



THIS SPEC IS OBSOLETE

Spec No: 002-05043

Spec Title: DATASHEET ERRATA FOR THE S6E2DF
SERIES 32-BIT ARM (R) CORTEX (R)-M4F
BASED MICROCONTROLLER

Replaced by: NONE

November 29, 2016

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 <table><tr><th rowspan="2">Parameter</th><th rowspan="2">Symbol</th><th rowspan="2">Pin Name</th><th rowspan="2">Conditions</th><th rowspan="2">Frequency (MHz)</th><th colspan="2">Value</th><th rowspan="2">Unit</th><th rowspan="2">Remarks</th></tr><tr><th>Typ</th><th>Max</th></tr><tr><td rowspan="9">Power supply current</td><td rowspan="9">ICCVBAT</td><td rowspan="9">VBAT</td><td rowspan="3">RTC stop</td><td rowspan="9">-</td><td>0.009</td><td>0.032</td><td>μA</td><td>*3, *4, *5 T_A=+25°C</td></tr><tr><td>-</td><td>0.994</td><td>μA</td><td>*3, *4, *5 T_A=+85°C</td></tr><tr><td>-</td><td>1.491</td><td>μA</td><td>*3, *4, *5 T_A=+105°C</td></tr><tr><td colspan="2" rowspan="3">RTC *6 operation</td><td>1.0</td><td>1.636</td><td>μA</td><td>*3, *4 T_A=+25°C</td></tr><tr><td>-</td><td>2.828</td><td>μA</td><td>*3, *4 T_A=+85°C</td></tr><tr><td>-</td><td>4.242</td><td>μA</td><td>*3, *4 T_A=+105°C</td></tr><tr><td colspan="2" rowspan="3">RTC *7 operation</td><td>0.7</td><td>1.153</td><td>μA</td><td>*3, *4 T_A=+25°C</td></tr><tr><td>-</td><td>2.277</td><td>μA</td><td>*3, *4 T_A=+85°C</td></tr><tr><td>-</td><td>3.416</td><td>μA</td><td>*3, *4 T_A=+105°C</td></tr></table> *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)	Parameter	Symbol	Pin Name	Conditions	Frequency (MHz)	Value		Unit	Remarks	Typ	Max	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
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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>	Part Number	Package	S6E2DF5G0AGV20000	Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)	S6E2DF5GJAMV20000	S6E2DF5J0AGV20000	Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)	S6E2DF5G0AGB30000	Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)	S6E2DF5G0AGZ20000	Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)	Part Number	Package	S6E2DF5G0AGV20000	Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)	S6E2DF5GJAMV20000	S6E2DF5J0AGV20000	Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)	S6E2DF5G0AGB30000	Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)	S6E2DF5G0AGE20000	Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)
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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) <table><tr><th>Package \ Product Name</th><th>S6E2DF5G0A</th><th>S6E2DF5J0A</th><th>S6E2DF5GJA</th></tr><tr><td>LQFP: FPT-120P-M21 (0.5 mm pitch)</td><td>○</td><td>-</td><td>○</td></tr><tr><td>LQFP: FPT-176P-M07 (0.5 mm pitch)</td><td>-</td><td>○</td><td>-</td></tr><tr><td>PFBGA: FDJ161 (0.5 mm pitch)</td><td>○</td><td>-</td><td>-</td></tr><tr><td>Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)</td><td>○</td><td></td><td></td></tr></table> ○: Supported (Correct) <table><tr><th>Package \ Product Name</th><th>S6E2DF5G0A</th><th>S6E2DF5J0A</th><th>S6E2DF5GJA</th></tr><tr><td>LQFP: FPT-120P-M21 (0.5 mm pitch)</td><td>○</td><td>-</td><td>○</td></tr><tr><td>LQFP: FPT-176P-M07 (0.5 mm pitch)</td><td>-</td><td>○</td><td>-</td></tr><tr><td>FBGA: FDJ161 (0.5 mm pitch)</td><td>○</td><td>-</td><td>-</td></tr><tr><td>Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)</td><td>◻</td><td>◻</td><td>◻</td></tr></table> ○: Supported ◻: In development	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)	○			Package \ Product Name	S6E2DF5G0A	S6E2DF5J0A	S6E2DF5GJA	LQFP: FPT-120P-M21 (0.5 mm pitch)	○	-	○	LQFP: FPT-176P-M07 (0.5 mm pitch)	-	○	-	F BGA: FDJ161 (0.5 mm pitch)	○	-	-	Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)	◻	◻	◻
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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																																																																																						
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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
*B	5546786	HTER	Made the corrections to datasheet spec, 002-05042; this spec is now obsolete.

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[S6E2DF5G0AGE20000](#)