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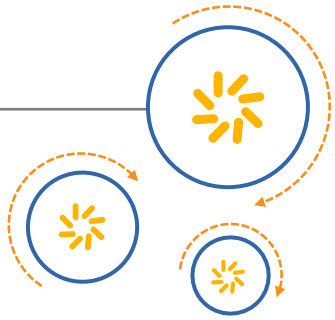

PMIC Software Master Document

80-NR097-1 T

December 28, 2017

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Revision history

Revision	Date	Description
A	July 2014	Initial release
B	September 2014	Updated Tables 2-1, 3-1, 4-1, 4-3, 4-4, and 4-5
C	September 2014	Updated Tables 4-1 and 4-5
D	October 2014	Updated Table 2-1
E	January 2015	Updated Tables 2-1, 3-1, 4-1, 4-2, 4-3, 4-4, and 4-5
F	February 2015	Updated Table 4.1
G	March 2015	Updated Tables 2-1, 4-3, and 4-5
H	May 2015	Updated Tables 2-1, 4-1, 4-4, and 4-5
J	June 2015	Updated Tables 2-1, 4-1, 4-2, 4-3, and 4-5
K	July 2015	Updated Table 2-1
L	August 2015	Updated Table 4-1 and 4-5
M	December 2015	Updated Table 2-1
N	December 2015	Updated Table 4-4
P	February 2017	Updated Chapters 2 and 4 as indicated
R	June 2017	Updated Table 2-1 and Table 4-2 as indicated. Removed VREG documentation from Table 4-3.
T	December 2017	Updated Chapters 2 and 4 as indicated. Key updates include adding documentation for SDX24 chipsets.

Note: There is no Rev. I, O, Q, S, X, or Z per Mil. standards.

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1 Introduction

1.1 Purpose

This document provides a comprehensive list of reference documents of PMIC software with different SDM/SDX/MSM™/MDM/APQ chipsets. These reference documents can be used to obtain more details for PMIC software features/technologies.

This document is intended for customers who need to find additional information about Qualcomm Technologies, Inc. (QTI) SDM/SDX/MSM/MDM/APQ PMIC software.

1.2 Conventions

Function declarations, function names, type declarations, attributes, and code samples appear in a different font, for example, `#include`.

Shading indicates content that has been added or changed in this revision of the document.

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.

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2 PMIC software overview

Table 2-1 PMIC software overview documents

Title	DCN	Product
SDX24 Linux Enablement PMIC Software Overview	80-PD082-6	SDX24
SDX24 Non-HLOS PMIC Software Overview	80-PD082-7	SDX24
SDX24 PMIC Software Design Review	80-PD082-59	SDX24
SDM670 Non-HLOS PMIC Software Overview	80-PD126-24	SDM670
SDM670 Linux Android PMIC Software Overview	80-PD126-4	SDM670
SDM670 PMIC Software Design Review and Questionnaire	80-PD126-59	SDM670
SDX20 LE PMIC Software Driver Overview	80-P9189-6	SDX20
Non-HLOS PMIC Software Driver Overview for SX20 Devices	80-P9189-7	SDX20
SDM636/SDM660/SDM630 Linux Android PMIC Software Overview	80-P8754-6	SDM660 SDM630; SDM636
SDM660/SDM630 PMIC Software Design Review and Questionnaire	80-P8754-59	SDM660 SDM630
SDM660/SDM630 PMIC Quick Start	80-P8754-56	SDM660 SDM630
SDM636/SDM660/SDM630 PMIC System Driver Overview	80-P8754-30	SDM660 SDM630; SDM636
SDM845 Windows PMIC Software Overview	80-PD968-24	SDM845
SDM845 Non-HLOS PMIC Software Overview	80-P9301-26	SDM845
SDM845 Linux Android PMIC Software Overview	80-P9301-30	SDM845
SDM845 PMIC Software Design Review	80-P9301-59	SDM845
MSM8998 WD Windows PMIC Software Driver Overview	80-PA445-11	MSM8998
MSM8952, MSM8956, and MSM8976 System Drivers PMIC API Interface Specification	80-NV610-42	AMSS 8952; AMSS 8952 (MSM8956-MSM8976)
MSM8952 System Drivers PMIC Overview – Video for Taiwan	VD80-NV610-6TC	AMSS 8952
MSM8952.LA Linux PMIC Software Drivers Overview – Video For Taiwan	VD80-NV610-8TC	MSM8952 Linux
MSM8952 PMIC Bringup User Guide	80-NV610-35	AMSS 8952
Presentation: MSM8952 Windows Phone PMIC Software Driver Overview	80-NV610-52	AMSS 8952 Windows Phone
MSM8952 Windows Phone UEFI PMIC Software Driver Overview	80-NV610-53	AMSS 8952 Windows Phone

