



THIS SPEC IS OBSOLETE

Spec No: 002-05034

Spec Title: DATASHEET ERRATA FOR S6E2D5 SERIES
32-BIT ARM (R) CORTEX (R)-M4F BASED
MICROCONTROLLER

Replaced by: NONE

November 29, 2016

Datasheet Errata for S6E2D5 Series 32-bit ARM® Cortex®-M4F based Microcontroller

This document describes the errata for the S6E2D5 Series 32-bit ARM® Cortex®-M4F based Microcontroller datasheet. 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
S6E2D5 Series

Page	Item	Description
Original document code: DS709-00021-1v0-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) <ul style="list-style-type: none"> 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) <ul style="list-style-type: none"> 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	<div>Table 14-10 should be added as indicated by the shading below.</div> <div>Table 14-10 Typical and Maximum Current Consumption in Deep Standby Stop Mode, Deep Standby RTC Mode and VBAT</div> <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> <div>*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)</div>	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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176	15. Ordering Information	<div>Ordering Information should be corrected as indicated by the shading below.</div> <div>(Error)</div> <table><tr><th>Part Number</th><th>Package</th></tr><tr><td>S6E2D55G0AGV20000</td><td rowspan="2">Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)</td></tr><tr><td>S6E2D55GJAMV20000</td></tr><tr><td>S6E2D55J0AGV20000</td><td>Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)</td></tr><tr><td>S6E2D55G0AGB30000</td><td>Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)</td></tr><tr><td>S6E2D55G0AGZ20000</td><td>Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)</td></tr></table> <div>(Correct)</div> <table><tr><th>Part Number</th><th>Package</th></tr><tr><td>S6E2D55G0AGV20000</td><td rowspan="2">Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)</td></tr><tr><td>S6E2D55GJAMV20000</td></tr><tr><td>S6E2D55J0AGV20000</td><td>Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)</td></tr><tr><td>S6E2D55G0AGB30000</td><td>Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)</td></tr><tr><td>S6E2D55G0AGZ20000</td><td>Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)</td></tr></table>	Part Number	Package	S6E2D55G0AGV20000	Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)	S6E2D55GJAMV20000	S6E2D55J0AGV20000	Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)	S6E2D55G0AGB30000	Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)	S6E2D55G0AGZ20000	Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)	Part Number	Package	S6E2D55G0AGV20000	Plastic • LQFP (0.5 mm pitch), 120 pin (FPT-120P-M21)	S6E2D55GJAMV20000	S6E2D55J0AGV20000	Plastic • LQFP (0.5 mm pitch), 176 pin (FPT-176P-M07)	S6E2D55G0AGB30000	Plastic • PFBGA (0.5 mm pitch), 161 pin (FDJ161)	S6E2D55G0AGZ20000	Plastic • Ex-LQFP (0.5 mm pitch), 120 pin (LEM120)																																		
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Rev. 2.0 September 16, 2015																																																										

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11	2. Features	<p>Note should be added as indicated by the shading below.</p> <p>(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</p> <p>(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</p> <p>Note: User can leverage the internal VRAM and external HyperRAM as a graphics memory allowed to be written by GDC.</p>																																								
15	4. Packages	<p>“Packages” should be corrected as indicated by the shading below.</p> <p>(Error)</p> <table><tr><td>Product Name Package</td><td>S6E2D55G0A</td><td>S6E2D55J0A</td><td>S6E2D55GJA</td></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><td>Product Name Package</td><td>S6E2D55G0A</td><td>S6E2D55J0A</td><td>S6E2D55GJA</td></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>	Product Name Package	S6E2D55G0A	S6E2D55J0A	S6E2D55GJA	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)	○			Product Name Package	S6E2D55G0A	S6E2D55J0A	S6E2D55GJA	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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16, 18	5. Pin Assignment	<p>Signal name should be corrected as below.</p> <p>(Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0 (Correct) GE_HBCSX0 (Error) GE_HBCSX_1 (Correct) GE_HBCSX1</p>																																								
21, 23, 48	6. Pin Descriptions	<p>Signal name should be corrected as below.</p> <p>(Error) GE_SPCSX_0 (Correct) GE_SPCSX0 (Error) GE_HBCSX_0 (Correct) GE_HBCSX0 (Error) GE_HBCSX_1 (Correct) GE_HBCSX1</p>																																								

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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																																																																																		
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Document History Page

Document Title: Datasheet Errata for S6E2D5 Series 32-bit ARM® Cortex®-M4F based Microcontroller Document Number: 002-05034			
Rev.	ECN No.	Orig. of Change	Description of Change
**	—	AKIH	Initial release
*A	5037589	AKIH	Converted to Cypress format
*B	5546786	HTER	Made the corrections to datasheet spec, 002-03982; this spec is now obsolete.

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