STEVAL-PCC009V1

Universal USB to serial communication interface demonstration board based on the STM32

Data brief

Features

- Two PC GUIs are supported:
  - Universal dongle PC GUI: this PC GUI allows interfacing SPI, I2C and UART interface and controlling the communication parameters with the help of GUI itself
  - DFU mode PC GUI: this PC GUI allows changing the firmware if required by the user to suit its applications
- DLL files of the I2C, SPI and UART Interface are supplied
- Source code (including DFU)
- RoHS compliant

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Description

This demonstration board implements an universal USB to serial communication interface (UUSCI) based on STM32.

This demoboard has a 10 pin interface. In this interface, there is a provision to connect a device which can communicate using I2C, SPI and UART. Thus UUSCI tool allows a user to connect a serial communication based device to a PC. At the same time it allows to control some GPIOs available in that 10 pin interface and set them in input/output modes as per the application requirements.

In UUSCI demonstration board, the STM32 microcontroller is used as the interface between PC and the end device. Due to intelligence available in the STM32 device, I2C, SPI and UART are multiplexed in same 10 pin interface thus leading to reduced board size and the complexity of usage.

Power to board is provided from USB Mini B-Type connector.

DLL files of the PC GUI are provided with this tool. So a user can use these DLL files to make their own customized PC GUI as per their requirements.

Warning: **In order to use this evaluation board connected to a PC, a recent version of Windows®, such as Windows2000® or Windows XP® must be installed.**

