September 16, 2015

Datasheet Errata for the S6E2DF Series 32-bit ARM® Cortex®-M4F based Microcontroller

This document describes the errata for the S6E2DF Series 32-bit ARM® Cortex®-M4F based Microcontroller Data Sheet. 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
S6E2DF Series

Page	Item	Description
Original document code: DS709-00031-1v0-E
Rev. 1.0 June 25, 2015
64	9. Handling Devices	"Sub Crystal Oscillator" should be added as indicated by the shading below. ■Surface mount type Size:　　　　　More than 3.2 mm × 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
178	15. Ordering Information	Ordering Information should be corrected as indicated by the shading below. (Error) <table><tr><th>Part Number</th><th>Package</th></tr><tr><td>S6E2DF5G0AGV20000</td><td rowspan="2">Plastic・LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)</td></tr><tr><td>S6E2DF5GJAMV20000</td></tr><tr><td>S6E2DF5J0AGV20000</td><td>Plastic・LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)</td></tr><tr><td>S6E2DF5G0AGB30000</td><td>Plastic・PFBGA (0.5 mm pitch), 161 pin (FDJ161)</td></tr><tr><td>S6E2DF5G0AGZ20000</td><td>Plastic・Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)</td></tr></table> (Correct) <table><tr><th>Part Number</th><th>Package</th></tr><tr><td>S6E2DF5G0AGV20000</td><td rowspan="2">Plastic・LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)</td></tr><tr><td>S6E2DF5GJAMV20000</td></tr><tr><td>S6E2DF5J0AGV20000</td><td>Plastic・LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)</td></tr><tr><td>S6E2DF5G0AGB30000</td><td>Plastic・PFBGA (0.5 mm pitch), 161 pin (FDJ161)</td></tr><tr><td>S6E2DF5G0AGE20000</td><td>Plastic・Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)</td></tr></table>

Page	Item	Description
11	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)

Package \ Product Name	S6E2DF5G0A	S6E2DF5J0A	S6E2DF5GJA
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)

Package \ Product Name	S6E2DF5G0A	S6E2DF5J0A	S6E2DF5GJA
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) *(table below)* (Correct) *(table below)*
162, 163, 164	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 S6E2DF Series 32-bit ARM® Cortex®-M4F based Microcontroller Document Number: 002-05043 |||||
Rev.	ECN No.	Orig. of Change	Description of Change	
**	_	AKIH	Initial Release	
*A	5037784	AKIH	Converted to Cypress format	

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