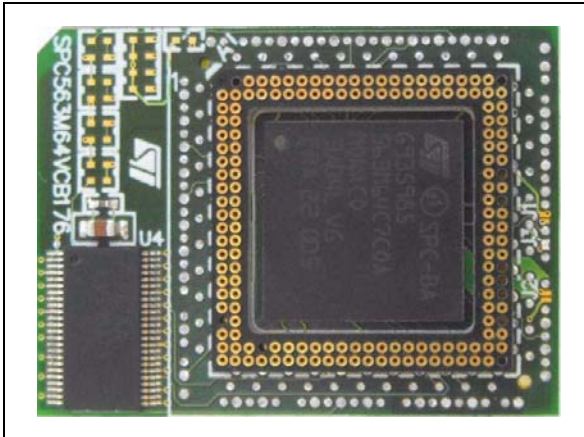


## SPC564AXX microcontroller family calibration and emulation system

Data brief



- Specifications:
- Board Size 30 x 40.5mm
- Target connector compatible with TQPACK144SD and TQPACK176SD

### 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 SPC564AXX devices in various package types.

Optional POLYPOD-TQ176 and POLYPOD-BG324 allow mounting the SPC564A70AVB176 and SPC564A80AVB176/324 boards on the application's module. The system can be integrated with an optional SPC56XVTOP-A RAM top board for increased overlay memory and additional debug connections.

### Features

- Support for LQFP144 and LQFP176 MCU production package 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 SPC564AXX 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.

# 1 Order codes

**Table 1. Order codes**

Order codes	Reference
SPC564A70AVB17	VertiCal Base board for SPC56 A line with 2M memory and LQFP176 target package. Requires POLYPOD-TQ176 for mounting on application board.
SPC564A80AVB176	VertiCal Base board for SPC56 A line with 4M memory and LQFP176 target package. Requires POLYPOD-TQ176 for mounting on application board.
SPC564A80AVB324	VertiCal Base board for SPC56 A line with 4M memory and BGA324 target package. Requires POLYPOD-BG324 for mounting on application board.
POLYPOD-TQ176	TQ-PolyPod for QFP176 targets.
POLYPOD-TQ324	PolyPod for BGA324 targets.
SPC56XVTOP-A	RAM/Debug Top Board for SPC56 A line Vertical

## 2 System requirements

- Windows PC (XP, Vista, 7)

### 3 Calibration software

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

## 4 Revision history

Table 2. Document revision history

Date	Revision	Changes
26-Sep-2016	1	Initial release.