

# SDM670 Master KBA

This KBA is for starters who want to use SDM670 to design devices , it does not list technical details but give overall picture to find further topics to understand how to use SDM670 to make products.

**Note:** Some DCNs listed in this document are not yet published. Most of these documents should be released between the ES and CS timeframe of this chipset.

## 1. Kickoff

- Start from [SDM670 CHIPSET SYSTEM GUIDE – FROM CONCEPT TO LAUNCH](#) 80-PB873-800

- Contact Qualcomm TAM to set up project in salesforce to start support.

### • Hardware General

- [SDM670 DIGITAL BASEBAND DESIGN GUIDELINES/TRAINING SLIDES](#) 80-PB873-5B
- [SDM670 Migration guide- From SDM660 to SDM670](#) 80-PB873-6
- [SDM670 HW training documents and video list](#) KBA-171106230804
- [SDM670 Hardware BB FAQ](#) KBA-170922203209
- [SDM670 Hardware PMIC FAQ](#) KBA-170922203829
- [SDM670 Audio Hardware FAQ](#) KBA-170827201635
- [SDR660 FAQ](#) KBA-170322025657
- [QLN4640 FAQ](#) KBA-171011010526
- [\[RFFE\\_QET\]QET4100/QET4101 FAQ](#) KBA-170802233040
- Please help to get Qualcomm verified HW Component list from <https://createpoint.qti.qualcomm.com/hwcomponents>

### • Software general

- When migrating from a previous QTI reference design, check [SDM670 Linux Android Software Porting Manual](#) SP80-PD126-6
- Set up Build environment [Linux Android Software User Manual](#) SP80-PD126-4
- [SDM670 SW TRAINING DOCUMENTS&VIDEO LIST](#) KBA-171107012455

### • Modem

- [SDM670 Modem Software Overview](#) 80-PD126-16 A
- [SDM670 RF Software Overview](#) 80-PD126-17
- [MPSS.AT.4.X GERAN FEATURE OVERVIEW](#) 80-PD126-38
- [SDM845/SDX20/SDM670 MODEM DATA THROTTLING OVERVIEW](#) 80-P9301-47
- [SDM845/SDX20/SDM670 Modem Data Services Overview](#) 80-P9301-46
- [SDM845/SDX20/SDM670 Data Attach PDN Manager Overview](#) 80-P9301-48
- [LTE + LTE IMS OVERVIEW](#) 80-PA742-1
- [KBA list for Modem 2017](#) KBA-17030121275

- [MPSS.AT.4.0 LTE FEATURES OVERVIEW](#) 80-PD126-48
- [ARCHITECTURE CHANGES FOR LTE + LTE SUPPORT IN MULTIMODE AND DATA SERVICES](#) 80-P9301-44
- [SDM670 NAS OVERVIEW](#) 80-PD126-45
- [RIL/ATEL/HLOS DATA FEATURES FOR SDM670](#) 80-PD126-44
- [MPSS.AT ASDIV SOFTWARE OVERVIEW](#) 80-NJ705-5
- [KBA list for Modem 2017](#) KBA-17030121275
- [KBA List of RF Software](#) KBA-170531195943

#### •BSP

- [SDM670 BOOT AND COREBSP ARCHITECTURE OVERVIEW](#) 80-PD126-2
- [SDM670 LINUX ANDROID SOFTWARE ARCHITECTURE OVERVIEW](#) 80-PD126-1
- [SDM670 LINUX USB OVERVIEW](#) 80-PD126-31
- [SDM670 LINUX PERIPHERALS \(UART, SPI, I2C\) OVERVIEW](#) 80-PD126-5
- [SDM670 LINUX ANDROID PMIC SOFTWARE DRIVERS OVERVIEW](#) 80-PD126-4
- [SDM670 NON-HLOS PMIC SOFTWARE OVERVIEW](#) 80-PD126-24
- [SDM670 SENSORS OVERVIEW](#) 80-PD126-9
- [SDM670 RPM HARDENING OVERVIEW AND DEBUG](#) 80-PD126-21
- [SDM670 CLOCK PLAN](#) 80-PD126-10
- [MPSS DEBUG MANUAL](#) 80-NF515-10
- [BOOT and DLOAD meta KBA](#) KBA-170516011105
- [Modem BSP meta KBA](#) KBA-170516011150