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Title	DCN	Product
MSM8X09 PMIC Software Driver Overview Video/Simplified Chinese	VD80-NR964-6SC	AMSS 8909
MSM8952 System Drivers PMIC Overview - Video/Chinese	VD80-NV610-6C	AMSS 8952
MSM8952.LA Linux PMIC Software Drivers Overview Video/Chinese	VD80-NV610-8C	MSM8952 Linux
MSM8956/MSM8976 PMIC Software Design Review	80-NU154-59	AMSS 8952 (MSM8956/MSM8976)
MSM8996 PMIC Software Design Review	80-NV396-59	MSM8996 Linux
MSM8998 PMIC Software Design Review and Questionnaire	80-P2484-59	MSM8998
MSM8998 PMIC Software Issues and Updates	80-P2484-70	MSM8998
MDM9X50 PMIC Software Design Review	80-P0711-59	MDM9650
Non-HLOS PMIC Software Driver Overview for PMD9655 Devices	80-P0711-18	MDM9650
MSM8952 PMIC Quick Start	80-NV610-80	MSM8952 Linux
Presentation: MSM8X09 PMIC Software Driver Overview	80-NR964-6	AMSS 8909
PMIC Modem API Interface Specification for MDM9645	80-NP527-45	AMSS 9645
Video/Simplified Chinese: MSM8x09 PMIC Software Driver Overview	VD80-NR964-6SC	AMSS 8909
MSM8953 PMIC Software Driver Overview	80-P3255-11	MSM8953
MSM8953 PMIC Software Design Review	80-P3255-59	MSM8953
Presentation: MSM8952 System Drivers PMIC Overview	80-NV610-6	AMSS 8952
MSM8952.LA Linux PMIC Software Drivers Overview	80-NV610-8	MSM8952 Linux
MSM8909.WP PMIC Software Driver Overview	80-NN174-65	AMSS 8909 Windows Phone
Presentation: MSM8909 UEFI PMIC Driver Overview	80-NN174-66	AMSS 8909 Windows Phone
Presentation: MDM9x45 Linux PMIC Software Driver Overview	80-NP527-7	MDM9x45 Linux
Presentation: Non-HLOS PMIC Software Driver Overview for PMD9645	80-NP527-6	MDM9x45
Presentation: MSM8909 System Drivers PMIC Overview	80-NN174-38	MSM8909 Linux
Presentation: MSM8916 Windows Phone PMIC Driver Overview	80-NL239-77	AMSS 8916 Windows Phone
Presentation: MSM8909.LA PMIC Software Driver Overview	80-NN174-40	MSM8909 Linux
Presentation: MSM8x09 PMIC Software Driver Overview	80-NR964-6	AMSS 8909
Presentation: MSM8994 System Drivers PMIC Overview	80-NM328-38	MSM8994 Linux
Presentation: MSM8994.LA Linux PMIC Software Drivers Overview	80-NM328-40	MSM8994 Linux
Presentation: MSM8994.WP Windows PMIC Software Driver Overview	80-NM328-65	AMSS 8994 Windows Phone
Presentation: UEFI PMIC Software Driver Overview for MSM8994.WP	80-NM328-66	AMSS 8994 Windows Phone