1 Circuit schematics

Figure 1. Microcontroler section

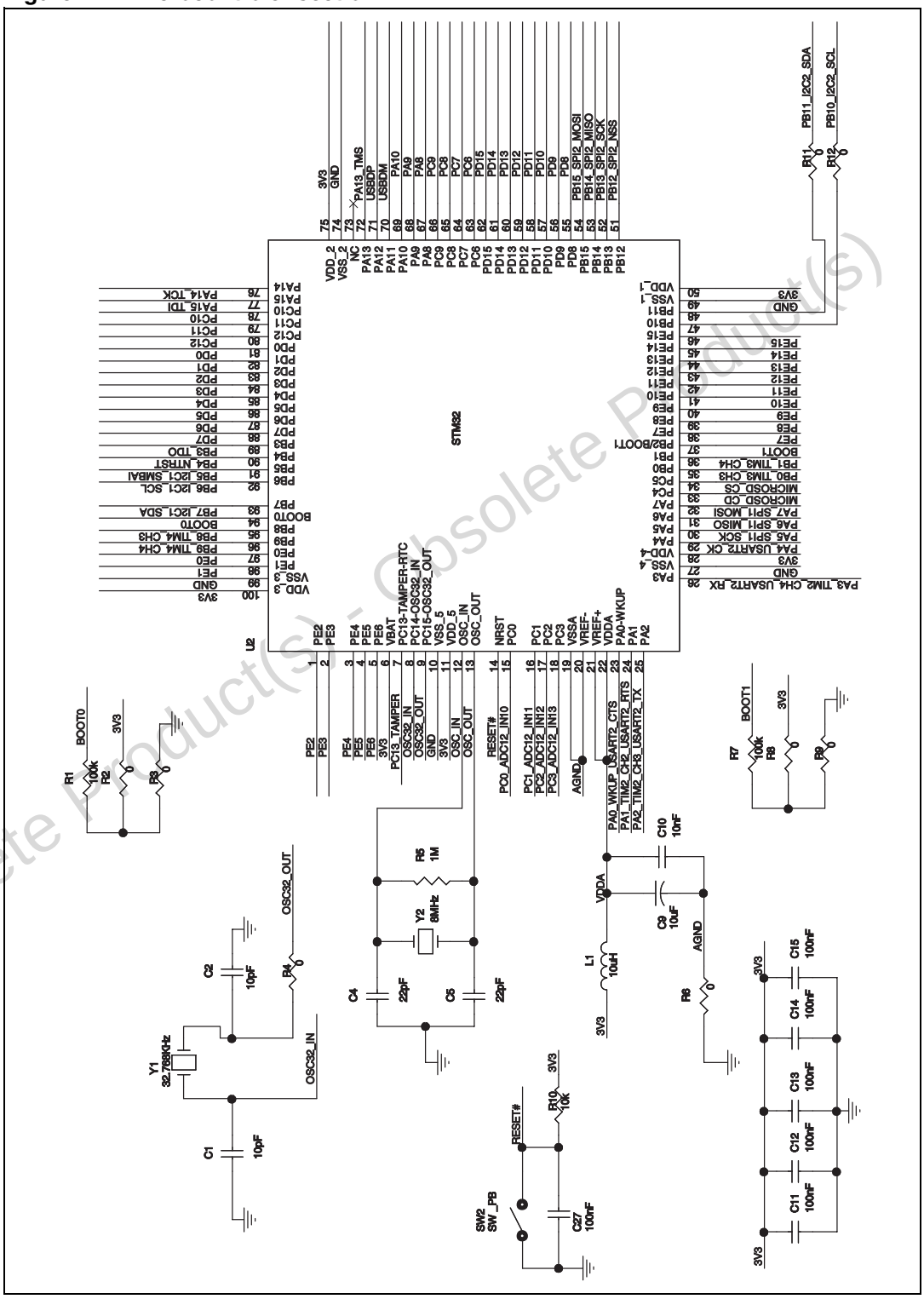


Figure 2. Synchronous COM interface

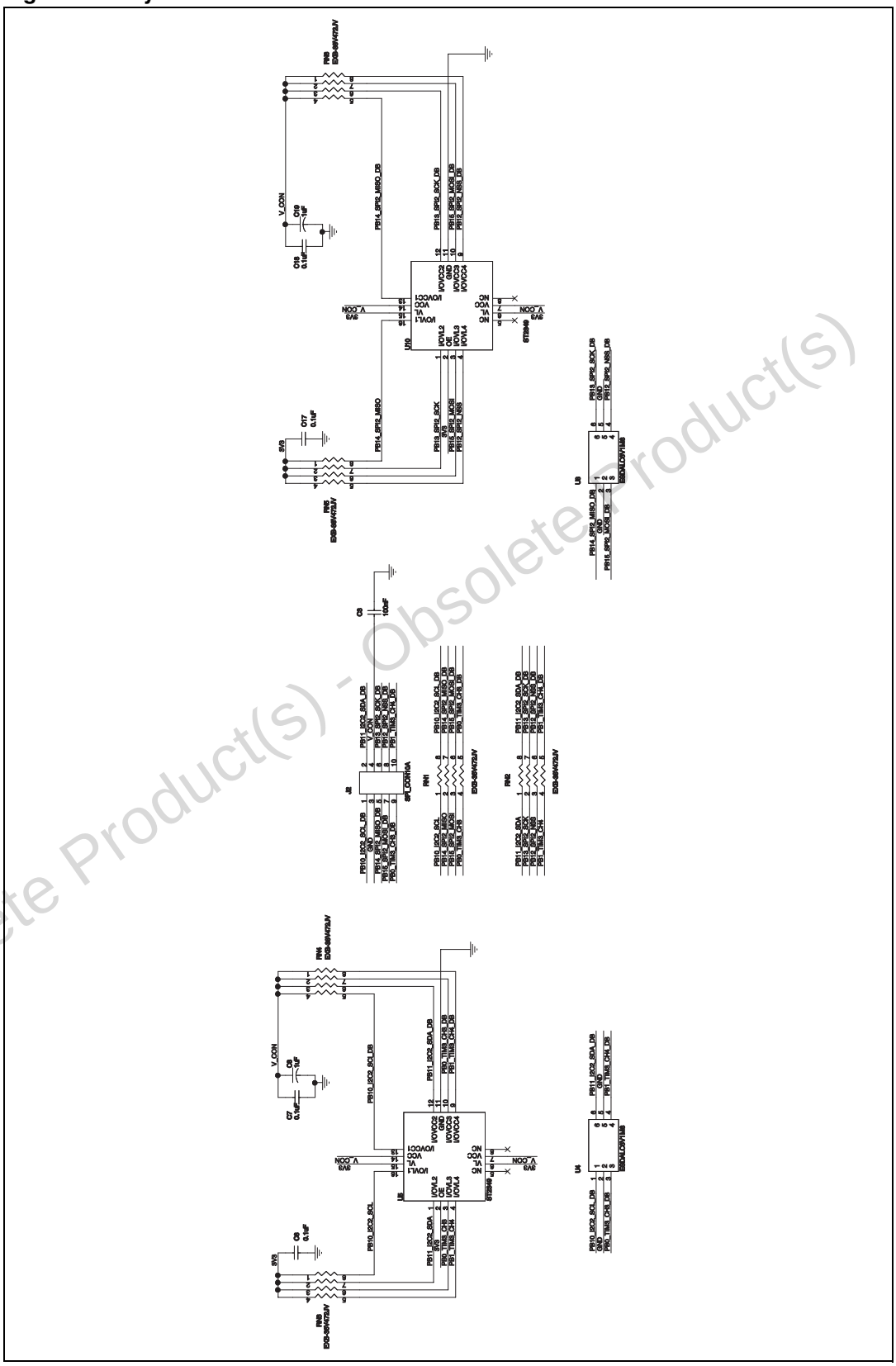


