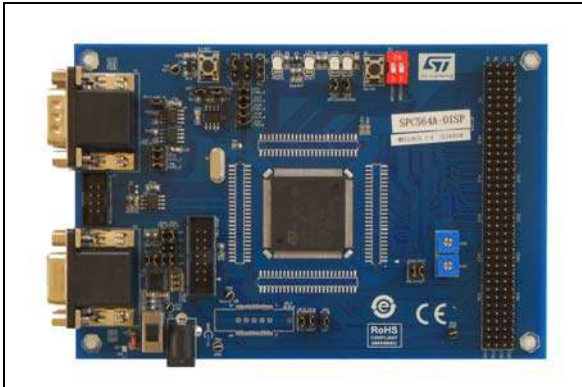


SPC564A-DISP: Discovery+ evaluation board

Data brief - production data



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

Contents

1	System requirements, HW and SW resources	3
1.1	System requirements	3
1.2	Development toolchain	3
1.3	Demonstration software	3
2	Revision history	4

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.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

ST PRODUCTS ARE NOT DESIGNED OR AUTHORIZED FOR USE IN: (A) SAFETY CRITICAL APPLICATIONS SUCH AS LIFE SUPPORTING, ACTIVE IMPLANTED DEVICES OR SYSTEMS WITH PRODUCT FUNCTIONAL SAFETY REQUIREMENTS; (B) AERONAUTIC APPLICATIONS; (C) AUTOMOTIVE APPLICATIONS OR ENVIRONMENTS, AND/OR (D) AEROSPACE APPLICATIONS OR ENVIRONMENTS. WHERE ST PRODUCTS ARE NOT DESIGNED FOR SUCH USE, THE PURCHASER SHALL USE PRODUCTS AT PURCHASER'S SOLE RISK, EVEN IF ST HAS BEEN INFORMED IN WRITING OF SUCH USAGE, UNLESS A PRODUCT IS EXPRESSLY DESIGNATED BY ST AS BEING INTENDED FOR "AUTOMOTIVE, AUTOMOTIVE SAFETY OR MEDICAL" INDUSTRY DOMAINS ACCORDING TO ST PRODUCT DESIGN SPECIFICATIONS. PRODUCTS FORMALLY ESCC, QML OR JAN QUALIFIED ARE DEEMED SUITABLE FOR USE IN AEROSPACE BY THE CORRESPONDING GOVERNMENTAL AGENCY.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2014 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

