

SIMB-M02

Intel® Atom Cedar View

Mini-ITX Motherboard Startup Manual

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:

- 1 x SIMB-M02 Mini-ITX Motherboard
- 1 x CD ROM per carton, which contains Drivers
- 1 x SATA cable kit (SATA/Power)
- 1 x I/O Shield
- 1 x Startup Manual per carton

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note1:

Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: www.adobe.com/Prodindex/acrobat/readstep.html (Acrobat is a trademark of Adobe).

Disclaimer and Notice

The manufacturer reserves the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. The manufacturer assumes no responsibility or liability for the use of the described product(s), conveys no license or title under any patent, copyright, or masks work rights to these products, and makes no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. For the detail product information, please refer to user's manual.

Safety Declaration

This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

For more information on this and other Advantech products, please visit our website at:

<http://www.advantech.com>

<http://www.advantech.com/eplatform>

For technical support and service, please visit our support website at:

<http://www.advantech.com/support>

This manual is for the SIMB-M02 series Rev. A1.

Part No. 20060M0200

Printed in China

1st Edition

June 2012

Specifications

System

- **CPU:** Intel Cedar-View, Cedar View-M (2600), or Cedar View-D (D2550)
- **FSB:** x4 DMI for Cedar View-D or Cedar View-M
- **BIOS:** FHW 16 Mb SPI BIOS
- **System Chipset:** Intel NM10
- **I/O Chipset:** Winbond 83627DHG
- **Memory:** One 204-pin SO-DIMM sockets support up to 2GB Single Channel DDR3 800/1066 MHz SDRAM (N2600) 4GB Single Channel DDR3 800/1066 MHz SDRAM (D2550)
- **Watchdog Timer:** Reset: 1sec.~255 min. and 1sec. or 1 min./step
- **H/W Status Monitor:** Monitoring temperature, voltage and cooling fan status. Auto throttling control when CPU overheats
- **Expansion Slots:** 1 Mini PCI-E, 1 Cfast , 1 PCIEX1
- **DIO:** 8 bit
- **S3 / S4:** Yes
- **TPM:** Optional
- **Wake up on LAN or Ring:** LAN (PME / RPL)
- **Smart Fan Control:** Yes

Display

- **Chipset:** Intel GMA HD3650 (D2550) / HD3600 (N2600)
- **Max. Resolution:** 1920 x 1200 (@60Hz)
- **VGA:** Yes, Integrated Graphics
- **LVDS:**
 - D2550 : Onboard single channel 18/ 24-bit LVDS, supports max resolution 1440 x 900
 - N2600 : Onboard single channel 18/ 24-bit LVDS, supports max resolution 1366 x 768
- **HDMI:** Onboard HDMI 1.3 support max resolution 1920 x 1200
- **Dual Display:** VGA + HDMI; VGA+LVDS; HDMI + LVDS

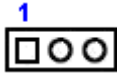


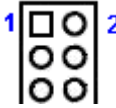
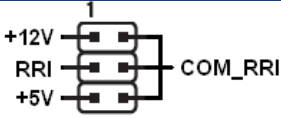
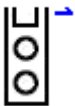


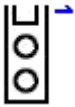






Audio

- **Audio Codec:** Realtek ALC892-GR, 5.1 Channel HD Audio
- **Audio Interface:** Line-in, Line-out, Mic-in, Front Audio Header



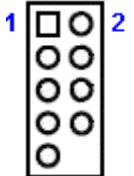
Ethernet

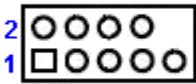
- LAN1: Realtek 8111E Gigabit Ethernet
- LAN2: Optional

Jumpers

Label	Function	Note	
JCMOS1	Clear CMOS 	Normal *Default 	Clear CMOS 
JCOMPWR1 JCOMPWR2 JCOMPWR3 JCOMPWR4 JCOMPWR5 JCOMPWR6	Com Port for Power select 5V & 12V 	 +12V RRI +5V COM_RRI 1-2 = +12V 3-4 = RPI *Default 5-6 = +5V	
JSATA_SEL	SATA 2 or Optional CFast selection *Only valid if CFast is mounted 	1-2 = CFast (Optional) 	2-3 = SATA 2 *Default 
JDS5	S5 Sleep Enable / Disable selection 	Deep Sleep S5 Enable 	Deep Sleep S5 Disable *Default 
JLRTC_BKL1	Panel Brightness Control Voltage	+5V 	+3V *Default 
JLVDS_BKL1	Panel Brightness Control	DC Level *Default 	Pulse with Modulation 

