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## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 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**

| <b>Date</b>  | <b>Revision</b> | <b>Changes</b>                      |
|--------------|-----------------|-------------------------------------|
| 19-July-2012 | 1               | Initial release.                    |
| 10-Sep-2012  | 2               | Updated feature list on cover page. |
| 13-Sep-2013  | 3               | Updated disclaimer.                 |

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