Figure 3. Extension board interface

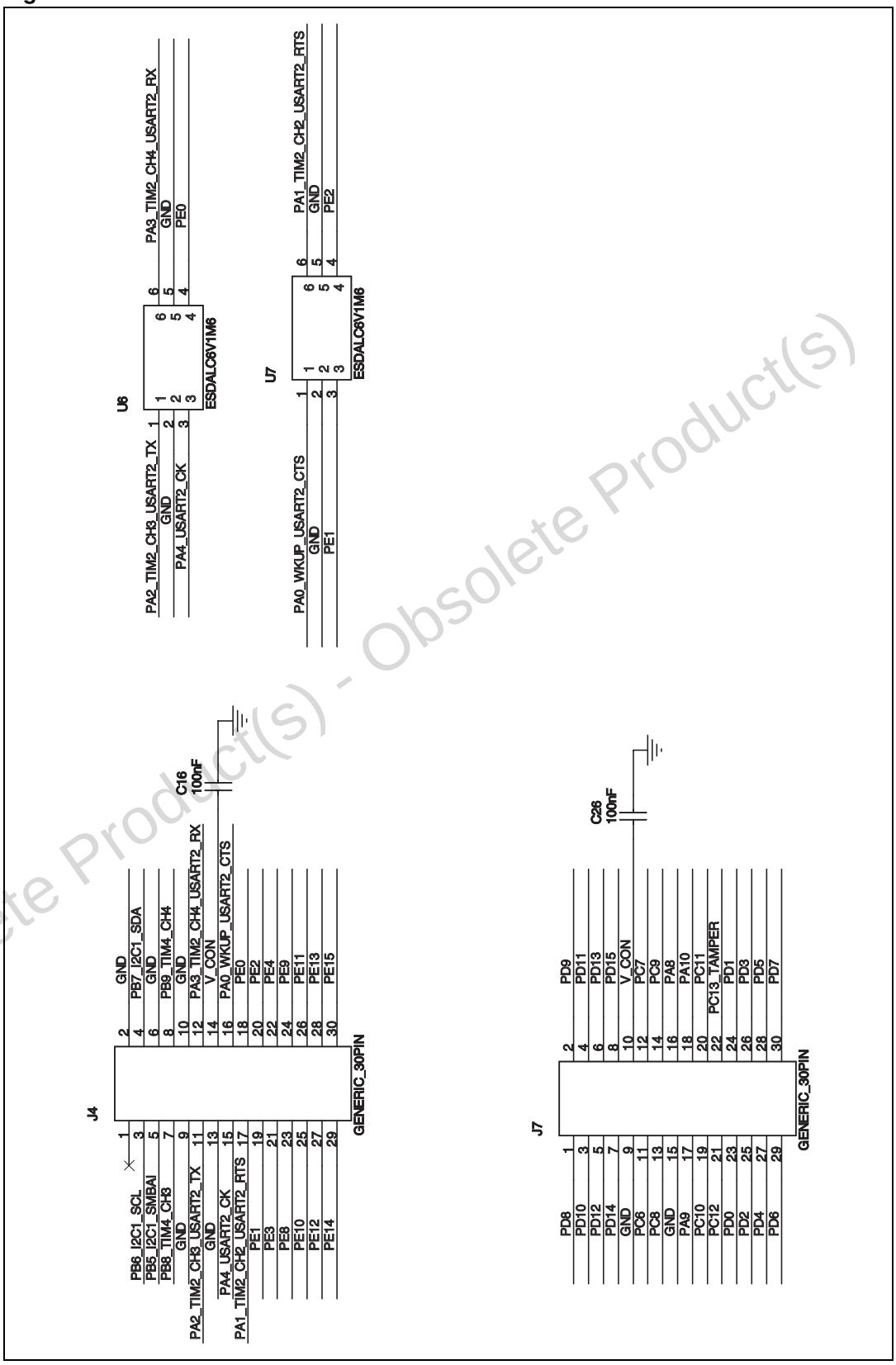
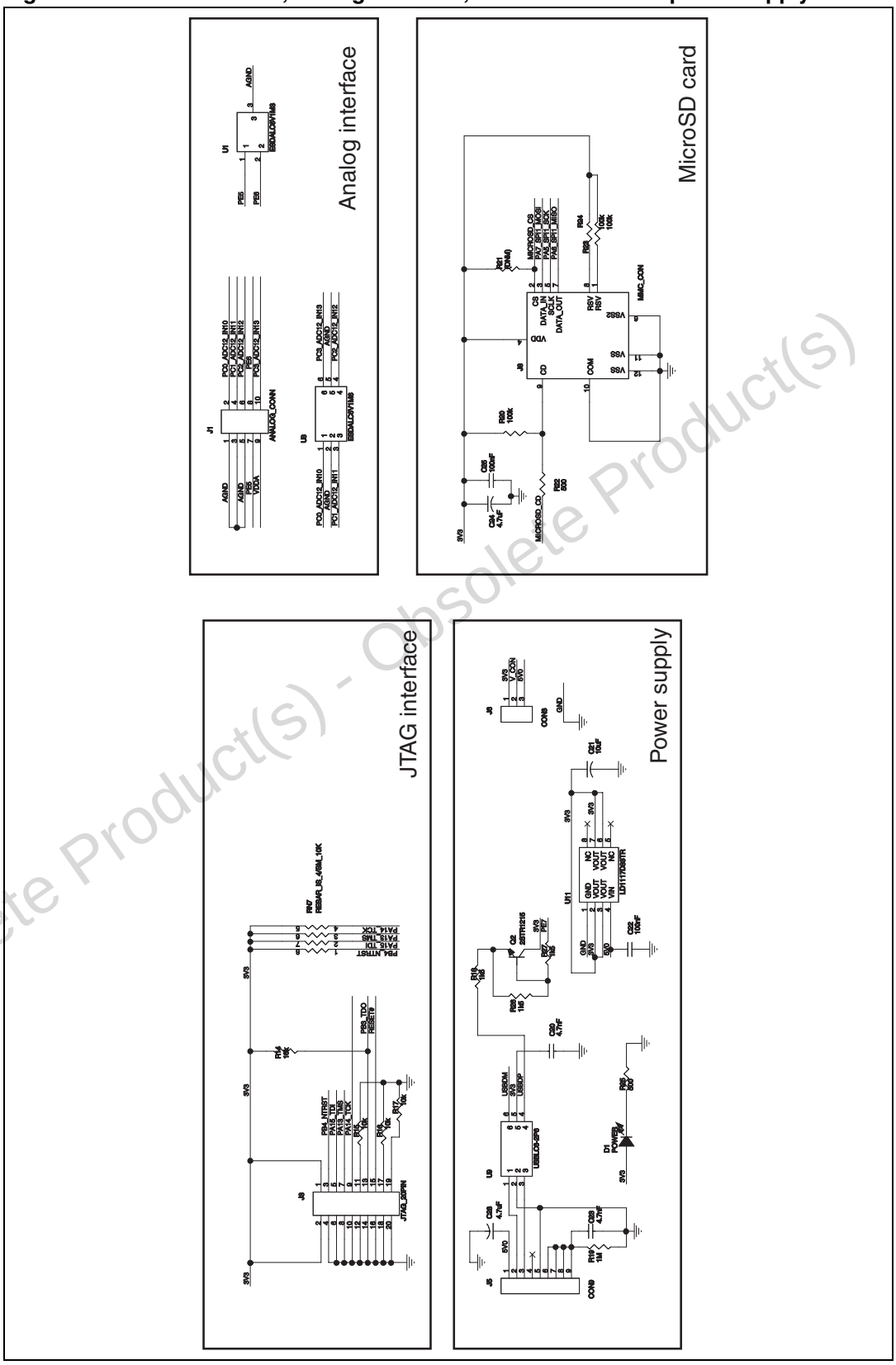


Figure 4. JTAG interface, analog interface, microSD card and power supply



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
10-Apr-2009	1	Initial release.
04-May-2010	2	Updated picture on cover page.