	Modem stability	
BSP – Other Proc	Stability	System stability (Device reset/hang)	
BSP – Other Proc	System power	Data call	
BSP – Other Proc	System power	Low power modes	
BSP – Other Proc	System power	Reference design	
BSP – Other Proc	System power	Reference power data	
BSP – Other Proc	System power	Sleep/standby	
BSP – Other Proc	System power	Talk	
BSP – Other Proc	System service	Heap (modem heap/AMSS heap)	
BSP – Other Proc	System service	SSM	
BSP – Other Proc	System service	Time	
BSP – Other Proc	System service	Timer	
BSP – Other Proc	USB (on QC chip)	Diag/Obex	
BSP – Other Proc	USB (on QC chip)	Download	
BSP – Other Proc	USB (on QC chip)	HostMode (on QC chip)	
BSP – Other Proc	USB (on QC chip)	Mass storage	
BSP – Other Proc	USB (on QC chip)	Modem/ACM	
BSP – Other Proc	USB (on QC chip)	Peripheral Mode (on QC chip)	
BSP – Other Proc	USB (on QC chip)	QMI/ECM	
BSP – Other Proc	USB Ext SOC	Epson controller	

PMIC

Problem Area 1	Problem Area 2	Problem Area 3	
PMIC	App processor interface Proc comm (Linux)		
PMIC	App processor interface	RPC (WinMobile and Linux)	
PMIC	Application (PMIC)	Flash	
PMIC	Application (PMIC)	HSED	
PMIC	Application (PMIC)	LED/LCD	
PMIC	Application (PMIC)	Speaker	
PMIC	Application (PMIC)	TV Out	
PMIC	Application (PMIC)	Vibrator	
PMIC	Battery	Battery characterization	
PMIC	Battery	Detection	
PMIC	Battery	Fuel gauging	
PMIC	Charger	Charger detection	
PMIC	Charger	Constant current	
PMIC	Charger	Constant voltage	
PMIC	Charger	Error state	
PMIC	Charger	Pulse charger	
PMIC	Charger	Trickle charger	
PMIC	Clock	Sleep clock	
PMIC	Clock	TCXO	
PMIC	Clock	XO	
PMIC	General housekeeping	ADC	
PMIC	General housekeeping	MPP	
PMIC	Interrupt	Latch interrupt	
PMIC	Interrupt	Power on interrupt	
PMIC	Interrupt	Real time interrupt	
PMIC	PMIC driver software	API programming	
PMIC	PMIC driver software	Early stage PMIC access	
PMIC	PMIC driver software New API request		
PMIC	PMIC driver software	New platform support	
PMIC	RTC	Alarm	
PMIC	RTC	Coin cell	
PMIC	Voltage regulation	LDO	
PMIC	Voltage regulation	SMPS	

Multimedia

Problem Area 1	Problem Area 2	Problem Area 3
Multimedia	Adreno(Graphics)	AdrenoProfiler
Multimedia	Adreno(Graphics)	ALL
Multimedia	Adreno(Graphics)	Composition/Surface Flinger
Multimedia	Adreno(Graphics)	GPU hang/KGSL page fault
Multimedia	Adreno(Graphics)	Graphics kernel driver (KGSL)
Multimedia	Adreno(Graphics)	OpenCL
Multimedia	Adreno(Graphics)	OpenGL ES (3D)
Multimedia	Adreno(Graphics)	OpenVG
Multimedia	Adreno(Graphics)	Performance
Multimedia	Adreno(Graphics)	SVG
Multimedia	Audio	ALL except tuning
Multimedia	Audio	Audio software
Multimedia	Audio	Power
Multimedia	Audio	Tools
Multimedia	Audio	Tuning
Multimedia	Audio	Voice software
Multimedia	Browser	Browser UI
Multimedia	Browser	CSS 2D animation
Multimedia	Browser	JPEG
Multimedia	Browser	Other
Multimedia	Browser	Skia
Multimedia	Browser	V8
Multimedia	Browser	Webkit compositing
Multimedia	Display	Android user space – Framework (Surface Flinger/GUI/Surface Flinger client/HWUI/GUI)
Multimedia	Display	Android user space – HDMI daemon
Multimedia	Display	Android user space – QCT HALs (libGralloc/liboverlay/libhwcomposer/libqcomui)
Multimedia	Display	Android user space stability – (Framework reboot/watch dog bite/memory leak)
Multimedia	Display	Display driver – External/secondary display (WFD/HDMI/analog TV/MHL)
Multimedia	Display	Display driver – Primary display (DSI/EDP/LCDC/MDDI/LVDS)
Multimedia	Display	Display driver stability – (MDP hang/underrun/kernel panic/TDR)
Multimedia	Display	Display postprocessing – (CABL/panel calibration/picture adjustment/color enhancement)
Multimedia	Display	PQ

