

S3A7 to S3A1 MCU Group Migration Guide

Introduction

This Application Note compares hardware peripherals, port select features, and functional differences between the Renesas™ Synergy S3A7 MCU Group and S3A1 MCU Group.

Target Device

Synergy S3A1 MCU Group

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1. About this Document

This document is designed to provide the user with an overview of the functional, hardware, and electrical characteristic differences when migrating from the Synergy S3A7 MCU Group to the S3A1 MCU Group.

2. Audience

This document is intended for users who are designing application systems using the Synergy S3A1 MCU Group devices. Users are expected to have a technical understanding of the peripherals provided in the S3A7 MCU Group. This application note should be used in conjunction with the S3A1 Microcontroller Group User's Manual.

The application note presents two major sections. The first section specifies functional and specification differences between the S3A7 MCU Group and the S3A1 MCU Group, respectively. The second section details the differences in port functionality between the two MCUs.

3. References

Renesas provides the following documents for the Synergy S3 Series MCUs. Before using any of these documents, visit our web site to obtain the latest versions.

Table 1 Synergy S3 Series MCU Group Documents

Document Type	Description	Document Title	Document No.
S3A1 MCU Group Datasheet	Overview and electrical characteristics of the MCU	S3A1 Microcontroller Group Datasheet	R01DS0324EU0110
S3A1 MCU Group User's Manual	MCU specifications (pin assignments, memory maps, peripheral functions, electrical characteristics, and timing charts) and operation descriptions	S3A1 Microcontroller Group User's Manual	R01UM0010EU0110
S3A7 MCU Group Datasheet	Overview and electrical characteristics of the MCU	S3A7 Microcontroller Group Datasheet	R01DS0263EU0130
S3A7 MCU Group User's Manual	MCU specifications (pin assignments, memory maps, peripheral functions, electrical characteristics, and timing charts) and operation descriptions	S3A7 Microcontroller Group User's Manual	R01UM0002EU0130
Renesas Synergy Software Package (SSP) User's Manual	API reference and introduction to SSP architecture and programming	Renesas Synergy™ Software Package (SSP) User's Manual	R01US0356EU0103

4. Numbering Notation

The following numbering notation is used throughout this manual.

Table 2 Example of Number Notation

Example	Description
011b	Binary number. For example, the binary equivalent of the number 3 is 011b.
1Fh	Hexadecimal number. For example, the hexadecimal equivalent of the number 31 is described 1Fh. In some cases, a hexadecimal number is shown with the prefix 0x.
1234	Decimal number. A decimal number is followed by this symbol only when the possibility of confusion exists. Decimal numbers are generally shown without a suffix.
Bit 4	Specifies the bit position in field or register.

5. Specification and Hardware Differences

Table 1. 1 compares hardware compatibility and differences between the S3A7 MCU Group and S3A1 MCU Group. The table is ordered with increasing specificity from left to right. The left most column corresponds to a system as noted in the user's manual for the S3A1 MCU Group or S3A7 MCU Group. Values in the S3A7 column represent whether a system, subsystem, or field in register exists/has a certain value. Values in the S3A1 column show the change in hardware, new feature addition, or notes a deprecated feature. The Reference column specifies the section in the S3A1 MCU Group User's Manual that can be referred to for more information.

The following terms describe the functionality of the peripherals mentioned in Table 1. 1.

Table 3 Terms and Functionality of Peripherals

Terms	Description
Exists or Available	The peripheral or function is implemented for the particular MCU Group
Does not exist or Not Available	The peripheral specified has been removed (when compared to the other MCU Group) or does not exist in the MCU Group
Not Applicable	The criteria for comparison is invalid for the MCU Group

Table 1.1 Specification Difference (1 of 11)

Specification		S3A7	S3A1	S3A1 HWM Reference	
CPU	CoreSight Registers	Initial Value of PID0	00000002h	0000001Dh	2.6.3.2
	MCU Control Register (MCUCTRL)	Operation	Depends on Chip Status	Set DBIRQ and EDBGRQ to the same value	2.6.5.3
Address Space	MCU supports a 4-GB linear address space from 0000 0000h to FFFF FFFFh, containing both programs and data		Refer to manual for details	Refer to manual for details	Chapter 4
Clock Generation Circuit	Main Clock Oscillator (MOSC)	Resonator Frequency USB Boot Mode	4, 6, 8, 12 MHz	Not Available	9.1
	USB Clock Control Register (USBCKCR)		Does not exist	Exists	9.2.26
Low Power Modes	Operating Condition	High-Speed Analog Comparator (ACMPHSn, n = 0, 1)	Available	Not Applicable	Table 11.2
	Module Stop Control Register C (MSTPCRC)	Bit 7	MSTPC7 Synchronous Serial Interface 1 Module Stop	Reserved	11.2.4

Table 1.1 Specification Difference (2 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Low Power Modes	Module Stop Control Register D (MSTPCRD)	Bit 19	Reserved	MSTPD19 8-Bit D/A Converter Module Stop When using DAC8 (MSTPD19 = 0), Set MSTPD29 = 0	11.2.5
		Bit 28	MSTPD28 High-Speed Analog Comparator 0 Module Stop	Reserved	
		Bit 30	MSTPD30 High-Speed Analog Comparator 1 Module Stop	Reserved	
Battery Backup Function	Battery Powered Areas	AGT	Available	Not Available	12.1
	VBATT Wakeup I/O n Output Trigger Select Register (VBTWCH0OTSR) (n = 0, 1, 2)	Bit 5	CHnVAGTUTE VBATWIO n Output AGT Underflow Signal Enable (n = 0, 1, 2)	Reserved	12.2.8 12.2.9 12.2.10
	VBATT Input Control Register (VBTICTLR)	Bit 0 - VCH0INEN	Controls VBATWIO0, RTCIC0, AGTIO0_B, and AGTIO1_B Inputs	Controls VBATWIO0, RTCIC0 Inputs	12.2.11
		Bit 1 - VCH1INEN	Controls VBATWIO1, RTCIC1, AGTIO0_C, and AGTIO1_C Inputs	Controls VBATWIO1, RTCIC1 Inputs	

Table 1.1 Specification Difference (3 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Battery Backup Function	VBATT Wakeup Trigger Source Enable Register (VBTWTER)	Bit 5	VAGTUE AGT1 Underflow Signal Enable	Reserved	12.2.13
	VBATT Wakeup Trigger Source Flag Register (VBTWFR)	Bit 5	VAGTUF VBATT AGT1 Underflow Wakeup Trigger Flag	Reserved	12.2.15
	Backup Register Access Control Register (BKRACR)		Does not exist	Exists	12.2.16
	VBATT with LOCO restriction		In Software Standby mode the VBATT backup registers must be activated	This restriction is removed in S3A1	12.4.6
	VBATT Operating States	AGTn (n = 0, 1)	Selectable when selecting clock that operates as the count source	Stopped (Undefined)	12.3.1 Table 12.2
I/O Ports AGTIO _n _B Port (n = 0, 1) AGTIO _n _C Port (n = 0, 1)		Operating	Not Applicable		
Register Write Protection	Association Between PRCR bits and Registers to be Protected	PRC0 protects USBCKCR PRC1 protects BKRACR	Not Applicable	Applicable	13.1
Interrupt Controller Unit (ICU)	Peripheral Function Interrupts	Number of Sources	205	209	14.1

Table 1.1 Specification Difference (4 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Interrupt Controller Unit (ICU)	ICU Event Link Setting Register n (IELSRn) (n= 0 to 63)	IELS Bits ICU Event Link Select	Spans from Bit 0 to Bit 8 Refer to manual for details	Spans from Bit 0 to Bit 7 Bit 8 is Reserved Refer to manual for details	14.2.6
	DMAC Event Link Setting Register n (DELSRn)	Size	Spans from Bit 0 to Bit 15	Spans from Bit 0 to Bit 31	14.2.7
		DELS Bits DMAC Event Link Select	Spans from Bit 0 to Bit 8 Refer to manual for details	Spans from Bit 0 to Bit 7 Refer to manual for details	
		Bit 16	Not Applicable	IR Flag	
	SYS Event Link Setting Register (SELSR0)	SELS Bits SYS Event Link Select	Spans from Bit 0 to Bit 8 Refer to manual for details	Spans from Bit 0 to Bit 7 Bit 8 is Reserved Refer to manual for details	14.2.8
	Interrupt Vector Table		Refer to manual for details	Refer to manual for details	14.3.1
Event Number		Refer to manual for details	Refer to manual for details	14.3.2	
Buses	Slave Interfaces Internal Peripheral Bus 4	Peripheral Module IrDA	Connected	Not Applicable	15.1
	Slave Interfaces Internal Peripheral Bus 5	Peripheral Module ACMPHS	Connected	Not Applicable	

Table 1.1 Specification Difference (5 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Buses	External Bus External address space	Address/Data Multiplexed Bus: Selectable to 8-bit or 16-bit Bus Space	Does not exist	Exists	15.2.3 Table 15.3
	External Bus CS area Controller	Separate Bus or Address/Data Multiplexed Bus Can be Set for Each Area	Does not exist	Exists	
	External Pin Configurations	Address Output Pins	A16 to A00	A23 to A00	15.2.3 Table 15.4
		Address Latch Signal when Address/Data Multiplexed Bus is Selected	Not Applicable	ALE	
	CSn Control Register (CSnCR) (n = 0 to 3)	Bit 12	Reserved	MPXEN Address/Data Multiplexed I/O Interface Select	15.3.1
	CS Recovery Cycle Insertion Enable Register (CSRECEN)	Bits [15:8]	Reserved	RCVENM0 to RCVENM7 Multiplexed Bus Recovery Cycle Insertion Enable	15.3.3

Table 1.1 Specification Difference (6 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Buses	CSn Wait Control Register 2 (CSnWCR2) (n = 0 to 3)	Bits [13:12]	Reserved	AWAIT[1:0] Address Cycle Wait Select	15.3.6
	Address/Data Multiplexed Bus		Does not exist	Exists	15.5.2 15.5.7
	External Wait Function	When Enabled, BCLK and EBCLK must Operate at Same Frequency	Condition Applicable	No Such Condition	15.5.3
Memory Protection Unit (MPU)	Security MPU	Protects Accesses from Non-Secure Programs	2 regions (PC) 1 region (Code Flash)	2 regions (PC) 4 regions (Code Flash, SRAM, Two Secure Functions)	16.1 16.6.2
	Security MPU Registers		Refer to manual for details	Refer to manual for details	16.6.1.1
Event Link Controller	Event Link Function	Module Connected Directly to Event Signals	181	179	19.1
	Event Link Setting Register n (ELSRn)		Refer to manual for details	Refer to manual for details	19.2.3
I/O Ports	144/145 Pin Package	Total Pins	124	126	Table 20.1
		PORT 9	P900 to P902	P900 to P902, P914, P915	
	121-pin Package	Total Pins	102	104	
		PORT 9	Not Available	P914, P915	

Table 1.1 Specification Difference (7 of 11)

Specification		S3A7	S3A1	S3A1 HWM Reference	
I/O Ports	100-pin package	Total pins	82	84	Table 20.1
		PORT 9	Not Available	P914, P915	
	64-pin package	Total pins	50	52	
		PORT 9	Not Available	P914, P915	
	Drive Capacity Switching	P408	Low/Middle	Low/Middle/Middle(IIC)	Table 20.2 20.2.5
	Handling of Unused Pins		Refer to manual for details	Refer to manual for details	20.4
	Selecting USB_DP and USB_DM Pins		Not Applicable	Refer to manual for details	20.5.6
Pull-up/pull-down setting for P914 and P915 using USBFS/GPIO function		Not Applicable	Refer to manual for details	20.5.7	
Port Output Enable for GPT (POEG)	Input pin	GPT Output Pin Output Disable Request Signal and GPT External Trigger Input	GTETRGA, GTETRGB GTETRGC, GTETRGD	GTETRGA, GTETRGB	22.1 Table 22.2 22.4
	Output-disable control by the comparator (ACMPHS) interrupt request detection		Applicable	Not Applicable	22.1
	POEG Group n Setting Register (POEGGn)	Bit 8	CDRE0	Reserved	22.2.1
Bit 9		CDRE1	Reserved		

Table 1.1 Specification Difference (8 of 11)

Specification		S3A7	S3A1	S3A1 HWM Reference	
General PWM Timer (GPT)	Number of Channels	16 Bits	Does not exist	6 Channels	
		32 Bits	10 Channels		4 Channels
	Register		Refer to manual for details	Refer to manual for details	23.2
	Interrupt sources		Refer to manual for details	Refer to manual for details	23.4
Asynchronous General Purpose Timer (AGT)	Clock Source	PCLKB, PCLKB/2	Not Available	Available	24.1
	I/O Pins	Operation	AGTIO _n can also be input during AGT Operation Using voltage from VBATT pin	When AGTIO _n are assigned P402 and P403, AGTIO _n can only be used as input.	24.1 Table 24.2
	AGT I/O Control Register (AGTIOC)	Condition when digital filter function cannot be used	Event Counter Mode Operation Performed during Software Standby Mode, and Battery Backup Function	Event Counter Mode Operation Performed during Software Standby Mode	24.2.7
		VBATT operation	Available	Not Available	
	AGT Pin Select Register (AGTIOSEL)		Refer to manual for details	Refer to manual for details	24.2.10
	Usage Notes	When Selecting AGT0 Underflow as Count Source	Refer to manual for details	Refer to manual for details	24.4.7
		When Count Source Clock Frequency is over 32 kHz	Refer to manual for details	Not Applicable	24.4.11

Table 1.1 Specification Difference (9 of 11)

Specification			S3A7	S3A1	S3A1 HWM Reference
Watchdog Timer (WDT)	ICU Event Link Setting Register n (IELSRn) Setting	Prohibited Value When Using WDT Reset Assertion or Event Link Operation	18h Refer to manual for details	25h Refer to manual for details	26.5.1
Serial Communications Interface (SCI)	Asynchronous Mode Transmission/Reception	Selectable as either 1-stage register or 16-stage FIFO	SCI0 to SCI9	SCI0 and SCI1	Table 29.1 29.2.8
IrDA Interface	The IrDA interface sends and receives IrDA data communication waveforms in cooperation with the SCI1 based on the IrDA		Refer to manual for details	Does not exist	
I ² C Bus Interface (IIC)	I ² C Bus Control Register 1 (ICCR1)	IICRST Bit Resets ICCR1.SCLO and ICCR1.SDAO bits ICCR2 register (except ICCR2.BBSY bit)	Not Applicable	Applicable	30.2.1
	I ² C Bus Wakeup Unit Register 2 (ICWUR2)		Reserved	Refer to manual for details	30.2.12
I ² C Bus Interface (IIC0)	Standby and Snooze Modes		No Snooze	No Restriction – Snooze enabled	Chapter 11.1 (Table 11.3) shows the difference of the restriction
Serial Peripheral Interface (SPI)	SPI1	Data Format	128 bits for Transmit and Receive Buffers	32 bits for Transmit and Receive Buffers	32.1
		Control in Master Transfer	Burst Transfer Available	No Burst Transfer Available	32.1 32.3.10.1 (4)
	Function for Switching Between CMOS Output and Open-Drain Output		Available	Not Available	

