

S3A3 to S3A6 MCU Group Migration Guide

Introduction

This Application Note compares hardware peripherals, port select features, and functional differences between the Renesas Synergy™ Microcontrollers S3A3 MCU Group and the S3A6 MCU Group.

Target Device

Synergy S3A6 MCU Group

Contents

| | |
|---|----|
| 1. About this Document | 2 |
| 2. Audience | 2 |
| 3. References | 2 |
| 4. Numbering Notation..... | 2 |
| 5. Specification and Hardware Differences | 3 |
| 6. Port Select Function Difference | 5 |
| Appendix A 64 Pin Package | 6 |
| Appendix B 100 Pin Package | 13 |

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 S3A3 MCU Group to the S3A6 MCU Group.

2. Audience

This document is intended for users who are designing application systems using the Synergy S3A6 MCU Group devices. Users are expected to have a technical understanding of the peripherals provided in the S3A3 MCU Group. This application note should be used with the *S3A6 MCU Group User's Manual: Microcontrollers*.

The application note presents two major sections. The first section specifies functional and specification differences between the S3A3 MCU Group and the S3A6 MCU Group's, respectively. The second section details the differences in port functionality between the two MCU's.

3. References

Renesas provides the following documents for the Synergy S3 Series MCUs. Before using any of these documents, see the [Website and Support](#) section. This section lists locations where you can find the latest document versions to use.

Table 3.1 Synergy S3 Series MCU Group Documents

| Document Type | Description | Description Title | Description No. |
|--|--|--|-----------------|
| Datasheet S3A3 MCU Group | Overview and electrical characteristics of MCU. | S3A3 MCU Group Datasheet | R01DS0307EU0100 |
| S3A3 User's Manual: Microcontrollers | MCU specifications (pin assignments, memory maps, peripheral functions, electrical characteristics, and timing charts) and operation descriptions. | S3A3 MCU Group User's Manual: Microcontrollers | R01UM0006EU0100 |
| Datasheet S3A6 MCU Group | Overview and electrical characteristics of MCU. | S3A6 MCU Group Datasheet | R01DS0308EU0100 |
| S3A6 MCU Group User's Manual: Microcontrollers | MCU specifications (pin assignments, memory maps, peripheral functions, electrical characteristics, and timing charts) and operation descriptions. | S3A6 MCU Group User's Manual: Microcontrollers | R01UM0007EU0100 |
| Renesas Synergy Software Package (SSP) | API reference and introduction to SSP architecture and programming. | Renesas Synergy Software Package (SSP) User's Manual | R01US0171EU010 |

4. Numbering Notation

The following numbering notation is used throughout this manual:

Table 4.1 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

The following table compares hardware compatibility and differences between the S3A3 MCU Group and S3A6 MCU Group. The table is ordered with increasing specifics from left to right. The left most column corresponds to a system as noted in the user's manual for the Synergy S3A6 MCU Group or S3A3 MCU Group. Values in the S3A3 column represent a system, subsystem, or field in register exists and has a certain value. Values in the S3A6 column show the change in hardware, new feature addition, or notes a main feature. The Reference column specifies the section in the *S3A6 MCU Group User's Manual* that can be referred to for more information.

Table 5.1 Terms and functionality of peripherals

| Terms | Description |
|---------------------------------|---|
| Exists or Available | The peripheral or function is implemented for a 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 5.2 Specification Difference (1 of 1)

| Specification | | S3A3 | S3A6 | S3A6 HWM Reference |
|---|---|---|---|--------------------|
| Memory Mirror Function (MMF) | Used to map an application image load address in the code flash memory to the application image link address in the unused 23 bit memory mirror space addresses | Available | Not Available | |
| Buses | External Memory Bus | Available | Not Available | |
| General PWM Timer (GPT) | Number of 32 bit Channels | 4 | 2 | Table 22.1 |
| Serial Communication Interface (SCI) | SCI without FIFO Channel | 4 Channel | 2 Channel | Chapter 28 |
| I ² C Bus Interface (IIC) | RIIC without WakeUp Channel | 2 | 1 | Chapter 29 |
| Serial Peripheral Interface (SPI) | 8CMD 128 bit Channels | 1 | Does Not Exist | Chapter 31 |
| | 1CMD 32 bit Channels | 1 | 2 | |
| Quad Serial Peripheral Interface (QSPI) | Memory controller for connecting a serial ROM that has a SPI-compatible interface | Available | Not Available | |
| SD/MMC Host Interface (SDHI) | Provides functionality needed to connect external memory cards with the MCU | Available | Not Available | |
| SRAM | SRAM Capacity | 96KB ECC area - 16KB Parity area - 80KB | 32KB ECC area - 16KB Parity area - 16KB | Table 43.1 |
| | SRAM Address | SRAM0 | 2000 4000h to 2001 7FFFh | |
| Flash Memory | Code Flash Memory Capacity | 512 KB | 256 KB | Table 44.1 |

6. Port Select Function Difference

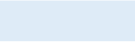


Appendix A and B include tables that compare the PSEL, ASEL, and ISEL functions for the S3A3 MCU Group and S3A6 MCU Group, respectively. For each port number, the first row specifies the bitwise select values. The second row specifies the functionality enabled by the select values on the S3A3 MCU Group. The third column specifies the functionality enabled by the select values on the S3A6. Differences in functionality are notated with bold text and highlighted background. The comments section provides additional details or specifies the migration type from S3A3 MCU Group to S3A6 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 (RMII), 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:

| Example | Description |
|-------------|---|
| ▲PIXD0_B | The '▲' denotes that signal <code>PIXD0_B</code> is being added to the previously unused/reserved or replacing a deprecated function. |
| ▼ET1_TX_CLK | The '▼' denotes that signal <code>ET1_TX_CLK</code> 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 Synergy S3A3 MCU and S3A6 MCU Group.

| Example | Description |
|---|---|
|  | Highlights a bit position where a new function is being added to the previously unused/reserved bit position. |
|  | 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 A 64 Pin Package

