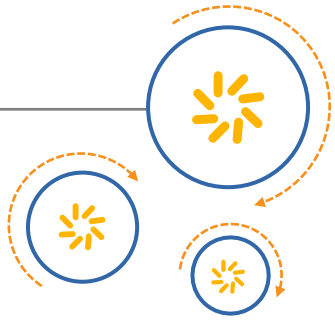
Qualcomm Technologies, Inc.



MSM8937/MSM8917 Chipset Master Document

80-P2485-550 A

May 5, 2016

Qualcomm Technologies, Inc.
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San Diego, CA 92121
U.S.A.

Revision history

Revision	Date	Description
A	May 2016	Initial release

Contents

Tables

1 Introduction

1.1 Purpose

This document provides a comprehensive list of reference documents of each supported feature/technology of the MSM8917/MSM8937 product line. These reference documents can be used to obtain more details for each feature/technology. This document is intended for customers who need to find additional information on features or technologies supported by the MSM89x7 product line.

1.2 Conventions

Function declarations, function names, type declarations, and code samples appear in a different font, e.g., `#include`.

Blue shading indicates documents that are specific to MSM89x7.

1.3 Technical assistance

For assistance or clarification on information in this document, submit a case to Qualcomm Technologies, Inc. (QTI) at https://createpoint.qti.qualcomm.com/.

If you do not have access to the CDMATech Support website, register for access or send email to support.cdmatech@qti.qualcomm.com.

2 Overview

All the documents can be downloaded from https://createpoint.qti.qualcomm.com/. See Appendix A to understand how to download documents from CreatePoint.

This chapter lists the product overview and core documents which are organized by:

- Architecture and feature overview
- Core documents

2.1 Certification/carrier architecture and feature overview

Table 2-1 Architecture and feature overview documents

Title	DCN
MSM8937 Device Specification	80-P2468-1
MSM8917 Device Specification	80-P2470-1
MSM8937/MSM8917 Software Architecture Overview	80-P2485-19
MSM8937/MSM8953 Boot Architecture Overview	80-P2485-1

2.2 Core documents

Table 2-2 Core documents

Title	DCN
MSM89X7 Modem Software Overview	80-P2485-12
MSM8937/MSM8953 Boot Architecture Overview	80-P2485-1
MSM8937 PMIC Linux Software Driver Overview	80-P2485-2
Low-Speed Peripherals Overview	80-NA157-24
MSM8937 System Power Overview	80-P2485-4
TZ.BF.4.0 Trustzone Architecture Overview for MSM8937/MSM8953	80-P2485-21
MSM8937 Linux Android Thermal Management Overview	80-P2485-13
MSM8937/MSM8917 Linux Android Audio Overview	80-P2485-5
MSM8937/MSM8917 Linux Android Video Overview	80-P2485-9
MSM8937/MSM8917 Linux Android Camera Overview	80-P2485-6
MSM8917/MSM8937 Linux Android Display Overview	80-P2485-7
MSM8937/MSM8917 Linux Android Graphics Overview	80-P2485-8
MSM8937 Android Performance Overview	80-P2485-11
MSM89X7 RF Software Overview	80-P2485-3
QCA WCN36X0 Software Architecture	80-Y0513-1

Title	DCN
MSM8937 System Drivers PMIC Overview	80-P2485-18
MSM8952 Linux Android Charger Software User Guide	80-NV610-44
MSM8937 Linux Android Software User Manual	SP80-P2485-4
MSM8937 Linux Android Software Porting Manual	SP80-P2485-6
MSM8937 Linux Android Software Debug Manual	SP80-P2485-5
MSM8937 Software Migration Overview	80-P2485-26
MSM8937 Clock Plan	80-P2485-20
MSM8937 System Drivers PMIC Overview	80-P2485-18
MSM8956/MSM8976/MSM8937 RPM Overview and Debug	80-NU154-10
MSM89X7 RF Bringup User Guide	80-P2485-14
MSM89X7 RFC Customization	80-P2485-15
Linux Audio Device Management	80-NL239-28
System Drivers PMIC API Interface Specification	80-NV610-42
VREG Clock Software User Guide	80-NV610-47

2.3 Certification/carrier

These test results are obtained on modem PL MPSS.JO.1.2.

Table 2-3 Certification/carrier documents

Title	DCN
China Telecom Device Configuration and Testing Information -- MPSS.DI.4.0, MPSS.DPM.1.0, MPSS.JO.1.0, and Later; MPSS.BO.1.0 TO MPSS.BO.2.5	80-NR766-1
Device Preparation for CT Precertification	80-P0994-1
Lab Conformance Test Configuration and Execution Guide	80-P5399-1
China Telecom (CT) Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-1
Sprint Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-10
CTA Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-11
RJIL Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-12
2G GCF 3.60 PTCRB 5.26 Test Case Results for MPSS.JO.1.0	80-P5427-13
3G GCF 3.60 PTCRB 5.26 Test Case Results for MPSS.JO.1.2	80-P5427-14
LTE GCF 3.60 PTCRB 5.26 Test Case Results for MPSS.JO.1.2	80-P5427-15
CMCC Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-16
Verizon Wireless Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-17
Modem Field Test Results (VZW PRE DFIT) for MPSS.JO.1.2	80-P5427-18
Docomo Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-2
T-MOBILE Lab Conformance Test Case Results for MPSS.JO.1.2	80-P5427-3
AT&T Adapt 10776 V11.6.1 Lab And Field Test Case Results for MPSS.JO.1.2	80-P5427-4
AT&T Adapt 10776 V11.5.1 Lab And Field Test Case Results for MPSS.JO.1.2 (PTN)	80-P5427-5
VZW EVDO SFN Detailed Report Test Results for MPSS.JO.1.2	80-P5427-6
VZW 1X SFN Detailed Report Test Results for MPSS.JO.1.2	80-P5427-7

Title	DCN
VZW LTE SFN SGS Test Results for MPSS.JO.1.2	80-P5427-8
MPSS.JO.1.2 GSM/GPRS/EGPRS Protocol Implementation Conformance Statement	80-P5466-1
MPSS.JO.1.2 3G Protocol Implementation Conformance Statement (PICS)	80-P5466-2
MPSS.JO.1.2 LTE Protocol Implementation Conformance Statement (PICS)	80-P5466-3
MPSS.JO.1.2 AGPS and SUPL Protocol Implementation Conformance Statement (PICS)	80-P5466-4
MPSS.JO.1.2 USAT, USIM, UICC, SWP and HCI Protocol Implementation Conformance Statement (PICS)	80-P5466-5
MDM9607 MPSS.JO.1.2 REL 1.0 Nokia ENB FL16 B2 B4 B12 B17 CAT1 LTE-FDD IOT Report	80-P5504-1

3 Hardware

This chapter lists the hardware-related documents. Hardware documents are organized by chipset.

