

SPC563Mxx 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
- VertiCal interconnect standard supported by multiple calibration tool developers, ensuring maximum flexibility in tool choice.
- On-board latch providing a 16-bit de-multiplexed 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 VertiCal connector.
- Allows system calibration without impacting standard MCU I/O resources.
- Allows system calibration regardless of availability of standard MCU external bus.
- Specifications:
 - Board Size 30 x 40.5mm
 - Target connector compatible with TQPACK144SD and TQPACK176SD sockets



Description

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

All VertiCal hardware is designed to support a standardized tool connector, allowing a variety of calibration and debug hardware to be connected and reused.

VertiCal components are available to support a wide range of SPC563M64 devices in various package types.

The complete system consists of a SPC563M64AVB144/176 board, a calibration RAM board SPC56XVTOP-M and a POLYPOD-TQ144/176 Poly-Pod which plugs directly into the motherboard.

1 Order codes

Table 1. Device summary

Part number	Reference
SPC563M64AVB144	Calibration System for SPC563M64 mcu in QFP144 target package.
SPC563M64AVB176	Calibration System for SPC563M64 mcu in QFP176 target package.
POLYPOD-TQ144	TQ-PolyPod for QFP144 targets.
POLYPOD-TQ176	TQ-PolyPod for QFP176 targets.
SPC56xVTOP-M	RAM/Debug Top Board for SPC563M64 Vertical Base boards.

2 System requirements

- Windows PC (XP, Vista, 7)

3 Calibration software

- ETAS INCA

4 Revision history

Table 2. Document revision history

Date	Revision	Changes
19-July-2012	1	Initial release.
10-Sep-2012	2	Updated feature list on cover page.
13-Sep-2013	3	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:](#)

[SPC563M64AVB176](#) [SPC563M64AVB144](#) [POLYPOD-TQ144](#) [POLYPOD-TQ176](#)