Multimedia (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
Multimedia	DSP access program	Audio
Multimedia	DSP access program	Camera
Multimedia	DSP access program	Graphics
Multimedia	DSP access program	Video
Multimedia	DSP access program	Voice
Multimedia	MPQ	AV input
Multimedia	MPQ	FRC
Multimedia	MPQ	Frontend
Multimedia	MPQ	Player
Multimedia	MPQ	PVR
Multimedia	NA	NA
Multimedia	Power	Browser
Multimedia	Power	Display
Multimedia	Power	NA NA
Multimedia	Power	Open max
Multimedia	Power	Sensor
Multimedia	QCamcorder (video encoder)	DirectShow
Multimedia	QCamcorder (video encoder)	Postprocessing
Multimedia	QCamcorder (video encoder)	Quality
Multimedia	QCamcorder (video encoder)	Video engine
Multimedia	QCamcorder (video encoder)	VideoFMT
Multimedia	Qcamera	Bayer tuning
Multimedia	Qcamera	Bayer tuning – Onsite request
Multimedia	Qcamera	Camera power
Multimedia	Qcamera	Camera sensor driver
Multimedia	Qcamera	Camera software (other)
Multimedia	Qcamera	CAMIF
Multimedia	Qcamera	IPL
Multimedia	Qcamera	JPEG/PNG/EXIF
Multimedia	Qcamera	Tools (QClimb/QChromatix)
Multimedia	Qcamera	UI/services

Multimedia (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
Multimedia	QTV (video decoder)	Broadcast
Multimedia	QTV (video decoder)	Codecs
Multimedia	QTV (video decoder)	Parser/player
Multimedia	QTV (video decoder)	Real player
Multimedia	QTV (video decoder)	Streaming
Multimedia	QTV (video decoder)	Wi-Fi display
Multimedia	QVideophone	CircuitSwitchedVT
Multimedia	QVideophone	Codec API
Multimedia	QVideophone	H.324 stack
Multimedia	QVideophone	MVS
Multimedia	QVideophone	PacketSwitchedVT