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Title	DCN	Product
Presentation: APQ8064 Linux PMIC Drivers Overview	80-N9382-1	▪ AP8064 ▪ AP8064AU
Presentation: APQ8064 Linux PMIC Drivers Overview w/Audio – Traditional Chinese	AU80-N9382-1TC	▪ AP8064 ▪ AP8064AU
Presentation: APQ8084 PMIC Software Driver Overview	80-NH717-25	AP8084
Presentation: MDM9x15 Linux PMIC Drivers Overview	80-N5576-32	▪ AMSS 9310 ▪ AMSS 9615
Presentation: MDM9x25 Linux PMIC Drivers Overview	80-NC254-10	▪ AMSS 9320 ▪ AMSS 9625
Presentation: MDM9x25 PMIC Software Driver Overview	80-NC254-9	▪ AMSS 9320 ▪ AMSS 9625
Presentation: MDM9x35 Linux PMIC Drivers Overview	80-NH740-37	AMSS 9635
Presentation: MSM8110 Linux PMIC Drivers Overview	80-NC839-13	AMSS 8612
Presentation: MSM8916 PMIC Software Driver Overview	80-NL239-4	AMSS 8916
Presentation: MSM8930 Linux PMIC Drivers Overview	80-N9383-1	AMSS 8930
Presentation: MSM8960 Linux PMIC Drivers Overview	80-N6836-1	AMSS 8960
Presentation: MSM8974 PMIC Software Driver Overview	80-NA157-49	AMSS 8974
Presentation: MSM8974 Windows PMIC Driver Overview	80-NA157-117	▪ AMSS 8974 Windows Phone ▪ AMSS 8974 Windows Snapdragon™
Presentation: MSM8994 System Drivers PMIC Overview	80-NM328-38	AMSS 8994
Presentation: MSM8994 System Drivers PMIC Overview	AU80-NM328-38	AMSS 8994
Presentation: MSM8994.LA Linux PMIC Light Pulse Generator Overview	80-NM328-35	AMSS 8994
Presentation: MSM8994.LA Linux PMIC Software Drivers Overview	80-NM328-40	AMSS 8994
Presentation: MSM8x10 PMIC Software Driver Overview	80-NC839-20	AMSS 8612
Presentation: MSM8x12 Windows PMIC Driver Overview	80-NC839-57	▪ AMSS 8612 Windows Phone ▪ AMSS 8612 Windows Snapdragon
Presentation: MSM8x26 Linux PMIC Drivers Overview	80-ND928-26	▪ AMSS 8926 ▪ AMSS 8626
Presentation: MSM8x26 Windows Phone PMIC Driver Overview	80-NG894-13	▪ AMSS 8612 Windows Phone ▪ AMSS 8626 Windows Phone ▪ AMSS 8926 Windows Phone
Presentation: PM8018 PMIC Driver Overview	80-N5576-14	▪ AMSS 9310 ▪ AMSS 9615
Presentation: PM8038 Modem Software Driver Overview	80-N9638-1	AMSS 8930
Presentation: PM8921 New Peripheral SMBC and BMS Overview	80-N6817-1	▪ AMSS 8960 ▪ AMSS 8960 (non-HLOS-specific)
Presentation: PM8921 Software Driver Overview	80-N2283-20	▪ AMSS 8960 ▪ AMSS 8960 (non-HLOS-specific)

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Title	DCN	Product
Presentation: PM8941 Linux Drivers Overview	80-NA157-36	AMSS 8974
Presentation: PMD9635 Non-HLOS PMIC Software Driver Overview	80-NH740-9	AMSS 9635
Presentation: Windows PMIC Driver Overview	80-N8896-5	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone ▪ AMSS 8960 Windows Snapdragon
Video: PMD9635 Non-HLOS PMIC Software Driver Overview – Traditional Chinese	VD80-NH740-9TC	AMSS 9635
Linux Enablement PMIC Software Driver Overview	80-P0711-17	MDM9650 Linux
Video: MSM8998 PMIC System Driver Overview - Traditional Chinese	VD80-P2484-62TC	MSM8998
MSM8998 PMIC System Driver Overview	80-P2484-62	APQ8098

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3 PMIC interface and specification and operational description

