

QUALCOMM®
vanzhennan@hipad.com

FR1150 – EFS Item Configuration

80-NE596-1 A



Confidential and Proprietary – Qualcomm Technologies, Inc.

Restricted Distribution: Not to be distributed to anyone who is not an employee of either Qualcomm or its subsidiaries without the express approval of Qualcomm's Configuration Management.

Confidential and Proprietary – Qualcomm Technologies, Inc.

Confidential and Proprietary – Qualcomm Technologies, Inc.

Restricted Distribution: Not to be distributed to anyone who is not an employee of either Qualcomm or its subsidiaries without the express approval of Qualcomm's Configuration Management.

Not to be used, copied, reproduced, or modified in whole or in part, nor its contents revealed in any manner to others without the express written permission of Qualcomm Technologies, Inc.

Qualcomm reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed for any damages arising directly or indirectly by their use or application. The information provided in this document is provided on an "as is" basis.

This document contains confidential and proprietary information and must be shredded when discarded.

Qualcomm is a trademark of QUALCOMM Incorporated, registered in the United States and other countries. All QUALCOMM Incorporated trademarks are used with permission. Other product and brand names may be trademarks or registered trademarks of their respective owners.

This technical data may be subject to U.S. and international export, re-export, or transfer ("export") laws. Diversion contrary to U.S. and international law is strictly prohibited.

Qualcomm Technologies, Inc.
5775 Morehouse Drive
San Diego, CA 92121
U.S.A.

© 2012 Qualcomm Technologies, Inc.
All rights reserved.

Revision History

Revision	Date	Description
A	Dec 2012	Initial release

QUALCOMM
vanzhennan@hipad.com

Contents

- QXDM Requirement
- FR1150 – Default EFS Configuration for MSM8974
- FR1150 – Default EFS Configuration for MSM8974 for UIM2
- FR1150 – Default EFS Configuration for MSM9x25
- FR1150 – Default EFS Configuration for MSM9x25 for UIM2
- References
- Questions?

QXDM Requirement

- QXDM ver 3.14.367 and above support these NVs.
- The UIM hardware-configurable parameters are documented in [Q2], which is also released by Qualcomm Technologies, Inc. (QTI).
- These runtime-configurable items are part of the UIM HW CONFIG EFS item (70210).
 - Risk – EFS corruption may cause issues but that impacts the other tech areas as well.
- These minimum sets of configurable items are carefully chosen to minimize the chances of mistakes by the customer. The software also has a default configuration (that matches the MTP/CDP configuration) in case the EFS item is not configured.

FR1150 – Default EFS Configuration for MSM8974

- UIM1 is enabled and UIM2 is disabled as default.
- UIM2 can be enabled at runtime.
- A brief description on these NV items is provided in [Q2].

Fields					
EFS item: 70210 (UIM HW Config)					
Input	Value	Name (Partial)	Size	Type	
0	VER_0	version	8	Signed Enum	
0	0	hw_config.UIM_BATT_ALARM_GPIO_NUM	16	UINT16	
0	0	hw_config.UIM_BATT_ALARM_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM_BATT_ALARM_GPIO_DRV_STRENGTH	8	Signed Enum	UIM1 is enabled
0	NO_PULL	hw_config.UIM_BATT_ALARM_PULL_SETTING	8	Signed Enum	↓
0	FALSE	hw_config.UIM[0].DISABLE_UIM	8	Signed Enum	
0	FALSE	hw_config.UIM[0].ENABLE_UIM_HOTSWAP	8	Signed Enum	
1	ACTIVE_HIGH	hw_config.UIM[0].UIM_HOTSWAP_POLARITY	8	Signed Enum	↑
89	89	hw_config.UIM[0].UIM_CONTROLLER_IRQ_NUM	16	UINT16	
0	BADGER_MSS_UIM...	hw_config.UIM[0].UIM_UART	8	Signed Enum	Hotswap disabled
87	87	hw_config.UIM[0].UIM_UART_IRQ_NUM	16	UINT16	by default. Set to
0	PMIC_NPA_RESOU...	hw_config.UIM[0].UIM_VCC	8	Signed Enum	TRUE to enable it
99	99	hw_config.UIM[0].UIM_RESET_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_RESET_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_RESET_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_RESET_PULL_SETTING	8	Signed Enum	
97	97	hw_config.UIM[0].UIM_DATA_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_DATA_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_DATA_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_DATA_PULL_SETTING	8	Signed Enum	