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Modem

Problem Area 1	Problem Area 2	Problem Area 3
CDMA1x/EV-DO	1X interop/testing	CDG1
CDMA1x/EV-DO	1X interop/testing	CDG2 (signaling conformance)
CDMA1x/EV-DO	1X interop/testing	Field performance
CDMA1x/EV-DO	1X L1	Searcher/MUX/sleep
CDMA1x/EV-DO	1X protocols	Call processing
CDMA1x/EV-DO	1X protocols	OTASP/OTAPA
CDMA1x/EV-DO	1X protocols	SMS/WMS/EMS
CDMA1x/EV-DO	Android RIL	Other
CDMA1x/EV-DO	Android RIL	UIM RIL
CDMA1x/EV-DO	Android telephony	Others
CDMA1x/EV-DO	Android telephony	SIM/UIM/STK
CDMA1x/EV-DO	Call manager	NA
CDMA1x/EV-DO	Crash/stability	mDSP firmware
CDMA1x/EV-DO	Crash/stability	Software
CDMA1x/EV-DO	EV-DO interop/testing	MPS
CDMA1x/EV-DO	EV-DO interop/testing	Signaling conformance
CDMA1x/EV-DO	EV-DO L1	Searcher/sleep/MUX
CDMA1x/EV-DO	EV-DO protocols	BCMCS
CDMA1x/EV-DO	EV-DO protocols	EV-DO Rev 0
CDMA1x/EV-DO	EV-DO protocols	EV-DO Rev A
CDMA1x/EV-DO	EV-DO protocols	EV-DO Rev B
CDMA1x/EV-DO	HLOS (Android/Windows) data	Android
CDMA1x/EV-DO	HLOS (Android/Windows) data	QNX
CDMA1x/EV-DO	HLOS (Android/Windows) data	Windows
CDMA1x/EV-DO	Modem data (CDMA1x/EV-DO)	ATCOP
CDMA1x/EV-DO	Modem data (CDMA1x/EV-DO)	CDMA1x RLP
CDMA1x/EV-DO	Modem data (CDMA1x/EV-DO)	Common data service
CDMA1x/EV-DO	Modem data (CDMA1x/EV-DO)	EVDO RLP
CDMA1x/EV-DO	Modem data (CDMA1x/EV-DO)	QoS
CDMA1x/EV-DO	QMI/RMNET	QMI framework/QCCI/QCSI/IPC router
CDMA1x/EV-DO	QMI/RMNET	QMI MMODE
CDMA1x/EV-DO	QMI/RMNET	QMI others
CDMA1x/EV-DO	QMI/RMNET	QMI_Data

Modem (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
CSM	System/standard	CDMA2000 1X
CSM	System/standard	CDMA2000 1X advanced
CSM	System/standard	LTE
CNE	CNE	NA
GERAN	Android RIL	Other
GERAN	Android RIL	UIM RIL
GERAN	Android telephony	Others
GERAN	Android telephony	SIM/UIM/STK
GERAN	Data aborts/error fatals/crash (GERAN)	mDSP firmware
GERAN	Data aborts/error fatals/crash (GERAN)	Software
GERAN	GCF and ADAPT (GERAN)	ADAPT
GERAN	GCF and ADAPT (GERAN)	Documentation
GERAN	GCF and ADAPT (GERAN)	GPS
GERAN	GCF and ADAPT (GERAN)	Protocol
GERAN	GCF and ADAPT (GERAN)	RF
GERAN	GCF and ADAPT (GERAN)	USIM/SIM/SAT
GERAN	HLOS (Android/Windows) data	Android
GERAN	HLOS (Android/Windows) data	QNX
GERAN	HLOS (Android/Windows) data	Windows
GERAN	Modem data (GERAN)	AT commands
GERAN	Modem data (GERAN)	Data
GERAN	NAS (GERAN)	NAS
GERAN	NAS (GERAN)	SMS/EMS/WMS
GERAN	QMI/RMNET	QMI framework/QCCI/QCSI/IPC router
GERAN	QMI/RMNET	QMI MMODE
GERAN	QMI/RMNET	QMI others
GERAN	QMI/RMNET	QMI_Data
gpsOne™	CDG/PLTS	CDMA
gpsOne	CDMA protocol	V1V2/E911/IS801
gpsOne	Drivers (GPS)	Sensors
gpsOne	GCF/ULTS	UMTS