Table A 64-Pin Package Difference (1 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|
| P010 | | PSEL 01100B | ASEL ADC | ASEL OPAMP | ISEL | | | | | ▼IRQ14 |
| | S3A3 | TS30 | AN005 | AMP2- | IRQ14 | | | | | |
| | S3A6 | TS30 | AN005 | AMP2- | - | | | | | |
| P100 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01000B | ▼D0 |
| | S3A3 | AGTIO0 | GTETRGA | GTIOC5B | RXD0 | SCK1 | MISOA | SCL1 | KRM00 | |
| | S3A6 | AGTIO0 | GTETRGA | GTIOC5B | RXD0 | SCK1 | MISOA | SCL1 | KRM00 | |
| | | PSEL 01011B | PSEL 01101B | ASEL ADC | ASEL CMP | ISEL | | | | |
| | S3A3 | D0 | VL1 | AN022 | CMPIN0 | IRQ2 | | | | |
| S3A6 | - | VL1 | AN022 | CMPIN0 | IRQ2 | | | | | |
| P101 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01000B | ▼D1 |
| | S3A3 | AGTEE0 | GTETRGB | GTIOC5A | TXD0 | CTS1 | MOSIA | SDA1 | KRM01 | |
| | S3A6 | AGTEE0 | GTETRGB | GTIOC5A | TXD0 | CTS1 | MOSIA | SDA1 | KRM01 | |
| | | PSEL 01011B | PSEL 01101B | ASEL ADC | ASEL CMP | ISEL | | | | |
| | S3A3 | D1 | VL2 | AN021 | CMPREF0 | IRQ1 | | | | |
| S3A6 | - | VL2 | AN021 | CMPREF0 | IRQ1 | | | | | |
| P102 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01000B | PSEL 01010B | ▼D2 |
| | S3A3 | AGTO0 | GTOWLO | GTIOC2B | SCK0 | TXD2 | RSPCKA | KRM02 | ADTRG0 | |
| | S3A6 | AGTO0 | GTOWLO | GTIOC2B | SCK0 | TXD2 | RSPCKA | KRM02 | ADTRG0 | |
| | | PSEL 01011B | PSEL 01101B | PSEL 10000B | ASEL ADC | ASEL CMP | | | | |
| | S3A3 | D2 | VL3 | CRX0 | AN020 | CMPIN1 | | | | |
| S3A6 | - | VL3 | CRX0 | AN020 | CMPIN1 | | | | | |

Table A 64 Pin Package Difference (2 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|
| P103 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01101B | PSEL 10000B | ▼D3 |
| | S3A3 | GTOWUP | GTIOC2A | CTS0 | SSLA0 | KRM03 | D3 | VL4 | CTX0 | |
| | S3A6 | GTOWUP | GTIOC2A | CTS0 | SSLA0 | KRM03 | - | VL4 | CTX0 | |
| | | ASEL ADC | ASEL CMP | | | | | | | |
| | S3A3 | AN019 | CMPREF1 | | | | | | | |
| | S3A6 | AN019 | CMPREF1 | | | | | | | |
| P104 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ▼D4 |
| | S3A3 | GTETRGB | GTIOC1B | RXD0 | SSLA1 | KRM04 | D4 | TS13 | COM0 | |
| | S3A6 | GTETRGB | GTIOC1B | RXD0 | SSLA1 | KRM04 | - | TS13 | COM0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ1 | | | | | | | | |
| | S3A6 | IRQ1 | | | | | | | | |
| P105 | | PSEL 00010B | PSEL 00011B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼D5 |
| | S3A3 | GTETRGA | GTIOC1A | SSLA2 | KRM05 | D5 | TS34 | COM1 | IRQ0 | |
| | S3A6 | GTETRGA | GTIOC1A | SSLA2 | KRM05 | - | TS34 | COM1 | IRQ0 | |
| P106 | | PSEL 00011B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01101B | | | | ▼D6 |
| | S3A3 | GTIOC8B | SSLA3 | KRM06 | D6 | COM2 | | | | |
| | S3A6 | GTIOC8B | SSLA3 | KRM06 | - | COM2 | | | | |
| P107 | | PSEL 00011B | PSEL 01000B | PSEL 01011B | PSEL 01101B | | | | | ▲GTIOC0A, ▼GTIOC8A, ▼D7 |
| | S3A3 | GTIOC8A | KRM07 | D7 | COM3 | | | | | |
| | S3A6 | GTIOC0A | KRM07 | - | COM3 | | | | | |

Table A 64 Pin Package Difference (3 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| P109 | | PSEL 00000B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01001B | PSEL 01100B | ▲SEG23, ▼SEG52 |
| | S3A3 | TDO/TRACES WO | GTOVUP | GTIOC1A | SCK1 | TXD9 | MOSIB | CLKOUT | TS10 | |
| | S3A6 | TDO/TRACES WO | GTOVUP | GTIOC1A | SCK1 | TXD9 | MOSIB | CLKOUT | TS10 | |
| | | PSEL 01101B | PSEL 10000B | | | | | | | |
| | S3A3 | SEG52 | CTX0 | | | | | | | |
| | S3A6 | SEG23 | CTX0 | | | | | | | |
| P110 | | PSEL 00000B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01001B | PSEL 01101B | ▲SEG24, ▼SEG53 |
| | S3A3 | TDI | GTOVLO | GTIOC1B | CTS2 | RXD9 | MISOB | VCOUT | SEG53 | |
| | S3A6 | TDI | GTOVLO | GTIOC1B | CTS2 | RXD9 | MISOB | VCOUT | SEG24 | |
| | | PSEL 10000B | ISEL | | | | | | | |
| | S3A3 | CRX0 | IRQ3 | | | | | | | |
| | S3A6 | CRX0 | IRQ3 | | | | | | | |
| P111 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼A5 |
| | S3A3 | GTIOC3A | SCK2 | SCK9 | RSPCKB | A5 | TS12 | CAPH | IRQ4 | |
| | S3A6 | GTIOC3A | SCK2 | SCK9 | RSPCKB | - | TS12 | CAPH | IRQ4 | |
| P112 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | ▼A4 |
| | S3A3 | GTIOC3B | TXD2 | SCK1 | SSLB0 | A4 | TSCAP | CAPL | SSISCK0 | |
| | S3A6 | GTIOC3B | TXD2 | SCK1 | SSLB0 | - | TSCAP | CAPL | SSISCK0 | |
| P113 | | PSEL 00011B | PSEL 00100B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | | | ▼RXD2, ▼A3 |
| | S3A3 | GTIOC2A | RXD2 | A3 | TS27 | SEG0/COM4 | SSIWS0 | | | |
| | S3A6 | GTIOC2A | - | - | TS27 | SEG0/COM4 | SSIWS0 | | | |

