

# S1C17 Manual errata

ITEM: Package			
Object manuals	Document codes	Items	Pages
S1C17705/703 Technical Manual	411706602	1.1 Features Table 1.1.1 Features, Shipping form 1 Size / pitch	1-2
		1.3 Pins/Pad 1.3.1 S1C17705 Pin Configuration Diagram	1-4
		27 Package	27-1
Page 1-2, Table 1.1.1 Features, Shipping form 1			
(Error) QFP23-240 (Correct) (This item was deleted.)			
Page 1-2, Table 1.1.1 Features, Size / pitch			
(Error) QFP23-240pin (body size: 32 mm x 32 mm, lead pitch: 0.5 mm)			
(Correct) (This item was deleted.)			
Page 1-4, 1.3.1 S1C17705 Pin Configuration Diagram			
(Error) QFP23-240pin (S1C17705) (Correct) (This item was deleted.)			

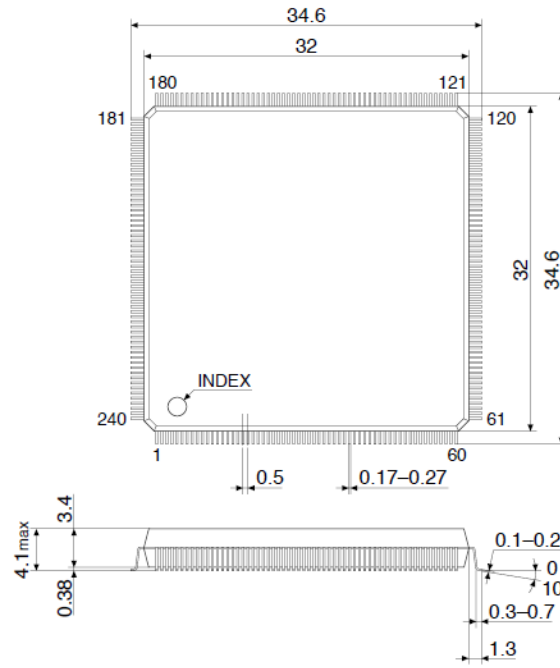
Figure 1.3.1.1 S1C17705 Pin Configuration Diagram (QFP23-240pin)

Page 27-1, 27 Package

(Error) QFP23-240pin package (Correct) (This item was deleted.)

**QFP23-240pin package**

(Unit: mm)



## S1C17 Family Technical Manual Errata

ITEM LCD drive voltage						
Object manual	Document code	Object item	Page			
S1C17701 Technical Manual	411089905	26.4 Analog Circuit Characteristics	26-3			
S1C17702 Technical Manual	411581702	27.4 Analog Circuit Characteristics	27-3			
S1C17704 Technical Manual	411511903	26.4 Analog Circuit Characteristics	26-3			
S1C17705/703 Technical Manual	411706602	25.9 LCD Driver Characteristics	25-10			
S1C17706 Technical Manual	412026401	27.9 LCD Driver Characteristics	27-7			
(Error)						
Unless otherwise specified: $V_{DD} = 1.8$ to $3.6V$ , $V_{SS} = 0V$ , $T_a = 25^\circ C$ , $C_1 - C_{11} = 0.1\mu F$ , Checker pattern displayed, No panel load						
<b>Item</b>	<b>Symbol</b>	<b>Condition</b>	<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>	<b>Unit</b>
LCD drive voltage	V <sub>C1</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C1</sub>	0.18V <sub>C5</sub>		0.22V <sub>C5</sub>	V
	V <sub>C2</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C2</sub>	0.39V <sub>C5</sub>		0.43V <sub>C5</sub>	V
	V <sub>C3</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C3</sub>	0.59V <sub>C5</sub>		0.63V <sub>C5</sub>	V
	V <sub>C4</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C4</sub>	0.79V <sub>C5</sub>		0.83V <sub>C5</sub>	V
	V <sub>C5</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C5</sub>	LC[3:0] = 0x0 LC[3:0] = 0x1 LC[3:0] = 0x2		4.20 4.30 4.40	V V V
(Correct)						
Unless otherwise specified: $V_{DD} = 1.8$ to $3.6V$ , $V_{SS} = 0V$ , $T_a = 25^\circ C$ , $C_1 - C_{11} = 0.1\mu F$ , Checker pattern displayed, No panel load						
<b>Item</b>	<b>Symbol</b>	<b>Condition</b>	<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>	<b>Unit</b>
LCD drive voltage	V <sub>C1</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C1</sub>	0.18V <sub>C5</sub>		0.22V <sub>C5</sub>	V
	V <sub>C2</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C2</sub>	0.39V <sub>C5</sub>		0.43V <sub>C5</sub>	V
	V <sub>C3</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C3</sub>	0.59V <sub>C5</sub>		0.63V <sub>C5</sub>	V
	V <sub>C4</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C4</sub>	0.79V <sub>C5</sub>		0.83V <sub>C5</sub>	V
	V <sub>C5</sub>	Connect 1MΩ load resistor between V <sub>SS</sub> and V <sub>C5</sub>	LC[3:0] = 0x0 LC[3:0] = 0x1 LC[3:0] = 0x2		4.20 4.30 4.40	V V V

