

CEM312/313 Quick Installation Guide

Quick Start

The basic procedures required to power on CEM312/313:

- (1). Require DC +12V power at minimum 2.67A. Make sure the power is OFF before connecting the CEM312/313.
- (2). Check to ensure the onboard switch SW1-1 is set to default (OFF position).
- (3). Firmly install DDR3L module in SODIMM1/SODIMM2 until fully seated. For single memory channel configuration, install memory module in channel 0 (SODIMM2) DDR3L SO-DIMM socket. For dual memory channel configuration, install memory modules of the same size, chip width, density and rank in both channel 0 (SODIMM1) and channel 1 (SODIMM2) DDR3L SO-DIMM sockets.
- (4). Attach heatsink to the CEM312/313, refer to section Installing Thermal Solution.
- (5). Install the CEM312/313 onto COM Express™ baseboard, for example, CEB94006 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 CEM312/313.

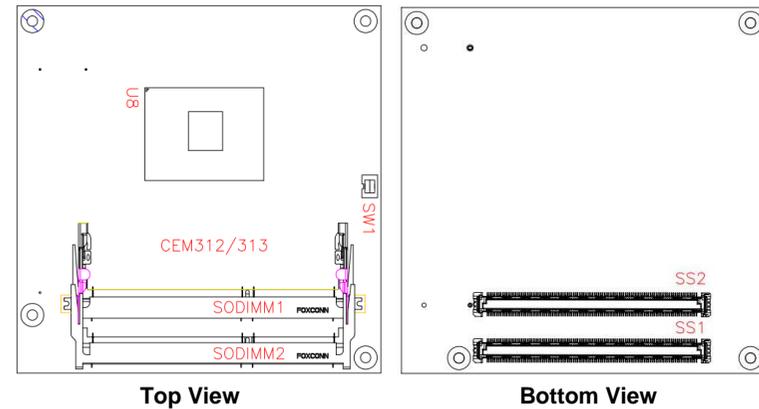
Checklist

- ✓ CEM312/313 Board x1
- ✓ Product Information CD 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 CD for the complete user's manual, drivers and utilities. User's manual and related documents are in Acrobat PDF format.

Module Layout



Switch Settings

Before applying power to the CEM312/313, please make sure all of the 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

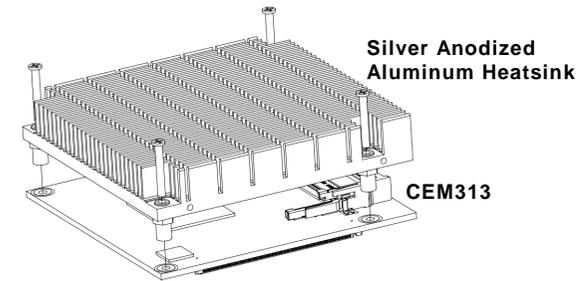
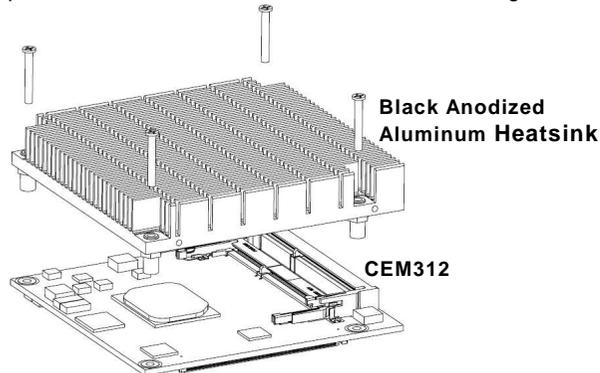
Connectors

Connector	Description
SODIMM1	Channel 1 DDR3L SO-DIMM Socket
SODIMM2	Channel 0 DDR3L SO-DIMM Socket
SS1	COM Express™ Connector
SS2	COM Express™ Connector

Installing Thermal Solution

For thermal dissipation, a thermal solution enables the CEM312/313's components to dissipate heat efficiently. All heat generating components are thermally conducted to the heatsink in order to avoid hot spots. Figure below illustrates how to install the thermal solution on CEM312/313.

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 1.46GHz or more) to ensure that the heatsink acts as a proper thermal interface for cooling solutions.
3. Before installing the heatsink to the CPU module, please apply thermal grease on the CPU die. This CPU module has four assembly holes for installing heatsink plate. Use the four screws to secure the heatsink plate to the CEM312/313. Be careful not to over-tighten the screws.



Note: When installing CEM312/313 on CEB94006 or CEB94011, please add stand-off and secure with nut. Then, use the screws to secure heatsink plate to CEM312/313 as indicated in images below.