Table 1.1 Specification Difference (10 of 11)

Specification		S3A7	S3A1	S3A1 HWM Reference	
Serial Peripheral Interface (SPI)	SPI Data Control Register (SPDCR)	SPI1 Bits [1:0]	SPFC[1:0]	Reserved	32.2.9
	SPI Command Registers	SPI1 Bit 7	SSLKP SSL Signal Level Keeping	Reserved	32.2.14
Cyclic Redundancy Check (CRC) Calculator	Snoop Address Register (CRCSAR)		Refer to manual for details	Refer to manual for details	34.2.5
Serial Sound Interface Enhanced (SSIE)	Transmit and Receive Audio Data to and from Multiple Devices that Support Different Audio Data Formats		Refer to manual for details	Refer to manual for details	Chapter 35
SD/MMC Host Interface (SDHI)	I/O Pins	SD0CD SD Card Detection	Does not exist	Exists	Table 36.2 36.3.2.1
12-Bit D/A Converter (DAC12)	Output Channels		2 Channels DA0 and DA1	1 Channel DA0	39.1
	D/A Data Register m (DADRm)		m = 0, 1	m = 0	39.2.1
	D/A Control Register (DACR)	Bit 7	DAOE1 D/A Output Enable 1	Reserved	39.2.2
Operational Amplifier (OPAMP)	Used to Provide Input Signal to ACMPHS		Applicable	Not Applicable	41.1
High-Speed Analog Comparator (ACMPHS)	Used to Compare a Test Voltage with a Reference Voltage and to Provide a Digital Output Based on the Result of Conversion		Exists	Does not exist	

Table 1.1 Specification Difference (11 of 11)

Specification		S3A7	S3A1	S3A1 HWM Reference	
Low Power Analog Comparator (ACMPLP)	Reference Voltage	Output from Internal DAC8	Not Available	Available	42.1
	Comparator Pin Configuration		Refer to manual for details	Refer to manual for details	Table 42.2
	ACMPLP Mode Setting Register (COMPMDR)		Refer to manual	Refer to manual for details	42.2.1
	Comparator Input Select Register (COMPSEL0)		Does not exist	Exists	42.2.4, Table 42.3
	Comparator Reference Voltage Select Register (COMPSEL1)		Does not exist	Exists	42.2.5, Table 42.3
8-Bit D/A Converter (DAC8)	Digital to Analog Conversion		Does not exist	Exists	Chapter 43
Capacitive Touch Sensing Unit (CTSU)	Electrostatic Capacitance Measurement Pins	Channels	31 channels (TS00, TS01, TS03 to TS22, TS26 to TS27, TS29 to TS35)	27 channels (TS00 to TS13, TS17 to TS22, TS27 to TS31, TS34, TS35)	Table 44.1
	All Other Details		Refer to manual for details	Refer to manual for details	Chapter 44
Flash Memory	Data Flash Memory		16 KB	8 KB	47.1
	Memory Structure		Refer to manual for details	Refer to manual for details	47.2
	Flash Cache 1 (FCACHE1)	Capacity	256 Bytes	128 Bytes	47.3
		Associativity	8-way 4 entries/ways	2-way 8 entries/ways	
Segment LCD Controller/Driver (SLCDC)			Refer to manual for details	Refer to manual for details	Chapter 48
Internal Voltage Regulator			Refer to manual for details	Refer to manual for details	Chapter 49

6. Port Select Function Difference

Table 2. 1, Table 3. 1, and Table 4. 1 compare the PSEL, ASEL, and ISEL functions for the S3A7 MCU Group and S3A1 MCU Group respectively. For each port number, the first row specifies the bitwise select values. The second row specifies the functionality enabled by the select values on the S3A7 MCU Group. The third column specifies the functionality enabled by the select values on the S3A1. Differences in functionality are notated with bold text and highlighted background. The comments section provides additional details or specifies the migration type from S3A7 MCU Group to S3A1 MCU Group. For more information on the comments column please refer to the Typography Notation table after the contents page in the How to use this Application Note section.

Note: Some pin names have the added suffix of `_A`, `_B`, `_C`, `_D`, `_E` and `_F`. When assigning the GPT, IIC, SPI, SSIE, ETHERC (RMI), SDHI, and GLCDC functionality, select the functional pins with the same suffix. The other pins can be selected regardless of the suffix. Assigning the same function to two or more pins simultaneously is prohibited.

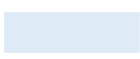


The following typographic notation is used for the pin differences sections of the document to denote the changes happening at the individual ports.

Table 4 Typographic Notation Used in Pin Difference Tables

Example	Description
▲PIXD0_B	The '▲' denotes that signal PIXD0_B is being added to the previously unused/reserved or replacing a deprecated function.
▼ET1_TX_CLK	The '▼' denotes that signal ET1_TX_CLK is being deprecated at the bit position and being replaced by a new signal or remain unused/reserved.

The following gradients visualize whether signals are added, replaced, or removed from the S3A7 and S3A1 MCU Group.

Table 5 Visualization of Gradients to Indicate Added, Replaced, and Removed Signals

Example	Description
	Highlights a bit position where a new function is being added to the previously unused/reserved bit position or highlights a port function with a new pin assignment.
	Highlights a bit position where a new function is replacing an existing function in the bit position.
	Highlights a bit position it is being reserved by deprecating the function that existed at that bit position.

Appendix 1. 64-pinPackage

Table 2. 1 64-pin Package Difference (1 of 9)

PORT	MCU	SELECT							COMMENTS
P000		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF0 ▼IVCMP0
	S3A7	TS21	AN000	IVREF0/IVCMP0	AMP0+	IRQ6			
	S3A1	TS21	AN000	-	AMP0+	IRQ6			
P001		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF1 ▼IVCMP1
	S3A7	TS22	AN001	IVREF1/IVCMP1	AMP0-	IRQ7			
	S3A1	TS22	AN001	-	AMP0-	IRQ7			
P002		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ2 ▼IVREF2 ▼IVCMP2 ▼IRQ8
	S3A7	AN002	IVREF2/IVCMP2	AMP00	IRQ8				
	S3A1	AN002	-	AMP00	IRQ2				
P003		ASEL ADC	ASEL CMP	ASEL OPAMP					▼IVREF3 ▼IVCMP3
	S3A7	AN003	IVREF3/IVCMP3	AMP10					
	S3A1	AN003	-	AMP10					
P004		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ3 ▼IRQ9 ▼IVCMP0
	S3A7	AN004	IVCMP0	AMP20	IRQ9				
	S3A1	AN004	-	AMP20	IRQ3				
P010/IVREFH0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN005 ▼AN010
	S3A7	TS30	AN010	AMP2-	IRQ14				
	S3A1	TS30	AN005	AMP2-	IRQ14				
P011/IVREFL0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN006 ▼AN011
	S3A7	TS31	AN011	AMP2+	IRQ15				
	S3A1	TS31	AN006	AMP2+	IRQ15				

Table 2.1 64-pin Package Difference (2 of 9)

PORT	MCU	SELECT								COMMENTS
P012/VREFH		ASEL ADC	ASEL OPAMP							▲AN007 ▼AN012
	S3A7	AN012	AMP1-							
	S3A1	AN007	AMP1-							
P013/VREFL		ASEL ADC	ASEL OPAMP							▲AN008 ▼AN013
	S3A7	AN013	AMP1+							
	S3A1	AN008	AMP1+							
P014		ASEL ADC	ASEL CMP	ASEL DA						▲AN009 ▼AN014 ▼IVREF5 ▼IVREF2
	S3A7	AN014	IVREF5/IVREF2	DA0						
	S3A1	AN009	-	DA0						
P015		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL DA	ISEL				▲TS28 ▲AN010 ▲IRQ7 ▼AN015 ▼DA1 ▼IRQ13 ▼IVCMP5 ▼IVCMP2
	S3A7	-	AN015	IVCMP5/IVCMP2	DA1	IRQ13				
	S3A1	TS28	AN010	-	-	IRQ7				
P100		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲AN022 ▲GTIOC5B ▼AN027
	S3A7	AGTIO0	GTETRGA	-	RXD0	SCK1	MISOA	SCL1	KR00	
	S3A1	AGTIO0	GTETRGA	GTIOC5B	RXD0	SCK1	MISOA	SCL1	KR00	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D00	VL1	AN027	CMPIN0	IRQ2				
	S3A1	D00	VL1	AN022	CMPIN0	IRQ2				
P101		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲GTIOC5A ▲AN021 ▼AN026
	S3A7	AGTEE0	GTETRGB	-	TXD0	CTS1	MOSIA	SDA1	KR01	
	S3A1	AGTEE0	GTETRGB	GTIOC5A	TXD0	CTS1	MOSIA	SDA1	KR01	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D01	VL2	AN026	CMPREF0	IRQ1				
	S3A1	D01	VL2	AN021	CMPREF0	IRQ1				

Table 2.1 64-pin Package Difference (3 of 9)

PORT	MCU	SELECT								COMMENTS
P102		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01000b	PSEL 01010b	▲TXD2 ▲CRX0 ▲AN020 ▼AN025
	S3A7	AGTO0	GTOWLO	GTIOC2B	SCK0	-	RSPCKA	KR02	ADTRG0	
	S3A1	AGTO0	GTOWLO	GTIOC2B	SCK0	TXD2	RSPCKA	KR02	ADTRG0	
		PSEL 01011b	PSEL 01101b	PSEL 10000b	ASEL ADC	ASEL CMP				
	S3A7	D02	VL3	-	AN025	CMPIN1				
	S3A1	D02	VL3	CRX0	AN020	CMPIN1				
P103		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b	PSEL 10000b	▲CTX0 ▲AN019 ▼AN024
	S3A7	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	-	
	S3A1	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	CTX0	
		ASEL ADC	ASEL CMP							
	S3A7	AN024	CMPREF1							
	S3A1	AN019	CMPREF1							
P104		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	▲GTIOC1B ▲RXD0 ▲TS13
	S3A7	GTETRGB	-	-	SSLA1	KR04	D04	-	COM0	
	S3A1	GTETRGB	GTIOC1B	RXD0	SSLA1	KR04	D04	TS13	COM0	
		ISEL								
	S3A7	IRQ1								
	S3A1	IRQ1								
P105		PSEL 00010b	PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲GTIOC1A ▲TS34
	S3A7	GTETRGA	-	SSLA2	KR05	D05	-	COM1	IRQ0	
	S3A1	GTETRGA	GTIOC1A	SSLA2	KR05	D05	TS34	COM1	IRQ0	
P106		PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b				
	S3A7	GTIOC8B	SSLA3	KR06	D06	COM2				
	S3A1	GTIOC8B	SSLA3	KR06	D06	COM2				

Table 2.1 64-pin Package Difference (4 of 9)

PORT	MCU	SELECT								COMMENTS
P107		PSEL 00011b	PSEL 01000b	PSEL 01011b	PSEL 01101b					
	S3A7	GTIOC8A	KR07	D07	COM3					
	S3A1	GTIOC8A	KR07	D07	COM3					
P108		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 00110b				▲GTOULO
	S3A7	TMS/SWDIO	-	GTIOC0B	CTS9	SSLB0				
	S3A1	TMS/SWDIO	GTOULO	GTIOC0B	CTS9	SSLB0				
P109		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01100b	▲SCK1 ▲TS10 ▲SEG52 ▲CTX0
	S3A7	TDO/SWO	GTOVUP	GTIOC1A	-	TXD9	MOSIB	CLKOUT	-	
	S3A1	TDO/SWO	GTOVUP	GTIOC1A	SCK1	TXD9	MOSIB	CLKOUT	TS10	
		PSEL 01101b	PSEL 10000b							
	S3A7	-	-							
P110		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01101b	▲CRX0 ▲SEG53
	S3A7	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	-	
	S3A1	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	SEG53	
		PSEL 10000b	ISEL							
	S3A7	-	IRQ3							
P111		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS12
	S3A7	GTIOC3A	SCK2	SCK9	RSPCKB	A05	-	CAPH	IRQ4	
	S3A1	GTIOC3A	SCK2	SCK9	RSPCKB	A05	TS12	CAPH	IRQ4	
P112		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SCK1 ▲SSIBCK0 ▲SSLB0 ▲TSCAP ▼SSISCK0
	S3A7	GTIOC3B	TXD2	-	-	A04	-	CAPL	SSISCK0	
	S3A1	GTIOC3B	TXD2	SCK1	SSLB0	A04	TSCAP	CAPL	SSIBCK0	

Table 2.1 64-pin Package Difference (5 of 9)

PORT	MCU	SELECT								COMMENTS
P113		PSEL 00011b	PSEL 00100b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b			▲GTIOC2A ▲TS27
	S3A7	-	RXD2	A03	-	SEG00/COM4	SSIWS0			▼SSIWS0
	S3A1	GTIOC2A	RXD2	A03	TS27	SEG00/COM4	SSILRCK0/SSI FS0			▲SSILRCK0 ▲SSIFS0
P204		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01010b	▼SSISCK1 ▼A18
	S3A7	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
	S3A1	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b			
	S3A7	-	TS00	SEG23	SSISCK1	USB_OVRCURB	SD0DAT4			
	S3A1	A18	TS00	SEG23	-	USB_OVRCURB	SD0DAT4			
P205		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01001b	▲SEG20 ▼SSIWS1
	S3A7	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
	S3A1	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b	ISEL		
	S3A7	A16	TSCAP	-	SSIWS1	USB_OVRCURA	SD0DAT3	IRQ1		
	S3A1	A16	TSCAP	SEG20	-	USB_OVRCURA	SD0DAT3	IRQ1		
P206		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SEG12 ▼SSIDATA1
	S3A7	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	-	SSIDATA1	
	S3A1	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	SEG12	-	
		PSEL 10011b	PSEL 10101b	ISEL						
	S3A7	USB_VBUSEN	SD0DAT2	IRQ0						
	S3A1	USB_VBUSEN	SD0DAT2	IRQ0						
P212/EXTAL		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL				▲GTIOC0B ▲GTETRGB ▼GTETRGD
	S3A7	AGTEE1	GTETRGD	-	RXD1	IRQ3				
	S3A1	AGTEE1	GTETRGB	GTIOC0B	RXD1	IRQ3				

Table 2. 1 64-pin Package Difference (6 of 9)

