



THIS SPEC IS OBSOLETE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	<p>"Sub Crystal Oscillator" should be added as indicated by the shading below.</p> <ul style="list-style-type: none"> ■ Surface mount type <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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)

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92	14.3.1 Current Rating	<p>Table 14-10 should be added as indicated by the shading below.</p> <p>Table 14-10 Typical and Maximum Current Consumption in Deep Standby Stop Mode, Deep Standby RTC Mode and VBAT</p> <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">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 colspan="2">RTC *6 operation</td><td>-</td><td>2.828</td><td>μA</td><td>*3, *4 T_A=+85°C</td></tr><tr><td colspan="2">RTC *6 operation</td><td>-</td><td>4.242</td><td>μA</td><td>*3, *4 T_A=+105°C</td></tr><tr><td colspan="2">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 colspan="2">RTC *7 operation</td><td>-</td><td>2.277</td><td>μA</td><td>*3, *4 T_A=+85°C</td></tr><tr><td colspan="2">RTC *7 operation</td><td>-</td><td>3.416</td><td>μA</td><td>*3, *4 T_A=+105°C</td></tr></table> <p>*1: V_{CC}=3.3 V</p> <p>*2: V_{CC}=3.6 V</p> <p>*3: When all ports are fixed.</p> <p>*4: When LVD is OFF</p> <p>*5: When sub oscillation is OFF</p> <p>*6: When using the crystal oscillator of 32 kHz (including the current consumption of the oscillation circuit)</p> <p>When the Standard setting (CCS/CCB=11001110)</p> <p>*7: When using the crystal oscillator of 32 kHz (including the current consumption of the oscillation circuit)</p> <p>When the low power setting (CCS/CCB=00000100)</p>	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	RTC *6 operation		-	2.828	μA	*3, *4 T _A =+85°C	RTC *6 operation		-	4.242	μA	*3, *4 T _A =+105°C	RTC *7 operation		0.7	1.153	μA	*3, *4 T _A =+25°C	RTC *7 operation		-	2.277	μA	*3, *4 T _A =+85°C	RTC *7 operation		-	3.416	μA	*3, *4 T _A =+105°C
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178	15. Ordering Information	<p>Ordering Information should be corrected as indicated by the shading below.</p> <p>(Error)</p> <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> <p>(Correct)</p> <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	<p>Note should be added as indicated by the shading below.</p> <p>(Error)</p> <p>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</p> <p>(Correct)</p> <p>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</p> <p>Note:</p> <ul style="list-style-type: none">- User can leverage the internal VRAM and external HyperRAM as a graphics memory allowed to be written by GDC.																																								
15	4. Packages	<p>“Packages” should be corrected as indicated by the shading below.</p> <p>(Error)</p> <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> <p>○: Supported</p> <p>(Correct)</p> <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> <p>○: Supported □: In development</p>	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)	-	○	-	FBGA : FDJ161 (0.5 mm pitch)	○	-	-	Ex_LQFP(TEQFP): LEM120 (0.5 mm pitch)	□	■	■
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Document History Page

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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.

Cypress Semiconductor
198 Champion Court
San Jose, CA 95134-1709
Phone: 408-943-2600
Fax: 408-943-4730
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