Table 3-1 PMIC interface and specification and operational description

Title	DCN	Product
PMIC Software API Interface Specification for MSM8909	80-NN174-77	MSM8909 Linux
PMIC RPM API Interface Specification for MDM9645	80-NP527-44	AMSS 9645
PMIC SBL API Interface Specification for MDM9645	80-NP527-20	AMSS 9645
PMIC Software API Interface Specification for MSM8994 Chipset	80-NM328-77	AMSS 8994
MSM8916 PMIC Software Interface Specification	80-NL239-22	AMSS 8916
MSM8974 PMIC Software Interface Specification and Operational Description	80-NE000-1	AMSS 8974
MSM8974 PMIC WDF Driver for Windows Interface Specification and Operational Description	80-NA157-132	▪ AMSS 8974 Windows Phone ▪ AMSS 8974 Windows Snapdragon ▪ AP8074 Windows Phone ▪ AP8074 Windows Snapdragon
PM8018 Power Management IC Interface Specification and Operational Description	80-N7994-1	▪ AMSS 9310 ▪ AMSS 9615
PM8038 PMIC APSS Interface Specification and Operational Description	80-N7379-11	AMSS 8930
PM8038 PMIC MPSS Interface Specification and Operational Description	80-N7379-10	AMSS 8930
PM8038 PMIC SBL3 Interface Specification and Operational Description	80-N7379-9	AMSS 8930
PM8921 PMIC Modem Interface Specification and Operational Description (ISOD)	80-N2283-25	▪ AMSS 8960 ▪ AMSS 8960 (non-HLOS-specific)
PMIC Modem API Interface Specification For MDM9635 Chipsets	80-NH740-52	AMSS 9635
PMIC RPM API Interface Specification for MDM9635 Chipset	80-NH740-64	AMSS 9635
PMIC RPM Software API Interface Specification for the APQ8084 Chipset	80-NH717-29	▪ AP8084 ▪ fusion4.0_8084_9625 ▪ fusion4.5_8084_9635M
PMIC SBL Driver API for the PM8926 Chipset Interface Specification	80-NJ205-1	AMSS 8926

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Title	DCN	Product
PMIC SBL Software API Interface Specification APQ8084 Chipset	80-NH717-28	▪ AP8084 ▪ fusion4.0_8084_9625 ▪ fusion4.5_8084_9635M
PMIC Serial Boot Loader API Interface Specification for MDM9635 Chipsets	80-NH740-51	AMSS 9635
Windows Power Management IC WDF Driver Interface Spec and Operational Description (ISOD)	80-N8896-1	▪ AMSS 8960 ▪ AMSS 8930 ▪ AP8060, AP8064

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4 User guides

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

- Input power management
- Output voltage regulation
- IC interfaces
- User interface
- General housekeeping

4.1 Input power management

Table 4-1 Input power management

Title	DCN	Product
SMB1381 PMIC Charger Software User Guide	80-PD082-16	SDX24
SMB1351 Charger Software User Guide	80-P0711-22	▪ SDX20 ▪ MDM9650
Linux Android PMIC Fuel Gauge (Gen 3) Software User Guide	80-P2484-74	▪ APQ8098 ▪ MSM8998 ▪ SDM660 ▪ SDM845
Linux Android PMIC Charger Software User Guide	80-P2484-77	▪ APQ8098 ▪ MSM8998 ▪ SDM845
Linux Android PMIC WiPower Software User Guide	80-P2484-97	▪ APQ8098 ▪ MSM8998 ▪ SDM660 ▪ SDM845
MSM8952.WP Battery Management User Guide	80-NV610-55	AMSS 8952 (MSM8956-8976) WinPhon; AMSS 8952 Windows Phone
MSM8952 Linux Android Charger Software User Guide	80-NV610-44	MSM8952 Linux
MSM8952 Linux Android PMIC Fuel Gauge User Guide	80-NV610-41	MSM8952 Linux
Presentation: MSM8952 System Drivers PMIC Dead Battery Charging Overview	80-NV610-43	AMSS 8952
MSM8909/MSM8208 Windows Phone Battery Management User Guide	80-NN174-79	AMSS 8909 Windows Phone