PORT	MCU	SELECT								COMMENTS
P213/XTAL		PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL					▲GTIOC0A ▲GTETRGA ▼GTETRGC
	S3A7	GTETRGC	-	TXD1	IRQ2					
	S3A1	GTETRGA	GTIOC0A	TXD1	IRQ2					
P300		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00110b					▲GTOUUP
	S3A7	TCK/SWCLK	-	GTIOC0A	SSLB1					
	S3A1	TCK/SWCLK	GTOUUP	GTIOC0A	SSLB1					
P301		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	▲AGTIO0 ▲CTS9 ▲TS09
	S3A7	-	GTOULO	GTIOC4B	RXD2	-	SSLB2	A06	-	
	S3A1	AGTIO0	GTOULO	GTIOC4B	RXD2	CTS9	SSLB2	A06	TS09	
		PSEL 01101b	ISEL							
	S3A7	SEG01/COM5	IRQ6							
	S3A1	SEG01/COM5	IRQ6							
P302		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS08
	S3A7	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	-	SEG02/COM6	IRQ5	
	S3A1	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	TS08	SEG02/COM6	IRQ5	
P303		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b				▲TS02 ▲SD0DAT0
	S3A7	GTIOC7B	A08	-	SEG03/COM7	-				
	S3A1	GTIOC7B	A08	TS02	SEG03/COM7	SD0DAT0				
P304		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b	ISEL			▲TS11 ▲SD0WP
	S3A7	GTIOC7A	A09	-	SEG17	-	IRQ9			
	S3A1	GTIOC7A	A09	TS11	SEG17	SD0WP	IRQ9			
P400		PSEL 00001b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO1 ▲SCK1 ▲CACREF ▲SEG04
	S3A7	-	GTIOC6A	SCK4	-	SCL0	-	TS20	-	
	S3A1	AGTIO1	GTIOC6A	SCK4	SCK1	SCL0	CACREF	TS20	SEG04	
		PSEL 10010b	ISEL							
	S3A7	AUDIO_CLK	IRQ0							
	S3A1	AUDIO_CLK	IRQ0							

Table 2.1 64-pin Package Difference (7 of 9)

PORT	MCU	SELECT								COMMENTS
P401		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▲TXD1 ▲SEG05
	S3A7	GTETRGA	GTIOC6B	CTS4	-	SDA0	TS19	-	CTX0	
	S3A1	GTETRGA	GTIOC6B	CTS4	TXD1	SDA0	TS19	SEG05	CTX0	
		ISEL								
	S3A7	IRQ5								
	S3A1	IRQ5								
P402		PSEL 00001b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 01101b	PSEL 10000b	ISEL		▲RXD1 ▲SEG06
	S3A7	AGTIO0_B/AGTIO1	-	RTCIC0	TS18	-	CRX0	IRQ4		
	S3A1	AGTIO0_E/AGTIO1	RXD1	RTCIC0	TS18	SEG06	CRX0	IRQ4		
P407/ USB_VBUS		PSEL 00001b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01001b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO0 ▲SEG11
	S3A7	-	CTS4	SSLB3	SDA0	RTCOU	ADTRG0	TS03	-	
	S3A1	AGTIO0	CTS4	SSLB3	SDA0	RTCOU	ADTRG0	TS03	SEG11	
		PSEL 10011b								
	S3A7	USB_VBUS								
	S3A1	USB_VBUS								
P408		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10011b	▲GTIOC5B ▲CTS1 ▲SCL0 ▲SEG10
	S3A7	GTOWLO	-	-	RXD3	-	TS04	-	USB_ID	
	S3A1	GTOWLO	GTIOC5B	CTS1	RXD3	SCL0	TS04	SEG10	USB_ID	
		ISEL								
	S3A7	IRQ7								
	S3A1	IRQ7								
P409		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01100b	PSEL 01101b	PSEL 10011b	ISEL		▲GTIOC5A ▲SEG09
	S3A7	GTOWUP	-	TXD3	TS05	-	USB_EXICEN	IRQ6		
	S3A1	GTOWUP	GTIOC5A	TXD3	TS05	SEG09	USB_EXICEN	IRQ6		

Table 2.1 64-pin Package Difference (8 of 9)

PORT	MCU	SELECT								COMMENTS
P410		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG08
	S3A7	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	-	
	S3A1	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	SEG08	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT1	IRQ5							
S3A1	SD0DAT1	IRQ5								
P411		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG07
	S3A7	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	-	
	S3A1	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	SEG07	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT0	IRQ4							
S3A1	SD0DAT0	IRQ4								
P500		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC2A ▲CMPREF1
	S3A7	AGTOA0	GTIU	-	SEG48	QSPCLK	USB_VBUSEN	AN016	-	
	S3A1	AGTOA0	GTIU	GTIOC2A	SEG48	QSPCLK	USB_VBUSEN	AN016	CMPREF1	
P501		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	▲GTIOC2B ▲TXD3 ▲CMPIN1
	S3A7	AGTOB0	GTIV	-	-	SEG49	QSSL	USB_OVRCURA	AN017	
	S3A1	AGTOB0	GTIV	GTIOC2B	TXD3	SEG49	QSSL	USB_OVRCURA	AN017	
		ASEL CMP	ISEL							
	S3A7	-	IRQ11							
S3A1	CMPIN1	IRQ11								

Table 2.1 64-pin Package Difference (9 of 9)

PORT	MCU	SELECT								COMMENTS
		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	
P502		GTIW	-	-	SEG50	QIO0	USB_OVRCURB	AN018	-	▲GTIOC3B ▲RXD3 ▲CMPREF0
	S3A1	GTIW	GTIOC3B	RXD3	SEG50	QIO0	USB_OVRCURB	AN018	CMPREF0	
		ISEL								
	S3A7	IRQ12								
	S3A1	IRQ12								
P914/ USB_DP		PSEL (don't care)								P914 is only available on S3A1
	S3A7	-								
	S3A1	USB_DP								
P915/ USB_DM		PSEL (don't care)								P915 is only available on S3A1
	S3A7	-								
	S3A1	USB_DM								

Appendix 2. 100-pin Package

Table 3.1 100-pin Package Difference (1 of 14)

PORT	MCU	SELECT							COMMENTS
P000		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF0 ▼IVCMP0
	S3A7	TS21	AN000	IVREF0/ IVCMP0	AMP0+	IRQ6			
	S3A1	TS21	AN000	-	AMP0+	IRQ6			
P001		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF1 ▼IVCMP1
	S3A7	TS22	AN001	IVREF1/IVCMP1	AMP0-	IRQ7			
	S3A1	TS22	AN001	-	AMP0-	IRQ7			
P002		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ2 ▼IVREF2 ▼IVCMP2 ▼IRQ8
	S3A7	AN002	IVREF2/IVCMP2	AMP00	IRQ8				
	S3A1	AN002	-	AMP00	IRQ2				
P003		ASEL ADC	ASEL CMP	ASEL OPAMP					▼IVREF3 ▼IVCMP3
	S3A7	AN003	IVREF3/IVCMP3	AMP10					
	S3A1	AN003	-	AMP10					
P004		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ3 ▼IRQ9 ▼IVCMP0
	S3A7	AN004	IVCMP0	AMP20	IRQ9				
	S3A1	AN004	-	AMP20	IRQ3				
P005		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN011 ▼TS26 ▼AN005 ▼IVREF0
	S3A7	TS26	AN005	IVREF0	AMP3+	IRQ10			
	S3A1	-	AN011	-	AMP3+	IRQ10			
P006		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN012 ▼TS27 ▼AN006 ▼IVREF4 ▼IVREF1
	S3A7	TS27	AN006	IVREF4/IVREF1	AMP3-	IRQ11			
	S3A1	-	AN012	-	AMP3-	IRQ11			

Table 3.1 100-pin Package Difference (2 of 14)

PORT	MCU	SELECT							COMMENTS
P007		ASEL ADC	ASEL CMP	ASEL OPAMP					▲AN013 ▼AN007 ▼IVCMP4 ▼IVCMP1
	S3A7	AN007	IVCMP4/IVCMP1	AMP30					
	S3A1	AN013	-	AMP30					
P008		PSEL 01100b	ASEL ADC	ISEL					▲AN014 ▼TS29 ▼AN008
	S3A7	TS29	AN008	IRQ12					
	S3A1	-	AN014	IRQ12					
P010/ VREFH0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN005 ▼AN010
	S3A7	TS30	AN010	AMP2-	IRQ14				
	S3A1	TS30	AN005	AMP2-	IRQ14				
P011/ VREFL0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN006 ▼AN011
	S3A7	TS31	AN011	AMP2+	IRQ15				
	S3A1	TS31	AN006	AMP2+	IRQ15				
P012/ VREFH		ASEL ADC	ASEL OPAMP						▲AN007 ▼AN012
	S3A7	AN012	AMP1-						
	S3A1	AN007	AMP1-						
P013/ VREFL		ASEL ADC	ASEL OPAMP						▲AN008 ▼AN013
	S3A7	AN013	AMP1+						
	S3A1	AN008	AMP1+						
P014		ASEL ADC	ASEL CMP	ASEL DA					▲AN009 ▼AN014 ▼IVREF5 ▼IVREF2
	S3A7	AN014	IVREF5/IVREF2	DA0					
	S3A1	AN009	-	DA0					
P015		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL DA	ISEL			▲TS28 ▲AN010 ▲IRQ7 ▼AN015 ▼DA1 ▼IRQ13 ▼IVCMP5 ▼IVCMP2
	S3A7	-	AN015	IVCMP5/IVCMP2	DA1	IRQ13			
	S3A1	TS28	AN010	-	-	IRQ7			

Table 3.1 100-pin Package Difference (3 of 14)

PORT	MCU	SELECT								COMMENTS
P100		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲AN022 ▲GTIOC5B ▼AN027
	S3A7	AGTIO0	GTETRGA	-	RXD0	SCK1	MISOA	SCL1	KR00	
	S3A1	AGTIO0	GTETRGA	GTIOC5B	RXD0	SCK1	MISOA	SCL1	KR00	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D00	VL1	AN027	CMPIN0	IRQ2				
S3A1	D00	VL1	AN022	CMPIN0	IRQ2					
P101		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲GTIOC5A ▲AN021 ▼AN026
	S3A7	AGTEE0	GTETRGA	-	TXD0	CTS1	MOSIA	SDA1	KR01	
	S3A1	AGTEE0	GTETRGA	GTIOC5A	TXD0	CTS1	MOSIA	SDA1	KR01	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D01	VL2	AN026	CMPREF0	IRQ1				
S3A1	D01	VL2	AN021	CMPREF0	IRQ1					
P102		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01000b	PSEL 01010b	▲TXD2 ▲CRX0 ▲AN020 ▼AN025
	S3A7	AGTO0	GTOWLO	GTIOC2B	SCK0	-	RSPCKA	KR02	ADTRG0	
	S3A1	AGTO0	GTOWLO	GTIOC2B	SCK0	TXD2	RSPCKA	KR02	ADTRG0	
		PSEL 01011b	PSEL 01101b	PSEL 10000b	ASEL ADC	ASEL CMP				
	S3A7	D02	VL3	-	AN025	CMPIN1				
S3A1	D02	VL3	CRX0	AN020	CMPIN1					
P103		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b	PSEL 10000b	▲CTX0 ▲AN019 ▼AN024
	S3A7	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	-	
	S3A1	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	CTX0	
		ASEL ADC	ASEL CMP							
	S3A7	AN024	CMPREF1							
S3A1	AN019	CMPREF1								

Table 3.1 100-pin Package Difference (4 of 14)

PORT	MCU	SELECT								COMMENTS
P104		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	▲GTIOC1B ▲RXD0 ▲TS13
	S3A7	GTETRGB	-	-	SSLA1	KR04	D04	-	COM0	
	S3A1	GTETRGB	GTIOC1B	RXD0	SSLA1	KR04	D04	TS13	COM0	
		ISEL								
	S3A7	IRQ1								
	S3A1	IRQ1								
P105		PSEL 00010b	PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲GTIOC1A ▲TS34
	S3A7	GTETRGA	-	SSLA2	KR05	D05	-	COM1	IRQ0	
	S3A1	GTETRGA	GTIOC1A	SSLA2	KR05	D05	TS34	COM1	IRQ0	
P106		PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b				
	S3A7	GTIOC8B	SSLA3	KR06	D06	COM2				
	S3A1	GTIOC8B	SSLA3	KR06	D06	COM2				
P107		PSEL 00011b	PSEL 01000b	PSEL 01011b	PSEL 01101b					
	S3A7	GTIOC8A	KR07	D07	COM3					
	S3A1	GTIOC8A	KR07	D07	COM3					
P108		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 00110b				▲GTOULO
	S3A7	TMS/SWDIO	-	GTIOC0B	CTS9	SSLB0				
	S3A1	TMS/SWDIO	GTOULO	GTIOC0B	CTS9	SSLB0				
P109		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01100b	▲SCK1 ▲TS10 ▲SEG52 ▲CTX0
	S3A7	TDO/SWO	GTOVUP	GTIOC1A	-	TXD9	MOSIB	CLKOUT	-	
	S3A1	TDO/SWO	GTOVUP	GTIOC1A	SCK1	TXD9	MOSIB	CLKOUT	TS10	
		PSEL 01101b	PSEL 10000b							
	S3A7	-	-							
	S3A1	SEG52	CTX0							

Table 3.1 100-pin Package Difference (5 of 14)

PORT	MCU	SELECT								COMMENTS
P110		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01101b	▲CRX0 ▲SEG53
	S3A7	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	-	
	S3A1	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	SEG53	
		PSEL 10000b	ISEL							
	S3A7	-	IRQ3							
S3A1	CRX0	IRQ3								
P111		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS12
	S3A7	GTIOC3A	SCK2	SCK9	RSPCKB	A05	-	CAPH	IRQ4	
	S3A1	GTIOC3A	SCK2	SCK9	RSPCKB	A05	TS12	CAPH	IRQ4	
P112		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SCK1 ▲SSIBCK0 ▲SSLB0 ▲TSCAP ▼SSISCK0
	S3A7	GTIOC3B	TXD2	-	-	A04	-	CAPL	SSISCK0	
	S3A1	GTIOC3B	TXD2	SCK1	SSLB0	A04	TSCAP	CAPL	SSIBCK0	
P113		PSEL 00011b	PSEL 00100b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b			▲GTIOC2A ▲TS27 ▼SSIWS0 ▲SSILRCK0 ▲SSIFS0
	S3A7	-	RXD2	A03	-	SEG00/COM4	SSIWS0			
	S3A1	GTIOC2A	RXD2	A03	TS27	SEG00/COM4	SSILRCK0/ SSIFS0			
P114		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC2B ▲TS29
	S3A7	-	A02	-	SEG24	SSIRXD0				
	S3A1	GTIOC2B	A02	TS29	SEG24	SSIRXD0				
P115		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC4A ▲TS35
	S3A7	-	A01	-	SEG25	SSITXD0				
	S3A1	GTIOC4A	A01	TS35	SEG25	SSITXD0				

Table 3.1 100-pin Package Difference (6 of 14)

