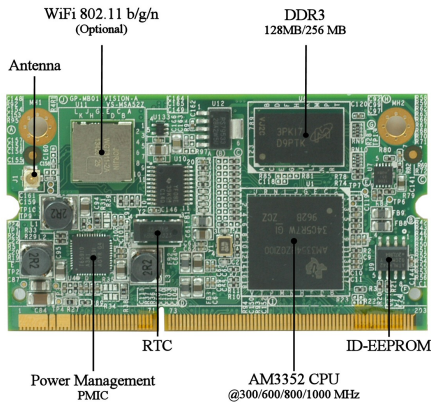


Model Information



■ Features

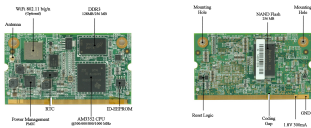
- System-On-Module
- Small SODIMM form factor (68 × 38mm)
- AM335x ARM Cortex-A8 RISC @ 600-1000MHz
- 256MB DDR3
- 256MB NAND Flash for boot
- 2 x LAN
- 2 x USB 2.0
- 3 x UART
- 1 x CAN Bus
- 1 x I²C
- 40 x GPIO
- 8 x ADC
- ID-EEPROM, RTC
- Optional Wifi
- 5V@750mA with Wifi
- Debian GNU/Linux Kernel 3.18

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VS-SOM-AM335x

Quick Link: | [Features](#) | [More Pictures](#) | [Overview](#) | [Core Components](#) | [Interfaces \(typical / max\)](#) | [Power and Environment](#) | [Mechanical](#) | [Software Specifications](#) | [Ordering Information](#) | [Related Products](#) |

■ More Pictures



Click on the thumbnails for the large picture ...

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■ Overview

The VS-SOM-AM335x is a System-On-Module, in small SODIMM form factor. It features Texas Instruments Sitara AM335x ARM Cortex-A8 32-bit RISC processors. This is accompanied by DDR3 and NAND Flash memory, plus EEPROM and optional WLAN b/g/n. The processor provides a complete CPU infrastructure, with very flexible configurations for highly integrated systems. The AM335x processor integrates a NEON SIMD coprocessor. This combination supports operating systems like Linux and Windows EC.

As an SOC the processor/MPU has many interface options, multiplexed on the connection pins. This results in a lot of available functions, not all usable in the same configuration. Therefore the specifications below name the number of functions in a typical configuration, as well as the maximum number usable in special setups.

Customers get support in developing their own carrier board for the target application.

■ Core Components

Processor

- Ti Sitara AM3352 Cortex-A8 ARM RISC CPU @ 600MHz
- Option 300 / 800 / 1000 MHz
- Option AM335x RISC CPU variants
- NEON SIMD Coprocessor

Memory	• 256MB DDR3 (Option 128MB) • 256MB NAND Flash • 2kbit ID-EEPROM
Boot	• NAND Flash Memory • (Micro)SD-card on MMC channel
Time	• Real Time Clock • Watchdog Timer
Encryption	• AES hardware encryption • RNG hardware for random
WLAN	Optional IEEE 802.11b/g/n
Connector	SODIMM-204 • 104 digital signals to/from MPU • 8 analog signals to MPU • Power supply +5V and RTC Battery • Aux power out
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■ Interfaces (typical / max)	
Gigabit Ethernet	1 / 1 x 10/100/1000 RGMII
Fast Ethernet	1 / 1 x 10/100 RMII
SDIO / MMC	1 / 2 ports
USB	2 / 2 x USB 2.0, OTG function possible
Audio	0 / 2 Ports for In and Out
CAN Bus	1 / 2 CAN 2.0A/2.0B High Speed 1Mbit/s
SPI	0 / 1 Port
I²C	1 / 3 Ports up to 400kHz
Serial Ports UART	3 / 6 ports, 16C750 compatible
Expansion Bus	0 / 1, 8 bit address/data multiplexed
Timer	0 / 4 timer signals
Display	0 / 1 16 bit LCD
Analog	8 / 8, four for touch interface
GPIO	40 / 104 signals from MPU
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■ Power and Environment	
Power	• Input 5V DC @ 750mA • 3V Battery for RTC backup • Output 3.3V @ 150mA • Output 1.8V @ 300mA
Temperature	• Operating: -10°C - 75°C • Storage: -20°C - 85°C • Humidity: 10-85% non-condensing
MTBF	n.a.
Approvals	• EMC: FCC Class A, CE Class A • Environment: RoHS
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■ Mechanical	
Dimensions	68×38×5 mm³