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Title	DCN	Product
Presentation: SMB135X and SMB358 Charger DT (LA) Configuration for VMBMS Integration	80-NV212-1	▪ MSM8909 Linux ▪ MSM8916 Linux ▪ MSM8939 Linux
Presentation: MSM8909.LA PMIC VM-BMS Software Overview	80-NN174-52	MSM8909 Linux
Presentation: MSM8909.LA PMIC Linear Charger Software Overview	80-NN174-56	MSM8909 Linux
Presentation: MSM8909 System Drivers PMIC Dead Battery Charging Overview	80-NN174-55	AMSS 8909
Presentation: Voltage Mode BMS on Windows Phone	80-NL239-82	▪ AMSS 8909 Windows Phone ▪ AMSS 8916 Windows Phone
MSM899X Linux Android PMIC Fuel Gauge Software User Guide	80-NM328-52	▪ APQ8096 ▪ APQ8096AU ▪ APQ8098 ▪ MSM8992 ▪ MSM8994 ▪ MSM8996 ▪ MSM8998
Presentation: WiPower PMIC Software Overview for MSM8994	80-NM328-54	AMSS 8994
Presentation: MSM8994 System Drivers PMIC Dead Battery Charging Overview	80-NM328-55	AMSS 8994
MSM8994.LA Charger Software User Guide	80-NM328-56	MSM8994 Linux
MSM8994.WP MIPI-BIF User Guide	80-NM328-81	AMSS 8994 Windows Phone
MSM8994.WP Battery Management User Guide	80-NM328-79	AMSS 8994 Windows Phone
MSM8996 Battery Management User Guide	80-NV396-86	MSM8996 Windows Phone
Application Note: Difference Between PM8941 and PM8921/PM8917 Charger Drivers	80-NE667-1	AMSS 8974
Application Note: PM8941/PM8x26/ PM8x10 Weak Charger Removal Detection	80-ND928-100	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974
Application Note: Windows Phone 8 Battery Manager Factory Test Mode	80-N8896-9	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone
Application Note: PM8941 Vph_Pwr Drop Issue	80-NM489-1	AMSS 8974
Presentation: APQ8084 Dead Battery Charging Overview	80-NH717-48	▪ AP8084 ▪ fusion4.0_8084_9625 ▪ fusion4.5_8084_9635M
Presentation: Charger (Dead Battery Charging) – Boot PMIC Software Drivers Overview	80-NH335-1	▪ AMSS 8974 ▪ AP8074
Presentation: MSM8916 Voltage Mode Battery Monitoring System Driver Overview	80-NL239-23	AMSS 8916
Presentation: MSM8974 Software AICL Implementation and Usage	80-NA157-212	AMSS 8974

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Title	DCN	Product
Presentation: MSM8994 System Drivers PMIC Dead Battery Charging Overview	80-NM328-55	AMSS 8994
Presentation: MSM8x10 Software AICL Implementation and Usage Overview	80-NC839-54	AMSS 8612
Presentation: MSM8x26 with External OVP FET – Software AICL Implementation and Usage Overview	80-ND928-82	▪ AMSS 8626 ▪ AMSS 8926
Presentation: PM8916 Linear Charger Driver Overview	80-NL239-24	AMSS 8916
Presentation: PM8921 BMS Code Overview	80-ND159-1	▪ AMSS 8960 ▪ AMSS 8930
Presentation: PM8921 Linux PMIC Interfaces – Charger and BMS	80-N8278-1	AMSS 8960
Presentation: PM8941 Battery Monitoring System (BMS) Overview	80-NA157-30	▪ AMSS 8974 ▪ AP8074
Presentation: PM8941 Charging Software Driver Overview	80-NH470-1	AMSS 8974
VBUS Detection Using PMIC	80-NH740-69	▪ MDM9607 ▪ MDM9650 ▪ MDM9655 ▪ SDX20 ▪ SDX20M
Presentation: PMIC ETW Logging for Windows Phone 8.1 HLOS Overview	80-NP110-1	▪ AMSS 8612 Windows Phone ▪ AMSS 8626 Windows Phone ▪ AMSS 8926 Windows Phone ▪ AMSS 8974 Windows Phone
Presentation: QPNP Charger Driver Details	80-NG432-1	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974
Presentation: SMB135x Software Driver Overview	80-NH740-22	▪ AMSS 9635 ▪ AP8084
Presentation: Software AICL in Off Mode Charging Overview	80-NK753-1	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8974
Presentation: Windows Phone 8 Qualcomm Battery Management Software Overview	80-N8698-1	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone
Presentation: Windows Phone 8.1 HLOS Battery Management Overview	80-NP109-1	▪ AMSS 8612 Windows Phone ▪ AMSS 8626 Windows Phone ▪ AMSS 8926 Windows Phone ▪ AMSS 8974 Windows Phone
Technical Memo: Chg_Option Pin Detection Issue [CR561862]	80-NL044-1	AMSS 8974
Technical Memo: JEITA-Based Charging Fails Due to BTM Bugs [CR377443, CR0000161156]	80-NC175-1	AMSS 8960

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4.2 Output voltage regulation

