

CEM501/511 Quick Installation Guide

Quick Start

The basic procedures required to power on CEM501/511:

- (1). Make sure the power is OFF before connecting the CEM501/511.
- (2). Check to ensure the onboard switch SW1-1 is set to default (OFF position).
- (3). Firmly install DDR4 SO-DIMM in DIMM2/DIMM1 until fully seated. For single memory channel configuration, install memory module in channel 0 (DIMM2) 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 (DIMM2) and channel 1 (DIMM1) DDR4 SO-DIMM sockets.

Note: It must be DDR4 memory module.

- (4). Attach thermal solution to the CEM501/511, refer to section Installing Thermal Solution.
- (5). Install the CEM501/511 onto COM Express™ baseboard, for example, CEB94011 baseboard.
- (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's power connector.
- (8). Turn on the system power.
- (9). Press power button on the baseboard to start CEM501/511.

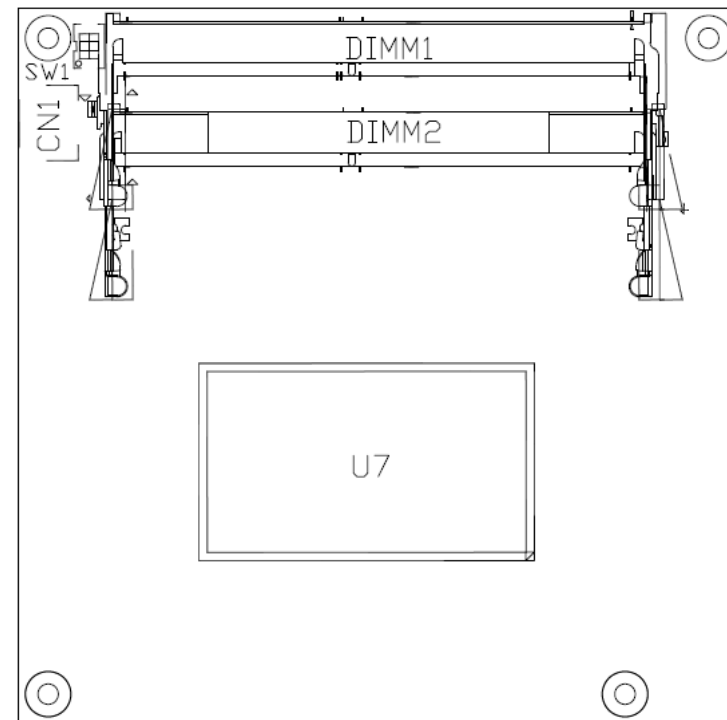
Checklist

- ✓ CEM501/511 Board x1
- ✓ Product Information DVD x1
- ✓ Quick Installation Guide x1

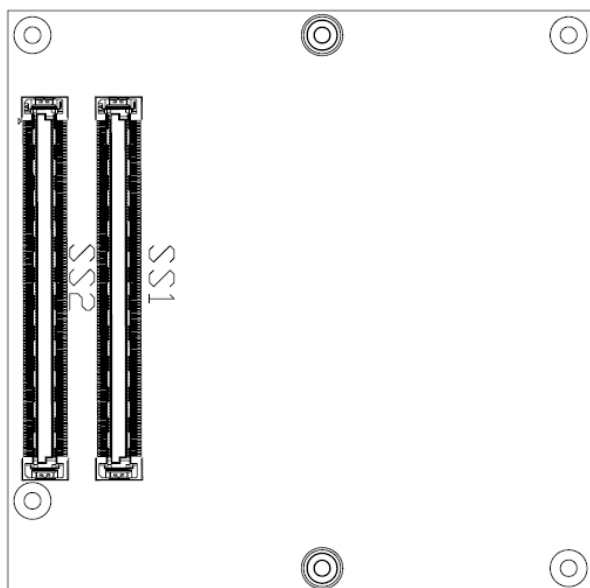
Note: Please contact your local vendors if any damaged or missing items. DO NOT apply power to the board if there is any damaged component.

Please refer to the product information DVD for the complete user's manual, drivers and utilities. User's manual and related documents are in Acrobat PDF format.

Module Layout



Top View



Bottom View

Switch Settings

Before applying power to the CEM501/511, please make sure onboard SW1 is 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
SS1	COM Express™ Connector
SS2	COM Express™ Connector
DIMM1	Channel 1 DDR4 SO-DIMM Socket
DIMM2	Channel 0 DDR4 SO-DIMM Socket

Installing Thermal Solution

For thermal dissipation, a thermal solution enables the CEM501/511'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 on CEM501/511.

1. There is a protective plastic covering on the thermal pads. This must be removed before the heatspreader can be mounted.
2. Each thermal solution is designed for a specific CEM module. The thermal pads on the heatspreader are designed to make contact with the necessary components on the CEM module. When mounting the heatspreader you must make sure that the thermal pads on the heatspreader 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 heatspreader acts as a proper thermal interface for cooling solutions.
3. Before installing the heatspreader to the CPU module, please apply thermal grease on the CPU die. This CPU module has four assembly holes for installing heatspreader plate. Use the four screws to secure the heatspreader plate to the CEM501/511. Be careful not to over-tighten the screws. Then, apply thermal grease at the bottom of heatsink and secure the heatsink on the heatspreader by another four screws.

Note: When installing CEM501/511 on CEB94011, please add stand-off and secure with nut. Then, use the screws to secure the heatsink plate to the CEM501/511.