PORT	MCU	SELECT								COMMENTS
P202		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01101b	PSEL 10000b	PSEL 10101b	▼CRX0
	S3A7	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	CRX0	SD0DAT6	
	S3A1	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	-	SD0DAT6	
		ISEL								
	S3A7	IRQ3								
S3A1	IRQ3									
P203		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▼CTX0 ▲A19
	S3A7	GTIOC5A	CTS2	TXD9	MOSIB	-	TSCAP	SEG22	CTX0	
	S3A1	GTIOC5A	CTS2	TXD9	MOSIB	A19	TSCAP	SEG22	-	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT5	IRQ2							
S3A1	SD0DAT5	IRQ2								
P204		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01010b	▼SSISCK1 ▲A18
	S3A7	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
	S3A1	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b			
	S3A7	-	TS00	SEG23	SSISCK1	USB_OVRCUR B	SD0DAT4			
S3A1	A18	TS00	SEG23	-	USB_OVRCUR B	SD0DAT4				
P205		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01001b	▲SEG20 ▼SSIWS1
	S3A7	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
	S3A1	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b	ISEL		
	S3A7	A16	TSCAP	-	SSIWS1	USB_OVRCUR A	SD0DAT3	IRQ1		
S3A1	A16	TSCAP	SEG20	-	USB_OVRCUR A	SD0DAT3	IRQ1			

Table 3.1 100-pin Package Difference (7 of 14)

PORT	MCU	SELECT								COMMENTS
P206		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SEG12 ▼SSIDATA1
	S3A7	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	-	SSIDATA1	
	S3A1	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	SEG12	-	
		PSEL 10011b	PSEL 10101b	ISEL						
	S3A7	USB_VBUSEN	SD0DAT2	IRQ0						
	S3A1	USB_VBUSEN	SD0DAT2	IRQ0						
P212/ EXTAL		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL				▲GTIOC0B ▲GTETRGB ▼GTETRGD
	S3A7	AGTEE1	GTETRGD	-	RXD1	IRQ3				
	S3A1	AGTEE1	GTETRGB	GTIOC0B	RXD1	IRQ3				
P213/ XTAL		PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL					▲GTIOC0A ▲GTETRGA ▼GTETRGC
	S3A7	GTETRGC	-	TXD1	IRQ2					
	S3A1	GTETRGA	GTIOC0A	TXD1	IRQ2					
P300		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00110b					▲GTOUUP
	S3A7	TCK/SWCLK	-	GTIOC0A	SSLB1					
	S3A1	TCK/SWCLK	GTOUUP	GTIOC0A	SSLB1					
P301		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	▲AGTIO0 ▲CTS9 ▲TS09
	S3A7	-	GTOULO	GTIOC4B	RXD2	-	SSLB2	A06	-	
	S3A1	AGTIO0	GTOULO	GTIOC4B	RXD2	CTS9	SSLB2	A06	TS09	
		PSEL 01101b	ISEL							
	S3A7	SEG01/COM5	IRQ6							
	S3A1	SEG01/COM5	IRQ6							
P302		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS08
	S3A7	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	-	SEG02/COM6	IRQ5	
	S3A1	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	TS08	SEG02/COM6	IRQ5	

Table 3.1 100-pin Package Difference (8 of 14)

PORT	MCU	SELECT								COMMENTS
P303		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b				▲TS02 ▲SD0DAT0
	S3A7	GTIOC7B	A08	-	SEG03/COM7	-				
	S3A1	GTIOC7B	A08	TS02	SEG03/COM7	SD0DAT0				
P304		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b	ISEL			▲TS11 ▲SD0WP
	S3A7	GTIOC7A	A09	-	SEG17	-	IRQ9			
	S3A1	GTIOC7A	A09	TS11	SEG17	SD0WP	IRQ9			
P305		PSEL 01011b	PSEL 01101b	PSEL 10001b	PSEL 10101b	ISEL				▲QSPCLK ▲SD0CD
	S3A7	A10	SEG16	-	-	IRQ8				
	S3A1	A10	SEG16	QSPCLK	SD0CD	IRQ8				
P306		PSEL 01011b	PSEL 01101b	PSEL 10001b						▲QSSL
	S3A7	A11	SEG15	-						
	S3A1	A11	SEG15	QSSL						
P307		PSEL 01011b	PSEL 01101b	PSEL 10001b						▲QIO0
	S3A7	A12	SEG14	-						
	S3A1	A12	SEG14	QIO0						
P400		PSEL 00001b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO1 ▲SCK1 ▲CACREF ▲SEG04
	S3A7	-	GTIOC6A	SCK4	-	SCL0	-	TS20	-	
	S3A1	AGTIO1	GTIOC6A	SCK4	SCK1	SCL0	CACREF	TS20	SEG04	
		PSEL 10010b	ISEL							
	S3A7	AUDIO_CLK	IRQ0							
	S3A1	AUDIO_CLK	IRQ0							

Table 3.1 100-pin Package Difference (9 of 14)

PORT	MCU	SELECT								COMMENTS
P401		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▲TXD1 ▲SEG05
	S3A7	GTETRGA	GTIOC6B	CTS4	-	SDA0	TS19	-	CTX0	
	S3A1	GTETRGA	GTIOC6B	CTS4	TXD1	SDA0	TS19	SEG05	CTX0	
		ISEL								
	S3A7	IRQ5								
S3A1	IRQ5									
P402		PSEL 00001b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 01101b	PSEL 10000b	ISEL		▲RXD1 ▲SEG06
	S3A7	AGTIO0_B/AGTIO1	-	RTCIC0	TS18	-	CRX0	IRQ4		
	S3A1	AGTIO0_E/AGTIO1	RXD1	RTCIC0	TS18	SEG06	CRX0	IRQ4		
P403		PSEL 00001b	PSEL 00011b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 10010b			▲CTS1 ▲SSIBCK0 ▼SSISCK0
	S3A7	AGTIO0_C/AGTIO1	GTIOC3A	-	RTCIC1	TS17	SSISCK0_A			
	S3A1	AGTIO0_F/AGTIO1	GTIOC3A	CTS1	RTCIC1	TS17	SSIBCK0			
P404		PSEL 00011b	PSEL (don't care)	PSEL 01100b	PSEL 10010b					▼TS16 ▲SSILRCK0 ▲SSIFS0 ▼SSIWS0
	S3A7	GTIOC3B	RTCIC2	TS16	SSIWS0_A					
	S3A1	GTIOC3B	RTCIC2	-	SSILRCK0/SSIFS0					
P405		PSEL 00011b	PSEL 01100b	PSEL 10010b						▼TS15
	S3A7	GTIOC1A	TS15	SSITXD0						
	S3A1	GTIOC1A	-	SSITXD0						
P406		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10010b					▲SSLA3 ▼TS14
	S3A7	GTIOC1B	-	TS14	SSIRXD0					
	S3A1	GTIOC1B	SSLA3	-	SSIRXD0					

Table 3.1 100-pin Package Difference (10 of 14)

PORT	MCU	SELECT								COMMENTS
P407/USB_VBUS		PSEL 00001b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01001b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO0 ▲SEG11
	S3A7	-	CTS4	SSLB3	SDA0	RTCOUT	ADTRG0	TS03	-	
	S3A1	AGTIO0	CTS4	SSLB3	SDA0	RTCOUT	ADTRG0	TS03	SEG11	
		PSEL 10011b								
	S3A7	USB_VBUS								
	S3A1	USB_VBUS								
P408		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10011b	▲GTIOC5B ▲CTS1 ▲SCL0 ▲SEG10
	S3A7	GTOWLO	-	-	RXD3	-	TS04	-	USB_ID	
	S3A1	GTOWLO	GTIOC5B	CTS1	RXD3	SCL0	TS04	SEG10	USB_ID	
		ISEL								
	S3A7	IRQ7								
	S3A1	IRQ7								
P409		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01100b	PSEL 01101b	PSEL 10011b	ISEL		▲GTIOC5A ▲SEG09
	S3A7	GTOWUP	-	TXD3	TS05	-	USB_EXICEN	IRQ6		
	S3A1	GTOWUP	GTIOC5A	TXD3	TS05	SEG09	USB_EXICEN	IRQ6		
P410		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG08
	S3A7	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	-	
	S3A1	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	SEG08	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT1	IRQ5							
	S3A1	SD0DAT1	IRQ5							

Table 3.1 100-pin Package Difference (11 of 14)

PORT	MCU	SELECT								COMMENTS
		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	
P411		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG07
	S3A7	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	-	
	S3A1	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	SEG07	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT0	IRQ4							
	S3A1	SD0DAT0	IRQ4							
P412		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS08
	S3A7	GTOULO	SCK0	RSPCKA	TS08	SD0CMD				
	S3A1	GTOULO	SCK0	RSPCKA	-	SD0CMD				
P413		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS09
	S3A7	GTOUUP	CTS0	SSLA0	TS09	SD0CLK				
	S3A1	GTOUUP	CTS0	SSLA0	-	SD0CLK				
P414		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0B ▲IRQ9 ▼TS10
	S3A7	-	SSLA1	TS10	SD0WP	-				
	S3A1	GTIOC0B	SSLA1	-	SD0WP	IRQ9				
P415		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0A ▲SD0CD ▲IRQ8 ▼TS11
	S3A7	-	SSLA2	TS11	-	-				
	S3A1	GTIOC0A	SSLA2	-	SD0CD	IRQ8				
P500		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC2A ▲CMPREF1
	S3A7	AGTOA0	GTIU	-	SEG48	QSPCLK	USB_VBUSEN	AN016	-	
	S3A1	AGTOA0	GTIU	GTIOC2A	SEG48	QSPCLK	USB_VBUSEN	AN016	CMPREF1	

Table 3.1 100-pin Package Difference (12 of 14)

PORT	MCU	SELECT								COMMENTS
P501		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	▲GTIOC2B ▲TXD3 ▲CMPIN1
	S3A7	AGTOB0	GTIV	-	-	SEG49	QSSL	USB_OVRCUR A	AN017	
	S3A1	AGTOB0	GTIV	GTIOC2B	TXD3	SEG49	QSSL	USB_OVRCUR A	AN017	
		ASEL CMP	ISEL							
	S3A7	-	IRQ11							
S3A1	CMPIN1	IRQ11								
P502		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC3B ▲RXD3 ▲CMPREF0
	S3A7	GTIW	-	-	SEG50	QIO0	USB_OVRCURB	AN018	-	
	S3A1	GTIW	GTIOC3B	RXD3	SEG50	QIO0	USB_OVRCURB	AN018	CMPREF0	
		ISEL								
	S3A7	IRQ12								
S3A1	IRQ12									
P503		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲CTS2 ▲SCK3 ▲AN023 ▲CMPIN0 ▲GTETRGA ▼AN019 ▼GTETRGC
	S3A7	GTETRGC	-	-	SEG51	QIO1	USB_EXICEN	AN019	-	
	S3A1	GTETRGA	CTS2	SCK3	SEG51	QIO1	USB_EXICEN	AN023	CMPIN0	
P504		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01011b	PSEL 10001b	PSEL 10011b	ASEL ADC		▲SCK2 ▲CTS3 ▲ALE ▲AN024 ▲GTETRGB ▼AN020 ▼GTETRGD
	S3A7	GTETRGD	-	-	-	QIO2	USB_ID	AN020		
	S3A1	GTETRGB	SCK2	CTS3	ALE	QIO2	USB_ID	AN024		
P505		PSEL 00100b	PSEL 10001b	ASEL ADC	ISEL					▲RXD2 ▲AN025 ▼AN021
	S3A7	-	QIO3	AN021	IRQ14					
	S3A1	RXD2	QIO3	AN025	IRQ14					
P600		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC6B ▲SCK9 ▲SD0DAT7
	S3A7	-	-	RD	SEG41	-				
	S3A1	GTIOC6B	SCK9	RD	SEG41	SD0DAT7				

Table 3.1 100-pin Package Difference (13 of 14)

PORT	MCU	SELECT							COMMENTS	
P601		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC6A ▲RXD9 ▲SD0DAT6
	S3A7	-	-	WR/WR0	SEG40	-				
	S3A1	GTIOC6A	RXD9	WR/WR0	SEG40	SD0DAT6				
P602		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC7B ▲TXD9 ▲SD0DAT5
	S3A7	-	-	EBCLK	SEG39	-				
	S3A1	GTIOC7B	TXD9	EBCLK	SEG39	SD0DAT5				
P603		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC7A ▲CTS9 ▲SD0DAT4
	S3A7	-	-	D13	SEG38	-				
	S3A1	GTIOC7A	CTS9	D13	SEG38	SD0DAT4				
P608		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC4B ▲SD0DAT1
	S3A7	-	A00/BC0	SEG28	-					
	S3A1	GTIOC4B	A00/BC0	SEG28	SD0DAT1					
P609		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC5A ▲SD0DAT2
	S3A7	-	CS1	SEG29	-					
	S3A1	GTIOC5A	CS1	SEG29	SD0DAT2					
P610		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC5B ▲SD0DAT3
	S3A7	-	CS0	SEG30	-					
	S3A1	GTIOC5B	CS0	SEG30	SD0DAT3					
P708		PSEL 00101b	PSEL 00110b	PSEL 01010b	PSEL 01100b	ISEL				▼CACREF ▼TS12
	S3A7	RXD1	SSLA3	CACREF	TS12	IRQ11				
	S3A1	RXD1	SSLA3	-	-	IRQ11				
P808		PSEL 01101b	PSEL 10101b							▲SD0CLK
	S3A7	SEG18	-							
	S3A1	SEG18	SD0CLK							

Table 3.1 100-pin Package Difference (14 of 14)

PORT	MCU	SELECT							COMMENTS
P809		PSEL 01101b	PSEL 10101b						▲SD0CMD
	S3A7	SEG19	-						
	S3A1	SEG19	SD0CMD						
P914/ USB_DP		PSEL (don't care)							P914 is only available on S3A1
	S3A7	-							
	S3A1	USB_DP							
P915/ USB_DM		PSEL (don't care)							P915 is only available on S3A1
	S3A7	-							
	S3A1	USB_DM							

Appendix 3. 121-pin Package

Table 4.1 121-pin Package Difference (1 of 16)

PORT	MCU	SELECT							COMMENTS
P000		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF0 ▼IVCMP0
	S3A7	TS21	AN000	IVREF0/IVCMP0	AMP0+	IRQ6			
	S3A1	TS21	AN000	-	AMP0+	IRQ6			
P001		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF1 ▼IVCMP1
	S3A7	TS22	AN001	IVREF1/IVCMP1	AMP0-	IRQ7			
	S3A1	TS22	AN001	-	AMP0-	IRQ7			
P002		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ2 ▼IVREF2 ▼IVCMP2 ▼IRQ8
	S3A7	AN002	IVREF2/IVCMP2	AMP00	IRQ8				
	S3A1	AN002	-	AMP00	IRQ2				
P003		ASEL ADC	ASEL CMP	ASEL OPAMP					▼IVREF3 ▼IVCMP3
	S3A7	AN003	IVREF3/IVCMP3	AMP10					
	S3A1	AN003	-	AMP10					
P004		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ3 ▼IRQ9 ▼IVCMP0
	S3A7	AN004	IVCMP0	AMP20	IRQ9				
	S3A1	AN004	-	AMP20	IRQ3				
P005		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN011 ▼TS26 ▼AN005 ▼IVREF0
	S3A7	TS26	AN005	IVREF0	AMP3+	IRQ10			
	S3A1	-	AN011	-	AMP3+	IRQ10			
P006		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN012 ▼TS27 ▼AN006 ▼IVREF4 ▼IVREF1
	S3A7	TS27	AN006	IVREF4/IVREF1	AMP3-	IRQ11			
	S3A1	-	AN012	-	AMP3-	IRQ11			