Table A 64 Pin Package Difference (4 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|-----------|-------------|-------------|-----------------|-----------------|-------------|-------------|-------------|-------------|--|
| P204 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01010B | ▲SEG14, ▲SCK0, ▼SEG23, ▼SCK4, ▼A18, ▼SD0DAT4 |
| | S3A3 | AGTIO1 | GTIW | GTIOC4B | SCK4 | SCK9 | RSPCKB | SCL0 | CACREF | |
| | S3A6 | AGTIO1 | GTIW | GTIOC4B | SCK0 | SCK9 | RSPCKB | SCL0 | CACREF | |
| | | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10011B | PSEL 10101B | | | | |
| | S3A3 | A18 | TS0 | SEG23 | USB_OVRCUR B | SD0DAT4 | | | | |
| S3A6 | - | TS0 | SEG14 | USB_OVRCUR B | - | | | | | |
| P205 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01001B | ▲SEG13, ▲TXD0, ▼SEG20, ▼TXD4, ▼A16, ▼SD0DAT3 |
| | S3A3 | AGTO1 | GTIV | GTIOC4A | TXD4 | CTS9 | SSLB0 | SCL1 | CLKOUT | |
| | S3A6 | AGTO1 | GTIV | GTIOC4A | TXD0 | CTS9 | SSLB0 | SCL1 | CLKOUT | |
| | | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10011B | PSEL 10101B | ISEL | | | |
| | S3A3 | A16 | TSCAP | SEG20 | USB_OVRCUR A | SD0DAT3 | IRQ1 | | | |
| S3A6 | - | TSCAP | SEG13 | USB_OVRCUR A | - | IRQ1 | | | | |
| P206 | | PSEL 00010B | PSEL 00100B | PSEL 00110B | PSEL 00111B | PSEL 01000B | PSEL 01011B | PSEL 01101B | PSEL 10011B | ▲RXD0, ▼RXD4, ▼WAIT, ▼SD0DAT2 |
| | S3A3 | GTIU | RXD4 | SSLB1 | SDA1 | WAIT | TS1 | SEG12 | USB_VBUSEN | |
| | S3A6 | GTIU | RXD0 | SSLB1 | SDA1 | - | TS1 | SEG12 | USB_VBUSEN | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT2 | IRQ0 | | | | | | | |
| S3A6 | - | IRQ0 | | | | | | | | |
| P301 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | ▼A6 |
| | S3A3 | AGTIO0 | GTOULO | GTIOC4B | RXD2 | CTS9 | SSLB2 | A6 | TS9 | |
| | S3A6 | AGTIO0 | GTOULO | GTIOC4B | RXD2 | CTS9 | SSLB2 | - | TS9 | |
| | | PSEL 01101B | ISEL | | | | | | | |
| | S3A3 | SEG1/COM5 | IRQ6 | | | | | | | |
| S3A6 | SEG1/COM5 | IRQ6 | | | | | | | | |

Table A 64 Pin Package Difference (5 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------------------------|
| P302 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼A7 |
| | S3A3 | GTOUUP | GTIOC4A | TXD2 | SSLB3 | A7 | TS8 | SEG2/COM6 | IRQ5 | |
| | S3A6 | GTOUUP | GTIOC4A | TXD2 | SSLB3 | - | TS8 | SEG2/COM6 | IRQ5 | |
| P303 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10101B | | | | ▼A8, ▼SD0DAT0 |
| | S3A3 | GTIOC7B | A8 | TS2 | SEG3/COM7 | SD0DAT0 | | | | |
| | S3A6 | GTIOC7B | - | TS2 | SEG3/COM7 | - | | | | |
| P304 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10101B | ISEL | | | ▲SEG20, ▼SEG17, ▼A9, ▼SD0WP |
| | S3A3 | GTIOC7A | A9 | TS11 | SEG17 | SD0WP | IRQ9 | | | |
| | S3A6 | GTIOC7A | - | TS11 | SEG20 | - | IRQ9 | | | |
| P400 | | PSEL 00001B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01010B | PSEL 01100B | PSEL 01101B | ▲SCK0, ▼SCK4 |
| | S3A3 | AGTIO1 | GTIOC6A | SCK4 | SCK1 | SCL0 | CACREF | TS20 | SEG4 | |
| | S3A6 | AGTIO1 | GTIOC6A | SCK0 | SCK1 | SCL0 | CACREF | TS20 | SEG4 | |
| | | PSEL 10010B | ISEL | | | | | | | |
| | S3A3 | AUDIO_CLK | IRQ0 | | | | | | | |
| | S3A6 | AUDIO_CLK | IRQ0 | | | | | | | |
| P401 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01100B | PSEL 01101B | PSEL 10000B | ▲CTS0, ▼CTS4 |
| | S3A3 | GTETRGA | GTIOC6B | CTS4 | TXD1 | SDA0 | TS19 | SEG5 | CTX0 | |
| | S3A6 | GTETRGA | GTIOC6B | CTS0 | TXD1 | SDA0 | TS19 | SEG5 | CTX0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ5 | | | | | | | | |
| | S3A6 | IRQ5 | | | | | | | | |