DCN	Document title or description
MSM8937 documents	
80-P2468-1	MSM8937 Device Specification
80-P2468-1A	MSM8937 Pin Assignment Spreadsheet
80-P2468-1B	MSM8937 GPIO Configuration Spreadsheet
80-P2468-2X	MSM8937 Hardware Register Description
80-P2468-3	MSM8937 Chipset Layout Guidelines
80-P2468-4	MSM8937 Device Revision Guide
80-P2468-5A	MSM8937 Chipset Introduction Design Guidelines/Training Slides
80-P2468-5B	MSM8937 Digital Baseband Design Guidelines/Training Slides
80-P2468-7	MSM8937 Linux Android Current Consumption Data
80-P2468-12	MSM8937 Chipset Thermal Power Projection
80-P2468-41	MSM8937 + PM8937 + PMI8952/PMI8937 Reference Schematic
80-P2468-42	MSM8937 + WCD9326 Design Example Schematic
80-P2468-43	MSM8937 + PM8937 + PMI8952/PMI8937 + SMB1358 Design Example Schematic
80-P2468-111	MSM8937 + PM8937 + PMI8952/PMI8937 Schematic Review Checklist
80-P2468-112	MSM8937 + PM8937 + PMI8952/PMI8937 Layout Review Checklist
HS11-P2468-1HW	MSM8937 IBIS Model
HS11-P2468-1AHW	MSM8937 V5 IBIS Model
HS11-P2468-1BHW	MSM8937 CSI IBIS AMI Model
HS11-P2468-1CHW	MSM8937 DSI IBIS AMI Model
HS11-P2468-1DHW	MSM8937 USB IBIS AMI Model.
HS11-P2468-2HW	MSM8937 BSDL File
HS11-P2468-5HW	MSM8937 Thermal Package Model ICEPAK
HS11-P2468-6HW	MSM8937 Thermal Package Model Flotherm
HS11-P2468-13HW	MSM8937 DDR Package Model
MSM8917 documents	
80-P2470-1	MSM8917 Device Specification
80-P2470-1A	MSM8917 PIN Assignment Spreadsheet
80-P2470-1B	MSM8917 GPIO Configuration Spreadsheet
80-P2470-2X	MSM8917 Hardware Register Description
80-P2470-3	MSM8917 Chipset Layout Guidelines

DCN	Document title or description
80-P2470-4	MSM8917 Device Revision Guide
80-P2470-5A	MSM8917 Chipset Introduction Design Guidelines/Training Slides
80-P2470-5B	MSM8917 Digital Baseband Design Guidelines/Training Slides
80-P2470-6	MSM8937 to MSM8917 Hardware Migration Guide
80-P2470-7	MSM8917 Linux Android Current Consumption Data
80-P2470-12	MSM8917 Chipset Thermal Power Projection
80-P2470-41	MSM8917 + PM8937 + PMI8952/PMI8937 Reference Schematic
80-P2470-111	MSM8917 + PM8937 + PMI8952/PMI8937 Schematic Review Checklist
80-P2470-112	MSM8917 + PM8917 + PMI8952/PMI8937 Layout Review Checklist
HS11-P2470-1HW	MSM8917 IBIS Model
HS11-P2470-1AHW	MSM8917 V5 IBIS Model
HS11-P2470-1BHW	MSM8917 CSI AMI IBIS Model
HS11-P2470-1CHW	MSM8917 DSI AMI IBIS Model
HS11-P2470-1DHW	MSM8917 USB AMI IBIS Model
HS11-P2470-2HW	MSM8917 BSDL File
HS11-P2470-5HW	MSM8917 Thermal Package Model ICEPAK
HS11-P2470-6HW	MSM8917 Thermal Package Model Flotherm
HS11-P2470-13HW	MSM8917 DDR Package Model
Power management documents	
80-P2564-1	PM8937 Power Management IC Device Specification
80-P2564-2X	PM8937 Hardware Register Description
80-P2564-4	PM8937 Device Revision Guide
80-P2564-5A	PM8937 + PMI8952 Power Management IC Design Guidelines/Training Slides
80-P2564-5B	PM8937 + PMI8937 Power Management IC Design Guidelines/Training Slides
80-P2564-5C	PM8937 Chipset Audio Hardware Design Guidelines/Training Slides
80-NT391-1	PMI8952 Power Management Ic Device Specification
80-NT391-2X	PMI8952 Hardware Register Description
80-NT391-4	PMI8952 Device Revision Guide
80-P2563-1	PMI8937 Power Management IC Device Specification
80-P2563-2X	PMI8937 Hardware Register Description
80-P2563-4	PMI8937 Device Revision Guide
WLAN documents	
80-WL007-1	WCN3680B/WCN3660B Device Specification
80-WL007-4	WCN3680B Device Revision Guide
80-WL009-1	WCN3615 Wireless Connectivity IC Device Specification
80-WL009-4	WCN3615 Device Revision Guide
80-WL009-5A	WCN3615 Training and Design Guidelines
80-WL009-44	WCN3615 Wireless Connectivity Reference Schematic
WTR2655 RF transceiver documents	
80-NP237-1	WTR2X55/WTR2965 Wafer-Level RF Transceiver Device Specification
80-NP237-4	WTR2X55/WTR2965 Wafer-Level RF Transceiver Device Revision Guide

