SPC584B-DISP: Discovery kit featuring SPC58 4B Line MCU in eTQFP144

Data brief
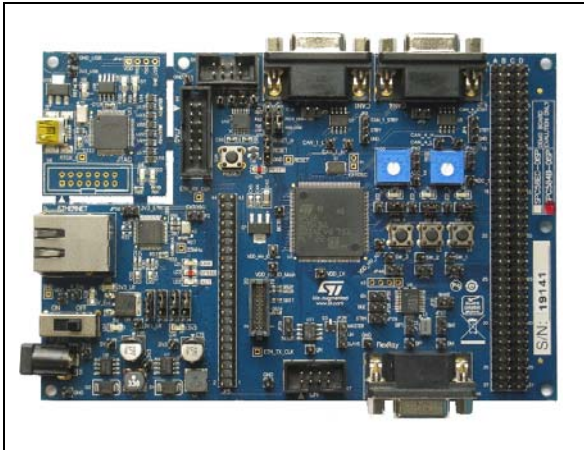

Table 1. Device summary

Order Code	Reference
SPC584B-DISP	SPC584B Discovery with SPC584B70E5

Features

- Featuring SPC584B70E5, 32-bit Power Architecture e200z4, 2MB flash in eTQFP144 package

- 2 ISO CAN FD port (DB9 connector)

- 1 Ethernet port

- 1 FlexRay

- 1 LIN (with transceiver)

- PLS Integrated Programmer-debugger

- JTAG interface (Standard 7x2 male 100mil)

- 1 USB virtual COM Port

- 3 Push buttons, 3 LEDs for user purposes, Reset push button

- 2 potentiometers for ADC quick evaluation

- All GPIOs and signals accessible by a 4x37 0.1" pin grid array allowing connection of an additional board

- Board Supply: 12 VDC (external power supply)

- Board size 150 x 101 mm

1   Description

The SPC584B-DISP is the ideal discovery board for accelerating the development and securing a fast time-to-market, with a perfect balance among performance, functionalities and cost.

Featuring SPC58 Chorus 4B Line microcontrollers, it addresses a wide range of automotive applications such as body and gateway, in which safety and security needs are growing.

SPC58 Chorus 4B Line is designed to meet ASIL-B functional safety level, in compliance with ISO26262, and it embeds a Hardware Security Module (HSM) meeting EVITA Medium level to grant protection and secure communication.

For most demanding applications requiring the highest security level, the SPC584B-DISP board offers the capability to add the external HSM ST device ST33 (sensitive information, please contact ST Representative for details).

The board provides full access to all CPU's signals and GPIO's, and exposes a wide set of connectivity options, such as CAN-FD, Ethernet, FlexRay, LIN, UART.

It offers easy debug with the on-board PLS debugger-programmer. PLS Universal Debug Engine Software is available for free download at https://www.st.com/en/product/spc5-udestk-sw and includes a code size limited full feature evaluation license.

Additional SW licenses are available at https://www.st.com/en/product/spc5-udedebg.

It also includes extension headers (4x37 pins) to connect prototyping boards or additional modules, as well as push switches and LEDs for HMI customization. Power supply (EU plug) included in the box for immediate plug and play.

ST's SPC5Studio, is an Eclipse-based integrated Development Environment, providing a comprehensive framework to design, build and deploy your own embedded application. SPC5Studio is available for free download www.st.com/spc5studio and includes multiple free application firmware examples ready for use.

Chorus family provides a great scalability across lines offering pin-to-pin compatibility, for design-variants or future requirements, minimizing the challenges and securing the best time-to-market.

SPC584B-DIS board is fully Hardware compatible with SPC582B-DIS board; this will allow a seamless transition from SPC58 Chorus 4B Line to SPC58 Chorus 2B Line.

Learn more and share your experience joining ST Community at https://community.st.com.

2 System requirements, HW and SW resources

2.1 System requirements

- Windows PC
- USB cable: type A to mini-B
- PSU: 12 V -2 A power supply (Included - EU Plug)

2.2 Development toolchain

SPC5Studio.

2.3 Demonstration software

Demonstration software is preloaded in the MCU Flash memory for easy demonstration of the SPC584B-DISP in stand-alone mode.

3 Revision history

Table 2. Document revision history

Date	Revision	Changes
27-Jul-2018	1	Initial release.
18-Jul-2019	2	Updated title, *Features* and *Description*.