Modem (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
gpsOne	Legacy API	BREW™/IPOSDET
gpsOne	Legacy API	Java/JSR179
gpsOne	Legacy API	Native PDAPI
gpsOne	LOC API	Linux
gpsOne	LOC API	Symbian
gpsOne	LOC API	WinMobile
gpsOne	Navigation (GPS)	WiFi
gpsOne	Performance (GPS)	XTRA
gpsOne	Tools (GPS)	QXDM Professional™/SnapperHS
gpsOne	UMTS protocol	SUPL/E911
LTE	Data aborts/error fatals/crash (LTE)	NA
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	3GPP/VZW protocol
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	ADAPT protocol
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	ADAPT throughput
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	RF/RRM
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	RF/TRX
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	SIM/USIM/SAT
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	VZW data throughput
LTE	GCF/PTCRB/AT&T/T-Mob/VZW (lab conformance)	
LTE	Inter-RAT (LTE)	1x/DO
LTE	LTE-AS	LTE-eMBMS
LTE	LTE-AS	LTE-L1
LTE	LTE-AS	LTE-TDD
LTE	LTE-AS	PDCP/RLC/MAC
LTE	LTE-AS	RRC
LTE	LTE-NAS	EMM/ESM
LTE	Modem data (LTE)	Data software issue
LTE	SMS	IMS

Modem (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
TD-SCDMA	TD-SCDMA-AS	HSDPA/HSUPA/throughput
TD-SCDMA	TD-SCDMA-AS	RLC/MAC
TD-SCDMA	TD-SCDMA-AS	TD-SCDMA-L1
UIM	GSDI	CSIM
UIM	GSDI	RUIM (UIM)
UIM	GSDI	SIM
UIM	GSDI	USIM
UIM	GSDI	USIM
UIM	Others	BIP
UIM	Others	Phonebook
UIM	RIL_UIM	Others (UIM)
UIM	RIL_UIM	QMI
UIM	RIL_UIM	QMI (UIM)
UIM	RIL_UIM	STK
UMTS	Modem data (UMTS)	Data throughput issue
UMTS	WCDMA-AS	HSDPA/HSUPA
UMTS	WCDMA-AS	Protocol/systems/testing
UMTS	WCDMA-AS	WCDMA-L1

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Software	Factory technology	Factory test mode	FTM command
Software	Factory technology	Factory test mode	FTM enhanced sweep cal
Software	Factory technology	Factory test mode	FTM framework
Software	Factory technology	Factory test mode	FTM QMSL/QLIB library
Software	Factory technology	Factory test mode	FTM RF chipset API
Software	Factory technology	Factory test mode	FTM RF verification framework
Software	Factory technology	Factory test mode	FTM sequencer
Software	Factory technology	Factory test mode	FTM test equipment requirement
Software	Factory technology	Factory test mode	FTM test time improvement
Software	Factory technology	Factory test mode	FTM Tx internal cal
Software	Factory technology	Factory verification	FTM RF – CDMA
Software	Factory technology	Factory verification	FTM RF – GSM
Software	Factory technology	Factory verification	FTM RF – LTE
Software	Factory technology	Factory verification	FTM RF – TDSCDMA
Software	Factory technology	Factory verification	FTM RF – UMTS
Software	Factory technology	Factory verification	Nonsignaling CDMA
Software	Factory technology	Factory verification	Nonsignaling GSM
Software	Factory technology	Factory verification	Nonsignaling LTE
Software	Factory technology	Factory verification	Nonsignaling TDSCDMA
Software	Factory technology	Factory verification	Nonsignaling UMTS

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Software	Factory technology	QDART (factory)	Config editor tool
Software	Factory technology	QDART (factory)	Noise profiling tool
Software	Factory technology	QDART (factory)	QCOM SCPI command
Software	Factory technology	QDART (factory)	QDART help file/installer
Software	Factory technology	QDART (factory)	QLIB demo
Software	Factory technology	QDART (factory)	QMine/DataMiner
Software	Factory technology	QDART (factory)	QMSL NV tool/NV Diff
Software	Factory technology	QDART (factory)	QRCT
Software	Factory technology	QDART (factory)	QSEQ
Software	Factory technology	QDART (factory)	QSPR – Automation framework
Software	Factory technology	QDART (factory)	QSPR – Factory production
Software	Factory technology	QDART (factory)	QSPR – Plug-in development
Software	Factory technology	QRD tool	Environment setup
Software	Factory technology	QRD tool	General NPI support
Software	Factory technology	QRD tool	MMI
Software	Factory technology	QRD tool	Radiated
Software	Factory technology	QRD tool	RF Cal/Ver
Software	Factory technology	QRD tool	Service programming
Software	Factory technology	QRD tool	SWDL

