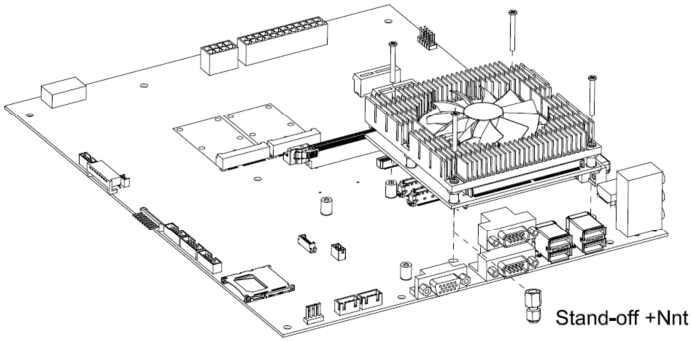
Note: ***When installing CEM521 on CEB94011, please add stand-off and secure with nut. Then, use the screws to secure the heatsink plate to the CEM521.***



Quick Start

The basic procedures required to power on CEM521:

(1). Make sure the power is OFF before connecting the CEM521.
(2). Check to ensure the onboard switch SW1-1 and SW1-2 are set to default (OFF position).
(3). Firmly install DDR4 SO-DIMM in DIMM1 (on top side of the board)/SDIMM1 (on bottom side of the board) until fully seated. For single memory channel configuration, install memory module in channel 0 (DIMM1) DDR4 SO-DIMM socket. For dual memory channel configuration, install memory modules of the same size, chip width, density and rank in both channel 0 (DIMM1) and channel 1 (SDIMM1) DDR4 SO-DIMM sockets.
(4). Attach heatsink to the CEM521, refer to section Installing Thermal Solution.
(5). Install the CEM521 onto the suggested COM Express™ baseboard, CEB94011.
(6). Properly install all necessary peripheral devices such as hard disk, display, keyboard and etc. to the baseboard.
(7). Firmly attach power supply to the baseboard power connector.
(8). Turn on the system power.
(9). Press power button on the baseboard to start CEM521.

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CEM521 Quick Installation Guide

Checklist

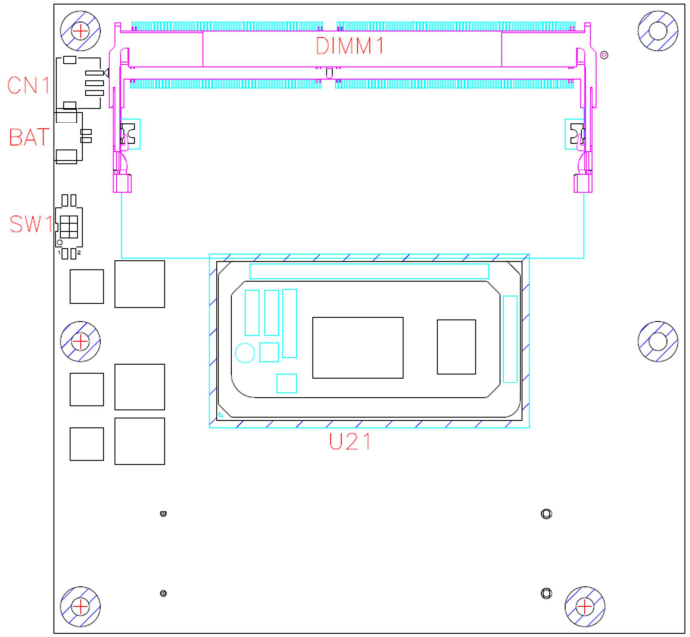
✓ CEM521 Board x1 ✓ Quick Installation Guide x1

Note: ***Please contact your local vendors if any damaged or missing items. DO NOT apply power to the board if there is any damaged component.***

For user manual, drivers, certificates and technical support, please visit our product website or scan QR code.

http://www.axiomtek.com.tw/Default.aspx?MenuId=Products&FunctionId=ProductView&ItemId=25354&C=CEM521&upcat=332

Module Layout



Top View

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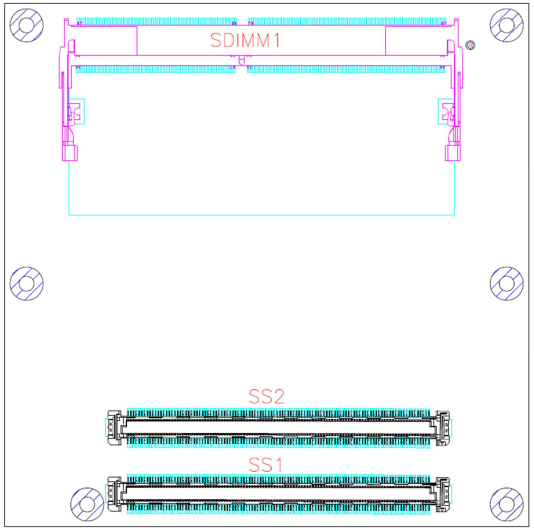

Bottom View

Switch Settings

Before applying power to the CEM521, please make sure onboard switches are in factory default positions.

Switch	Description	Setting
SW1	Auto Power On Default: Disable	SW1-1 OFF
	Restore BIOS Optimal Defaults Default: Normal Operation	SW1-2 OFF

Connector

Connector	Description
CN1	Fan Connector
BAT	CMOS Battery Connector
SS1	COM Express™ Connector
SS2	COM Express™ Connector
DIMM1	Channel 0 DDR4 SO-DIMM Socket
SDIMM1	Channel 1 DDR4 SO-DIMM Socket

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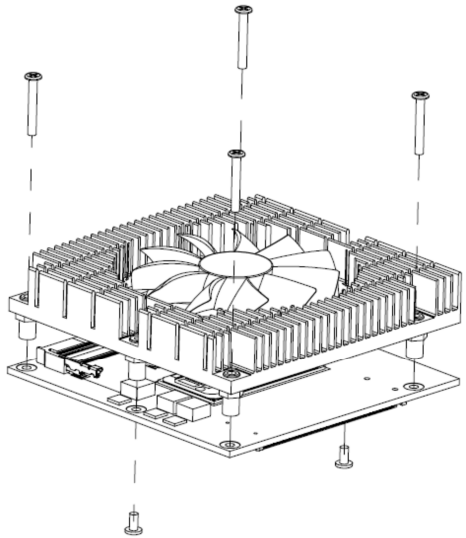
Installing Thermal Solution

For thermal dissipation, a thermal solution enables the CEM521's components to dissipate heat efficiently. All heat generating components are thermally conducted to the heatsink in order to avoid hot spots. Below images illustrate how to install the thermal solution.

1. There is a protective plastic covering on the thermal pads. This must be removed before the heatsink can be mounted.

2. Each heatsink is designed for a specific CEM module. The thermal pads on the heatsink are designed to make contact with the necessary components on the CEM module. When mounting the heatsink you must make sure that the thermal pads on the heatsink make complete contact (no space between thermal pad and component) with the corresponding components on the CEM module. This is especially critical for CEM modules that have higher CPU speeds (for example 1.0GHz or more) to ensure that the heatsink acts as a proper thermal interface for cooling solutions.

3. This CPU module has six assembly holes for installing heatsink plate. Use the six screws to secure the heatsink plate to the CEM521. Be careful not to over-tighten the screws.



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