SPC56A-Discovery

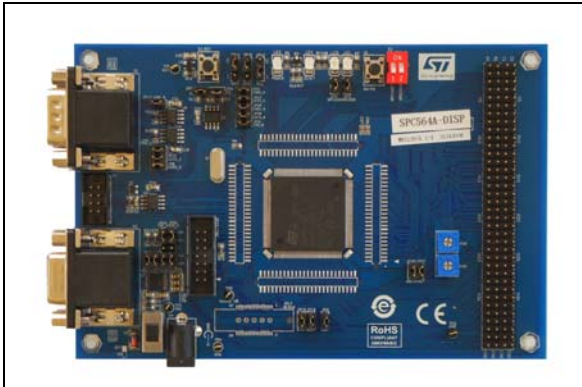## SPC564A-DISP: Discovery+ evaluation board

Features

- SPC564A70L7 32-bit 150 MHz e200z4 Power Architecture® core, 2Mbyte on-chip in an LQFP176 package.

- Board Supply: Single 5VDC external power supply input.

- All GPIOs and DSPI/uSB signals accessible by a 4x36 100mil pin grid array allowing connection of an additional boards for dedicated applications.

- JTAG interface (7 x 2 male 100 mil)

- 2 high speed CAN interface (DB9 male) + 1x extra CAN (2 headers)

- 2 eSCI interface (DB9 female) or 1

- SCI interface + 1 K-LINE interface.

- 2 deserial serial peripheral interface (DSPI) modules (compatible with Microsecond Bus)

- 1 Optional high speed Nexus interface

- 4 LEDs: LE3 for 5 V power on,LE4 for Reset, LE1 and LE2 for GPIO99 and GPIO98 (for user)

- 12 MHz crystal.

- 2 potentiometers for ADC quick evaluation

- Reset push button.

- Board size 145 x 97.5mm

Description

The SPC56A-DISP Discovery+ kit helps to discover SPC56 A line Power Architecture Microcontrollers with full access to CPUs, GPI/O's and peripherals such as CAN, UART, JTAG, K-Line, LIN at budget price.

Free ready-to-run application firmware examples are available inside SPC5Studio to support quick evaluation and development.

SPC5Studio includes visual configurable code generation engine, board support package (BSP), startup routines, interrupt services, free RTOS (optional) and a full set of low level drivers. SPC5Studio includes HighTec GNU "C" compiler, with a 30-days full free trial support. SPC5Studio is available for free download.

The SPC56A line is designed to address the most complex automotive power train and transmission applications.

The SPC56A key functionality is Time processing units (eTPU) a coprocessor to create events in sync with internal or external signals without flooding the CPU with interrupt to serve.

An E2E Community is available on ST WEB to get ST experts support in getting started quickly with SPC56 microcontrollers.

Table 1. Device summary

Order code	Reference
SPC564A-DISP	SPC56A DISCOVERY+ with SPC564A70L7

www.st.com

Contents

1 System requirements, HW and SW resources

1.1 System requirements

- Windows PC (XP, 7)

1.2 Development toolchain

- SPC5Studio (includes Hightec GNU "C" compiler, with a 30-days full free trial support)
- SPC5-UDESTK

1.3 Demonstration software

Demonstration software is preloaded in the MCU flash memory for easy demonstration of the SPC563A70L7 in stand-alone mode.

2 Revision history

Table 2. Revision history

Date	Revision	Changes
31-Oct-2013	1	Initial release.
11-Dec-2013	2	Change the figure in the cover page.
19-Mar-2014	3	Updated Figure in the cover page and Description.