Table 4.1 121-pin Package Difference (2 of 16)

PORT	MCU	SELECT							COMMENTS
P007		ASEL ADC	ASEL CMP	ASEL OPAMP					▲AN013 ▼AN007 ▼IVCMP4 ▼IVCMP1
	S3A7	AN007	IVCMP4/IVCMP1	AMP30					
	S3A1	AN013	-	AMP30					
P008		PSEL 01100b	ASEL ADC	ISEL					▲AN014 ▼TS29 ▼AN008
	S3A7	TS29	AN008	IRQ12					
	S3A1	-	AN014	IRQ12					
P010/ VREFH0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN005 ▼AN010
	S3A7	TS30	AN010	AMP2-	IRQ14				
	S3A1	TS30	AN005	AMP2-	IRQ14				
P011/ VREFL0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN006 ▼AN011
	S3A7	TS31	AN011	AMP2+	IRQ15				
	S3A1	TS31	AN006	AMP2+	IRQ15				
P012/ VREFH		ASEL ADC	ASEL OPAMP						▲AN007 ▼AN012
	S3A7	AN012	AMP1-						
	S3A1	AN007	AMP1-						
P013/ VREFL		ASEL ADC	ASEL OPAMP						▲AN008 ▼AN013
	S3A7	AN013	AMP1+						
	S3A1	AN008	AMP1+						
P014		ASEL ADC	ASEL CMP	ASEL DA					▲AN009 ▼AN014 ▼IVREF5 ▼IVREF2
	S3A7	AN014	IVREF5/IVREF2	DA0					
	S3A1	AN009	-	DA0					
P015		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL DA	ISEL			▲TS28 ▲AN010 ▲IRQ7 ▼AN015 ▼DA1 ▼IVCMP5 ▼IVCMP2 ▼IRQ13
	S3A7	-	AN015	IVCMP5/IVCMP2	DA1	IRQ13			
	S3A1	TS28	AN010	-	-	IRQ7			

Table 4.1 121-pin Package Difference (3 of 16)

PORT	MCU	SELECT								COMMENTS
P100		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲AN022 ▲GTIOC5B ▼AN027
	S3A7	AGTIO0	GTETRGA	-	RXD0	SCK1	MISOA	SCL1	KR00	
	S3A1	AGTIO0	GTETRGA	GTIOC5B	RXD0	SCK1	MISOA	SCL1	KR00	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D00	VL1	AN027	CMPIN0	IRQ2				
S3A1	D00	VL1	AN022	CMPIN0	IRQ2					
P101		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲GTIOC5A ▲AN021 ▼AN026
	S3A7	AGTEE0	GTETRGA	-	TXD0	CTS1	MOSIA	SDA1	KR01	
	S3A1	AGTEE0	GTETRGA	GTIOC5A	TXD0	CTS1	MOSIA	SDA1	KR01	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D01	VL2	AN026	CMPREF0	IRQ1				
S3A1	D01	VL2	AN021	CMPREF0	IRQ1					
P102		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01000b	PSEL 01010b	▲TXD2 ▲CRX0 ▲AN020 ▼AN025
	S3A7	AGTO0	GTOWLO	GTIOC2B	SCK0	-	RSPCKA	KR02	ADTRG0	
	S3A1	AGTO0	GTOWLO	GTIOC2B	SCK0	TXD2	RSPCKA	KR02	ADTRG0	
		PSEL 01011b	PSEL 01101b	PSEL 10000b	ASEL ADC	ASEL CMP				
	S3A7	D02	VL3	-	AN025	CMPIN1				
S3A1	D02	VL3	CRX0	AN020	CMPIN1					
P103		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b	PSEL 10000b	▲CTX0 ▲AN019 ▼AN024
	S3A7	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	-	
	S3A1	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	CTX0	
		ASEL ADC	ASEL CMP							
	S3A7	AN024	CMPREF1							
S3A1	AN019	CMPREF1								

Table 4.1 121-pin Package Difference (4 of 16)

PORT	MCU	SELECT								COMMENTS
P104		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	▲GTIOC1B ▲RXD0 ▲TS13
	S3A7	GTETRGB	-	-	SSLA1	KR04	D04	-	COM0	
	S3A1	GTETRGB	GTIOC1B	RXD0	SSLA1	KR04	D04	TS13	COM0	
		ISEL								
	S3A7	IRQ1								
	S3A1	IRQ1								
P105		PSEL 00010b	PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲GTIOC1A ▲TS34
	S3A7	GTETRGA	-	SSLA2	KR05	D05	-	COM1	IRQ0	
	S3A1	GTETRGA	GTIOC1A	SSLA2	KR05	D05	TS34	COM1	IRQ0	
P106		PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b				
	S3A7	GTIOC8B	SSLA3	KR06	D06	COM2				
	S3A1	GTIOC8B	SSLA3	KR06	D06	COM2				
P107		PSEL 00011b	PSEL 01000b	PSEL 01011b	PSEL 01101b					
	S3A7	GTIOC8A	KR07	D07	COM3					
	S3A1	GTIOC8A	KR07	D07	COM3					
P108		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 00110b				▲GTOULO
	S3A7	TMS/SWDIO	-	GTIOC0B	CTS9	SSLB0				
	S3A1	TMS/SWDIO	GTOULO	GTIOC0B	CTS9	SSLB0				
P109		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01100b	▲SCK1 ▲TS10 ▲SEG52 ▲CTX0
	S3A7	TDO/SWO	GTOVUP	GTIOC1A	-	TXD9	MOSIB	CLKOUT	-	
	S3A1	TDO/SWO	GTOVUP	GTIOC1A	SCK1	TXD9	MOSIB	CLKOUT	TS10	
		PSEL 01101b	PSEL 10000b							
	S3A7	-	-							
	S3A1	SEG52	CTX0							

Table 4.1 121-pin Package Difference (5 of 16)

PORT	MCU	SELECT								COMMENTS
P110		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01101b	▲CRX0 ▲SEG53
	S3A7	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOU	-	
	S3A1	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOU	SEG53	
		PSEL 10000b	ISEL							
	S3A7	-	IRQ3							
S3A1	CRX0	IRQ3								
P111		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS12
	S3A7	GTIOC3A	SCK2	SCK9	RSPCKB	A05	-	CAPH	IRQ4	
	S3A1	GTIOC3A	SCK2	SCK9	RSPCKB	A05	TS12	CAPH	IRQ4	
P112		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SCK1 ▲SSIBCK0 ▲SSLB0 ▲TSCAP ▼SSISCK0
	S3A7	GTIOC3B	TXD2	-	-	A04	-	CAPL	SSISCK0	
	S3A1	GTIOC3B	TXD2	SCK1	SSLB0	A04	TSCAP	CAPL	SSIBCK0	
P113		PSEL 00011b	PSEL 00100b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b			▲GTIOC2A ▲TS27 ▼SSIWS0 ▲SSILRCK0 ▲SSIFS0
	S3A7	-	RXD2	A03	-	SEG00/COM4	SSIWS0			
	S3A1	GTIOC2A	RXD2	A03	TS27	SEG00/COM4	SSILRCK0/ SSIFS0			
P114		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC2B ▲TS29
	S3A7	-	A02	-	SEG24	SSIRXD0				
	S3A1	GTIOC2B	A02	TS29	SEG24	SSIRXD0				
P115		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC4A ▲TS35
	S3A7	-	A01	-	SEG25	SSITXD0				
	S3A1	GTIOC4A	A01	TS35	SEG25	SSITXD0				
P202		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01101b	PSEL 10000b	PSEL 10101b	▼CRX0
	S3A7	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	CRX0	SD0DAT6	
	S3A1	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	-	SD0DAT6	
		ISEL								
	S3A7	IRQ3								
S3A1	IRQ3									

Table 4.1 121-pin Package Difference (6 of 16)

PORT	MCU	SELECT								COMMENTS
P203		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▼CTX0 ▲A19
	S3A7	GTIOC5A	CTS2	TXD9	MOSIB	-	TSCAP	SEG22	CTX0	
	S3A1	GTIOC5A	CTS2	TXD9	MOSIB	A19	TSCAP	SEG22	-	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT5	IRQ2							
	S3A1	SD0DAT5	IRQ2							
P204		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01010b	▼SSISCK1 ▲A18
	S3A7	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
	S3A1	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b			
	S3A7	-	TS00	SEG23	SSISCK1	USB_OVRCUR B	SD0DAT4			
	S3A1	A18	TS00	SEG23	-	USB_OVRCUR B	SD0DAT4			
P205		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01001b	▲SEG20 ▼SSIWS1
	S3A7	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
	S3A1	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b	ISEL		
	S3A7	A16	TSCAP	-	SSIWS1	USB_OVRCUR A	SD0DAT3	IRQ1		
	S3A1	A16	TSCAP	SEG20	-	USB_OVRCUR A	SD0DAT3	IRQ1		
P206		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SEG12 ▼SSIDATA1
	S3A7	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	-	SSIDATA1	
	S3A1	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	SEG12	-	
		PSEL 10011b	PSEL 10101b	ISEL						
	S3A7	USB_VBUSEN	SD0DAT2	IRQ0						
	S3A1	USB_VBUSEN	SD0DAT2	IRQ0						

Table 4.1 121-pin Package Difference (7 of 16)

PORT	MCU	SELECT								COMMENTS
P212/ EXTAL		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL				▲GTIOC0B ▲GTETRGB ▼GTETRGD
	S3A7	AGTEE1	GTETRGD	-	RXD1	IRQ3				
	S3A1	AGTEE1	GTETRGB	GTIOC0B	RXD1	IRQ3				
P213/XTAL		PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL					▲GTIOC0A ▲GTETRGA ▼GTETRGC
	S3A7	GTETRGC	-	TXD1	IRQ2					
	S3A1	GTETRGA	GTIOC0A	TXD1	IRQ2					
P300		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00110b					▲GTOUUP
	S3A7	TCK/SWCLK	-	GTIOC0A	SSLB1					
	S3A1	TCK/SWCLK	GTOUUP	GTIOC0A	SSLB1					
P301		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	▲AGTIO0 ▲CTS9 ▲TS09
	S3A7	-	GTOULO	GTIOC4B	RXD2	-	SSLB2	A06	-	
	S3A1	AGTIO0	GTOULO	GTIOC4B	RXD2	CTS9	SSLB2	A06	TS09	
		PSEL 01101b	ISEL							
	S3A7	SEG01/COM5	IRQ6							
P302		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS08
	S3A7	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	-	SEG02/COM6	IRQ5	
	S3A1	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	TS08	SEG02/COM6	IRQ5	
P303		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b				▲TS02 ▲SD0DAT0
	S3A7	GTIOC7B	A08	-	SEG03/COM7	-				
	S3A1	GTIOC7B	A08	TS02	SEG03/COM7	SD0DAT0				
P304		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b	ISEL			▲TS11 ▲SD0WP
	S3A7	GTIOC7A	A09	-	SEG17	-	IRQ9			
	S3A1	GTIOC7A	A09	TS11	SEG17	SD0WP	IRQ9			

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PORT	MCU	SELECT							COMMENTS
P305		PSEL 01011b	PSEL 01101b	PSEL 10001b	PSEL 10101b	ISEL			▲QSPCLK ▲SD0CD
	S3A7	A10	SEG16	-	-	IRQ8			
	S3A1	A10	SEG16	QSPCLK	SD0CD	IRQ8			
P306		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QSSL
	S3A7	A11	SEG15	-					
	S3A1	A11	SEG15	QSSL					
P307		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QIO0
	S3A7	A12	SEG14	-					
	S3A1	A12	SEG14	QIO0					
P308		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QIO1
	S3A7	A13	SEG13	-					
	S3A1	A13	SEG13	QIO1					
P309		PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10001b				▲RXD3 ▲QIO2 ▼SEG12
	S3A7	-	A14	SEG12	-				
	S3A1	RXD3	A14	-	QIO2				
P313		PSEL 01011b	PSEL 01101b	PSEL 10101b					▲SEG20 ▲A20
	S3A7	-	SEG20	SD0DAT7					
	S3A1	A20	-	SD0DAT7					
P314		PSEL 01010b	PSEL 01011b	PSEL 01101b					▲ADTRG0 ▲A21 ▼SEG04
	S3A7	-	-	SEG04					
	S3A1	ADTRG0	A21	-					
P315		PSEL 00100b	PSEL 01011b	PSEL 01101b					▲RXD4 ▲A22 ▼SEG05
	S3A7	-	-	SEG05					
	S3A1	RXD4	A22	-					

Table 4.1 121-pin Package Difference (9 of 16)

PORT	MCU	SELECT								COMMENTS
P400		PSEL 00001b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO1 ▲SCK1 ▲CACREF ▲SEG04
	S3A7	-	GTIOC6A	SCK4	-	SCL0	-	TS20	-	
	S3A1	AGTIO1	GTIOC6A	SCK4	SCK1	SCL0	CACREF	TS20	SEG04	
		PSEL 10010b	ISEL							
	S3A7	AUDIO_CLK	IRQ0							
	S3A1	AUDIO_CLK	IRQ0							
P401		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▲TXD1 ▲SEG05
	S3A7	GTETRGA	GTIOC6B	CTS4	-	SDA0	TS19	-	CTX0	
	S3A1	GTETRGA	GTIOC6B	CTS4	TXD1	SDA0	TS19	SEG05	CTX0	
		ISEL								
	S3A7	IRQ5								
	S3A1	IRQ5								
P402		PSEL 00001b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 01101b	PSEL 10000b	ISEL		▲RXD1 ▲SEG06
	S3A7	AGTIO0_B/AGTIO1	-	RTCIC0	TS18	-	CRX0	IRQ4		
	S3A1	AGTIO0_E/AGTIO1	RXD1	RTCIC0	TS18	SEG06	CRX0	IRQ4		
P403		PSEL 00001b	PSEL 00011b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 10010b			▲CTS1 ▲SSIBCK0 ▼SSISCK0
	S3A7	AGTIO0_C/AGTIO1	GTIOC3A	-	RTCIC1	TS17	SSISCK0_A			
	S3A1	AGTIO0_F/AGTIO1	GTIOC3A	CTS1	RTCIC1	TS17	SSIBCK0			
P404		PSEL 00011b	PSEL (don't care)	PSEL 01100b	PSEL 10010b					▼TS16 ▲SSILRCK0 ▲SSIFS0 ▼SSIWS0
	S3A7	GTIOC3B	RTCIC2	TS16	SSIWS0_A					
	S3A1	GTIOC3B	RTCIC2	-	SSILRCK0/SSIFS0					
P405		PSEL 00011b	PSEL 01100b	PSEL 10010b						▼TS15
	S3A7	GTIOC1A	TS15	SSITXD0						
	S3A1	GTIOC1A	-	SSITXD0						