DCN	Document title or description
80-NP237-5	PRESENTATION: WTR2X55/WTR2965 Wafer-Level RF Transceiver Design Guidelines/Training Slides
80-NP237-42	Chile Non-CA Reference Schematic Using WTR2X55/WTR2965 and Qualcomm RF360
80-NP237-43	NA CA Reference Schematic Using WTR2955 and qualcomm RF360
80-NP237-44	JP/KR CA Reference Schematic Using WTR2955 AND Qualcomm RF360
80-NP237-45	Chile CA Reference Schematic Using WTR2955 and Qualcomm RF360
80-NP237-46	WTR2955 and Qualcomm RF360 Global CA Reference Schematic
80-NP237-47	WTR2X55/WTR2965 + Qualcomm RF360 with QFE4320, QFE2340 Chile Non-CA RF Sawless
80-NP237-48	WTR2965 + Qualcomm RF360 with QFE4320, QFE4303, AND QFE4305 ULCA Reference Schematic
80-NP237-49	WTR2965 and Qualcomm RF360 Global CA Design Example
80-NP237-50	WTR2965 + Qualcomm RF360 with QFE4320 and QFE2340 China 2DL CA Design Example
80-NP237-51	WTR2965 + Qualcomm RF360 with QPA4373, QFE430X Non-CA Sawless Reference Schematic
80-NP237-111	WTR2X55/WTR2965 Schematic Review Checklist
80-NP237-112	WTR2955/WTR2655 Layout Review Checklist
80-NP237-121	WTR2955/WTR2965 Port Mapping Spreadsheet

4 Common platform

This chapter lists the common platform related documents. Common platform documents are organized in the following categories:

- General documents
- Audio
- BSP
- EFS
- Flash
- Power
- Security
- Stability and debugging
- USB

4.1 General documents

Table 4-1 General documents

Title	DCN
QMI Master Document	80-NK255-1

4.2 Audio

Table 4-2 Audio documents

Title	DCN
ADSP Debug Guide for OEMs	80-NA354-3
Fluence V5 Dual and Single Mic Noise Suppression Audio Tuning Guide	80-NB428-2
Presentation: Voice System ID (VSID) Definition and Use Cases	80-NF711-1
Volte Audio Concepts and Log Analysis	80-NF802-1
MSM8937/MSM8917 Linux Android Audio Overview	80-P2485-5
Mobile Data Modem Audio Calibration Database User Guide	80-VM407-6
MDMSM8937 Audio Overview	80-P2485-5

4.3 BSP

Table 4-3 BSP documents

Title	DCN
Sahara Protocol Specification	80-N1008-1
Low-Speed Peripherals Overview	80-NA157-24
Diagnostic System User Guide	80-NA157-61
MSM8937/MSM8953 Boot Architecture Overview	80-P2485-1
MSM8937 System Drivers PMIC Overview	80-P2485-18
MSM8937 PMIC Linux Software Driver Overview	80-P2485-2
MSM8937 Clock Plan	80-P2485-20

4.4 EFS

Table 4-4 EFS documents

Title	DCN
Application Note: EFS2 Power Down Handling Strategy	80-N4892-1
Application Note: EFS Prepopulate Feature	80-NF891-1
File System Subsystem Interface Control Document (ICD)	80-V1294-11

4.5 Flash

Table 4-5 Flash documents

Title	DCN
Qualcomm Factory Programming Specification for Nand Flash Version 2.1	80-VF498-1
Presentation: Flash Devices and Drivers Overview	80-VH776-1
Flash Device Driver Interface Specification and Operational Description	80-VK567-1
Nand Flash Driver Page Layouts	80-VP837-1
Presentation: Flash Driver Dal Overview	80-VT450-1
Presentation: Flash Driver Hal Overview	80-VT451-1

4.6 Power

Table 4-6 PMIC and power documents

Title	DCN
Resource Power Manager (RPM.BF) User Guide	80-NU154-10
MSM8956/MSM8976/MSM8937 RPM Overview AND Debug	80-NA157-15
System Drivers PMIC API Interface Specification	80-P2485-4
MSM8952 Linux Android Charger Software User Guide	80-P2485-18
VREG Clock Software User Guide	80-NV610-42

Title	DCN
MSM8937 System Drivers PMIC Overview	80-NV610-44
MSM8937 System Power Overview	80-NV610-47

4.7 Security

Table 4-7 Security documents

Title	DCN
Core Security Services Document Set	80-N5543-1
Presentation: Modem Self-Authentication Overview	80-NA157-18
MSM8937 Security TrustZone QSEE Overview	80-P2485-21

4.8 Stability and debugging

Table 4-8 Stability and debugging documents

Title	DCN
MPSS Debug Guide	80-NF515-10
Diagnostic System User Guide	80-NA157-61

4.9 USB

Table 4-9 USB documents

Title	DCN
Presentation: HSIC Overview	80-N1513-1
Tuning the USB PHY Eye Diagram and Receiver Sensitivity	80-NA648-1
Linux USB Implementation Guide	80-NF283-1

5 Modem

This chapter lists the modem documents. Modem-related documents are organized in the following categories:

- Modem protocol
- Call Manager
- Data services
- Multimode
- RF
- UASMS/WMS
- UIM
- User interface

5.1 Modem protocol

Section 5.1 lists the modem protocol-related documents.

- CDMA2000 (1X)
- EVDO
- GERAN
- WCDMA
- HSPA/DC-HSPA+
- UMTS
- LTE
- TD-SCDMA

5.1.1 Overview

Table 5-1 Modem overview documents

Title	DCN
MSM89X7 Modem Software Overview	80-P2485-12

5.1.2 CDMA2000 (1X)

Table 5-2 CDMA2000 (1X) documents

Title	DCN
1X Advanced Feature Description Document	80-N0919-1
1X Circuit-Switched Fallback Feature Definition Document	80-N2167-1
Presentation: OTASP Implementation in DMSS	80-V0223-1
Presentation: Call Processing	80-V0257-1
Call Processing 1X Subsystem Interface Control Document (ICD)	80-V1294-20
Presentation: System Determination 2.0	80-VC513-1
Presentation: P2 Mode/Control Hold Feature Overview	80-V3088-1
Qualcomm's Recommended System Selection Requirements for 1X and 1XEV-Do-Capable Terminals	80-V8767-1
Presentation: QCT VOIP Call Features	80-VA446-1
Tia-1082 Mobile Equipment Identifier (MEID) Feature Description	80-VA831-1
Presentation: Forward Link Interference Cancellation in CDMA2000 1X Systems	80-VG506-1
AMSS CDMA Sleep Mechanism	80-VG898-1
Presentation: Qualcomm Linear Interference Cancellation (QLIC)	80-VK119-1
Plus Code Dialing HPCD Table Information	80-VK925-1
Presentation: Impact Of Antenna Imbalance And Correlation ON 1X MS RXD Performance	80-VP056-1
Application Note: Otapa Implementation in DMSS	CL93-V1266-1
Application Note: E911 Operation in DMSS	CL93-V1267-1
Application Note: Fast Forward Power Control	CL93-V1289-1
Application Note: Reverse Power Control	CL93-V1290-1
Application Note: Action Time Processing in DMSS	CL93-V1293-1
App Note: IS-2000 MUX Layer	CL93-V1991-1
Application Note: Dynamic Configuration of IS-95B/IS-2000 OPTIONAL Features in DMSS/AMSS	CL93-V6376-1