Table A 64 Pin Package Difference (6 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| P407 | | PSEL 00001B | PSEL 00100B | PSEL 00110B | PSEL 00111B | PSEL 01001B | PSEL 01010B | PSEL 01100B | PSEL 01101B | ▲CTS0, ▼CTS4 |
| | S3A3 | AGTIO0 | CTS4 | SSLB3 | SDA0 | RTCOUT | ADTRG0 | TS3 | SEG11 | |
| | S3A6 | AGTIO0 | CTS0 | SSLB3 | SDA0 | RTCOUT | ADTRG0 | TS3 | SEG11 | |
| | | PSEL 10011B | | | | | | | | |
| | S3A3 | USB_VBUS | | | | | | | | |
| | S3A6 | USB_VBUS | | | | | | | | |
| P408 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01100B | PSEL 01101B | PSEL 10011B | ▲RXD9, ▼RXD3 |
| | S3A3 | GTOWLO | GTIOC5B | CTS1 | RXD3 | SCL0 | TS4 | SEG10 | USB_ID | |
| | S3A6 | GTOWLO | GTIOC5B | CTS1 | RXD9 | SCL0 | TS4 | SEG10 | USB_ID | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ7 | | | | | | | | |
| | S3A6 | IRQ7 | | | | | | | | |
| P409 | | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01100B | PSEL 01101B | PSEL 10011B | ISEL | | ▲TXD9, ▼TXD3 |
| | S3A3 | GTOWUP | GTIOC5A | TXD3 | TS5 | SEG9 | USB_EXICEN | IRQ6 | | |
| | S3A6 | GTOWUP | GTIOC5A | TXD9 | TS5 | SEG9 | USB_EXICEN | IRQ6 | | |
| P410 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01100B | PSEL 01101B | ▲GTIOC6B, ▼GTIOC9B, ▼SCK3, ▼SD0DAT1 |
| | S3A3 | AGTOB1 | GTOVLO | GTIOC9B | RXD0 | SCK3 | MISOA | TS6 | SEG8 | |
| | S3A6 | AGTOB1 | GTOVLO | GTIOC6B | RXD0 | - | MISOA | TS6 | SEG8 | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT1 | IRQ5 | | | | | | | |
| | S3A6 | - | IRQ5 | | | | | | | |

Table A 64 Pin Package Difference (7 of 7)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-----------------|-----------------|-------------|---|
| P411 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01100B | PSEL 01101B | ▲GTIOC6A, ▼GTIOC9A, ▼CTS3, ▼SD0DAT0 |
| | S3A3 | AGTOA1 | GTOVUP | GTIOC9A | TXD0 | CTS3 | MOSIA | TS7 | SEG7 | |
| | S3A6 | AGTOA1 | GTOVUP | GTIOC6A | TXD0 | - | MOSIA | TS7 | SEG7 | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT0 | IRQ4 | | | | | | | |
| | S3A6 | - | IRQ4 | | | | | | | |
| P500 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ASEL CMP | ▲SEG34, ▼SEG48, ▼QSPCLK |
| | S3A3 | AGTOA0 | GTIU | GTIOC2A | SEG48 | QSPCLK | USB_VBUSEN | AN016 | CMPREF1 | |
| | S3A6 | AGTOA0 | GTIU | GTIOC2A | SEG34 | - | USB_VBUSEN | AN016 | CMPREF1 | |
| P501 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ▲SEG35, ▲TXD1, ▼SEG34, ▼TXD3, ▼QSSL |
| | S3A3 | AGTOB0 | GTIV | GTIOC2B | TXD3 | SEG49 | QSSL | USB_OVRCUR A | AN017 | |
| | S3A6 | AGTOB0 | GTIV | GTIOC2B | TXD1 | SEG35 | - | USB_OVRCUR A | AN017 | |
| | | ASEL CMP | ISEL | | | | | | | |
| | S3A3 | CMPIN1 | IRQ11 | | | | | | | |
| | S3A6 | CMPIN1 | IRQ11 | | | | | | | |
| P502 | | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ASEL CMP | ▲SEG36, ▲RXD1, ▼SEG50, ▼RXD3, ▼QIO0 |
| | S3A3 | GTIW | GTIOC3B | RXD3 | SEG50 | QIO0 | USB_OVRCUR B | AN018 | CMPREF0 | |
| | S3A6 | GTIW | GTIOC3B | RXD1 | SEG36 | - | USB_OVRCUR B | AN018 | CMPREF0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ12 | | | | | | | | |
| | S3A6 | IRQ12 | | | | | | | | |

Appendix B 100 Pin Package

Table B 100 Pin Package Difference (1 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|
| P006 | | ASEL ADC | ASEL OPAMP | | | | | | | ▼IRQ11 |
| | S3A3 | AN012 | AMP3- | IRQ11 | | | | | | |
| | S3A6 | AN012 | AMP3- | - | | | | | | |
| P008 | | ASEL ADC | ISEL | | | | | | | ▼IRQ12 |
| | S3A3 | AN014 | IRQ12 | | | | | | | |
| | S3A6 | AN014 | - | | | | | | | |
| P010 | | PSEL 01100B | ASEL ADC | ASEL OPAMP | ISEL | | | | | ▼IRQ14 |
| | S3A3 | TS30 | AN005 | AMP2- | IRQ14 | | | | | |
| | S3A6 | TS30 | AN005 | AMP2- | - | | | | | |
| P100 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01000B | ▼D0 |
| | S3A3 | AGTIO0 | GTETRGA | GTIOC5B | RXD0 | SCK1 | MISOA | SCL1 | KRM00 | |
| | S3A6 | AGTIO0 | GTETRGA | GTIOC5B | RXD0 | SCK1 | MISOA | SCL1 | KRM00 | |
| | | PSEL 01011B | PSEL 01101B | ASEL ADC | ASEL CMP | ISEL | | | | |
| | S3A3 | D0 | VL1 | AN022 | CMPIN0 | IRQ2 | | | | |
| | S3A6 | - | VL1 | AN022 | CMPIN0 | IRQ2 | | | | |
| P101 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01000B | ▼D1 |
| | S3A3 | AGTEE0 | GTETRGB | GTIOC5A | TXD0 | CTS1 | MOSIA | SDA1 | KRM01 | |
| | S3A6 | AGTEE0 | GTETRGB | GTIOC5A | TXD0 | CTS1 | MOSIA | SDA1 | KRM01 | |
| | | PSEL 01011B | PSEL 01101B | ASEL ADC | ASEL CMP | ISEL | | | | |
| | S3A3 | D1 | VL2 | AN021 | CMPREF0 | IRQ1 | | | | |
| | S3A6 | - | VL2 | AN021 | CMPREF0 | IRQ1 | | | | |

