September 16, 2015

Datasheet Errata for the S6E2D3 Series 32-bit ARM® Cortex®-M4F, FM4 Microcontroller

This document describes the errata for the S6E2D3 Series 32-bit ARM® Cortex®-M4F, FM4 Microcontroller. Compare this document to the device's data sheet for a complete functional description.

Contact your local Cypress Sales Representative if you have questions.

Part Numbers Affected

Part Number
S6E2D3 Series

Page	Item	Description
Original document code: DS709-00023-1v0-E		
Rev. 1.0 June 25, 2015		

64	9. Handling Devices	"Sub Crystal Oscillator" should be added as indicated by shading below.
		
		■Surface mount type
		Size: More than 3.2 mm x 1.5 mm
		Load capacitance: Approximately 6 pF to 7 pF
		                              When the Standard setting (CCS/CCB=11001110)
		Load capacitance: Approximately 4 pF to 7 pF
		                              When the low power setting (CCS/CCB=00000100)
		■Lead type
		Load capacitance: Approximately 6 pF to 7 pF
		                              When the Standard setting (CCS/CCB=11001110)
		Load capacitance: Approximately 4 pF to 7 pF
		                              When the low power setting (CCS/CCB=00000100)

Page	Item	Description
92	14.3.1 Current Rating	Table 14-10 should be added as indicated by the shading below.

Table 14-10 Typical and Maximum Current Consumption in Deep Standby Stop Mode, Deep Standby RTC Mode and VBAT

Parameter	Symbol	Pin Name	Conditions	Frequency (MHz)	Value Typ	Value Max	Unit	Remarks
Power supply current	ICCVBAT	VBAT	RTC stop	-	0.009	0.032	µA	*3, *4, *5 T_A=+25°C
					-	0.994	µA	*3, *4, *5 T_A=+85°C
					-	1.491	µA	*3, *4, *5 T_A=+105°C
			RTC *6 operation		1.0	1.636	µA	*3, *4 T_A=+25°C
					-	2.828	µA	*3, *4 T_A=+85°C
					-	4.242	µA	*3, *4 T_A=+105°C
			RTC *7 operation		0.7	1.153	µA	*3, *4 T_A=+25°C
					-	2.277	µA	*3, *4 T_A=+85°C
					-	3.416	µA	*3, *4 T_A=+105°C

*1: V_{CC}=3.3 V

*2: V_{CC}=3.6 V

*3: When all ports are fixed.

*4: When LVD is OFF

*5: When sub oscillation is OFF

*6: When using the crystal oscillator of 32 kHz (including the current consumption of the oscillation circuit)
When the Standard setting (CCS/CCB=11001110)

*7: When using the crystal oscillator of 32 kHz (including the current consumption of the oscillation circuit)
When the low power setting (CCS/CCB=00000100)

Page	Item	Description
176	15. Ordering Information	Ordering Information should be corrected as indicated by the shading below.

(Error)

Part Number	Package
S6E2D35G0AGV20000	Plastic・LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)
S6E2D35GJAMV20000	
S6E2D35J0AGV20000	Plastic・LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)
S6E2D35G0AGB30000	Plastic・PFBGA (0.5 mm pitch), 161 pin (FDJ161)
S6E2D35G0AGZ20000	Plastic・Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)

(Correct)

Part Number	Package
S6E2D35G0AGV20000	Plastic・LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)
S6E2D35GJAMV20000	
S6E2D35J0AGV20000	Plastic・LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)
S6E2D35G0AGB30000	Plastic・PFBGA (0.5 mm pitch), 161 pin (FDJ161)
S6E2D35G0AGE20000	Plastic・Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)

Page	Item	Description
10	2. Features	Note should be added as indicated by the shading below. (Error) **GDC Unit** ■ Controller for external graphics display ■ Accelerator for 2D block image transfer (blit) operations ■ Embedded SRAM video memory ■ High-Speed Quad SPI (Serial Peripheral Interface for external memory extensions) ■ SDRAM interface for external memory extensions ■ HBI (Hyper Bus Interface) interface for external memory extensions ■ Maximum core system clock frequency : 160 MHz (Correct) **GDC Unit** ■ Controller for external graphics display ■ Accelerator for 2D block image transfer (blit) operations ■ Embedded SRAM video memory ■ High-Speed Quad SPI (Serial Peripheral Interface for external memory extensions) ■ SDRAM interface for external memory extensions ■ HBI (Hyper Bus Interface) interface for external memory extensions ■ Maximum core system clock frequency : 160 MHz *Note:* − *User can leverage the internal VRAM and external HyperRAM as a graphics memory allowed to be written by GDC.*
15	4. Packages	"Packages" should be corrected as indicated by the shading below. (Error)

(Error)

Product Name / Package	S6E2D35G0A	S6E2D35J0A	S6E2D35GJA
LQFP: FPT-120P-M21 (0.5 mm pitch)	○	-	○
LQFP: FPT-176P-M07 (0.5 mm pitch)	-	○	-
PFBGA: FDJ161 (0.5 mm pitch)	○	-	-
Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)	○		

○: Supported

(Correct)

Product Name / Package	S6E2D35G0A	S6E2D35J0A	S6E2D35GJA
LQFP: FPT-120P-M21 (0.5 mm pitch)	○	-	○
LQFP: FPT-176P-M07 (0.5 mm pitch)	-	○	-
FBGA: FDJ161 (0.5 mm pitch)	○	-	-
Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)	□	-	-

○: Supported □: In development

Page	Item	Description
16, 18	5. Pin Assignment	Signal name should be corrected as below. (Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0 (Correct) GE_HBCSX0 (Error) GE_HBCSX_1 (Correct) GE_HBCSX1
21, 23, 48	6. Pin Descriptions	Signal name should be corrected as below. (Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0 (Correct) GE_HBCSX0 (Error) GE_HBCSX_1 (Correct) GE_HBCSX1
67	10. Block Diagram	Signal name should be corrected as below. (Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0/1 (Correct) GE_HBCSX0/1
93	14.3 DC Characteristics	"VFLASH memory Standby current" should be corrected as indicated by the shading below. (Error) (See table below) (Correct) (See table below)
162, 161, 162	14.4 AC Characteristics	Signal name should be corrected as below. (Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0 (Correct) GE_HBCSX0 (Error) GE_HBCSX_1 (Correct) GE_HBCSX1

(Error)

Parameter	Symbol	Pin name	Conditions	Value Min	Value Typ	Value Max	Unit	Remarks
VFLASH memory Standby current	$I_{CCVFLASH}$	VCC	At Standby	-	15	25	µA	
VFLASH memory Read current			At Read	-	9	14	mA	40MHz
					13	20		80MHz
VFLASH memory write/erase current			At Write/Erase	-	20	25	mA	

(Correct)

Parameter	Symbol	Pin name	Conditions	Value Min	Value Typ	Value Max	Unit	Remarks
VFLASH memory Standby current	$I_{CCVFLASH}$	VCC	At Standby	-	15	35	µA	
VFLASH memory Read current			At Read	-	9	14	mA	40MHz
					13	20		80MHz
VFLASH memory write/erase current			At Write/Erase	-	20	25	mA	

Document History Page

Document Title: Datasheet Errata for the S6E2D3 Series 32-bit ARM® Cortex®-M4F, FM4 Microcontroller Document Number: 002-05036			
Rev.	**ECN No.**	**Orig. of Change**	**Description of Change**
**	–	AKIH	Initial release.
*A	5158612	AKIH	Migrated Spansion Errata sheet from S6E2D3_DS709-00023-1v0-E-DE2 to Cypress format