## S1C17 Series Technical Manual Errata

ITEM About the CBUFEN register of T16A/T16A2			
Object manual	Document code	Object Item	Page
S1C17624/604/622/602/621 Technical Manual	411914902	13.8 Control Register Details	13-14 13-15
S1C17705/703 Technical Manual	411706602	10.8 Control Register Details	10-19
S1C17706 Technical Manual	412026401	10.8 Control Register Details	10-17
S1C17711 Technical Manual	411905602	10.8 Control Register Details	10-14
S1C17554/564 Technical Manual	411914402	11.8 Control Register Details	11-14
S1C17651 Technical Manual	412120600	12.8 Control Register Details	12-13
<p><b>Page 13-14 13-15</b> S1C624/604/622/602/621 Technical Manual</p> <p><b>Page 10-17</b> S1C17706 Technical Manual</p> <p><b>Page 12-13</b> S1C17651 Technical Manual</p>			
<p>(Error)</p> <p><b>D3 CBUFEN: Compare Buffer Enable Bit</b></p> <p>Enables or disables writing to the compare buffer.</p> <p>1 (R/W): Enabled</p> <p>0 (R/W): Disabled (default)</p> <p>Setting CBUFEN to 1 enables the compare buffer. The compare A and B signals will be generated by comparing the counter values with the compare A and B buffer values instead of the compare A and B register values. The compare A and B register values written via software are loaded to the compare A and B buffers when the compare B signal is generated.</p> <p>Setting CBUFEN to 0 disables the compare buffer. The compare A and B signals will be generated by comparing the counter values with the compare A and B register values.</p> <p><b>Note:</b> Make sure the counter is halted (PRUN = 0) before setting CBUFEN.</p>			
<p>(Correct)</p> <p><b>D3 CBUFEN: Compare Buffer Enable Bit</b></p> <p>Enables or disables writing to the compare buffer.</p> <p>1 (R/W): Enabled</p> <p>0 (R/W): Disabled (default)</p> <p>Setting CBUFEN to 1 enables the compare buffer. The compare A and B signals will be generated by comparing the counter values with the compare A and B buffer values instead of the compare A and B register values. The compare A and B register values written via software are loaded to the compare</p>			

A and B buffers when the compare B signal is generated.

Setting CBUFEN to 0 disables the compare buffer. The compare A and B signals will be generated by comparing the counter values with the compare A and B register values.

**Note:** Make sure the counter is halted (**CLKEN** = 0) before setting CBUFEN.

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**Page 10-14** S1C17711 Technical Manual

**Page 11-14** S1C17554/564 Technical Manual

(Error)

**D3 CBUFEN: Compare Buffer Enable Bit**

Enables or disables writing to the compare buffer.

1 (R/W): Enabled

0 (R/W): Disabled (default)

When CBUFEN is set to 1, compare data is written via the compare data buffer. The buffer contents are loaded into the compare A and compare B registers when the compare B signal is generated.

When CBUFEN is set to 0, compare data is written directly to the compare A and compare B registers.

**Note:** Make sure the counter is halted (**PRUN** = 0) before setting CBUFEN.

(Correct)

**D3 CBUFEN: Compare Buffer Enable Bit**

Enables or disables writing to the compare buffer.

