

Programmable interface for PC communication to automotive target systems

Data brief



Features

- USB connection to PC
- 2 CAN channels (1x ST-L9616 CAN transceiver)
- 1 LIN (transceiver, multiplexed from SCI)
- 1 UART (ST-RS232 transceiver, multiplexed from SCI)
- 1 Kline (ST-L9637D transceiver, multiplexed from SCI)
- 18 GPIO's (6 eMIOS)
- 4 ADC channels
- 2 SPI with 6 Chip Select (shared with GPIO)
- 1 NMI
- 3 LEDs (one power-on LED controllable via software);
- Reset control
- Integrated automotive microcontroller SPC563M64
- Flat cable with connectors included:
 - 14 pin header connector
 - DB9 connector for CAN/UART
- Extended features (on board):
 - Two header connectors for easy signals access
 - JTAG 14-pin header connector

- 5 V supply option for stand-alone operations
- Specification:
 - Plastic Box size: 114 x 74 x 25 mm

Description

The SPC5 Connect is a programmable USB interface designed to connect a PC to development hardware or integrated modules via automotive communications channels such as CAN, SCI, LIN and K-Line.

Based on the 32bit SPC563M64 microcontroller the SPC5 Connect offers from a PC via USB full access to the integrated microcontroller features like I/O signals, analog channels, external interrupts input and automotive communication buses such as CAN, UART, K-Line, LIN and SPI.

The hardware features, also accessible through the Script Engine firmware, makes the SPC5 Connect a powerful, low cost and easy to use tool for rapid development of small scripts in lab applications.

The included extension flat cable with the 14 pin header connector and the DB9 connector makes possible to easily connect a daughter board or wrapping board for a specific application.

SPC5 Connect is supported by a specific set of software tools which allows easy programming of the device together with basic control and monitoring features of target signals. The software application has been designed by STMicroelectronics experts.

Table 1. Device summary

| Order code | Reference |
|--------------|-----------------------|
| SPC5-CONNECT | SPC5 Connect hardware |

1 System requirements, HW and SW resources

1.1 System requirements

- Windows PC (XP, Vista, 7)

1.2 Development toolchains

- Green Hills MULTI
- Wind River diab
- PLS UADx/UDE
- Lauterbach Trace 32
- iSystem IC3000/5000

1.3 Demonstration software

The latest versions of support software can be obtained from www.st.com.

1.4 Package contents

The content of package consists of:

- SPC5 Connect hardware
- USB cable (USB A to USB mini)
- Flat cable with one DB9 connector and one 14 pin header
- Mini CD-ROM with documentation

2 Revision history

Table 2. Document revision history

| Date | Revision | Changes |
|-------------|-----------------|---------------------|
| 05-Sep-2013 | 1 | Initial release. |
| 17-Sep-2013 | 2 | Updated Disclaimer. |

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