5.1.3 EVDO

Table 5-3 EVDO documents

Title	DCN
Idle Digital Mode Overview	80-N2449-1
Application Note: Limitations On Windows XP for Dual-IP Bearer Over Singlermnet	80-N2456-1
Presentation: IS-856 Implementation Overview	80-V3445-1
White Paper: Introduction to Mobile Receive Diversity	80-V5817-1
Test Recommendations for 1XEV-DO Hybrid Mode Terminals	80-V6313-1
Enhanced Multi-Flow Packet Application Feature Definition Document	80-V7647-1
1XEV-DO BCMCS Air Interface Feature Definition Document	80-V8410-1
1XEV-DO BCMCS Call Processing Implementation	80-V9035-1
Presentation: Quality of Service (QOS) Overview	80-V9199-1
Presentation: Introduction to Simultaneous 1X Paging AND 1XEV-DO Traffic/BCMCS	80-V9477-1
Application Note: 1XEV-DO Redirection Implementation IN Hybrid Mode FOR AMSS 6500	80-V9949-1
Implementation Suggestion: Separate NAIS for Tethered and Sockets Operation	80-V9972-1
Presentation: Introduction to 1XEV-DO	80-VA238-1
Presentation: Introduction to Broadcast Multicast Services (BCMCS)	80-VA252-1
1XEV-DO Nonvolatile Memory Items	80-VB048-1
Quality of Service (QOS) Feature for 1XEV-DO Revision A	80-VB296-1
SHA-1 Authentication IOT Test Plan	80-VB494-1
Application Note: 1XEV-DO Equalizer for MSM6800	80-VC263-1
Application Note: 1XEV-DO TX Power Backoff Functionality IN AMSS	80-VC509-1
Application Note: MSM6800 Throughput Performance	80-VC877-1
Videotelephony Feature for 1XEV-DO Feature Definition Document	80-VC899-1
Application Note: Avoiding 1XEV-DO System with Apersistence Equals 0X3F	80-VC990-1
MIP Deregistration BSI IOT Test Plan	80-VD665-1
Presentation: 1XEV-DO Data Services Overview	80-VE661-1
Presentation: System Determination Design Analysis	80-VE705-1
Qualcomm-Alcatel-Lucent 1XEV-DO REV A EMPA Interoperability Test Report	80-VF630-1
Presentation: Gold Bcmcs Interlace-Multiplex Config Guidelines for Optimal Standby Performance	80-VF740-1
Presentation: Hybrid Tune-Away Statistics - Paging Channel vs. Quick Paging Channel	80-VF995-1
Presentation: PSVT Solution Over EV-DO REV A	80-VG000-1
Presentation: Crash Debugging 1XEV-DO Chipsets	80-VG260-1
Presentation: EV-DO RX Diversity, SHDR, and Other 1X/DO Performance Improvements	80-VG559-1
Support of the AWS Band Class with 3GPP2 C.S0016 ON ESN Based Handsets Standard Update	80-VH908-1
AT Initiated GAUP Support for Slot Cycle INDEX 7	80-VJ638-1
Interoperability Test Plan for Secondary Color Code Feature	80-VJ855-1

Title	DCN
Application Note: 1XEV-DO Keep Alive Procedures Enhancements	80-VN840-1
Guidelines FOR Field Test Cases	80-VP191-1
Presentation: Introduction to 1XEV-DO REV B	80-VP829-1
1X/EV-DO FFA Provisioning User Guide	80-VU399-1
App Note: Creating A Preferred Roaming List for 1XEV-DO-Capable MS	CL93-V3803-1
Application Note: IS-878 Operational Description	CL93-V3864-1
Application Note: 1XEV Hybrid Terminal Operation	CL93-V4167-1

5.1.4 GERAN

Table 5-4 GERAN documents

Title	DCN
Presentation: Cell Broadcast in Geran DRX Mode	80-N3938-1
Presentation: Geran to LTE Redirection	80-N5852-1
Presentation: Geran-to-LTE Reselection	80-N5853-1
Presentation: AMSS GPRS LLC Overview	80-V4184-1
Presentation: AMSS GPRS MAC Overview	80-V4190-1
Presentation: AMSS GPRS RLC Overview	80-V4192-1
Presentation: Geran Overview	80-V5355-1
Generic Subscriber Identity Module Application Toolkit API Interface Specification	80-V5421-1
Application Note: GSM Linear PA Calibration And Data Processing for NV Generation	80-V9774-16
Presentation: SAIC/DARP Feature for Geran	80-VE476-1
Presentation: Repeated Facch	80-VG697-1
Presentation: Typical PS Call Setup and Release	80-VG977-1
Presentation: Dedicated Mode Procedures in GSM	80-VG979-1
Presentation: Dual Transfer Mode and Enhanced Dual Transfer Mode	80-VH276-1
Presentation: ESAIC Feature for Geran	80-VK414-1
Presentation: Network Assisted Cell Change (NACC)	80-VN339-1