1 (R/W): Enabled

0 (R/W): Disabled (default)

When CBUFEN is set to 1, compare data is written via the compare data buffer. The buffer contents are loaded into the compare A and compare B registers when the compare B signal is generated.

When CBUFEN is set to 0, compare data is written directly to the compare A and compare B registers.

**Note:** Make sure the counter is halted (**CLKEN** = 0) before setting CBUFEN.

## S1C17 Series Technical Manual Errata

ITEM Transmission buffer empty interrupt at SPI slave mode			
Object manual	Document code	Object Item	Page
S1C17003 Technical Manual	411635102	19.6 SPI Interrupts	19-8
		19.7 Control Register Details	19-13
		19.8 Precautions	19-15
S1C17705/703 Technical Manual	411706602	19.6 SPI Interrupts	15-5
		19.7 Control Register Details	15-8
<b>Page 19-8</b> S1C17003 Technical Manual			
(Error)			
<b>Transmit buffer empty interrupt</b>			
To use this interrupt, set SPTIE (D4/SPI_CTL register) to 1. If SPTIE is set to 0 (default), interrupt requests for this factor will not be sent to the ITC.			
* <b>SPTIE</b> : Transmit Data Buffer Empty Interrupt Enable Bit in the SPI Control (SPI_CTL) Register (D4/0x4326)			
When transmission data written to the transmit data buffer is transferred to the shift register, the SPI module sets the SPTBE bit (D0/SPI_ST register) to 1, indicating that the transmit data buffer is empty. If transmit buffer empty interrupts are permitted (SPTIE = 1), an interrupt request pulse is sent simultaneously to the ITC.			
* <b>SPTBE</b> : Transmit Data Buffer Empty Flag in the SPI Status (SPI_ST) Register (D0/0x4320)			
An interrupt occurs if other interrupt conditions are met.			
You can inspect the SPTBE flag in the SPI interrupt processing routine to determine whether the SPI interrupt is attributable to a transmit buffer empty. If SPTBE is 1, the next transmission data can be written to the transmit data buffer by the interrupt processing routine.			
(Correct)			
<b>Transmit buffer empty interrupt</b>			
To use this interrupt, set SPTIE (D4/SPI_CTL register) to 1. If SPTIE is set to 0 (default), interrupt requests for this factor will not be sent to the ITC.			
* <b>SPTIE</b> : Transmit Data Buffer Empty Interrupt Enable Bit in the SPI Control (SPI_CTL) Register (D4/0x4326)			
When transmission data written to the transmit data buffer is transferred to the shift register, the SPI module sets the SPTBE bit (D0/SPI_ST register) to 1, indicating that the transmit data buffer is empty. If transmit buffer empty interrupts are permitted (SPTIE = 1), an interrupt request pulse is sent			

simultaneously to the ITC.

\* **SPTBE**: Transmit Data Buffer Empty Flag in the SPI Status (SPI\_ST) Register (D0/0x4320)

An interrupt occurs if other interrupt conditions are met.

You can inspect the SPTBE flag in the SPI interrupt processing routine to determine whether the SPI interrupt is attributable to a transmit buffer empty. If SPTBE is 1, the next transmission data can be written to the transmit data buffer by the interrupt processing routine.

**Note: the transmit buffer empty interrupt can only be used in master mode.**

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(Error)

**D4 SPTIE: Transmit Data Buffer Empty Interrupt Enable Bit**

Permits or prohibits transmit data buffer empty SPI interrupts.

1 (R/W): Permitted

0 (R/W): Prohibited (default)

Setting SPTIE to 1 permits the output of SPI interrupt requests to the ITC due to a transmit data buffer empty. These interrupt requests are generated when the data written to the transmit data buffer is transferred to the shift register (when transmission starts). SPI interrupts are not generated by transmit data buffer empty if SPTIE is set to 0.

(Correct)

**D4 SPTIE: Transmit Data Buffer Empty Interrupt Enable Bit**

Permits or prohibits transmit data buffer empty SPI interrupts.

1 (R/W): Permitted

0 (R/W): Prohibited (default)

Setting SPTIE to 1 permits the output of SPI interrupt requests to the ITC due to a transmit data buffer empty. These interrupt requests are generated when the data written to the transmit data buffer is transferred to the shift register (when transmission starts). SPI interrupts are not generated by transmit data buffer empty if SPTIE is set to 0.