Table 4.1 121-pin Package Difference (10 of 16)

PORT	MCU	SELECT								COMMENTS
P406		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10010b					▲SSLA3 ▼TS14
	S3A7	GTIOC1B	-	TS14	SSIRXD0					
	S3A1	GTIOC1B	SSLA3	-	SSIRXD0					
P407/USB_VBUS		PSEL 00001b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01001b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO0 ▲SEG11
	S3A7	-	CTS4	SSLB3	SDA0	RTCOU	ADTRG0	TS03	-	
	S3A1	AGTIO0	CTS4	SSLB3	SDA0	RTCOU	ADTRG0	TS03	SEG11	
		PSEL 10011b								
	S3A7	USB_VBUS								
P408		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10011b	▲GTIOC5B ▲CTS1 ▲SCL0 ▲SEG10
	S3A7	GTOWLO	-	-	RXD3	-	TS04	-	USB_ID	
	S3A1	GTOWLO	GTIOC5B	CTS1	RXD3	SCL0	TS04	SEG10	USB_ID	
		ISEL								
	S3A7	IRQ7								
P409		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01100b	PSEL 01101b	PSEL 10011b	ISEL		▲GTIOC5A ▲SEG09
	S3A7	GTOWUP	-	TXD3	TS05	-	USB_EXICEN	IRQ6		
	S3A1	GTOWUP	GTIOC5A	TXD3	TS05	SEG09	USB_EXICEN	IRQ6		
P410		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG08
	S3A7	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	-	
	S3A1	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	SEG08	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT1	IRQ5							
	S3A1	SD0DAT1	IRQ5							

Table 4.1 121-pin Package Difference (11 of 16)

PORT	MCU	SELECT								COMMENTS
P411		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG07
	S3A7	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	-	
	S3A1	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	SEG07	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT0	IRQ4							
S3A1	SD0DAT0	IRQ4								
P412		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS08
	S3A7	GTOULO	SCK0	RSPCKA	TS08	SD0CMD				
	S3A1	GTOULO	SCK0	RSPCKA	-	SD0CMD				
P413		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS09
	S3A7	GTOUUP	CTS0	SSLA0	TS09	SD0CLK				
	S3A1	GTOUUP	CTS0	SSLA0	-	SD0CLK				
P414		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0B ▲IRQ9 ▼TS10
	S3A7	-	SSLA1	TS10	SD0WP	-				
	S3A1	GTIOC0B	SSLA1	-	SD0WP	IRQ9				
P415		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0A ▲SD0CD ▲IRQ8 ▼TS11
	S3A7	-	SSLA2	TS11	-	-				
	S3A1	GTIOC0A	SSLA2	-	SD0CD	IRQ8				
P500		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC2A ▲CMPREF1
	S3A7	AGTOA0	GTIU	-	SEG48	QSPCLK	USB_VBUSEN	AN016	-	
	S3A1	AGTOA0	GTIU	GTIOC2A	SEG48	QSPCLK	USB_VBUSEN	AN016	CMPREF1	

Table 4.1 121-pin Package Difference (12 of 16)

PORT	MCU	SELECT								COMMENTS
P501		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	▲GTIOC2B ▲TXD3 ▲CMPIN1
	S3A7	AGTOB0	GTIV	-	-	SEG49	QSSL	USB_OVRCURA	AN017	
	S3A1	AGTOB0	GTIV	GTIOC2B	TXD3	SEG49	QSSL	USB_OVRCURA	AN017	
		ASEL CMP	ISEL							
	S3A7	-	IRQ11							
S3A1	CMPIN1	IRQ11								
P502		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC3B ▲RXD3 ▲CMPREF0
	S3A7	GTIW	-	-	SEG50	QIO0	USB_OVRCURB	AN018	-	
	S3A1	GTIW	GTIOC3B	RXD3	SEG50	QIO0	USB_OVRCURB	AN018	CMPREF0	
		ISEL								
	S3A7	IRQ12								
S3A1	IRQ12									
P503		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲CTS2 ▲SCK3 ▲AN023 ▲CMPIN0 ▲GTETRGA ▼AN019 ▼GTETRGC
	S3A7	GTETRGC	-	-	SEG51	QIO1	USB_EXICEN	AN019	-	
	S3A1	GTETRGA	CTS2	SCK3	SEG51	QIO1	USB_EXICEN	AN023	CMPIN0	
P504		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01011b	PSEL 10001b	PSEL 10011b	ASEL ADC		▲SCK2 ▲CTS3 ▲ALE ▲AN024 ▲GTETRGB ▼AN020 ▼GTETRGD
	S3A7	GTETRGD	-	-	-	QIO2	USB_ID	AN020		
	S3A1	GTETRGB	SCK2	CTS3	ALE	QIO2	USB_ID	AN024		
P505		PSEL 00100b	PSEL 10001b	ASEL ADC	ISEL					▲RXD2 ▲AN025 ▼AN021
	S3A7	-	QIO3	AN021	IRQ14					
	S3A1	RXD2	QIO3	AN025	IRQ14					
P506		PSEL 00100b	ASEL ADC	ISEL						▲TXD2 ▲AN026 ▼AN022
	S3A7	-	AN022	IRQ15						
	S3A1	TXD2	AN026	IRQ15						

Table 4.1 121-pin Package Difference (13 of 16)

PORT	MCU	SELECT							COMMENTS
		PSEL 00011b	PSEL 00100b	PSEL 00111b	PSEL 10000b	ISEL			
P511		PSEL 00011b	PSEL 00100b	PSEL 00111b	PSEL 10000b	ISEL			▲CRX0
	S3A7	GTIOC0B	RXD4	SDA2	-	IRQ15			
	S3A1	GTIOC0B	RXD4	SDA2	CRX0	IRQ15			
P512		PSEL 00011b	PSEL 00100b	PSEL 00111b	PSEL 10000b	ISEL			▲CTX0
	S3A7	GTIOC0A	TXD4	SCL2	-	IRQ14			
	S3A1	GTIOC0A	TXD4	SCL2	CTX0	IRQ14			
P600		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC6B ▲SCK9 ▲SD0DAT7
	S3A7	-	-	RD	SEG41	-			
	S3A1	GTIOC6B	SCK9	RD	SEG41	SD0DAT7			
P601		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC6A ▲RXD9 ▲SD0DAT6
	S3A7	-	-	WR/WRO	SEG40	-			
	S3A1	GTIOC6A	RXD9	WR/WRO	SEG40	SD0DAT6			
P602		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC7B ▲TXD9 ▲SD0DAT5
	S3A7	-	-	EBCLK	SEG39	-			
	S3A1	GTIOC7B	TXD9	EBCLK	SEG39	SD0DAT5			
P603		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC7A ▲CTS9 ▲SD0DAT4
	S3A7	-	-	D13	SEG38	-			
	S3A1	GTIOC7A	CTS9	D13	SEG38	SD0DAT4			
P604		PSEL 00011b	PSEL 01011b	PSEL 01101b					▲GTIOC8B
	S3A7	-	D12	SEG37					
	S3A1	GTIOC8B	D12	SEG37					
P605		PSEL 00011b	PSEL 01011b	PSEL 01101b					▲GTIOC8A
	S3A7	-	D11	SEG36					
	S3A1	GTIOC8A	D11	SEG36					

Table 4.1 121-pin Package Difference (14 of 16)

PORT	MCU	SELECT								COMMENTS
P608		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC4B ▲SD0DAT1
	S3A7	-	A00/BC0	SEG28	-					
	S3A1	GTIOC4B	A00/BC0	SEG28	SD0DAT1					
P609		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC5A ▲SD0DAT2
	S3A7	-	CS1	SEG29	-					
	S3A1	GTIOC5A	CS1	SEG29	SD0DAT2					
P610		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					▲GTIOC5B ▲SD0DAT3
	S3A7	-	CS0	SEG30	-					
	S3A1	GTIOC5B	CS0	SEG30	SD0DAT3					
P611		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					
	S3A7			SEG31						
	S3A1			SEG31						
P612		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					
	S3A7		D8	SEG32						
	S3A1		D8	SEG32						
P613		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b					
	S3A7		D9	SEG33						
	S3A1		D9	SEG33						
P700		PSEL 00011b	PSEL 00110b	PSEL 01100b						▲MISOA ▼TS32
	S3A7	GTIOC5A	-	TS32						
	S3A1	GTIOC5A	MISOA	-						
P701		PSEL 00011b	PSEL 00110b	PSEL 01100b						▲MOSIA ▼TS33
	S3A7	GTIOC5B	-	TS33						
	S3A1	GTIOC5B	MOSIA	-						

Table 4.1 121-pin Package Difference (15 of 16)

PORT	MCU	SELECT							COMMENTS
P702		PSEL 00011b	PSEL 00110b	PSEL 01100b					▲RSPCKA ▼TS34
	S3A7	GTIOC6A	-	TS34					
	S3A1	GTIOC6A	RSPCKA	-					
P708		PSEL 00101b	PSEL 00110b	PSEL 01010b	PSEL 01100b	ISEL			▼CACREF ▼TS12
	S3A7	RXD1	SSLA3	CACREF	TS12	IRQ11			
	S3A1	RXD1	SSLA3	-	-	IRQ11			
P709		PSEL 00101b	PSEL 01100b	ISEL					▼TS13
	S3A7	TXD1	TS13	IRQ10					
	S3A1	TXD1	-	IRQ10					
P710		PSEL 00101b	PSEL 01011b	PSEL 01100b					▲A17 ▼TS35
	S3A7	SCK1	-	TS35					
	S3A1	SCK1	A17	-					
P800		PSEL 01011b	PSEL 01101b						
	S3A7	D14	SEG44						
	S3A1	D14	SEG44						
P801		PSEL 01011b	PSEL 01101b						
	S3A7	D15	SEG45						
	S3A1	D15	SEG45						
P808		PSEL 01101b	PSEL 10101b						▲SD0CLK
	S3A7	SEG18	-						
	S3A1	SEG18	SD0CLK						
P809		PSEL 01101b	PSEL 10101b						▲SD0CMD
	S3A7	SEG19	-						
	S3A1	SEG19	SD0CMD						

Table 4.1 121-pin Package Difference (16 of 16)

PORT	MCU	SELECT								COMMENTS
P914/ USB_DP		PSEL (don't care)								P914 is only available on S3A1
	S3A7	-								
	S3A1	USB_DP								
P915/ USB_DM		PSEL (don't care)								P915 is only available on S3A1
	S3A7	-								
	S3A1	USB_DM								

Appendix 4. 144-pin Package

Table 5.1 144-pin Package Difference (1 of 19)

PORT	MCU	SELECT							COMMENTS
P000		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF0 ▼IVCMP0
	S3A7	TS21	AN000	IVREF0/IVCMP0	AMP0+	IRQ6			
	S3A1	TS21	AN000	-	AMP0+	IRQ6			
P001		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▼IVREF1 ▼IVCMP1
	S3A7	TS22	AN001	IVREF1/IVCMP1	AMP0-	IRQ7			
	S3A1	TS22	AN001	-	AMP0-	IRQ7			
P002		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ2 ▼IVREF2 ▼IVCMP2 ▼IRQ8
	S3A7	AN002	IVREF2/IVCMP2	AMP00	IRQ8				
	S3A1	AN002	-	AMP00	IRQ2				
P003		ASEL ADC	ASEL CMP	ASEL OPAMP					▼IVREF3 ▼IVCMP3
	S3A7	AN003	IVREF3/IVCMP3	AMP10					
	S3A1	AN003	-	AMP10					
P004		ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL				▲IRQ3 ▼IRQ9 ▼IVCMP0
	S3A7	AN004	IVCMP0	AMP20	IRQ9				
	S3A1	AN004	-	AMP20	IRQ3				
P005		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN011 ▼TS26 ▼AN005 ▼IVREF0
	S3A7	TS26	AN005	IVREF0	AMP3+	IRQ10			
	S3A1	-	AN011	-	AMP3+	IRQ10			
P006		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL OPAMP	ISEL			▲AN012 ▼TS27 ▼AN006 ▼IVREF4 ▼IVREF1
	S3A7	TS27	AN006	IVREF4/IVREF1	AMP3-	IRQ11			
	S3A1	-	AN012	-	AMP3-	IRQ11			
P007		ASEL ADC	ASEL CMP	ASEL OPAMP					▲AN013 ▼AN007 ▼IVCMP4 ▼IVCMP1
	S3A7	AN007	IVCMP4/IVCMP1	AMP30					
	S3A1	AN013	-	AMP30					

Table 5.1 144-pin Package Difference (2 of 19)

PORT	MCU	SELECT							COMMENTS
P008		PSEL 01100b	ASEL ADC	ISEL					▲AN014 ▼TS29 ▼AN008
	S3A7	TS29	AN008	IRQ12					
	S3A1	-	AN014	IRQ12					
P009		ASEL ADC	ISEL						▲AN015 ▼AN009
	S3A7	AN009	IRQ13						
	S3A1	AN015	IRQ13						
P010/ VREFH0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN005 ▼AN010
	S3A7	TS30	AN010	AMP2-	IRQ14				
	S3A1	TS30	AN005	AMP2-	IRQ14				
P011/ VREFL0		PSEL 01100b	ASEL ADC	ASEL OPAMP	ISEL				▲AN006 ▼AN011
	S3A7	TS31	AN011	AMP2+	IRQ15				
	S3A1	TS31	AN006	AMP2+	IRQ15				
P012/ VREFH		ASEL ADC	ASEL OPAMP						▲AN007 ▼AN012
	S3A7	AN012	AMP1-						
	S3A1	AN007	AMP1-						
P013/ VREFL		ASEL ADC	ASEL OPAMP						▲AN008 ▼AN013
	S3A7	AN013	AMP1+						
	S3A1	AN008	AMP1+						
P014		ASEL ADC	ASEL CMP	ASEL DA					▲AN009 ▼AN014 ▼IVREF5 ▼IVREF2
	S3A7	AN014	IVREF5/IVREF2	DA0					
	S3A1	AN009	-	DA0					
P015		PSEL 01100b	ASEL ADC	ASEL CMP	ASEL DA	ISEL			▲TS28 ▲AN010 ▲IRQ7 ▼AN015 ▼DA1 ▼IRQ13 ▼IVCMP5 ▼IVCMP2
	S3A7	-	AN015	IVCMP5/ IVCMP2	DA1	IRQ13			
	S3A1	TS28	AN010	-	-	IRQ7			

Table 5.1 144-pin Package Difference (3 of 19)