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Hardware/software	RF	CDMA RF software	Crash/stability
Hardware/software	RF	CDMA RF software	Customer feature
Hardware/software	RF	CDMA RF software	Feature – AGC
Hardware/software	RF	CDMA RF software	Feature – Compensation
Hardware/software	RF	CDMA RF software	Feature – Multicarrier
Hardware/software	RF	CDMA RF software	Feature – Power limiting
Hardware/software	RF	CDMA RF software	Feature – SAR
Hardware/software	RF	CDMA RF software	Feature – SVLTE/SVDO
Hardware/software	RF	CDMA RF software	Feature support/release schedule
Hardware/software	RF	CDMA RF software	Field test
Hardware/software	RF	CDMA RF software	FTM RF test
Hardware/software	RF	CDMA RF software	FTM software
Hardware/software	RF	CDMA RF software	Functional Test – Acquisition
Hardware/software	RF	CDMA RF software	Functional Test – General
Hardware/software	RF	CDMA RF software	Functional Test – Handover/InterRAT/band
Hardware/software	RF	CDMA RF software	Functional Test – MIMO/diversity
Hardware/software	RF	CDMA RF software	Functional Test – Online/signaling call
Hardware/software	RF	CDMA RF software	Lab comformance/certification
Hardware/software	RF	CDMA RF software	Non-signaling test
Hardware/software	RF	CDMA RF software	Performance test - BER/SER
Hardware/software	RF	CDMA RF software	Performance test – General
Hardware/software	RF	CDMA RF software	Performance test – Power
Hardware/software	RF	CDMA RF software	Performance test – Radiated
Hardware/software	RF	CDMA RF software	Performance test – Sleep/wakeup/current
Hardware/software	RF	CDMA RF software	Performance test – Throughput
Hardware/software	RF	CDMA RF software	QCN/RF NV
Hardware/software	RF	CDMA RF software	RF band support
Hardware/software	RF	CDMA RF software	RF Cal – CDMA
Hardware/software	RF	CDMA RF software	RF front end
Hardware/software	RF	CDMA RF software	RF Rx
Hardware/software	RF	CDMA RF software	RF Tx

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Hardware/software	RF	FTTL	Doc_Equipment_Requirements
Hardware/software	RF	FTTL	Doc_General
Hardware/software	RF	FTTL	Doc_RF_ICD
Hardware/software	RF	FTTL	Doc_RF_Procedure
Hardware/software	RF	FTTL	DUT_General
Hardware/software	RF	FTTL	DUT_RF_Cal
Hardware/software	RF	FTTL	DUT_RF_Connectivity
Hardware/software	RF	FTTL	DUT_RF_GPS
Hardware/software	RF	FTTL O	DUT_RF_Verification
Hardware/software	RF	FTTL	DUT_SW_Upgrade
Hardware/software	RF	ETTL	DUT_Verification
Hardware/software	RF	FTTL	FTTL_OEM_Issue
Hardware/software	RF	FTTL	FTTL_Rights_Of_Use
Hardware/software	RF	FTTL	QDART_Help
Hardware/software	RF	FTTL	QMSL_Demo
Hardware/software	RF	FTTL	QMSL_General
Hardware/software	RF	FTTL	QMSL_Integration
Hardware/software	RF	FTTL	QMSL_RF_Connectivity
Hardware/software	RF	FTTL	QMSL_RF_GPS
Hardware/software	RF	FTTL	QRCT_General
Hardware/software	RF	FTTL	QRCT_GPS
Hardware/software	RF	FTTL	QRCT_Installer
Hardware/software	RF	FTTL	QRCT_RF_Connectivity
Hardware/software	RF	FTTL	QSEQ_DUT_Automation
Hardware/software	RF	FTTL	QSEQ_Project
Hardware/software	RF	FTTL	Training
Hardware/software	RF	GERAN RF software	RF Cal – GERAN
Hardware/software	RF	LTE RF software	Feature – Carrier aggregation
Hardware/software	RF	LTE RF software	Performance test – Power accuracy
Hardware/software	RF	LTE RF software	RF Cal – LTE