5.1.5 WCDMA

Table 5-5 WCDMA documents

Title	DCN
Qualcomm Interference Cancellation and Equalization (Q-ICE) Test Procedure	80-N5053-1
Application Note: CSG Application (AT&T UI Requirement)	80-NG376-1
Presentation: Closed Subscriber Group (CSG) Overview	80-NG428-1
Application Note: Disabling ENH CELL_FACH FOR UL (HS-RACH) and Enhanced L2 FOR UL (MAC-I/IS) Feature	80-NH339-1
Serial Interface Control Document for WCDMA	80-V2708-3
Presentation: AMSS WCDMA Layer 1	80-V3451-1
Presentation: AMSS WCDMA RLC	80-V3454-1
Presentation: AMSS WCDMA RRC	80-V3565-1
Presentation: WCDMA MAC LAYER (L2)	80-V3771-1
Presentation: WCDMA Protocols Overview	80-V3774-1
Presentation: WCDMA RLC LAYER (L2)	80-V3775-1
Presentation: WCDMA RRC LAYER (L3)	80-V3776-1
Presentation: AMSS WCDMA Architecture	80-V5378-1
Presentation: MBMS FOR WCDMA L2 Software	80-VF799-1
Presentation: AMSS INTER-RAT Overview	80-VH774-1
Presentation: INTER-RAT Handover	80-VN337-1
Presentation: INTER-RAT Cell Change Order	80-VN338-1
Presentation: REDIRECTION VIA RRC Connection Reject Message	80-VN340-1
Presentation: GSM-TO-WCDMA Measurements	80-VN341-1
Presentation: AMSS WCDMA MAC Layer Overview	80-VR024-1

5.1.6 HSPA/DC-HSPA+

Table 5-6 HSPA/DC-HSPA+ documents

Title	DCN
Presentation: Enhanced Uplink on Cell_Fach/Idle (HS-RACH)	80-NB921-2
Application Note: CQI and BLER Alignment Analysis	80-VB679-1
Presentation: HSDPA State Transition	80-VB716-1
Presentation: CQI Overview	80-VB740-1
Presentation: HSDPA Log Analysis	80-VB747-1
Application Note: Impact OF Multipath Components on CQI	80-VB845-1
Presentation: HSUPA Overview	80-VC487-1
Presentation: EUL Log Analysis	80-VE195-1
Presentation: HSDPA Throughput Specific Topics	80-VE487-1
Presentation: SERVING Grant Update and E-TFC Selection	80-VG011-1
Presentation: HSPA+ Continuous Packet Connectivity (CPC)	80-VJ078-1
Presentation: HSPA+ MIMO	80-VJ079-1

Title	DCN
Presentation: HSPA+ Higher Order Modulation	80-VJ080-1
Presentation: Introduction TO HSPA+	80-VJ081-1
Presentation: HSPA+ Enhanced RRC States	80-VK068-1
Presentation: HSPA+ Enhanced L2	80-VK069-1
Presentation: Enhanced F-DPCH	80-VK163-1
Presentation: HSPA+ Evolution in 3GPP Release 8	80-VU022-1

5.1.7 UMTS

Table 5-7 UMTS documents

Title	DCN
Presentation: Hsdpa Call Setup And Data Throughput Analysis	80-N0609-1
Presentation: HSUPA Call Setup and Data Throughput Analysis	80-N0654-1
Presentation: UMTS/GSM NAS - REG AMSS Implementation	80-N2324-9
NV Items Configuration Mandated by AT&T	80-N4812-1
Presentation: LTE TO/FROM WCDMA Cell Reselection	80-N6386-1
Presentation: LTE TO UMTS SRVCC Overview	80-ND074-1
Application Note: Fast Switch to Geran After Unsuccessful Redirection From LTE TO WCDMA	80-ND961-1
Application Note: Support for UMTS Band 850 MHZ	80-VB910-1
Presentation: Background PLMN Search Overview	80-VC055-1
Application Note: Silent Redial FOR Voice Calls	80-VE085-1
Presentation: AMSS Problem Reporting and Log Collection Procedures	80-VE482-1
Presentation: MBMS for WCDMA RRC Software	80-VF722-1
Presentation: MBMS for WCDMA L1 Software	80-VF723-1
Presentation: MBMS IN 3GPP Specification	80-VF724-1
Presentation: MBMS Overview	80-VF726-1
Presentation: MBMS Data Call Flows	80-VF755-1
Presentation: MBMS Application and Security	80-VF829-1
Presentation: Compressed Mode and INTER-RAT Handover	80-VG976-1
Presentation: UMTS/INTER-RAT CELL Reselection	80-VG982-1
Presentation: UMTS CS and PS Call Setup and Release	80-VG987-1
Presentation: UMTS Cell Selection	80-VG988-1
Presentation: TTCN and Log Analysis Overview	80-VG990-1
Variables for Debug or Engineering Screen	80-VK317-1
Presentation: Network Sharing Overview	80-VM637-1
Application Note: Service Status During LU Attempts	80-VP872-1

5.1.8 LTE

Table 5-8 LTE documents

Title	DCN
Presentation: LTE AS - Intrafrequency idle and Connected Mode Mobility	80-N0054-1
Presentation: LTE AS - Out Of Service and Radio Link Monitoring Overview	80-N0055-1
Presentation: LTE-TO-EHRPD Blind Redirection - IRAT Overview AND Procedures	80-N0056-1
Presentation: LTE NAS - Architecture Overview	80-N0057-1
Presentation: LTE NAS - EMM Implementation/Debug	80-N0058-1
Presentation: LTE NAS - ESM Implementation/Debug	80-N0059-1
Presentation: LTE Call Manager Overview	80-N0060-1
Test Setup To Validate LTE-TO-EHRPD Redirection	80-N0701-1
Application Note: Disabling Geran Capabilities on MDM9X00 Software	80-N2294-1
Application Note: SMS Over IMS Customization for the Verizon Network	80-N2915-1
Presentation: LTE NAS - SMS Support Overview	80-N3220-1
Presentation: 3GPP Circuit Switched Fallback (CSFB) Overview	80-N3729-1
Application Note: LTE Configuration for RX Chain Tests	80-N4023-1
C2K TO E-UTRA Cell Reselection Feature Definition Document (FDD)	80-N4483-1
Application Note: LTE->W/G Fast Redirection	80-N4486-1
Presentation: LTE TDD Overview	80-N4664-1
Presentation: LTE TDD Functional Overview	80-N4964-1
Application Note: LTE NAS EFS/NV Configurations	80-N5074-1
Application Note: Controlling Primary/Diversity RX Chains on MDM9X00 Devices	80-N5220-1
Application Note: Service Domain Selection (SDS) Implementation IN CSFB	80-N5361-1
Presentation: WCDMA to/from LTE Redirection Procedure	80-N5576-19
Application Note: Mobility from UMTS to LTE	80-N5896-1
Application Note: PLMN/RAT Selection - GSM/WCDMA/LTE/TD-SCDMA Targets	80-N9533-2
Application Note: Enabling Link Control for Multiple MO SMS	80-N9659-1
Presentation: LTE Connected Mode DRX	80-N9719-1
Presentation: LTE Cell Reselection and Redirection Overview	80-N9810-1
Presentation: LTE Connected Mode and Data Transfer	80-N9812-1
Application Note: IMS Configuration Overview	80-N9839-1
Application Note: Disabling Carrier Aggregation	80-NA157-137
Application Note: Configuring Default LTE UE CAT TO CAT 2 OR CAT 3 USING EFS	80-NA720-1
Presentation: LTE AS - Carrier Aggregation Overview	80-NB749-1
Presentation: LTE AS - CPU-Based Flow Control Overview	80-NB749-2
Presentation: LTE AS - Release 10 Mandatory Features	80-NB749-3
Presentation: LTE Connected Mode Gap Measurement	80-NB855-1
Application Note: Feature Group Indicators in LTE	80-NC526-1
Presentation: LTE - ISM Band Coexistence Overview	80-NC600-1
Presentation: LTE TO WCDMA SON/ANR Overview	80-ND166-1
Presentation: LTE TDD Overview and Log Analysis	80-ND387-1