**Note: the transmit buffer empty interrupt can only be used in master mode.**

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(Error)

- Do not access the SPI\_CTL register (0x4326) while the SPBY flag (D2/SPI\_ST register) is set to 1, or the SPRBF flag (D1/SPI\_ST register) is set to 1 (while sending or receiving data).

\* **SPBSY**: Transfer Busy Flag in the SPI Status (SPI\_ST) Register (D2/0x4320)

\* **SPRBF**: Receive Data Buffer Full Flag in the SPI Status (SPI\_ST) Register (D1/0x4320)

- Do not gain write access to read registers (the SPI\_ST and SPI\_RXD registers) while sending/receiving data via SPI.

(Correct)

- Do not access the SPI\_CTL register (0x4326) while the SPBY flag (D2/SPI\_ST register) is set to 1, or the SPRBF flag (D1/SPI\_ST register) is set to 1 (while sending or receiving data).
  - \* **SPBSY**: Transfer Busy Flag in the SPI Status (SPI\_ST) Register (D2/0x4320)
  - \* **SPRBF**: Receive Data Buffer Full Flag in the SPI Status (SPI\_ST) Register (D1/0x4320)
- Do not gain write access to read registers (the SPI\_ST and SPI\_RXD registers) while sending/receiving data via SPI.
- **The transmit buffer empty interrupt can only be used in master mode.**

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(Error)

#### **Transmit buffer empty interrupt**

To use this interrupt, set SPTIE/SPI\_CTLx register to 1. If SPTIE is set to 0 (default), interrupt requests for this factor will not be sent to the ITC.

When transmission data written to the transmit data buffer is transferred to the shift register, the SPI module sets the SPTBE/SPI\_STx register to 1, indicating that the transmit data buffer is empty. If transmit buffer empty interrupts are permitted (SPTIE = 1), an interrupt request pulse is sent simultaneously to the ITC.

An interrupt occurs if other interrupt conditions are met. You can inspect the SPTBE flag in the SPI interrupt handler routine to determine whether the SPI interrupt is attributable to a transmit buffer empty. If SPTBE is 1, the next transmit data can be written to the transmit data buffer by the interrupt handler routine.

(Correct)

#### **Transmit buffer empty interrupt**

To use this interrupt, set SPTIE/SPI\_CTLx register to 1. If SPTIE is set to 0 (default), interrupt requests for this factor will not be sent to the ITC.

When transmission data written to the transmit data buffer is transferred to the shift register, the SPI module sets the SPTBE/SPI\_STx register to 1, indicating that the transmit data buffer is empty. If transmit buffer empty interrupts are permitted (SPTIE = 1), an interrupt request pulse is sent simultaneously to the ITC.

An interrupt occurs if other interrupt conditions are met. You can inspect the SPTBE flag in the SPI interrupt handler routine to determine whether the SPI interrupt is attributable to a transmit buffer empty. If SPTBE is 1, the next transmit data can be written to the transmit data buffer by the interrupt handler routine.

**Note: the transmit buffer empty interrupt can only be used in master mode.**



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(Error)

**D4 SPTIE: Transmit Data Buffer Empty Interrupt Enable Bit**

Enables or disables SPI transmit data buffer empty interrupts.

1 (R/W): Enabled

0 (R/W): Disabled (default)

Setting SPTIE to 1 enables the output of SPI interrupt requests to the ITC due to a transmit data buffer empty. These interrupt requests are generated when the data written to the transmit data buffer is transferred to the shift register (when transmission starts).

SPI interrupts are not generated by transmit data buffer empty if SPTIE is set to 0.

(Correct)

**D4 SPTIE: Transmit Data Buffer Empty Interrupt Enable Bit**

Enables or disables SPI transmit data buffer empty interrupts.

1 (R/W): Enabled

0 (R/W): Disabled (default)

Setting SPTIE to 1 enables the output of SPI interrupt requests to the ITC due to a transmit data buffer empty. These interrupt requests are generated when the data written to the transmit data buffer is transferred to the shift register (when transmission starts).

SPI interrupts are not generated by transmit data buffer empty if SPTIE is set to 0.

**Note: the transmit buffer empty interrupt can only be used in master mode.**