FR1150 – Default EFS Configuration for MSM8974 for UIM2

Fields					
EFS item: 70210 (UIM HW Config)					
Input	Value	Name (Partial)	Size	Type	
0	NO_PULL	hw_config.UIM[0].UIM_DATA_PULL_SETTING	8	Signed Enum	
98	98	hw_config.UIM[0].UIM_CLOCK_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_CLOCK_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_CLOCK_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_CLOCK_PULL_SETTING	8	Signed Enum	
100	100	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_FUNC_SEL...	8	UINT8	UIM2 is disabled
0	2MA	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_DRV_STRE...	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_CARD_DETECT_PULL_SETTING	8	Signed Enum	
1	TRUE	hw_config.UIM[1].DISABLE_UIM	8	Signed Enum	
0	FALSE	hw_config.UIM[1].ENABLE_UIM_HOTSWAP	8	Signed Enum	
1	ACTIVE_HIGH	hw_config.UIM[1].UIM_HOTSWAP_POLARITY	8	Signed Enum	
90	90	hw_config.UIM[1].UIM_CONTROLLER_IRQ_NUM	16	UINT16	
1	BADGER_MSS_UIM...	hw_config.UIM[1].UIM_UART	8	Signed Enum	
88	88	hw_config.UIM[1].UIM_UART_IRQ_NUM	16	UINT16	
1	PMIC_NPA_RESOU...	hw_config.UIM[1].UIM_VCC	8	Signed Enum	
51	51	hw_config.UIM[1].UIM_RESET_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[1].UIM_RESET_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[1].UIM_RESET_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[1].UIM_RESET_PULL_SETTING	8	Signed Enum	



FR1150 – Default EFS Configuration for MSM9x25

- UIM2 is enabled and UIM1 is disabled by default.

Fields					
EFS item: 70210 (UIM HW Config)					
Input	Value	Name (Partial)	Size	Type	
0	VER_0	version	8	Signed Enum	
0	0	hw_config.UIM_BATT_ALARM_GPIO_NUM	16	UINT16	
0	0	hw_config.UIM_BATT_ALARM_GPIO_FUNC_SELECTION	8	UINT8	UIM1 disabled
0	2MA	hw_config.UIM_BATT_ALARM_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM_BATT_ALARM_PULL_SETTING	8	Signed Enum	↓
1	TRUE	hw_config.UIM[0].DISABLE_UIM	8	Signed Enum	
0	FALSE	hw_config.UIM[0].ENABLE_UIM_HOTSWAP	8	Signed Enum	
1	ACTIVE_HIGH	hw_config.UIM[0].UIM_HOTSWAP_POLARITY	8	Signed Enum	
89	89	hw_config.UIM[0].UIM_CONTROLLER_IRQ_NUM	16	UINT16	
0	BADGER_MSS_UIM...	hw_config.UIM[0].UIM_UART	8	Signed Enum	
87	87	hw_config.UIM[0].UIM_UART_IRQ_NUM	16	UINT16	
0	PMIC_NPA_RESOU...	hw_config.UIM[0].UIM_VCC	8	Signed Enum	
99	99	hw_config.UIM[0].UIM_RESET_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_RESET_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_RESET_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_RESET_PULL_SETTING	8	Signed Enum	
97	97	hw_config.UIM[0].UIM_DATA_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_DATA_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_DATA_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_DATA_PULL_SETTING	8	Signed Enum	

Note: UIM1 cannot be enabled during runtime due to hardware CR QCTDD00327990.

FR1150 – Default EFS Configuration for MSM9x25 for UIM2

Fields					
EFS item: 70210 (UIM HW Config)					
Input	Value	Name (Partial)	Size	Type	
0	NO_PULL	hw_config.UIM[0].UIM_DATA_PULL_SETTING	8	Signed Enum	
98	98	hw_config.UIM[0].UIM_CLOCK_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_CLOCK_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[0].UIM_CLOCK_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_CLOCK_PULL_SETTING	8	Signed Enum	
100	100	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_FUNC_SEL...	8	UINT8	UIM2 is enabled
0	2MA	hw_config.UIM[0].UIM_CARD_DETECT_GPIO_DRV_STRE...	8	Signed Enum	
0	NO_PULL	hw_config.UIM[0].UIM_CARD_DETECT_PULL_SETTING	8	Signed Enum	
0	FALSE	hw_config.UIM[1].DISABLE_UIM	8	Signed Enum	
0	FALSE	hw_config.UIM[1].ENABLE_UIM_HOTSWAP	8	Signed Enum	
1	ACTIVE_HIGH	hw_config.UIM[1].UIM_HOTSWAP_POLARITY	8	Signed Enum	
90	90	hw_config.UIM[1].UIM_CONTROLLER_IRQ_NUM	16	UINT16	
1	BADGER_MSS_UIM...	hw_config.UIM[1].UIM_UART	8	Signed Enum	
88	88	hw_config.UIM[1].UIM_UART_IRQ_NUM	16	UINT16	
1	PMIC_NPA_RESOU...	hw_config.UIM[1].UIM_VCC	8	Signed Enum	UIM2 hotswap is disabled by default. Set to TRUE to enable it
2	2	hw_config.UIM[1].UIM_RESET_GPIO_NUM	16	UINT16	
1	1	hw_config.UIM[1].UIM_RESET_GPIO_FUNC_SELECTION	8	UINT8	
0	2MA	hw_config.UIM[1].UIM_RESET_GPIO_DRV_STRENGTH	8	Signed Enum	
0	NO_PULL	hw_config.UIM[1].UIM_RESET_PULL_SETTING	8	Signed Enum	

References

Ref.	Document	
Qualcomm Technologies		
Q1	Application Note: Software Glossary for Customers	CL93-V3077-1
Q2	UIM Driver Configurable Items	80-NE596-2

The background of the slide features two hands holding mobile devices. The left hand holds a smartphone, and a golden grid pattern is projected onto the palm and wrist. The right hand holds a tablet. A large, diagonal 'QUALCOMM' watermark is visible across the center of the image.

Questions?

<https://support.cdmatech.com>