Title	DCN
Presentation: LTE AS - VOLTE AS Features AND Log Analysis	80-ND484-1
Presentation: EMBMS LTE as Overview	80-ND654-1
Presentation: LTE TDD IRAT - LTE TDD <-> TD-SCDMA Idle Mode Reselection	80-NE407-1
Presentation: LTE TDD IRAT - TD-SCDMA Redirection-->LTE	80-NE407-2
Presentation: LTE TDD TO TD-SCDMA Inter-RAT PS HO	80-NE407-3
Presentation: LTE TDD IRAT - LTE-TDD<->TD-SCDMA BPLMN Procedures Overview	80-NE407-5
Presentation: LTE TDD INTER-RAT Overview	80-NE407-7
Presentation: LTE Mobility Between TDD and FDD overview	80-NE481-1
Presentation: LTE AS - Typical Field Scenarios/Checklists	80-NE962-1
Application Note: Enabling ZUC Algorithms IN LTE Security Capabilities	80-NF455-1
Application Note: Enabling LTE FDD/TDD Split FGI Feature (RP-120355)	80-NF911-1
Presentation: EMBMS- LTE as Log Analysis Overview	80-NF987-1
Presentation: LTE TO GSM SRVCC - Concepts and Log Analysis	80-NG001-1
LTE TDD-LTE FDD Mobility (Redirection/PS HO/Reselection) Overview and Log Analysis	80-NG621-1
Application Note: Connection Control FOR LTE RRC	80-NH496-1
Presentation: LTE Position Protocol, LTE OTDOA, and Assisted GNSS Over LTE Overview	80-NT693-1
Optimizing IDLE Mode Power IN M2M Devices	80-P3582-1
Cell Lock Feature Overview	80-P3624-1
Correction to Signaling of Multiple PLMNS IN SIB18	80-P3704-1
UMTS and LTE Protocol NV Items	80-VF299-1
Qualcomm LTE Feature Group Indicators (FGI) Compliance Document	80-VL053-1
Qualcomm LTE 3GPP 23.XXX Compliance Document	80-VL062-1
Qualcomm LTE 3GPP 36.XXX Compliance Document	80-VL063-1
Multimode System Selection Based on 3GPP2 Standard Feature Design Document	80-VL064-1
Presentation: LTE AS - Basic Call Procedures Overview	80-VL099-1
Presentation: LTE AS - Cell Selection and DRX/Paging	80-VL100-1
Serial Interface Control Document (ICD) for Long Term Evolution (LTE)	80-VP457-1
Presentation: LTE Physical Layer Overview	80-VR074-1
Presentation: LTE RRC Overview	80-VR075-1
Presentation: LTE RLC Layer	80-VR076-1
Presentation: LTE MAC Overview	80-VR077-1
Presentation: LTE PDCP Overview	80-VR078-1
Redirection-Based Mobility from E-UTRA TO CDMA2000 Feature Definition Document	80-VR259-1
Presentation: LTE Overview	80-VR385-1
Presentation: LTE IRAT Overview	80-VR386-1
Presentation: LTE Non Access Stratum (NAS) Overview	80-VT671-1
Qualcomm RAN5 LTE Feature List Compliance Document	80-VT966-1

5.1.9 TD-SCDMA

Table 5-9 TD-SCDMA documents

Title	DCN
Presentation: TD-SCDMA Software Overview	80-N5576-22
Presentation: MDM9X15 2.0 System Selection and TD-SCDMA Mode ConfiguratioN	80-N5576-58
Presentation: TD-SCDMA Cell Selection and DRX/PAGING	80-N5576-64
Presentation: TD-SCDMA Inter-RAT Overview	80-N5576-65
Presentation: TD-SCDMA RLC Overview	80-N5576-66
Presentation: TD-SCDMA HSUPA Overview	80-N5576-67
Presentation: MPSS TD-SCDMA Architecture Overview	80-N5576-68
Presentation: TD-SCDMA Inter-RAT Cell Change Order	80-N5576-70
Presentation: TD-SCDMA Inter-RAT Handover	80-N5576-71
Presentation: TD-SCDMA-to-GSM Measurements	80-N5576-72
Presentation: TD-SCDMA RSCP Scheduling	80-N5576-73
Presentation: TD-SCDMA Cell Reselection and OOS	80-N5576-74
Presentation: TD-SCDMA MAC Overview	80-N5576-77
Presentation: TD-SCDMA HSDPA Overview	80-N5576-80
Presentation: TD-SCDMA--->TDD LTE PS HO Overview	80-NE407-6
Application Note: TD-SCDMA Band Search Control	80-NF219-1
Application Note: TD-SCDMA CTA (CMCC/MTNET) Lab Configuration Clarifications	80-NF220-1

