

AN10668

SC18IS602 revision A die errata

Rev. 01 — 29 November 2007

Application note

Document information

Info	Content
Keywords	SC18IS602, I2C-to-SPI master, I2C to SPI/GPIO
Abstract	This application note discusses the issues, the root causes and the impact of the SC18IS602 Rev A to customers' designs. The application note also proposes hardware or software work-around for each of the known issues.

Revision history

Rev	Date	Description
01	20071129	application note; initial version

Contact information

For additional information, please visit: <http://www.nxp.com>

For sales office addresses, please send an email to: salesaddresses@nxp.com

1. Introduction

The issue described in this application note affect SC18IS602 Rev A parts.

2. Description of the issues

The $\overline{SS2}$ pin of the SC18IS602 cannot be controlled by software. The pin is stuck at logic HIGH state.

The SC18IS602 has four slave select pins: $\overline{SS0}$, $\overline{SS1}$, $\overline{SS2}$ and $\overline{SS3}$. After reset, the slave select (\overline{SS}) pins are configured to be used as SPI (Serial Peripheral Interface) chip select outputs. If these pins are not used for the SPI functions, they can be used as GPIO (General Purpose Input/Output) after they are enabled as GPIO. After one of the four \overline{SS} pins is configured as GPIO and the other pins are configured as SPI slave select pins, the SPI slave select pins will not be functioning and the SPI data is not generated until the GPIO enable (register 0xF6) is cleared or set back to 0x00.

3. Impact to customer

The customer must use $\overline{SS0}$, $\overline{SS1}$, or $\overline{SS3}$ as the SPI chip select signal.

If the GPIO enable is not set to logic 0 after enabling it, the SPI slave select pins will not work and the SPI data will not be generated.

4. Work-around

There is no known work-around for the $\overline{SS2}$ pin issue. Customer must use one of the other three \overline{SS} pins as the SPI chip select output.

After the GPIO enable is set, the GPIO enable (register 0xF6) must be cleared or set to logic 0 prior to sending the SPI data.

5. Conclusion

These issues are fixed in SC18IS602 Rev B.

6. Legal information

6.1 Definitions

Draft — The document is a draft version only. The content is still under internal review and subject to formal approval, which may result in modifications or additions. NXP Semiconductors does not give any representations or warranties as to the accuracy or completeness of information included herein and shall have no liability for the consequences of use of such information.

6.2 Disclaimers

General — Information in this document is believed to be accurate and reliable. However, NXP Semiconductors does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information.

Right to make changes — NXP Semiconductors reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

Suitability for use — NXP Semiconductors products are not designed, authorized or warranted to be suitable for use in medical, military, aircraft, space or life support equipment, nor in applications where failure or malfunction of a NXP Semiconductors product can reasonably be expected to result in personal injury, death or severe property or environmental damage. NXP Semiconductors accepts no liability for inclusion and/or use of NXP Semiconductors products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

Applications — Applications that are described herein for any of these products are for illustrative purposes only. NXP Semiconductors makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

6.3 Trademarks

Notice: All referenced brands, product names, service names and trademarks are the property of their respective owners.

7. Contents

1	Introduction	3
2	Description of the issues	3
3	Impact to customer	3
4	Work-around.	3
5	Conclusion	3
6	Legal information.	4
6.1	Definitions	4
6.2	Disclaimers	4
6.3	Trademarks.	4
7	Contents	5

Please be aware that important notices concerning this document and the product(s) described herein, have been included in section 'Legal information'.



© NXP B.V. 2007.

All rights reserved.

For more information, please visit: <http://www.nxp.com>
 For sales office addresses, please send an email to: salesaddresses@nxp.com

Date of release: 29 November 2007
 Document identifier: AN10668_1