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Hardware/software	RF	RF cal/factory RF software	APT/EPT/ET power tracking
Hardware/software	RF	RF cal/factory RF software	Automation – Factory efficiency
Hardware/software	RF	RF cal/factory RF software	Automation – FTM sequencer
Hardware/software	RF	RF cal/factory RF software	Automation – General
Hardware/software	RF	RF cal/factory RF software	Automation – QMSL/FTM
Hardware/software	RF	RF cal/factory RF software	Automation – QSEQ
Hardware/software	RF	RF cal/factory RF software	Automation – RF chipset API
Hardware/software	RF	RF cal/factory RF software	Automation – Test equip firmware integration
Hardware/software	RF	RF cal/factory RF software	RF cal – Design characterization
Hardware/software	RF	RF cal/factory RF software	RF cal – Factory lockdown
Hardware/software	RF	RF cal/factory RF software	RF cal – QMSL/FTM
Hardware/software	RF	RF cal/factory RF software	RF cal – Sequence design
Hardware/software	RF	RF cal/factory RF software	RF cal – TDSCDMA
Hardware/software	RF	RF cal/factory RF software	RF cal – UMTS
Hardware/software	RF	RF cal/factory RF software	RF cal – XO/DAC/RC tuner cal
Hardware/software	RF	RF cal/factory RF software	RF front End – Antenna tuner
Hardware/software	RF	RF cal/factory RF software	RF front End – PA
Hardware/software	RF	RF cal/factory RF software	RF tool – General
Hardware/software	RF	RF cal/factory RF software	RF tool – QRCT
Hardware/software	RF	RF cal/factory RF software	RF tool – QSPR
Hardware/software	RF	RF driver design	FTM
Hardware/software	RF	RF driver design	RF bringup – Antenna
Hardware/software	RF	RF driver design	RF bringup – Functional test
Hardware/software	RF	RF driver design	RF bringup – GPIO/GRFC
Hardware/software	RF	RF driver design	RF bringup – PA
Hardware/software	RF	RF driver design	RF bringup – Verification
Hardware/software	RF	RF driver design	RF design review
Hardware/software	RF	TDSCDMA RF software	Functional test – Handover/InterRAT
Hardware/software	RF	TDSCDMA RF software	Lab conformance/Certification
Hardware/software	RF	UMTS RF software	Feature - Dual carrier/DCHSPA
Hardware/software	RF	UMTS RF software	RF call – UMTS

Initial Problem Type	Problem Area 1	Problem Area 2	Problem Area 3
Hardware/software	Tools	QDART	Documentation/Installation
Hardware/software	Tools	QDART	Feature/request/schedule
Hardware/software	Tools	QDART	QMSL (factory automation)
Hardware/software	Tools	QDART	QRCT (FTM RF)
Hardware/software	Tools	QDART	QSPR (RF calibration)