Table B 100 Pin Package Difference (2 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|
| P102 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01000B | PSEL 01010B | ▼D2 |
| | S3A3 | AGTO0 | GTOWLO | GTIOC2B | SCK0 | TXD2 | RSPCKA | KRM02 | ADTRG0 | |
| | S3A6 | AGTO0 | GTOWLO | GTIOC2B | SCK0 | TXD2 | RSPCKA | KRM02 | ADTRG0 | |
| | | PSEL 01011B | PSEL 01101B | PSEL 10000B | ASEL ADC | ASEL CMP | | | | |
| | S3A3 | D2 | VL3 | CRX0 | AN020 | CMPIN1 | | | | |
| | S3A6 | - | VL3 | CRX0 | AN020 | CMPIN1 | | | | |
| P103 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01101B | PSEL 10000B | ▼D3 |
| | S3A3 | GTOWUP | GTIOC2A | CTS0 | SSLA0 | KRM03 | D3 | VL4 | CTX0 | |
| | S3A6 | GTOWUP | GTIOC2A | CTS0 | SSLA0 | KRM03 | - | VL4 | CTX0 | |
| | | ASEL ADC | ASEL CMP | | | | | | | |
| | S3A3 | AN019 | CMPREF1 | | | | | | | |
| | S3A6 | AN019 | CMPREF1 | | | | | | | |
| P104 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ▼D4 |
| | S3A3 | GTETRGB | GTIOC1B | RXD0 | SSLA1 | KRM04 | D4 | TS13 | COM0 | |
| | S3A6 | GTETRGB | GTIOC1B | RXD0 | SSLA1 | KRM04 | - | TS13 | COM0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ1 | | | | | | | | |
| | S3A6 | IRQ1 | | | | | | | | |
| P105 | | PSEL 00010B | PSEL 00011B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼D5 |
| | S3A3 | GTETRGA | GTIOC1A | SSLA2 | KRM05 | D5 | TS34 | COM1 | IRQ0 | |
| | S3A6 | GTETRGA | GTIOC1A | SSLA2 | KRM05 | - | TS34 | COM1 | IRQ0 | |
| P106 | | PSEL 00011B | PSEL 00110B | PSEL 01000B | PSEL 01011B | PSEL 01101B | | | | ▼D6 |
| | S3A3 | GTIOC8B | SSLA3 | KRM06 | D6 | COM2 | | | | |
| | S3A6 | GTIOC8B | SSLA3 | KRM06 | - | COM2 | | | | |

Table B 100 Pin Package Difference (3 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|-------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------|
| P107 | | PSEL 00011B | PSEL 01000B | PSEL 01011B | PSEL 01101B | | | | | ▲GTIOC0A, ▼GTIOC8A, ▼D7 |
| | S3A3 | GTIOC8A | KRM07 | D7 | COM3 | | | | | |
| | S3A6 | GTIOC0A | KRM07 | - | COM3 | | | | | |
| P109 | | PSEL 00000B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01001B | PSEL 01100B | ▲SEG23, ▼SEG52 |
| | S3A3 | TDO/TRACESWO | GTOVUP | GTIOC1A | SCK1 | TXD9 | MOSIB | CLKOUT | TS10 | |
| | S3A6 | TDO/TRACESWO | GTOVUP | GTIOC1A | SCK1 | TXD9 | MOSIB | CLKOUT | TS10 | |
| | | PSEL 01101B | PSEL 10000B | | | | | | | |
| | S3A3 | SEG52 | CTX0 | | | | | | | |
| S3A6 | SEG23 | CTX0 | | | | | | | | |
| P110 | | PSEL 00000B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01001B | PSEL 01101B | ▲SEG24, ▼SEG53 |
| | S3A3 | TDI | GTOVLO | GTIOC1B | CTS2 | RXD9 | MISOB | VCOUT | SEG53 | |
| | S3A6 | TDI | GTOVLO | GTIOC1B | CTS2 | RXD9 | MISOB | VCOUT | SEG24 | |
| | | PSEL 10000B | ISEL | | | | | | | |
| | S3A3 | CRX0 | IRQ3 | | | | | | | |
| | S3A6 | CRX0 | IRQ3 | | | | | | | |
| P111 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼A5 |
| | S3A3 | GTIOC3A | SCK2 | SCK9 | RSPCKB | A5 | TS12 | CAPH | IRQ4 | |
| | S3A6 | GTIOC3A | SCK2 | SCK9 | RSPCKB | - | TS12 | CAPH | IRQ4 | |
| P112 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | ▼A4 |
| | S3A3 | GTIOC3B | TXD2 | SCK1 | SSLB0 | A4 | TSCAP | CAPL | SSISCK0 | |
| | S3A6 | GTIOC3B | TXD2 | SCK1 | SSLB0 | - | TSCAP | CAPL | SSISCK0 | |
| P113 | | PSEL 00011B | PSEL 00100B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | | | ▼RXD2, ▼A3 |
| | S3A3 | GTIOC2A | RXD2 | A3 | TS27 | SEG0/COM4 | SSIWS0 | | | |
| | S3A6 | GTIOC2A | - | - | TS27 | SEG0/COM4 | SSIWS0 | | | |

Table B 100 Pin Package Difference (4 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | | | | |
| P114 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | | | | ▲SEG25, ▼SEG24, ▼A2 |
| | S3A3 | GTIOC2B | A2 | TS29 | SEG24 | SSIRXD0 | | | | |
| | S3A6 | GTIOC2B | - | TS29 | SEG25 | SSIRXD0 | | | | |
| P115 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10010B | | | | ▲SEG26, ▼SEG25, ▼A1 |
| | S3A3 | GTIOC4A | A1 | TS35 | SEG25 | SSITXD0 | | | | |
| | S3A6 | GTIOC4A | - | TS35 | SEG26 | SSITXD0 | | | | |
| P202 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01101B | PSEL 10101B | ISEL | ▲SEG16, ▼IRQ3 ▼SEG21, ▼WR1/BC1, ▼SD0DAT6, |
| | S3A3 | GTIOC5B | SCK2 | RXD9 | MISOB | WR1/BC1 | SEG21 | SD0DAT6 | IRQ3 | |
| | S3A6 | GTIOC5B | SCK2 | RXD9 | MISOB | - | SEG16 | - | - | |
| P203 | | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10101B | ▲SEG15, ▼SEG22, ▼A19, ▼SD0DAT5, ▼IRQ2 |
| | S3A3 | GTIOC5A | CTS2 | TXD9 | MOSIB | A19 | TSCAP | SEG22 | SD0DAT5 | |
| | S3A6 | GTIOC5A | CTS2 | TXD9 | MOSIB | - | TSCAP | SEG15 | - | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ2 | | | | | | | | |
| | S3A6 | - | | | | | | | | |
| P204 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01010B | ▲SEG14, ▲SCK0, ▼SEG23, ▼SCK4, ▼A18, ▼SD0DAT4 |
| | S3A3 | AGTIO1 | GTIW | GTIOC4B | SCK4 | SCK9 | RSPCKB | SCL0 | CACREF | |
| | S3A6 | AGTIO1 | GTIW | GTIOC4B | SCK0 | SCK9 | RSPCKB | SCL0 | CACREF | |
| | | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10011B | PSEL 10101B | | | | |
| | S3A3 | A18 | TS0 | SEG23 | USB_OVRCURB | SD0DAT4 | | | | |
| | S3A6 | - | TS0 | SEG14 | USB_OVRCURB | - | | | | |