Table 4-2 Output voltage regulation

Title	DCN	Product
SDX24 Non-HLOS Voltage Regulator and Clock PMIC Software User Guide	80-PD082-7	SDX24
SDX24 Linux Enablement Voltage Regulator and Clock PMIC Software User Guide	80-PD082-6	SDX24
Non-HLOS Voltage Regulator and Clock PMIC Software User Guide	80-P9301-78	SDM845
Linux Android Voltage Regulator and Clock PMIC Software User Guide	80-P9301-79	SDM845
LE Linux VREG Software User Guide	80-P0711-25	▪ MDM9650 ▪ SDX20
Linux Android Voltage Regulator Software User Guide	80-P2484-79	▪ APQ8098 ▪ MDM9650 ▪ SDM660 ▪ MSM8998
MSM8952.LA VREG Clock Software User Guide	80-NV610-47	MSM8952 Linux
MDM9X45.LA VREG and Clock Software User Guide	80-NP527-26	AMSS 9645
MSM8909.LA VREG and Clock Software User Guide	80-NN174-63	MSM8909 Linux
Application Note: Disabling LDO1 for 6-die 3 GB LPDDR3 [CR529410]	80-NA157-236	AMSS 8974
Node Power Architecture (NPA) API Interface Specification	80-NB158-1	▪ AMSS 8930 ▪ AMSS 8960
Presentation: LDO Pull-Down Enablement for XLNA Designs	80-NJ563-1	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8974
Presentation: PMIC Regulator Range Parameter Configuration for Higher Voltage Applications	80-NP615-1	▪ AMSS 8916 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 8994 ▪ AMSS 9625 ▪ AMSS 9635
RPM PMIC Software Driver Overview	80-NN255-1	▪ APQ8016 ▪ APQ8053 ▪ APQ8056 ▪ APQ8076 ▪ APQ8096 ▪ APQ8098 ▪ MDM9607 ▪ MDM9625 ▪ MDM9628 ▪ MDM9635M ▪ MDM9640, MDM9645 ▪ MDM9650

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Title	DCN	Product
		▪ MSM8626 ▪ MSM8909 ▪ MSM8916 ▪ MSM8926 ▪ MSM8937 ▪ MSM8940 ▪ MSM8952, MSM8953 ▪ MSM8974, MSM8976 ▪ MSM8992 ▪ MSM8994 ▪ MSM8996 ▪ MSM8998 ▪ SDM660 ▪ SDX20
Non-HLOS PMIC NPA Overview	80-NG006-1	▪ APQ8009 ▪ APQ8053 ▪ APQ8096 ▪ APQ8096AU ▪ APQ8098 ▪ MSM8909 ▪ MSM8937 ▪ MSM8940 ▪ MSM8952 ▪ MSM8953 ▪ MSM8976 ▪ MSM8996 ▪ MSM8996AU ▪ MSM8998 ▪ MSM9650 ▪ SDM630 ▪ SDM660 ▪ SDX20 ▪ SDX20M
Technical Memo: LDO12 Pull-Down Disablement During Normal Shutdown	80-NL407-1	▪ AMSS 8974 ▪ AP8074

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4.3 IC interfaces

Table 4-3 IC interfaces

Title	DCN	Product
SDX24 Linux Android PMIC GPIO Software User Guide	80-PD082-21	SDX24
Linux Enablement PMIC PON Software User Guide	80-PD082-9	SDX24
SDM845 Windows PMIC GPIO Software User Guide	80-P9301-136	SDM845

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Title	DCN	Product
SDM845 Linux Android PMIC GPIO Software User Guide	80-P9301-88	SDM845
Linux Android PMIC PON Software User Guide	80-P2484-40	▪ MSM8998 ▪ SDM630 ▪ SDM636 ▪ SDM660 ▪ SDM845
UEFI PMIC Software User Guide	80-P2484-42	▪ MSM8998 ▪ SDM630 ▪ SDM636 ▪ SDM660 ▪ SDM845
PMIC PON Software User Guide	80-P0711-19	▪ MDM9650 ▪ SDX20
Linux Enablement PMIC GPIO and MPP Software User Guide	80-P0711-26	▪ MDM9650 ▪ SDX20
Linux Android PMIC GPIO Software User Guide	80-P2484-80	▪ APQ8098 ▪ MDM9650 ▪ SDM660 ▪ MSM8998 ▪ SDM845
PMIC GPIO and MPP Software User Guide	80-NV610-48	▪ APQ8053 ▪ APQ8056 ▪ APQ8076 ▪ MSM8937 ▪ MSM8940 ▪ MSM8952 ▪ MSM8953 ▪ MSM8976
MSM8909.WP PMIC GPIO/MPP/IRQ User Guide	80-NN174-69	AMSS 8909 Windows Phone
MDM9x45 Linux PMIC GPIO and MPP Software Configuration	80-NP527-27	MDM9x45 Linux
MSM8909.LA GPIO and MPP Software User Guide	80-NN174-64	MSM8909 Linux
Application Note: MSM8994.LA Linux GPIO and MPP Software Configuration	80-NM328-64	MSM8994 Linux
PMIC GPIO/MPP/IRQ User Guide for MSM8994.WP	80-NM328-69	AMSS 8994 Windows Phone
Application Note: Configure PMIC GPIO/MPP/IRQ in Windows	80-N8896-4	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone ▪ AMSS 8960 Windows Snapdragon ▪ AP8060A Windows Snapdragon ▪ AP8064 Windows Snapdragon