Wireless Connectivity

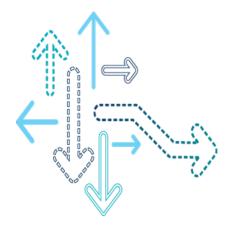
Problem Area 1	Problem Area 2	Problem Area 3
Wired connectivity (hardware)	Ethernet (hardware)	Front end
Wired connectivity (hardware)	Ethernet (hardware)	PCle
Wired connectivity (hardware)	Ethernet (hardware)	Power
Wired connectivity (hardware)	Ethernet (hardware)	Qualification
Wired connectivity (hardware)	Ethernet (hardware)	RX
Wired connectivity (hardware)	Ethernet (hardware)	Sleep mode
Wired connectivity (hardware)	Ethernet (hardware)	ΤX
Wired connectivity (hardware)	Ethernet (hardware)	WOL
Wired connectivity (software)	Ethernet (software)	Firmware
Wireless connectivity	ANT+	ANT+/BT/WLAN/LTE Coex (software)
Wireless connectivity	ANT+	General
Wireless connectivity	ANT+	RF/FTM/factory testing
Wireless connectivity	ANT+	Stability/crash
Wireless connectivity	Bluetooth®	A2DP profile
Wireless connectivity	Bluetooth	BT/WLAN/LTE coex (software)
Wireless connectivity	Bluetooth	HFP/HSP profiles
Wireless connectivity	Bluetooth	Low Energy (LE)
Wireless connectivity	Bluetooth	OBEX profiles
Wireless connectivity	Bluetooth	Other profiles
Wireless connectivity	FM	NA
Wireless connectivity	NFC (software)	Android NFC application
Wireless connectivity	NFC (software)	Android NFC driver
Wireless connectivity	NFC (software)	NFC feature discussion
Wireless connectivity	NFC (software)	Test tool
Wireless connectivity	NFC (software)	Windows NFC application
Wireless connectivity	NFC (softwre)	Windows NFC driver
Wireless connectivity	WLAN – Atheros	BT/WLAN coex (software)
Wireless connectivity	WLAN – Atheros	Core stack/FTM
Wireless connectivity	WLAN – Atheros	Integration/hardware customization
Wireless connectivity	WLAN – Atheros	Wi-Fi display
Wireless connectivity	WLAN – Atheros	WLAN application

Wireless Connectivity (cont.)

Problem Area 1	Problem Area 2	Problem Area 3
Wireless connectivity	WLAN – WCN	11ac
Wireless connectivity	WLAN – WCN	Certification
Wireless connectivity	WLAN – WCN	Concurrency – SCC/MCC
Wireless connectivity	WLAN – WCN	Core stack – SoftAP
Wireless connectivity	WLAN – WCN	Core stack – STA
Wireless connectivity	WLAN – WCN	HAL/PHY/RF/FTM software
Wireless connectivity	WLAN – WCN	HS 2.0
Wireless connectivity	WLAN – WCN	IOT
Wireless connectivity	WLAN – WCN	Power/current consumption
Wireless connectivity	WLAN – WCN	Roaming
Wireless connectivity	WLAN – WCN	Tput issues
Wireless connectivity	WLAN – WCN	Wi-Fi direct (P2P)/Wi-Fi display
Wireless connectivity	WLAN – WCN	Wi-Fi direct (P2P)/Wi-Fi display

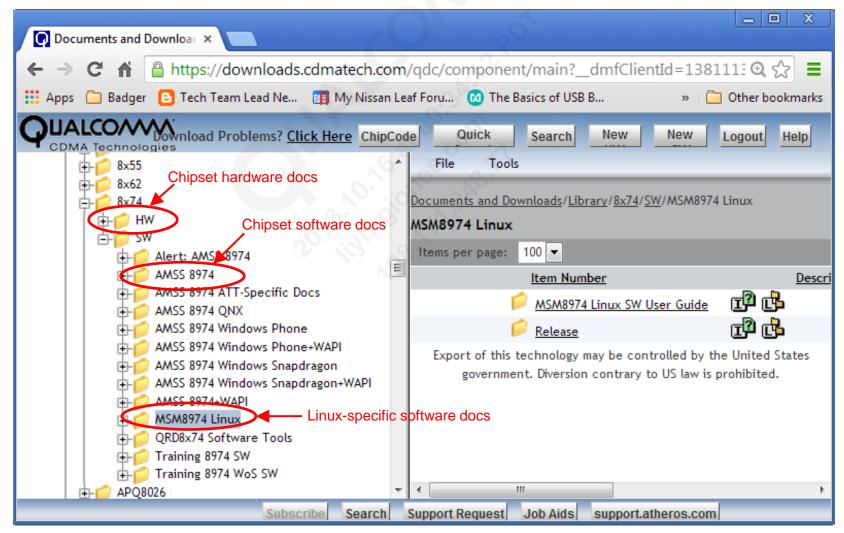
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Documentation and Resources



Documentation

 All Linux/Android documentation is provided in Documents and Downloads at https://support.cdmatech.com/ in the paths specified below.