Table B 100 Pin Package Difference (5 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| P205 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 00111B | PSEL 01001B | ▲SEG13, ▲TXD0, ▼SEG20, ▼TXD4, ▼A16, ▼SD0DAT3 |
| | S3A3 | AGTO1 | GTIV | GTIOC4A | TXD4 | CTS9 | SSLB0 | SCL1 | CLKOUT | |
| | S3A6 | AGTO1 | GTIV | GTIOC4A | TXD0 | CTS9 | SSLB0 | SCL1 | CLKOUT | |
| | | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10011B | PSEL 10101B | ISEL | | | |
| | S3A3 | A16 | TSCAP | SEG20 | USB_OVRCURA | SD0DAT3 | IRQ1 | | | |
| | S3A6 | - | TSCAP | SEG13 | USB_OVRCURA | - | IRQ1 | | | |
| P206 | | PSEL 00010B | PSEL 00100B | PSEL 00110B | PSEL 00111B | PSEL 01000B | PSEL 01011B | PSEL 01101B | PSEL 10011B | ▲RXD0, ▼RXD4, ▼WAIT, ▼SD0DAT2 |
| | S3A3 | GTIU | RXD4 | SSLB1 | SDA1 | WAIT | TS1 | SEG12 | USB_VBUSEN | |
| | S3A6 | GTIU | RXD0 | SSLB1 | SDA1 | - | TS1 | SEG12 | USB_VBUSEN | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT2 | IRQ0 | | | | | | | |
| | S3A6 | - | IRQ0 | | | | | | | |
| P301 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01011B | PSEL 01100B | ▼A6 |
| | S3A3 | AGTIO0 | GTOULO | GTIOC4B | RXD2 | CTS9 | SSLB2 | A6 | TS9 | |
| | S3A6 | AGTIO0 | GTOULO | GTIOC4B | RXD2 | CTS9 | SSLB2 | - | TS9 | |
| | | PSEL 01101B | ISEL | | | | | | | |
| | S3A3 | SEG1/COM5 | IRQ6 | | | | | | | |
| | S3A6 | SEG1/COM5 | IRQ6 | | | | | | | |
| P302 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00110B | PSEL 01011B | PSEL 01100B | PSEL 01101B | ISEL | ▼A7 |
| | S3A3 | GTOUUP | GTIOC4A | TXD2 | SSLB3 | A7 | TS8 | SEG2/COM6 | IRQ5 | |
| | S3A6 | GTOUUP | GTIOC4A | TXD2 | SSLB3 | - | TS8 | SEG2/COM6 | IRQ5 | |
| P303 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10101B | | | | ▼A8, ▼SD0DAT0 |
| | S3A3 | GTIOC7B | A8 | TS2 | SEG3/COM7 | SD0DAT0 | | | | |
| | S3A6 | GTIOC7B | - | TS2 | SEG3/COM7 | - | | | | |

Table B 100 Pin Package Difference (6 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| P304 | | PSEL 00011B | PSEL 01011B | PSEL 01100B | PSEL 01101B | PSEL 10101B | ISEL | | | ▲SEG20, ▼SEG17, ▼A9, ▼SD0WP |
| | S3A3 | GTIOC7A | A9 | TS11 | SEG17 | SD0WP | IRQ9 | | | |
| | S3A6 | GTIOC7A | - | TS11 | SEG20 | - | IRQ9 | | | |
| P305 | | PSEL 01011B | PSEL 01101B | PSEL 10001B | PSEL 10101B | | | | | ▲SEG19, ▼SEG16, ▼A10, ▼SD0CD, ▼QSPCLK |
| | S3A3 | A10 | SEG16 | QSPCLK | SD0CD | | | | | |
| | S3A6 | - | SEG19 | - | - | | | | | |
| P306 | | PSEL 01011B | PSEL 01101B | PSEL 10001B | | | | | | ▲SEG18, ▼SEG15, ▼A11, ▼QSSL |
| | S3A3 | A11 | SEG15 | QSSL | | | | | | |
| | S3A6 | - | SEG18 | - | | | | | | |
| P307 | | PSEL 01011B | PSEL 01101B | PSEL 10001B | | | | | | ▲SEG17, ▼SEG14, ▼A12, ▼QIO0 |
| | S3A3 | A12 | SEG14 | QIO0 | | | | | | |
| | S3A6 | - | SEG17 | - | | | | | | |
| P400 | | PSEL 00001B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01010B | PSEL 01100B | PSEL 01101B | ▲SCK0, ▼SCK4 |
| | S3A3 | AGTIO1 | GTIOC6A | SCK4 | SCK1 | SCL0 | CACREF | TS20 | SEG4 | |
| | S3A6 | AGTIO1 | GTIOC6A | SCK0 | SCK1 | SCL0 | CACREF | TS20 | SEG4 | |
| | | PSEL 10010B | ISEL | | | | | | | |
| | S3A3 | AUDIO_CLK | IRQ0 | | | | | | | |
| | S3A6 | AUDIO_CLK | IRQ0 | | | | | | | |
| P401 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01100B | PSEL 01101B | PSEL 10000B | ▲CTS0, ▼CTS4 |
| | S3A3 | GTETRGA | GTIOC6B | CTS4 | TXD1 | SDA0 | TS19 | SEG5 | CTX0 | |
| | S3A6 | GTETRGA | GTIOC6B | CTS0 | TXD1 | SDA0 | TS19 | SEG5 | CTX0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ5 | | | | | | | | |
| | S3A6 | IRQ5 | | | | | | | | |