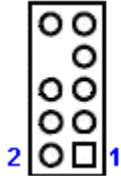
Connectors

Label	Function	Note
CPU_FAN1	CPU Fan Connector	 <ul style="list-style-type: none"> 1. GND 2. +12VPWM 3. Sensor
SYS_FAN1	System Fan Connector	 <ul style="list-style-type: none"> 1. GND 2. +12VPWM 3. Sensor
Serial_B	Serial Port Connector COM3 / COM4 / COM5 / COM6	 <ul style="list-style-type: none"> 1. DD2D2# 2. RR2D2 3. TT2D2 4. DD2R2# 5. GND 6. DD2SR2# 7. RR2TS2# 8. CCTS2# 9. RR2I2 / 12V / 5V

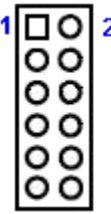
F_PANEL	Front Panel connector		1. HDD LED+ 3. HDD LED- 5. GND 7. SRST# 9. NC	2. Power LED+ 4. Power LED- 6. Power On Switch+ 8. Power On Switch-
----------------	------------------------------	-----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------

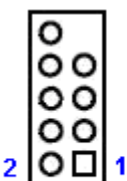
Connectors

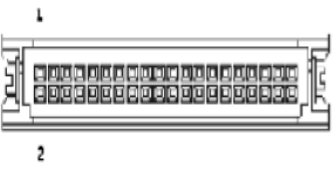
Label	Function	Note
-------	----------	------

F_AUDIO	Front Panel Audio Header for Intel HD Audio		10. LINE-JD 8. NC 6. MIC-JD 4. NC 2. GND	9. LINE-L 7. SENSE 5. LINE-R 3. MIC-R 1. MIC-L
----------------	----------------------------------------------------	-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

JBKL1	LCD Inverter Connector		1. +12V 2. GND 3. ENBKL 4. VR 5. +5V
--------------	-------------------------------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

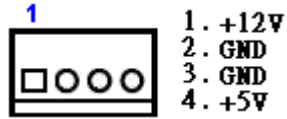
JGPIO	GPIO Connector		1. SIO_GPIO0 2. SIO_GPIO4 3. SIO_GPIO1 4. SIO_GPIO5 5. SIO_GPIO2	6. SIO_GPIO6 7. SIO_GPIO3 8. SIO_GPIO7 9. CLK RESUME 10. DAT RESUME	11. GROUND 12. VCC GPIO
--------------	-----------------------	------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------	------------------------------------------

USB45	USB 2.0 Connector		9. NC 7. GND 5. Data+ 3. Data- 1. USB+5V	8. GND 6. Data+ 4. Data- 2. USB+5V
--------------	--------------------------	-------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	-------------------------------------------------------------------------

LVDS1	LVDS Connector		1. +3.3V 2. +5V 3. +3.3V 4. +5V 5. LDVS DDC CLK 6. LVDS DDC DATA 7. GND 8. GND 9. LVDS_TX1_P 10. LVDS_TX0_P	11. LVDS_TX1_N 12. LVDS_TX0_N 13. GND 14. GND 15. LVDS_TX3_P 16. LVDS_TX2_P 17. LVDS_TX3_N 18. LVDS_TX2_N 19. GND 20. GND	21. NC 22. NC 23. NC 24. NC 25. GND 26. GND 27. NC 28. NC 29. NC 30. NC	31. GND 32. GND 33. NC 34. LVDS_CLK_P 35. NC 36. LVDS_CLK_N 37. GND 38. GND 39. +12V 40. +12V
--------------	-----------------------	-------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

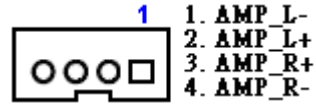
SATAPW1
SATAPW2

SATA Power
connector



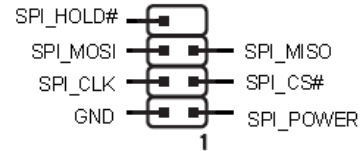
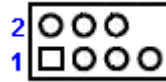
AMP1

AMP out
connector



SPI_CN1

SPI Headers



Board Diagram