Key Documentation Example

- Standard chipset documents for MSM8974 include:
 - CL93-V3077-1 Application Note: Software Glossary for Customers
 - SP80-NA157-4 Software User Manual for MSM8974 Linux Android™
 - Release notes
 - 80-NH436-* MSM8974.LA.1.0 Release 1.0.3* for MSM8x74/APQ8074 Devices
 - 80-NA157-140 MSM8974 LA 1.0 Test Results

Platform

- 80-NA157-13 Presentation: MSM8974 LA Product Overview
- 80-NA157-51 Presentation: MSM8974 Android™ Software Architecture Overview
- 80-NA157-7 Presentation: MSM8974 Boot Architecture Overview
- 80-NA157-6 Presentation: MSM8974 TrustZone Customization and Debugging Guide
- 80-NA157-8 Presentation: MSM8974 Board Support Package
- 80-NA157-9 Presentation: RPM Debug Overview
- 80-NA157-49 Presentation: MSM8974 PMIC Software Driver Overview
- 80-NA157-65 Presentation: MSM8974 ADSP Sensors Overview
- 80-NA157-25 Presentation: MSM8974 Android™ Power and Thermal Management
- 80-NA157-10 Presentation: MSM8974 Power Management Overview
- 80-NA157-53 Presentation: MSM8974 LA Debug Overview
- 80-NA157-62 Presentation: MSM8974 Qualcomm Debug Subsystem Overview
- 80-NA157-52 Presentation: MSM8974 Diag System Architecture
- 80-NA157-40 Presentation: MSM8974 USB Overview

Key Documentation Example (cont.)

Multimedia

- 80-NA157-17 Presentation: MSM8974 Multimedia Overview
- 80-NA157-22 Presentation: MSM8974/APQ8074/MSM8x26/APQ8084 Linux Camera Overview
- 80-NA157-28 Presentation: MSM8974 Android™ Audio Overview
- 80-NA157-29 Presentation: MSM8974 Linux Android™ Graphics Overview
- 80-NA157-11 Presentation: MSM8974 Linux Android™ Video Overview
- 80-NA157-12 Presentation: MSM8974 Linux Android™ Display Overview

Connectivity

- 80-N5182-1 gpsOne Gen 8A/8B Engine Overview
- 80-Y0513-1 QCA WCN36x0 Software Architecture

Modem/RF

- 80-NA157-41 Presentation: MSM8974 Modem Overview
- 80-NA157-46 Presentation: MSM8974 LTE RF Software
- 80-NA157-60 Presentation: MSM8974 Factory RF Test Migration
- 80-NA157-57 Presentation: MSM8974 Factory RF Calibration Software
- 80-NA157-59 Presentation: MSM8974 RF Software Tools
- 80-NA157-55 Presentation: MSM8974 CDMA RF Driver Overview
- 80-NA157-56 Presentation: MSM8974 GERAN RF Software
- 80-NA157-58 Presentation: MSM8974 RF Automation
- 80-NA157-50 Presentation: MSM8974 UMTS RF Software Overview

References

Ref.	Document				
Qualc	Qualcomm Technologies				
Q1	Application Note: Software Glossary for Customers	CL93-V3077-1			
Resou	Resources				
R1	Android Open Source Project	http://source.android.com			
R2	Android Open Source Project – Report bugs	http://source.android.com/source/report- bugs.html			
R3	Android Open Source Project – Community	http://source.android.com/source/community/ index.html			
R4	Android Documentation	http://source.android.com/source/index.html			
R5	Code Aurora Forum	http://codeaurora.org			
R6	Code Aurora Forum Downloading Instructions	https://www.codeaurora.org/xwiki/bin/QAEP/			

Questions?

https://support.cdmatech.com