PORT	MCU	SELECT								COMMENTS
P100		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲AN022 ▲GTIOC5B ▼AN027
	S3A7	AGTIO0	GTETRGA	-	RXD0	SCK1	MISOA	SCL1	KR00	
	S3A1	AGTIO0	GTETRGA	GTIOC5B	RXD0	SCK1	MISOA	SCL1	KR00	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D00	VL1	AN027	CMPIN0	IRQ2				
S3A1	D00	VL1	AN022	CMPIN0	IRQ2					
P101		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01000b	▲GTIOC5A ▲AN021 ▼AN026
	S3A7	AGTEE0	GTETRGA	-	TXD0	CTS1	MOSIA	SDA1	KR01	
	S3A1	AGTEE0	GTETRGA	GTIOC5A	TXD0	CTS1	MOSIA	SDA1	KR01	
		PSEL 01011b	PSEL 01101b	ASEL ADC	ASEL CMP	ISEL				
	S3A7	D01	VL2	AN026	CMPREF0	IRQ1				
S3A1	D01	VL2	AN021	CMPREF0	IRQ1					
P102		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01000b	PSEL 01010b	▲TXD2 ▲CRX0 ▲AN020 ▼AN025
	S3A7	AGTO0	GTOWLO	GTIOC2B	SCK0	-	RSPCKA	KR02	ADTRG0	
	S3A1	AGTO0	GTOWLO	GTIOC2B	SCK0	TXD2	RSPCKA	KR02	ADTRG0	
		PSEL 01011b	PSEL 01101b	PSEL 10000b	ASEL ADC	ASEL CMP				
	S3A7	D02	VL3	-	AN025	CMPIN1				
S3A1	D02	VL3	CRX0	AN020	CMPIN1					
P103		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b	PSEL 10000b	▲CTX0 ▲AN019 ▼AN024
	S3A7	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	-	
	S3A1	GTOWUP	GTIOC2A	CTS0	SSLA0	KR03	D03	VL4	CTX0	
		ASEL ADC	ASEL CMP							
	S3A7	AN024	CMPREF1							
S3A1	AN019	CMPREF1								

Table 5.1 144-pin Package Difference (4 of 19)

PORT	MCU	SELECT								COMMENTS
P104		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	▲GTIOC1B ▲RXD0 ▲TS13
	S3A7	GTETRGB	-	-	SSLA1	KR04	D04	-	COM0	
	S3A1	GTETRGB	GTIOC1B	RXD0	SSLA1	KR04	D04	TS13	COM0	
		ISEL								
	S3A7	IRQ1								
	S3A1	IRQ1								
P105		PSEL 00010b	PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲GTIOC1A ▲TS34
	S3A7	GTETRGA	-	SSLA2	KR05	D05	-	COM1	IRQ0	
	S3A1	GTETRGA	GTIOC1A	SSLA2	KR05	D05	TS34	COM1	IRQ0	
P106		PSEL 00011b	PSEL 00110b	PSEL 01000b	PSEL 01011b	PSEL 01101b				
	S3A7	GTIOC8B	SSLA3	KR06	D06	COM2				
	S3A1	GTIOC8B	SSLA3	KR06	D06	COM2				
P107		PSEL 00011b	PSEL 01000b	PSEL 01011b	PSEL 01101b					
	S3A7	GTIOC8A	KR07	D07	COM3					
	S3A1	GTIOC8A	KR07	D07	COM3					
P108		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 00110b				▲GTOULO
	S3A7	TMS/SWDIO	-	GTIOC0B	CTS9	SSLB0				
	S3A1	TMS/SWDIO	GTOULO	GTIOC0B	CTS9	SSLB0				
P109		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01100b	▲SCK1 ▲TS10 ▲SEG52 ▲CTX0
	S3A7	TDO/SWO	GTOVUP	GTIOC1A	-	TXD9	MOSIB	CLKOUT	-	
	S3A1	TDO/SWO	GTOVUP	GTIOC1A	SCK1	TXD9	MOSIB	CLKOUT	TS10	
		PSEL 01101b	PSEL 10000b							
	S3A7	-	-							
	S3A1	SEG52	CTX0							

Table 5.1 144-pin Package Difference (5 of 19)

PORT	MCU	SELECT								COMMENTS
P110		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01001b	PSEL 01101b	▲CRX0 ▲SEG53
	S3A7	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	-	
	S3A1	TDI	GTOVLO	GTIOC1B	CTS2	RXD9	MISOB	VCOUT	SEG53	
		PSEL 10000b	ISEL							
	S3A7	-	IRQ3							
S3A1	CRX0	IRQ3								
P111		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS12
	S3A7	GTIOC3A	SCK2	SCK9	RSPCKB	A05	-	CAPH	IRQ4	
	S3A1	GTIOC3A	SCK2	SCK9	RSPCKB	A05	TS12	CAPH	IRQ4	
P112		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SCK1 ▲SSIBCK0 ▲SSLB0 ▲TSCAP ▼SSISCK0
	S3A7	GTIOC3B	TXD2	-	-	A04	-	CAPL	SSISCK0	
	S3A1	GTIOC3B	TXD2	SCK1	SSLB0	A04	TSCAP	CAPL	SSIBCK0	
P113		PSEL 00011b	PSEL 00100b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b			▲GTIOC2A ▲TS27 ▼SSIWS0 ▲SSILRCK0 ▲SSIFS0
	S3A7	-	RXD2	A03	-	SEG00/COM4	SSIWS0			
	S3A1	GTIOC2A	RXD2	A03	TS27	SEG00/COM4	SSILRCK0/ SSIFS0			
P114		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC2B ▲TS29
	S3A7	-	A02	-	SEG24	SSIRXD0				
	S3A1	GTIOC2B	A02	TS29	SEG24	SSIRXD0				
P115		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b				▲GTIOC4A ▲TS35
	S3A7	-	A01	-	SEG25	SSITXD0				
	S3A1	GTIOC4A	A01	TS35	SEG25	SSITXD0				

Table 5.1 144-pin Package Difference (6 of 19)

PORT	MCU	SELECT								COMMENTS
P202		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01101b	PSEL 10000b	PSEL 10101b	▼CRX0
	S3A7	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	CRX0	SD0DAT6	
	S3A1	GTIOC5B	SCK2	RXD9	MISOB	WR1/BC1	SEG21	-	SD0DAT6	
		ISEL								
	S3A7	IRQ3								
S3A1	IRQ3									
P203		PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▼CTX0 ▲A19
	S3A7	GTIOC5A	CTS2	TXD9	MOSIB	-	TSCAP	SEG22	CTX0	
	S3A1	GTIOC5A	CTS2	TXD9	MOSIB	A19	TSCAP	SEG22	-	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT5	IRQ2							
S3A1	SD0DAT5	IRQ2								
P204		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01010b	▼SSISCK1 ▲A18
	S3A7	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
	S3A1	AGTIO1	GTIW	GTIOC4B	SCK4	SCK9	RSPCKB	SCL0	CACREF	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b			
	S3A7	-	TS00	SEG23	SSISCK1	USB_OVRCURB	SD0DAT4			
S3A1	A18	TS00	SEG23	-	USB_OVRCURB	SD0DAT4				
P205		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 00111b	PSEL 01001b	▲SEG20 ▼SSIWS1
	S3A7	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
	S3A1	AGTO1	GTIV	GTIOC4A	TXD4	CTS9	SSLB0	SCL1	CLKOUT	
		PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	PSEL 10011b	PSEL 10101b	ISEL		
	S3A7	A16	TSCAP	-	SSIWS1	USB_OVRCURA	SD0DAT3	IRQ1		
S3A1	A16	TSCAP	SEG20	-	USB_OVRCURA	SD0DAT3	IRQ1			

Table 5.1 144-pin Package Difference (7 of 19)

PORT	MCU	SELECT								COMMENTS
P206		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10010b	▲SEG12 ▼SSIDATA1
	S3A7	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	-	SSIDATA1	
	S3A1	GTIU	RXD4	SSLB1	SDA1	WAIT	TS01	SEG12	-	
		PSEL 10011b	PSEL 10101b	ISEL						
	S3A7	USB_VBUSEN	SD0DAT2	IRQ0						
	S3A1	USB_VBUSEN	SD0DAT2	IRQ0						
P212/EXTAL		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL				▲GTIOC0B ▲GTETRGB ▼GTETRGD
	S3A7	AGTEE1	GTETRGD	-	RXD1	IRQ3				
	S3A1	AGTEE1	GTETRGB	GTIOC0B	RXD1	IRQ3				
P213/XTAL		PSEL 00010b	PSEL 00011b	PSEL 00101b	ISEL					▲GTIOC0A ▲GTETRGA ▼GTETRGC
	S3A7	GTETRGC	-	TXD1	IRQ2					
	S3A1	GTETRGA	GTIOC0A	TXD1	IRQ2					
P300		PSEL 00000b	PSEL 00010b	PSEL 00011b	PSEL 00110b					▲GTOUUP
	S3A7	TCK/SWCLK	-	GTIOC0A	SSLB1					
	S3A1	TCK/SWCLK	GTOUUP	GTIOC0A	SSLB1					
P301		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01011b	PSEL 01100b	▲AGTIO0 ▲CTS9 ▲TS09
	S3A7	-	GTOULO	GTIOC4B	RXD2	-	SSLB2	A06	-	
	S3A1	AGTIO0	GTOULO	GTIOC4B	RXD2	CTS9	SSLB2	A06	TS09	
		PSEL 01101b	ISEL							
	S3A7	SEG01/COM5	IRQ6							
	S3A1	SEG01/COM5	IRQ6							
P302		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00110b	PSEL 01011b	PSEL 01100b	PSEL 01101b	ISEL	▲TS08
	S3A7	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	-	SEG02/COM6	IRQ5	
	S3A1	GTOUUP	GTIOC4A	TXD2	SSLB3	A07	TS08	SEG02/COM6	IRQ5	

Table 5.1 144-pin Package Difference (8 of 19)

PORT	MCU	SELECT							COMMENTS
P303		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b			▲TS02 ▲SD0DAT0
	S3A7	GTIOC7B	A08	-	SEG03/COM7	-			
	S3A1	GTIOC7B	A08	TS02	SEG03/COM7	SD0DAT0			
P304		PSEL 00011b	PSEL 01011b	PSEL 01100b	PSEL 01101b	PSEL 10101b	ISEL		▲TS11 ▲SD0WP
	S3A7	GTIOC7A	A09	-	SEG17	-	IRQ9		
	S3A1	GTIOC7A	A09	TS11	SEG17	SD0WP	IRQ9		
P305		PSEL 01011b	PSEL 01101b	PSEL 10001b	PSEL 10101b	ISEL			▲QSPCLK ▲SD0CD
	S3A7	A10	SEG16	-	-	IRQ8			
	S3A1	A10	SEG16	QSPCLK	SD0CD	IRQ8			
P306		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QSSL
	S3A7	A11	SEG15	-					
	S3A1	A11	SEG15	QSSL					
P307		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QIO0
	S3A7	A12	SEG14	-					
	S3A1	A12	SEG14	QIO0					
P308		PSEL 01011b	PSEL 01101b	PSEL 10001b					▲QIO1
	S3A7	A13	SEG13	-					
	S3A1	A13	SEG13	QIO1					
P309		PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10001b				▲RXD3 ▲QIO2 ▼SEG12
	S3A7	-	A14	SEG12	-				
	S3A1	RXD3	A14	-	QIO2				
P310		PSEL 00001b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10001b			▲AGTEE1 ▲TXD3 ▲QIO3 ▼SEG11
	S3A7	-	-	A15	SEG11	-			
	S3A1	AGTEE1	TXD3	A15	-	QIO3			

Table 5.1 144-pin Package Difference (9 of 19)

PORT	MCU	SELECT								COMMENTS
P311		PSEL 00001b	PSEL 00101b	PSEL 01011b	PSEL 01101b					▲AGTOB1 ▲SCK3 ▼SEG10
	S3A7	-	-	CS2	SEG10					
	S3A1	AGTOB1	SCK3	CS2	-					
P312		PSEL 00001b	PSEL 00101b	PSEL 01011b	PSEL 01101b					▲AGTOA1 ▲CTS3 ▼SEG09
	S3A7	-	-	CS3	SEG09					
	S3A1	AGTOA1	CTS3	CS3	-					
P313		PSEL 01011b	PSEL 01101b	PSEL 10101b						▼SEG20 ▲A20
	S3A7	-	SEG20	SD0DAT7						
	S3A1	A20	-	SD0DAT7						
P314		PSEL 01010b	PSEL 01011b	PSEL 01101b						▲ADTRG0 ▲A21 ▼SEG04
	S3A7	-	-	SEG04						
	S3A1	ADTRG0	A21	-						
P315		PSEL 00100b	PSEL 01011b	PSEL 01101b						▲RXD4 ▲A22 ▼SEG05
	S3A7	-	-	SEG05						
	S3A1	RXD4	A22	-						
P400		PSEL 00001b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO1 ▲SCK1 ▲CACREF ▲SEG04
	S3A7	-	GTIOC6A	SCK4	-	SCL0	-	TS20	-	
	S3A1	AGTIO1	GTIOC6A	SCK4	SCK1	SCL0	CACREF	TS20	SEG04	
		PSEL 10010b	ISEL							
	S3A7	AUDIO_CLK	IRQ0							
	S3A1	AUDIO_CLK	IRQ0							

Table 5.1 144-pin Package Difference (10 of 19)

PORT	MCU	SELECT								COMMENTS
P401		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10000b	▲TXD1 ▲SEG05
	S3A7	GTETRGA	GTIOC6B	CTS4	-	SDA0	TS19	-	CTX0	
	S3A1	GTETRGA	GTIOC6B	CTS4	TXD1	SDA0	TS19	SEG05	CTX0	
		ISEL								
	S3A7	IRQ5								
S3A1	IRQ5									
P402		PSEL 00001b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 01101b	PSEL 10000b	ISEL		▲RXD1 ▲SEG06
	S3A7	AGTIO0_B/AGTIO1	-	RTCIC0	TS18	-	CRX0	IRQ4		
	S3A1	AGTIO0_E/AGTIO1	RXD1	RTCIC0	TS18	SEG06	CRX0	IRQ4		
P403		PSEL 00001b	PSEL 00011b	PSEL 00101b	PSEL (don't care)	PSEL 01100b	PSEL 10010b			▲CTS1 ▲SSIBCK0 ▼SSISCK0
	S3A7	AGTIO0_C/AGTIO1	GTIOC3A	-	RTCIC1	TS17	SSISCK0_A			
	S3A1	AGTIO0_F/AGTIO1	GTIOC3A	CTS1	RTCIC1	TS17	SSIBCK0			
P404		PSEL 00011b	PSEL (don't care)	PSEL 01100b	PSEL 10010b					▼TS16 ▲SSILRCK0 ▲SSIFS0 ▼SSIWS0
	S3A7	GTIOC3B	RTCIC2	TS16	SSIWS0_A					
	S3A1	GTIOC3B	RTCIC2	-	SSILRCK0/SSIFS0					
P405		PSEL 00011b	PSEL 01100b	PSEL 10010b						▼TS15
	S3A7	GTIOC1A	TS15	SSITXD0						
	S3A1	GTIOC1A	-	SSITXD0						
P406		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10010b					▲SSLA3 ▼TS14
	S3A7	GTIOC1B	-	TS14	SSIRXD0					
	S3A1	GTIOC1B	SSLA3	-	SSIRXD0					

Table 5.1 144-pin Package Difference (11 of 19)