#### •MM

- [SDM670 LINUX ANDROID AUDIO OVERVIEW](#) 80-PD126-11
- [SDM670 LINUX ANDROID CAMERA OVERVIEW](#) 80-PD126-12
- [SDM670 LINUX ANDROID DISPLAY OVERVIEW](#) 80-PD126-13
- [SDM670 LINUX ANDROID GRAPHICS OVERVIEW](#) 80-PD126-14
- [QUALCOMM HEXAGON CDSP HVX OVERVIEW FOR SDM670](#) 80-PD126-49
- [SDM670 LINUX ANDROID VIDEO OVERVIEW](#) 80-PD126-15
- [\[Camera\]\[SDM845/670\]Camera documentation list](#) KBA-171126180135

#### •Power/Performance/Thermal

- [SDM670 Power Management Overview](#) 80-PD126-6
- [SDM670 LINUX ANDROID SOFTWARE THERMAL MANAGEMENT OVERVIEW](#) 80-PD126-7
- [SDM670 ANDROID PERFORMANCE OVERVIEW](#) 80-PD126-30

## •Connectivity

- [WCN39XX WLAN/BT/FM SOFTWARE ARCHITECTURE OVERVIEW](#) 80-YA512-1
- [FAQ about BT profiles and features that QUALCOMM supported](#) KBA-170728045225
- [FAQ about FM](#) KBA-170727025658
- [BLUETOOTH ON ANDROID PLATFORM FEATURE DESCRIPTION](#) 80-Y7674-142

## 2. EVT start

### •HW design

- [SDM670 CHIPSET AUDIO HARDWARE DESIGN GUIDELINES/TRAINING SLIDES](#) 80-PB873-5C
- [SDM670 CHIPSET LAYOUT GUIDELINES](#) 80-PB873-3
- [SDM670 + PM670 + PM670A/PM670L REFERENCE SCHEMATIC](#) 80-PB873-41
- [WCN3990 WIRELESS CONNECTIVITY REFERENCE SCHEMATIC](#) 80-WL020-41
- [SDM670 Pin Assignment and GPIO Configuration Spreadsheet](#) 80-PB873-1A
- [SDM670 SCHEMATIC REVIEW CHECKLIST](#) 80-PB873-111
- [SDM670 LAYOUT REVIEW CHECKLIST](#) 80-PB873-112
- [SDM670 PM670 PM670A PM670L pin name define KBA](#) KBA-170814025435
- [Antenna Sharing Design Resource and Checklist \(WAN RF\)](#) KBA-171121231347
- [ANTENNA SHARING DESIGN GUIDELINES FOR WCN3990+MSM8998+WTR5975/SDM845+SDR845/SDM660+SDR660](#) 80-WL020-27

### •HW design Considerations—Power/Thermal/PDN

- [SDM670 LINUX ANDROID CURRENT CONSUMPTION DATA](#) 80-PB873-7
- [INTRODUCTION TO SYSTEM POWER MONITOR VERSION 4](#) 80-N6594-20
- [SYSTEM POWER MONITOR VERSION 4 APPLICATION NOTE](#) 80-N6594-16
- [DESIGN FOR THERMAL: KEY REQUIREMENTS WHY, WHAT, WHERE, WHEN, AND HOW](#) 80-VU794-24
- [SDM670 CHIPSET THERMAL POWER](#) 80-PB873-12
- Achieve the PDN specification published in Chapter 3 in the SDM670 Device Specification (Advance Information)(80-PB873-1). PDN and voltage and power specifications will be updated by CS
- [TRAINING: POWER DELIVERY NETWORK DESIGN](#) 80-VT310-13

•Submit case to QC to do **SW design review** which will help to identify gaps between your product requirements and the supported feature set and review the hardware changes requiring software modifications.

- [SDM670 BSP SOFTWARE DESIGN REVIEW QUESTIONNAIRE](#) 80-PD126-82
- [CAMERA MODULE SELECTION AND CALIBRATION DATA](#) 80-N5126-1
- [AUDIO PROCESSING FEATURE QUICK REFERENCE](#) 80-NV396-64

## •Software Design and Customization

- [SDM670 LINUX ANDROID SOFTWARE USER MANUAL](#) SP80-PD126-4
- [SDM670 LINUX ANDROID SOFTWARE DEBUG MANUAL](#) SP80-PD126-5
- [SDM670 LINUX ANDROID SOFTWARE PORTING MANUAL](#) SP80-PD126-6
- [SECURITY SOFTWARE MASTER DOCUMENT](#) 80-PD126-20
- SDM670 Security Quick Start 80-PD126-22
- SDM670 BOOT REFERENCE MANUAL 80-PD126-X
- [DDR SDRAM CDT/eCDT User Guide](#) 80-N1218-1
- [QMI VENDOR-SPECIFIC SERVICES WITH IDL/QCSI/QCCI](#) 80-N5706-1