5.2 Call Manager

Table 5-10 Call Manager documents

Title	DCN
Application Note: List of NV Items Tied to Subscription Changed Event	80-N5576-82
Common Modem API Interface Specification	80-N9218-1
ALS Design for CM/SIM Software Design Document	80-V8392-1
Presentation: Multimode Controller (MMOC)	80-VC512-1
Presentation: Multimode Call Manager Overview	80-VC514-1
Application Note: Software Update to Support HICPS With IS-683A Default DO Channel Feature	80-VP830-1

5.3 Data services

Table 5-11 Data services documents

Title	DCN
Data Services Profile Registry API	80-N4766-1
Presentation: QMI IDL/QCCI/QCSI Overview	80-N4863-1

Title	DCN
Application Note: QMI Vendor-Specific Services with IDL/QCSI/QCCI	80-N5706-1
QMI CSD 1.12 FOR APSS, QMI Core Sound Driver Spec	80-NB227-25
QTI Tethering Interface on MDM9X25 AND MDM9X35 LE Release User Guide	80-NC254-62
Presentation: QMI UIM AND QMI CAT Overview	80-NJ897-1
MSM89X7 Modem Data Services Overview	80-P2485-16
IPV6 Implementation and Configuration	80-VD229-1
Application Note: Asymmetric Bidirectional TCP Throughput	80-VE774-1
Data Services Aspects FOR E-UTRA/EHRPD/1XRTT Mobility Feature Definition Document	80-VR258-1
Application Note: Comprehensive at Command Set IN AMSS software	80-VR432-1
Presentation: Introduction to EHRPD	80-VR815-1
Presentation: LTE Data Service Overview	80-VT387-1
Presentation: LTE Data Call Scenarios	80-VU868-1
Application Note: Comprehensive at Command Set in AMSS Software	80-VR432-1

5.4 GPS

Table 5-12 GPS documents

Title	DCN
Application Note: On-Demand Positioning (ODP) Feature - Licensee Responsibility	80-N1336-1
Application Note: MMSS 3.1 Provisioning Procedure	80-N1814-1
Presentation: Performance Test Results for GPSONE Gen 8 Engine Release 1.0	80-N3005-1
Presentation: How Do In-Band Jammers Affect GPS Performance?	80-N3522-1
GPS/GNSS System Integration Reference Guide	80-N4094-1
Presentation: GPS + GLONASS (GNSS) Test Results	80-N4333-1
Application Note: Recommendation for AT&T AGPS Control Plane Testing	80-N4585-1
Presentation: IZAT GNSS GEN 8A/8B/8C Engine Overview	80-N5182-1
Location API 2.X Interface Specification	80-N5461-1
Mems Sensor and Data Acquisition System Requirements for Sensor-Assisted Positioning Integration	80-N7125-1
Presentation: Global Terrestrial Positioning (GTP) WWAN Overview	80-N7207-1
Presentation: XTRA-T Server Access Options and BSA Creation	80-N7207-2
Application Note: GPSONE Gen 8 Test Functions	80-N8367-1
Presentation: Sensor-Assisted Positioning (SAP) Documentation Overview	80-N8686-2
Presentation: Sensor-Assisted Positioning (SAP) Overview	80-N8686-3
Presentation: Sensor-Assisted Positioning (SAP) Verification and Power	80-N8686-4
Sensor-Assisted Positioning (SAP) Sensor Hardware Verification	80-N8686-5
Sensor-Assisted Positioning (SAP) Android Integration Guide	80-N8686-6
Identifying Qualcomm IZAT XTRA Devices in HTTP Get File Requests Application Note	80-ND684-1
QMI LOC 2.24, QMI Location SVC Spec	80-VB816-17
QMI PDS 1.35, QMI Position Determination Service Spec	80-VB816-8

Title	DCN
Presentation: GPSONEXTRA Client and Test Application for Brew	80-VF936-1
Presentation: GPSONE Testing and Troubleshooting	80-VG182-1
Location Application Programming Interface Functional Requirements Specification	80-VP465-1
GPS CN0 and Frequency Measurement in Production Line Testing	80-VR679-1
Qualcomm Wi-Fi Positioning System Integration Guide	80-VT766-1
Presentation: GPSONE Gen 8 Engine Overview	80-VU455-1
IZAT Gen 8 Engine (1X AND UMTS) Nonvolatile Items Description	80-VU905-1

5.5 Multimode

Table 5-13 Multimode documents

Title	DCN
Application Note: Blocking Certain Types of Pages in Emergency Callback Mode	80-N0427-1
Modem Software Configuration Overview	80-N5576-96
Flexible SIM Configuration for China Seven Modes Open Market Device	80-NR083-1
Updating Modem Configurations in Factory AND OTA	80-NV514-1
Presentation: Multimode System Selection	80-VT878-1

5.6 RF

Table 5-14 RF documents

Title	DCN
Presentation: MDM9X25 WTR RF Frontend Software Overview	80-NC254-28
Presentation: XO Factory Calibration Software Training	80-NC398-7
Presentation: MIPI RFFE debugging with QRCT	80-NE606-1
Application Note: TLMM Changes and Impact on RFC Implementation	80-NE606-10
Third-Party MIPI ASM Customization	80-NE606-2
MIPI PA Customization	80-NE606-3
Application Note: Generic RF Controls (GRFC) Customization	80-NE606-4
Presentation: Modify MIPI Device USID	80-NF381-1
Application Note: TD-SCDMA RX Sensitivity Measurement	80-NH181-1
RF Design Review Process (SW) Customer Engineering	80-NH296-1
MSM8909/MSM8937/MDM9607 Factory Test Overview	80-NT093-3
Presentation: MPSS.JO.1.0 RF Tool Overview	80-NT093-4
Comprehensive MSM8909 Family RF NV Items	80-NT112-100
MSM89X7 RF Bringup User Guide	80-P2485-14
MSM89X7 RFC Customization	80-P2485-15
MSM89X7 RF Software Overview	80-P2485-3
Application Note: GSM Linear PA Calibration and Data Processing for NV Generation	80-V9774-16

Title	DCN
Presentation: Qualcomm Development Acceleration Resource Toolkit (QDART) Customer Training	80-VJ091-1