PORT	MCU	SELECT								COMMENTS
P407/USB_VBUS		PSEL 00001b	PSEL 00100b	PSEL 00110b	PSEL 00111b	PSEL 01001b	PSEL 01010b	PSEL 01100b	PSEL 01101b	▲AGTIO0 ▲SEG11
	S3A7	-	CTS4	SSLB3	SDA0	RTCOUT	ADTRG0	TS03	-	
	S3A1	AGTIO0	CTS4	SSLB3	SDA0	RTCOUT	ADTRG0	TS03	SEG11	
		PSEL 10011b								
	S3A7	USB_VBUS								
	S3A1	USB_VBUS								
P408		PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00111b	PSEL 01100b	PSEL 01101b	PSEL 10011b	▲GTIOC5B ▲CTS1 ▲SCL0 ▲SEG10
	S3A7	GTOWLO	-	-	RXD3	-	TS04	-	USB_ID	
	S3A1	GTOWLO	GTIOC5B	CTS1	RXD3	SCL0	TS04	SEG10	USB_ID	
		ISEL								
	S3A7	IRQ7								
	S3A1	IRQ7								
P409		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01100b	PSEL 01101b	PSEL 10011b	ISEL		▲GTIOC5A ▲SEG09
	S3A7	GTOWUP	-	TXD3	TS05	-	USB_EXICEN	IRQ6		
	S3A1	GTOWUP	GTIOC5A	TXD3	TS05	SEG09	USB_EXICEN	IRQ6		
P410		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG08
	S3A7	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	-	
	S3A1	AGTOB1	GTOVLO	GTIOC9B	RXD0	SCK3	MISOA	TS06	SEG08	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT1	IRQ5							
	S3A1	SD0DAT1	IRQ5							

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PORT	MCU	SELECT								COMMENTS
P411		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00100b	PSEL 00101b	PSEL 00110b	PSEL 01100b	PSEL 01101b	▲SEG07
	S3A7	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	-	
	S3A1	AGTOA1	GTOVUP	GTIOC9A	TXD0	CTS3	MOSIA	TS07	SEG07	
		PSEL 10101b	ISEL							
	S3A7	SD0DAT0	IRQ4							
	S3A1	SD0DAT0	IRQ4							
P412		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS08
	S3A7	GTOULO	SCK0	RSPCKA	TS08	SD0CMD				
	S3A1	GTOULO	SCK0	RSPCKA	-	SD0CMD				
P413		PSEL 00010b	PSEL 00100b	PSEL 00110b	PSEL 01100b	PSEL 10101b				▼TS09
	S3A7	GTOUUP	CTS0	SSLA0	TS09	SD0CLK				
	S3A1	GTOUUP	CTS0	SSLA0	-	SD0CLK				
P414		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0B ▲IRQ9 ▼TS10
	S3A7	-	SSLA1	TS10	SD0WP	-				
	S3A1	GTIOC0B	SSLA1	-	SD0WP	IRQ9				
P415		PSEL 00011b	PSEL 00110b	PSEL 01100b	PSEL 10101b	ISEL				▲GTIOC0A ▲SD0CD ▲IRQ8 ▼TS11
	S3A7	-	SSLA2	TS11	-	-				
	S3A1	GTIOC0A	SSLA2	-	SD0CD	IRQ8				
P500		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC2A ▲CMPREF1
	S3A7	AGTOA0	GTIU	-	SEG48	QSPCLK	USB_VBUSEN	AN016	-	
	S3A1	AGTOA0	GTIU	GTIOC2A	SEG48	QSPCLK	USB_VBUSEN	AN016	CMPREF1	

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PORT	MCU	SELECT								COMMENTS
P501		PSEL 00001b	PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	▲GTIOC2B ▲TXD3 ▲CMPIN1
	S3A7	AGTOB0	GTIV	-	-	SEG49	QSSL	USB_OVRCURA	AN017	
	S3A1	AGTOB0	GTIV	GTIOC2B	TXD3	SEG49	QSSL	USB_OVRCURA	AN017	
		ASEL CMP	ISEL							
	S3A7	-	IRQ11							
S3A1	CMPIN1	IRQ11								
P502		PSEL 00010b	PSEL 00011b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲GTIOC3B ▲RXD3 ▲CMPREF0
	S3A7	GTIW	-	-	SEG50	QIO0	USB_OVRCURB	AN018	-	
	S3A1	GTIW	GTIOC3B	RXD3	SEG50	QIO0	USB_OVRCURB	AN018	CMPREF0	
		ISEL								
	S3A7	IRQ12								
S3A1	IRQ12									
P503		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01101b	PSEL 10001b	PSEL 10011b	ASEL ADC	ASEL CMP	▲CTS2 ▲SCK3 ▲AN023 ▲CMPIN0 ▲GTETRGA ▼AN019 ▼GTETRGC
	S3A7	GTETRGC	-	-	SEG51	QIO1	USB_EXICEN	AN019	-	
	S3A1	GTETRGA	CTS2	SCK3	SEG51	QIO1	USB_EXICEN	AN023	CMPIN0	
P504		PSEL 00010b	PSEL 00100b	PSEL 00101b	PSEL 01011b	PSEL 10001b	PSEL 10011b	ASEL ADC		▲SCK2 ▲CTS3 ▲ALE ▲AN024 ▲GTETRGB ▼AN020 ▼GTETRGD
	S3A7	GTETRGD	-	-	-	QIO2	USB_ID	AN020		
	S3A1	GTETRGB	SCK2	CTS3	ALE	QIO2	USB_ID	AN024		
P505		PSEL 00100b	PSEL 10001b	ASEL ADC	ISEL					▲RXD2 ▲AN025 ▼AN021
	S3A7	-	QIO3	AN021	IRQ14					
	S3A1	RXD2	QIO3	AN025	IRQ14					
P506		PSEL 00100b	ASEL ADC	ISEL						▲TXD2 ▲AN026 ▼AN022
	S3A7	-	AN022	IRQ15						
	S3A1	TXD2	AN026	IRQ15						

Table 5.1 144-pin Package Difference (14 of 19)

PORT	MCU	SELECT							COMMENTS
P507		ASEL ADC							▲AN027 ▼AN023
	S3A7	AN023							
	S3A1	AN027							
P511		PSEL 00011b	PSEL 00100b	PSEL 00111b	PSEL 10000b	ISEL			▲CRX0
	S3A7	GTIOC0B	RXD4	SDA2	-	IRQ15			
	S3A1	GTIOC0B	RXD4	SDA2	CRX0	IRQ15			
P512		PSEL 00011b	PSEL 00100b	PSEL 00111b	PSEL 10000b	ISEL			▲CTX0
	S3A7	GTIOC0A	TXD4	SCL2	-	IRQ14			
	S3A1	GTIOC0A	TXD4	SCL2	CTX0	IRQ14			
P600		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC6B ▲SCK9 ▲SD0DAT7
	S3A7	-	-	RD	SEG41	-			
	S3A1	GTIOC6B	SCK9	RD	SEG41	SD0DAT7			
P601		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC6A ▲RXD9 ▲SD0DAT6
	S3A7	-	-	WR/WR0	SEG40	-			
	S3A1	GTIOC6A	RXD9	WR/WR0	SEG40	SD0DAT6			
P602		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC7B ▲TXD9 ▲SD0DAT5
	S3A7	-	-	EBCLK	SEG39	-			
	S3A1	GTIOC7B	TXD9	EBCLK	SEG39	SD0DAT5			
P603		PSEL 00011b	PSEL 00101b	PSEL 01011b	PSEL 01101b	PSEL 10101b			▲GTIOC7A ▲CTS9 ▲SD0DAT4
	S3A7	-	-	D13	SEG38	-			
	S3A1	GTIOC7A	CTS9	D13	SEG38	SD0DAT4			
P604		PSEL 00011b	PSEL 01011b	PSEL 01101b					▲GTIOC8B
	S3A7	-	D12	SEG37					
	S3A1	GTIOC8B	D12	SEG37					

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PORT	MCU	SELECT							COMMENTS
P605		PSEL 00011b	PSEL 01011b	PSEL 01101b					▲GTIOC8A
	S3A7	-	D11	SEG36					
	S3A1	GTIOC8A	D11	SEG36					
P606		PSEL 01001b	PSEL 01101b						▲RTCOUT
	S3A7	-	SEG35						
	S3A1	RTCOUT	SEG35						
P608		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC4B ▲SD0DAT1
	S3A7	-	A00/BC0	SEG28	-				
	S3A1	GTIOC4B	A00/BC0	SEG28	SD0DAT1				
P609		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC5A ▲SD0DAT2
	S3A7	-	CS1	SEG29	-				
	S3A1	GTIOC5A	CS1	SEG29	SD0DAT2				
P610		PSEL 00011b	PSEL 01011b	PSEL 01101b	PSEL 10101b				▲GTIOC5B ▲SD0DAT3
	S3A7	-	CS0	SEG30	-				
	S3A1	GTIOC5B	CS0	SEG30	SD0DAT3				
P611		PSEL 01101b							
	S3A7	SEG31							
	S3A1	SEG31							
P612		PSEL 01011b	PSEL 01101b						
	S3A7	D08	SEG32						
	S3A1	D08	SEG32						
P613		PSEL 01011b	PSEL 01101b						
	S3A7	D09	SEG33						
	S3A1	D09	SEG33						

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PORT	MCU	SELECT							COMMENTS
P614		PSEL 01011b	PSEL 01101b						
	S3A7	D10	SEG34						
	S3A1	D10	SEG34						
P700		PSEL 00011b	PSEL 00110b	PSEL 01100b					▲ MISOA ▼ TS32
	S3A7	GTIOC5A	-	TS32					
	S3A1	GTIOC5A	MISOA	-					
P701		PSEL 00011b	PSEL 00110b	PSEL 01100b					▲ MOSIA ▼ TS33
	S3A7	GTIOC5B	-	TS33					
	S3A1	GTIOC5B	MOSIA	-					
P702		PSEL 00011b	PSEL 00110b	PSEL 01100b					▲ RSPCKA ▼ TS34
	S3A7	GTIOC6A	-	TS34					
	S3A1	GTIOC6A	RSPCKA	-					
P703		PSEL 00011b	PSEL 00110b	PSEL 01001b					▲ SSLA0 ▲ VCOUNT
	S3A7	GTIOC6B	-	-					
	S3A1	GTIOC6B	SSLA0	VCOUNT					
P704		PSEL 00001b	PSEL 00110b						▲ AGTO0 ▲ SSLA1
	S3A7	-	-						
	S3A1	AGTO0	SSLA1						
P705		PSEL 00001b	PSEL 00110b						▲ AGTIO0 ▲ SSLA2
	S3A7	-	-						
	S3A1	AGTIO0	SSLA2						
P708		PSEL 00101b	PSEL 00110b	PSEL 01010b	PSEL 01100b	ISEL			▼ CACREF ▼ TS12
	S3A7	RXD1	SSLA3	CACREF	TS12	IRQ11			
	S3A1	RXD1	SSLA3	-	-	IRQ11			

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PORT	MCU	SELECT							COMMENTS
P709		PSEL 00101b	PSEL 01100b	ISEL					▼TS13
	S3A7	TXD1	TS13	IRQ10					
	S3A1	TXD1	-	IRQ10					
P710		PSEL 00101b	PSEL 01011b	PSEL 01100b					▲A17 ▼TS35
	S3A7	SCK1	-	TS35					
	S3A1	SCK1	A17	-					
P711		PSEL 00001b	PSEL 00101b						▲AGTEE0
	S3A7	-	CTS1						
	S3A1	AGTEE0	CTS1						
P712		PSEL 00001b	PSEL 00011b						▲AGTOB0
	S3A7	-	GTIOC2B						
	S3A1	AGTOB0	GTIOC2B						
P713		PSEL 00001b	PSEL 00011b						▲AGTOA0
	S3A7	-	GTIOC2A						
	S3A1	AGTOA0	GTIOC2A						
P800		PSEL 01011b	PSEL 01101b						
	S3A7	D14	SEG44						
	S3A1	D14	SEG44						
P801		PSEL 01011b	PSEL 01101b						
	S3A7	D15	SEG45						
	S3A1	D15	SEG45						
P802		PSEL 01101b							
	S3A7	SEG46							
	S3A1	SEG46							

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PORT	MCU	SELECT							COMMENTS
P803		PSEL 01101b							
	S3A7	SEG47							
	S3A1	SEG47							
P804		PSEL 00011b	PSEL 01101b						▲GTIOC9B
	S3A7	-	SEG43						
	S3A1	GTIOC9B	SEG43						
P805		PSEL 00011b	PSEL 01101b						▲GTIOC9A
	S3A7	-	SEG42						
	S3A1	GTIOC9A	SEG42						
P806		PSEL 01101b							
	S3A7	SEG26							
	S3A1	SEG26							
P807		PSEL 01101b							
	S3A7	SEG27							
	S3A1	SEG27							
P808		PSEL 01101b	PSEL 10101b						▲SD0CLK
	S3A7	SEG18	-						
	S3A1	SEG18	SD0CLK						
P809		PSEL 01101b	PSEL 10101b						▲SD0CMD
	S3A7	SEG19	-						
	S3A1	SEG19	SD0CMD						
P900		PSEL 00100b	PSEL 01011b	PSEL 01101b					▲TXD4 ▲A23 ▼SEG06
	S3A7	-	-	SEG06					
	S3A1	TXD4	A23	-					

Table 5.1 144-pin Package Difference (19 of 19)

PORT	MCU	SELECT							COMMENTS
P901		PSEL 00001b	PSEL 00100b	PSEL 01101b					▲AGTIO1 ▲SCK4 ▼SEG07
	S3A7	-	-	SEG07					
	S3A1	AGTIO1	SCK4	-					
P902		PSEL 00001b	PSEL 00100b	PSEL 01101b					▲AGTO1 ▲CTS4 ▼SEG08
	S3A7	-	-	SEG08					
	S3A1	AGTO1	CTS4	-					
P914/ USB_DP		PSEL (don't care)							P914 is only available on S3A1
	S3A7	-							
	S3A1	USB_DP							
P915/ USB_DM		PSEL (don't care)							P915 is only available on S3A1
	S3A7	-							
	S3A1	USB_DM							

Website and Support

Visit the following vanity URLs to learn about key elements of the Synergy Platform, download components and related documentation, and get support.

Syntax: renesassynergy.com/vanityURL

Synergy Software	/software
Synergy Software Package	/ssp
Software add-ons	/addons
Software glossary	/softwareglossary
Development tools	/tools
Synergy Hardware	/hardware
Microcontrollers	/mcus
MCU glossary	/mcuglossary
Parametric search	/parametric
Kits	/kits
Synergy Solutions Gallery	/solutionsgallery
Partner projects	/partnerprojects
Application projects	/applicationprojects

Self-help and personalized support resources:

Documentation	/docs
Knowledgebase	/knowledgebase
Forums	/forum
Training	/training
Videos	/videos
Chat and web ticket	/support

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Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Jun 1, 2018	—	Initial version

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