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■ Software Specifications

Linux	Debian GNU/Linux Kernel 3.18 for ARM
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Windows	Windows Embedded Compact 7
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■ Ordering Information

Part Number	6834 VS-SOM-AM335x without WLAN
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Part Number	6837 VS-SOM-AM335x with WLAN
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Packing list	VS-SOM-AM335x System on Module
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■ Related Products

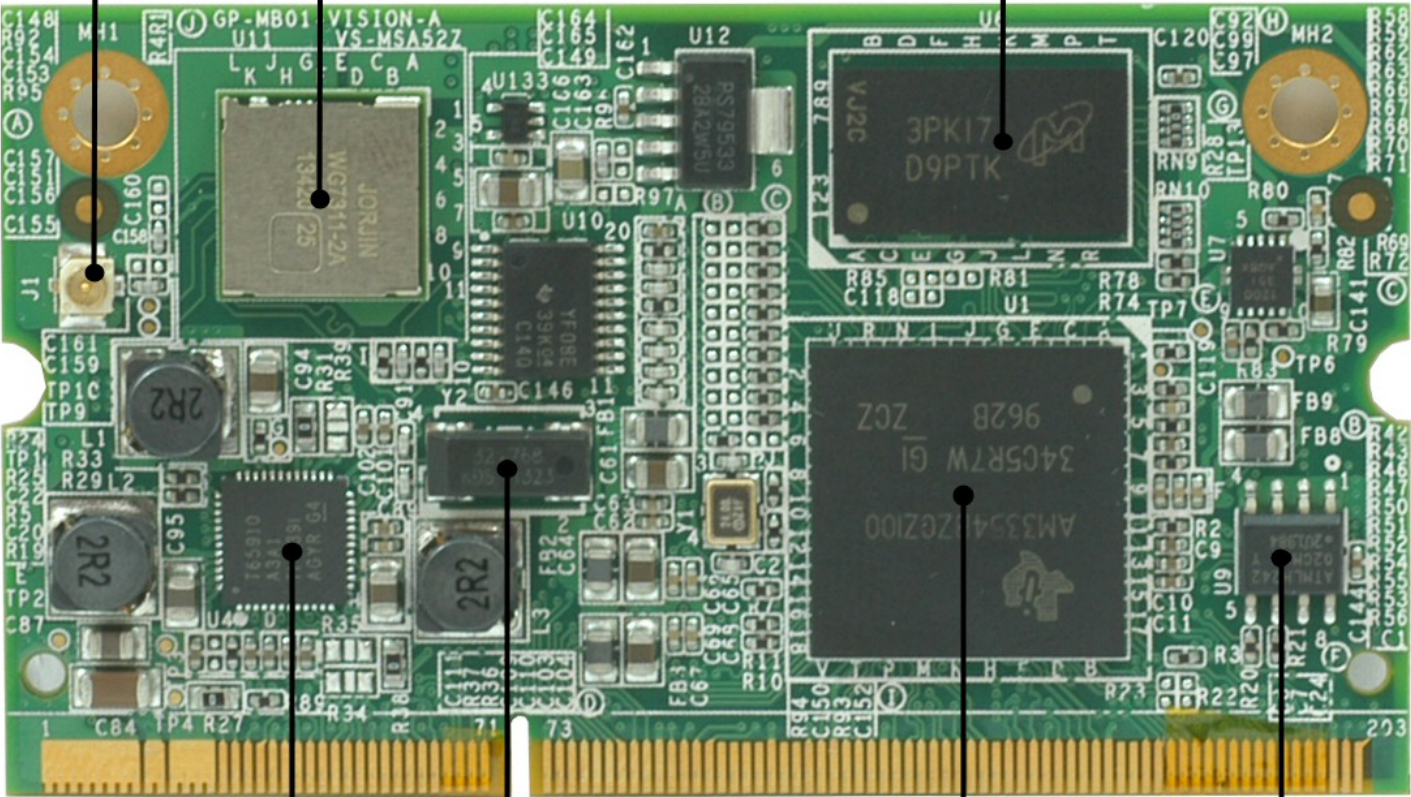
Part Number	6836 Development Kit
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WiFi 802.11 b/g/n
(Optional)

DDR3
128MB/256 MB

Antenna



RTC

ID-EEPROM

Power Management
PMIC

AM3352 CPU
@300/600/800/1000 MHz

