

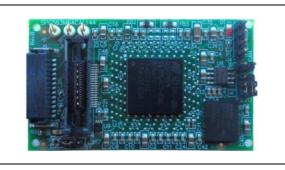
#### SPC563M64CAL144/176

# SPC563M64CALxx microcontroller family calibration and emulation system

Data brief

#### **Features**

- Support for LQFP144 and LQFP176 MCU production packages allowing calibration systems to be built without requiring modifications to the standard production system housing
- 2MByte static RAM organized as 1024K words by 16 bits
- On-board latch providing a 16-bit demultiplexed bus interface from the SPC563M64 16-bit multiplexed calibration interface:
- Support for Nexus-based debug tools even if application PCB does not include Nexus connector
- Nexus functionality with 12 Message Data Out (MDO) signals
- Support for full-feature calibration tools via availability of comprehensive set of device signals available on the connectors.
- ERNI 154819 connector optimized for calibration
- High speed CAN transceiver with signals protection
- Specifications:
  - Board Size 36 x 61.8 mm
  - Target connector compatible with TQPACK144SD and TQPACK176SD sockets



#### **Description**

The SPC563M64CALxx is a calibration and emulation system supporting the STMicroelectronics<sup>®</sup> SPC563Mxx family of automotive microprocessors.

The Calibration Adapter is designed to substitute the QFP device on an ECU version during engine calibration.

The complete system consists of a SPC563M64CAL144/176 board and a POLYPOD-TQ144/176 Poly-Pod which plugs directly into the motherboard.

The Calibration Adapter can also be used as emulation board as the Nexus trace port on CSP496 allows using the pins for application purpose.

### 1 Order codes

Table 1. Device summary

| Order code      | Reference   |
|-----------------|---|
| SPC563M64CAL144 | Calibration System for SPC563M64 mcu in QFP144 target package |
| SPC563M64CAL176 | Calibration System for SPC563M64 mcu in QFP176 target package |
| POLYPOD-TQ144   | TQ-PolyPod socket for QFP144 targets                          |
| POLYPOD-TQ176   | TQ-PolyPod socket for QFP176 targets                          |

# 2 System requirements

• Windows PC (XP, Vista, 7)

### 3 Calibration software

- Green Hills MULTI
- Wind River diab
- Cosmic C Compiler
- Raisonance RLink

SPC563M64CAL144/176 Calibration software

### 4 Calibration software

ETAS INCA

# 5 Revision history

Table 2. Document revision history

| Date        | Revision | Changes             |
|-------------|----------|---------------------|
| 12-Sep-2012 | 1        | Initial release.    |
| 17-Sep-2013 | 2        | Updated disclaimer. |

#### 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.

© 2013 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



## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

STMicroelectronics:

SPC563M64CAL144 SPC563M64CAL176