## 3. EVT Bring Up

- [SDM670 LINUX ANDROID SOFTWARE USER MANUAL](#) SP80-PD126-4
- [SDM670 LINUX ANDROID SOFTWARE DEBUG MANUAL](#) SP80-PD126-5
- [SDM670 RF SOFTWARE OVERVIEW](#) 80-PD126-17
- SDM670 QBAT User Guide 80-PB873-13
- [PRESENTATION: SECURITY TRUSTZONE QSEE OVERVIEW](#) 80-NL239-5
- [TZ XF 5.0 TRUSTZONE ARCHITECTURE OVERVIEW](#) 80-P9301-28
- [CAMERA MODULE SELECTION AND CALIBRATION DATA](#) 80-N5126-1
- [PRESENTATION: SENSOR PLD AND AF GATING PROCESS OVERVIEW](#) 80-NN869-1
- [Diagnostic System User Guide](#) 80-NA157-61
- [BOOT and DLOAD meta KBA](#) KBA-170516011105

## 4. DVT Start

- [DDR meta KBA](#) KBA-170322225845
- [RPM meta KBA](#) KBA-170322231134
- [PMIC MASTER KBA](#) KBA-170522201700
- [Android USB Solutions Index](#) KBA-170523015630
- [Security Meta KBA](#) KBA-170627023018
- [Master KBA of Peripherhal Bus \(I2C /SPI /UART /SGMII /PCIE \)](#) KBA-170525225955
- [GPS/GNSS SYSTEM INTEGRATION REFERENCE GUIDE](#) 80-N4094-1

- [IZat GEN 8 ENGINE FAMILY RF DEVELOPMENT TEST PROCEDURES](#) 80-VM522-2
- [APPLICATION NOTE: GPSONE GEN 8 ENGINE RADIATED RF DEVELOPMENT TEST PROCEDURES](#) 80-VN895-2
- [MSM/MDM Key RF External Components](#) 80-VP447-12
- [XO CALIBRATION STATE REQUIREMENTS FOR GNSS RF DEVELOPMENT TESTS](#) 80-Y5167-21
- [QUALCOMM HEXAGON CDSP HVX OVERVIEW FOR SDM670](#) 80-PD126-49
- [\[Camera\] Camera KBA list](#) KBA-170705011042
- [Graphics/GPU Overview and Issue Primary Analysis Guide](#) KBA-170524022200
- [Qualcomm Linux Android Display Technique Handbook](#) KBA-170530230024
- **Performance Optimization**
  - [LINUX BAM LOW-SPEED PERIPHERALS CONFIGURATION AND DEBUG GUIDE](#) 80-NU767-1
  - [SDM670 ANDROID PERFORMANCE OVERVIEW](#) 80-PD126-3
  - [ANDROID UX AND SYSTEM PERFORMANCE DOCUMENT TREE](#) 80-NR256-1

## 5. Lab Conformance

- [MODEM SOFTWARE CONFIGURATION OVERVIEW](#) 80-N5576-96
- [CONFIGURING A UE USING MODEM CONFIGURATION FILES \(MPSS.BO.2.6, MPSS.TA.1.0, MPSS.TH.1.0\)](#) 80-NP686-3
- [Modem Software PL Mapping and List of Lab Conformance Documents](#) 80-NF025-1
- Carrier-specific configuration
  - [APPLICATION NOTE: VERIZON BSRLTE/SLTE DEVICE CONFIGURATION AND TESTING INFORMATION](#) 80-NP385-1
  - [AT&T DEVICE CONFIGURATION AND TESTING INFORMATION](#) 80-P7379-1
  - [TMO DEVICE CONFIGURATION AND TESTING INFORMATION](#) 80-P7379-2
  - [CMCC Device Configuration and Testing Information](#) 80-NP425-1
  - [China Telecom Device Configuration and Testing Information](#) 80-NR766-1
  - [CTA DEVICE CONFIGURATION AND TESTING INFORMATION](#) 80-NM982-3

## 6. Factory tool

- [How to file Tools case in Salesforce](#) KBA-170706034056
- [How to develop factory tools on Qualcomm platform?](#) KBA-160802035422
- [Master KBA for Generic Tools](#) KBA-170807013059
- [Transition from Fastmmi to QMMI APK](#) KBA-171211031858
- [QXDM4 master KBA --- common Q&A](#) KBA-170113005954
- [Master KBA for MMI](#) KBA-170720032046
- [Master KBA for SWDL](#) KBA-170720031939