Table B 100 Pin Package Difference (7 of 14)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| P406 | | PSEL 00011B | PSEL 00110B | PSEL 10010B | | | | | | ▼SSLA3 |
| | S3A3 | GTIOC1B | SSLA3 | SSIRXD0 | | | | | | |
| | S3A6 | GTIOC1B | - | SSIRXD0 | | | | | | |
| P407 | | PSEL 00001B | PSEL 00100B | PSEL 00110B | PSEL 00111B | PSEL 01001B | PSEL 01010B | PSEL 01100B | PSEL 01101B | ▲CTS0, ▼CTS4 |
| | S3A3 | AGTIO0 | CTS4 | SSLB3 | SDA0 | RTCOUT | ADTRG0 | TS3 | SEG11 | |
| | S3A6 | AGTIO0 | CTS0 | SSLB3 | SDA0 | RTCOUT | ADTRG0 | TS3 | SEG11 | |
| | | PSEL 10011B | | | | | | | | |
| | S3A3 | USB_VBUS | | | | | | | | |
| | S3A6 | USB_VBUS | | | | | | | | |
| P408 | | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00111B | PSEL 01100B | PSEL 01101B | PSEL 10011B | ▲RXD9, ▼RXD3 |
| | S3A3 | GTOWLO | GTIOC5B | CTS1 | RXD3 | SCL0 | TS4 | SEG10 | USB_ID | |
| | S3A6 | GTOWLO | GTIOC5B | CTS1 | RXD9 | SCL0 | TS4 | SEG10 | USB_ID | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ7 | | | | | | | | |
| | S3A6 | IRQ7 | | | | | | | | |
| P409 | | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01100B | PSEL 01101B | PSEL 10011B | ISEL | | ▲TXD9, ▼TXD3 |
| | S3A3 | GTOWUP | GTIOC5A | TXD3 | TS5 | SEG9 | USB_EXICEN | IRQ6 | | |
| | S3A6 | GTOWUP | GTIOC5A | TXD9 | TS5 | SEG9 | USB_EXICEN | IRQ6 | | |
| P410 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01100B | PSEL 01101B | ▲GTIOC6B, ▼GTIOC9B, ▼SCK3, ▼SD0DAT1 |
| | S3A3 | AGTOB1 | GTOVLO | GTIOC9B | RXD0 | SCK3 | MISOA | TS6 | SEG8 | |
| | S3A6 | AGTOB1 | GTOVLO | GTIOC6B | RXD0 | - | MISOA | TS6 | SEG8 | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT1 | IRQ5 | | | | | | | |
| | S3A6 | - | IRQ5 | | | | | | | |

Table B 100 Pin Package Difference (8 of 11)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| P411 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00100B | PSEL 00101B | PSEL 00110B | PSEL 01100B | PSEL 01101B | ▲GTIOC6A, ▼GTIOC9A, ▼CTS3, ▼SD0DAT0 |
| | S3A3 | AGTOA1 | GTOVUP | GTIOC9A | TXD0 | CTS3 | MOSIA | TS7 | SEG7 | |
| | S3A6 | AGTOA1 | GTOVUP | GTIOC6A | TXD0 | - | MOSIA | TS7 | SEG7 | |
| | | PSEL 10101B | ISEL | | | | | | | |
| | S3A3 | SD0DAT0 | IRQ4 | | | | | | | |
| | S3A6 | - | IRQ4 | | | | | | | |
| P412 | | PSEL 00010B | PSEL 00100B | PSEL 00110B | PSEL 10101B | | | | | ▼GTOULO, ▼SD0CMD |
| | S3A3 | GTOULO | SCK0 | RSPCKA | SD0CMD | | | | | |
| | S3A6 | - | SCK0 | RSPCKA | - | | | | | |
| P413 | | PSEL 00010B | PSEL 00100B | PSEL 00110B | PSEL 10101B | | | | | ▼GTOUUP, ▼SD0CLK |
| | S3A3 | GTOUUP | CTS0 | SSLA0 | SD0CLK | | | | | |
| | S3A6 | - | CTS0 | SSLA0 | - | | | | | |
| P414 | | PSEL 00011B | PSEL 00110B | PSEL 10101B | ISEL | | | | | ▼SD0WP |
| | S3A3 | GTIOC0B | SSLA1 | SD0WP | IRQ9 | | | | | |
| | S3A6 | GTIOC0B | SSLA1 | - | IRQ9 | | | | | |
| P415 | | PSEL 00011B | PSEL 00110B | PSEL 10101B | ISEL | | | | | ▼SD0CD |
| | S3A3 | GTIOC0A | SSLA2 | SD0CD | IRQ8 | | | | | |
| | S3A6 | GTIOC0A | SSLA2 | - | IRQ8 | | | | | |
| P500 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ASEL CMP | ▲SEG34, ▼SEG48, ▼QSPCLK |
| | S3A3 | AGTOA0 | GTIU | GTIOC2A | SEG48 | QSPCLK | USB_VBUSEN | AN016 | CMPREF1 | |
| | S3A6 | AGTOA0 | GTIU | GTIOC2A | SEG34 | - | USB_VBUSEN | AN016 | CMPREF1 | |