5.7 UASMS/WMS

Table 5-15 UASMS/WMS documents

Title	DCN
Wireless Messaging Services (WMS) API Interface Specification	80-N2128-1
WMS DIAG Subsystem Interface Control Document (ICD)	80-V1294-6
Presentation: Multimode SMS/EMS/BCSMS	80-V4092-1
Application Note: WMS 1X Broadcast API Migration	80-VG092-1

5.8 UIM

Table 5-16 UIM documents

Title	DCN
Presentation: CSIM and Mmgsdi Session API Feature Overview	80-N0061-1
Application Note: Recommendations for Configuring 3G USIM Card for LTE	80-N0112-1
UICC/USIM Feature Definition Document	80-N0879-1
Presentation: UIM Technology Workshop	80-N3006-1
Presentation: Simultaneous PDN Compatibility Matrix	80-N3779-1
Personalization Feature Design Overview	80-N5899-1
Presentation: UIM Drivers-Based Log Analysis Overview	80-NE802-1
Presentation: GSTK-Based Log Analysis Overview	80-NF166-1
Presentation: GSTK Overview	80-NG610-1
Presentation: UIM Technology Overview	80-NH301-1
Treat Dialing 120 only as ECC Number IN CT Network	80-P3052-1
Multimode Generic Card Interface Specification and Operational Description (ISOD)	80-V0072-1
Presentation: SIM/USIM/R-UIM Architecture	80-V3989-1
Multimode GSDI SIM, USIM, and R-UIM Interface Specification and Operational Description	80-V5329-1
GSDI Diagnostic (GSDI DIAG) Interface Control Document (ICD)	80-V7032-1
Personalization Call Flows	80-VC331-1
SIM Lock Feature Interface Specification and Operational Description	80-VD529-1
Presentation: UIM Feature Overview	80-VH178-1
Application Note: Enhanced Network Selection for AT&T	80-VJ252-1
Application Note: Verizon Requirement for ECC Calls	80-VL066-1
Application Note: Requirements and Recommendations to Implement the ICC/UICC Hot-Swap Feature	80-VN059-1
MMGSDI Diagnostic (MMGSDI Diag) Interface Control Document	80-VN233-1

Title	DCN
MMGSDI Session Enhancements Interface Specification and Operational Description	80-VT475-1

5.9 User interface

Table 5-17 User interface documents

Title	DCN
QMI PBM 1.16, QMI Phonebook Manager SVC Spec	80-VB816-15
Phone Book Manager Interface Specification and Operational Description	80-V7485-1

5.10 NV

Table 5-18 NV in modem documents

Title	DCN
Application Note: Band Preference Settings for GSM/UMTS/LTE/TD-SCDMA Targets	80-VD664-1
UMTS and LTE Protocol NV Items	80-VF299-1
Call Manager and System Determination Nonvolatile Memory Items	80-VJ742-1
RTR86XX, QTR86XX, QSC61X5, QSC6X95, MDM6X00, MDM8220, and MDM9X00 Select RF NV Items App Note	80-VP447-13
Application Note: LTE RF NV Items	80-VP146-14

6 Connectivity

6.1 WLAN and Qualcomm MobileAP

Table 6-1 WLAN and Qualcomm MobileAP documents

Title	DCN
QCA WCN36X0 Software Architecture	80-Y0513-1
MDM9X07 Qualcomm MobileAP API Interface Specification	80-P2200-33

7 Linux

Table 7-1 Linux documents

Title	DCN
Linux Audio Device Management	80-NL239-28
MSM8937 Android Performance Overview	80-P2485-11
MSM8937 Linux Android Software Debug Manual	SP80-P2485-5
MSM8937 Linux Android Software Porting Manual	SP80-P2485-6
MSM8937 Linux Android Software User Manual	SP80-P2485-4
MSM8937 Software Migration Overview	80-P2485-26

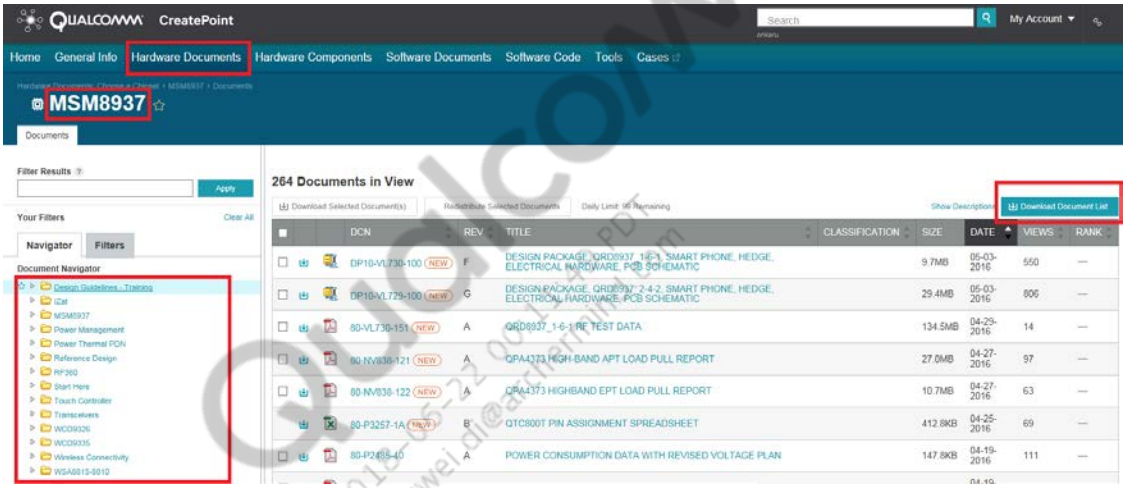
8 Testing leverage

MSM8937/MSM8917 modem is leveraged from MSM8909. So, GCF, IOT, field, and lab test reports on MSM8909 target are applicable to MSM 8937/MSM8917.

A Download documents from CreatePoint

This appendix explains how a CreatePoint user can download documents from CreatePoint.

1. Login to your CreatePoint account at https://createpoint.qti.qualcomm.com/.
2. To acces the Hardware documents, click **Hardware Documents**.



3. To acces the Software documents, click **Software Documents.**
4. Enter a chipset (e.g., MSM8937) in the **Specify a Software Product** field on the left panel, and then select the software product (e.g., MSM8937.LA.1.0 OEM)