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Title	DCN	Product
Application Note: Configuring PMIC GPIO/MPP/IRQ in Windows	80-NA157-91	▪ AMSS 8612 Windows Phone ▪ AMSS 8612 Windows Snapdragon ▪ AMSS 8926 Windows Phone ▪ AMSS 8926 Windows Snapdragon ▪ AMSS 8974 Windows Phone ▪ AMSS 8974 Windows Snapdragon ▪ AP8074 Windows Phone ▪ AP8074 Windows Snapdragon
Application Note: MIPI-BIF Driver for MSM8960/MSM8930 Windows Phone	80-N8896-10	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone
Application Note: PM8058 Keypad Size Configuration	80-N7444-1	AMSS 8660
Presentation: APQ8084 SPMI Software Architecture Overview	80-NH717-15	AP8084
Presentation: Linux MIPI BIF Interface for MSM8974 Overview	80-NA157-230	AMSS 8974
Presentation: Linux PMIC SPMI IRQ Overview	80-NN990-1	▪ AMSS 9625 ▪ AMSS 9635 ▪ AMSS 8626 ▪ AMSS 8916 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 8994
Presentation: MPSS PMIC Software Drivers – UICC/BUA Overview	80-NN205-1	▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 9625 ▪ AMSS 9635
Presentation: PMIC GPIO and MPP Debug Overview	80-NK288-1	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 9635
Presentation: PMIC PON-Reset Software Drivers Overview	80-NM620-1	▪ AMSS 8626 ▪ AMSS 8916 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 9625 ▪ AMSS 9635
Presentation: System Drivers PMIC SPMI IRQ Overview	80-NN989-1	▪ AMSS 8916 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 8994 ▪ AMSS 9625 ▪ AMSS 9635
Presentation: Windows on Snapdragon GPIO Pin/IRQ Example	80-N8950-1	▪ AMSS 8960 Windows Phone ▪ AMSS 8960 Windows Snapdragon

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4.4 User interface

Table 4-4 User interface

Title	DCN	Product
Linux PMIC Lighting Driver User Guide	80-NM328-29	▪ APQ8096 ▪ APQ8096AU ▪ APQ8098 ▪ MSM8937 ▪ MSM8940 ▪ MSM8952 ▪ MSM8953 ▪ MSM8976 ▪ MSM8994 ▪ MSM8996 ▪ MSM8996AU ▪ MSM8998 ▪ SDM845
Linux PM660L/PM660A Lighting Driver User Guide	80-P8754-43	▪ SDM630 ▪ SDM660
SDM845 Linux Android PMIC Haptic Driver User Guide	80-P9301-104	SDM845
Linux PMIC Haptic Driver User Guide	80-NM328-53	▪ MSM8937 ▪ MSM8940 ▪ MSM8952 ▪ MSM8953 ▪ MSM8976 ▪ MSM8994 ▪ MSM8996 ▪ MSM8996AU ▪ MSM8998 ▪ APQ8096 ▪ APQ8096AU ▪ APQ8098 ▪ SDM630 ▪ SDM660
Linux PMIC Light Pulse Generator Driver User Guide	80-NM328-35	▪ MSM8937 ▪ MSM8940 ▪ MSM8952 ▪ MSM8953 ▪ MSM8976 ▪ MSM8994 ▪ MSM8996 ▪ MSM8998 ▪ SDM630 ▪ SDM660 ▪ SDM845
Presentation: MSM8952.LA PMIC Lighting Overview	80-NV610-39	MSM8952 Linux