Table B 100 Pin Package Difference (9 of 11)

| Port | MCU | Select | | | | | | | | Comments |
|------|------|-------------|-------------|-------------|-------------|-------------|-----------------|-----------------|----------|--|
| P501 | | PSEL 00001B | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ▲SEG35, ▲TXD1, ▼SEG34, ▼TXD3, ▼QSSL |
| | S3A3 | AGTOB0 | GTIV | GTIOC2B | TXD3 | SEG49 | QSSL | USB_OVRCUR A | AN017 | |
| | S3A6 | AGTOB0 | GTIV | GTIOC2B | TXD1 | SEG35 | - | USB_OVRCUR A | AN017 | |
| | | ASEL CMP | ISEL | | | | | | | |
| | S3A3 | CMPIN1 | IRQ11 | | | | | | | |
| | S3A6 | CMPIN1 | IRQ11 | | | | | | | |
| P502 | | PSEL 00010B | PSEL 00011B | PSEL 00101B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ASEL CMP | ▲SEG36, ▲RXD1, ▼SEG50, ▼RXD3, ▼QIO0 |
| | S3A3 | GTIW | GTIOC3B | RXD3 | SEG50 | QIO0 | USB_OVRCUR B | AN018 | CMPREF0 | |
| | S3A6 | GTIW | GTIOC3B | RXD1 | SEG36 | - | USB_OVRCUR B | AN018 | CMPREF0 | |
| | | ISEL | | | | | | | | |
| | S3A3 | IRQ12 | | | | | | | | |
| | S3A6 | IRQ12 | | | | | | | | |
| P503 | | PSEL 00010B | PSEL 00100B | PSEL 00101B | PSEL 01101B | PSEL 10001B | PSEL 10011B | ASEL ADC | ASEL CMP | ▲SEG37, ▲SCK1 ▼SEG51, ▼CTS2 ▼SCK33, ▼QIO1, ▼GTETRGA |
| | S3A3 | GTETRGA | CTS2 | SCK3 | SEG51 | QIO1 | USB_EXICEN | AN023 | CMPIN0 | |
| | S3A6 | - | - | SCK1 | SEG37 | - | USB_EXICEN | AN023 | CMPIN0 | |
| P504 | | PSEL 00010B | PSEL 00100B | PSEL 00101B | PSEL 01011B | PSEL 10001B | PSEL 10011B | ASEL ADC | | ▲CTS1, ▼CTS3, ▼SCK2, ▼QIO2, ▼ALE, ▼GTETRGB |
| | S3A3 | GTETRGB | SCK2 | CTS3 | ALE | QIO2 | USB_ID | AN024 | | |
| | S3A6 | - | - | CTS1 | - | - | USB_ID | AN024 | | |
| P505 | | PSEL 00100B | PSEL 10001B | ASEL ADC | ISEL | | | | | ▼RXD2, ▼QIO3 |
| | S3A3 | RXD2 | QIO3 | AN025 | IRQ14 | | | | | |
| | S3A6 | - | - | AN025 | IRQ14 | | | | | |
| P600 | | PSEL 00011B | PSEL 00101B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | ▲SEG33, ▼SEG41, ▼RD, ▼SD0DAT7 |
| | S3A3 | GTIOC6B | SCK9 | RD | SEG41 | SD0DAT7 | | | | |
| | S3A6 | GTIOC6B | SCK9 | - | SEG33 | - | | | | |

Table B 100 Pin Package Difference (10 of 11)

| Port | MCU | Select | | | | | | | COMMENTS | |
|------|------|-------------|-------------|-------------|-------------|-------------|--|--|----------|--|
| P601 | | PSEL 00011B | PSEL 00101B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | ▲SEG32, ▼SEG40, ▼WR/WR0, ▼SD0DAT6 |
| | S3A3 | GTIOC6A | RXD9 | WR/WR0 | SEG40 | SD0DAT6 | | | | |
| | S3A6 | GTIOC6A | RXD9 | - | SEG32 | - | | | | |
| P602 | | PSEL 00011B | PSEL 00101B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | ▲SEG31, ▼SEG39, ▼BCLK, ▼SD0DAT5 |
| | S3A3 | GTIOC7B | TXD9 | BCLK | SEG39 | SD0DAT5 | | | | |
| | S3A6 | GTIOC7B | TXD9 | - | SEG31 | - | | | | |
| P603 | | PSEL 00011B | PSEL 00101B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | ▲SEG30, ▼SEG38, ▼D13, ▼SD0DAT4 |
| | S3A3 | GTIOC7A | CTS9 | D13 | SEG38 | SD0DAT4 | | | | |
| | S3A6 | GTIOC7A | CTS9 | - | SEG30 | - | | | | |
| P608 | | PSEL 00011B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | | ▲SEG27, ▼SEG28, ▼A0/BC0, ▼SD0DAT1 |
| | S3A3 | GTIOC4B | A0/BC0 | SEG28 | SD0DAT1 | | | | | |
| | S3A6 | GTIOC4B | - | SEG27 | - | | | | | |
| P609 | | PSEL 00011B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | | ▲SEG28, ▼SEG29, ▼CS1#, ▼SD0DAT2 |
| | S3A3 | GTIOC5A | CS1# | SEG29 | SD0DAT2 | | | | | |
| | S3A6 | GTIOC5A | - | SEG28 | - | | | | | |
| P610 | | PSEL 00011B | PSEL 01011B | PSEL 01101B | PSEL 10101B | | | | | ▲SEG29, ▼SEG30, ▼CS0#, ▼SD0DAT3 |
| | S3A3 | GTIOC5B | CS0# | SEG30 | SD0DAT3 | | | | | |
| | S3A6 | GTIOC5B | - | SEG29 | - | | | | | |
| P708 | | PSEL 00101B | PSEL 00110B | ISEL | | | | | | ▼IRQ11 |
| | S3A3 | RXD1 | SSLA3 | IRQ11 | | | | | | |
| | S3A6 | RXD1 | SSLA3 | - | | | | | | |
| P808 | | PSEL 01101B | PSEL 10101B | | | | | | | ▲SEG21, ▼SEG18, ▼SD0CLK |
| | S3A3 | SEG18 | SD0CLK | | | | | | | |
| | S3A6 | SEG21 | - | | | | | | | |

Table B 100 Pin Package Difference (11 of 11)

| Port | MCU | Select | | | | | | | | COMMENTS |
|------|------|-------------|-------------|--|--|--|--|--|--|-------------------------------|
| P809 | | PSEL 01101B | PSEL 10101B | | | | | | | ▲SEG22, ▼SEG19, ▼SD0CMD |
| | S3A3 | SEG19 | SD0CMD | | | | | | | |
| | S3A6 | SEG22 | - | | | | | | | |

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Revision History

| Rev. | Date | Description | |
|-------------|--------------|--------------------|-----------------|
| | | Page | Summary |
| 1.00 | Aug 25, 2017 | — | Initial version |

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