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Title	DCN	Product
Presentation: MSM8952.LA PMIC Haptics Software Overview	80-NV610-40	MSM8952 Linux
Presentation: MSM8909.LA PMIC Vibrator Motor Software Overview	80-NN174-53	MSM8909 Linux
Presentation: MSM8909.LA PMIC Lighting Overview	80-NN174-29	MSM8909 Linux
MSMMSM8994.WP Hardware Notification (HWN) Drivers Configuration	80-NM328-83	AMSS 8994 Windows Phone
Application Note: Configuring PMIC WLED in Windows for MSM8x30	80-NH043-1	▪ AMSS 8930 Windows Phone ▪ AMSS 8930 Windows Snapdragon
Guide to Configuring Hardware Notification (HWN) Drivers for Windows Phone	80-N8896-8	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone ▪ AMSS 8974 Windows Phone

4.5 General housekeeping

Table 4-5 General housekeeping

Title	DCN	Product
LE Linux PMIC ADC Software User Guide	80-P0711-23	▪ MDM9650 ▪ SDX20 ▪ SDX24
System Drivers PMIC ADC Software User Guide	80-P0711-24	▪ MDM9250 ▪ MDM9255 ▪ MDM9350 ▪ MDM9650 ▪ MDM9655 ▪ SDX20 ▪ SDX24
Non-HLOS PMIC ADC Software User Guide	80-P2484-71	▪ APQ8098 ▪ MSM8998 ▪ SDM660 ▪ SDM845
Linux Android PMIC ADC Software User Guide	80-P2484-78	▪ APQ8098 ▪ MSM8998 ▪ SDM660 ▪ SDM845
MSM8996 System Drivers PMIC ADC Software User Guide	80-NV396-74	AMSS 8996
MDM9X45.LA PMIC ADC Software User Guide	80-NP527-24	AMSS 9645
MSM8952 LA PMIC ADC Software User Guide	80-NV610-45	▪ AMSS 8950 LInux ▪ AMSS 8952 Linux
MSM8952 System Drivers PMIC ADC Software User Guide	80-NV610-46	▪ AMSS 8950 ▪ AMSS 8952
MSM8952.WP ADC User Guide	80-NV610-56	AMSS 8952 Windows Phone
MSM8909.WP ADC User Guide	80-NN174-80	AMSS 8909 Windows Phone

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Title	DCN	Product
MDM9x45 System Drivers PMIC ADC Software User Guide	80-NP527-25	AMSS 9645
MSM8909.LA PMIC ADC Software User Guide	80-NN174-57	MSM8909 Linux
MSM8994.LA Linux PMIC ADC Software User Guide	80-NM328-57	MSM8994 Linux
MSM8994 System Drivers PMIC ADC Software User Guide	80-NM328-58	AMSS 8994
MSM8994.WP PMIC ADC User Guide	80-NM328-80	AMSS 8994 Windows Phone
MSM8994.WP RTC User Guide	80-NM328-82	MSM8994.WP RTC User Guide
Application Note: ADC Diagnostic Service Commands	80-NK760-1	▪ AP8084 ▪ fusion4.0_8084_9625 ▪ fusion4.5_8084_9635M
Application Note: Configuration of ADC for PM8921	80-NB157-1	▪ AMSS 8960 ▪ AMSS 8960 (non-HLOS-specific)
Application Note: Using ADC Driver for MSM8974 (PM8x41)/MDM9x25 (PM8019)/MSM8x26 (PM8026)	80-NH617-1	▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974 ▪ AMSS 9625
Application Note: Using PMIC XOADC in UEFI on Windows Platforms	80-N8896-7	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone ▪ AMSS 8960 Windows Snapdragon
Application Note: Using PMIC XOADC in Windows	80-N8896-3	▪ AMSS 8930 Windows Phone ▪ AMSS 8960 Windows Phone ▪ AMSS 8960 Windows Snapdragon ▪ AP8060A Windows Snapdragon
Application Note: Windows 8 and Windows Phone 8 PMIC RTC	80-NF712-1	▪ AMSS 8974 Windows Phone ▪ AMSS 8974 Windows Snapdragon
Presentation: MSM8960/PM8921 ADC Drivers Overview	80-N8212-1	▪ AMSS 8930 ▪ AMSS 8960

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5 Tools

Table 5-1 Tools

Title	DCN	Product
PMIC Log Analyzer Software User Guide	80-PD276-1	▪ MSM8998 ▪ SDM660 ▪ SDM845
Presentation: PMIC Dump and Register Access Overview	80-NL708-1	▪ AMSS 8612 ▪ AMSS 8626 ▪ AMSS 8926 ▪ AMSS 8974

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